# CITY COUNCIL REPORT



Meeting Date: September 20, 2022

General Plan Element: Land Use

General Plan Goal: Create a sense of community through land uses

#### ACTION

#### One Scottsdale PU III Quik Trip 1-UP-2022

#### Request to consider the following:

Adopt Resolution No. 12572 approving a Conditional Use Permit for a new gas station on a +/- 2-acre site with Planned Regional Center, Planned Community District (PRC PCD) zoning, located at 19552 N. 73rd Street.

#### **Purpose of Request**

The applicant's request is for a Conditional Use Permit to construct a 16-pump gasoline station and 5,312 square foot convenience store on a 2.03-acre site.

#### **Key Items for Consideration**

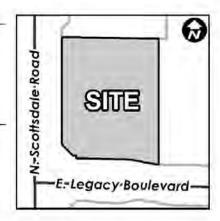
- Conditional Use Permit Criteria
- Gasoline Station and Convenience Store Design Guidelines
- Planning Commission heard this case on August 24, 2022 and recommended approval with a 7-0 vote
- · No community input received as of the date of this report

#### OWNER

QuikTrip - Daniel Chambers (480) 446-6321

#### APPLICANT CONTACT

Berry Riddell, LLC John Berry 480-385-2727



#### LOCATION

19552 N. 73rd Street

#### BACKGROUND

#### General Plan

The General Plan Land Use Element designates the property as Mixed-Use Neighborhoods-Regional Use Overlay. This category focuses on human-scale development and is located in areas with strong access to multiple modes of transportation and major regional services. These areas accommodate higher-density housing combined with complementary office or retails uses.

#### Greater Airpark Character Area Plan

The Greater Airpark Character Area Plan (GACAP) designates the property as Airpark Mixed-Use Residential (AMU-R) This category accommodates various land uses including a combination of personal and business services, employment, office, institutional, hotel and higher density residential. This proposal is consistent with the Character and Design Element of the General Plan, and the GACAP.

#### Zoning

This site is zoned Planned Community (P-C), with Planned Regional Center (PRC) comparable zoning. The site is part of the One Scottsdale master plan which allows fueling stations subject to conditional use permit approval.

#### Context

The property is located on the east side of N. Scottsdale Road between E. Thompson Peak Parkway on the north, E. Legacy Boulevard on the south, and N. 73<sup>rd</sup> Street on the east. Surrounding uses include existing commercial, multi-family residential and vacant land owned by the City of Phoenix. Please refer to context graphics attached.

#### Adjacent Uses and Zoning

- North: Undeveloped land within One Scottsdale Planning Unit III, zoned Planned Regional Center and Planned Community District (PRC PCD)
- South: Undeveloped land within One Scottsdale Planning Unit III, zoned Planned Regional Center and Planned Community District (PRC PCD)
- East: Undeveloped land within One Scottsdale Planning Unit III, zoned Planned Regional Center and Planned Community District (PRC PCD)
- West: Vacant land, owned by the City of Phoenix

#### Other Related Policies, References:

Scottsdale General Plan 2035
Greater Airpark Character Area Plan
Zoning Ordinance
Gas Station and Convenience Store Design Guidelines
One Scottsdale Master Development Plan: 20-ZN-2002 et al.

#### APPLICANT'S PROPOSAL

#### **Development Information**

The development proposal includes a new one-story gas station and convenience store with 16 service bays that are architecturally attached with a canopy to the main structure.

Existing Use: Vacant, undeveloped site

Proposed Use: Gasoline station with convenience store and 16 service bays

Buildings/Description: One-story gas station and convenience store with 16 service bays

Parcel Size: 3.29 gross acres

2.03 net acres

Building Height Allowed: 60 feet (exclusive of rooftop appurtenances)

Building Height Proposed: 20 feet
 Parking Required: 27 spaces
 Parking Provided: 59 spaces

Open Space Required: 13,274 square feet
 Open Space Provided: 36,819 square feet

#### IMPACT ANALYSIS

#### **Airport Vicinity**

The project falls within the AC-1 Airport Influence Zone, which allows municipal uses. Development located within the twenty-thousand-foot radius of the Scottsdale Airport, that penetrates the 100:1 slope from the nearest point of the runway shall submit to the FAA the appropriate forms for FAA review.

#### **Conditional Use Permit**

Conditional Use Permits, which may be revocable, conditional, or valid for a specified time period, may be granted only when expressly permitted after the Planning Commission has made a recommendation and City Council has found as follows:

- A. That the granting of such Conditional Use Permit will not be materially detrimental to the public health, safety or welfare. In reaching this conclusion, the Planning Commission and the City Council's consideration shall include, but not be limited to, the following factors:
  - 1. Damage or nuisance arising from noise, smoke, odor, dust, vibration or illumination.
    - No excessive or significant noise, smoke, odor, dust or vibration is anticipated to be generated from the proposed use.
  - 2. Impact on surrounding areas resulting from an unusual volume or character of traffic.
    - Parking for the proposed site requires 27 spaces, 59 space are provided.

- The site fronts a major arterial and major collector which are both designed to handle the volume of traffic associated with gas station. The proposed gas station use will not result in an unusual increase in traffic volume or character as outlined in the approved traffic study.
- B. The characteristics of the proposed conditional use are reasonably compatible with the types of uses permitted in the surrounding areas.
  - The One Scottsdale Master Development supports a range of commercial, office, retail, and multi-family development. As such, the proposed gas station is reasonably compatible with the existing and future land uses.
- C. The additional conditions specified in Section 1.403, as applicable, have been satisfied. The proposal meets the provisions for Gas Stations as identified in Zoning Ordinance Section 1.403.l., including:
  - 1. The application shall include detailed landscape plans showing plant, type, size and spacing. All landscape plans shall include an automated watering system. Planting areas shall cover a minimum of five (5) percent of the lot area and may be required to cover as much as twenty (20) percent of the site, depending upon site size. All trees planted shall have a minimum caliper of two (2) inches and all shrubs shall be at least five-gallon size. Lack of care and maintenance of the landscaped areas is cause for revoking the Conditional Use Permit.
    - The conceptual landscape plan complies with the minimum landscape requirements and the Scenic Corridor along N. Scottsdale Road will be maintained and enhanced with desert landscape.
  - 2. All structures approved under this Conditional Use Permit shall be of a unique design appropriate for the area in which they are to be constructed. All canopies shall be connected to the roof of the main structure unless otherwise approved. Renderings of any buildings shall accompany each application and construction shall be in reasonable conformity thereto.
    - The proposed gas station and associate convenient store is consistent with the One Scottsdale Master Environment Design Concept Plan and Gas Station Convenience Store Design Guidelines. The 16-bay gas pump canopy is architecturally integrated to the main building.
    - The Gas Station and Convenient Store Design Guidelines recommend the canopy height should not exceed 13'-9" measured from finished grade to the lowest point on the canopy fascia and the overall height of canopies should not exceed 17'-0". To accommodate a broad range of cars, trucks and trailers the applicant is applicant is proposing 14'-6" as the bottom clearance of the canopy with a maximum overall height of 18'-0".
  - 3. All sources of artificial light shall be concealed and attached to the main structure, unless otherwise approved. All lighting shall be designed to minimize glare.

- Exterior lighting will be consistent with the Gas Station and Convenience Store
  Design Guidelines. All lighting for the main building and fueling station will be
  concealed and flush mounted to minimize glare and trespass.
- 4. The minimum area of a parcel, exclusive of street dedication, shall be twenty-two thousand five hundred (22,500) square feet.
  - The site is approximately +/- 2-acres and exceeds the 22,500 square feet minimum requirement.
- 5. A solid masonry wall or planting screen is required between all gas station sites and a residential district shown on Table 4.100.A., or the residential portion of a Planned Community P-C or any portion of a Planned Residential Development PRD with an underlying zoning district comparable to the residential districts shown on Table 4.100.A. The wall height shall be as determined in each case based on the site and surrounding property contextual relationships
  - The site and surrounding area are zoned PRC PCD to accommodate commercial, retail, office and multi-family development. A combination of landscape and screen walls are provided along both street frontages to adequate screen the gas station and fueling pumps.

#### Water/Sewer

The applicant provided Basis of Design reports for water and sewer, which have been accepted by the Water Resources Division. The City of Scottsdale is an Arizona Department of Water Resources designated provider with a 100 years Assured Water Supply and will supply water in accordance with City codes, ordinances, and the City's Drought Management Plan. All infrastructure upgrades necessary to serve this project will be completed by the applicant.

#### Traffic

The proposed gas station and convenient store is located on the northeast corner of Scottsdale Road and Legacy Boulevard. The proposed development is anticipated to generate 1.032 weekday trips with 96 occurring during the AM peak hour and 102 trips during the PM peak hour. To accommodate the vehicular traffic, site improvements include new driveways along both street frontages. Specifically, the developer will construct a right-in and right-out access point along E. Legacy Boulevard and a right-in and right-out access point along N. Scottsdale Road.

#### Fire/Police

The nearest fire station is within 2.6 miles of the site and located at 20363 N. Pima Road. The subject site is served by Police District 4, Beat 18. As with any project that contributes to growth, the fire department and police department continually anticipate and evaluate resource needs for the city's budget process.

#### City Council Report | One Scottsdale PU III Quik Trip

#### Open Space

Overall, the gas station site requires 13,274 square feet of open space and 36,819 square feet is provided per the site plan. Open space is located along the E. Legacy Boulevard frontage and perimeter of the site.

#### **Community Involvement**

With the submittal of the application, staff notified all property owners within 750 feet of the site. In addition, the applicant held a virtual Open House meeting on Wednesday, January 26, 2022. According to the public outreach report, there were 28 total views of the online website during that time and the development team did not receive any e-mails or phone calls. As of the publishing of this report, staff has not received any community input regarding the application.

#### OTHER BOARDS AND COMMISSIONS

#### **Planning Commission:**

Planning Commission heard this case on August 24, 2022 and recommended approval with a 7-0 vote.

#### Staff's Recommendation to Planning Commission

Staff recommended that the Planning Commission find that the Conditional Use Permit criteria have been met and determine that the proposed Gas Station is consistent and conforms with the adopted General Plan and Greater Airpark Character Area Plan and make a recommendation to City Council for approval per the attached stipulations.

#### RECOMMENDATION

Adopt Resolution No. 12572 approving a Conditional Use Permit for a new gas station on a +/- 2-acre site with Planned Regional Center, Planned Community District (PRC PCD) zoning, located at 19552 N. 73rd Street.

#### RESPONSIBLE DEPARTMENTS

#### **Planning and Development Services**

Current Planning Services Transportation Engineering Stormwater Management Water Resources Fire & Life Safety Services

#### STAFF CONTACT

Meredith Tessier Senior Planner 480-312-4211

E-mail: mtessier@ScottsdaleAZ.gov

#### City Council Report | One Scottsdale PU III Quik Trip

#### APPROVED BY

08/29/2022

Meredith Tessier, Senior Planner, Report Author Date

Tim Curtis, AICP, Current Planning Director Date

Planning Commission Liaison

Phone: 480-312-4210 Email: tcurtis@scottsdaleaz.gov

9/5/2022
Erin Perreault, AICP, Executive Director Date

Planning, Economic Development, and Tourism

Phone: 480-312-7093 Email: eperreault@scottsdaleaz.gov

#### ATTACHMENTS

- 1. Context Aerial
- 2. Resolution No. 12572

Exhibit 1: Aerial Close Up

Exhibit 2: Stipulations

Exhibit A to Exhibit 2: Site Plan

**Exhibit 3: Additional Conditions** 

- 3. Applicant's Narrative
- 4. Existing Zoning Map
- 5. Landscape Plan
- 6. Building Elevations
- 7. Perspectives
- 8. Traffic Impact & Mitigation Analysis
- 9. Community Involvement
- 10. City Notification Map
- 11. August 24, 2022 Planning Commission Draft Meeting Minutes



Context Aerial 1-UP-2022

#### RESOLUTION NO. 12572

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SCOTTSDALE, MARICOPA COUNTY, ARIZONA, ADOPTING A CONDITIONAL USE PERMIT FOR A NEW GAS STATION ON A +/- 2-ACRE SITE WITH PLANNED REGIONAL CENTER, PLANNED COMMUNITY DISTRICT (PRC PCD) ZONING, LOCATED AT 19552 N. 73RD STREET.

WHEREAS, the Planning Commission held a public hearing on August 24, 2022;

NOW, THEREFORE, LET IT BE RESOLVED, by the City Council of the City of Scottsdale, Maricopa County, Arizona, as follows:

#### Section 1. That the City Council finds and approves:

- a) that the granting of this conditional use permit per stipulations set forth on Exhibit 2 will not be materially detrimental to the public health, safety or welfare based on, but not limited to, the following factors: damage or nuisance arising from noise, smoke, odor, dust, vibration or illumination and impact on surrounding areas resulting from an unusual volume or character of traffic;
- that the characteristics of the proposed conditional use are reasonably compatible with the types of uses permitted in the surrounding areas; and

Section 2. That a description of the conditional use permit is set forth in Case No. 1-UP-2022. The property that is subject to the conditional use permit is shown on **Exhibit 1** and the conditional use permit approval is conditioned upon compliance with all of the stipulations that are set forth in **Exhibits 2** and 3. All exhibits are incorporated herein by reference.

PASSED AND ADOPTED by the 0 of,2022.	Council of the City of Scottsdale this day
ATTEST:	CITY OF SCOTTSDALE, an Arizona municipal corporation
By: Ben Lane, City Clerk	By:
APPROVED AS TO FORM: OFFICE OF THE CITY ATTORNEY	
By: Sherry R. Scott, City Attorney By: Joe Padilla, Deputy City Attorney	

ATTACHMENT #2

Resolution No. 12572 Page 1 of 1



Close-up Aerial

Resolution No. 12572 Exhibit 1 Page 1 of 1 1-UP-2022

# Stipulations for the Conditional Use Permit

#### For a Gas Station

### One Scottsdale PU III Quik Trip

Case Number: 1-UP-2022

These stipulations are in order to protect the public health, safety, welfare, and the City of Scottsdale.

#### SITE DESIGN

- CONFORMANCE TO CONCEPTUAL SITE PLAN. Development shall conform with the conceptual site
  plan submitted by Kimley-Horn, attached as Exhibit A to Exhibit 2. Any proposed significant change
  to the conceptual site plan as determined by the Zoning Administrator, shall be subject to additional
  action and public hearings before the Planning Commission and City Council
- 2. SIDEWALK CONNECTION. Before any certificate of occupancy is issued for the site, the owner shall construct or cause to have constructed a six (6) foot, minimum, sidewalk from the main entry of the development to N Scottsdale Road and E Legacy Boulevard.
- 3. SCREEN WALL. At time of Development Review Board, the applicant shall extend the wall along N. Scottsdale Road to screen vehicles at the fuel station. Additionally, the applicant shall provide a wall along E. Legacy Boulevard. Final wall location to be determined by final plan staff reviewers to confirm that the wall will not conflict with easements.

#### **FUEL STATION CANOPY ELEVATIONS:**

4. CANOPY ELEVATIONS: At time of Development Review Board, the applicant shall demonstrate conformance with the Gas Station and Convenient Store Design Guidelines and shall request Development Review Board approval for canopy height, as measured from the finished grade to the lowest point on the canopy fascia shall not exceed 14'-6" and the overall height of the canopies shall not exceed 18'-0".

#### **EXTERIOR LIGHTING:**

FUEL STATION AND CANOPY LIGHTING. At time of Development Review Board, the applicant shall
demonstrate conformance with the City of Scottsdale Exterior Lighting Ordinance and the Gas
Station and Convenient Store Design Guidelines.

#### **AIRPORT**

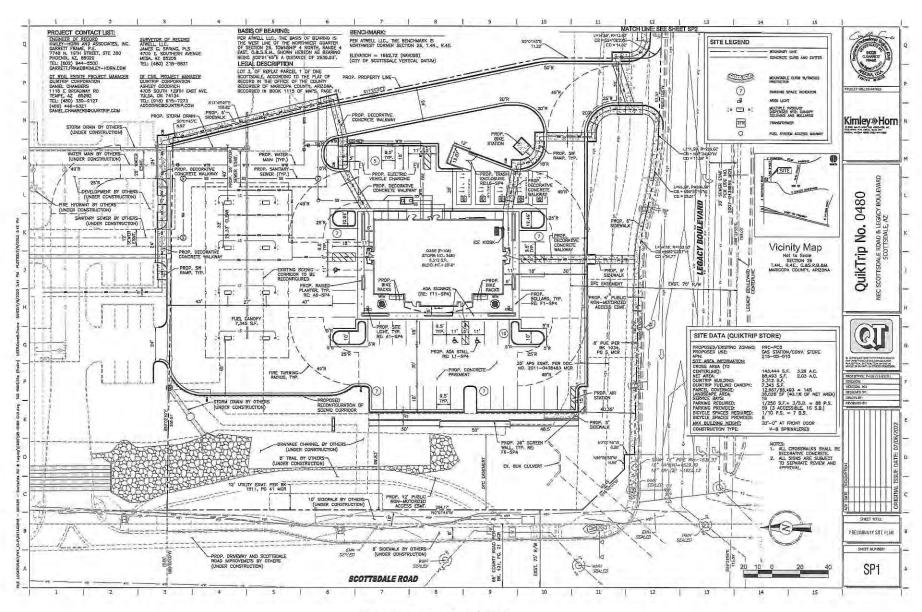
- 6. FAA DETERMINATION. With the final plans submittal, the developer shall submit a copy of the FAA Determination letter on the FAA FORM 7460-1 for any proposed structures and/or appurtenances that penetrate the 100:1 slope. The elevation of the highest point of those structures, including the appurtenances, must be detailed in the FAA form 7460-1 submittal.
- 7. AIRCRAFT NOISE AND OVERFLIGHT DISCLOSURE. With the final plans submittal, the developer shall provide noise disclosure notice to occupants, potential homeowners, employees and/or students in a form acceptable to the Scottsdale Aviation Director

#### **INFRASTRUCTURE AND DEDICATIONS**

8. CIRCULATION IMPROVEMENTS. Before any certificate of occupancy is issued for the site, the owner shall make the required dedications and provide the following improvements in conformance with the Design Standards and Policies Manual and all other applicable city codes and policies.

#### 9. EASEMENTS.

- a. EASEMENTS DEDICATED BY PLAT. The owner shall dedicate to the city on the final plat, all easements necessary to serve the site, in conformance with the Scottsdale Revised Code and the Design Standards and Policies Manual.
- b. EASEMENTS CONVEYED BY SEPARATE INSTRUMENT. Before any building permit is issued for the site, each easement conveyed to the city separate from a final plat shall be conveyed by an instrument or map of dedication subject to city staff approval, and accompanied by a title policy in favor of the city, in conformance with the Design Standards and Policies Manual.
- 10. SCENIC CORRIDOR SETBACK LOCATION AND DEDICATION. The Scenic Corridor setback width along N. Scottsdale Road shall be a minimum of 60 feet wide and an average of 100 feet, measured from back of curb. Unless otherwise approved by the Development Review Board, the Scenic Corridor setback shall be left in a natural condition. The final plat shall show all Scenic Corridor setback easements dedicated to the city.



Resolution No. 12572 Exhibit A to Exhibit 2 Page 1 of 1

# EXHIBIT 3 Excerpt from the Zoning Ordinance of the City of Scottsdale, Section 5.102.1

#### I. Gas station.

- 1. The application shall include detailed landscape plans showing plant, type, size and spacing. All landscape plans shall include an automated watering system. Planting areas shall cover a minimum of five (5) percent of the lot area and may be required to cover as much as twenty (20) percent of the site, depending upon site size. All trees planted shall have a minimum caliper of two (2) inches and all shrubs shall be at least five-gallon size. Lack of care and maintenance of the landscaped areas is cause for revoking the Conditional Use Permit.
- 2. All structures approved under this Conditional Use Permit shall be of a unique design appropriate for the area in which they are to be constructed. All canopies shall be connected to the roof of the main structure unless otherwise approved. Renderings of any buildings shall accompany each application and construction shall be in reasonable conformity thereto.
- 3. All sources of artificial light shall be concealed and attached to the main structure, unless otherwise approved. All lighting shall be designed to minimize glare.
- 4. The minimum area of a parcel, exclusive of street dedication, shall be twenty-two thousand five hundred (22,500) square feet.
- 5. A solid masonry wall or planting screen is required between all gas station sites and a residential district shown on Table 4.100.A., or the residential portion of a Planned Community P-C or any portion of a Planned Residential Development PRD with an underlying zoning district comparable to the residential districts shown on Table 4.100.A. The wall height shall be as determined in each case based on the site and surrounding property contextual relationships.

# QuikTrip Project Narrative - Conditional Use Permit Scottsdale Road & Legacy Boulevard



Prepared for:

QuikTrip Corporation
Daniel Chambers

Prepared by:

Berry Riddell, LLC John V. Berry, Esq Michele Hammond, Principal Planner

#### **Project Overview**

QuikTrip Corporation is proposing to build a new fueling station on the vacant 2+/- acre parcel located at the northeast corner of Scottsdale Road and Legacy Boulevard (the "Property") and this application is a request a Conditional Use Permit ("CUP") for the proposed fueling station. The site is part of the One Scottsdale master plan (Planning Unit III north of Legacy Blvd) with Planned Regional Center – Planned Community District ("PRC PCD") zoning, which allows for fueling stations with an approved CUP. Access will be provided via Scottsdale Road and Legacy Boulevard with vehicular circulation around the centrally placed QuikTrip building. The QuikTrip convenience store building faces Scottsdale Road with the fueling pump canopy located on the northend of the site. The scenic corridor easement along Scottsdale Road will be maintained as dedicated. The proposed fueling station is cognizant of the City's Gas Station and Convenience Store Design Guidelines as outlined below. In a first for a Scottsdale fueling center, the site design includes a shaded bicycle station along the east end of the Property and the first ever electric vehicle charging station available to the public, which is located at the southwest corner of the site.

#### Conceptual Site Plan



January 2022 Page 2 of 13

## Context Aerial



January 2022 Page 3 of 13

#### **Conditional Use Permit Criteria**

Sec. 1.401. Issuance.

Conditional use permits, which may be revocable, conditional or valid for a specified time period, may be granted only when expressly permitted by this ordinance and, except in the case of conditional use permits for adult uses under Section 1.403(A), only after the Planning Commission has made a recommendation and the City Council has found as follows:

- A. That the granting of such conditional use permit will not be materially detrimental to the public health, safety or welfare. In reaching this conclusion, the Planning Commission and the City Council's consideration shall include, but not be limited to, the following factors:
  - Damage or nuisance arising from noise, smoke, odor, dust, vibration or illumination.

**Response**: No damage or nuisance will arise from noise, smoke, odor, dust, vibration or illumination in the operation of the proposed use.

2. Impact on surrounding areas resulting from an unusual volume or character of traffic.

**Response:** Scottsdale Road, a major arterial and Legacy Boulevard, a major collector, are both designed to handle the volume of traffic associated with the proposed fueling station use. The proposed use will not result in an unusual increase of traffic volume or character as detailed in the traffic study submitted with this CUP application.

B. The characteristics of the proposed conditional use are reasonably compatible with the types of uses permitted in the surrounding areas.

Response: The site is located on Scottsdale Road and is approximately one-half mile north of the Loop 101/Scottsdale Road freeway interchange and is suitably situated for a fueling station. The surrounding PRC uses within the One Scottsdale master plan will include a range of commercial, office, retail, and multifamily development consistent with the zoning entitlements approved in 2002. Avion on Legacy and One North Scottsdale Apartments exist to the east of the site (approximately 400-ft away). Subsequent to the zoning approvals, a Master Environmental Design Concept Plan was approved by DRB (1-MP-2006) that includes landscape, hardscape, architectural styles and other design features for One Scottsdale. The proposed QuikTrip development will comply with these plans.

C. The additional conditions specified in Section 1.403, as applicable, have been satisfied.

January 2022 Page 4 of 13

Sec. 1.403 Additional Conditions for Specific Conditional Uses.

#### I. Gas station.

1. The application shall include detailed landscape plans showing plant, type, size and spacing. All landscape plans shall include an automated watering system. Planting areas shall cover a minimum of five (5) percent of the lot area and may be required to cover as much as twenty (20) percent of the site, depending upon site size. All trees planted shall have a minimum caliper of two (2) inches and all shrubs shall be at least five-gallon size. Lack of care and maintenance of the landscaped areas is cause for revoking the Conditional Use Permit.

<u>Response</u>: A landscape plan has been included as part of the submittal and not only meets the above noted criteria but exceeds the landscape spacing calculations. Additionally, the landscaping will be maintained at the same high level of other QuikTrip locations.

2. All structures approved under this Conditional Use Permit shall be of a unique design appropriate for the area in which they are to be constructed. All canopies shall be connected to the roof of the main structure unless otherwise approved. Renderings of any buildings shall accompany each application and construction shall be in reasonable conformity thereto.

<u>Response</u>: The proposed building and fueling station canopy are designed with consideration of the surrounding area and master plan design criteria intended to evoke a unique architectural character appropriate for this One Scottsdale site.

3. All sources of artificial light shall be concealed and attached to the main structure, unless otherwise approved. All lighting shall be designed to minimize glare.

<u>Response</u>: Lighting for the fueling station shall be concealed and attached to the main structure and will be flush mounted with the canopy consistent with the Gas Station and Convenience Store Design Guidelines with minimal glare and light trespass.

4. The minimum area of a parcel, exclusive of street dedication, shall be twenty-two thousand five hundred (22,500) square feet.

**Response**: The site is approximately 2+/- acres and exceeds the 22,500 s.f. minimum requirement.

5. A solid masonry wall or planting screen is required between all gas station sites and a residential district shown on Table 4.100.A., or the residential portion of a Planned Community P-C or any portion of a Planned Residential Development PRD with an underlying zoning district comparable to the residential districts shown on Table 4.100.A. The wall height shall be as determined in each case based on the site and surrounding property contextual relationships.

January 2022 Page 5 of 13

**Response**: The site and surrounding area is zoned PRC PCD. Landscaping is proposed along the perimeter of the site to provide screening.

#### Gas Station & Convenience Store Design Guidelines

- \* Site Design:
- 1. All development proposals should show evidence of coordination with the site plan, arrangement of buildings and planning elements of neighboring properties.
  - · Respond to local development patterns and the streetscape through the use of consistent building setbacks, orientation and relationship of structures to the street and linkages to pedestrian facilities.
  - · Seek shared-access with adjoining commercial uses where feasible to minimize curb cuts and enhance pedestrian and vehicular circulation.
  - · Minimize cross traffic conflicts within parking areas.

Response: Vehicular access on the north is provided via a shared driveway connecting to Scottsdale Road and direct vehicular access to Legacy Boulevard is proposed at the southeast corner of the site via a shared driveway. Vehicular circulation around the centrally placed QuikTrip building facing Scottsdale Road allows for ease of movement onsite and ample turning radii for trucks. The fueling pump canopy is located on the north-end of the site and is oriented for direct pedestrian access to the building. Sidewalk connections are provided around the building to encourage connectivity from all four sides. The scenic corridor easement along Scottsdale Road will be maintained as dedicated. In a first for a Scottsdale fueling center, a shaded bicycle station will be provided along the eastern edge of the site to include air, water, and minor repair amenities for cyclists. Further, the site design includes the first ever electric vehicle charging station available to the public, which is located at the southwest corner of the site.

- 2. Mitigate the negative impacts from site activities on adjoining uses:
  - · Service areas, storage areas and refuse enclosures should be oriented away from public view and screened from adjacent sites
  - · Orient drive-through windows, menu boards and associated stacking lanes away from residential areas and screen from public view.
  - · Orient auto repair bay openings and car-wash openings away from public view.

**Response:** Refuse and service areas are oriented away from public view. No drive-thru, repair bays or car washes are proposed with this CUP request.

3. ATMs should be located within the primary retail building when possible. Freestanding and/or exterior wall mounted ATMs are discouraged. Automatic payment points at the pump island will be reviewed with respect to the guidelines for Pump Islands.

**Response:** Any ATM will be internal to the building.

January 2022 Page 6 of 13

#### Architecture:

The following guidelines are applicable to the proposed QuikTrip.

1. Building design should take into consideration the unique qualities and character of the surrounding area (refer to the City's Character Area Plans for additional information).

Response: As mentioned above, the architectural design was enhanced to provide an appropriate character and design for this location within the One Scottsdale master plan. After several iterations, the design has been approved, as required by DMB. The use of materials and textures was selected to complement the surrounding development. The building was designed with a variety of horizontal and vertical building planes to create visual interest and pedestrian scale elements while minimizing the building massing. The roof line has a series of heights and is finished with a painted metal comice treatment.

2. Building elements that speak to the desert environment and climate, such as, architectural shade devices, a strong relationship to the ground plane, deeply recessed windows and the use of materials and textures that are associated with the region are encouraged to define the project identity with the Arizona Sonoran Desert.

<u>Response</u>: The proposed architecture provides an appropriate, contemporary character and design with a variety of materials selected to complement the surrounding development. Additionally, the building was designed with four-sided architecture and a variety of horizontal and vertical building planes to create visual interest, character, and pedestrian scale elements.

3. Buildings that derive their image solely from applied treatments that express corporate identity are discouraged.

Response: The proposed QuikTrip utilizes a variety of materials, textures and design features that establish individuality and building character consistent with the surrounding architecture and developments within One Scottsdale. Applied treatments are not the main theme, rather the use of quality building materials and pedestrian scale elements. The use of QuikTrip's traditional "red" is kept to a minimum and only used for signage. This will be a unique QuikTrip designed solely for this One Scottsdale location.

4. The design of stand-alone gas stations and convenience stores should conform to the dominant existing or planned character of the surrounding neighborhood. This can be accomplished through the use of similar forms, materials and colors.

**Response**: See 1, 2 and 3 above.

5. The design of a facility that occupies a pad or portion of a building within a larger commercial center should be designed to reflect the design elements of that center.

January 2022 Page 7 of 13

Response: Not applicable.

6. Drive through elements should be architecturally integrated into the building rather than appearing to be applied or "stuck on" to the building.

Response: Not applicable.

7. All sides of a building should express consistent architectural detail and character. All site walls, screen walls and pump island canopies and other outdoor covered areas should be architecturally integrated with the building by using similar material, color and detailing.

**Response**: The building architectural detail and character is consistent with the fueling pump canopy design. The canopy columns are faced with materials that match the building on all four sides and the canopy fascia is a brush aluminum consistent with the building design.

8. To encourage visually interesting roofs, provide variations in the roof line and incorporate treatments such extended eaves and parapet walls with cornice treatments.

**Response**: The building was designed with a variety of horizontal and vertical building planes to create visual interest and pedestrian scale elements while minimizing the building massing. The roof line has a series of heights and is finished with a painted metal cornice treatment.

9. Building should respond to solar heat gain, reflectivity and glare through building orientation and the use of architectural shading devices such as pronounced eaves, covered walkways.

<u>Response</u>: The building entrances are shaded with the large canopy overhangs and the windows are shaded with awning. Walkways and vegetation around the building are designed with consideration to the customers.

- 10. Buildings should reduce their perceived height and bulk by dividing the building mass into smaller-scaled components. Possible treatments to avoid excessive bulk and height include:
  - · Low-scale planters and site walls. Landscape islands are integrated near the building.
  - · Wainscot treatment. A variety of materials and accent banding is provided.
  - Reveals and or projections of building massing. Projections and variation in building elements are provided.
  - Clearly pronounced eaves or cornices. Cornice detailing is incorporated with the building design.
  - Subtle changes in material color and texture. A variety of material colors and textures are provided.
  - · Variation in roof forms. A series of roof heights and building forms are provided.
  - · Covered pedestrian frontages and recessed entries. Shaded recessed entries are provided.
- 11. Storefronts should be broken into smaller individual windows or groupings of windows.

January 2022 Page 8 of 13

**Response**: The windows are broken into sections with mullions to avoid sterile expanses of glass. The building design incorporates window canopies and awnings to address passive solar cooling opportunities.

12. Building accents should be expressed through differing materials and/or architectural detailing and not through applied finishes such as paint.

**Response**: A variety of building materials are proposed and include bushed aluminum awnings and accent canopies.

13. Building colors should emphasize earth tones. The use of highly reflective or glossy materials should be limited and will not be appropriate in all contexts.

<u>Response</u>: The building materials and colors selected embody an earth tone palette compatible with the balance of the One Scottsdale master plan.

#### 14. Canopy:

· Integration of canopy to building and site walls is desirable. Multiple canopies or canopies that express differing architectural masses are encouraged.

**Response**: QuikTrip has elected to provide a canopy which is separated from the convenience retail store building due the range of heights and limited maneuverability of the vehicles anticipated to utilize this facility. The separation of these two structures helps create different architectural massing on site.

· Canopy height, as measured from the finished grade to the lowest point on the canopy fascia, should not exceed 13'- 9". The clearance height of canopies should be clearly indicated on the structure or through use of a headache bar. The overall height of canopies should not exceed 17'.

Response: Due to its proximity of the Loop 101 and location along Scottsdale Road, this fueling station is expected to serve a range of vehicles that would exceed the 13'-9" height restriction. The canopy design accommodates a broad range of cars, trucks, and trailers. Additionally, the Arizona Department of Transportation (ADOT) specifies that 14'-6" is a generally accepted height to accommodate all vehicles. QuikTrip is proposing 14'-6" as the bottom clearance of the canopy with a maximum height of 18'-0".

· Canopy ceiling should be textured or have a flat finish, glossy or highly reflective materials are not recommended.

**Response**: The canopy ceiling will be designed with a finish to prevent light glare and reflectivity.

· Lighted bands or tubes or applied bands of corporate color are discouraged.

**Response**: Light bands and applied corporate color bands have been minimized. This proposed QuikTrip has been uniquely designed specific to this One Scottsdale location.

January 2022 Page 9 of 13

15. All display items for sale should occur within the main building or within designated areas that are screened from public streets.

**Response**: Display items will be contained within the main building and/or designated areas that are screened from public streets.

16. Gas tank vents shall be an integral part of the building design in terms of form, color and texture.

**Response**: The gas tank vents will be integrated with the building design.

- \* Pump Islands:
- 1. The design of pump islands should be architecturally integrated with other structures onsite using similar colors, materials and architectural detailing.

**Response**: The pump islands will be architecturally integrated with the canopy and building design with respect to color, materials and detailing.

2. The color of the various components of the pump island, including dispensers, bollards and all appurtenances, are encouraged to be muted.

**Response:** The pump island, including dispensers, bollards and other appurtenances will be finished with muted tones.

3. All elements of the pump island or canopy that are not operational should be architecturally integrated by use of color, material, and architectural detailing.

**Response**: All elements of the pump island and canopy will be architectural integrated with the overall building design with respect to color, materials, and detailing.

4. The use of translucent materials and internally lighted cabinets are discouraged as finishes or as applied treatments at the pump island or on the canopy.

**Response**: The use of translucent materials and internally lighted cabinets will be discouraged. Final design will be identified with the Development Review Board submittal.

5. Either a pump island curb or bollard is recommended for the protections of dispensing units.

**Response:** Pump island curbs and/or bollards will be installed to protect the dispensing units.

Additionally, landscaping and lighting will be designed in conformance with the Gas Stations and Convenience Store Design Guidelines and shall be subject to review and approval by the Development Review Board under a separate and subsequent application. Signage and corporate

January 2022 Page 10 of 13

identification will be tastefully integrated with the architectural character of the building and will conform to the City's sign code.

## **Greater Airpark Character Area Plan**

The proposed fueling station complies with the Greater Airpark Character Area Plan, which designates the site as Airpark Mixed-Use Residential ("AMU-R").

#### LEGEND Land Use Plan: SITE Airpark Mixed Use-Residential (AMU-R) Airpark Mixed Use (AMU) Regional Tourism (RT) Employment (EMP) AMU-B Aviation (AV) Open Space (OS) UMA 10 VA Greater Airpark Boundary >>>> Signature Corridor Powerline Conidor Central Arizona Project RT \* Rointree, between Hayder NOEN and Scottsdale Roads, is subject to change as a part OS of engineering associated with street improvements

Greater Airpark Character Area Plan - Land Use Map

Airpark Mixed Use-Residential areas are appropriate for the greatest variety of land uses in the Greater Airpark. Appropriate uses may include a combination of personal and business services, employment, office, institutional, cultural amenities, retail, hotel, and higher density residential. Developments in AMU-R areas should be pedestrian-oriented, have access to multiple modes of transportation, and should be located outside of the Airport's 55 DNL contour. Residential and other sensitive uses should be a lesser component of development and include adequate sound attenuation. Design of residential uses in the area south of the Central Arizona Project Aqueduct should support businesses and tourism uses, such as time-shares, multi-family rental units, and corporate housing.

January 2022 Page 11 of 13

#### Character & Design

Goal CD 2 Create vibrant Signature Corridors in the Greater Airpark to provide a distinct identity and design theme in the area.

#### Policy CD 2.1

Establish a unified streetscape for identified Signature Corridor with unique imagery for each corridor.

#### Policy CD 2.1.4 Scottsdale Road Signature Corridor

The Scottsdale Road Signature Corridor, from Frank Lloyd Wright Boulevard to the northern Greater Airpark boundary, is a designated scenic corridor with distinct design guidelines, which reflect the transitional nature from urban to the native desert, while responding to sophisticated urban development and resort characteristics found in adjacent developments.

#### Policy 2.1.5 Legacy Signature Corridor

The Legacy Signature Corridor should consist of urban characteristics that celebrate transitions from the urban environment to the native desert and residential area.

#### Policy CD 2.6

Where Signature Corridors intersect, and particularly at designated Landmark Intersections, incorporate distinct, landmark architecture, which incorporates elements of the intersecting design themes.

Response: The site is located on Scottsdale Road, a Signature Corridor, and is approximately one-half mile north of the Loop 101/Scottsdale Road freeway interchange. The QuikTrip development will maintain the existing scenic corridor dedication along Scottsdale Road consistent with the Master Environmental Design Concept Plan approved by DRB (1-MP-2006) that includes streetscape design features for One Scottsdale.

#### Community Mobility

Goal CM 6 Enhance pedestrian and bicyclist access and activity for Greater airpark residents, visitors, and employees.

#### Policy CM 6.2

Support an attractive, safe, and engaging pedestrian and bicyclist environment for all users.

#### Policy CM 6.5

Design corridors that accommodate and attract pedestrians and bicyclists, particularly in Airpark Mixed Use Future Land Use Areas and along Signature Corridors.

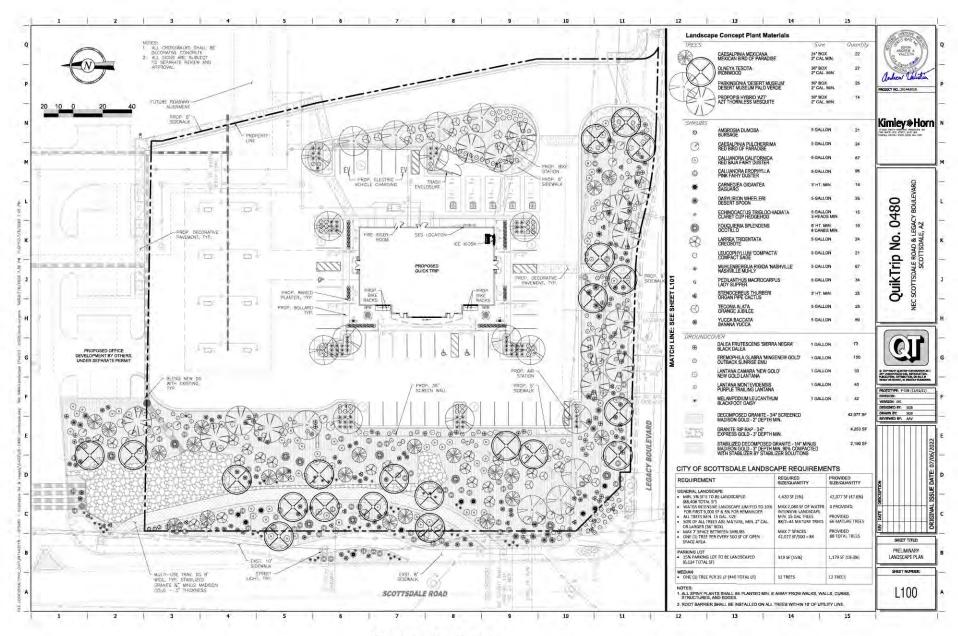
January 2022 Page 12 of 13

Response: As noted above, both Scottsdale Road and Legacy Boulevard are designated as Signature Corridors in the GACAP. The surrounding area provides a mixture of residential, commercial, retail and office land uses. This proposal for a new fueling station on the subject 2+/-acre site will integrate well with the mix of uses provided along these Corridors and provide desirable support retail/gasoline services to the surrounding community. Bike lanes along Legacy Boulevard and trail connectivity will be maintained/improved with the development. The fueling station site design provides for a shaded bicycle station which will include air, water, and minor repair amenities for cyclists. The site design also includes an electric vehicle charging station available to the public, which is located at the southwest corner of the site. Direct sidewalk connections will be provided into the site from the street frontages as well as the existing and future the development to the east. Sidewalk connections are provided around the building to encourage connectivity from all four sides.

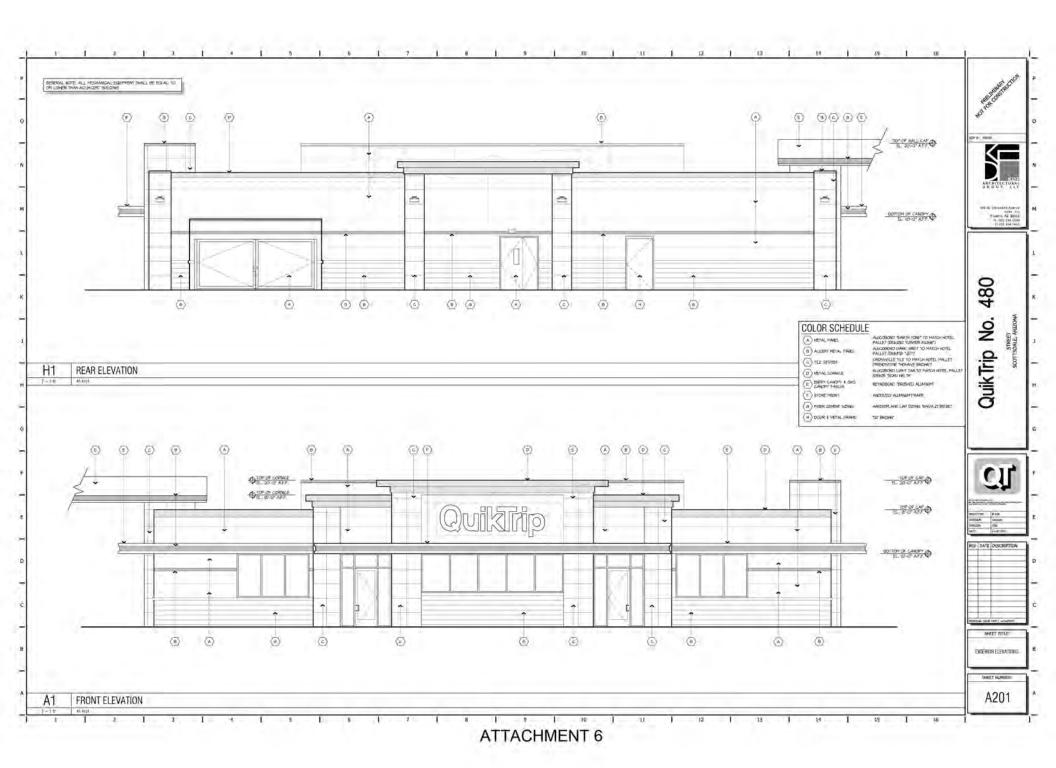
January 2022 Page 13 of 13

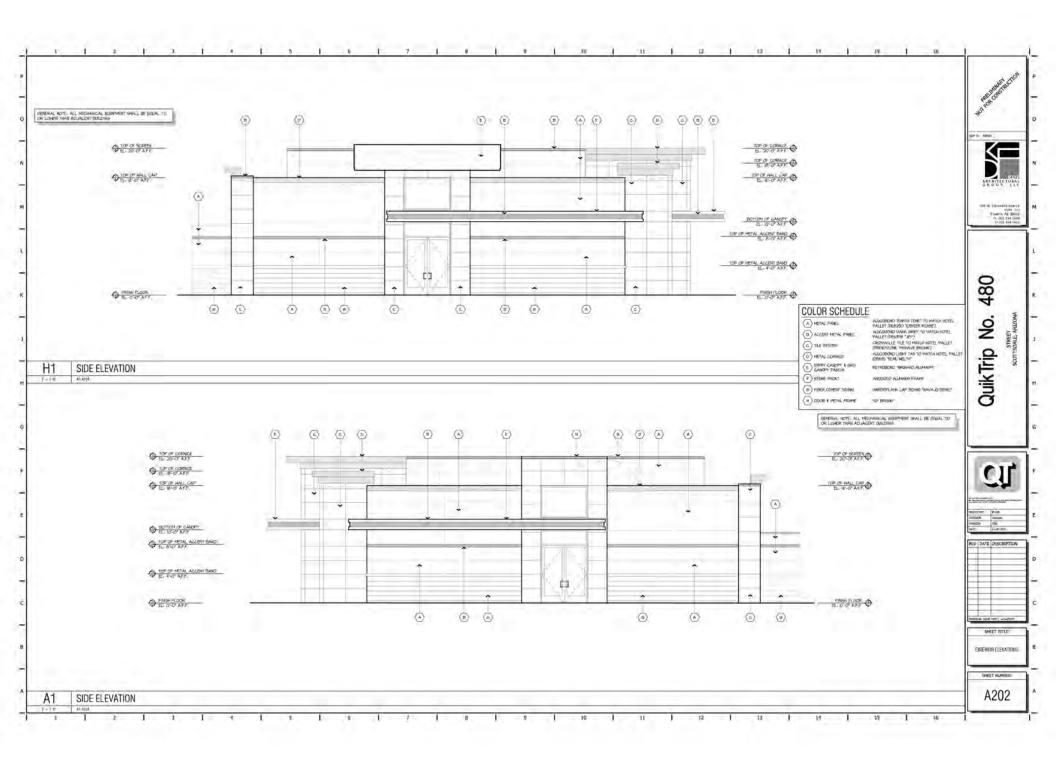


Zoning Aerial ATTACHMENT 4 1-UP-2022



ATTACHMENT 5







ATTACHMENT 7

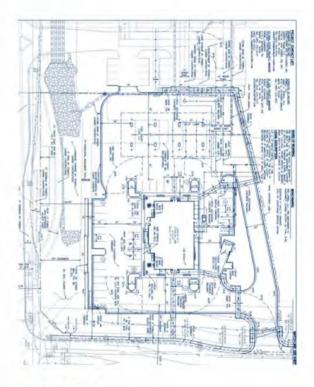








Transportation Impact & Mitigation Analysis



Prepared for:



QuikTrip Corporation 1116 East Broadway Road Tempe, AZ 85282



Prepared by:

Project Number: 21.5286.01 July 6, 2022



Lōkahi, LLC 10555 N. 114<sup>th</sup> Street, Suite 105 Scottsdale, AZ 85259



# TABLE OF CONTENTS:

1. In	ntroduction and Executive Summary	1
1.1.	Purpose of Report and Study Objectives	
1.2.	Executive Summary	1
2. PI	Proposed Development	
	Area Conditions	
3.1.	Study Roadway Segments	8
3.2.	Study Intersections	9
3.3.	Surrounding Area Land Use	9
3.4.	Site Accessibility	9
3.5.	Collision Rates	10
3.6.	Collision History	10
4. Ex	xisting Conditions	12
4.1.	Existing Land Use	12
4.2.	Existing Traffic Counts	12
4.3.	Existing Capacity Analysis	14
5. Pi	rojected Traffic	17
5.1.	Trip Generation	17
5.2.	Trip Distribution and Assignment	18
6. Ft	uture Conditions (Year 2023)	22
6.1.	Year 2023 Background Traffic Volumes	22
6.2.	Year 2023 Build Traffic Volumes	22
6.3.	Year 2023 No Build Capacity Analysis	22
6.4.	. Year 2023 Build Capacity Analysis	23
7. Tu	urn Lane Analysis	29
7.1.	Right Turn Lanes	29
7.2.	Queue Analysis	30
8. A	Access and Circulation Analysis	31
9. R	Recommendations & Conclusions	33





# FIGURES:

Figure 1 – Vicinity Map	5
Figure 2 – Site Plan	6
Figure 3 – Study Area	
Figure 4 – Existing Traffic Volumes	13
Figure 5 – Existing Capacity Analysis	
Figure 6 – Trip Distribution	19
Figure 7 – Site Traffic Volumes	
Figure 8 – Pass-by Traffic Volumes	
Figure 9 – Year 2023 No Build Traffic Volumes	
Figure 10 – Year 2023 Build Traffic Volumes	
Figure 11 – Year 2023 No Build Capacity Analysis	
Figure 12 – Year 2023 Build Capacity Analysis	
TABLES:	
The EES.	
Table 1 – Collision Rates – Study Roadway Segments	10
Table 2 – Level of Service Criteria	
Table 3 – Existing Level of Service and Delay – Unsignalized	15
Table 4 – Existing Level of Service and Delay – Signalized	15
Table 5 – Trip Generation – Proposed Development	
Table 6 – Year 2023 Level of Service and Delay – Unsignalized	
Table 7 – Year 2023 Level of Service and Delay – Signalized	24
Table 8 – Queue Analysis	30
APPENDICES:	
Appendix A – Proposed Site Plan	A
Appendix B – Collision History	
Appendix C – Parcel Information	
Appendix D – Traffic Count Data	
Appendix E – Signal Timing	
Appendix F – Existing Capacity Analysis	
Appendix G – Trip Generation	
Appendix H – MAG Socioeconomic Projections	
Appendix I – Year 2023 No Build Capacity Analysis	
Appendix J – Year 2023 Build Capacity Analysis	





# 1. INTRODUCTION AND EXECUTIVE SUMMARY

### 1.1. PURPOSE OF REPORT AND STUDY OBJECTIVES

Lōkahi, LLC (Lōkahi) was retained by QuikTrip Corporation to complete a Transportation Impact & Mitigation Analysis for the proposed QuikTrip development located on the northeast corner of Scottsdale Road and Legacy Boulevard. The objective of this Transportation Impact & Mitigation Analysis is to analyze the traffic related impacts of the proposed development to the adjacent roadway network. See **Figure 1** for the vicinity map.

### 1.2. EXECUTIVE SUMMARY

The QuikTrip development will be located on the northeast corner of Scottsdale Road and Legacy Boulevard in Scottsdale, Arizona. The proposed QuikTrip will include a 5,312 square foot convenience store and 16 vehicle fueling positions.

This Transportation Impact and Mitigation Analysis includes:

- · Level of service analysis of existing conditions for the weekday AM and PM peak hours
- · Trip Generation for the existing and proposed development
- Level of service analysis for the opening year (2023) weekday AM and PM peak hours
  - o 2023 No Build
  - o 2023 Build

The following are the two (2) existing intersections included in this study:

- Scottsdale Road and Legacy Boulevard (2)
- Legacy Boulevard and 73<sup>rd</sup> Street (4)

### **Existing Capacity Analysis**

The AM and PM peak hour existing conditions capacity analysis were completed for the existing study intersections. The results of the capacity analysis reveal the following location with an existing level of service (LOS) E or F:

# Scottsdale Road and Legacy Boulevard (2) - Signalized

- WB left AM peak hour operates at LOS E
- WB right PM peak hour operates at LOS E





#### **Trip Generation**

The proposed development is anticipated to generate a total of 4,114 weekday trips with 433 occurring during the AM peak hour and 364 trips during the PM peak hour. Based on the data for ITE Land Use 935 provided in the *Trip Generation Handbook*, a percentage of the development's AM and PM total trips, may be attributed to traffic passing the site on the way from an origin to an ultimate destination. Thus, the proposed development is anticipated to add 1,032 new weekday trips, with 96 new trips occurring during the AM peak hour and 102 new trips occurring during the PM peak hour.

Land Use	ITE Code	064	Unit	Weekday	Weekday AM Peak Hour Pi					M Peak Hour		
	TTE Code	Qty	Oint	Total	Total	ln	Out	Total	ln	Out		
Convenience Store/Gas Station	945	16	Fueling Positions	4,114	433	217	216	364	182	182		
Pass-By			3,082	337	169	168	262	131	131			
Total				1,032	96	48	48	102	51	51		

### Future Conditions - Year 2023

The QuikTrip is anticipated to be constructed and ready to open in the year 2023. Therefore, year 2023 analyses were completed with and without the build out of the proposed development. An annual growth rate of 2.0% was applied to the existing traffic volumes.

A capacity analysis was completed for both the AM and PM peak hours for year 2023, with and without the build out of the proposed development. All movements operate at a LOS D or better or are maintained at the year 2023 no build level of service, with the exception of

# Scottsdale Road and Legacy Boulevard (2) - Signalized

WB left PM a peak hour operates at LOS E

The results of the year 2023 no build capacity analysis indicate the westbound left turn at Scottsdale Road and Legacy Boulevard (2) operates at a LOS D with a delay of 54.8 seconds in the PM peak hour. Under the build conditions, the westbound left operates at a LOS E with a delay of 56.2 seconds in the PM peak hour. This represents an increase of 1.4 seconds (2.5%).

Also, it should be noted that the overall intersection operates at a LOS A.

#### Recommendations

The recommendations with the build out of the proposed QuikTrip include:

Scottsdale Road and Driveway A (1)

Buildout of a right-in and right-out access point, 450 feet north of Legacy Boulevard. This will be a shared access driveway. A northbound right turn lane will be constructed at this driveway by others.





### Legacy Boulevard and Driveway B (3)

Buildout of a right-in and right-out access point, 350 feet east of Scottsdale Road. This will be a shared access driveway. A westbound right-turn lane will be constructed at this driveway location.

The location, movements (right-in/right-out), and traffic control (stop-controlled) at Driveway B is consistent and was included in the Traffic Impact and Mitigation Analysis (TI&MA) for the One Scottsdale development, dated May 2016. This 2016 TI&MA was accepted by the City of Scottsdale Transportation Department





### 2. PROPOSED DEVELOPMENT

The study area is located in the City of Scottsdale, Arizona, approximately one-half mile north of State Route Loop 101 (SR 101). The proposed development is located on the northeast corner of Scottsdale Road and Legacy Boulevard.

The proposed QuikTrip will include a 5,312 square foot convenience store and 16 vehicle fueling positions.

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

There are two (2) access points to the proposed site:

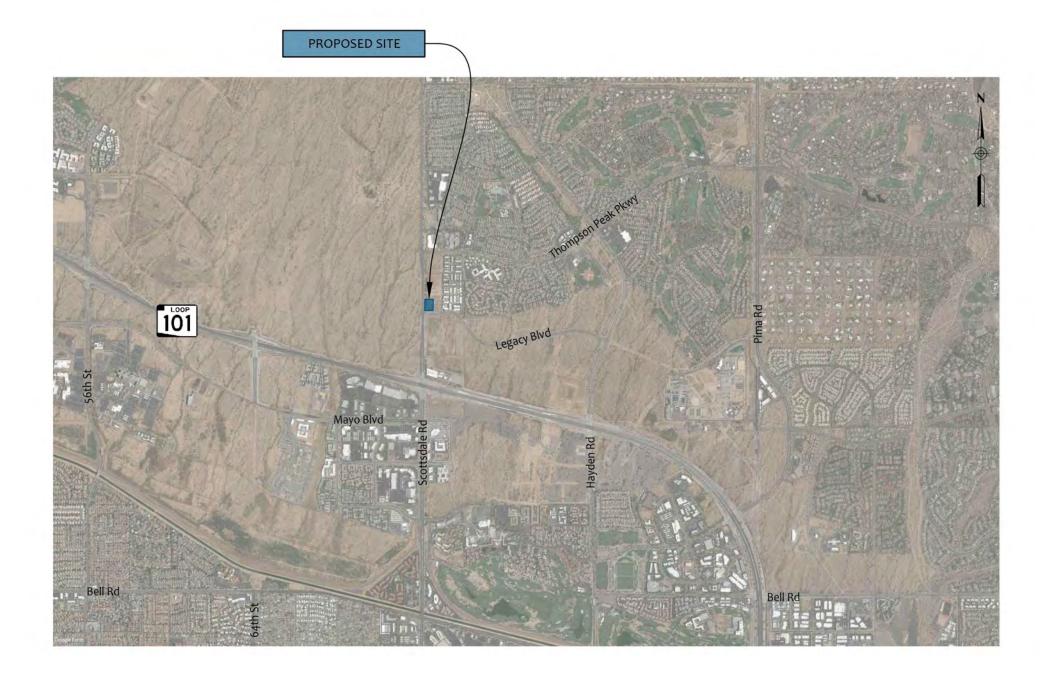
**Scottsdale Road and Driveway A (1)** is located approximately 450 feet north of Legacy Boulevard and will allow for right-in and right-out movements only. This will be a shared-access driveway.

**Legacy Boulevard and Driveway B (3)** is located approximately 350 feet east of Scottsdale Road and will allow for right-in and right-out movements only. This will be a shared-access driveway.

Additionally, there will be an agreement with the property to the east to allow access to 73<sup>rd</sup> Street.

See Figure 3 for study area.





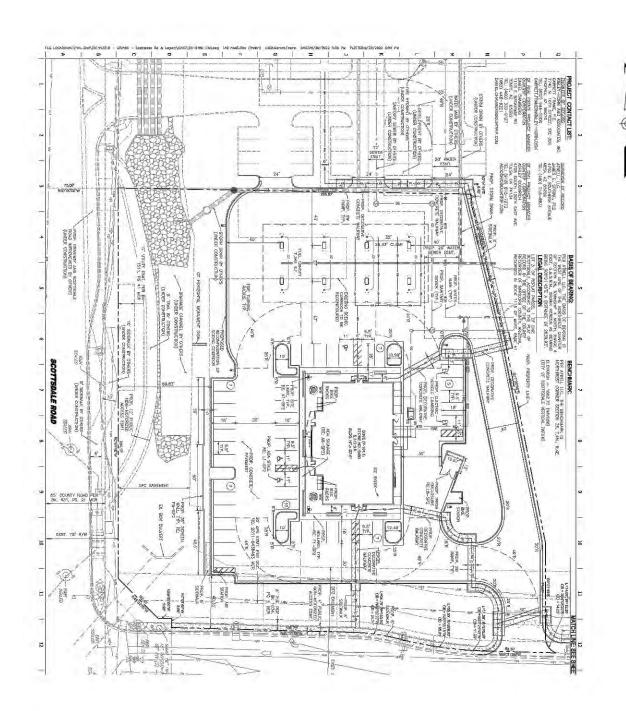


FIGURE 2 | SITE PLAN



Legend



Intersection



# 3. AREA CONDITIONS

The study area is located in the City of Scottsdale, Arizona. **Sections 3.1** and **3.2** provide detailed descriptions of the study roadway segments and intersections.

### 3.1. STUDY ROADWAY SEGMENTS

Scottsdale Road runs north-south that generally provides two (2) travel lanes for each direction of travel with a center two-way left turn lane, just north of Henkel Way. Scottsdale Road generally provides three (3) travel lanes for each direction of travel with a raised landscaped median, south of Henkel Way. There is a posted speed limit of 45 miles per hour (mph). The City of Scottsdale classifies Scottsdale Road as a major arterial, according to City of Scottsdale Transportation Master Plan, dated July 2016. The City of Scottsdale's 2018 Average Daily Segment Traffic (ADT) Volumes map reports an ADT of 49,700 vehicles per day (vpd) along Scottsdale Road, between SR 101 and Thompson Peak Parkway.

**Legacy Boulevard** is generally an east-west roadway, that currently operates between Scottsdale Road and Hayden Road, within the study area. Two (2) travel lanes are provided for each direction of travel with a raised landscaped median. There is a posted speed limit of 30 mph. Legacy Boulevard is classified as a minor arterial, per the City of Scottsdale Transportation Master Plan, dated July 2016.

73<sup>rd</sup> Street, within the vicinity of the study area, is a north-south roadway, located approximately 550 feet east of Scottsdale Road. 73<sup>rd</sup> Street currently operates between Legacy Boulevard to Thompson Peak Parkway. There is an unposted speed limit of 25 mph.

**Thompson Peak Parkway**, within the vicinity of the study area, is generally an east-west roadway, providing two (2) travel lanes for each direction of travel with a raised landscaped median. There is a posted speed limit of 45 mph. Thompson Peak Parkway is classified as a minor arterial, per the City of Scottsdale Transportation Master Plan, dated July 2016.





# 3.2. STUDY INTERSECTIONS

Scottsdale Road and Legacy Boulevard (2) currently operates as a signalized T-intersection. The northbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated left turn lane and two (2) through lanes. The westbound approach provides two (2) dedicated left turn lanes and one (1) dedicated right turn lane.

73<sup>rd</sup> Street and Legacy Boulevard (4) currently operates as a stop-controlled t-intersection, with the stop control on the southbound approach. The southbound approach provides one (1) dedicated left turn and one (1) dedicated right turn lane. The eastbound approach provides one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane. The westbound approach provides one (1) dedicated left turn lane, one (1) through lane, and one (1) shared through-right turn lane. The south leg of the intersection is currently developed to approximately 50' to the south, where it currently terminates and is gated.

# 3.3. SURROUNDING AREA LAND USE

The proposed QuikTrip is located in Scottsdale, Arizona. The proposed development is bordered by Scottsdale Road to the west, with vacant and undeveloped land located on the west side of Scottsdale Road. Multi-family residential developments generally surround the area to the east.

# 3.4. SITE ACCESSIBILITY

### **Roadway System**

The study area is located in the City of Scottsdale, Arizona approximately one-half mile north of State Route 101 (SR 101). This route provides regionals access to the Phoenix metropolitan area. Within the vicinity of the proposed site there is a well-developed roadway network.

#### **Pedestrian Facilities**

Between Henkel Way and Thompson Peak Parkway, Scottsdale Road does not currently provide sidewalk facilities.

Legacy Boulevard generally does not currently provide sidewalk facilities, with the exception of an approximate 1,100-foot segment on the north side of the roadway, east of 73<sup>rd</sup> Street.

73<sup>rd</sup> Street provides sidewalks on the east side of the roadway, between Legacy Boulevard and Thompson Peak Parkway.

Thompson Peak Parkway generally provides continuous sidewalks on both sides of the roadway, within the study area, with the exception of an approximate 500-foot segment between Scottsdale Road and 73<sup>rd</sup> Street.





### **Bicycle Facilities**

Marked on-street bike lanes are provided in each direction of travel along Legacy Boulevard and Thompson Peak Parkway, within the study area.

Scottsdale Road and 73<sup>rd</sup> Street do not provide on-street bicycle lanes, within the study area.

#### **Transit Facilities**

Within the immediate study area, Valley Metro Route 72 operates along Scottsdale Road. There are two (2) bus stops for Route 72 in the area. There is one (1) bus stop provided on the northwest corner of Thompson Peak Parkway and Scottsdale Healthcare Drive. An additional bus stop is located along Scottsdale Healthcare Drive, just east of 73<sup>rd</sup> Street.

# 3.5. COLLISION RATES

The City of Scottsdale's 2020 Traffic Volume and Collision Rate Data report provides collision rate and traffic volume information on major roadway segments and at major intersections within the City. Segment collisions are collisions that occur on a major street more than 100 feet from the major intersections that define the segment, including at minor intersections within the segment. Intersection collisions are collisions that occur at or within 100 feet of a major intersection. The collision rates and city-wide rankings for the study roadway segments are shown in **Table 1**. The collision rate for the study intersections were not provided in the City of Scottsdale's 2020 Traffic Volume and Collision Rate Data.

Table 1 - Collision Rates - Study Roadway Segments

Segment	From	То	Collision Rate	Rank
Scottsdale Road	101 Freeway (SR 101)	Thompson Peak Parkway	1.41	111
2020 City o	1,36			

### 3.6. COLLISION HISTORY

The most recent 3-year collision history, from January 2018 to December 2020, was obtained from the City of Scottsdale. See **Appendix B** for collision data. The data included the following intersections and segments:

- Scottsdale Road and Legacy Boulevard (2)
- Scottsdale Road, Henkel Way to Legacy Boulevard
- Scottsdale Road, Legacy Boulevard to Thompson Peak Parkway
- Legacy Boulevard, Scottsdale Road to approximately ¼ mile to the east





### Scottsdale Road and Legacy Boulevard (2)

During the three-year period, there were a total of 11 collisions at the intersection of Scottsdale Road and Legacy Boulevard (2). There was a total of 8 rear end, 2 sideswipe same direction, and 1 angle collision(s). Of the 11 collisions, 6 were speed too fast for conditions, 2 followed too closely, 2 unsafe lane changes, and 1 failed to yield the right of way.

### Scottsdale Road, Henkel Way to Legacy Boulevard

During the three-year period, there were a total of 6 collisions along the segment of Scottsdale Road, between Henkel Way and Legacy Boulevard. Of the 6 collisions, there were 4 rear end, 1 sideswipe same direction, and 1 angle collision(s). Of which, 3 were speed too fast for conditions, 1 followed too closely, 1 unsafe lane changes, and 1 unknown.

### Scottsdale Road, Legacy Boulevard to Thompson Peak Parkway

During the three-year period, there were a total of 18 collisions along the segment of Scottsdale Road, between Legacy Boulevard and Thompson Peak Parkway. Of the 18 collisions, there were 14 rear end, 2 sideswipe same direction, 1 angle, and 1 single vehicle collision(s). Of which, 9 were speed too fast for conditions, 5 followed too closely, 2 unsafe lane changes, 1 no improper action, and 1 unknown.

### Legacy Boulevard, Scottsdale Road to approximately 1/4 mile east

During the three-year period, there were a total of 3 collisions along the segment of Legacy Boulevard, between Scottsdale Road and approximately one-quarter mile east of Scottsdale Road. Of the 3 collisions, there was 1 sideswipe same direction, 1 angle, and 1 single vehicle collision(s). Of which, there was 1 unsafe lane change, 1 no improper action, and 1 unknown.





# 4. EXISTING CONDITIONS

### 4.1. EXISTING LAND USE

According to the Maricopa County Assessor's website, the proposed site occupies a portion of the existing parcel 215-05-304. See **Appendix C** for detailed parcel information.

### 4.2. EXISTING TRAFFIC COUNTS

A local data collection firm, All Traffic Data, was utilized to collect traffic counts. On Wednesday, December 8, 2021, turning movement counts were obtained from 7:00 to 9:00 am and from 4:00 to 6:00 pm at the following locations:

- Scottsdale Road and Legacy Boulevard (2)
- Legacy Boulevard and 73<sup>rd</sup> Street (4)

Additionally, on Wednesday, December 8, 2021, bi-directional tube counts for 24-hours in 15-minute intervals were collected along the following roadway segments:

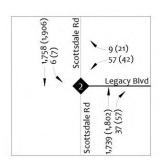
- Scottsdale Road, north of Legacy Boulevard
- · Legacy Boulevard, east of Scottsdale Road

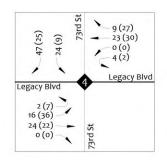
The turning movement counts were then analyzed for the highest 1-hour within each time period. The following peak hours were analyzed throughout this study.

AM Peak Hour 7:45 am – 8:45 am PM Peak Hour 4:00 pm – 5:00 pm

The City of Scottsdale seasonal adjustment factors were used to adjust the traffic counts. The traffic volumes were adjusted based on the month the counts were taken. See **Appendix D** for detailed count data. See **Figure 4** for the existing adjusted AM and PM peak hour weekday traffic volumes.









Legend

AM(PM) Peak Hour Traffic Volumes

Intersection



### 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 6<sup>th</sup> Edition of the Highway Capacity Manual (HCM). Traffic analysis software, Synchro Version 11, was used to perform the analyses using the signal timing provided by the City of Scottdale. The existing peak hour factor (PHF) was used. However, if the existing PHF was greater than 0.92, the PHF was defaulted to 0.92. See **Appendix E** for the existing signal timing.

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

Lovel of Footice (LOS)	Control Delay per Vehicle (s/veh)							
Level of Service (LOS)	Signalized Intersection	Unsignalized Intersection						
Α	≤ 10	0 - 10						
В	> 10-20	> 10-15						
C	> 20-35	> 15-25						
D	> 35-55	> 25-35						
E	> 55-80	> 35-50						
F	> 80	> 50						

Table 2 - Level of Service Criteria

The results of the capacity analysis reveal the following locations with an existing level of service (LOS) E or F:

# Scottsdale Road and Legacy Boulevard (2) - Signalized

- WB left AM a peak hour operates at LOS E
- WB right PM peak hour operates at LOS E

The existing AM and PM peak hour level of service and delay for unsignalized intersections are shown in **Table 3** and signalized intersections are shown in **Table 4**.

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





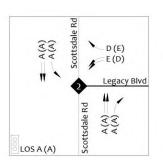
Table 3 - Existing Level of Service and Delay - Unsignalized

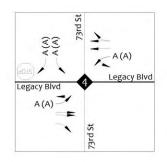
Intersection	Existing Conditions							
intersection	AM	PM PEAK						
Unsignalized Intersections	LOS	DELAY	LOS	DELAY				
egacy Boulevard and 73rd Street (4)								
Eastbound Left	A	7.4	Α	7.5				
Westbound Left	А	7.6	Α	7.6				
Southbound Left	A	9.2	Α	9.7				
Southbound Right	А	8.6	Α	8.6				

Table 4 - Existing Level of Service and Delay - Signalized

Intersection	Existing Conditions							
intersection	AM	PEAK	PM PEA					
Signalized Intersections	LOS	DELAY	LOS	DELAY				
cottsdale Road and Legacy Boulevard (2)	100							
Overall Intersection	Α	7.0	Α	7.2				
Westbound Left	E	55.2	D	54.9				
Westbound Right	D	54.4	E	55.3				
Northbound Through	Α	7.8	Α	8.0				
Northbound Right	A	3.0	Α	3.1				
Southbound Left	А	7.1	Α	7.4				
Southbound Through	A	4.6	Α	5.0				









Legend

AM(PM) Peak Hour Traffic Volumes

♦

Intersection

 $\prec$ 

Lane Configuration



# 5. PROJECTED TRAFFIC

### 5.1. TRIP GENERATION

The trip generation for the proposed development was calculated utilizing the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation*, 11<sup>th</sup> 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 of land use type. This publication is considered to be the standard for the transportation engineering profession.

### Pass-by Trips

Pass-by trips are intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from the existing traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These trips are not considered to add new traffic to the adjacent street network and may be reduced from the total external trips generated by the proposed development. Pass-by rates were applied to the Weekday, AM Peak Hour and PM Peak Hour trips generated by the respective land uses. These rates are based on data provided in the *Trip Generation Handbook*, 3<sup>rd</sup> Edition.

The trip generation for proposed development was calculated utilizing ITE Land Use 945 – Convenience Store/Gas Station. Trip generation calculations are shown in **Table 5** below. Detailed trip generation calculations are provided in **Appendix G**.

Weekday **AM Peak Hour** PM Peak Hour ITE Code Land Use Unit Qty Total Out Total In Total In Out Fueling Convenience Store/Gas Station 945 16 4,114 433 217 216 364 182 182 Positions 169 168 Pass-By 3,082 337 262 131 131 **Total** 48 1,032 96 48 51

Table 5 - Trip Generation - Proposed Development

The proposed development is anticipated to generate 1,032 weekday trips with 96 occurring during the AM peak hour and 102 trips during the PM peak hour.





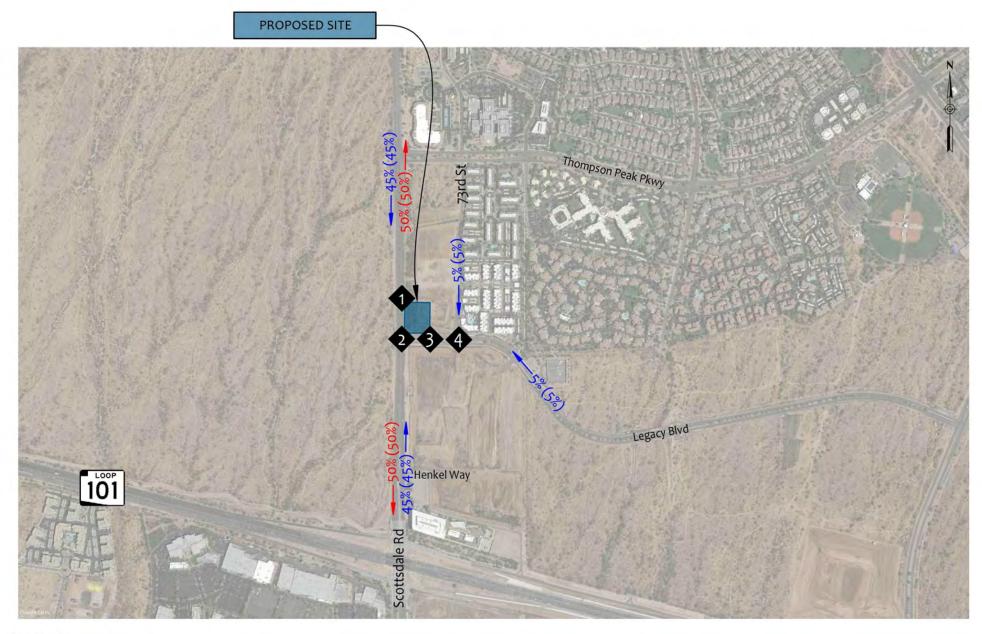
# 5.2. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution procedure determines the general pattern of travel for vehicles entering and leaving the proposed development. The trip distribution for QuikTrip development is based on the distribution of the existing traffic. This project is being developed in a primarily developed area, so it can be assumed that the existing trip distribution will remain. 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. The site generated traffic volumes are shown in **Figure 7**. Additionally, the pass-by traffic volumes are shown in **Figure 8**.

For the purposes of this report all of the site generated traffic was directed to Scottsdale Road and Driveway A (1) and Legacy Boulevard and Driveway B (3). There are discussions for a cross access agreement with the property to the east of the proposed QuikTrip development to allow access to 73<sup>rd</sup> Street.

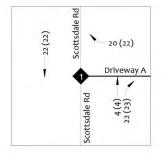


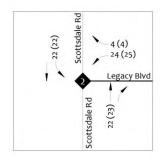


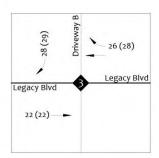
Legend

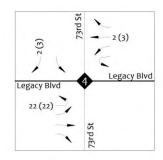
AM(PM) Inbound Trip Distribution Percentages

AM(PM) Outbound Trip Distribution Percentages









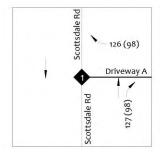


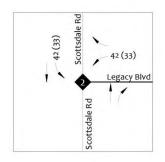
Legend

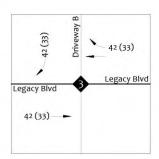
AM(PM) Peak Hour Traffic Volumes

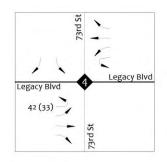


Intersection











Legend

AM(PM) Peak Hour Traffic Volumes



Intersection



# 6. FUTURE CONDITIONS (YEAR 2023)

The proposed QuikTrip is anticipated to be constructed and ready to open in the year 2023. This section analyzes the effects the proposed development will have on the surrounding roadway network during the opening year of 2023.

# 6.1. YEAR 2023 BACKGROUND TRAFFIC VOLUMES

According to the 2019 Maricopa Associations of Governments (MAG) socioeconomic projections in the City of Scottsdale within the study area (RAZ 230), it is estimated that in the year 2018 the population was approximately 32,232. MAG estimates that the 2030 population of the surrounding area to be 38,882. This results in an approximate annual growth rate of 1.38%.

As a conservative approach, a 2.0% annual growth rate was utilized. See **Appendix H** for the MAG socioeconomic projections. See **Figure 9** for the year 2023 background traffic volumes.

### 6.2. YEAR 2023 BUILD TRAFFIC VOLUMES

When the site traffic (Figure 7) and pass-by traffic (Figure 8) are added to the year 2023 background traffic (Figure 9), the result is the 2023 build traffic volumes. This represents the traffic volumes with the build out of the proposed development. The year 2023 build traffic volumes are shown in Figure 10.

# 6.3. YEAR 2023 NO BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the 2023 no build scenario. The PHF was assumed to be 0.92.

The year 2023 no build AM and PM peak hour level of service and delay for unsignalized intersections are shown in **Table 6** and signalized intersections are shown in **Table 7**. The detailed capacity analysis sheets can be found in **Appendix 1**.

The results of the year 2023 no build capacity analysis are shown in **Figure 11**. The results of the capacity analysis reveal the following locations with a level of service (LOS) E or F:

# Scottsdale Road and Legacy Boulevard (2) - Signalized

- WB left AM a peak hour operates at LOS E
- WB right PM peak hour operates at LOS E





# 6.4. YEAR 2023 BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the year 2023 build traffic volumes. See **Figure 10**. The PHF was assumed to be 0.92.

The year 2023 <u>build</u> AM and PM peak hour level of service and delay for unsignalized intersections are shown in **Table 6** and signalized intersections are shown in **Table 7.** The detailed capacity analysis sheets can be found in **Appendix J.** 

The results of the year 2023 <u>build</u> capacity analysis are shown in **Figure 12**. All movements operate at a LOS D or better or are maintained at the year 2023 no build level of service, with the exception of:

# Scottsdale Road and Legacy Boulevard (2) - Signalized

WB left PM a peak hour operates at LOS E

The results of the year 2023 no build capacity analysis indicate the westbound left turn at Scottsdale Road and Legacy Boulevard (2) operates at a LOS D with a delay of 54.8 seconds in the PM peak hour. Under the build conditions, the westbound left operates at a LOS E with a delay of 56.2 seconds in the PM peak hour. This represents an increase of 1.4 seconds (2.5%).

Also, it should be noted that the overall intersection operates at a LOS A.





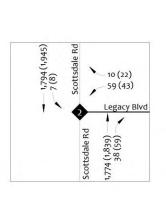
Table 6 – Year 2023 Level of Service and Delay – Unsignalized

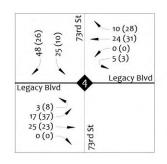
Intersection	20	23 No Buil	d Conditi	ons		ns		
Intersection	AM PEAK		PM PEAK		AM PEAK		PM	PEAK
Unsignalized Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Scottsdale Road and Driveway A (1)					100			
Westbound Right	- 4		14		C	20.5	C	20.4
Legacy Boulevard and Driveway B (3)								
Southbound Right	-	-		-	Α	9.0	Α	8.9
Legacy Boulevard and 73rd Street (4)								
Eastbound Left	А	7.4	Α	7.5	Α	7.9	Α	7.9
Westbound Left	А	7.6	Α	7.6	Α	7.6	Α	7.6
Southbound Left	А	9.3	Α	9.7	В	10.6	В	10.9
Southbound Right	Α	8.6	Α	8.6	Α	8.6	Α	8.6

Table 7 - Year 2023 Level of Service and Delay - Signalized

Intersection	20	23 No Buil	2023 Build Conditions					
intersection	AM	AM PEAK		PM PEAK		AM PEAK		PEAK
Signalized Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
cottsdale Road and Legacy Boulevard (2)								
Overall Intersection	Α	7.1	Α	7.5	Α	9.4	Α	9.7
Westbound Left	E	55.2	D	54.8	E	56.9	E	56.2
Westbound Right	D	54.4	E	55-3	D	54.1	D	54.9
Northbound Through	A	7.9	Α	8.4	В	10.4	В	11.0
Northbound Right	А	3.1	Α	3.1	Α	4.0	Α	4.1
Southbound Left	А	7.1	Α	8.0	В	12.7	В	14.1
Southbound Through	A	4.6	Α	5.3	Α	4.6	Α	5.4





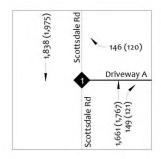


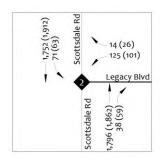


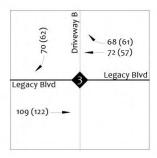
Legend

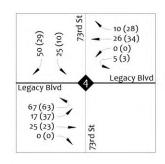
AM(PM) Peak Hour Traffic Volumes

Intersection









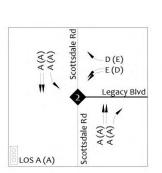


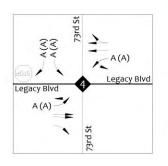
Legend

AM(PM) Peak Hour Traffic Volumes



Intersection







Legend

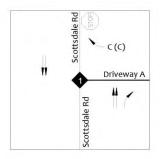
AM(PM) Peak Hour Traffic Volumes

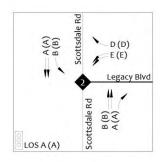
**♦** 

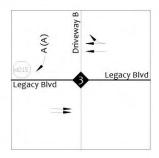
Intersection

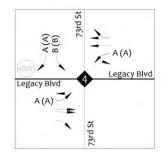
4

Lane Configuration











Legend

AM(PM) Peak Hour Traffic Volumes



Intersection



Lane Configuration



# 7. TURN LANE ANALYSIS

### 7.1. RIGHT TURN LANES

Turn lanes or deceleration lanes, allow vehicles exiting a roadway to slow to a reduced speed to execute a turn without impeding the main flow of traffic.

The City of Scottsdale 2018 Design Standards & Policies Manual Section 5.3.206 deceleration lane criteria is analyzed below for the study intersections where traffic volumes were available.

### **Right Turn Lane**

Deceleration lanes are required at all new driveways on major arterials and at new commercial/retail driveways on minor arterials. To determine the need for a deceleration lane on streets classified as a minor arterial or collector, use the following criteria:

- At least 5,000 vehicle per day are expected to be using the street.
  - The roadway's 85<sup>th</sup> percentile speed limit is at least 35 mph.
  - At least 30 vehicles will make right-turns into the driveway during a 1-hour period.

Using the above criteria, a right turn lane would be required at the following study intersection:

Scottsdale Road and Driveway A (1) – northbound right turn lane.
 The proposed northbound right turn lane will be constructed by others.

Although the study intersection of Legacy Boulevard and Driveway B (3) does not meet the above criteria, because the posted speed limit along Legacy Boulevard is only 30 mph, at the request of the City of Scottsdale, a westbound right turn lane will be provided. Due to existing geometric constraints, the proposed right turn lane will provide 75 feet of storage with a 56-foot taper.





# 7.2. QUEUE ANALYSIS

The 95<sup>th</sup> percentile queue reported by Synchro was used to calculate the required storage length for each turn lane. See **Table 8** for the turn bay storage for each required turn lane for year 2023 with the built out of the proposed QuikTrip.

Table 8 - Queue Analysis

			Established Barrers	95th Percentile		Storage Length	
Intersection	Movement	Existing Storage	Existing/Proposed Storage Length	AM Peak PM Peak Hour Hour			
Scottsdale Road and Driveway A (1)	WB Right		100'	48'	40'	Sufficient	
Scottsdale Road and Driveway A (1)	NB Right	ië :	100'	*	*	Sufficient	
	WB Left	Dual Turn Lanes	450'	84'	72'	Sufficient	
Scottsdale Road and Legacy Boulevard (2)	WB Right	Turn Lane	130'	21'	29'	Sufficient	
	NB Right	Turn Lane	380'	17'	15'	Sufficient	
	SB Left	Turn Lane	280'	42'	36'	Sufficient	
Legacy Boulevard and Driveway B (3)	WB Right	4	75'	*	*	Sufficient	
Legacy Boulevard and Driveway B (3)	SB Right	, and the	50'	8'	5'	Sufficient	
	EB Left	Turn Lane	110'	5'	7.5'	Sufficient	
Ladas Daulaurad and paul Chroat (4)	WB Left	Turn Lane	200'	o'	0'	Sufficient	
Legacy Boulevard and 73rd Street (4)	SB Left	Turn Lane	150'	2.5'	2.5'	Sufficient	
	SB Left	Turn Lane	150'	5'	2.5'	Sufficient	

<sup>\*</sup>Free-flowing right turning movements area not anticipated to queue.





# 8. ACCESS AND CIRCULATION ANALYSIS

Location and access ingress and egress at gas stations are critical.

The proposed QuikTrip located on the northeast corner of Scottsdale Road and Legacy Boulevard (2) proposed right-in and right-out accesses on both roadway frontages, one along Scottsdale Road (Driveway A), and one along Legacy Boulevard (Driveway B). Both of these accesses will be limited to right-in/right-out movements due to its proximity to the intersection of Scottdale Road and Legacy Boulevard (2) along with the presence of raised medians.

A right-turn deceleration lane meets the City of Scottsdale criteria and is recommended for installation along Scottsdale Road at Driveway A. Although, Driveway B's posted speed limit and daily through volumes do not meet the right turn lane criteria, at the request of the City of Scottsdale a westbound right turn lane will be recommended for installation.

The following specifically addresses the operation and location of the Legacy Boulevard and Driveway B (3):

- It is located approximately 350 feet east of Scottsdale Road and will be limited to right-in and right-out movements only. A raised median is constructed on Legacy Boulevard which further enforces the restricted and allowed movements into and out of this access.
- The City of Scottsdale encourages shared driveways, to limit the number of accesses and conflicts. Driveway B will be a shared access with future developments to the east and north.
- The location, movements (right-in/right-out), and traffic control (stop-controlled) at Driveway B is consistent with and was included in the Traffic Impact and Mitigation Analysis (TI&MA) for the One Scottsdale development, dated May 2016. This 2016 TI&MA was accepted by the City of Scottsdale Transportation Department.
- Driveway B will be located just east of the exclusive left turn storage lanes for the signalized intersection of Scottsdale Road and Legacy Boulevard (2).
- An analysis was conducted to determine the 95<sup>th</sup> percentile queues for the exclusive right and left turn lanes for the signalized intersection of Scottsdale Road and Legacy Boulevard (2).
  - The 95<sup>th</sup> percentile queue for the westbound dual left turn lanes is 89 feet and 77 feet for the AM and PM peak hours, respectively.





- The 95<sup>th</sup> percentile queue for the westbound right turn lane is 22 feet and 31 feet for the AM and PM peak hours, respectively.
- Located approximately 350 feet east of the intersection of Scottsdale Road and Legacy Boulevard (2), Driveway B will not be blocked by queuing from the signalized intersection.
- Driveway B operates at acceptable levels of service during the AM and PM peak hours in year 2023 with the build out of the QuikTrip.
- For the purposes of circulating passenger vehicles and refueling vehicles (semi-trucks) around the proposed site, the driveway along Legacy Boulevard allows for egress and access to southbound Scottsdale Road and access to SR 101L.
- The design of this site is similar to other locations throughout the City of Scottsdale and other cities in the Phoenix Metro area. The following are a few examples:
  - Scottsdale Road and Bell Road/Frank Lloyd Wright a right-in/right-out driveway is located approximately 350 feet west of the intersection of Scottsdale Road and Bell Road/Frank Lloyd Wright Boulevard.
  - Scottsdale and Butherus Drive a right-in/right-out driveway is located approximately 300 feet east of the intersection of Scottsdale Road and Butherus Drive.
  - Frank Lloyd Wright and SR 101L a right-in/right-out driveway is located approximately 300 feet west of the intersection of Frank Lloyd Wright Boulevard and SR 101L.





# 9. RECOMMENDATIONS & CONCLUSIONS

The proposed QuikTrip will be located on the northeast corner of Scottsdale Road and Legacy Boulevard in the City of Scottsdale, Arizona, and will include a 5,312 square foot convenience store and 16 vehicle fueling positions.

The proposed development is anticipated to generate 1,032 weekday trips with 96 occurring during the AM peak hour and 102 trips during the PM peak hour.

#### Recommendations

The recommendations with the build out of the QuikTrip include:

- Scottsdale Road and Driveway A (1)
  - Buildout of a right-in and right-out access point, 450 feet north of Legacy Boulevard. This will be a shared access driveway. A northbound right turn lane will be constructed at this driveway by others.
- Legacy Boulevard and Driveway B (3)

Buildout of a right-in and right-out access point, 350 feet east of Scottsdale Road. This will be a shared access driveway. A westbound right-turn lane will be constructed at this driveway location.

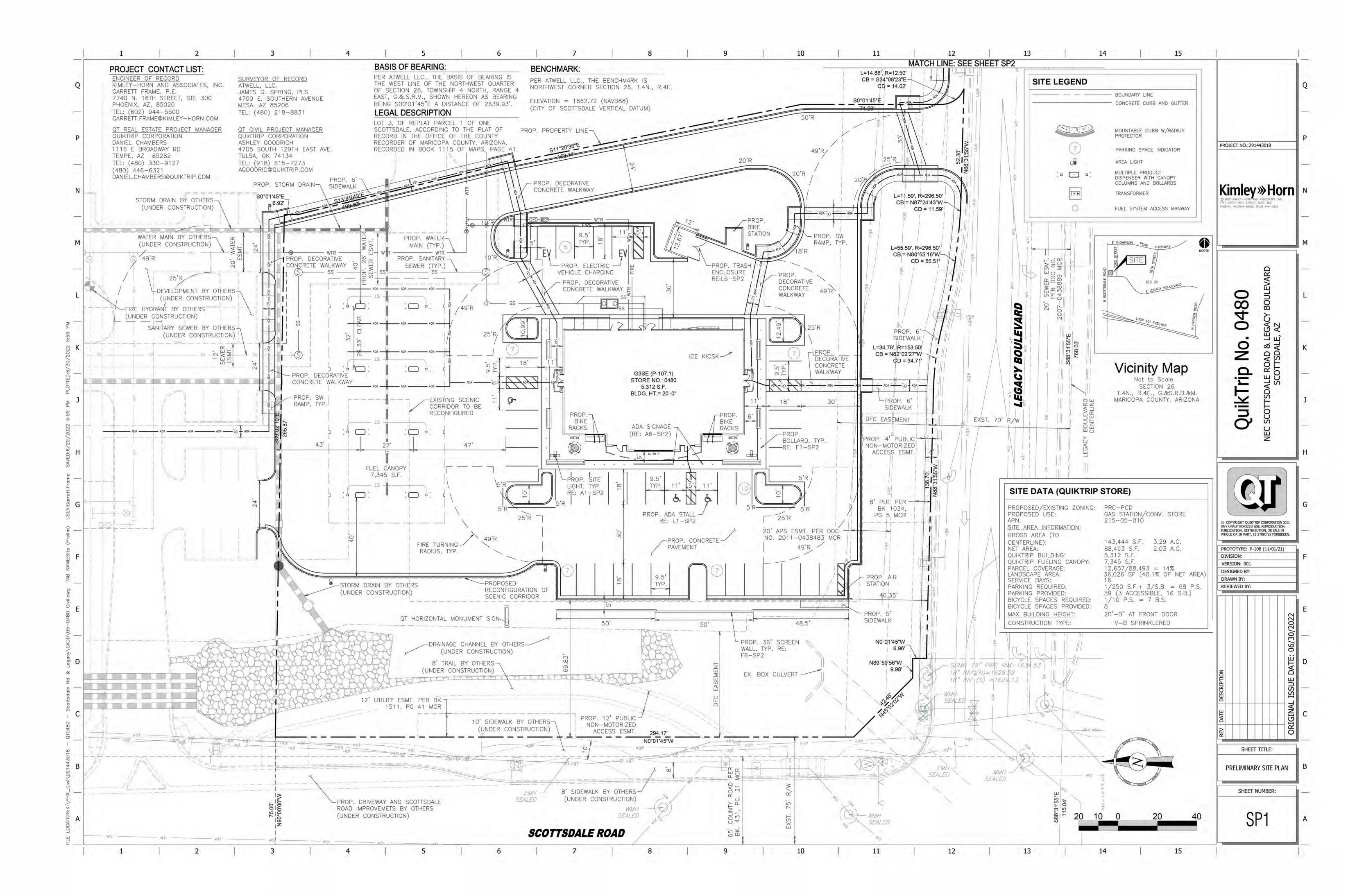
The location, movements (right-in/right-out), and traffic control (stop-controlled) at Driveway B is consistent and was included in the Traffic Impact and Mitigation Analysis (TI&MA) for the One Scottsdale development, dated May 2016. This 2016 TI&MA was accepted by the City of Scottsdale Transportation Department

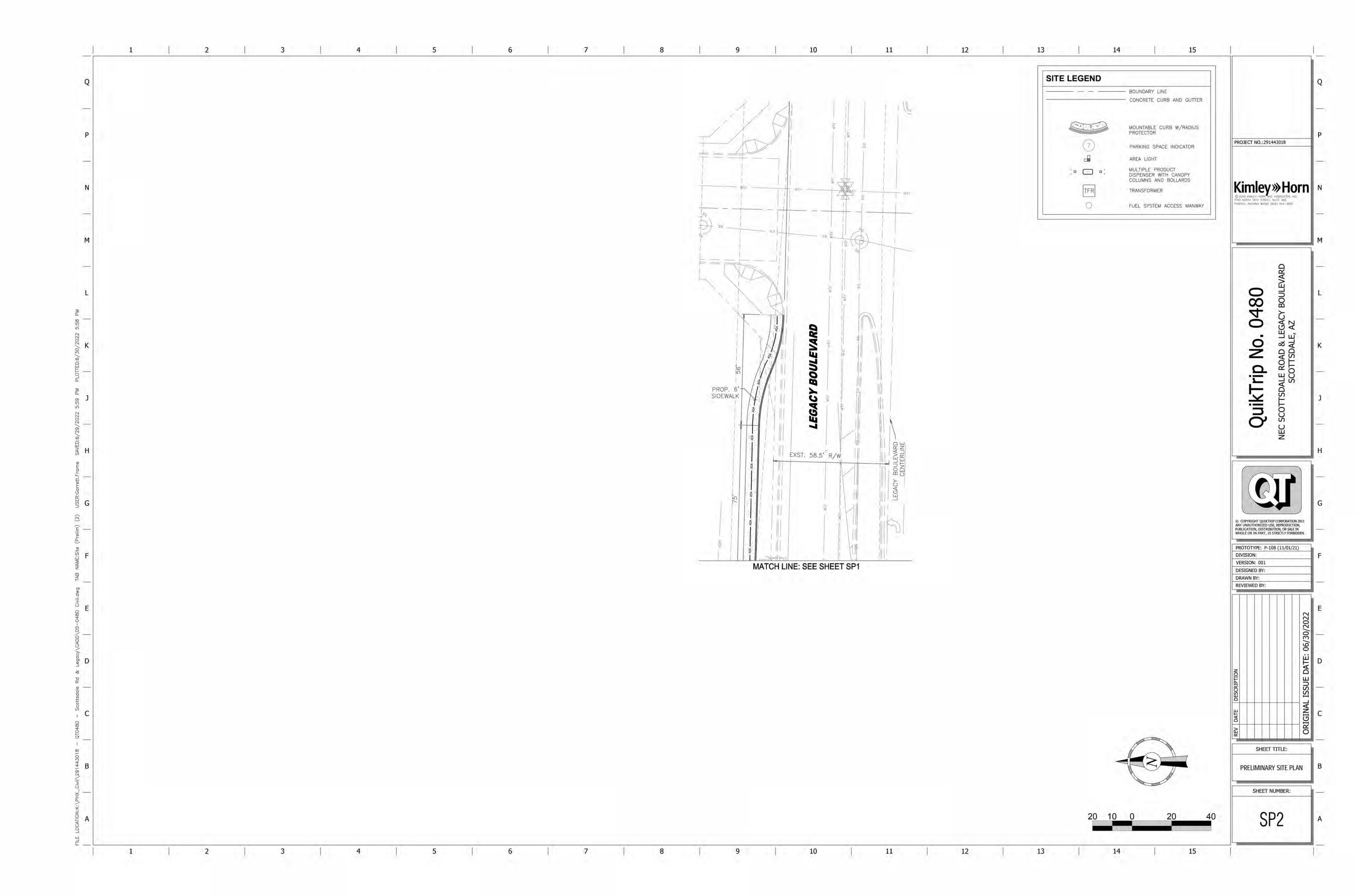




# Appendix A – Proposed Site Plan









## **Appendix B – Collision History**



### **CITY OF SCOTTSDALE**

## '17 -'18 COLLISION SUMMARY

REPORT#	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE		DIST FROM				YS, COND. #2		LATION #2			TRA'		MANNER OF COLLISION	COMMENTS
806540	180323	0857	SCOTTSDALE	RD	HENKEL	WY	AT		1	1	0	0	1	i	i	4	NB	SB	2	
307400	180402	2052	SCOTTSDALE	RD	HENKEL	WY	N	50	1	1	0	0	12	1	1	1	NB	NB	2	
805042	180305	1558	SCOTTSDALE	RD	HENKEL	WY	S	217	1	1	0	0	2	1	1	3	NB	NB	4	
305533	180311	1231	SCOTTSDALE	RD	LEGACY	BL	AT		1	1	0	0	2	1	1	3	SB	SB	4	
300677	180110	1040	SCOTTSDALE	RD	LEGACY	BL	AT		1	1	0	0	2	12	2	2	SB	SB	4	
314033	180625	1214	SCOTTSDALE	RD	LEGACY	BL	N	100	1	1	0	0	4	1	2	3	SB	SB	4	
311631	180525	1534	SCOTTSDALE	RD	LEGACY	BL	N	120	1	1	0	0	2	1	1	2	NB	NB	4	
320211	180913	0607	SCOTTSDALE	RD	LEGACY	BL	N	200	1	1	0	0	12	1	8	1	NB	NB	6	
320678	180920	1057	SCOTTSDALE	RD	LEGACY	BL	N	236	3	2	0	0	2	1	1	3	SB	SB	4	
801688	180123	1106	SCOTTSDALE	RD	LEGACY	BL	N	300	1	1	0	0	2	1	1	2	SB	SB	4	
313656	180620	1422	SCOTTSDALE	RD	LEGACY	BL	S	363	1	2	0	0	2	1	1	3	SB	SB	4	MULTI VEH 5
12138	180531	1816	SCOTTSDALE	RD	LEGACY	BL	E	500	1	99	0	99	1	12	1	8	NB	NB	6	HIT AND RUN
119086	180829	1734	SCOTTSDALE	RD	LEGACY	BL	N	800	1	ì	0	Ō	4	1	ì	2	SB	SB	4	MULTI VEH 3
03892	180218	1603	SCOTTSDALE	RD	LEGACY	BL	E	1350	3		99		13		9		EB		1	HITA ND RUN
11629	180525	1511	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT		2		97		7		4		SB		1	
308491	180416	0904	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT		3	3	0	0	20	1	4	1	EB	WB	3	
10005	180505	1536	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT		1	1	0	0	2	1	1	3	NB	NB	4	
13306	180615	1911	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT		1	1	0	0	99	99	4	4	WB	WB	6	
320019	180910	1311	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT		1	1	99	0	99	99	4	1	SB	NB	2	
06513	180322	2204	SCOTTSDALE	RD	THOMPSON PEAK	PY	N	80	1	1	4	0	97	1	10	3	SB	SB	4	DUI
14276	180628	1225	SCOTTSDALE	RD	THOMPSON PEAK	PY	S	100	1	2	2	0	4	1	2	3	NB	NB	4	
04007	180220	1300	SCOTTSDALE	RD	THOMPSON PEAK	PY	N	138	1	1	0	0	97	1	1	1	NB	NB	4	
10202	180508	0805	SCOTTSDALE	RD	THOMPSON PEAK	PY	S	200	1	1	0	0	2	1	2	3	NB	NB	4	

Thursday, December 16, 2021 TRAFFIC ENGINEERING Page 1 of 2

REPORT #	DATE YYMMDD	TIME	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST	INJ #1	. SEV. #2	PH #1	YS. COND. #2	VIO #1	#2	ACT #1	TON #2	TRAV. DIR #1 #2	MANNER OF COLLISION	COMMENTS
1825625	181127	1751	SCOTTSDALE	RD	THOMPSON PEAK	PY	S	800	1	1	0	D	2	1	1	3	NB NB	4	MULTI VEH 3

#### KEY

#### INJURY SEVERITY:

1=NO INJURY, 2=POSSIBLE INJURY, 3=NON-INCAPACITATING INJURY, 4=INCAPACITATING INJURY, 5=FATAL INJURY, 99=NOT REPORTED / UNKNOWN

#### PHYSICAL CONDITION:

0=NO APPARENT INFLUENCE, 1=ILLNESS, 2=PHYSICAL IMPAIRMENT, 3=FELL ASLEEP / FATIGUED 4=ALCOHOL, 5=DRUGS, 6=MEDICATIONS, A=NO TEST GIVEN, B=TEST GIVEN, C=TEST REFUSED, D=TESTING UNKNOWN, 97=OTHER, 99=UNKNOWN

#### VIOLATION:

1=NO IMPROPER ACTION, 2=SPEED TOO FAST FOR CONDITIONS, 3=EXCEEDED LAWFUL SPEED 4=FOLLOWED TOO CLOSELY. 5=RAN STOP SIGN, 6=DISREGAREDED TRAFFIC SIGNAL7=MADE IMPROPER TURN, 8=DROVE/RODE IN OPPOSING TRAFFIC LANE, 9=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 10=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 11=PASSED IN NO PASSING ZONE, 12=UNSAFE LANE CHANGE, 13=FAILED TO KEEP IN PROPER LANE, 14=DISREGARDED PAVEMENT MARKINGS, 15=OTHER UNSAFE PASSING, 16=INATTENTION/DISTRACTION, 17=DID NOT USE CROSSWALK, 18=WALKED ON WRONG SIDE OF ROAD, 19=ELECTRONIC COMMUNICATIONS DEVICE, 20=FAILED TO YIELD RIGHT OF WAY (added August 2014), 97=OTHER, 99 UNKNOWN

#### ACTION:

1=GOING STRAIGHT AHEAD, 2=SLOWING IN TRAFFICWAY, 3=STOPPED IN TRAFFICWAY, 4=MAKING LEFT TURN, 5=MAKING RIGHT TURN, 6=MAKING U-TURN, 7=OVERTAKING/PASSING, 8=CHANGING LANES, 9=NEGOTIATING A CURVE, 10=BACKING, 11=AVOIDING VEH/OBJ/PED/CYCLIST/ANIMAL, 12=ENTERING PARKING POSITION, 13=LEAVING PARKING POSITION, 14=PROPERLY PARKED, 15=IMPROPERLY PARKED, 16=DRIVERLESS MOVING VEHICLE, 17=CROSING ROAD, 18=WALKING WITH TRAFFIC, 19=WALKING AGAINST TRAFFIC, 20=STANDING, 21=LYING, 22=GETTING ON OR OFF VEHICLE, 23=WORKING ON/PUSHING VEHICLE, 24=WORKING ON ROAD, 97=OTHER, 99=UKNOWN

#### MANNER OF COLLISION:

1=SINGLE VEHICLE, 2=ANGLE (front to side, other than left turn), 3=LEFT TURN, 4=REAR END (front to rear), 5=HEAD-ON (front to front, other than left turn), 6=SIDESWIPE (same direction), 7=SIDESWIPE (opposite direction), 8=REAR-TO-SIDE, 9=REAR TO REAR, 97=OTHER, 99=UNKNOWN

TOTAL 24

Thursday, December 16, 2021 TRAFFIC ENGINEERING Page 2 of 2

## **CITY OF SCOTTSDALE**

## '19 -'20 COLLISION SUMMARY

EPORT#	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV #1 #2		YS. CON #2		OLA #		AC #1		TR/ #1		MANNER OF COLLISION	COMMENTS
09104	200526	1420	SCOTTSDALE	RD	HENKEL	WY	AT			(	0 0	4	T. P	1	1	3	SB	SB	4	
01966	200127	1055	SCOTTSDALE	RD	HENKEL	WY	AT			(	)	1	3 (	0	1		SB		1	
22545	191028	1604	SCOTTSDALE	RD	HENKEL	WY	N	100		(	0 0	0	0 1	1	į	3	SB	SB	4	
06065	190319	1054	SCOTTSDALE	RD	HENKEL	WY	S	200		(	0 0	4	. 1	r.	1	3	SB	SB	4	
18460	201028	1841	SCOTTSDALE	RD	HENKEL	WY	N	450		3	99 0	2	1	1	1	1	SB	SB	6	
11650	200709	1049	SCOTTSDALE	RD	LEGACY	BL	AT			(	0 0	1	2 1	I.	8	1	NB	NB	6	
09566	190503	1610	SCOTTSDALE	RD	LEGACY	BL	AT				0 0	2	1	1	1	3	NB	NB	4	
09526	190503	0807	SCOTTSDALE	RD	LEGACY	BL	AT			(	0 0	2	1	1	1	1	SB	SB	4	
13924	190630	1747	SCOTTSDALE	RD	LEGACY	BL	AT			9	99 0	1	2 1	1	1	1	NB	NB	6	
03164	190209	1326	SCOTTSDALE	RD	LEGACY	BL	AT			(	0 0	2		1	1	2	NB	NB	4	
)4694	200303	1112	SCOTTSDALE	RD	LEGACY	BL	AT			(	0 0	4		i	1	2	NB	NB	4	
00437	190107	1607	SCOTTSDALE	RD	LEGACY	BL	AT		1 1	(	0 0	4	9 1	1	1	2	SB	SB	4	MULTI VEH 3
17878	201020	1115	SCOTTSDALE	RD	LEGACY	BL	AT			-: (	0 0	2	0 1	1	5	1	WB	NB	2	
06383	190323	1633	SCOTTSDALE	RD	LEGACY	BL	AT			(	0 0	2	1	1	1	3	SB	SB	4	
13298	190622	0857	SCOTTSDALE	RD	LEGACY	BL	N	162			0 0	2	1	i	1	3	SB	SB	4	
00785	200111	1823	SCOTTSDALE	RD	LEGACY	BL	N	200		3	9 0	9	9 1	1	8	1	NB	NB	2	
16036	190731	1512	SCOTTSDALE	RD	LEGACY	BL	N	200		(	)	1	(	)	1		NB		1	
00231	190104	1645	SCOTTSDALE	RD	LEGACY	BL	N	300	1 1		0 0	4	1	1	1	3	NB	NB	4	
25424	191207	1730	SCOTTSDALE	RD	LEGACY	BL	N	300		(	0 0	4	1	1	1	3	SB	SB	4	
13586	190626	1007	SCOTTSDALE	RD	LEGACY	BL	S	300		(	0 0	4	. 1	1	1	3	NB	NB	4	
13558	190625	1805	SCOTTSDALE	RD	LEGACY	BL	E	500		(	99	1	9	99	14	99	99	99	2	
06915	190330	1533	SCOTTSDALE	RD	LEGACY	BL	N	500		. (	0 0	2	1	1	1	1	SB	SB	4	
19971	201121	1415	SCOTTSDALE	RD	LEGACY	BL	S	685		(	0	2		1	1	3	NB	NB	4	
6381	190325	1643	SCOTTSDALE	RD	LEGACY	BL	N	800		(	0 0	2	1	1	1	3	SB	SB	4	

Thursday, December 16, 2021 TRAFFIC ENGINEERING Page 1 of 3

REPORT#	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM		INJ. SEV. #1 #2			VIOL #1			FION #2	TRAV. DI #1 #2	R. MANNER OF COLLISION	COMMENTS
1911162	190524	1959	SCOTTSDALE	RD	LEGACY	BL	E	2198		4		3	0	1		WB	1	
2015822	200918	2148	SCOTTSDALE	RD	LEGACY	BL	E	15000		1		3	0	9		WB	1	
1914034	190702	1337	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0	0	99	99	1	4	WB SB	2	
1916970	190813	1527	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0	0	4	1	4	4	WB WB	4	
1902521	190202	0307	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			99		2	0	5		NB	Ī	
2005554	200314	2118	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0		1	0	1		NB	1	
1901707	190123	1846	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0	0	2	1	1	1	NB NB	4	
1905047	190306	1120	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0	0	12	1	8	1	SB SB	6	
2007237	200422	0638	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0	0	2	1	1	6	NB NB	4	
1906535	190325	1842	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0	0	99	99	4	1	SB NB	2	
1919909	190922	1941	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0	0	1	1	1	1	NB NB	6	
1925737	191212	0650	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			Ó	0	2	1	1	3	NB NB	4	
1926206	191218	1028	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			99	0	97	97	10	14	SB NB	4	
1924149	191119	0757	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			Ó	0	2	1	1	1	NB NB	4	
2008976	200524	1812	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			99	0	4	1	1	1	WB WB	4	
2008305	200513	0941	SCOTTSDALE	RD	THOMPSON PEAK	PY	AT			0	0	2	1	1	3	WB WB	4	
2009370	200530	1457	SCOTTSDALE	RD	THOMPSON PEAK	PY	N	30		0	0	97	1	1	Ī	SB SB	4	
2015212	200908	1520	SCOTTSDALE	RD	THOMPSON PEAK	PY	N	50		0	0	4	1	2	3	SB SB	4	
1917777	190824	1603	SCOTTSDALE	RD	THOMPSON PEAK	PY	N	200		0	0	13	1	1	1	SB SB	2	
1901243	190117	1823	SCOTTSDALE	RD	THOMPSON PEAK	PY	S	200		0	0	12	1	8	1	NB NB	6	
1912622	190613	1455	SCOTTSDALE	RD	THOMPSON PEAK	PY	S	590		0	0	2	1	1	3	NB NB	4	
2007005	200416	1714	SCOTTSDALE	RD	THOMPSON PEAK	PY	N	600		0	0	13	1.	8	1	NB NB	6	

Thursday, December 16, 2021 TRAFFIC ENGINEERING Page 2 of 3

REPORT # DATE TIME NORTH/SOUTH ST. TYPE EAST WEST ST. TYPE DIR DIST INJ. SEV. PHYS. COND. VIOLATION ACTION TRAV. DIR. MANNER OF COMMENTS YYMMDD HHMM FROM #1 #2 #1 #2 #1 #2 #1 #2 COLLISION

#### KEY

#### INJURY SEVERITY:

1=NO INJURY, 2=POSSIBLE INJURY, 3=NON-INCAPACITATING INJURY, 4=INCAPACITATING INJURY, 5=FATAL INJURY, 99=NOT REPORTED / UNKNOWN

#### PHYSICAL CONDITION:

0=NO APPARENT INFLUENCE, 1=ILLNESS, 2=PHYSICAL IMPAIRMENT, 3=FELL ASLEEP / FATIGUED 4=ALCOHOL, 5=DRUGS, 6=MEDICATIONS, A=NO TEST GIVEN, B=TEST GIVEN, C=TEST REFUSED, D=TESTING UNKNOWN, 97=OTHER, 99=UNKNOWN

#### VIOLATION

1=NO IMPROPER ACTION, 2=SPEED TOO FAST FOR CONDITIONS, 3=EXCEEDED LAWFUL SPEED 4=FOLLOWED TOO CLOSELY. 5=RAN STOP SIGN, 6=DISREGAREDED TRAFFIC SIGNAL7=MADE IMPROPER TURN, 8=DROVE/RODE IN OPPOSING TRAFFIC LANE, 9=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 10=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 11=PASSED IN NO PASSING ZONE, 12=UNSAFE LANE CHANGE, 13=FAILED TO KEEP IN PROPER LANE, 14=DISREGARDED PAVEMENT MARKINGS, 15=OTHER UNSAFE PASSING, 16=INATTENTION/DISTRACTION, 17=DID NOT USE CROSSWALK, 18=WALKED ON WRONG SIDE OF ROAD, 19=ELECTRONIC COMMUNICATIONS DEVICE, 20=FAILED TO YIELD RIGHT OF WAY (added August 2014), 97=OTHER, 99 UNKNOWN

#### ACTION:

1=GOING STRAIGHT AHEAD, 2=SLOWING IN TRAFFICWAY, 3=STOPPED IN TRAFFICWAY, 4=MAKING LEFT TURN, 5=MAKING RIGHT TURN, 6=MAKING U-TURN, 7=OVERTAKING/PASSING, 8=CHANGING LANES, 9=NEGOTIATING A CURVE, 10=BACKING, 11=AVOIDING VEH/OBJ/PED/CYCLIST/ANIMAL, 12=ENTERING PARKING POSITION, 13=LEAVING PARKING POSITION, 14=PROPERLY PARKED, 15=IMPROPERLY PARKED, 16=DRIVERLESS MOVING VEHICLE, 17=CROSING ROAD, 18=WALKING WITH TRAFFIC, 19=WALKING AGAINST TRAFFIC, 20=STANDING, 21=LYING, 22=GETTING ON OR OFF VEHICLE, 23=WORKING ON/PUSHING VEHICLE, 24=WORKING ON ROAD, 97=OTHER, 99=UKNOWN

#### MANNER OF COLLISION:

1=SINGLE VEHICLE, 2=ANGLE (front to side, other than left turn), 3=LEFT TURN, 4=REAR END (front to rear), 5=HEAD-ON (front to front, other than left turn), 6=SIDESWIPE (same direction), 7=SIDESWIPE (opposite direction), 8=REAR-TO-SIDE, 9=REAR TO REAR, 97=OTHER, 99=UNKNOWN

TOTAL

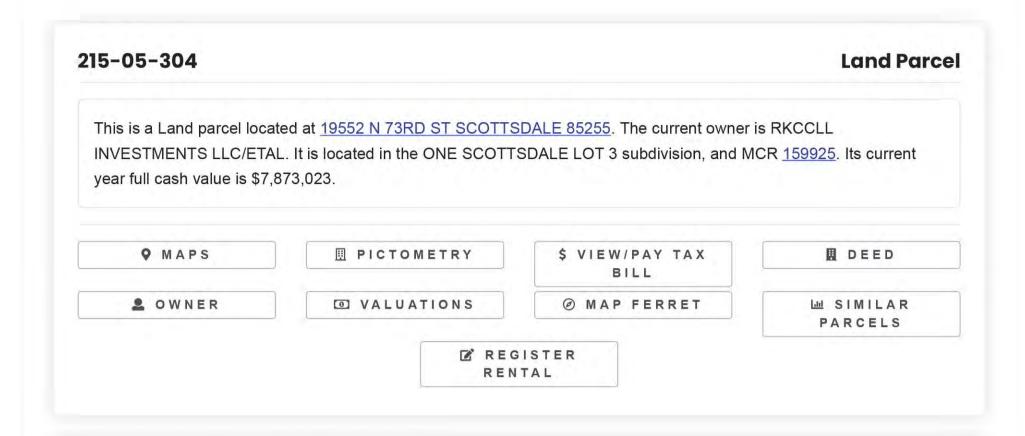
46

Thursday, December 16, 2021 TRAFFIC ENGINEERING Page 3 of 3



## **Appendix C – Parcel Information**





#### PROPERTY INFORMATION



#### 19552 N 73RD ST SCOTTSDALE 85255

MCR # 159925

**Description** ONE SCOTTSDALE LOT 3 MCR 1599-25

Lat/Long 33.665445 | -111.924089

**Lot Size** 256,720 sq ft.

Zoning N/A
Lot # 3

High School District PARADISE VALLEY UNIFIED #69

Elementary School PARADISE VALLEY UNIFIED SCHOOL DISTRICT

District

Local Jurisdiction SCOTTSDALE
S/T/R ② 26 4N 4E

Market /

Area/Neighborhood

Subdivision (8 Parcels) ONE SCOTTSDALE LOT 3

#### OWNER INFORMATION



#### **RKCCLL INVESTMENTS LLC/ETAL**

Mailing Address

6263 N SCOTTSDALE RD SUITE 330, SCOTTSDALE, AZ 85250

 Deed Number
 210703036

 Last Deed Date
 06/28/2021

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 <u>data sales</u>.

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** 2022 2021

Full Cash \$7,873,023 \$7,608,146

Value ②

**Limited Value** \$4,330,163 \$4,450,211

3

Legal Class 2.R 2.R

**Description** AG / VACANT AG / VACANT

LAND / NON-PROFIT R/P PROFIT R/P

Assessment

15.0% 15.0%

Ratio

**Assessed LPV** \$649,524 \$667,532

**Property Use** 

**Tax Area Code** 

0021

0021

Vacant

691400

Code

PU Description Vacant

Commercial Commercial

Land Land

Land

Valuation Notice

Valuation Notice Resolution

691400

Source

#### 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 (2)
- ► Subdivision Maps (2)
- ► MCR Maps (2)
- ▶ Book/Map Maps (12)



## **Appendix D – Traffic Count Data**



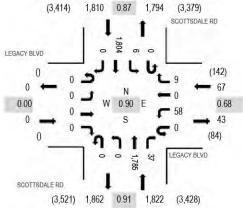


Location: 1 SCOTTSDALE RD & LEGACY BLVD AM

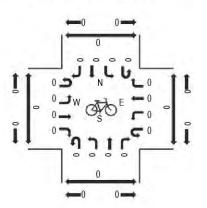
Date: Wednesday, December 8, 2021 Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM





#### Peak Hour - Bicycles



#### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

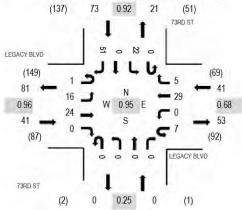
Interval	L	EGAC' Eastb	Y BLVI ound	)	LI	EGACY Westb	BLVD ound		SC	OTTSE	ALE RI	D	SC	OTTS South	DALE R bound	D		Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru R	ight	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	0	0	0	0	14	0	0	0	0	330	12	0	0	325	0	681	3,405	0	0	0	0
7:15 AM	0	0	0	0	0	19	0	1	0	0	381	6	0	2	449	0	858	3,564	0	0	0	0
7:30 AM	0	0	0	0	0	24	0	5	0	0	407	5	0	5	392	0	838	3,637	0	0	0	0
7:45 AM	0	0	0	0	0	8	0	1	0	0	490	9	0	1	519	0	1,028	3,699	0	0	0	0
8:00 AM	0	0	0	0	0	20	0	1	0	0	408	9	0	1	401	0	840	3,579	0	0	0	0
8:15 AM	0	0	0	0	0	14	0	2	0	0	459	11	0	0	445	0	931		0	0	0	0
8:30 AM	0	0	0	0	0	16	0	5	0	0	428	8	0	4	439	0	900		0	0	0	0
8:45 AM	0	0	0	0	0	6	0	6	0	0	455	10	0	1	430	0	908		0	0	0	0
Count Total	0	0	0	0	0	121	0	21	0	0	3,358	70	0	14	3,400	0	6,984		0	0	0	0
Peak Hour	0	0	0	0	0	58	0	9	0	0	1,785	37	0		1,804		3,699	9	0	0	0	0



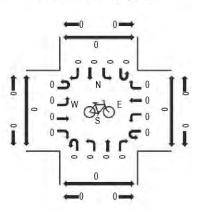
Location: 2 73RD ST & LEGACY BLVD AM Date: Wednesday, December 8, 2021 Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

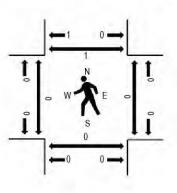
#### Peak Hour - Motorized Vehicles



#### Peak Hour - Bicycles



#### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Interval	L	EGAC' Eastb	Y BLVI ound	)		GACY Westb	BLVD ound			73RD Northb				73RI South	O ST bound			Rolling	Ped	destriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru R	ight	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	7	5	0	0	0	3	2	0	0	0	0	0	4	0	11	32	146	0	0	0	0
7:15 AM	0	2	6	0	3-	0	10	2	0	0	0	- 0	0	3	0	14	40	155	0	0	0	0
7:30 AM	0	5	6	0	2	0	7	0	0	0	0	0	0	6	0	15	41	155	0	0	0	0
7:45 AM	0	5	5	0	0	0	7	1	0	0	0	0	0	8	0	7	33	153	0	0	0	0
8:00 AM	1	4	7	.0	2	0	5	2	0	0	0	0	0	5	0	15	41	148	0	0	0	1
8:15 AM	0	4	6	0	0	0	6	3	0	0	0	0	0	6	0	15	40		0	0	0	0
8:30 AM	1	3	6	2	2	0	5	3	0	0	0	1	0	5	0	11	39		0	1	0	0
8:45 AM	1	8	3	0	0	0	4	0	0	0	0	0	0	1	0	11	28		0	0	0	0
Count Total	3	38	44	2	9	0	47	13	0	0	0	1	0	38	0	99	294		0	1	0	1
Peak Hour	1	16	24	0	7	0	29	5	0	0	0	0	0	22	2	5	1 155	5	0	0	0	1

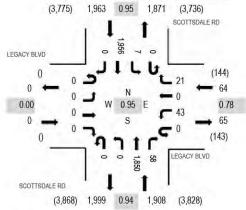


Location: 1 SCOTTSDALE RD & LEGACY BLVD PM

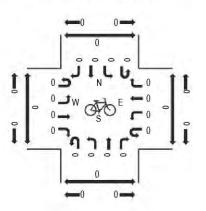
Date: Wednesday, December 8, 2021 Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

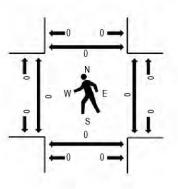
#### Peak Hour - Motorized Vehicles



#### Peak Hour - Bicycles



#### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

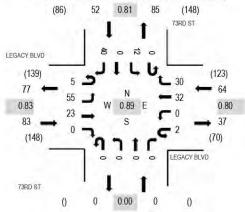
Interval	L	EGAC' Eastb	Y BLVI ound	)	LI	EGACY Westb	BLVD ound		SC	OTTSE		D	SC	OTTS South	DALE R	RD.		Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Ri	ight	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
4:00 PM	0	0	0	0	0	11	0	5	0	0	486	12	0	3	506	0	1,023	3,935	0	0	0	0
4:15 PM	.0	0	.0	0	.0.	11	0	8	0	0	491	17	0	1	513	0	1,041	3,909	0	0	0.	0
4:30 PM	0	0	0	0	0	6	0	4	0	0	424	12	0	2	483	0	931	3,869	0	0	0	0
4:45 PM	0	0	0	0	0	15	0	4	0	0	449	17	0	1	454	0	940	3,879	0	0	0	0
5:00 PM	0	0	0	0	0	10	0	2	0	0	478	18	0	2	487	0	997	3,812	0	0	0	0
5:15 PM	0	0	0	0	0	15	0	7	0	0	460	16	0	1	502	0	1,001		0	0	0	0
5:30 PM	0	0	0	0	2	15	0	3	0	0	499	21	0	1	400	0	941		0	0	0	0
5:45 PM	0	0	0	0	2	22	0	2	0	0	414	14	0	1	418	0	873		0	0	0	0
Count Total	0	0	0	0	4	105	0	35	0	0	3,701	127	0	12	3,763	0	7,747		0	0	0	0
Peak Hour	0	0	0	0	0	43	0	21	0	0	1,850	58	0	1 15	1,956	5	0 3,935	5	0	0	0	0



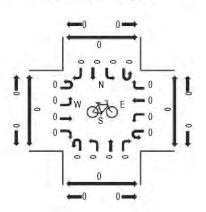
Location: 2 73RD ST & LEGACY BLVD PM Date: Wednesday, December 8, 2021 Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

#### Peak Hour - Motorized Vehicles



#### Peak Hour - Bicycles



#### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

,		73RE Northb					73RI South				Rolling	Dan	والمالا	n Crossi	
	U-Turn	Left		_	Right	U-Turn		Thru	Right	Total	Hour	West		South	-
0	0	0		0	0	0	3	0	7	41	158	0	1.	0	0
0	0	0		0	0	0	2	0	6	37	165	0	0	0	0
0	0	0		0	0	0	3	0	3	34	171	0	0	0	0
0	0	0		0	0	0	1	0	9	46	193	0	0	0	0
0	0	0		0	0	0	5	0	11	48	199	0	0	0	0
0	0	0		0	0	0	4	0	5	43		0	1	0	0
0	0	0		0	.0	0	3	0	11	56		0	0	0	0
0	0	0		0	0	0	0	0	13	52		0	2	1	0
0	0	0	-	0	0	0	21	0	65	357	1	0	4	1	0
0	0	0	0	0	0	0	12	2	) 4	0 19	9	0	3	1	0
0	0			0	0	0	21	0	65	357				0 4	

## All Traffic Data Services, LLC www.alltrafficdata.net

Site Code: 3 Station ID: Legacy Boulevard E.O Scottsdale Road

Start	08-Dec-21									
Time	Wed	EB	WB							Total
12:00 AM		4	5							
01:00		1	1							
02:00		2	3							
03:00		2	2							2
04:00		2 6	7							
05:00		6	20							2
06:00		28	59							8
07:00		40	72							11
08:00		44	70							11
09:00		39	77							11
10:00		62	74							13
11:00		47	74							12
12:00 PM		65	77							14
01:00		70	65							13
02:00		58	55							11
03:00		58 55	61							11
04:00		65	64							12
05:00		78	80							15
06:00		64	61							12
07:00		55	36							9
08:00		55 45	19							6
09:00		39	13							5
10:00		23	15							3
11:00		17	8							5 3 2
Total		909	1018							192
Percent		47.2%	52.8%							
AM Peak	44.	10:00	09:00	14	r-47m	-E	2		0 <del>-</del> 8	10:0
Vol.	- <u> </u>	62	77	42	_	-	3	-	_	13
PM Peak	44	17:00	17:00		-	2	_	_		17:0
Vol.	- 2	78	80			-	2		1	15
Grand Total		909	1018							192
Percent		47.2%	52.8%							102
, crocite		17.270	02.070							
ADT		ADT 1,927	۸۸	DT 1,927						

## All Traffic Data Services, LLC www.alltrafficdata.net

Site Code: 4 Station ID: Scottsdale Road S.O Legacy Boulevard

Start	08-Dec-21	ND	OD							T-4-1
Time	Wed	NB	SB							Total
12:00 AM		89	81							170
01:00		37	47							84
02:00		36	33							69
03:00		43	40							83
04:00		128	132							260
05:00		419	323							742
06:00		1009	965							1974
07:00		1640	1750							3390
08:00		1788	1771							3559
09:00		1665	1755							3420
10:00		1604	1758							3362
11:00		1749	1946							3695
12:00 PM		1879	1877							3756
01:00		1813	1840							3653
02:00		2036	2065							4101
03:00		1958	1941							3899
04:00		1908	1999							3907
05:00		1920	1869							3789
06:00		1456	1265							2721
07:00		1036	783							1819
08:00		789	637							1426
09:00		577	470							1047
10:00		329	306							635
11:00		162	134							296
Total		26070	25787							51857
Percent		50.3%	49.7%							
AM Peak	1,0	08:00	11:00	14	7-4 m			-	4 <del>-</del> 6	11:00
Vol.	( <del>-</del>	1788	1946	4.2		-	4	=	-	3695
PM Peak	4.4	14:00	14:00	14	-	2	-	-	4	14:00
Vol.		2036	2065	-		2.0	2	4	2	4101
Grand Total		26070	25787							51857
Percent		50.3%	49.7%							
ADT		ADT 51,857		AADT 51,857						

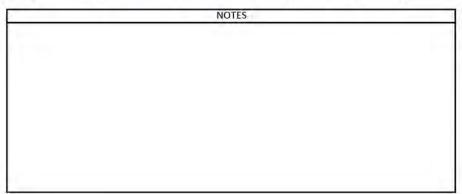


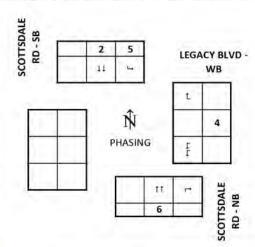
## Appendix E – Signal Timing



# SCOTTSDALE RD & LEGACY BLVD System # 291 BASIC TIMING PLAN Section # I.P. Address MM1-5-1 Date Designed 172.27.12.91 1/20/2021

	Phase	2	4	5	6	
	Movement	SBT	WBT	SBL	NBT	
	NOTES	COORD	-4	p&P	COORD	131
	MIN GRN	10	7	5	10	
	BK MGRN					
	CS MGRN	= :101 = -1111				
	DLY GRN					
	WALK	0	0		7	
	WALK2		-			
	WLK MAX					
	PED CLR/FDW	-	-		26	
	PD CLR2					
7	PC MAX					
TIMING PLAN - MM-2-1	PED CO					
Š	VEH EXT	1	2	2	1	
3	VH EXT2					
A	MAX 1	70	25	20	70	
P	MAX 2	90	40	30	90	
ž	MAX 3					
S	DYM MAX					
-	DYM STP		- 4			
	YELLOW	4.7	3.6	4	4.7	
	RED CLR	1,6	3.0	2	1.6	
	RED MAX					
	RED RVT	2	2	2	2	
	ACT B4					
	SEC/ACT					101
	MAX INT	=     -   4				U.
	TIME B4					
	CARS WT					
	STPTDUC					
	TTREDUC		7 11			
	MIN GAP					
8	LOCK DET					
N-2	VEH RECALL	X	-		X	
N	PED RECALL					
S	MAX RECALL					
411	SOFT RECALL					
RECALLS - MM-2-8	NO REST					
R	ADD INIT CAL					





R1	1	2	3	4
R2	5	6	7	8
		В		В
Use Tim	ing plan:			
TOD: M	IDDAY			2.0
R1	1	2	3	4
R2	5	6	7	8
		В		В
Use Tim	ing plan:			
TOD: EV	ENING			
R1	1	2	3	4
R2	5	6	7	8
		В		В
	ing plan:			
TOD: NI	GHT			
R1	1	2	3	4
R2	5	6	7	8
		В		В
	ing plan:			
FREE	7			
R1	1	2	3	4
R2	5	6	7	8

N-2017 - 21-28	
Effective Date	

SCOT	TSDAL	E K	U &	LE	GAC	YE	SLVL		Sys	stem #	29
	COOPDI	MAT	OB.				Section	#		Date Upda	ted
	COORDI	NAI	UK				0			1/20/202	1
	PHASE	1	2	3	4	5	6	7	8		
- 11	FDW		,LÆL		-		26				
11	YELLOW		4.7		3.6	4	4.7				
1 1 1 1 1 1	ALL RED		1.6		3	2	1.6				
	WALK		-		4		26				
	R1	1	111	2	1	3	111	4	+	COORD PATTERN	OFFSI
PLAN 1	R2	5	L.	6	1	7	111	8	111	Balanced	115
AM PLAN			RING	G 1			RI	NG 2			
OPERATIVE	PHASE	1	2	3	4	5	6	7	8		
TIMES	SPLIT		100		20	14	86			Target Cyc	le Len
6:00	COORD		X				Х			12	0
	RECALLS		V				V			Actual Cyc	le Leng
	GREEN		93.7		13.4	8.0	79.7			12	.0
	R1	1	111	2	1	3	111	4	+	COORD PATTERN	OFFSI
PLAN 2	R2	5	4	6	1	7	111	8	111	Balanced	86
MIDDAY PLAN	1		RING	G 1			RI	NG 2			
OPERATIVE	PHASE	1	2	3	4	5	6	7	8		
TIMES	SPLIT		88		20	12	76			Target Cyc	le Len
9:00	COORD		Х				Х			10	8
6-11	RECALLS		V				V			Actual Cyc	le Leng
	GREEN		81.7		13.4	6.0	69.7			10	8
	R1	1	111	2	1	3	111	4	-	COORD PATTERN	OFFS
PLAN 3	R2	5	4	6	1	7	111	8	111	Balanced	75
PM PLAN			RING	100			1 10 10 10 10	NG 2			
OPERATIVE	PHASE	1	2	3	4	5	6	7	8	V	
TIMES	SPLIT		106		11	11	95			Target Cyc	
15:00	COORD		X				Х			12	***
	RECALLS		V				V		-	Actual Cyc	
	GREEN		99.7		7.4	5.0	88.7			12	.0
	R1	1	111	2	1	3	111	4	+	COORD PATTERN	OFFS
PLAN 4	R2	5	4	6	1	7	111	8	111	Balanced	10
MIDNIGHT PLAN			RING	31			RI	NG 2			
OPERATIVE	PHASE	1	2	3	4	5	6	7	8	,	
TIMES	SPLIT		71		2.5	12	59			Target Cyc	
22:00	COORD		Х				Х			90	<u> </u>
22.00	RECALLS		٧				٧			Actual Cyc	
	GREEN		64.7		12.4	6.0	52.7			90	0



# Appendix F – Existing Capacity Analysis



	1		†	-	1	ļ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	7	<b>†</b>	7	7	<b>^</b>
Traffic Volume (veh/h)	57	9	1739	37	6	1758
Future Volume (veh/h)	57	9	1739	37	6	1758
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	U	1.00	1.00	U
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No	1.00	No	1.00	1.00	No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	1070	1932	41	7	1953
			0.90			
Peak Hour Factor	0.90	0.90		0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1227	100	2002
Cap, veh/h	184	84	2774	1237	190	2983
Arrive On Green	0.05	0.05	0.78	0.78	0.01	0.84
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	63	10	1932	41	7	1953
Grp Sat Flow(s), veh/h/ln	1728	1585	1777	1585	1781	1777
Q Serve(g_s), s	2.1	0.7	31.4	0.7	0.1	23.5
Cycle Q Clear(g_c), s	2.1	0.7	31.4	0.7	0.1	23.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	184	84	2774	1237	190	2983
V/C Ratio(X)	0.34	0.12	0.70	0.03	0.04	0.65
Avail Cap(c_a), veh/h	386	177	2774	1237	294	2983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	54.1	6.3	3.0	7.1	3.4
Incr Delay (d2), s/veh	0.4	0.2	1.5	0.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.7	8.5	0.0	0.0	4.3
Unsig. Movement Delay, s/veh		0.1	0.0	0.2	0.0	4.0
	55.2	54.4	7.8	3.0	7.1	4.6
LnGrp Delay(d),s/veh		04.4 D				
LnGrp LOS	E 70	U	A 4072	Α	Α	A
Approach Vol, veh/h	73		1973			1960
Approach Delay, s/veh	55.1		7.7			4.6
Approach LOS	E		Α			Α
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		107.0		13.0	7.0	100.0
Change Period (Y+Rc), s		* 6.3		6.6	6.0	* 6.3
Max Green Setting (Gmax), s		* 94		13.4	8.0	* 80
Max Q Clear Time (g_c+l1), s		25.5		4.1	2.1	33.4
Green Ext Time (p_c), s		6.7		0.1	0.0	6.5
		J.,		J.,	7.7	0.0
Intersection Summary						
HCM 6th Ctrl Delay			7.0			
HCM 6th LOS			Α			
Notes						

Notes

User approved pedestrian interval to be less than phase max green.

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

B EBL 16 16 16 16 16 16 16 16 16 16 16 16 16	EBT 24 24 0 Free - 0 0 92 2	EBR 0 0 0 Free None 160	WBU  4 4 0 Free	WBL 0 0 0 Free - 200	WBT 23 23 0 Free	WBR  9 9 0 Free None	NBL  0 0 0 Stop	NBT  0 0 0 Stop	NBR 0 0 0 Stop	SBL 24 24 0 Stop	0 0 0 Stop	SBR 47 47 0 Stop
2 16 2 16 3 Free - 105 2 2 92 2 2	24 24 0 Free - 0 0	0 0 0 Free None 160	4 4 0 Free	0 0 0 0 Free	23 23 0 Free	9 9 0 Free	0 0 0 Stop	0 0 0	0 0 0	24 24 0	0 0 0	47 47 0
2 16 2 16 0 0 8 Free 105 	24 24 0 Free - 0 0 92	0 0 0 Free None 160	4 0 Free -	0 0 0 Free	23 23 0 Free	9 0 Free	0 0 Stop	0	0	24 24 0	0	47 47 0
2 16 0 0 Free - 105 2 2 92 2 2	24 24 0 Free - 0 0 92	0 0 Free None 160	4 0 Free -	0 0 Free	23 23 0 Free	9 0 Free	0 0 Stop	0	0	24 0	0	47 0
0 0 Free  - 105   2 92 2 2	0 Free - - 0 0 92	0 Free None 160	0 Free -	0 Free	0 Free -	0 Free	0 Stop	0	0	0	0	0
Free 105 2 92 2	Free - 0 0 92	Free None 160	Free - -	Free -	Free -	Free	Stop		- 9			
- 105   2 92 2 2	0 0 0 92	None 160 -	-	-	-			Stop	Stop	Stop	Stop	Ston
92	0 0 92	160 - -	-	200		None						Otop
92	0 0 92	-		200				-	None	-	-	None
92	0 92	-	-		-	-	-	- (4)	-	0	- 4	150
92	92			190	0	-	1082-29	92224	-	-	0	-
2		00	-	19.	0	j <del>ė</del> g	-	0	-	-	0	-
	2	92	92	92	92	92	92	92	92	92	92	92
17		2	2	2	2	2	2	2	2	2	2	2
	26	0	4	0	25	10	0	0	0	26	0	51
			Anis -O							Aim a - O		
			Major2						١	/linor2		
35	0	0	26	26	0	0					-	18
. +	-	-	-	-	-	190					-	-
-	-	-	-	-	0.2	-					-	-
4.14	=	-	6.44	4.14	-	1 2					-	6.94
-		-	-	-	-	(=					( <del>-</del>	-
	7.0	~	-	-	-	70					-	-
	+	-			- 3	- 1					4	3.32
1575			1376	1587	100	(4)					0	1056
	-	-	-	-	-	-					0	-
	=	-	-	-	-	-				965	0	-
		-			-	-						
1539	17	-	1376	1376	15.	197				888	0	1056
÷ +	Ä	-	- ( <del>-</del> )	_ (-	-	-				888	0	9
. +	=	-	-	-	-	121				967	0	-
	- 2	- 2-	-	- 1-	-					962	0	-
E			MP							SB		
			0.0							0.0		
1	4 4.14  2 2.22 3 1575  9 1539	5 35 0  4 4.14 -  2 2.22 - 3 1575 -  9 1539 -  	5 35 0 0 	5 35 0 0 26 	5 35 0 0 26 26 	5 35 0 0 26 26 0 	5 35 0 0 26 26 0 0 0	5 35 0 0 26 26 0 0 0	5 35 0 0 26 26 0 0 0	5 35 0 0 26 26 0 0	5 35 0 0 26 26 0 0 0 89	5 35 0 0 26 26 0 0 0 89

	1		<b>†</b>	-	1	ļ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	7	<b>^</b>	7	7	<b>^</b>
Traffic Volume (veh/h)	42	21	1802	57	7	1906
Future Volume (veh/h)	42	21	1802	57	7	1906
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No	1.00	No	1.00	1.00	No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	23	1959	62	8	2072
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0.92	2	2	2	0.92
	181	83	2773	1237	185	2985
Cap, veh/h						
Arrive On Green	0.05	0.05	0.78	0.78	0.01	0.84
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	46	23	1959	62	8	2072
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1585	1781	1777
Q Serve(g_s), s	1.5	1.7	32.4	1.1	0.1	26.8
Cycle Q Clear(g_c), s	1.5	1.7	32.4	1.1	0.1	26.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	181	83	2773	1237	185	2985
V/C Ratio(X)	0.25	0.28	0.71	0.05	0.04	0.69
Avail Cap(c_a), veh/h	213	98	2773	1237	242	2985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	54.7	6.5	3.0	7.4	3.7
Incr Delay (d2), s/veh	0.3	0.7	1.5	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.5	8.8	0.3	0.1	5.0
Unsig. Movement Delay, s/veh		1.0	0.0	0.0	0.1	0.0
	54.9	55.3	8.0	3.1	7.4	5.0
LnGrp Delay(d),s/veh					1111111	
LnGrp LOS	D	E	A	Α	Α	A
Approach Vol, veh/h	69		2021			2080
Approach Delay, s/veh	55.0		7.9			5.0
Approach LOS	Е		Α			Α
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		107.1		12.9	7.2	99.9
Change Period (Y+Rc), s		* 6.3		6.6	6.0	* 6.3
Max Green Setting (Gmax), s		* 1E2		7.4	5.0	* 89
Max Q Clear Time (g c+l1), s		28.8		3.7	2.1	34.4
Green Ext Time (p_c), s		7.6		0.0	0.0	6.8
		1.0		0.0	0.0	0.0
Intersection Summary			7.0			
HCM 6th Ctrl Delay			7.2			
HCM 6th LOS			Α			
Notes						

Notes

User approved pedestrian interval to be less than phase max green.

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection														
Int Delay, s/veh	4.1													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		A	**	7		A	<b>1</b>					7		7
Traffic Vol, veh/h	7	36	22	0	2	0	30	27	0	0	0	9	0	25
Future Vol, veh/h	7	36	22	0	2	0	30	27	0	0	0	9	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-		None	-	-	None
Storage Length	-	105		160		200	- 1	÷	-	- (4)	-	0	-	150
Veh in Median Storage	e,# -	+	0	-	-	-	0		10822	92224		-	0	-
Grade, %	-		0	-	- (-)	-	0	- (+	-	0	-	-	0	
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	42	26	0	2	0	35	31	0	0	0	10	0	29
	Major1				Major2						N	/linor2		
Conflicting Flow All	66	66	0	0	26	26	0	0				168	-	33
Stage 1	-	=1		-	-		-	141				55	-	
Stage 2	-	-	4	-	-	-	0.4	4				113	_	_
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	1				6.84	-	6.94
Critical Hdwy Stg 1	. 2	_	-	-	-	-	-					5.84	-	-
Critical Hdwy Stg 2		-	(*)	-	-		-					5.84	-	- 6
Follow-up Hdwy	2.52	2.22	÷	-	2.52	2.22	- 3	- 4				3.52	4	3.32
Pot Cap-1 Maneuver	1299	1534			1376	1587		-				806	0	1033
Stage 1	-		-		-	-	1.2					961	0	-
Stage 2	-		-	-	_		-	-				899	0	-
Platoon blocked, %				-			-	-						
Mov Cap-1 Maneuver	1483	1483	191	-	1376	1376	16	18				778	0	1033
Mov Cap-2 Maneuver	-	-	¥	_	- (-	-	-	-				778	0	9
Stage 1	-	-	=	-	_		-	141				928	0	-
Stage 2		-	-	-			-	- 9				898	0	-
Approach	EB				WB							SB		
HCM Control Delay, s	5				0.3							8.9		
HCM LOS												Α		
Miner Leny (Marine Ed		EDI	FOT	EDD	\A/DI	MOT	MDD	CDI ¢	CDIO					
Minor Lane/Major Mvn	II.	EBL	EBT	EBR	WBL	WBT	WBK:	SBLn1						
Capacity (veh/h)		1483	- 5		1376	- 151	-		1033					
HCM Lane V/C Ratio	1-	0.034	-	-	0.002	-	-	0.013						
HCM Control Delay (s)		7.5	19	=	7.6		-	9.7	8.6					
HCM Lane LOS		Α	- 5	- +	Α	7.	- 1	Α	Α					
HCM 95th %tile Q(veh	)	0.1	(8)		0	140	-	0	0.1					



## **Appendix G – Trip Generation**





#### Trip Generation Calculations

2 100	ITE	Tay C	20.46	Week	day		AM Pea	k Hour		PM Peak	Hour			Weekday		AM	Peak He	our	PA	M Peak H	OUT	1
Land Use	Code	Qty	Unit	Rate	% in	# Out	Rate	% In	% Out	Rate		% Out	Total	ln .	Out	Total	In	Out		ln	Out	1
Convenience Store/Gas Station	945	16	Fueling Positions	257.13	50%	50%	27.04	50%	50%	22.76	50%	50%	4,114	2,057	2,057	433	217	216	364	182	182	Aver
Convenience Store/Gas Station	945	16	Fueling Positions	193.00	50%	50%	7.78	50%	50%	9.78	50%	50%	3,088	1,544	1,544	124	62	62	156	78	78	Minin
Convenience Store/Gas Station	945	16	Fueling Positions	324.17	50%	50%	44.38	50%	50%	37-50	50%	50%	5,187	2,594	2,593	710	355	355	600	300	300	Maxii
Land Use	ITE	Qty	Unit	Week	day		AM Pea	k Hour		PM Peak	Hour			Weekday		AM	Peak H	our	PA	M Peak H	QUF	1
Land Ose	Code	qty	Oint	Equation	% kn	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	1
Convenience Store/Gas Station	945	16	Fueling Positions	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	Equa
	Si	tandard D	Deviation	57-53			9.88			8.49												1
The Artist State of the State o	N	umber of	f Studies	5			18			23												1
Convenience Store/Gas Station		Average	e Size	14			13			14												1
		p <sup>2</sup>	-	N/A			N/A	1		N/A	1000											1



QuikTrip

Completed: SS 11/24/2021
Checked: TG 12/17/2021

#### Pass-By Calculations

After Pass-By

After Pass-By

Lindtha		g	100,000,000	E REDU I PEAK		PASS- BY	ΑΛ	A REDUC	ED	BEFOR PN	E REDU PEAK	7.5.C. 7.0P.	PASS- BY	PM	REDUC	ED
Land Use	SF	Fuelin	ENTER	EXIT	TOTAL	Rate %	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL	Rate %	ENTER	EXIT	TOTAL
Gasoline/Service Station with Convenience Market		16	217	216	433	78%	48	48	96	182	182	364	72%	51	51	102
TOTAL			217	216	433		48	48	96	182	182	364		51	51	102



## Appendix H – MAG Socioeconomic Projections



## Socioeconomic Projections

## **Population and Employment**

by Municipal Planning Area, Jurisdiction, and Regional Analysis Zone

June 2019





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

## Maricopa Association of Governments Table 1: Total Population by Municipal Planning Area

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

			Total Po	pulation		
Municipal Planning Area	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

### Maricopa Association of Governments

Table 2: Total Employment by Municipal Planning Area July 1, 2018 and Projections July 1, 2020 to July 1, 2055

			Total Em	ployment		
Municipal Planning Area	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

## 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

				Total Pop	oulation		
RAZ	County	2018	2020	2030	2040	2050	2055
	Total	1,653,469	1,697,722	1,881,876	2,019,269	2,117,427	2,155,333
Queen	Creek MPA						
339	Maricopa County	49,781	53,579	72,670	82,172	87,155	89,586
422	Pinal County	13	13	300	437	564	638
423	Pinal County	1,286	1,410	3,714	6,136	7,457	8,686
424	Pinal County	7,642	10,003	14,200	20,287	25,759	29,586
	Total	58,722	65,005	90,884	109,032	120,935	128,496
Salt Ri	ver Pima-Maricopa Native N	lation MPA					
264	Maricopa County	6,798	6,073	5,708	5,820	5,820	5,820
	Total	6,798	6,073	5,708	5,820	5,820	5,820
Scotts	dale MPA						
209	Maricopa County	12,188	12,605	13,961	14,512	14,984	15,255
210	Maricopa County	6,013	6,591	10,463	12,339	13,491	13,963
229	Maricopa County	20,542	21,269	25,221	27,864	29,698	30,229
230	Maricopa County	32,232	33,028	38,882	43,580	46,789	48,510
247	Maricopa County	13,549	13,858	15,420	16,342	16,871	17,019
248	Maricopa County	36,178	37,227	38,468	38,807	39,048	39,143
249	Maricopa County	20,903	21,410	22,543	22,768	22,839	22,848
263	Maricopa County	34,908	35,814	37,002	37,252	37,584	37,773
272	Maricopa County	68,987	71,970	79,910	85,942	90,054	91,927
	Total	245,500	253,772	281,870	299,406	311,358	316,665
Surpris	se MPA						
211	Maricopa County	863	884	4,471	23,112	36,704	40,737
212	Maricopa County	10,265	11,365	37,615	69,296	85,862	93,806
232	Maricopa County	29,296	30,200	34,506	37,144	37,927	38,313
233	Maricopa County	87,834	91,276	111,822	119,384	123,777	126,523
234	Maricopa County	8,969	9,467	10,460	10,878	11,335	11,488
371	Maricopa County	342	344	434	734	2,584	4,316
504	Maricopa County	6,460	6,718	17,425	46,912	85,127	102,004
	Total	144,029	150,254	216,733	307,460	383,316	417,187
Tempe	MPA						
288	Maricopa County	73,442	76,444	100,651	129,202	150,094	157,410
297	Maricopa County	53,146	54,092	56,336	57,432	61,780	64,273
308	Maricopa County	58,756	59,473	60,120	60,348	60,476	60,559
	Total	185,344	190,009	217,107	246,982	272,350	282,242

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

## 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 Emp	loyment		
RAZ	County	2018	2020	2030	2040	2050	2055
	Total	897,713	937,622	1,083,980	1,189,209	1,264,941	1,298,903
Queen	Creek MPA						
339	Maricopa County	13,933	14,696	16,482	18,825	20,733	21,151
422	Pinal County	9	8	18	22	31	39
423	Pinal County	89	109	351	620	1,068	1,639
424	Pinal County	1,435	1,576	3,073	4,571	7,020	8,309
	Total	15,466	16,389	19,924	24,038	28,852	31,138
Salt Ri	ver Pima-Maricopa Native N	ation MPA					
264	Maricopa County	21,160	22,869	28,215	33,871	35,903	36,442
	Total	21,160	22,869	28,215	33,871	35,903	36,442
Scotts	dale MPA						
209	Maricopa County	4,488	4,659	4,851	5,174	5,161	5,34
210	Maricopa County	2,386	3,018	2,759	3,091	3,139	3,19
229	Maricopa County	9,604	10,005	11,231	11,962	12,193	12,89
230	Maricopa County	23,272	24,919	32,112	36,968	40,834	42,13
247	Maricopa County	44,254	47,089	52,652	54,822	55,679	56,10
248	Maricopa County	29,603	30,901	33,285	34,001	34,234	34,54
249	Maricopa County	7,409	7,692	8,179	8,684	8,906	9,04
263	Maricopa County	26,351	26,961	28,903	30,245	30,919	31,38
272	Maricopa County	49,833	52,185	61,540	67,039	70,676	72,330
	Total	197,200	207,429	235,512	251,986	261,741	266,97
Surpri	se MPA						
211	Maricopa County	60	53	1,560	3,172	4,766	7,017
212	Maricopa County	2,008	2,338	5,821	9,965	13,362	15,709
232	Maricopa County	8,349	9,228	11,297	12,187	12,875	13,116
233	Maricopa County	19,943	21,079	32,661	44,032	52,007	57,402
234	Maricopa County	2,588	2,711	3,354	3,922	4,239	4,38
371	Maricopa County	18	20	327	423	2,381	2,93
504	Maricopa County	677	1,020	4,460	12,695	23,763	29,886
	Total	33,643	36,449	59,480	86,396	113,393	130,45
Tempe	MPA		- 4				
288	Maricopa County	88,927	94,229	111,010	128,894	144,714	152,70
297	Maricopa County	44,730	47,069	53,149	57,125	60,725	62,552
308	Maricopa County	56,380	59,208	67,052	71,701	74,542	75,596
	Total	190,037	200,506	231,211	257,720	279,981	290,85

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



# Appendix I – Year 2023 No Build Capacity Analysis



	1		<b>†</b>	-	1	ļ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	7	<b>^</b>	7	4	<b>^</b>
Traffic Volume (veh/h)	59	10	1774	38	7	1794
Future Volume (veh/h)	59	10	1774	38	7	1794
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	11	1928	41	8	1950
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	185	85	2769	1235	192	2981
Arrive On Green	0.05	0.05	0.78	0.78	0.01	0.84
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	64	11	1928	41	8	1950
Grp Sat Flow(s), veh/h/ln	1728	1585	1777	1585	1781	1777
Q Serve(g_s), s	2.1	0.8	31.4	0.7	0.1	23.5
Cycle Q Clear(g_c), s	2.1	0.8	31.4	0.7	0.1	23.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	185	85	2769	1235	192	2981
V/C Ratio(X)	0.35	0.13	0.70	0.03	0.04	0.65
Avail Cap(c_a), veh/h	518	238	2769	1235	264	2981
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	54.1	6.4	3.0	7.1	3.4
Incr Delay (d2), s/veh	0.4	0.3	1.5	0.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.7	8.5	0.2	0.0	4.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.2	54.4	7.9	3.1	7.1	4.6
LnGrp LOS	Е	D	А	Α	Α	Α
Approach Vol, veh/h	75		1969			1958
Approach Delay, s/veh	55.1		7.8			4.6
Approach LOS	E		A			A
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		107.0		13.0	7.2	99.8
Change Period (Y+Rc), s		* 6.3		6.6	6.0	* 6.3
Max Green Setting (Gmax), s		* 89		18.0	6.0	* 77
Max Q Clear Time (g_c+l1), s		25.5		4.1	2.1	33.4
Green Ext Time (p_c), s		6.7		0.1	0.0	6.5
Intersection Summary						
HCM 6th Ctrl Delay			7.1			
HCM 6th LOS			Α			
k r l						

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection														
Int Delay, s/veh	5.3													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		A	44	7		A	<b>1</b>					7		7
Traffic Vol, veh/h	3	17	25	0	5	0	24	10	0	0	0	25	0	48
Future Vol, veh/h	3	17	25	0	5	0	24	10	0	0	0	25	0	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	4	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	105	- 4	160	-	200	- 1	-	-	- (4)	.=	0	- 4	150
Veh in Median Storage	,# -	+	0	-	-	-	0	-	108229	92224		-	0	-
Grade, %	-	-	0	-	-	-	0	+	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	18	27	0	5	0	26	11	0	0	0	27	0	52
Major/Minor	Major1				Major2						N	/linor2		
Conflicting Flow All	37	37	0	0	27	27	0	0				98	4	19
Stage 1	-	2,	-	_			_	_				42	_	
Stage 2	_			_	_		- 1	-				56		_
Critical Hdwy	6.44	4.14	_	-	6.44	4.14	-	_				6.84	-	6.94
Critical Hdwy Stg 1	0.11			_	0.11	1.11		_				5.84	-	0.01
Critical Hdwy Stg 2	- 2	-	741	_	-	- 2	_	_				5.84	_	_
Follow-up Hdwy	2.52	2.22		_	2.52	2.22	-					3.52	-	3.32
Pot Cap-1 Maneuver	1354	1572	-	-	1374	1585	-	- 4				890	0	1055
Stage 1	-	1012			-	1000	- 1					975	0	-
Stage 2	-	_	141	-			-	_				960	0	
Platoon blocked, %				_								300	v	
Mov Cap-1 Maneuver	1523	1523	-	_	1374	1374	14	-				874	0	1055
Mov Cap-1 Maneuver	1020	1020	1		1017	1017	_	-				874	0	1000
Stage 1		-				- 12		- 1				961	0	
Stage 2		3										956	0	
Stage 2												500		
Approach	EB				WB							SB		
HCM Control Delay, s	3.3				1							8.8		
HCM LOS	0.0											Α		
												71		
Minor Lane/Major Mvm	nt	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1	SBLn2					
Capacity (veh/h)		1523	-		1374	-	-		1055					
HCM Lane V/C Ratio		0.014	- 4		0.004		-	0.031						
HCM Control Delay (s)		7.4	-	_	7.6	4	_	9.3	8.6					
HCM Lane LOS		Α	-		A	-	-	A	A					
HCM 95th %tile Q(veh)		0	74		0	1 1 20		0.1	0.2					

	1		<b>†</b>	-	1	1
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	7	44	7	ሻ	<b>^</b>
Traffic Volume (veh/h)	43	22	1839	59	8	1945
Future Volume (veh/h)	43	22	1839	59	8	1945
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	,
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No	1.00	No	1.00	1.00	No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	24	1999	64	9	2114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	183	84	2768	1234	179	2984
Arrive On Green	0.05	0.05	0.78	0.78	0.01	0.84
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	47	24	1999	64	9	2114
Grp Sat Flow(s), veh/h/ln	1728	1585	1777	1585	1781	1777
Q Serve(g_s), s	1.6	1.7	34.1	1.1	0.1	28.3
Cycle Q Clear(g_c), s	1.6	1.7	34.1	1.1	0.1	28.3
Prop In Lane	1.00	1.00	<b>2</b> 1, 1	1.00	1.00	_0.0
Lane Grp Cap(c), veh/h	183	84	2768	1234	179	2984
V/C Ratio(X)	0.26	0.29	0.72	0.05	0.05	0.71
Avail Cap(c_a), veh/h	213	98	2768	1234	234	2984
						1.00
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	54.7	6.7	3.1	8.0	3.8
Incr Delay (d2), s/veh	0.3	0.7	1.7	0.1	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.6	9.4	0.3	0.1	5.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.8	55.3	8.4	3.1	8.0	5.3
LnGrp LOS	D	Е	Α	Α	Α	Α
Approach Vol, veh/h	71		2063			2123
Approach Delay, s/veh	55.0		8.2			5.3
Approach LOS	E		Α			Α.
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		107.1		12.9	7.3	99.8
Change Period (Y+Rc), s		* 6.3		6.6	6.0	* 6.3
Max Green Setting (Gmax), s		* 1E2		7.4	5.0	* 89
Max Q Clear Time (g_c+l1), s		30.3		3.7	2.1	36.1
Green Ext Time (p_c), s		7.9		0.0	0.0	7.0
		1.0		0.0	0.0	7.0
Intersection Summary						
HCM 6th Ctrl Delay			7.5			
HCM 6th LOS			Α			
Notes						

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

37 37 0	23 23 0 ree	0 0 0 Free None 160 - - 92 2	3 3 0 Free 	WBL 0 0 0 Free - 200 - 92 2 0	WBT  131 31 0 Free 0 0 92 2 34	28 28 0 Free None - - - 92 2 30	NBL  0 0 0 Stop - 108229 - 92 2 0	0 92	NBR  0 0 0 Stop None 92	SBL 10 10 0 Stop - 0 - 92	SBT  0 0 0 Stop - 0 0	SBR 26 26 0 Stop None 150	
37 37 0 Free F - 105 - - 92 2 40	23 23 0 -ree - 1 0 0 0 92 2	0 0 0 Free None 160 - - 92 2	3 3 0 Free - - - - 92 2	0 0 0 Free - 200 - - 92 2	**Ti	28 28 0 Free None - - - 92 2	0 0 0 Stop - - 108229 - 92 2	0 0 0 Stop - - - 92224 0 92	0 0 0 Stop None	10 10 0 Stop - 0	0 0 0 Stop - - 0 0	26 26 0 Stop None 150	
37 37 0 Free F - 105 - 92 2 40	23 0 Free - 1 0 0 92 2	0 0 0 Free None 160 - - 92 2	3 0 Free - - - - 92 2	0 0 Free - 200 - - 92 2	31 0 Free - 0 0 92 2	28 0 Free None - - - 92 2	0 0 Stop - - 108229 - 92 2	0 0 Stop - - - - - - - - - - - - - - - - - - -	0 0 Stop None -	10 10 0 Stop - 0	0 0 Stop - - 0 0	26 26 0 Stop None 150	
37 37 0 Free F - 105 - 92 2 40	23 0 Free - 1 0 0 92 2	0 0 Free None 160 - - 92 2	3 0 Free - - - - 92 2	0 0 Free - 200 - - 92 2	31 0 Free - 0 0 92 2	28 0 Free None - - - 92 2	0 0 Stop - - 108229 - 92 2	0 0 Stop - - - - - - - - - - - - - - - - - - -	0 0 Stop None -	10 0 Stop - 0 -	0 0 Stop - - 0 0	26 0 Stop None 150	
0 Free F - 105 - 92 2 40	0 Free - 1 - 0 0 0 92 2	0 Free None 160 - - 92 2 0	0 Free - - - - - 92 2	0 Free - 200 - - 92 2	0 Free - 0 0 92 2	0 Free None - - - 92 2	0 Stop - - 108229 - 92 2	0 Stop - - 92224 0 92	0 Stop None	0 Stop - 0 -	0 Stop - - 0 0	0 Stop None 150	
Free F - 105 92 2 40	- ree - 1 0 0 0 92 2	Free None 160 - - 92 2 0	Free 92 2	Free - 200 92 2	Free - 0 0 0 92 2	Free None - - - 92 2	Stop - - 108229 - 92 2	Stop 	Stop None - -	Stop - 0 -	Stop - - 0 0	Stop None 150	
105 - - 92 2 40	- 1 0 0 0 92 2	None 160 - - 92 2 0	92	200 - - 92 2	0 0 0 92 2	None - - - 92 2	108229 92 2	92224 0 92	None - -	0	0 0	None 150	
92 2 40	0 0 0 92 2	92 2 0	92	200 - - 92 2	0 0 92 2	92	108229 - 92 2	92224 0 92	-	0 -	0 0	150 - -	
92 2 40	0 92 2	92 2 0	92 2	92 2	0 0 92 2	92 2	92 2	0 92	-	-	0	-	
92 2 40	0 92 2	92 2 0	92 2	92 2	92 2	92 2	92 2	0 92	-	-	0		
92 2 40	92	92 2 0	92	92 2	92 2	92 2	2	92					
2 40	2	2	2	2	2	2	2		92	92	00		
40		0						0		OL	92	92	
	25		3	0	34	30	0	2	2	2	2	2	
64							U	0	0	11	0	28	
64		0.0											
64		IV	lajor2						N	/linor2			
UT	0	0	25	25	0	0				166	4	32	
	-	_	-	20	_	-				55		02	
	-									111		_	
4.14	_		6.44	4.14						6.84		6.94	
4.14		-	0.44	4.14	_	-				5.84	-	0.34	
-			-	_		-						_	
2 22				2 22		-						2 22	
		-				-					_		
1030		-	13/0	1000		-						1033	
-			-	-									
=	. 5	-	-		-	-				901	U	7	
4404		-	4070	4070	-	(+)				700	0	4005	
1481	0.00	-	13/8	13/8	18	187					1.81		
- +	+	-	-		-	-							
*	( <del>)</del>	-	-	-		191						-	
-	-		-	-	-					899	0		
			\A/D							CD			
			0.4							0.5			
1	2.22	2.22 - 1536 -   481 -	2.22 1536   1481	2.22 2.52 1536 1378  1481 1378	2.22 2.52 2.22 1536 1378 1588   1481 1378 1378  	2.22 2.52 2.22 - 1536 1378 1588	2.22 2.52 2.22 1536 1378 1588	2.22 2.52 2.22 1536 1378 1588	2.22 2.52 2.22 1536 1378 1588	2.22 2.52 2.22	5.84  2.22 2.52 2.22 3.52  1536 1378 1588 961  901  780  929  929  - WB SB	5.84 2.22 2.52 2.22 3.52 - 1536 - 1378 1588 961 0 901 0 1378 1378 780 0 929 0 899 0	5.84 2.22 2.52 2.22 3.32 1536 1378 1588 808 0 1035 961 0 901 0 901 0 -  1481 - 1378 1378 780 0 1035 929 0 899 0 -



# Appendix J – Year 2023 Build Capacity Analysis



Interception								
ntersection nt Delay, s/veh	0.8							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	+	
ane Configurations		7	<b>^</b>	7		<b>^</b>		
raffic Vol, veh/h	0	146	1661	149	0	1823		
uture Vol, veh/h	0	146	1661	149	0	1823		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Stop	Stop	Free	Free	Free	Free		
RT Channelized		None	4	None	-	None		
Storage Length	-	0		100	-	-		
eh in Median Storag	je,# 0	-	0	-	-	0		
Grade, %	0	-	0	-	-	0		
Peak Hour Factor	92	92	92	92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2		
Nvmt Flow	0	159	1805	162	0	1982		
						70.75		
Najor/Minor	Minor1	i)	Major1		/lajor2		-	
Conflicting Flow All	-	903	0	0	najorz -	-		
Stage 1	- 4	903	-	-		7		
Stage 2	-	-	_	-	_	-		
Critical Hdwy	-	6.94						
Critical Hdwy Stg 1		0.94	=	7	-			
Critical Hdwy Stg 2	-	-	-	-		-		
		3.32		-	-	*		
Follow-up Hdwy	0	*389	-	-	0	7		
ot Cap-1 Maneuver		1000						
Stage 1	0	-	-	-	0	-		
Stage 2	U	-	=	-	0			
Platoon blocked, %		1	-	-		-		
Nov Cap-1 Maneuver		*389	-	-	-	-		
Nov Cap-2 Maneuver		-	÷	-	-	-		
Stage 1	-	-	-	-	-	-		
Stage 2	-	-	-		-	-		
pproach	WB		NB		SB			
CM Control Delay, s			0		0			
CM LOS	C 20.5		U		U			
ICIVI LOS	C							
Minor Lane/Major Mvi	mt	NBT	NBRV	WBLn1	SBT			
Capacity (veh/h)		-		389	-			
ICM Lane V/C Ratio				0.408		,		
ICM Control Delay (s	(3)	-	-	20.5	-			
ICM Lane LOS	7	-		C	-			
ICM 25th %tile Q(vel	h)	-	-		-			
lotes	/			1.0				

	1		1	-	1	ļ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	7	<b>^</b>	7	*	<b>^</b>
Traffic Volume (veh/h)	125	14	1796	38	71	1752
Future Volume (veh/h)	125	14	1796	38	71	1752
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	15	1952	41	77	1904
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	200	92	2651	1183	223	2966
Arrive On Green	0.06	0.06	0.75	0.75	0.04	0.83
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	136	15	1952	41	77	1904
Grp Sat Flow(s), veh/h/ln	1728	1585	1777	1585	1781	1777
Q Serve(g_s), s	4.6	1.1	37.1	0.8	1.1	22.9
Cycle Q Clear(g_c), s	4.6	1.1	37.1	0.8	1.1	22.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	200	92	2651	1183	223	2966
V/C Ratio(X)	0.68	0.16	0.74	0.03	0.35	0.64
Avail Cap(c_a), veh/h	616	283	2651	1183	244	2966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	53.8	8.6	4.0	12.4	3.5
Incr Delay (d2), s/veh	1.5	0.3	1.9	0.1	0.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.0	11.3	0.0	0.9	4.5
Unsig. Movement Delay, s/veh	۷. ۱	1.0	11.0	U.Z	0.0	7.0
LnGrp Delay(d),s/veh	56.9	54.1	10.4	4.0	12.7	4.6
LnGrp LOS	50.9 E	D D	В	4.0 A	12.7 B	4.0 A
Approach Vol, veh/h	151	U	1993	Λ.	D	1981
The state of the s						
Approach Delay, s/veh	56.7		10.3			4.9
Approach LOS	Е		В			Α
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		106.4		13.6	10.6	95.8
Change Period (Y+Rc), s		* 6.3		6.6	6.0	* 6.3
Max Green Setting (Gmax), s		* 86		21.4	6.0	* 74
Max Q Clear Time (g_c+l1), s		24.9		6.6	3.1	39.1
Green Ext Time (p_c), s		6.4		0.2	0.0	6.6
Intersection Summary						
HCM 6th Ctrl Delay			9.4			
HCM 6th LOS			9.4 A			
TION OUT LOG			^			

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	1		<b>†</b>	-	1	1	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Group Flow (vph)	136	15	1952	41	77	1904	
v/c Ratio	0.51	0.11	0.75	0.04	0.45	0.66	
Control Delay	59.6	24.3	13.3	3.7	14.9	6.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.6	24.3	13.3	3.7	14.9	6.0	
Queue Length 50th (ft)	53	0	436	4	9	242	
Queue Length 95th (ft)	84	m21	652	17	42	343	
Internal Link Dist (ft)	271		660			332	
Turn Bay Length (ft)	230	125		145	195		
Base Capacity (vph)	612	294	2590	1164	179	2884	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.22	0.05	0.75	0.04	0.43	0.66	
Intersection Summary	0.22	0.00	0.10	0.04	0.43	0.00	

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		<b>^</b>	<b>1</b>		****	7
Traffic Vol, veh/h	0	109	72	68	0	70
Future Vol, veh/h	0	109	72	68	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized		None	1	1000		None
Storage Length	- 1	_	- 4	-	-	0
Veh in Median Storage,	# -	0	0	2,	0	-
Grade, %	-	0	0	_	0	
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	0	118	78	74	0	76
WWW.Tiow		110	10	1,000		10
Effective and Property and			2 11 8		The second	
AL CONTRACTOR OF THE PROPERTY	1ajor1		Major2		Minor2	
Conflicting Flow All	09	0	÷	0	-	76
Stage 1	4	-	÷	-	-	
Stage 2	-		- 4	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1		-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	jė.			-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	970
Stage 1	0		_	_	0	_
Stage 2	0	4		-	0	
Platoon blocked, %		_	_	_		
Mov Cap-1 Maneuver	-	_	-	_	-	970
Mov Cap-1 Maneuver	_	- 2	4	_		-
Stage 1			-	-	-	7
Stage 2	-		-	_	_	-
Stage 2		-				
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		9	
HCM LOS					Α	
Minor Lane/Major Mvmt		EBT	WBT	WBR S	SBI n1	
Capacity (veh/h)		LUI	1101	-	970	
HCM Lane V/C Ratio		-			0.078	/ mm
		-				
HCM Long LOS		=	7		9	
HCM Lane LOS					A	
HCM 95th %tile Q(veh)		-		-	0.3	

Intersection															
Int Delay, s/veh	6.2														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		ā	<b>^</b>	7		A	朴					7		7	
Traffic Vol, veh/h	67	17	25	0	5	0	26	10	0	0	0	25	0	50	
Future Vol, veh/h	67	17	25	0	5	0	26	10	0	0	0	25	0	50	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	-		4	None	-	-	-	None		-	None	-		None	
Storage Length	-	105		160	-	200	- 4	÷	-	4	-	0	- 4	150	
Veh in Median Storage	,# -	-	0	-	-		0	+	10824	56064		-	0	-	
Grade, %	-	-	0	-	-	- 19	0	-	-	0		-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	73	18	27	0	5	0	28	11	0	0	0	27	0	54	
Major/Minor	Major1				Major2						N	Minor2			
Conflicting Flow All	39	39	0	0	27	27	0	0			•	240		20	
Stage 1	-	- 55	-	-	21	21	-	-				44		20	
Stage 2			_		_							196	_	_	
Critical Hdwy	6.44	4.14			6.44	4.14	_					6.84		6.94	-
Critical Hdwy Stg 1	0.44	7.17		-	0.44	7.17	-	-				5.84		0.34	
Critical Hdwy Stg 2	-	_	-	-		-	-	-				5.84	_	_	
Follow-up Hdwy	2.52	2.22			2.52	2.22						3.52		3.32	
	1351	1569			1374	1585						727	-	1053	
Pot Cap-1 Maneuver	1331	1309	*	-	13/4	1303	-	-				973	0	1000	
Stage 1		-	-		-	_	-	-					0		
Stage 2	7	=	5	-	-	-	-	=				818	0	-	
Platoon blocked, %	1220	1220		-	1071	1071	-	-				C7E	۸	1052	
Mov Cap-1 Maneuver	1336	1336	0.00		1374	1374	10	187				675	0	1053	
Mov Cap-2 Maneuver	+	- 4	- 4	-	-	-	-	-				675	0	-	
Stage 1		-	19	-	-	-	-	19				907	0	-	
Stage 2	-	-	-		-	-						815	0		
Approach	EB				WB							SB			
HCM Control Delay, s	6.1				0.9							9.3			
HCM LOS	0.1				0,3							Α			
HOW EOS												Л			
Minor Lane/Major Mvm	nt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)		1336	5	-	1374	-	-		1053						
HCM Lane V/C Ratio		0.068	-	-	0.004	-	-		0.052						
HCM Control Delay (s)		7.9	+	-	7.6	- +	÷	10.6	8.6						
HCM Lane LOS		Α	÷	-	Α	7-	-	В	Α						
HCM 95th %tile Q(veh)	)	0.2	-	-	0	1141	-	0.1	0.2						

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TIDL	7	44	7	CDL	11
Traffic Vol, veh/h	0	120	<b>TT</b> 1767	121	0	<b>TT</b> 1975
Future Vol, veh/h	0	120	1767	121	0	1975
Conflicting Peds, #/hr		0	0	0	0	0
				Free	Free	Free
Sign Control	Stop	Stop	Free			
RT Channelized		None	- (+)	None	-	None
Storage Length	- 4 0	0	-	100	-	-
Veh in Median Storag		+	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	130	1921	132	0	2147
Major/Minor	Minor1	i N	Major1	A	Agior?	
			Major1		Major2	
Conflicting Flow All		961	0	0	-	-
Stage 1	-		140		-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy		6.94	÷	-	-	-
Critical Hdwy Stg 1		-		-	-	-
Critical Hdwy Stg 2	-	-		-	-	-
Follow-up Hdwy	- G+	3.32	- +	-	-	-
Pot Cap-1 Maneuver	0	*363		-	0	(I de
Stage 1	0		-	-	0	_
Stage 2	0	-	4	-	0	-
Platoon blocked, %		1	74	_		_
Mov Cap-1 Maneuver	5 P4	*363				-
Mov Cap-1 Maneuver		- 505	- 2	-		-
			-	-	-	-
Stage 1		-	- 17	-	-	-
Stage 2		-		-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s			0		0	
HCM LOS	C C		U		U	
I IOIVI LOS	C					
Minor Lane/Major Mvr	mt	NBT	NBRV	VBLn1	SBT	
Capacity (veh/h)		41	(4)	363	-	
HCM Lane V/C Ratio		-	4	0.359	_	
HCM Control Delay (s	s)	-	100	20.4	-	
HCM Lane LOS	,	-	4	C	_	
HCM 95th %tile Q(veh	h)	-	-	1.6	-	
DOM SOUL WILL COVER				1.0		
Notes	1					

	1	*	<b>†</b>	1	1	Į.
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	110	28	2024	64	68	2078
v/c Ratio	0.46	0.21	0.76	0.05	0.44	0.71
Control Delay	59.8	22.1	12.2	2.1	15.4	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	22.1	12.2	2.1	15.4	6.4
Queue Length 50th (ft)	43	1	456	3	7	278
Queue Length 95th (ft)	72	m29	584	15	36	377
Internal Link Dist (ft)	210		660			382
Turn Bay Length (ft)	230	125		145	195	
Base Capacity (vph)	242	137	2684	1212	154	2944
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.20	0.75	0.05	0.44	0.71

m Volume for 95th percentile queue is metered by upstream signal.

	1		<b>†</b>	-	/	1
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	ሻሻ	7	<b>^</b>	7	7	<b>^</b>
Traffic Volume (veh/h)	101	26	1862	59	63	1912
Future Volume (veh/h)	101	26	1862	59	63	1912
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	28	2024	64	68	2078
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	200	92	2656	1185	208	2966
Arrive On Green	0.06	0.06	0.75	0.75	0.04	0.83
Sat Flow, veh/h	3456	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	110	28	2024	64	68	2078
Grp Sat Flow(s), veh/h/ln	1728	1585	1777	1585	1781	1777
Q Serve(g_s), s	3.7	2.0	40.1	1.3	0.9	27.9
Cycle Q Clear(g_c), s	3.7	2.0	40.1	1.3	0.9	27.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	200	92	2656	1185	208	2966
V/C Ratio(X)	0.55	0.31	0.76	0.05	0.33	0.70
Avail Cap(c_a), veh/h	213	98	2656	1185	216	2966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	54.2	8.9	4.0	13.7	3.9
Incr Delay (d2), s/veh	1.2	0.7	2.1	0.1	0.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.8	12.2	0.4	0.9	5.5
Unsig. Movement Delay, s/veh		1.0	12.2	0.7	0.0	0.0
LnGrp Delay(d),s/veh	56.2	54.9	11.0	4.1	14.1	5.4
LnGrp LOS	50.Z E	D	В	A	В	Α
Approach Vol, veh/h	138		2088	/1		2146
Approach Vol, venin	56.0		10.8			5.6
Approach LOS	50.0 E		В			Α
	L		Ь			
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		106.5		13.5	10.5	96.0
Change Period (Y+Rc), s		* 6.3		6.6	6.0	* 6.3
Max Green Setting (Gmax), s		* 1E2		7.4	5.0	* 89
Max Q Clear Time (g_c+l1), s		29.9		5.7	2.9	42.1
Green Ext Time (p_c), s		7.6		0.0	0.0	7.2
Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			Α			
ALL AND PROPERTY OF			775			

<sup>\*</sup> HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		44	<b>†</b> 1>			7
Traffic Vol, veh/h	0	122	57	61	0	62
Future Vol, veh/h	0	122	57	61	0	62
Conflicting Peds, #/hr	0	0	0	0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	4	None		None
Storage Length	4	_		-	-	0
Veh in Median Storage,	# -	0	0	- 2,	0	-
Grade, %	_	0	0	-	0	100
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	0	133	62	66	0	67
WWITTOW	U	100	UZ	00	U	01
	ajor1		Major2		/linor2	
Conflicting Flow All	0÷	0	÷	0	-	64
Stage 1		-		-	-	-
Stage 2	-	- 2	- 4	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1		-		-	-	-
Critical Hdwy Stg 2	0.4	-	- 10	-	-	- 14
Follow-up Hdwy	- 5	-	÷	-	-	3.32
Pot Cap-1 Maneuver	0	-	-		0	987
Stage 1	0		_	-	0	-
Stage 2	0	-	4	-	0	
Platoon blocked, %		_	-	_		
Mov Cap-1 Maneuver	-	-		-	-	987
Mov Cap-2 Maneuver	_		<u> </u>	_	- 1	507
Stage 1	7	-				
Stage 2			_		_	
Stage 2		-				
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		8.9	
HCM LOS					Α	
Minor Lane/Major Mvmt		EBT	WBT	WBR S	SBI n1	
Capacity (veh/h)			1101	TI DITT	987	
HCM Lane V/C Ratio			-		0.068	
HCM Control Delay (s)			-	-	8.9	
		-	7			
HCM Lane LOS	-	_	- +		A	
HCM 95th %tile Q(veh)		- 3		-	0.2	-

Intersection														
Int Delay, s/veh	5.2													
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ā	44	7		T.	44					7		7
Traffic Vol, veh/h	63	37	23	0	3	0	34	28	0	0	0	10	0	29
Future Vol, veh/h	63	37	23	0	3	0	34	28	0	0	0	10	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	4	None	-	-	-	None		-	None			None
Storage Length	-	105		160		200	- 4	-		4	-	0	- 4	150
Veh in Median Storage	e,# -	+	0	-	-	-	0	+	10824	56064		-	0	-
Grade, %	-		0	-	-	-	0	+	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	40	25	0	3	0	37	30	0	0	0	11	0	32
Major/Minor	Major1				Major2						N	/linor2		
Conflicting Flow All	67	67	0	0	25	25	0	0				287	- 4	34
Stage 1	4	-	-	-	-		_	12				58	-	-
Stage 2			- 2	_	-		- 04	- 12				229	-	
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-					6.84	-	6.94
Critical Hdwy Stg 1	-	_	- 2	-	_	-	_	100				5.84	-	-
Critical Hdwy Stg 2		-		-	-	- (4)	-					5.84	-	-
Follow-up Hdwy	2.52	2.22	÷		2.52	2.22	-	- 14				3.52	4	3.32
Pot Cap-1 Maneuver	1297	1533		180	1378	1588	- 2					680	0	1032
Stage 1	<u> </u>		-	4.	-		- 1					958	0	-
Stage 2	1.5		-	-	_	100	-	-				787	0	-
Platoon blocked, %				-			- 4							
Mov Cap-1 Maneuver	1350	1350	( <del>-</del>	-	1378	1378	-	19				624	0	1032
Mov Cap-2 Maneuver	+	-	- 2	-	-	-	-	-				624	0	- 9
Stage 1	-	÷	- 4	-	-	- 12	-	- 1-				880	0	-
Stage 2	-		- 2	-	- O-	-	-	12				785	0	
Approach	EB				WB							SB		
HCM Control Delay, s	6.4				0.4							9.2		
HCM LOS												Α		
Minor Long (Marian Education		EDI	EDT	EDD	\A/DI	MOT	MDD	CDI =4	CDIO					
Minor Lane/Major Mvm	IL	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)		1350	- 5		1378	- 12	-		1032					
HCM Lane V/C Ratio		0.081	-	-	0.002	-	-	0.017						
HCM Control Delay (s)		7.9		=	7.6		-	10.9	8.6					
HCM Lane LOS		Α	÷	-	Α	7.	-	В	Α					
HCM 95th %tile Q(veh	)	0.3		-	0		-	0.1	0.1					



## CITIZEN REVIEW & NEIGHBORHOOD INVOLVEMENT REPORT QuikTrip- Scottsdale and Legacy

February 1, 2022

#### Overview

This Citizen Review Report is being performed in association with a request for a Conditional Use Permit to allow for a fueling station on an approximately 2.0+/- acre site located at the northeast corner of Scottsdale Road and Legacy Boulevard. The site is currently zoned Planned Regional Center – Planned Community District and the zoning on the site is not changing as part of this request. This Citizen Review Report will be updated throughout the process.

The entire project team is sensitive to the importance of neighborhood involvement and creating a positive relationship with property owners, residents, business owners, homeowners associations, and other interested parties. Communication with these parties will be ongoing throughout the process. Work on compiling a list of impacted and interested stakeholders and neighborhood outreach began prior to the application filing and will also continue throughout the process.

#### Community Involvement

Surrounding property owners, HOAs and other interested parties were noticed via first class mail regarding the project and were provided contact information for those who wanted more information. Additionally, the notice included information regarding a Virtual Open House for the project that was held on <u>Wednesday</u>, <u>January 26</u>, <u>2022</u>. The distribution of this notification **EXCEEDED** the City's 750' radius mailing requirements as specified in the Citizen Review Checklist.

A detailed description and visuals for the project were posted online as well as an opportunity for neighbors to provide comments/questions by phone or by email to the development team. The website and its accessibility date/time were posted on the Early Notification Sign on the property and the website was available from 1/25 through 1/28. There were 28 total views of the online website during that time. The development team did not receive any emails or phone calls with questions or comments regarding the project. However, the development

#### **ATTACHMENT 9**

team will continue to be accessible by phone and email to ensure that surrounding property owners and neighbors have ongoing opportunities to comment and ask questions.

A vital part of the outreach process is to allow people to express their concerns and understand issues and attempt to address them in a professional and timely matter. Again, the entire team realizes the importance of the neighborhood involvement process and is committed to communication and outreach for the project.

#### Attachments:

Notification Letter Notification List Affidavit of Posting



January 14, 2022

Dear Neighbor:

We are pleased to tell you about an upcoming request (1165-PA-2021) for a Conditional Use Permit on the 2+/- acre parcel located at the northeast corner of Scottsdale Road and Legacy Boulevard. This site is part of the One Scottsdale Master Plan and the Use Permit would result in a new gas station on this corner. The site is zoned Planned Regional Center – Planned Community District and the zoning on the site is not changing as part of this request.

In accordance with public safety procedures during COVID-19, we will be hosting an open house virtually, allowing for questions and comments, just as they would be if there were an in person open house. Information will be posted on the web link <a href="https://www.technicalsolutionsaz.com/open-house.html">www.technicalsolutionsaz.com/open-house.html</a> and will be accessible on Wednesday, January 26, 2022. The project team will then be available on January 26, 2022 from 4:30 PM to 6 PM to respond to questions or comments at (602) 957-3434 or email <a href="mailto:info@technicalsolutionsaz.com">info@technicalsolutionsaz.com</a>.

If you are unable to access the Virtual Open House online, please contact the neighborhood outreach team at 602-957-3434 or <a href="mailto:info@technicalsolutionsaz.com">info@technicalsolutionsaz.com</a> and we will be happy to provide you information about the proposal. The City of Scottsdale Project Coordinator for the project is Meredith Tessier, who can be reached at 480-312-4211 or <a href="mailto:MTessier@ScottsdaleAZ.gov">MTessier@ScottsdaleAZ.gov</a>.

Thank you.

Sincerely,

Susan Bitter Smith

- Ritte fruite

President



# **Affidavit of Posting**

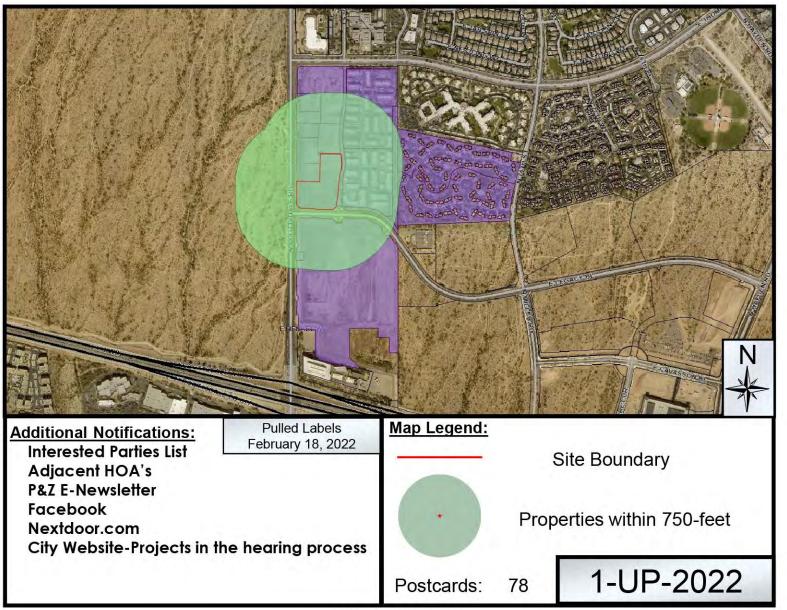
Required: Signed, Notarized originals. Recommended: E-mail copy to your project coordinator. Project Under Consideration Sign (White) Public Hearing Notice Sign (Red) 1165-PA-2021 Case Number: **Project Name:** NEC Scottsdale Rd & Legacy Blvd Location: 01/14/22 Site Posting Date: **Technical Solutions Applicant Name:** Sign Company Name: Phone Number: I confirm that the site has been posted as indicated by the Project Manager for the case as listed above. 01/14/22 Applicant/Signature Date Return completed original notarized affidavit AND pictures to the Current Planning Office no later than 14 days after your application submittal. day of amary 2022 Acknowledged before me this the MARYBETH CONRAD Notary Public - Arizona Maricopa County Commission # 591461 My Comm. Expires Oct 25, 2024 My commission expires: 10 25:24

City of Scottsdale -- Current Planning Division

7447 E Indian School Road, Suite 105, Scottsdale, AZ 85251 + Phone: 480-312-7000 + Fax: 480-312-7088



### City Notifications – One Scottsdale PU III Quick Trip





#### SCOTTSDALE PLANNING COMMISSION KIVA-CITY HALL 3939 DRINKWATER BOULEVARD SCOTTSDALE, ARIZONA

#### WEDNESDAY, AUGUST 24, 2022

#### \*DRAFT SUMMARIZED MEETING MINUTES \*

PRESENT: Renee Higgs, Chair

Joe Young, Vice Chair

Barney Gonzales, Commissioner Diana Kaminski, Commissioner George Ertel, Commissioner

William Scarbrough, Commissioner Christian Serena, Commissioner

ABSENT:

STAFF: Tim Curtis

Eric Anderson Meredith Tessier Bryan Cluff Greg Bloemberg

Ryan Garofalo Alexis Hartley Caitlyn Gulsvig Alfred Kane

#### **CALL TO ORDER**

Chair Higgs called the regular session of the Scottsdale Planning Commission to order at 5:00 p.m.

#### ROLL CALL

A formal roll call was conducted confirming members present as stated above.

#### ATTACHMENT #11

<sup>\*</sup> Note: These are summary action minutes only. A complete copy of the meeting audio is available on the Planning Commission page on ScottsdaleAZ.gov, search "Planning Commission"

#### MINUTES REVIEW AND APPROVAL

1. Approval of August 10, 2022 Regular Meeting Minutes.

Vice Chair Young moved to approve the August 10, 2022 regular meeting minutes. Seconded by Commissioner Serena, the motion carried unanimously with a vote of seven (7) to zero (0).

## **CONSENT AGENDA**

2. 1-UP-2022 (One Scottsdale PU III Quick Trip)

Request by owner for approval of a Conditional Use Permit for a new gas station on a +/-2-acre site with Planned Regional Center, Planned Community District (PRC PCD) zoning, located at 19552 N. 73rd Street. Staff contact person is Meredith Tessier, 480-312-4211.

Applicant contact person is Michele Hammond, (602) 463-4081.

3. 3-UP-2022 (ASR Well 159 MUMSP)

Request by owner for a recommendation to the Planning Commission and City Council regarding the Municipal Use Master Site Plan for a new aquifer storage and recovery well site, on a 1.3-acre site zoned Commercial Office with comparable Planned Airpark Core Development (C-O PCP) district at 7440 E Legacy Blvd. Staff contact person is Meredith Tessier, 480-312-4211.

Applicant contact person is Brad Walldorf, (480) 312-7790.

Item No. 2 & 3; Commissioner Kaminski moved to make a recommendation to City Council for approval of cases 1-UP-2022 and 3-UP-2022 per the staff recommended stipulations, based upon the finding that the Conditional Use Permit criteria have been met. Seconded by Commissioner Serena, the motion carried unanimously with a vote of seven (7) to zero (0).

## **REGULAR AGENDA**

4. 1-ZN-2014#2 (The Osborn Residential Health Care Facility)

Request by owner for approval of a zoning district map amendment to amend an existing development plan and zoning stipulations (1-ZN-2014) to allow for development of a residential healthcare facility with +/- 247 units/beds including both minimal and specialized care, and approximately 9,900 square feet of commercial space; and 8 feet of bonus height on a +/- 3.59 gross acre site with Downtown/ Downtown Multiple Use Type-2 Planned Block Development Downtown Overlay (D/DMU-2 PBD DO) zoning located at 3380 N Scottsdale Road. Staff contact person is Bryan Cluff, 480-312-2258.

Applicant contact person is Michele Hammond, (480) 385-2753.

<sup>\*</sup> Note: These are summary action minutes only. A complete copy of the meeting audio is available on the Planning Commission page on ScottsdaleAZ.gov, search "Planning Commission"

#### 5. 17-UP-2021 (The Osborn Residential Health Care Facility)

Request by owner for approval of Conditional Use Permit for a residential healthcare facility with +/- 247 units/beds including both minimal and specialized care, on a +/- 3.59 gross acre site with Downtown/ Downtown Multiple Use Type-2 Planned Block Development Downtown Overlay (D/DMU-2 PBD DO) zoning located at 3380 N Scottsdale Road. Staff contact person is Bryan Cluff, 480-312-2258.

Applicant contact person is Michele Hammond, (480) 385-2753.

Item No. 4 & 5; Commissioner Serena moved to make a recommendation to City Council for approval of cases 1-ZN-2014#2 and 17-UP-2021 per the staff recommended stipulations, after determining that the proposed Zoning District Map Amendment is consistent and conforms with the adopted General Plan and the Conditional Use Permit criteria have been met. Seconded by Commissioner Ertel, the motion carried unanimously with a vote of seven (7) to zero (0).

#### 6. 1-GP-2022 (Scottsdale Office Remodel)

Request by owner for a minor General Plan amendment to the City of Scottsdale General Plan 2035 Future Land Use Map from Cultural/Institutional or Public Use to Suburban Neighborhoods Land Use Designation on a +/- 0.65-acre site located at 7339 E. McDonald Drive. Staff contact person is Greg Bloemberg, 480-312-4306.

Applicant contact person is Neil Feaser / Jamie Angulo, (602) 955-3900.

#### 7. 3-ZN-2022 (Scottsdale Office Remodel)

Request by owner for a zoning district map amendment from Single-family Residential (R1-43) zoning to Service Residential (S-R) zoning on a +/- 0.65-acre site, located at 7339 E. McDonald Drive.

Staff contact person is Greg Bloemberg, 480-312-4306.

Applicant contact person is Neil Feaser / Jamie Angulo, (602) 955-3900.

Item No. 6 & 7; Commissioner Ertel moved to make a recommendation to City Council for approval of cases 1-GP-2022 and 3-ZN-2022 per the staff recommended stipulations, after determining that the proposed Zoning District Map Amendment is consistent and conforms with the adopted General Plan. Seconded by Commissioner Gonzales, the motion carried unanimously with a vote of seven (7) to zero (0).

#### **REQUEST TO SPEAK CARDS:**

Item 6: Bridget Hay, Doug Craig, Larry Fink.

#### WRITTEN COMMENT CARDS:

Item 6: Adam Brooks.

#### ADJOURNMENT

With no further business to discuss, the regular session of the Planning Commission adjourned at 6:30 p.m.

<sup>\*</sup> Note: These are summary action minutes only. A complete copy of the meeting audio is available on the Planning Commission page on ScottsdaleAZ.gov, search "Planning Commission"