



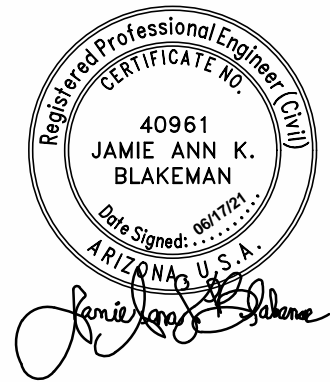
To: Ryan Tobias
Jackson Dearborn Partners

Date: June 18, 2021

From: Jamie Blakeman, PE, PTOE

Job Number: 20,5119

RE: The Artisan Scottsdale
Traffic Impact and Mitigation Analysis – Category I



INTRODUCTION

Lōkahi, LLC (Lōkahi) has prepared a Traffic Impact and Mitigation Analysis for The Artisan Scottsdale development. The proposed development is located on the southwest corner (SWC) of Indian School Road and Marshall Way in Scottsdale, Arizona. See **Figure 1** for the vicinity map.

The proposed site will be comprised of 83 multi-family units, 2,500 square feet of office space, and 2,500 square feet of retail space. Of the 83 multi-family units there are 16 studio units, 51 one-bedroom units, and 16 two-bedroom units.

See **Attachment A** and **Figure 2** for the site plan.

The objective of this Traffic Impact Mitigation and Analysis is to analyze the proposed development's traffic related impacts to the adjacent roadway network.



Figure 1 - Vicinity Map





EXISTING CONDITIONS

The approximate 0.81-acre site is currently vacant commercial land and comprised of six (6) parcels. This site is currently zoned as Central Business (C-2). This zoning is intended to accommodate recurring shopping and service needs for multiple neighborhoods. See **Attachment B** for Maricopa County Assessor's parcel information.

The proposed site is bordered by Indian School Road to the north, 1st Avenue to the south, and Marshall Way to the east. Located directly west of the proposed site are several commercial developments to include an insurance broker, interior designer, advertising agency, two cafés and a bar.

Indian School Road runs east-west along the northern border of the proposed development. Within the vicinity of the site, Indian School Road provides two (2) through lanes in each direction of travel with a raised landscaped center median. West of Goldwater Boulevard, Indian School Road provides three (3) in each direction of travel. There is a posted speed limit of 35 mph. The City of Scottsdale classifies Indian School Road as a minor arterial east of Goldwater Boulevard according to *The Scottsdale Master Transportation Plan*, dated July 2016. Additionally, west of Goldwater Boulevard, Indian School Road is classified as a major arterial. The City of Scottsdale's 2018 *Average Daily Segment Traffic Volumes* map reports an ADT of 25,500 vehicles per day along Indian School Road, between 68th Street and Goldwater Boulevard, and 19,600 vehicles per day, between Goldwater Boulevard and Scottsdale Road.

Marshall Way runs north-south along the eastern border of the proposed development and provides one (1) through lane in each direction of travel. There is an unposted speed limit of 25 mph.

1st Avenue runs east-west along the southern border of the proposed development and provides one (1) through lane for each direction of travel. There is an unposted speed limit of 25 mph. On-street parking is provided on both sides of the roadway.

Goldwater Boulevard runs north-south and in the vicinity of the site provides two (2) through lanes for northbound travel and three (3) through lanes for southbound direction of travel with a two-way-left-turn-lane (TWLTL) and intermittent landscaped median. There is a posted speed limit of 35 miles per hour (mph). The City of Scottsdale classifies Goldwater Boulevard as a couplet, according to *The Scottsdale Master Transportation Plan*, dated July 2016. The City of Scottsdale's 2018 *Average Daily Segment Traffic (ADT) Volumes* map reports an ADT of 17,700 vehicles per day along Goldwater Boulevard, between Camelback Road and Indian School Road and 11,800 vehicles per day between Indian School Road and Osborn Road.



COLLISION HISTORY

The City of Scottsdale’s 2018 *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 segment’s termini intersections, including those that occur at minor intersections within the segment. Intersection collisions are collisions that occur at or within 100 feet of the intersection.

The collision rates and city-wide rankings for the study roadway segments and intersections are shown in **Table 1** and **Table 2**, respectively.

Table 1 – Collision Rates - Study Roadway Segment

Segment	From	To	Collision Rate	Rank
Indian School Road	Goldwater Boulevard	Scottsdale Road	5.03	13
Goldwater Boulevard	Scottsdale Road	Indian School Road	5.43	9
2018 City of Scottsdale Average Segment Collision Rate			1.53	

Table 2 – Collision Rates - Study Intersections

Intersection	Collision Rate	Rank
Scottsdale Road and Indian School Road	1.48	3
Goldwater Boulevard and Indian School Road	0.81	50
2018 Average Intersection Collision Rate	0.58	



PROPOSED DEVELOPMENT

The proposed development will be comprised of two (2) buildings to include 83 multi-family units, 2,500 square feet of office space, and 2,500 square feet of retail space. Of the 83 multi-family units there are 16 studio units, 51 one-bedroom units, and 16 two-bedroom units.

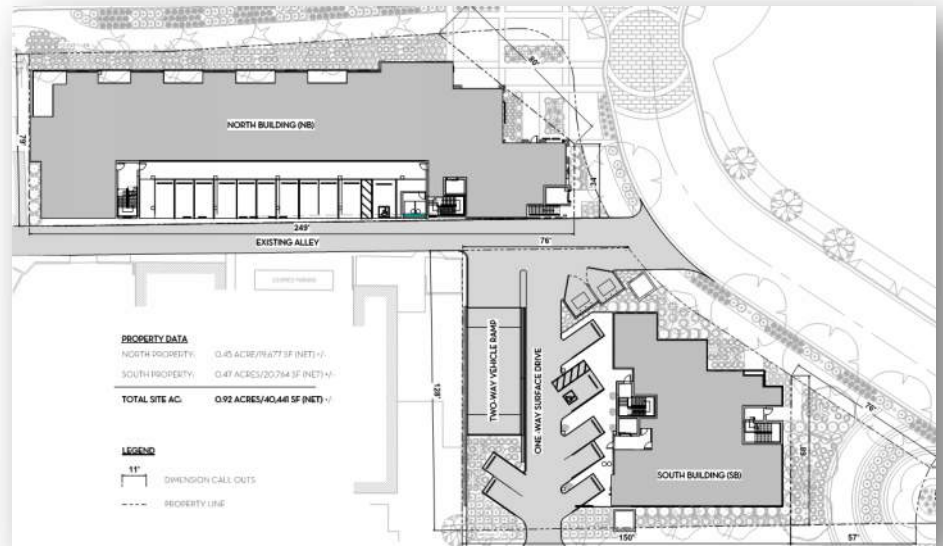


Figure 2 - Site Plan

The primary access is located along Marshall Way approximately 120 feet south of Indian School Road. This driveway will be a full access, allowing all movements into and out of the proposed parking garage.

There will be ingress and egress access located along Goldwater Boulevard, via the alley approximately 120 feet south of Indian School Road. Additionally, there will be a one-way access driveway located along 1st Avenue, approximately 230 feet west of Marshall Way.

EXISTING TRAFFIC COUNTS

A local data collection firm, Field Data Services of Arizona, Inc., was utilized to collect traffic counts. On Thursday, October 15, 2020, four (4) hours of typical weekday turning movements were counted during the AM (7:00 to 9:00 am) and PM (4:00 to 6:00 pm) at the following intersection:

- Goldwater Boulevard and 1st Avenue (1)

Additionally, traffic count data was obtained from the Southbridge Expansion Traffic Impact and Mitigation Analysis, dated May 2019. Field Data Services of Arizona, Inc. was utilized to collect traffic counts on Wednesday, August 1, 2018. Four (4) hours of typical weekday turning movement counts were counted during the AM (7:00 to 9:00 am) and PM (4:00 to 6:00 pm) at the following intersection:

- Indian School Road and Marshall Way (2)



The following peak hours identified in the *Southbridge Expansion Traffic Impact and Mitigation Analysis* were analyzed throughout this report.

AM Peak Hour	7:30 am – 8:30 am
PM Peak Hour	4:30 pm – 5:30 pm

Bi-directional tube counts were collected on Thursday, October 15, 2020, for 24-hours in 15-minute intervals along the following four (4) roadway segments:

- Indian School Road, west of Marshall Way
- Marshall Way, south of Indian School Road
- 1st Avenue, west of Marshall Way
- Goldwater Boulevard, south of Indian School Road

The traffic counts collected on Thursday, October 15, 2020, were adjusted, by a factor of 1.20 to reflect the recent decrease in traffic volumes due to COVID-19 conditions. This factor was calculated based on a comparison of the October 2020 counts to 2018 traffic counts obtained from the City of Scottsdale’s Daily Traffic Volumes. See **Table 3**.

Table 3 - Daily Traffic Volume Comparison

	2018	2020	% Change
Indian School	19,600	19,966	2%
Goldwater Boulevard	11,800	9,777	-17%
Average % Change			-8%
Adjustment Factor Used			20%

An annual growth rate was applied through year 2021 to the 2018 and 2020 traffic counts. See **Attachment C** for detailed traffic count data. See **Figure 3** for the existing AM and PM peak hour traffic volumes.



EXISTING CAPACITY ANALYSIS

The existing conditions capacity analysis was completed for the two (2) existing study intersections. The capacity and level of service for the study area intersections were evaluated using the methodology presented in the 6th Edition of the Highway Capacity Manual. Traffic analysis software, Synchro Version 10.3, was used to perform the analyses using the existing Peak Hour Factor (PHF) obtained from the 2020 traffic counts. Traffic count data obtained from the Southbridge Expansion Traffic Impact and Mitigation Analysis does not provide the existing PHF, therefore an assumed PHF of 0.92 was utilized for the 2018 traffic counts.

Table 4 is from the 6th Edition of the Highway Capacity Manual Exhibit 19-8 and 20-2, which lists the Level of Service (LOS) thresholds for signalized and unsignalized intersections.

Table 4 – Level of Service Criteria

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

The results of the existing capacity analysis reveal that all locations operate with an existing level of service (LOS) D or better.

See **Figure 3** for the existing AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in **Attachment D**.



TRIP GENERATION

The trip generation was calculated utilizing the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 10th Edition*. Land Use 826 – Specialty Retail Center has been removed from the most recent ITE publication. Hence, *Trip Generation, 9th Edition* of the ITE Publication was utilized for Land Use 826 – Specialty Retail Center. The ITE trip generation rates and fitted curve equations are based on studies that measure 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 the standard for the transportation engineering profession.

POTENTIAL DEVELOPMENT UNDER EXISTING ZONING

The existing site is currently zoned for Central Business (C-2) land uses. C-2 zoning is intended to permit uses for recurring shopping and service needs for multiple neighborhoods. A total lot area of 35,339 SF (0.81-acres), and a maximum floor-to-area (FAR) of 0.80, allows for 28,271 SF of developable area. A 28,271 SF retail center was assumed for potential buildout.

Utilizing ITE Land Use 826 – Specialty Retail Center, the trip generation for the potential development under existing zoning was calculated as shown in **Table 5** below. Detailed trip generation calculations are provided in **Attachment E**.

Table 5 - Trip Generation (Existing Zoning)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Specialty Retail Center	826	28.27	1000 Sq. Ft. GLA	1,248	27	17	10	90	40	50
Total				1,248	27	17	10	90	40	50

PROPOSED DEVELOPMENT

The Artisan Scottsdale development will include the following land uses:

- Multi-Family Residential 83 units
 16 studio units
 51 one-bedroom units
 16 two-bedroom units
- Office 2,500 square feet
- Retail 2,500 square feet

The trip generation for The Artisan Scottsdale development was calculated utilizing ITE Land Use 221 – Multifamily Housing (Mid-Rise), ITE Land Use 826 – Specialty Retail Center, and ITE Land Use 712 – Small Office Building. Trip generation calculations are shown in **Table 6**. See **Attachment E** for detailed trip generation calculations.





Table 6 - Trip Generation (Proposed Development)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	221	83	Dwelling Units	452	30	8	22	37	23	14
Specialty Retail Center	826	2.5	1000 SF GFA	145	2	1	1	28	12	16
Small Office Building	712	2.5	1000 SF GFA	40	5	4	1	6	3	3
Total				637	37	13	24	71	38	33

The proposed development is anticipated to generate 637 weekday trips with 37 trips occurring during the AM peak hour and 71 trips during the PM peak hour.

EXISTING ZONING VS. PROPOSED DEVELOPMENT

A comparison between the trips generated with the buildout under the existing zoning for 0.8 FAR Specialty Retail Center and The Artisan Scottsdale development is shown in **Table 7**.

**Table 7 - Trip Generation Comparison
(Existing Zoning – 0.8 FAR Retail vs Proposed Development)**

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Specialty Retail Center	826	28.27	1000 Sq. Ft. GLA	1,248	27	17	10	90	40	50
Total				1,248	27	17	10	90	40	50
Multifamily Housing (Mid-Rise)	221	83	Dwelling Units	452	30	8	22	37	23	14
Specialty Retail Center	826	2.5	1000 SF GFA	145	2	1	1	28	12	16
Small Office Building	712	2.5	1000 SF GFA	40	5	4	1	6	3	3
Proposed - Total				637	37	13	24	71	38	33
Difference				-611	10	-4	14	-19	-2	-17
% Difference				-49%	37%	-24%	140%	-21%	-5%	-34%

The buildout of The Artisan Scottsdale development is anticipated to generate 611 (49%) fewer weekday trips, with 10 (37%) additional trips during the AM peak hour, and 19 (21%) fewer trips during the PM peak hour than the build-out of under existing zoning.

TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution and trip assignment procedure determine the general pattern of travel for vehicles entering and leaving the proposed development. The trip distribution and assignment were generally based on proximity of each of the site driveways to the major roadway network routes, permitted turn movements, as well as ease and probability of use. The trip distribution is shown in **Figure 3**.





The trip assignment was generally based on proximity of the driveway, permitted turn movements, as well as ease and probability of use. The site generated traffic volumes for the proposed development are shown in **Figure 3**.

FUTURE CONDITION – YEAR 2023

The proposed Artisan Scottsdale is anticipated to be open in the year 2023. This section analyzes the effects the proposed development will have on the surrounding roadway network during the year of 2023.

YEAR 2023 BACKGROUND TRAFFIC VOLUMES

According to the 2019 Maricopa Associations of Governments (MAG) socioeconomic projections within the proposed study area, it is estimated that in the year 2030 the population will be approximately 79,910. MAG estimates that the 2018 population of the surrounding area to be 68,987. This results in an approximate annual growth rate of 1.23%.

As a conservative approach, a 2.0% annual growth rate was utilized. See **Attachment F** for the MAG socioeconomic projections. The 2.0% annual growth rate is applied to all existing traffic volumes through the year 2025.

Additionally, the following future development was factored into the year 2023 background traffic volumes:.

The Kimsey

The Kimsey is a proposed development that is located on the north side of Indian School Road, approximately 200 feet east of Marshall Way and The Artisan Scottsdale development. A Traffic Impact and Mitigation Analysis was completed for the development, dated March 8, 2021. The Kimsey development is comprised of 190 multifamily housing units, a 168-room hotel, and 4,000 square feet of restaurant space. Per the approved traffic analysis, the development generates a total of 2,888 weekday trips, with 183 AM peak hour trips and 222 PM peak hour trips and is assumed to be fully occupied during the year of 2024. At the request of City staff, the site traffic volumes attributed to The Kimsey development were included in the year 2023 background traffic volumes.

The development will have a total of five (5) access points. Three (3) will be located along Indian School Road and two (2) will be located along 3rd Avenue. Using the site traffic volumes shown in Figure 7 of The Kimsey report, the site traffic volumes for the development were included for the study intersections and are shown in **Figure 3**. See **Attachment G** for relevant portions of The Kimsey Traffic Impact and Mitigation Analysis.



YEAR 2023 BUILD TRAFFIC VOLUMES

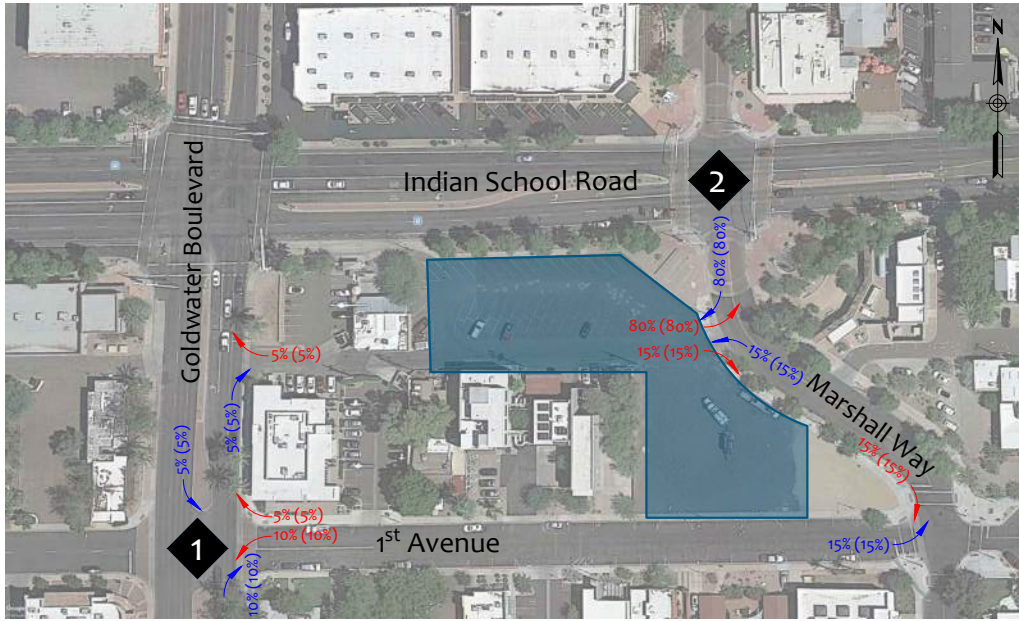
When the year 2023 site traffic is added to the year 2023 background traffic, the result is the 2023 build traffic volumes. This represents the traffic volumes with the build out of the proposed development. The year 2023 build traffic volumes are shown in **Figure 3**.

YEAR 2023 BUILD CAPACITY ANALYSIS

The capacity and level of service for the intersection of Goldwater Boulevard and 1st Avenue (1) and Indian School Road and Marshall Way (2) were evaluated for the year 2023 build traffic volumes. See **Figure 3**. The detailed capacity analysis sheets can be found in **Attachment H**. The PHF was assumed to be 0.92 for all study intersections.

The traffic signal phases for the intersection of Indian School and Marshall Way (2) as it exists today, continues to operate with acceptable levels of service in year 2023 (with The Kimsey site volumes along with annual growth) and with the build out of The Artisan Scottsdale.

The results of the 2023 build capacity analysis level of service is shown in **Figure 3**. All movements operate at a LOS D or better.



- Legend**
- AM (PM) Peak Hour Traffic Volumes
 - AM [PM] Peak Hour Level of Service
 - AM (PM) Inbound Trip Distribution Percentages
 - AM (PM) Outbound Trip Distribution Percentages
 - ◆ Intersection

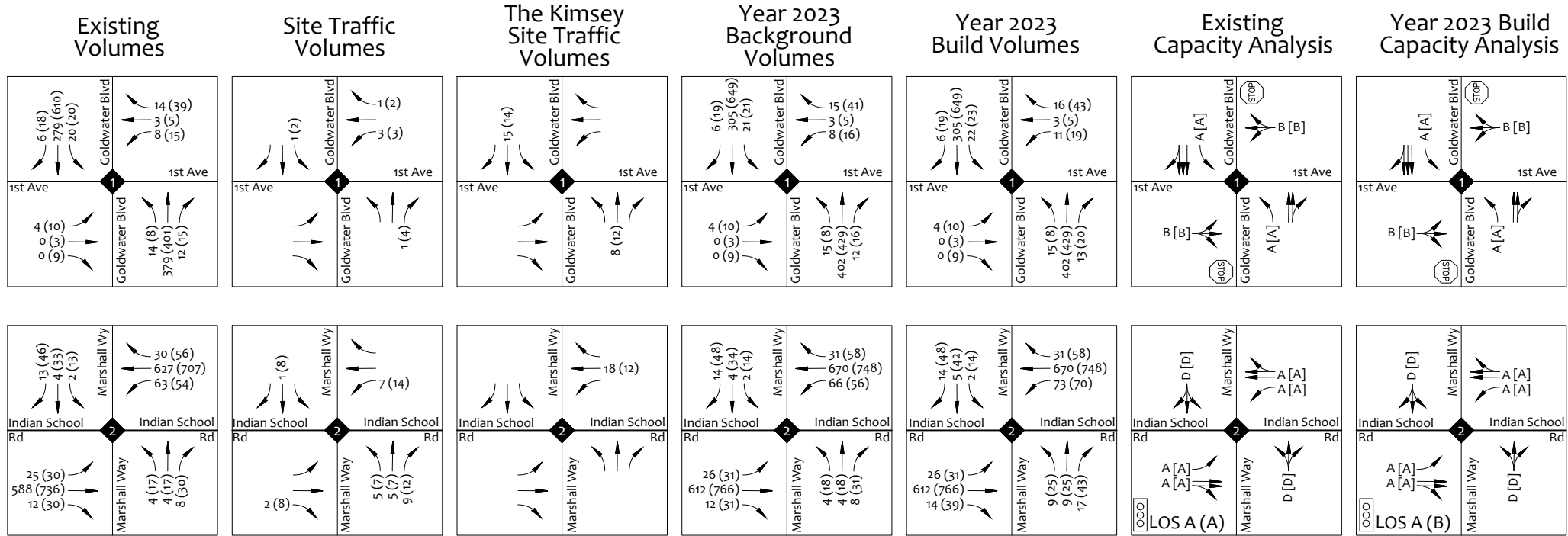


FIGURE 3 | TRAFFIC VOLUMES AND CAPACITY ANALYSIS



SUMMARY

The proposed site is located on the southwest corner of Indian School Road and Marshall Way and will be comprised of two (2) buildings to include 83 multi-family units, 2,500 square feet of office space, and 2,500 square feet of retail space. Of the 83 multi-family units there are 16 studio units, 51 one-bedroom units, and 16 two-bedroom units.

There are three (3) access points to The Artisan Scottsdale development. Utilizing the existing roadway network, the ingress/egress points to the proposed development can be accessed by Marshall Way, 1st Avenue, or the existing access drive that intersects with Goldwater Boulevard.

Existing Capacity Analysis

The results of the existing capacity analysis reveal that all movements for the intersections of Goldwater Boulevard and 1st Avenue (1) and Indian School Road and Marshall Way (2) operate with an existing level of service (LOS) D or better.

Trip Generation

At full build-out, the proposed Artisan Scottsdale development is anticipated to generate 637 weekday trips, with 37 trips occurring during the AM peak hour and 71 trips during the PM peak hour.

Trip Generation Comparison

The build-out of The Artisan Scottsdale development is anticipated to generate 611 (49%) fewer weekday trips, with 10 (37%) additional trips during the AM peak hour, and 19 (21%) fewer trips during the PM peak hour than the build-out of an 28,271 SF specialty retail store.

Year 2023 (Build Out Year)

Year 2023 (build out year) analysis was completed with the build out of the proposed The Artisan Scottsdale development. The year 2023 background traffic volumes include the trips generated by The Kimsey development (which is a proposed approved development), in addition to an annual growth rate of 2.0%.

A capacity analysis was completed for both the AM and PM peak hour for year 2023, with the build out of The Artisan Scottsdale development. All movements operate at a LOS D or better for the intersections of Goldwater Boulevard and 1st Avenue (1) and Indian School Road and Marshall Way (2).

The traffic signal phases for the intersection of Indian School and Marshall Way (2) as it exists today, continues to operate with acceptable levels of service in year 2023 (with The Kimsey site volumes along with annual growth) and with the build out of The Artisan Scottsdale.



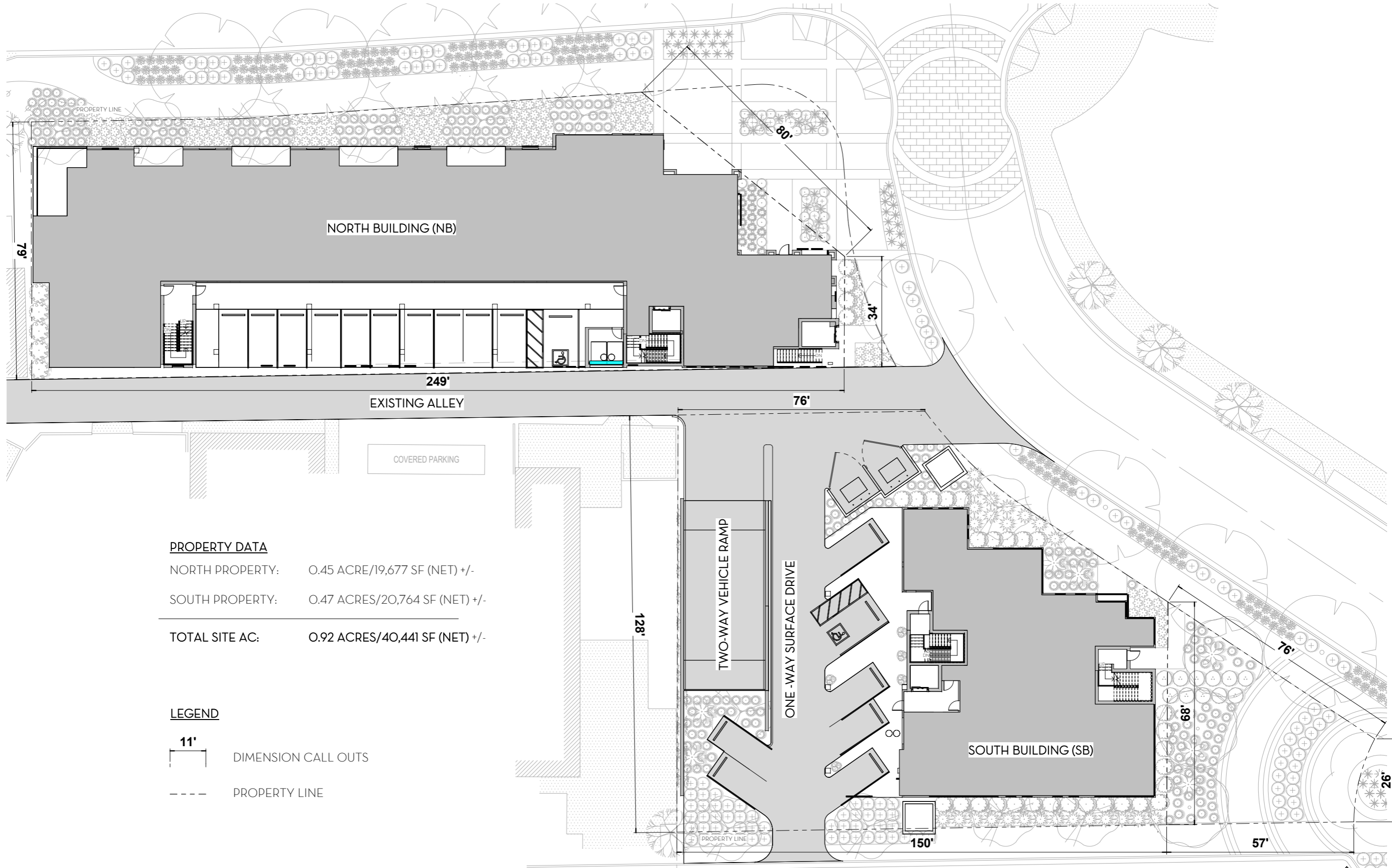
The City of Scottsdale's 2018 *Average Daily Segment Traffic (ADT) Volumes* map reports an ADT of 19,600 vehicles per day along Indian School Road, between Goldwater Boulevard and Scottsdale Road and an ADT of 11,800 vehicles per day along Goldwater Boulevard, between Indian School Road and Osborn Road. With the build out of the proposed development, 637 daily trips are projected to be added onto the adjacent roadway network.

Based on the trip distribution shown in Figure 3, approximately 80% of the daily traffic will utilize Indian School Road to access the proposed development. With an ADT of 19,600 vehicles per day along Indian School Road, the ADT would increase by approximately 2.6%. Similarly, Figure 3 shows approximately 20% of the daily traffic will utilize Goldwater Boulevard to access the proposed development. With an ADT of 11,800 vehicles per day along Goldwater Boulevard, the ADT would increase by approximately 1.1%.

In conclusion, the traffic generated by The Artisan Scottsdale development is anticipated to result in minimal traffic impacts to the existing roadway network and the surrounding area.



ATTACHMENT A – PROPOSED SITE PLAN

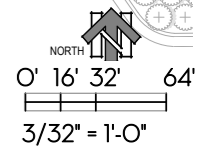


PROPERTY DATA

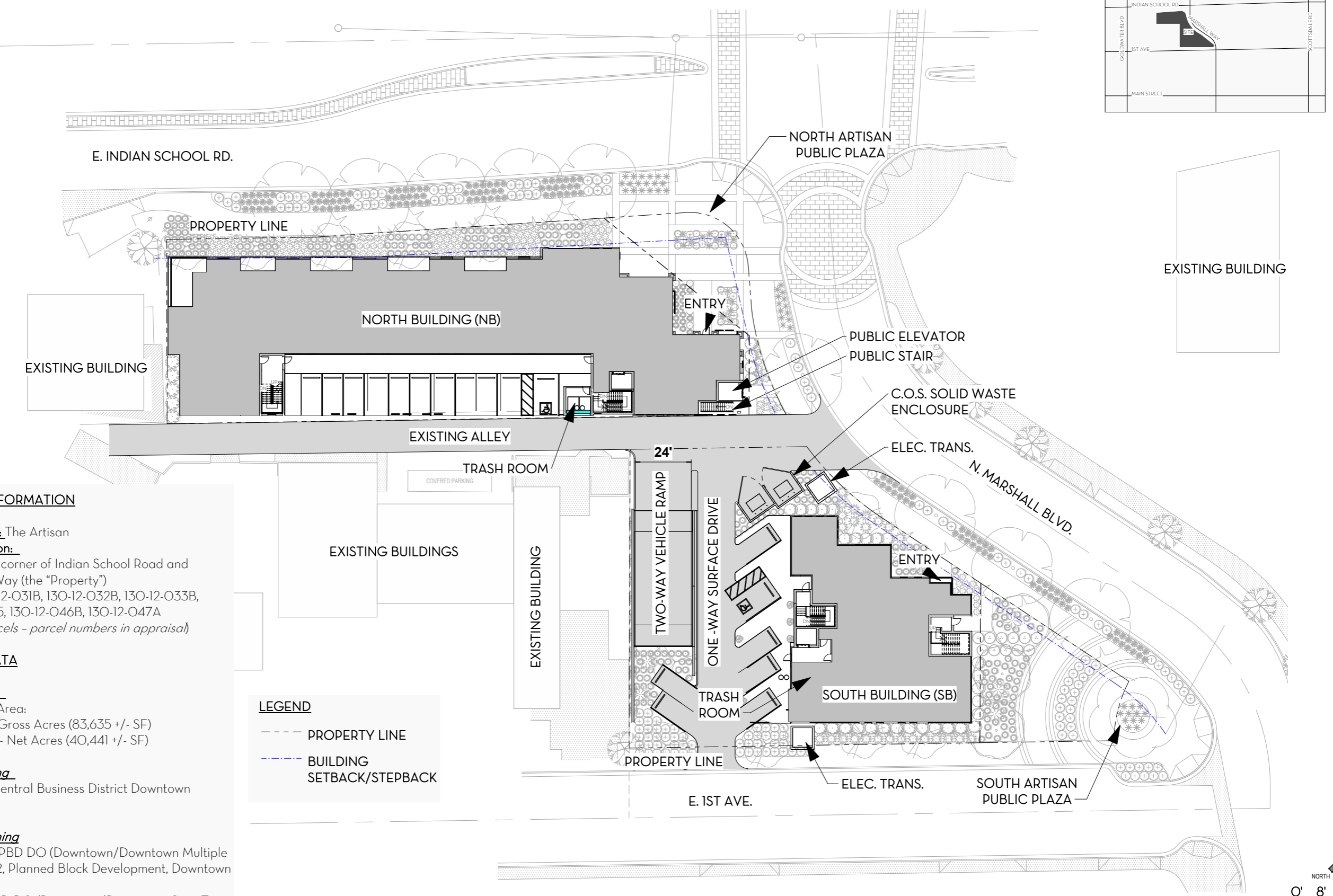
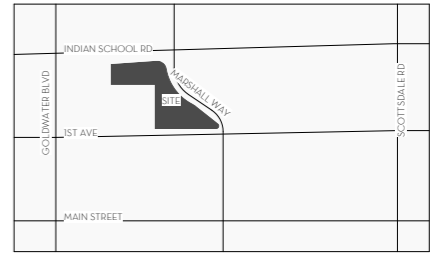
NORTH PROPERTY:	0.45 ACRE/19,677 SF (NET) +/-
SOUTH PROPERTY:	0.47 ACRES/20,764 SF (NET) +/-
TOTAL SITE AC:	0.92 ACRES/40,441 SF (NET) +/-

LEGEND

-  11' DIMENSION CALL OUTS
-  DASHED PROPERTY LINE



VICINITY MAP



PROJECT INFORMATION

Project Name: The Artisan

Parcel Location:

- Southwest corner of Indian School Road and Marshall Way (the "Property")
- APN: 130-12-031B, 130-12-032B, 130-12-033B, 130-12-045, 130-12-046B, 130-12-047A (plus City parcels - parcel numbers in appraisal)

PROJECT DATA

Property Size:

- Total Site Area:
 - 1.92 +/- Gross Acres (83,635 +/- SF)
 - 0.92 +/- Net Acres (40,441 +/- SF)

Current Zoning

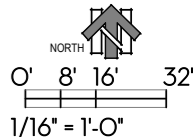
- C-2 DO (Central Business District Downtown Overlay)

Proposed Zoning

- D/DMU-2 PBD DO (Downtown/Downtown Multiple Use-Type 2, Planned Block Development, Downtown Overlay)
- D/DC-1 PBD DO (Downtown/Downtown Core-Type 1, Planned Block Development, Downtown Overlay)

LEGEND

- PROPERTY LINE
- - - BUILDING SETBACK/STEPBACK



SITE PLAN

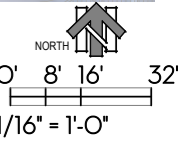
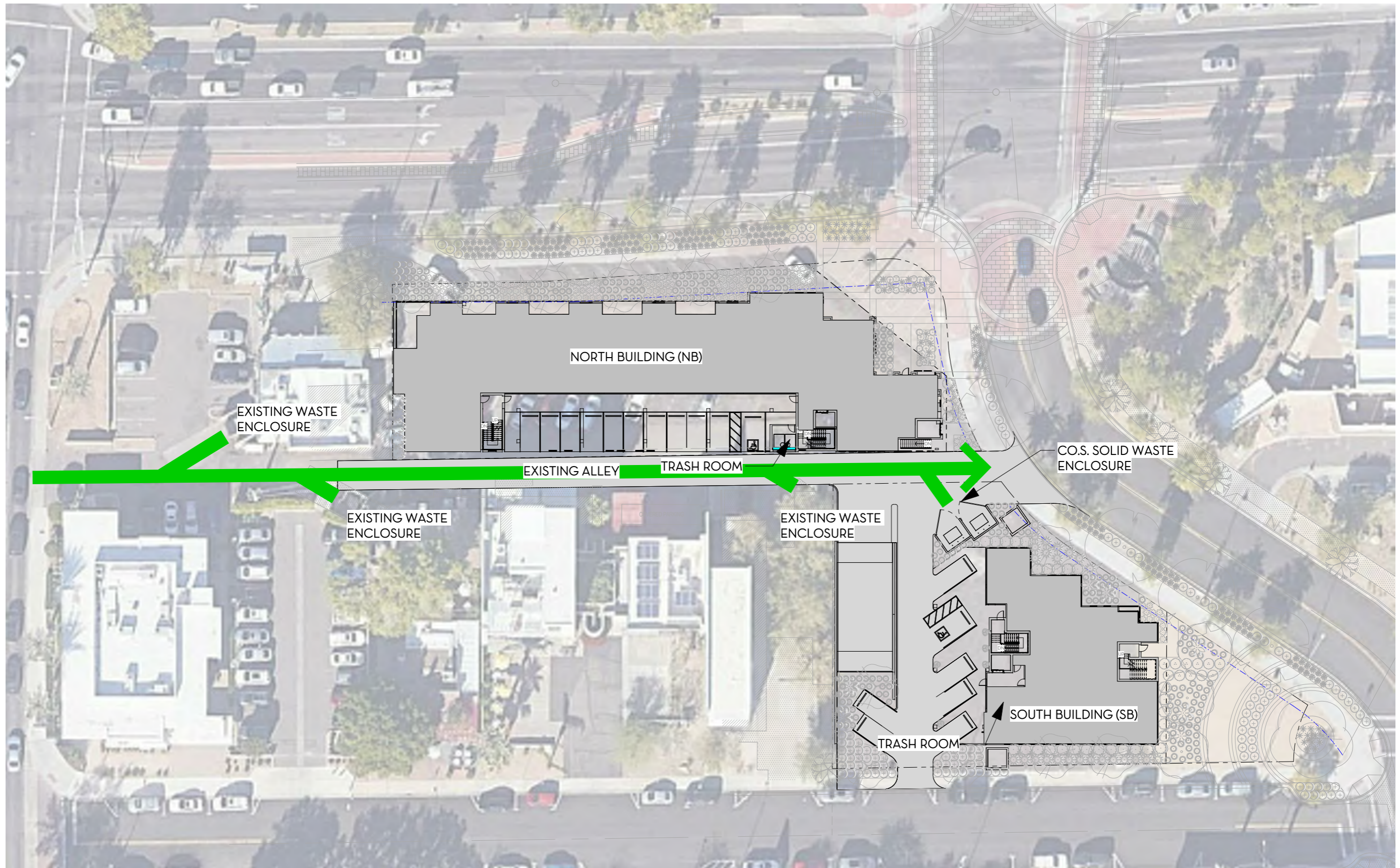
- 1 NORTH BUILDING
 - 35% 4 STORIES (45' HEIGHT)
 - 65% 5 STORIES (66' MAX)
 - 53 UNITS
 - ARTSPACE
- 2 SOUTH BUILDING
 - 4 STORIES (100%)
 - 51' HEIGHT MAX
 - 30 UNITS
 - 5,000 SQFT OFFICE/RETAIL
- 3 SHARED ALLEY
- 4 NORTH ARTISAN PLAZA (~4,500 SQFT)
- 5 SOUTH ARTISAN PLAZA (~5,500 SQFT)
- 6 SURFACE PARKING
- 7 UNDERGROUND & SURFACE PARKING ACCESS - 209 SPACES
- 8 ARTSPACE
- 9 ROOF GARDEN

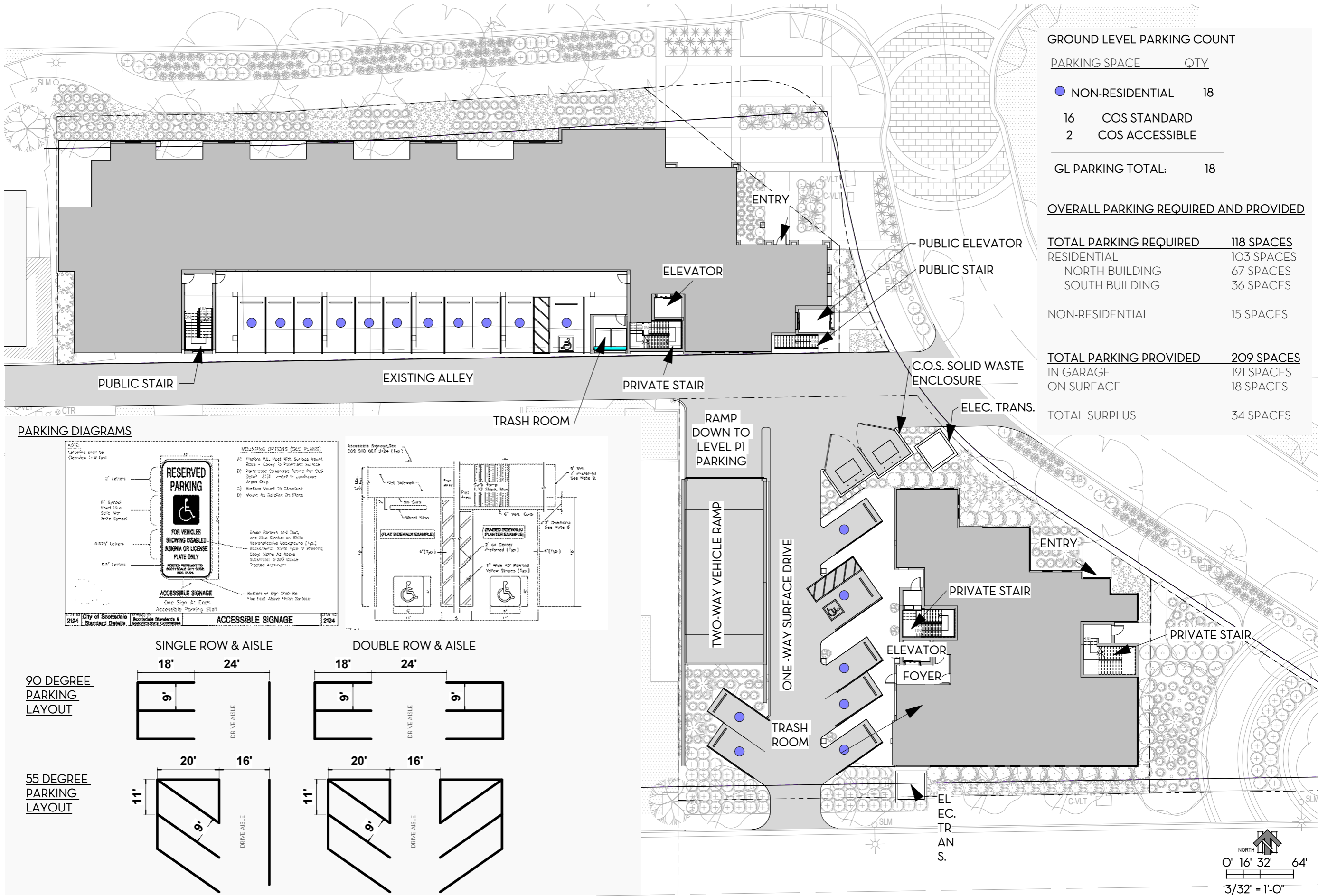


NOTE: DEPICTIONS AND DATA ARE CONCEPTUAL AND SUBJECT TO CHANGE

SCALE: 1"=30'
0 15 30 60 90

8.25.20





GROUND LEVEL PARKING COUNT

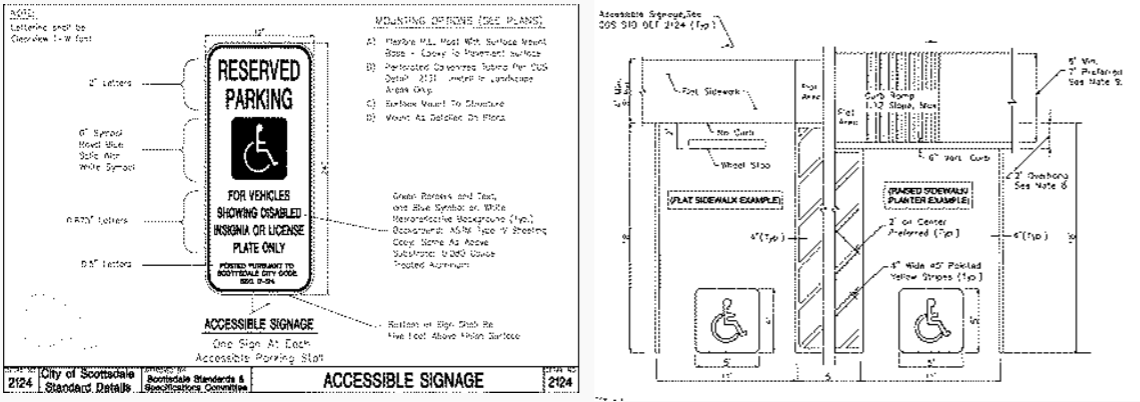
PARKING SPACE	QTY
● NON-RESIDENTIAL	18
16 COS STANDARD	
2 COS ACCESSIBLE	

GL PARKING TOTAL: 18

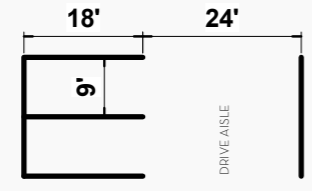
OVERALL PARKING REQUIRED AND PROVIDED

TOTAL PARKING REQUIRED	118 SPACES
RESIDENTIAL	103 SPACES
NORTH BUILDING	67 SPACES
SOUTH BUILDING	36 SPACES
NON-RESIDENTIAL	15 SPACES
TOTAL PARKING PROVIDED	209 SPACES
IN GARAGE	191 SPACES
ON SURFACE	18 SPACES
TOTAL SURPLUS	34 SPACES

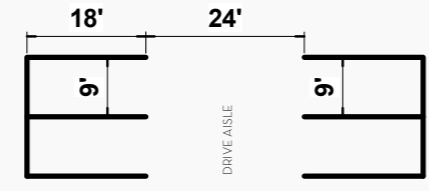
PARKING DIAGRAMS



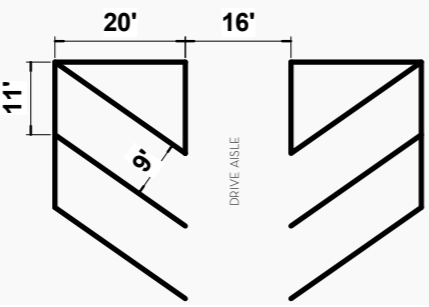
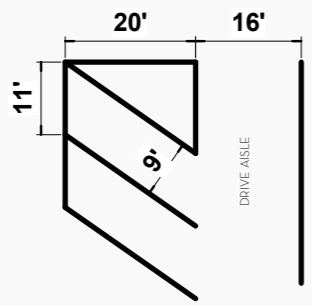
SINGLE ROW & AISLE



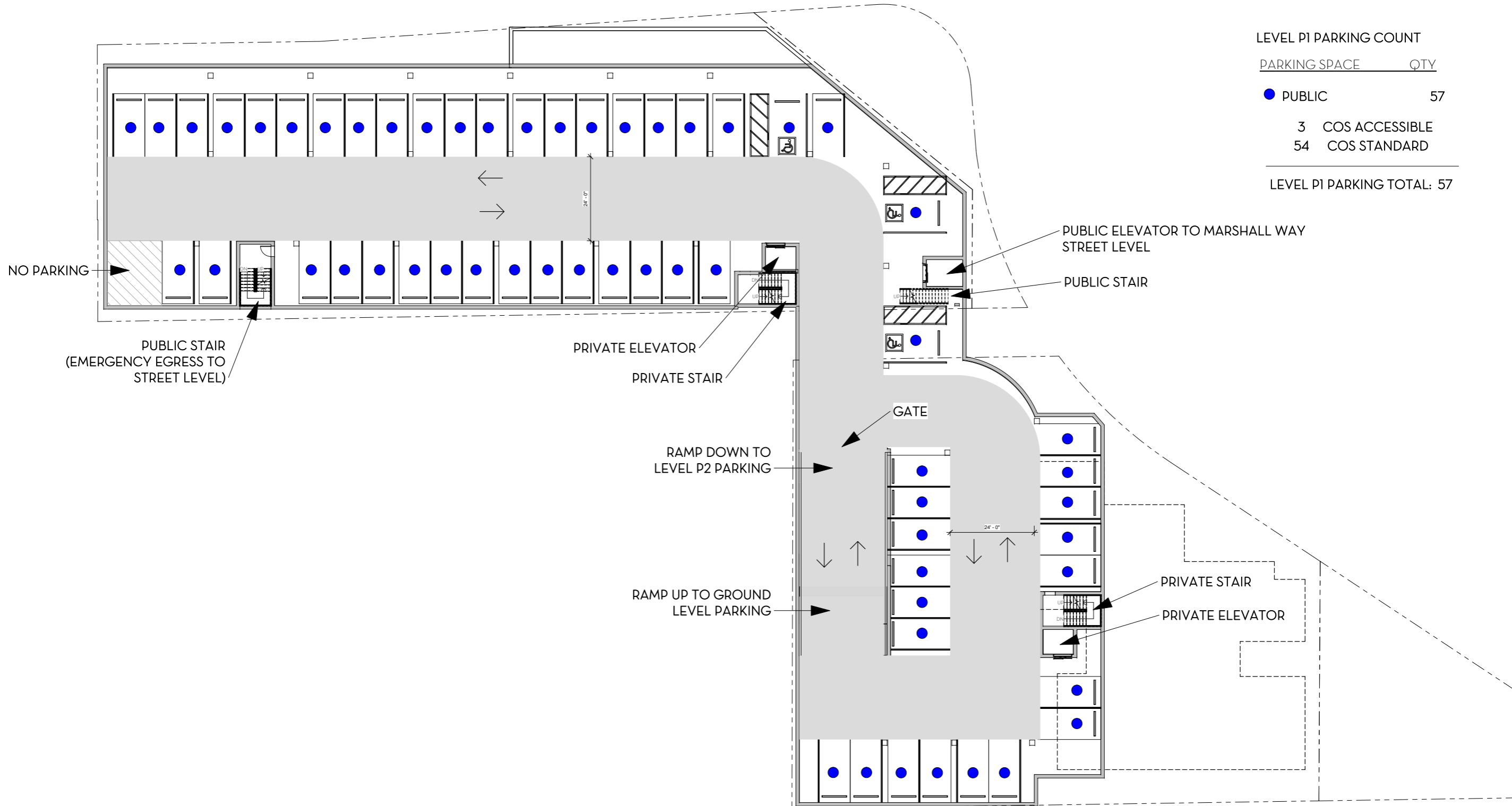
DOUBLE ROW & AISLE



90 DEGREE PARKING LAYOUT



55 DEGREE PARKING LAYOUT



LEVEL P1 PARKING COUNT

PARKING SPACE	QTY
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● PUBLIC	57
----------	----

3 COS ACCESSIBLE	
------------------	--

54 COS STANDARD	
-----------------	--

LEVEL P1 PARKING TOTAL: 57

NO PARKING

PUBLIC STAIR
(EMERGENCY EGRESS TO
STREET LEVEL)

PRIVATE ELEVATOR

PRIVATE STAIR

PUBLIC ELEVATOR TO MARSHALL WAY
STREET LEVEL

PUBLIC STAIR

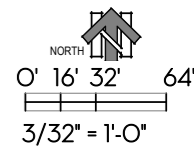
GATE

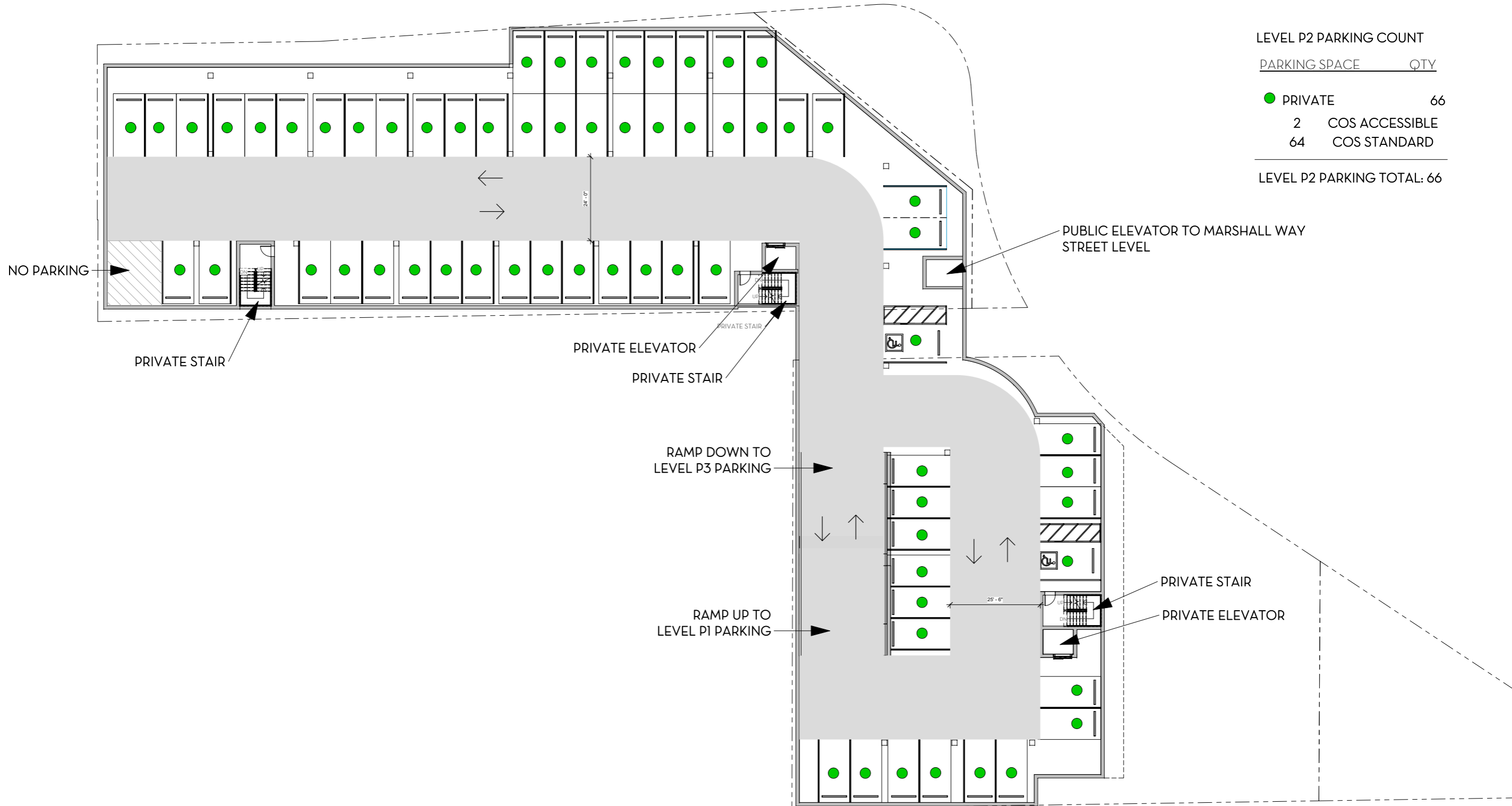
RAMP DOWN TO
LEVEL P2 PARKING

RAMP UP TO GROUND
LEVEL PARKING

PRIVATE STAIR

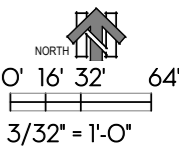
PRIVATE ELEVATOR

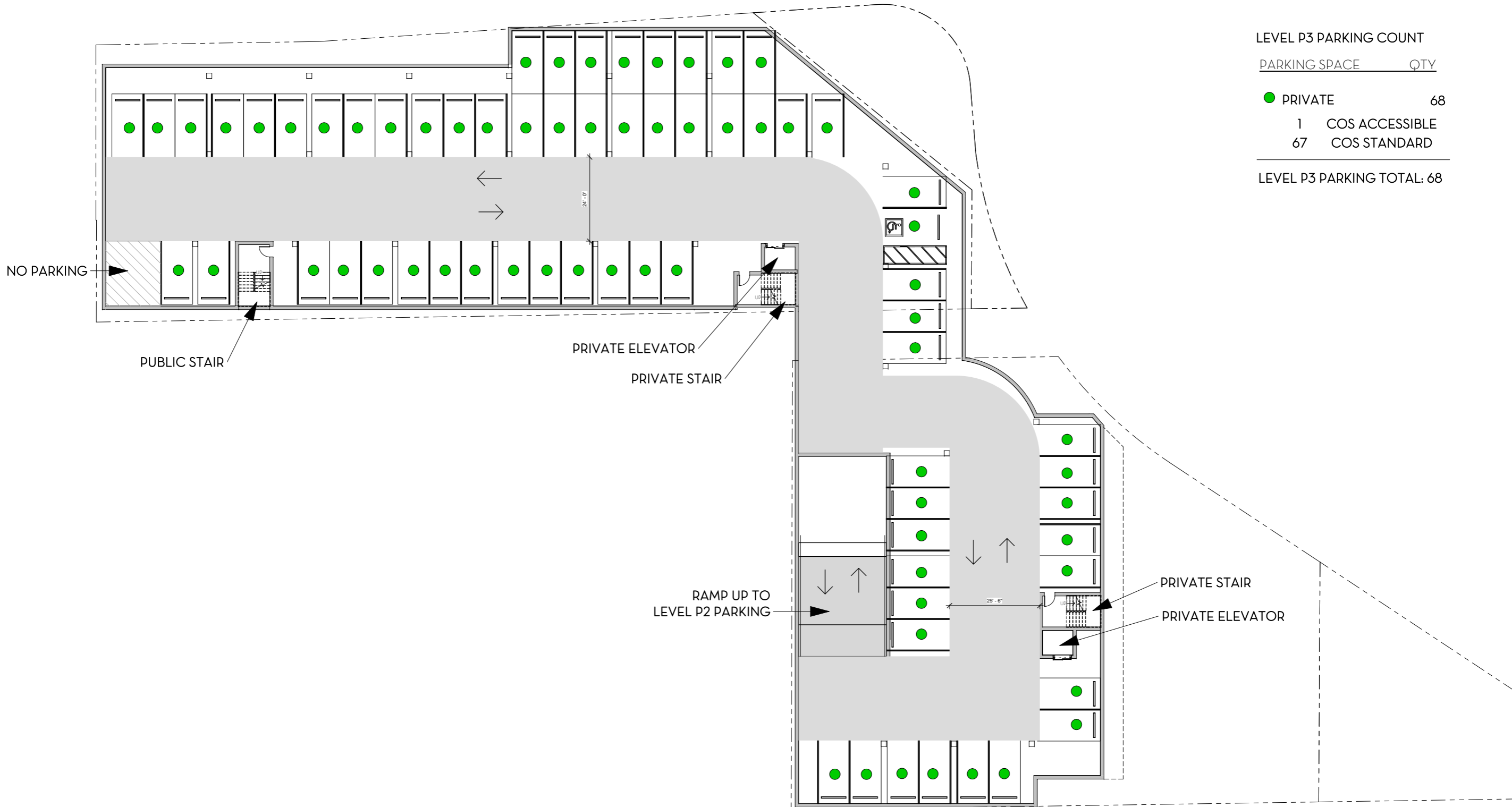




LEVEL P2 PARKING COUNT

PARKING SPACE	QTY
● PRIVATE	66
2 COS ACCESSIBLE	
64 COS STANDARD	
<hr/>	
LEVEL P2 PARKING TOTAL: 66	

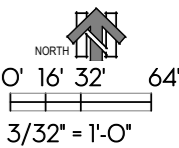




LEVEL P3 PARKING COUNT

PARKING SPACE	QTY
● PRIVATE	68
1 COS ACCESSIBLE	
67 COS STANDARD	

LEVEL P3 PARKING TOTAL: 68





ATTACHMENT B – MARICOPA COUNTY ASSESSOR

130-12-031B Commercial Parcel

This is a commercial parcel located at 7033 E INDIAN SCHOOL RD SCOTTSDALE 85251, and the current owner is BENJAMIN M FUNKE BENEFICIARY TRUST. It is located in the West Scottsdale subdivision and MCR 626. Its current year full cash value is \$396,600.

Property Information

7033 E INDIAN SCHOOL RD SCOTTSDALE 85251

MCR #	<u>626</u>
Description:	WEST SCOTTSDALE MCR 6-26 LOTS 5 & 6 BLK 2 EX ANY PT LY W/IN FOLL DES PROP BEG NE COR SD LOT 5 TH S 96.20F N 50D 59M W 80.40F TH S 86D 12M W 87.24F N 49.12F E 149.85F TO POB P/F 99-0400199 & EX S 3F TH/OF DKT 10057 PG 1100
Lat/Long	<u>33.49458599 -111.92917602</u>
Lot Size	6,722 sq ft.
Zoning	C-2
Lot #	5
High School District	SCOTTSDALE UNIFIED #48
Elementary School District	SCOTTSDALE UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	27 2N 4E
Market Area/Neighborhood	19/005
Subdivision (118 Parcels)	<u>WEST SCOTTSDALE</u>

Owner Information

BENJAMIN M FUNKE BENEFICIARY TRUST

Mailing Address	810 W HOWE ST, TEMPE, AZ 85281
Deed Number	<u>190899090</u>
Last Deed Date	11/07/2019
Sale Date	n/a
Sale Price	n/a

Valuation Information

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

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

Tax Year	2021	2020	2019	2018	2017
Full Cash Value	\$396,600	\$350,300	\$333,600	\$316,500	\$335,495
Limited Property Value	\$283,202	\$269,716	\$256,872	\$196,230	\$323,148
Legal Class	1.12	1.12	1.12	2.R	2.R
Description	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	18%	18%	18%	15%	15%
Assessed LPV	\$50,976	\$48,549	\$46,237	\$29,435	\$48,472
Property Use Code	1074	1074	1074	0021	0021
PU Description	Associated Commercial	Associated Commercial	Associated Commercial	Vacant Commercial Land	Vacant Commercial Land
Tax Area Code	481400	481400	481400	481400	481400
Valuation Source	Notice	Notice	Notice	Notice	Notice

130-12-032B Commercial Parcel

This is a commercial parcel located at 7029 E INDIAN SCHOOL RD SCOTTSDALE 85251, and the current owner is BENJAMIN M FUNKE BENEFICIARY TRUST. It is located in the West Scottsdale subdivision and MCR 626. Its current year full cash value is \$233,600.

Property Information

7029 E INDIAN SCHOOL RD SCOTTSDALE 85251

MCR #	<u>626</u>
Description:	WEST SCOTTSDALE MCR 6-26 LOT 7 BLK 2 EX ANY PT LY W/IN FOLL DES PROP BEG NE COR LOT 5 BLK 2 TH S 96.20F TH N 50D 59M W 80.40F TH S 86D 12M W 87.24F TH N 49.12F TH E 149.85F TO POB P/F 99-0400199 & EX S 3F TH/OF DKT 10057 PG 1100
Lat/Long	<u>33.49458100 -111.92942102</u>
Lot Size	3,959 sq ft.
Zoning	C-2
Lot #	7
High School District	SCOTTSDALE UNIFIED #48
Elementary School District	SCOTTSDALE UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	27 2N 4E
Market Area/Neighborhood	19/005
Subdivision (118 Parcels)	<u>WEST SCOTTSDALE</u>

Owner Information

BENJAMIN M FUNKE BENEFICIARY TRUST

Mailing Address	810 W HOWE ST, TEMPE, AZ 85281
Deed Number	<u>190899090</u>
Last Deed Date	11/07/2019
Sale Date	n/a
Sale Price	n/a

Valuation Information

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

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

Tax Year	2021	2020	2019	2018	2017
Full Cash Value	\$233,600	\$206,300	\$196,500	\$186,400	\$204,007
Limited Property Value	\$166,814	\$158,870	\$151,305	\$115,568	\$204,007
Legal Class	1.12	1.12	1.12	2.R	2.R
Description	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	18%	18%	18%	15%	15%
Assessed LPV	\$30,027	\$28,597	\$27,235	\$17,335	\$30,601
Property Use Code	1074	1074	1074	0021	0021
PU Description	Associated Commercial	Associated Commercial	Associated Commercial	Vacant Commercial Land	Vacant Commercial Land
Tax Area Code	481400	481400	481400	481400	481400
Valuation Source	Notice	Notice	Notice	Notice	Notice

130-12-033B Commercial Parcel

This is a commercial parcel located at 7017 E INDIAN SCHOOL RD SCOTTSDALE 85251, and the current owner is BENJAMIN M FUNKE BENEFICIARY TRUST. It is located in the West Scottsdale subdivision and MCR 626. Its current year full cash value is \$505,800.

Property Information

7017 E INDIAN SCHOOL RD SCOTTSDALE 85251

MCR #	<u>626</u>
Description:	WEST SCOTTSDALE MCR 6-26 PT LOTS 8 9 & 10 DAF COM NE COR SD LOT 8 TH S 49.12F TPOB TH CONT S 81.03F TO SE COR SD LOT 8 TH W 99.76F TO SW COR SD LOT 9 TH N 29.15F TH W 0.19F TH N 49.99F TH E 63.50F TH N 86D 12M E 36.73F TPOB
Lat/Long	<u>33.49457401 -111.92966602</u>
Lot Size	7,945 sq ft.
Zoning	C-2
Lot #	8
High School District	SCOTTSDALE UNIFIED #48
Elementary School District	SCOTTSDALE UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	27 2N 4E
Market Area/Neighborhood	19/005
Subdivision (118 Parcels)	<u>WEST SCOTTSDALE</u>

Owner Information

BENJAMIN M FUNKE BENEFICIARY TRUST

Mailing Address	810 W HOWE ST, TEMPE, AZ 85281
Deed Number	<u>190899090</u>
Last Deed Date	11/07/2019
Sale Date	n/a
Sale Price	n/a

Valuation Information

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

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

Tax Year	2021	2020	2019	2018	2017
Full Cash Value	\$505,800	\$450,300	\$429,200	\$393,400	\$393,400
Limited Property Value	\$364,358	\$347,008	\$330,484	\$393,225	\$374,500
Legal Class	1.12	1.12	1.12	2.R	2.R
Description	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	18%	18%	18%	15%	15%
Assessed LPV	\$65,584	\$62,461	\$59,487	\$58,984	\$56,175
Property Use Code	2630	2630	2630	0021	0021
PU Description	Parking	Parking	Parking	Vacant Commercial Land	Vacant Commercial Land
Tax Area Code	481400	481400	481400	481400	481400
Valuation Source	Notice	Notice	Notice	Notice	Notice

Additional Property Information

Additional commercial property data.

Description	Imp #	Occupancy	Rank	CCI	Age	Sq Ft.
Site Improvements	000101 163		2	D	9	1

130-12-045 Commercial Parcel

This is a commercial parcel and the current owner is BENJAMIN M FUNKE BENEFICIARY TRUST. It is located in the West Scottsdale subdivision and MCR 626. Its current year full cash value is \$413,700.

Property Information

MCR #	<u>626</u>
Description:	W SCOTTSDALE
Lat/Long	
Lot Size	6,400 sq ft.
Zoning	C-2
Lot #	20
High School District	SCOTTSDALE UNIFIED #48
Elementary School District	SCOTTSDALE UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	27 2N 4E
Market Area/Neighborhood	19/005
Subdivision (118 Parcels)	<u>WEST SCOTTSDALE</u>

Owner Information

BENJAMIN M FUNKE BENEFICIARY TRUST

Mailing Address	810 W HOWE ST, TEMPE, AZ 85281
Deed Number	<u>190899090</u>
Last Deed Date	11/07/2019
Sale Date	n/a
Sale Price	n/a

Valuation Information

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

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

Tax Year	2021	2020	2019	2018	2017
Full Cash Value	\$413,700	\$367,000	\$349,900	\$321,000	\$321,000
Limited Property Value	\$297,039	\$282,894	\$269,423	\$321,000	\$311,432
Legal Class	1.12	1.12	1.12	2.R	2.R
Description	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	18%	18%	18%	15%	15%
Assessed LPV	\$53,467	\$50,921	\$48,496	\$48,150	\$46,715
Property Use Code	2630	2630	2630	0011	0011
PU Description	Parking	Parking	Parking	Vacant Residential Land	Vacant Residential Land
Tax Area Code	481400	481400	481400	481400	481400
Valuation Source	Notice	Notice	Notice	Notice	Notice

Additional Property Information

Additional commercial property data.

Description	Imp #	Occupancy	Rank	CCI	Age	Sq Ft.
Site Improvements	000101 163		2	D	9	1

130-12-046B Commercial Parcel

This is a commercial parcel and the current owner is BENJAMIN M FUNKE BENEFICIARY TRUST. It is located in the West Scottsdale subdivision and MCR 626. Its current year full cash value is \$360,200.

Property Information

MCR #	<u>626</u>
Description:	WEST SCOTTSDALE MCR 6-26 LOT 21 BLK 2 EX TH PT CONV P/F 97-0682785
Lat/Long	
Lot Size	6,054 sq ft.
Zoning	C-2
Lot #	21
High School District	SCOTTSDALE UNIFIED #48
Elementary School District	SCOTTSDALE UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	27 2N 4E
Market Area/Neighborhood	19/005
Subdivision (118 Parcels)	<u>WEST SCOTTSDALE</u>

Owner Information

BENJAMIN M FUNKE BENEFICIARY TRUST

Mailing Address	810 W HOWE ST, TEMPE, AZ 85281
Deed Number	<u>190899090</u>
Last Deed Date	11/07/2019
Sale Date	n/a
Sale Price	n/a

Valuation Information

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

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

Tax Year	2021	2020	2019	2018	2017
Full Cash Value	\$360,200	\$316,600	\$301,500	\$304,600	\$304,600
Limited Property Value	\$255,951	\$243,763	\$232,155	\$304,600	\$297,079
Legal Class	1.12	1.12	1.12	2.R	2.R
Description	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	18%	18%	18%	15%	15%
Assessed LPV	\$46,071	\$43,877	\$41,788	\$45,690	\$44,562
Property Use Code	1074	1074	1074	0021	0021
PU Description	Associated Commercial	Associated Commercial	Associated Commercial	Vacant Commercial Land	Vacant Commercial Land
Tax Area Code	481400	481400	481400	481400	481400
Valuation Source	Notice	Notice	Notice	Notice	Notice

130-12-047A Commercial Parcel

This is a commercial parcel and the current owner is BENJAMIN M FUNKE BENEFICIARY TRUST. It is located in the West Scottsdale subdivision and MCR 626. Its current year full cash value is \$253,400.

Property Information

MCR #	<u>626</u>
Description:	WEST SCOTTSDALE MCR 6-26 LOT 22 BLK 2 EX TH PT CONV P/F 97-0682785
Lat/Long	
Lot Size	4,259 sq ft.
Zoning	C-2
Lot #	22
High School District	SCOTTSDALE UNIFIED #48
Elementary School District	SCOTTSDALE UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	27 2N 4E
Market Area/Neighborhood	19/005
Subdivision (118 Parcels)	<u>WEST SCOTTSDALE</u>

Owner Information

BENJAMIN M FUNKE BENEFICIARY TRUST

Mailing Address	810 W HOWE ST, TEMPE, AZ 85281
Deed Number	<u>190899090</u>
Last Deed Date	11/07/2019
Sale Date	n/a
Sale Price	n/a

Valuation Information

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

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

Tax Year	2021	2020	2019	2018	2017
Full Cash Value	\$253,400	\$222,700	\$212,100	\$218,800	\$218,800
Limited Property Value	\$180,057	\$171,483	\$163,317	\$218,800	\$218,800
Legal Class	1.12	1.12	1.12	2.R	2.R
Description	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	AG / VACANT LAND / NON-PROFIT R/P	AG / VACANT LAND / NON-PROFIT R/P
Assessment Ratio	18%	18%	18%	15%	15%
Assessed LPV	\$32,410	\$30,867	\$29,397	\$32,820	\$32,820
Property Use Code	1074	1074	1074	0021	0021
PU Description	Associated Commercial	Associated Commercial	Associated Commercial	Vacant Commercial Land	Vacant Commercial Land
Tax Area Code	481400	481400	481400	481400	481400
Valuation Source	Notice	Notice	Notice	Notice	Notice



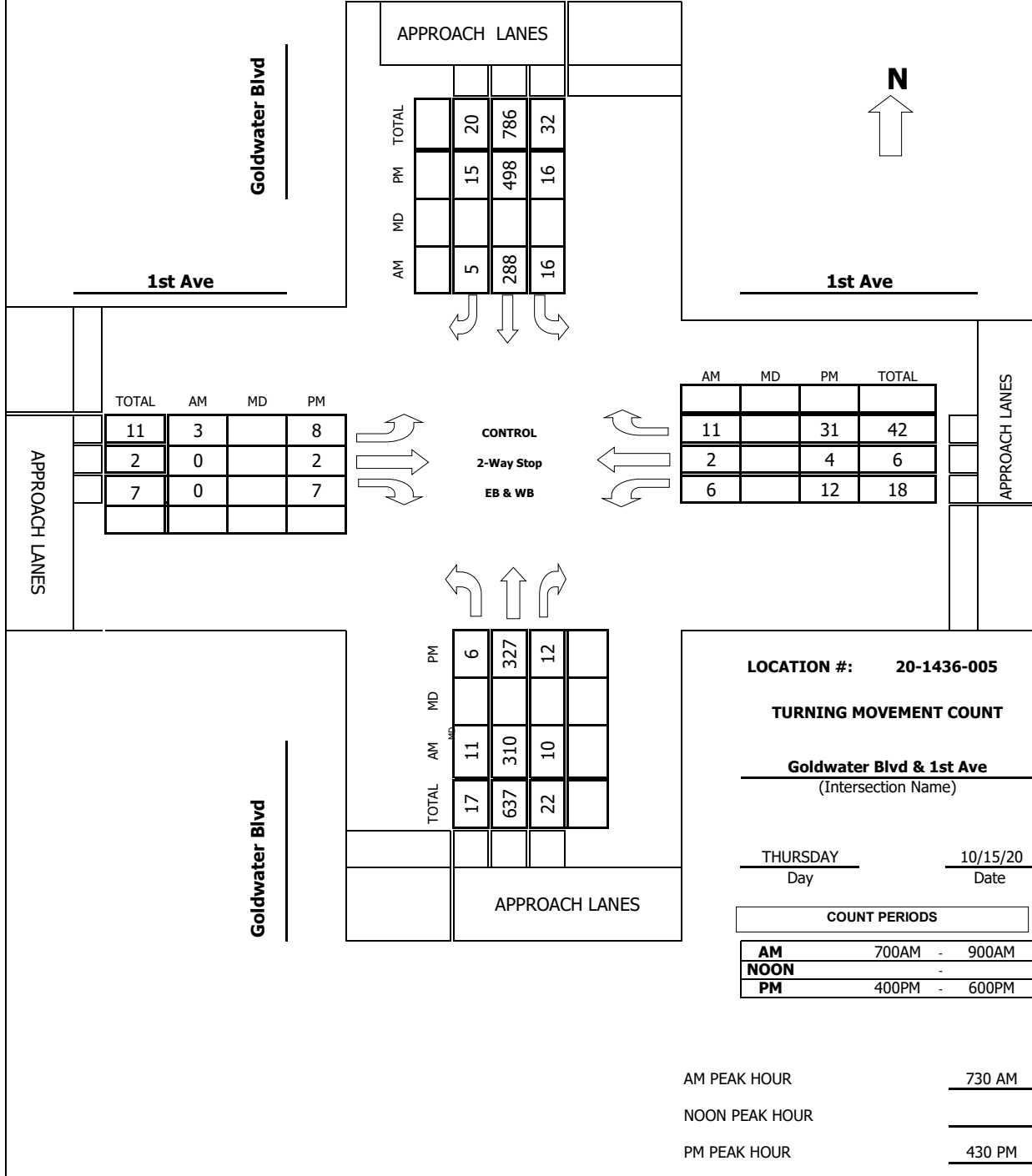
ATTACHMENT C – TRAFFIC COUNTS

Intersection Turning Movement
Prepared by:



Project #: 20-1436-005

TMC SUMMARY OF Goldwater Blvd & 1st Ave



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Goldwater Blvd DATE: 10/15/20 LOCATION: Scottsdale
 E-W STREET: 1st Ave DAY: THURSDAY PROJECT# 20-1436-005

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	2	0	0	3	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	49	0	4	55	0	0	0	0	2	0	2	112
7:15 AM	4	72	1	1	76	1	0	1	2	1	0	2	161
7:30 AM	2	70	3	3	67	0	2	0	0	2	0	5	154
7:45 AM	1	65	3	4	77	2	0	0	0	1	0	5	158
8:00 AM	1	94	4	4	56	1	1	0	0	0	1	1	163
8:15 AM	7	81	0	5	88	2	0	0	0	3	1	0	187
8:30 AM	0	75	3	2	81	3	1	0	0	1	0	3	
8:45 AM	0	61	3	5	66	2	0	1	0	0	1	2	141
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	15	567	17	28	566	11	4	2	2	10	3	20	1245
Approach %	2.50	94.66	2.84	4.63	93.55	1.82	50.00	25.00	25.00	30.30	9.09	60.61	
App/Depart	599	/	591	605	/	578	8	/	47	33	/	29	

AM Peak Hr Begins at: 730 AM

PEAK	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	11	310	10	16	288	5	3	0	0	6	2	11	662
Approach %	3.32	93.66	3.02	5.18	93.20	1.62	100.00	0.00	0.00	31.58	10.53	57.89	

PEAK HR. FACTOR:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0.836			0.813			0.375			0.679			0.885

CONTROL: 2-Way Stop (EB & WB)
 COMMENT 1:
 GPS: 33.493977, -111.930437

Pedestrian & Bicycle Study

N-S STREET: Goldwater Blvd
E-W STREET: 1st Ave

Date: 10/15/20
Day: THURSDAY

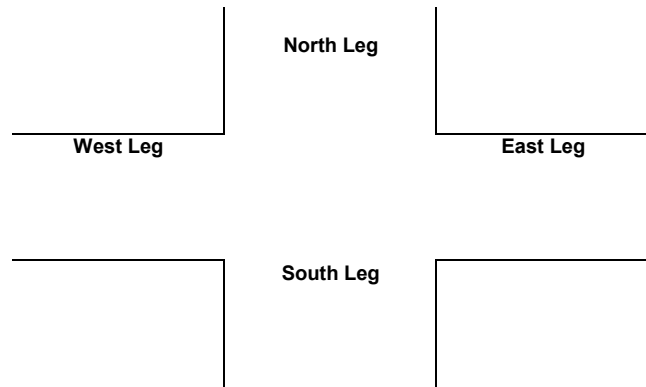
City: Scottsdale
Project #: 20-1436-005

PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	3
7:15 AM	0	0	0	4
7:30 AM	0	1	1	3
7:45 AM	0	0	2	0
8:00 AM	0	2	0	1
8:15 AM	0	1	0	6
8:30 AM	4	3	0	5
8:45 AM	0	0	1	1
TOTAL	4	7	4	23

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	2	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	1	0	2
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	1	2	2

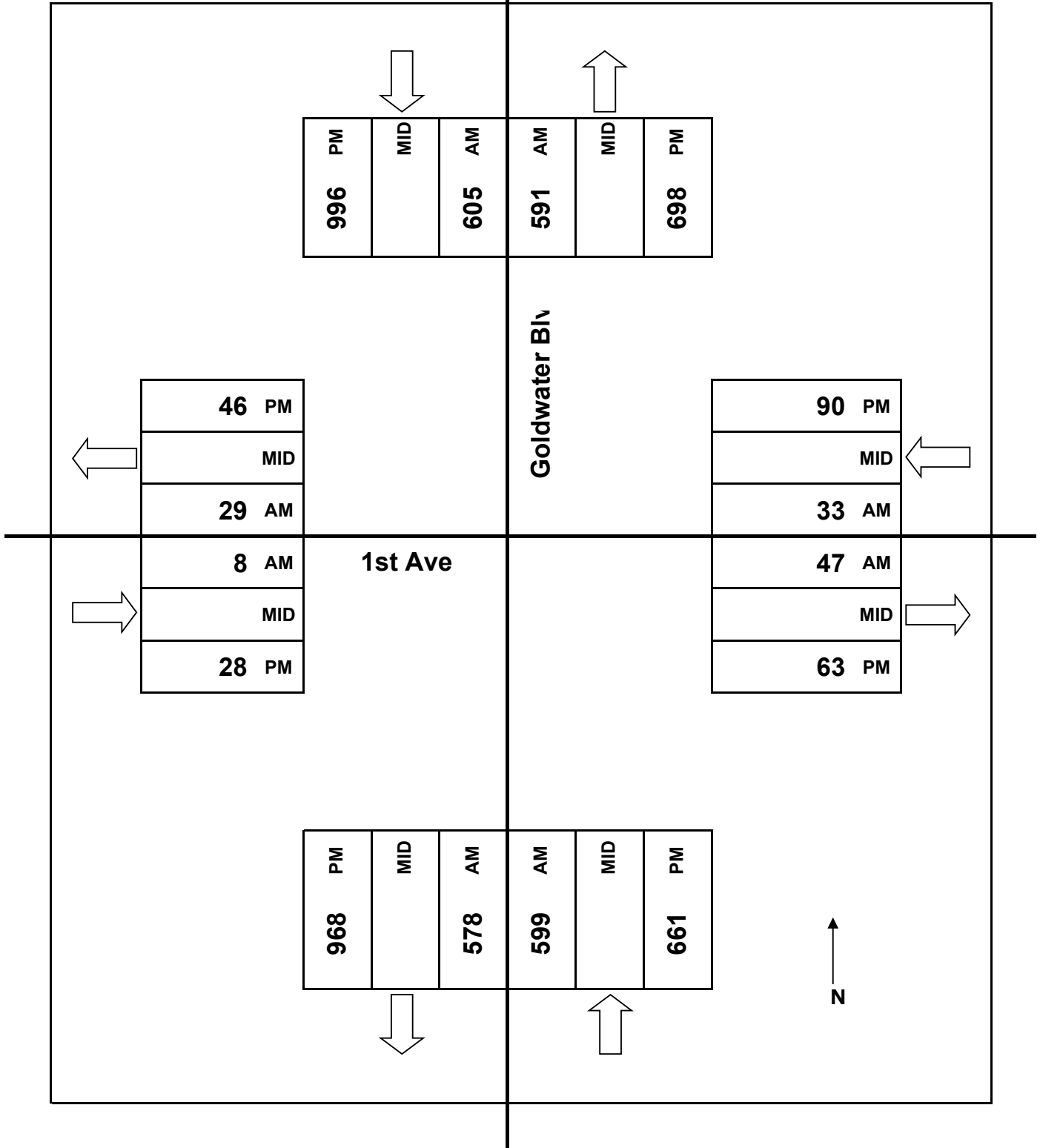
PEDESTRIANS				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	1	1
4:15 PM	0	0	1	1
4:30 PM	0	0	1	0
4:45 PM	0	0	2	0
5:00 PM	0	1	4	0
5:15 PM	0	0	8	4
5:30 PM	0	1	2	3
5:45 PM	0	4	3	0
TOTAL	0	6	22	9

BICYCLES				
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	1	0
TOTAL	0	0	1	0



JOB# 20-1436-005
VALIDATED: _____

DATE: 10/15/20
DAY: THURSDAY



Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, October 15, 2020

City: Scottsdale

Project #: 20-1436-001

Location: Indian School Rd west of Marshall Way

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			19	24	12:00			193	160			
00:15			23	20	12:15			199	163			
00:30			13	18	12:30			164	176			
00:45			15	70	10	72	142	172	728	145	644	1372
01:00			9	12	13:00			161	165			
01:15			7	12	13:15			194	155			
01:30			12	6	13:30			165	157			
01:45			8	36	12	42	78	196	716	170	647	1363
02:00			7	13	14:00			163	203			
02:15			6	7	14:15			191	162			
02:30			11	9	14:30			176	195			
02:45			5	29	2	31	60	186	716	182	742	1458
03:00			3	6	15:00			177	177			
03:15			2	7	15:15			199	156			
03:30			6	8	15:30			174	165			
03:45			11	22	5	26	48	213	763	161	659	1422
04:00			13	7	16:00			216	181			
04:15			9	11	16:15			174	159			
04:30			18	14	16:30			188	185			
04:45			35	75	29	61	136	172	750	159	684	1434
05:00			28	17	17:00			213	219			
05:15			43	30	17:15			216	193			
05:30			55	27	17:30			159	166			
05:45			96	222	43	117	339	165	753	129	707	1460
06:00			72	55	18:00			148	167			
06:15			94	70	18:15			124	138			
06:30			108	79	18:30			137	134			
06:45			129	403	102	306	709	120	529	124	563	1092
07:00			144	100	19:00			138	128			
07:15			143	97	19:15			99	116			
07:30			171	123	19:30			105	107			
07:45			196	654	127	447	1101	85	427	116	467	894
08:00			164	118	20:00			80	98			
08:15			192	106	20:15			91	87			
08:30			193	127	20:30			102	82			
08:45			185	734	111	462	1196	68	341	88	355	696
09:00			153	121	21:00			58	73			
09:15			171	133	21:15			53	72			
09:30			173	143	21:30			63	73			
09:45			195	692	144	541	1233	51	225	61	279	504
10:00			183	151	22:00			53	48			
10:15			164	125	22:15			47	32			
10:30			143	141	22:30			39	41			
10:45			182	672	175	592	1264	39	178	38	159	337
11:00			156	159	23:00			25	46			
11:15			178	173	23:15			30	29			
11:30			169	173	23:30			26	24			
11:45			222	725	177	682	1407	23	104	18	117	221

Total Vol. 4334 3379 **7713** 6230 6023 **12253**

GPS Coordinates: 33.494843, -111.929447

Daily Totals

NB	SB	EB	WB	Combined
		10564	9402	19966

AM

PM

Split %	56.2%	43.8%	38.6%	50.8%	49.2%	61.4%
Peak Hour	11:30	11:15	11:30	15:15	16:30	16:30
Volume	783	683	1456	802	756	1545
P.H.F.	0.88	0.96	0.91	0.93	0.86	0.89

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, October 15, 2020

City: Scottsdale

Project #: 20-1436-002

Location: Marshall Way south of Indian School Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB		
00:00	0	2			12:00	15	19				
00:15	2	0			12:15	5	16				
00:30	0	0			12:30	16	12				
00:45	0	2	2	4	6	12:45	17	53	11	58	111
01:00	1	2			13:00	11	7				
01:15	1	0			13:15	12	10				
01:30	2	0			13:30	14	4				
01:45	0	4	0	2	6	13:45	13	50	13	34	84
02:00	0	1			14:00	15	6				
02:15	0	2			14:15	10	12				
02:30	0	1			14:30	18	13				
02:45	0	0	0	4	4	14:45	14	57	10	41	98
03:00	1	0			15:00	18	11				
03:15	0	1			15:15	8	8				
03:30	0	0			15:30	9	7				
03:45	0	1	0	1	2	15:45	12	47	7	33	80
04:00	1	0			16:00	14	9				
04:15	0	0			16:15	8	5				
04:30	1	3			16:30	11	11				
04:45	0	2	0	3	5	16:45	9	42	7	32	74
05:00	2	1			17:00	12	4				
05:15	0	0			17:15	7	7				
05:30	2	0			17:30	10	8				
05:45	0	4	2	3	7	17:45	6	35	9	28	63
06:00	2	1			18:00	5	6				
06:15	1	0			18:15	5	7				
06:30	1	4			18:30	11	10				
06:45	2	6	1	6	12	18:45	5	26	6	29	55
07:00	2	3			19:00	7	1				
07:15	3	5			19:15	2	4				
07:30	3	11			19:30	7	8				
07:45	3	11	6	25	36	19:45	6	22	6	19	41
08:00	7	4			20:00	6	9				
08:15	5	6			20:15	5	2				
08:30	4	8			20:30	4	2				
08:45	8	24	10	28	52	20:45	7	22	2	15	37
09:00	6	13			21:00	1	1				
09:15	7	9			21:15	5	0				
09:30	6	7			21:30	0	2				
09:45	11	30	9	38	68	21:45	4	10	2	5	15
10:00	8	11			22:00	2	0				
10:15	9	13			22:15	0	2				
10:30	17	17			22:30	1	0				
10:45	17	51	24	65	116	22:45	0	3	1	3	6
11:00	16	12			23:00	0	2				
11:15	14	14			23:15	1	0				
11:30	19	15			23:30	1	2				
11:45	17	66	19	60	126	23:45	0	2	1	5	7

Total Vol. 201 239 **440** 369 302 **671**

GPS Coordinates: 33.494385, -111.928739

Daily Totals

NB	SB	EB	WB	Combined
570	541			1111

AM

PM

Split %	45.7%	54.3%	39.6%	55.0%	45.0%	60.4%
Peak Hour	10:45	11:30	11:15	14:15	12:00	12:00
Volume	66	69	132	60	58	111
P.H.F.	0.87	0.91	0.92	0.83	0.76	0.82

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, October 15, 2020

City: Scottsdale

Project #: 20-1436-003

Location: 1st Ave west of Marshall Way

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			0	1	12:00			4	6			
00:15			0	0	12:15			7	6			
00:30			0	0	12:30			8	2			
00:45			0	0	12:45	1	1	9	28	5	19	47
01:00			0	0	13:00			6	7			
01:15			0	1	13:15			7	8			
01:30			0	0	13:30			8	8			
01:45			0	0	13:45	1	1	14	35	8	31	66
02:00			0	0	14:00			13	7			
02:15			0	1	14:15			7	8			
02:30			0	0	14:30			6	13			
02:45			0	0	14:45	1	1	8	34	9	37	71
03:00			0	0	15:00			10	11			
03:15			0	0	15:15			8	10			
03:30			0	0	15:30			7	6			
03:45			0	0	15:45	0	0	4	29	11	38	67
04:00			1	0	16:00			10	10			
04:15			0	0	16:15			7	13			
04:30			0	0	16:30			7	13			
04:45			0	1	16:45	0	1	10	34	9	45	79
05:00			0	2	17:00			6	13			
05:15			1	1	17:15			7	12			
05:30			0	0	17:30			8	8			
05:45			3	4	17:45	0	3	7	29	12	45	74
06:00			2	1	18:00			6	9			
06:15			0	0	18:15			4	9			
06:30			1	2	18:30			6	11			
06:45			2	5	18:45	5	8	3	19	8	37	56
07:00			4	4	19:00			6	8			
07:15			3	3	19:15			1	4			
07:30			6	7	19:30			1	6			
07:45			7	20	19:45	6	20	2	10	4	22	32
08:00			8	2	20:00			0	3			
08:15			5	4	20:15			3	6			
08:30			5	4	20:30			2	2			
08:45			9	27	20:45	3	13	4	9	2	13	22
09:00			7	5	21:00			1	3			
09:15			12	8	21:15			1	2			
09:30			7	7	21:30			0	2			
09:45			8	34	21:45	5	25	0	2	1	8	10
10:00			1	2	22:00			1	2			
10:15			9	6	22:15			1	2			
10:30			6	3	22:30			0	4			
10:45			8	24	22:45	2	13	0	2	1	9	11
11:00			5	5	23:00			0	3			
11:15			7	2	23:15			0	1			
11:30			9	4	23:30			0	0			
11:45			6	27	23:45	9	20	0	0	1	5	5

Total Vol. 142 105 **247** 231 309 **540**

GPS Coordinates: 33.494002, -111.929715

Daily Totals

NB	SB	EB	WB	Combined
		373	414	787

AM

PM

Split % 57.5% 42.5% **31.4%** 42.8% 57.2% **68.6%**

Peak Hour	08:45	09:00	09:00	13:15	16:15	16:00
Volume	35	25	59	42	48	79
P.H.F.	0.73	0.78	0.74	0.75	0.92	0.99

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Thursday, October 15, 2020

City: Scottsdale

Project #: 20-1436-004

Location: Goldwater Blvd south of Indian School Rd

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	1	13			12:00	58	69		
00:15	3	14			12:15	65	76		
00:30	3	11			12:30	60	74		
00:45	2	9	2	40	12:45	69	252	87	306
01:00	3	6			13:00	76	98		
01:15	4	8			13:15	74	103		
01:30	1	11			13:30	77	101		
01:45	4	12	5	30	13:45	81	308	101	403
02:00	3	3			14:00	76	103		
02:15	5	5			14:15	69	88		
02:30	4	5			14:30	87	117		
02:45	1	13	3	16	14:45	89	321	110	418
03:00	3	0			15:00	76	67		
03:15	2	1			15:15	76	134		
03:30	2	3			15:30	76	86		
03:45	2	9	6	10	15:45	100	328	115	402
04:00	6	3			16:00	74	125		
04:15	4	8			16:15	72	99		
04:30	11	3			16:30	66	104		
04:45	8	29	7	21	16:45	104	316	126	454
05:00	7	11			17:00	94	152		
05:15	17	13			17:15	81	135		
05:30	11	31			17:30	89	110		
05:45	26	61	25	80	17:45	81	345	117	514
06:00	13	37			18:00	78	117		
06:15	24	29			18:15	65	106		
06:30	40	36			18:30	57	78		
06:45	35	112	57	159	18:45	54	254	94	395
07:00	49	57			19:00	66	89		
07:15	77	79			19:15	51	78		
07:30	75	69			19:30	48	68		
07:45	69	270	78	283	19:45	48	213	66	301
08:00	99	56			20:00	31	52		
08:15	88	91			20:15	35	73		
08:30	78	82			20:30	31	58		
08:45	64	329	66	295	20:45	41	138	50	233
09:00	57	65			21:00	26	50		
09:15	64	66			21:15	30	54		
09:30	63	65			21:30	15	35		
09:45	66	250	58	254	21:45	18	89	37	176
10:00	60	57			22:00	23	39		
10:15	65	74			22:15	15	36		
10:30	58	75			22:30	17	31		
10:45	54	237	59	265	22:45	15	70	27	133
11:00	74	63			23:00	12	20		
11:15	75	66			23:15	8	20		
11:30	58	60			23:30	8	17		
11:45	59	266	65	254	23:45	5	33	14	71

Total Vol. 1597 1707 **3304** 2667 3806 **6473**

GPS Coordinates: 33.494256, -111.930448

Daily Totals

NB	SB	EB	WB	Combined
4264	5513			9777

AM

PM

Split %	48.3%	51.7%	33.8%	41.2%	58.8%	66.2%
Peak Hour	07:45	07:45	07:45	16:45	16:45	16:45
Volume	334	307	641	368	523	891
P.H.F.	0.84	0.84	0.90	0.88	0.86	0.91



Southbridge Expansion

Traffic Impact Study

North of 5th Avenue and
West of Scottsdale Road
in Scottsdale, Arizona

May 2019
Project No. 18-1110

Prepared For:
Spring Creek Development
7134 East Stetson Drive, Fourth Floor
Scottsdale, AZ 85251

For Submittal to:
City of Scottsdale

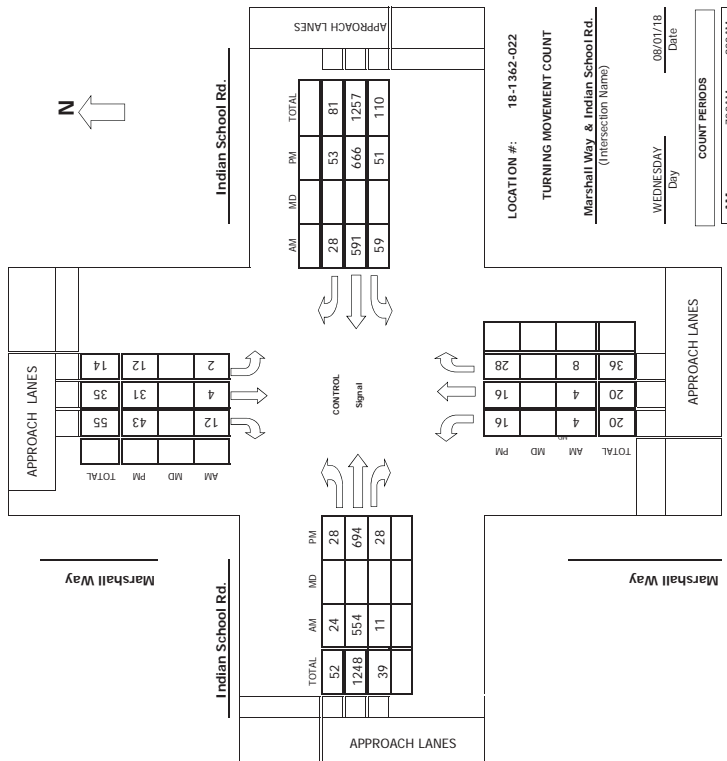
Prepared By:



10605 North Hayden Road
Suite 140
Scottsdale, Arizona 85260
480-659-4250

Project #: 18-1362-022

TMC SUMMARY OF Marshall Way & Indian School Rd.



LOCATION #: 18-1362-022

TURNING MOVEMENT COUNT

Marshall Way & Indian School Rd.
(Intersection Name)

WEDNESDAY 08/01/18
Day Date

COUNT PERIODS	
AM	7:00AM - 9:00AM
NOON	12:00PM - 2:00PM
PM	4:00PM - 6:00PM

AM PEAK HOUR 7:30 AM
NOON PEAK HOUR _____
PM PEAK HOUR 4:30 PM

N-S STREET: Marshall Way
E-W STREET: Indian School Rd.

Date: 08/01/18
Day: WEDNESDAY

City: Scottsdale
Project #: 18-1362-022

	PEDESTRIANS			TOTAL
	N-LEG	S-LEG	E-LEG	
7:00 AM	0	0	1	0
7:15 AM	0	1	0	2
7:30 AM	1	0	1	0
7:45 AM	1	1	2	1
8:00 AM	1	2	0	0
8:15 AM	0	1	1	1
8:30 AM	0	0	3	0
8:45 AM	1	1	2	0
TOTAL	4	6	10	4

	BICYCLES			TOTAL
	N-LEG	S-LEG	E-LEG	
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	0

	PEDESTRIANS			TOTAL
	N-LEG	S-LEG	E-LEG	
4:00 PM	1	0	1	0
4:15 PM	0	1	0	2
4:30 PM	1	1	1	1
4:45 PM	2	0	2	0
5:00 PM	0	2	1	2
5:15 PM	1	1	0	1
5:30 PM	1	0	1	0
5:45 PM	0	1	1	1
TOTAL	6	6	7	7

	BICYCLES			TOTAL
	N-LEG	S-LEG	E-LEG	
4:00 PM	0	1	0	0
4:15 PM	0	0	1	0
4:30 PM	0	0	1	0
4:45 PM	1	0	0	1
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	1	1	2	1

West Leg

North Leg

South Leg

East Leg



ATTACHMENT D – EXISTING CAPACITY ANALYSIS

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	4	0	0	8	3	14	14	379	12	20	279	6
Future Vol, veh/h	4	0	0	8	3	14	14	379	12	20	279	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	0	9	3	16	16	426	13	22	313	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	608	832	160	634	829	220	320	0	0	439	0	0
Stage 1	361	361	-	465	465	-	-	-	-	-	-	-
Stage 2	247	471	-	169	364	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	7.14	6.99	6.54	6.94	5.34	-	-	4.14	-	-
Critical Hdwy Stg 1	7.34	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.92	3.67	4.02	3.32	3.12	-	-	2.22	-	-
Pot Cap-1 Maneuver	534	381	*867	*512	383	784	1006	-	-	1117	-	-
Stage 1	771	752	-	*529	561	-	-	-	-	-	-	-
Stage 2	708	558	-	*926	749	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	506	367	*867	*498	369	784	1006	-	-	1117	-	-
Mov Cap-2 Maneuver	506	367	-	*498	369	-	-	-	-	-	-	-
Stage 1	759	737	-	*521	552	-	-	-	-	-	-	-
Stage 2	679	549	-	*908	734	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	11.4	0.3	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1006	-	-	506	595	1117	-
HCM Lane V/C Ratio	0.016	-	-	0.009	0.047	0.02	-
HCM Control Delay (s)	8.6	-	-	12.2	11.4	8.3	-
HCM Lane LOS	A	-	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-

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

2: Marshall Way & Indian School Road

06/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	↖
Traffic Volume (veh/h)	24	554	11	59	591	28	4	4	8	2	4	12
Future Volume (veh/h)	24	554	11	59	591	28	4	4	8	2	4	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	602	12	64	642	30	4	4	9	2	4	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	550	2518	50	583	2443	114	106	111	203	54	101	265
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	766	3563	71	808	3457	161	291	471	856	89	428	1121
Grp Volume(v), veh/h	26	300	314	64	330	342	17	0	0	19	0	0
Grp Sat Flow(s),veh/h/ln	766	1777	1858	808	1777	1841	1617	0	0	1639	0	0
Q Serve(g_s), s	1.5	7.2	7.2	3.6	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.6	7.2	7.2	10.8	8.0	8.0	0.9	0.0	0.0	1.1	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.09	0.24		0.53	0.11		0.68
Lane Grp Cap(c), veh/h	550	1256	1313	583	1256	1301	420	0	0	421	0	0
V/C Ratio(X)	0.05	0.24	0.24	0.11	0.26	0.26	0.04	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	550	1256	1313	583	1256	1301	420	0	0	421	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.1	6.2	6.2	8.1	6.3	6.3	35.3	0.0	0.0	35.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.4	0.4	0.4	0.5	0.5	0.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.6	2.7	0.7	2.9	3.0	0.4	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.2	6.7	6.6	8.5	6.8	6.8	35.5	0.0	0.0	35.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		640			736			17				19
Approach Delay, s/veh		6.7			7.0			35.5				35.6
Approach LOS		A			A			D				D
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.6		90.0		33.6		90.0				
Change Period (Y+Rc), s		5.1		* 5.2		5.1		* 5.2				
Max Green Setting (Gmax), s		24.9		* 85		25.0		* 85				
Max Q Clear Time (g_c+I1), s		3.1		12.8		2.9		11.6				
Green Ext Time (p_c), s		0.0		3.0		0.0		2.5				

Intersection Summary

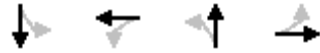
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

2: Marshall Way & Indian School Road

06/16/2021

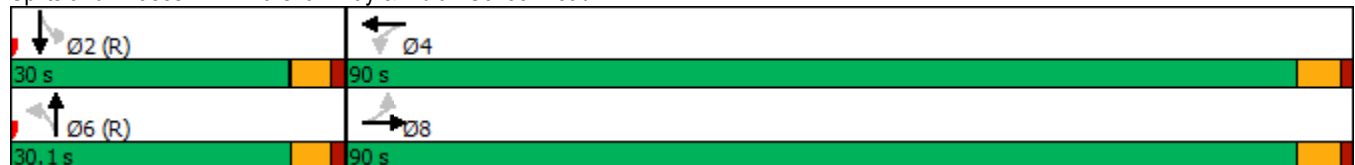


Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	30	90	30.1	90
Maximum Split (%)	25.0%	74.9%	25.1%	74.9%
Minimum Split (s)	29.1	23.2	30.1	23.2
Yellow Time (s)	3.6	4	3.6	4
All-Red Time (s)	1.5	1.2	1.5	1.2
Minimum Initial (s)	7	10	7	10
Vehicle Extension (s)	2	2	2	2
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7	7	8	7
Flash Dont Walk (s)	17	7	17	8
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	6	36.1	6	36.1
End Time (s)	36.1	6	36.1	6
Yield/Force Off (s)	31	0.8	31	0.8
Yield/Force Off 170(s)	14	113.9	14	112.9
Local Start Time (s)	0	30.1	0	30.1
Local Yield (s)	25	114.9	25	114.9
Local Yield 170(s)	8	107.9	8	106.9

Intersection Summary

Cycle Length	120.1
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 6 (5%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green	

Splits and Phases: 2: Marshall Way & Indian School Road



Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	10	3	9	15	5	39	8	401	15	20	610	18
Future Vol, veh/h	10	3	9	15	5	39	8	401	15	20	610	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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
Mvmt Flow	12	3	10	17	6	45	9	466	17	23	709	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1020	1267	365	824	1269	242	730	0	0	483	0	0
Stage 1	766	766	-	493	493	-	-	-	-	-	-	-
Stage 2	254	501	-	331	776	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	7.14	6.99	6.54	6.94	5.34	-	-	4.14	-	-
Critical Hdwy Stg 1	7.34	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.92	3.67	4.02	3.32	3.12	-	-	2.22	-	-
Pot Cap-1 Maneuver	467	311	*778	*653	310	759	922	-	-	1076	-	-
Stage 1	714	688	-	*510	545	-	-	-	-	-	-	-
Stage 2	702	541	-	*832	681	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	422	301	*778	*623	300	759	922	-	-	1076	-	-
Mov Cap-2 Maneuver	422	301	-	*623	300	-	-	-	-	-	-	-
Stage 1	707	674	-	*505	540	-	-	-	-	-	-	-
Stage 2	647	536	-	*799	666	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.8		11.3		0.2		0.3	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	922	-	-	486	640	1076	-
HCM Lane V/C Ratio	0.01	-	-	0.053	0.107	0.022	-
HCM Control Delay (s)	8.9	-	-	12.8	11.3	8.4	-
HCM Lane LOS	A	-	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.1	-

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

2: Marshall Way & Indian School Road

06/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	736	30	54	707	56	17	17	30	13	33	45
Future Volume (veh/h)	30	736	30	54	707	56	17	17	30	13	33	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	800	33	59	768	61	18	18	33	14	36	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	505	2603	107	504	2496	198	88	90	128	54	120	137
Arrive On Green	0.75	0.75	0.75	0.75	0.75	0.75	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	661	3478	143	659	3335	265	300	543	773	121	725	829
Grp Volume(v), veh/h	33	409	424	59	409	420	69	0	0	99	0	0
Grp Sat Flow(s),veh/h/ln	661	1777	1845	659	1777	1823	1616	0	0	1675	0	0
Q Serve(g_s), s	2.1	9.0	9.0	3.9	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.1	9.0	9.0	12.9	9.0	9.0	4.2	0.0	0.0	6.1	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.15	0.26		0.48	0.14		0.49
Lane Grp Cap(c), veh/h	505	1330	1380	504	1330	1364	306	0	0	312	0	0
V/C Ratio(X)	0.07	0.31	0.31	0.12	0.31	0.31	0.23	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	505	1330	1380	504	1330	1364	306	0	0	312	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.8	4.9	4.9	7.0	4.9	4.9	43.5	0.0	0.0	44.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.6	0.5	0.6	0.6	1.7	0.0	0.0	2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.0	3.1	0.6	3.0	3.1	2.0	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	5.5	5.5	7.5	5.5	5.5	45.2	0.0	0.0	47.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		866			888			69				99
Approach Delay, s/veh		5.6			5.7			45.2				47.0
Approach LOS		A			A			D				D
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		95.0		25.0		95.0				
Change Period (Y+Rc), s		5.1		* 5.2		5.1		* 5.2				
Max Green Setting (Gmax), s		19.9		* 90		19.9		* 90				
Max Q Clear Time (g_c+I1), s		8.1		14.9		6.2		13.1				
Green Ext Time (p_c), s		0.2		4.0		0.2		3.8				

Intersection Summary

HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

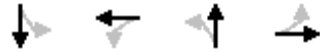
Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

2: Marshall Way & Indian School Road

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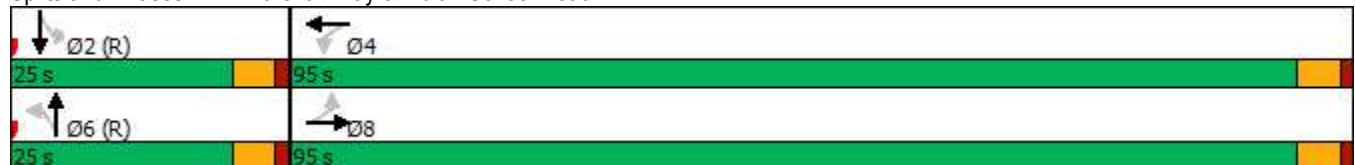


Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	25	95	25	95
Maximum Split (%)	20.8%	79.2%	20.8%	79.2%
Minimum Split (s)	29.1	23.2	30.1	23.2
Yellow Time (s)	3.6	4	3.6	4
All-Red Time (s)	1.5	1.2	1.5	1.2
Minimum Initial (s)	7	10	7	10
Vehicle Extension (s)	2	2	2	2
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7	7	8	7
Flash Dont Walk (s)	17	7	17	8
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	112	17	112	17
End Time (s)	17	112	17	112
Yield/Force Off (s)	11.9	106.8	11.9	106.8
Yield/Force Off 170(s)	114.9	99.8	114.9	98.8
Local Start Time (s)	0	25	0	25
Local Yield (s)	19.9	114.8	19.9	114.8
Local Yield 170(s)	2.9	107.8	2.9	106.8

Intersection Summary

Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 112 (93%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green	

Splits and Phases: 2: Marshall Way & Indian School Road





ATTACHMENT E – TRIP GENERATION



Trip Generation Calculations

Proposed Development

221 Multifamily Housing (Mid-Rise) (Three to Ten Levels)																						
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Multifamily Housing (Mid-Rise)	221	83	Dwelling Units	5.44	50%	50%	0.36	26%	74%	0.44	61%	39%	452	226	226	30	8	22	37	23	14	Average
Multifamily Housing (Mid-Rise)	221	83	Dwelling Units	1.27	50%	50%	0.06	26%	74%	0.15	61%	39%	105	53	52	5	1	4	12	7	5	Minimum
Multifamily Housing (Mid-Rise)	221	83	Dwelling Units	12.50	50%	50%	1.61	26%	74%	1.11	61%	39%	1,038	519	519	134	35	99	92	56	36	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
Multifamily Housing (Mid-Rise)	221	83	Dwelling Units	Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	Equation
Multifamily Housing (Mid-Rise)	221	83	Dwelling Units	$T=5.45(X)-1.75$	50%	50%	$\ln(T)=0.98\ln(X)-0.98$	26%	74%	$\ln(T)=0.96\ln(X)-0.63$	61%	39%	451	226	225	29	8	21	37	23	14	
Multifamily Housing (Mid-Rise)				Standard Deviation	2.03			0.19			0.19											
				Number of Studies	27			53			60											
				Average Size	205			207			208											
				R ²	0.77			0.67			0.72											

826 - Specialty Retail Center - ITE Trip Generation 9th Edition																						
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour*			PM Peak Hour			Weekday			AM Peak Hour*			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Specialty Retail Center	826	2.50	1000 Sq. Ft. GLA	44.32	50%	50%	0.94	62%	38%	2.71	44%	56%	111	56	55	2	1	1	7	4	3	Average
Specialty Retail Center	826	2.50	1001 Sq. Ft. GLA	21.3	50%	50%	0.18	62%	38%	2.03	44%	56%	54	27	27	0	0	0	6	3	3	Minimum
Specialty Retail Center	826	2.50	1002 Sq. Ft. GLA	64.21	50%	50%	23.74	62%	38%	5.16	44%	56%	161	81	80	59	37	22	13	6	7	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
Specialty Retail Center	826	2.50	1000 Sq. Ft. GLA	Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	Equation
Specialty Retail Center	826	2.50	1000 Sq. Ft. GLA	$T=42.78(X)+37.66$	50%	50%	N/A	N/A	N/A	$T=2.40(X)+21.48$	44%	56%	145	73	72	N/A	N/A	N/A	28	12	16	
Specialty Retail Center				Standard Deviation	15.52			-			1.83											
				Number of Studies	4			5														
				Average Size	25			69														
				R ²	0.69			-			0.98											

*Rates and Distribution taken From ITE Trip Generation 10th Edition Land Use 820 - Shopping Center

712 Small Office Building																						
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	
Small Office Building	712	2.5	1000 SF GFA	16.19	50%	50%	1.92	83%	17%	2.45	48%	52%	40	20	20	5	4	1	6	3	3	Average
Small Office Building	712	2.5	1000 SF GFA	4.44	50%	50%	0.78	83%	17%	0.56	48%	52%	11	6	5	2	2	0	1	0	1	Minimum
Small Office Building	712	2.5	1000 SF GFA	50.91	50%	50%	4.12	83%	17%	5.5	48%	52%	127	64	63	10	8	2	14	7	7	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			
Small Office Building	712	2.5	1000 SF GFA	Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out	Equation
Small Office Building	712	2.5	1000 SF GFA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Small Office Building				Standard Deviation	11.03			0.97			1.38											
				Number of Studies	17			17			17											
				Average Size	2			2			3											
				R ²	N/A			N/A			N/A											



ATTACHMENT F – 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**

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

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

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

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

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

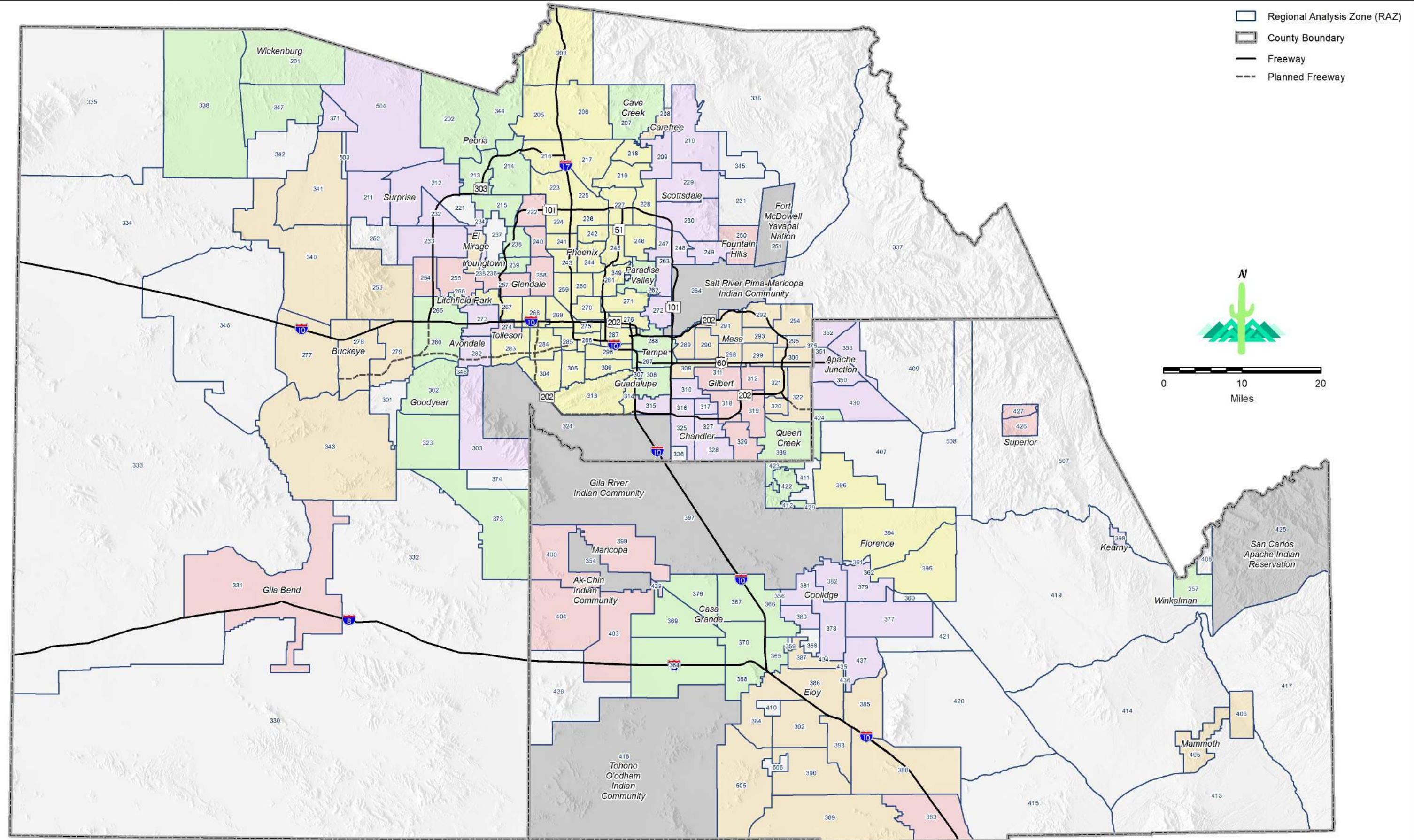
Municipal Planning Area	Total Employment					
	2018	2020	2030	2040	2050	2055
Apache Junction	7,800	8,800	13,100	17,800	26,400	30,500
Avondale	22,400	23,200	30,400	36,200	42,800	45,400
Buckeye	21,600	26,900	42,900	64,500	98,000	128,900
Carefree	1,600	1,600	2,100	2,400	2,500	2,600
Cave Creek	2,200	2,400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

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

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

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

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



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

RAZ	County	Total Population					
		2018	2020	2030	2040	2050	2055
	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 River Pima-Maricopa Native Nation 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
Scottsdale 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	13,961
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
Surprise 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

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

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

RAZ	County	Total Employment					
		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 River Pima-Maricopa Native Nation 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
Scottsdale MPA							
209	Maricopa County	4,488	4,659	4,851	5,174	5,161	5,344
210	Maricopa County	2,386	3,018	2,759	3,091	3,139	3,191
229	Maricopa County	9,604	10,005	11,231	11,962	12,193	12,896
230	Maricopa County	23,272	24,919	32,112	36,968	40,834	42,136
247	Maricopa County	44,254	47,089	52,652	54,822	55,679	56,105
248	Maricopa County	29,603	30,901	33,285	34,001	34,234	34,548
249	Maricopa County	7,409	7,692	8,179	8,684	8,906	9,045
263	Maricopa County	26,351	26,961	28,903	30,245	30,919	31,381
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	266,976
Surprise 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	4,386
371	Maricopa County	18	20	327	423	2,381	2,937
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	130,453
Tempe MPA							
288	Maricopa County	88,927	94,229	111,010	128,894	144,714	152,703
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	290,851

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

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

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



ATTACHMENT G – THE KIMSEY TRAFFIC IMPACT AND MITIGATION ANALYSIS



The Kimsey

Traffic Impact & Mitigation Analysis



Prepared for:



PEG Development
180 N. University Avenue
Suite 200
Provo, UT 84601



Prepared by:



Lokahi, LLC
4657 E. Cotton Gin Loop,
Suite 102
Phoenix, AZ 85040

Project Number: 20.5108
March 08, 2021



2. PROPOSED DEVELOPMENT

The study area is located in the City of Scottsdale, Arizona, approximately 2 ¼ miles west of State Route Loop 101 (SR 101L) and 4 miles north of State Route Loop 202 (SR 202L). The proposed development is located on the north side of Indian School Road approximately 300 feet west of Scottsdale Road.

The proposed development will include the following land uses:

- Multi-Family Residential 190 units
- Hotel 168-rooms
- Restaurant 4,000 square feet

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

There are five (5) access points to the proposed site, three (3) located along Indian School Road and two (2) located along 3rd Avenue.

3rd Avenue and Alley (2) is located approximately 175 feet west of Craftsman Court and will allow all movements into and out of the existing alley connecting to the site.

3rd Avenue and Driveway A (4) is located approximately 130 feet east of Craftsman Court and will allow all movements into and out of the site. This driveway provides direct access to the hotel drop-off area.

Indian School Road and Alley (8) is located approximately 200 feet east of Marshall Way and will allow right in and right out movements to the existing alley connecting to the site.

Indian School Road and Driveway B (9) is located approximately 475 feet west of Scottsdale Road and will allow right out movements only out of the site

Indian School Road and Driveway C (10) is located approximately 350 feet west of Scottsdale Road and will allow right in and left in movements only into the site.

See **Figure 3** for study area.

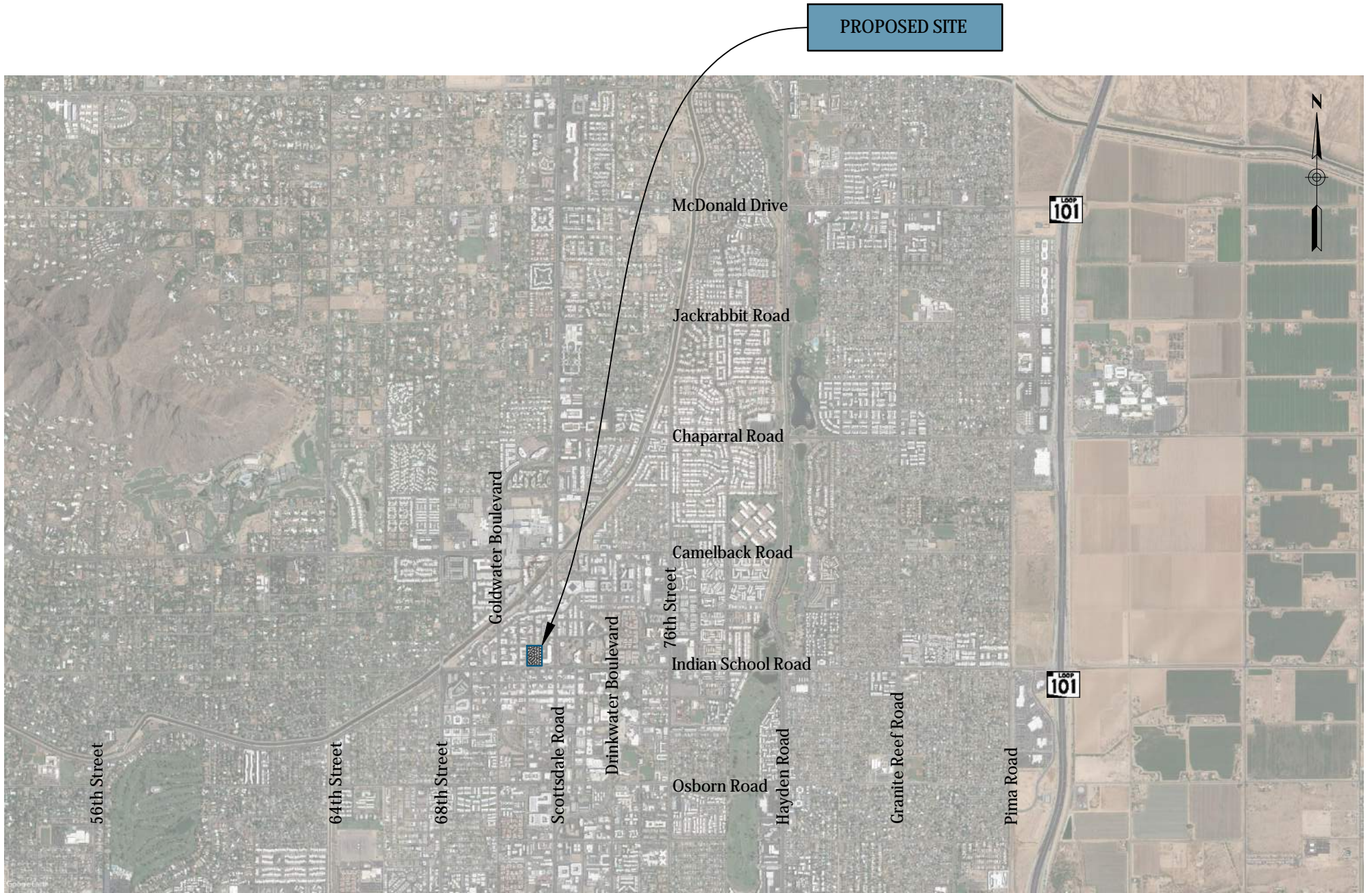


FIGURE 1 | VICINITY MAP



FIGURE 2 | SITE PLAN



PROPOSED DEVELOPMENT

The Kimsey development will include the following land uses:

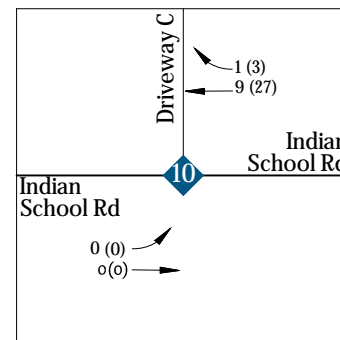
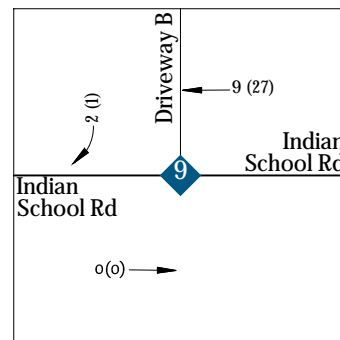
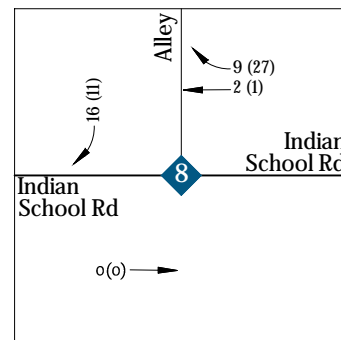
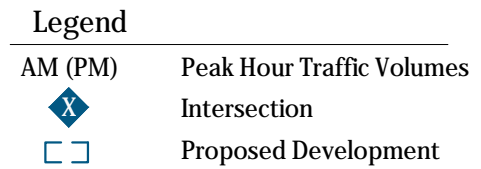
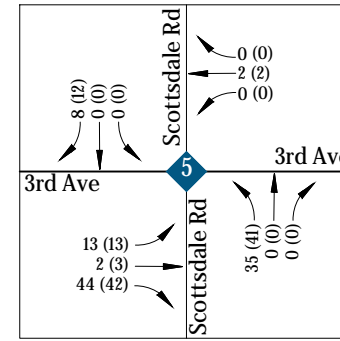
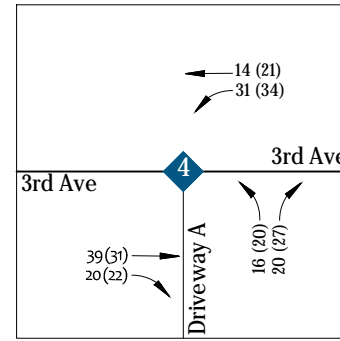
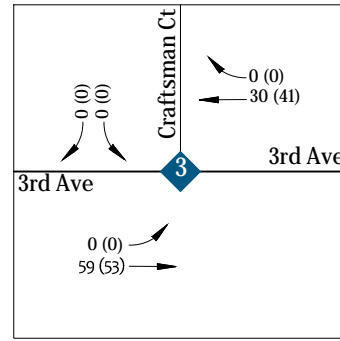
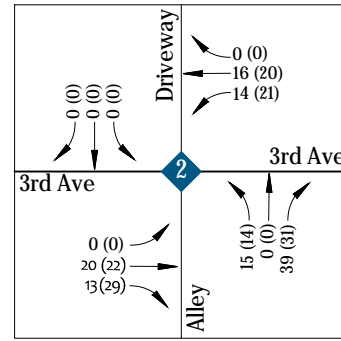
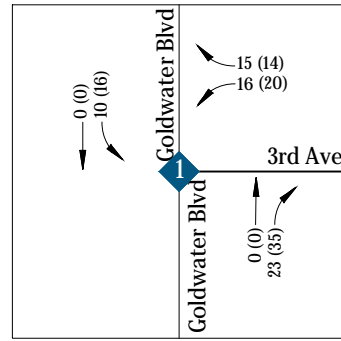
- Multi-Family Residential 190 units
- Hotel 168-rooms
- Restaurant 4,000 square feet

The trip generation for The Kimsey development was calculated utilizing ITE Land Use 221 – Multifamily Housing (Mid-Rise), Land Use (310) – Hotel, and Land Use (932) – High-Turnover (Sit-Down) Restaurant. Trip generation calculations are shown in **Table 10** below. Detailed trip generation calculations are provided in **Appendix G**.

Table 10 – Trip Generation – Proposed Development

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	221	190	Dwelling Units	1,034	64	17	47	82	50	32
Hotel	310	168	Rooms	1405	79	47	32	101	52	49
High-Turnover (Sit-Down) Restaurant	932	4.0	1000 SF GFA	449	40	22	18	39	24	15
Total - Proposed				2,888	183	86	97	222	126	96

The proposed development is anticipated to generate 2,888 weekday trips with 183 occurring during the AM peak hour and 222 trips during the PM peak hour.



NOTE: Site Traffic Volumes Have Since Been Reduced By 7%

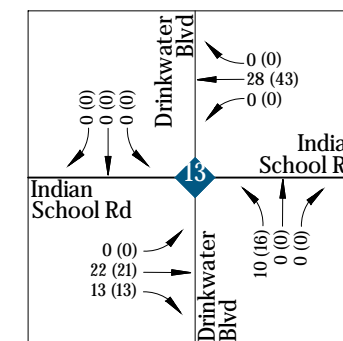
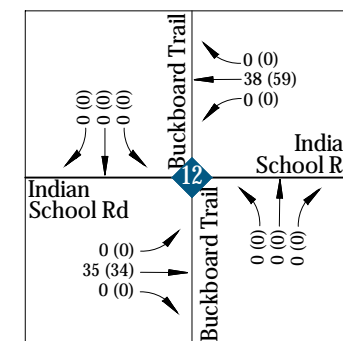
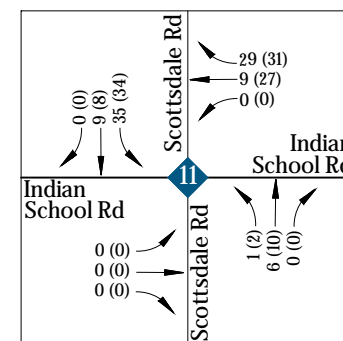
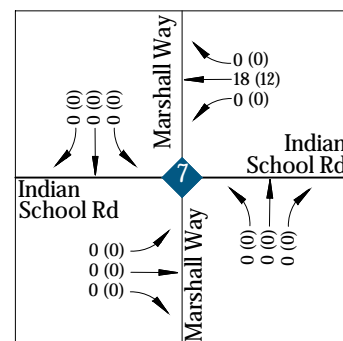
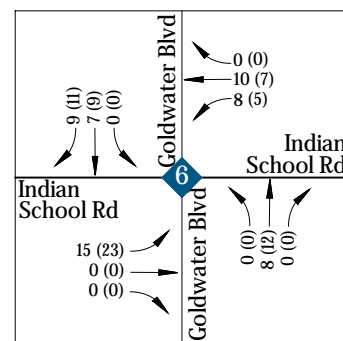


FIGURE 7 | SITE TRAFFIC VOLUMES



ATTACHMENT H – YEAR 2023 BUILD CAPACITY ANALYSIS



Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	4	0	0	11	3	16	15	402	13	22	305	6
Future Vol, veh/h	4	0	0	11	3	16	15	402	13	22	305	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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
Mvmt Flow	4	0	0	12	3	17	16	437	14	24	332	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	636	867	170	657	863	226	339	0	0	451	0	0
Stage 1	384	384	-	476	476	-	-	-	-	-	-	-
Stage 2	252	483	-	181	387	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	7.14	6.99	6.54	6.94	5.34	-	-	4.14	-	-
Critical Hdwy Stg 1	7.34	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.92	3.67	4.02	3.32	3.12	-	-	2.22	-	-
Pot Cap-1 Maneuver	511	363	*867	*494	365	777	985	-	-	1106	-	-
Stage 1	743	734	-	*521	555	-	-	-	-	-	-	-
Stage 2	704	551	-	*926	731	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	482	349	*867	*480	351	777	985	-	-	1106	-	-
Mov Cap-2 Maneuver	482	349	-	*480	351	-	-	-	-	-	-	-
Stage 1	731	718	-	*513	546	-	-	-	-	-	-	-
Stage 2	673	542	-	*906	715	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.5		11.6		0.3		0.6	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	985	-	-	482	576	1106	-	-
HCM Lane V/C Ratio	0.017	-	-	0.009	0.057	0.022	-	-
HCM Control Delay (s)	8.7	-	-	12.5	11.6	8.3	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.2	0.1	-	-

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

2: Marshall Way & Indian School Road

06/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	612	14	73	670	31	9	9	17	2	5	14
Future Volume (veh/h)	26	612	14	73	670	31	9	9	17	2	5	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	665	15	79	728	34	10	10	18	2	5	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	503	2511	57	546	2443	114	118	122	181	49	107	265
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	704	3553	80	760	3457	161	337	514	766	70	453	1121
Grp Volume(v), veh/h	28	332	348	79	374	388	38	0	0	22	0	0
Grp Sat Flow(s),veh/h/ln	704	1777	1856	760	1777	1841	1617	0	0	1644	0	0
Q Serve(g_s), s	1.8	8.1	8.1	5.0	9.4	9.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.2	8.1	8.1	13.1	9.4	9.4	2.1	0.0	0.0	1.2	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.09	0.26		0.47	0.09		0.68
Lane Grp Cap(c), veh/h	503	1256	1312	546	1256	1301	421	0	0	422	0	0
V/C Ratio(X)	0.06	0.26	0.26	0.14	0.30	0.30	0.09	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	503	1256	1312	546	1256	1301	421	0	0	422	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.6	6.4	6.4	8.7	6.5	6.5	35.7	0.0	0.0	35.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.5	0.5	0.6	0.6	0.6	0.4	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.9	3.0	0.9	3.4	3.5	0.9	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.8	6.9	6.8	9.3	7.1	7.1	36.2	0.0	0.0	35.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		708			841			38				22
Approach Delay, s/veh		6.9			7.3			36.2				35.7
Approach LOS		A			A			D				D
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.6		90.0		33.6		90.0				
Change Period (Y+Rc), s		5.1		* 5.2		5.1		* 5.2				
Max Green Setting (Gmax), s		24.9		* 85		25.0		* 85				
Max Q Clear Time (g_c+I1), s		3.2		15.1		4.1		13.2				
Green Ext Time (p_c), s		0.0		3.6		0.1		2.9				

Intersection Summary

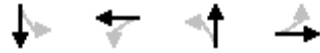
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

2: Marshall Way & Indian School Road

06/16/2021



Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	30	90	30.1	90
Maximum Split (%)	25.0%	74.9%	25.1%	74.9%
Minimum Split (s)	29.1	23.2	30.1	23.2
Yellow Time (s)	3.6	4	3.6	4
All-Red Time (s)	1.5	1.2	1.5	1.2
Minimum Initial (s)	7	10	7	10
Vehicle Extension (s)	2	2	2	2
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7	7	8	7
Flash Dont Walk (s)	17	7	17	8
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	6	36.1	6	36.1
End Time (s)	36.1	6	36.1	6
Yield/Force Off (s)	31	0.8	31	0.8
Yield/Force Off 170(s)	14	113.9	14	112.9
Local Start Time (s)	0	30.1	0	30.1
Local Yield (s)	25	114.9	25	114.9
Local Yield 170(s)	8	107.9	8	106.9

Intersection Summary

Cycle Length	120.1
Control Type	Actuated-Coordinated
Natural Cycle	55
Offset: 6 (5%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green	

Splits and Phases: 2: Marshall Way & Indian School Road



Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	10	3	9	19	5	43	8	429	20	23	649	19
Future Vol, veh/h	10	3	9	19	5	43	8	429	20	23	649	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	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
Mvmt Flow	11	3	10	21	5	47	9	466	22	25	705	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1020	1272	363	829	1271	244	726	0	0	488	0	0
Stage 1	766	766	-	495	495	-	-	-	-	-	-	-
Stage 2	254	506	-	334	776	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	7.14	6.99	6.54	6.94	5.34	-	-	4.14	-	-
Critical Hdwy Stg 1	7.34	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.92	3.67	4.02	3.32	3.12	-	-	2.22	-	-
Pot Cap-1 Maneuver	467	308	*778	*648	309	757	926	-	-	1071	-	-
Stage 1	714	688	-	*508	544	-	-	-	-	-	-	-
Stage 2	702	538	-	*832	681	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	421	298	*778	*618	299	757	926	-	-	1071	-	-
Mov Cap-2 Maneuver	421	298	-	*618	299	-	-	-	-	-	-	-
Stage 1	707	672	-	*503	539	-	-	-	-	-	-	-
Stage 2	646	533	-	*798	665	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.8		11.3		0.2		0.3	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	926	-	-	485	643	1071	-
HCM Lane V/C Ratio	0.009	-	-	0.049	0.113	0.023	-
HCM Control Delay (s)	8.9	-	-	12.8	11.3	8.4	-
HCM Lane LOS	A	-	-	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.1	-

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

2: Marshall Way & Indian School Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	766	39	70	748	58	25	25	43	14	42	48
Future Volume (veh/h)	31	766	39	70	748	58	25	25	43	14	42	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	833	42	76	813	63	27	27	47	15	46	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	482	2576	130	483	2501	194	90	92	126	53	132	128
Arrive On Green	0.75	0.75	0.75	0.75	0.75	0.75	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	633	3442	174	634	3342	259	314	556	757	115	794	775
Grp Volume(v), veh/h	34	430	445	76	432	444	101	0	0	113	0	0
Grp Sat Flow(s),veh/h/ln	633	1777	1839	634	1777	1824	1627	0	0	1684	0	0
Q Serve(g_s), s	2.3	9.6	9.6	5.4	9.7	9.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.0	9.6	9.6	15.1	9.7	9.7	6.2	0.0	0.0	7.0	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.14	0.27		0.47	0.13		0.46
Lane Grp Cap(c), veh/h	482	1330	1376	483	1330	1365	308	0	0	313	0	0
V/C Ratio(X)	0.07	0.32	0.32	0.16	0.33	0.33	0.33	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	482	1330	1376	483	1330	1365	308	0	0	313	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.0	5.0	5.0	7.5	5.0	5.0	44.3	0.0	0.0	44.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.6	0.6	0.7	0.7	0.6	2.8	0.0	0.0	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.2	3.3	0.8	3.3	3.3	2.9	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.3	5.7	5.6	8.2	5.7	5.7	47.2	0.0	0.0	47.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		909			952			101				113
Approach Delay, s/veh		5.7			5.9			47.2				47.9
Approach LOS		A			A			D				D
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		95.0		25.0		95.0				
Change Period (Y+Rc), s		5.1		* 5.2		5.1		* 5.2				
Max Green Setting (Gmax), s		19.9		* 90		19.9		* 90				
Max Q Clear Time (g_c+I1), s		9.0		17.1		8.2		14.0				
Green Ext Time (p_c), s		0.3		4.4		0.2		4.0				

Intersection Summary

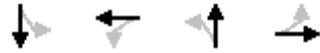
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

2: Marshall Way & Indian School Road

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Phase Number	2	4	6	8
Movement	SBTL	WBTL	NBTL	EBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	C-Max	Max	C-Max	Max
Maximum Split (s)	25	95	25	95
Maximum Split (%)	20.8%	79.2%	20.8%	79.2%
Minimum Split (s)	29.1	23.2	30.1	23.2
Yellow Time (s)	3.6	4	3.6	4
All-Red Time (s)	1.5	1.2	1.5	1.2
Minimum Initial (s)	7	10	7	10
Vehicle Extension (s)	2	2	2	2
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	7	7	8	7
Flash Dont Walk (s)	17	7	17	8
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	112	17	112	17
End Time (s)	17	112	17	112
Yield/Force Off (s)	11.9	106.8	11.9	106.8
Yield/Force Off 170(s)	114.9	99.8	114.9	98.8
Local Start Time (s)	0	25	0	25
Local Yield (s)	19.9	114.8	19.9	114.8
Local Yield 170(s)	2.9	107.8	2.9	106.8

Intersection Summary

Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	60
Offset: 112 (93%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green	

Splits and Phases: 2: Marshall Way & Indian School Road

