Gateway East Initial Master Plan

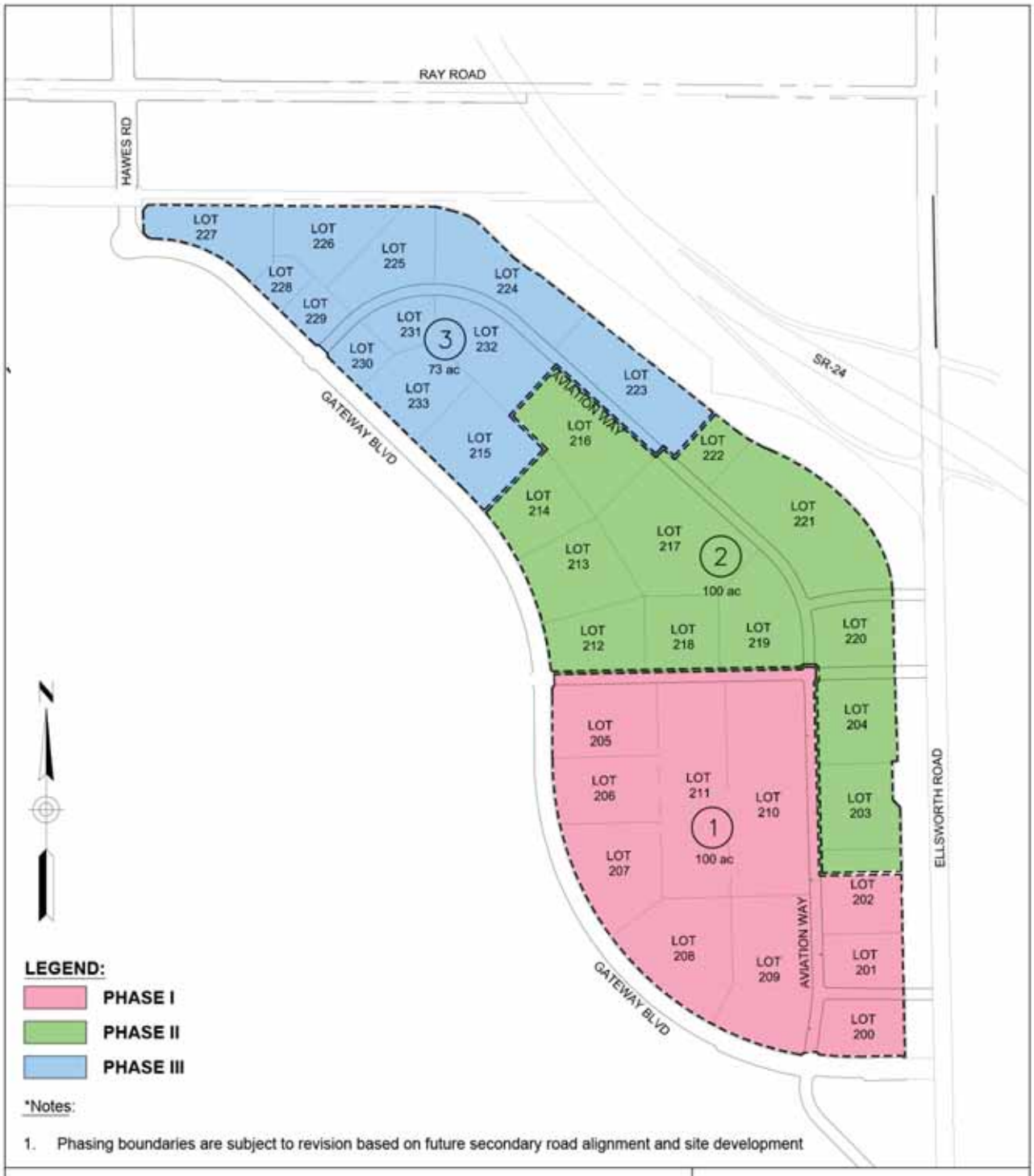
July 2023

Presented by The Boyer Company
as outlined in the Master Development Agreement Exhibit C

Gateway East

Exhibit C (a) and (b)

Detailed site plan, lot map and phasing boundaries



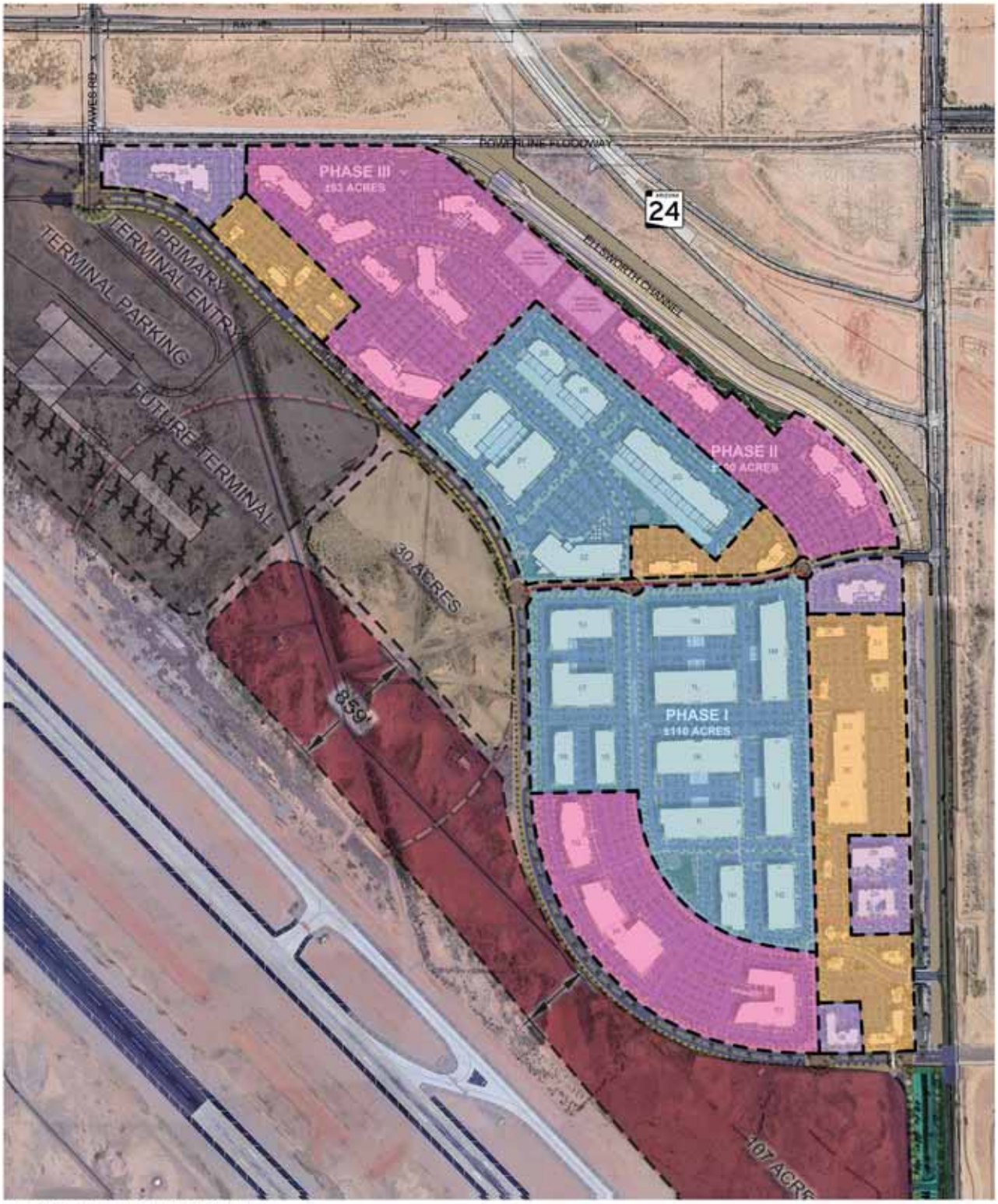
GATEWAY EAST
PROJECT NAME

SITE PLAN WITH PHASES
DRAWING TITLE

EXHIBIT C(a)
SHEET NUMBER

6/30/2023
DATE

DIBBLE



MASTER LAND USE PLAN

	SITE AREA (+/-)	OFFICE	RETAIL	HOSPITALITY	FLEX / INDUST.	TOTAL BLDG AREA (+/-)	F.A.R.
PHASE 1	4,791,600 SF (110 AC)	460,000 SF	46,000 SF	92,000 SF	935,500 SF	1,533,500 SF	.32
PHASE 2	4,356,000 SF (100 AC)	487,500 SF	139,400 SF	348,500 SF	418,000 SF	1,393,400 SF	.32
PHASE 3	2,741,500 SF (63 AC)	812,500 SF	20,800 SF	208,300 SF	–	1,041,600 SF	.38
TOTAL:	11,889,100 SF (273 AC)	1,760,000 SF	206,200 SF	648,800 SF	1,353,500 SF	3,968,500 SF	

*SITE PHASING AREAS ARE APPROXIMATE ONLY. BUILDING AREAS ARE SUBJECT TO CHANGE BASED ON FUTURE MARKET DEMAND

10.17.22
21013_ST16

BOYER

GATEWAY EAST

Phoenix-Mesa Gateway Airport

Gateway East

Exhibit C (c)

- Land use plan, zoning map, narrative
- Depiction of permitted restaurant locations

The Gateway East development is zoned LI-PAD using the City of Mesa zoning standards. This classification provides the overall project with significant flexibility when it comes to developing the different areas. The project is specifically focused on attracting tenants to the area who support the airport, are engaged in technology related areas, provide skilled manufacturing, provide office space and include a variety of retail, hotel and restaurant options. Each of these potential uses has been discussed in detail with the City of Mesa and in some cases, specific limitations and direction have been included in the approving documents to that the eventual land use also reflects City of Mesa expectations.

We intend to focus our efforts on attracting tenants to the development in the following areas:

Office

The development of office space will be undertaken on an as-needed basis and is expected to be done to meet the needs of specific tenants. We are focused on attracting larger office users who will require larger multi-story office buildings. We do not plan to pursue smaller single level office projects. We anticipate individual projects all requiring some office space within their building. However, larger stand-alone office development opportunities are expected to be located along Gateway Boulevard and in the Northeast corner of the site where the project faces State Route 24. These areas all have good visibility and are easily accessed from the main surrounding streets. The development of office space will be tenant-driven, we do not currently have plans to develop any type of speculative office.

Skilled Manufacturing/Industrial

The development of larger industrial type buildings that are constructed to meet the specific requirements of skilled manufacturing will be done on a build-to-suit basis. Potential tenants will be evaluated based on financial strength and stability, the type of work taking place in the building and their overall need for space. These larger buildings along with the typical loading and inventory storage areas will be located

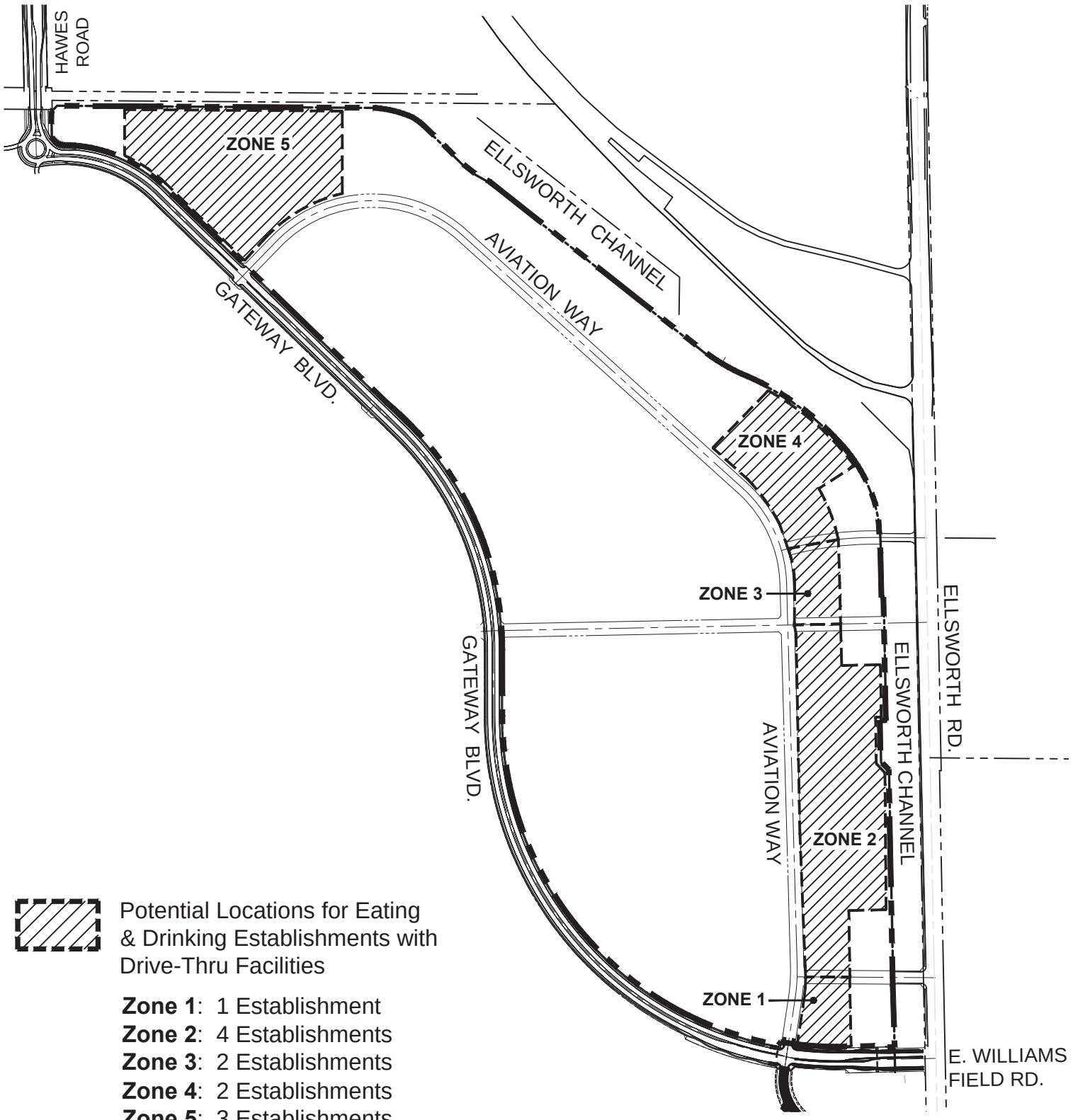
on the interior of the project. The project is ideally situated to attract these types of tenants since we are able to accommodate a variety of building sizes and provide opportunities for expansion as the companies grow.

Hospitality
The commercial development in the area as well as the growth of the airport, the adjacent sports complex and the area's growing population, all add to an increased demand for hotel development. The project entitlements allow for the development of up to 10 hotel facilities. These buildings are expected to be located along the perimeter of the project so that they have frontage and exposure to Ellsworth Drive and the surrounding major roadways. We expect the hotel projects to tie into the planned retail and restaurant development. There is significant interest from a wide variety of business and extended stay type hoteliers who plan to take advantage of the proximity to the growing skilled labor pool. There is also interest in being close to the businesses which support the airport.

Restaurants
Throughout the entitlement process, the City of Mesa has made it clear that they would like to see additional restaurants in the area. The overall development plan includes the possibility of developing stand-alone restaurants along the Ellsworth frontage. Additionally, we have the ability to develop up to 8 drive-thru type restaurants. A variety of quality food options are important amenities as we work to establish Gateway East as the premier business park in the area.

Development Standards
The development of the project will be done in compliance with the Design Guidelines and PAD requirements that were both approved by the City of Mesa and are included as part of this overall exhibit. These development specifications and requirements were adopted after much discussion and negotiation between the City of Mesa, the airport and Boyer. The standards provide a clear vision for what is expected of each individual development project as it relates to landscaping, color palate, building quality, setbacks, exterior architecture and overall site planning.

In addition to the development standards, each individual development project will be reviewed and approved by the Airport Authority Board before it moves forward with specific City of Mesa approvals. This additional level of review insures that any project will meet the standards of the airport as well as the City of Mesa.



Potential Locations for Eating & Drinking Establishments with Drive-Thru Facilities

Zone 1: 1 Establishment
Zone 2: 4 Establishments
Zone 3: 2 Establishments
Zone 4: 2 Establishments
Zone 5: 3 Establishments

*NOTE: Conceptual road layout, subject to change.

Gateway East

Exhibit C (d)

- Horizontal infrastructure plans for Phase 1
  - Water
  - Sewer

The Gateway East master plan will be served by a vehicular street network consisting of both public and private streets. As is consistent with airport development, roadways will fall within recorded easements versus dedicated right of ways.

Gateway Boulevard will serve as the primary spine road for the overall development and provides the connection of Hawes Road at the northwest corner to Ellsworth Road at the southeast corner. Both locations will serve as signature points of entry for Gateway East and future airport development parcels located to the west and south adjacent to the airport runways. Gateway Boulevard will sit in a 110' wide public roadway easement with adjacent 8' PUE's on each side. Within the easement will be 2 travel lanes in each direction, bike lanes and a landscaped median with added turn lanes as approved with ongoing future development. Additional easement width will be recorded at specific intersections as required for additional lanes and turning movements. A detached, meandering 6' sidewalk will flank each side of the roadway with tree, shrub and groundcover landscaping up to the beginning of the PUE installed as part of the phased master infrastructure development. Earth berms and landscaping of the required 20' landscape setbacks, which include the PUE, will be provided by individual lot developments as they occur over time. Additional setback and enhanced landscape will occur at the primary entries at Hawes and Ellsworth.

Tesla Drive (to be renamed) will provide an east-west connection from Ellsworth Road to Gateway Boulevard with a new bridge crossing over the Ellsworth Channel at a full movement, signalized intersection. Tesla Drive will also fall in a public roadway easement 80' in width with 8' adjacent PUE's each side. The 46' wide pavement section will include a single travel lane in each direction with a shared center turn lane and bike lanes each side. Additional easement and roadway width may be necessary at primary intersections with final details to be determined through an approved traffic study document. A detached, 6' sidewalk and landscaping up to the PUE will be installed with the phased master infrastructure landscape development. PUE and remaining setback landscaping will occur with future lot development.

All remaining roadways are anticipated to be private and connect back to the primary public streets. CC&Rs for the Gateway East project with ensure the improvements will be maintained in an acceptable manner. The private streets will be located within a 74' wide private roadway easement with adjacent 8' PUE's. The 40' wide pavement section will include a single travel lane in each direction with a shared center turn lane. No dedicated bike lanes will be included on the private roadways. A detached, 6' sidewalk with low landscaping adjacent to the street and street trees in a 5' planting zone behind the walk will be included with the phased master infrastructure development. Earth berms and landscaping of the required 20' setback easement, which includes the PUE, will be the responsibility of individual lot developments when they occur. Landscape concepts have been developed for all setback areas and will be shared with future developments to assist in delivering consistent streetscape themes throughout Gateway East.

Additional infrastructure improvements include the installation of required culinary water lines and sanitary sewer lines to that the overall project is connected to the existing City of Mesa system in the area. The improvements will be sized to accommodate the expected development as well as additional development planned for the area. These improvements will be run under the various improved streets with lateral stub connections extended into individual lots along the primary and secondary streets.

The project will also connect to the City of Mesa storm water system. The plan includes collecting storm water on each individual site and then metering the water off into an underground storm system that eventually connects into the Ellsworth Flood Channel. Dealing with the storm water in this way will allow the land on the project to be maximized for development and simply used for on-site storm water detention. The underground pipes will be sized to accommodate the overall development.

Additional infrastructure, including phone, fiber, electrical and natural gas will all be included throughout the project. These utilities will typically be run in the PUE located along each street. Access will be provided to each project. These utilities are already in the area but will be extended as the main road and utility infrastructure work is in process.

The infrastructure for Gateway East presents some unique challenges. Working with the City of Mesa and the Airport Authority, we have developed an overall plan that takes into account the large area and significant investment required to improve the overall site. We plan to take advantage of the initial improvements being installed as part of the Gulfstream project and then add to those improvements as we develop the different phases of the project.

We are planning to do the following as per the requirements of the master development agreement:

Phase 1:
The Phase 1 improvements are expected to be installed in 2 to 3 stages. The first stage is the extension of Aviation Way from Gateway Boulevard to the Tesla Drive intersection as well as a section of Tesla from Ellsworth Boulevard to along with all required landscaping, sidewalks, electrical, sewer, water and communication conduits.

This initial stage also includes intersection improvements on Ellsworth and a bridge across the Ellsworth Channel.

Future stages will be completed as needed for individual projects. The work will include the completion of Tesla Drive over to Gateway Boulevard and the extension of Gateway Boulevard north to Tesla Drive as well as the sidewalks, remaining utilities and landscaping. Installing the infrastructure improvements in stages within each phase will allow us to maintain acceptable levels of equity investment while also not burdening any individual project stage with too many expenses.

Phase 2:
Phase 2 infrastructure improvements will be installed as required to service individual developments. This includes the continued extension of Gateway Boulevard north to Hawes Road and Aviation Way north to the planned Hawes road connection point. This will essentially open up both Phases 2 and 3 since the street extensions are critical to opening up that area. All required utilities, landscaping and sidewalks will be improved at the same time.

Phase 3:
Phase 3 infrastructure includes all of the planned streets and landscaping along any remaining sections of street. This phase of the project will benefit from lower costs since much of the major work will already be completed. This work will tie into the rest of the project and complete any outstanding work.

It is important to note that in each of these phases that the cost of the Gateway Boulevard improvements will be shared with the Airport Authority since this street will provide direct access to their property along the east edge of their runway.

GATEWAY EAST

PROJECT NAME

LOT MAP

DRAWING TITLE

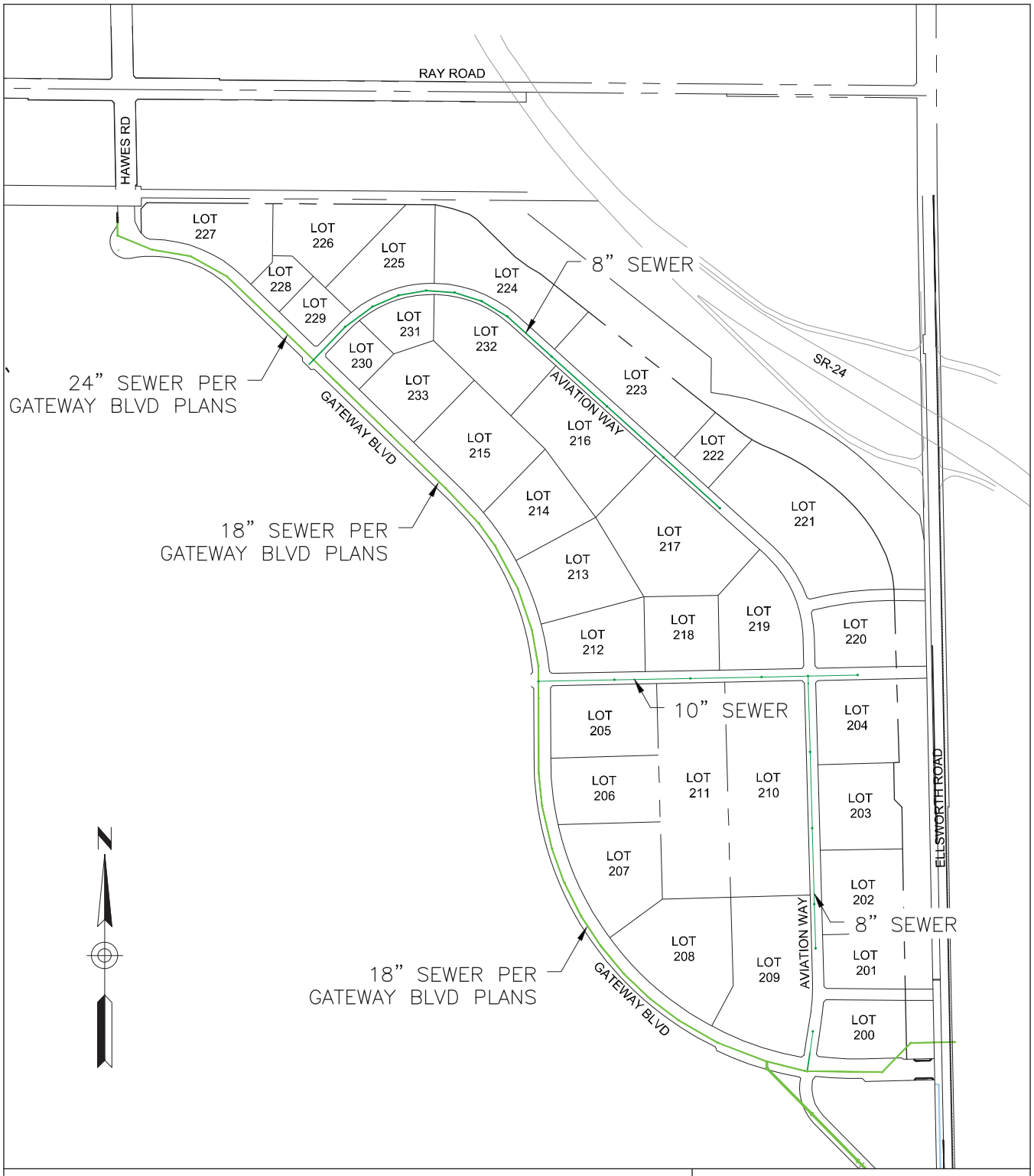
EXHIBIT C(b)

SHEET NUMBER

6/27/2023

DATE

DIBBLE



GATEWAY EAST

PROJECT NAME

CONCEPTUAL SEWER PLAN

DRAWING TITLE

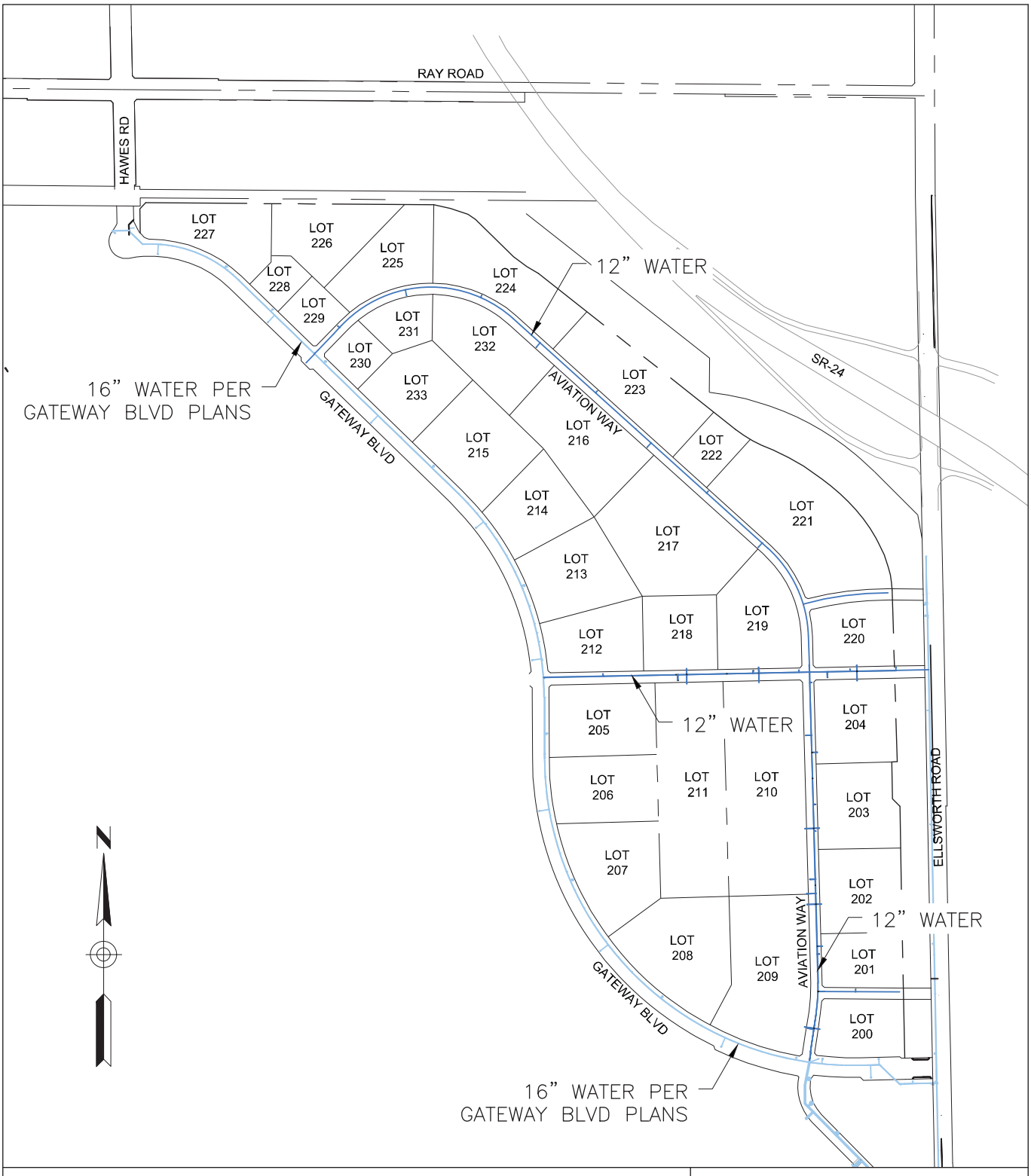
EXHIBIT C(d) - INFRASTRUCTURE PLAN

SHEET NUMBER

6/27/2023

DATE

DIBBLE



GATEWAY EAST

PROJECT NAME

CONCEPTUAL WATER PLAN

DRAWING TITLE

EXHIBIT C(d) - INFRASTRUCTURE PLAN

SHEET NUMBER

6/27/2023

DATE

DIBBLE

Gateway East

Exhibit C (e)

- Detailed financing plan

The development of Phase 1 of the Gateway East Development presents some unique challenges given the many different facets of the planned project. The Boyer Company anticipates funding the various phases using a combination of company provided equity as well as project specific construction and permanent loans. The various aspects of the project will be funded using the following options:

Planning and Entitlement
The costs associated with the initial planning and entitlement of the overall project are being paid for using Boyer Company equity funds. This includes the costs related to engineering and design efforts as well as legal and miscellaneous costs incurred as part of project planning, due diligence and the design and entitlement phase with the City of Mesa and the Airport Authority.

Project Infrastructure
The infrastructure for the project, including roads, utilities, sidewalks, common landscaping, signage and other related work, will be paid for using a combination of Boyer Company provided equity and typical bank debt. Initial estimates for the Phase 1 infrastructure improvements total approximately $25M. The project infrastructure is planned to be installed in phases so that overall costs are controlled and are incurred as the project develops. It is anticipated that much of the infrastructure will be installed in connection with the construction of specific buildings. As a result, the costs associated with the required work will be shared proportionally between individual projects that share street frontage.

We intend to charge an amount equal to ½ the costs associated with the infrastructure improvements to each project, based on the amount of their respective frontage. For example, if Project A has 500 feet of frontage along Aviation Way and the costs to improve that area are $2M, Project A will be charged ½ of the total or $1M. This method will allow us to spread the burden of the overall infrastructure costs between individual projects.

Other infrastructure costs will be shared proportionally across multiple projects since the work involved, benefits multiple phases or building projects. The costs for entry signage are an example of project costs that will be shared.

Individual Building Projects

As individual buildings and ground lease pads are developed, the costs related to the development of each will be paid for using a combination of Boyer provided equity and typical construction and permanent financing options. The required construction loans will be secured at the time a lease is executed and once the construction is complete and the Tenant is in occupancy, a permanent loan will be secured by Boyer. All lender required guaranties will be signed by Boyer.

On Going Project Maintenance

The project will have ongoing maintenance requirements for landscaping, street maintenance, signage costs and maintenance and other miscellaneous costs. We intend to utilize project specific CC&Rs which will detail the level of maintenance provided while also defining how those costs are to be shared with tenants who locate into the development. The Boyer Company has a full-time property manager and a local maintenance engineer who will take care of the project and make sure that the improvements are maintained in an acceptable manner while also keeping the overall budget in check. The property manager will establish annual maintenance and operation cost budgets which will be shared with each tenant and included in their monthly lease payments.

Summary

The debt and equity markets are heading into a period of higher interest rates and tighter funding requirements. As a result, it will be necessary to work closely with a variety of lenders as we work to secure the various loans for the different aspects of the project. The Boyer Company continues to maintain positive working relationships with local, regional and national lenders. We expect to solicit multiple proposals from qualified lenders for each project and then select the financing package that has the most favorable overall terms.

Gateway East

Exhibit C (f)

- PAD document and comprehensive landscape plans

GatewayEast

Phoenix-Mesa
Gateway
Airport

Approved by Mesa City Council on
June 19th, 2023

PAD

PLANNED AREA DEVELOPMENT

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TABLE OF CONTENT

GATEWAY EAST PAD

PAD - Zoning Standards

1. INTRODUCTION

The purpose of this request is to seek rezoning from Light Industrial within the Williams Gateway Airport Development Master Plan Overlay ("LI PAD") to Light Industrial and establish the Gateway East Planned Area Development Overlay with multiple Council Use Permits ("LI PAD CUP") on an approximate 273-acre site located at the southwest corner of South Ellsworth Road and East Ray Road (the "Site"), as shown in the Site Location aerial below. The Site is defined by the legal description provided with the PAD. We are seeking to rezone to LI PAD CUP to replace the Williams Gateway Airport Development Master Plan for this portion of the Development Master Plan to allow a mixed-use development, including industrial, office, manufacturing, retail, and hospitality uses on the Site.

1A. SITE LOCATION

The Site is located at the southwest corner of East Ray Road and South Ellsworth Road in the City of Mesa (the "City"). The Site is located just east of the Phoenix- Mesa Gateway Airport. As envisioned by the Phoenix- Mesa Gateway Airport Masterplan, a future terminal will be located adjacent to our Site. The adjacency of the future terminal is a critical component in the land planning of the Gateway East PAD. The intent of the PAD is to be a regulatory document with the flexibility to allow for long-term master planning based on the needs of the community, which results in private sector development growth in the critical Mesa submarket.

1B. EXISTING CONDITIONS

The Site is presently undeveloped, vacant land currently owned by the Phoenix-Mesa Gateway Airport Authority and being leased to the Boyer Company. The Site is located approximately 1,200 feet northeast of the Phoenix-Mesa Gateway Airport. The Site is also located near the Eastmark and Cadence neighborhoods and the Apple Data Center, as shown below. The surrounding zoning is as follows:

Site: The Site is presently zoned Light Industrial with Williams Gateway Airport Development Master Plan Overlay (LI PAD).

North: To the north of the Site is vacant, undeveloped land zoned Planned Employment Park (PEP), Limited Commercial (LC), and Agriculture (AG).

Northeast: To the northeast is the SR-24, zoned Light Industrial (LI).

East: To the east is undeveloped, vacant land in the jurisdiction of unincorporated Maricopa County, zoned Light Industrial (IND-2).

South: To the south is the Phoenix-Mesa Gateway airport, zoned Light Industrial with Williams Gateway Airport Development Master Plan Overlay (LI PAD).

Southwest: To the southwest is the Phoenix-Mesa Gateway airport, zoned Light Industrial with Williams Gateway Airport Development Master Plan Overlay (LI PAD).

West: To the west is the Phoenix-Mesa Gateway airport, zoned Light Industrial with Williams Gateway Airport Development Master Plan Overlay (LI PAD).

1C. HISTORICAL BACKGROUND

The Site was originally located in the jurisdiction of Maricopa County (the "County"). On February 6th, 1985, Ordinance 1907 went into effect, annexing the Site into the City of Mesa (the "City"). On June 2nd, 1986, Case Number Z86-058 was approved, rezoning the Site from the County's Light Industrial (IND-2) zoning district to the City's historical PF and M-1 (today's Light Industrial zoning) zoning district in order to establish the City's zoning designations on the Site.

On May 7, 1996, the Board of Adjustment approved a Special Use Permit under Case Number BA96-018, which instituted a Comprehensive Sign Plan for the Site. Later that year, on May 20th, 1996, City Council voted to approve zoning Case Number Z96-023 to rezone the Site from the previous PF and M-1 districts to M-1 with Williams Gateway Development Master Plan (DMP) Overlay.

Finally, on May 7, 2007, pursuant to Case Number Z07-014, City Council approved an Amendment to the Williams Gateway Airport DMP which modified the conditions of the original approval and altered the Williams Gateway Airport DMP map. The zoning under Case Number Z07-014, is the zoning on the Site today.

2. CONFORMANCE WITH THE GENERAL PLAN

The City of Mesa 2040 General Plan (the "General Plan") establishes land uses and patterns which will allow the City to grow and develop in a synergistic manner in the future. The General Plan outlines policies which will help achieve the City's long term planning goals. The Site is designated as Specialty- Airport on the City of Mesa 2040 General Plan Land Use Map.

The intent of the Specialty- Airport designation is to promote development that supports the airport use. The proposed development offers a mix of industrial, office, retail, restaurants, and hospitality uses which will further the vision of the Specialty- Airport land use classification.

3. CONFORMANCE WITH THE MESA GATEWAY STRATEGIC DEVELOPMENT PLAN

The Mesa Gateway Strategic Development Plan ("MGSDP") was adopted in 2008 to account for the rapidly developing area surrounding the Phoenix-Mesa Gateway airport. The MGSDP covers a 32 square mile footprint in order to plan expansion of the Arizona State University Polytechnic Campus to the west of the Site and support redevelopment of the previous Proving Grounds, which closed in 2009.

The Site is located within the "Airport/ Campus" District of the MGSDP. The intent of that district is:

"This district refers to the area encompassing the ASU Polytechnic/ Chandler-Gilbert Community College Campus, the Phoenix-Mesa Gateway Airport, and the area immediately outside the airport's future main terminal. It is envisioned as a mixed use district centered around educational opportunities, research and development functions, and airport related uses that support the traveling public. Uses on the airport will relate to the uses across the airport boundary. Development in this area will be high-intensity and pedestrian-oriented. Its pedestrian friendliness will distinguish this district from more typical airport-adjacent developments. The transitional area or boundary of this quadrant will predominantly be high intensity employment uses that integrate well with the on-airport uses. Uses in this area will also address the needs of travelers and visitors and provide a smooth transition from the airport into the rest of the community. High density residential uses can be integrated within a mixed-use development, when appropriate. This area will be a hub of visitor activity and create the first and last impression visitors have of the community. It must provide a very high-quality image."

Below is a summary of the goals listed within the Mesa Gateway Strategic Development Plan within the Airport/ Campus district and how our PAD furthers each goal:

Goal 1: Maximize Potential of Phoenix-Mesa Gateway Airport

The Site is located directly adjacent to the Phoenix-Mesa Gateway Airport and the future eastern terminal expansion. The proposed PAD restricts land uses that could jeopardize airport functionally. Further, this PAD promotes the development of employment land uses needed to support the airport operations.

Goal 2: Job Creation

The proposed land use mix provides opportunities for high quality employment uses. In addition to the employment uses permitted within the PAD, it is envisioned to have the supporting services needed for a thriving employment center, such as hotels and retail development.

Goal 3: Connectivity - Transportation/Transit

Connectivity and ease of vehicular and pedestrian flow is crucial for the Gateway East PAD. The proposed Vehicular Circulation Plan depicts the extension of "Gateway Boulevard", which connects

Ray Road to the north with Ellsworth Road to the east establishing two major points of entry to the Gateway East Development and future airport terminal. Future secondary local streets create network of vehicular transportation to serve all future development. In addition to vehicular connectivity, all streets will be lined with detached tree- shaded walkways to facilitate pedestrian movement throughout the master-development.
Additionally, a Multi-Use path is proposed, just outside the eastern and northern boundaries of the Site on City of Mesa property as an amenity to future employees of the Site and surrounding properties. It is our hope to work with the City of Mesa to bring this trail to fruition in this specific location. In addition to the trail, multiple open space areas with amenities are envisioned throughout the Site area to further enhance the pedestrian experience.

Goal 4: Sustainable Development

The intent of this PAD is to promote a development that is walkable with integrated open space nodes. The vision of the Site is a mixed-use development where pedestrians can safely walk between uses, without the need to drive. By providing safe sidewalks, a multi-use path and ample landscaping, this PAD is providing standards to promote a walkable development.

PAD Justification

A PAD overlay district is being requested to allow for flexibility in the development for the 273-acre Mesa Gateway East site while ensuring high-quality development. In doing so, the PAD provides:

A. *Well designed and integrated open space and/or recreational facilities held in common ownership and of a scale that is proportionate to the use;*

As shown in the Pedestrian Circulation Plan, the PAD proposes multiple open space areas evenly dispersed through the development.

B. *Options for the design and use of private or public streets;*

The PAD provides unique cross sections for both Primary and Secondary streets.

C. *Preservation of significant aspects of the natural character of the land;*
D. *Building design, site design, and amenities that create a unique and more sustainable alternative to conventional development;*

The Design Guidelines proposed ensure high quality development with unique and thoughtful site design.

E. *Sustainable property owners' associations;*
F. *Maintenance of property held in common ownership through the use of recorded covenants, conditions, and restrictions; and*

There will be a private association established.

G. *Single or multiple land use activities organized in a comprehensive manner, and designed to work together in common and in a synergistic manner to the benefit of both the project and the neighboring area.*

The proposed PAD takes into context the surrounding uses, such as the airport, and identified standards to ensure a synergistic development environment.

4. PERMITTED USES

All land uses shall comply with Chapter 7 of the Mesa Zoning Ordinance, the Light Industrial Zoning District and the Phoenix Mesa Gateway Airport Land Use Compatibility Plan, unless otherwise modified through Development Agreement. If a conflict occurs between the Zoning Ordinance, the Phoenix Mesa Gateway Airport Land Use Compatibility Plan and the Gateway East PAD, the Development Agreement shall prevail.

4A. COUNCIL USE PERMIT USES

Hotels and Motels

As described in Table 11-7-2, hotels require a Council Use Permit (CUP) if located within the AOA-2. The Site is envisioned to develop as a mixed-use development that promotes uses that support the airport and future employment uses. Given the proximity of the Gateway East PAD to the Phoenix-Mesa Gateway Airport and additional employment uses, hotels are a needed land use to ensure a vibrant and successful land use mix.

The requested CUP conforms to the following criteria found in Sections 11-70-6-D of the Mesa Zoning Ordinance:

1. **Approval of the proposed project will advance the goals and objectives of and is consistent with the policies of the General Plan and any other applicable City plan and/or policies;**

   This area of Mesa is included within the Mesa Gateway Strategic Development Plan, which encourages development of employment uses. In addition, Mesa Gateway East is located adjacent to the Phoenix-Mesa Gateway Airport. As such, the Site is designated as Specialty-Airport of the Mesa General Plan map.

Employment uses and the airport both demand hotel development to serve patrons.

2. **The location, size, design, and operating characteristics of the proposed project are consistent with the purposes of the district where it is located and conform with the General Plan and with any other applicable City plan or policies;**

   As previously mentioned, the Site is located in an employment hub and adjacent to an airport. The allowance of hotels furthers the vision of General Plan and the Mesa Gateway Strategic Development Plan.

3. **The proposed project will not be injurious or detrimental to the adjacent or surrounding properties in the area of the proposed project or improvements in the neighborhood or to the general welfare of the City; and**

   The development of hotels will not be detrimental to the surrounding properties.

4. **Adequate public services, public facilities and public infrastructure are available to serve the proposed project**

   Adequate public services, facilities and infrastructure are available to serve the proposed hotel use.

This PAD proposes a maximum of 10 hotels to be located within the Site boundaries, with the following conditions:

1. These hotels will be subject to the height limitations prescribed in the height zone, as shown on the height exhibit included within the PAD, in which they are proposed.

2. Clustering of hotels should be encouraged to promote a hotel park environment.

Large Commercial Development

As defined by the Mesa Zoning Ordinance, Large Commercial Development is any commercial development that exceeds 25,000 square feet or 4 or more buildings that exceed 25,000 square feet. It is important to note that this square footage limitation does not apply to hotels. Commercial development is an important land use to support all the surrounding employment uses and the growing airport.

The requested CUP conforms to the following criteria found in Sections 11-70-6-D of the Mesa Zoning Ordinance:

1. **Approval of the proposed project will advance the goals and objectives of and is consistent with the policies of the General Plan and any other applicable City plan and/or policies;**

   Mesa Gateway East is envisioned as a regional hub for employment uses, hospitability, retail and restaurants. To create an all-inclusive development, allowances for retail and restaurant users needs to be established. The creation of a mixed-use development furthers both the vision of the General Plan and the Mesa Gateway Strategic Development Plan.

2. **The location, size, design, and operating characteristics of the proposed project are consistent with the purposes of the district where it is located and conform with the General Plan and with any other applicable City plan or policies;**

   The Site is over 270 acres with an estimated build out of 40 years. The granting of the Council Use Permit for large commercial development will allow for supporting retail and restaurant uses to be developed, which will further support surrounding employment uses and the airport.

3. **The proposed project will not be injurious or detrimental to the adjacent or surrounding properties in the area of the proposed project or improvements in the neighborhood or to the general welfare of the City;**

   The development of large commercial development will not be detrimental to the surrounding properties.

4. **Adequate public services, public facilities and public infrastructure are available to serve the proposed project.**

   Adequate public services, facilities and infrastructure are available to serve the proposed commercial development.

4B. SPECIAL USE PERMIT USES

Service Station, with ancillary retail

Service Stations will be a needed amenity for the future employees and airport patrons within Mesa Gateway East. The maximum number of service stations will be solidified through the associated Development Agreement.

The requested SUP conforms to the following criteria found in Sections 11-70-5-E of the Mesa Zoning Ordinance. All Service Stations will comply with Section 11-31-25 of the Mesa Zoning Ordinance, unless otherwise modified by this PAD or associated Development Agreement:

1. **Approval of the proposed project will advance the goals and objectives of and is consistent with the policies of the General Plan and any other applicable City plan and/or policies;**
   The Service Station use is consistent with the General Plan designation of Specialty- Airport.

2. **The location, size, design, and operating characteristics of the proposed project are consistent with the purposes of the district where it is located and conform with the General Plan and with any other applicable City plan or policies;**

Service stations play an important supporting role in a master plan development. The retail component serves as an amenity to patrons in the area to grab quick refreshments. The service station component adds convenience for rental car uses with a nearby refueling location.

3. **The proposed project will not be injurious or detrimental to the adjacent or surrounding properties in the area, nor will the proposed project or improvements be injurious or detrimental to the neighborhood or to the general welfare of the City; and**

The development of a service station will not be detrimental to the surrounding properties.

4. **Adequate public services, public facilities and public infrastructure are available to serve the proposed project.**

Adequate public services, facilities and infrastructure are available to serve any service stations.

Heliport

Given the Site's adjacency to the airport, Gateway East is a prime location for large companies, especially aviation users. It is critical to remain competitive and innovative within the entitlements so that we can respond to the changing market trends and technology. It is a possibility that a large company would like to have a heliport on their development site for efficiency.

The requested SUP conforms to the following criteria found in Sections 11-70-5-E of the Mesa Zoning Ordinance:

1. **Approval of the proposed project will advance the goals and objectives of and is consistent with the policies of the General Plan and any other applicable City plan and/or policies;**

A heliport is consistent with the General Plan designation of Airport- Specialty.

2. **The location, size, design, and operating characteristics of the proposed project are consistent with the purposes of the district where it is located and conform with the General Plan and with any other applicable City plan or policies;**

Allowing a heliport use adjacent to the airport is consistent with the surrounding area and applicable policies.

3. **The proposed project will not be injurious or detrimental to the adjacent or surrounding properties in the area, nor will the proposed project or improvements be injurious or detrimental to the neighborhood or to the general welfare of the City; and**

The proposed use of a heliport will not be detrimental to adjacent to properties.

4. **Adequate public services, public facilities and public infrastructure are available to serve the proposed project.**

Adequate public services, facilities and infrastructure are available to serve helistops.

4C. OTHER USES

Outdoor Storage

Outdoor Storage may be located in any side and rear yard and shall not be visible from Gateway Boulevard. All outdoor storage shall be screened by an 8-foot CMU wall. Any outdoor storage will be located outside of the required landscape setback.

5. DEVELOPMENT STANDARDS

The following standards shall apply to all developments located within the Gateway East PAD. The development standards shall apply to development site boundaries (as defined by each individual site plan) as property will be subdivided via lease lines. If the PAD is silent on any standard, the Mesa Zoning Ordinance shall apply.

Setbacks

Since the development areas within the Gateway East PAD are being defined by lease lines, all setbacks shall be taken from lease lines as defined by each site plan. All perimeter setbacks shall comply with the setback exhibit as provided within the PAD. If there is a conflict between the setback exhibit and the setback standards table below, the setback table shall prevail.

Development Standards	MZO Required	PAD Proposed
Maximum Building Height – *MZO Table 11-7-3*	40 feet	**165 feet in Zone A and 90 feet in Zone B (As shown on the Maximum Building Height Exhibit 5.A)**
Minimum Setback along Property Lines or Building and Parking Areas – *MZO Table 11-7-3* - Front and Street-Facing Side	Arterial Street: 15 feet Major or Midsection Collector: 20 feet Industrial/Commercial Collector: 20 feet Local Street: 20 feet Freeways: 30 feet for buildings, 15 feet for parking structures	**Gateway Boulevard: 20 feet Secondary Street: 20 feet Main Entry Segments: 30 feet (as defined on Exhibit 5.B)**
-Interior Side and Rear: Adj. to AG, RS, RSL, RM, Commercial and PEP districts	1 foot of setback for each foot of building height with minimum 20 feet setback	**Minimum 15 feet**
Perimeter Landscape Yard – *MZO Table 11-7-3* -Width	Arterial Street: 15 feet Major or Midsection Collector: 20 feet Industrial/Commercial Collector: 20 feet Local Street: 20 feet Freeways: 30 feet for buildings, 15 feet for parking structures	**Gateway Boulevard: 20 feet Secondary Street: 20 feet Main Entry Segments: 30 feet**
	Street-facing setbacks shall be landscaped in accordance with Section 11-33-3(A)	**Street-facing setbacks shall be landscaped in accordance with Section 11-33-3(A)**
Minimum Landscape Yards – *MZO Section 11-33-3(B)(2)* - Non-single residence uses adjacent to non-single residence	Width. 15 feet Landscaped according to Section 11-33- 3(B)(2)(b)-(f)	**Width. 0 feet Landscaping not required**
Averaging Depth of Foundation Base – *MZO Section 11-33-5(A)(3)*	The designated depth of the foundation base may be less than the minimum required depth required by Section 11-33-5(A)(1-2) provided it adheres to all other requirements of Section 11-33- 5(A)(3)(a-c)	**The designated depth of the foundation base may be less than the minimum required depth required by Section 11-33-5(A)(1-2) and may be further reduced beyond the requirements of Section 11-33- 5(A)(3)(a-c) to meet life safety requirements if a conflict exists between Fire Code and Zoning Ordinance standards**

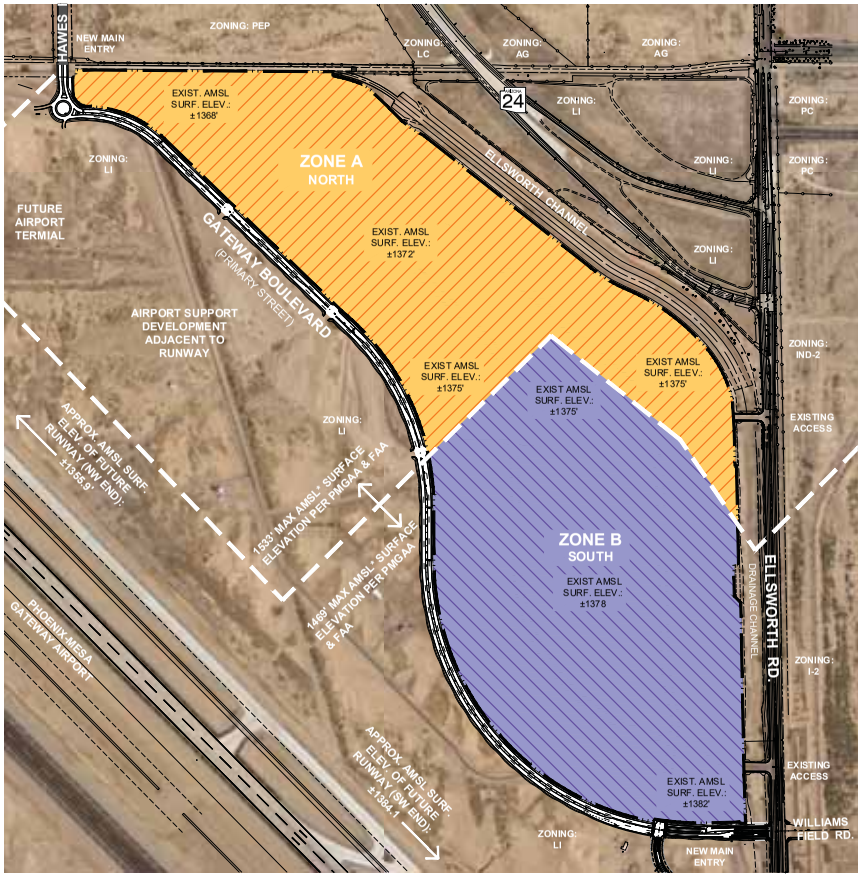
Outdoor Storage – *MZO Section 11-30-7* - Permitted Location (General Commercial and Light Industrial)	Not permitted in front or street-facing side yards. Permitted in interior side and rear yards, or outside of required yards, subject to the standards of this Section [Section 11-30-7]	**Not permitted in front yards. Permitted in street facing side yards interior side and rear yards, or outside of required yards, subject to Section 11-30-7(B)(1-2)**
-Screening and Setbacks	A setback shall be provided for material stored outdoors at the ratio of 1:1 from all lot lines equal to total height of stored material above required screen wall 8 feet	**No setback is required for material stored outdoors**
Truck Docks, Loading and Service Areas – *MZO Section 11-30-13* -Location on Lot	Must be located at the rear or side of buildings, rather than facing a street.	**Must be located at the rear or side of buildings, and may not be readily visible from Gateway Boulevard or Ellsworth Road**
-Screening	Docks, loading and service areas shall be screened from public view	**Docks, loading and service areas shall be screened from Gateway Boulevard or Ellsworth Road**

Screening of Mechanical Equipment – MZO Section 11-30-9(A) -Ground-Mounted Equipment	Ground-mounted equipment facing a street or not otherwise separated from the street by intervening building(s) shall be screened to a height of at least 12 inches above the equipment. Screening devices shall consist of decorative walls and/or berms (2:1 maximum slope) with supplemental plant materials including trees, shrubs, and screen walls that are 3 feet in height or lower, vegetative materials may be substituted for 50 percent of the screening devices.	**Screening of the ground mounted electrical equipment facing a street may be adjusted as necessary to comply with the utility provider's access and design requirements**
-Exterior wall equipment	Wall-mounted equipment, including but not limited to electrical meters, electrical distribution cabinets, service entry section (SES), fire sprinkler equipment and similar valves and cabinets that face a street, or public parking and are not recessed and/or separated from the street by intervening building(s) shall be screened.	**Downspouts must be internally located and screened on building facades adjacent to streets. Downspouts located on building facades not adjacent to streets may be externally located as long as they are coordinated with other façade elements and appropriately finished to compliment the façade design**

	Screening devices shall incorporate elements of the building design, e.g., shape, color, texture, and material. Vegetative materials may be substituted for up to 50 percent of the screening devices when used in conjunction with screen walls that are 3 feet in height or lower.	
Required Parking Spaces by Use – *MZO Table 11-32-3.A* - Industrial	1 space per 600 square feet of gross floor area	**Buildings less than 250,000 square feet: 1 space per 675 square feet of gross floor area** **Buildings that are 250,000 up to 500,000 square feet: 1 space per 1,000 square feet of gross floor area** **Buildings over 500,000 square feet: 1 space per 2,000 square feet of gross floor area**
Setback of Cross Drive Aisles – *MZO Section 11-32-4(A)*	Parking spaces along main drive aisles connecting directly to a street and drive aisles that cross such main drive aisles shall be set back at least 50 ft from the property line abutting the street	**Parking spaces along main drive aisles connecting directly to a street and drive aisles that cross such main drive aisles shall be set back at least 30 ft from the property line abutting the street**
Parking Lot Layout – *MZO Section 11-32-4(G)(2)*	No more than 200 parking spaces shall be allowed together in one group or cluster In office-use and industrial projects, a minimum 25 percent of the required parking spaces shall be provided within 200 feet of the building served, with the balance of the required parking within 400 feet Drive aisle intersections are to be perpendicular to each other	**No more than 300 parking spaces shall be allowed together in one group or cluster** **In office-use and industrial projects, a minimum 25 percent of the required parking spaces shall be provided within 200 feet of the building served, with the balance of the required parking within 500 feet** **Drive aisle intersections may not be perpendicular to each other**
Pedestrian Access – *MZO Section 11-32-4(G)(3)*	Where a pedestrian sidewalk crosses a vehicle lane, the pedestrian sidewalk shall be raised a minimum of 3-inches above the vehicle lane and made distinct by use of textured paving and contrasting color	**Where a pedestrian sidewalk crosses a vehicle lane, the pedestrian walkways shall be made distinct by use of textured paving and contrasting color**

Maximum Parking Spaces – *MZO Section 11-32-3(C)*	The number of parking spaces provided by any development in surface parking lots shall not exceed 125% of the minimum required spaces	**There shall be no maximum to the number of parking spaces provided by any development**
Size of Parking Spaces and Maneuvering Aisles – *MZO Section 11- 32-2(H)(1)* -Standard Parking Spaces	The minimum basic dimension for standard parking spaces is 9 feet by 18 feet	**The minimum basic dimension of a parking stall is 9 feet by 18 feet. Where applicable, the 18-foot dimension is inclusive of a 2-foot overhang over the adjacent sidewalk or landscape area**
Heliports – *MZO Table 11-7-2* Footnote 14	Heliports in Employment Districts shall be set a minimum of 2 full stories above the natural grade, unless associated with a hospital.	**Heliports may be located at the natural grade (aka ground level)**
Drive-thru Facilities – *MZO Section 11-31-18(D)*	Drive-thru lanes shall not be located parallel to arterial roadways. Where physical site conditions prevent such configuration, Provide 40-inch-high screen walls adjacent to the public right-of- way	**Drive-thru lanes shall not be located parallel to Gateway Boulevard but may be located parallel to Ellsworth Road. Where physical site conditions prevent such configuration, Provide 40-inch-high screen walls adjacent to the public right-of-way**
Site Planning and Design Standards – *MZO Section 11-7-3(B)(1)-(5)*	Per MZO Section 11-7-3(B)	**Per the Gateway East Design Guidelines**

EXHIBIT 5.A MAXIMUM BUILDING HEIGHT



LEGEND:

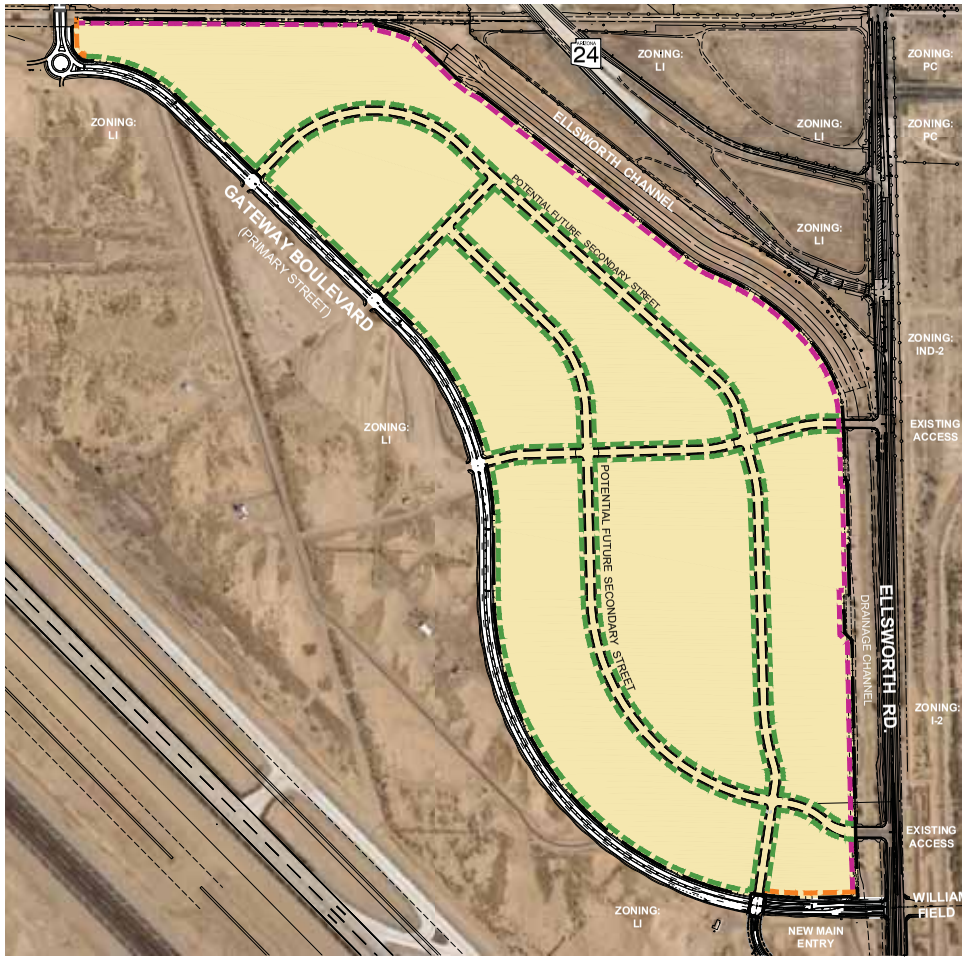
Zone A (155'-165')*

Zone B (85'-90')*

*Notes:

1. All surface elevations are referenced in feet Above Mean Sea Level (AMSL - NAVD88) and are approximate and will need to be verified by Land Surveyor
2. Max building heights include all roof-mounted equipment & appurtenances
3. Allowable height in Zone A North is 155' - 165' and in Zone B South 85' - 90'. All heights shall be measured in accordance with definitions established by the City of Mesa Zoning Ordinance. Such heights include up to 10' of height for mechanical screens or other appurtenances above the top of parapet. If no such elements rise higher that the proposed building parapets, such parapets may achieve the maximum height allowed. In no case shall the maximum height of any building element exceed that allowed by the current maximum height elevation established and approved by Phoenix-Mesa Gateway Airport. It is the responsibility of all applicants to verify current airport height limits applicable to their specific site location. The required FAA filings and approvals of height shall be approved prior to Design Review approvals and submittals of Permit Drawings. Should such maximum heights be modified by future airport studies, the allowable building heights shall be adjusted, either up or down, as required without modification to the PAD '
4. Maximum height shall not exceed 150 feet above the Airport's Field Elevation of 1384' AMSL

EXHIBIT 5.B PERIMETER & STREET SETBACKS



LEGEND:

- 15' Setback
- 20' Setback
- 30' Setback

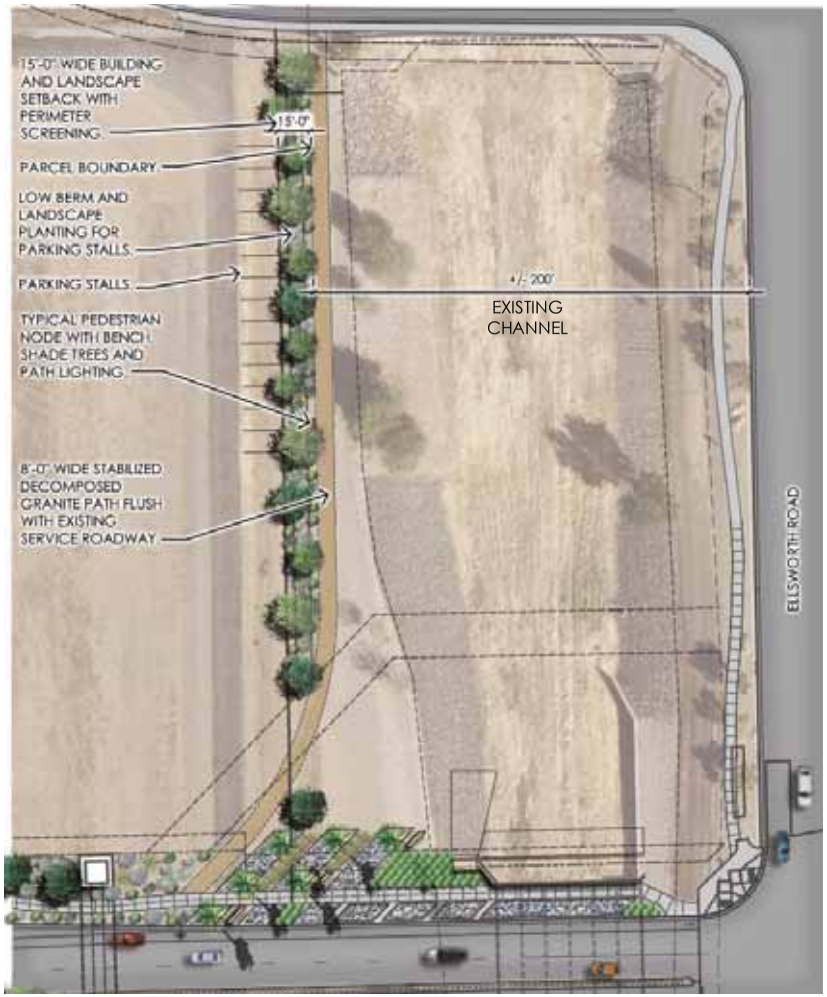
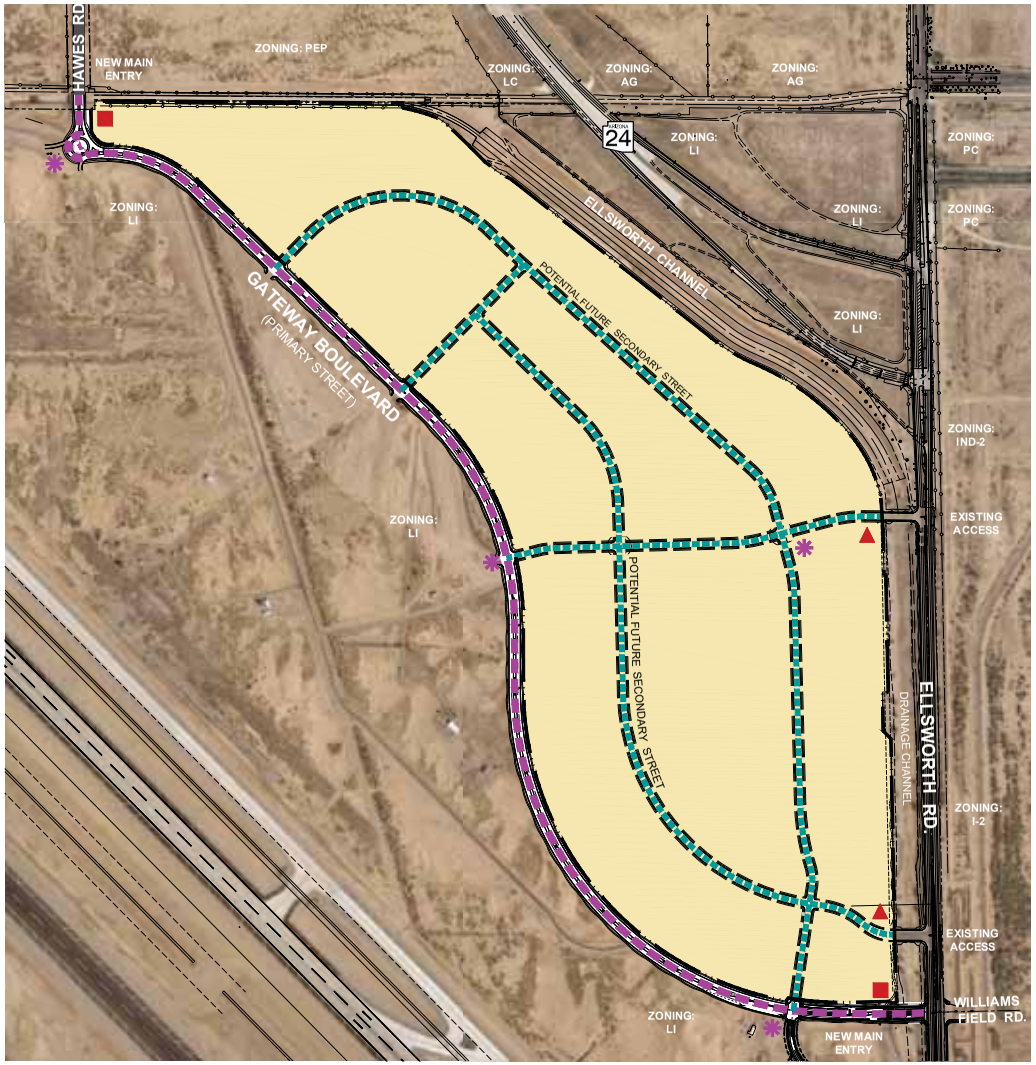


EXHIBIT 5.C VEHICULAR CIRCULATION PLAN

Vehicular pathways are an integral component of the Gateway East Development. The movement throughout the project should be comfortable, safe, and interesting. All areas for vehicular use shall be paved with a suitable base and surfaced with asphalt.

Each Lot within the development will provide adequate circulation and parking to accommodate future users.



LEGEND:

- Primary Street
- Potential Future Secondary Street
- Enhanced Intersection
- Primary Entry
- Secondary Entry

*NOTE: Secondary Street network shown on this plan is conceptual and for illustrative purposes only. Final design is subject to change. All streets will need to be reviewed and approved by the City's Transportation Department.

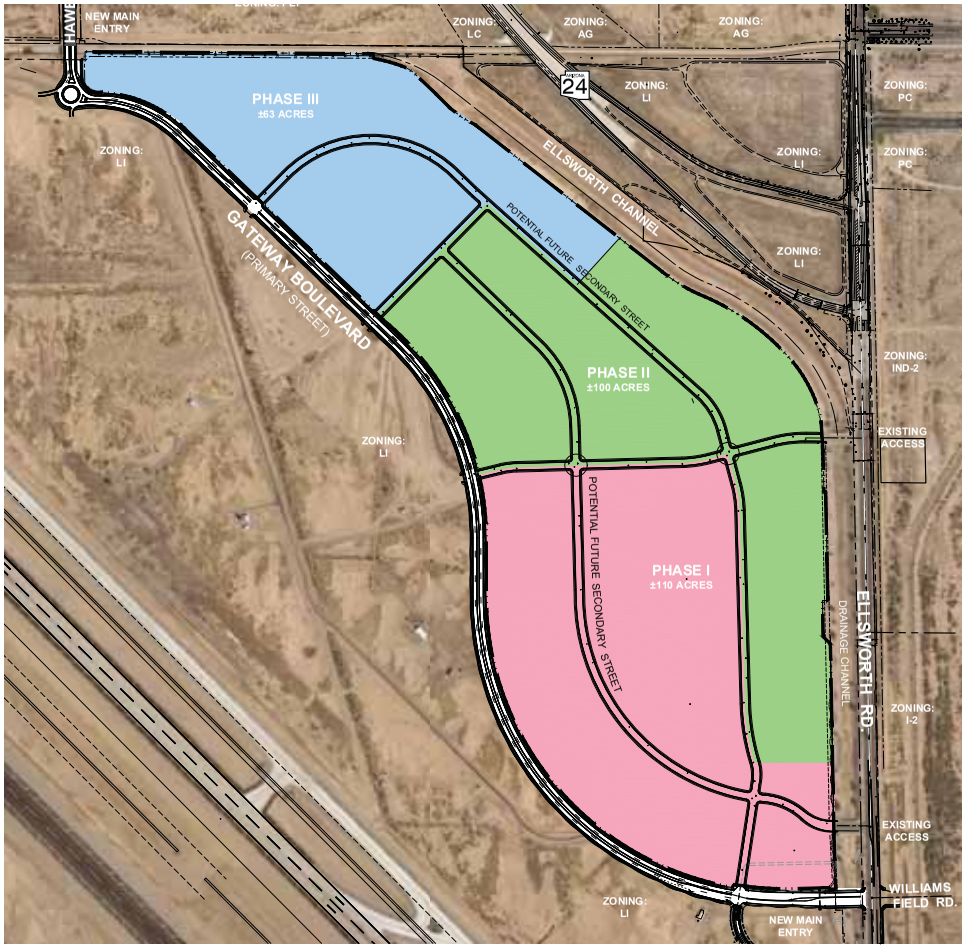
6. ALTERNATIVE COMPLIANCE

The Gateway East PAD includes Design Guidelines that will govern design and building design but are not intended to limit creative solutions. Conditions may exist where strict compliance with the Gateway East PAD & Design Guidelines are impractical or impossible, or where maximum achievement can only be obtained through Alternative Compliance. Alternative Compliance allows the development to satisfy the intent of the Design Guidelines by providing comparable standards in a creative way. Any request for Alternative Compliance shall comply with the criteria listed in Mesa Zoning Ordinance Section 11-7-3 (B)(6).

7. PHASING

Gateway East PAD is a long-term development with an estimated 40 year build out plan. The conceptual phasing plan is for illustrative purposes only and is subject to change based on development patterns and potential users.

EXHIBIT 7.A



LEGEND:

- PHASE I
- PHASE II
- PHASE III

*NOTE: Secondary Street network shown on this plan is conceptual and for illustrative purposes only. Final design is subject to change. All streets will need to be reviewed and approved by the City's Transportation Department.

8. STREET NETWORK

The conceptual Gateway East PAD street system is unique due to the underlying ownership of the property. The streets may remain private, or they may be dedicated via private easement. This is not a common circumstance; thus the street designations will be unique to this PAD. The Vehicular Circulation Plan (Exhibit 5.C) is designed to create attractive and useable development areas for future development but street alignments may change based on future development.

It is also important to note that lease line subdivided lots will not have access on a publicly dedicated street. The approval of this PAD will authorize lots to front onto and be accessed via a private street. The street network system is broken into two street classifications: Primary Streets and Secondary Streets. Final design of the street cross sections will be reviewed and approved by the Transportation Department.

Primary Streets: Primary Streets are envisioned as the streets that will carry heavier traffic loads, such as Gateway Boulevard. It is anticipated that Gateway Boulevard may be the only Primary Street.

Secondary Streets: Secondary Streets serve as internal collector roads that move traffic within the internal development. These street locations as shown on Exhibit 5.C Vehicular Circulation Plan, are likely to change with refinement of development and future leasing activity.

9. CONCLUSION

This is a request to rezone an approximate 273-acre Site located at the southwest corner of South Ellsworth Road and East Ray Road from Light Industrial with Williams Gateway Airport Development Master Plan Overlay ("LI PAD") to Light Industrial and establish the Gateway East Planned Area Development Overlay ("LI PAD") on the overall Site. This rezoning request will allow for the development of a synergistic mixed-use development with a variety of industrial, office, retail, and hospitality uses on the Site. The proposed development is consistent with both the General Plan and the Mesa Gateway Strategic Development Plan area and Sub-Area Plans. The proposed development will benefit the surrounding community by providing addition employment uses within an employment hub of the City of Mesa.

Gateway East

Exhibit C (g)

- Design Guidelines

III. ARCHITECTURAL DESIGN GUIDELINES - GENERAL

3.1 GENERAL

The following Gateway East Design Guidelines serve as a critical tool to ensure ongoing compatibility between allowable land uses and achieve a harmonious mixed-use development. These guidelines establish the overall character of the development and contribute to establishing a cohesive, attractive, long-term successful project.

The Design Guidelines are intended to replace quality enhancements and details to the adopted City of Mesa Quality Development Design Guidelines and associated Zoning Ordinance amendments. The Gateway East Design Guidelines will provide for an overall development theme through the use of complementary building materials, colors and themes, consistent and complementary landscaping and a mechanism for enhanced design and creativity.

This document governs the approximately 273-acre land contained in the Gateway East Planned Area Development (PAD). All development shall comply with the City of Mesa Zoning Ordinance unless otherwise modified through this PAD and Design Guidelines. In the event that this document conflicts with the City of Mesa Zoning Ordinance and the standards listed within this PAD, including the Mesa QDDG, this document shall prevail.

The Design Guidelines are broken into four sections:

- Site Plan Design Guidelines
- Architecture Design Guidelines
- Lighting Design Guidelines
- Landscape Design Guidelines

1. **Character and Image** - Development shall contribute to the uniqueness of the zoning district in which it is located, and/or the Mesa community with predominant materials, elements, features, color range, and activity area tailored specifically to the site and its context. This character and image shall conform to the following standards:

a. In multiple building developments, each individual building shall include predominant characteristics shared by each building so that the buildings within the development appear to be part of a cohesive, planned, area, yet are not monotonous in design. Compatibility shall be achieved through techniques such as the replication of roof lines, the use of similar proportions in the building mass and outdoor spaces, similar relationships to the street, similar window and door patterns, or the use of building materials that have color shades and textures that are similar to or complimentary to those existing on, or in, the immediate area of the subject property.

b. No Established Theme or Stand-Alone Development. Where there is no established or consistent neighborhood or area character or unifying theme, or where the existing character is not desirable to continue because it does not reflect a design theme consistent with the development standards as described in this Chapter, the proposed development shall be designed to establish character and a sense of place through the strategic use of architectural elements, building form, materials, landscaping, lighting, etc., which create a cohesive theme or style for future developments and buildings within the area to follow.

c. Corporate Architecture. Where the proposed architecture of a building or structure is the result of a franchise style, prototypical or franchise architectural design, including materials and color, should be modified (if necessary) to meet the development design standards as set forth in the Design Guideline exhibit attached to this PAD.

d. Employee and Visitor Amenities. Development within this PAD shall provide common open space and amenities for the useful enjoyment of employees and visitors to the Site. Common open space should be arranged for functionality and shall be furnished with eating areas, site furniture (such as benches, tables, waste receptacles, or planters), or other amenities.

i. Buildings 30,000 square feet or larger shall provide common open space at a rate of one percent (1%) per building

gross floor area (GFA). A collection of smaller buildings linked by common walls is considered one building.

ii. Multiple areas of common open space are encouraged; however, the minimum size of any one (1) common open space shall be 300 square feet with a minimum dimension of 15 feet in any direction. If pocket parks or multi-use trails are provided within close proximity of the development, those improvements shall count towards the common open space requirement.

iii. At least 50 percent (50%) of common open space must be open to the sky. At least 75 percent (75%) of the open space area must be landscaped and maintain live plant material if the area is not otherwise used as active recreation facilities.

2. Massing and Scale - Architectural elements and techniques shall be utilized to reduce the apparent massing and scale of buildings.

a. Wall Articulation. Exterior building walls shall be subdivided and proportioned to human scale, using projections, overhangs, and recesses in order to add architectural interest and variety and to avoid the effect of a single, massive wall

with no relation to human size per Design Guideline exhibit attached to this PAD.

i. Publicly visible facades (viewed from streets or primary facades of adjacent property), may not have blank, uninterrupted wall lengths without including at least two (2) of the following: change in plane, change in texture or masonry pattern, windows, trellis with vines, or an equivalent element that subdivides the wall into human scale proportions. Refer to PAD Design Guidelines for conceptual examples.

ii. Side or rear walls, not publicly visible from streets: Refer to PAD Design Guidelines

b. Building Projections into Setbacks. Maintain appropriate separations between buildings on adjacent lots to allow for light, air, and circulation while recognizing the need to allow minor projections that improve the effectiveness of environmental or aesthetic features.

i. Awning, eaves, overhangs, light shelves, and basement window wells may encroach up to three (3) feet into any required setback but shall not be closer than two (2) feet to any property line. Building projections shall be no closer than 15 feet to any property line adjacent to sites located in the RS and RSL Districts.

c. Roof Articulation.

i. Provide architectural interest at the skyline. Accentuate appropriate building elements and provide a minimum of one vertical variation in parapet heights appropriate for the intended design. Parapet detailing such as cornices, moldings and trim should be used where appropriate. Refer to PAD Design Guidelines for conceptual examples.

3. Building Entrances - Primary entrances along major façades shall be clearly defined with façade variations, porticos, roof variations, recesses or projections, or other integral building forms. For conceptual examples, please refer to PAD Design Guidelines.

4. Access, Circulation, and Parking.

a. Screening and Separation of Parking Areas. Parking areas located between a building and Primary Street shall be screened with a screening wall, berms, or combination of both methods no more than 3 feet high.

i. In addition, parking areas shall be separated from on-site buildings by a distance of at least ten (10) feet. This separation shall be landscaped and may include a pedestrian walkway.

5. Materials and Colors - Buildings and structures shall be constructed of durable, high-quality materials that are appropriate for the climate and development. Exterior building walls, viewed from streets, shall be designed using various materials and design options in order to add architectural interest. Please refer to PAD Design Guidelines for conceptual examples.

IV. ARCHITECTURAL DESIGN GUIDELINES

4.1 GENERAL

The Architectural Design Guidelines are intended to ensure an attractive, high quality, mixed-use development with a consistent look and feel across the overall development master plan consistent with conceptual examples within these Design Guidelines. These standards will provide continuity throughout while incorporating a variety of architectural styles, color, and materials. Styles may and should vary to create individual identities while maintaining common threads that establish compatibility between buildings and the anticipated land uses, such as light industrial (manufacturing, flex office, technology), multi-story office, restaurant, retail, hospitality, and others. Design vocabularies should be respectful of adjacent uses, allowing architectural expressions to flow from Lot to Lot, avoiding abrupt transitions in style or character. Variation in texture, contrast, color, and materials should be utilized to create visual interest. Building designs must be compatible for airport operations.

Whereas a level of consistency and compatibility are desirable to create continuity within the master development, opportunities for corporate identity and branding must be maintained. Such branding may include the use of corporate colors, signage, specific materials or architectural elements used to communicate a company culture or theme. These elements shall not detract from the quality and compatibility of the overall master plan and adjacent developments. The extent of such branding elements may require limits of application in order to maintain the desired continuity of the development.

By the approval of these design guidelines through the PAD process and by the Design Review Board, it is understood that all buildings shall comply with these standards. In doing so, all buildings will be be exempt from the Design Review Board Work Session process and will be handled as Administrative Design Review.

The Architectural Design Guidelines are centered on Key Design Characteristics that will establish visual consistency, quality, and architectural interest across the Development.

These Key Design Characteristics from the list below include:

A. Building Form
B. Facade Treatments
C. Shade Elements
D. Entry Statements
E. Screening
F. Colors
G. Materials – (2) minimum when publicly viewed from street

A. BUILDING FORM

Building form refers to the shape and configuration of a building visible from primary and secondary streets. Care should be taken to design structures across the project that take shape, mass, scale, proportion, rhythm, articulation, texture, color, and light into consideration. Building forms should be influenced by the following guidelines:

- Consider each buildings relationship to other adjacent buildings in their architectural design.
- Building elevations and facade elements should undulate to break up building masses.
- Vary roof forms and parapet treatments appropriate for the type of project and consistent with conceptual examples within these Design Guidelines.
- Use building elements to create scale at the pedestrian level with conceptual examples within these Design Guidelines.
- Provide pedestrian protection from the sun by using building overhangs and canopies in appropriate areas, such as main building entries.
- Provide heightened level of detail at building entries.
- Accent architectural form with appropriate lighting.

B. FACADE TREATMENT

Building facades serve as a viewer's first interaction with a building and can bring a greater degree of architectural interest to a structure. Facades are also essential components of building environmental efficiency. Building facades should utilize the following principles and be consistent with conceptual examples within these Design Guidelines:

- Vary building volumes, planes, and materials to create dynamic textures and variations with light and shadow.
- Employ sun shading elements such as projecting canopies, and awnings that provide cover and shade for appropriate exposures on building facades, thereby reducing solar heat gain.

- Enhance street frontages by using refined materials and strong entry elements.
- Ground floor building façades are encouraged to utilize transparency when abutting pedestrian areas.
- Highly reflective materials and finishes that conflicts with FAA regulations or could create glare or flash blindness and impact airport operations shall not be utilized.

C. SHADE ELEMENTS

Sun protection is an essential design element to promote both pedestrian comfort and energy efficiency. Shading elements such as suspended canopies, posted canopies, awnings, building overhangs, screen walls, window eyebrows, shade sails, and pergolas should be effectively utilized on high impact areas of the buildings facades. These shading elements have the power to accent the building massing and create a functional and dynamic visual experience for patrons all while limiting solar heat gain. Shade elements are particularly important for glass openings, balcony areas, and at the sidewalk pedestrian area. Shade elements should be integrated into the storefront designs as part of the overall building design. The following shade strategies may be utilized:

- Suspended canopies, posted canopies, and awnings are to be integrated into building designs.
- Large overhangs shall be carefully utilized to accent the massing of the building and to create a functional and dynamic visual experience for patrons.
- Trees and landscaping are to be integrated as part of the overall shading.

D. ENTRY STATEMENT

Clear building entries create a sense of arrival and can elevate a building's architecture. Entries should be prominent and obvious to assist in circulation and wayfinding across the Development. Entry statements can be established in multiple ways:

- Differentiated building massing (vertical elements, building envelopes).
- Use of a special or different facade material.
- Utilization of accent lighting and/or creative signage.
- Doorway openings and hardware should address human scale and comfort.

E. SCREENING

Screening shall be utilized in a variety of applications throughout the project.

Screening should be used to conceal unsightly building/site elements from view. It should also be used per City of Mesa standards to screen parking areas and can also be used as an architectural feature to provide additional building articulation and interest. Options for screening materials may include the following: metal louvers, metal panels with attractive patterns of voids and perforations, painted and decorative integrally colored and textured CMU block and/or strategically located landscape.

- Architectural Screening: Architectural screens can be used to provide layering and depth to building planes while also protecting interiors from sun exposure.
- Mechanical Equipment: All mechanical equipment, whether at grade or on a building's roof, should be screened from view with architectural and/ or landscape materials or they shall be located so as not to be visible from any public pathways. Rooftop screening shall be monolithic and architecturally compatible by use of exterior parapets, monolithically screened "penthouse" areas and parcel use of "line sight-line studies" for structures with large foot prints such as industrial projects.
- Utility Equipment: All utility equipment and associated protective materials should be screened and painted to blend in with the roof or building.
- Service Areas: All service areas (trash, recycling, mechanical areas, storage, utility, and meter rooms) must be architecturally integrated within the body of the building or at the back of buildings screened from view.
- Parking Areas: Parking areas adjacent to roadways should utilize a combination of 3' high offsetting screen walls with 50' maximum runs, dense plantings, and/or landscape berms as screening.
- Landscape Elements: Using a variety of year- round plant species is ideal when screening equipment. Plants used for screening are to be compatible with Arizona's climate and should be regularly maintained.

F. COLORS & MATERIALS

Colors and materials should create visual harmony within the development. Recommended colors are as follows:

- Desert hues and other “earth tones”.
- Muted shades of blues, greens, and reds found in the natural desert color vocabulary.
- Colors appearing in natural stone utilized in buildings.
- Bright and jewel-tone colors may be utilized as accent colors in limited areas to enhance entries, focal points, corporate branding or other prominent building features.

Buildings within this development very often include, the following or others of equal or greater quality.Provide a minimum of two materials on facades facing streets:

- WOOD: Wood is best used in areas with minimal weather exposure. Synthetic or metal systems may be used as an alternative to create a wood appearance.
- BRICK: If using “thin brick”, corner pieces must be used to create the appearance of full brick and provide cap articulation at top of wainscots.
- CONCRETE: Cast-in-place, articulated tilt up concrete, reveled, board-formed and architectural precast concrete are all acceptable variations of this material constituting multiple materials when used together. Predominant use of site cast tilt up panels for industrial projects and office buildings is acceptable when provided with a minimum of two alternative materials and shall include a balanced use of reveals, varying paint colors, variations in plane and parapet heights to reduce massing and scale consistent with provided examples within these Design Guidelines.
- NATURAL STONE: Fieldstone, flagstone, or other natural stone.
- MANUFACTURED STONE: Manufactured stone of high quality may be used.
- STUCCO/EIFS: : Stucco or EIFS (exterior insulated finish systems) to be finished with smooth or sand finish with appropriately placed horizontal and vertical reveals to break up mass of large areas and coordinated with other vertical and horizontal elements found on building facades.
- TILE: Ceramic, porcelain, or similar tile.
- METAL PANELS: Architectural metal panels including standing seam, prefinished interlocking panels, perforated metal panel, perforated “B” deck and limited use of corrugated.
- GLASS: Clear, tinted (greys and blues), frosted and coated glass. Highly reflective glass conflicting with FAA regulations or airport operations is not allowed.

4.2 ARCHITECTURAL VISION : A MIX OF USES AND ARCHITECTURAL STYLES THAT COEXIST IN A HORIZONTAL MIXED-USE MASTER DEVELOPMENT

4.3 ARCHITECTURAL STYLES: A. LIGHT INDUSTRIAL (FLEX OFFICE, MANUFACTURING, TECHNOLOGY)

B. OFFICE


PEDESTRIAN PATHS

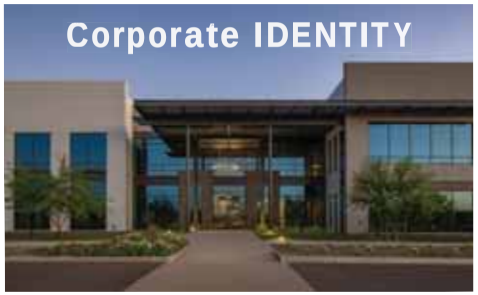

Defined ENTRIES and balanced use of MATERIALS


Street Presence, Sun Shading and Employee Outdoor Spaces


Corporate Identity, Accented Main Entry, Integrated Landscaping

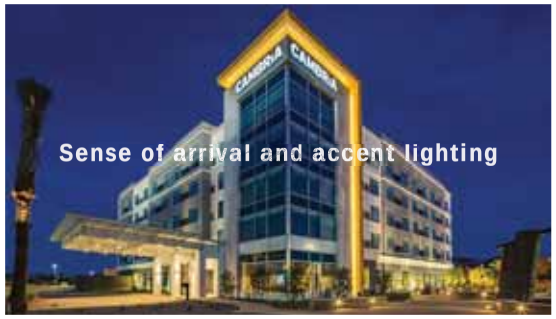

Defined entries, offsetting vertical planes and sun shading


Accented main entry, integrated landscaping


Corporate IDENTITY


Corporate Identity, Shaded Parking and Solar Integration

C. HOSPITALITY



D. RETAIL

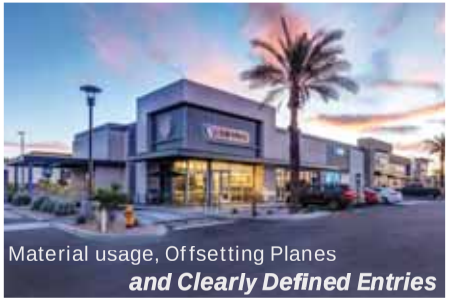

Material usage, offsetting planes

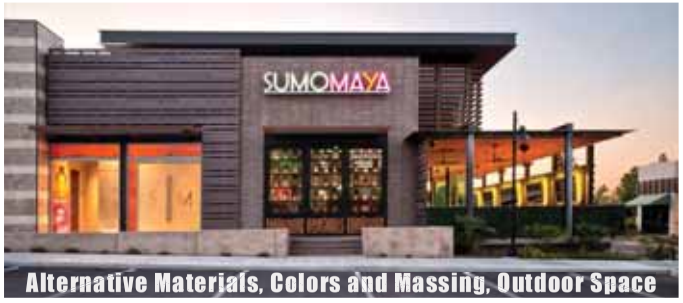

IMPACTFUL ENTRIES
HomeGoods


Street Presence, Sun Shading and Employee Outdoor Spaces


Alternative Materials, Colors and Massing
Outdoor Space


Large canopies to create OUTDOOR space


Material usage, Offsetting Planes
and Clearly Defined Entries


SUMOMAYA
Alternative Materials, Colors and Massing, Outdoor Space


PetSMART
6450-3
Material usage,
Offsetting Planes
and Clearly De-
fined Entries

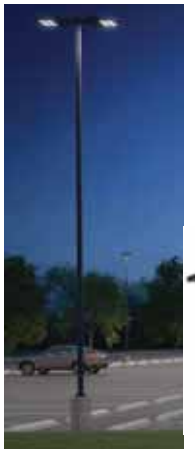
V. LIGHTING DESIGN GUIDELINES

5.1 GENERAL

Given that this is a horizontal mixed-use project, lighting design must respond to both daytime and nighttime lighting needs. While the employment uses may be primarily functional during the day, the restaurant, retail, and hospitality uses will promote activity that extend into the evening. Architectural lighting is an essential component of building and landscape elements. The lighting strategies for this project should be designed with the goal of creating a welcoming early morning and evening environment that prioritizes safety and security as well as aesthetics. All exterior lighting design requires approval from the City of Mesa and must ensure compatibility with aiport operations. Lighting placements and systems will not direct lighting upward or in a manner that could cause confusion with airport identification or navigational lighting.

- Dramatic lighting should enhance primary architectural features.
- Lighting should emphasize dramatic elements within the landscape (Monument signs, groups of trees and shrubs).
- Accent lighting may be incorporated on secondary building elements such as blank walls to highlight their texture or on columns to reveal their cadence on a facade.
- Appropiate consideration should be given to creating an ambiance with mood lighting such as overhead string lights or up lighting/down lighting on walls.
- Lighting shall almost exclusively use warmer temperatures. Cool temperature lighting is discouraged.
- Lighting on the exterior walls adjacent to the storefront area is encouraged to help increase tenant identity and to provide an appropriate level of comfort and rhythm for the pedestrian.
- Low-level down-lighting integrated into building canopies should be provided to promote visibility and security.
- Lighting should enhance or be an extension of the design intent of the architecture.
- Utilize full cut-off or fully shielded fixtures and set mounting heights as required to effectively control glare, light trespass, and maintain dark skies.
- Fixtures and strategies are to promote energy conservation.
- Use automatic control systems to eliminate excessive light during non-active hours of site and building operation.
- Ornamental low-scale lighting shall be provided along pedestrian pathways and nodes that connect the various Lots within the Development.
- Primary and secondary streets will utilize City approved fixtures. Specific locations and heights will be approved by the appropriate City Department per City of Mesa requirements for illumination.

STANDARD PARKING LOT FIXTURE



Lighting fixture heights shall not exceed the maximum height specified in the City of Mesa Zoning Ordinance Table 11-30-5.

5.2 LIGHTING VISION

VI. LANDSCAPE DESIGN GUIDELINES

6.1 GENERAL

The following landscape design guidelines provide a framework for the overall landscape character of the Development. These guidelines shall be applied to all areas of the Development including edge treatments, entries, vehicular circulation routes, pedestrian plazas and promenades, open spaces, and parking areas.

Landscape features and tree varieties attractive to hazardous wildlife should not be used to ensure flight safety and airport operations. Vegetation shall be properly maintained to control excess canopy growth and height. Landscape shall not exceed any FAA determination for maximum building height.

While this mixed-use project encompasses a variety of uses, the landscape design guidelines will ensure that future development of the Site reflects the overall theme of the area, creating a unifying aesthetic that provides for meaningful spaces that relate to the adjacent buildings. The following three key landscape design characteristics will set a consistent landscape theme across the Development; ***Human Interaction, Open Space and Planting & Hardscape Design***

A. HUMAN INTERACTION

The landscape design for this project should center on promoting human connectivity. This can be achieved through providing dynamic open space areas that spur interaction, designing alluring pathways that connect all areas of the development, and by using planting design to create beautiful outdoor environments that inspire users to be outside and foster human connections. Landscape design should promote human interaction by incorporating the following guidelines:

- Provide connections to, from, and within Lots to support pedestrian activity and other mobility options to enhance the interconnectivity within the Development.
- Provide enhanced pedestrian plazas and promenades within the commercial Lots.
- Utilize covered or shaded walkways, passageways, courtyards, and plazas.
- Design street-spaces that support the pedestrian by incorporating safe and comfortable pedestrian amenities such as seating, lighting, shade, landscape and hardscape, crosswalk refuge areas, and curb and sidewalk extensions.
- Coordinate the design of pedestrian, auto, parking and service areas to minimize pedestrian interruption and pedestrian-vehicular conflicts.
- Provide open space for public and private outdoor activities, special events, and day-to day activities.

B. OPEN SPACE

Open space areas provide the opportunity for humans to experience the natural environment. Open space is of vital importance to the desirability of the project as a place to visit, work, or recreate. Open space areas are used for buffering adjacent land uses, establishing pedestrian circulation routes, providing gathering spaces, active and passive recreation, site beautification, and as storm water

retention areas. These areas should be treated to provide a network of green spaces throughout the Site that will provide a common aesthetic and include amenity spaces for visitors and employees. Open spaces should:

- Visually and physically connect uses and open spaces by providing walkways, gathering and activity areas, and greenways.
- Connect open spaces of neighboring land uses through common entry courts, linked plazas and amenity areas, and coordinated landscape.
- Provide open space at intersections to promote pedestrian and visual interest.

C. PLANTING & HARDSCAPE DESIGN

Integration of development into the natural and built environments is critical to strengthening continuity and character throughout the Development. People-oriented urban design should be reinforced through landscape planting, street furniture, decorative paving, and lighting. These elements should provide an abundance of shade, color, and varied textures and forms. Planting and hardscape design should utilize the following principles:

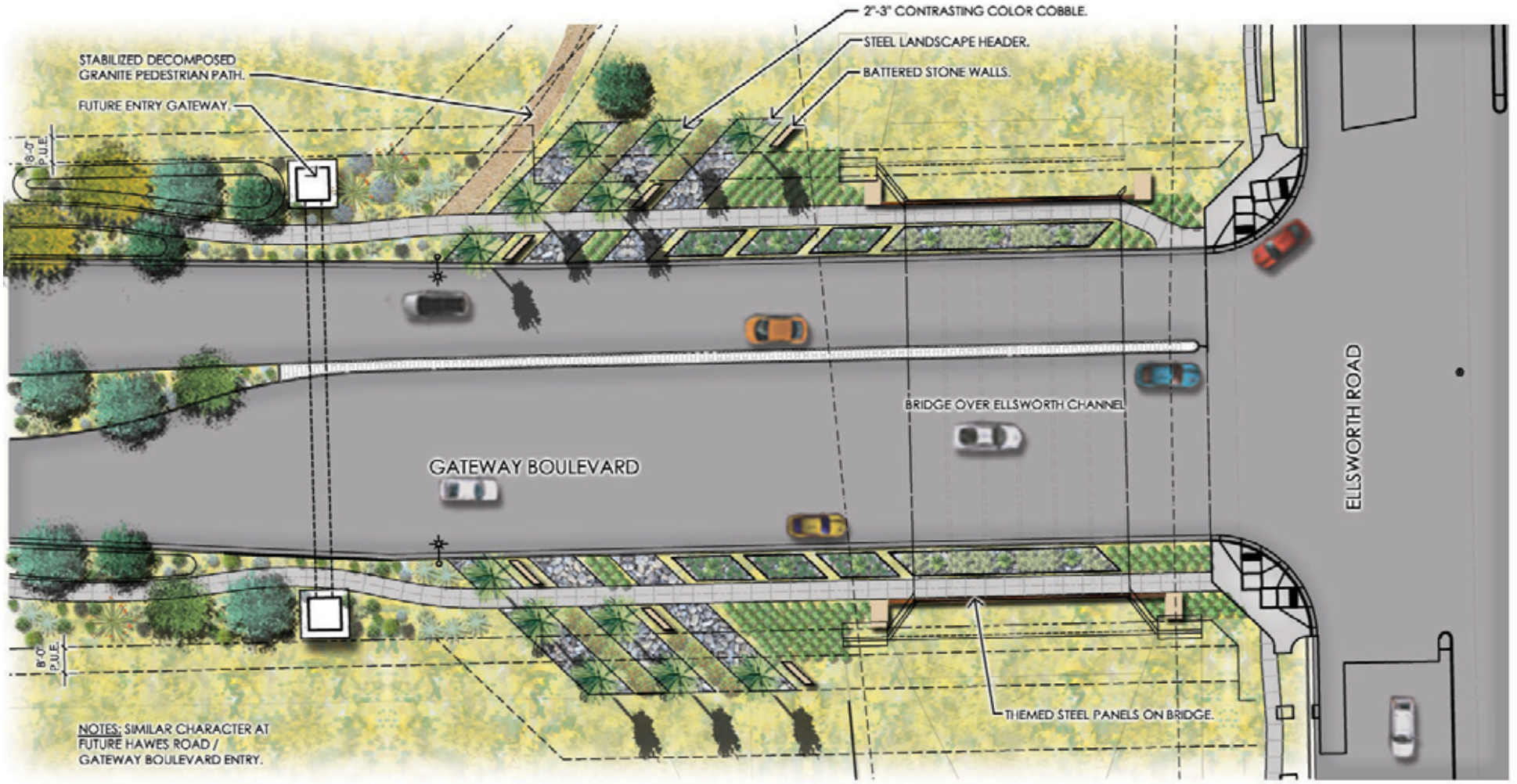
- Landscape forms should create pedestrian environments that are protected from vehicular traffic.
- Accent lighting should promote ambiance, character, and safety.
- Hardscape and special paving should be integrated into the Development at key focus areas including building entrances, pedestrian crossings, pathways, and amenity areas.
- Use masses of native plants to provide color, texture, and pattern.
- Spotlight distinctive areas with one large specimen tree.
- Use the height of date palms or other vertical landscape elements to identify entrances and prominent pedestrian areas.
- Use planting palettes to distinguish zones throughout the Development.
- Utilize native plants that promote sensitivity to the environment and allow for water conservation.

6.2 ENTRY DESIGN

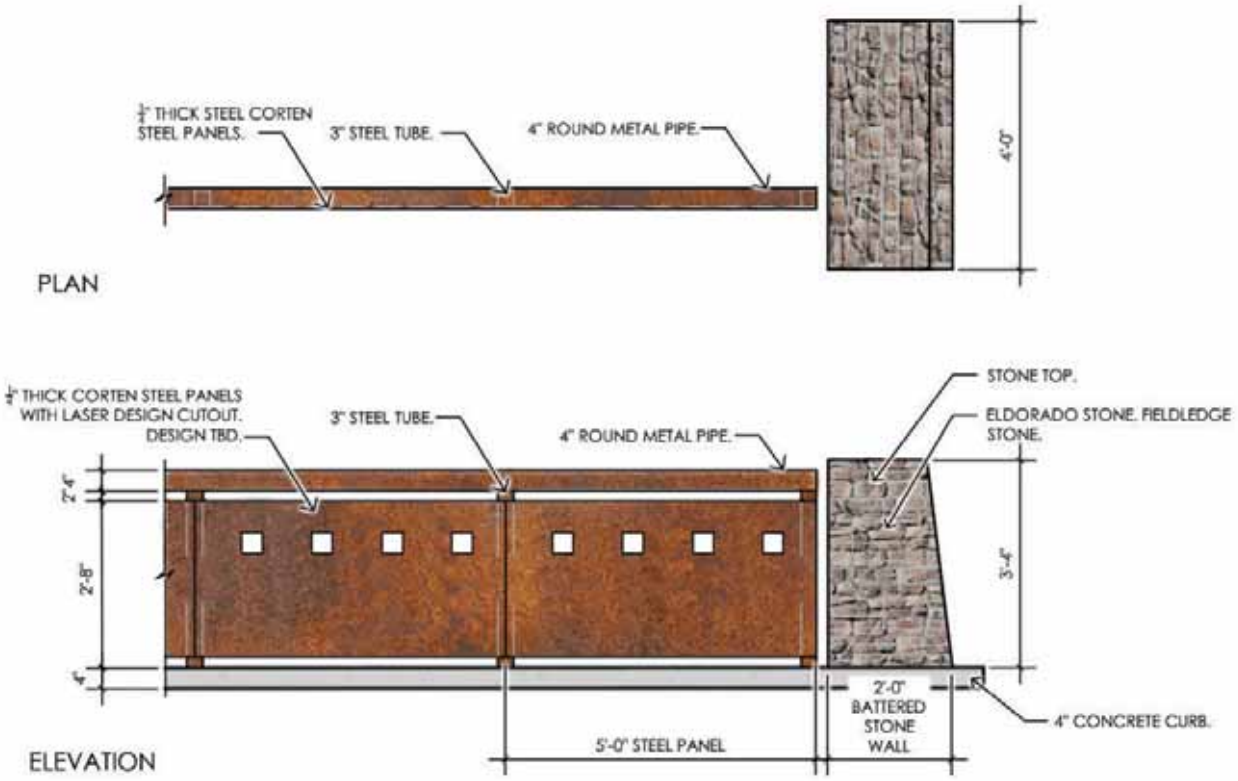
*Character image subject to future development

6.3 STREETSCAPE CHARACTER

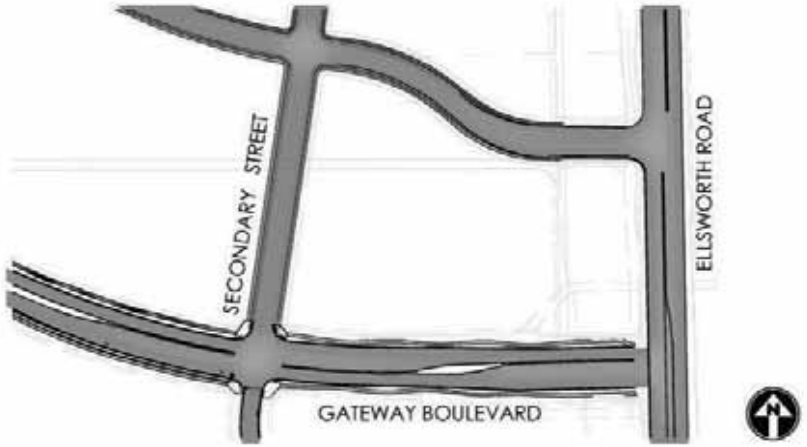
6.4 PRIMARY ENTRY PLAN

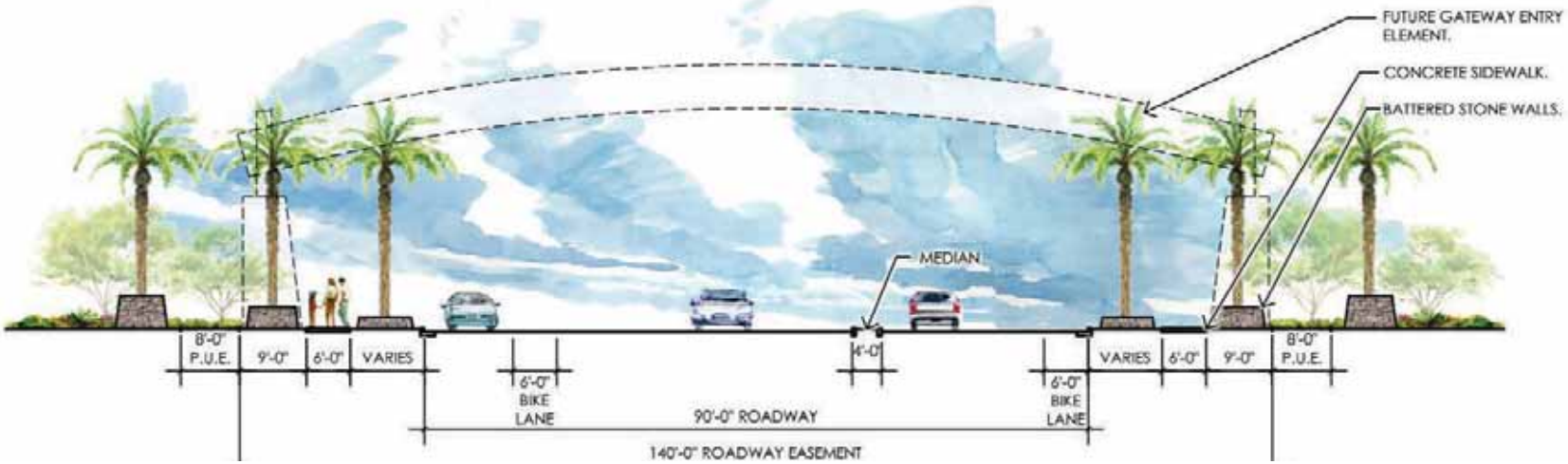


6.5 BRIDGE WALL DESIGN

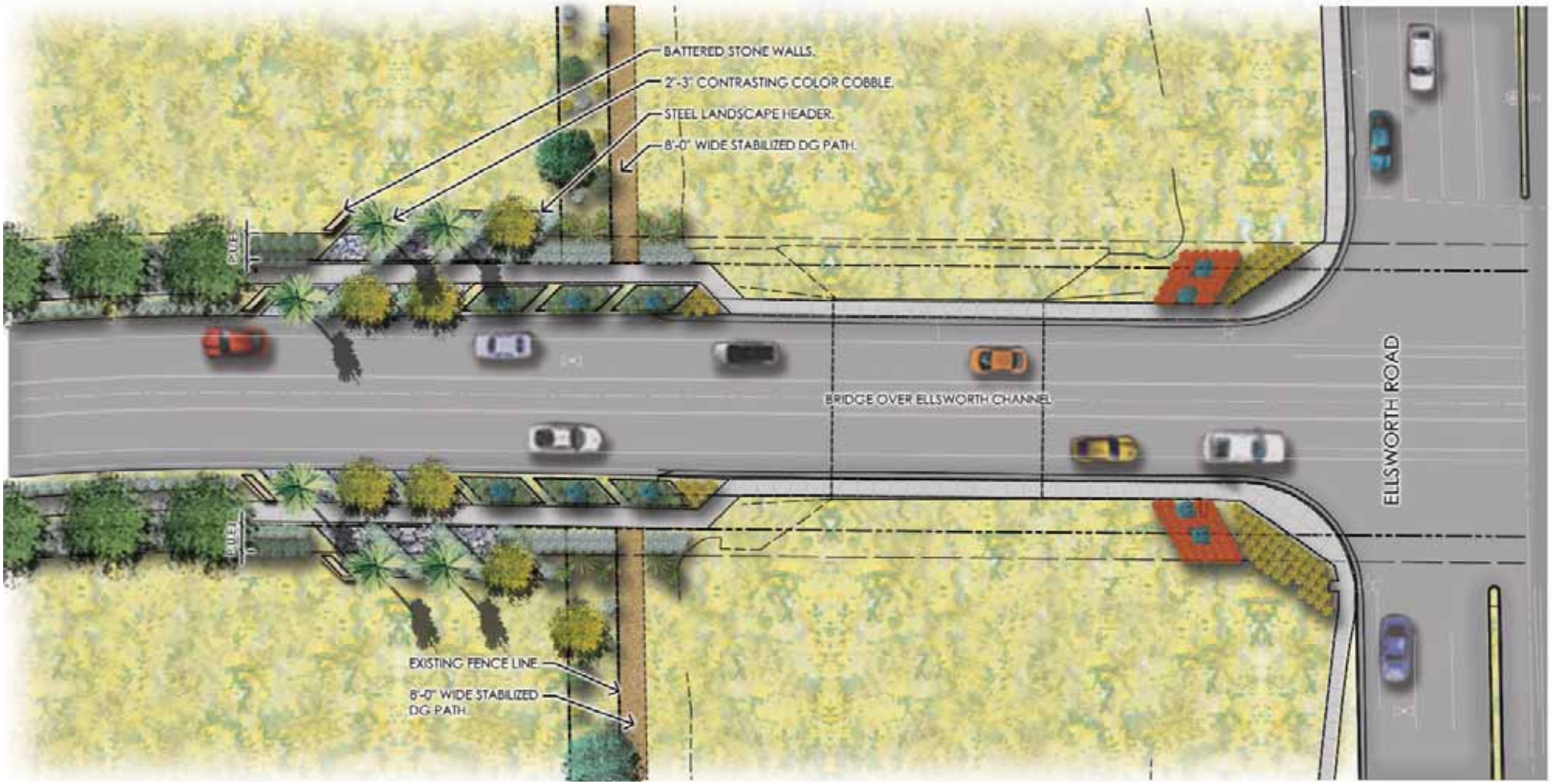


6.6 PRIMARY ENTRY SECTION



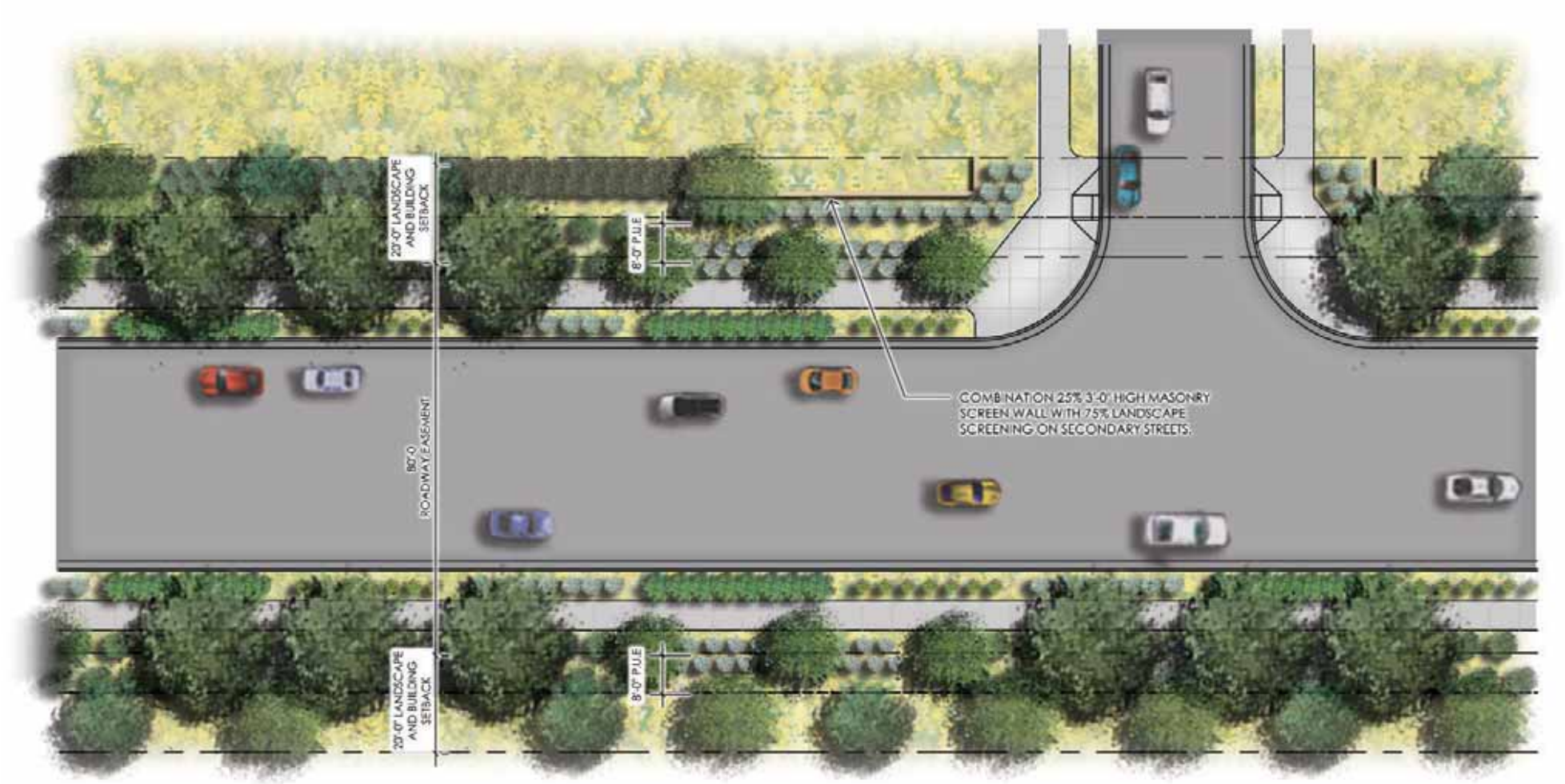


6.7 SECONDARY ENTRY PLAN

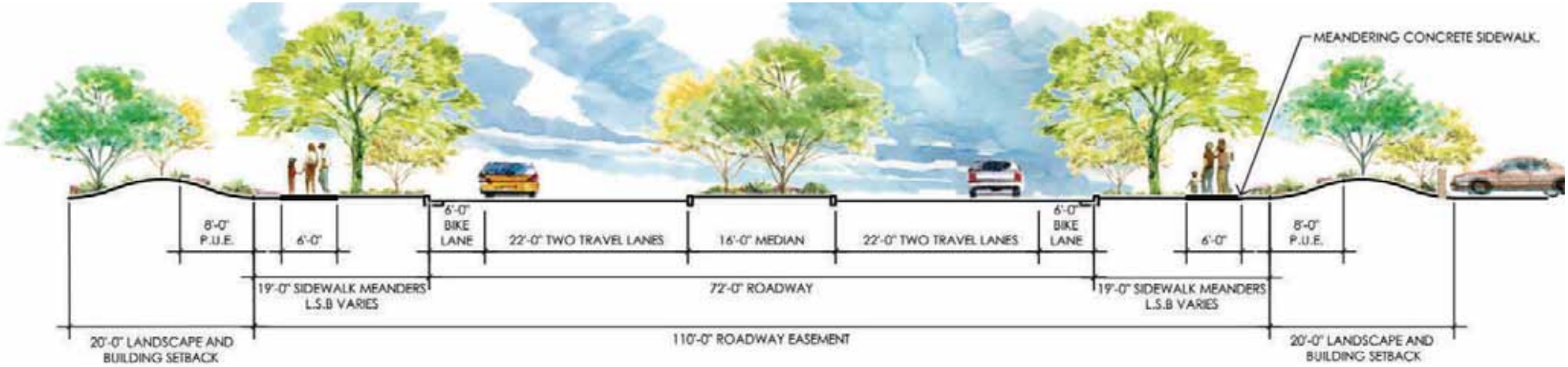


6.8 PRIMARY STREET LANDSCAPE (GATEWAY BOULEVARD)

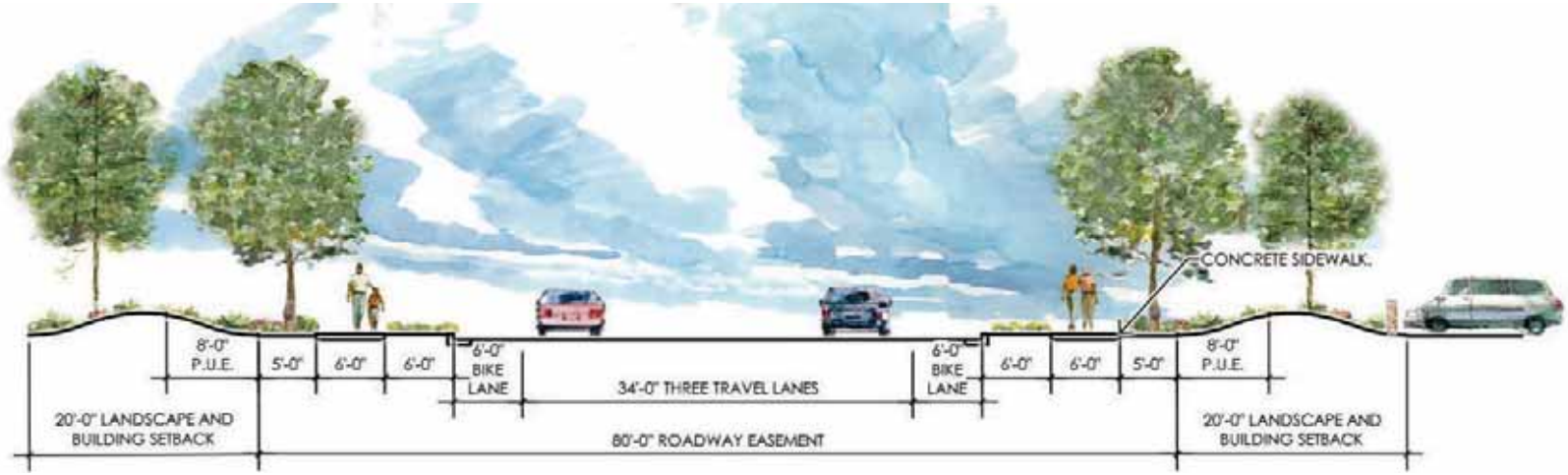
6.9 SECONDARAY STREET LANDSCAPE



6.10 TYPICAL STREET SECTIONS

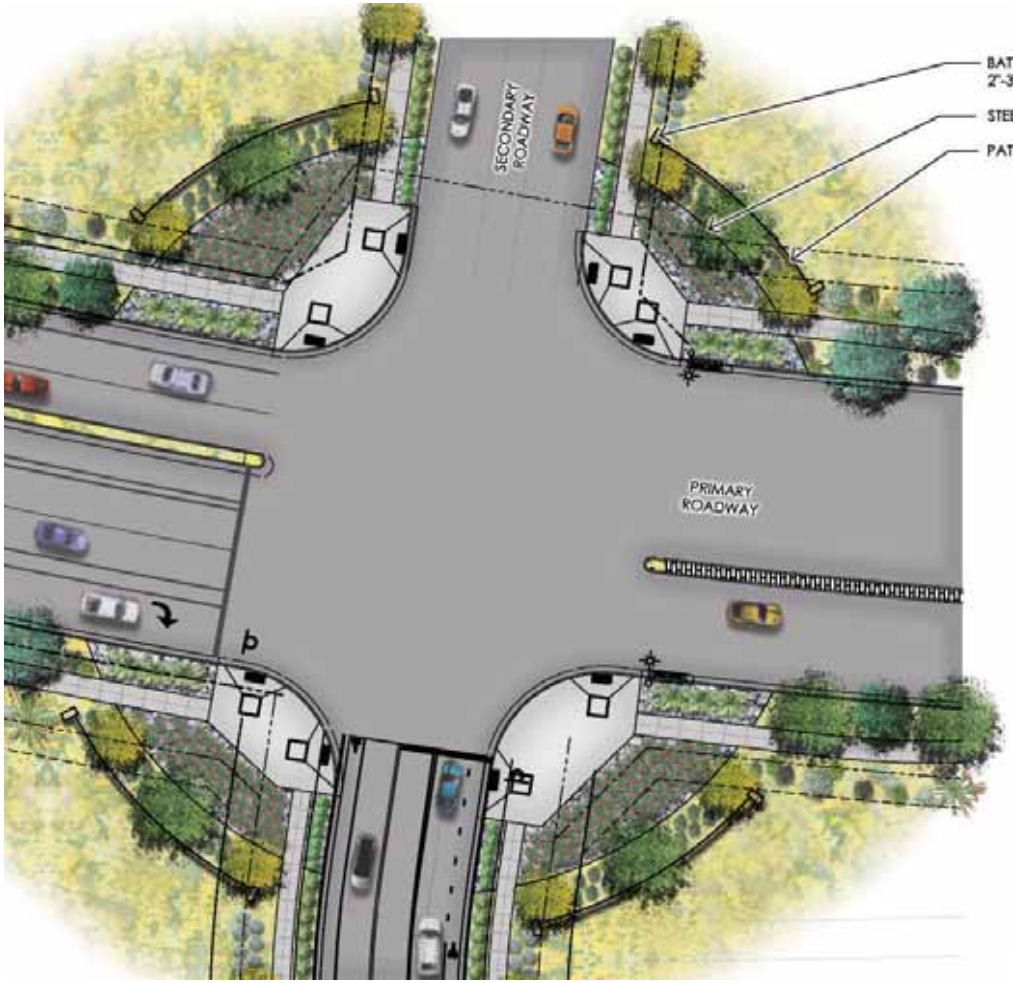


PRIMARY STREET



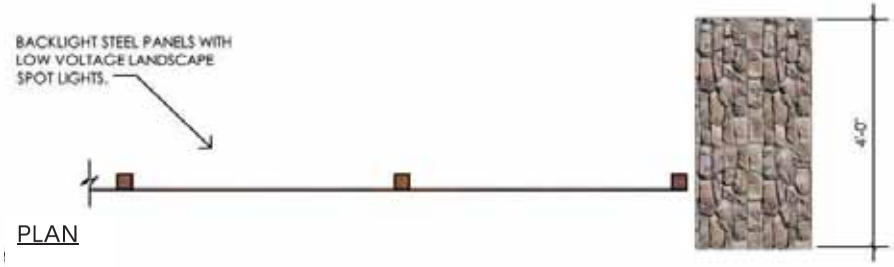
SECONDARY STREET

6.11 INTERSECTION DESIGN

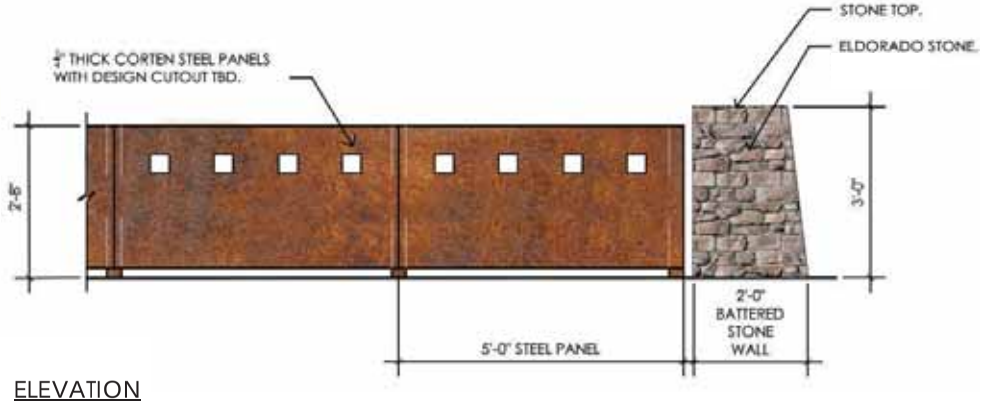


PLAN

DECORATIVE STEEL PANELS AT INTERSECTION



PLAN



ELEVATION

6.12 PLANT PALETTE

BOTANICAL NAME	COMMON NAME	Open Spaces	Entries	Roadway
TREES				
Acacia aneura	*Mulga Acacia*	X		X
Acacia salicina	*Willow Acacia*	X		
Acacia saligna	*Blue Leaf Wattle*	X		
Acacia stenophylla	*Shoestring Acacia*	X		
Acacia willardiana	*Palo Blanco*	X		
Bauhinia blakeana	*Hong Kong Orchid*	X		
Bismarckia nobilis	*Bismark Palm*	X		
Brahea armata	*Mexican Blue Palm*	X		
Caesalpinia cacalaco	*Cascalote*	X		
Caesalpinia cacalaco 'Smoothie'	*Thornless cascalote*			X
Caesalpinia mexicana	*Mexican Bird of Paradise*	X		
Chilopsis linearis 'Bubba'	*Bubba Desert Willow*	X		X
Chitalpa tashkentensis	*Chitalpa*	X		
Citrus reticulata	*Mandarin Orange*	X		
Ebanopsis ebano	*Texas Ebony*	X		
Jacaranda mimosifolia	*Jacaranda*	X		
Nerium oleander	*White Oleander*	X		
Olea europa 'Swan Hill'	*Swann Hill Olive*	X		
Olneya tesota	*ironwood*	X	X	X
Parkinsonia florida	*Blue Palo verde*	X	X	X
Parkinsonia microphylla	*Foothills Palo Verde*	X	X	X
Parkinsonia praecox	*Palo Brea*	X		
Phoenix dactylifera 'medjool'	*Medjool Date Palm*	X	X	X
Pistacia lentiscus	*Mastic Tree*	X		
Platanus mexicana	*Mexican Sycamore*	X		
Prosopis alba 'cooperi'	*Copper's Mesquite*	X		
Prosopis hybrid 'Phoenix'	*Thornless Mesquite*	X		X
Prosopis veluntia	*Native Mesquite*	X	X	X
Prunus cerasifera 'Atropupurea'	*Purple-Leaf Plum*	X		
Pyrus calleryana	*Bradford Pear*	X		
Tabebuia Tree	*Tabebuia ssp.*	X		
Quercus shumardii	*Shumard Oak*	X		
Quercus virginiana	*Southern Live Oak*	X		X
Ulmus parviflora 'True Green'	*True Green Elm*	X		
SHRUBS				
Acacia craspedocarpa	*Leatherleaf Acacia*	X		
Alyogyne hueglii	*Blue Hibiscus*	X		X
Ambrosia deltoidea	*Triangle Leaf Bursage*		X	X
Asparagus densiflorus 'Myers'	*Foxtail Fern*	X		
Bougainvillea 'Barbara Karst'	Barbara Karst Bougainvillea	X		X
Bougainvillea 'Rosenka'	*Bougainvillea*	X	X	X
Bougainvillea 'Royal Purple'	*Bougainvillea*		X	X
Bougainvillea 'San Diego Red'	*Bougainvillea*	X		X
Bougainvillea 'Superstition Gold'	*Superstition Gold Bougainvillea*	X		
Bougainvillea 'white'	*White Bougainvillea*		X	X
Boutteloua gracilis 'Blonde Ambition'	*Blonde Ambition Blue Grama*			X
Buddleia davidii	*Wooly Butterfly Bush*			X
Caesalpinia mexicana	*Mexican Bird of Paradise*	X		
Caesalpinia gillesii	*Yellow Bird of Paradise*	X		
Calliandra californica	*Red Fairy Duster*	X	X	X
Calliandra eriophylla 'Maricopa Red'	*Prostrate Fairy Duster*			X
Calliandra eriophylla	*Pink Fairy Duster*	X	X	X
Calliandra 'Sierra Star'	*Sierra Star*			X
Callistemon viminalis 'Little John'	*Bottlte Bush*	X		
Carissa grandiflora	*Natal Palm*	X		
Carissa macrocarpa 'Boxwood Beauty'	*Compact Natal Palm*	X		
Celtis Pallida	*Desert Hackberry*			X

BOTANICAL NAME	COMMON NAME	Open Spaces	Entries	Roadway
Chrysactinia mexicana	*Damianita*			X
Citrus aurantium	*Sour Orange Hedge*	X		
Cordia boissieri	*Mexican Olive*	X	X	
Cordia parviflora	*Little Leaf Cordia*	X	X	X
Dalea capitata	*Golden Dalea*	X		X
Dalea frutescens	*Black Dalea*	X	X	X
Dodonaea viscosa	*Hop Bush*	X		
Encilia farinosa	*Brittle Bush*	X	X	X
Eremophila galabra ssp. Carnosa Winter Blaze	*Winter Blaze*	X	X	X
Eremophila hygophana Blue Bells	*Blue Bells*	X		X
Eremophila maculata 'Valentine'	*Valentine' Shrub*	X		X
Ericameria larcifolia	*Turpentine Bush*	X	X	X
Erigonum fasciculatum	*Flat Top Buck Wheat*			X
Euonymus japonicus 'Green Spire'	*Green Spire Euonymus*	X		
Hamelia patens	*Firecracker Bush*	X		
Hibiscus rosa-sinensis 'Red'	*Red Hibiscus*	X		
Ilex vomitoria nana	*Dwarf Youpon Holly*	X		
Jasminum sambac	*Arabian Jasmine*	X		
Justicia californica	*Chuparosa*	X	X	X
Justicia californica 'Yellow'	*Yellow Chuparosa*		X	X
Justicia spicigera	*Mexican Honeysuckle*	X		
Lantana camara 'Dallas Red'	*Dallas Red Lantana*	X		
Larrea tridentada	*Creosote*	X	X	X
Leucophyllum candidum 'Thunder Cloud'	*Thunder Cloud Sage*	X	X	X
Leucophyllum frutescens 'Compacta'	*Compact Texas Sage*			X
Leucophyllum frutescens 'White Cloud'	*White Cloud Sage*			X
Leucophyllum hybrid 'Rain Cloud'	*Rain Cloud Texas Ranger*	X		
Leucopyllum langamaniae 'Lynns Legacy'	*Lynn's Legacy Sage*	X		X
Leucophyllum laevigatum 'summer Snow'	*Summer Snow Sage*	X	X	X
Leucophyllum laevigatum	*Chihuahuan Sage*		X	X
Leucophyllum langamaniae 'Rio Bravo'	*Rio Bravo Sage*	X		X
Leucophyllum pruinosm 'Sierra Bouquet'	*Sierra Bouquette' TM*	X		X
Leucophyllum revolutum 'Sierra Magic'	*Sierra Magic Sage*			X
Leucophyllum zygophyllum	*Blue Ranger*	X		
Leucophyllum zygophyllum 'Cimarron'	*Cinnamon Sage*	X		
Leucophyllum x 'Convent'	*Convent Texas Ranger*	X	X	X
Myrtus communis 'Boetica'	*Twisted Myrtle*	X		
Nerium oleander 'Petite Pink'	*Petite Pink Oleander*	X		
Olea europaea 'Montra'	*Little Dwarf Ollie*	X		
Perovskia atriplicifolia	*Russian Sage*	X		X
Pittosporum tobira 'Dwarf Variegata'	*Dwarf Variegated Mock Orange*	X		
Pittosporum tobira 'variegata'	*Variegated Mock Orange*	X		
Photinia x fraseri	*Fraser photinia*	X		
Portulacaria macrophylla	*Large Leaf Elephant Plant*	X		
Raphiolepis indica 'White Clara'	*Indian Hawthorne*	X		
Rhus trilobata	*Skunkbush Sumac*	X		
Rosmarinus officinalis 'Tuscan Blue'	*Upright Rosemarry*	X		
Ruellia brittonia 'Purple Flower'	*Ruellia Purple*	X		X
Ruellia brittonia 'White Flower'	*Ruellia White*	X		
Ruellia peninsularis	*Desert Ruellia*	X	X	X
Russelia equisetiformis	*Coral Fountain*	X	X	X
Salvia clevlandii	*Chaparral Sage*	X	X	X
Salvia greggii	*Autumn Sage*	X		X
Senna wislizenii	*Shrubby Senna*			X
Sophora secundiflora	*Texas Mountain Floral*	X		
Simmondsia chinensis	*Jojoba*		X	X
Sphaeralcea ambigua	*Globe Mallow*	X	X	X
tecoma alata 'Orange Jubilee'	*Orange Jubilee*	X		
Tecoma Stans	*Yellow Bells*	X	X	X
Viguiera deltoidea	*Goldeneye*			X

6.12 PLANT PALETTE (continued)

BOTANICAL NAME	COMMON NAME	Open Spaces	Entries	Roadway
GROUNDCOVERS				
Dalea capitata	*Golden Dalea*	X	X	X
Dyssodia pentachaeta	*Golden dyssodia*	X	X	X
Eremophila galabra	*Minginew Gold*	X	X	X
Gaura lindheimeri	*Pink Gaura*	X		X
Glandularia gooddingii	*Goodding Verbena*		X	X
Lantana camara 'Dallas Red'	*Dallas Red Lantana*	X		X
Lantana camara 'Gold Mound'	*Gold Mound Lantana*	X	X	X
Lantana montevidensis	*Purple Trailing Lantana*	X	X	X
Lantana montevidensis 'white'	*White Trailing Lantana*	X		X
Lantana 'New Gold'	*New Gold Lantana*			X
Liriope muscari	*Lily Turf*	X		
Malephora lutea	*Rocky Point Ice Plant*	X		
Melampodium leucqanthum	*Blackfoot Daisy*	X		
Rosmarinus officinalis ' Prostratus'	*Dwarf Rosemarry*	X		
Setcreasea pallida	*Purple Trailing Heart*	X		
Trachelospermum asiaticum	*Asiatic Jasmine*	X		
Vinca major	*Bigleaf Perrywinkle*	X		
CACTUS				
Agave americana	Century Plant	X		X
Agave americana var. marginata	*Variegated Century Plant*	X		X
Agave 'AZ Smiles'	*AZ Simles Agave*	X		
Agave deserti	*Desert Agave*	X	X	X
Agave ferdinand-regis	*Ferdinand Agave*	X		
Agave macdougalii	*MacDougall's Century Plant*		X	X
Agave ovatifolia	*Whale's Toungue Agave*	X		
Agave Parryi	*Parry's Agave*	X		X
Agave 'Sharkskin'	*Sharkskin Agave*			X
Agave scabra	*Rough Agave*	X		
Agave tequilana	*Weber Blue Agave*		X	X
Agave weberi	*Blue Agave*		X	X
Aloe barbadensis	*Medicinal Aloe*	X	X	X
Aloe daweii	*Dawe's Aloe*	X		
Aloe ferox	*Aloe Hercules*	X		
Aloe 'Hercules'	*Hercules Aloe*	X		
Aloe 'Rooikappie'	*Little Red Riding Hood Aloe*	X		X
Aloe rudikoppe	*Little Red Riding Hood Aloe*			X
Aloe x 'Blue Elf'	*Blue Elf Aloe*	X		
Alluaudia procera	*Madagascar Ocotillo*	X		
Anigozanthos flavidus	*Kangaroo Paw*	X		
Asclepias subulata	*Desert Milkweed*	X	X	X
Bouteloua gracilis 'Blonde Ambition'	*White Trailing Lantana*	X		
Bulbine frutescens 'Yellow'	*Yellow Bulbine*			X
Carnehiea gigantea	*Suguaro Spear*	X		
Carnegiea gigantea	*Suguaro*	X		X
Cilyndropuntia versicolor	*Staghorn cholla*			X
Chamaerops humilis	*Med. Fan Palm*	X		
Cycas revoluta	*Sago Palm*	X		
Dasylirion longissimum	*Mexican Grass Tree*	X	X	
Dasylirion wheeleri	*Desert Spoon*	X	X	X
Dioon edule	*Cycad*	X		

BOTANICAL NAME	COMMON NAME	Open Spaces	Entries	Roadway
Echinocactus grusonii	*Golden Barrel Cactus*	X		
Echinopsis candicans	*Argentine Giant*			X
Echinopsis pachanoi	*San Pedro Cactus*	X		
Euphorbia antisyphilitica	*Candelilla*	X		X
Euphorbia biglandulosa	*Gopher Plant*	X		X
Euphorbia ingens	*Chocolate Drop Cactus*	X		
Euphorbia resinifera	*Moroccan Mound*	X		X
Euphorbia royleana	*Churee*	X		
Euphorbia tirucalli	*Fire Sticks*	X		
Ferocactus acanthodes	*Compass Barrel*	X		
Ferocactus cylindraecus	*Compass Barrel*			X
Ferocactus gracilis	*Fire Barrel Cactus*	X		X
Ferocactus ssp.	*Barrel Cactus*			X
Fouquieria macdougalii	*Mexican Tree Ocotillo*	X		
Fouquieria splendens	*Ocotillo*	X	X	X
Guara lindheimeri	*Pink Gaura*			X
Hesperaloe funifera	*Giant Hesperaloe*		X	X
Hesperaloe parviflora 'Perpa' Brakelights	*Brake Lights Red Yucca*	X	X	X
Hesperaloe parviflora 'Sandia Glow'	*Sandia Glow Red Yucca*	X		
Hesperaloe parviflora -Red	*Red Hesperaloe*			X
Hesperaloe parviflora -yellow	*Yellow Hesperaloe*	X	X	X
Kalanchoe beharensis 'Blue Stick'	*Blue Sticks*	X		
Lopherocereus schottii 'Monstrosus'	*Senita*	X		
Muhlenbergia capallaris 'Regal Mist'	*Regal Mist*	X	X	X
Muhlenbergia lindheimeri 'Autumn Glow'	*Autumn Glow*		X	X
Muhlenbergia rigens	*Deer Grass*	X		
Opuntia basilaris 'Baby Rita'	*Beavertail Prickly Pear*	X		
Opuntia basilaris	*Beavertail Prickly Prear*	X		X
Opuntia engelmannii	*Engelmann's Prickley Pear*	X	X	X
Opuntia gomei	*Old Mexico Prickly Pear*	X		
Opuntia violacea santa-rita	*Purple Prickly Pear*	X		X
Pachycereus schottii f. ' monstrosus'	*TotemPole Cactus Single Arm*	X		
Pachycereus schotti	*Senita Cactus*			X
Pedilanthus bracteatus	*Tail slipper Plant*	X		
Pedilanthus macrocarpus	*Lady's Slipper*	X		
Penstemon superbus	*Superb Penstemon*	X		
Rosa hybrid	*White Hybrid tea Rose*	X		
Stenocereus thurberi	*Organ Pipe*	X		X
Yucca baccata	*Banana Yucca*	X	X	X
Yucca elata	*Soap Tree Yucca*	X	X	X
Yucca filifera	*St. Peter's Yucca*			X
Yucca rostrata	*Beaked Yucca*	X		
Yucca rigida	*Blue Yucca*	X	X	X
VINES				
Bougainvillea 'Barbra Karst'	*Bougainvillea*	X		
Bougainvillea 'La Jolla'	*Bougainvillea*	X		
Bougainvillea 'San Diego Red'	*Bougainvillea*	X	X	
Ficus pumila	*Creeping Fig*	X		
Parthenocissus sp. 'Hacienda'	*Hacienda Creeper*	X		

6.13 SITE MATERIALS / AMENITY PALETTE

Eldorado Stone, Fieldledge Stone
at accent walls and columns

Eldorado Stone, Hillstone Stone
at entry gateway.

Rock Pros USA, Mahogany crushed
rock, ¾" screened, overall site.

Rock Pros USA, Painted Desert rip
rap, 3"-4" diameter.

*Representative amenity character & quality. Final selection may vary.

Gateway East

Exhibit C (h)

- Financial analysis of overall project
  - General proforma
  - Conceptual ground lease value
  - Cash flow model

GATEWAY EAST - GENERIC PROJECT 1 BUILDING
MESA AIRPORT, AZ
CASH FLOW MODEL

Period	0	1	2	3	4	5	6	7	8	9	10
Income											
Base Rent		$2,250,000	$2,295,000	$2,340,900	$2,387,718	$2,435,472	$2,484,182	$2,533,865	$2,584,543	$2,636,234	$2,688,958
Less: Lender Reserves for Vacancy and Credit Loss		($56,250)	($57,375)	($58,523)	($59,693)	($60,887)	($62,105)	($63,347)	($64,614)	($65,906)	($67,224)
Effective Gross Income		$2,193,750	$2,237,625	$2,282,378	$2,328,025	$2,374,586	$2,422,077	$2,470,519	$2,519,929	$2,570,328	$2,621,734
Expenses											
Less Ground Lease		($143,748)	($147,342)	($151,025)	($154,801)	($158,671)	($162,638)	($166,704)	($170,871)	($175,143)	($179,522)
Net Operating Income		**$2,050,002**	**$2,090,283**	**$2,131,352**	**$2,173,224**	**$2,215,915**	**$2,259,440**	**$2,303,815**	**$2,349,058**	**$2,395,185**	**$2,442,213**
Annual Debt Service		($1,640,002)	($1,640,002)	($1,640,002)	($1,640,002)	($1,640,002)	($1,640,002)	($1,640,002)	($1,640,002)	($1,640,002)	($1,640,002)
Before Tax Cash Flow		***$410,000***	***$450,282***	***$491,351***	***$533,223***	***$575,913***	***$619,438***	***$663,814***	***$709,056***	***$755,183***	***$802,211***
Residual Value											
Sale Value		$0	$0	$0	$0	$0	$0	$0	$0	$0	$31,126,993
Prepayment Penalty		$0	$0	$0	$0	$0	$0	$0	$0	$0	($329,155)
Less: Cost of Sale		$0	$0	$0	$0	$0	$0	$0	$0	$0	($311,270)
Adjusted Gross Sale Proceeds		$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,486,568
Less: Mortgage Balance		$0	$0	$0	$0	$0	$0	$0	$0	$0	($16,457,748)
Net Proceeds of Sale		$0	$0	$0	$0	$0	$0	$0	$0	$0	$14,028,820
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Project Before Tax Cash Flow	***($2,794,335)***	***$410,000***	***$450,282***	***$491,351***	***$533,223***	***$575,913***	***$619,438***	***$663,814***	***$709,056***	***$755,183***	***$14,831,031***
Equity Loan Interest/Principal Payment											
Beginning Equity Loan Balance		$2,794,335	$2,565,966	$2,282,473	$1,939,483	$1,532,326	$1,056,015	$505,218	$0	$0	$0
Equity Loan Interest Payment		($181,632)	($166,788)	($148,361)	($126,066)	($99,601)	($68,641)	($32,839)	$0	$0	$0
Return of Equity Loan Principal		($228,369)	($283,494)	($342,990)	($407,156)	($476,312)	($550,797)	($505,218)	$0	$0	$0
Ending Equity Loan Balance		**$2,565,966**	**$2,282,473**	**$1,939,483**	**$1,532,326**	**$1,056,015**	**$505,218**	**$0**	**$0**	**$0**	**$0**
Cash Flow Available for Residual Distribution		***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$125,757***	***$709,056***	***$755,183***	***$14,831,031***
Gateway Mesa Cash Flow Participation @ 10.00%		***$0***	***$0***	***$0***	***$0***	***$0***	***$0***	***$12,576***	***$70,906***	***$75,518***	***$1,483,103***

GATEWAY EAST MULTI-PHASE RECEIPTS
MESA AIRPORT, AZ

Period	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Gateway East Receipts																				
Ground Lease - Project 1	$143,748	$147,342	$151,025	$154,800	$158,671	$162,638	$166,704	$170,871	$175,143	$179,522	$184,010	$188,610	$193,325	$198,158	$203,112	$208,190	$213,395	$218,730	$224,198	$229,803
Gateway Mesa Cash Flow Participation - Project 1	$0	$0	$0	$0	$0	$0	$12,576	$70,906	$75,518	$1,483,103	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Ground Lease - Project 2		$147,342	$151,025	$154,800	$158,671	$162,638	$166,704	$170,871	$175,143	$179,522	$184,010	$188,610	$193,325	$198,158	$203,112	$208,190	$213,395	$218,730	$224,198	$229,803
Gateway Mesa Cash Flow Participation - Project 2		$0	$0	$0	$0	$0	$0	$12,827	$72,324	$77,029	$1,512,765	$0	$0	$0	$0	$0	$0	$0	$0	$0
Ground Lease - Project 3			$151,025	$154,800	$158,671	$162,638	$166,704	$170,871	$175,143	$179,522	$184,010	$188,610	$193,325	$198,158	$203,112	$208,190	$213,395	$218,730	$224,198	$229,803
Gateway Mesa Cash Flow Participation - Project 3			$0	$0	$0	$0	$0	$0	$13,084	$73,770	$78,569	$1,543,020	$0	$0	$0	$0	$0	$0	$0	$0
Ground Lease - Project 4				$154,800	$158,671	$162,638	$166,704	$170,871	$175,143	$179,522	$184,010	$188,610	$193,325	$198,158	$203,112	$208,190	$213,395	$218,730	$224,198	$229,803
Gateway Mesa Cash Flow Participation - Project 4				$0	$0	$0	$0	$0	$0	$13,345	$75,246	$80,141	$1,573,881	$0	$0	$0	$0	$0	$0	$0
Ground Lease - Project 5					$158,671	$162,638	$166,704	$170,871	$175,143	$179,522	$184,010	$188,610	$193,325	$198,158	$203,112	$208,190	$213,395	$218,730	$224,198	$229,803
Gateway Mesa Cash Flow Participation - Project 5					$0	$0	$0	$0	$0	$0	$13,612	$76,751	$81,743	$1,605,358	$0	$0	$0	$0	$0	$0
Ground Lease - Project 6						$162,638	$166,704	$170,871	$175,143	$179,522	$184,010	$188,610	$193,325	$198,158	$203,112	$208,190	$213,395	$218,730	$224,198	$229,803
Gateway Mesa Cash Flow Participation - Project 6						$0	$0	$0	$0	$0	$0	$13,885	$78,286	$83,378	$1,637,466	$0	$0	$0	$0	$0
Ground Lease - Project 7							$166,704	$170,871	$175,143	$179,522	$184,010	$188,610	$193,325	$198,158	$203,112	$208,190	$213,395	$218,730	$224,198	$229,803
Gateway Mesa Cash Flow Participation - Project 7							$0	$0	$0	$0	$0	$0	$14,162	$79,851	$85,046	$1,670,215	$0	$0	$0	$0
Ground Lease - Project 8								$170,871	$175,143	$179,522	$184,010	$188,610	$193,325	$198,158	$203,112	$208,190	$213,395	$218,730	$224,198	$229,803
Gateway Mesa Cash Flow Participation - Project 8								$0	$0	$0	$0	$0	$0	$14,446	$81,448	$86,747	$1,703,619	$0	$0	$0
TOTAL	**$143,748**	**$294,683**	**$453,076**	**$619,201**	**$793,354**	**$975,826**	**$1,179,501**	**$1,450,702**	**$1,562,070**	**$3,083,420**	**$3,152,269**	**$3,222,675**	**$3,294,673**	**$3,368,299**	**$3,428,857**	**$3,422,481**	**$3,410,777**	**$1,749,837**	**$1,793,583**	**$1,838,422**

GATEWAY EAST - GENERIC PROJECT 1 BUILDING
MESA AIRPORT, AZ
STATIC PROFORMA

PROJECT COSTS						
Development Period	12	months				
Building Size	150,000	square feet				
Building Efficiency	100.00%	efficiency				
Site Area	261,360	square feet				
Land Purchase Area	261,360	square feet				
Land	261,360	sq. ft. @	$0.00		$0	
Building Shell	150,000	sq. ft. @	$85.00		$12,750,000	
Site Work	261,360	sq. ft. @	$15.00		$3,920,400	
Tenant Improvements	150,000	sq. ft. @	$20.00		$3,000,000	
Architect & Engineer	5.00%	shell and site			$833,520	
Hard Cost Contingency	2.50%	of other hard costs			$512,598	
TOTAL HARD COST						**$21,016,518**
Legal/Miscellaneous	1.00%	of total hard costs			$210,165	
Broker Commissions	6.00%	of NNN rents (3% - 1.5% thereafter)			$1,063,119	
Municipal Permits and Fees	$250,000	lump sum			$250,000	
Project Set Up	1.00%	of permanent loan			$217,240	
Construction Management	1.33%	$1,000,000			$13,333	
	0.33%	$15,670,400			$52,229	
Construction Loan Points	0.50%	of construction loan			$104,203	
Construction Debt Interest	6.50%				$572,751	
Construction Equity Interest	7.50%				$276,103	
Rent Abatement Concessions Interest Carry	4	months of free rent			$525,391	
Permanent Loan Points	0.50%	of permanent loan			$108,620	
Permanent Loan Closing Costs	0.50%	of permanent loan			$108,620	
TOTAL SOFT COST						**$3,501,773**
TOTAL PROJECT COST (developcost)						**$24,518,291**
PROJECT REVENUES						
Base Rent	150,000	sq. ft. @	$15.00	*$1.25*		$2,250,000
Lender Reserves for Vacancy and Credit Loss	2.50%	percent of PGI				($56,250)
Ground Lease	$143,748	lump sum				($143,748)
NET OPERATING INCOME (noi)						**$2,050,002**
RETURN ON COSTS			***After Reserves -***		**$2,050,002**	**8.36%**
Maximum Supportable Permanent Loan	25	Amort	5.75%		$21,723,956	($1,640,002)
			Coverage		1.25	
BEFORE TAX CASH FLOW						**$410,000**
Development Cost						$24,518,291
Construction Loan Amount						($20,840,548)
TOTAL CONSTRUCTION EQUITY REQUIRED						**$3,677,744**
Development Cost						$24,518,291
Permanent Loan Amount						($21,723,956)
TOTAL PERMANENT EQUITY REQUIRED						**$2,794,335**

Gateway East

Exhibit C (i)

- Marketing plan
- Brokerage materials
  - Retail/hospitality
  - Industrial/office/manufacturing

The marketing of Phase 1 of Gateway East started as soon as The Boyer Company was selected as the developer. Using our long-established relationships with the brokerage community, we began letting the various brokers who are active in the area know about the project and what they could expect. Eventually, we settled on initially listing the project with the following firms:

- Lee & Associates – Industrial, manufacturing and office
- Phoenix Commercial Advisors – Retail and hospitality

These firms have a history of doing deals in the Southeast Valley, have a positive working relationship with the City of Mesa Economic Development Office, are currently active in the market and have a positive reputation for being good to work with.

The marketing of the project has our team focusing on a wide variety of different elements which make up our overall comprehensive marketing plan. Initial efforts have been made in multiple areas while we have also been waiting for final City of Mesa development approvals. With the required approvals, we are now in a better position to fully market the site and be able to respond to interested parties with realistic plans and time frames.

The marketing plan has included and will include the following efforts:

- **Pre-marketing**
  - ◊ Email campaign to announce the project
  - ◊ Build upon relationships with GPEC, ACA, Mesa Economic Development
  - ◊ Coordination with Phoenix Mesa Gateway Airport Business Development
  - ◊ Feature articles in local and national publications
  - ◊ Listing of the project on key real estate websites

- **Direct Marketing**
  - ◊ Market directly to Brokerage Firms and Agents
  - ◊ Market directly to companies that meet the profile of the Business Park
  - ◊ Market directly to Vendors and supply chain of area businesses. (Meta, Gulf Stream, XNRGY, LG, Apple, Lucid, Intel, etc.)

- ◊ Market directly to restaurants, retailers and hotel operators that are active in the area or that currently lack a presence in the submarket
- ◊ Creation of a project specific website with current, up-to-date site plans and project information (in process now that site layout is final)

- **Daily Marketing**
  - ◊ Daily interactions with brokers and agents working in the area or working with companies that could be a good fit for the park
  - ◊ Daily interactions with business owners and prospects
  - ◊ Daily interactions with local economic development agencies
  - ◊ Regular email campaign to the brokerage community detailing specific project facts

- **Ongoing Marketing**
  - ◊ Continued work with brokerage community
  - ◊ Continued presence with local and national businesses which help companies locate new locations
  - ◊ Continued presence with Arizona focused agencies
  - ◊ Regular website updates
  - ◊ Bi-weekly calls between brokers and Boyer to discuss how things are going and what is needed to keep things moving forward
  - ◊ Regular communication with Phoenix Mesa Gateway Airport Authority to discuss interest the airport is seeing from possible companies

The marketing of the project can include all types of efforts. However, nothing is as successful as actually getting the project going. As a result, our initial efforts have been focused on finding our first large tenant which will result in the development of a nice building and will also help facilitate the design and construction of the initial infrastructure improvements. These efforts will attract additional interest in the site and will begin to convey to the market that the project is real and that they can have confidence in committing to the site.

Finally having the City of Mesa entitlement approvals will also allow us to begin really pushing for retail and hospitality tenants. These tenants are often looking for sites with a specific opening date in mind. Having a firm site plan and project approval process in place is key to taking these types of tenants to the next level.

Working with our brokerage partners, we have established an initial marketing budget of $25,000.00. These funds have been used to purchase and put signage on the box trailer along Ellsworth. They are also being used to create project renderings used in the marketing of the project, maintain on-line listings and put together additional marketing materials that are in both hard copy and digital formats. These initial funds will be supplemented as needed once the project is up and going.

MIXED USE DEVELOPMENT

HOTEL | RETAIL
RESTAURANT

southwest corner

ELLSWORTH RD & SR-24

developed by BOYER

PCA PHOENIX COMMERCIAL ADVISORS

PhoenixCommercialAdvisors.com

OVERVIEW

HIGHLIGHTS

Strong visibility to over 44,759 vehicles per day and growing at the intersection and easy accessibility from both Ellsworth Rd and SR-24 roads to Loop 202.

Located in one of the highest growth areas in AZ, **Queen Creek has seen their population grow 2,084% since 2000**

One mile south of the **Facebook campus will encompass nearly 1 million square feet of data** center and admin space.
Under Construction

Phoenix-Mesa Gateway Airport Future plans include to develop the ±400-acres which will have a new terminal with gates along which will include mixed-use of retail, office and other forms of real estate in efforts to expand the profile of airliners flying in and out of Gateway and to ease traffic at Sky-Harbor.

Down from Eastmark, a new housing development with over 12,000 homes at full buildout.

Located just west of Bell Bank Park is privately owned 320-acre multi-use family sports and entertainment complex is being built in Mesa, at the border of Queen Creek, and will create more than 1,500 jobs and generate hundreds of millions of dollars in direct economic impact back to the surrounding community. The park is expected to attract over three million visitors annually.

TRAFFIC COUNTS

SR-24

E/W ±44,759 VPD (EB & WB)

Ellsworth Rd

N ±34,351 VPD (NB & SB)

S ±36,801 VPD (NB & SB)

ADOT 2021

PCA PHOENIX COMMERCIAL ADVISORS

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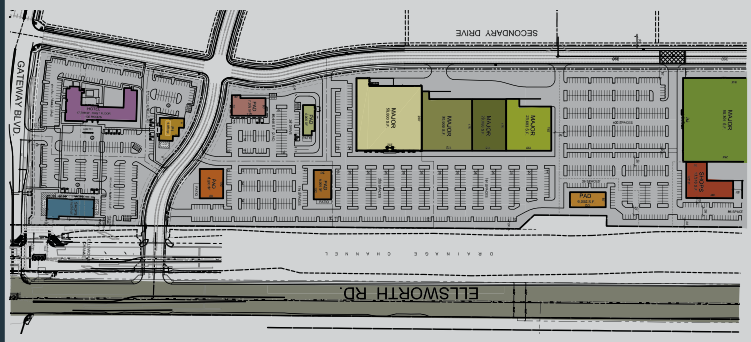
SITE PLANS



MASTER SITE PLAN

MAJOR	50,000 SF
MAJOR	30,000 SF
MAJOR	20,000 SF
MAJOR	23,583 SF
MAJOR	88,301 SF
SHOPS	13,570 SF
SHOPS	8,400 SF
PAD	6,000 SF
PAD	6,000 SF
PAD	7,000 SF
P1	5,000 SF
SHOPS	10,000 SF
HOTEL	136 ROOMS

SITE PLANS

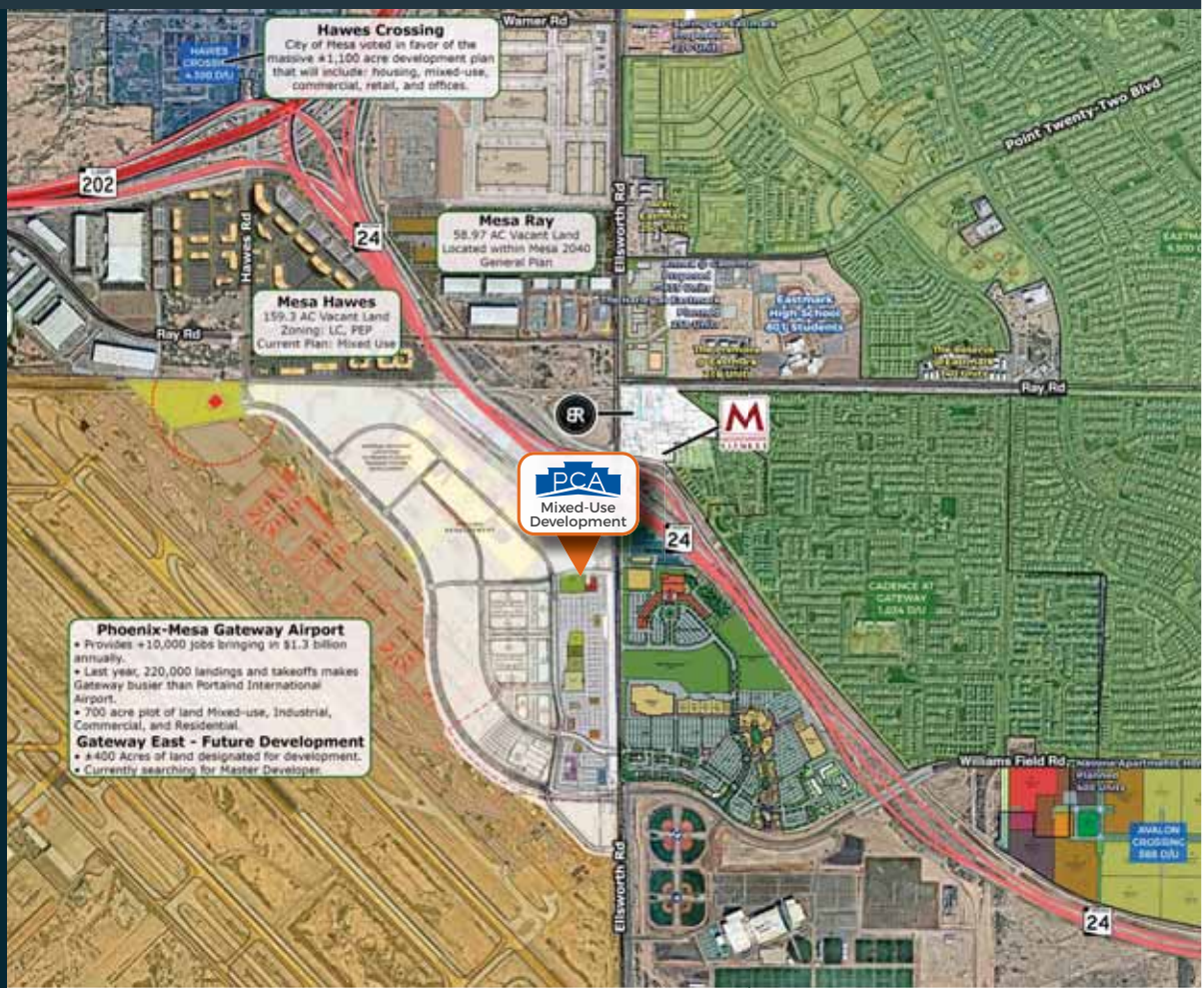
MASTER SITE PLAN

P1	5,000
SHOPS	10,000
HOTEL	136 ROOMS

ELLSWORTH ROAD & SR-24

RENDERINGS

UPCLOSE



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NORTH RETAIL

SOUTH RETAIL

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DEMOGRAPHICS

2021 POPULATION

1-Mile	3-Miles	5-Miles
2,477	35,919	174,315

2021 DAYTIME POPULATION

1-Mile	3-Miles	5-Miles
500	30,451	150,045

2021 AVERAGE MEDIAN HOUSEHOLD INCOME

1-Mile	3-Miles	5-Miles
$127,532	$106,329	$90,316

2021 AVERAGE HOUSEHOLD INCOMES

1-Mile	3-Miles	5-Miles
$144,969	$122,778	$108,073

HOUSEHOLD SUMMARY

1-Mile	3-Miles	5-Miles
774	10,725	57,101

FOOD AWAY FROM HOME OVER

$256M

WITHIN 5-MILES

18% higher than the national average

exclusively listed by

GREG LAING
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ZACHARY PACE
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GATEWAY EAST

LOCATED S OF SEC OF SR-24 AND ELLSWORTH, MESA, AZ

a development of

BOYER

LEE & ASSOCIATES
COMMERCIAL REAL ESTATE SERVICES

***An exceptional opportunity** to lease or develop a Flex/ Industrial Class A building with outstanding visibility and freeway access, at the epicenter of the coveted Phoenix/Mesa Gateway airport submarket.*

Ken McQueen
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GATEWAY EAST

Gateway East is a masterplanned business park situated at the intersection of the Loop 202 and State Route 24 freeways. This development is a partnership between Boyer and Phoenix-Mesa Gateway Airport (PMGAA) that will offer an attractive park setting for corporate office and industrial users.

With over 270 acres available for development, Gateway East will offer expansion capabilities that are unique to this site. Located in the heart of the Mesa Gateway submarket, the project benefits from unparalleled freeway connectivity and proximity to skilled labor and area amenities.

The Boyer Company was selected by the Phoenix-Mesa Gateway Airport Authority to be their development partner for over 270 acres located on the east side of the airport. The area is currently unimproved acreage.

Boyer is working with the Airport and the City of Mesa to establish design guidelines, a masterplan, utility plans, and overall infrastructure requirements so that the development of the first phase, consisting of approximately 100 acres can be started. The project will include restaurants, hotels, office, manufacturing and smaller industrial buildings. The project will be ground leased from the Airport Authority using long-term ground leases.

lti-Use Industrial
ark - ±270 Acres

Less than 2 minutes to AZ-24 and Loop 202

Located within Phx-Mesa Gateway airport boundaries

2 minutes from Eastmark - AZ's fastest growing community

20 Restaurants within 10 minutes of property

BUILDING A
200,000 SF

BUILDING B
175,000 SF

BUILDING C
150,000 SF

BUILDING D
120,000 SF

BUILDING E
60,000 SF

BUILDING G
56,000 SF

BUILDING H
45,000 SF

BUILDING I
82,000 SF

BUILDING J
82,000 SF

BUILDING K
38,000 SF

BUILDING L
35,000 SF

BUILDING M
53,000 SF

BUILDING N
48,000 SF

RETAIL

P1
7,000 SF

P2
14,500 SF

P3
4,500 SF

P4
5,000 SF

P5
4,000 SF

OFFICE

BUILDING F
150,000 SF

Bell Bank Ballpark

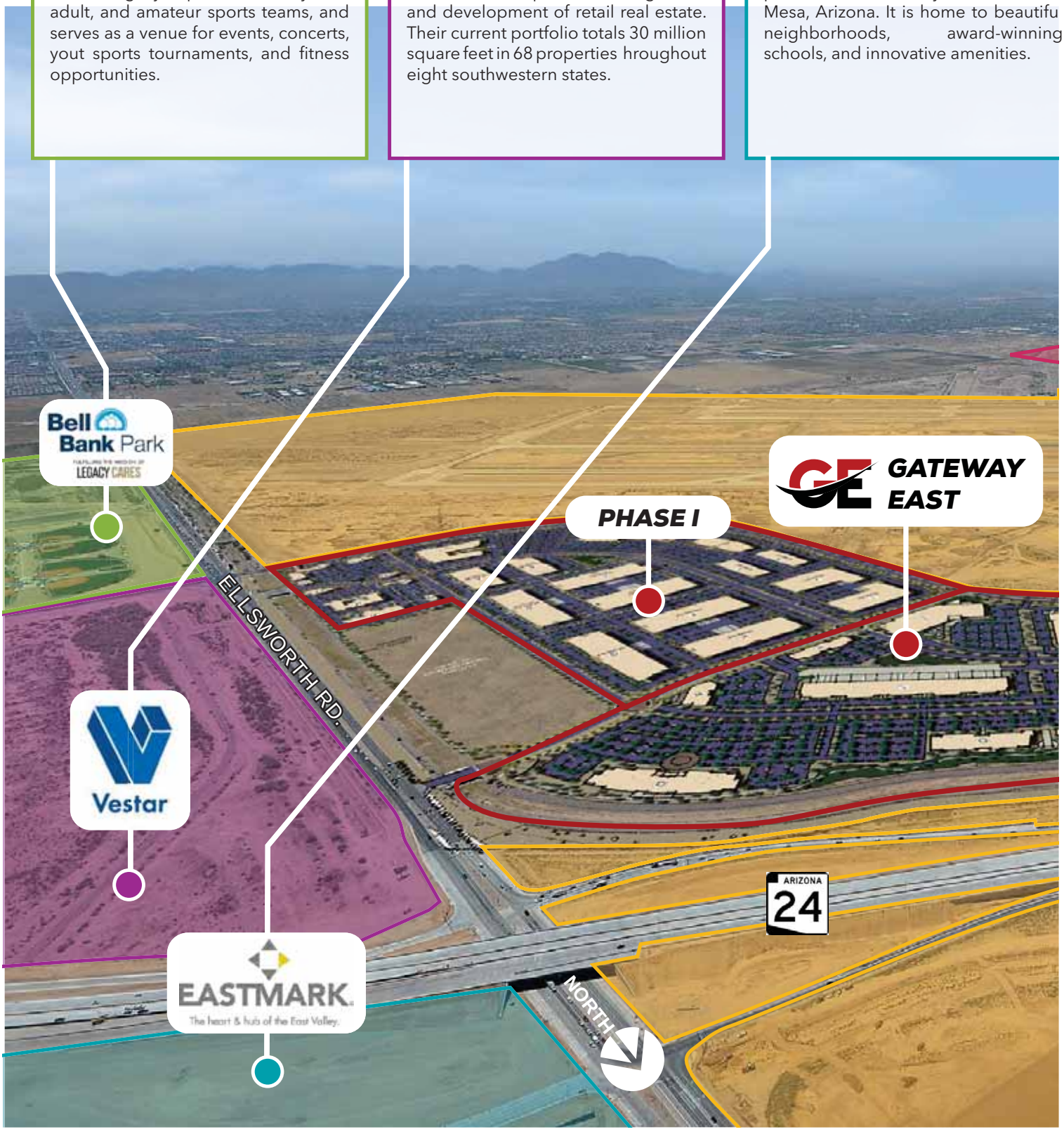
Bell Bank Ballpark is a 320-acre facility hosts Legacy Sports USA's youth, adult, and amateur sports teams, and serves as a venue for events, concerts, yout sports tournaments, and fitness opportunities.

Vestar

Vestar is a nationally recognized leader in the acquisition, management and development of retail real estate. Their current portfolio totals 30 million square feet in 68 properties hroughout eight southwestern states.

Eastmark

Eastmark is a best-selling master-planned community located in Mesa, Arizona. It is home to beautifu neighborhoods, award-winning schools, and innovative amenities.

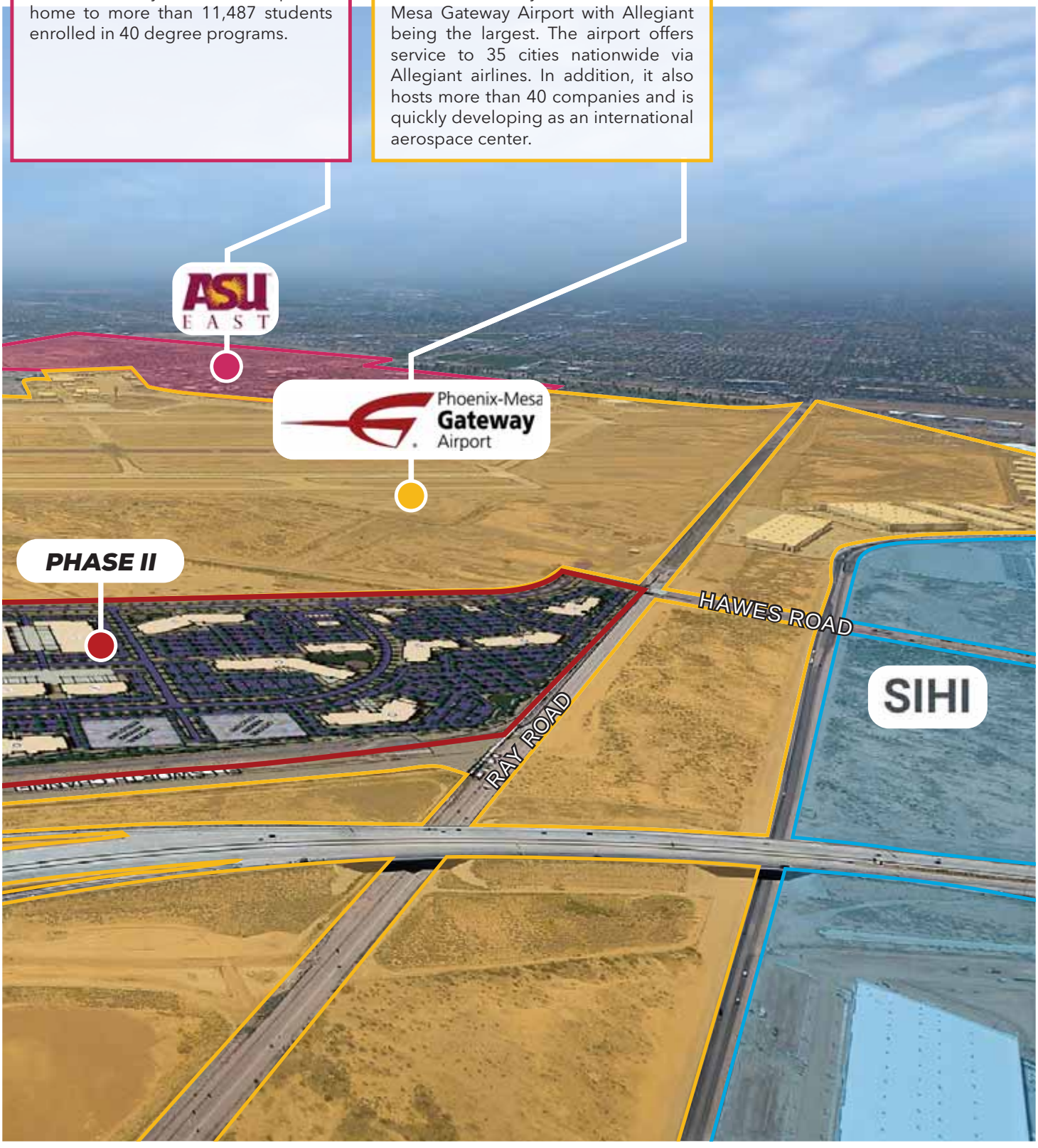


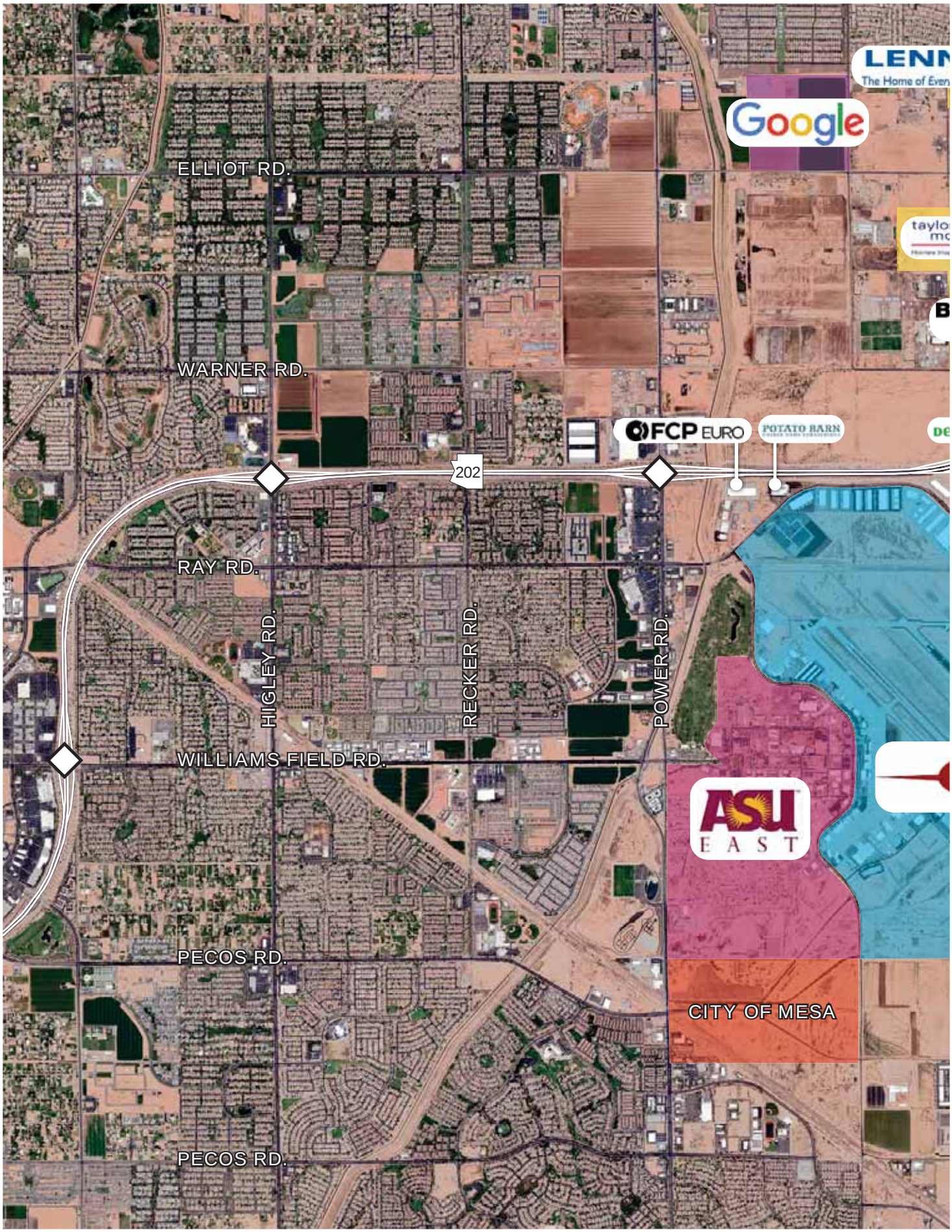
ASU Polytechnic

ASU Polytechnic This 600-acre Arizona State University satellite campus is home to more than 11,487 students enrolled in 40 degree programs.

Phoenix-Mesa Gateway Airport

Phoenix-Mesa Gateway Airport Five airlines currently serve Phoenix-Mesa Gateway Airport with Allegiant being the largest. The airport offers service to 35 cities nationwide via Allegiant airlines. In addition, it also hosts more than 40 companies and is quickly developing as an international aerospace center.




ELLIOT RD.
WARNER RD.
RAY RD.
WILLIAMS FIELD RD.
PECOS RD.
PECOS RD.
HIGLEY RD.
RECKER RD.
POWER RD.
202
Google
FCP EURO
POTATO BARN
ASU EAST
CITY OF MESA


202
SIHI
amazon
niagara
Dynalectric
NASH
facebook
amazon
Apple
NORTH
ELLSWORTH RD.
SIGNAL BUTTE RD.
LANDFORD HOMES
CONCORDANCE
Sysco
HYUNDAI TRANSYS
OEG
ARIZONA 24
SIHI
EASTMARK
The heart & hub of the East Valley.
OVER 20 RESTARUAUNTS WITHIN 10 MINUTES OF THE PROPERTY, INCLUDING:
Raising Cane's
DUNKIN' DONUTS
McDonald's
STARBUCKS COFFEE
Jack in the box
CALDWELL COUNTY BBQ
THE BURRITO SHACK
Panda Express
Popeyes
COLD STONE CREAMERY
TACO BELL
BURGER KING
Vestar
Phoenix-Mesa Gateway Airport
Gulfstream
Bell Bank Park
LEGACY CARES
amazon
FUJIFILM
TRW
SIHI
SIHI
STATE LAND

mesa·az

504,258
Mesa
Population

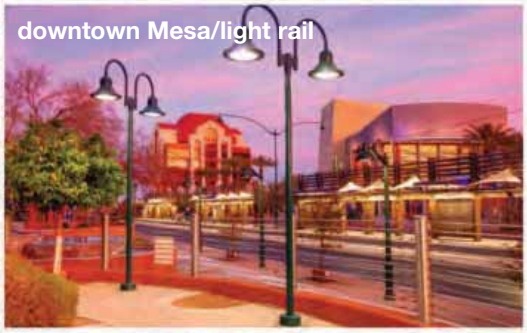
551,155
2026 Projected
Population

36.6 Mesa
Median Age

41% Phoenix-
Mesa Associates
Degree+

2,595,681
Phoenix-Mesa
labor force

Aerospace,
Healthcare and
Technology



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Gateway East

Exhibit C (j)

- Traffic Study

Gateway Phase I

Traffic Impact Study

Prepared for:

The Boyer Company
2850 E. Camelback Road, Suite 270
Phoenix, AZ 85251

Registered Professional Engineer (Civil)
CERTIFICATE NO.
40961
JAMIE ANN K.
BLAKEMAN
Date Signed: 06/30/23
ARIZONA U.S.A.

Prepared by:

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Project Number: 23.5476
June 30, 2023

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1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1. PURPOSE OF REPORT AND STUDY OBJECTIVES

Lōkahi, LLC (Lōkahi) was retained by The Boyer Company to complete a Traffic Impact Study (TIS) for the proposed Gateway Phase I development, located on the northwest corner of Ellsworth Road and Gateway Boulevard/Williams Field Road in the City of Mesa, Arizona.

The proposed Gateway Phase I development will include the following land uses:

- **Industrial Park** 1,275,000 square feet
- **Hotel** 150 rooms
- **Retail** 10,000 square feet
- **Restaurant** 5,000 square feet

The objective of this Traffic Impact Study is to analyze the traffic related impacts of the proposed development to the adjacent roadway network. See **Figure 1** for the vicinity map.

This Traffic Impact Study includes:

- Level of service analysis of existing conditions for the weekday AM and PM peak hours
- Trip generation for the proposed development
- Level of service analysis for the opening year (2026) weekday AM and PM peak hours
- Level of service analysis for 5 years after the opening year (2031) weekday AM and PM peak hours

The following are the intersections included in this study:

- Ellsworth Road and SR-24 Westbound Ramp (1) - *existing*
- Ellsworth Road and SR-24 Eastbound Ramps (2) - *existing*
- Ellsworth Road and Tesla Drive (3) - *proposed*
- Ellsworth Road and Texas Avenue (4) - *existing*
- Ellsworth Road and Gateway Boulevard/Williams Field Road (5) - *existing*
- Ellsworth Road and Legacy Avenue (6) - *existing*
- Ellsworth Road and Pecos Road North (7) - *existing*
- Williams Field Road and Legacy Drive (8) – *existing*
- Williams Field Road and Legacy Park Driveway (9) - existing
- Williams Field Road and SR-24 Southbound Ramps (10) - *existing*
- Williams Field Road and SR-24 Northbound Ramps (11) – *existing*

1.2. EXECUTIVE SUMMARY

This report presents the analyses and results of a Traffic Impact Study prepared for the proposed Gateway Phase I development, located on the northwest corner of Ellsworth Road and Gateway Boulevard/Williams Field Road in the City of Mesa, Arizona. The proposed Gateway Phase I development will include the following land uses:

- **Industrial Park** 1,275,000 square feet
- **Hotel** 150 rooms
- **Retail** 10,000 square feet
- **Restaurant** 5,000 square feet

The proposed Gateway Phase I development is anticipated to be completed and open in the year 2026.

Existing Capacity Analysis

The AM and PM peak hour existing conditions capacity analyses were completed for the existing study intersections. The results of the capacity analyses reveal that all movements operate at a LOS D or better with the exception of the following:

Ellsworth Road and SR-24 Westbound Ramps (1)

- Southbound through PM peak hour operates at LOS E

Ellsworth Road and SR-24 Eastbound Ramps (2)

- Eastbound left PM peak hour operates at LOS E
- Eastbound shared left-through PM peak hour operates at LOS E
- Southbound left AM and PM peak hours operate at LOS E

Ellsworth Road and Legacy Drive (6)

- Northbound through AM peak hour operates at LOS E

Ellsworth Road and Pecos Road North (7)

- Southbound left PM peak hour operates at LOS E

Williams Field Road and SR-24 Southbound Ramps (10)

- Overall intersection PM peak hour operates at LOS F
- Southbound shared left-through and through-right PM peak hour operates at LOS F

At the time of this report the main line for the SR-24 was not open. Therefore, once the SR-24 main line is open, the movements noted above will likely operate at an acceptable LOS.

Williams Field Road and SR-24 Northbound Ramps (11)

- Overall intersection AM peak hour operates at LOS F
- Westbound right AM peak hour operates at LOS F
- Northbound through and shared through-right AM PM peak hour operates at LOS F

At the time of this report the main line for the SR-24 was not open. Therefore, once the SR-24 main line is open, the movements noted above will likely operate at an acceptable LOS.

Trip Generation

The proposed Gateway Phase I development is anticipated to generate a total of 6,580 new weekday trips, with 574 trips occurring during the AM peak hour and 629 trips occurring during the PM peak hour.

Trip Generation

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Industrial Park	130	1,275.0	1000 Sq. Ft. GFA	4,297	434	352	82	434	95	339
Hotel	310	150	Rooms	1,202	68	38	30	84	42	42
Strip Retail Plaza (<40k)	822	10.0	1000 SF GLA	545	24	15	9	66	32	34
High-Turnover (Sit-Down) Restaurant	932	5.0	1000 SF GFA	536	48	26	22	45	27	18
			Total	6,580	574	431	143	629	196	433

Future Conditions

Future capacity analyses were completed without and with the build out of the proposed Gateway Phase I development for the opening year and 5 years after the opening year. The year 2026 and 2031 background traffic volumes include a 1.5% annual growth rate based on Maricopa Association of Governments (MAG) socioeconomic projections.

Future Roadway Network

The following roadway network improvements are assumed to be built out by the year 2026:

Ellsworth Road and Tesla Drive (3) – *Future Signalized Intersection*

- It is assumed the eastbound approach will provide one (1) dedicated left turn lane, one (1) through lane, and one (1) dedicated right turn lane. Additionally, there will be one (1) westbound receiving lane.

Ellsworth Road and Texas Avenue (4) – *Future Stop-Controlled Intersection*

- It is assumed the eastbound approach will provide one ((1) dedicated right turn lane. Additionally, there will be one (1) westbound receiving lane.

Ellsworth Road and Williams Field Road (5) – *Existing Signalized Intersection*

- It is assumed the eastbound and westbound approaches will provide two (2) dedicated left turn lanes, two (2) through lanes, and one (1) dedicated right turn lane. The northbound approach will provide two (2) dedicated left turn lanes, two (2) through lanes, and one (1) dedicated right turn lane. The southbound approach will provide two (2) dedicated left turn lanes, three (3) through lanes, and one (1) dedicated right turn lane.

Ellsworth Road

- According to the *City of Mesa 2040 Transportation Master Plan,* Ellsworth Road will ultimately be a 6-lane cross-section. Currently Ellsworth Road operates with two (2) northbound through lanes and three (3) southbound through lanes. As a conservative approach, this roadway cross-section was assumed for the year 2026 analysis.

Williams Field Road

- According to the *City of Mesa 2040 Transportation Master Plan,* Williams Field Road will ultimately be a 6-lane cross-section. Currently Williams Field Road provides one (1) through lane in each direction of travel. As a conservative approach, this roadway cross-section was assumed for the year 2026 analysis.

Tesla Drive

- It is assumed Tesla Drive will operate with one (1) through lane in each direction of travel, with a center two-way left turn lane. These improvements will extend from Gateway Boulevard to Ellsworth Road.

SR-24 between Ellsworth Road and Ironwood Road

- At the time of this report, the completion date of the SR-24 main line was unknown. Therefore, as a conservative approach, SR-24 was assumed to operate as it does today.

Year 2026 – Opening Year

A capacity analysis was completed for both the AM and PM peak hours for the year 2026, without and with the build out of the proposed Gateway Phase I development. The year 2026 build capacity analysis resulted in all movements operating at a LOS D or better or is maintained at the existing LOS.

Year 2031 – 5 Years After Opening Year

A capacity analysis was completed for both the AM and PM peak hours for the year 2031, without and with the build out of the proposed Gateway Phase I development. The year 2031 build capacity analysis resulted in all movements operating at a LOS D or better or is maintained at the year 2031 no build LOS.

Recommendations

The following are the recommendations with the build out of the proposed Gateway Phase I development:

- **Ellsworth Road and Tesla Drive (3)**
  Build out of a full-access signalized intersection. The eastbound approach will provide one (1) dedicated left turn lane, one (1) through lane, and one (1) dedicated right turn lane. Additionally, there will be one (1) westbound receiving lane.

- **Ellsworth Road and Texas Avenue (4)**
  Build out of a right-in and right-out only stop-controlled driveway.

- **Tesla Drive**
  It is assumed Tesla Drive will operate with one (1) through lane in each direction of travel, with a center two-way left turn lane. These improvements will extend from Gateway Boulevard to Ellsworth Road.

As with any new development and potential change in traffic patterns, the following is recommended:

- **Monitor and Adjust Signal Timing**
  - Monitor traffic patterns in the area and if necessary, adjust nearby signal timing.

2. PROPOSED DEVELOPMENT

The proposed Gateway Phase I development is located on the northwest corner of Ellsworth Road and Gateway Boulevard/Williams Field Road in the City of Mesa, Arizona. See **Figure 1** for a vicinity map.

The proposed Gateway Phase I development will include the following land uses:

- **Industrial Park** 1,275,000 square feet
- **Hotel** 150 rooms
- **Retail** 10,000 square feet
- **Restaurant** 5,000 square feet

There will be a total of two (2) access points along Ellsworth Road to serve Phase I of the proposed development.

Ellsworth Road and Tesla Drive (3) is located approximately 1,320 feet south of SR-24 Eastbound Ramp. This signalized intersection will provide full access and allow all movements into and out of the development.

Ellsworth Road and Texas Avenue (4) is located approximately 500 feet north of Gateway Boulevard/Williams Field Road. This driveway will utilize the existing bridge and will provide for right-in and right-out only movements only.

See **Figure 2** and **Appendix A** for the proposed site plan.

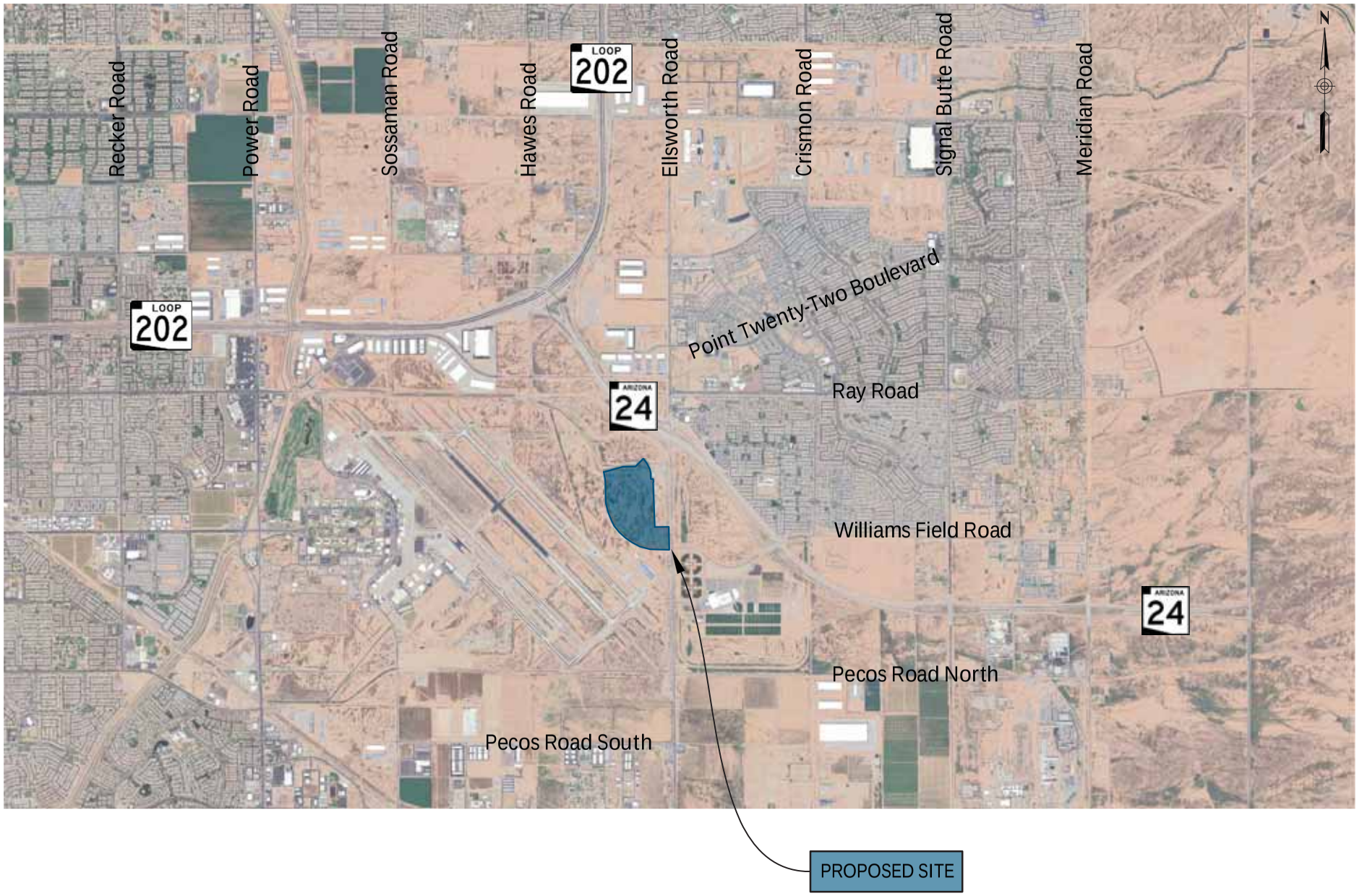


FIGURE 1 | VICINITY MAP

FIGURE 2 | SITE PLAN

3. AREA CONDITIONS

The proposed site is located within the City of Mesa, Arizona. **Sections 3.1** and **3.2** provide detailed descriptions of the study roadway segments and intersections. See **Figure 3** for the study area.

3.1. STUDY ROADWAY SEGMENTS

Ellsworth Road is a north-south roadway. Between SR-24 and Legacy Avenue, provides two (2) through lanes in the northbound and three (3) through lanes in the southbound direction of travel, with a raised median. Ellsworth Road south of Legacy Avenue provides two (2) lanes in each direction of travel, with a raised median. According to the *City of Mesa 2040 Transportation Plan*, Ellsworth Road is classified as an arterial. According to the *City of Mesa 2022 Traffic Volume Map*, Ellsworth Road, between SR-24 and Williams Field Road, has an Average Daily Traffic (ADT) of 50,500 vehicles per day (vpd). There is a posted speed limit of 50 miles per hour (mph).

Williams Field Road is an east-west roadway and provides one (1) lane in each direction of travel with a center two-way left turn lane, between SR-24 and Ellsworth Road. According to *City of Mesa 2040 Transportation Plan,* Williams Field Road is classified as an arterial. According to the *City of Mesa 2022 Traffic Volume Map*, Williams Field Road, between Ellsworth Road and SR-24, has an ADT of 3,200 vpd. There is a posted speed limit of 45 mph.

Pecos Road North is an east-west roadway and provides one (1) lane in each direction of travel. According to the *City of Mesa 2022 Traffic Volume Map*, Pecos Road, between Ellsworth Road and Crismon Road, has an ADT of 2,500 vpd. There is a posted speed limit of 45 mph.

3.2. STUDY INTERSECTIONS

Ellsworth Road and SR-24 Westbound Ramp (1) currently operates as a signalized intersection. The northbound approach provides two (2) dedicated left turn lanes and two (2) through lanes. The southbound approach provides four (4) through lanes and two (2) dedicated right turn lanes. The westbound approach provides one (1) dedicated left turn lane, one (1) shared left-through lane, one (1) shared through-right turn lane, and one (1) dedicated right turn lane.

Ellsworth Road and SR-24 Eastbound Ramps (2) currently operates as a signalized intersection. The northbound approach provides four (4) through lanes and one (1) dedicated right turn lane. The southbound approach provides two (2) dedicated left turn lanes and three (3) through lanes. The eastbound approach provides one (1) dedicated left turn lane, one (1) shared left-through lane, and two (2) dedicated left turn lanes.

Ellsworth Road and Gateway Boulevard/Williams Field Road (5) currently operates as a signalized intersection. The northbound approach provides one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane. The southbound approach provides two (2) dedicated

left turn lanes and three (3) through lanes. The westbound approach provides two (2) dedicated left turn lanes and two (2) dedicated right turn lanes.

Ellsworth Road and Legacy Avenue (6) currently operates as a signalized intersection. The northbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The southbound approach provides two (2) dedicated left turn lanes and two (2) through lanes. The westbound approach provides one (1) dedicated left turn lane, one (1) shared left-right turn lane, and one (1) dedicated right turn lane.

Ellsworth Road and Pecos Road North (7) currently operates as a signalized intersection. The northbound approach provides one (1) through lane and one (1) shared through-right turn lane. The southbound approach provides one (1) dedicated left turn lane and two (2) through lanes. The westbound approach provides one (1) dedicated left turn lane and one (1) dedicated right turn lane.

Williams Field Road and Legacy Drive (8) currently operates as a signalized intersection. The northbound approach provides one (1) dedicated left turn lane and one (1) dedicated right turn lane. The eastbound approach provides one (1) through lane and one (1) dedicated right turn lane. The westbound approach provides one (1) dedicated left turn lane and one (1) through lane.

Williams Field Road and Legacy Park Driveway (9) currently operates as a one-way stop-controlled T-intersection with stop control on the northbound approach. The northbound approach provides one (1) dedicated right turn lane. The eastbound approach provides one (1) through lane and one (1) dedicated right turn lane. The westbound approach provides one (1) through lane.

Williams Field Road and SR-24 Southbound Ramps (10) currently operates as a signalized intersection. The southbound approach provides one (1) dedicated left turn lane, one (1) shared left-through lane, and one (1) shared through-right turn lane. The eastbound approach provides four (4) through lanes and one (1) dedicated right turn lane. The westbound approach provides two (2) dedicated left turn lanes and two (2) through lanes.

Williams Field Road and SR-24 Northbound Ramps (11) currently operates as a signalized intersection. The northbound approach provides one (1) dedicated left turn lane, one (1) through lane, and one (1) shared through-right turn lane. The eastbound approach provides two (2) dedicated left turn lanes, one (1) through lane, and one (1) shared through-right turn lane. The westbound approach provides four (4) through lanes and one (1) dedicated right turn lane.

3.3. STUDY AREA LAND USE

The proposed site is located on the northwest corner of Ellsworth Road and Gateway Boulevard/Williams Field Road in the City of Mesa, Arizona. The proposed development is bordered by Phoenix-Mesa Gateway Airport borders to the west, Ellsworth Road to the east and primarily vacant land to the north and south. Additionally, Legacy Sports complex is located on the southeast corner of Ellsworth Road and Gateway Boulevard/Williams Field Road.

3.4. SITE ACCESSIBILITY

Roadway System

The study area is located in the City of Mesa, Arizona. State Route 24 (SR-24) is located approximately one-half (0.50) mile to the north and east and can be accessed by both Ellsworth Road and Williams Field Road. Similarly, Arizona State Route 202 Loop (SR 202L) is located approximately one and one-half (1.50) miles northwest of the proposed development, which can be accessed via SR-24. These routes provide regionals access to the Phoenix metropolitan area.

Pedestrian Facilities

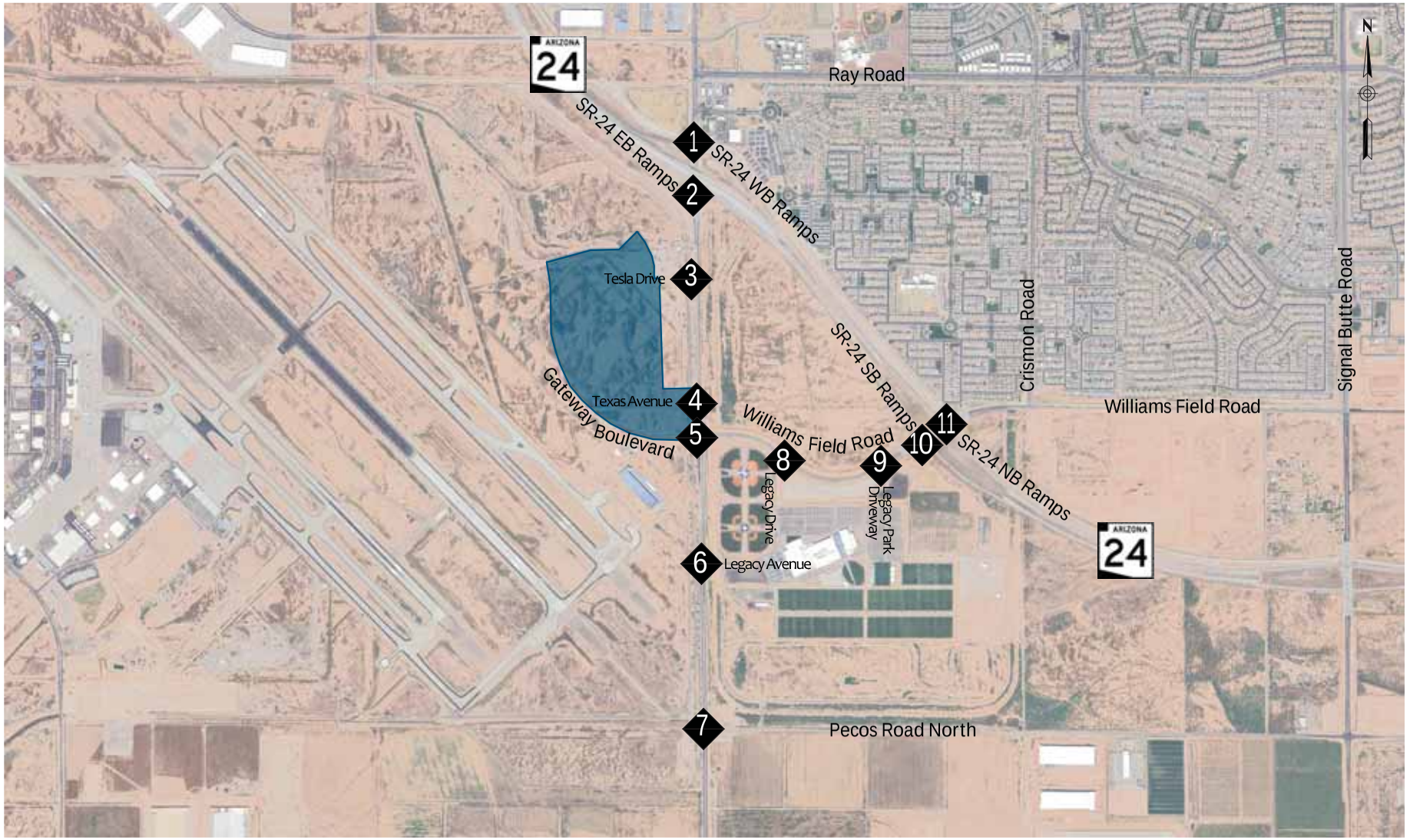
Ellsworth Road provides sidewalk on the west side of the road between SR-24 and Williams Field Road. Additionally, south of Williams Field Road, Ellsworth Road provides sidewalk on the east and west side of the road. Williams Field Road provides sidewalks on the south side of the roadway between Ells Worth Road and SR-24.

Bicycle Facilities

Bicycle facilities are not currently provided within the immediate study area.

Transit Facilities

There are currently no available transit services within the immediate study area.



Legend

Intersection

FIGURE 3 | STUDY AREA

4. EXISTING CONDITIONS

4.1. EXISTING LAND USE

According to the Maricopa County Assessor, the proposed site will occupy a portion of Assessor Parcel Numbers (APN) 304-35-017B and APN 304-35-025A. The proposed site is currently zoned Light Industrial (LI). See **Appendix B** for detailed parcel information.

4.2. EXISTING TRAFFIC COUNTS

A local data collection firm, All Traffic Data Services, LLC, was utilized to collect traffic counts. On Wednesday, May 17th, 2023, four hours of typical weekday turning movement counts were obtained during the AM (7:00 to 9:00 am) and PM (4:00 to 6:00 pm) peak hours at the following intersection:

- Ellsworth Road and SR-24 Westbound Ramp (1)
- Ellsworth Road and SR-24 Eastbound Ramps (2) -
- Ellsworth Road and Gateway Boulevard/Williams Field Road (5)
- Ellsworth Road and Legacy Avenue (6)
- Ellsworth Road and Pecos Road North (7)
- Williams Field Road and Legacy Drive (8)
- Williams Field Road and Legacy Park Driveway (9)
- Williams Field Road and SR-24 Southbound Ramps (10)
- Williams Field Road and SR-24 Northbound Ramps (11)

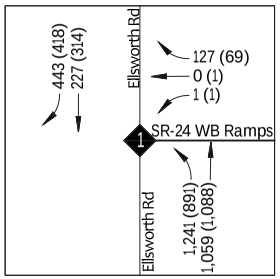
Additionally, on Wednesday, May 10th, 2023, bi-directional tube counts for 24-hours in 15-minute intervals were collected along the following roadway segments:

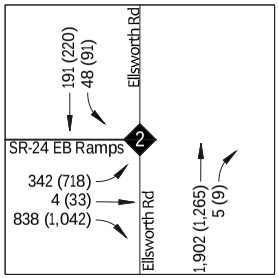
- Ellsworth Road, south of SR-24
- Ellsworth Road, north of Pecos Road

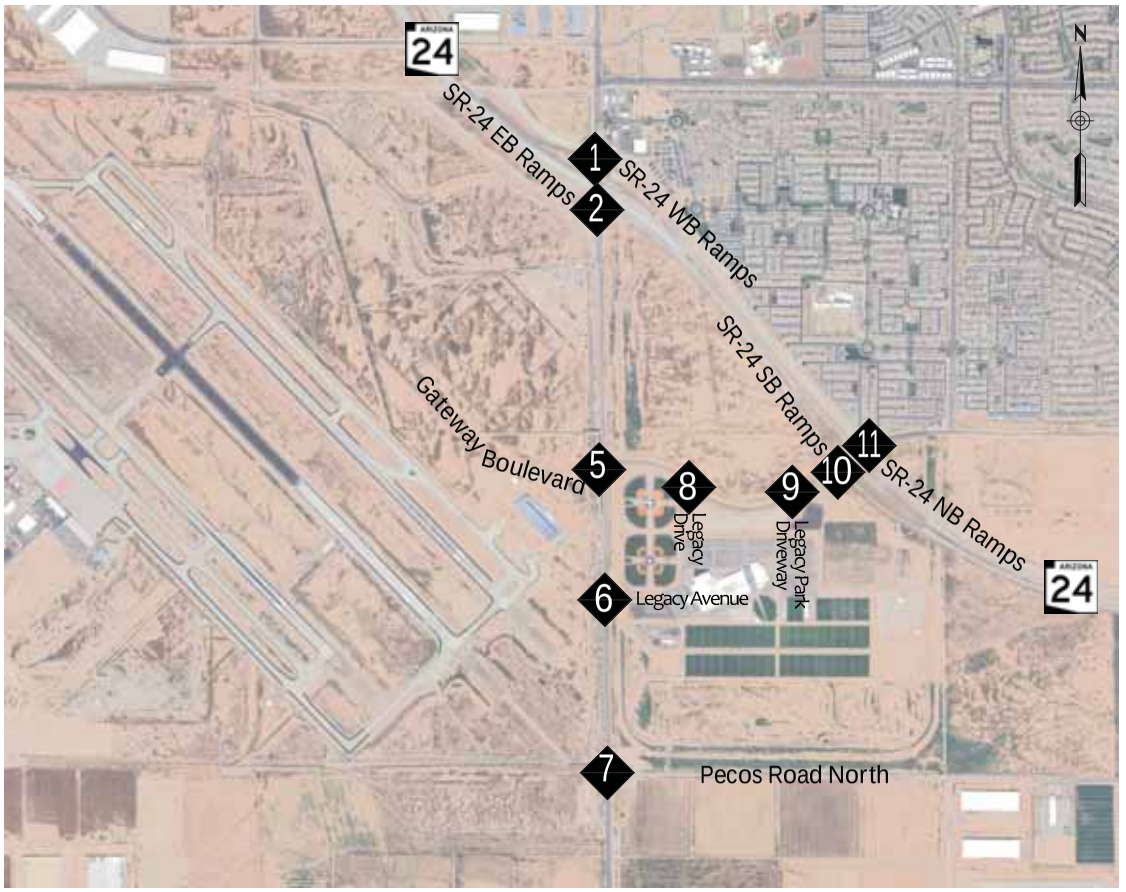
The turning movement counts were then analyzed for the highest 1-hour within each time period. The following peak hours were analyzed throughout this study.

AM Peak Hour	7:00 am – 8:00 am
PM Peak Hour	5:00 pm – 6:00 pm

See **Appendix C** for detailed traffic count data. See **Figure 4** for the existing AM and PM peak hour traffic volumes.



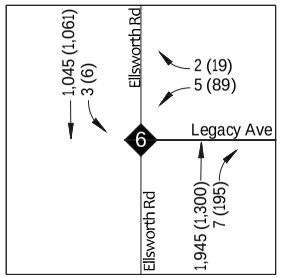


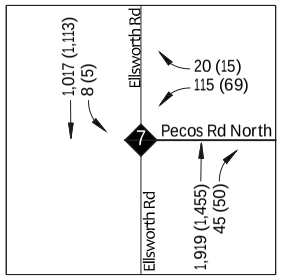


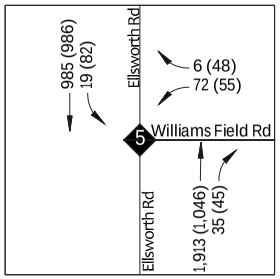
Legend

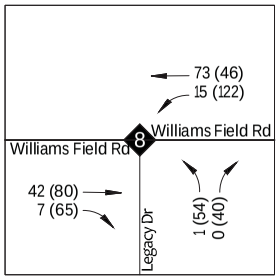
AM (PM) Peak Hour Traffic Volumes

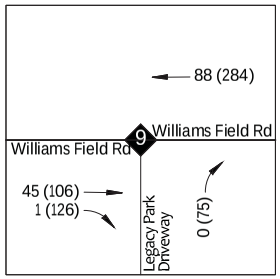
X Intersection

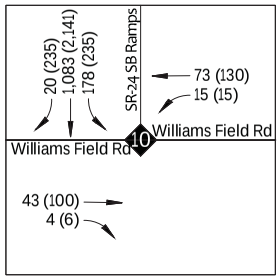












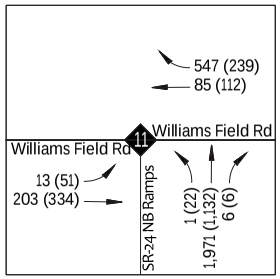


FIGURE 4 | EXISTING TRAFFIC VOLUMES

4.3.EXISTING CAPACITY ANALYSIS

The existing conditions capacity analysis was completed for the existing study intersections. The capacity and level of service for the study area intersections were evaluated using the methodology presented in the *6th Edition of the Highway Capacity Manual (HCM)*. Traffic analysis software, Synchro Version 11, was used to perform the analyses using the existing peak hour factor (PHF) obtained from the traffic counts. See **Appendix D** for the existing signal timing.

Table 1 is from the *6th Edition of the Highway Capacity Manual* Exhibit 19-8 and 20-2, which lists the Level of Service (LOS) thresholds for signalized and unsignalized intersections.

Table 1 – Level of Service Criteria

Level of Service (LOS)	Control Delay per Vehicle (s/veh)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10	≤ 10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80	> 50

The results of the capacity analyses reveal that all movements operate at a LOS D or better with the exception of the following:

Ellsworth Road and SR-24 Westbound Ramps (1)

- Southbound through PM peak hour operates at LOS E

Ellsworth Road and SR-24 Eastbound Ramps (2)

- Eastbound left PM peak hour operates at LOS E
- Eastbound shared left-through PM peak hour operates at LOS E
- Southbound left AM and PM peak hours operate at LOS E

Ellsworth Road and Legacy Drive (6)

- Northbound through AM peak hour operates at LOS E

Ellsworth Road and Pecos Road North (7)

- Southbound left PM peak hour operates at LOS E

Williams Field Road and SR-24 Southbound Ramps (10)

- Overall intersection PM peak hour operates at LOS F
- Southbound shared left-through and through-right PM peak hour operates at LOS F

At the time of this report the main line for the SR-24 was not open. Therefore, once the SR-24 main line is open, the movements noted above will likely operate at an acceptable LOS.

Williams Field Road and SR-24 Northbound Ramps (11)

- Overall intersection AM peak hour operates at LOS F
- Westbound right AM peak hour operates at LOS F
- Northbound through and shared through-right AM PM peak hour operates at LOS F

At the time of this report the main line for the SR-24 was not open. Therefore, once the SR-24 main line is open, the movements noted above will likely operate at an acceptable LOS.

The existing AM and PM peak hour level of service and delay for signalized and unsignalized intersections are shown in **Table 2**.

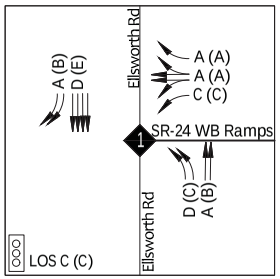
See **Figure 5** for the existing AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in **Appendix E**.

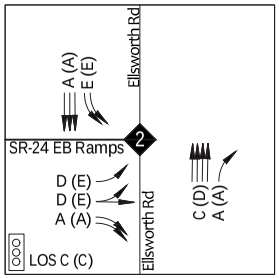
Table 2 - Existing Level of Service and Delay

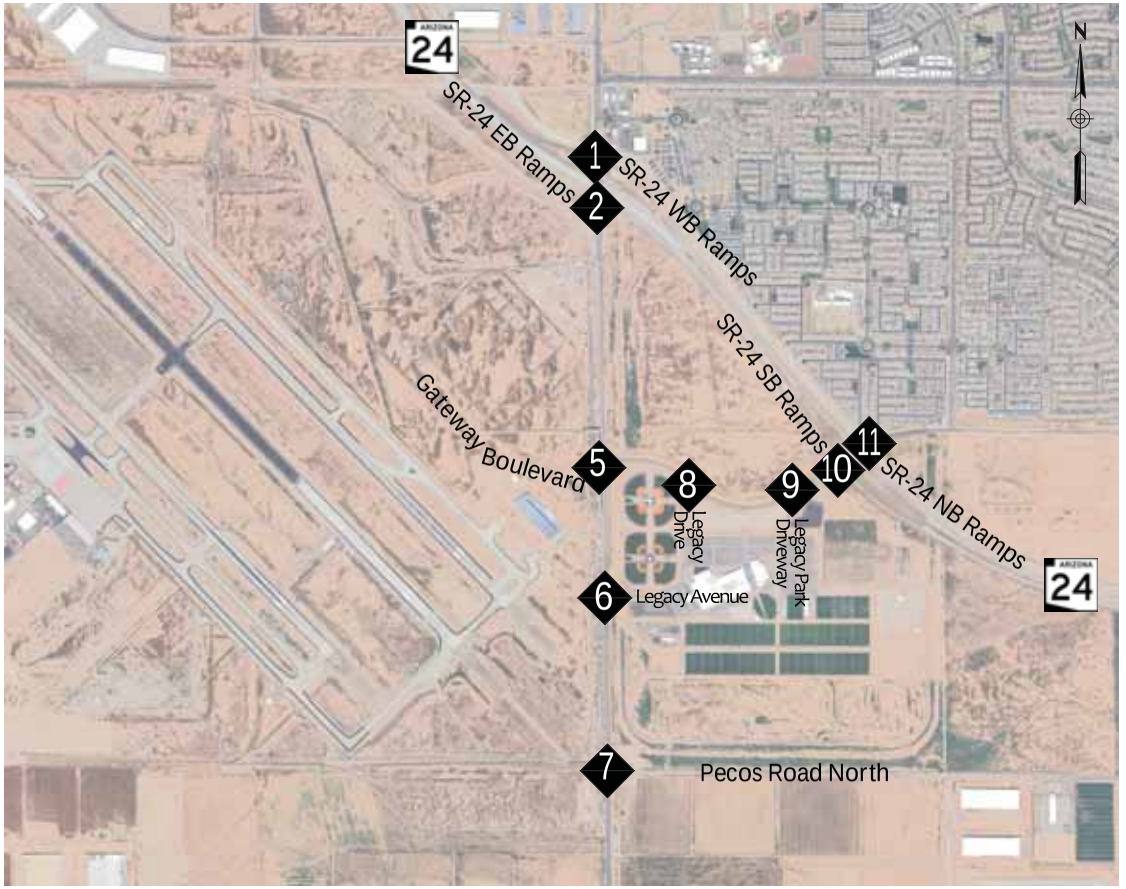
Intersection	Existing Conditions			
	AM PEAK		PM PEAK	
Signalized Intersections	LOS	DELAY	LOS	DELAY
Ellsworth Road and SR-24 Westbound Ramps (1) - Signalized				
Overall Intersection	C	24	C	22.8
Westbound Left	C	23.0	C	22.0
Westbound Shared Left-Through & Through-Right	A	0.2	A	5.0
Westbound Right	A	0.5	A	0.2
Northbound Left	D	43.9	C	25.5
Northbound Through	A	6.5	B	16.2
Southbound Through	D	42.5	E	57.6
Southbound Right	A	7.4	B	11.6
Ellsworth Road and SR-24 Westbound Ramps (2) - Signalized				
Overall Intersection	C	26.5	C	32.5
Eastbound Left	D	52.5	E	70.4
Eastbound Shrared Left-Through	D	51.8	E	70.8
Eastbound Right	A	1.7	A	1.7
Northbound Through	C	34.2	D	37.8
Northbound Right	A	0.0	A	0.0
Southbound Left	E	74.4	E	76.8
Southbound Through	A	0.3	A	0.1
Ellsworth Road and Williams Field Road (5) - Signalized				
Overall Intersection	B	13.3	A	8.8
Westbound Left	D	35.4	C	20.2
Westbound Right	C	26.5	A	4.5
Northbound Through	B	15.3	A	6.4
Northbound Right	A	4.1	A	3.6
Southbound Left	D	41.7	D	46.6
Southbound Through	A	7.5	A	8.0

Table 2 - Existing Level of Service and Delay – Continued

Intersection	Existing Conditions			
	AM PEAK		PM PEAK	
Signalized Intersections	LOS	DELAY	LOS	DELAY
Ellsworth Road and Legacy Drive (6) - Signalized				
Overall Intersection	D	45.6	B	15.6
Westbound Left & Shared Left-Right	C	22.2	C	22.6
Westbound Right	B	16	B	10.1
Northbound Through	E	63.5	B	18.8
Northbound Right	A	4.6	A	4.2
Southbound Left	D	42.0	D	45.3
Southbound Through	B	12.8	B	13.1
Ellsworth Road and Pecos Road North (7) - Signalized				
Overall Intersection	B	16.2	B	15.2
Westbound Left	D	40.8	C	30.5
Westbound Right	B	17.1	B	15.3
Northbound Through & Through Right	C	21.1	C	20.4
Southbound Left	D	53.4	E	55.4
Southbound Through	A	3.7	A	7.0
Williams Field Road and Legacy Avenue (8) - Signalized				
Overall Intersection	A	2.3	A	9.3
Eastbound Through	A	3.6	A	5.7
Eastbound Right	A	3.3	A	1.0
Westbound Left	A	1.2	A	2.8
Westbound Through	A	1.2	A	3.3
Northbound Left	D	36.0	D	41.1
Northbound Right	A	0.0	B	13.3
Williams Field Road and Legacy Park Driveway (9) - Unsignalized				
Northbound Right	A	0.0	A	9.7
Williams Field Road and SR-24 Southbound Ramps (10) - Signalized				
Overall Intersection	C	24.4	F	211.8
Eastbound Through	C	34.4	D	37.3
Eastbound Right	A	0.0	A	0.0
Wesbound Left	A	9.9	B	18.1
Westbound Through	A	1.2	A	8.9
Southbound Left	B	18.4	B	17.4
Southbound Shared Left-Through & Through-Right	C	26.6	F	248.9
Williams Field Road and SR-24 Northbound Ramps (11) - Signalized				
Overall Intersection	F	127.9	C	27.5
Eastbound Left	D	37.9	D	43.1
Eastbound Through	C	22.7	B	19.2
Wesbound Through	C	34.7	D	37.4
Westbound Right	F	89.5	B	12.2
Northbound Left	B	16.0	B	15.8
Northbound Through & Shared Through-Right	F	154.1	C	31.7

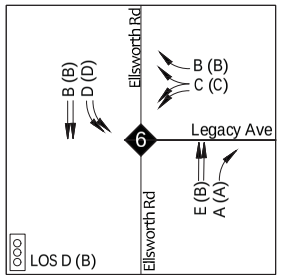


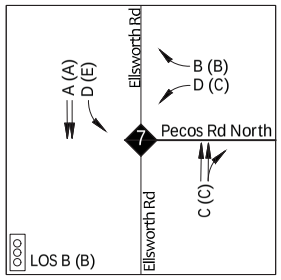


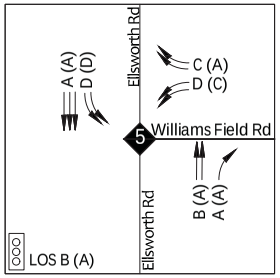


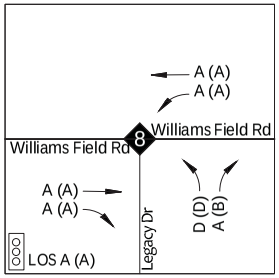
Legend

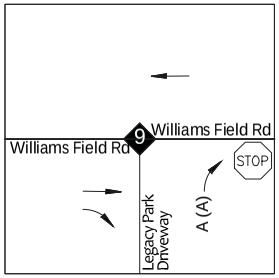
AM(PM)	Peak Hour Capacity Analysis
X	Intersection
	Lane Configuration

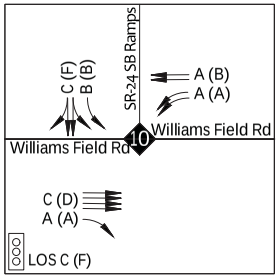












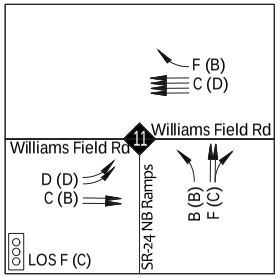


FIGURE 5 | EXISTING CAPACITY ANALYSIS

5. PROJECTED TRAFFIC

5.1. TRIP GENERATION

The trip generation for the proposed Gateway Phase I development was calculated utilizing the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 11th Edition.* The ITE rates are based on studies that measured the trip generation characteristics for various types of land uses. The rates are expressed in terms of trips per unit land use type. This publication is considered to be the standard for the transportation engineering profession.

The proposed Gateway Phase I development will include the following land uses:

- **Industrial Park** 1,275,000 square feet
- **Hotel** 150 rooms
- **Retail** 10,000 square feet
- **Restaurant** 5,000 square feet

Therefore, the trip generation for the proposed Gateway Phase I development was calculated utilizing the following ITE Land Uses:

- ITE Land Use 130 – Industrial Park
- ITE Land Use 310 – Hotel
- ITE Land Use 822 – Strip Retail Plaza (<40k)
- ITE Land Use 932 – High-Turnover (Sit-Down) Restaurant

The total trip generation for the proposed development is shown in **Table 3**. Detailed trip generation calculations can be found in **Appendix F**.

Table 3 – Trip Generation – Proposed Development

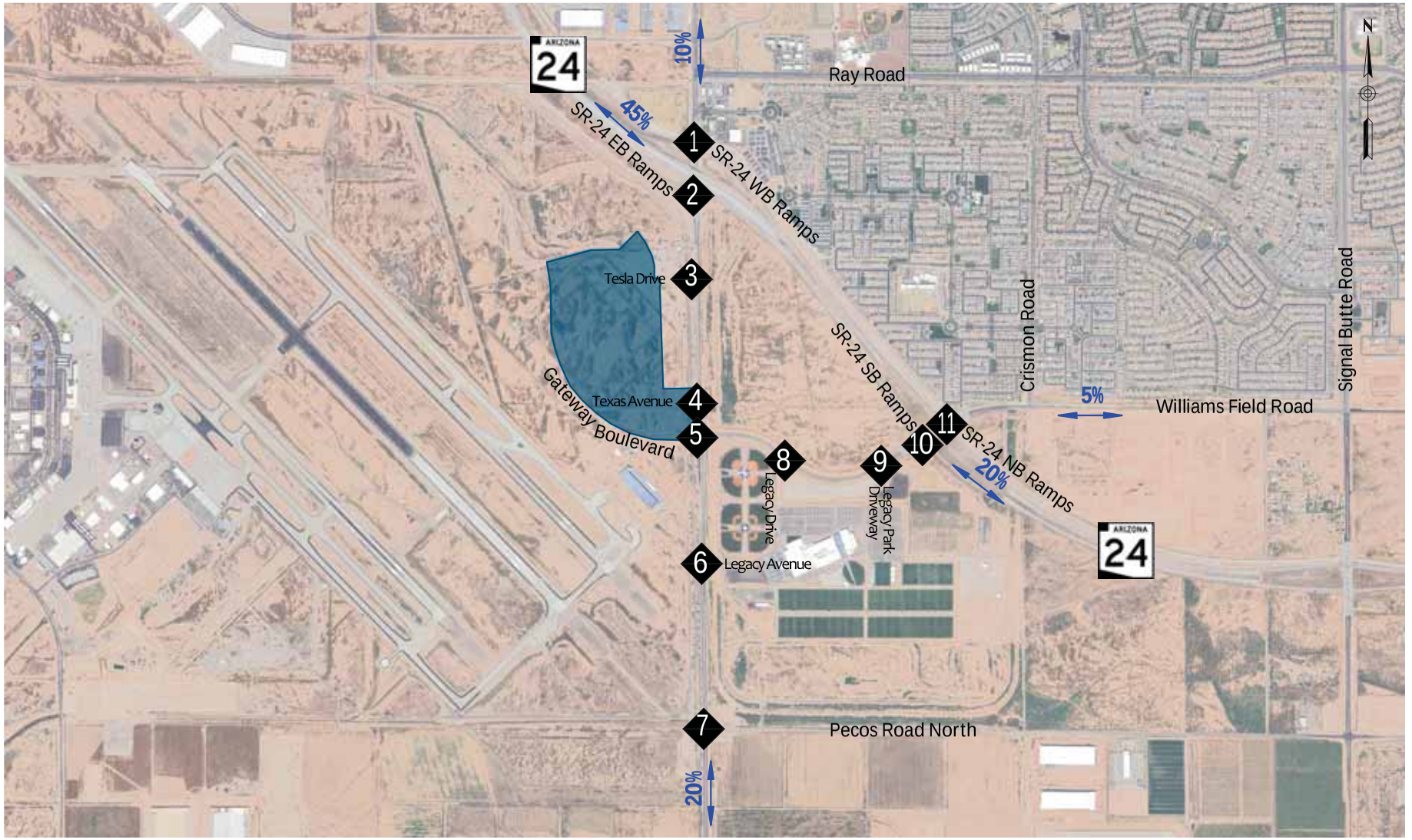
Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Industrial Park	130	1,275.0	1000 Sq. Ft. GFA	4,297	434	352	82	434	95	339
Hotel	310	150	Rooms	1,202	68	38	30	84	42	42
Strip Retail Plaza (<40k)	822	10.0	1000 SF GLA	545	24	15	9	66	32	34
High-Turnover (Sit-Down) Restaurant	932	5.0	1000 SF GFA	536	48	26	22	45	27	18
			Total	6,580	574	431	143	629	196	433

The proposed Gateway Phase I development is anticipated to generate a total of 6,580 new weekday trips, with 574 trips occurring during the AM peak hour and 629 trips occurring during the PM peak hour.

5.2. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution procedure determines the general pattern of travel for vehicles entering and exiting the proposed development. The trip distribution for the proposed development is largely based on the distribution of the existing traffic with adjustments to account for the anticipated changes in traffic patterns along the surrounding roadway network. The trip distribution is shown in **Figure 6**.

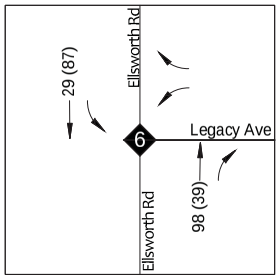
The trip assignment was generally based on proximity of the driveways, permitted turn movements, as well as ease and probability of use respective to each land use within the mixed-use site. The site generated traffic volumes are shown in **Figure 7**.

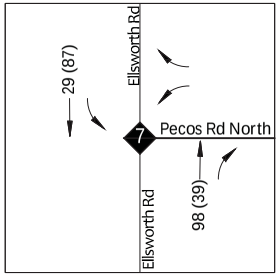


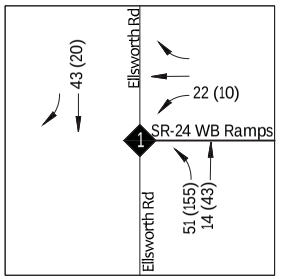
Legend

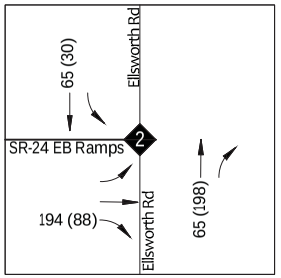
XX%	Trip Distribution Percentages
X	Intersection

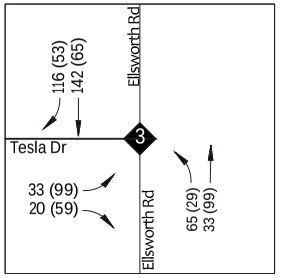
FIGURE 6 | TRIP DISTRIBUTION

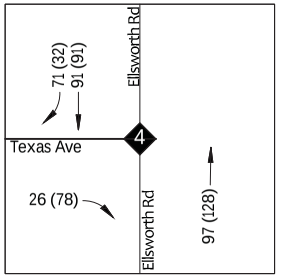


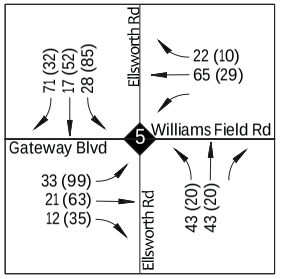


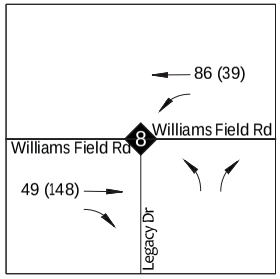


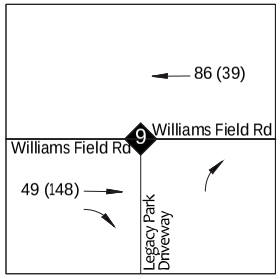


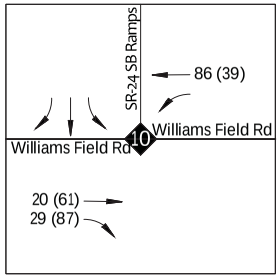


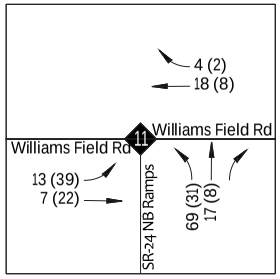


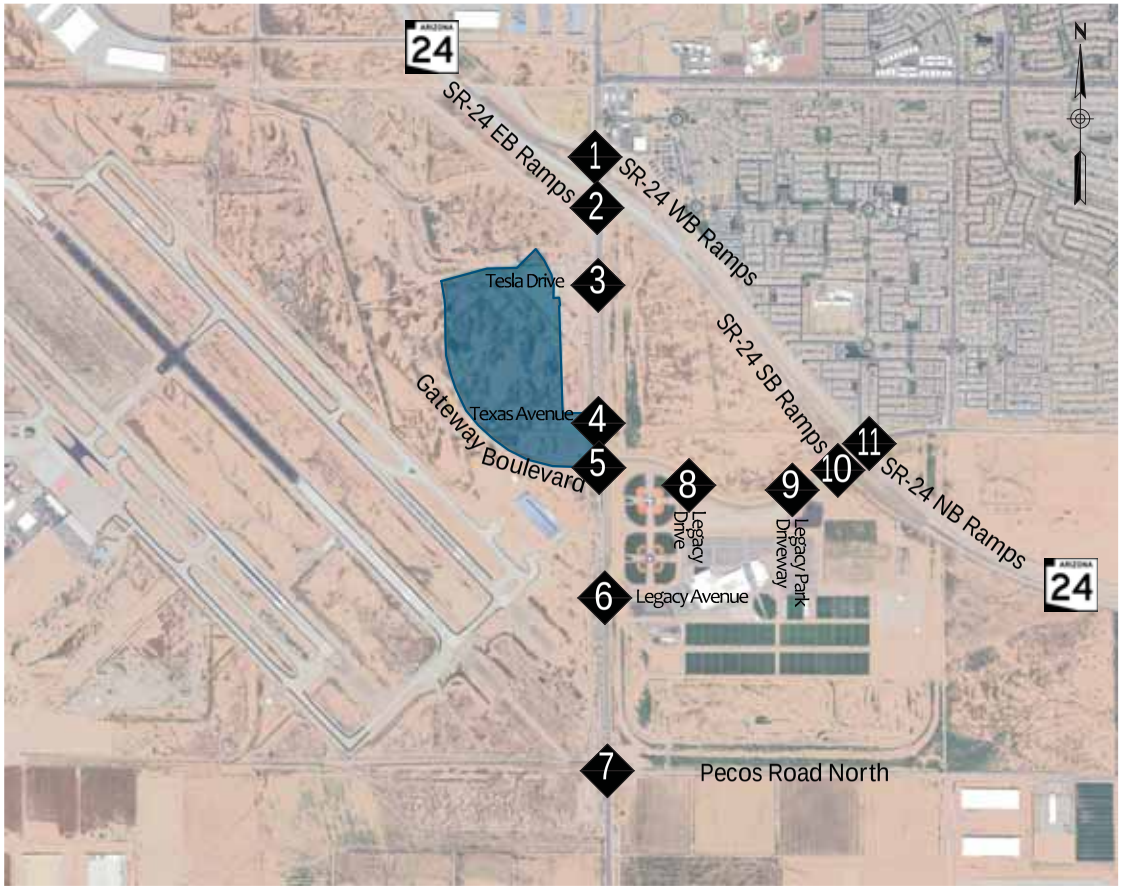












Legend

AM (PM) Peak Hour Traffic Volumes

X Intersection

FIGURE 7 | SITE TRAFFIC VOLUMES

6. FUTURE CONDITIONS (YEAR 2026 – OPENING YEAR)

The proposed Gateway Phase I development is anticipated to be to be opened and completed as a single phase during the year 2026. This section analyzes the effects the proposed development will have on the surrounding roadway network during the opening year (year 2026).

6.1. YEAR 2026 FUTURE ROADWAY NETWORK

The following roadway network improvements are assumed to be built out by the year 2026:

Ellsworth Road and Tesla Drive (3) – *Future Signalized Intersection*

- It is assumed the eastbound approach will provide one (1) dedicated left turn lane, one (1) through lane, and one (1) dedicated right turn lane. Additionally, there will be one (1) westbound receiving lane.

Ellsworth Road and Texas Avenue (4) – *Future Stop-Controlled Intersection*

- It is assumed the eastbound approach will provide one ((1) dedicated right turn lane. Additionally, there will be one (1) westbound receiving lane.

Ellsworth Road and Williams Field Road (5) – *Existing Signalized Intersection*

- It is assumed the eastbound and westbound approaches will provide two (2) dedicated left turn lanes, two (2) through lanes, and one (1) dedicated right turn lane. The northbound approach will provide two (2) dedicated left turn lanes, two (2) through lanes, and one (1) dedicated right turn lane. The southbound approach will provide two (2) dedicated left turn lanes, three (3) through lanes, and one (1) dedicated right turn lane.

Ellsworth Road

- According to the *City of Mesa 2040 Transportation Master Plan,* Ellsworth Road will ultimately be a 6-lane cross-section. Currently Ellsworth Road operates with two (2) northbound through lanes and three (3) southbound through lanes. As a conservative approach, this roadway cross-section was assumed for the year 2026 analysis.

Williams Field Road

- According to the *City of Mesa 2040 Transportation Master Plan,* Williams Field Road will ultimately be a 6-lane cross-section. Currently Williams Field Road provides one (1) through lane in each direction of travel. As a conservative approach, this roadway cross-section was assumed for the year 2026 analysis.

Tesla Drive

- It is assumed Tesla Drive will operate with one (1) through lane in each direction of travel, with a center two-way left turn lane. These improvements will extend from Gateway Boulevard to Ellsworth Road.

SR-24 between Ellsworth Road and Ironwood Road

- At the time of this report, the completion date of the SR-24 main line was unknown. Therefore, as a conservative approach, SR-24 was assumed to operate as it does today.

6.2.YEAR 2026 BACKGROUND TRAFFIC VOLUMES

According to the 2019 Maricopa Association of Governments (MAG) socioeconomic projections within the study area of Regional Analysis Zone 320 (RAZ 320), it is estimated that in the year 2018 the population of the study area was approximately 1,349. MAG estimates that the 2030 population of the surrounding area will be approximately 1,613. This results in an approximate annual growth rate of 1.5%. Therefore, a 1.5% annual growth rate was utilized. See **Appendix G** for the MAG socioeconomic projections.

The year 2026 background traffic volumes are shown in **Figure 8**, which includes the 1.5% annual growth rate.

6.3.YEAR 2026 BUILD TRAFFIC VOLUMES

To determine the year 2026 build traffic volumes, the total site traffic (**Figure 7**) is added to the year 2026 background traffic (**Figure 8**). This represents the year 2026 traffic volumes with the build out of the proposed Gateway Phase I development. The year 2026 build traffic volumes are shown in **Figure 9**.

6.4. YEAR 2026 NO BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the year 2026 no build scenario. The corresponding traffic volumes are shown in **Figure 8**. Signal timing splits were optilized and adjusted for future traffic volumes. A Peak Hour Factor (PHF) of 0.92 was utilized.

The year 2026 no build AM and PM peak hour level of service and delay for signalized and unsignalized intersections are shown in **Table 4**. The year 2026 no build capacity analysis sheets can be found in **Appendix H**.

The results of the 2026 no build capacity analysis level of service is shown in **Figure 10**. The results of the capacity analyses reveal that all movements operate at a LOS D or better or are maintained at the existing LOS.

6.5. YEAR 2026 BUILD CAPACITY ANALYSIS

The year 2026 build capacity analysis was completed for the study intersections and driveways during the AM and PM peak hour. The analysis for the study area intersections were evaluated using the methodology described in **Section 4.2**. Signal timing splits were optimized for the future traffic volumes, and a peak hour factor (PHF) of 0.92 was used for future conditions.

The capacity and level of service for the study area intersections were evaluated for the year 2026 build traffic volumes (**Figure 9**).

The year 2026 build AM and PM peak hour level of service and delay for signalized and unsignalized intersections are shown in **Table 4**. The year 2026 build capacity analysis sheets can be found in **Appendix I**.

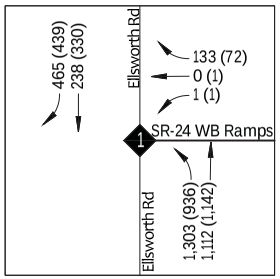
The results of the 2026 build capacity analysis level of are shown in **Figure 11**. The results of the capacity analyses reveal that all movements operate at a LOS D or better or are maintained at the existing LOS.

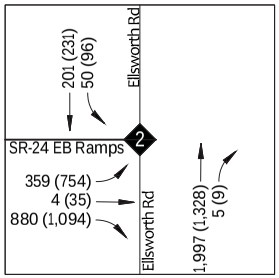
Table 4 - Year 2026 Level of Service

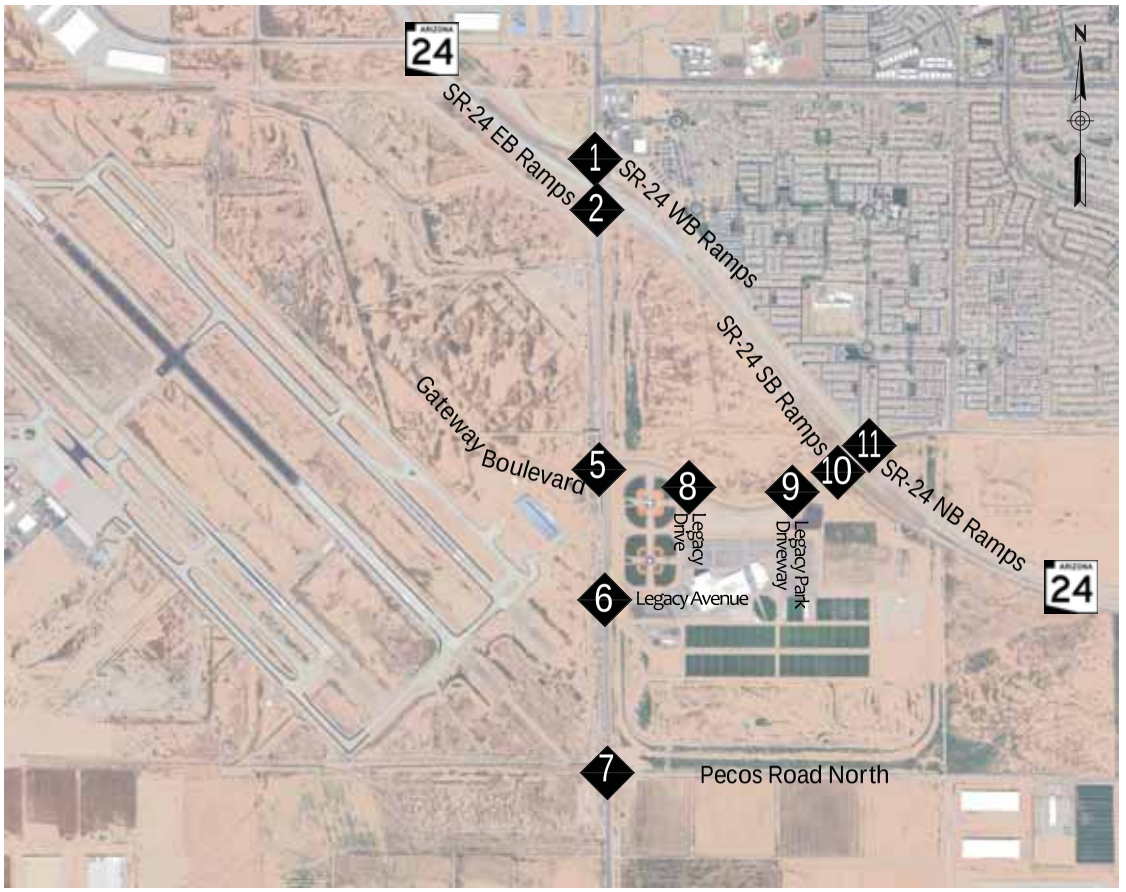
Intersection	2026 No Build Conditions				2026 Build Conditions			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
Signalized Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Ellsworth Road and SR-24 Westbound Ramps (1) - Signalized								
Overall Intersection	B	15.4	C	23.8	B	17.2	C	28.3
Westbound Left	C	35.0	C	22.0	C	34.5	C	21.7
Westbound Shared Left-Through & Through-Right	A	0.2	A	6.2	A	0.2	A	8.4
Westbound Right	A	0.6	A	0.2	A	0.6	A	0.2
Northbound Left	C	23.3	C	30.9	C	25.6	D	43.8
Northbound Through	A	5.3	B	16.6	A	5.3	B	15.1
Southbound Through	D	43.5	D	52.0	D	45.9	D	52.7
Southbound Right	A	7.6	A	9.9	A	8.3	A	9.9
Ellsworth Road and SR-24 Westbound Ramps (2) - Signalized								
Overall Intersection	C	30.0	C	30.9	C	33.4	C	33.8
Eastbound Left	D	51.1	E	63.5	D	48.5	E	66.7
Eastbound Shrared Left-Through	D	51.7	E	64.6	D	48.9	E	67.9
Eastbound Right	A	1.6	A	2.1	A	3.6	A	3.7
Northbound Through	D	40.4	D	37.1	D	49.5	D	43.2
Northbound Right	A	0.0	A	0.0	A	0.0	A	0.0
Southbound Left	E	79.4	E	78.2	E	74.2	E	75.3
Southbound Through	A	0.4	A	0.1	A	0.7	A	0.4
Ellsworth Road and Tesla Drive (3) - Signalized								
Overall Intersection	-	-	-	-	B	11.4	B	10.3
Eastbound Left	-	-	-	-	D	42.3	D	44.8
Eastbound Right	-	-	-	-	A	0.1	B	16.5
Northbound Left	-	-	-	-	C	33.6	B	11.7
Northbound Through	-	-	-	-	B	14.0	B	15.4
Southbound Through	-	-	-	-	A	6.2	A	3.4
Southbound Right	-	-	-	-	A	1.6	A	1.0
Ellsworth Road and Texas Avenue (4) - Unsignalized								
Eastbound Right	-	-	-	-	B	10.8	B	12.2
Ellsworth Road and Williams Field Road (5) - Signalized								
Overall Intersection	C	20.8	B	10.4	C	33.3	C	24.9
Eastbound Left	-	-	-	-	D	43.1	D	47.7
Eastbound Through	-	-	-	-	D	37.8	C	29.4
Eastbound Right	-	-	-	-	A	0.2	A	0.3
Westbound Left	D	35.1	B	18.8	D	41.3	D	54.5
Westbound Through	-	-	-	-	D	41.8	C	27.0
Westbound Right	C	25.0	A	4.3	A	0.7	A	1.5
Northbound Left	-	-	-	-	D	37.3	D	44.1
Northbound Through	C	27.1	A	9.9	D	47.0	C	24.1
Northbound Right	A	3.3	A	5.4	A	0.1	A	2.0
Southbound Left	D	41.9	D	42.1	D	45.3	D	52.0
Southbound Through	A	7.7	A	8.4	A	8.9	C	20.9
Southbound Right	-	-	-	-	A	0.1	A	0.6

Table 4 - Year 2026 Level of Service – Continued

Intersection	2026 No Build Conditions				2026 Build Conditions			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
Signalized Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Ellsworth Road and Legacy Drive (6) - Signalized								
Overall Intersection	C	20.4	B	15.9	C	28.4	B	16.7
Westbound Left & Shared Left-Right	C	29.0	C	22.7	C	29.0	C	22.7
Westbound Right	C	21.0	B	10.1	C	21.0	B	10.1
Northbound Through	C	27.8	C	21.7	D	37.5	C	22.2
Northbound Right	A	1.7	A	5.5	A	0.9	A	5.4
Southbound Left	D	38.3	D	48.0	C	33.0	D	43.3
Southbound Through	A	6.8	B	10.1	B	11.4	B	11.8
Ellsworth Road and Pecos Road North (7) - Signalized								
Overall Intersection	B	13.5	B	12.2	B	15.9	B	13
Westbound Left	D	53.4	D	35.8	D	53.4	D	35.8
Westbound Right	B	16.1	B	17.0	B	16.1	B	16.9
Northbound Through & Through Right	B	17.8	B	16.9	C	21.6	B	17.4
Southbound Left	D	54.9	D	53.0	D	54.8	D	48.6
Southbound Through	A	0.2	A	4.1	A	0.2	A	5.9
Williams Field Road and Legacy Avenue (8) - Signalized								
Overall Intersection	A	2.5	A	9.1	A	1.7	A	7.2
Eastbound Through	A	4.3	A	5.3	A	2.3	A	3.7
Eastbound Right	A	4.1	A	0.9	A	1.6	A	0.1
Westbound Left	A	1.2	A	2.7	A	1.2	A	2.8
Westbound Through	A	1.2	A	3.2	A	1.2	A	3.2
Northbound Left	D	36.0	D	40.7	D	36.0	D	40.7
Northbound Right	A	0.0	B	13.7	A	0.0	B	13.7
Williams Field Road and Legacy Park Driveway (9) - Unsignalized								
Northbound Right	A	0.0	A	9.5	A	0.0	B	10.3
Williams Field Road and SR-24 Southbound Ramps (10) - Signalized								
Overall Intersection	C	226.4	F	282.0	C	28.5	F	266.9
Eastbound Through	C	34.4	D	37.4	D	37.9	D	37.9
Eastbound Right	A	0.0	A	0.0	A	0.3	A	0.9
Wesbound Left	A	9.8	B	19.6	C	33.8	C	28.2
Westbound Through	A	1.2	A	9.6	C	20.1	B	17.0
Southbound Left	B	18.7	B	18.4	B	19.2	B	18.4
Southbound Shared Left-Through & Through-Right	C	29.1	F	332.5	C	31.2	F	332.5
Williams Field Road and SR-24 Northbound Ramps (11) - Signalized								
Overall Intersection	F	172.2	C	27.4	F	160.7	C	27.4
Eastbound Left	D	37.6	D	43.4	D	41.6	D	49
Eastbound Through	C	22.7	B	18.9	C	20.1	B	16.5
Wesbound Through	C	34.8	D	37.5	C	34.1	D	37.5
Westbound Right	F	127.6	B	12.7	F	119.9	B	12.9
Northbound Left	B	16.0	B	15.7	B	16.7	B	16.3
Northbound Through & Shared Through-Right	F	206.8	C	31.6	F	199.5	C	31.5



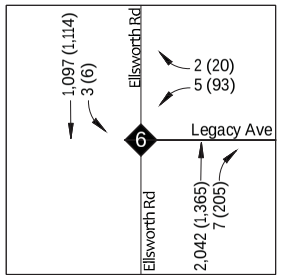


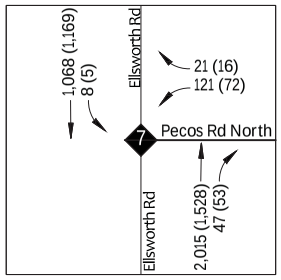


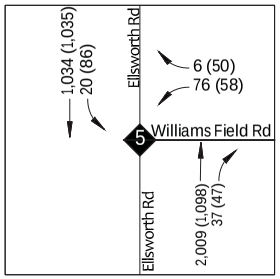
Legend

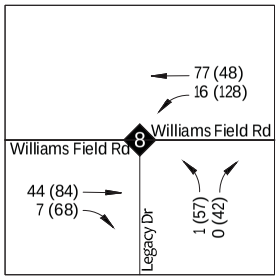
AM (PM) Peak Hour Traffic Volumes

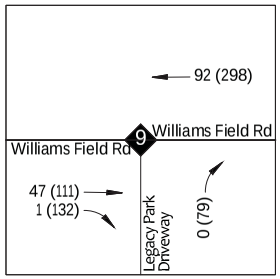
X Intersection

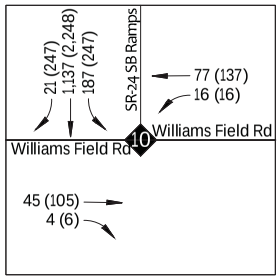












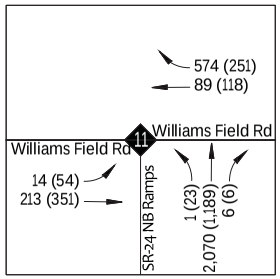
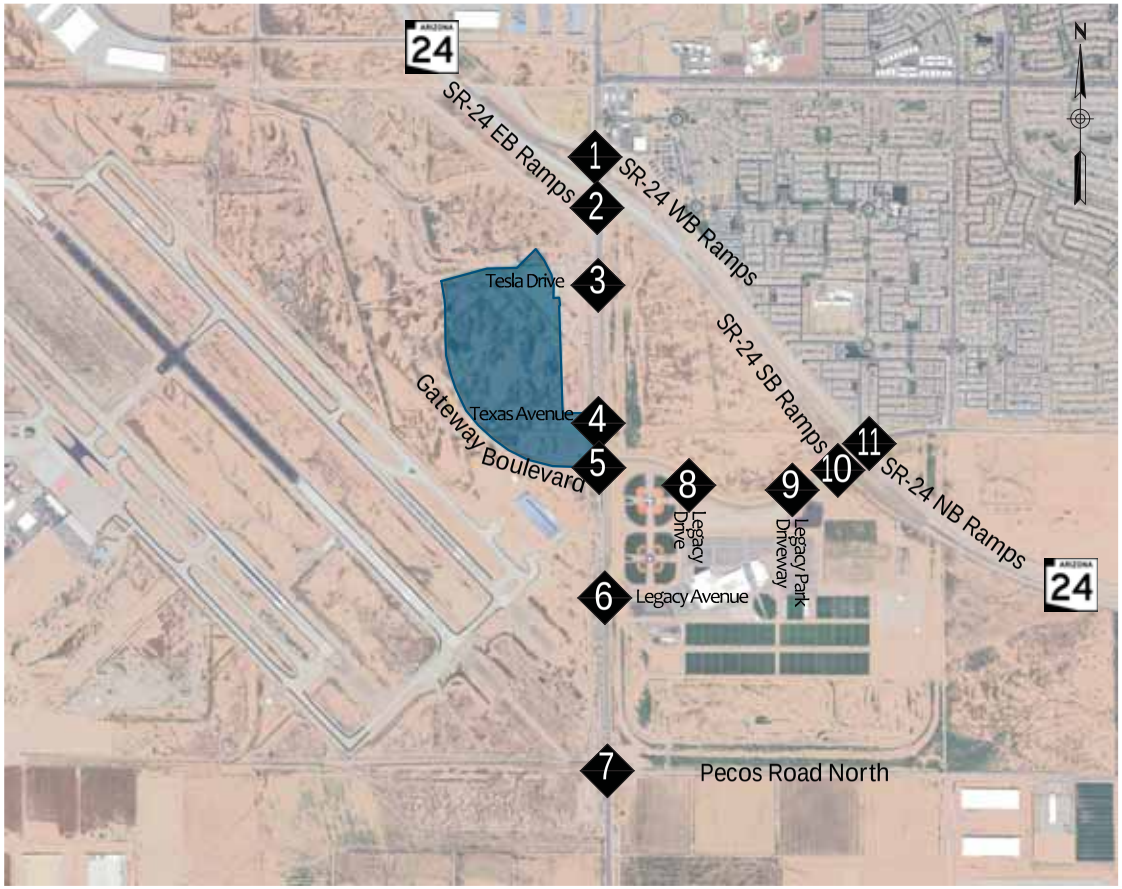


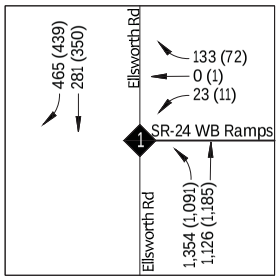
FIGURE 8 | YEAR 2026 BACKGROUND TRAFFIC VOLUMES

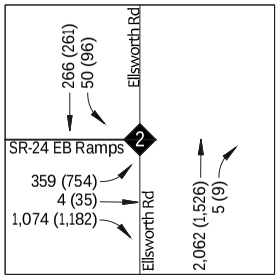


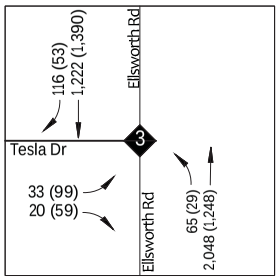
Legend

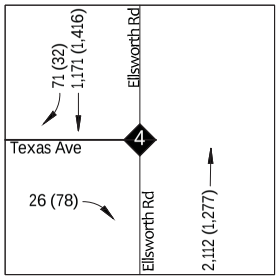
AM (PM) Peak Hour Traffic Volumes

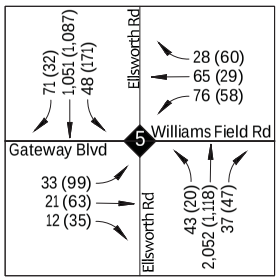
X Intersection

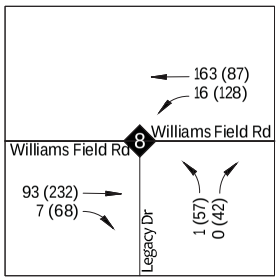


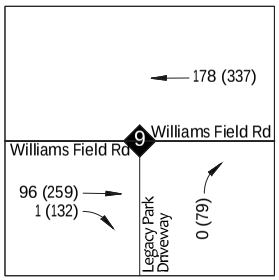


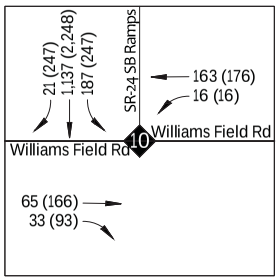


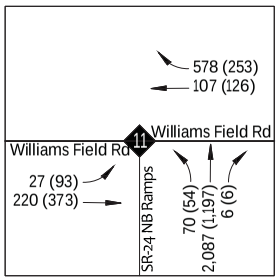


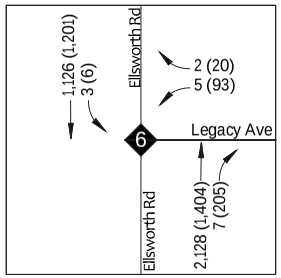












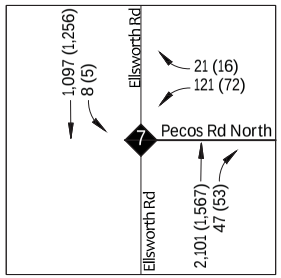
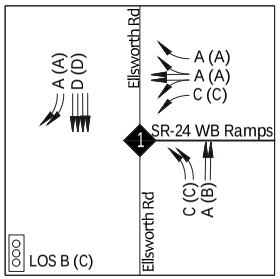
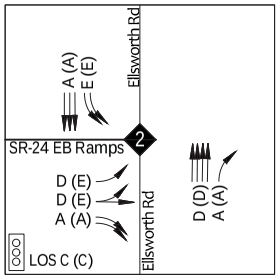
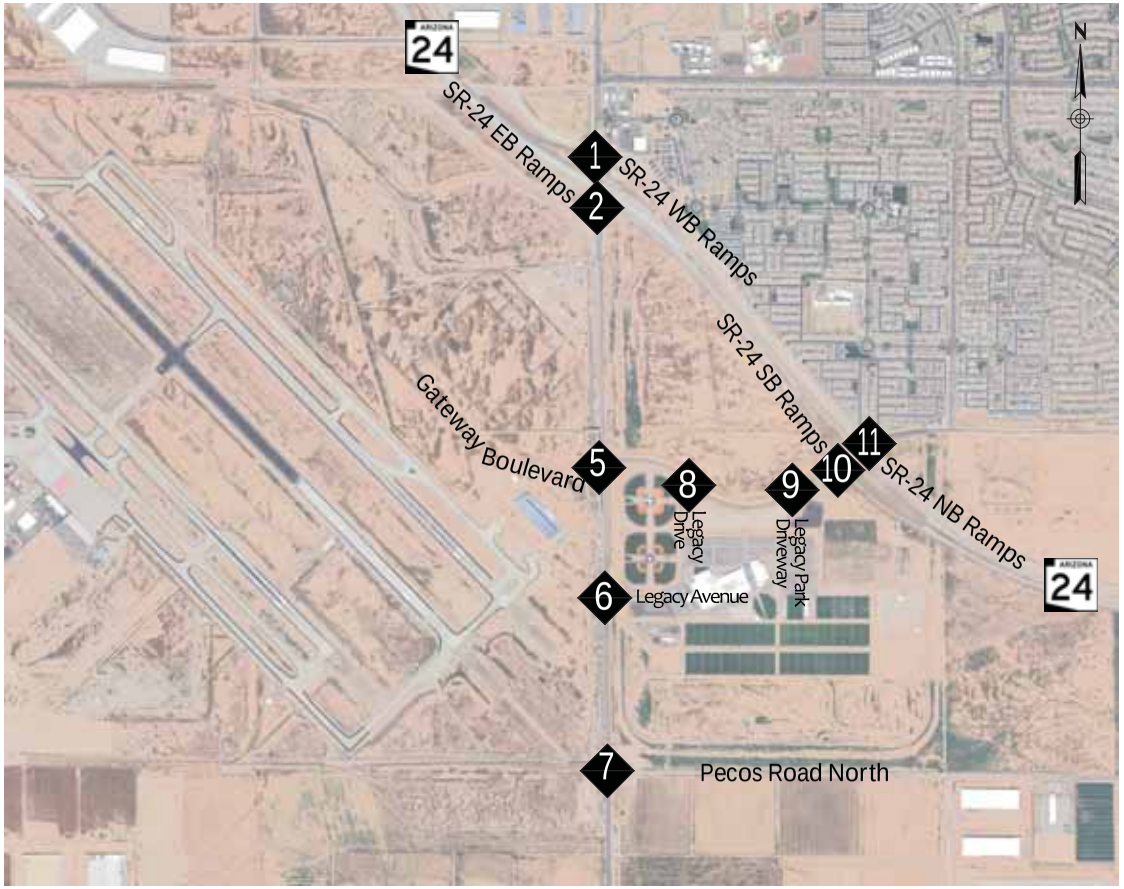


FIGURE 9 | YEAR 2026 BUILD TRAFFIC VOLUMES





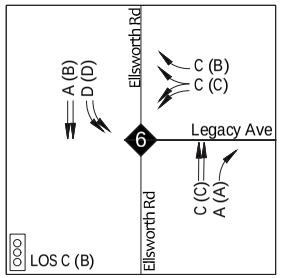


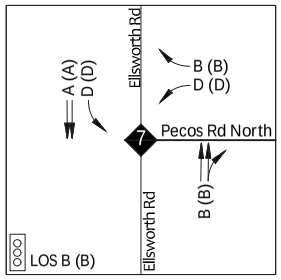
Legend

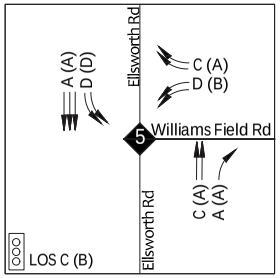
AM(PM) Peak Hour Capacity Analysis

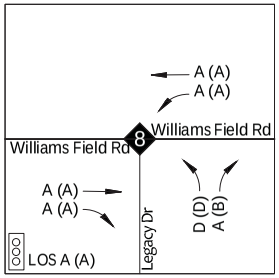
Intersection

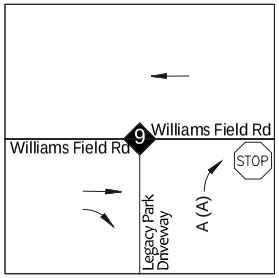
Lane Configuration

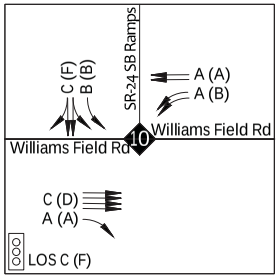












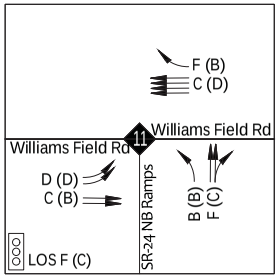
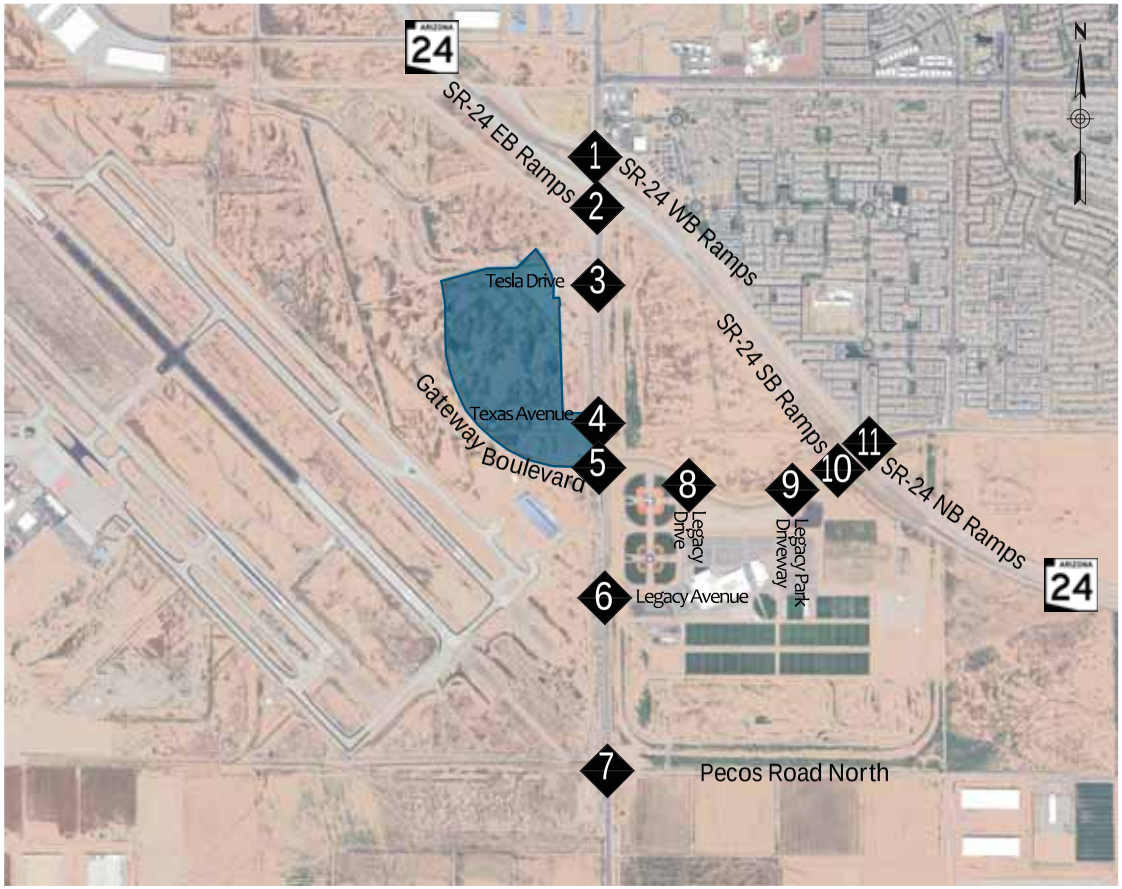


FIGURE 10 | YEAR 2026 NO BUILD CAPACITY ANALYSIS

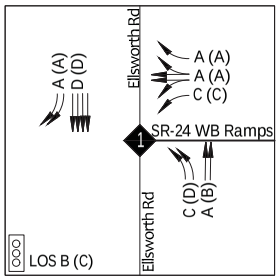


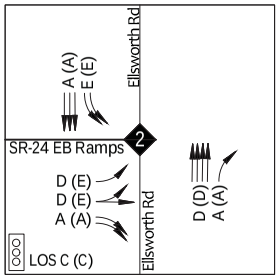
Legend

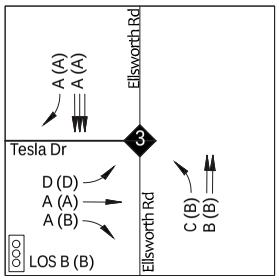
AM(PM) Peak Hour Capacity Analysis

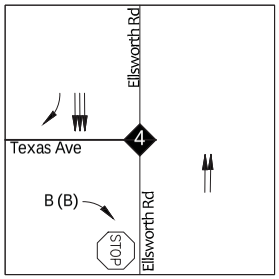
Intersection

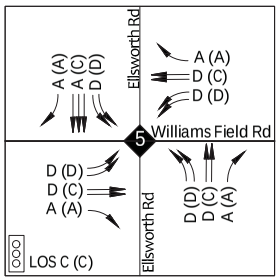
Lane Configuration

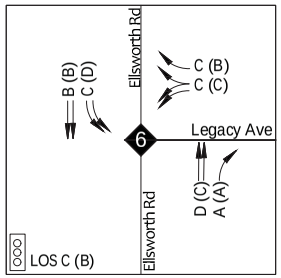


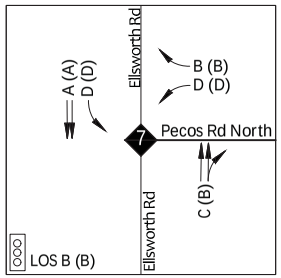


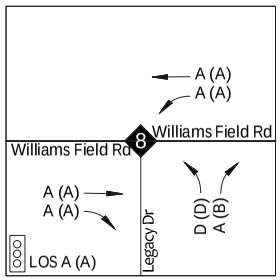


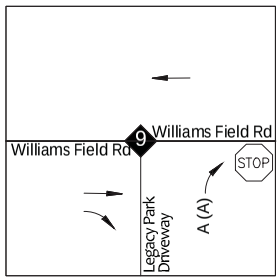


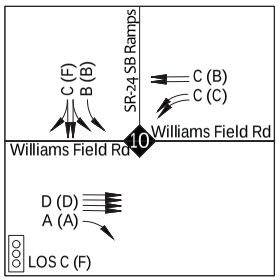












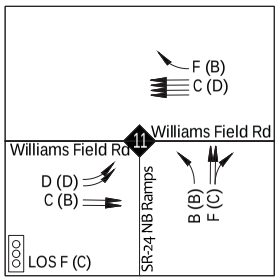


FIGURE 11 | YEAR 2026 BUILD CAPACITY ANALYSIS

7. FUTURE CONDITIONS (YEAR 2031)

This section analyzes the effects the proposed development will have on the surrounding roadway network during the year of 2031, 5 years after the opening year.

7.1. YEAR 2031 FUTURE ROADWAY NETWORK

No additional roadway improvements to the year 2026 improvements listed in **Section 6.1** were assumed to be built out by year 2031.

7.2. YEAR 2031 BACKGROUND TRAFFIC VOLUMES

Similar to the year 2026 background traffic volumes described in detail in **Section 6.2**, a 1.5% annual growth rate was applied to the existing traffic volumes through the year 2031. The year 2031 background traffic volumes are shown in **Figure 12**.

7.3. YEAR 2031 BUILD TRAFFIC VOLUMES

When the total site traffic (**Figure 7**) is added to the year 2031 background traffic (**Figure 12**), the result is the 2031 build traffic volumes. This represents the traffic volumes with the build out of the proposed development. The year 2031 build traffic volumes are shown in **Figure 13**.

7.4. YEAR 2031 NO BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the year 2031 no build scenario. The corresponding traffic volumes are shown in **Figure 12**. Signal timing splits were optilized and adjusted for future traffic volumes. A Peak Hour Factor (PHF) of 0.92 was utilized.

The year 2031 no build AM and PM peak hour level of service and delay for signalized and unsignalized intersections are shown in **Table 5**. The year 2031 no build capacity analysis sheets can be found in **Appendix J**.

The results of the 2031 no build capacity analysis level of service is shown in **Figure 14**. The results of the capacity analyses reveal that all movements operate at a LOS D or better or are maintained at the existing LOS with the exception of the following:

Ellsworth Road and SR-24 Eastbound Ramps (2)

- Northbound through AM peak hour operates at LOS E

As mentioned in **Section 6.1,** *Ellsworth Road was assumed to have two (2) northbound through lane. However, Ellsworth Road will ultimately provide three (3) northbound through lanes. Therefore, the movement noted above will likely operate at an acceptable LOS.*

7.5. YEAR 2031 BUILD CAPACITY ANALYSIS

The year 2031 build capacity analysis was completed for the study intersections and driveways during the AM and PM peak hour. The analysis for the study area intersections were evaluated using the methodology described in **Section 4.2**. Signal timing splits were optimized for the future traffic volumes, and a peak hour factor (PHF) of 0.92 was used for future conditions. The detailed capacity analysis sheets can be found in **Appendix K**.

The capacity and level of service for the study area intersections were evaluated for the year 2031 build traffic volumes (**Figure 13**).

The year 2031 no build AM and PM peak hour level of service and delay for signalized and unsignalized intersections are shown in **Table 5**. The year 2031 build capacity analysis sheets can be found in **Appendix K.**

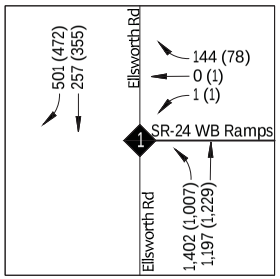
The results of the 2031 build capacity analysis level of service are shown in **Figure 15**. The results of the capacity analyses reveal that all movements operate at a LOS D or better or are maintained at the year 2031 no build LOS.

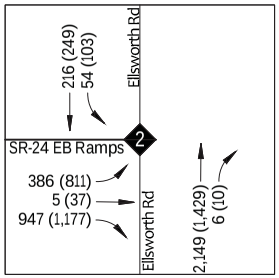
Table 5 - Year 2031 Level of Service

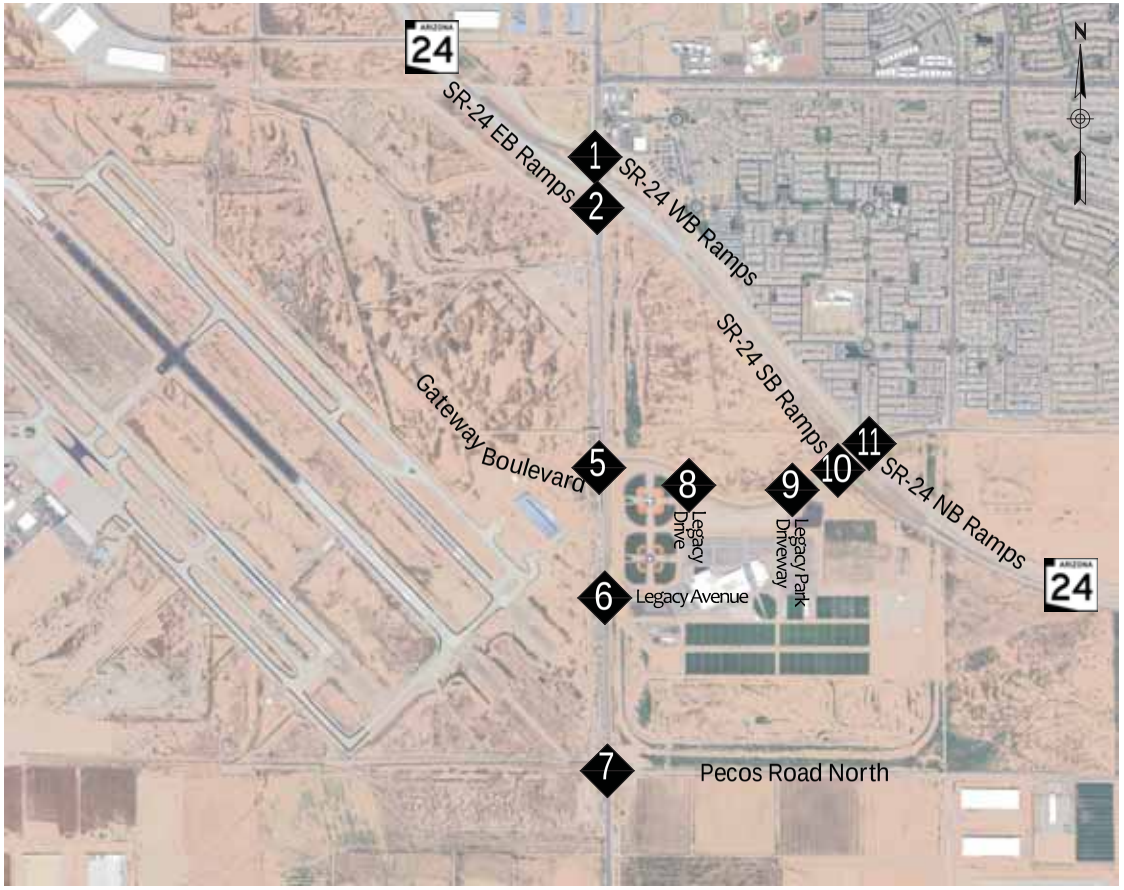
Intersection	2031 No Build Conditions				2031 Build Conditions			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
Signalized Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Ellsworth Road and SR-24 Westbound Ramps (1) - Signalized								
Overall Intersection	B	18.9	C	24.9	C	23.2	C	32
Westbound Left	C	33.0	C	22.0	C	33.4	C	22.4
Westbound Shared Left-Through & Through-Right	A	0.2	A	9.9	A	0.2	B	11.5
Westbound Right	A	0.7	A	0.2	A	0.6	A	0.2
Northbound Left	C	31.1	C	33.2	D	39.3	D	53.6
Northbound Through	A	5.6	B	17.0	A	6.1	B	15.7
Southbound Through	D	45.5	D	53.0	D	47.9	D	54.0
Southbound Right	A	8.4	A	10.0	A	9.0	A	10.0
Ellsworth Road and SR-24 Westbound Ramps (2) - Signalized								
Overall Intersection	D	40.6	C	33.4	D	49.4	D	35.6
Eastbound Left	D	49.5	E	70.7	D	47.5	E	70.7
Eastbound Shrared Left-Through	D	48.9	E	71	D	47.0	E	71.0
Eastbound Right	A	1.6	A	3.3	A	4.7	A	5.1
Northbound Through	E	59.4	D	38.8	E	78.6	D	44.6
Northbound Right	A	0.0	A	0.1	A	0.0	A	0.1
Southbound Left	E	79.8	E	78.4	E	74.5	E	76.3
Southbound Through	A	0.4	A	0.1	A	0.8	A	0.4
Ellsworth Road and Tesla Drive (3) - Signalized								
Overall Intersection	-	-	-	-	B	11.6	B	10.8
Eastbound Left	-	-	-	-	D	42.3	D	44.8
Eastbound Right	-	-	-	-	A	0.1	C	20.4
Northbound Left	-	-	-	-	C	33.1	B	12.9
Northbound Through	-	-	-	-	B	14.3	B	16.4
Southbound Through	-	-	-	-	A	6.4	A	3.5
Southbound Right	-	-	-	-	A	1.6	A	1.0
Ellsworth Road and Texas Avenue (4) - Unsignalized								
Eastbound Right	-	-	-	-	B	10.8	B	12.6
Ellsworth Road and Williams Field Road (5) - Signalized								
Overall Intersection	C	27.0	B	11.5	C	34.4	C	26.7
Eastbound Left	-	-	-	-	D	49.9	D	47.7
Eastbound Through	-	-	-	-	D	41.1	C	29.4
Eastbound Right	-	-	-	-	A	0.2	A	0.3
Westbound Left	D	37.1	B	19.0	D	46.3	D	54.8
Westbound Through	-	-	-	-	D	44.7	C	26.8
Westbound Right	C	25.0	A	4.3	A	0.9	A	1.6
Northbound Left	-	-	-	-	C	34.1	D	43.4
Northbound Through	D	37.7	B	12.0	D	49.4	C	28.2
Northbound Right	A	3.5	A	5.6	A	0.1	A	2.2
Southbound Left	D	40.0	D	42.5	D	38.2	D	53.5
Southbound Through	A	6.3	A	8.6	A	7.4	C	21.3
Southbound Right	-	-	-	-	A	0.1	A	0.6

Table 5 - Year 2031 Level of Service - Continued

Intersection	2031 No Build Conditions				2031 Build Conditions			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
Signalized Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Ellsworth Road and Legacy Drive (6) - Signalized								
Overall Intersection	C	34.8	B	16.6	C	23.8	B	17.7
Westbound Left & Shared Left-Right	C	29.0	C	22.8	C	32.3	C	22.8
Westbound Right	C	21.0	A	9.9	C	23.5	A	9.9
Northbound Through	D	49.9	C	22.9	C	31.3	C	23.6
Northbound Right	A	0.6	A	5.2	A	0.2	A	5.0
Southbound Left	D	37.7	D	47.7	C	35.0	D	42.3
Southbound Through	A	7.0	B	10.3	A	9.9	B	12.6
Ellsworth Road and Pecos Road North (7) - Signalized								
Overall Intersection	C	21.9	B	13.4	C	27.5	B	14.9
Westbound Left	D	50.5	D	35.9	D	50.5	D	35.9
Westbound Right	B	15.4	B	16.4	B	15.4	B	16.4
Northbound Through & Through Right	C	31.4	B	19.2	D	39.5	C	20.1
Southbound Left	D	41.2	D	53.5	D	42.9	D	49.2
Southbound Through	A	0.3	A	4.0	A	1.6	A	6.7
Williams Field Road and Legacy Avenue (8) - Signalized								
Overall Intersection	A	2.5	A	9.1	A	1.6	A	7.2
Eastbound Through	A	4.3	A	5.1	A	2.2	A	3.7
Eastbound Right	A	4	A	0.8	A	1.4	A	0.1
Westbound Left	A	1.2	A	2.8	A	1.2	A	2.9
Westbound Through	A	1.2	A	3.2	A	1.2	A	3.2
Northbound Left	D	36.0	D	41.0	D	36.0	D	41.0
Northbound Right	A	0.0	B	13.4	A	0.0	B	13.4
Williams Field Road and Legacy Park Driveway (9) - Unsignalized								
Northbound Right	A	0.0	A	9.6	A	0.0	B	10.3
Williams Field Road and SR-24 Southbound Ramps (10) - Signalized								
Overall Intersection	C	30.3	F	329.2	C	33.4	F	312.6
Eastbound Through	C	33.7	D	37.4	C	33.8	D	37.9
Eastbound Right	A	0	A	0.0	A	0.2	A	1.0
Wesbound Left	B	10.2	B	19.6	D	36.2	C	27.9
Westbound Through	A	0.9	A	9.6	B	19.0	B	16.1
Southbound Left	B	19.6	B	18.8	C	20.2	B	18.8
Southbound Shared Left-Through & Through-Right	C	34.0	F	388.9	D	38.0	F	388.9
Williams Field Road and SR-24 Northbound Ramps (11) - Signalized								
Overall Intersection	F	218.8	C	28.4	F	216.4	C	28.4
Eastbound Left	D	36.4	D	43.9	D	40.5	D	50
Eastbound Through	C	22.2	B	19.9	B	19.6	B	17.5
Wesbound Through	C	34.0	D	37.5	C	34.1	D	37.6
Westbound Right	F	152.8	B	15.0	F	155.9	B	15.3
Northbound Left	B	17.0	B	15.2	B	17.9	B	15.8
Northbound Through & Shared Through-Right	F	266.4	C	32.4	F	271.3	C	32.4



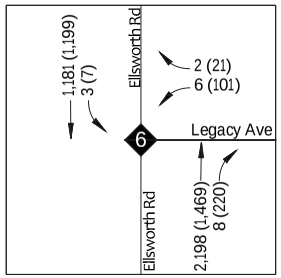


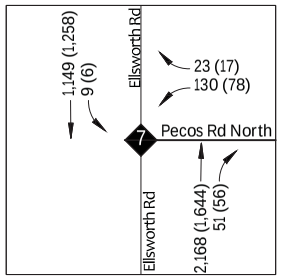


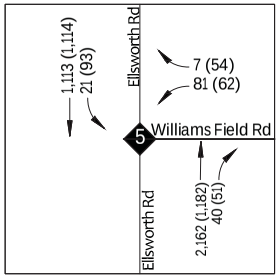
Legend

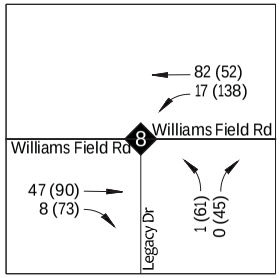
AM (PM) Peak Hour Traffic Volumes

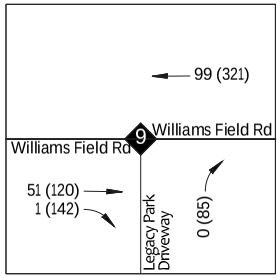
X Intersection

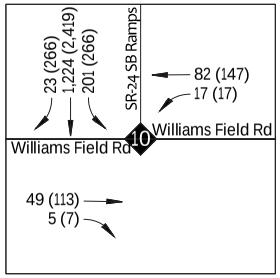












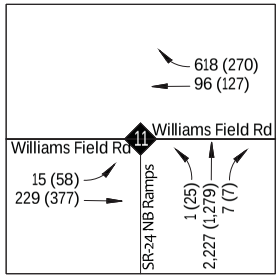
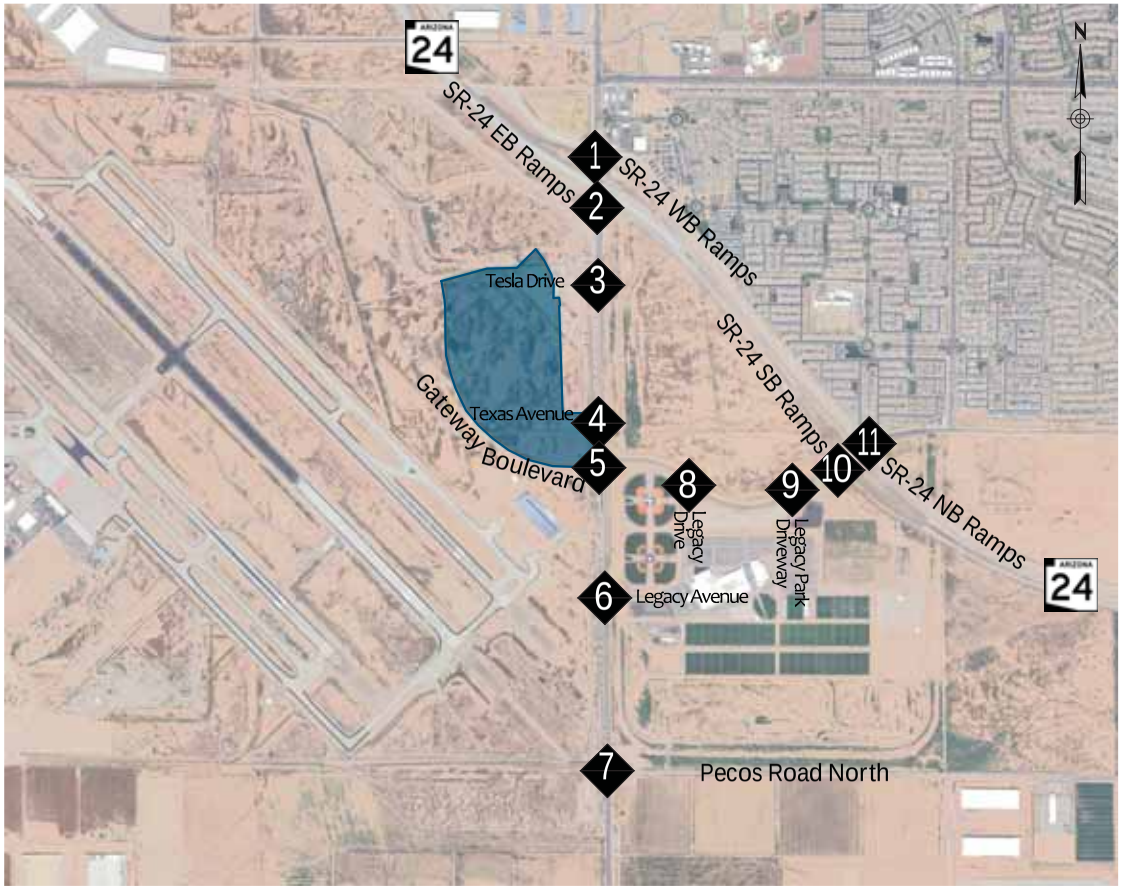


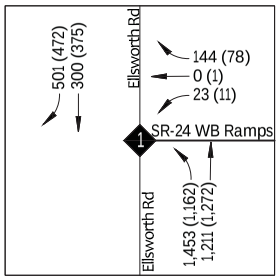
FIGURE 12 | YEAR 2031 BACKGROUND TRAFFIC VOLUMES

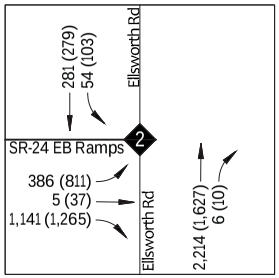


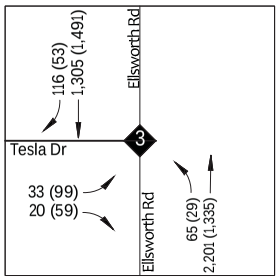
Legend

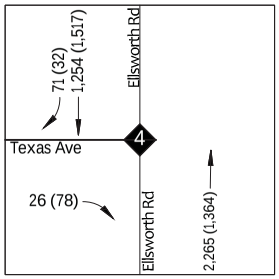
AM (PM) Peak Hour Traffic Volumes

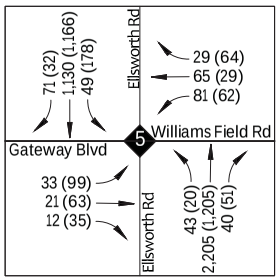
X Intersection

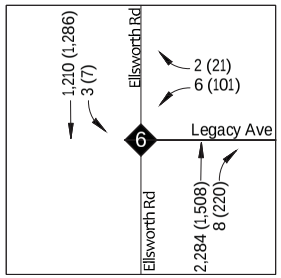


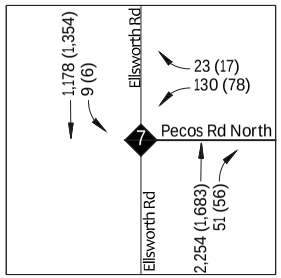


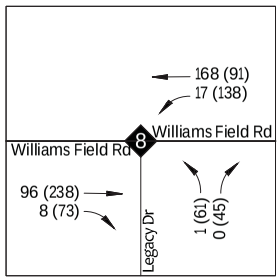


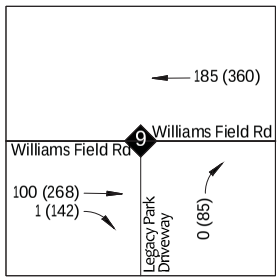


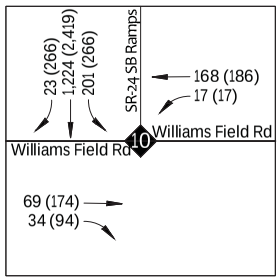












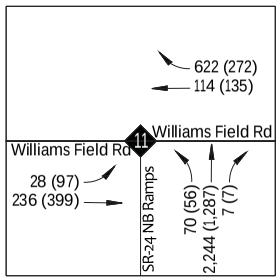
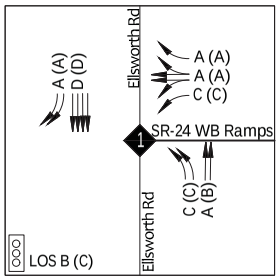
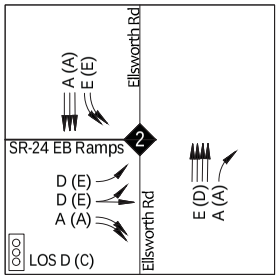
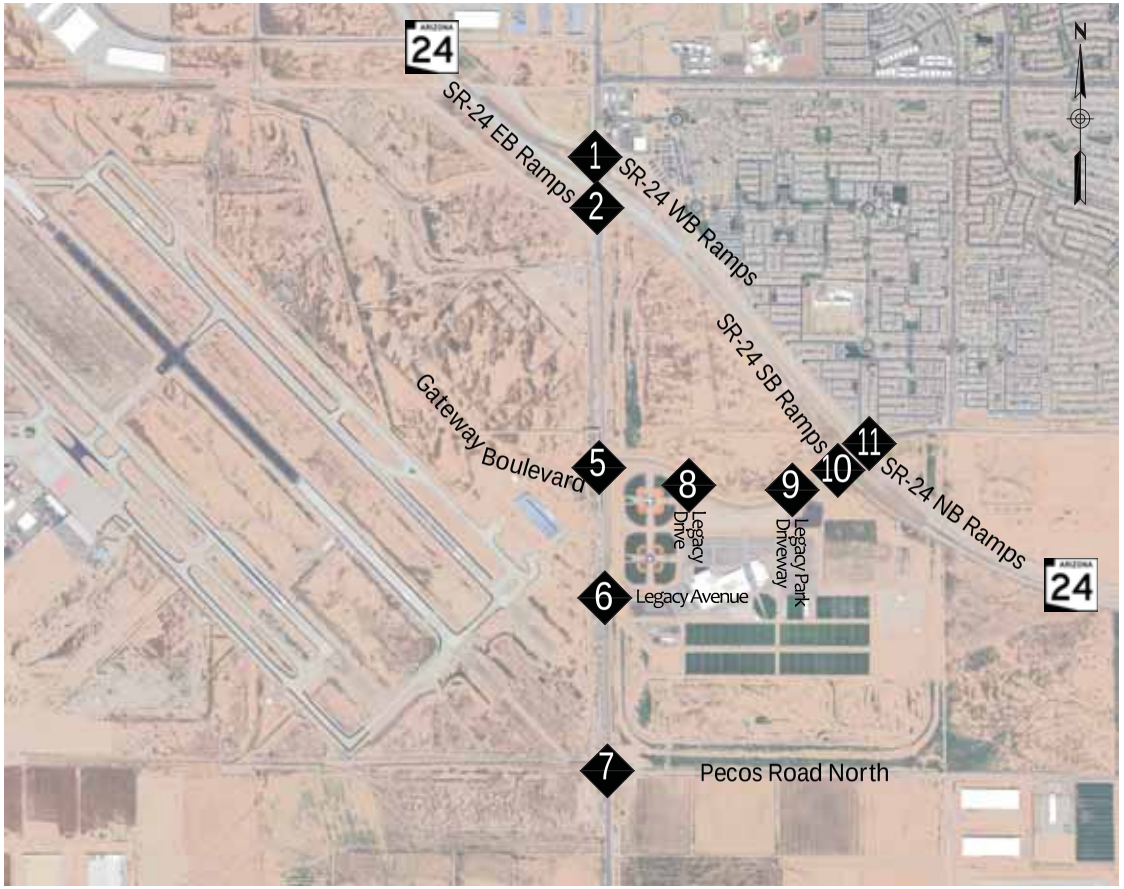
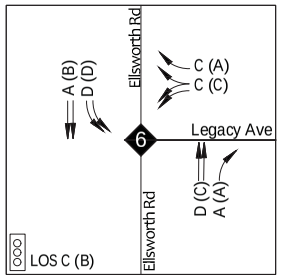


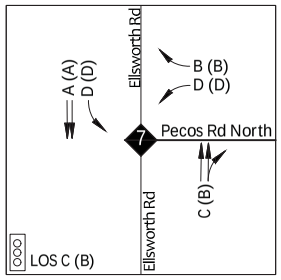
FIGURE 13 | YEAR 2031 BUILD TRAFFIC VOLUMES





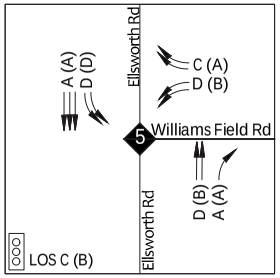


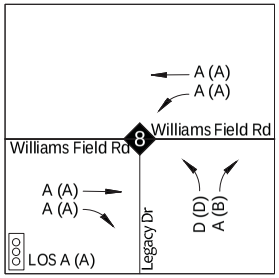


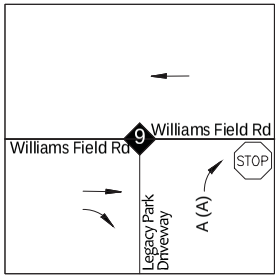


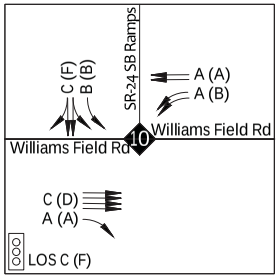
Legend

AM(PM)	Peak Hour Capacity Analysis
X	Intersection
	Lane Configuration









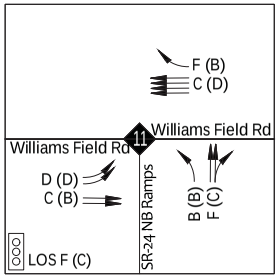


FIGURE 14 | YEAR 2031 NO BUILD CAPACITY ANALYSIS

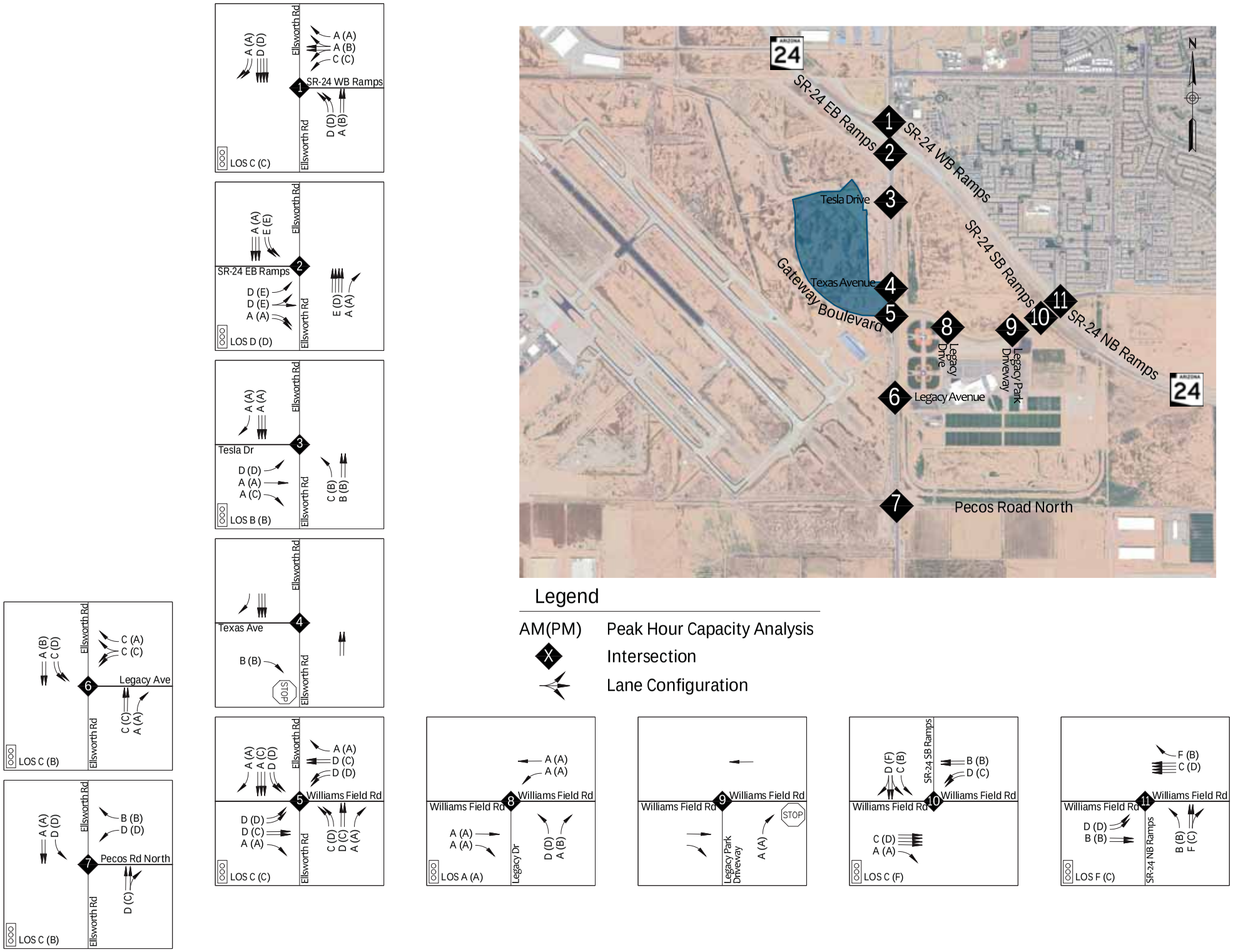


FIGURE 15 | YEAR 2031 BUILD CAPACITY ANALYSIS

8. RECOMMENDATIONS AND CONCLUSIONS

The proposed Gateway Phase I development is located on the northwest corner of Ellsworth Road and Gateway Boulevard/Williams Field Road in the City of Mesa, Arizona. The proposed Gateway Phase I development will include the following land uses:

- **Industrial Park** 1,275,000 square feet
- **Hotel** 150 rooms
- **Retail** 10,000 square feet
- **Restaurant** 5,000 square feet

For the purposes of this report, it was assumed that the development will be opened and completed in a single phase during the year 2026.

Recommendations

In addition to the future roadway network improved assumed to be built out by year 2026 as described in **Section 6.1**, the following are the recommendations with the build out of the proposed Gateway Phase I development:

- **Ellsworth Road and Tesla Drive (3)**
  Build out of a full-access signalized intersection. The eastbound approach will provide one (1) dedicated left turn lane, one (1) through lane, and one (1) dedicated right turn lane. Additionally, there will be one (1) westbound receiving lane.

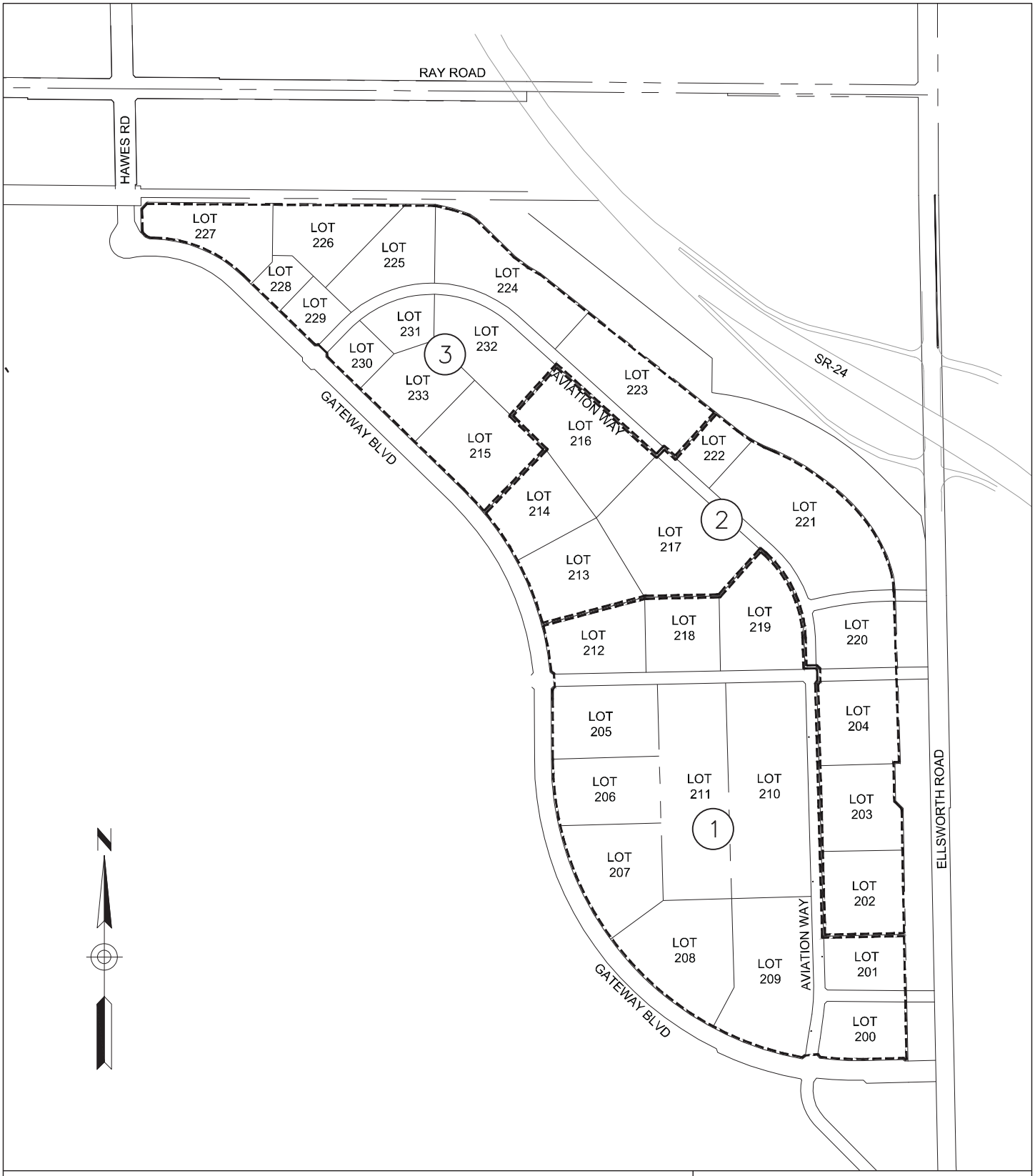
- **Ellsworth Road and Texas Avenue (4)**
  Build out of a right-in and right-out only stop-controlled driveway.

- **Tesla Drive**
  It is assumed Tesla Drive will operate with one (1) through lane in each direction of travel, with a center two-way left turn lane. These improvements will extend from Gateway Boulevard to Ellsworth Road.

As with any new development and potential change in traffic patterns, the following is recommended:

- **Monitor and Adjust Signal Timing**
  Monitor traffic patterns in the area and if necessary, adjust nearby signal timing.

Appendix A – Proposed Site Plan



GATEWAY EAST

PROJECT NAME

SITE PLAN WITH PHASES

DRAWING TITLE

EXHIBIT C(a)

SHEET NUMBER

6/27/2023

DATE

DIBBLE

Appendix B – Parcel Information

304-35-017B **Land Parcel**

This is a Land parcel located at 6001 S POWER RD 1110 MESA 85212. The current owner is PHOENIX-MESA GATEWAY AIRPORT AUTHORITY. Its current year full cash value is $20,002,600.

MAPS | PICTOMETRY | $ VIEW/PAY TAX BILL | DEED

OWNER | VALUATIONS | MAP FERRET | SIMILAR PARCELS

REGISTER RENTAL | PRINT DETAILS

PROPERTY INFORMATION

6001 S POWER RD 1110 MESA 85212

MCR #	
Description	SE4 EX S 33F RD & EX E 65F FOR ROAD P/F 08-1094192
Lat/Long	[
Lot Size	6,672,643 sq ft.
Zoning	LI
Lot #	
High School District	QUEEN CREEK UNIFIED #95
Elementary School District	QUEEN CREEK UNIFIED SCHOOL DISTRICT
Local Jurisdiction	MESA
S/T/R	28 1S 7E
Market Area/Neighborhood	28/005
Subdivision (0 Parcels)	

OWNER INFORMATION

PHOENIX-MESA GATEWAY AIRPORT AUTHORITY

Mailing Address	600 S POWER RD BLDG, MESA, AZ 852065219
Deed Number	20120207529

Last Deed Date	03/13/2012
Sale Date	n/a
Sale Price	n/a

VALUATION INFORMATION

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.

The Valuation Information displayed below may not reflect the taxable value used on the tax bill due to any special valuation relief program. CLICK HERE TO PAY YOUR TAXES OR VIEW YOUR TAX BILL

Tax Year	2024	2023	2022	2021	2020
Full Cash Value	$20,002,600	$16,951,400	$9,297,100	$8,412,300	$7,373,900
Limited Value	$8,102,091	$7,716,278	$7,348,836	$6,998,891	$6,665,610
Legal Class	2.R	2.R	2.R	2.R	2.R
Description	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	15%	15%	15%	15%	15%
Assessed LPV	$1,215,313	$1,157,442	$1,102,325	$1,049,834	$999,842
Property Use Code	9705	9705	9700	9700	9700
PU Description	Municipal Ownership	Municipal Ownership	Municipal Ownership	Municipal Ownership	Municipal Ownership
Tax Area Code	951006	951006	951006	951006	951006
Valuation Source	Notice	Notice	Notice	Notice	Notice

MAP FERRET MAPS

Mapferret maps, also known as MapId maps, pdf maps, or output maps are now available here without having to search.

Please wait
Checking for MapId maps

CAUTION! USERS SHOULD INDEPENDENTLY RESEARCH AND VERIFY INFORMATION ON THIS WEBSITE BEFORE RELYING ON IT.

The Assessor's Office has compiled information on this website that it uses to identify, classify, and value real and personal property. Please contact the Maricopa County S.T.A.R. Center at (602) 506-3406 if you believe any information is incomplete, out of date, or incorrect so that appropriate corrections can be addressed. Please note that a statutory process is also available to correct errors pursuant to Arizona Revised Statutes 42-16254.

The Assessor does not guarantee that any information provided on this website is accurate, complete, or current. In many instances, the Assessor has gathered information from independent sources and made it available on this site, and the original information may have contained errors and omissions. Errors and omissions may also have occurred in the process of gathering, interpreting, and reporting the information. Information on the website is not updated in "real time". In addition, users are cautioned that the process used on this site to illustrate the boundaries of the adjacent parcels is not always consistent with the recorded documents for such parcels. The parcel boundaries depicted on this site are for illustrative purposes only, and the exact relationship of adjacent parcels should be independently researched and verified. The information provided on this site is not the equivalent of a title report or a real estate survey. Users should independently research, investigate and verify all information before relying on it or in the preparation of legal documents.

By using this website, you acknowledge having read the above and waive any right you may have to claim against Maricopa County, its officers, employees, and contractors arising out of my reliance on or the use of the information provided on this website.

304-35-025A **Land Parcel**

This is a Land parcel located at 6001 S POWER RD 1101 MESA 85212. The current owner is PHOENIX-MESA GATEWAY AIRPORT AUTHORITY. Its current year full cash value is $20,130,500.

MAPS | PICTOMETRY | $ VIEW/PAY TAX BILL | DEED

OWNER | VALUATIONS | MAP FERRET | SIMILAR PARCELS

REGISTER RENTAL | PRINT DETAILS

PROPERTY INFORMATION

6001 S POWER RD 1101 MESA 85212

MCR #	
Description	NE4 EX N 33F RD & EX E 65F FOR RD P/F 08-1094192
Lat/Long	[
Lot Size	6,724,587 sq ft.
Zoning	LI
Lot #	
High School District	QUEEN CREEK UNIFIED #95
Elementary School District	QUEEN CREEK UNIFIED SCHOOL DISTRICT
Local Jurisdiction	MESA
S/T/R	33 1S 7E
Market Area/Neighborhood	28/005
Subdivision (0 Parcels)	

OWNER INFORMATION

PHOENIX-MESA GATEWAY AIRPORT AUTHORITY

Mailing Address	600 S POWER RD BLDG, MESA, AZ 852065219
Deed Number	20120207529

Last Deed Date	03/13/2012
Sale Date	n/a
Sale Price	n/a

VALUATION INFORMATION

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.

The Valuation Information displayed below may not reflect the taxable value used on the tax bill due to any special valuation relief program. CLICK HERE TO PAY YOUR TAXES OR VIEW YOUR TAX BILL

Tax Year	2024	2023	2022	2021	2020
Full Cash Value	$20,130,500	$17,059,700	$9,345,300	$8,456,000	$7,412,300
Limited Value	$8,143,953	$7,756,146	$7,386,806	$7,035,053	$6,700,050
Legal Class	2.R	2.R	2.R	2.R	2.R
Description	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	15%	15%	15%	15%	15%
Assessed LPV	$1,221,593	$1,163,422	$1,108,021	$1,055,258	$1,005,008
Property Use Code	9705	9705	9700	9700	9700
PU Description	Municipal Ownership	Municipal Ownership	Municipal Ownership	Municipal Ownership	Municipal Ownership
Tax Area Code	951006	951006	951006	951006	951006
Valuation Source	Notice	Notice	Notice	Notice	Notice

MAP FERRET MAPS

Mapferret maps, also known as MapId maps, pdf maps, or output maps are now available here without having to search.

- Parcel Maps (1)
- Book/Map Maps (22)

CAUTION! USERS SHOULD INDEPENDENTLY RESEARCH AND VERIFY INFORMATION ON THIS WEBSITE BEFORE RELYING ON IT.

The Assessor's Office has compiled information on this website that it uses to identify, classify, and value real and personal property. Please contact the Maricopa County S.T.A.R. Center at (602) 506-3406 if you believe any information is incomplete, out of date, or incorrect so that appropriate corrections can be addressed. Please note that a statutory process is also available to correct errors pursuant to Arizona Revised Statutes 42-16254.

The Assessor does not guarantee that any information provided on this website is accurate, complete, or current. In many instances, the Assessor has gathered information from independent sources and made it available on this site, and the original information may have contained errors and omissions. Errors and omissions may also have occurred in the process of gathering, interpreting, and reporting the information. Information on the website is not updated in "real time". In addition, users are cautioned that the process used on this site to illustrate the boundaries of the adjacent parcels is not always consistent with the recorded documents for such parcels. The parcel boundaries depicted on this site are for illustrative purposes only, and the exact relationship of adjacent parcels should be independently researched and verified. The information provided on this site is not the equivalent of a title report or a real estate survey. Users should independently research, investigate and verify all information before relying on it or in the preparation of legal documents.

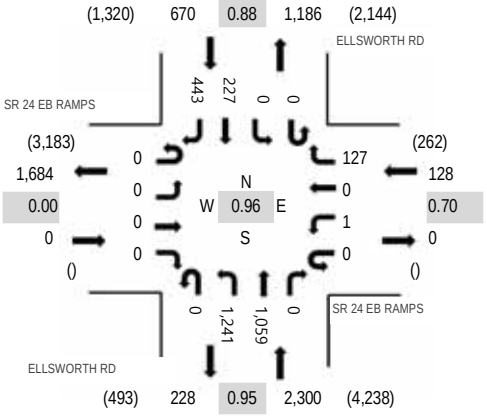
By using this website, you acknowledge having read the above and waive any right you may have to claim against Maricopa County, its officers, employees, and contractors arising out of my reliance on or the use of the information provided on this website.

Appendix C – Traffic Count Data

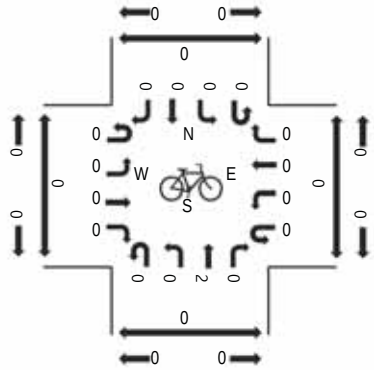
(303) 216-2439
www.alltrafficdata.net

Location: 8 ELLSWORTH RD & SR 24 EB RAMPS AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

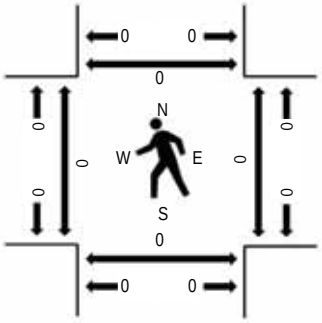
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

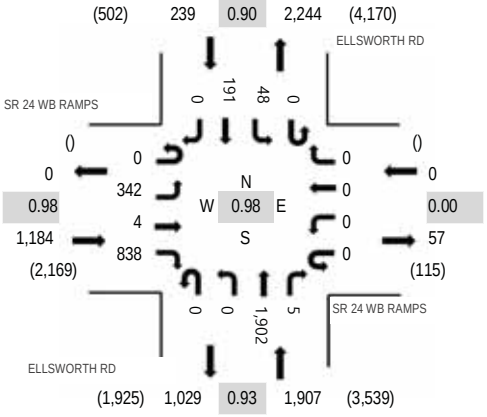
Traffic Counts - Motorized Vehicles

Interval Start Time	SR 24 EB RAMPS Eastbound				SR 24 EB RAMPS Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	0	0	39	0	321	286	0	0	0	47	112	805	3,098	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	37	0	321	244	0	0	0	61	129	792	3,004	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	29	0	298	255	0	0	0	56	93	731	2,941	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	22	0	301	274	0	0	0	63	109	770	2,847	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	49	0	280	223	0	0	0	64	95	711	2,722	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	31	0	288	246	0	0	0	58	105	729		0	0	0	0
8:30 AM	0	0	0	0	0	1	0	30	0	254	183	0	0	0	74	95	637		0	0	0	0
8:45 AM	0	0	0	0	0	2	0	20	0	288	176	0	0	0	65	94	645		0	0	0	0
Count Total	0	0	0	0	0	5	0	257	0	2,351	1,887	0	0	0	488	832	5,820		0	0	0	0
Peak Hour	0	0	0	0	0	1	0	127	0	1,241	1,059	0	0	0	227	443	3,098		0	0	0	0

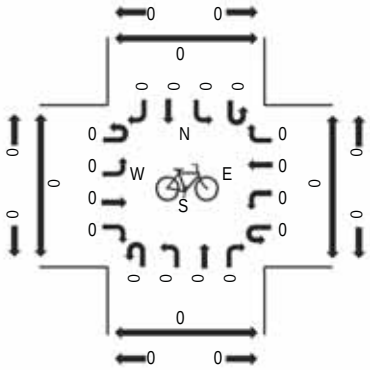
(303) 216-2439
www.alltrafficdata.net

Location: 9 ELLSWORTH RD & SR 24 WB RAMPS AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

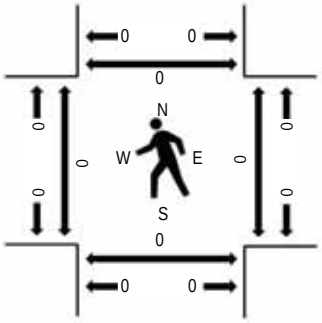
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

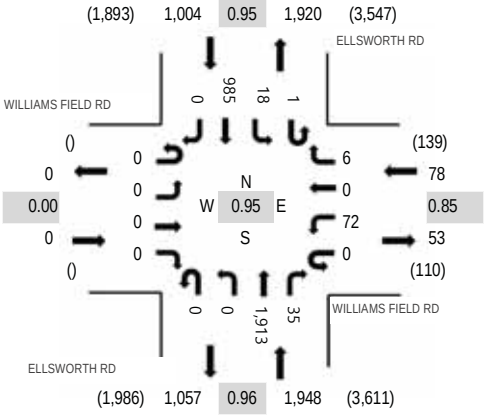
Traffic Counts - Motorized Vehicles

Interval Start Time	SR 24 WB RAMPS Eastbound				SR 24 WB RAMPS Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	83	3	204	0	0	0	0	0	0	514	0	0	10	36	0	850	3,330	0	0	0	0
7:15 AM	0	80	1	211	0	0	0	0	0	0	471	2	0	11	48	0	824	3,217	0	0	0	0
7:30 AM	0	79	0	224	0	0	0	0	0	0	467	1	0	11	55	0	837	3,174	0	0	0	0
7:45 AM	0	100	0	199	0	0	0	0	0	0	450	2	0	16	52	0	819	3,013	0	0	0	0
8:00 AM	0	70	1	178	0	0	0	0	0	0	426	1	0	20	41	0	737	2,880	0	0	0	0
8:15 AM	0	90	4	182	0	0	0	0	0	0	443	2	0	11	49	0	781		0	0	0	0
8:30 AM	0	65	0	166	0	0	0	0	0	0	371	1	0	6	67	0	676		0	0	0	0
8:45 AM	0	74	0	155	0	0	0	0	0	0	387	1	0	11	58	0	686		0	0	0	0
Count Total	0	641	9	1,519	0	0	0	0	0	0	3,529	10	0	96	406	0	6,210		0	0	0	0
Peak Hour	0	342	4	838	0	0	0	0	0	0	1,902	5	0	48	191	0	3,330		0	0	0	0

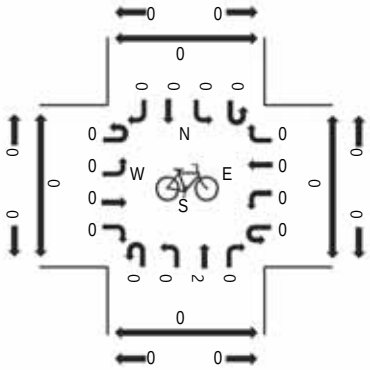
(303) 216-2439
www.alltrafficdata.net

Location: 10 ELLSWORTH RD & WILLIAMS FIELD RD AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

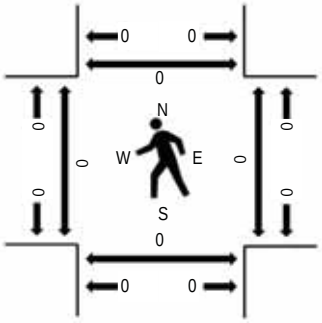
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

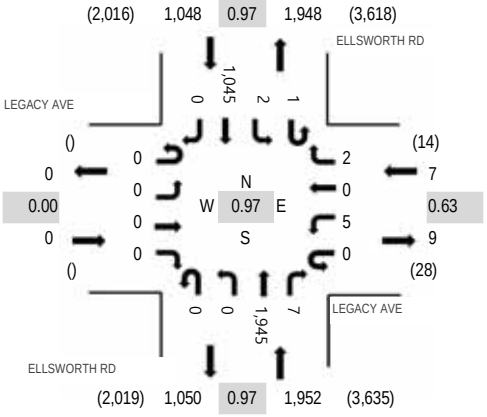
Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	20	0	1	0	0	489	7	0	2	209	0	728	3,030	0	0	0	0
7:15 AM	0	0	0	0	0	22	0	1	0	0	491	14	0	3	265	0	796	2,990	0	0	0	0
7:30 AM	0	0	0	0	0	15	0	1	0	0	480	9	1	7	256	0	769	2,873	0	0	0	0
7:45 AM	0	0	0	0	0	15	0	3	0	0	453	5	0	6	255	0	737	2,728	0	0	0	0
8:00 AM	0	0	0	0	0	17	0	1	0	0	427	14	0	0	229	0	688	2,613	0	0	0	0
8:15 AM	0	0	0	0	0	7	0	1	0	0	438	9	1	4	219	0	679		0	0	0	0
8:30 AM	0	0	0	0	0	18	0	3	0	0	365	10	1	3	224	0	624		0	0	0	0
8:45 AM	0	0	0	0	0	13	0	1	0	0	388	12	1	5	202	0	622		0	0	0	0
Count Total	0	0	0	0	0	127	0	12	0	0	3,531	80	4	30	1,859	0	5,643		0	0	0	0
Peak Hour	0	0	0	0	0	72	0	6	0	0	1,913	35	1	18	985	0	3,030		0	0	0	0

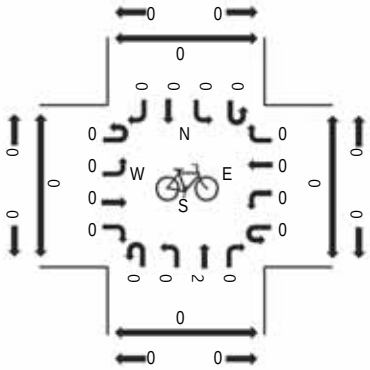
(303) 216-2439
www.alltrafficdata.net

Location: 11 ELLSWORTH RD & LEGACY AVE AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

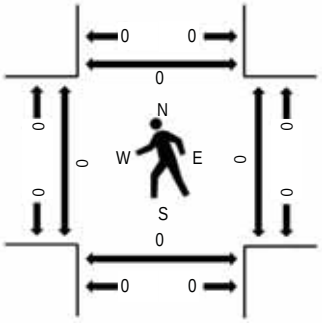
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	LEGACY AVE Eastbound				LEGACY AVE Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	1	0	0	0	0	502	1	0	1	229	0	734	3,007	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	502	0	0	0	276	0	779	2,977	0	0	0	0
7:30 AM	0	0	0	0	0	2	0	0	0	0	479	1	1	1	273	0	757	2,896	0	0	0	0
7:45 AM	0	0	0	0	0	2	0	1	0	0	462	5	0	0	267	0	737	2,754	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	0	446	3	0	1	253	0	704	2,658	0	0	0	0
8:15 AM	0	0	0	0	0	2	0	2	0	0	442	4	0	0	248	0	698		0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	368	5	0	1	240	0	615		0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	412	3	0	2	223	0	641		0	0	0	0
Count Total	0	0	0	0	0	10	0	4	0	0	3,613	22	1	6	2,009	0	5,665		0	0	0	0
Peak Hour	0	0	0	0	0	5	0	2	0	0	1,945	7	1	2	1,045	0	3,007		0	0	0	0

(303) 216-2439
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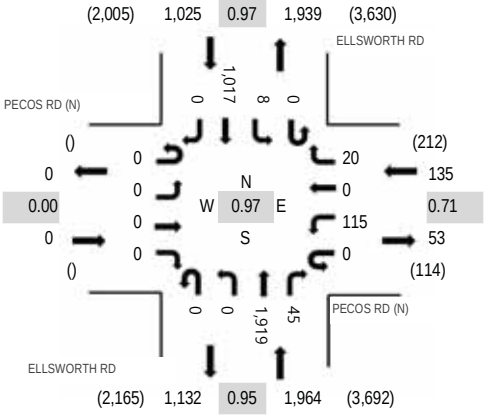
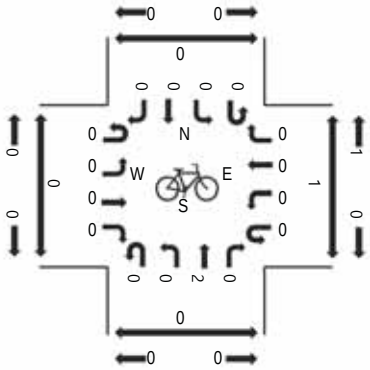
Location: 12 ELLSWORTH RD & PECOS RD (N) AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

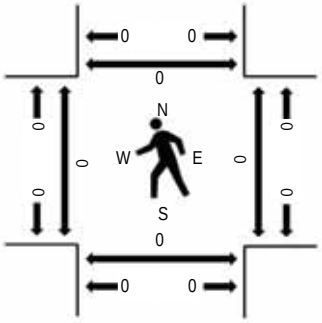
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

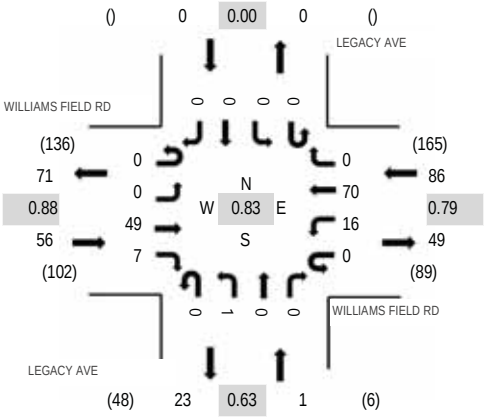
Traffic Counts - Motorized Vehicles

Interval Start Time	PECOS RD (N) Eastbound				PECOS RD (N) Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	25	0	3	0	0	505	6	0	1	228	0	768	3,124	0	0	0	0
7:15 AM	0	0	0	0	0	19	0	3	0	0	504	11	0	5	264	0	806	3,118	0	0	0	0
7:30 AM	0	0	0	0	0	41	0	7	0	0	474	13	0	1	261	0	797	3,031	0	0	0	0
7:45 AM	0	0	0	0	0	30	0	7	0	0	436	15	0	1	264	0	753	2,888	0	0	0	0
8:00 AM	0	0	0	0	0	25	0	4	0	0	467	16	0	2	248	0	762	2,785	0	0	0	0
8:15 AM	0	0	0	0	0	11	0	5	0	0	429	13	0	3	258	0	719		0	0	0	0
8:30 AM	0	0	0	0	0	15	0	3	0	0	377	14	0	3	242	0	654		0	0	0	0
8:45 AM	0	0	0	0	0	11	0	3	0	0	403	9	0	1	223	0	650		0	0	0	0
Count Total	0	0	0	0	0	177	0	35	0	0	3,595	97	0	17	1,988	0	5,909		0	0	0	0
Peak Hour	0	0	0	0	0	115	0	20	0	0	1,919	45	0	8	1,017	0	3,124		0	0	0	0

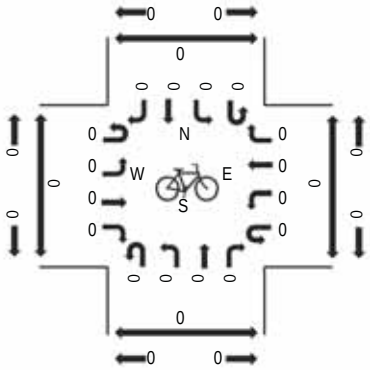
(303) 216-2439
www.alltrafficdata.net

Location: 14 LEGACY AVE & WILLIAMS FIELD RD AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

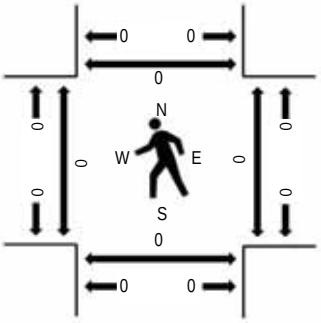
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

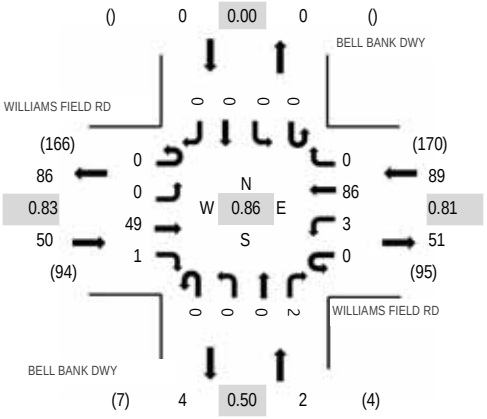
Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				LEGACY AVE Northbound				LEGACY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	8	0	0	2	20	0	0	1	0	0	0	0	0	0	31	138	0	0	0	0
7:15 AM	0	0	13	2	0	3	25	0	0	0	0	0	0	0	0	0	43	143	0	0	0	0
7:30 AM	0	0	14	2	0	2	12	0	0	0	0	0	0	0	0	0	30	126	0	0	0	0
7:45 AM	0	0	7	3	0	8	16	0	0	0	0	0	0	0	0	0	34	130	0	0	0	0
8:00 AM	0	0	15	0	0	3	17	0	0	1	0	0	0	0	0	0	36	135	0	0	0	0
8:15 AM	0	0	7	2	0	6	11	0	0	0	0	0	0	0	0	0	26		0	0	0	0
8:30 AM	0	0	10	1	0	2	19	0	0	1	0	1	0	0	0	0	34		0	0	0	0
8:45 AM	0	0	13	5	0	7	12	0	0	1	0	1	0	0	0	0	39		0	0	0	0
Count Total	0	0	87	15	0	33	132	0	0	4	0	2	0	0	0	0	273		0	0	0	0
Peak Hour	0	0	49	7	0	16	70	0	0	1	0	0	0	0	0	0	143		0	0	0	0

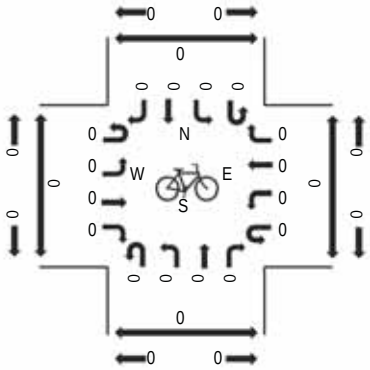
(303) 216-2439
www.alltrafficdata.net

Location: 15 BELL BANK DWY & WILLIAMS FIELD RD AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

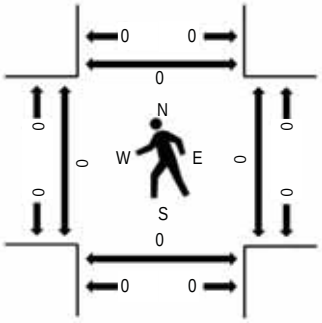
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				BELL BANK DWY Northbound				BELL BANK DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	11	0	0	1	22	0	0	0	0	0	0	0	0	0	34	137	0	0	0	0
7:15 AM	0	0	13	0	0	1	27	0	0	0	0	0	0	0	0	0	41	141	0	0	0	0
7:30 AM	0	0	14	0	0	0	14	0	0	0	0	0	0	0	0	0	28	124	0	0	0	0
7:45 AM	0	0	7	1	0	1	25	0	0	0	0	0	0	0	0	0	34	131	0	0	0	0
8:00 AM	0	0	15	0	0	1	20	0	0	0	0	2	0	0	0	0	38	131	0	0	0	0
8:15 AM	0	0	6	0	0	1	16	0	0	1	0	0	0	0	0	0	24		0	0	0	0
8:30 AM	0	0	12	1	0	0	22	0	0	0	0	0	0	0	0	0	35		0	0	0	0
8:45 AM	0	0	14	0	0	0	19	0	0	0	0	1	0	0	0	0	34		0	0	0	0
Count Total	0	0	92	2	0	5	165	0	0	1	0	3	0	0	0	0	268		0	0	0	0
Peak Hour	0	0	49	1	0	3	86	0	0	0	0	2	0	0	0	0	141		0	0	0	0

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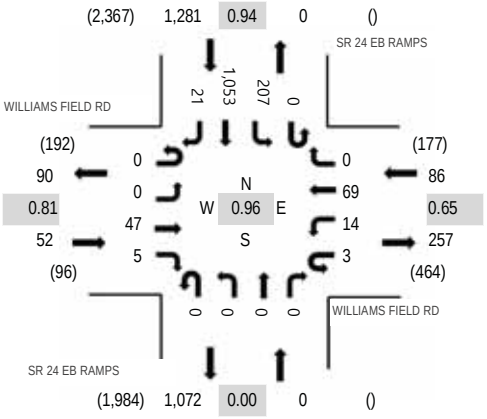
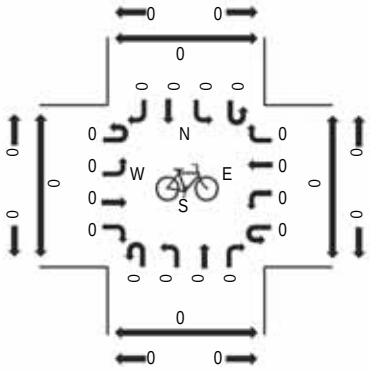
Location: 16 SR 24 EB RAMPS & WILLIAMS FIELD RD AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

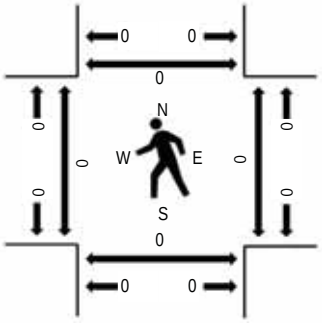
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				SR 24 EB RAMPS Northbound				SR 24 EB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	11	0	0	3	20	0	0	0	0	0	0	38	233	4	309	1,416	0	0	0	0
7:15 AM	0	0	12	1	1	4	22	0	0	0	0	0	0	50	272	6	368	1,419	0	0	0	0
7:30 AM	0	0	14	1	1	2	11	0	0	0	0	0	0	35	303	3	370	1,348	0	0	0	0
7:45 AM	0	0	6	2	1	3	20	0	0	0	0	0	0	55	275	7	369	1,276	0	0	0	0
8:00 AM	0	0	15	1	0	5	16	0	0	0	0	0	0	67	203	5	312	1,224	0	0	0	0
8:15 AM	0	0	7	0	0	4	9	0	0	0	0	0	0	58	211	8	297		0	0	0	0
8:30 AM	0	0	9	2	0	5	16	0	0	0	0	0	0	29	230	7	298		0	0	0	0
8:45 AM	0	0	15	0	0	3	31	0	0	0	0	0	0	40	221	7	317		0	0	0	0
Count Total	0	0	89	7	3	29	145	0	0	0	0	0	0	372	1,948	47	2,640		0	0	0	0
Peak Hour	0	0	47	5	3	14	69	0	0	0	0	0	0	207	1,053	21	1,419		0	0	0	0

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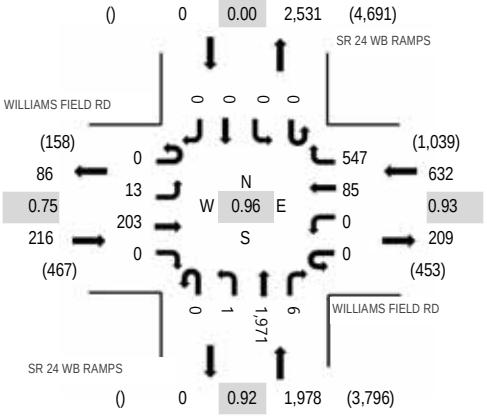
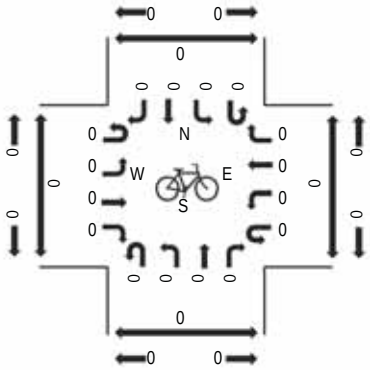
Location: 17 SR 24 WB RAMPS & WILLIAMS FIELD RD AM
Date: Wednesday, May 17, 2023
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM

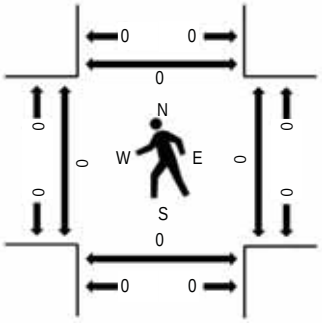
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				SR 24 WB RAMPS Northbound				SR 24 WB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	49	0	0	0	24	123	0	0	531	6	0	0	0	0	734	2,826	0	0	0	0
7:15 AM	0	5	51	0	0	0	26	125	0	0	514	0	0	0	0	0	721	2,816	0	0	0	0
7:30 AM	0	5	51	0	0	0	22	147	0	0	458	0	0	0	0	0	683	2,718	0	0	0	0
7:45 AM	0	2	52	0	0	0	13	152	0	1	468	0	0	0	0	0	688	2,633	0	0	0	0
8:00 AM	0	4	83	0	0	0	20	120	0	1	494	2	0	0	0	0	724	2,476	0	0	0	0
8:15 AM	0	2	62	0	0	0	11	87	0	2	457	2	0	0	0	0	623		0	0	0	0
8:30 AM	0	2	40	0	0	0	20	71	0	1	463	1	0	0	0	0	598		0	0	0	0
8:45 AM	0	6	52	0	0	0	15	63	0	2	391	2	0	0	0	0	531		0	0	0	0
Count Total	0	27	440	0	0	0	151	888	0	7	3,776	13	0	0	0	0	5,302		0	0	0	0
Peak Hour	0	13	203	0	0	0	85	547	0	1	1,971	6	0	0	0	0	2,826		0	0	0	0

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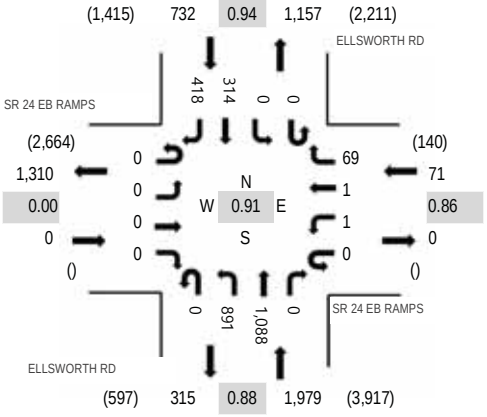
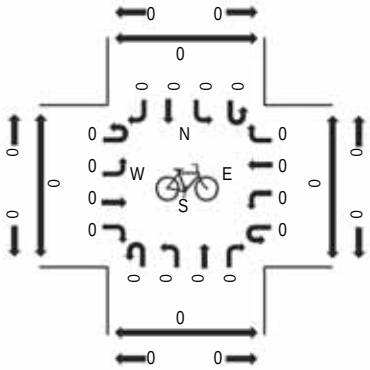
Location: 8 ELLSWORTH RD & SR 24 EB RAMPS PM
Date: Wednesday, May 17, 2023
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

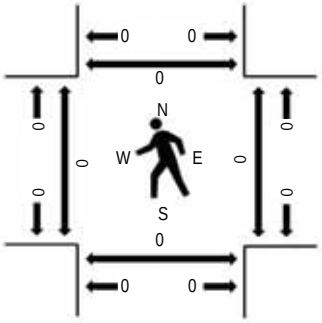
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 24 EB RAMPS Eastbound				SR 24 EB RAMPS Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	0	0	15	0	235	264	0	0	0	88	119	721	2,690	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	13	0	246	246	0	0	0	58	100	663	2,614	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	24	0	251	238	0	0	0	76	89	678	2,715	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	17	0	221	237	0	0	0	60	93	628	2,748	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	21	0	192	243	0	0	0	77	112	645	2,782	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	20	0	273	288	0	0	0	72	110	764		0	0	0	0
5:30 PM	0	0	0	0	0	0	1	17	0	215	284	0	0	0	84	110	711		0	0	0	0
5:45 PM	0	0	0	0	0	0	0	11	0	211	273	0	0	0	81	86	662		0	0	0	0
Count Total	0	0	0	0	0	1	1	138	0	1,844	2,073	0	0	0	596	819	5,472		0	0	0	0
Peak Hour	0	0	0	0	0	1	1	69	0	891	1,088	0	0	0	314	418	2,782		0	0	0	0

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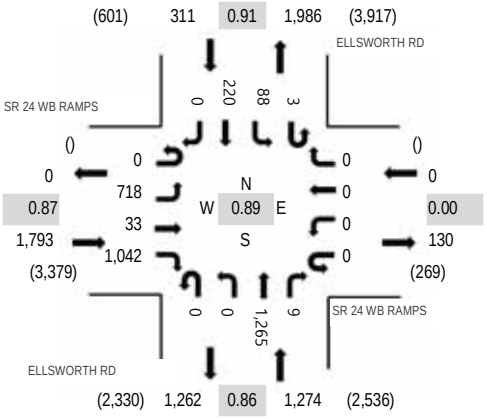
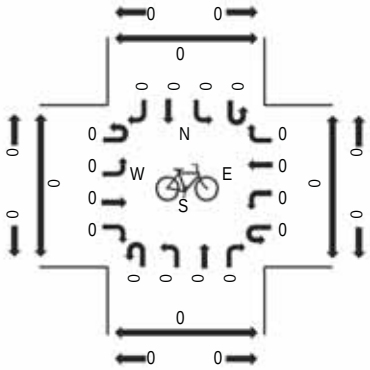
Location: 9 ELLSWORTH RD & SR 24 WB RAMPS PM
Date: Wednesday, May 17, 2023
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

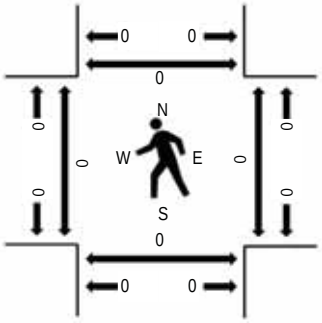
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 24 WB RAMPS Eastbound				SR 24 WB RAMPS Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	177	32	223	0	0	0	0	0	0	313	4	1	34	56	0	840	3,138	0	0	0	0
4:15 PM	0	170	3	231	0	0	0	0	0	0	333	2	1	22	40	0	802	3,033	0	0	0	0
4:30 PM	0	151	7	209	0	0	0	0	0	0	337	2	1	17	57	0	781	3,181	0	0	0	0
4:45 PM	0	176	0	207	0	0	0	0	0	0	271	0	0	16	45	0	715	3,278	0	0	0	0
5:00 PM	0	177	2	229	0	0	0	0	0	0	253	0	0	25	49	0	735	3,378	0	0	0	0
5:15 PM	0	189	5	319	0	0	0	0	0	0	367	3	0	14	53	0	950		0	0	0	0
5:30 PM	0	181	9	274	0	0	0	0	0	0	329	0	2	17	66	0	878		0	0	0	0
5:45 PM	0	171	17	220	0	0	0	0	0	0	316	6	1	32	52	0	815		0	0	0	0
Count Total	0	1,392	75	1,912	0	0	0	0	0	0	2,519	17	6	177	418	0	6,516		0	0	0	0
Peak Hour	0	718	33	1,042	0	0	0	0	0	0	1,265	9	3	88	220	0	3,378		0	0	0	0

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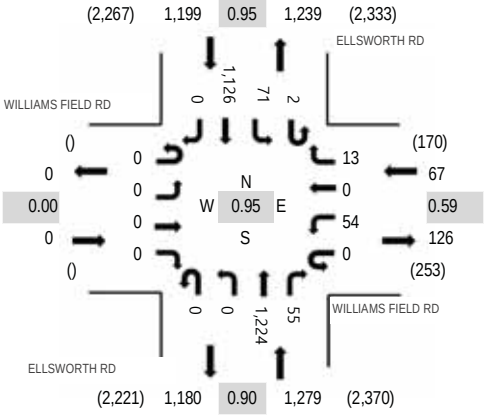
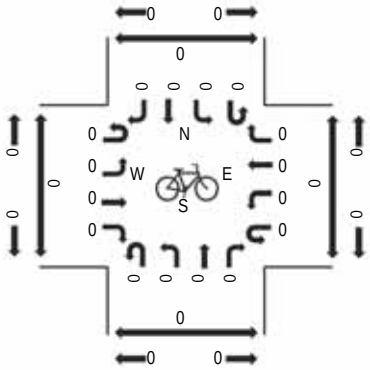
Location: 10 ELLSWORTH RD & WILLIAMS FIELD RD PM
Date: Wednesday, May 17, 2023
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

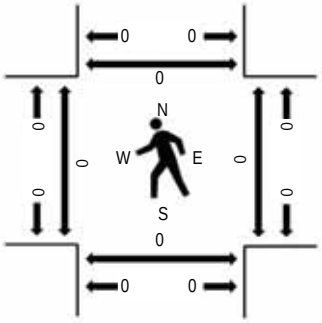
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	14	0	2	0	0	327	4	1	19	279	0	646	2,545	0	0	0	0
4:15 PM	0	0	0	0	0	13	0	1	0	0	326	16	1	16	297	0	670	2,476	0	0	0	0
4:30 PM	0	0	0	0	0	16	0	6	0	0	336	18	0	15	278	0	669	2,243	0	0	0	0
4:45 PM	0	0	0	0	0	11	0	4	0	0	235	17	0	21	272	0	560	2,249	0	0	0	0
5:00 PM	0	0	0	0	0	13	0	3	0	0	297	14	0	14	236	0	577	2,262	0	0	0	0
5:15 PM	0	0	0	0	0	10	0	5	0	0	123	8	0	22	269	0	437		0	0	0	0
5:30 PM	0	0	0	0	0	14	0	14	0	0	365	14	0	20	248	0	675		0	0	0	0
5:45 PM	0	0	0	0	0	18	0	26	0	0	261	9	0	26	233	0	573		0	0	0	0
Count Total	0	0	0	0	0	109	0	61	0	0	2,270	100	2	153	2,112	0	4,807		0	0	0	0
Peak Hour	0	0	0	0	0	54	0	13	0	0	1,224	55	2	71	1,126	0	2,545		0	0	0	0

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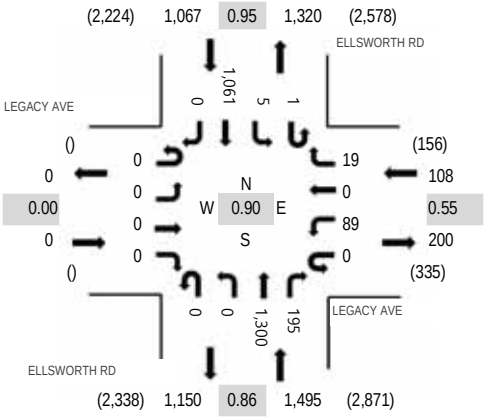
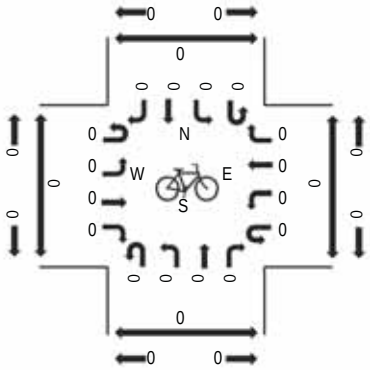
Location: 11 ELLSWORTH RD & LEGACY AVE PM
Date: Wednesday, May 17, 2023
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

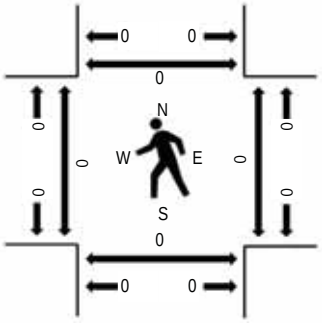
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	LEGACY AVE Eastbound				LEGACY AVE Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	9	0	4	0	0	332	12	0	0	296	0	653	2,581	0	0	0	0
4:15 PM	0	0	0	0	0	4	0	1	0	0	337	30	0	0	303	0	675	2,582	0	0	0	0
4:30 PM	0	0	0	0	0	8	0	2	0	0	338	43	0	2	294	0	687	2,648	0	0	0	0
4:45 PM	0	0	0	0	0	14	0	6	0	0	237	47	1	1	260	0	566	2,630	0	0	0	0
5:00 PM	0	0	0	0	0	8	0	1	0	0	333	44	0	0	268	0	654	2,670	0	0	0	0
5:15 PM	0	0	0	0	0	7	0	4	0	0	369	66	0	2	293	0	741		0	0	0	0
5:30 PM	0	0	0	0	0	32	0	7	0	0	332	45	1	2	250	0	669		0	0	0	0
5:45 PM	0	0	0	0	0	42	0	7	0	0	266	40	0	1	250	0	606		0	0	0	0
Count Total	0	0	0	0	0	124	0	32	0	0	2,544	327	2	8	2,214	0	5,251		0	0	0	0
Peak Hour	0	0	0	0	0	89	0	19	0	0	1,300	195	1	5	1,061	0	2,670		0	0	0	0

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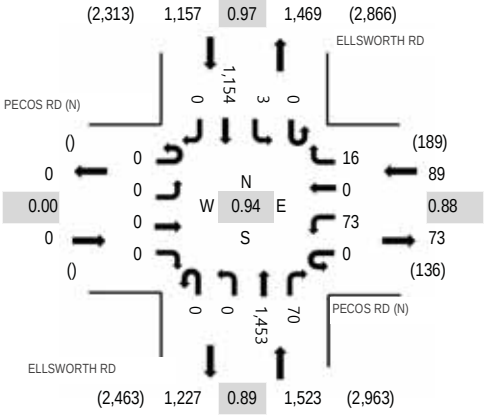
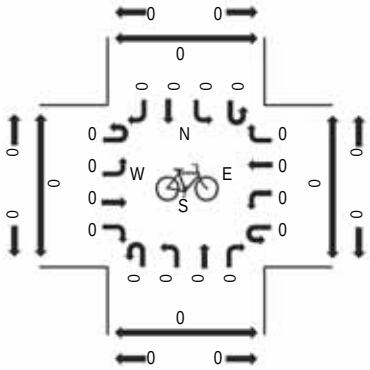
Location: 12 ELLSWORTH RD & PECOS RD (N) PM
Date: Wednesday, May 17, 2023
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

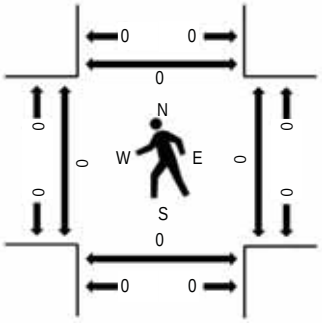
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	PECOS RD (N) Eastbound				PECOS RD (N) Westbound				ELLSWORTH RD Northbound				ELLSWORTH RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	21	0	1	0	0	344	15	0	1	307	0	689	2,758	0	0	0	0
4:15 PM	0	0	0	0	0	25	0	5	0	0	368	15	0	1	298	0	712	2,743	0	0	0	0
4:30 PM	0	0	0	0	0	25	0	5	0	0	366	26	0	1	292	0	715	2,769	0	0	0	0
4:45 PM	0	0	0	0	0	19	0	4	0	0	303	21	0	1	294	0	642	2,734	0	0	0	0
5:00 PM	0	0	0	0	0	14	0	5	0	0	364	15	0	0	276	0	674	2,707	0	0	0	0
5:15 PM	0	0	0	0	0	15	0	2	0	0	420	8	0	1	292	0	738		0	0	0	0
5:30 PM	0	0	0	0	0	18	0	4	0	0	367	11	0	3	277	0	680		0	0	0	0
5:45 PM	0	0	0	0	0	22	0	4	0	0	304	16	0	1	268	0	615		0	0	0	0
Count Total	0	0	0	0	0	159	0	30	0	0	2,836	127	0	9	2,304	0	5,465		0	0	0	0
Peak Hour	0	0	0	0	0	73	0	16	0	0	1,453	70	0	3	1,154	0	2,769		0	0	0	0

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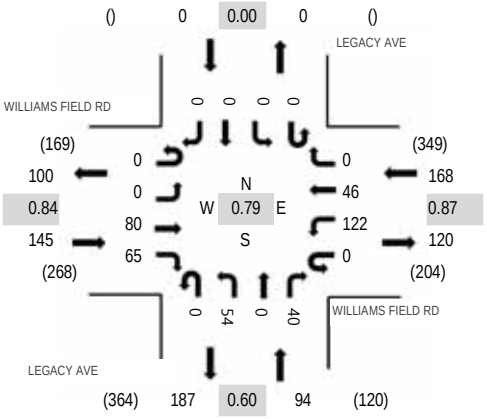
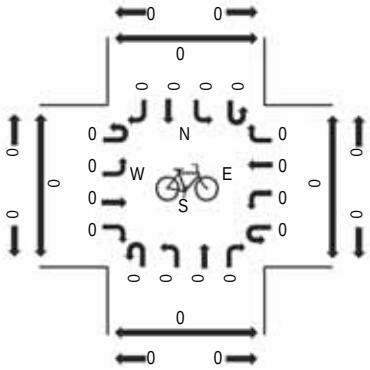
Location: 14 LEGACY AVE & WILLIAMS FIELD RD PM
Date: Wednesday, May 17, 2023
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

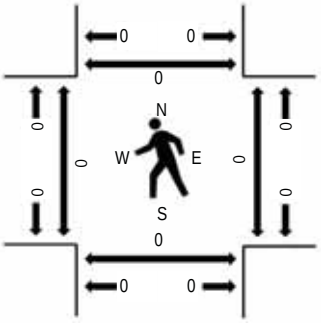
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				LEGACY AVE Northbound				LEGACY AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	16	7	0	16	15	0	0	4	0	5	0	0	0	0	63	330	0	0	0	0
4:15 PM	0	0	21	7	0	41	10	0	0	3	0	1	0	0	0	0	83	336	0	0	0	0
4:30 PM	0	0	21	14	0	31	15	0	0	5	0	0	0	0	0	0	86	349	0	0	0	0
4:45 PM	0	0	16	21	0	40	13	0	0	4	0	4	0	0	0	0	98	377	0	0	0	0
5:00 PM	0	0	17	11	0	26	9	0	0	4	0	2	0	0	0	0	69	407	0	0	0	0
5:15 PM	0	0	23	20	0	34	9	0	0	7	0	3	0	0	0	0	96		0	0	0	0
5:30 PM	0	0	18	19	0	26	12	0	0	15	0	24	0	0	0	0	114		0	0	0	0
5:45 PM	0	0	22	15	0	36	16	0	0	28	0	11	0	0	0	0	128		0	0	0	0
Count Total	0	0	154	114	0	250	99	0	0	70	0	50	0	0	0	0	737		0	0	0	0
Peak Hour	0	0	80	65	0	122	46	0	0	54	0	40	0	0	0	0	407		0	0	0	0

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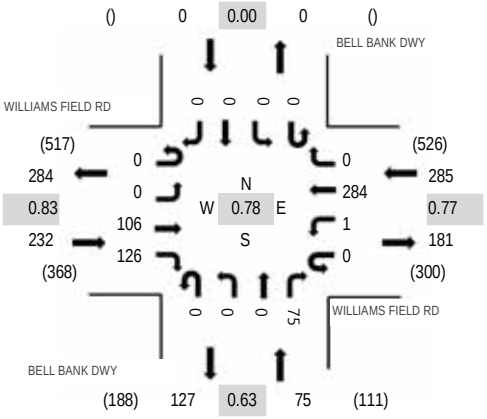
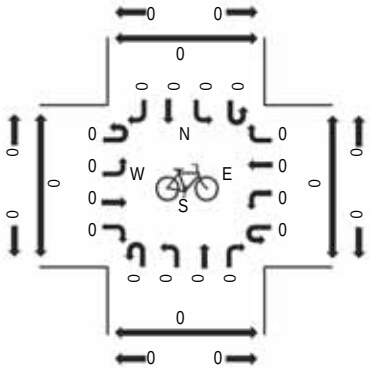
Location: 15 BELL BANK DWY & WILLIAMS FIELD RD PM
Date: Wednesday, May 17, 2023
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

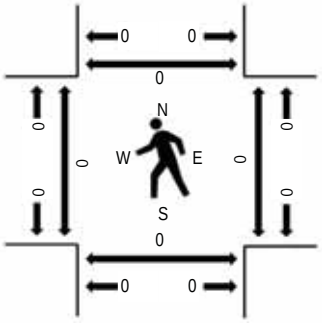
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				BELL BANK DWY Northbound				BELL BANK DWY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	25	2	0	0	35	0	0	0	0	8	0	0	0	0	70	413	0	0	0	0
4:15 PM	0	0	21	9	0	1	58	0	0	0	0	4	0	0	0	0	93	449	0	0	0	0
4:30 PM	0	0	19	23	0	5	69	0	0	0	0	8	0	0	0	0	124	503	0	0	0	0
4:45 PM	0	0	18	19	0	2	71	0	0	0	0	16	0	0	0	0	126	528	0	0	0	0
5:00 PM	0	0	19	21	0	0	55	0	0	0	0	11	0	0	0	0	106	592	0	0	0	0
5:15 PM	0	0	19	40	0	0	81	0	0	0	0	7	0	0	0	0	147		0	0	0	0
5:30 PM	0	0	38	25	0	0	56	0	0	0	0	30	0	0	0	0	149		0	0	0	0
5:45 PM	0	0	30	40	0	1	92	0	0	0	0	27	0	0	0	0	190		0	0	0	0
Count Total	0	0	189	179	0	9	517	0	0	0	0	111	0	0	0	0	1,005		0	0	0	0
Peak Hour	0	0	106	126	0	1	284	0	0	0	0	75	0	0	0	0	592		0	0	0	0

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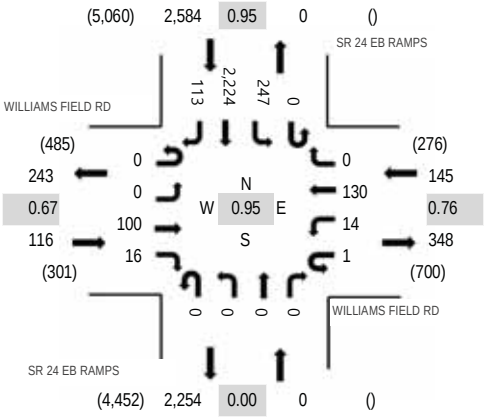
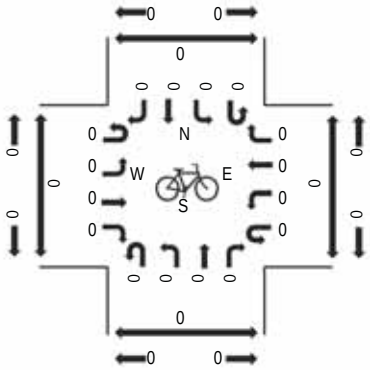
Location: 16 SR 24 EB RAMPS & WILLIAMS FIELD RD PM
Date: Wednesday, May 17, 2023
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

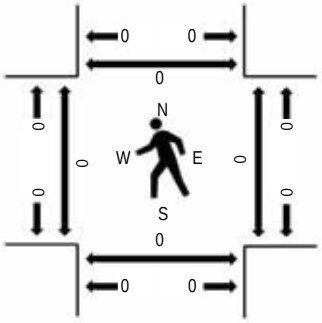
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				SR 24 EB RAMPS Northbound				SR 24 EB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	17	17	0	5	19	0	0	0	0	0	0	51	535	17	661	2,828	0	0	0	0
4:15 PM	0	0	22	3	0	7	41	0	0	0	0	0	0	65	588	24	750	2,845	0	0	0	0
4:30 PM	0	0	21	5	0	2	26	0	0	0	0	0	0	57	557	39	707	2,779	0	0	0	0
4:45 PM	0	0	30	3	1	4	41	0	0	0	0	0	0	56	540	35	710	2,791	0	0	0	0
5:00 PM	0	0	27	5	0	1	22	0	0	0	0	0	0	69	539	15	678	2,809	0	0	0	0
5:15 PM	0	0	25	3	0	3	39	0	0	0	0	0	0	51	544	19	684		0	0	0	0
5:30 PM	0	0	58	10	0	1	25	0	0	0	0	0	0	62	531	32	719		0	0	0	0
5:45 PM	0	0	35	20	0	2	37	0	0	0	0	0	0	53	527	54	728		0	0	0	0
Count Total	0	0	235	66	1	25	250	0	0	0	0	0	0	464	4,361	235	5,637		0	0	0	0
Peak Hour	0	0	100	16	1	14	130	0	0	0	0	0	0	247	2,224	113	2,845		0	0	0	0

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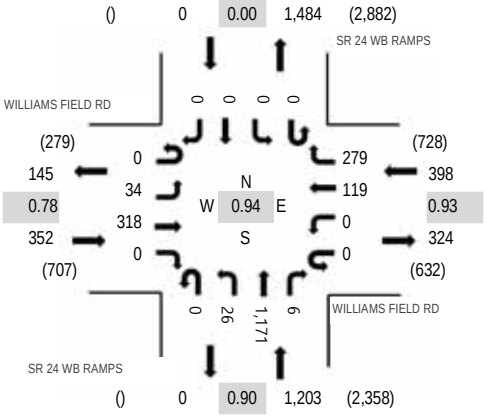
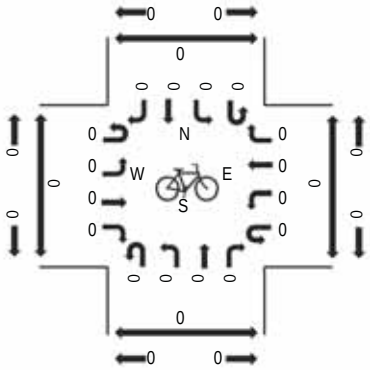
Location: 17 SR 24 WB RAMPS & WILLIAMS FIELD RD PM
Date: Wednesday, May 17, 2023
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

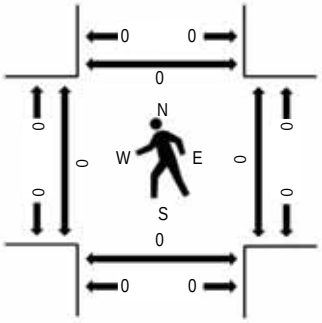
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



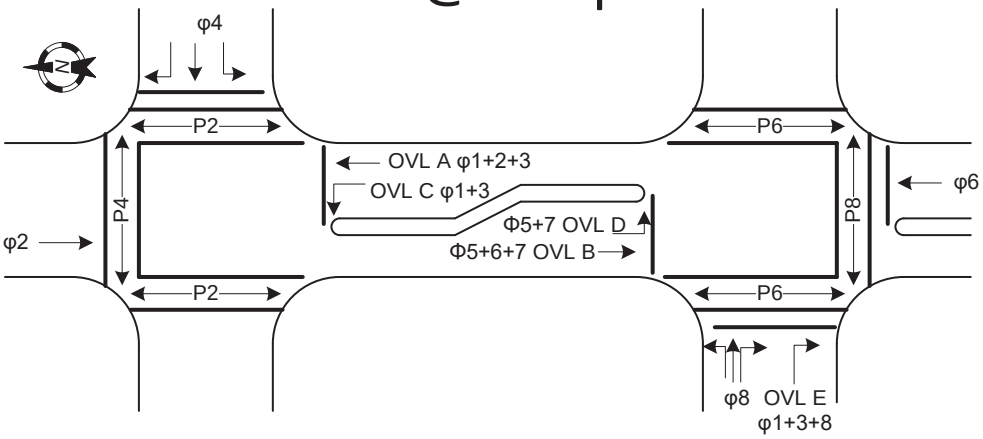
Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WILLIAMS FIELD RD Eastbound				WILLIAMS FIELD RD Westbound				SR 24 WB RAMPS Northbound				SR 24 WB RAMPS Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	4	62	0	0	0	21	65	0	3	301	1	0	0	0	0	457	1,897	0	0	0	0
4:15 PM	0	4	86	0	0	0	40	61	0	7	261	1	0	0	0	0	460	1,953	0	0	0	0
4:30 PM	0	6	74	0	0	0	28	74	0	5	332	0	0	0	0	0	519	1,926	0	0	0	0
4:45 PM	0	19	67	0	0	0	32	56	0	8	278	1	0	0	0	0	461	1,938	0	0	0	0
5:00 PM	0	5	91	0	0	0	19	88	0	6	300	4	0	0	0	0	513	1,896	0	0	0	0
5:15 PM	0	3	70	0	0	0	34	50	0	6	269	1	0	0	0	0	433		0	0	0	0
5:30 PM	1	25	97	0	0	0	26	54	0	3	325	0	0	0	0	0	531		0	0	0	0
5:45 PM	0	17	76	0	0	0	33	47	0	7	238	1	0	0	0	0	419		0	0	0	0
Count Total	1	83	623	0	0	0	233	495	0	45	2,304	9	0	0	0	0	3,793		0	0	0	0
Peak Hour	0	34	318	0	0	0	119	279	0	26	1,171	6	0	0	0	0	1,953		0	0	0	0

Appendix D – Existing Signal Timing

#9967 SR-24 & Ellsworth
Effective: 9/14/2022 Flash@1:30pm
Normal@1:35pm



Phase Ring (MM-1-1

R1	2 1	3 4
R2	5 6	8 7
R3		
R4		

Seq - 10

LD Switch Assign
(MM-1-3)

	Phase /Ovlp	Type
1	3	O
2	2	V
3	2	O
4	4	V
5	4	O
6	6	V
7	1	O
8	8	V
9	2	P
10	4	P
11	6	P
12	8	P
13	5	O
14	0	.
15	0	.
16	0	.

Notes:

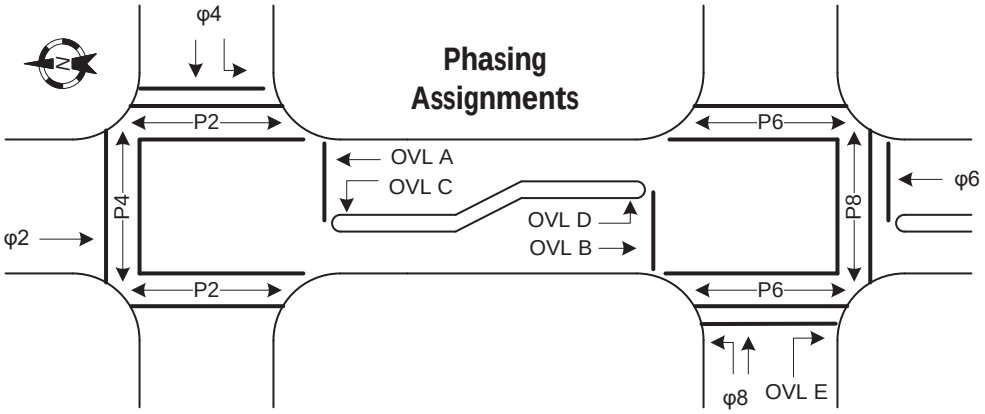
Power start sequence is 10.
OvL B – Not Ovlap enabled Ph 1 & 3
OvL E – Ped Protect Ph 6 & 8
Phase 5 omitted in Action Plans

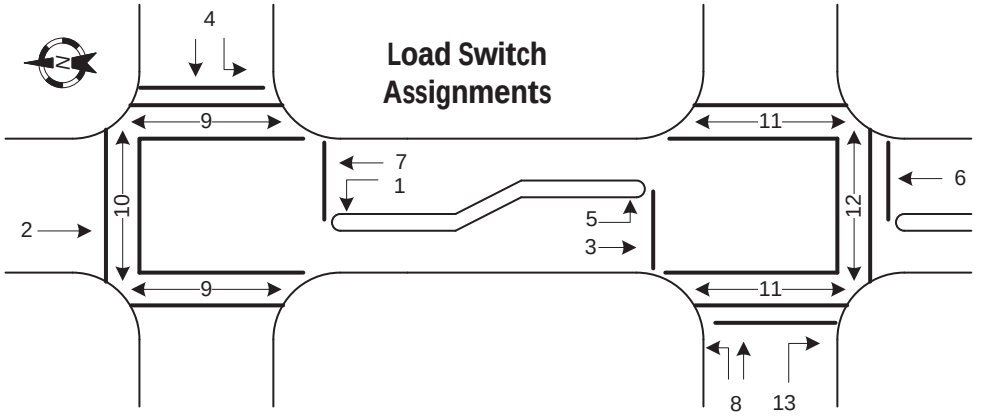
	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
Direction	NBL	SB	NBL	WB	SBL	NB	SBL	EB
Phases In Use(MM-1-2)	X	X	X	X	X	X	X	X
Min Grn (MM-2-1)	5	15	5	10	5	15	5	10
BK MGrn (MM-2-1)								
Walk (MM-2-1)		4		4		4		4
Ped Clr (MM-2-1)		13		38		15		36
Yellow (MM-2-1)	4.0	5.5	4.0	4.5	4.0	5.5	4.0	4.5
Red Clr (MM-2-1)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Veh OL A - Incl. (MM-2-2)	X	X	X					
Veh OL B - Incl. (MM-2-2)					X	X	X	
Veh OL C - Incl. (MM-2-2)	X		X					
Veh OL D - Incl. (MM-2-2)					X		X	
Veh OL E - Incl. (MM-2-2)	X		X					X
Veh OL F - Incl. (MM-2-2)								
VE Recall (MM-2-8)		X				X		
PD Recall (MM-2-8)								
MX Recall (MM-2-8)								
SF Recall (MM-2-8)								
Left Turn Type	PT		PT		PT		PT	
3rd Car								

Revision History:

Date	Description
9/14/2022	Updated traffic signal phasing configuration and upgraded to cobalt controller…BG,FL

#9967 SR24 & Ellsworth





Phase Ring (MM-1-1·

Compatibility Mode

R1	2 1	3 4
R2	5 6	8 7
R3		
R4		

Seq-10

Overlap	Incld. Phases
A	1,2,3
B	5,6,7
C	1,3
D	5,7
E	1,3,8

LD Switch Assign

(MM-1-3)

	Phase/ Ovlp	Type
1	3	O
2	2	V
3	2	O
4	4	V
5	4	O
6	6	V
7	1	O
8	8	V
9	2	P
10	4	P
11	6	P
12	8	P
13	5	O
14		
15		
16		

MMU Card Programming

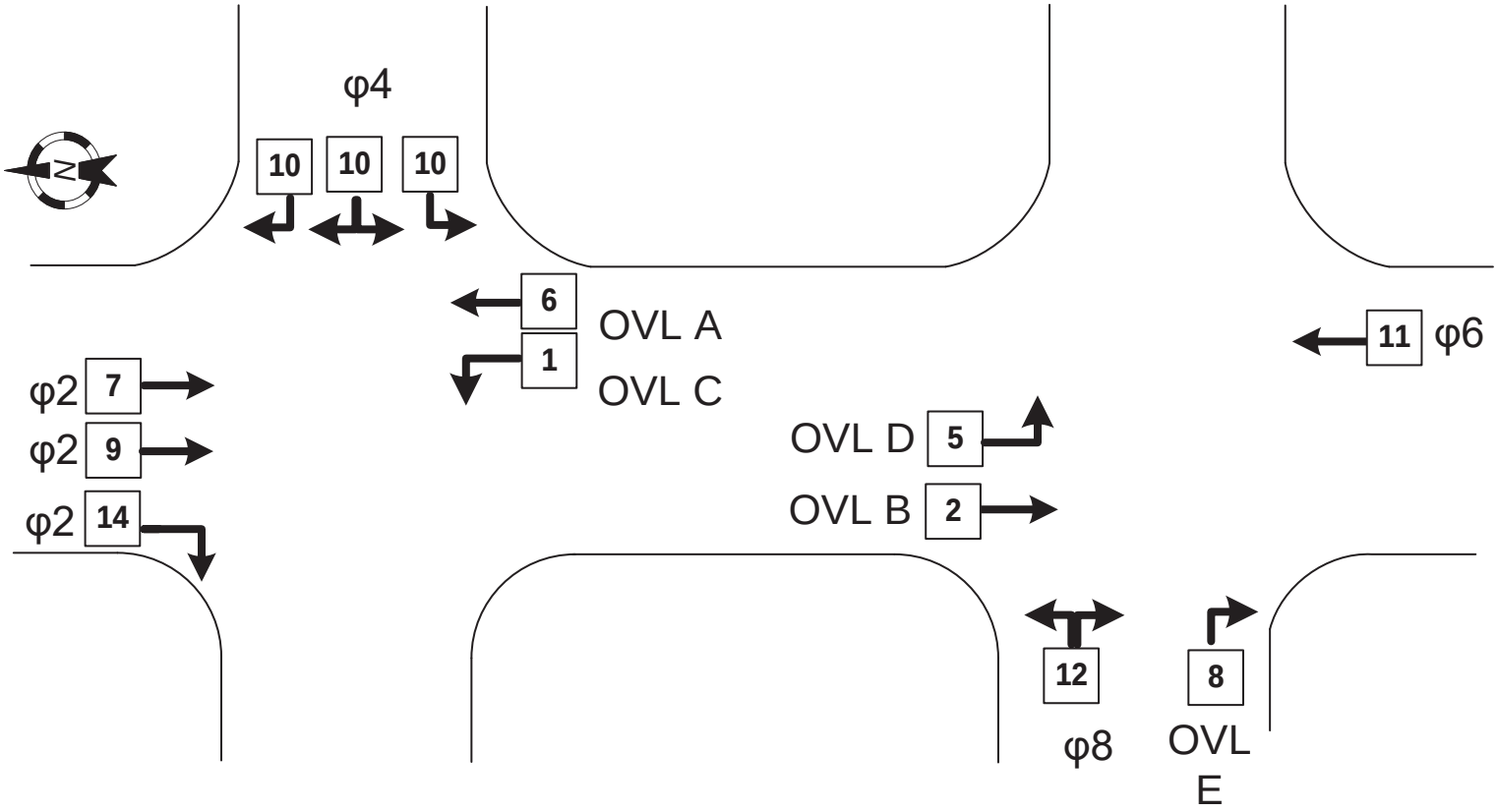
	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1				X	X	X			X	X	X	X		X	
2				X	X	X		X	X	X	X	X		X	
3						X	X	X		X	X	X	X		
4				X	X	X	X		X		X	X			
5				X			X	X		X					
6				X		X	X	X		X					
7				X	X	X		X	X						
8				X	X		X	X							
9				X	X	X									
10				X	X	X									
11															
12															
13															
14															
15															

#9967 SR-24 & Ellsworth

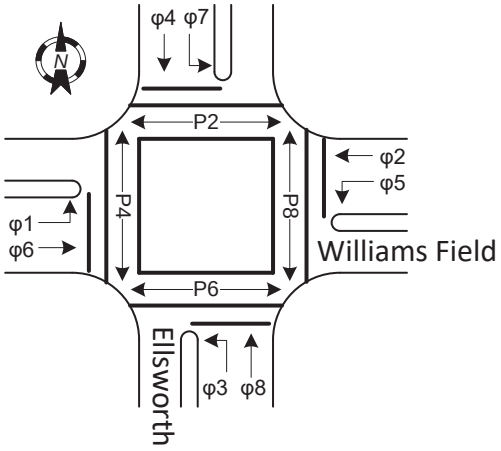
Detectors (MM-6)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	1,3	2,6,7			5,7	2	2,7	8	2	4	6	8		2		
Call	X	X			X	X	X	X	X	X	X	X		X		
Passage	X	X			X	X	X	X	X	X	X	X		X		
Bike																
Delay								10						10		

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Phase																
Call																
Passage																
Bike																
Delay																



#9990 Williams Field & Ellsworth
Effective: 2/9/2022 Flash@10:02AM
Normal@12:39PM



Phase Diagram (MM-1-1-1)

R1	1 2	3 4		
R2	5 6	7 8		
R3				
R4				

Notes:

Disabled Ped Protect (MM-2-6-1)

LD Switch Assign (MM-1-3)

	Phase/ Ovlp	Type
1	1	V
2	2	V
3	3	V
4	4	V
5	5	V
6	6	V
7	7	V
8	8	V
9	2	P
10	4	P
11	6	P
12	8	P
13	13	V
14	14	V
15	15	V
16	16	V

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
Phases In Use(MM-1-2)	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB
Min Grn (MM-2-1)	5	15	5	15	5	15	5	15
BK MGrn (MM-2-1)								
Walk (MM-2-1)		4		7		4		7
Ped Clr (MM-2-1)		26		21		27		23
Yellow (MM-2-1)	3.0	4.5	3.0	5.5	4.0	4.5	4.0	5.5
Red Clr (MM-2-1)	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0
Veh Ovlp A - Included (MM-2-2)								
Veh Ovlp B - Included (MM-2-2)								
Veh Ovlp C - Included (MM-2-2)								
Veh Ovlp D - Included (MM-2-2)								
Lock Det (MM-2-8)								
VE Recall (MM-2-8)								
PD Recall (MM-2-8)								
MX Recall (MM-2-8)								
SF Recall (MM-2-8)								
Left Turn Type	P		P		P		P	
3rd Car	No		No		No		No	

Detectors (MM-6)

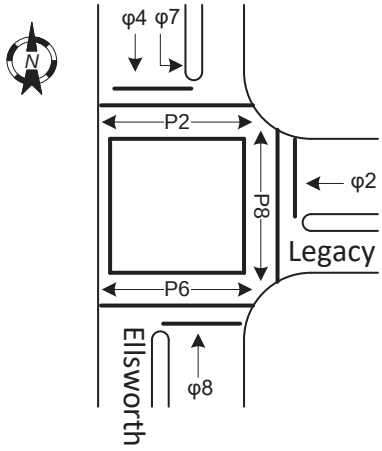
Ch.	Assigned Phase (MM-6-1)	
1/17		
2/18		
3/19	3 C,P	
4/20		
5/21		5 C,P
6/22		
7/23	7 C,P	
8/24		
9/25		2 C,P
10/26		4 C,P
11/27		
12/28		8 C,P
13/29		
14/30		
15/31		
16/32		

"C" =Call,"B"=Bike
"P"=Passage,"D"=Delay

Revision History:

Date	Description
12/22/2021	Signal Turn-on...BG
2/8/2022	Enabled phases 1&6 vehicle and phases 2,4,6,8 peds...BG, JF, TK

#9993 Legacy & Ellsworth
Effective: 12/15/2021 Flash@1009 Normal@1213



Phase Diagram (MM-1-1-1)

R1	1 2	3 4	
R2	5 6	7 8	
R3			
R4			

Notes:

Disabled Ped Protect (MM-2-6-1)

LD Switch Assign (MM-1-3)

	Phase/ Ovlp	Type
1	1	V
2	2	V
3	3	V
4	4	V
5	5	V
6	0	.
7	7	V
8	8	V
9	2	P
10	0	.
11	6	P
12	8	P
13	13	V
14	14	V
15	15	V
16	16	V

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
Phases In Use(MM-1-2)		WB		SB		EB	SBLT	NB
Min Grn (MM-2-1)		10		15			5	15
BK MGrn (MM-2-1)								
Walk (MM-2-1)		4				4		7
Ped Clr (MM-2-1)		25				28		12
Yellow (MM-2-1)		4.0		5.5		3.0	4.0	5.5
Red Clr (MM-2-1)		2.0		2.0		0.0	1.0	2.0
Veh Ovlp A - Included (MM-2-2)								
Veh Ovlp B - Included (MM-2-2)								
Veh Ovlp C - Included (MM-2-2)								
Veh Ovlp D - Included (MM-2-2)								
Lock Det (MM-2-8)								
VE Recall (MM-2-8)								
PD Recall (MM-2-8)								
MX Recall (MM-2-8)								
SF Recall (MM-2-8)								
Left Turn Type							P	
3rd Car							No	

Detectors (MM 6)

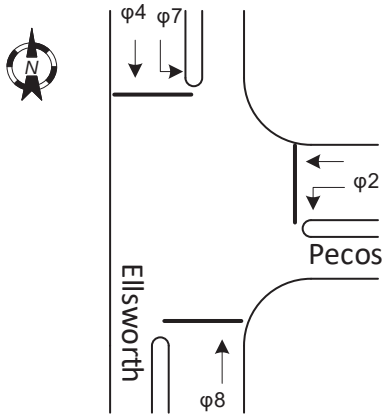
	Call Phase and Set up (MM 6-1, 6-2)
1	
2	
3	
4	
5	
6	
7	7 C,P
8	
9	2 C,P
10	4 C,P
11	
12	8 C,P
13	
14	
15	
16	

C = Call
P = Passage
B=Bike
D = Delay (X sec)

Revision History:

Date	Description
12/15/2021	Signal Turn-on...BG,SG

#9970 Pecos N. & Ellsworth
Effective: 1/26/2016



Phase Diagram (MM-1-1-1) Seq- 1

R1	1 2	3 4			
R2	5 6	7 8			
R3					
R4					

Notes:

Logic Statements 50-52 for FYA for phase 7.

MM-1-1-3
Backup Prevent enabled for phases 7/8 with B & C selected to place call on phase 2

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
Phases In Use(MM-1-2)		WB		SB			SBL	NB
Min Grn (MM-2-1)		5		15			8	15
BK MGrn (MM-2-1)		12						
Walk (MM-2-1)								
Ped Clr (MM-2-1)								
Yellow (MM-2-1)		4.5		5.5			3.0	5.5
Red Clr (MM-2-1)		2.0		2.0			1.0	2.0
Veh Ovlp A - Included (MM-2-2)								
Veh Ovlp B - Included (MM-2-2)								
Veh Ovlp C - Included (MM-2-2)								
Veh Ovlp D - Included (MM-2-2)								
Lock Det (MM-2-8)								
VE Recall (MM-2-8)								
PD Recall (MM-2-8)								
MX Recall (MM-2-8)				X				X
SF Recall (MM-2-8)								
Left Turn Type							FYA	
3rd Car								

Revision History:

Date	Description
1/26/2016	Changed Bike Min Green to 12 sec, due to 139' measurement. SMH
2/27/2020	Backup protection enabled for ph 7/8 with B&C call to ph 2...BG

LD Switch Assign
(MM-1-3)

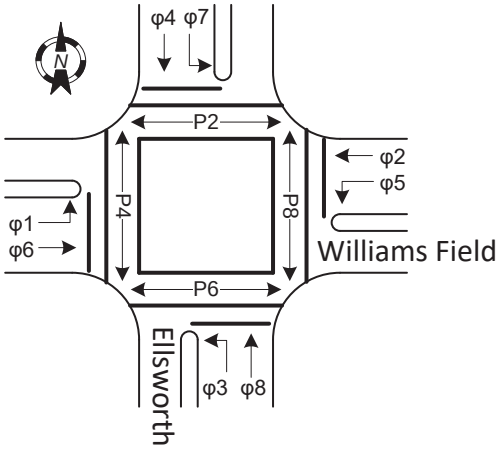
	Phase/ Ovlp	Type
1	1	V
2	2	V
3	3	V
4	4	V
5	5	V
6	6	V
7	7	V
8	8	V
9	2	P
10	4	P
11	6	P
12	8	P
13	5	O
14	6	O
15	7	O
16	8	O

Detectors (MM-6)

Ch.	Assigned Phase (MM-6-1)
1/17	
2/18	2,C,P
3/19	
4/20	
5/21	
6/22	
7/23	7,C,P
8/24	
9/25	2,C,P
10/26	
11/27	
12/28	
13/29	2,B
14/30	
15/31	
16/32	

"C"= Call,"B"= Bike
"P"= Passage

#9990 Williams Field & Ellsworth
Effective: 2/9/2022 Flash@10:02AM
Normal@12:39PM



Phase Diagram (MM-1-1-1)

R1	1 2	3 4		
R2	5 6	7 8		
R3				
R4				

Notes:

Disabled Ped Protect (MM-2-6-1)

LD Switch Assign (MM-1-3)

	Phase/ Ovlp	Type
1	1	V
2	2	V
3	3	V
4	4	V
5	5	V
6	6	V
7	7	V
8	8	V
9	2	P
10	4	P
11	6	P
12	8	P
13	13	V
14	14	V
15	15	V
16	16	V

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
Phases In Use(MM-1-2)	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB
Min Grn (MM-2-1)	5	15	5	15	5	15	5	15
BK MGrn (MM-2-1)								
Walk (MM-2-1)		4		7		4		7
Ped Clr (MM-2-1)		26		21		27		23
Yellow (MM-2-1)	3.0	4.5	3.0	5.5	4.0	4.5	4.0	5.5
Red Clr (MM-2-1)	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0
Veh Ovlp A - Included (MM-2-2)								
Veh Ovlp B - Included (MM-2-2)								
Veh Ovlp C - Included (MM-2-2)								
Veh Ovlp D - Included (MM-2-2)								
Lock Det (MM-2-8)								
VE Recall (MM-2-8)								
PD Recall (MM-2-8)								
MX Recall (MM-2-8)								
SF Recall (MM-2-8)								
Left Turn Type	P		P		P		P	
3rd Car	No		No		No		No	

Detectors (MM-6)

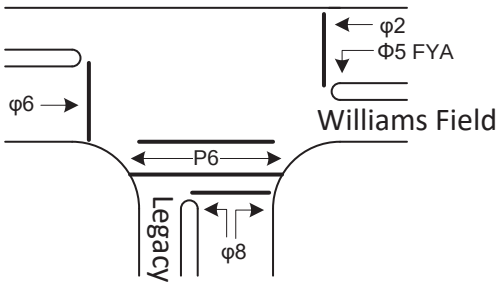
Ch.	Assigned Phase (MM-6-1)	
1/17		
2/18		
3/19	3 C,P	
4/20		
5/21		5 C,P
6/22		
7/23	7 C,P	
8/24		
9/25		2 C,P
10/26		4 C,P
11/27		
12/28		8 C,P
13/29		
14/30		
15/31		
16/32		

"C" =Call,"B"=Bike
"P"=Passage,"D"=Delay

Revision History:

Date	Description
12/22/2021	Signal Turn-on...BG
2/8/2022	Enabled phases 1&6 vehicle and phases 2,4,6,8 peds...BG, JF, TK

#9992 Williams Field & Legacy
Effective: 3/10/2022, Flash 8:10am, Normal 9:00am



Notes:

Logic Statements 47-49 enabled for FYA

Phase Diagram (MM-1-1-1)

R1	1 2	3 4		
R2	5 6	7 8		
R3				
R4				

LD Switch Assign (MM-1-3)

	Phase/ Ovlp	Type
1	1	V
2	2	V
3	3	V
4	0	.
5	5	V
6	6	V
7	7	V
8	8	V
9	0	.
10	0	.
11	6	P
12	0	.
13	13	V
14	14	V
15	7	O
16	16	V

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
Phases In Use(MM-1-2)		WB			WBLT	EB		NB
Min Grn (MM-2-1)		15			8	15		10
BK MGrn (MM-2-1)								
Walk (MM-2-1)						7		
Ped Clr (MM-2-1)						15		
Yellow (MM-2-1)		4.5			3.0	4.5		4.0
Red Clr (MM-2-1)		2.0			1.0	2.0		2.0
Veh Ovlp A - Included (MM-2-2)								
Veh Ovlp B - Included (MM-2-2)								
Veh Ovlp C - Included (MM-2-2)								
Veh Ovlp D - Included (MM-2-2)								
Lock Det (MM-2-8)								
VE Recall (MM-2-8)								
PD Recall (MM-2-8)								
MX Recall (MM-2-8)								
SF Recall (MM-2-8)								
Left Turn Type					FYA			
3rd Car					Yes			

Detectors (MM 6)

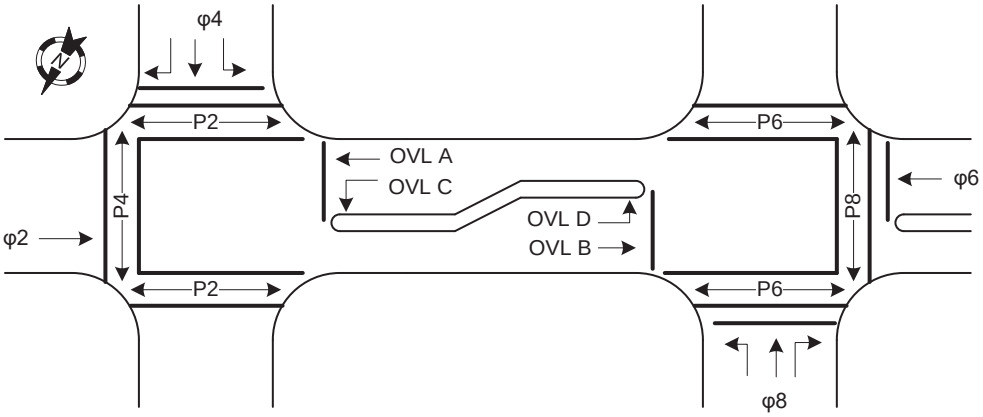
	Call Phase and Set up (MM 6-1, 6-2)
1	
2	
3	
4	
5	2 C,P
6	5 P
7	
8	8 C,P,D
9	2 C,P
10	
11	6 C,P
12	8 C,P
13	
14	
15	
16	

C = Call
P = Passage
B=Bike
D = Delay (X sec)

Revision History:

Date	Description

#9982 SR-24 & Williams Field
Effective: 8/11/2022 @11:30AM



Phase Ring (MM-1-1

R1	2 1	3 4
R2	5 6	8 7
R3		
R4		

Seq - 10

Notes:

Power start sequence is 10.

	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
Direction	NBL	SB	NBL	WB	SBL	NB	SBL	EB
Phases In Use(MM-1-2)	X	X	X	X	X	X	X	X
Min Grn (MM-2-1)	5	15	5	10	5	15	5	10
BK MGrn (MM-2-1)								
Walk (MM-2-1)		4		4		4		4
Ped Clr (MM-2-1)		15		35		16		34
Yellow (MM-2-1)	4.0	4.5	4.0	5.5	4.0	4.5	4.0	5.5
Red Clr (MM-2-1)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Veh OL A - Incl. (MM-2-2)	X	X	X					
Veh OL B - Incl. (MM-2-2)					X	X	X	
Veh OL C - Incl. (MM-2-2)	X		X					
Veh OL D - Incl. (MM-2-2)					X		X	
Veh OL E - Incl. (MM-2-2)								
Veh OL F - Incl. (MM-2-2)								
VE Recall (MM-2-8)				X				X
PD Recall (MM-2-8)								
MX Recall (MM-2-8)								
SF Recall (MM-2-8)								
Left Turn Type	PT		PT		PT		PT	
3rd Car								

LD Switch Assign

(MM-1-3)

	Phase /Ovlp	Type
1	3	O
2	2	V
3	2	O
4	4	V
5	4	O
6	6	V
7	1	O
8	8	V
9	2	P
10	4	P
11	6	P
12	8	P
13	0	.
14	0	.
15	0	.
16	0	.

Revision History:

Date	Description
4/1/2022	Signal turn on...BG,MF
8/11/2022	SR24 opened up on east side, enable SBLT detection and ph 4/8 min recall...BG

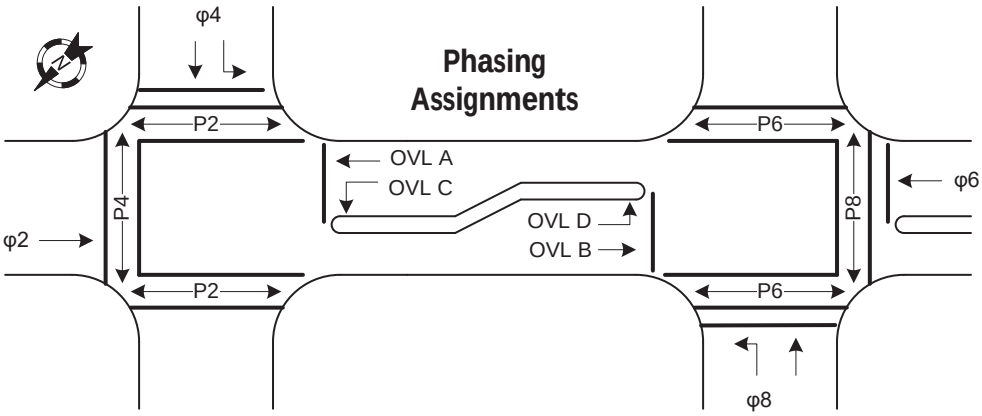
#9982 SR24 & Williams Field

Phase Ring (MM-1-1·

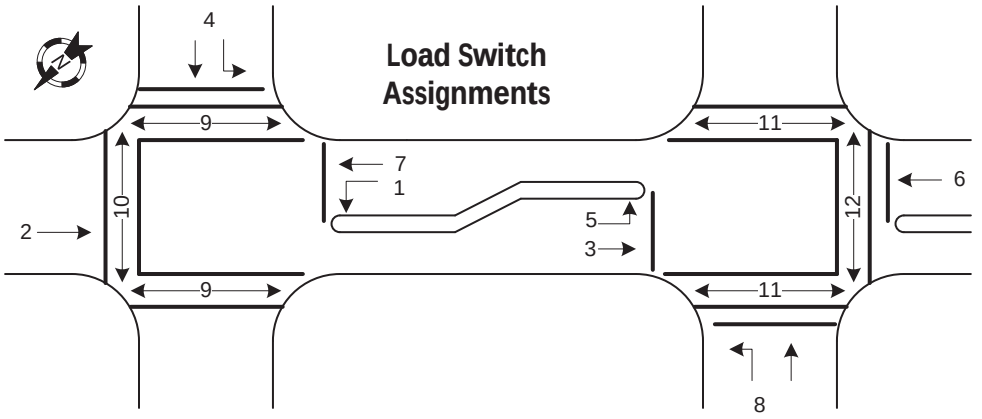
Compatibility Mode

R1	2 1	3 4
R2	5 6	8 7
R3		
R4		

Seq-10



Overlap	Incld. Phases
A	1,2,3
B	5,6,7
C	1,3
D	5,7



LD Switch Assign

(MM-1-3)

	Phase/ Ovlp	Type
1	3	O
2	2	V
3	2	O
4	4	V
5	4	O
6	6	V
7	1	O
8	8	V
9	2	P
10	4	P
11	6	P
12	8	P
13	0	.
14	0	.
15	0	.
16	0	.

MMU Card Programming

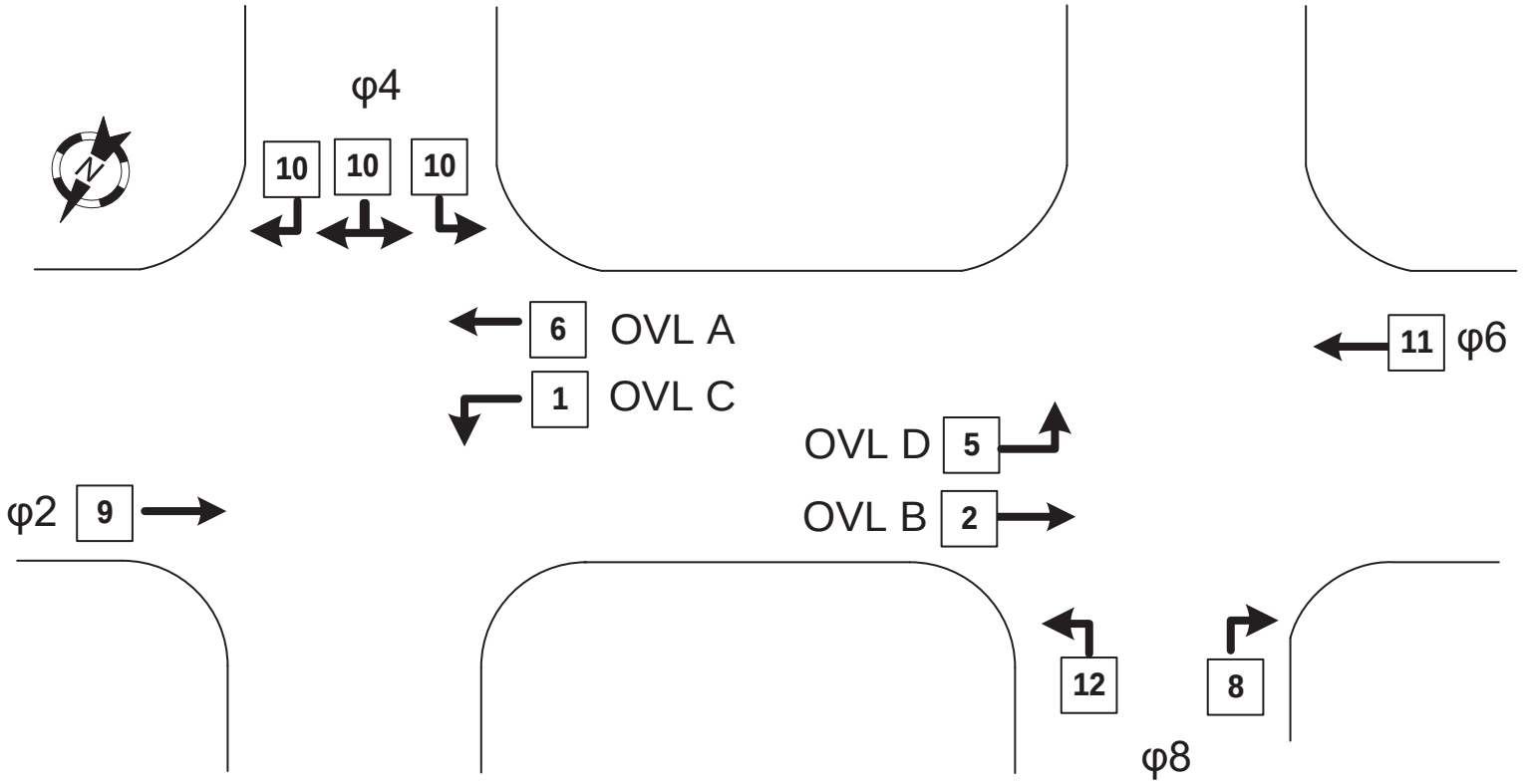
	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1					X	X			X	X	X	X		X	
2					X	X		X	X	X	X	X		X	
3						X	X	X		X	X	X	X		
4					X	X	X		X		X	X			
5							X	X		X					
6						X	X	X		X					
7					X	X		X	X						
8					X		X	X							
9					X	X									
10					X	X									
11															
12															
13															
14															
15															

#9982 SR-24 & Williams Field

Detectors (MM-6)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	1,3	6			5,7	2		8	2	4	6	8				
Call	X	X			X	X		X	X	X	X	X				
Passage	X	X			X	X		X	X	X	X	X				
Bike																
Delay																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Phase																
Call																
Passage																
Bike																
Delay																

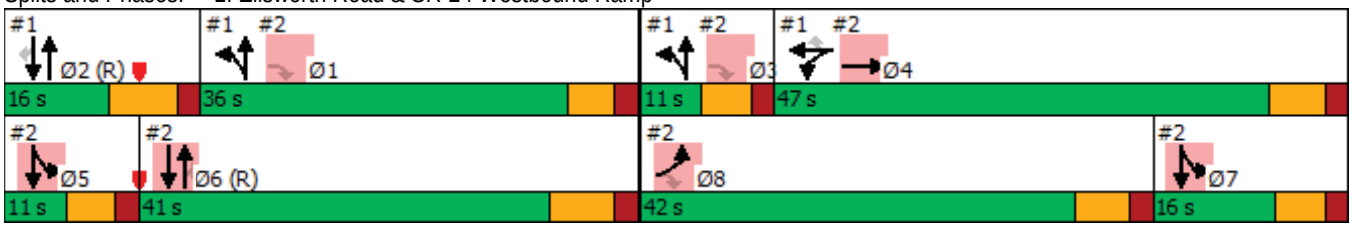


Appendix E – Existing Capacity Analysis

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	1	0	127	1241	1059	227	443					
Future Volume (vph)	1	0	127	1241	1059	227	443					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	47.0	47.0	47.0			16.0	16.0	36.0	11.0	11.0	41.0	16.0
Total Split (%)	42.7%	42.7%	42.7%			14.5%	14.5%	33%	10%	10%	37%	15%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	31.6	31.6	31.6	41.0	65.9	17.4	17.4					
Actuated g/C Ratio	0.29	0.29	0.29	0.37	0.60	0.16	0.16					
v/c Ratio	0.00	0.07	0.12	1.01	0.52	0.23	0.56					
Control Delay	23.0	0.2	0.5	43.9	6.5	42.5	7.4					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	23.0	0.2	0.5	43.9	6.5	42.5	7.4					
LOS	C	A	A	D	A	D	A					
Approach Delay		0.5			26.7	19.3						
Approach LOS		A			C	B						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

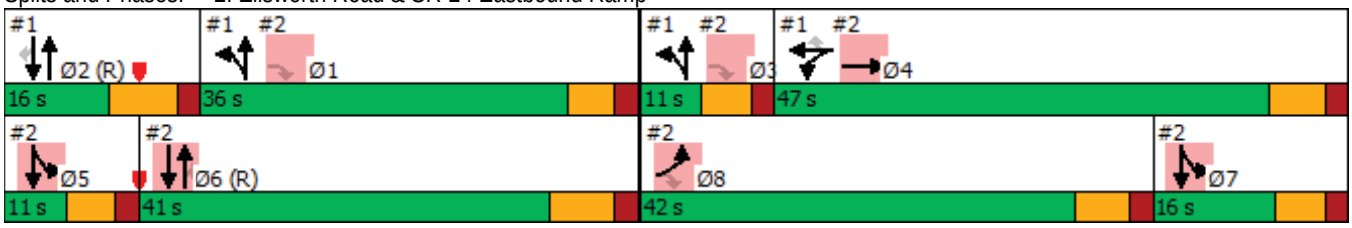


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	342	4	838	1902	5	48	191					
Future Volume (vph)	342	4	838	1902	5	48	191					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	42.0	47.0		41.0	41.0			36.0	16.0	11.0	11.0	16.0
Total Split (%)	38.2%	42.7%		37.3%	37.3%			33%	15%	10%	10%	15%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	18.2	18.2	54.7	42.2	42.2	29.6	79.3					
Actuated g/C Ratio	0.17	0.17	0.50	0.38	0.38	0.27	0.72					
v/c Ratio	0.64	0.63	0.47	0.79	0.01	0.05	0.05					
Control Delay	52.5	51.8	1.7	34.2	0.0	74.4	0.3					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	52.5	51.8	1.7	34.2	0.0	74.4	0.3					
LOS	D	D	A	C	A	E	A					
Approach Delay		16.5		34.1			15.1					
Approach LOS		B		C			B					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 26.5	Intersection LOS: C
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

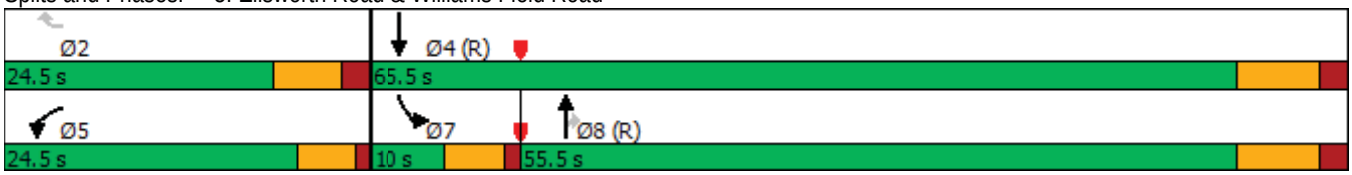
Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	72	6	1913	35	19	985
Future Volume (vph)	72	6	1913	35	19	985
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	5		8		7	4
Permitted Phases		2		8		
Detector Phase	5	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	5.0	15.0
Minimum Split (s)	10.0	24.5	25.5	25.5	10.0	25.5
Total Split (s)	24.5	24.5	55.5	55.5	10.0	65.5
Total Split (%)	27.2%	27.2%	61.7%	61.7%	11.1%	72.8%
Yellow Time (s)	4.0	4.5	5.5	5.5	4.0	5.5
All-Red Time (s)	1.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.5	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	16.7	18.0	54.0	54.0	5.0	58.0
Actuated g/C Ratio	0.19	0.20	0.60	0.60	0.06	0.64
v/c Ratio	0.12	0.01	0.95	0.04	0.11	0.32
Control Delay	35.4	26.5	15.3	4.1	41.7	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	26.5	15.3	4.1	41.7	7.5
LOS	D	C	B	A	D	A
Approach Delay	34.7		15.1			8.1
Approach LOS	C		B			A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 77.0%	ICU Level of Service D
Analysis Period (min) 15	

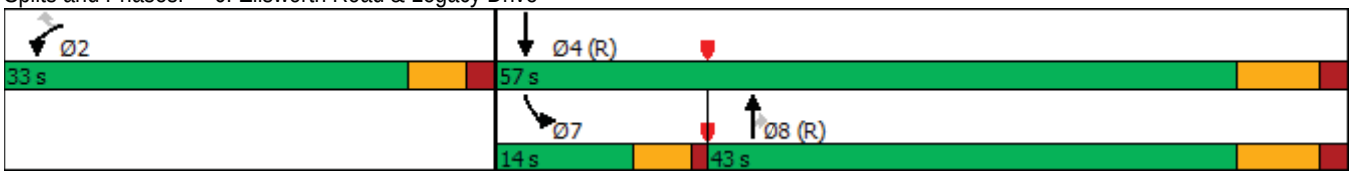
Splits and Phases: 5: Ellsworth Road & Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	2	1945	7	3	1045
Future Volume (vph)	5	2	1945	7	3	1045
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	33.0	33.0	43.0	43.0	14.0	57.0
Total Split (%)	36.7%	36.7%	47.8%	47.8%	15.6%	63.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.0	27.0	47.3	47.3	5.6	49.5
Actuated g/C Ratio	0.30	0.30	0.53	0.53	0.06	0.55
v/c Ratio	0.00	0.00	1.08	0.01	0.01	0.55
Control Delay	22.2	16.0	63.5	4.6	42.0	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	16.0	63.5	4.6	42.0	12.8
LOS	C	B	E	A	D	B
Approach Delay	20.4		63.3			12.8
Approach LOS	C		E			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 45.6	Intersection LOS: D
Intersection Capacity Utilization 73.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	115	20	1919	8	1017
Future Volume (vph)	115	20	1919	8	1017
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	5.0	15.0
Minimum Split (s)	24.5	24.5	25.5	9.0	25.5
Total Split (s)	11.0	11.0	64.0	15.0	79.0
Total Split (%)	12.2%	12.2%	71.1%	16.7%	87.8%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	16.8	16.8	57.0	6.0	59.2
Actuated g/C Ratio	0.19	0.19	0.63	0.07	0.66
v/c Ratio	0.36	0.07	0.91	0.07	0.45
Control Delay	40.8	17.1	21.1	53.4	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	17.1	21.1	53.4	3.7
LOS	D	B	C	D	A
Approach Delay	37.3		21.1		4.1
Approach LOS	D		C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Traffic Volume (vph)	42	7	15	73	1
Future Volume (vph)	42	7	15	73	1
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	6		5	2	8
Permitted Phases		6	2		
Detector Phase	6	6	5	2	8
Switch Phase					
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	79.4	79.4	82.8	85.5	10.0
Actuated g/C Ratio	0.88	0.88	0.92	0.95	0.11
v/c Ratio	0.03	0.01	0.02	0.05	0.01
Control Delay	3.6	3.3	1.2	1.2	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.6	3.3	1.2	1.2	36.0
LOS	A	A	A	A	D
Approach Delay	3.6			1.2	36.0
Approach LOS	A			A	D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.05	
Intersection Signal Delay: 2.3	Intersection LOS: A
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	45	1	0	88	0	0
Future Vol, veh/h	45	1	0	88	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	1	0	105	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	55
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	1017
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	1017
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

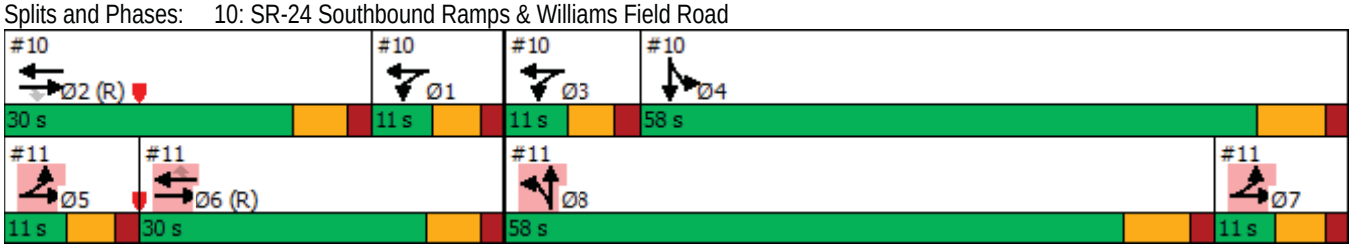
Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	43	4	15	73	178	1083						
Future Volume (vph)	43	4	15	73	178	1083						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	30.0	30.0			58.0	58.0	11.0	11.0	11.0	30.0	11.0	58.0
Total Split (%)	27.3%	27.3%			52.7%	52.7%	10%	10%	10%	27%	10%	53%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	25.7	25.7	16.0	46.0	52.7	52.7						
Actuated g/C Ratio	0.23	0.23	0.15	0.42	0.48	0.48						
v/c Ratio	0.03	0.01	0.03	0.05	0.22	0.72						
Control Delay	34.4	0.0	9.9	1.2	18.4	26.6						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	34.4	0.0	9.9	1.2	18.4	26.6						
LOS	C	A	A	A	B	C						
Approach Delay	31.6			2.7		25.6						
Approach LOS	C			A		C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 24.4	Intersection LOS: C
Intersection Capacity Utilization 109.4%	ICU Level of Service H
Analysis Period (min) 15	

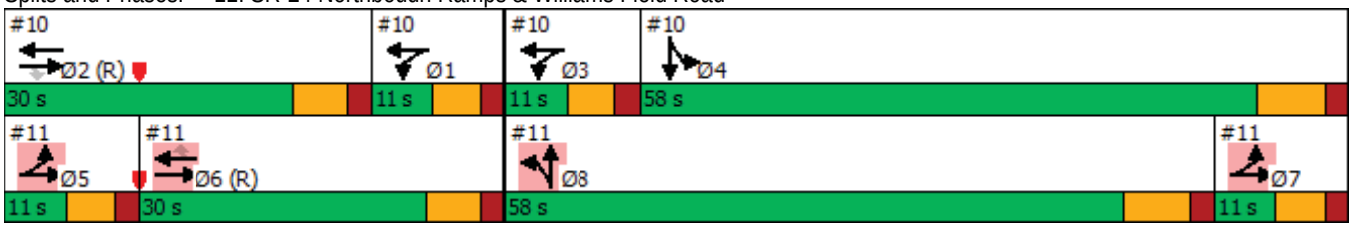
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	13	203	85	547	1	1971						
Future Volume (vph)	13	203	85	547	1	1971						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			30.0	30.0	58.0	58.0	11.0	30.0	11.0	58.0	11.0	11.0
Total Split (%)			27.3%	27.3%	52.7%	52.7%	10%	27%	10%	53%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	16.0	46.0	23.5	23.5	50.5	50.5						
Actuated g/C Ratio	0.15	0.42	0.21	0.21	0.46	0.46						
v/c Ratio	0.03	0.14	0.07	1.09	0.00	1.27						
Control Delay	37.9	22.7	34.7	89.5	16.0	154.1						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	37.9	22.7	34.7	89.5	16.0	154.1						
LOS	D	C	C	F	B	F						
Approach Delay		23.7	82.1			154.0						
Approach LOS		C	F			F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 127.9	Intersection LOS: F
Intersection Capacity Utilization 109.4%	ICU Level of Service H
Analysis Period (min) 15	

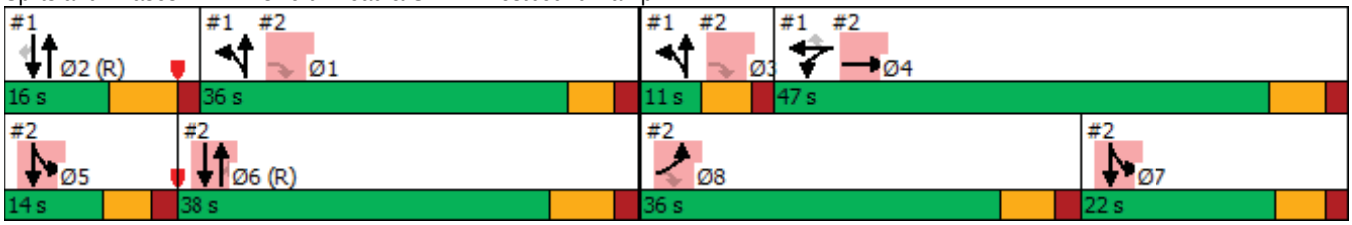
Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	1	1	69	891	1088	314	418					
Future Volume (vph)	1	1	69	891	1088	314	418					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	47.0	47.0	47.0			16.0	16.0	36.0	11.0	14.0	38.0	22.0
Total Split (%)	42.7%	42.7%	42.7%			14.5%	14.5%	33%	10%	13%	35%	20%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	40.5	40.5	40.5	41.0	57.0	8.5	8.5					
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.52	0.08	0.08					
v/c Ratio	0.00	0.04	0.06	0.77	0.65	0.70	0.72					
Control Delay	22.0	5.0	0.2	25.5	16.2	57.6	11.6					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	22.0	5.0	0.2	25.5	16.2	57.6	11.6					
LOS	C	A	A	C	B	E	B					
Approach Delay		2.9			20.4	31.4						
Approach LOS		A			C	C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

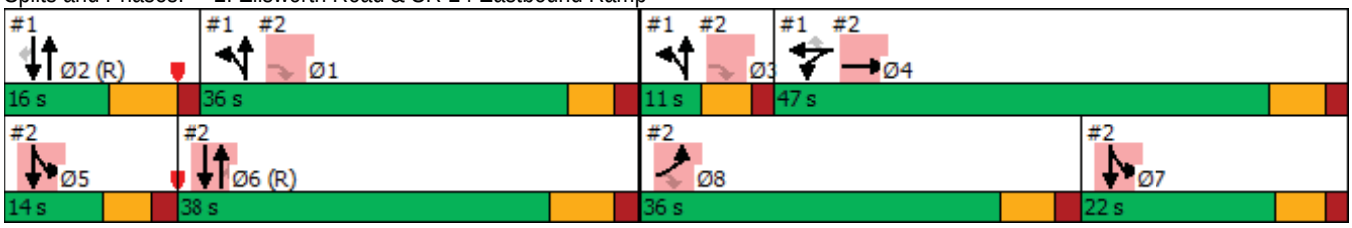


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	718	33	1042	1265	9	91	220					
Future Volume (vph)	718	33	1042	1265	9	91	220					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	36.0	47.0		38.0	38.0			36.0	16.0	11.0	14.0	22.0
Total Split (%)	32.7%	42.7%		34.5%	34.5%			33%	15%	10%	13%	20%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	29.3	29.3	65.8	32.7	32.7	28.0	68.2					
Actuated g/C Ratio	0.27	0.27	0.60	0.30	0.30	0.25	0.62					
v/c Ratio	0.94	0.94	0.55	0.75	0.02	0.12	0.08					
Control Delay	70.4	70.8	1.7	37.8	0.0	76.8	0.1					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	70.4	70.8	1.7	37.8	0.0	76.8	0.1					
LOS	E	E	A	D	A	E	A					
Approach Delay		30.6		37.5			22.5					
Approach LOS		C		D			C					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 32.5	Intersection LOS: C
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

! Phase conflict between lane groups.

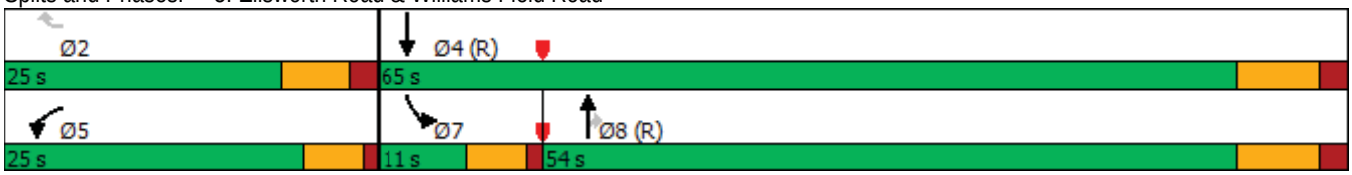
Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	55	48	1046	45	82	986
Future Volume (vph)	55	48	1046	45	82	986
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	5		8		7	4
Permitted Phases		2		8		
Detector Phase	5	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	5.0	15.0
Minimum Split (s)	10.0	24.5	25.5	25.5	10.0	25.5
Total Split (s)	25.0	25.0	54.0	54.0	11.0	65.0
Total Split (%)	27.8%	27.8%	60.0%	60.0%	12.2%	72.2%
Yellow Time (s)	4.0	4.5	5.5	5.5	4.0	5.5
All-Red Time (s)	1.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.5	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	17.1	18.5	48.7	48.7	6.0	57.5
Actuated g/C Ratio	0.19	0.21	0.54	0.54	0.07	0.64
v/c Ratio	0.10	0.09	0.65	0.06	0.43	0.36
Control Delay	20.2	4.5	6.4	3.6	46.6	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	4.5	6.4	3.6	46.6	8.0
LOS	C	A	A	A	D	A
Approach Delay	12.9		6.3			11.0
Approach LOS	B		A			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

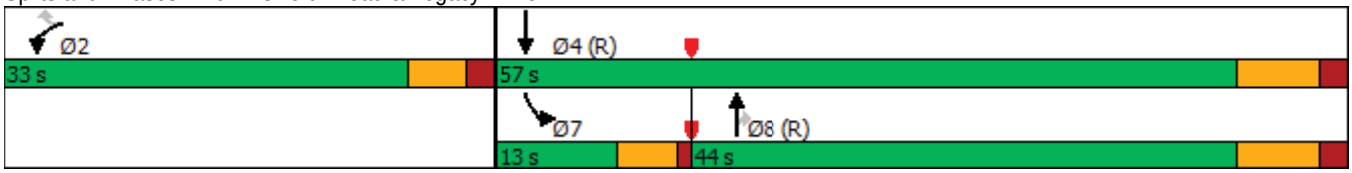
Splits and Phases: 5: Ellsworth Road & Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	89	19	1300	195	6	1061
Future Volume (vph)	89	19	1300	195	6	1061
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	33.0	33.0	44.0	44.0	13.0	57.0
Total Split (%)	36.7%	36.7%	48.9%	48.9%	14.4%	63.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.0	27.0	47.3	47.3	5.7	49.5
Actuated g/C Ratio	0.30	0.30	0.53	0.53	0.06	0.55
v/c Ratio	0.10	0.04	0.78	0.24	0.03	0.61
Control Delay	22.6	10.1	18.8	4.2	45.3	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.6	10.1	18.8	4.2	45.3	13.1
LOS	C	B	B	A	D	B
Approach Delay	20.7		16.9			13.3
Approach LOS	C		B			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	69	15	1455	5	1113
Future Volume (vph)	69	15	1455	5	1113
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	5.0	15.0
Minimum Split (s)	24.5	24.5	25.5	9.0	25.5
Total Split (s)	17.0	17.0	59.0	14.0	73.0
Total Split (%)	18.9%	18.9%	65.6%	15.6%	81.1%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	23.6	23.6	50.3	5.9	52.4
Actuated g/C Ratio	0.26	0.26	0.56	0.07	0.58
v/c Ratio	0.16	0.04	0.83	0.04	0.59
Control Delay	30.5	15.3	20.4	55.4	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	15.3	20.4	55.4	7.0
LOS	C	B	C	E	A
Approach Delay	27.9		20.4		7.2
Approach LOS	C		C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	80	65	122	46	54	40
Future Volume (vph)	80	65	122	46	54	40
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	2			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0	6.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	58.0	58.0	72.7	71.5	10.5	10.5
Actuated g/C Ratio	0.64	0.64	0.81	0.79	0.12	0.12
v/c Ratio	0.08	0.08	0.15	0.04	0.33	0.22
Control Delay	5.7	1.0	2.8	3.3	41.1	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	1.0	2.8	3.3	41.1	13.3
LOS	A	A	A	A	D	B
Approach Delay	3.6			3.0	29.2	
Approach LOS	A			A	C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.33	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 32.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	106	126	0	284	0	75
Future Vol, veh/h	106	126	0	284	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	136	162	0	364	0	96

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	217
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	865
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	865
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

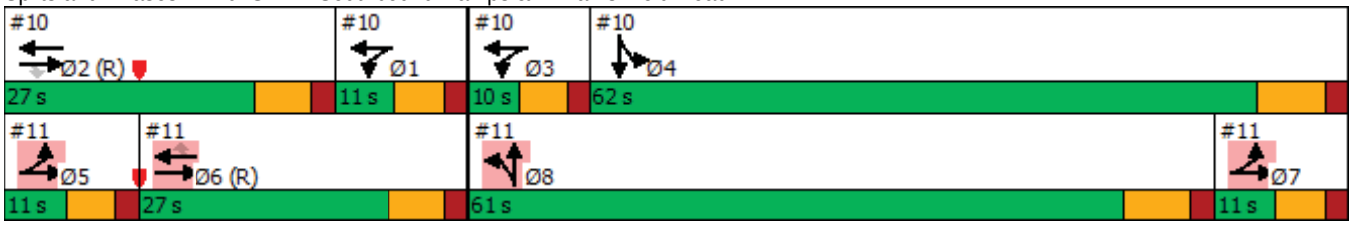
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	865	-	-	-
HCM Lane V/C Ratio	0.111	-	-	-
HCM Control Delay (s)	9.7	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	100	6	15	130	235	2141						
Future Volume (vph)	100	6	15	130	235	2141						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	27.0	27.0			62.0	62.0	11.0	10.0	11.0	27.0	11.0	61.0
Total Split (%)	24.5%	24.5%			56.4%	56.4%	10%	9%	10%	25%	10%	55%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	20.5	20.5	15.0	42.0	54.5	54.5						
Actuated g/C Ratio	0.19	0.19	0.14	0.38	0.50	0.50						
v/c Ratio	0.09	0.01	0.03	0.10	0.27	1.49						
Control Delay	37.3	0.0	18.1	8.9	17.4	248.9						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	37.3	0.0	18.1	8.9	17.4	248.9						
LOS	D	A	B	A	B	F						
Approach Delay	35.2			9.8		230.1						
Approach LOS	D			A		F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.49	
Intersection Signal Delay: 211.8	Intersection LOS: F
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

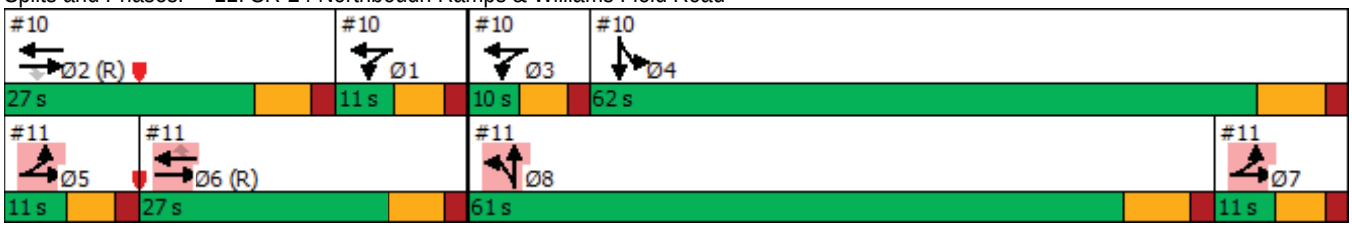
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	51	334	112	239	22	1132						
Future Volume (vph)	51	334	112	239	22	1132						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			27.0	27.0	61.0	61.0	11.0	27.0	10.0	62.0	11.0	11.0
Total Split (%)			24.5%	24.5%	55.5%	55.5%	10%	25%	9%	56%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	21.0	48.0	20.5	20.5	48.5	48.5						
Actuated g/C Ratio	0.19	0.44	0.19	0.19	0.44	0.44						
v/c Ratio	0.09	0.24	0.11	0.55	0.03	0.82						
Control Delay	43.1	19.2	37.4	12.2	15.8	31.7						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	43.1	19.2	37.4	12.2	15.8	31.7						
LOS	D	B	D	B	B	C						
Approach Delay		22.4	20.3			31.4						
Approach LOS		C	C			C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.49	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road



Appendix F – Trip Generation

Gateway

Completed:
Checked:

Trip Generation Calculations, 11th Edition

Proposed Development

130 Industrial Park																					
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Industrial Park	**130**	**1,275**	**1000 Sq. Ft. GFA**	**3.37**	**50%**	**50%**	**0.34**	**81%**	**19%**	**0.34**	**22%**	**78%**	**4,297**	**2,148**	**2,149**	**434**	**352**	**82**	**434**	**95**	**339**	**Average**
Industrial Park	130	1,275	1000 Sq. Ft. GFA	1.41	50%	50%	0.06	81%	19%	0.09	22%	78%	1,798	899	899	77	62	15	115	25	90	Minimum
Industrial Park	130	1,275	1000 Sq. Ft. GFA	14.98	50%	50%	2.13	81%	19%	2.85	22%	78%	19,100	9,550	9,550	2,716	2,200	516	3,634	799	2,835	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Industrial Park	130	1,275	1000 Sq. Ft. GFA	Ln(T)=0.52Ln(X)+4.45	50%	50%	N/A	N/A	N/A	N/A	N/A	N/A	3,528	1,764	1,764	N/A	N/A	N/A	N/A	N/A	N/A	Equation

Industrial Park	Standard Deviation	2.60	0.33	0.36	
	Number of Studies	27	34	35	
	Average Size	762	956	899	
	R^2	0.58	N/A	N/A	

310 Hotel																					
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Hotel	310	150	Rooms	7.99	50%	50%	0.46	56%	44%	0.59	51%	49%	1,199	600	599	69	39	30	89	45	44	Average
Hotel	310	150	Rooms	5.31	50%	50%	0.20	56%	44%	0.26	51%	49%	797	399	398	30	17	13	39	19	20	Minimum
Hotel	310	150	Rooms	9.53	50%	50%	0.84	56%	44%	1.06	51%	49%	1,430	715	715	126	71	55	159	81	78	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Hotel	310	150	Rooms	T=10.84(X)-423.51	50%	50%	T=0.50(X)-7.45	56%	44%	T=0.74(X)-27.89	51%	49%	1,202	601	601	68	38	30	84	42	42	Equation

Hotel	Standard Deviation	1.92	0.14	0.22	
	Number of Studies	7	28	31	
	Average Size	148	182	186	
	R^2	0.85	0.84	0.78	

822 Strip Retail Plaza (<40k)																					
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Strip Retail Plaza (<40k)	**822**	**10**	**1000 SF GLA**	**54.45**	**50%**	**50%**	**2.36**	**60%**	**40%**	**6.59**	**50%**	**50%**	**545**	**272**	**273**	**24**	**15**	**9**	**66**	**32**	**34**	**Average**
Strip Retail Plaza (<40k)	822	10	1000 SF GLA	47.86	50%	50%	1.60	60%	40%	2.81	50%	50%	479	239	240	16	10	6	28	14	14	Minimum
Strip Retail Plaza (<40k)	822	10	1000 SF GLA	65.07	50%	50%	3.73	60%	40%	15.20	50%	50%	651	325	326	37	23	14	152	76	76	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Strip Retail Plaza (<40k)	822	10	1000 SF GLA	T=42.20(X)+229.68	50%	50%	Ln(T)=0.66Ln(X)+1.84	60%	40%	Ln(T)=0.71Ln(X)+2.72	50%	50%	652	326	326	29	18	11	78	39	39	Equation

Strip Retail Plaza (<40k)	Standard Deviation	7.81	0.94	2.94	
	Number of Studies	4	5	25	
	Average Size	19	18	21	
	R^2	0.96	0.57	0.56	

932 High-Turnover (Sit-Down) Restaurant																					
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
High-Turnover (Sit-Down) Restaurant	**932**	**5**	**1000 SF GFA**	**107.20**	**50%**	**50%**	**9.57**	**55%**	**45%**	**9.05**	**61%**	**39%**	**536**	**268**	**268**	**48**	**26**	**22**	**45**	**27**	**18**	**Average**
High-Turnover (Sit-Down) Restaurant	932	5	1000 SF GFA	13.04	50%	50%	0.76	55%	45%	0.92	61%	39%	65	33	32	4	2	2	5	3	2	Minimum
High-Turnover (Sit-Down) Restaurant	932	5	1000 SF GFA	742.41	50%	50%	102.39	55%	45%	62.00	61%	39%	3,712	1,856	1,856	512	282	230	310	189	121	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
High-Turnover (Sit-Down) Restaurant	932	5	1000 SF GFA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Equation

High-Turnover (Sit-Down) Restaurant	Standard Deviation	66.72	11.61	6.18	
	Number of Studies	50	37	104	
	Average Size	5	5	6	
	R^2	N/A	N/A	N/A	

Appendix G – MAG Socioeconomic Projections

Socioeconomic Projections

Population and Employment

by Municipal Planning Area, Jurisdiction, and Regional Analysis Zone

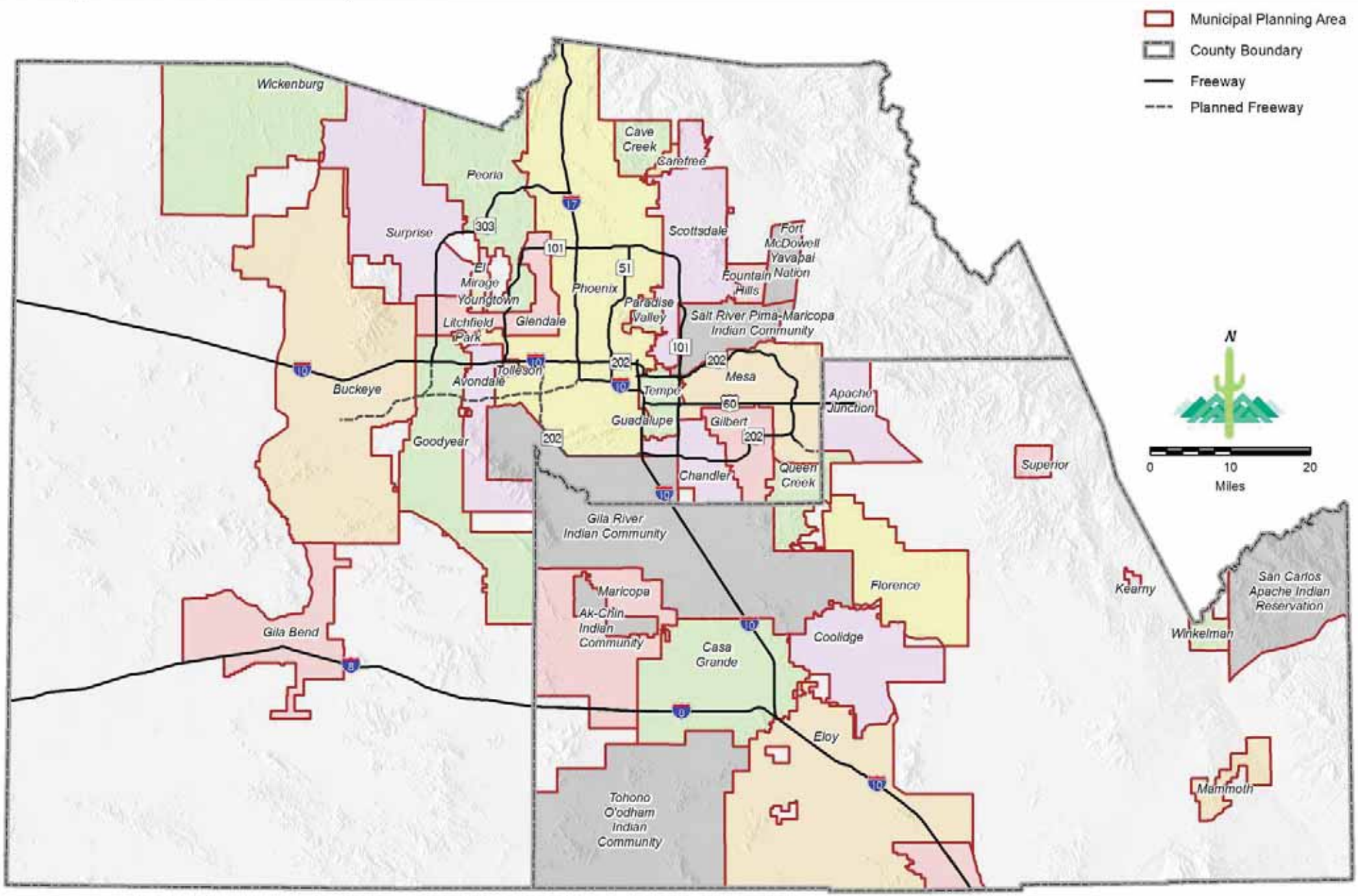
June 2019

MARICOPA ASSOCIATION of GOVERNMENTS

302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003
(602) 254-6300

Municipal Planning Areas (MPA), 2019
Maricopa and Pinal Counties, Arizona

MARICOPA ASSOCIATION of GOVERNMENTS



Source: MAG and the MAG member agencies, CAG and the CAG member agencies

Date: May 2019

Maricopa Association of Governments

Table 1: Total Population by Municipal Planning Area

July 1, 2018 and Projections July 1, 2020 to July 1, 2055

Municipal Planning Area	Total Population					
	2018	2020	2030	2040	2050	2055
Apache Junction	59,000	60,800	70,000	92,000	117,100	132,600
Avondale	84,200	86,700	101,800	111,900	119,000	122,100
Buckeye	89,000	97,700	186,600	305,400	409,900	459,300
Carefree	3,700	3,800	4,100	4,200	4,200	4,300
Cave Creek	5,900	6,000	6,500	7,000	7,200	7,300
Chandler	270,300	279,500	309,100	321,100	329,000	332,400
El Mirage	34,300	35,100	36,500	36,900	37,200	37,200
Florence	79,400	85,500	120,300	160,500	209,900	231,400
Fort McDowell Yavapai Native Nation	1,000	1,100	1,100	1,100	1,100	1,100
Fountain Hills	24,000	24,700	26,200	26,600	26,900	27,000
Gila Bend	2,500	2,700	3,700	3,700	3,900	4,200
Gila River Indian Native Nation	12,000	12,200	12,300	12,300	12,300	12,300
Gilbert	256,500	265,900	293,500	308,800	318,100	321,400
Glendale	272,200	279,100	306,400	323,400	333,200	338,800
Goodyear	87,300	92,100	140,300	192,200	228,600	247,900
Guadalupe	6,300	6,400	6,700	6,800	6,800	6,800
Litchfield Park	13,300	14,000	15,400	15,700	16,100	16,400
Maricopa	59,800	67,000	90,800	106,400	121,600	128,900
Mesa	533,400	552,800	607,500	649,400	680,000	690,300
Paradise Valley	14,000	14,100	14,700	15,100	15,200	15,300
Peoria	188,500	196,600	232,400	273,700	312,600	329,900
Phoenix	1,653,500	1,697,700	1,881,900	2,019,300	2,117,400	2,155,300
Queen Creek	58,700	65,000	90,900	109,000	120,900	128,500
Salt River Pima-Maricopa Native Nation	6,800	6,100	5,700	5,800	5,800	5,800
Scottsdale	245,500	253,800	281,900	299,400	311,400	316,700
Surprise	144,000	150,300	216,700	307,500	383,300	417,200
Tempe	185,300	190,000	217,100	247,000	272,400	282,200
Tolleson	7,000	7,100	8,600	10,300	11,400	11,800
Unicorporated Pinal County	66,800	68,600	79,100	93,700	110,800	122,700
Unincorporated Maricopa County	97,900	101,200	110,500	116,800	137,000	152,600
Wickenburg	8,200	8,500	9,400	9,500	9,800	10,000
Youngtown	6,600	6,800	7,300	7,700	7,800	7,800

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Maricopa Association of Governments

Table 2: Total Employment by Municipal Planning Area

July 1, 2018 and Projections July 1, 2020 to July 1, 2055

Municipal Planning Area	Total Employment					
	2018	2020	2030	2040	2050	2055
Apache Junction	7,800	8,800	13,100	17,800	26,400	30,500
Avondale	22,400	23,200	30,400	36,200	42,800	45,400
Buckeye	21,600	26,900	42,900	64,500	98,000	128,900
Carefree	1,600	1,600	2,100	2,400	2,500	2,600
Cave Creek	2,200	2,400	2,700	2,900	3,000	3,200
Chandler	145,500	154,700	182,300	202,100	215,200	222,000
El Mirage	5,000	5,100	6,500	7,200	8,000	8,900
Florence	11,000	12,100	17,000	26,400	40,900	51,100
Fort McDowell Yavapai Native Nation	2,200	2,400	2,400	2,500	2,600	2,600
Fountain Hills	7,100	7,700	9,100	9,800	10,200	10,300
Gila Bend	900	900	1,200	1,300	1,500	1,700
Gila River Indian Native Nation	10,500	10,700	11,500	13,100	14,800	15,500
Gilbert	92,800	98,600	120,200	135,900	146,600	152,200
Glendale	103,800	111,400	134,000	153,100	168,900	175,900
Goodyear	35,900	37,200	50,600	69,000	92,600	102,500
Guadalupe	1,300	1,300	1,500	1,600	1,600	1,600
Litchfield Park	3,800	4,400	5,200	5,900	6,400	6,700
Maricopa	6,200	7,100	11,400	18,200	28,200	33,500
Mesa	197,200	205,900	249,000	296,000	333,700	351,000
Paradise Valley	6,300	6,300	6,800	7,100	7,500	7,700
Peoria	58,200	62,400	73,100	84,800	91,900	96,300
Phoenix	897,700	937,600	1,084,000	1,189,200	1,264,900	1,298,900
Queen Creek	15,500	16,400	19,900	24,000	28,900	31,100
Salt River Pima-Maricopa Native Nation	21,200	22,900	28,200	33,900	35,900	36,400
Scottsdale	197,200	207,400	235,500	252,000	261,700	267,000
Surprise	33,600	36,400	59,500	86,400	113,400	130,500
Tempe	190,000	200,500	231,200	257,700	280,000	290,900
Tolleson	17,700	18,300	21,200	23,900	26,000	26,700
Unicorporated Pinal County	3,500	3,900	6,000	8,900	13,500	17,800
Unincorporated Maricopa County	28,600	31,500	35,500	41,100	51,200	58,400
Wickenburg	4,400	4,600	5,200	5,600	6,000	6,200
Youngtown	1,500	1,800	2,200	2,700	2,800	3,100

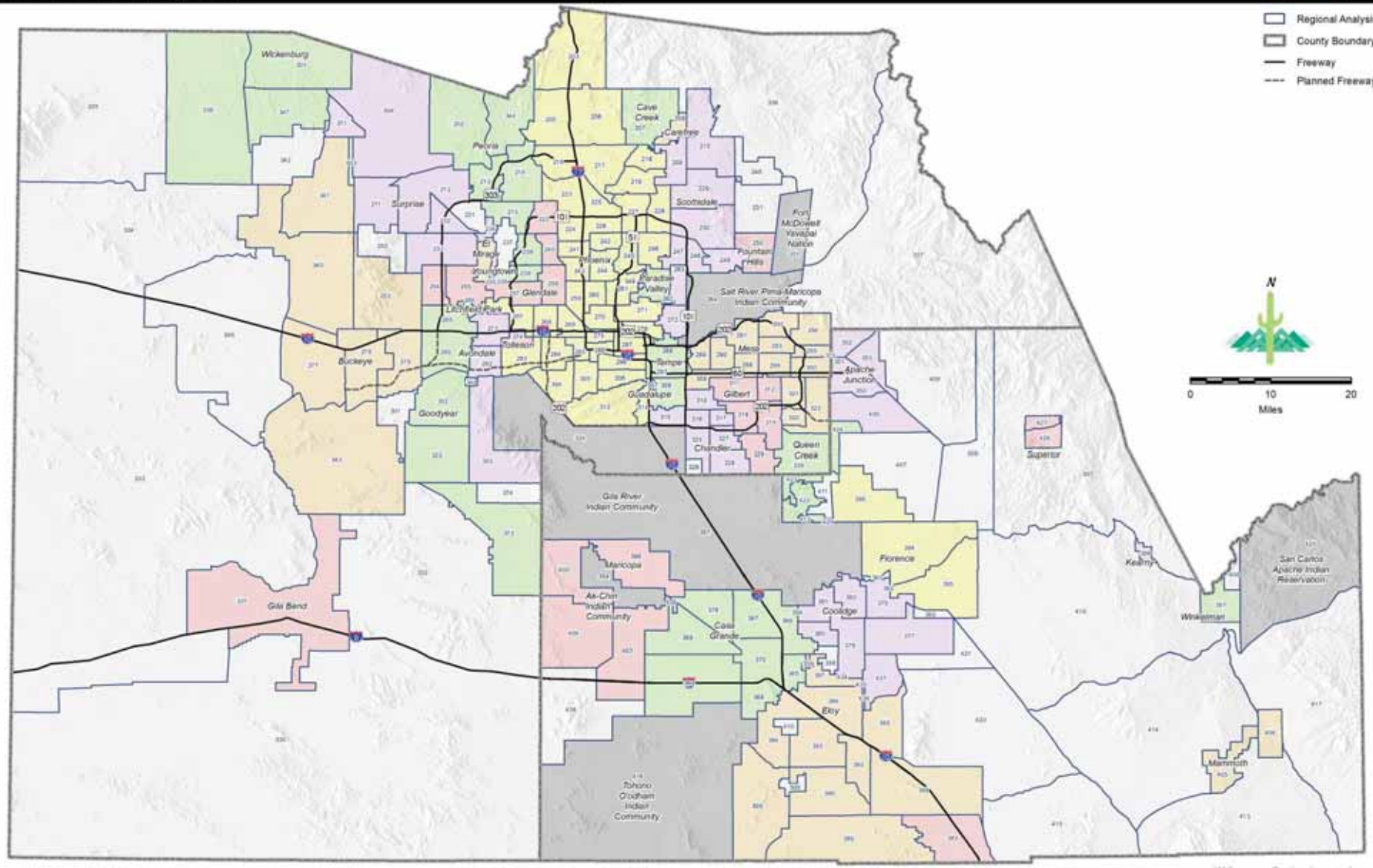
Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Regional Analysis Zones (RAZ), 2019
Maricopa and Pinal Counties, Arizona

MARICOPA ASSOCIATION of GOVERNMENTS



Source: MAG and the MAG member agencies, CAG and the CAG member agencies

Date: May 2019

Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

RAZ	County	Total Population					
		2018	2020	2030	2040	2050	2055
Mesa MPA							
289	**Maricopa County**	62,537	64,561	71,065	81,819	86,746	88,261
290	**Maricopa County**	78,389	80,407	85,506	94,807	106,303	109,054
291	**Maricopa County**	47,484	48,483	51,596	54,113	54,931	55,151
292	**Maricopa County**	23,477	24,010	25,594	26,476	26,923	27,104
293	**Maricopa County**	30,536	31,512	32,660	32,733	32,765	32,774
294	**Maricopa County**	11,879	12,276	13,651	14,228	14,367	14,384
295	**Maricopa County**	22,501	23,159	24,434	25,325	25,619	25,699
298	**Maricopa County**	53,809	55,462	58,018	58,921	59,606	60,120
299	**Maricopa County**	42,249	44,291	48,992	49,897	50,412	50,765
300	**Maricopa County**	46,634	48,388	52,826	54,765	55,918	56,323
309	**Maricopa County**	46,061	47,187	49,080	49,403	49,476	49,499
320	**Maricopa County**	1,349	1,402	1,613	2,068	2,464	2,665
321	**Maricopa County**	22,458	22,889	26,310	30,801	33,988	34,896
322	**Maricopa County**	43,996	48,810	66,145	74,050	80,506	83,598
	Total	533,359	552,837	607,490	649,406	680,024	690,293
Paradise Valley MPA							
262	**Maricopa County**	14,011	14,120	14,716	15,118	15,240	15,285
	Total	14,011	14,120	14,716	15,118	15,240	15,285
Peoria MPA							
202	**Maricopa County**	3,590	3,832	8,221	22,334	38,054	44,852
213	**Maricopa County**	15,528	16,863	24,826	32,345	38,165	41,241
214	**Maricopa County**	31,392	32,719	39,317	44,370	50,147	52,886
215	**Maricopa County**	50,522	53,144	59,175	60,555	61,317	61,543
238	**Maricopa County**	52,629	54,150	57,960	60,244	62,747	63,767
239	**Maricopa County**	34,791	35,926	41,694	45,797	47,772	48,666
344	**Maricopa County**	0	0	1,190	8,045	14,415	16,959
	Total	188,452	196,634	232,383	273,690	312,617	329,914

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), May 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

		Total Employment					
RAZ	County	2018	2020	2030	2040	2050	2055
Mesa MPA							
289	**Maricopa County**	22,838	24,276	29,626	34,970	38,444	39,795
290	**Maricopa County**	25,797	26,939	32,949	37,848	41,668	43,230
291	**Maricopa County**	11,242	11,615	14,059	16,123	17,658	17,945
292	**Maricopa County**	11,140	11,911	13,675	16,720	20,969	22,804
293	**Maricopa County**	10,645	10,834	12,409	13,235	13,672	13,936
294	**Maricopa County**	1,358	1,166	1,295	1,405	1,437	1,513
295	**Maricopa County**	3,043	2,853	3,466	4,012	4,133	4,182
298	**Maricopa County**	12,724	13,259	15,078	16,068	16,840	16,952
299	**Maricopa County**	30,965	32,750	37,192	39,211	40,186	40,444
300	**Maricopa County**	9,741	10,049	12,273	15,829	17,806	18,463
309	**Maricopa County**	38,368	40,075	45,978	49,949	51,913	52,452
320	**Maricopa County**	3,722	3,971	5,427	6,146	6,569	6,874
321	**Maricopa County**	4,701	4,960	9,586	18,204	24,738	28,748
322	**Maricopa County**	10,883	11,239	16,030	26,241	37,712	43,666
	Total	197,167	205,897	249,043	295,961	333,745	351,004
Paradise Valley MPA							
262	**Maricopa County**	6,332	6,253	6,788	7,115	7,512	7,709
	Total	6,332	6,253	6,788	7,115	7,512	7,709
Peoria MPA							
202	**Maricopa County**	578	583	2,047	3,904	3,543	3,389
213	**Maricopa County**	2,394	3,058	4,155	5,800	7,070	7,992
214	**Maricopa County**	7,618	7,100	7,856	9,675	11,368	13,189
215	**Maricopa County**	11,674	12,908	13,644	14,918	15,705	16,175
238	**Maricopa County**	22,430	24,282	28,132	30,090	31,526	32,231
239	**Maricopa County**	13,422	14,370	16,229	19,078	20,388	21,148
344	**Maricopa County**	89	96	1,046	1,301	2,267	2,175
	Total	58,205	62,397	73,109	84,766	91,867	96,299

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), May 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

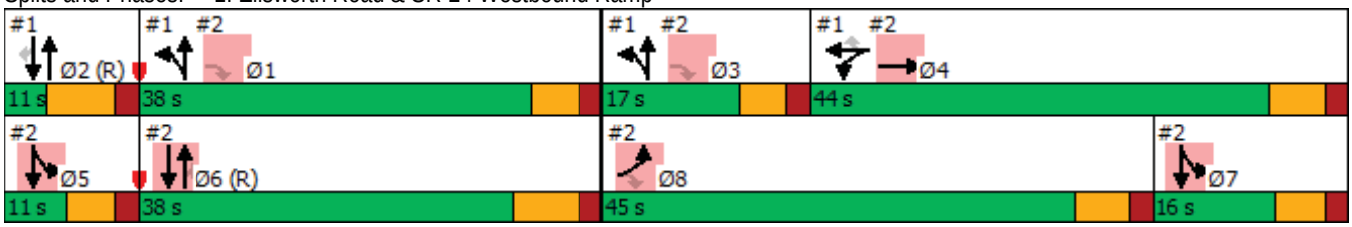
Appendix H – Year 2026 No Build Capacity Analysis

H

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	1	0	133	1303	1112	238	465					
Future Volume (vph)	1	0	133	1303	1112	238	465					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	44.0	44.0	44.0			11.0	11.0	38.0	17.0	11.0	38.0	16.0
Total Split (%)	40.0%	40.0%	40.0%			10.0%	10.0%	35%	15%	10%	35%	15%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	27.0	27.0	27.0	49.0	70.5	14.0	14.0					
Actuated g/C Ratio	0.25	0.25	0.25	0.45	0.64	0.13	0.13					
v/c Ratio	0.00	0.09	0.15	0.93	0.53	0.32	0.64					
Control Delay	35.0	0.2	0.6	23.3	5.3	43.5	7.6					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	35.0	0.2	0.6	23.3	5.3	43.5	7.6					
LOS	C	A	A	C	A	D	A					
Approach Delay		0.7			15.0	19.8						
Approach LOS		A			B	B						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 78.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

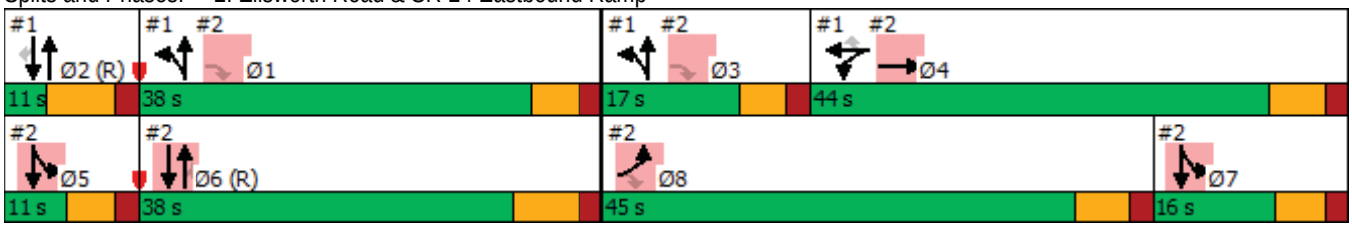


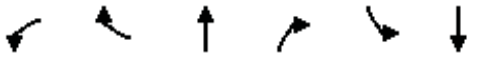
Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	359	4	880	1997	5	50	201					
Future Volume (vph)	359	4	880	1997	5	50	201					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	45.0	44.0		38.0	38.0			38.0	11.0	17.0	11.0	16.0
Total Split (%)	40.9%	40.0%		34.5%	34.5%			35%	10%	15%	10%	15%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	19.8	19.8	58.3	40.5	40.5	29.7	77.7					
Actuated g/C Ratio	0.18	0.18	0.53	0.37	0.37	0.27	0.71					
v/c Ratio	0.65	0.66	0.50	0.92	0.01	0.06	0.06					
Control Delay	51.1	51.7	1.6	40.4	0.0	79.4	0.4					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	51.1	51.7	1.6	40.4	0.0	79.4	0.4					
LOS	D	D	A	D	A	E	A					
Approach Delay		16.1		40.3			16.1					
Approach LOS		B		D			B					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 30.0	Intersection LOS: C
Intersection Capacity Utilization 78.4%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp

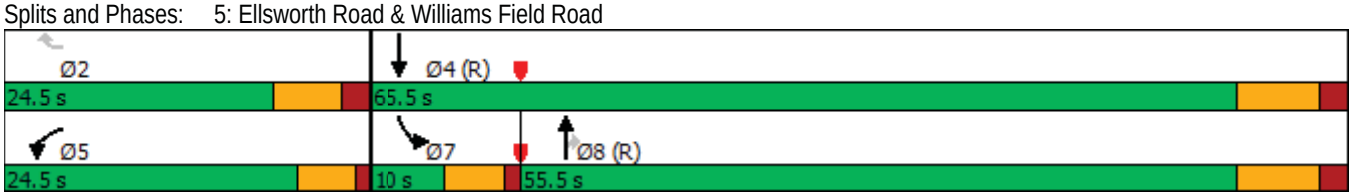




Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	76	6	2009	37	20	1034
Future Volume (vph)	76	6	2009	37	20	1034
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	5		8		7	4
Permitted Phases		2		8		
Detector Phase	5	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	5.0	15.0
Minimum Split (s)	10.0	24.5	25.5	25.5	10.0	25.5
Total Split (s)	24.5	24.5	55.5	55.5	10.0	65.5
Total Split (%)	27.2%	27.2%	61.7%	61.7%	11.1%	72.8%
Yellow Time (s)	4.0	4.5	5.5	5.5	4.0	5.5
All-Red Time (s)	1.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.5	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	16.7	18.0	54.0	54.0	5.0	58.0
Actuated g/C Ratio	0.19	0.20	0.60	0.60	0.06	0.64
v/c Ratio	0.13	0.01	1.03	0.04	0.12	0.34
Control Delay	35.1	25.0	27.5	3.3	41.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	25.0	27.5	3.3	41.9	7.7
LOS	D	C	C	A	D	A
Approach Delay	34.3		27.1			8.3
Approach LOS	C		C			A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 79.7%	ICU Level of Service D
Analysis Period (min) 15	

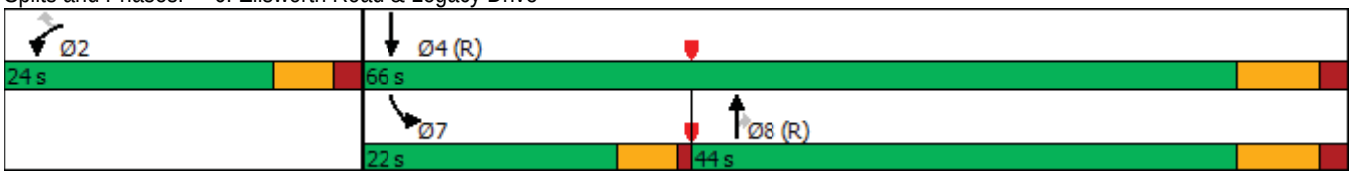
Splits and Phases: 5: Ellsworth Road & Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	2	2042	7	3	1097
Future Volume (vph)	5	2	2042	7	3	1097
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	24.0	24.0	44.0	44.0	22.0	66.0
Total Split (%)	26.7%	26.7%	48.9%	48.9%	24.4%	73.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.0	18.0	56.3	56.3	5.6	58.5
Actuated g/C Ratio	0.20	0.20	0.63	0.63	0.06	0.65
v/c Ratio	0.01	0.01	1.00	0.01	0.01	0.36
Control Delay	29.0	21.0	25.1	1.0	38.3	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	21.0	25.1	1.0	38.3	6.8
LOS	C	C	C	A	D	A
Approach Delay	26.7		25.0			6.9
Approach LOS	C		C			A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 76.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	121	21	2015	8	1068
Future Volume (vph)	121	21	2015	8	1068
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	8.0	15.0
Minimum Split (s)	24.5	24.5	25.5	12.5	25.5
Total Split (s)	17.0	17.0	64.0	9.0	73.0
Total Split (%)	18.9%	18.9%	71.1%	10.0%	81.1%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	10.5	10.5	63.7	5.0	65.5
Actuated g/C Ratio	0.12	0.12	0.71	0.06	0.73
v/c Ratio	0.64	0.11	0.90	0.09	0.31
Control Delay	53.4	16.1	17.8	54.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	16.1	17.8	54.9	0.2
LOS	D	B	B	D	A
Approach Delay	47.9		17.8		0.6
Approach LOS	D		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 75.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Traffic Volume (vph)	44	7	16	77	1
Future Volume (vph)	44	7	16	77	1
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	6		5	2	8
Permitted Phases		6	2		
Detector Phase	6	6	5	2	8
Switch Phase					
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	79.4	79.4	82.8	85.5	10.0
Actuated g/C Ratio	0.88	0.88	0.92	0.95	0.11
v/c Ratio	0.03	0.01	0.01	0.05	0.01
Control Delay	4.3	4.1	1.2	1.2	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	4.1	1.2	1.2	36.0
LOS	A	A	A	A	D
Approach Delay	4.3			1.2	36.0
Approach LOS	A			A	D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.05	
Intersection Signal Delay: 2.5	Intersection LOS: A
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	47	1	0	92	0	0
Future Vol, veh/h	47	1	0	92	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	1	0	100	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	52
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	1021
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

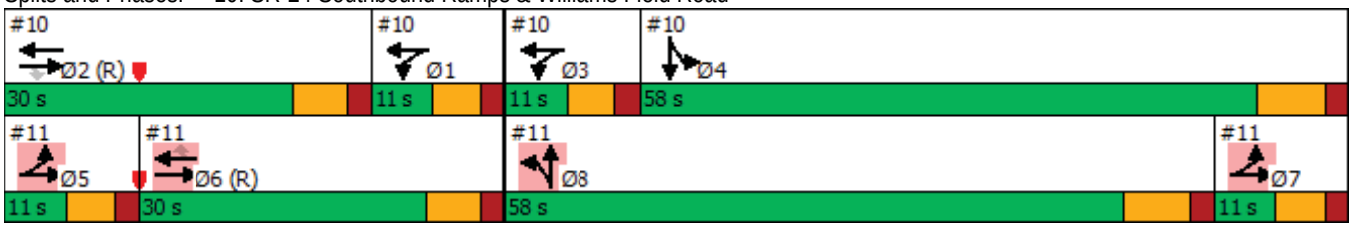
Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	45	4	16	77	187	1137						
Future Volume (vph)	45	4	16	77	187	1137						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	30.0	30.0			58.0	58.0	11.0	11.0	11.0	30.0	11.0	58.0
Total Split (%)	27.3%	27.3%			52.7%	52.7%	10%	10%	10%	27%	10%	53%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	25.7	25.7	16.0	46.0	52.7	52.7						
Actuated g/C Ratio	0.23	0.23	0.15	0.42	0.48	0.48						
v/c Ratio	0.03	0.01	0.03	0.06	0.24	0.79						
Control Delay	34.4	0.0	9.8	1.2	18.7	29.1						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	34.4	0.0	9.8	1.2	18.7	29.1						
LOS	C	A	A	A	B	C						
Approach Delay	31.8			2.6		27.8						
Approach LOS	C			A		C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.39	
Intersection Signal Delay: 26.4	Intersection LOS: C
Intersection Capacity Utilization 113.8%	ICU Level of Service H
Analysis Period (min) 15	

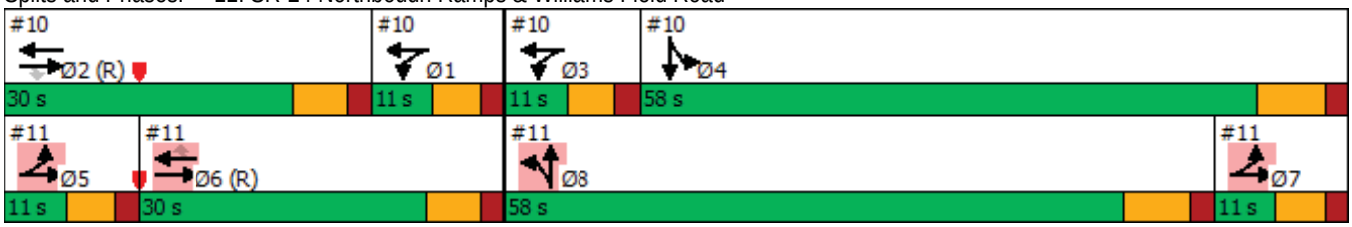
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	14	213	89	574	1	2070						
Future Volume (vph)	14	213	89	574	1	2070						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			30.0	30.0	58.0	58.0	11.0	30.0	11.0	58.0	11.0	11.0
Total Split (%)			27.3%	27.3%	52.7%	52.7%	10%	27%	10%	53%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	16.0	46.0	23.5	23.5	50.5	50.5						
Actuated g/C Ratio	0.15	0.42	0.21	0.21	0.46	0.46						
v/c Ratio	0.03	0.16	0.07	1.19	0.00	1.39						
Control Delay	37.6	22.7	34.8	127.6	16.0	206.8						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	37.6	22.7	34.8	127.6	16.0	206.8						
LOS	D	C	C	F	B	F						
Approach Delay		23.6	115.1			206.7						
Approach LOS		C	F			F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.39	
Intersection Signal Delay: 172.2	Intersection LOS: F
Intersection Capacity Utilization 113.8%	ICU Level of Service H
Analysis Period (min) 15	

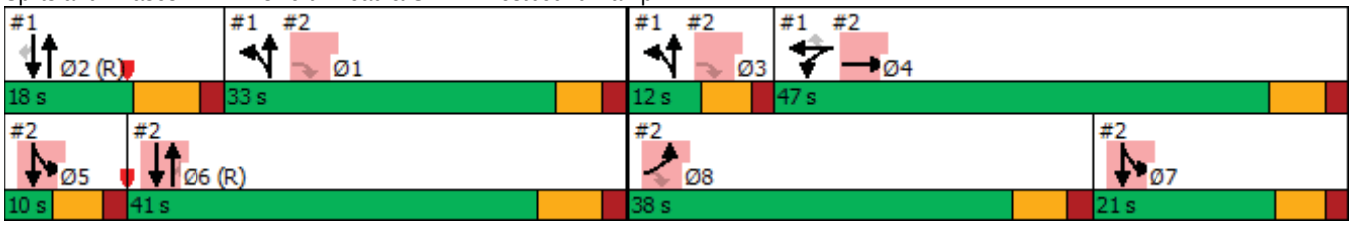
Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	1	1	72	936	1142	330	439					
Future Volume (vph)	1	1	72	936	1142	330	439					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	47.0	47.0	47.0			18.0	18.0	33.0	12.0	10.0	41.0	21.0
Total Split (%)	42.7%	42.7%	42.7%			16.4%	16.4%	30%	11%	9%	37%	19%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	40.5	40.5	40.5	39.0	57.0	10.5	10.5					
Actuated g/C Ratio	0.37	0.37	0.37	0.35	0.52	0.10	0.10					
v/c Ratio	0.00	0.04	0.06	0.84	0.68	0.59	0.68					
Control Delay	22.0	6.2	0.2	30.9	16.6	52.0	9.9					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	22.0	6.2	0.2	30.9	16.6	52.0	9.9					
LOS	C	A	A	C	B	D	A					
Approach Delay		3.5			23.0	28.0						
Approach LOS		A			C	C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 23.8	Intersection LOS: C
Intersection Capacity Utilization 67.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

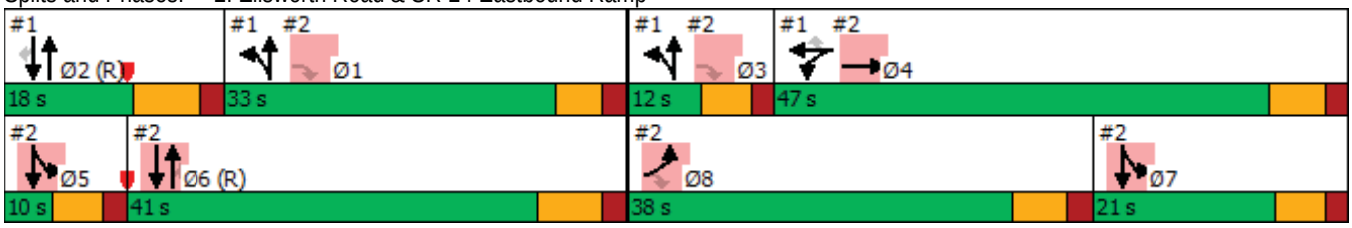


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	754	35	1094	1328	9	96	231					
Future Volume (vph)	754	35	1094	1328	9	96	231					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	38.0	47.0		41.0	41.0			33.0	18.0	12.0	10.0	21.0
Total Split (%)	34.5%	42.7%		37.3%	37.3%			30%	16%	11%	9%	19%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	30.6	30.6	64.1	33.5	33.5	25.9	66.9					
Actuated g/C Ratio	0.28	0.28	0.58	0.30	0.30	0.24	0.61					
v/c Ratio	0.91	0.92	0.57	0.74	0.02	0.13	0.08					
Control Delay	63.5	64.6	2.1	37.1	0.0	78.2	0.1					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	63.5	64.6	2.1	37.1	0.0	78.2	0.1					
LOS	E	E	A	D	A	E	A					
Approach Delay		28.1		36.9			22.9					
Approach LOS		C		D			C					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 67.1%	ICU Level of Service C
Analysis Period (min) 15	

! Phase conflict between lane groups.

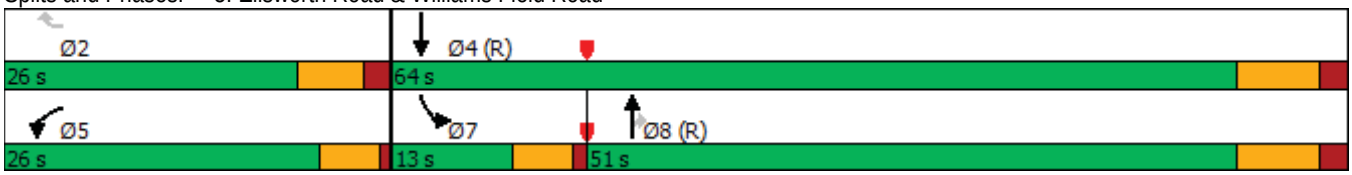
Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	58	50	1098	47	86	1035
Future Volume (vph)	58	50	1098	47	86	1035
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	5		8		7	4
Permitted Phases		2		8		
Detector Phase	5	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	5.0	15.0
Minimum Split (s)	10.0	24.5	25.5	25.5	10.0	25.5
Total Split (s)	26.0	26.0	51.0	51.0	13.0	64.0
Total Split (%)	28.9%	28.9%	56.7%	56.7%	14.4%	71.1%
Yellow Time (s)	4.0	4.5	5.5	5.5	4.0	5.5
All-Red Time (s)	1.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.5	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	17.9	19.5	46.3	46.3	7.3	56.5
Actuated g/C Ratio	0.20	0.22	0.51	0.51	0.08	0.63
v/c Ratio	0.09	0.08	0.65	0.06	0.33	0.35
Control Delay	18.8	4.3	9.9	5.4	42.1	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	4.3	9.9	5.4	42.1	8.4
LOS	B	A	A	A	D	A
Approach Delay	12.1		9.7			11.0
Approach LOS	B		A			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 10.4	Intersection LOS: B
Intersection Capacity Utilization 54.5%	ICU Level of Service A
Analysis Period (min) 15	

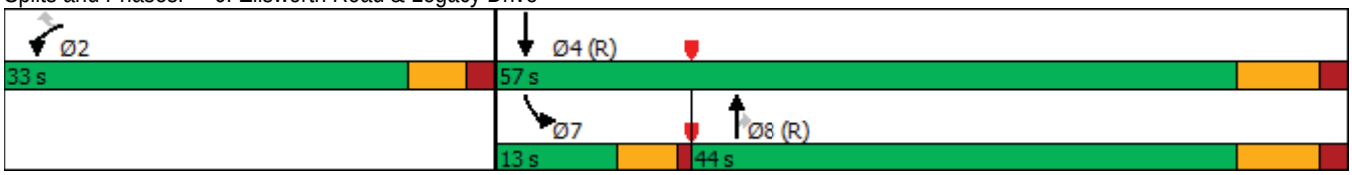
Splits and Phases: 5: Ellsworth Road & Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	93	20	1365	205	6	1114
Future Volume (vph)	93	20	1365	205	6	1114
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	33.0	33.0	44.0	44.0	13.0	57.0
Total Split (%)	36.7%	36.7%	48.9%	48.9%	14.4%	63.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.0	27.0	47.3	47.3	5.7	49.5
Actuated g/C Ratio	0.30	0.30	0.53	0.53	0.06	0.55
v/c Ratio	0.10	0.04	0.80	0.25	0.03	0.43
Control Delay	22.7	10.1	21.7	5.5	48.0	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	10.1	21.7	5.5	48.0	10.1
LOS	C	B	C	A	D	B
Approach Delay	20.6		19.6			10.3
Approach LOS	C		B			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	72	16	1528	5	1169
Future Volume (vph)	72	16	1528	5	1169
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	8.0	15.0
Minimum Split (s)	24.5	24.5	25.5	12.5	25.5
Total Split (s)	13.0	13.0	64.0	13.0	77.0
Total Split (%)	14.4%	14.4%	71.1%	14.4%	85.6%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	19.1	19.1	54.5	8.0	56.9
Actuated g/C Ratio	0.21	0.21	0.61	0.09	0.63
v/c Ratio	0.21	0.05	0.80	0.03	0.40
Control Delay	35.8	17.0	16.9	53.0	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	17.0	16.9	53.0	4.1
LOS	D	B	B	D	A
Approach Delay	32.4		16.9		4.3
Approach LOS	C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 59.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	84	68	128	48	57	42
Future Volume (vph)	84	68	128	48	57	42
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	2			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0	6.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	58.2	58.2	72.9	71.7	10.3	10.3
Actuated g/C Ratio	0.65	0.65	0.81	0.80	0.11	0.11
v/c Ratio	0.08	0.07	0.13	0.04	0.31	0.21
Control Delay	5.3	0.9	2.7	3.2	40.7	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.3	0.9	2.7	3.2	40.7	13.7
LOS	A	A	A	A	D	B
Approach Delay	3.3			2.9	29.2	
Approach LOS	A			A	C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.31	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 32.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	111	132	0	298	0	79
Future Vol, veh/h	111	132	0	298	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	143	0	324	0	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	193
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	894
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	894
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

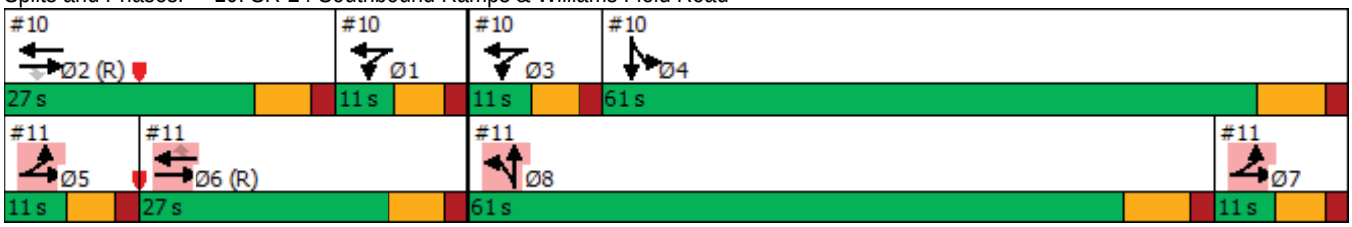
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	894	-	-	-
HCM Lane V/C Ratio	0.096	-	-	-
HCM Control Delay (s)	9.5	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	105	6	16	137	247	2248						
Future Volume (vph)	105	6	16	137	247	2248						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	27.0	27.0			61.0	61.0	11.0	11.0	11.0	27.0	11.0	61.0
Total Split (%)	24.5%	24.5%			55.5%	55.5%	10%	10%	10%	25%	10%	55%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	20.5	20.5	16.0	43.0	53.5	53.5						
Actuated g/C Ratio	0.19	0.19	0.15	0.39	0.49	0.49						
v/c Ratio	0.10	0.01	0.03	0.11	0.31	1.68						
Control Delay	37.4	0.0	19.6	9.6	18.4	332.5						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	37.4	0.0	19.6	9.6	18.4	332.5						
LOS	D	A	B	A	B	F						
Approach Delay	35.2			10.7		307.1						
Approach LOS	D			B		F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.68	
Intersection Signal Delay: 282.0	Intersection LOS: F
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

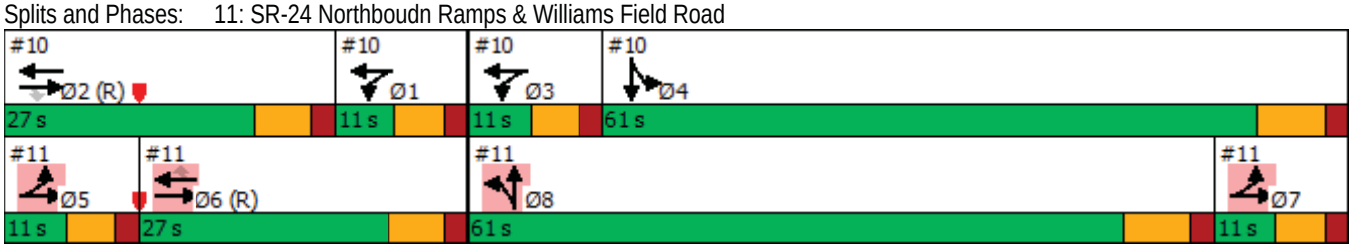
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	54	351	118	251	23	1189						
Future Volume (vph)	54	351	118	251	23	1189						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			27.0	27.0	61.0	61.0	11.0	27.0	11.0	61.0	11.0	11.0
Total Split (%)			24.5%	24.5%	55.5%	55.5%	10%	25%	10%	55%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	20.5	47.5	20.5	20.5	49.0	49.0						
Actuated g/C Ratio	0.19	0.43	0.19	0.19	0.45	0.45						
v/c Ratio	0.09	0.25	0.11	0.56	0.03	0.82						
Control Delay	43.4	18.9	37.5	12.7	15.7	31.6						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	43.4	18.9	37.5	12.7	15.7	31.6						
LOS	D	B	D	B	B	C						
Approach Delay		22.1	20.6			31.3						
Approach LOS		C	C			C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.68	
Intersection Signal Delay: 27.4	Intersection LOS: C
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road

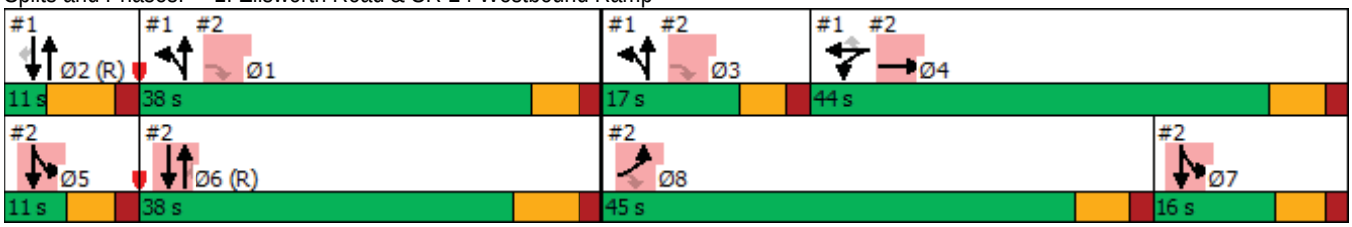


Appendix I – Year 2026 Build Capacity Analysis

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	23	0	133	1354	1126	281	465					
Future Volume (vph)	23	0	133	1354	1126	281	465					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	44.0	44.0	44.0			11.0	11.0	38.0	17.0	11.0	38.0	16.0
Total Split (%)	40.0%	40.0%	40.0%			10.0%	10.0%	35%	15%	10%	35%	15%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	28.2	28.2	28.2	49.0	69.3	12.8	12.8					
Actuated g/C Ratio	0.26	0.26	0.26	0.45	0.63	0.12	0.12					
v/c Ratio	0.05	0.09	0.14	0.96	0.55	0.41	0.65					
Control Delay	34.5	0.2	0.6	25.6	5.3	45.9	8.3					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	34.5	0.2	0.6	25.6	5.3	45.9	8.3					
LOS	C	A	A	C	A	D	A					
Approach Delay		4.8			16.4	22.5						
Approach LOS		A			B	C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 79.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

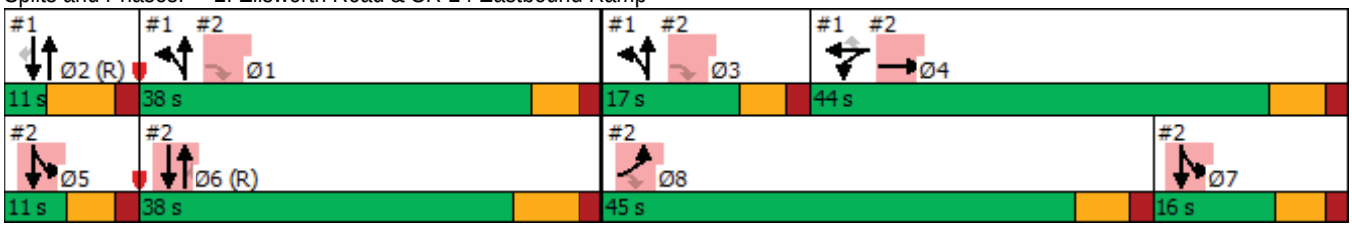


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	359	4	1074	2062	5	50	266					
Future Volume (vph)	359	4	1074	2062	5	50	266					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	45.0	44.0		38.0	38.0			38.0	11.0	17.0	11.0	16.0
Total Split (%)	40.9%	40.0%		34.5%	34.5%			35%	10%	15%	10%	15%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	20.7	20.7	59.2	39.3	39.3	30.0	76.8					
Actuated g/C Ratio	0.19	0.19	0.54	0.36	0.36	0.27	0.70					
v/c Ratio	0.62	0.63	0.60	0.98	0.01	0.06	0.08					
Control Delay	48.5	48.9	3.6	49.5	0.0	74.2	0.7					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	48.5	48.9	3.6	49.5	0.0	74.2	0.7					
LOS	D	D	A	D	A	E	A					
Approach Delay		15.0		49.4			12.3					
Approach LOS		B		D			B					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 79.9%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

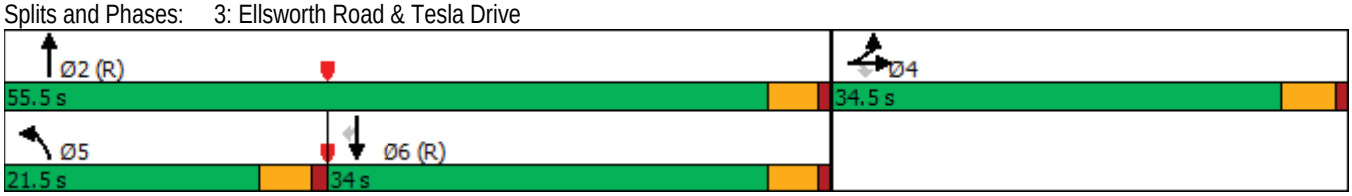
Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	33	20	65	2048	1222	116
Future Volume (vph)	33	20	65	2048	1222	116
Turn Type	Split	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	34.5	34.5	21.5	55.5	34.0	34.0
Total Split (%)	38.3%	38.3%	23.9%	61.7%	37.8%	37.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	7.4	9.0	79.6	67.2	67.2
Actuated g/C Ratio	0.08	0.08	0.10	0.88	0.75	0.75
v/c Ratio	0.25	0.04	0.40	0.71	0.35	0.10
Control Delay	42.3	0.1	33.6	14.0	6.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	0.1	33.6	14.0	6.2	1.6
LOS	D	A	C	B	A	A
Approach Delay				14.6	5.8	
Approach LOS				B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 11.4	Intersection LOS: B
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Ellsworth Road & Tesla Drive



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	26	0	2112	1171	71
Future Vol, veh/h	0	26	0	2112	1171	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	0	2296	1273	77

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	637	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*651	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*651	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

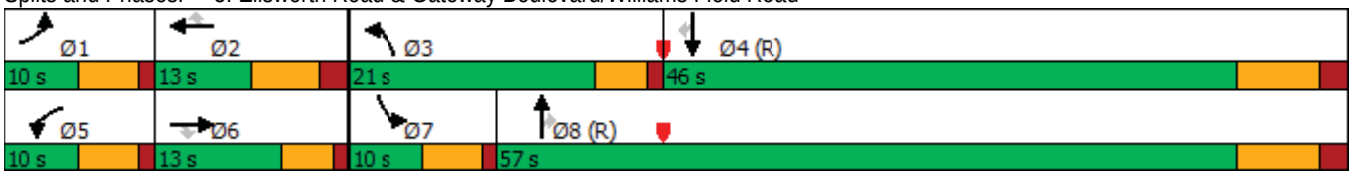
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	651	-	-
HCM Lane V/C Ratio	-	0.043	-	-
HCM Control Delay (s)	-	10.8	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	21	12	76	65	28	43	2052	37	48	1051	71
Future Volume (vph)	33	21	12	76	65	28	43	2052	37	48	1051	71
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	10.0	22.5	22.5	10.0	24.5	24.5	9.5	25.5	25.5	10.0	25.5	25.5
Total Split (s)	10.0	13.0	13.0	10.0	13.0	13.0	21.0	57.0	57.0	10.0	46.0	46.0
Total Split (%)	11.1%	14.4%	14.4%	11.1%	14.4%	14.4%	23.3%	63.3%	63.3%	11.1%	51.1%	51.1%
Yellow Time (s)	4.0	3.5	3.5	4.0	4.5	4.5	3.5	5.5	5.5	4.0	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.5	4.5	5.0	6.5	6.5	4.5	7.5	7.5	5.0	7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	5.0	9.9	9.9	7.6	10.5	10.5	6.7	53.5	53.5	5.0	52.4	52.4
Actuated g/C Ratio	0.06	0.11	0.11	0.08	0.12	0.12	0.07	0.59	0.59	0.06	0.58	0.58
v/c Ratio	0.19	0.06	0.03	0.29	0.17	0.08	0.18	1.06	0.04	0.27	0.39	0.08
Control Delay	43.1	37.8	0.2	41.3	41.8	0.7	37.3	47.0	0.1	45.3	8.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	37.8	0.2	41.3	41.8	0.7	37.3	47.0	0.1	45.3	8.9	0.1
LOS	D	D	A	D	D	A	D	D	A	D	A	A
Approach Delay		33.6			34.9			46.0			9.9	
Approach LOS		C			C			D			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 33.3	Intersection LOS: C
Intersection Capacity Utilization 88.8%	ICU Level of Service E
Analysis Period (min) 15	

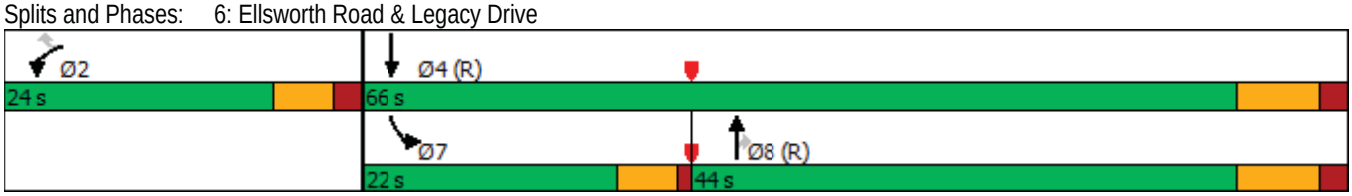
Splits and Phases: 5: Ellsworth Road & Gateway Boulevard/Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	2	2128	7	3	1126
Future Volume (vph)	5	2	2128	7	3	1126
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	24.0	24.0	44.0	44.0	22.0	66.0
Total Split (%)	26.7%	26.7%	48.9%	48.9%	24.4%	73.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.0	18.0	56.3	56.3	5.6	58.5
Actuated g/C Ratio	0.20	0.20	0.63	0.63	0.06	0.65
v/c Ratio	0.01	0.01	1.04	0.01	0.01	0.37
Control Delay	29.0	21.0	37.5	0.9	33.0	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	21.0	37.5	0.9	33.0	11.4
LOS	C	C	D	A	C	B
Approach Delay	26.7		37.4			11.5
Approach LOS	C		D			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 78.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	121	21	2101	8	1097
Future Volume (vph)	121	21	2101	8	1097
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	8.0	15.0
Minimum Split (s)	24.5	24.5	25.5	12.5	25.5
Total Split (s)	17.0	17.0	63.0	10.0	73.0
Total Split (%)	18.9%	18.9%	70.0%	11.1%	81.1%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	10.5	10.5	63.5	6.0	65.5
Actuated g/C Ratio	0.12	0.12	0.71	0.07	0.73
v/c Ratio	0.64	0.11	0.94	0.08	0.32
Control Delay	53.4	16.1	21.6	54.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	16.1	21.6	54.8	0.2
LOS	D	B	C	D	A
Approach Delay	47.9		21.6		0.6
Approach LOS	D		C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 77.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Traffic Volume (vph)	93	7	16	163	1
Future Volume (vph)	93	7	16	163	1
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	6		5	2	8
Permitted Phases		6	2		
Detector Phase	6	6	5	2	8
Switch Phase					
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	79.4	79.4	82.8	85.5	10.0
Actuated g/C Ratio	0.88	0.88	0.92	0.95	0.11
v/c Ratio	0.06	0.01	0.01	0.10	0.01
Control Delay	2.3	1.6	1.2	1.2	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	1.6	1.2	1.2	36.0
LOS	A	A	A	A	D
Approach Delay	2.2			1.2	36.0
Approach LOS	A			A	D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.10	
Intersection Signal Delay: 1.7	Intersection LOS: A
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	1	0	178	0	0
Future Vol, veh/h	96	1	0	178	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	1	0	193	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	105
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	980
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	980
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

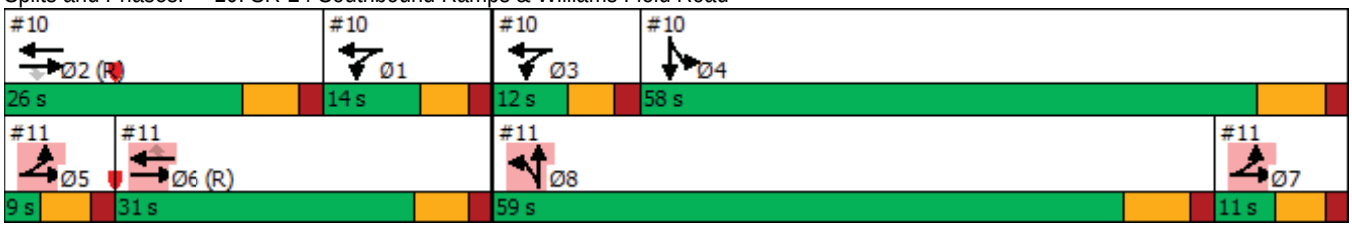
Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	65	33	16	163	187	1137						
Future Volume (vph)	65	33	16	163	187	1137						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	26.0	26.0			58.0	58.0	14.0	12.0	9.0	31.0	11.0	59.0
Total Split (%)	23.6%	23.6%			52.7%	52.7%	13%	11%	8%	28%	10%	54%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	19.5	19.5	19.8	45.8	50.7	50.7						
Actuated g/C Ratio	0.18	0.18	0.18	0.42	0.46	0.46						
v/c Ratio	0.06	0.07	0.03	0.12	0.25	0.82						
Control Delay	37.9	0.3	33.8	20.1	19.2	31.2						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	37.9	0.3	33.8	20.1	19.2	31.2						
LOS	D	A	C	C	B	C						
Approach Delay	25.2			21.3		29.7						
Approach LOS	C			C		C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.37	
Intersection Signal Delay: 28.5	Intersection LOS: C
Intersection Capacity Utilization 114.5%	ICU Level of Service H
Analysis Period (min) 15	

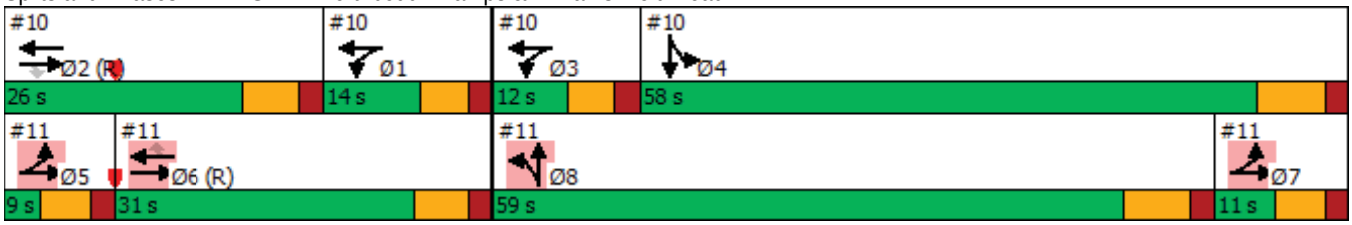
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	27	220	107	578	70	2087						
Future Volume (vph)	27	220	107	578	70	2087						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			31.0	31.0	59.0	59.0	14.0	26.0	12.0	58.0	9.0	11.0
Total Split (%)			28.2%	28.2%	53.6%	53.6%	13%	24%	11%	53%	8%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	14.0	45.0	24.5	24.5	51.5	51.5						
Actuated g/C Ratio	0.13	0.41	0.22	0.22	0.47	0.47						
v/c Ratio	0.07	0.17	0.08	1.17	0.09	1.37						
Control Delay	41.6	20.1	34.1	119.9	16.7	199.5						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	41.6	20.1	34.1	119.9	16.7	199.5						
LOS	D	C	C	F	B	F						
Approach Delay		22.4	106.5			193.6						
Approach LOS		C	F			F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.37	
Intersection Signal Delay: 160.7	Intersection LOS: F
Intersection Capacity Utilization 114.5%	ICU Level of Service H
Analysis Period (min) 15	

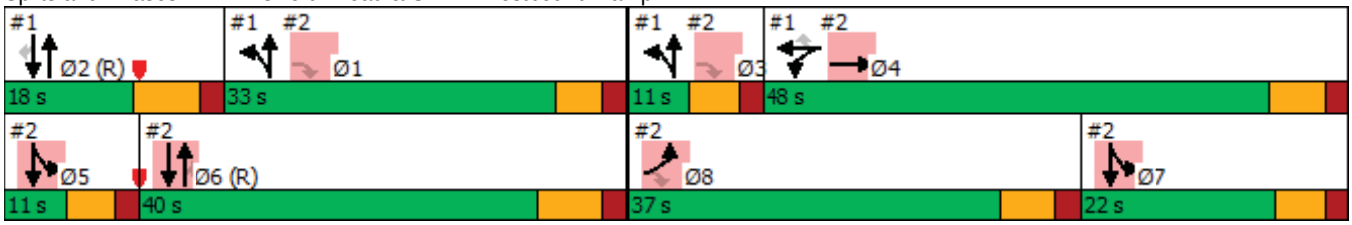
Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	11	1	72	1091	1185	350	439					
Future Volume (vph)	11	1	72	1091	1185	350	439					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	48.0	48.0	48.0			18.0	18.0	33.0	11.0	11.0	40.0	22.0
Total Split (%)	43.6%	43.6%	43.6%			16.4%	16.4%	30%	10%	10%	36%	20%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	41.5	41.5	41.5	38.0	56.0	10.5	10.5					
Actuated g/C Ratio	0.38	0.38	0.38	0.35	0.51	0.10	0.10					
v/c Ratio	0.02	0.04	0.06	1.00	0.72	0.62	0.68					
Control Delay	21.7	8.4	0.2	43.8	15.1	52.7	9.9					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	21.7	8.4	0.2	43.8	15.1	52.7	9.9					
LOS	C	A	A	D	B	D	A					
Approach Delay		6.5			28.9	28.9						
Approach LOS		A			C	C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 28.3	Intersection LOS: C
Intersection Capacity Utilization 71.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

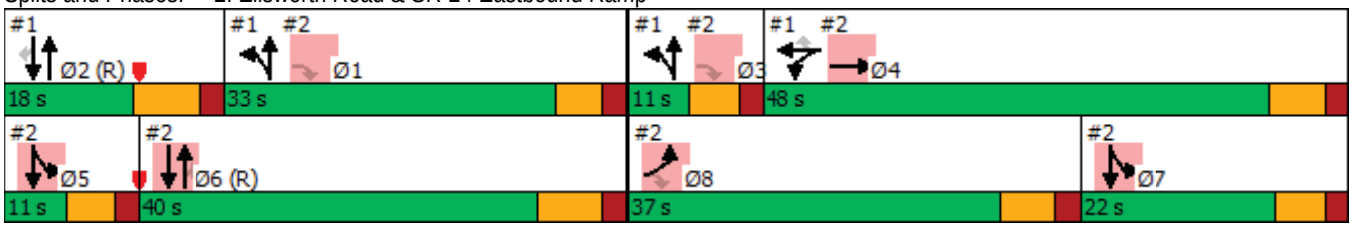


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	754	35	1182	1526	9	96	261					
Future Volume (vph)	754	35	1182	1526	9	96	261					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	37.0	48.0		40.0	40.0			33.0	18.0	11.0	11.0	22.0
Total Split (%)	33.6%	43.6%		36.4%	36.4%			30%	16%	10%	10%	20%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	30.1	30.1	63.6	32.5	32.5	27.4	67.4					
Actuated g/C Ratio	0.27	0.27	0.58	0.30	0.30	0.25	0.61					
v/c Ratio	0.93	0.93	0.62	0.88	0.02	0.12	0.09					
Control Delay	66.7	67.9	3.7	43.2	0.0	75.3	0.4					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	66.7	67.9	3.7	43.2	0.0	75.3	0.4					
LOS	E	E	A	D	A	E	A					
Approach Delay		29.1		42.9			20.4					
Approach LOS		C		D			C					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 71.5%	ICU Level of Service C
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	99	59	29	1248	1390	53
Future Volume (vph)	99	59	29	1248	1390	53
Turn Type	Split	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	26.0	26.0	64.0	64.0	64.0	64.0
Total Split (%)	28.9%	28.9%	71.1%	71.1%	71.1%	71.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.8	10.8	73.3	73.3	73.3	73.3
Actuated g/C Ratio	0.12	0.12	0.81	0.81	0.81	0.81
v/c Ratio	0.51	0.27	0.14	0.47	0.36	0.04
Control Delay	44.8	16.5	11.9	15.4	3.4	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	16.5	11.9	15.4	3.4	1.0
LOS	D	B	B	B	A	A
Approach Delay				15.3	3.3	
Approach LOS				B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 47.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Ellsworth Road & Tesla Drive

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	78	0	1277	1416	32
Future Vol, veh/h	0	78	0	1277	1416	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	85	0	1388	1539	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	770	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*585	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*585	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

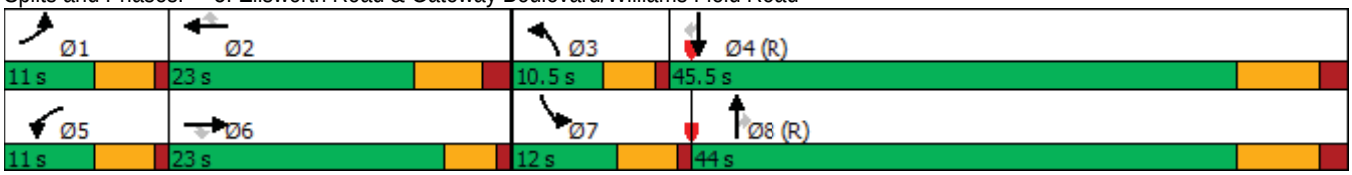
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	585	-	-
HCM Lane V/C Ratio	-	0.145	-	-
HCM Control Delay (s)	-	12.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	63	35	58	29	60	20	1118	47	171	1087	32
Future Volume (vph)	99	63	35	58	29	60	20	1118	47	171	1087	32
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	10.0	22.5	22.5	10.0	24.5	24.5	9.5	25.5	25.5	10.0	25.5	25.5
Total Split (s)	11.0	23.0	23.0	11.0	23.0	23.0	10.5	44.0	44.0	12.0	45.5	45.5
Total Split (%)	12.2%	25.6%	25.6%	12.2%	25.6%	25.6%	11.7%	48.9%	48.9%	13.3%	50.6%	50.6%
Yellow Time (s)	4.0	3.5	3.5	4.0	4.5	4.5	3.5	5.5	5.5	4.0	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.5	4.5	5.0	6.5	6.5	4.5	7.5	7.5	5.0	7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.0	20.7	20.7	5.9	18.7	18.7	5.8	36.5	36.5	7.0	44.3	44.3
Actuated g/C Ratio	0.07	0.23	0.23	0.07	0.21	0.21	0.06	0.41	0.41	0.08	0.49	0.49
v/c Ratio	0.47	0.08	0.08	0.28	0.04	0.14	0.10	0.85	0.07	0.70	0.47	0.04
Control Delay	47.7	29.4	0.3	54.5	27.0	1.5	44.1	24.1	2.0	52.0	20.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	29.4	0.3	54.5	27.0	1.5	44.1	24.1	2.0	52.0	20.9	0.6
LOS	D	C	A	D	C	A	D	C	A	D	C	A
Approach Delay		33.5			27.5			23.6			24.5	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

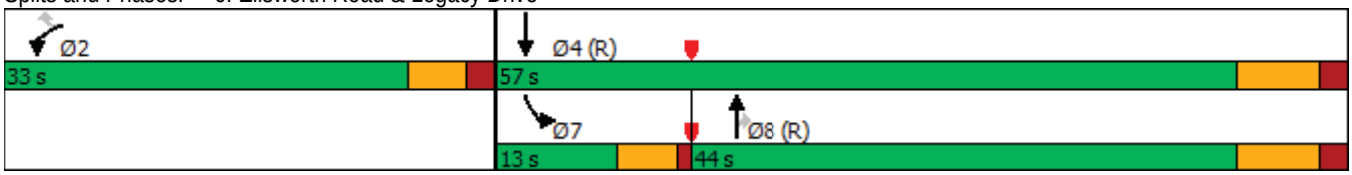
Splits and Phases: 5: Ellsworth Road & Gateway Boulevard/Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	93	20	1404	205	6	1201
Future Volume (vph)	93	20	1404	205	6	1201
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	33.0	33.0	44.0	44.0	13.0	57.0
Total Split (%)	36.7%	36.7%	48.9%	48.9%	14.4%	63.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.0	27.0	47.3	47.3	5.7	49.5
Actuated g/C Ratio	0.30	0.30	0.53	0.53	0.06	0.55
v/c Ratio	0.10	0.04	0.82	0.25	0.03	0.47
Control Delay	22.7	10.1	22.2	5.4	43.3	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	10.1	22.2	5.4	43.3	11.8
LOS	C	B	C	A	D	B
Approach Delay	20.6		20.0			12.0
Approach LOS	C		C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	72	16	1567	5	1256
Future Volume (vph)	72	16	1567	5	1256
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	8.0	15.0
Minimum Split (s)	24.5	24.5	25.5	12.5	25.5
Total Split (s)	13.0	13.0	64.0	13.0	77.0
Total Split (%)	14.4%	14.4%	71.1%	14.4%	85.6%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	18.8	18.8	54.8	8.0	57.2
Actuated g/C Ratio	0.21	0.21	0.61	0.09	0.64
v/c Ratio	0.21	0.05	0.82	0.03	0.42
Control Delay	35.8	16.9	17.4	48.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	16.9	17.4	48.6	5.9
LOS	D	B	B	D	A
Approach Delay	32.5		17.4		6.0
Approach LOS	C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	232	68	128	87	57	42
Future Volume (vph)	232	68	128	87	57	42
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	2			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0	6.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	58.2	58.2	72.9	71.7	10.3	10.3
Actuated g/C Ratio	0.65	0.65	0.81	0.80	0.11	0.11
v/c Ratio	0.21	0.07	0.15	0.06	0.31	0.21
Control Delay	3.7	0.1	2.8	3.2	40.7	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	0.1	2.8	3.2	40.7	13.7
LOS	A	A	A	A	D	B
Approach Delay	2.9			3.0	29.2	
Approach LOS	A			A	C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.31	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 41.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	259	132	0	337	0	79
Future Vol, veh/h	259	132	0	337	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	282	143	0	366	0	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	354
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	769
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	769
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

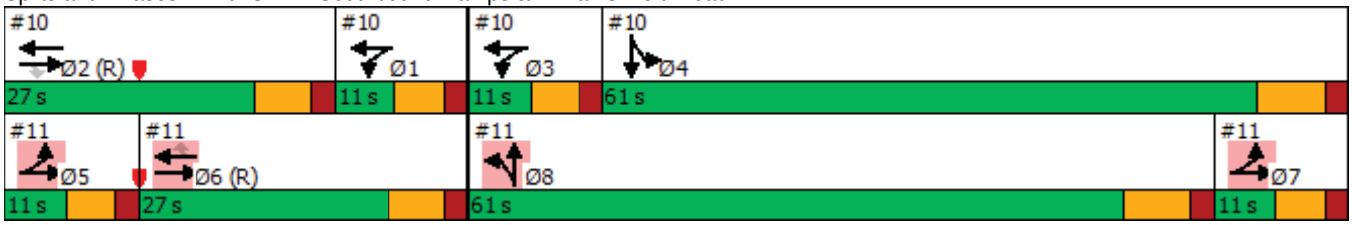
Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	769	-	-	-
HCM Lane V/C Ratio	0.112	-	-	-
HCM Control Delay (s)	10.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	166	93	16	176	247	2248						
Future Volume (vph)	166	93	16	176	247	2248						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	27.0	27.0			61.0	61.0	11.0	11.0	11.0	27.0	11.0	61.0
Total Split (%)	24.5%	24.5%			55.5%	55.5%	10%	10%	10%	25%	10%	55%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	20.5	20.5	16.0	43.0	53.5	53.5						
Actuated g/C Ratio	0.19	0.19	0.15	0.39	0.49	0.49						
v/c Ratio	0.15	0.21	0.03	0.14	0.31	1.68						
Control Delay	37.9	0.9	28.2	17.0	18.4	332.5						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	37.9	0.9	28.2	17.0	18.4	332.5						
LOS	D	A	C	B	B	F						
Approach Delay	24.6			17.9		307.1						
Approach LOS	C			B		F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.68	
Intersection Signal Delay: 266.9	Intersection LOS: F
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

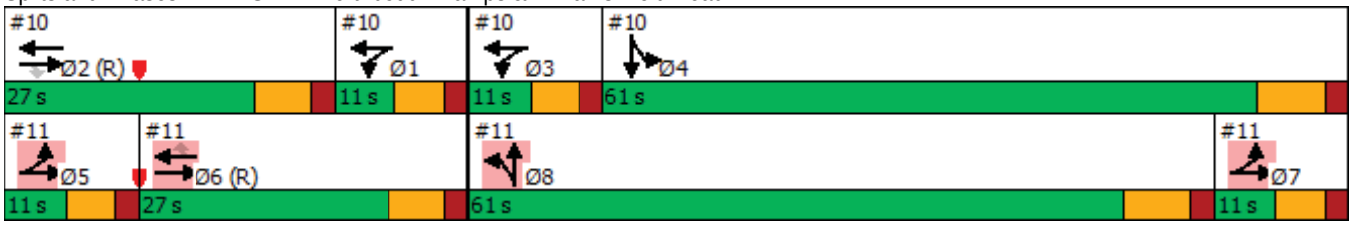
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	93	373	126	253	54	1197						
Future Volume (vph)	93	373	126	253	54	1197						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			27.0	27.0	61.0	61.0	11.0	27.0	11.0	61.0	11.0	11.0
Total Split (%)			24.5%	24.5%	55.5%	55.5%	10%	25%	10%	55%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	20.3	47.3	20.5	20.5	49.2	49.2						
Actuated g/C Ratio	0.18	0.43	0.19	0.19	0.45	0.45						
v/c Ratio	0.16	0.27	0.11	0.56	0.07	0.83						
Control Delay	49.0	16.5	37.5	12.9	16.3	31.5						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	49.0	16.5	37.5	12.9	16.3	31.5						
LOS	D	B	D	B	B	C						
Approach Delay		23.0	21.1			30.9						
Approach LOS		C	C			C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.68	
Intersection Signal Delay: 27.4	Intersection LOS: C
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road

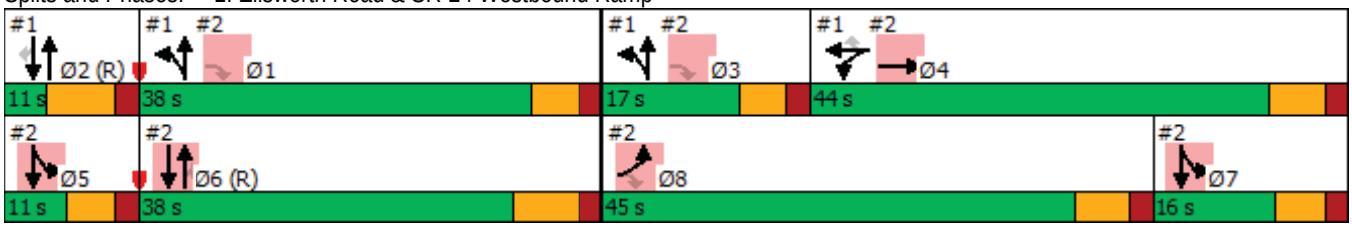


Appendix J – Year 2031 No Build Capacity Analysis

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	1	0	144	1402	1197	257	501					
Future Volume (vph)	1	0	144	1402	1197	257	501					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	44.0	44.0	44.0			11.0	11.0	38.0	17.0	11.0	38.0	16.0
Total Split (%)	40.0%	40.0%	40.0%			10.0%	10.0%	35%	15%	10%	35%	15%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	28.2	28.2	28.2	49.0	69.3	12.8	12.8					
Actuated g/C Ratio	0.26	0.26	0.26	0.45	0.63	0.12	0.12					
v/c Ratio	0.00	0.09	0.16	1.00	0.58	0.38	0.68					
Control Delay	33.0	0.2	0.7	31.1	5.6	45.5	8.4					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	33.0	0.2	0.7	31.1	5.6	45.5	8.4					
LOS	C	A	A	C	A	D	A					
Approach Delay		0.6			19.4	21.0						
Approach LOS		A			B	C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 82.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

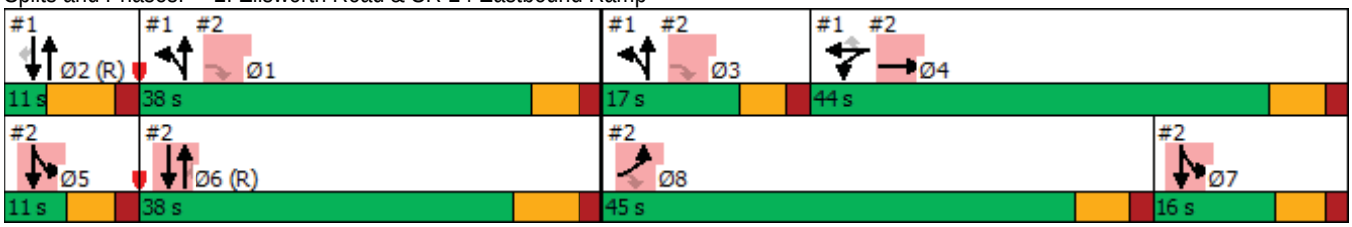


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	386	5	947	2149	6	54	216					
Future Volume (vph)	386	5	947	2149	6	54	216					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	45.0	44.0		38.0	38.0			38.0	11.0	17.0	11.0	16.0
Total Split (%)	40.9%	40.0%		34.5%	34.5%			35%	10%	15%	10%	15%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	21.5	21.5	60.0	39.3	39.3	29.2	76.0					
Actuated g/C Ratio	0.20	0.20	0.55	0.36	0.36	0.27	0.69					
v/c Ratio	0.65	0.64	0.52	1.02	0.01	0.06	0.07					
Control Delay	49.5	48.9	1.6	59.4	0.0	79.8	0.4					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	49.5	48.9	1.6	59.4	0.0	79.8	0.4					
LOS	D	D	A	E	A	E	A					
Approach Delay		15.5		59.3			16.4					
Approach LOS		B		E			B					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 40.6	Intersection LOS: D
Intersection Capacity Utilization 82.5%	ICU Level of Service E
Analysis Period (min) 15	

! Phase conflict between lane groups.

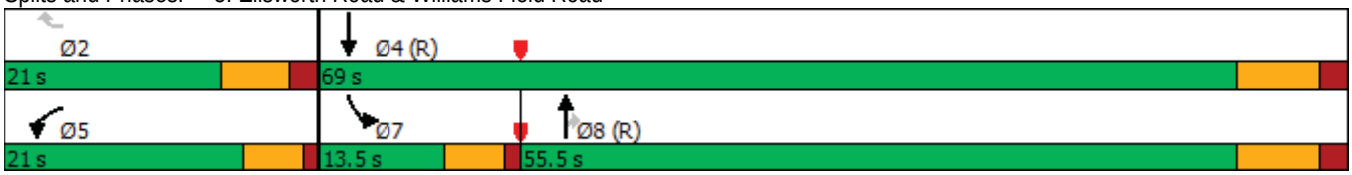
Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	81	7	2162	40	21	1113
Future Volume (vph)	81	7	2162	40	21	1113
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	5		8		7	4
Permitted Phases		2		8		
Detector Phase	5	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	5.0	15.0
Minimum Split (s)	10.0	24.5	25.5	25.5	10.0	25.5
Total Split (s)	21.0	21.0	55.5	55.5	13.5	69.0
Total Split (%)	23.3%	23.3%	61.7%	61.7%	15.0%	76.7%
Yellow Time (s)	4.0	4.5	5.5	5.5	4.0	5.5
All-Red Time (s)	1.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.5	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	14.0	14.5	56.8	56.8	6.1	61.5
Actuated g/C Ratio	0.16	0.16	0.63	0.63	0.07	0.68
v/c Ratio	0.17	0.02	1.05	0.04	0.10	0.35
Control Delay	37.1	25.0	37.7	3.5	40.0	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	25.0	37.7	3.5	40.0	6.3
LOS	D	C	D	A	D	A
Approach Delay	36.1		37.0			6.9
Approach LOS	D		D			A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

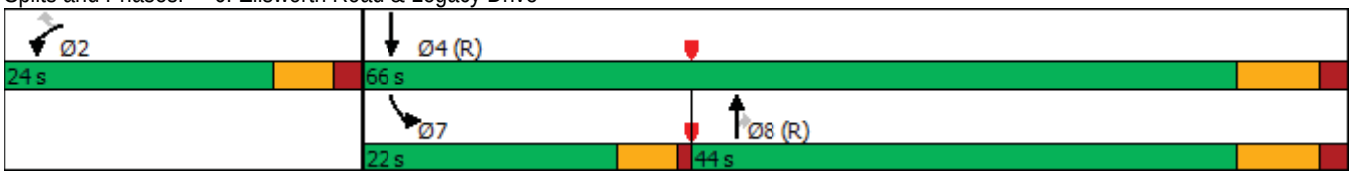
Splits and Phases: 5: Ellsworth Road & Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	2	2198	8	3	1181
Future Volume (vph)	6	2	2198	8	3	1181
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	24.0	24.0	44.0	44.0	22.0	66.0
Total Split (%)	26.7%	26.7%	48.9%	48.9%	24.4%	73.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.0	18.0	56.3	56.3	5.6	58.5
Actuated g/C Ratio	0.20	0.20	0.63	0.63	0.06	0.65
v/c Ratio	0.01	0.01	1.08	0.01	0.01	0.39
Control Delay	29.0	21.0	49.9	0.6	39.3	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	21.0	49.9	0.6	39.3	7.0
LOS	C	C	D	A	D	A
Approach Delay	27.2		49.7			7.0
Approach LOS	C		D			A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	130	23	2168	9	1149
Future Volume (vph)	130	23	2168	9	1149
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	8.0	15.0
Minimum Split (s)	24.5	24.5	25.5	12.5	25.5
Total Split (s)	18.0	18.0	59.0	13.0	72.0
Total Split (%)	20.0%	20.0%	65.6%	14.4%	80.0%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	11.5	11.5	62.1	8.0	64.5
Actuated g/C Ratio	0.13	0.13	0.69	0.09	0.72
v/c Ratio	0.62	0.11	0.99	0.06	0.34
Control Delay	50.5	15.4	31.4	42.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	15.4	31.4	42.9	0.3
LOS	D	B	C	D	A
Approach Delay	45.2		31.4		0.6
Approach LOS	D		C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 80.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Traffic Volume (vph)	47	8	17	82	1
Future Volume (vph)	47	8	17	82	1
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	6		5	2	8
Permitted Phases		6	2		
Detector Phase	6	6	5	2	8
Switch Phase					
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	79.4	79.4	82.8	85.5	10.0
Actuated g/C Ratio	0.88	0.88	0.92	0.95	0.11
v/c Ratio	0.03	0.01	0.01	0.05	0.01
Control Delay	4.3	3.9	1.2	1.2	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	3.9	1.2	1.2	36.0
LOS	A	A	A	A	D
Approach Delay	4.3			1.2	36.0
Approach LOS	A			A	D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.05	
Intersection Signal Delay: 2.5	Intersection LOS: A
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	51	1	0	99	0	0
Future Vol, veh/h	51	1	0	99	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	1	0	108	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	56
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	1016
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	1016
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

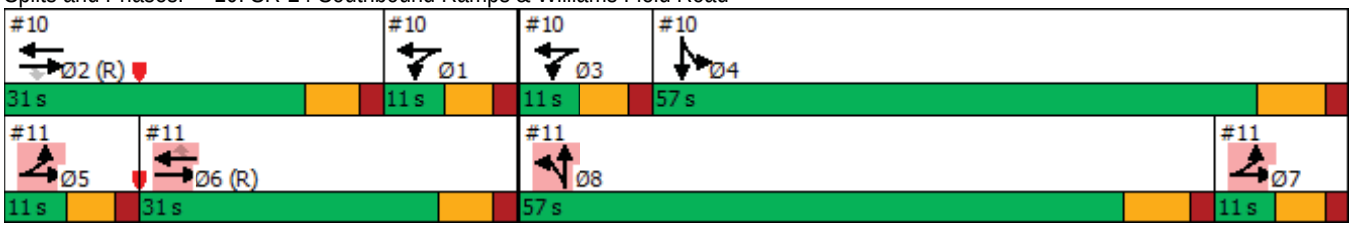
Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	49	5	17	82	201	1224						
Future Volume (vph)	49	5	17	82	201	1224						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	31.0	31.0			57.0	57.0	11.0	11.0	11.0	31.0	11.0	57.0
Total Split (%)	28.2%	28.2%			51.8%	51.8%	10%	10%	10%	28%	10%	52%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	26.7	26.7	16.0	47.0	51.7	51.7						
Actuated g/C Ratio	0.24	0.24	0.15	0.43	0.47	0.47						
v/c Ratio	0.03	0.01	0.04	0.06	0.26	0.87						
Control Delay	33.7	0.0	10.2	0.9	19.6	34.0						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	33.7	0.0	10.2	0.9	19.6	34.0						
LOS	C	A	B	A	B	C						
Approach Delay	30.8			2.5		32.2						
Approach LOS	C			A		C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.53	
Intersection Signal Delay: 30.3	Intersection LOS: C
Intersection Capacity Utilization 120.9%	ICU Level of Service H
Analysis Period (min) 15	

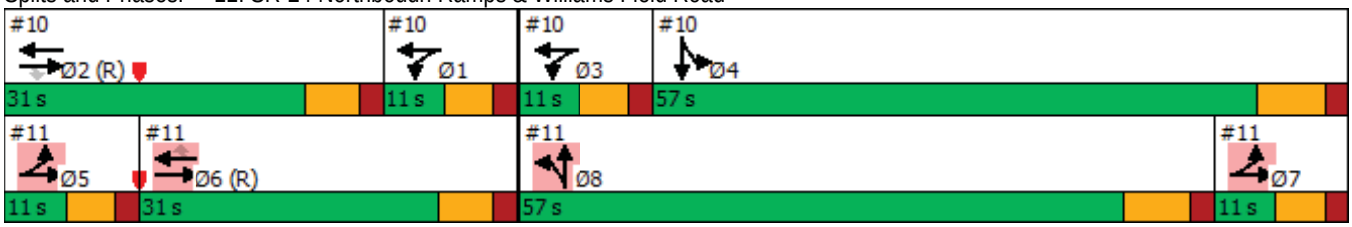
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	15	229	96	618	1	2227						
Future Volume (vph)	15	229	96	618	1	2227						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			31.0	31.0	57.0	57.0	11.0	31.0	11.0	57.0	11.0	11.0
Total Split (%)			28.2%	28.2%	51.8%	51.8%	10%	28%	10%	52%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	16.0	47.0	24.5	24.5	49.5	49.5						
Actuated g/C Ratio	0.15	0.43	0.22	0.22	0.45	0.45						
v/c Ratio	0.03	0.16	0.07	1.25	0.00	1.53						
Control Delay	36.4	22.2	34.0	152.8	17.0	266.4						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	36.4	22.2	34.0	152.8	17.0	266.4						
LOS	D	C	C	F	B	F						
Approach Delay		23.0	136.9			266.3						
Approach LOS		C	F			F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.53	
Intersection Signal Delay: 218.8	Intersection LOS: F
Intersection Capacity Utilization 120.9%	ICU Level of Service H
Analysis Period (min) 15	

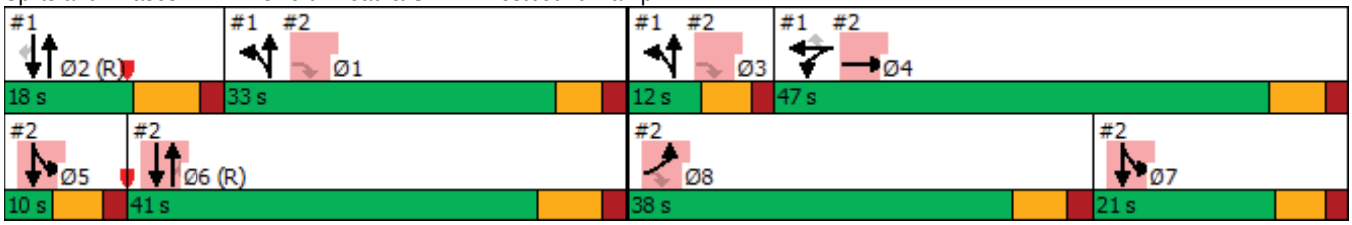
Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	1	1	78	1007	1229	355	472					
Future Volume (vph)	1	1	78	1007	1229	355	472					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	47.0	47.0	47.0			18.0	18.0	33.0	12.0	10.0	41.0	21.0
Total Split (%)	42.7%	42.7%	42.7%			16.4%	16.4%	30%	11%	9%	37%	19%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	40.5	40.5	40.5	39.0	57.0	10.5	10.5					
Actuated g/C Ratio	0.37	0.37	0.37	0.35	0.52	0.10	0.10					
v/c Ratio	0.00	0.04	0.06	0.90	0.73	0.63	0.70					
Control Delay	22.0	9.9	0.2	33.2	16.7	53.0	10.0					
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0	0.0					
Total Delay	22.0	9.9	0.2	33.2	17.0	53.0	10.0					
LOS	C	A	A	C	B	D	A					
Approach Delay		5.3			24.3	28.4						
Approach LOS		A			C	C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

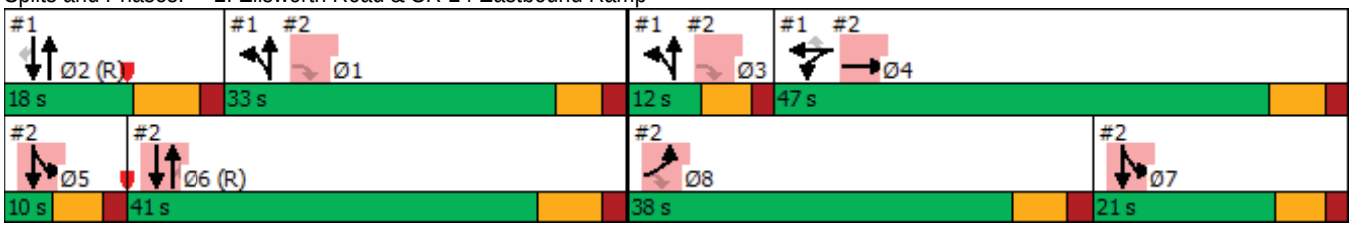


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	811	37	1177	1429	10	103	249					
Future Volume (vph)	811	37	1177	1429	10	103	249					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	38.0	47.0		41.0	41.0			33.0	18.0	12.0	10.0	21.0
Total Split (%)	34.5%	42.7%		37.3%	37.3%			30%	16%	11%	9%	19%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	31.5	31.5	65.0	33.5	33.5	25.0	66.0					
Actuated g/C Ratio	0.29	0.29	0.59	0.30	0.30	0.23	0.60					
v/c Ratio	0.95	0.96	0.61	0.80	0.02	0.14	0.09					
Control Delay	70.7	71.0	3.3	38.8	0.1	78.4	0.1					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	70.7	71.0	3.3	38.8	0.1	78.4	0.1					
LOS	E	E	A	D	A	E	A					
Approach Delay		31.6		38.5			23.0					
Approach LOS		C		D			C					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

! Phase conflict between lane groups.

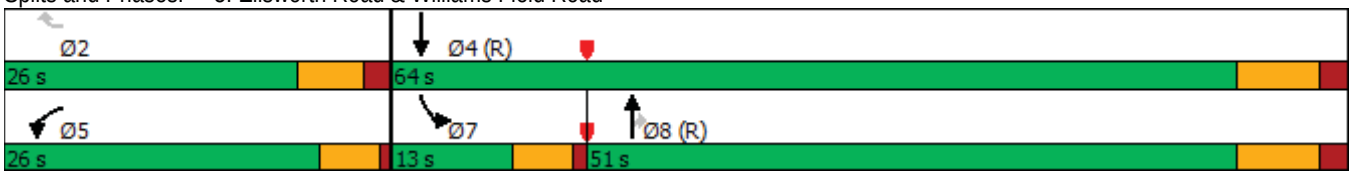
Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	62	54	1182	51	93	1114
Future Volume (vph)	62	54	1182	51	93	1114
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	5		8		7	4
Permitted Phases		2		8		
Detector Phase	5	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	5.0	15.0	15.0	15.0	5.0	15.0
Minimum Split (s)	10.0	24.5	25.5	25.5	10.0	25.5
Total Split (s)	26.0	26.0	51.0	51.0	13.0	64.0
Total Split (%)	28.9%	28.9%	56.7%	56.7%	14.4%	71.1%
Yellow Time (s)	4.0	4.5	5.5	5.5	4.0	5.5
All-Red Time (s)	1.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.5	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	17.9	19.5	46.3	46.3	7.4	56.5
Actuated g/C Ratio	0.20	0.22	0.51	0.51	0.08	0.63
v/c Ratio	0.10	0.09	0.71	0.07	0.36	0.38
Control Delay	19.0	4.3	12.0	5.6	42.5	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.3	12.0	5.6	42.5	8.6
LOS	B	A	B	A	D	A
Approach Delay	12.1		11.7			11.2
Approach LOS	B		B			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

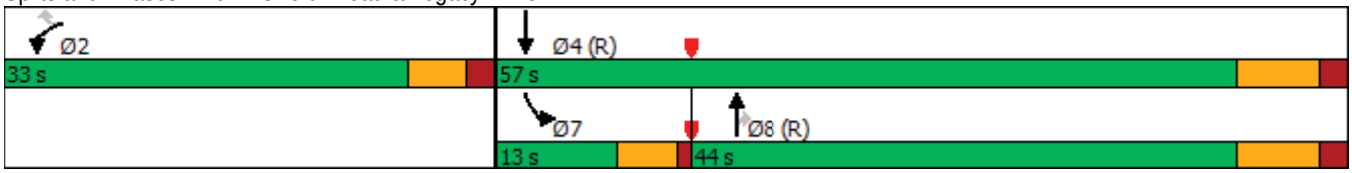
Splits and Phases: 5: Ellsworth Road & Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	101	21	1469	220	7	1199
Future Volume (vph)	101	21	1469	220	7	1199
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	33.0	33.0	44.0	44.0	13.0	57.0
Total Split (%)	36.7%	36.7%	48.9%	48.9%	14.4%	63.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.0	27.0	47.3	47.3	5.8	49.5
Actuated g/C Ratio	0.30	0.30	0.53	0.53	0.06	0.55
v/c Ratio	0.11	0.05	0.86	0.27	0.04	0.47
Control Delay	22.8	9.9	22.9	5.2	47.7	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	9.9	22.9	5.2	47.7	10.3
LOS	C	A	C	A	D	B
Approach Delay	20.8		20.6			10.5
Approach LOS	C		C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 60.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	78	17	1644	6	1258
Future Volume (vph)	78	17	1644	6	1258
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	8.0	15.0
Minimum Split (s)	24.5	24.5	25.5	12.5	25.5
Total Split (s)	13.0	13.0	64.0	13.0	77.0
Total Split (%)	14.4%	14.4%	71.1%	14.4%	85.6%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	18.5	18.5	55.1	8.0	57.5
Actuated g/C Ratio	0.21	0.21	0.61	0.09	0.64
v/c Ratio	0.23	0.05	0.86	0.04	0.42
Control Delay	35.9	16.4	19.2	53.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	16.4	19.2	53.5	4.0
LOS	D	B	B	D	A
Approach Delay	32.5		19.2		4.2
Approach LOS	C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 63.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	90	73	138	52	61	45
Future Volume (vph)	90	73	138	52	61	45
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	2			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0	6.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	58.1	58.1	72.8	71.6	10.4	10.4
Actuated g/C Ratio	0.65	0.65	0.81	0.80	0.12	0.12
v/c Ratio	0.08	0.08	0.15	0.04	0.32	0.22
Control Delay	5.1	0.8	2.8	3.2	41.0	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.1	0.8	2.8	3.2	41.0	13.4
LOS	A	A	A	A	D	B
Approach Delay	3.2			2.9	29.2	
Approach LOS	A			A	C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 33.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	120	142	0	321	0	85
Future Vol, veh/h	120	142	0	321	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	154	0	349	0	92

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	207
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	877
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	877
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

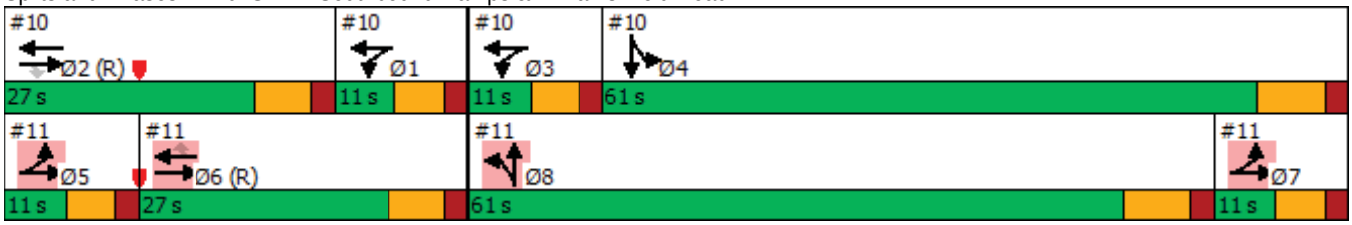
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	877	-	-	-
HCM Lane V/C Ratio	0.105	-	-	-
HCM Control Delay (s)	9.6	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	113	7	17	147	266	2419						
Future Volume (vph)	113	7	17	147	266	2419						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	27.0	27.0			61.0	61.0	11.0	11.0	11.0	27.0	11.0	61.0
Total Split (%)	24.5%	24.5%			55.5%	55.5%	10%	10%	10%	25%	10%	55%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	20.5	20.5	16.0	43.0	53.5	53.5						
Actuated g/C Ratio	0.19	0.19	0.15	0.39	0.49	0.49						
v/c Ratio	0.10	0.02	0.04	0.12	0.33	1.81						
Control Delay	37.4	0.0	19.6	9.6	18.8	388.9						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	37.4	0.0	19.6	9.6	18.8	388.9						
LOS	D	A	B	A	B	F						
Approach Delay	35.1			10.6		358.9						
Approach LOS	D			B		F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 329.2	Intersection LOS: F
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

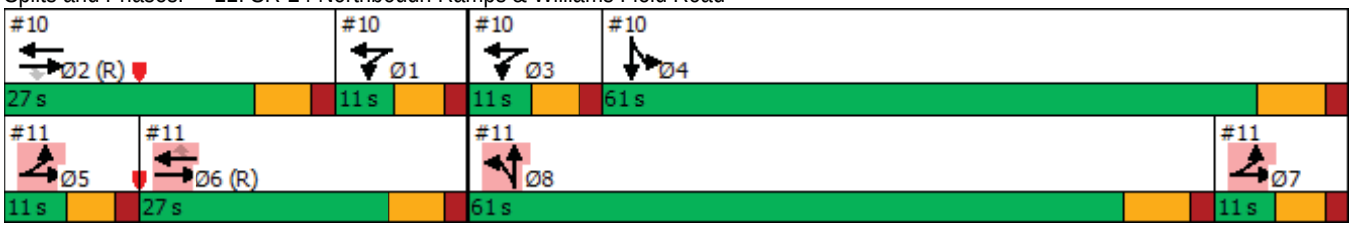
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	58	377	127	270	25	1279						
Future Volume (vph)	58	377	127	270	25	1279						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			27.0	27.0	61.0	61.0	11.0	27.0	11.0	61.0	11.0	11.0
Total Split (%)			24.5%	24.5%	55.5%	55.5%	10%	25%	10%	55%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	18.8	45.8	20.5	20.5	50.7	50.7						
Actuated g/C Ratio	0.17	0.42	0.19	0.19	0.46	0.46						
v/c Ratio	0.11	0.28	0.12	0.60	0.03	0.86						
Control Delay	43.9	19.9	37.5	15.0	15.2	32.4						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	43.9	19.9	37.5	15.0	15.2	32.4						
LOS	D	B	D	B	B	C						
Approach Delay		23.1	22.2			32.1						
Approach LOS		C	C			C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road

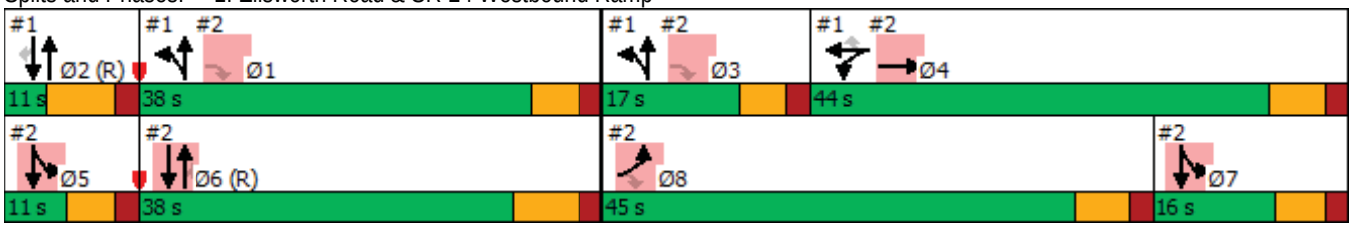


Appendix K – Year 2031 Build Capacity Analysis

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	23	0	144	1453	1211	300	501					
Future Volume (vph)	23	0	144	1453	1211	300	501					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	44.0	44.0	44.0			11.0	11.0	38.0	17.0	11.0	38.0	16.0
Total Split (%)	40.0%	40.0%	40.0%			10.0%	10.0%	35%	15%	10%	35%	15%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	29.1	29.1	29.1	49.0	68.4	11.9	11.9					
Actuated g/C Ratio	0.26	0.26	0.26	0.45	0.62	0.11	0.11					
v/c Ratio	0.05	0.10	0.15	1.03	0.60	0.47	0.69					
Control Delay	33.4	0.2	0.6	39.3	5.8	47.9	9.0					
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0	0.0					
Total Delay	33.4	0.2	0.6	39.3	6.1	47.9	9.0					
LOS	C	A	A	D	A	D	A					
Approach Delay		4.4			24.2	23.5						
Approach LOS		A			C	C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 23.2	Intersection LOS: C
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

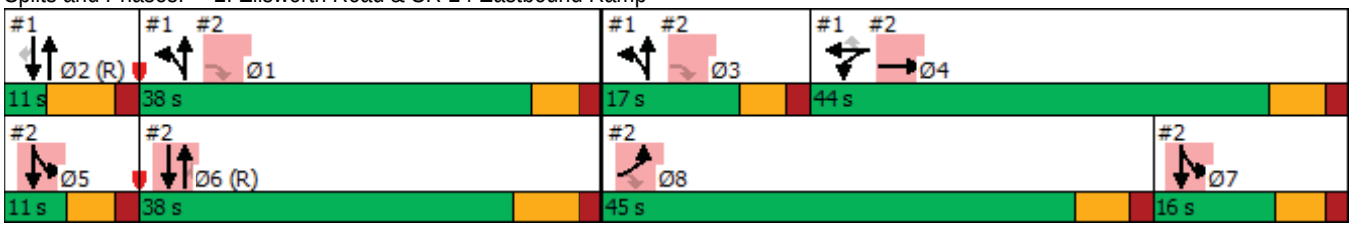


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	386	5	1141	2214	6	54	281					
Future Volume (vph)	386	5	1141	2214	6	54	281					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	45.0	44.0		38.0	38.0			38.0	11.0	17.0	11.0	16.0
Total Split (%)	40.9%	40.0%		34.5%	34.5%			35%	10%	15%	10%	15%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	22.3	22.3	60.8	38.3	38.3	29.3	75.2					
Actuated g/C Ratio	0.20	0.20	0.55	0.35	0.35	0.27	0.68					
v/c Ratio	0.63	0.62	0.63	1.08	0.01	0.06	0.09					
Control Delay	47.5	47.0	4.7	78.6	0.0	74.5	0.8					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	47.5	47.0	4.7	78.6	0.0	74.5	0.8					
LOS	D	D	A	E	A	E	A					
Approach Delay		15.6		78.3			12.7					
Approach LOS		B		E			B					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 49.4	Intersection LOS: D
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	33	20	65	2201	1305	116
Future Volume (vph)	33	20	65	2201	1305	116
Turn Type	Split	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	34.5	34.5	21.5	55.5	34.0	34.0
Total Split (%)	38.3%	38.3%	23.9%	61.7%	37.8%	37.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	7.4	9.0	79.6	67.2	67.2
Actuated g/C Ratio	0.08	0.08	0.10	0.88	0.75	0.75
v/c Ratio	0.25	0.04	0.40	0.76	0.37	0.10
Control Delay	42.3	0.1	33.1	14.3	6.4	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	0.1	33.1	14.3	6.4	1.6
LOS	D	A	C	B	A	A
Approach Delay				14.8	6.0	
Approach LOS				B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Ellsworth Road & Tesla Drive

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	26	0	2265	1254	71
Future Vol, veh/h	0	26	0	2265	1254	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	0	2462	1363	77

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	682	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*651	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*651	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

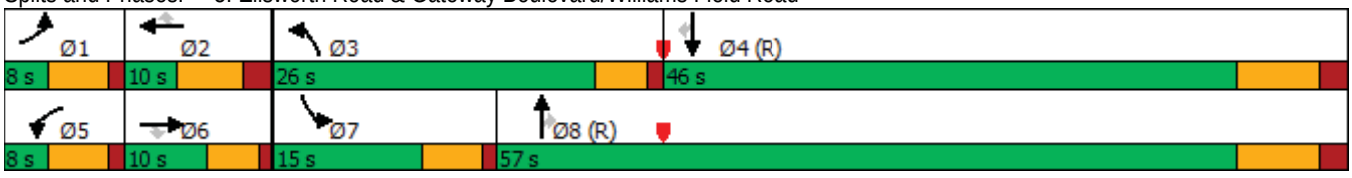
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	651	-	-
HCM Lane V/C Ratio	-	0.043	-	-
HCM Control Delay (s)	-	10.8	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	21	12	81	65	29	43	2205	40	49	1130	71
Future Volume (vph)	33	21	12	81	65	29	43	2205	40	49	1130	71
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	10.0	22.5	22.5	10.0	24.5	24.5	9.5	25.5	25.5	10.0	25.5	25.5
Total Split (s)	8.0	10.0	10.0	8.0	10.0	10.0	26.0	57.0	57.0	15.0	46.0	46.0
Total Split (%)	8.9%	11.1%	11.1%	8.9%	11.1%	11.1%	28.9%	63.3%	63.3%	16.7%	51.1%	51.1%
Yellow Time (s)	4.0	3.5	3.5	4.0	4.5	4.5	3.5	5.5	5.5	4.0	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.5	4.5	5.0	6.5	6.5	4.5	7.5	7.5	5.0	7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	3.0	5.5	5.5	7.0	6.7	6.7	6.7	57.0	57.0	6.8	57.4	57.4
Actuated g/C Ratio	0.03	0.06	0.06	0.08	0.07	0.07	0.07	0.63	0.63	0.08	0.64	0.64
v/c Ratio	0.32	0.11	0.04	0.33	0.27	0.10	0.18	1.07	0.04	0.20	0.38	0.07
Control Delay	49.9	41.1	0.2	46.3	44.7	0.9	34.1	49.4	0.1	38.2	7.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	41.1	0.2	46.3	44.7	0.9	34.1	49.4	0.1	38.2	7.4	0.1
LOS	D	D	A	D	D	A	C	D	A	D	A	A
Approach Delay		38.2			38.1			48.3			8.1	
Approach LOS		D			D			D			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 93.0%	ICU Level of Service F
Analysis Period (min) 15	

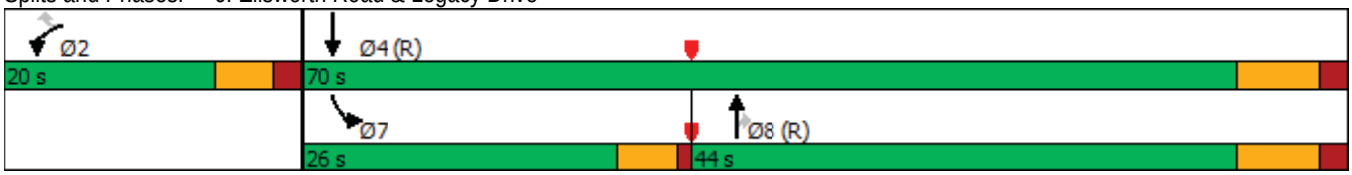
Splits and Phases: 5: Ellsworth Road & Gateway Boulevard/Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	2	2284	8	3	1210
Future Volume (vph)	6	2	2284	8	3	1210
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	20.0	20.0	44.0	44.0	26.0	70.0
Total Split (%)	22.2%	22.2%	48.9%	48.9%	28.9%	77.8%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	14.0	14.0	60.3	60.3	5.6	62.5
Actuated g/C Ratio	0.16	0.16	0.67	0.67	0.06	0.69
v/c Ratio	0.01	0.01	1.05	0.01	0.01	0.37
Control Delay	32.3	23.5	31.3	0.2	35.0	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	23.5	31.3	0.2	35.0	9.9
LOS	C	C	C	A	C	A
Approach Delay	30.4		31.1			9.9
Approach LOS	C		C			A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 23.8	Intersection LOS: C
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	130	23	2254	9	1178
Future Volume (vph)	130	23	2254	9	1178
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	8.0	15.0
Minimum Split (s)	24.5	24.5	25.5	12.5	25.5
Total Split (s)	18.0	18.0	62.0	10.0	72.0
Total Split (%)	20.0%	20.0%	68.9%	11.1%	80.0%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	11.5	11.5	62.5	6.0	64.5
Actuated g/C Ratio	0.13	0.13	0.69	0.07	0.72
v/c Ratio	0.62	0.11	1.02	0.08	0.35
Control Delay	50.5	15.4	39.5	42.9	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	15.4	39.5	42.9	1.6
LOS	D	B	D	D	A
Approach Delay	45.2		39.5		1.9
Approach LOS	D		D		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations					
Traffic Volume (vph)	96	8	17	168	1
Future Volume (vph)	96	8	17	168	1
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	6		5	2	8
Permitted Phases		6	2		
Detector Phase	6	6	5	2	8
Switch Phase					
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	79.4	79.4	82.8	85.5	10.0
Actuated g/C Ratio	0.88	0.88	0.92	0.95	0.11
v/c Ratio	0.06	0.01	0.02	0.10	0.01
Control Delay	2.2	1.4	1.2	1.2	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.2	1.4	1.2	1.2	36.0
LOS	A	A	A	A	D
Approach Delay	2.1			1.2	36.0
Approach LOS	A			A	D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.10	
Intersection Signal Delay: 1.6	Intersection LOS: A
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	100	1	0	185	0	0
Future Vol, veh/h	100	1	0	185	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	1	0	201	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	110
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	1002
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

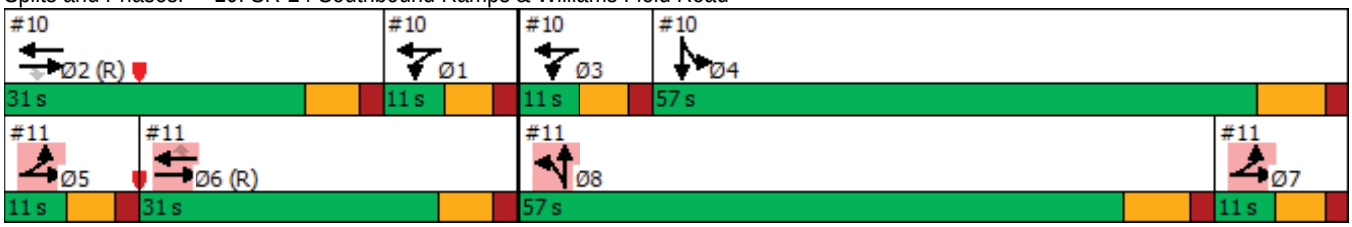
Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	69	34	17	168	201	1224						
Future Volume (vph)	69	34	17	168	201	1224						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	31.0	31.0			57.0	57.0	11.0	11.0	11.0	31.0	11.0	57.0
Total Split (%)	28.2%	28.2%			51.8%	51.8%	10%	10%	10%	28%	10%	52%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	24.5	24.5	16.0	47.0	49.5	49.5						
Actuated g/C Ratio	0.22	0.22	0.15	0.43	0.45	0.45						
v/c Ratio	0.05	0.07	0.04	0.12	0.27	0.91						
Control Delay	33.8	0.2	36.2	19.0	20.2	38.0						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	33.8	0.2	36.2	19.0	20.2	38.0						
LOS	C	A	D	B	C	D						
Approach Delay	22.7			20.5		35.8						
Approach LOS	C			C		D						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.54	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 121.6%	ICU Level of Service H
Analysis Period (min) 15	

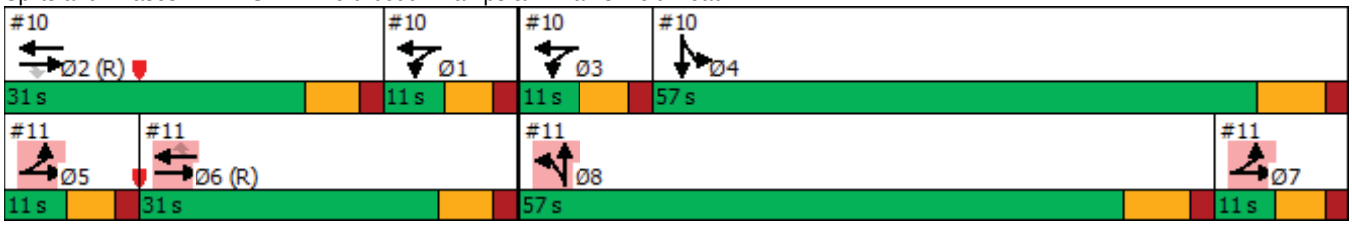
Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	28	236	114	622	70	2244						
Future Volume (vph)	28	236	114	622	70	2244						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			31.0	31.0	57.0	57.0	11.0	31.0	11.0	57.0	11.0	11.0
Total Split (%)			28.2%	28.2%	51.8%	51.8%	10%	28%	10%	52%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	16.0	47.0	24.5	24.5	49.5	49.5						
Actuated g/C Ratio	0.15	0.43	0.22	0.22	0.45	0.45						
v/c Ratio	0.06	0.17	0.09	1.26	0.10	1.54						
Control Delay	40.5	19.6	34.1	155.9	17.9	271.3						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	40.5	19.6	34.1	155.9	17.9	271.3						
LOS	D	B	C	F	B	F						
Approach Delay		21.8	137.0			263.7						
Approach LOS		C	F			F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.54	
Intersection Signal Delay: 216.4	Intersection LOS: F
Intersection Capacity Utilization 121.6%	ICU Level of Service H
Analysis Period (min) 15	

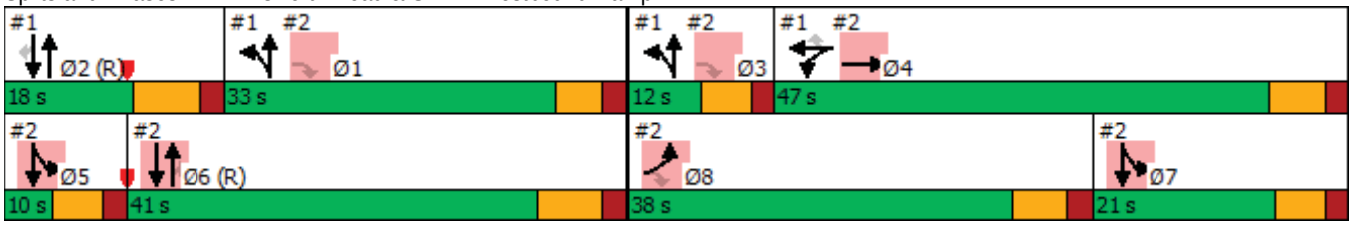
Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø5	Ø6	Ø7
Lane Configurations												
Traffic Volume (vph)	11	1	78	1162	1272	375	472					
Future Volume (vph)	11	1	78	1162	1272	375	472					
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm					
Protected Phases	4	4		1 3	1 2 3	2		1	3	5	6	7
Permitted Phases			4				2					
Detector Phase	4	4	4	1 3	1 2 3	2	2					
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0			15.0	15.0	5.0	5.0	5.0	15.0	5.0
Minimum Split (s)	48.5	48.5	48.5			24.5	24.5	11.0	11.0	11.0	26.5	11.0
Total Split (s)	47.0	47.0	47.0			18.0	18.0	33.0	12.0	10.0	41.0	21.0
Total Split (%)	42.7%	42.7%	42.7%			16.4%	16.4%	30%	11%	9%	37%	19%
Yellow Time (s)	4.5	4.5	4.5			5.5	5.5	4.0	4.0	4.0	5.5	4.0
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0					
Total Lost Time (s)	6.5	6.5	6.5			7.5	7.5					
Lead/Lag	Lag	Lag	Lag			Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None			C-Max	C-Max	None	None	None	C-Max	None
Act Effct Green (s)	40.5	40.5	40.5	39.0	57.0	10.5	10.5					
Actuated g/C Ratio	0.37	0.37	0.37	0.35	0.52	0.10	0.10					
v/c Ratio	0.02	0.04	0.06	1.04	0.75	0.67	0.70					
Control Delay	22.4	11.5	0.2	53.6	15.2	54.0	10.0					
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0	0.0					
Total Delay	22.4	11.5	0.2	53.6	15.7	54.0	10.0					
LOS	C	B	A	D	B	D	A					
Approach Delay		7.9			33.8	29.5						
Approach LOS		A			C	C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 32.0	Intersection LOS: C
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Ellsworth Road & SR-24 Westbound Ramp

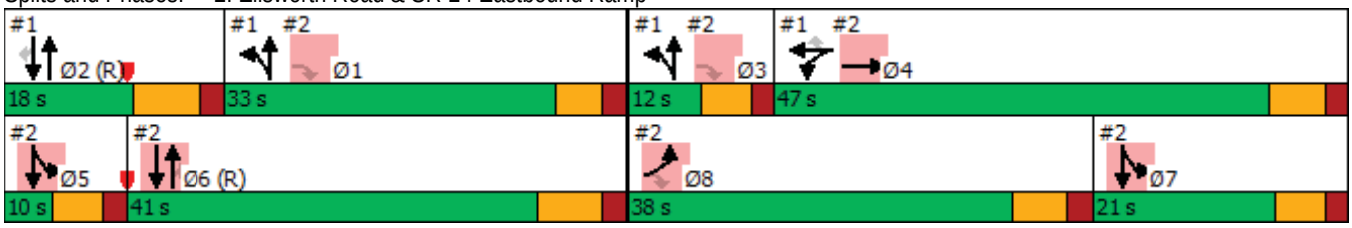


Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø1	Ø2	Ø3	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	811	37	1265	1627	10	103	279					
Future Volume (vph)	811	37	1265	1627	10	103	279					
Turn Type	Prot	NA	custom	NA	Perm	Prot	NA					
Protected Phases	8	4!		6		5 7!	5 6 7!	1	2	3	5	7
Permitted Phases			1 3 8		6							
Detector Phase	8	4	1 3 8	6	6	5 7	5 6 7					
Switch Phase												
Minimum Initial (s)	10.0	10.0		15.0	15.0			5.0	15.0	5.0	5.0	5.0
Minimum Split (s)	46.5	48.5		26.5	26.5			11.0	24.5	11.0	11.0	11.0
Total Split (s)	38.0	47.0		41.0	41.0			33.0	18.0	12.0	10.0	21.0
Total Split (%)	34.5%	42.7%		37.3%	37.3%			30%	16%	11%	9%	19%
Yellow Time (s)	4.5	4.5		5.5	5.5			4.0	5.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0							
Total Lost Time (s)	6.5	6.5		7.5	7.5							
Lead/Lag	Lead	Lag		Lag	Lag			Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		C-Max	C-Max			None	C-Max	None	None	None
Act Effct Green (s)	31.5	31.5	65.0	33.5	33.5	25.0	66.0					
Actuated g/C Ratio	0.29	0.29	0.59	0.30	0.30	0.23	0.60					
v/c Ratio	0.95	0.96	0.67	0.91	0.02	0.14	0.10					
Control Delay	70.7	71.0	5.1	44.6	0.1	76.3	0.4					
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total Delay	70.7	71.0	5.1	44.6	0.1	76.3	0.4					
LOS	E	E	A	D	A	E	A					
Approach Delay		31.5		44.3			20.9					
Approach LOS		C		D			C					

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 35.6	Intersection LOS: D
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Ellsworth Road & SR-24 Eastbound Ramp



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	99	59	29	1335	1491	53
Future Volume (vph)	99	59	29	1335	1491	53
Turn Type	Split	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	26.0	26.0	64.0	64.0	64.0	64.0
Total Split (%)	28.9%	28.9%	71.1%	71.1%	71.1%	71.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.8	10.8	73.3	73.3	73.3	73.3
Actuated g/C Ratio	0.12	0.12	0.81	0.81	0.81	0.81
v/c Ratio	0.51	0.28	0.16	0.50	0.39	0.04
Control Delay	44.8	20.4	12.9	16.4	3.5	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	20.4	12.9	16.4	3.5	1.0
LOS	D	C	B	B	A	A
Approach Delay				16.4	3.4	
Approach LOS				B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Ellsworth Road & Tesla Drive

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	78	0	1364	1517	32
Future Vol, veh/h	0	78	0	1364	1517	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	85	0	1483	1649	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	825	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*556	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*556	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

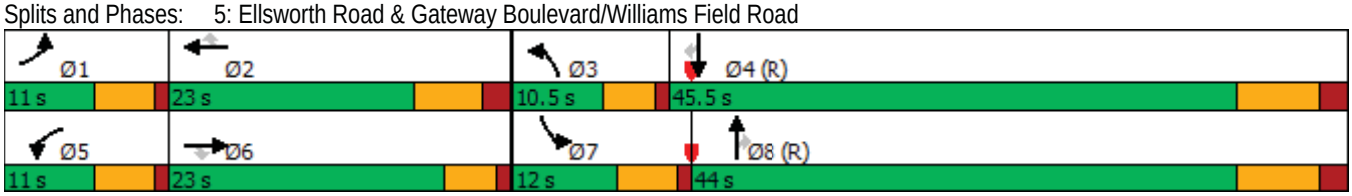
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	556	-	-
HCM Lane V/C Ratio	-	0.152	-	-
HCM Control Delay (s)	-	12.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	63	35	62	29	64	20	1202	51	178	1166	32
Future Volume (vph)	99	63	35	62	29	64	20	1202	51	178	1166	32
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	15.0	15.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	10.0	22.5	22.5	10.0	24.5	24.5	9.5	25.5	25.5	10.0	25.5	25.5
Total Split (s)	11.0	23.0	23.0	11.0	23.0	23.0	10.5	44.0	44.0	12.0	45.5	45.5
Total Split (%)	12.2%	25.6%	25.6%	12.2%	25.6%	25.6%	11.7%	48.9%	48.9%	13.3%	50.6%	50.6%
Yellow Time (s)	4.0	3.5	3.5	4.0	4.5	4.5	3.5	5.5	5.5	4.0	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.5	4.5	5.0	6.5	6.5	4.5	7.5	7.5	5.0	7.5	7.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.0	20.7	20.7	5.9	18.7	18.7	5.8	36.5	36.5	7.0	44.3	44.3
Actuated g/C Ratio	0.07	0.23	0.23	0.07	0.21	0.21	0.06	0.41	0.41	0.08	0.49	0.49
v/c Ratio	0.47	0.08	0.08	0.30	0.04	0.15	0.10	0.91	0.07	0.72	0.51	0.04
Control Delay	47.7	29.4	0.3	54.8	26.8	1.6	43.4	28.2	2.2	53.5	21.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	29.4	0.3	54.8	26.8	1.6	43.4	28.2	2.2	53.5	21.3	0.6
LOS	D	C	A	D	C	A	D	C	A	D	C	A
Approach Delay		33.5			27.5			27.4			25.0	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 26.7	Intersection LOS: C
Intersection Capacity Utilization 66.6%	ICU Level of Service C
Analysis Period (min) 15	

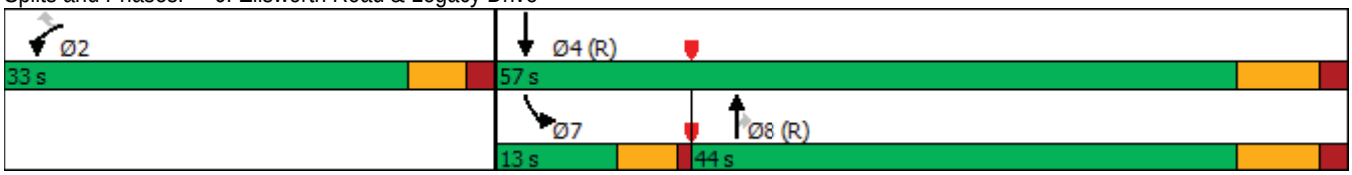
Splits and Phases: 5: Ellsworth Road & Gateway Boulevard/Williams Field Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	101	21	1508	220	7	1286
Future Volume (vph)	101	21	1508	220	7	1286
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	2		8		7	4
Permitted Phases		2		8		
Detector Phase	2	2	8	8	7	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	15.0	15.0	5.0	15.0
Minimum Split (s)	35.0	35.0	26.5	26.5	10.0	39.5
Total Split (s)	33.0	33.0	44.0	44.0	13.0	57.0
Total Split (%)	36.7%	36.7%	48.9%	48.9%	14.4%	63.3%
Yellow Time (s)	4.0	4.0	5.5	5.5	4.0	5.5
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	5.0	7.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Max	Max	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.0	27.0	47.3	47.3	5.8	49.5
Actuated g/C Ratio	0.30	0.30	0.53	0.53	0.06	0.55
v/c Ratio	0.11	0.05	0.88	0.27	0.04	0.50
Control Delay	22.8	9.9	23.6	5.0	42.3	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	9.9	23.6	5.0	42.3	12.6
LOS	C	A	C	A	D	B
Approach Delay	20.8		21.2			12.8
Approach LOS	C		C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Ellsworth Road & Legacy Drive



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	78	17	1683	6	1345
Future Volume (vph)	78	17	1683	6	1345
Turn Type	Prot	Perm	NA	Prot	NA
Protected Phases	2		8	7	4
Permitted Phases		2			
Detector Phase	2	2	8	7	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	8.0	15.0
Minimum Split (s)	24.5	24.5	25.5	12.5	25.5
Total Split (s)	13.0	13.0	64.0	13.0	77.0
Total Split (%)	14.4%	14.4%	71.1%	14.4%	85.6%
Yellow Time (s)	4.5	4.5	5.5	3.0	5.5
All-Red Time (s)	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.5	4.0	7.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	18.4	18.4	55.2	8.0	57.6
Actuated g/C Ratio	0.20	0.20	0.61	0.09	0.64
v/c Ratio	0.24	0.05	0.87	0.04	0.45
Control Delay	35.9	16.4	20.1	49.2	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	16.4	20.1	49.2	6.7
LOS	D	B	C	D	A
Approach Delay	32.5		20.1		6.9
Approach LOS	C		C		A

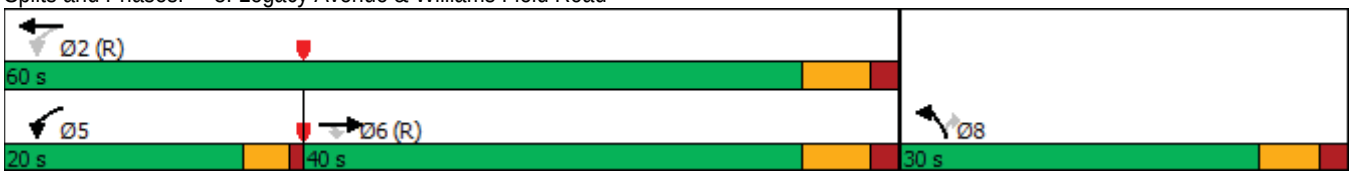
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 64.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Ellsworth Road & Pecos Road North

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	238	73	138	91	61	45
Future Volume (vph)	238	73	138	91	61	45
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	2			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	8.0	15.0	10.0	10.0
Minimum Split (s)	24.5	24.5	12.5	24.5	24.0	24.0
Total Split (s)	40.0	40.0	20.0	60.0	30.0	30.0
Total Split (%)	44.4%	44.4%	22.2%	66.7%	33.3%	33.3%
Yellow Time (s)	4.5	4.5	3.0	4.5	4.0	4.0
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.0	6.5	6.0	6.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	58.1	58.1	72.8	71.6	10.4	10.4
Actuated g/C Ratio	0.65	0.65	0.81	0.80	0.12	0.12
v/c Ratio	0.22	0.08	0.17	0.07	0.32	0.22
Control Delay	3.7	0.1	2.9	3.2	41.0	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	0.1	2.9	3.2	41.0	13.4
LOS	A	A	A	A	D	B
Approach Delay	2.8			3.0	29.2	
Approach LOS	A			A	C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 42.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: Legacy Avenue & Williams Field Road



Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	268	142	0	360	0	85
Future Vol, veh/h	268	142	0	360	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	291	154	0	391	0	92

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	368
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	775
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		1
Mov Cap-1 Maneuver	-	-	-	-	-	775
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

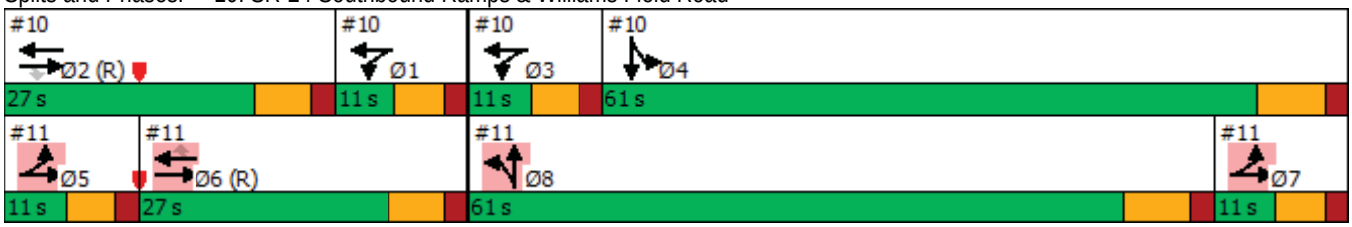
Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	775	-	-	-
HCM Lane V/C Ratio	0.119	-	-	-
HCM Control Delay (s)	10.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø1	Ø3	Ø5	Ø6	Ø7	Ø8
Lane Configurations												
Traffic Volume (vph)	174	94	17	186	266	2419						
Future Volume (vph)	174	94	17	186	266	2419						
Turn Type	NA	Perm	Prot	NA	Split	NA						
Protected Phases	2		1 3	1 2 3	4	4	1	3	5	6	7	8
Permitted Phases		2										
Detector Phase	2	2	1 3	1 2 3	4	4						
Switch Phase												
Minimum Initial (s)	15.0	15.0			10.0	10.0	5.0	5.0	5.0	15.0	5.0	10.0
Minimum Split (s)	25.5	25.5			46.5	46.5	11.0	11.0	11.0	26.5	11.0	45.5
Total Split (s)	27.0	27.0			61.0	61.0	11.0	11.0	11.0	27.0	11.0	61.0
Total Split (%)	24.5%	24.5%			55.5%	55.5%	10%	10%	10%	25%	10%	55%
Yellow Time (s)	4.5	4.5			5.5	5.5	4.0	4.0	4.0	4.5	4.0	5.5
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0						
Total Lost Time (s)	6.5	6.5			7.5	7.5						
Lead/Lag	Lead	Lead			Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max			None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	20.5	20.5	16.0	43.0	53.5	53.5						
Actuated g/C Ratio	0.19	0.19	0.15	0.39	0.49	0.49						
v/c Ratio	0.16	0.21	0.04	0.15	0.33	1.81						
Control Delay	37.9	1.0	27.9	16.1	18.8	388.9						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	37.9	1.0	27.9	16.1	18.8	388.9						
LOS	D	A	C	B	B	F						
Approach Delay	25.0			17.1		358.9						
Approach LOS	C			B		F						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 312.6	Intersection LOS: F
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: SR-24 Southbound Ramps & Williams Field Road



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	Ø1	Ø2	Ø3	Ø4	Ø5	Ø7
Lane Configurations												
Traffic Volume (vph)	97	399	135	272	56	1287						
Future Volume (vph)	97	399	135	272	56	1287						
Turn Type	Prot	NA	NA	Perm	Split	NA						
Protected Phases	5 7	5 6 7	6		8	8	1	2	3	4	5	7
Permitted Phases				6								
Detector Phase	5 7	5 6 7	6	6	8	8						
Switch Phase												
Minimum Initial (s)			15.0	15.0	10.0	10.0	5.0	15.0	5.0	10.0	5.0	5.0
Minimum Split (s)			26.5	26.5	45.5	45.5	11.0	25.5	11.0	46.5	11.0	11.0
Total Split (s)			27.0	27.0	61.0	61.0	11.0	27.0	11.0	61.0	11.0	11.0
Total Split (%)			24.5%	24.5%	55.5%	55.5%	10%	25%	10%	55%	10%	10%
Yellow Time (s)			4.5	4.5	5.5	5.5	4.0	4.5	4.0	5.5	4.0	4.0
All-Red Time (s)			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)			0.0	0.0	0.0	0.0						
Total Lost Time (s)			6.5	6.5	7.5	7.5						
Lead/Lag			Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode			C-Max	C-Max	None	None	None	C-Max	None	None	None	None
Act Effct Green (s)	18.5	45.5	20.5	20.5	51.0	51.0						
Actuated g/C Ratio	0.17	0.41	0.19	0.19	0.46	0.46						
v/c Ratio	0.18	0.30	0.12	0.61	0.07	0.86						
Control Delay	50.0	17.5	37.6	15.3	15.8	32.4						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	50.0	17.5	37.6	15.3	15.8	32.4						
LOS	D	B	D	B	B	C						
Approach Delay		23.9	22.7			31.7						
Approach LOS		C	C			C						

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: SR-24 Northboudn Ramps & Williams Field Road