

Drainage Reports

Abbreviated Water & Sewer Need Reports

Water Study

Wastewater Study

Stormwater Waiver Application



FILE COPY

TRAFFIC IMPACT ANALYSIS

GOLD DUST CIRCLE K GOLD DUST AVENUE/SCOTTSDALE ROAD

23 SEPTEMBER 2016



Expires 3-31-19

ACCEPTED
CITY OF SCOTTSDALE
TRANSPORTATION DEPARTMENT

DATE: 11/11/16

REVIEWER: Jm PBA

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Traffic Counts

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Crash Data

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**TRAFFIC IMPACT ANALYSIS
GOLD DUST CIRCLE K
GOLD DUST AVENUE/SCOTTSDALE ROAD**

Executive Summary

The purpose of this traffic study is to evaluate the current and future transportation system within the project study area surrounding the site without and with the proposed Gold Dust Circle K improvements.

Existing and Future Traffic Data Without Project

In order to form a basis for analysis of the project impacts, weekday AM and PM peak hour turning movement counts were conducted at five existing intersections within the study area.

All of the existing study intersections are currently operating at an overall adequate level of service (LOS) D or better during the weekday AM and PM peak hours and are expected to continue operating at an adequate LOS D or better in 2017 and 2022 without the project.

The remaining existing intersections are expected to continue to operate at an adequate LOS for all movements in 2017 and 2022 without traffic from the project.

Future Traffic Data With Project

All of the study intersections are expected to continue to operate at an adequate LOS during the 2017 and 2022 AM/PM peak hours with traffic from the project.

Crash Analysis

The City of Scottsdale provided crash data for incidents that occurred within the study area from the five year period dated January 2011 to December 2015. No specific trends were identified from the recorded crashes within the study area.

Recommendations

New STOP signs are recommended for traffic exiting the project site at the intersections of North Access/Scottsdale Road and West Access/Gold Dust Road.



**TRAFFIC IMPACT ANALYSIS
GOLD DUST CIRCLE K
GOLD DUST AVENUE/SCOTTSDALE ROAD**

Project Description

Land Development Consultants have proposed improvements to an existing Circle K Convenience Store and Gas Station located on the northwest corner of Gold Dust Avenue/Scottsdale Road in Scottsdale, Arizona. The proposed improvements include a reduction in the number of fueling stations from twelve (12) to ten (10) and the expansion of an existing convenience store to accommodate 4,968 square feet of space. The vicinity of the project is shown in **Figure 1**. The site is located as shown in **Figure 2**. It is expected that the project will be completed by the year 2017. Access to the project site will be from two existing driveways.

The purpose of this traffic impact analysis is to:

- Evaluate the current and future operational characteristics of the adjacent roadway network surrounding the project site.
- Estimate the traffic generation associated with the project and assign that traffic to the existing roadway system.
- Analyze future traffic operations at the two proposed access points as well as the following existing intersections:
 - North Access/Scottsdale Road
 - South Access/Scottsdale Road
 - Gold Dust Avenue/Scottsdale Road
 - East Access/Gold Dust Avenue
 - West Access/Gold Dust Avenue
- Perform a crash analysis to identify any specific crash trends within the study area.

The author of this report is a registered professional engineer (civil) in the State of Arizona having specific expertise and experience in the preparation of traffic impact analyses.



Figure 1 – Vicinity Map



Figure 2

CIRCLE K STORE SITE PLAN NWC SCOTTSDALE ROAD & GOLD DUST AVENUE, SCOTTSDALE, AZ SECTION 27 T3N R4E



OWNER:
CIRCLE K STORES INC.
1130 WEST WARNER ROAD
BUILDING B TEMPE, ARIZONA
85284

OWNER REPRESENTATIVE:
LAND DEVELOPMENT CONSULTANTS, LLC
11811 N. TATUM BLVD. #1051
PHOENIX, ARIZONA 85028
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PROJECT INFORMATION

PROJECT NAME: CIRCLE K CONVENIENCE STORE
PROJECT ADDRESS: NWC SCOTTSDALE ROAD & GOLD DUST AVENUE, SCOTTSDALE, AZ
PROJECT DESCRIPTION: PROPOSAL FOR A NEW CONVENIENCE STORE WITH ASSOCIATED FUEL SALES CONSISTING OF A 4,968 S.F. CONVENIENCE STORE AND A FUEL CANOPY WITH 5 FUEL PUMPS.

ZONING INFORMATION

JURISDICTION: CITY OF SCOTTSDALE, AZ
EXISTING ZONING: C-3 (HIGHWAY COMMERCIAL)
PROPOSED ZONING: C-3 (HIGHWAY COMMERCIAL)

MAX. BLDG HEIGHT ALLOWED: 36 BLDG HEIGHT PROVIDED: 23

SETBACKS:
SIDE/REAR: 50' MIN. (INCLUDING ALLEY) FROM SINGLE FAMILY RESIDENTIAL
SIDE/REAR: 25' MIN. (INCLUDING ALLEY) FROM MULTIPLE FAMILY RESIDENTIAL

SITE DATA

PARCEL: 175-49-012C & 175-49-012D & PART OF 175-49-012A

CIRCLE K EXISTING PARCEL AREA 175-49-012C: ±0.610 AC (26,600 SF)
CIRCLE K EXISTING PARCEL AREA 175-49-012D: ±0.136 AC (5,905 SF)
CIRCLE K ADDITIONAL PROPERTY REQUIRED 175-49-012A (PART): ±0.204 AC (8,893 SF)
CIRCLE K TOTAL SITE AREA: ±0.950 AC (41,398 SF)

BUILDING AREA

CONVENIENCE STORE BLDG AREA: 4,968 SF
FUEL CANOPY AREA: 2,904 SF

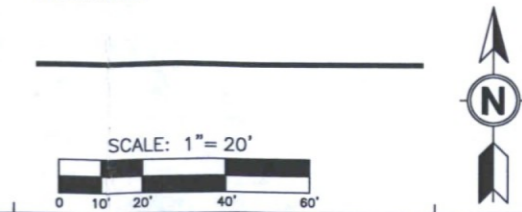
CIRCLE K SITE COVERAGE
(BASED ON 4,968 SF OF CONVENIENCE STORE BLDG AREA AND ±0.95 AC OF SITE AREA): ±12.05% (5,250 SF/AC)

PARKING REQUIREMENTS

PARKING REQUIRED	
CONVENIENCE STORE @1250 SF	20 SPACES
PARKING PROVIDED	
STANDARD PARKING SPACES	19 SP
ACCESSIBLE PARKING SPACES	1 SP
TOTAL PARKING PROVIDED	20 SP
BICYCLE PARKING PROVIDED	2 SP

GENERAL NOTES

1. THIS IS A CONCEPTUAL SITE PLAN AND IS FOR PLANNING PURPOSES ONLY.



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ISSUE/REVISION RECORD

DATE	DESCRIPTION
06/21/12	SITE PLAN
04/29/15	UPDATE SP W/ AERIAL
05/29/15	PREP SP-2 W/A-5
06/01/15	REVISED BLDG LOCATION
06/11/15	PREP SP-3 W/ 4,968 SF
06/24/15	PREP SP-4
11/11/15	PREP SP-5
01/12/16	UPDATE SP-5 PL
03/03/16	PARCEL SUMMARY UPDATE

PROFESSIONAL SEAL

PROFESSIONAL IN CHARGE
DOUGLAS S. COUPER

PROJECT MANAGER
DC

QUALITY CONTROL

DRAWN BY
CD

PROJECT NAME
CIRCLE K STORE #

SCOTTSDALE ARIZONA
NWC SCOTTSDALE RD & GOLD DUST AVE



LAND DEVELOPMENT CONSULTANTS, LLC
11811 N. TATUM BLVD. #1051
PHOENIX, AZ 85028



CIRCLE K STORES INC.

PROJECT NUMBER
20100534.0

SHEET TITLE
SITE PLAN

SHEET NUMBER
SP-6



Study Methodology

In order to analyze and evaluate the potential traffic impacts of the proposed development, the following tasks were undertaken:

- Field observation of the proposed site and surrounding area was conducted to evaluate the existing physical and operational characteristics of the adjacent roadway network.
- Site traffic volumes generated by the proposed site were calculated using the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012*.
- Calculated site traffic was distributed based on existing traffic volumes and assigned to the primary roadways within the project study limits.
- Capacity analyses were performed for the existing conditions and future conditions without and with the project based on an opening year of 2017 and 2022.
- The intersections were analyzed using the methodology presented in the *2010 Highway Capacity Manual (HCM)*.
- Crash records were obtained from the City of Scottsdale to identify any specific crash trends within the study area.

Existing Conditions

The existing project site contains a Circle K Convenience Store with twelve (12) fueling stations. The site is served by four driveways, two on Scottsdale Road and two on Gold Dust Avenue. Cross access is also available between the Circle K and the adjacent retail center via a shared access point near the northwest corner of the site.

The study area includes the signalized intersection of Gold Dust Avenue/Scottsdale Road and the four un-signalized intersections of North Access/Scottsdale Road, South Access/Scottsdale Road, East Access/Gold Dust Avenue, and West Access/Gold Dust Avenue which currently serve the project site.

With a north/south alignment, Scottsdale Road provides three lanes in each direction separated by a raised median. The posted speed limit is 40 miles per hour (mph) north of Gold Dust Avenue and 45 mph south of Gold Dust Avenue. Curb, gutter, and sidewalk facilities exist on both sides of the road. Roadway lighting is present on both the east and west side of the roadway. Along the east side of the road, overhead power lines are present.

Gold Dust Avenue has a posted speed limit of 35 mph east of Scottsdale Road and 30 mph west of Scottsdale Road. The roadway has an east/west alignment and provides two lanes east of Scottsdale Road that transition to one lane west of Scottsdale road. The roadway is separated by a two-way center left turn lane. Sidewalk, curb, and gutters exist on both sides of the road. Overhead lighting does not exist on either side of the roadway.



The existing signalized intersection of Gold Dust Avenue/Scottsdale Road is a four-leg intersection with permissive left turn phasing in the eastbound and westbound directions and permissive/protected left turn phasing in the northbound and southbound directions. The northbound approach to the intersection offers an exclusive left turn lane, three through lanes, and an exclusive right turn lane, while the southbound approach offers an exclusive left turn lane, two through lanes, and a shared through/right turn lane. Eastbound vehicles make use of an exclusive left turn lane, a through lane, and an exclusive right turn lane. An exclusive left turn lane, a through lane, and a shared through/right lane are provided for the westbound approach. Crosswalks, pedestrian ramps, and push buttons are provided on all four corners of the intersection.

North Access/Scottsdale Road is an un-signalized 'T' intersection that provides access to the Circle K approximately 160 feet north of Gold Dust Avenue. The North Access also provides cross access traffic to/from the adjacent retail center. Northbound vehicles are provided with an exclusive left turn lane and three through lanes. Southbound traffic is offered two through lanes and a shared through/right lane. Eastbound vehicles make use of a single right turn lane out of the site. 'STOP' signs are not provided for the eastbound direction, however, eastbound traffic turning onto Scottsdale Road behave as though 'STOP' controlled. Northbound and southbound vehicles at this driveway are free flow.

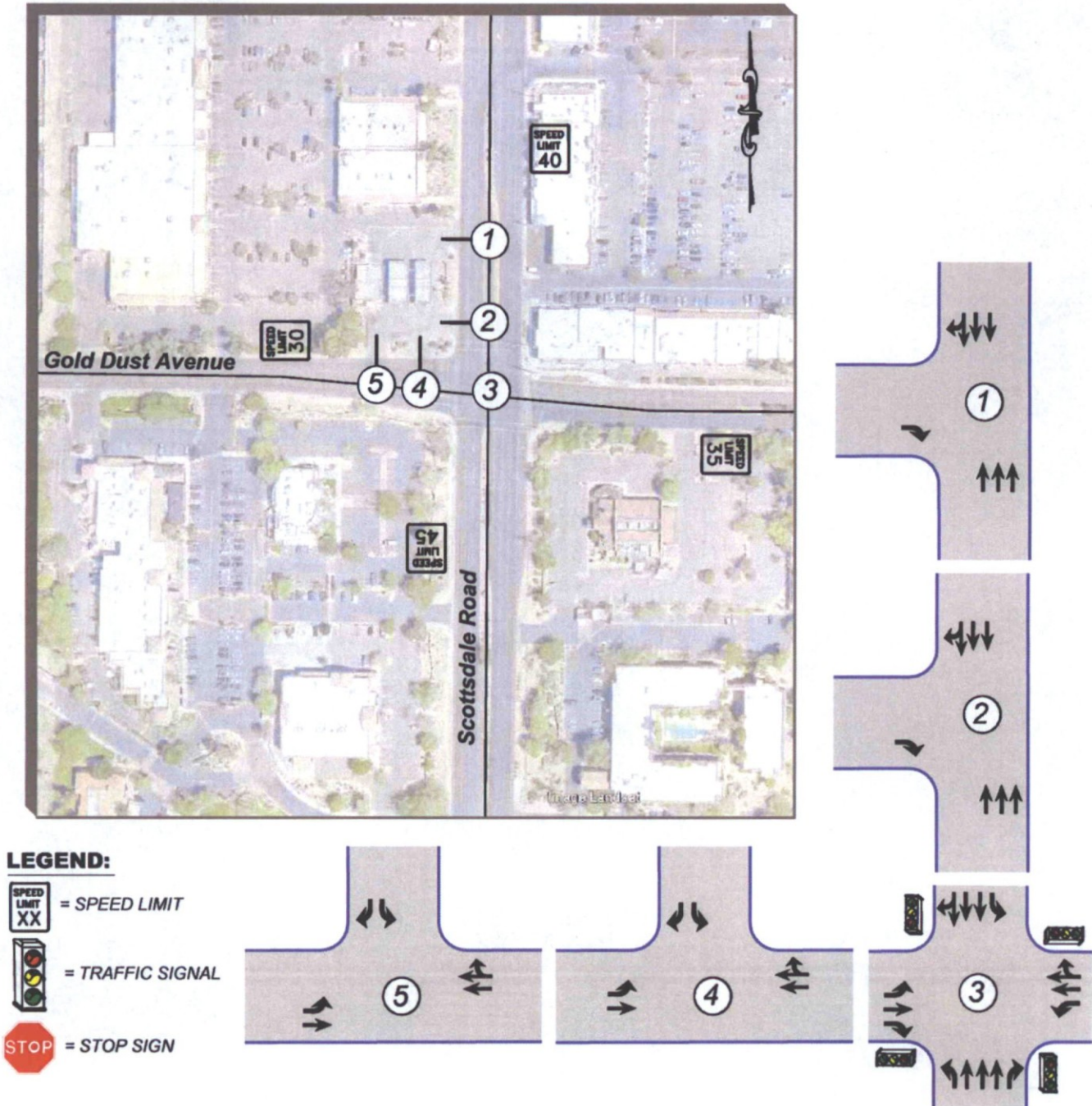
The intersection of South Access/Scottsdale Road is an un-signalized 'T' intersection that provides another access point into the Circle K less than thirty (30) feet north of Gold Dust Avenue. An exclusive left turn lane and three through lanes are offered for northbound traffic, while a left turn lane, two through lanes, and a shared through/right lane are offered for southbound traffic. Eastbound movements are offered a single right turn lane out of the Circle K. Eastbound traffic behaves as though 'STOP' controlled, although no 'STOP' sign is provided. Vehicles traveling north and south are free flow.

East Access/Gold Dust Avenue and West Access/Gold Dust Avenue are un-signalized 'T' intersections that permit vehicles traveling along Gold Dust Avenue, access into the Circle K. The East Access and West Access driveways are located on the north side of Gold Dust Avenue, approximately thirty (30) feet and 100 feet west of Scottsdale Road, respectively. Westbound movements are provided with a shared through/right turn lane, and eastbound traffic is offered a two-way left turn lane and a through lane. Both the westbound and eastbound movements are free flow. 'STOP' signs are not utilized for southbound traffic, however, 'STOP' control is followed.

Existing lane configurations and traffic control are shown in **Figure 3**.



Figure 3 – Existing Lane Configurations and Traffic Control





Existing Traffic Data

In order to form a basis for analysis of the project impacts, weekday AM and PM peak hour turning movement counts were conducted at the following existing intersections:

- North Access/Scottsdale Road
- South Access/Scottsdale Road
- Gold Dust Avenue/Scottsdale Road
- East Access/Gold Dust Avenue
- West Access/Gold Dust Avenue

The weekday turning movement counts were conducted from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM in early May 2016.

The existing weekday AM and PM peak hour traffic volumes are shown in **Figure 4**. The complete traffic count summaries can be found in the Appendix.

Access

Access to the proposed Gold Dust Circle K project will be provided via two existing driveways, North Access and West Access. The remaining two existing driveways, South Access and East Access, will be removed as part of the project. To accommodate the additional East Access traffic the West Access will be widened to meet current standards. This combination of driveways alone is expected to improve vehicle operations in the area and in turn reduce vehicle conflict points.

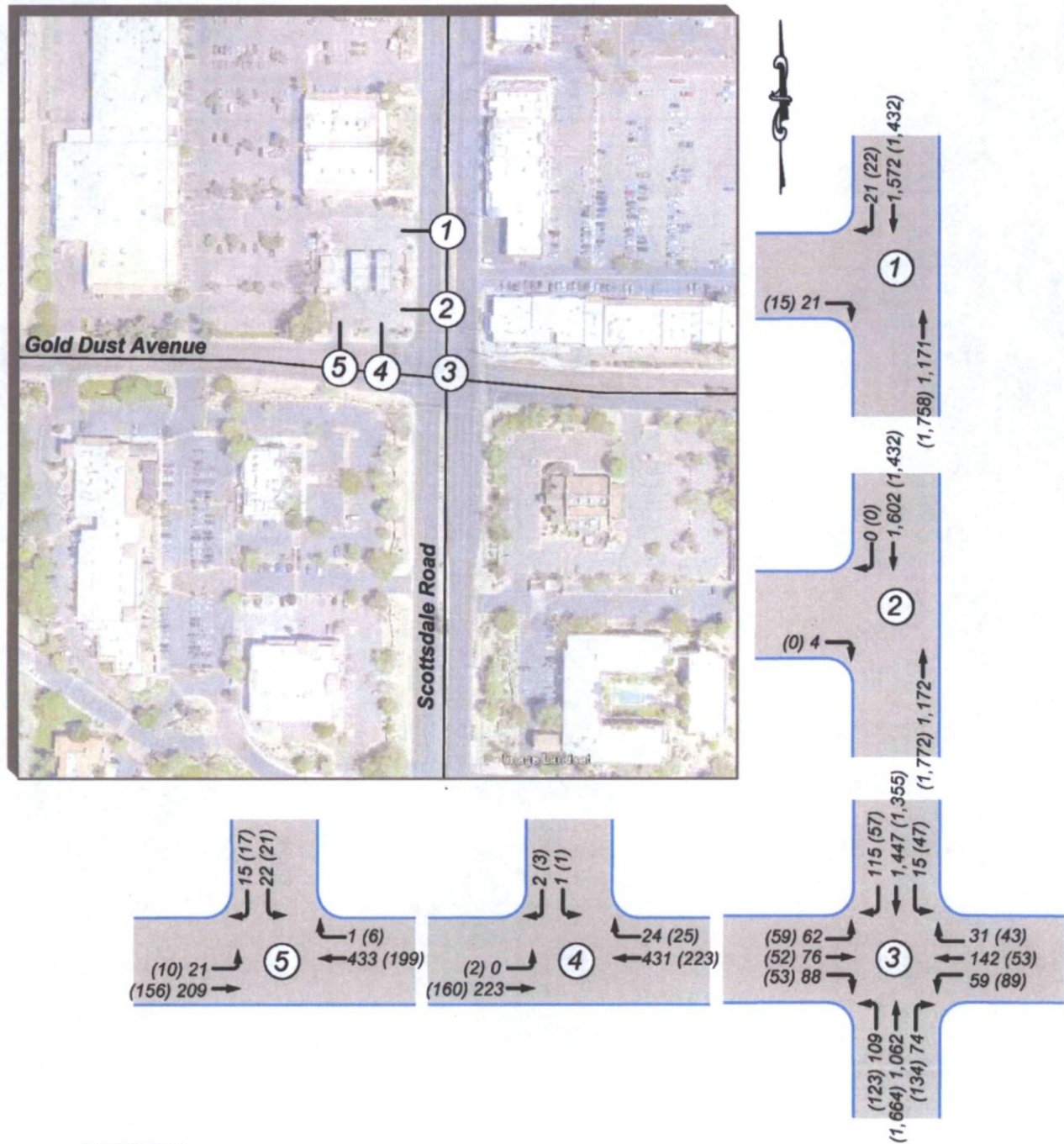
North Access is located at the northernmost point of the project site along the west side of Scottsdale Road. The intersection of North Access/Scottsdale Road will serve the project site as a right in/right out driveway. A single right turn lane will be provided for the westbound direction, which will be STOP controlled. Northbound traffic as this 'T' intersection will be offered three through lanes. Southbound vehicles can utilize two through lanes and a shared through/right turn lane.

At the 'T' intersection of West Access/Gold Dust Avenue, the eastbound and westbound approaches will be free flow. The eastbound approach will be offered a two-way left turn lane and a through lane, while westbound traffic will be offered a shared through/right turn lane. Southbound vehicles will utilize a left turn lane and right turn lane and will be STOP controlled.

Sight distances at the proposed access points should be verified during the design process.



Figure 4 – Existing Weekday Peak Hour Traffic Volumes



LEGEND:

- XX = Weekday AM Peak Hour
- (XX) = Weekday PM Peak Hour
- Vehicle Trips Per Hour
- EXISTING ROAD



Trip Generation

Trip generation for the project was developed utilizing nationally agreed upon data contained in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 9th Edition, 2012*.

The trip generation was estimated for the construction of a gas station with ten (10) fueling stations and a convenience store, based on ITE Land Use Code 945, Gasoline/Service Station with Convenience Market.

The result is the expected weekday trip generation for the new Gold Dust Circle K project as shown in **Table 1**. The complete trip generation calculations can be found in the Appendix.

Table 1 – Weekday Project Site Generated Trips Using ITE Trip Generation

Time Period	Gasoline/Service Station with Convenience Mart
Average Daily, Inbound (vtpd)	814
Average Daily, Outbound (vtpd)	814
Total Daily	1,628
AM Peak Hour, Inbound (vtph)	51
AM Peak Hour, Outbound (vtph)	51
Total AM Peak	102
PM Peak Hour, Inbound (vtph)	68
PM Peak Hour, Outbound (vtph)	68
Total PM Peak	136

vtpd - vehicle trips per day, vtph - vehicle trips per hour

The overall site before and after the project can be expected to have relatively comparable trip generation due to the reduction in the number of fueling stations and increase in the size of the convenience store. With this in mind, the estimated ITE Trip Generation for the proposed project in **Table 1** was compared to the trips generated by the existing Circle K to determine if the ITE Trip Generation for the proposed project was appropriate. The trips made at the existing Circle K can be found by summing the inbound and outbound traffic counts at each driveway during the AM/PM peak hours. Traffic counts at the North Access may include cross access traffic from the adjacent retail center. The trip comparison between the existing and proposed development is shown in **Table 2**.



Table 2 – Existing vs. Proposed Trip Comparison

Time Period	Traffic Counts at Existing Circle K	Traffic Volumes at Proposed Circle K (Using ITE Trip Generation Estimate)	Number of Additional Trips from Proposed Site
Average Daily, Inbound (vtpd)	N/A	814	N/A
Average Daily, Outbound (vtpd)		814	
Total Daily		1,628	
AM Peak Hour, Inbound (vtph)	67	51	-16
AM Peak Hour, Outbound (vtph)	65	51	-14
Total PM Peak	132	102	-30
PM Peak Hour, Inbound (vtph)	65	68	3
PM Peak Hour, Outbound (vtph)	57	68	11
Total PM Peak	122	136	14
Total Peak Hour Trips	254	238	16

vtpd - vehicle trips per day, vtph - vehicle trips per hour

As shown in **Table 2**, the existing Circle K generates a total of sixteen (16) additional trips during the peak periods when compared to the ITE estimated trips for the proposed development.

Due to the similarities of the site, before and after construction of the proposed project, the trip generation for the site is not expected to decrease. It was determined that the existing trips traveling to the Circle K were more appropriate for the way the site will function after the proposed project. In addition, by using the existing trip generation in the analyses found within this report, the results will be more conservative than the ITE trip generation estimate due to the larger overall peak period volume.

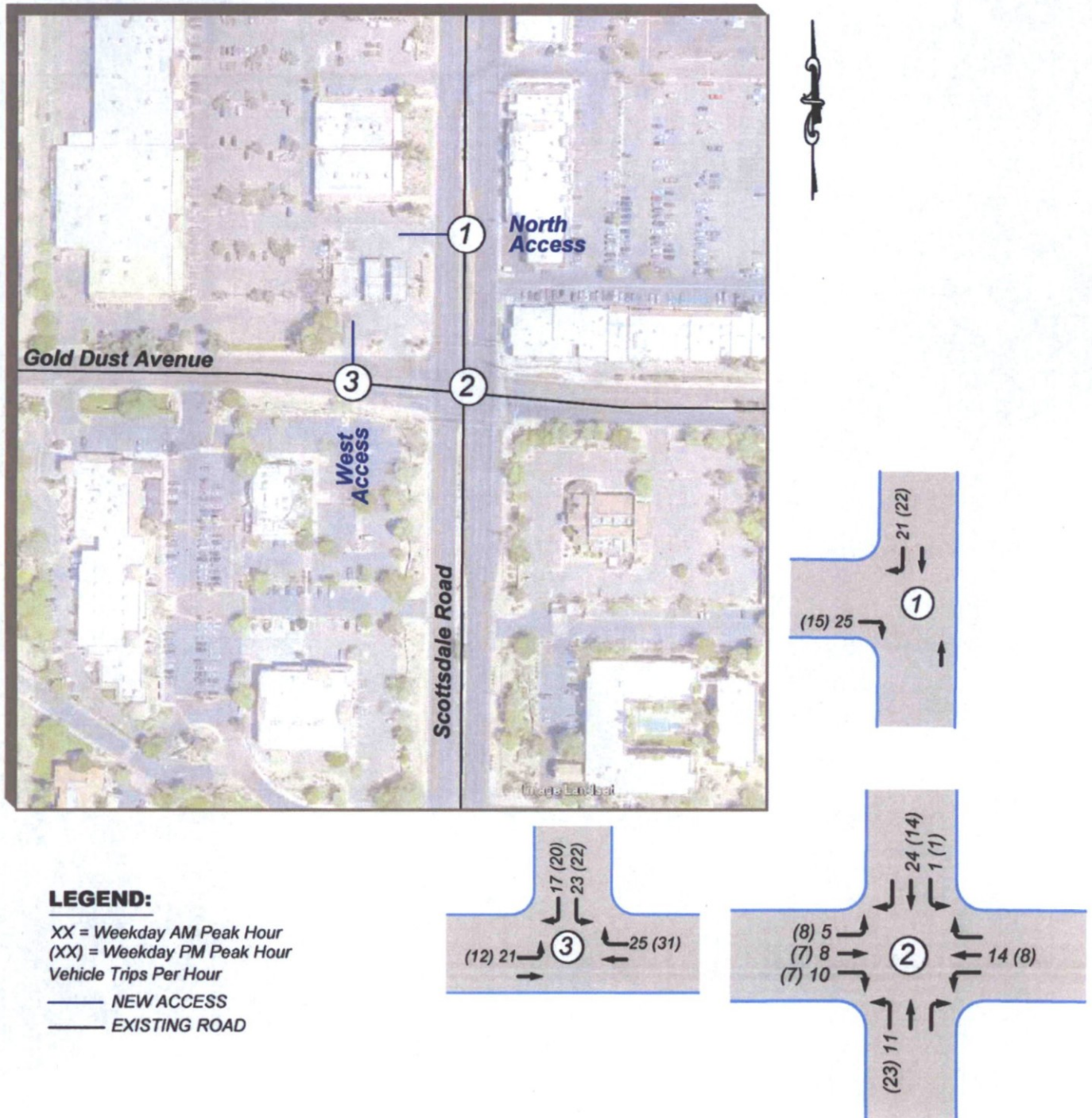
Trip Distribution & Assignment

Trip distribution for the project was based on the existing traffic patterns and the improvements proposed as part of the project. The project improvements include closing the South Access and East Access. To account for the existing traffic at these driveways, traffic using the South Access was distributed to the North Access and traffic at the East Access was shifted to the West Access.

Figure 5 shows the assignment of the site generated trips to the project intersections within the study area at the completion of the project for the opening year of 2017.



Figure 5 – Weekday Peak Hour Trip Assignment





Existing Traffic Operations

Analysis of current intersection operations was conducted for the weekday AM and PM peak hours using the nationally accepted methodology set forth in the *Highway Capacity Manual*, Transportation Research Board, 2010 (HCM 2010). For un-signalized and signalized intersections the computer software HCS 2010 was utilized to calculate the levels of service for individual movements, approaches, and for the intersections as a whole.

Level of service (LOS) is a qualitative measure of the traffic operations at an intersection or on a roadway segment. Level of service is ranked from LOS A, which signifies little or no congestion and is the highest rank, to LOS F, which signifies congestion and jam conditions. LOS D is typically considered adequate operation at signalized and un-signalized intersections in developed areas.

At signalized intersections, level of service is calculated for each movement and then is summed in a weighted fashion to yield the LOS for the approach and for the intersections a whole. The criteria for level of service at signalized intersections are shown in **Table 3**.

Table 3 - Level of Service Criteria – Signalized Intersections

Level-of-Service	Average Total Delay
A	≤ 10.0 seconds
B	> 10.0 and ≤ 20.0 seconds/vehicle
C	> 20.0 and ≤ 35.0 seconds/vehicle
D	> 35.0 and ≤ 55.0 seconds/vehicle
E	> 55.0 and ≤ 80.0 seconds/vehicle
F	> 80.0 seconds per vehicle

In calculating the levels of service, assumed signal phasing and timing data was used. Other assumptions included:

- Cycle length – 90 seconds
- Lane widths – 12 feet
- Approach grade – 0%
- Right turn on red allowed – 20%

At un-signalized intersections, level of service is predicted/calculated for those movements which must either stop for or yield to oncoming traffic and is based on average control delay for the particular movement. Control delay is the portion of total delay attributed to traffic control measures such as stop signs and traffic signals. The criteria for level of service at un-signalized intersections are shown in **Table 4**.



Table 4 – Level of Service Criteria – Un-signalized Intersections

Level-of-Service	Delay
A	≤ 10 seconds
B	> 10 and ≤ 15 seconds/vehicle
C	> 15 and ≤ 25 seconds/vehicle
D	> 25 and ≤ 35 seconds/vehicle
E	> 35 and ≤ 50 seconds/vehicle
F	> 50 seconds per vehicle

Existing levels of service were calculated for the study intersections. The results of this analysis are shown in **Table 5**. Complete capacity calculations are included in the Appendix.

Table 5 – Existing Peak Hour Levels of Service

Intersection	AM Peak		PM Peak	
	LOS	Delay	LOS	Delay
Signalized Intersections				
Gold Dust Avenue/Scottsdale Road				
Overall Intersection	C	27.3	C	30.5
Northbound Left	D	37.4	D	38.7
Northbound Through	C	23.0	C	24.4
Northbound Right	B	18.1	B	19.4
Southbound Left	C	31.9	C	33.4
Southbound Through	C	28.8	C	26.2
Southbound Right	C	33.2	C	29.2
Eastbound Left	C	28.9	C	27.2
Eastbound Through	C	25.2	C	24.6
Eastbound Through/Right	C	26.1	C	25.0
Westbound Left	C	27.9	C	28.2
Westbound Through	C	25.5	C	24.6
Westbound Through/Right	C	25.7	C	24.8
Un-signalized Intersections				
North Access/Scottsdale Road				
Eastbound Right	C	21.2	C	19.3
South Access/Scottsdale Road				
Eastbound Right	C	20.0	C	17.8
East Access/Gold Dust Avenue				
Southbound Left	C	15.3	B	11.7
Southbound Right	A	9.9	A	9.1
Eastbound Left	A	8.4	A	7.8
West Access/Gold Dust Avenue				
Southbound Left	C	16.7	B	11.8
Southbound Right	A	9.9	A	9.0
Eastbound Left	A	8.4	A	7.7

Delay - seconds per vehicle



The results in **Table 5** indicate that all of the existing study intersections are currently operating at an adequate LOS D or better for all movements during the weekday AM and PM peak hours.

Future Traffic Operations Without Project

In order to assess the impacts of the project on future traffic operations, traffic projections were made for the opening year of 2017 and future year 2022.

A review of historical traffic data in the vicinity of the project showed increasing and decreasing traffic volumes. Due to this, a 2% annual traffic growth rate was used. Using a 2% annual traffic growth rate, 2017 and 2022 weekday peak hour traffic volumes without the project were estimated as shown in **Figure 6** and **Figure 7**.

As with the current volumes, levels of service were calculated for each of the intersections in the study area for the study years 2017 and 2022 without the project. Intersection levels of service for 2017 and 2022 without the project are shown in **Table 6** and **Table 7**. Complete capacity calculations are included in the Appendix.

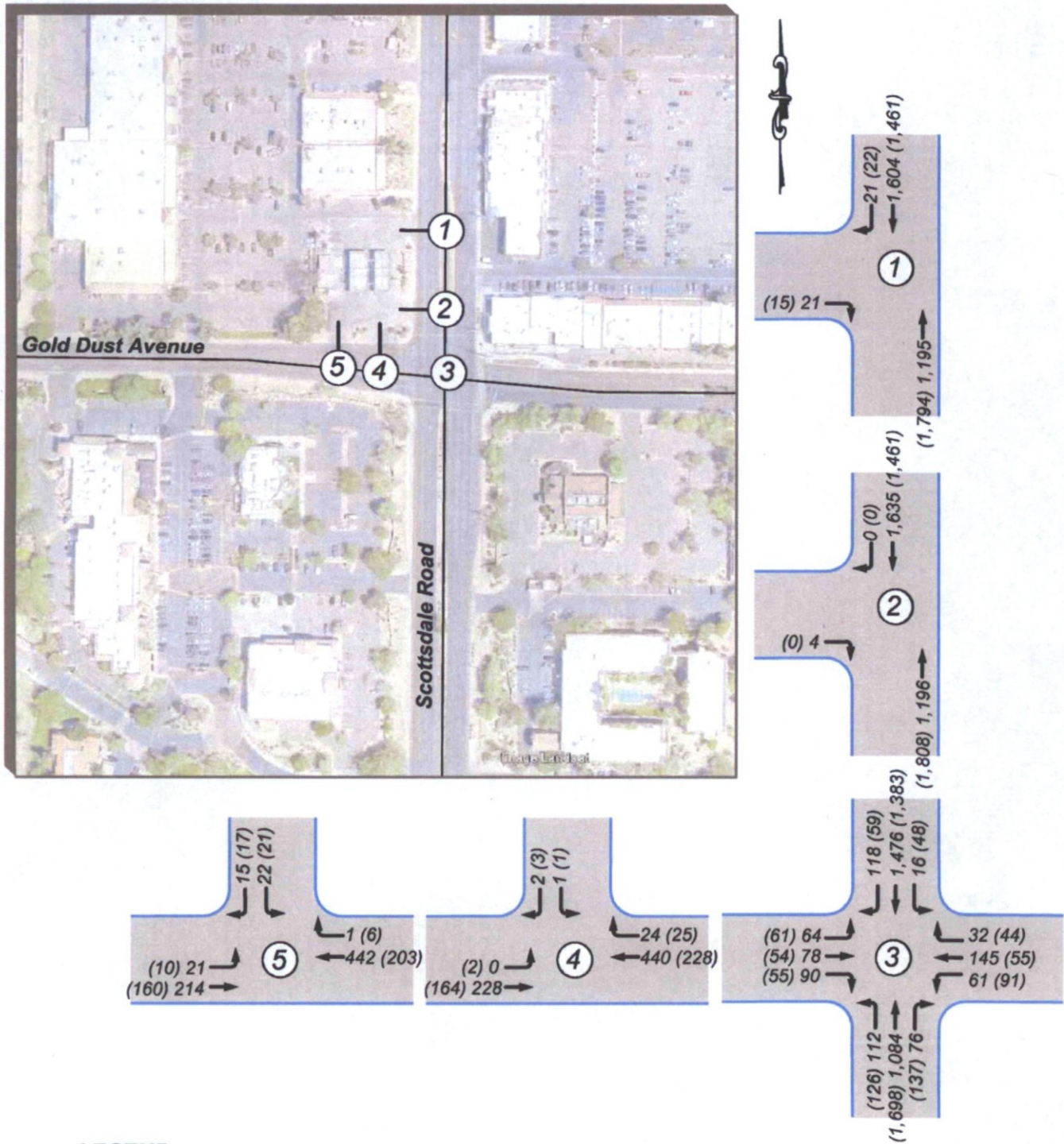
Table 6 – 2017 Peak Hour Levels of Service Without Project

Intersection	AM Peak		PM Peak	
	LOS	Delay	LOS	Delay
Signalized Intersections				
Gold Dust Avenue/Scottsdale Road				
Overall Intersection	C	27.8	C	31.5
Northbound Left	D	37.7	D	38.9
Northbound Through	C	23.2	D	36.3
Northbound Right	B	18.2	B	19.5
Southbound Left	C	31.9	C	33.5
Southbound Through	C	29.4	C	26.6
Southbound Right	C	34.3	C	29.8
Eastbound Left	C	29.1	C	27.4
Eastbound Through	C	25.3	C	24.7
Eastbound Through/Right	C	26.2	C	25.0
Westbound Left	C	28.0	C	28.3
Westbound Through	C	25.6	C	24.6
Westbound Through/Right	C	25.7	C	24.8
Un-signalized Intersections				
North Access/Scottsdale Road				
Eastbound Right	C	21.6	C	19.2
South Access/Scottsdale Road				
Eastbound Right	C	20.4	C	18.1
East Access/Gold Dust Avenue				
Southbound Left	C	15.6	B	11.8
Southbound Right	A	9.9	A	9.1
Eastbound Left	A	8.5	A	7.8
West Access/Gold Dust Avenue				
Southbound Left	C	17.0	B	11.9
Southbound Right	A	9.9	A	9.0
Eastbound Left	A	8.5	A	7.7

Delay - seconds per vehicle



Figure 6 – 2017 Weekday Peak Hour Traffic Volumes Without Project

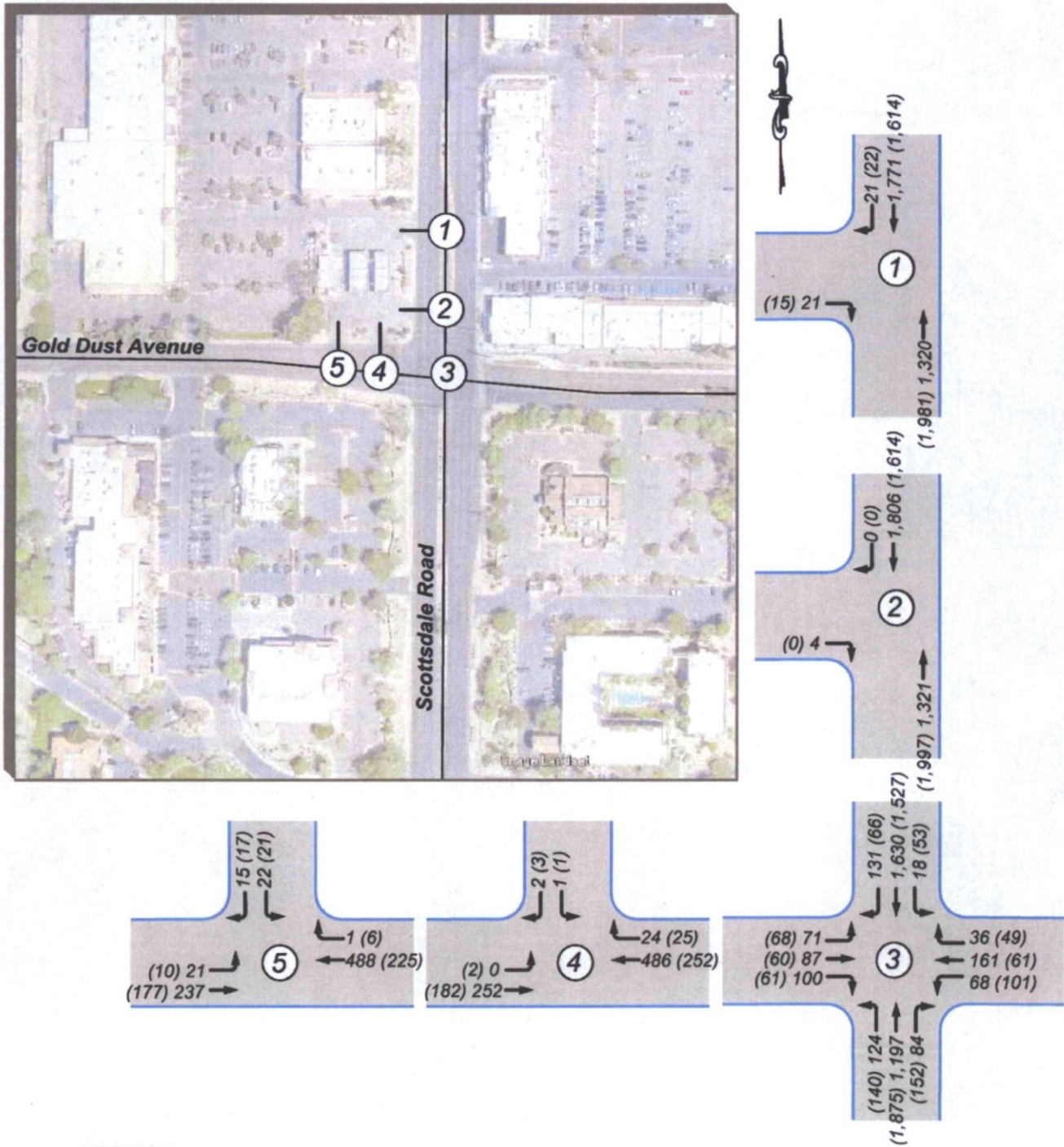


LEGEND:

XX = Weekday AM Peak Hour
 (XX) = Weekday PM Peak Hour
 Vehicle Trips Per Hour
 — EXISTING ROAD



Figure 7 – 2022 Weekday Peak Hour Traffic Volumes Without Project



LEGEND:
 XX = Weekday AM Peak Hour
 (XX) = Weekday PM Peak Hour
 Vehicle Trips Per Hour
 — EXISTING ROAD



Table 7 – 2022 Peak Hour Levels of Service Without Project

Intersection	AM Peak		PM Peak	
	LOS	Delay	LOS	Delay
Signalized Intersections				
Gold Dust Avenue/Scottsdale Road				
Overall Intersection	C	31.1	C	32.7
Northbound Left	D	38.7	D	40.4
Northbound Through	C	24.3	D	36.2
Northbound Through/Right	B	18.3	B	17.7
Southbound Left	C	32.0	D	37.3
Southbound Through	C	34.4	C	29.2
Southbound Right	D	42.2	C	33.8
Eastbound Left	C	30.0	C	27.9
Eastbound Through	C	25.5	C	24.8
Eastbound Right	C	26.5	C	25.2
Westbound Left	C	28.7	C	29.0
Westbound Through	C	25.8	C	24.7
Westbound Right	C	26.0	C	25.0
Un-signalized Intersections				
North Access/Scottsdale Road				
Eastbound Right	C	24.5	C	21.3
South Access/Scottsdale Road				
Eastbound Right	C	22.9	C	19.9
East Access/Gold Dust Avenue				
Southbound Right	B	10.1	A	9.1
Southbound Left	C	16.9	B	11.8
Eastbound Left	A	8.6	A	7.8
West Access/Gold Dust Avenue				
Southbound Right	B	10.1	A	9.1
Southbound Left	C	18.5	B	12.3
Eastbound Left	A	8.6	A	7.8

Delay - seconds per vehicle

The existing intersections are predicted to continue to operate at an adequate LOS for all movements in 2017 and 2022 without traffic from the project as presented in **Table 6** and **Table 7**. In addition, the overall LOS for the Gold Dust Avenue/Scottsdale Road intersection is expected to operate at an adequate LOS C without the project in 2022.

Future Traffic Operations With Project

In order to assess the impacts of the project on future traffic operations, levels of service were calculated for each project intersection in 2017 and 2022, with the project. Weekday peak hour traffic volumes for 2017 and 2022 without the project were combined with the estimated trips generated by the project to yield weekday peak hour traffic volumes with the project. The weekday peak hour traffic volumes with the project for 2017 and 2022 are shown in **Figure 8** and **Figure 9**.



Weekday intersection levels of service for 2017 and 2022, with the project, were then calculated as shown in **Table 8** and **Table 9**. Complete capacity calculations are included in the Appendix.

As shown in **Table 8** and **Table 9**, the study intersections are anticipated to operate at an adequate LOS D or better for all movements in 2017 and 2022 with traffic from the project. In addition, the overall LOS for the Gold Dust Avenue/Scottsdale Road intersection is expected to continue operating at an adequate LOS C with the project in 2022.

Table 8 – 2017 Peak Hour Levels of Service With Project

Intersection	AM Peak		PM Peak	
	LOS	Delay	LOS	Delay
Signalized Intersections				
Gold Dust Avenue/Scottsdale Road				
Overall Intersection	C	27.8	C	31.5
Northbound Left	D	37.7	D	38.9
Northbound Through	C	23.2	D	36.3
Northbound Right	B	18.2	B	19.5
Southbound Left	C	31.9	C	33.5
Southbound Through	C	29.4	C	26.6
Southbound Right	C	34.3	C	29.8
Eastbound Left	C	29.1	C	27.4
Eastbound Through	C	25.3	C	24.7
Eastbound Through/Right	C	26.2	C	25.0
Westbound Left	C	28.0	C	28.3
Westbound Through	C	25.6	C	24.6
Westbound Through/Right	C	25.7	C	24.8
Un-signalized Intersections				
North Access/Scottsdale Road				
Eastbound Right	C	22.0	C	19.2
West Access/Gold Dust Avenue				
Southbound Left	C	17.3	B	12.4
Southbound Right	B	10.0	A	9.2
Eastbound Left	A	8.5	A	7.9

Delay - seconds per vehicle



Figure 8 – 2017 Weekday Peak Hour Traffic Volumes With Project

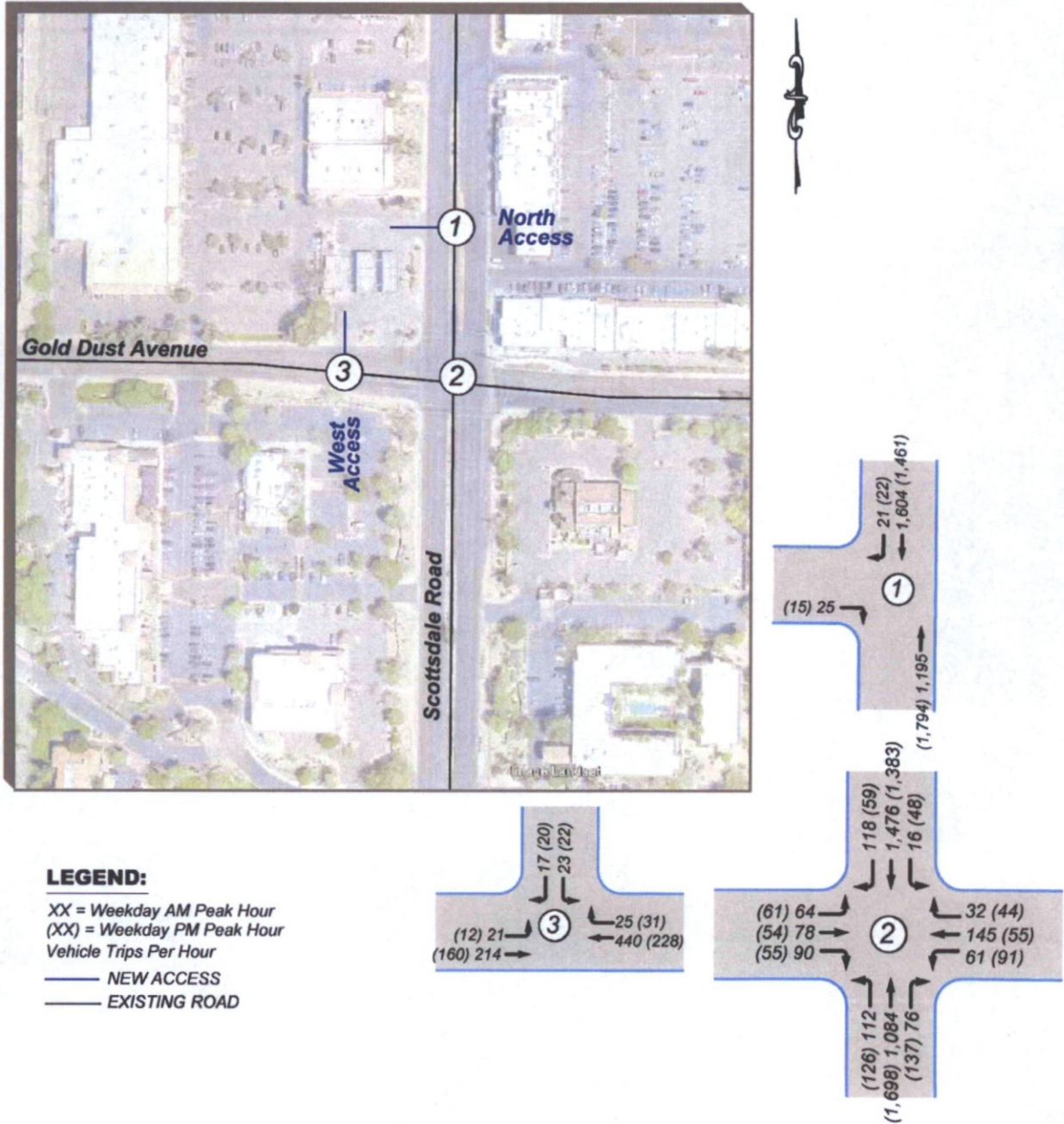




Figure 9 – 2022 Weekday Peak Hour Traffic Volumes With Project

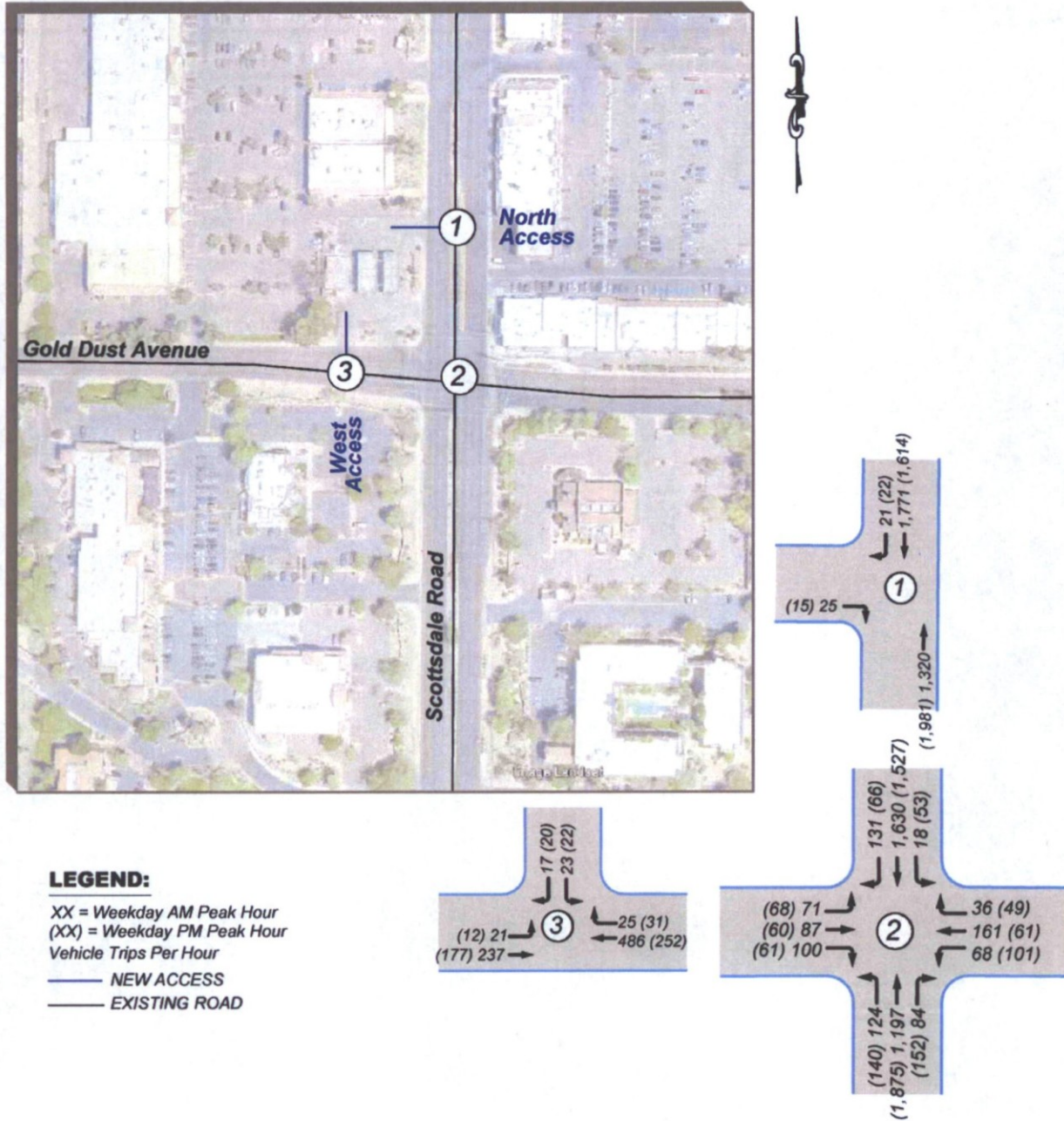




Table 9 – 2022 Peak Hour Levels of Service With Project

Intersection	AM Peak		PM Peak	
	LOS	Delay	LOS	Delay
Signalized Intersections				
Gold Dust Avenue/Scottsdale Road				
Overall Intersection	C	31.1	C	32.7
Northbound Left	D	38.7	D	40.4
Northbound Through	C	24.3	D	36.2
Northbound Through/Right	B	18.3	B	17.7
Southbound Left	C	32.0	D	37.3
Southbound Through	C	34.4	C	29.2
Southbound Right	D	42.2	C	33.8
Eastbound Left	C	30.0	C	27.9
Eastbound Through	C	25.5	C	24.8
Eastbound Right	C	26.5	C	25.2
Westbound Left	C	28.7	C	29.0
Westbound Through	C	25.8	C	24.7
Westbound Right	C	26.0	C	25.0
Un-signalized Intersections				
North Access/Scottsdale Road				
Eastbound Right	D	25.1	C	21.3
West Access/Gold Dust Avenue				
Southbound Right	B	10.2	A	9.3
Southbound Left	C	18.9	B	12.9
Eastbound Left	A	8.7	A	7.9

Delay - seconds per vehicle

Crash Data

Crash history for the Gold Dust Avenue/Scottsdale Road study intersection was obtained from the City of Scottsdale. Crash records from January 1, 2011 to December 31, 2015 were analyzed. Over this time period there were forty-one (41) crashes reported that occurred at the intersection. Results of the crash analysis are shown in **Table 10**.

Table 10 – Crash Analysis at Gold Dust Avenue/Scottsdale Road

Year	Crash Type							Fatal	Injury	Crash Totals
	Angle	Left Turn	Rear-End	Sideswipe	Single Vehicle	Head On	Other			
2011	5	1	3		1			0	2	10
2012	3		3					0	1	6
2013	4	1	4		1			0	0	10
2014	3	2	1	1			1	0	1	8
2015	1	1	5					0	0	7
5-Year Total	16	5	16	1	2	0	1	0	4	41



As expected, angle and rear-end crashes make up the majority of the crashes, sixteen crashes for each type, were noted at the signalized intersection of Gold Dust Avenue/Scottsdale Road.

Crash history was also reviewed on Gold Dust Avenue and Scottsdale Road within fifty (50) feet of the four existing driveways for the same five year period. The results of the review are shown in **Table 11**.

Table 11 – Crash Analysis on Major Road near Driveways

Location	Crash Type					Fatal	Injury	Crash Totals
	Angle	Left Turn	Rear-End	Sideswipe	Single Vehicle			
Crashes on Gold Dust Road near East Access and West Access					1	0	0	1
Crashes on Scottsdale Road near North Access and South Access	1		2	1		0	0	4
5-Year Total from Jan. 2011 to Dec. 2015	1	0	2	1	1	0	0	5

There was one reported crash on Gold Dust Avenue within fifty (50) feet of the East Access and West Access. Four (4) crashes were reported over the five year period on Scottsdale Road near the North Access and South Access. A total of five (5) crashes were recorded over the five year period occurred at or near the access points.

A review of the crash data shows that there are no specific crash trends that can be identified over the last five years. This crash summary only includes incidents where a police officer was contacted and wrote a report, otherwise, there is no record of the crash.

An expanded summary of the crash data can be found in the Appendix.

Conclusion

In order to form a basis for analysis of the project impacts, weekday AM and PM peak hour turning movement counts were conducted at five existing intersections within the study area.

All of the existing study intersections are currently operating at an adequate LOS D or better for all movements during the weekday AM and PM peak hours and are expected to continue to operate at an adequate LOS for all movements in 2017 and 2022 without traffic from the project.

The study intersections are anticipated to operate at an adequate LOS for all movements during the AM/PM peak hours in 2017 and 2022 with traffic from the project.



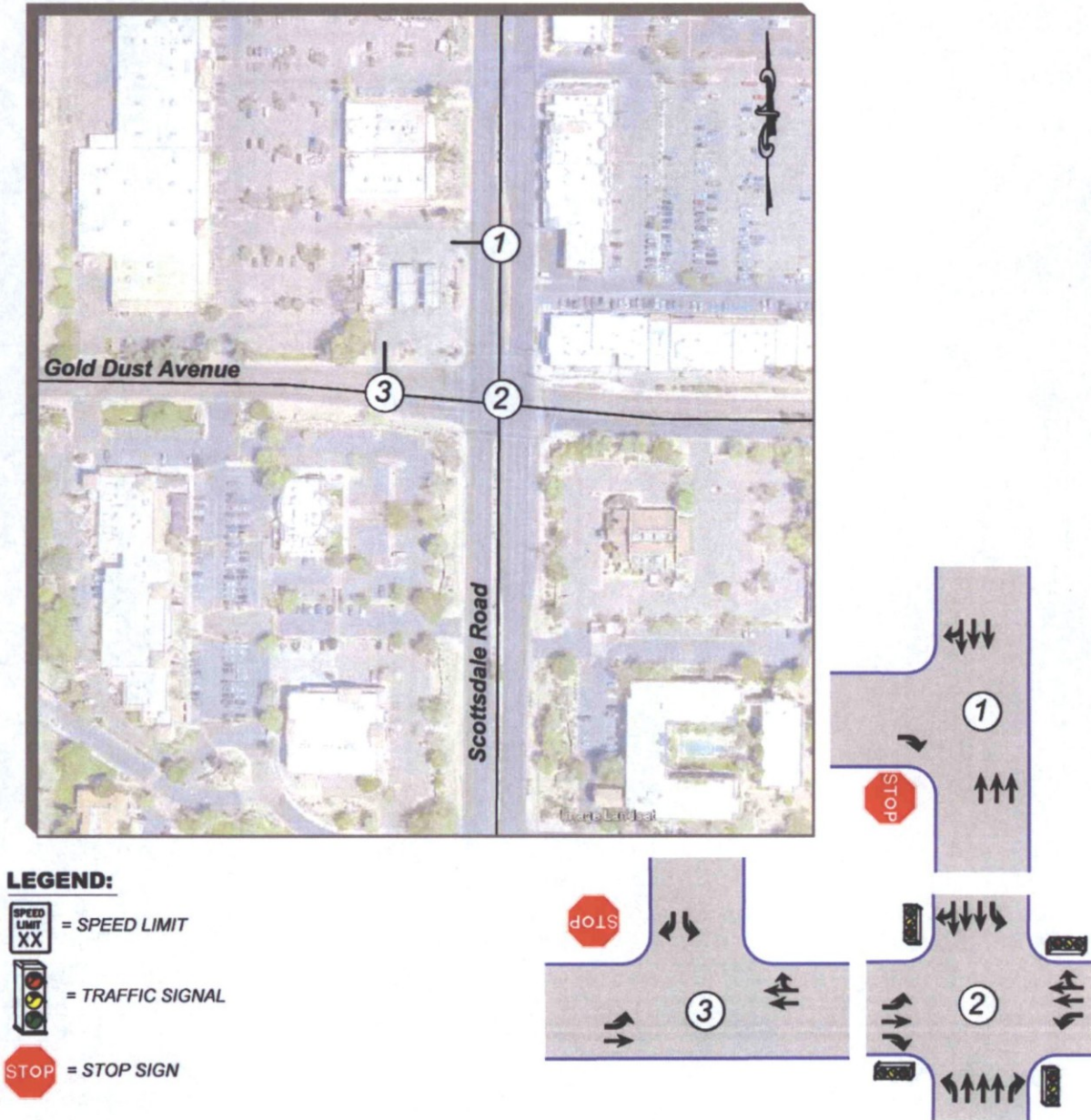
The proposed development will function similarly to the existing site and is predicted to generate the same number of trips during the AM/PM peak hours. There are no additional trips generated at the Gold Dust Avenue/Scottsdale Road intersection with the construction of the proposed development.

The City of Scottsdale provided crash data for incidents that occurred within the study area from the January 2011 to December 2015. No specific were identified from the recorded crashes within the study area over the last five years.

New STOP signs are recommended for traffic exiting the project site at the intersections of North Access/Scottsdale Road and West Access/Gold Dust Avenue.

Proposed lane configurations and traffic control for each study year are shown in **Figure 10**.

Figure 10 – Proposed Lane Configurations





**TRAFFIC IMPACT ANALYSIS
GOLD DUST CIRCLE K
GOLD DUST AVENUE/SCOTTSDALE ROAD**

APPENDIX

Traffic Counts

Trip Generation Calculations

Capacity Calculations

Crash Data



**TRAFFIC IMPACT ANALYSIS
GOLD DUST CIRCLE K
GOLD DUST AVENUE/SCOTTSDALE ROAD**

APPENDIX

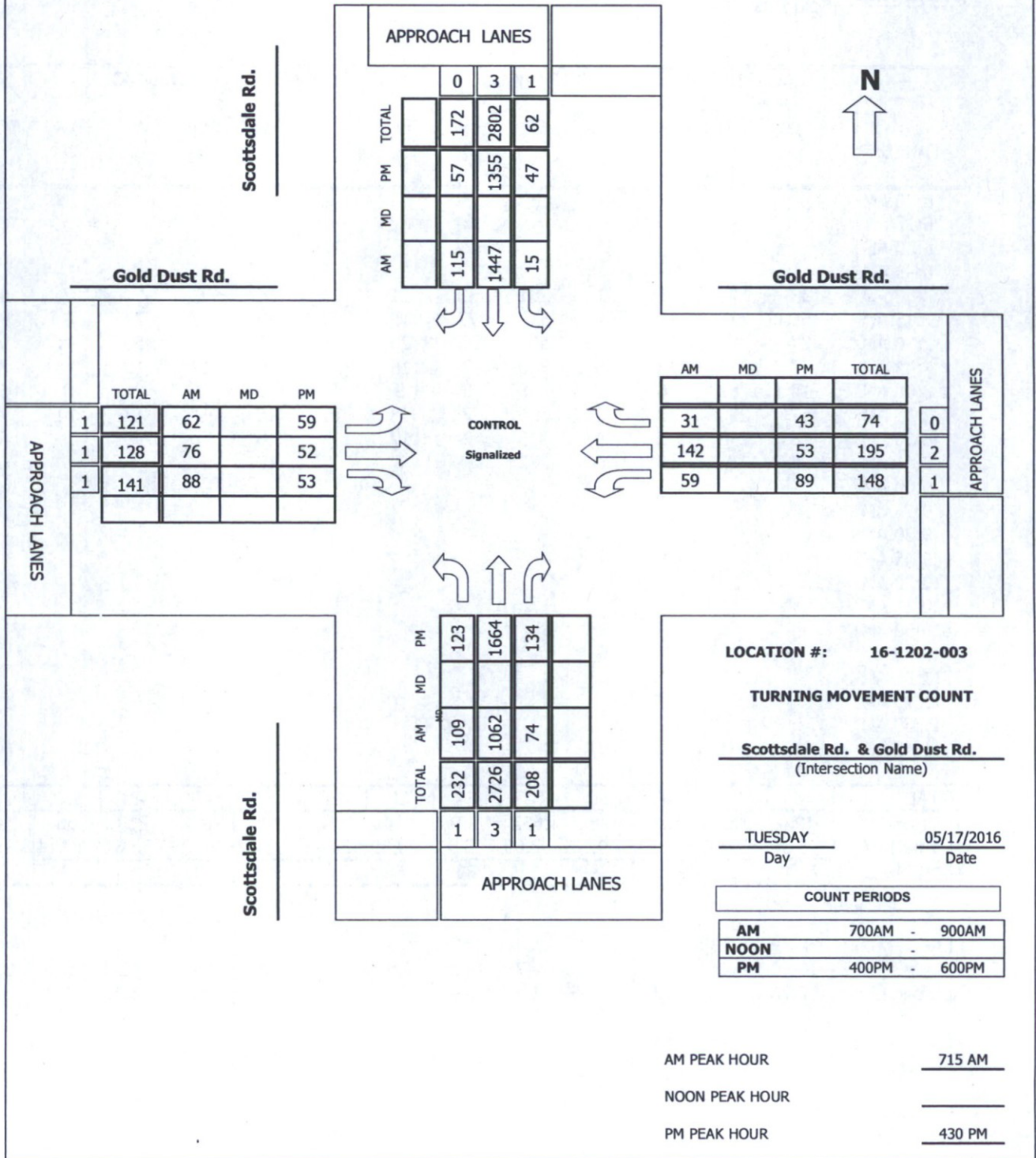
Traffic Counts

**Intersection Turning Movement
Prepared by:**



Project #: 16-1202-003

TMC SUMMARY OF Scottsdale Rd. & Gold Dust Rd.



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Scottsdale Rd.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Gold Dust Rd.

DAY: TUESDAY

PROJECT# 16-1202-003

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	3	1	1	3	0	1	1	1	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	33	172	16	1	281	33	11	12	14	8	51	7	639
7:15 AM	55	225	17	4	318	77	15	28	22	17	77	8	863
7:30 AM	27	306	28	4	402	25	23	31	25	14	50	4	939
7:45 AM	17	280	13	5	389	7	16	12	26	12	10	11	798
8:00 AM	10	251	16	2	338	6	8	5	15	16	5	8	680
8:15 AM	12	256	15	2	339	7	13	10	16	14	13	12	709
8:30 AM	18	238	15	4	313	7	17	7	16	10	8	7	660
8:45 AM	20	232	18	6	272	7	7	7	12	10	4	9	604
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	192	1960	138	28	2652	169	110	112	146	101	218	66	5892
Approach %	8.38	85.59	6.03	0.98	93.09	5.93	29.89	30.43	39.67	26.23	56.62	17.14	
App/Depart	2290	/	2136	2849	/	2899	368	/	278	385	/	579	

AM Peak Hr Begins at: 715 AM

PEAK

Volumes	109	1062	74	15	1447	115	62	76	88	59	142	31	3280
Approach %	8.76	85.30	5.94	0.95	91.76	7.29	27.43	33.63	38.94	25.43	61.21	13.36	

PEAK HR.

FACTOR:	0.862	0.915	0.715	0.569	0.873
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CONTROL: Signalized

COMMENT 1:

GPS: 33.578354, -111.926225

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Scottsdale Rd.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Gold Dust Rd.

DAY: TUESDAY

PROJECT# 16-1202-003

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	3	1	1	3	0	1	1	1	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	34	371	27	4	311	8	7	25	18	23	12	9	849
4:15 PM	33	391	26	8	316	11	16	14	20	15	15	14	879
4:30 PM	29	457	36	11	329	13	17	8	11	21	8	8	948
4:45 PM	26	348	30	10	282	16	15	14	17	23	15	14	810
5:00 PM	42	475	45	11	367	15	12	7	7	22	9	11	1023
5:15 PM	26	384	23	15	377	13	15	23	18	23	21	10	948
5:30 PM	26	364	26	12	311	16	15	9	14	12	18	11	834
5:45 PM	29	348	33	16	254	14	9	12	11	9	8	10	753
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	245	3138	246	87	2547	106	106	112	116	148	106	87	7044
Approach %	6.75	86.47	6.78	3.18	92.96	3.87	31.74	33.53	34.73	43.40	31.09	25.51	
App/Depart	3629	/	3331	2740	/	2811	334	/	445	341	/	457	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	123	1664	134	47	1355	57	59	52	53	89	53	43	3729
Approach %	6.40	86.62	6.98	3.22	92.87	3.91	35.98	31.71	32.32	48.11	28.65	23.24	

PEAK HR.

FACTOR:	0.855	0.901	0.732	0.856	0.911
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CONTROL: Signalized

COMMENT 1: 0

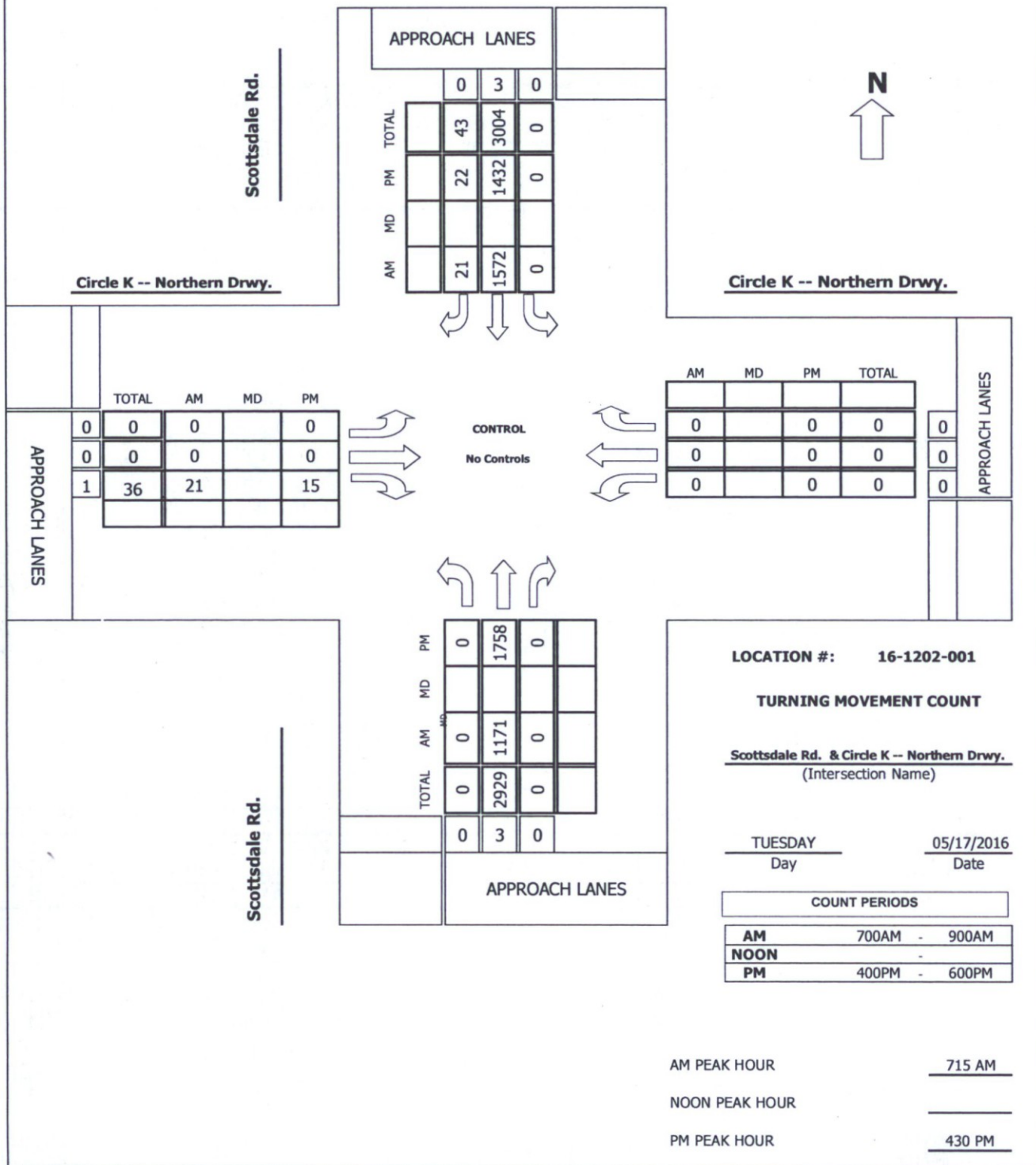
GPS: 33.578354, -111.926225

**Intersection Turning Movement
Prepared by:**



Project #: 16-1202-001

TMC SUMMARY OF Scottsdale Rd. & Circle K -- Northern Drwy.



Intersection Turning Movement
Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Scottsdale Rd.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Circle K -- Northern Drwy.

DAY: TUESDAY

PROJECT# 16-1202-001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	3	0	0	3	0	0	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	198	0	0	309	4	0	0	3	0	0	0	514
7:15 AM	0	258	0	0	388	5	0	0	4	0	0	0	655
7:30 AM	0	339	0	0	431	4	0	0	5	0	0	0	779
7:45 AM	0	308	0	0	390	8	0	0	8	0	0	0	714
8:00 AM	0	266	0	0	363	4	0	0	4	0	0	0	637
8:15 AM	0	282	0	0	353	8	0	0	4	0	0	0	647
8:30 AM	0	249	0	0	327	5	0	0	5	0	0	0	586
8:45 AM	0	233	0	0	290	5	0	0	3	0	0	0	531
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	0	2133	0	0	2851	43	0	0	36	0	0	0	5063
Approach %	0.00	100.00	0.00	0.00	98.51	1.49	0.00	0.00	100.00	####	####	####	
App/Depart	2133	/	2133	2894	/	2887	36	/	0	0	/	43	

AM Peak Hr Begins at: 715 AM

PEAK

Volumes	0	1171	0	0	1572	21	0	0	21	0	0	0	2785
Approach %	0.00	100.00	0.00	0.00	98.68	1.32	0.00	0.00	100.00	####	####	####	

PEAK HR.

FACTOR:	0.864	0.916	0.656	0.000	0.894
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CONTROL: No Controls

COMMENT 1:

GPS: 33.579033, -111.926235

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Scottsdale Rd.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Circle K -- Northern Drwy.

DAY: TUESDAY

PROJECT# 16-1202-001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	3	0	0	3	0	0	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	372	0	0	331	2	0	0	7	0	0	0	712
4:15 PM	0	418	0	0	336	9	0	0	5	0	0	0	768
4:30 PM	0	467	0	0	331	6	0	0	9	0	0	0	813
4:45 PM	0	395	0	0	317	5	0	0	1	0	0	0	718
5:00 PM	0	488	0	0	391	6	0	0	0	0	0	0	885
5:15 PM	0	408	0	0	393	5	0	0	5	0	0	0	811
5:30 PM	0	374	0	0	326	4	0	0	3	0	0	0	707
5:45 PM	0	353	0	0	269	1	0	0	6	0	0	0	629
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	3275	0	0	2694	38	0	0	36	0	0	0	6043
Approach %	0.00	100.00	0.00	0.00	98.61	1.39	0.00	0.00	100.00	####	####	####	
App/Depart	3275	/	3275	2732	/	2730	36	/	0	0	/	38	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	0	1758	0	0	1432	22	0	0	15	0	0	0	3227
Approach %	0.00	100.00	0.00	0.00	98.49	1.51	0.00	0.00	100.00	####	####	####	

PEAK HR.

FACTOR:	0.901	0.913	0.417	0.000	0.912
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CONTROL: No Controls

COMMENT 1: 0

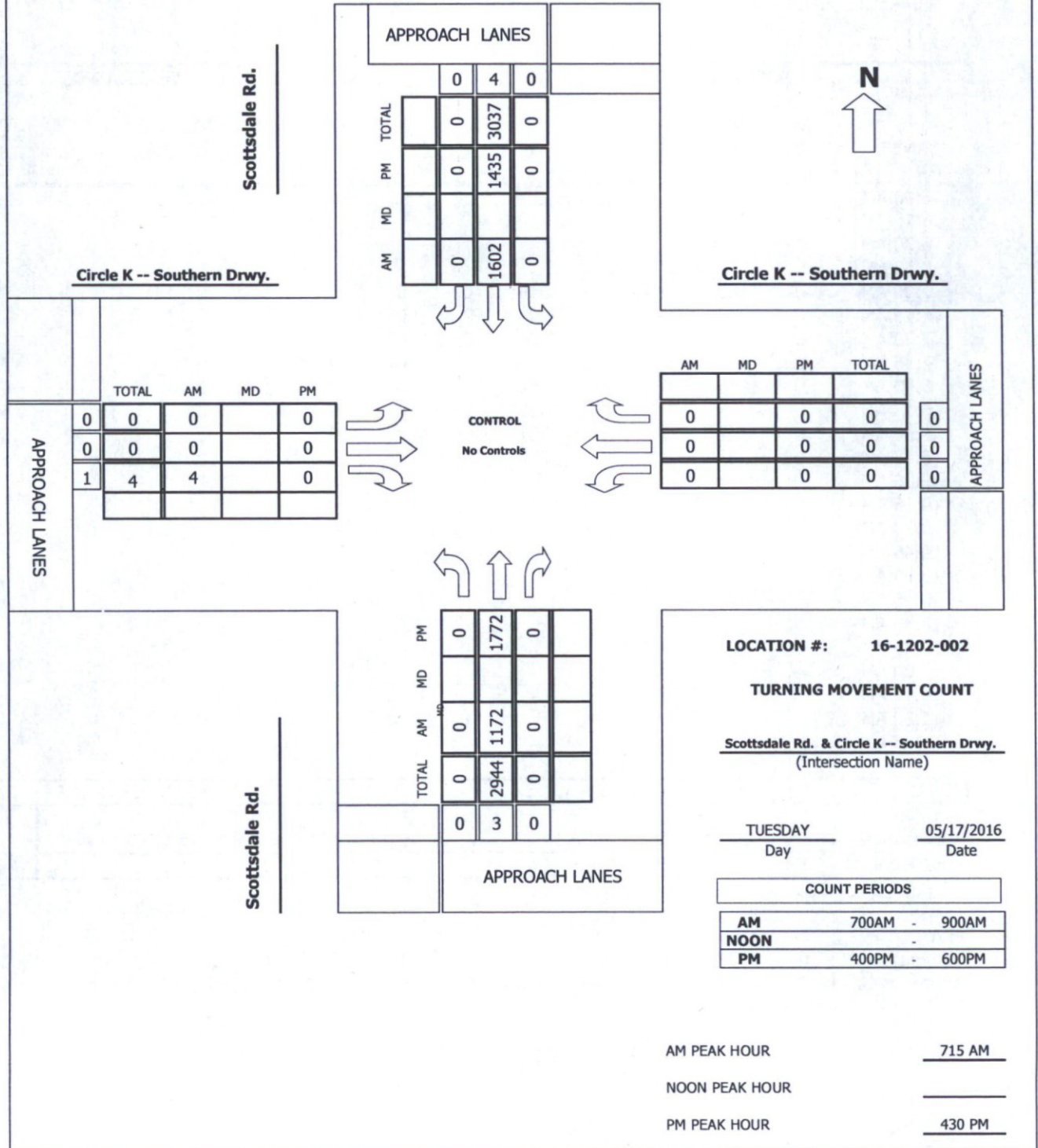
GPS: 33.579033, -111.926235

**Intersection Turning Movement
Prepared by:**



Project #: 16-1202-002

TMC SUMMARY OF Scottsdale Rd. & Circle K -- Southern Drwy.



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Scottsdale Rd.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Circle K -- Southern Drwy.

DAY: TUESDAY

PROJECT# 16-1202-002

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	3	0	0	4	0	0	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	186	0	0	319	0	0	0	4	0	0	0	509
7:15 AM	0	247	0	0	401	0	0	0	2	0	0	0	650
7:30 AM	0	351	0	0	436	0	0	0	0	0	0	0	787
7:45 AM	0	304	0	0	411	0	0	0	1	0	0	0	716
8:00 AM	0	270	0	0	354	0	0	0	1	0	0	0	625
8:15 AM	0	268	0	0	338	0	0	0	1	0	0	0	607
8:30 AM	0	267	0	0	331	0	0	0	1	0	0	0	599
8:45 AM	0	257	0	0	270	0	0	0	2	0	0	0	529
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	0	2150	0	0	2860	0	0	0	12	0	0	0	5022
Approach %	0.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	####	####	####	
App/Depart	2150	/	2150	2860	/	2872	12	/	0	0	/	0	

AM Peak Hr Begins at: 715 AM

PEAK

Volumes	0	1172	0	0	1602	0	0	0	4	0	0	0	2778
Approach %	0.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	####	####	####	

PEAK HR.

FACTOR:	0.835	0.919	0.500	0.000	0.882
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CONTROL: No Controls

COMMENT 1:

GPS: 33.578727, -111.926231

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Scottsdale Rd.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Circle K -- Southern Drwy.

DAY: TUESDAY

PROJECT# 16-1202-002

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	3	0	0	4	0	0	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	385	0	0	330	0	0	0	0	0	0	0	715
4:15 PM	0	417	0	0	334	0	0	0	2	0	0	0	753
4:30 PM	0	498	0	0	336	0	0	0	0	0	0	0	834
4:45 PM	0	374	0	0	296	0	0	0	0	0	0	0	670
5:00 PM	0	500	0	0	389	0	0	0	0	0	0	0	889
5:15 PM	0	400	0	0	414	0	0	0	0	0	0	0	814
5:30 PM	0	404	0	0	351	0	0	0	1	0	0	0	756
5:45 PM	0	358	0	0	295	0	0	0	0	0	0	0	653
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	3336	0	0	2745	0	0	0	3	0	0	0	6084
Approach %	0.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	####	####	####	
App/Depart	3336	/	3336	2745	/	2748	3	/	0	0	/	0	

PM Peak Hr Begins at: 430 PM

PEAK

Volumes	0	1772	0	0	1435	0	0	0	0	0	0	0	3207
Approach %	0.00	100.00	0.00	0.00	100.00	0.00	####	####	####	####	####	####	

PEAK HR.

FACTOR:		0.886		0.867		0.000		0.000		0.000		0.902	
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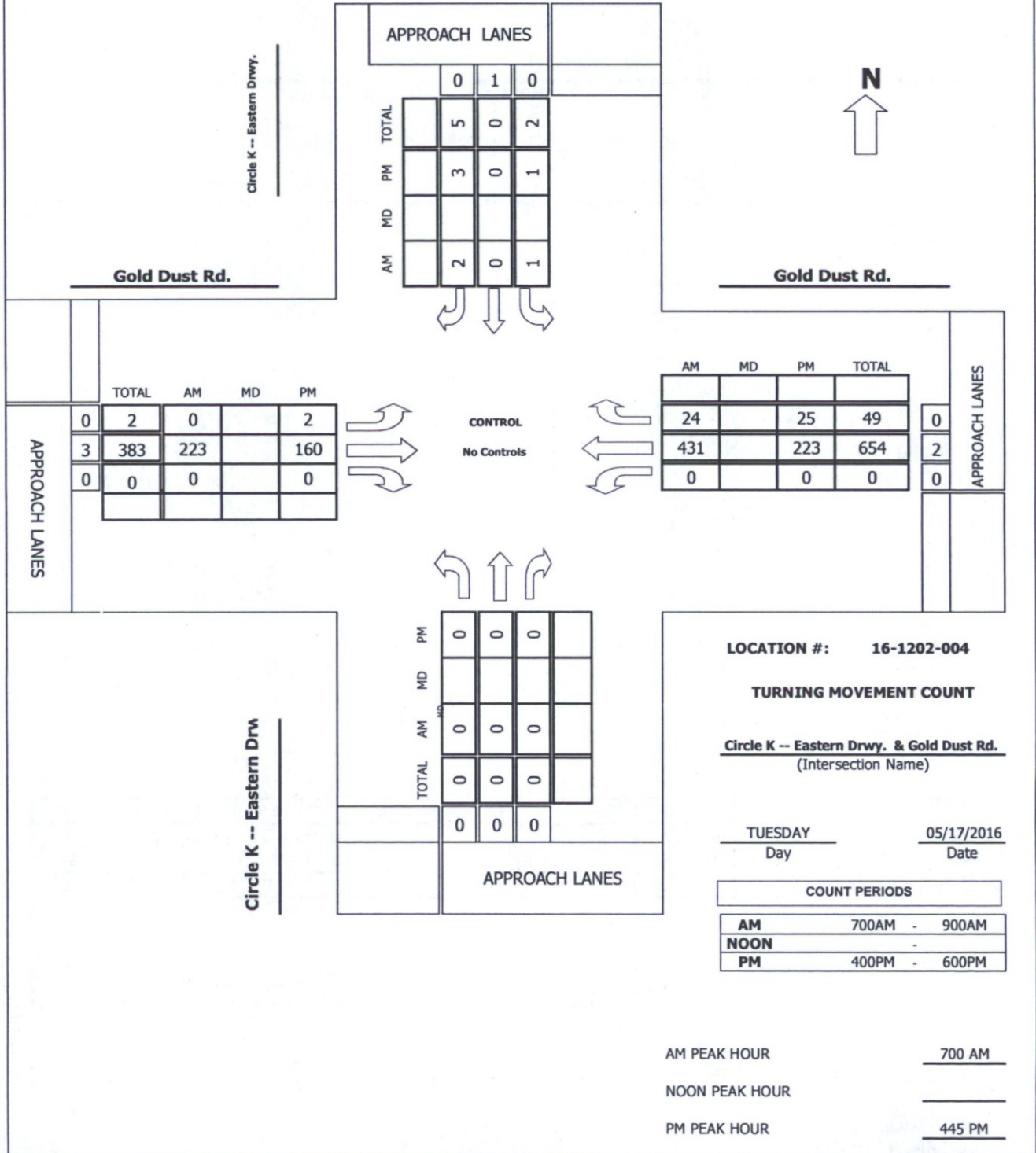
CONTROL: No Controls
 COMMENT 1: 0
 GPS: 33.578727, -111.926231

**Intersection Turning Movement
Prepared by:**



Project #: 16-1202-004

TMC SUMMARY OF Circle K -- Eastern Drwy. & Gold Dust Rd.



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Circle K -- Eastern Drwy.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Gold Dust Rd.

DAY: TUESDAY

PROJECT# 16-1202-004

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0	1	0	0	3	0	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	1	0	2	0	28	0	0	113	6	150
7:15 AM	0	0	0	0	0	0	0	58	0	0	192	11	261
7:30 AM	0	0	0	0	0	0	0	73	0	0	98	3	174
7:45 AM	0	0	0	0	0	0	0	64	0	0	28	4	96
8:00 AM	0	0	0	0	0	0	0	27	0	0	30	1	58
8:15 AM	0	0	0	0	0	0	1	31	0	0	17	6	55
8:30 AM	0	0	0	0	0	1	0	35	0	0	26	6	68
8:45 AM	0	0	0	1	0	0	1	26	0	0	29	7	64
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	0	0	0	2	0	3	2	342	0	0	533	44	926
Approach %	####	####	####	40.00	0.00	60.00	0.58	99.42	0.00	0.00	92.37	7.63	
App/Depart	0	/	46	5	/	0	344	/	344	577	/	536	

AM Peak Hr Begins at: 700 AM

PEAK

Volumes	0	0	0	1	0	2	0	223	0	0	431	24	681
Approach %	####	####	####	33.33	0.00	66.67	0.00	100.00	0.00	0.00	94.73	5.27	

PEAK HR.

FACTOR:	0.000	0.250	0.764	0.560	0.652
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CONTROL: No Controls

COMMENT 1:

GPS: 33.578617, -111.926355

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Circle K -- Eastern Drwy. DATE: 05/17/2016 LOCATION: Scottsdale
E-W STREET: Gold Dust Rd. DAY: TUESDAY PROJECT# 16-1202-004

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0	1	0	0	3	0	0	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	0	0	0	0	1	43	0	0	49	9	102
4:15 PM	0	0	0	0	0	1	0	48	0	0	54	7	110
4:30 PM	0	0	0	2	0	2	0	43	0	0	36	8	91
4:45 PM	0	0	0	0	0	1	0	39	0	0	55	9	104
5:00 PM	0	0	0	1	0	1	1	30	0	0	47	9	89
5:15 PM	0	0	0	0	0	1	1	58	0	0	58	2	120
5:30 PM	0	0	0	0	0	0	0	33	0	0	63	5	101
5:45 PM	0	0	0	1	0	0	0	39	0	0	42	4	86
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	4	0	6	3	333	0	0	404	53	803
Approach %	####	####	####	40.00	0.00	60.00	0.89	99.11	0.00	0.00	88.40	11.60	
App/Depart	0	/	56	10	/	0	336	/	337	457	/	410	

PM Peak Hr Begins at: 445 PM

PEAK

Volumes	0	0	0	1	0	3	2	160	0	0	223	25	414
Approach %	####	####	####	25.00	0.00	75.00	1.23	98.77	0.00	0.00	89.92	10.08	

PEAK HR.

FACTOR:	0.000	0.500	0.686	0.912	0.863
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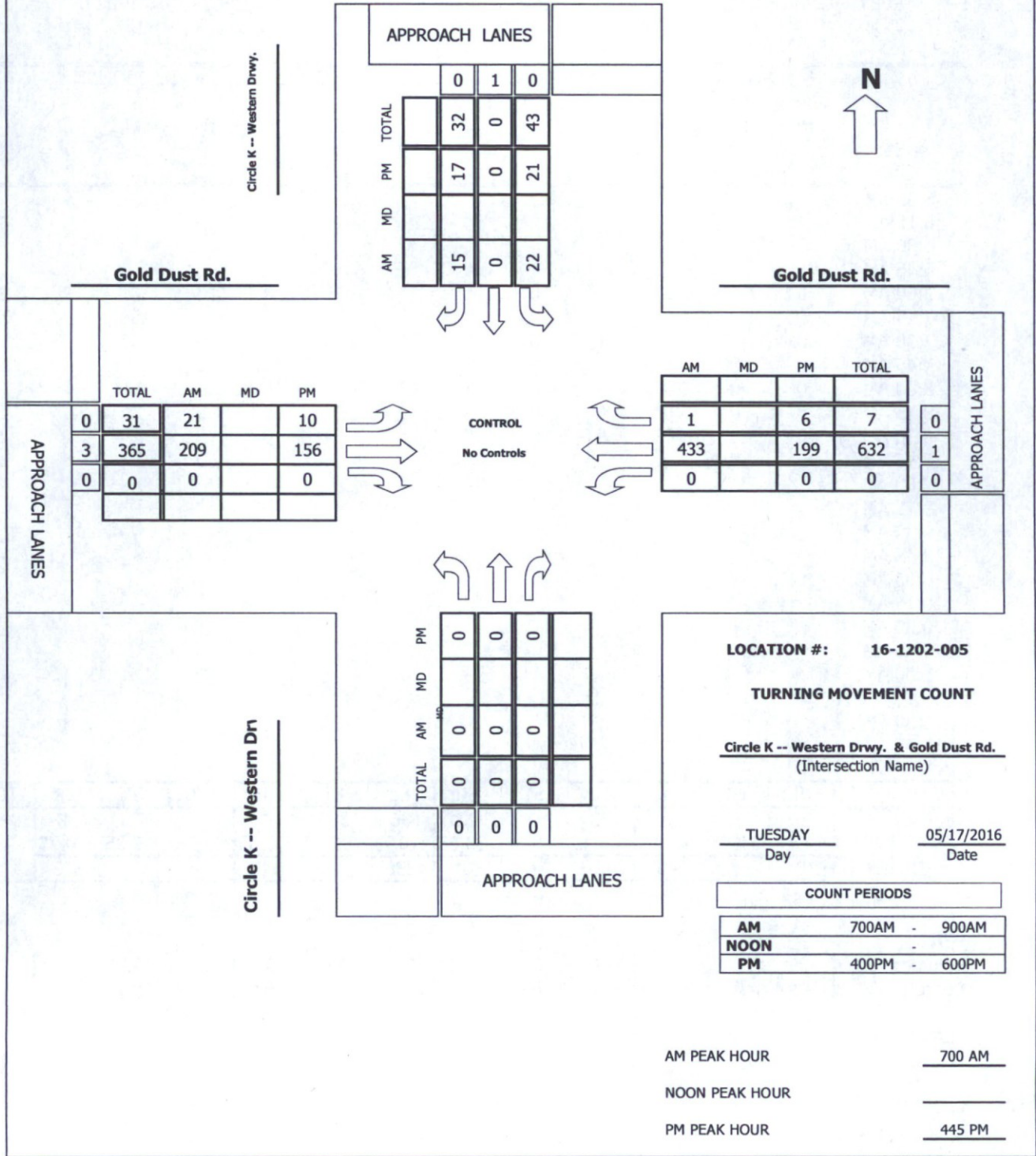
CONTROL: No Controls
COMMENT 1: 0
GPS: 33.578617, -111.926355

**Intersection Turning Movement
Prepared by:**



Project #: 16-1202-005

TMC SUMMARY OF Circle K -- Western Drwy. & Gold Dust Rd.



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Circle K -- Western Drwy.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Gold Dust Rd.

DAY: TUESDAY

PROJECT# 16-1202-005

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0	1	0	0	3	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	11	0	5	5	27	0	0	107	1	156
7:15 AM	0	0	0	3	0	4	7	51	0	0	195	0	260
7:30 AM	0	0	0	1	0	5	8	65	0	0	106	0	185
7:45 AM	0	0	0	7	0	1	1	66	0	0	25	0	100
8:00 AM	0	0	0	4	0	1	7	27	0	0	32	1	72
8:15 AM	0	0	0	6	0	5	2	22	0	0	18	0	53
8:30 AM	0	0	0	9	0	0	3	24	0	0	19	1	56
8:45 AM	0	0	0	2	0	1	3	18	0	0	29	1	54
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	0	0	0	43	0	22	36	300	0	0	531	4	936
Approach %	####	####	####	66.15	0.00	33.85	10.71	89.29	0.00	0.00	99.25	0.75	
App/Depart	0	/	40	65	/	0	336	/	343	535	/	553	

AM Peak Hr Begins at: 700 AM

PEAK

Volumes	0	0	0	22	0	15	21	209	0	0	433	1	701
Approach %	####	####	####	59.46	0.00	40.54	9.13	90.87	0.00	0.00	99.77	0.23	

PEAK HR.

FACTOR:	0.000	0.578	0.788	0.556	0.674
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CONTROL: No Controls

COMMENT 1:

GPS: 33.578623, -111.926604

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Circle K -- Western Drwy.

DATE: 05/17/2016

LOCATION: Scottsdale

E-W STREET: Gold Dust Rd.

DAY: TUESDAY

PROJECT# 16-1202-005

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0	1	0	0	3	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	0	4	0	6	1	40	0	0	50	2	103
4:15 PM	0	0	0	8	0	5	1	41	0	0	57	0	112
4:30 PM	0	0	0	3	0	1	3	34	0	0	44	0	85
4:45 PM	0	0	0	7	0	6	3	41	0	0	40	4	101
5:00 PM	0	0	0	4	0	5	2	35	0	0	47	2	95
5:15 PM	0	0	0	6	0	3	4	47	0	0	61	0	121
5:30 PM	0	0	0	4	0	3	1	33	0	0	51	0	92
5:45 PM	0	0	0	2	0	5	3	38	0	0	50	0	98
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	38	0	34	18	309	0	0	400	8	807
Approach %	####	####	####	52.78	0.00	47.22	5.50	94.50	0.00	0.00	98.04	1.96	
App/Depart	0	/	26	72	/	0	327	/	347	408	/	434	

PM Peak Hr Begins at: 445 PM

PEAK

Volumes	0	0	0	21	0	17	10	156	0	0	199	6	409
Approach %	####	####	####	55.26	0.00	44.74	6.02	93.98	0.00	0.00	97.07	2.93	

PEAK HR.

FACTOR:	0.000	0.731	0.814	0.840	0.845
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CONTROL: No Controls
 COMMENT 1: 0
 GPS: 33.578623, -111.926604



**TRAFFIC IMPACT ANALYSIS
GOLD DUST CIRCLE K
GOLD DUST AVENUE/SCOTTSDALE ROAD**

APPENDIX

Trip Generation Calculations

Gasoline/Service Station with Convenience Market

LAND USE: 10 Vehicle Fueling Positions Gasoline/Service Station with Convenience Market

TRIP GENERATION CALCULATIONS ARE BASED ON THE INSTITUTE OF TRANSPORTATION ENGINEERS' TRIP GENERATION, 9TH EDITION. THE ITE LAND USE CODE IS Gasoline/Service Station with Convenience Market (945)

WEEKDAY

Average Rate = 162.78 Trips per Vehicle Fueling Position (Pumps)

T = 162.78 Trips x 10 Pumps

T = **1,628 VTPD**

ENTER: $(0.5) \times (1628) =$ **814 VTPD**

EXIT: $(0.5) \times (1628) =$ **814 VTPD**

AM PEAK HOUR (ONE HOUR BETWEEN 7 AND 9 AM)

Average Rate = 10.16 Trips per Vehicle Fueling Position (Pumps)

T = 10.16 Trips x 10 Pumps

T = **102 VPH**

ENTER: $(0.5) \times (102) =$ **51 VPH**

EXIT: $(0.5) \times (102) =$ **51 VPH**

PM PEAK HOUR (ONE HOUR BETWEEN 4 AND 6 PM)

Average Rate = 13.51 Trips per Vehicle Fueling Position (Pumps)

T = 13.51 Trips x 10 Pumps

T = **136 VPH**

ENTER: $(0.5) \times (136) =$ **68 VPH**

EXIT: $(0.5) \times (136) =$ **68 VPH**

*where, T = trip ends

TRIP GENERATION SUMMARY

WEEKDAY

1,628 VTPD

AM PEAK HOUR (ONE HOUR BETWEEN 7 AND 9 AM)

102 VPH

PM PEAK HOUR (ONE HOUR BETWEEN 4 AND 6 PM)

136 VPH



**TRAFFIC IMPACT ANALYSIS
GOLD DUST CIRCLE K
GOLD DUST AVENUE/SCOTTSDALE ROAD**

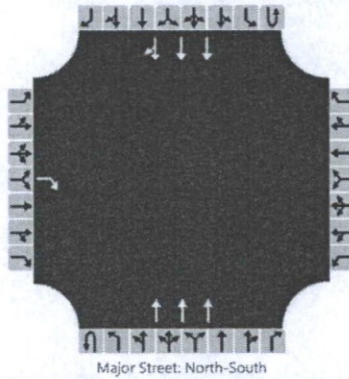
APPENDIX

Capacity Calculations

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2017	North/South Street	Scottsdale Road
Time Analyzed	2017w AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				25							1195				1604	21
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

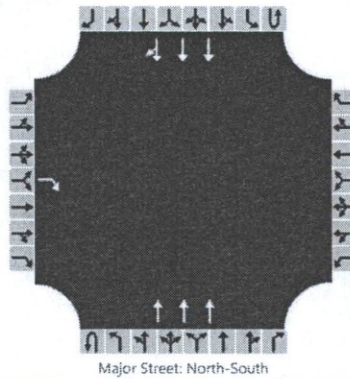
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				28												
Capacity				240												
v/c Ratio				0.12												
95% Queue Length				0.4												
Control Delay (s/veh)				22.0												
Level of Service (LOS)				C												
Approach Delay (s/veh)	22.0															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2017	North/South Street	Scottsdale Road
Time Analyzed	2017w PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement									1U	1	2	3	4U	4	5	6
Priority		10	11	12		7	8	9								
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				15							1794				1461	22
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

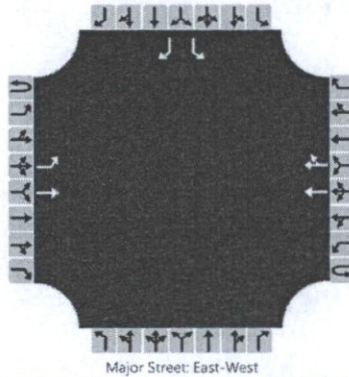
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				17												
Capacity				270												
v/c Ratio				0.06												
95% Queue Length				0.2												
Control Delay (s/veh)				19.2												
Level of Service (LOS)				C												
Approach Delay (s/veh)	19.2															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2017	North/South Street	West Access
Time Analyzed	2017w AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		21	214				440	25						23		17
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

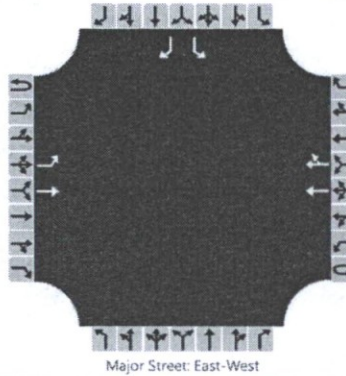
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23												26		19	
Capacity		1038												319		738	
v/c Ratio		0.02												0.08		0.03	
95% Queue Length		0.1												0.3		0.1	
Control Delay (s/veh)		8.5												17.3		10.0	
Level of Service (LOS)		A												C		B	
Approach Delay (s/veh)		0.8												14.2			
Approach LOS														B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2017	North/South Street	West Access
Time Analyzed	2017w PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		12	160				228	31						22		20
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

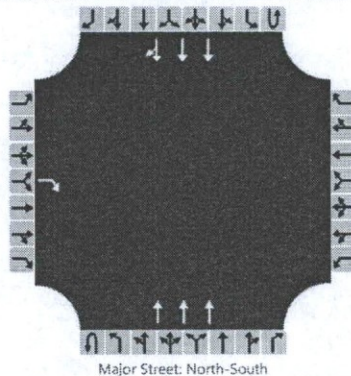
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		13												24		22	
Capacity		1265												512		874	
v/c Ratio		0.01												0.05		0.03	
95% Queue Length		0.0												0.1		0.1	
Control Delay (s/veh)		7.9												12.4		9.2	
Level of Service (LOS)		A												B		A	
Approach Delay (s/veh)		0.5												10.9			
Approach LOS														B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2022	North/South Street	Scottsdale Road
Time Analyzed	2022w AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				25							1320				1771	21
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

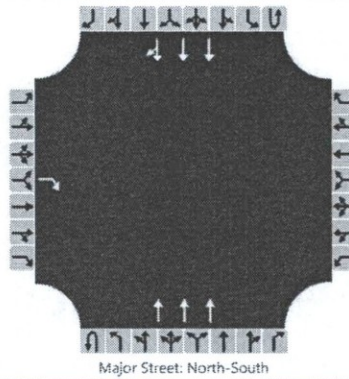
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				28												
Capacity				207												
v/c Ratio				0.14												
95% Queue Length				0.5												
Control Delay (s/veh)				25.1												
Level of Service (LOS)				D												
Approach Delay (s/veh)	25.1															
Approach LOS	D															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2022	North/South Street	Scottsdale Road
Time Analyzed	2022w PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0	
Configuration				R							T				T	TR	
Volume (veh/h)				15							1981				1614	22	
Percent Heavy Vehicles				3													
Proportion Time Blocked																	
Right Turn Channelized	No				No				No				No				
Median Type	Undivided																
Median Storage																	

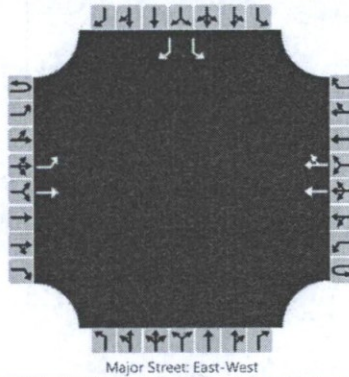
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				17													
Capacity				237													
v/c Ratio				0.07													
95% Queue Length				0.2													
Control Delay (s/veh)				21.3													
Level of Service (LOS)				C													
Approach Delay (s/veh)	21.3																
Approach LOS	C																

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2022	North/South Street	West Access
Time Analyzed	2022w AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		21	237				486	25						23		17
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

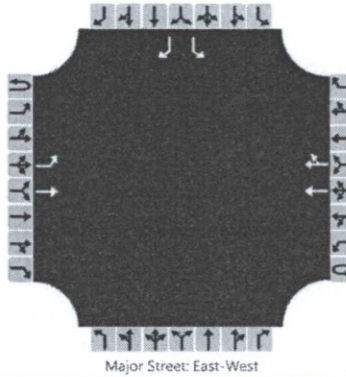
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23												26		19	
Capacity		994												285		710	
v/c Ratio		0.02												0.09		0.03	
95% Queue Length		0.1												0.3		0.1	
Control Delay (s/veh)		8.7												18.9		10.2	
Level of Service (LOS)		A												C		B	
Approach Delay (s/veh)		0.7												15.2			
Approach LOS														C			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2022	North/South Street	West Access
Time Analyzed	2022w PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	1	0	0	0	2	0	0	0	0		1	0	1	
Configuration		L	T				T	TR						L		R
Volume (veh/h)		12	177				252	31						22		20
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

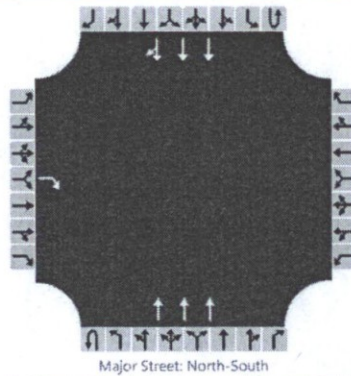
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		13												24		22
Capacity		1236												478		858
v/c Ratio		0.01												0.05		0.03
95% Queue Length		0.0												0.2		0.1
Control Delay (s/veh)		7.9												12.9		9.3
Level of Service (LOS)		A												B		A
Approach Delay (s/veh)	0.5												11.2			
Approach LOS													B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2016	North/South Street	Scottsdale Road
Time Analyzed	Existing AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				21							1171				1572	21
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

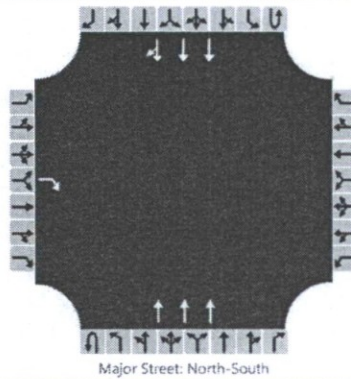
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				23												
Capacity				246												
v/c Ratio				0.09												
95% Queue Length				0.3												
Control Delay (s/veh)				21.2												
Level of Service (LOS)				C												
Approach Delay (s/veh)	21.2															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2016	North/South Street	Scottsdale Road
Time Analyzed	Existing PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0		0	3	0		0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				22							1758				1432	22
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

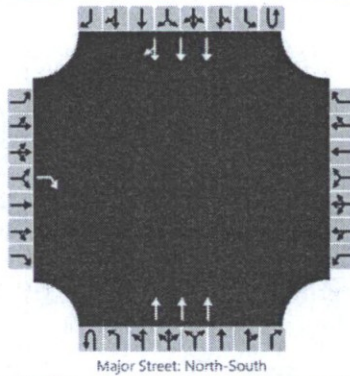
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				24												
Capacity				276												
v/c Ratio				0.09												
95% Queue Length				0.3												
Control Delay (s/veh)				19.3												
Level of Service (LOS)				C												
Approach Delay (s/veh)	19.3															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	S. Access/Scottsdale Road
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	East Access
Analysis Year	2016	North/South Street	Scottsdale Road
Time Analyzed	2016 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				4							1172				1602	0
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

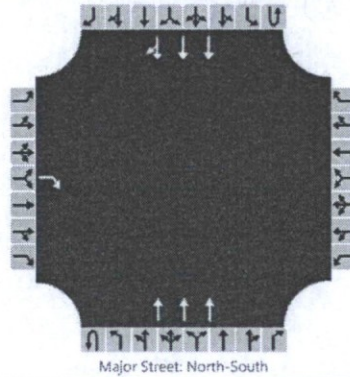
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				4												
Capacity				244												
v/c Ratio				0.02												
95% Queue Length				0.0												
Control Delay (s/veh)				20.0												
Level of Service (LOS)				C												
Approach Delay (s/veh)	20.0															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	S. Access/Scottsdale Road
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	East Access
Analysis Year	2016	North/South Street	Scottsdale Road
Time Analyzed	2016 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

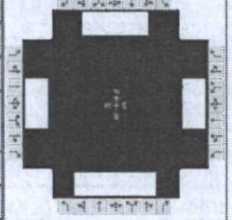
Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0		0	3	0		0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				0							1772				1432	0
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)																
Capacity				282												
v/c Ratio																
95% Queue Length																
Control Delay (s/veh)				17.8												
Level of Service (LOS)				C												
Approach Delay (s/veh)																
Approach LOS																

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Southwest Traffic Eng			Duration, h	0.25
Analyst	Matthew Reeg	Analysis Date	6/20/2016	Area Type	Other
Jurisdiction		Time Period	2016 AM Peak Hour	PHF	0.90
Urban Street	Scottsdale Road	Analysis Year	2016	Analysis Period	1 > 7:00
Intersection	Gold Dust Avenue/Scott...	File Name	03 gda sr existing AM.xus		
Project Description	2016 AM Peak Hour				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	62	76	88	59	142	31	109	1062	74	15	1447	115

Signal Information													
Cycle, s	90.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	15.0	35.0	25.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	3.0	3.0	3.0	0.0	0.0	0.0			
				Red	2.0	2.0	2.0	0.0	0.0	0.0			

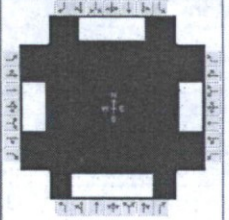
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8	5	2	1	6
Case Number		5.0		6.0	2.0	3.0	2.0	4.0
Phase Duration, s		30.0		30.0	20.0	40.0	20.0	40.0
Change Period, (Y+R _c), s		5.0		5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s		3.2		3.2	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		9.8		8.5	7.4		2.7	
Green Extension Time (g _e), s		0.9		0.9	0.1	0.0	0.0	0.0
Phase Call Probability		1.00		1.00	1.00		1.00	
Max Out Probability		0.00		0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	69	84	98	66	97	95	121	1180	82	17	1172	564
Adjusted Saturation Flow Rate (s), veh/h/ln	1210	1900	1610	1334	1900	1784	1810	1725	1610	1810	1900	1826
Queue Service Time (g _s), s	4.1	3.0	4.2	3.5	3.5	3.7	5.4	16.2	3.0	0.7	24.5	24.6
Cycle Queue Clearance Time (g _c), s	7.8	3.0	4.2	6.5	3.5	3.7	5.4	16.2	3.0	0.7	24.5	24.6
Green Ratio (g/C)	0.28	0.28	0.28	0.28	0.28	0.28	0.17	0.39	0.39	0.17	0.39	0.39
Capacity (c), veh/h	367	528	447	406	528	495	302	2013	626	302	1478	710
Volume-to-Capacity Ratio (X)	0.188	0.160	0.219	0.162	0.184	0.192	0.402	0.586	0.131	0.055	0.793	0.794
Back of Queue (Q), ft/ln (50 th percentile)	31.6	34.9	41.8	29.2	40.4	39.8	65	157.5	27.8	8.1	275.5	287.5
Back of Queue (Q), veh/ln (50 th percentile)	1.3	1.4	1.7	1.2	1.6	1.6	2.6	6.3	1.1	0.3	11.0	11.5
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	27.8	24.6	25.0	27.0	24.7	24.8	33.5	21.8	17.7	31.5	24.3	24.3
Incremental Delay (d ₂), s/veh	1.1	0.6	1.1	0.9	0.8	0.9	3.9	1.3	0.4	0.3	4.5	8.9
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	28.9	25.2	26.1	27.9	25.5	25.7	37.4	23.0	18.1	31.9	28.8	33.2
Level of Service (LOS)	C	C	C	C	C	C	D	C	B	C	C	C
Approach Delay, s/veh / LOS	26.6		C	26.2		C	24.0		C	30.2		C
Intersection Delay, s/veh / LOS	27.3						C					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	3.4		C	3.3		C	2.4		B	2.8		C
Bicycle LOS Score / LOS	0.9		A	0.7		A	1.2		A	1.5		A

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Southwest Traffic Eng			Duration, h	0.25
Analyst	Matthew Reeg	Analysis Date	6/20/2016	Area Type	Other
Jurisdiction		Time Period	2016 PM Peak Hour	PHF	0.90
Urban Street	Scottsdale Road	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Gold Dust Avenue/Scott...	File Name	03_gda_sr_existing_PM.xus		
Project Description	2016 PM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	59	52	53	89	53	43	123	1664	134	47	1355	57

Signal Information																
Cycle, s	90.0	Reference Phase	2													
Offset, s	0	Reference Point	End													
Uncoordinated	No	Simult. Gap E/W	On													
Force Mode	Fixed	Simult. Gap N/S	On													
				Green	15.0	35.0	25.0	0.0	0.0	0.0						
				Yellow	3.0	3.0	3.0	0.0	0.0	0.0						
				Red	2.0	2.0	2.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8	5	2	1	6
Case Number		5.0		6.0	2.0	3.0	2.0	4.0
Phase Duration, s		30.0		30.0	20.0	40.0	20.0	40.0
Change Period, (Y+R _c), s		5.0		5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s		3.1		3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		7.7		9.3	8.1		4.2	
Green Extension Time (g _e), s		0.7		0.6	0.1	0.0	0.0	0.0
Phase Call Probability		1.00		1.00	1.00		1.00	
Max Out Probability		0.00		0.00	0.01		0.00	

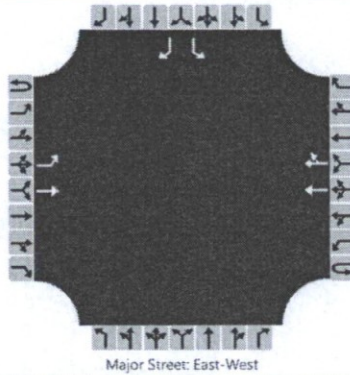
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	66	58	59	99	54	52	137	1849	149	52	1053	515
Adjusted Saturation Flow Rate (s), veh/h/ln	1308	1900	1610	1367	1900	1632	1810	1725	1610	1810	1900	1859
Queue Service Time (g _s), s	3.5	2.0	2.5	5.2	1.9	2.2	6.1	30.6	5.6	2.2	21.1	21.1
Cycle Queue Clearance Time (g _c), s	5.7	2.0	2.5	7.3	1.9	2.2	6.1	30.6	5.6	2.2	21.1	21.1
Green Ratio (g/C)	0.28	0.28	0.28	0.28	0.28	0.28	0.17	0.39	0.39	0.17	0.39	0.39
Capacity (c), veh/h	412	528	447	429	528	453	302	2013	626	302	1478	723
Volume-to-Capacity Ratio (X)	0.159	0.109	0.132	0.231	0.103	0.116	0.453	0.919	0.238	0.173	0.713	0.713
Back of Queue (Q), ft/ln (50 th percentile)	28.8	23.4	24.4	44.4	22	21.6	74.8	324.3	52.8	26.1	232.1	241.9
Back of Queue (Q), veh/ln (50 th percentile)	1.2	0.9	1.0	1.8	0.9	0.9	3.0	13.0	2.1	1.0	9.3	9.7
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	26.4	24.2	24.4	26.9	24.2	24.3	33.8	26.1	18.5	32.2	23.3	23.3
Incremental Delay (d ₂), s/veh	0.8	0.4	0.6	1.3	0.4	0.5	4.9	8.2	0.9	1.2	3.0	5.9
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	27.2	24.6	25.0	28.2	24.6	24.8	38.7	34.4	19.4	33.4	26.2	29.2
Level of Service (LOS)	C	C	C	C	C	C	D	C	B	C	C	C
Approach Delay, s/veh / LOS	25.7		C	26.3		C	33.6		C	27.4		C
Intersection Delay, s/veh / LOS	30.5						C					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	3.4		C	3.3		C	2.4		B	2.8		C
Bicycle LOS Score / LOS	0.8		A	0.7		A	1.7		A	1.4		A

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	E. Access/Gold Dust Aveue
Agency/Co.	Soutwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Duct Avenue
Analysis Year	2016	North/South Street	East Access
Time Analyzed	2016 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		0	223				431	24						1		2
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

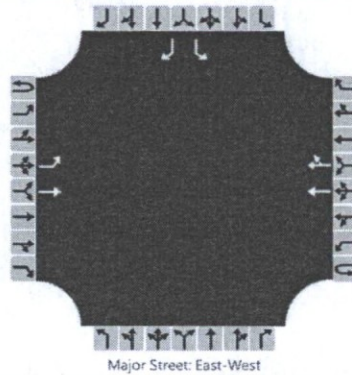
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)														1		2
Capacity		1048												350		744
v/c Ratio														0.00		0.00
95% Queue Length														0.0		0.0
Control Delay (s/veh)		8.4												15.3		9.9
Level of Service (LOS)		A												C		A
Approach Delay (s/veh)													11.7			
Approach LOS													B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	E. Access/Gold Dust Aveue
Agency/Co.	Soutwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Duct Avenue
Analysis Year	2016	North/South Street	East Access
Time Analyzed	2016 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		2	160				223	25						1		3
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

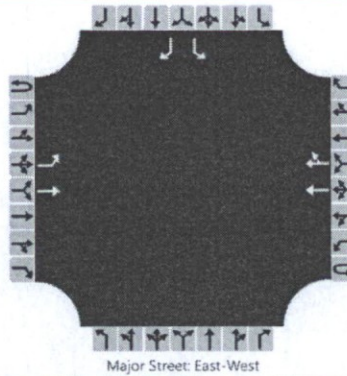
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		2												1		3	
Capacity		1277												539		882	
v/c Ratio		0.00												0.00		0.00	
95% Queue Length		0.0												0.0		0.0	
Control Delay (s/veh)		7.8												11.7		9.1	
Level of Service (LOS)		A												B		A	
Approach Delay (s/veh)		0.1												9.7			
Approach LOS														A			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2016	North/South Street	West Access
Time Analyzed	Existing AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		21	209				433	1						22		15
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

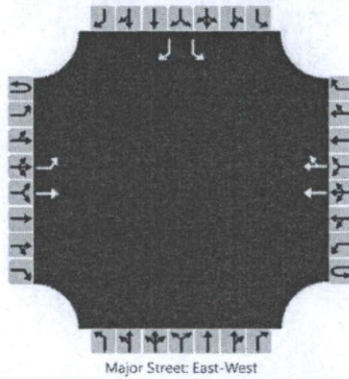
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23												24		17	
Capacity		1070												333		757	
v/c Ratio		0.02												0.07		0.02	
95% Queue Length		0.1												0.2		0.1	
Control Delay (s/veh)		8.4												16.7		9.9	
Level of Service (LOS)		A												C		A	
Approach Delay (s/veh)		0.8												13.8			
Approach LOS														B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2016	North/South Street	West Access
Time Analyzed	Existing PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	1	0	0	0	2	0	0	0	0		1	0	1	
Configuration		L	T				T	TR						L		R
Volume (veh/h)		10	156				199	6						21		17
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

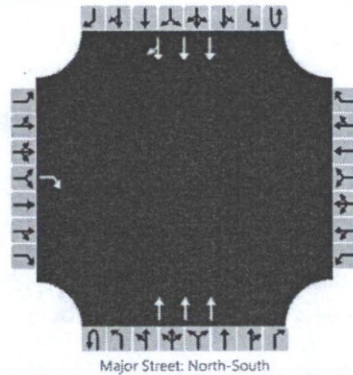
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11												23		19
Capacity		1330												554		914
v/c Ratio		0.01												0.04		0.02
95% Queue Length		0.0												0.1		0.1
Control Delay (s/veh)		7.7												11.8		9.0
Level of Service (LOS)		A												B		A
Approach Delay (s/veh)	0.5												10.5			
Approach LOS													B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2017	North/South Street	Scottsdale Road
Time Analyzed	2017 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				21							1195				1604	21
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

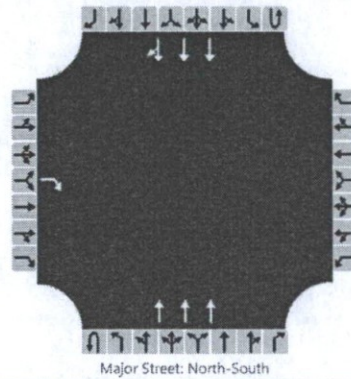
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				23												
Capacity				240												
v/c Ratio				0.10												
95% Queue Length				0.3												
Control Delay (s/veh)				21.6												
Level of Service (LOS)				C												
Approach Delay (s/veh)	21.6															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2017	North/South Street	Scottsdale Road
Time Analyzed	2017 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				15							1794				1461	22
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

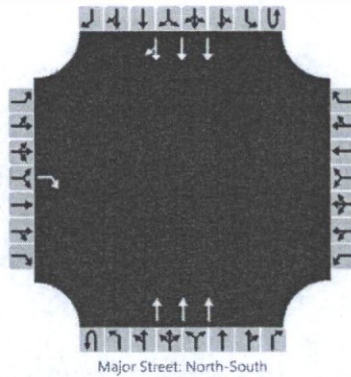
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				17												
Capacity				270												
v/c Ratio				0.06												
95% Queue Length				0.2												
Control Delay (s/veh)				19.2												
Level of Service (LOS)				C												
Approach Delay (s/veh)	19.2															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	S. Access/Scottsdale Road
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	East Access
Analysis Year	2017	North/South Street	Scottsdale Road
Time Analyzed	2017 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				4							1196				1635	0
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

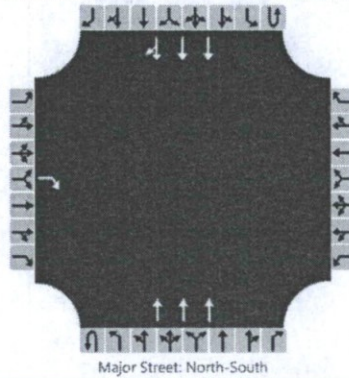
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				4												
Capacity				237												
v/c Ratio				0.02												
95% Queue Length				0.1												
Control Delay (s/veh)				20.4												
Level of Service (LOS)				C												
Approach Delay (s/veh)	20.4															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	S. Access/Scottsdale Road
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	East Access
Analysis Year	2017	North/South Street	Scottsdale Road
Time Analyzed	2017 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

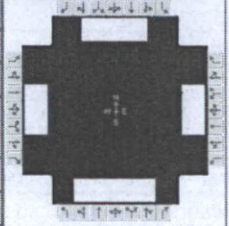
Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				0							1808				1461	0
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)																
Capacity				275												
v/c Ratio																
95% Queue Length																
Control Delay (s/veh)				18.1												
Level of Service (LOS)				C												
Approach Delay (s/veh)																
Approach LOS																

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Southwest Traffic Eng			Duration, h	0.25
Analyst	Matthew Reeg	Analysis Date	6/20/2016	Area Type	Other
Jurisdiction		Time Period	2017 AM Peak Hour	PHF	0.90
Urban Street	Scottsdale Road	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Gold Dust Avenue/Scott...	File Name	03 gda sr 2017 AM.xus		
Project Description	2017 AM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	64	78	90	61	145	32	112	1084	76	16	1476	118

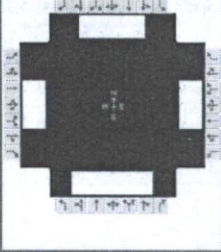
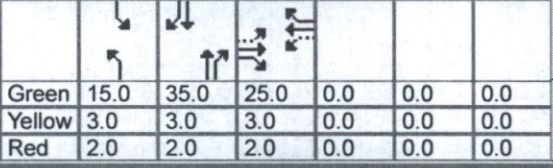
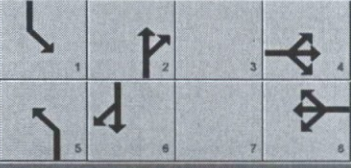
Signal Information				Signal Timing				Signal Phases				
Cycle, s	90.0	Reference Phase	2	Green	15.0	35.0	25.0	0.0	0.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End	Yellow	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On									

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8	5	2	1	6
Case Number		5.0		6.0	2.0	3.0	2.0	4.0
Phase Duration, s		30.0		30.0	20.0	40.0	20.0	40.0
Change Period, (Y+R _c), s		5.0		5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s		3.2		3.2	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		10.1		8.8	7.5		2.7	
Green Extension Time (g _e), s		0.9		0.9	0.1	0.0	0.0	0.0
Phase Call Probability		1.00		1.00	1.00		1.00	
Max Out Probability		0.00		0.00	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	71	87	100	68	99	97	124	1204	84	18	1196	575
Adjusted Saturation Flow Rate (s), veh/h/ln	1205	1900	1610	1331	1900	1783	1810	1725	1610	1810	1900	1825
Queue Service Time (g _s), s	4.3	3.1	4.3	3.7	3.6	3.7	5.5	16.7	3.0	0.7	25.3	25.3
Cycle Queue Clearance Time (g _c), s	8.1	3.1	4.3	6.8	3.6	3.7	5.5	16.7	3.0	0.7	25.3	25.3
Green Ratio (g/C)	0.28	0.28	0.28	0.28	0.28	0.28	0.17	0.39	0.39	0.17	0.39	0.39
Capacity (c), veh/h	365	528	447	404	528	495	302	2013	626	302	1478	710
Volume-to-Capacity Ratio (X)	0.195	0.164	0.224	0.168	0.189	0.196	0.413	0.598	0.135	0.059	0.809	0.811
Back of Queue (Q), ft/ln (50 th percentile)	32.8	35.8	42.8	30.3	41.5	40.8	67	162.3	28.5	8.6	285.4	298.5
Back of Queue (Q), veh/ln (50 th percentile)	1.3	1.4	1.7	1.2	1.7	1.6	2.7	6.5	1.1	0.3	11.4	11.9
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	27.9	24.6	25.0	27.2	24.8	24.8	33.6	21.9	17.7	31.6	24.5	24.5
Incremental Delay (d ₂), s/veh	1.2	0.7	1.2	0.9	0.8	0.9	4.1	1.3	0.4	0.4	4.9	9.7
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	29.1	25.3	26.2	28.0	25.6	25.7	37.7	23.2	18.2	31.9	29.4	34.3
Level of Service (LOS)	C	C	C	C	C	C	D	C	B	C	C	C
Approach Delay, s/veh / LOS	26.7	C		26.3	C		24.2	C		31.0	C	
Intersection Delay, s/veh / LOS	27.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	3.4	C	3.3	C	2.4	B	2.8	C
Bicycle LOS Score / LOS	0.9	A	0.7	A	1.3	A	1.5	A

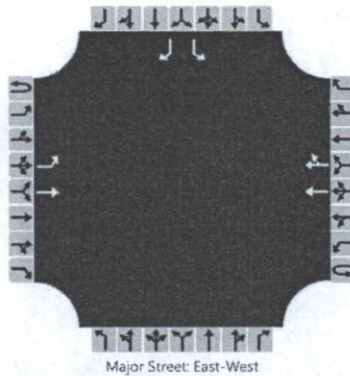
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information																	
Agency	Southwest Traffic Eng			Duration, h	0.25																
Analyst	Matthew Reeg	Analysis Date	6/20/2016	Area Type	Other																
Jurisdiction		Time Period	2017 PM Peak Hour	PHF	0.90																
Urban Street	Scottsdale Road	Analysis Year	2017	Analysis Period	1> 7:00																
Intersection	Gold Dust Avenue/Scott...	File Name	03_gda_sr_2017_PM.xus																		
Project Description	2017 PM Peak Hour																				
Demand Information				EB			WB			NB			SB								
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R									
Demand (v), veh/h	61	54	55	91	55	44	126	1698	137	48	1383	59									
Signal Information																					
Cycle, s	90.0	Reference Phase	2																		
Offset, s	0	Reference Point	End																		
Uncoordinated	No	Simult. Gap E/W	On																		
Force Mode	Fixed	Simult. Gap N/S	On																		
Green	15.0	35.0	25.0	0.0	0.0	0.0															
Yellow	3.0	3.0	3.0	0.0	0.0	0.0															
Red	2.0	2.0	2.0	0.0	0.0	0.0															
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT										
Assigned Phase				4			8			5			2			1			6		
Case Number				5.0			6.0			2.0			3.0			2.0			4.0		
Phase Duration, s				30.0			30.0			20.0			40.0			20.0			40.0		
Change Period, (Y+R _c), s				5.0			5.0			5.0			5.0			5.0			5.0		
Max Allow Headway (MAH), s				3.1			3.1			3.1			0.0			3.1			0.0		
Queue Clearance Time (g _s), s				7.9			9.5			8.3						4.3					
Green Extension Time (g _e), s				0.7			0.7			0.1			0.0			0.0			0.0		
Phase Call Probability				1.00			1.00			1.00						1.00					
Max Out Probability				0.00			0.00			0.01						0.00					
Movement Group Results				EB			WB			NB			SB								
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R									
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16									
Adjusted Flow Rate (v), veh/h	68	60	61	101	56	54	140	1887	152	53	1076	526									
Adjusted Saturation Flow Rate (s), veh/h/ln	1304	1900	1610	1364	1900	1634	1810	1725	1610	1810	1900	1858									
Queue Service Time (g _s), s	3.7	2.1	2.6	5.4	2.0	2.2	6.3	31.6	5.7	2.3	21.7	21.7									
Cycle Queue Clearance Time (g _c), s	5.9	2.1	2.6	7.5	2.0	2.2	6.3	31.6	5.7	2.3	21.7	21.7									
Green Ratio (g/C)	0.28	0.28	0.28	0.28	0.28	0.28	0.17	0.39	0.39	0.17	0.39	0.39									
Capacity (c), veh/h	410	528	447	427	528	454	302	2013	626	302	1478	723									
Volume-to-Capacity Ratio (X)	0.165	0.114	0.137	0.237	0.106	0.119	0.464	0.937	0.243	0.177	0.728	0.728									
Back of Queue (Q), ft/ln (50 th percentile)	29.9	24.4	25.3	45.7	22.7	22.2	76.9	341.4	54.1	26.7	240.1	250.4									
Back of Queue (Q), veh/ln (50 th percentile)	1.2	1.0	1.0	1.8	0.9	0.9	3.1	13.7	2.2	1.1	9.6	10.0									
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00									
Uniform Delay (d ₁), s/veh	26.5	24.2	24.4	27.0	24.2	24.3	33.9	26.4	18.6	32.2	23.4	23.4									
Incremental Delay (d ₂), s/veh	0.9	0.4	0.6	1.3	0.4	0.5	5.1	9.9	0.9	1.3	3.2	6.3									
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0									
Control Delay (d), s/veh	27.4	24.7	25.0	28.3	24.6	24.8	38.9	36.3	19.5	33.5	26.6	29.8									
Level of Service (LOS)	C	C	C	C	C	C	D	D	B	C	C	C									
Approach Delay, s/veh / LOS	25.8		C	26.4		C	35.3		D	27.8		C									
Intersection Delay, s/veh / LOS	31.5						C														
Multimodal Results				EB			WB			NB			SB								
Pedestrian LOS Score / LOS	3.4		C	3.3		C	2.4		B	2.8		C									
Bicycle LOS Score / LOS	0.8		A	0.7		A	1.7		A	1.4		A									

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	E. Access/Gold Dust Aveue
Agency/Co.	Soutwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2017	North/South Street	East Access
Time Analyzed	2017 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		0	228				440	24						1		2
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

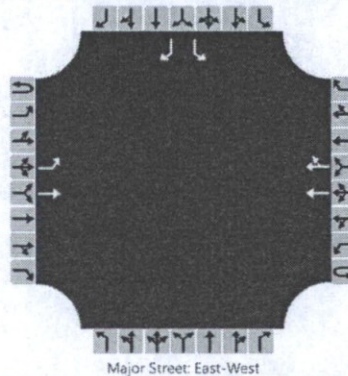
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)															1		2
Capacity		1039													342		738
v/c Ratio															0.00		0.00
95% Queue Length															0.0		0.0
Control Delay (s/veh)		8.5													15.6		9.9
Level of Service (LOS)		A													C		A
Approach Delay (s/veh)	11.8																
Approach LOS	B																

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	E. Access/Gold Dust Aveue
Agency/Co.	Soutwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Duct Avenue
Analysis Year	2017	North/South Street	East Access
Time Analyzed	2017 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		2	164				228	25						1		3
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

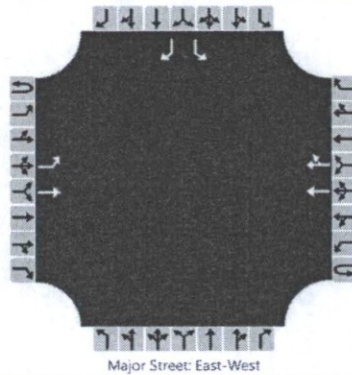
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		2												1		3	
Capacity		1271												532		879	
v/c Ratio		0.00												0.00		0.00	
95% Queue Length		0.0												0.0		0.0	
Control Delay (s/veh)		7.8												11.8		9.1	
Level of Service (LOS)		A												B		A	
Approach Delay (s/veh)		0.1												9.8			
Approach LOS														A			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2017	North/South Street	West Access
Time Analyzed	2017 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		21	214				442	1						22		15
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

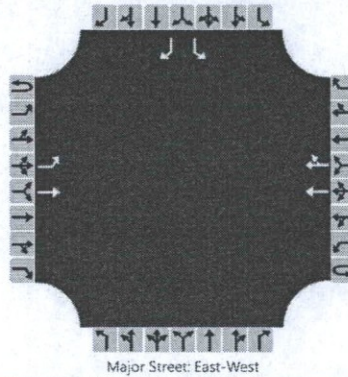
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23												24		17	
Capacity		1061												325		751	
v/c Ratio		0.02												0.07		0.02	
95% Queue Length		0.1												0.2		0.1	
Control Delay (s/veh)		8.5												17.0		9.9	
Level of Service (LOS)		A												C		A	
Approach Delay (s/veh)		0.7												14.0			
Approach LOS														B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2017	North/South Street	West Access
Time Analyzed	2017 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		10	160				203	6						21		17
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

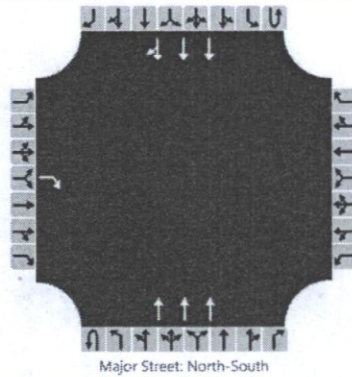
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11												23		19	
Capacity		1325												546		911	
v/c Ratio		0.01												0.04		0.02	
95% Queue Length		0.0												0.1		0.1	
Control Delay (s/veh)		7.7												11.9		9.0	
Level of Service (LOS)		A												B		A	
Approach Delay (s/veh)		0.5												10.6			
Approach LOS														B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2022	North/South Street	Scottsdale Road
Time Analyzed	2022 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				21							1320				1771	21
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

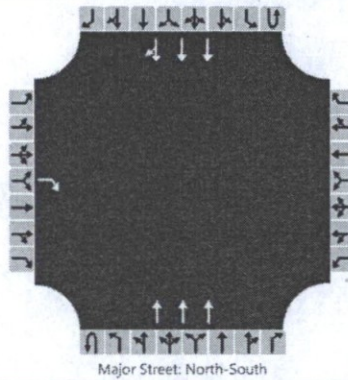
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				23												
Capacity				207												
v/c Ratio				0.11												
95% Queue Length				0.4												
Control Delay (s/veh)				24.5												
Level of Service (LOS)				C												
Approach Delay (s/veh)	24.5															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2022	North/South Street	Scottsdale Road
Time Analyzed	2022 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0	
Configuration				R							T				T	TR	
Volume (veh/h)				15							1981				1614	22	
Percent Heavy Vehicles				3													
Proportion Time Blocked																	
Right Turn Channelized	No				No				No				No				
Median Type	Undivided																
Median Storage																	

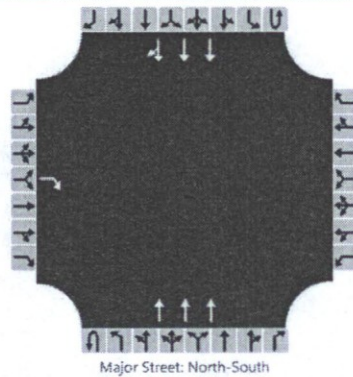
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				17													
Capacity				237													
v/c Ratio				0.07													
95% Queue Length				0.2													
Control Delay (s/veh)				21.3													
Level of Service (LOS)				C													
Approach Delay (s/veh)	21.3																
Approach LOS	C																

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	S. Access/Scottsdale Road
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	East Access
Analysis Year	2022	North/South Street	Scottsdale Road
Time Analyzed	2022 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				4							1321				1806	0
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

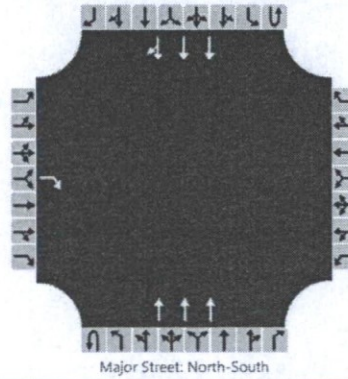
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				4												
Capacity				205												
v/c Ratio				0.02												
95% Queue Length				0.1												
Control Delay (s/veh)				22.9												
Level of Service (LOS)				C												
Approach Delay (s/veh)	22.9															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	S. Access/Scottsdale Road
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	East Access
Analysis Year	2022	North/South Street	Scottsdale Road
Time Analyzed	2022 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0		0	3	0		0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				0							1997				1614	0
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

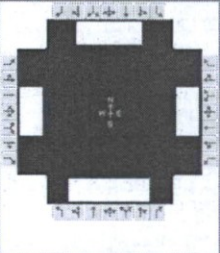
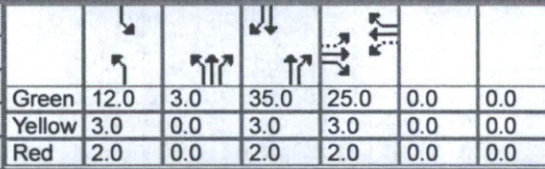
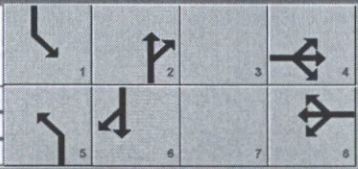
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)																
Capacity				242												
v/c Ratio																
95% Queue Length																
Control Delay (s/veh)				19.9												
Level of Service (LOS)				C												
Approach Delay (s/veh)																
Approach LOS																

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	Southwest Traffic Eng			Duration, h	0.25										
Analyst	Matthew Reeg	Analysis Date	6/20/2016	Area Type	Other										
Jurisdiction		Time Period	2022 AM Peak Hour	PHF	0.90										
Urban Street	Scottsdale Road	Analysis Year	2022	Analysis Period	1> 7:00										
Intersection	Gold Dust Avenue/Scott...	File Name	03_gda_sr_2022_AM.xus												
Project Description	2022 AM Peak Hour														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				71	87	100	68	161	36	124	1197	84	18	1630	131
Signal Information															
Cycle, s	90.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	15.0	35.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Yellow	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					4		8	5	2	1	6				
Case Number					5.0		6.0	2.0	3.0	2.0	4.0				
Phase Duration, s					30.0		30.0	20.0	40.0	20.0	40.0				
Change Period, (Y+R _c), s					5.0		5.0	5.0	5.0	5.0	5.0				
Max Allow Headway (MAH), s					3.2		3.2	3.1	0.0	3.1	0.0				
Queue Clearance Time (g _s), s					11.2		9.6	8.2		2.8					
Green Extension Time (g _e), s					1.0		1.0	0.1	0.0	0.0	0.0				
Phase Call Probability					1.00		1.00	1.00		1.00					
Max Out Probability					0.00		0.00	0.01		0.00					
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h				79	97	111	76	111	108	138	1330	93	20	1320	637
Adjusted Saturation Flow Rate (s), veh/h/ln				1181	1900	1610	1319	1900	1781	1810	1725	1610	1810	1900	1825
Queue Service Time (g _s), s				5.0	3.5	4.8	4.2	4.0	4.2	6.2	19.0	3.4	0.8	29.3	29.5
Cycle Queue Clearance Time (g _c), s				9.2	3.5	4.8	7.6	4.0	4.2	6.2	19.0	3.4	0.8	29.3	29.5
Green Ratio (g/C)				0.28	0.28	0.28	0.28	0.28	0.28	0.17	0.39	0.39	0.17	0.39	0.39
Capacity (c), veh/h				353	528	447	395	528	495	302	2013	626	302	1478	710
Volume-to-Capacity Ratio (X)				0.224	0.183	0.248	0.191	0.210	0.218	0.457	0.661	0.149	0.066	0.893	0.897
Back of Queue (Q), ft/ln (50 th percentile)				37.1	40.3	48	34.3	46.6	45.8	75.5	185.7	31.7	9.7	345.9	372
Back of Queue (Q), veh/ln (50 th percentile)				1.5	1.6	1.9	1.4	1.9	1.8	3.0	7.4	1.3	0.4	13.8	14.9
Queue Storage Ratio (RQ) (50 th percentile)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh				28.5	24.7	25.2	27.6	24.9	25.0	33.8	22.6	17.8	31.6	25.7	25.8
Incremental Delay (d ₂), s/veh				1.5	0.8	1.3	1.1	0.9	1.0	4.9	1.7	0.5	0.4	8.6	16.4
Initial Queue Delay (d ₃), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh				30.0	25.5	26.5	28.7	25.8	26.0	38.7	24.3	18.3	32.0	34.4	42.2
Level of Service (LOS)				C	C	C	C	C	C	D	C	B	C	C	D
Approach Delay, s/veh / LOS				27.1		C	26.6		C	25.3		C	36.9		D
Intersection Delay, s/veh / LOS				31.1						C					
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				3.4		C	3.3		C	2.4		B	2.8		C
Bicycle LOS Score / LOS				1.0		A	0.7		A	1.3		A	1.6		A

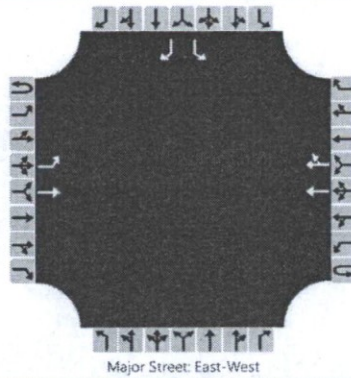
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	Southwest Traffic Eng			Duration, h	0.25										
Analyst	Matthew Reeg	Analysis Date	6/20/2016	Area Type	Other										
Jurisdiction		Time Period	2022 PM Peak Hour	PHF	0.90										
Urban Street	Scottsdale Road	Analysis Year	2022	Analysis Period	1> 7:00										
Intersection	Gold Dust Avenue/Scott...	File Name	03 gda sr 2022 PM w signal enhancement.xus												
Project Description	2022 PM Peak Hour														
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h	68	60	61	101	61	49	140	1875	152	53	1527	66			
Signal Information															
Cycle, s	90.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	12.0	3.0	35.0	25.0	0.0	0.0									
Yellow	3.0	0.0	3.0	3.0	0.0	0.0									
Red	2.0	0.0	2.0	2.0	0.0	0.0									
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase				4	8			5	2	1	6				
Case Number				5.0	6.0			2.0	3.0	2.0	4.0				
Phase Duration, s				30.0	30.0			20.0	43.0	17.0	40.0				
Change Period, (Y+R _c), s				5.0	5.0			5.0	5.0	5.0	5.0				
Max Allow Headway (MAH), s				3.2	3.2			3.1	0.0	3.1	0.0				
Queue Clearance Time (g _s), s				8.7	10.4			9.1	4.6						
Green Extension Time (g _e), s				0.8	0.7			0.1	0.0	0.0	0.0				
Phase Call Probability				1.00	1.00			1.00	1.00						
Max Out Probability				0.00	0.00			0.04	0.00						
Movement Group Results				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16			
Adjusted Flow Rate (v), veh/h	76	67	68	112	62	60	156	2083	169	59	1188	582			
Adjusted Saturation Flow Rate (s), veh/h/ln	1289	1900	1610	1356	1900	1633	1810	1725	1610	1810	1900	1858			
Queue Service Time (g _s), s	4.2	2.4	2.9	6.1	2.2	2.5	7.1	35.0	6.1	2.6	25.0	25.1			
Cycle Queue Clearance Time (g _c), s	6.7	2.4	2.9	8.4	2.2	2.5	7.1	35.0	6.1	2.6	25.0	25.1			
Green Ratio (g/C)	0.28	0.28	0.28	0.28	0.28	0.28	0.17	0.42	0.42	0.13	0.39	0.39			
Capacity (c), veh/h	403	528	447	421	528	454	302	2185	680	241	1478	723			
Volume-to-Capacity Ratio (X)	0.188	0.126	0.152	0.267	0.118	0.132	0.516	0.953	0.248	0.244	0.804	0.805			
Back of Queue (Q), ft/ln (50 th percentile)	33.7	27.2	28.3	51.4	25.3	24.8	87.3	378	56.4	31.9	282.3	298.7			
Back of Queue (Q), veh/ln (50 th percentile)	1.3	1.1	1.1	2.1	1.0	1.0	3.5	15.1	2.3	1.3	11.3	11.9			
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Uniform Delay (d ₁), s/veh	26.9	24.3	24.5	27.5	24.3	24.4	34.2	25.1	16.8	34.9	24.5	24.5			
Incremental Delay (d ₂), s/veh	1.0	0.5	0.7	1.5	0.5	0.6	6.2	11.0	0.9	2.4	4.7	9.3			
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Control Delay (d), s/veh	27.9	24.8	25.2	29.0	24.7	25.0	40.4	36.2	17.7	37.3	29.2	33.8			
Level of Service (LOS)	C	C	C	C	C	C	D	D	B	D	C	C			
Approach Delay, s/veh / LOS	26.1	C		26.8	C		35.1	D		30.9	C				
Intersection Delay, s/veh / LOS	32.7						C								
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	3.4	C		3.3	C		2.4	B		2.8	C				
Bicycle LOS Score / LOS	0.8	A		0.7	A		1.8	A		1.5	A				

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	E. Access/Gold Dust Aveue
Agency/Co.	Soutwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2022	North/South Street	East Access
Time Analyzed	2022 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		0	252				486	24						1		2
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

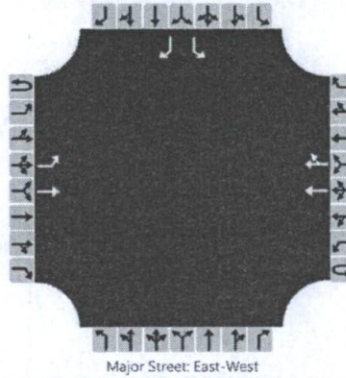
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)														1		2
Capacity		994												305		710
v/c Ratio														0.00		0.00
95% Queue Length														0.0		0.0
Control Delay (s/veh)		8.6												16.9		10.1
Level of Service (LOS)		A												C		B
Approach Delay (s/veh)													12.3			
Approach LOS													B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	E. Access/Gold Dust Aveue
Agency/Co.	Soutwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Duct Avenue
Analysis Year	2022	North/South Street	East Access
Time Analyzed	2022 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		2	164				228	25						1		3
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

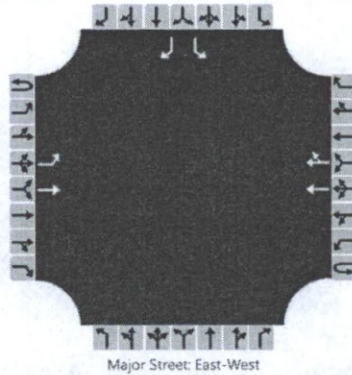
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		2												1		3	
Capacity		1271												532		879	
v/c Ratio		0.00												0.00		0.00	
95% Queue Length		0.0												0.0		0.0	
Control Delay (s/veh)		7.8												11.8		9.1	
Level of Service (LOS)		A												B		A	
Approach Delay (s/veh)		0.1												9.8			
Approach LOS														A			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2022	North/South Street	West Access
Time Analyzed	2022 AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		21	237				488	1						22		15
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

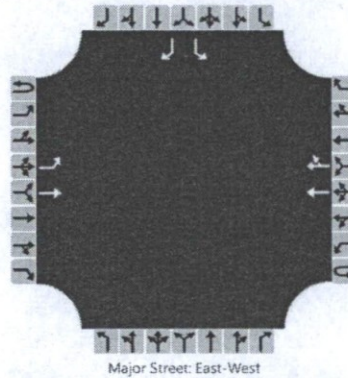
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23												24		17	
Capacity		1015												290		723	
v/c Ratio		0.02												0.08		0.02	
95% Queue Length		0.1												0.3		0.1	
Control Delay (s/veh)		8.6												18.5		10.1	
Level of Service (LOS)		A												C		B	
Approach Delay (s/veh)		0.7												15.0			
Approach LOS														C			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2022	North/South Street	West Access
Time Analyzed	2022 PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	1	0	0	0	2	0	0	0	0		1	0	1	
Configuration		L	T				T	TR						L		R
Volume (veh/h)		10	177				225	6						21		17
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

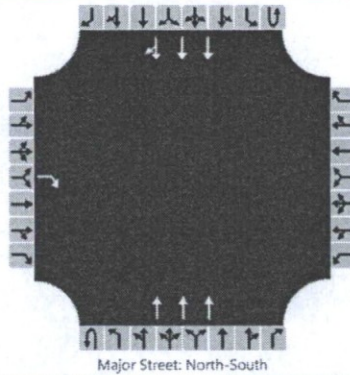
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11												23		19
Capacity		1298												514		895
v/c Ratio		0.01												0.04		0.02
95% Queue Length		0.0												0.1		0.1
Control Delay (s/veh)		7.8												12.3		9.1
Level of Service (LOS)		A												B		A
Approach Delay (s/veh)	0.4												10.9			
Approach LOS													B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2017	North/South Street	Scottsdale Road
Time Analyzed	2017w AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				25							1195				1604	21
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

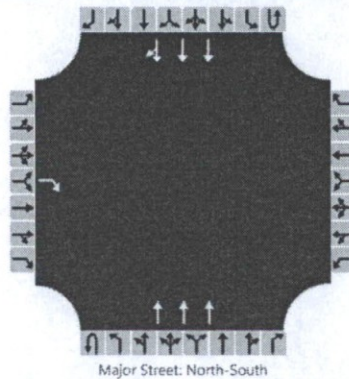
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				28												
Capacity				240												
v/c Ratio				0.12												
95% Queue Length				0.4												
Control Delay (s/veh)				22.0												
Level of Service (LOS)				C												
Approach Delay (s/veh)	22.0															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2017	North/South Street	Scottsdale Road
Time Analyzed	2017w PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				15							1794				1461	22
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

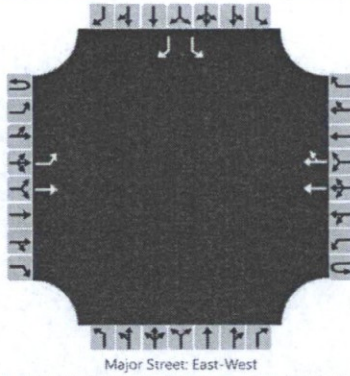
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				17												
Capacity				270												
v/c Ratio				0.06												
95% Queue Length				0.2												
Control Delay (s/veh)				19.2												
Level of Service (LOS)				C												
Approach Delay (s/veh)	19.2															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2017	North/South Street	West Access
Time Analyzed	2017w AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		21	214				440	25						23		17
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

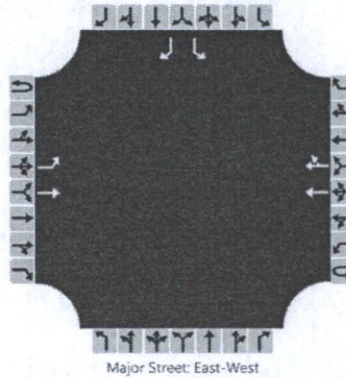
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23												26		19	
Capacity		1038												319		738	
v/c Ratio		0.02												0.08		0.03	
95% Queue Length		0.1												0.3		0.1	
Control Delay (s/veh)		8.5												17.3		10.0	
Level of Service (LOS)		A												C		B	
Approach Delay (s/veh)		0.8												14.2			
Approach LOS														B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2017	North/South Street	West Access
Time Analyzed	2017w PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		12	160				228	31						22		20
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

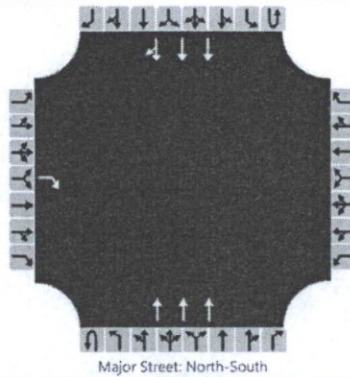
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		13												24		22	
Capacity		1265												512		874	
v/c Ratio		0.01												0.05		0.03	
95% Queue Length		0.0												0.1		0.1	
Control Delay (s/veh)		7.9												12.4		9.2	
Level of Service (LOS)		A												B		A	
Approach Delay (s/veh)		0.5												10.9			
Approach LOS														B			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2022	North/South Street	Scottsdale Road
Time Analyzed	2022w AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				25							1320				1771	21
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

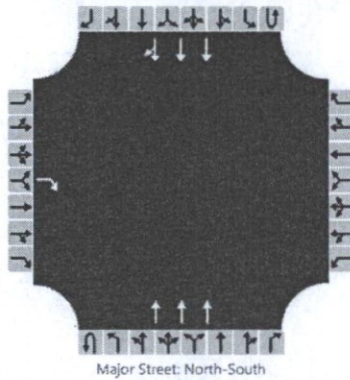
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				28												
Capacity				207												
v/c Ratio				0.14												
95% Queue Length				0.5												
Control Delay (s/veh)				25.1												
Level of Service (LOS)				D												
Approach Delay (s/veh)	25.1															
Approach LOS	D															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	N. Access/Scottsdale Rd
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	North Access
Analysis Year	2022	North/South Street	Scottsdale Road
Time Analyzed	2022w PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	0	0	0	3	0	0	0	3	0
Configuration				R							T				T	TR
Volume (veh/h)				15							1981				1614	22
Percent Heavy Vehicles				3												
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

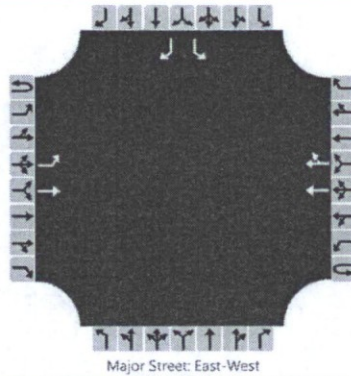
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				17												
Capacity				237												
v/c Ratio				0.07												
95% Queue Length				0.2												
Control Delay (s/veh)				21.3												
Level of Service (LOS)				C												
Approach Delay (s/veh)	21.3															
Approach LOS	C															

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2022	North/South Street	West Access
Time Analyzed	2022w AM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	1	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)		21	237				486	25						23		17
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

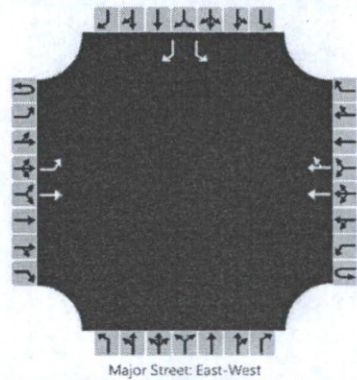
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23												26		19	
Capacity		994												285		710	
v/c Ratio		0.02												0.09		0.03	
95% Queue Length		0.1												0.3		0.1	
Control Delay (s/veh)		8.7												18.9		10.2	
Level of Service (LOS)		A												C		B	
Approach Delay (s/veh)		0.7												15.2			
Approach LOS														C			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Matthew Reeg	Intersection	W. Access/Gold Dust Ave
Agency/Co.	Southwest Traffic Eng	Jurisdiction	City of Scottsdale
Date Performed	6/20/2016	East/West Street	Gold Dust Avenue
Analysis Year	2022	North/South Street	West Access
Time Analyzed	2022w PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Gold Dust Circle K		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	1	0	0	0	2	0	0	0	0		1	0	1	
Configuration		L	T				T	TR						L		R
Volume (veh/h)		12	177				252	31						22		20
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		13												24		22	
Capacity		1236												478		858	
v/c Ratio		0.01												0.05		0.03	
95% Queue Length		0.0												0.2		0.1	
Control Delay (s/veh)		7.9												12.9		9.3	
Level of Service (LOS)		A												B		A	
Approach Delay (s/veh)		0.5												11.2			
Approach LOS														B			



**TRAFFIC IMPACT ANALYSIS
GOLD DUST CIRCLE K
GOLD DUST AVENUE/SCOTTSDALE ROAD**

APPENDIX

Crash Data

CITY OF SCOTTSDALE

'11 -'12 COLLISION SUMMARY

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. #1	SEV. #2	PHYS. #1	COND. #2	VIOLATION #1	#2	ACTION #1	#2	TRAV. DIR. #1	#2	MANNER OF COLLISION	COMMENTS
11-21763	110916	1757	70	ST	GOLD DUST	AV	N	20	1	1	0	0	2	1	1	3	NB	NB	4	
11-04531	110224	0751	70	ST	GOLD DUST	AV	AT		99	99	0	0	3	0	4	1	N	S	3	HIT & RUN
11-04943	110228	1428	70	ST	GOLD DUST	AV	S	725	2	1	0	0	3	0	4	1	NE	S	4	
11-01398	110118	1431	70	ST	GOLD DUST	AV	E	125	1	1	0	0	4	0	1	3	E	E	6	
11-19451	110819	1159	70	ST	GOLD DUST	AV	S	163	1	1	0	0	97	99	4	1	EB	SB	2	
11-05846	110310	1204	70	ST	GOLD DUST	AV	W	300		99	0	99	0	99	14	E		8	HIT & RUN	
12-00392	120105	1434	70	ST	GOLD DUST	AV	E	691	1	1	0	0	4	1	1	3	EB	EB	4	
11-26580	111110	1433	70	ST	GOLD DUST	AV	S	400	1	1	0	0	97	1	4	1	EB	SB	3	
12-06956	120326	0745	70	ST	GOLD DUST	AV	W	150	2	1	0	Q	16	1	17	1	SB	WB	97	PED V1 DID NOT USE XWALK
12-00868	120111	1731	70	ST	GOLD DUST	AV	S	330	1	1	0	0	12	1	8	1	SB	SB	6	
11-22116	110921	0713	73	ST	GOLD DUST	AV	AT		1	1	0	0	97	1	4	1	NB	EB	3	
11-30156	111221	1755	73	ST	GOLD DUST	AV	W	215	1	1	0	0	2	97	1	6	WB	WB	4	
12-24784	121106	1428	SCOTTSDALE	RD	COCHISE	RD	N	234	1	1	0	0	97	1	5	1	EB	SB	2	
11-24789	111021	1858	SCOTTSDALE	RD	COCHISE	RD	S	220	4	2	99	0	97	1	1	1	EB	SB	2	FAILED TO YIELD
11-07078	110324	1244	SCOTTSDALE	RD	COCHISE	RD	AT		1	2	0	0	3	17	4	1	E	S	9	
12-24458	121102	1732	SCOTTSDALE	RD	COCHISE	RD	S	225	1	2	0	0	97	1	4	1	SB	SB	3	MULTI VEH 3
12-04362	120223	1329	SCOTTSDALE	RD	COCHISE	RD	S	50	1	1	0	0	4	1	1	3	NB	NB	4	
12-09838	120428	1839	SCOTTSDALE	RD	COCHISE	RD	W	200	1		0		7		5		WB		1	
12-16785	120728	1244	SCOTTSDALE	RD	COCHISE	RD	AT		1	1	0	0	5	1	4	1	EB	NB	2	
12-17975	120814	1315	SCOTTSDALE	RD	COCHISE	RD	N	252	1	1	0	0	97	1	97	1	EB	SB	2	
12-28507	121223	1411	SCOTTSDALE	RD	COCHISE	RD	N	254	1	1	0	0	2	1	1	2	SB	SB	4	
11-07009	110323	1509	SCOTTSDALE	RD	GOLD DUST	AV	N	363	1	1	0	0	17	0	1	3	N	N	6	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV #1 #2	PHYS. COND. #1 #2	VIOLATION #1 #2	ACTION #1 #2	TRAV. DIR. #1 #2	MANNER OF COLLISION	COMMENTS
11-09402	110419	1827	SCOTTSDALE	RD	GOLD DUST	AV	AT		3 1	0 0	9 17	17 5	N SE	4	CAR-BIKE
11-12930	110530	2021	SCOTTSDALE	RD	GOLD DUST	AV	AT		3 1	0 0	8 4	4 1	N N	6	
11-10168	110428	2210	SCOTTSDALE	RD	GOLD DUST	AV	N	165	1 1	0 0	13 0	8 1	N N	8	
11-02740	110204	0559	SCOTTSDALE	RD	GOLD DUST	AV	AT		99 1	0 0	1 0	1 3	N N	6	
11-01584	110120	1730	SCOTTSDALE	RD	GOLD DUST	AV	S	235	2 2	0 0	3 0	4 1	NW S	4	
11-03306	110210	1051	SCOTTSDALE	RD	GOLD DUST	AV	AT		2 2	0 0	3 0	4 1	SE N	4	
11-10763	110505	2001	SCOTTSDALE	RD	GOLD DUST	AV	AT		2 1	0 0	7-9 0	17 5	N SW	4	CAR-BIKE
12-03128	120208	0901	SCOTTSDALE	RD	GOLD DUST	AV	N	50	1 1	0 0	16 1	1 3	SB SB	4	
11-08151	110405	1446	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	6 0	1 4	N SE	3	
11-06873	110322	0724	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 2	0 0	3 0	4 1	N S	4	
11-06411	110316	1956	SCOTTSDALE	RD	GOLD DUST	AV	N	38	1 2	0 0	1 0	1 3	S S	6	
12-28736	121227	1919	SCOTTSDALE	RD	GOLD DUST	AV	N	1000	1 1	0 0	16 1	1 1	NB NB	2	
12-26256	121125	1529	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	6 1	1 1	NB WB	2	
12-25553	121115	1626	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	12 1	8 3	NB NB	2	
12-09479	120424	1308	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	2 1	2 3	WB WB	4	
12-05244	120305	0851	SCOTTSDALE	RD	GOLD DUST	AV	S	45	1 1	0 0	2 1	1 3	NB NB	4	
12-09364	120423	1356	SCOTTSDALE	RD	GOLD DUST	AV	S	306	1 1	0 0	12 1	8 1	SB SB	6	
12-04292	120222	1433	SCOTTSDALE	RD	GOLD DUST	AV	E	304	1 1	0 0	4 1	1 1	EB EB	4	
11-12198	110512	1639	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	1 0	1 3	S S	6	
12-24233	121031	0857	SCOTTSDALE	RD	GOLD DUST	AV	AT		4 2	0 0	16 1	4 1	NB SB	2	MULTI VEH 3
11-19210	110816	1447	SCOTTSDALE	RD	GOLD DUST	AV	W	330	1 1	0 0	16 1	1 1	NB WB	2	
11-22825	110929	1206	SCOTTSDALE	RD	GOLD DUST	AV	N	18	1 1	0 0	4 1	1 3	NB NB	4	
11-21202	110909	1518	SCOTTSDALE	RD	GOLD DUST	AV	AT		2	99	16	10	NB	1	PRIVATE PROPERTY
11-12575	110526	1404	SCOTTSDALE	RD	GOLD DUST	AV	N	40	1 1	0 0	13 0	8 1	SW S	8	
12-02006	120125	1608	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	2 1	2 2	NB NB	4	

REPORT #	DATE TIME		NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR	DIST	INJ. SEV.		PHYS. COND.		VIOLATION		ACTION		TRAV. DIR.		MANNER OF COLLISION	COMMENTS	
	YY	MMDD							HH	MM	FROM	FROM	#1	#2	#1	#2	#1	#2			#1
11-19283	11	0817	1142	SCOTTSDALE	RD	GOLD DUST	AV	AT		1	1	0	0	97	1	4	1	EB	WB	3	
11-10313	11	10430	1721	SCOTTSDALE	RD	GOLD DUST	AV	S	450	1	1	0	0	17	0	1	3	N	N	6	3 VEH
12-23654	12	1024	1244	SCOTTSDALE	RD	GOLD DUST	AV	AT		1	1	0	0	2	1	1	3	SB	SB	4	
11-29324	11	11211	1847	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	596	1	4	0	0	2	1	1	97	NB	NB	9	

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

KEY (January 1, 2011-June 21,2011)

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

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

VIOLATION: 0=NO IMPROPER ACTION, 1=SPEED TOO FAST FOR CONDITIONS, 2=EXCEEDED LAWFUL SPEED 3=FAILED TO YIELD RIGHT-OF-WAY, 4=FOLLOWED TOO CLOSELY. 5=FAILED TO OBEY STOP SIGN, 6=FAILED TO STOP FOR RED SIGNAL, 7=DISREGARDED TRAFFIC SIGNAL 8=MADE IMPROPER TURN, 9=DROVE/RODE IN OPPOSING TRAFFIC LANE, 10=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 11=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 12=PASSED IN NO PASSING ZONE, 13=UNSAFE LANE CHANGE, 14=FAILED TO KEEP IN PROPER LANE, 15=DISREGARDED PAVEMENT MARKINGS, 16=OTHER UNSAFE PASSING, 17=INATTENTION/DISTRACTION, 18=DID NOT USE CROSSWALK, 19=WALKED ON WRONG SIDE OF ROAD, 20 ELECTRONIC COMMUNICATIONS DEVICE, 97=OTHER, 99 UNKNOWN

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

MANNER OF COLLISION: 1=SINGLE VEHICLE, 2=ANGLE (front to side) SAME DIRECTION, 3=ANGLE (front to side) OPPOSITE DIRECTION, 4=ANGLE (front to side) RIGHT ANGLE, 5=ANGLE - DIRECTION NOT SPECIFIED, 6=REAR END, 7=HEAD-ON, 8=SIDESWIPE, SAME DIRECTION, 9=SIDESWIPE, OPPOSITE DIRECTION, 10=REAR-TO-SIDE 11=REAR-TO-REAR 97=OTHER 99=UNKNOWN D=U-Turn, @=Pedestrian, #=Pedalcycle

KEY (June 22, 2011-December 31,2012)

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

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

VIOLATION: 1=NO IMPROPER ACTION, 2=SPEED TOO FAST FOR CONDITIONS, 3=EXCEEDED LAWFUL SPEED 4=FOLLOWED TOO CLOSELY. 5=RAN STOP SIGN, 6=DISREGARDED TRAFFIC SIGNAL 7=MADE IMPROPER TURN, 8=DROVE/RODE IN OPPOSING TRAFFIC LANE, 9=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 10=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 11=PASSED IN NO PASSING ZONE, 12=UNSAFE LANE CHANGE, 13=FAILED TO KEEP IN PROPER LANE, 14=DISREGARDED PAVEMENT MARKINGS, 15=OTHER UNSAFE PASSING, 16=INATTENTION/DISTRACTION, 17=DID NOT USE CROSSWALK, 18=WALKED ON WRONG SIDE OF ROAD, 19=ELECTRONIC COMMUNICATIONS DEVICE, 97=OTHER, 99 UNKNOWN

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

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

TOTAL 51

CITY OF SCOTTSDALE

'13 -'14 COLLISION SUMMARY

REPORT #	DATE TIME YYMMDD HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. #1	SEV. #2	PHYS. #1	COND. #2	VIOLATION #1	#2	ACTION #1	#2	TRAV. DIR. #1	#2	MANNER OF COLLISION	COMMENTS
14-08551	140415 1723	70	ST	GOLD DUST	AV	AT		1	1	0	0	16	1	4	1	NB	SB	3	
13-24985	131031 0745	70	ST	GOLD DUST	AV	S	656	1	1	0	0	12	1	8	4	NB	NB	6	
13-18122	130809 1435	70	ST	GOLD DUST	AV	AT		1	3	0	0	97	1	1	1	EB	SB	2	
14-00747	140110 1436	70	ST	GOLD DUST	AV	E	118	1	1	0	0	2	1	1	2	EB	EB	4	MULTI VEH 3
14-01081	140114 1429	70	ST	GOLD DUST	AV	AT		1	1	0	0	97	1	4	1	EB	SB	3	
13-10043	130501 1432	70	ST	GOLD DUST	AV	AT		1	4	0	0	97	1	4	19	NB	EB	2	CAR/PEDESTRIAN
13-21845	130923 1730	70	ST	GOLD DUST	AV	AT		2	1	0	0	6	1	1	1	WB	SB	2	
14-06928	140326 1433	70	ST	GOLD DUST	AV	E	128	1	1	0	0	2	1	1	3	EB	EB	4	MULTI VEH 3
14-00562	140108 1707	70	ST	GOLD DUST	AV	AT		1	3	0	0	6	1	4	17	SB	EB	3	CAR/PEDESTRIAN
14-09006	140421 1439	70	ST	GOLD DUST	AV	S	400	1	1	0	0	97	1	4	1	EB	SB	2	
13-04234	130221 1419	70	ST	GOLD DUST	AV	AT		2	2	0	0	6	1	1	1	NB	WB	2	MULTI VEH 3
13-00510	130107 1643	70	ST	GOLD DUST	AV	AT		1	3	0	0	7	1	4	17	SB	EB	3	
13-02333	130131 1203	70	ST	GOLD DUST	AV	AT		1	1	0	0	16	1	1	1	NB	EB	2	
14-19676	140912 1330	73	ST	GOLD DUST	AV	AT		1	1	0	0	99	99	4	1	NB	EB	3	
13-24766	131028 1215	SCOTTSDALE	RD	COCHISE	RD	S	195	1	1	0	0	7	1	5	1	SB	SB	6	
13-27798	131203 1706	SCOTTSDALE	RD	COCHISE	RD	AT		1	1	0	0	2	1	1	3	NB	NB	4	
14-00744	140110 1403	SCOTTSDALE	RD	COCHISE	RD	N	195	99	1	99	0	2	1	99	2	NB	NB	4	MULTI VEH 3, HIT AND RUN
14-06459	140320 1717	SCOTTSDALE	RD	COCHISE	RD	N	200	3	1	0	0	97	97	4	1	SB	NB	2	
14-20119	140918 0958	SCOTTSDALE	RD	COCHISE	RD	N	189	3		0		2		1		SB		1	
14-15378	140716 1331	SCOTTSDALE	RD	COCHISE	RD	S	150	1	1	0	0	97	1	97	1	WB	SB	2	
13-06558	130320 1845	SCOTTSDALE	RD	COCHISE	RD	AT		99	1	99	0	13	1	13	14	NB	99	8	HIT AND RUN
14-17217	140810 1044	SCOTTSDALE	RD	COCHISE	RD	S	225	2	3	0	0	97	1	4	1	NB	SB	3	

REPORT #	DATE TIME YYMMDD HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV #1 #2	PHYS. COND. #1 #2	VIOLATION #1 #2	ACTION #1 #2	TRAV. DIR. #1 #2	MANNER OF COLLISION	COMMENTS
14-15851	140723 1125	SCOTTSDALE	RD	COCHISE	RD	AT		1 1	0 0	97 1	10 3	WB EB	4	
14-12427	140605 1720	SCOTTSDALE	RD	COCHISE	RD	N	200	1 1	0 0	7 1	4 1	EB NB	3	
14-03751	140215 1039	SCOTTSDALE	RD	COCHISE	RD	S	227	3 1	0 0	97 1	4 1	NB SB	3	
13-12090	130524 1624	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 4	0 0	7 1	6 1	SB WB	2	
13-19225	130823 0746	SCOTTSDALE	RD	GOLD DUST	AV	AT		2 2	0 0	6 1	1 4	SB NB	3	
13-01768	130124 1026	SCOTTSDALE	RD	GOLD DUST	AV	S	175	1 1	0 0	2 1	1 3	SB NB	2	MULTI VEH 3
13-16236	130717 1328	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	2 1	1 3	NB NB	4	
13-07785	130404 1626	SCOTTSDALE	RD	GOLD DUST	AV	AT		99 1	99 0	2 1	1 3	SB SB	4	HIT AND RUN
13-07779	130404 1424	SCOTTSDALE	RD	GOLD DUST	AV	N	101	1 1	0 0	97 1	1 1	WB SB	2	
13-04901	130301 1458	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 2	0 0	2 1	1 3	NB NB	4	
13-06237	130317 0057	SCOTTSDALE	RD	GOLD DUST	AV	N	154	1	4	2	1	NB	1	DUI
13-08323	130411 1222	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	6 1	1 1	NB WB	2	
13-17759	130804 2021	SCOTTSDALE	RD	GOLD DUST	AV	AT		1	4	8	1	NB	1	DUI
14-04773	140228 1427	SCOTTSDALE	RD	GOLD DUST	AV	AT		3 3	0 0	6 1	1 1	NB WB	2	MULTI VEH 3
14-27059	141216 0959	SCOTTSDALE	RD	GOLD DUST	AV	N	1000	1 1	0 0	1	1 1	EB NB	97	
14-24469	141112 1636	SCOTTSDALE	RD	GOLD DUST	AV	N	446	1 99	0 0	2 1	1 3	NB NB	4	MULTI VEH 3
14-22152	141014 1732	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	7 1	4 1	SB NB	3	
14-21206	141002 1307	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 2	0 0	2 1	1 3	WB WB	4	
14-17425	140813 1404	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 2	0 0	6 1	1 1	NB WB	2	MULTI VEH 3
14-15452	140717 1552	SCOTTSDALE	RD	GOLD DUST	AV	S	600	1 1	0 0	1	1 3	NB NB	4	
14-12473	140606 0839	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	2 1	1 3	SB SB	4	MULTI VEH 3
13-27840	131204 0901	SCOTTSDALE	RD	GOLD DUST	AV	W	300	1 1	0 0	97 1	1 1	SB EB	2	
14-05168	140305 1409	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	12 1	1 1	SB SB		
13-23399	131012 0958	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	6 1	1 1	NB EB	2	
14-03778	140215 1913	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	99 99	4 1	SB NB	3	

REPORT #	DATE TIME YYMMDD HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV. #1 #2	PHYS. COND. #1 #2	VIOLATION #1 #2	ACTION #1 #2	TRAV. DIR. #1 #2	MANNER OF COLLISION	COMMENTS
14-27339	141219 1115	SCOTTSDALE	RD	GOLD DUST	AV	S	745	1 2	0 0	7 1	5 1	SB SB	4	
14-00128	140102 1700	SCOTTSDALE	RD	GOLD DUST	AV	AT		99 1	99 0	3 1	8 3	NB NB	6	
13-00162	130103 0046	SCOTTSDALE	RD	GOLD DUST	AV	N	300	4	4	8	8	NB	1	DUI
13-27542	131130 1640	SCOTTSDALE	RD	GOLD DUST	AV	N	415	1 1	0 0	16 1	4 1	WB SB	2	
13-25113	131101 1246	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	99 99	5 17	NB SB	2	MULTI VEH 3- CAR/PEDESTRIAN
13-24508	131025 0918	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	2 1	2 3	NB NB	4	
14-10141	140505 0605	SCOTTSDALE	RD	GOLD DUST	AV	W	143	4	5	13	1	WB	1	DUI

KEY

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

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

VIOLATION: 1=NO IMPROPER ACTION, 2=SPEED TOO FAST FOR CONDITIONS, 3=EXCEEDED LAWFUL SPEED 4=FOLLOWED TOO CLOSELY. 5=RAN STOP SIGN, 6=DISREGARDED TRAFFIC SIGNAL 7=MADE IMPROPER TURN, 8=DROVE/RODE IN OPPOSING TRAFFIC LANE, 9=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 10=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 11=PASSED IN NO PASSING ZONE, 12=UNSAFE LANE CHANGE, 13=FAILED TO KEEP IN PROPER LANE, 14=DISREGARDED PAVEMENT MARKINGS, 15=OTHER UNSAFE PASSING, 16=INATTENTION/DISTRACTION, 17=DID NOT USE CROSSWALK, 18=WALKED ON WRONG SIDE OF ROAD, 19=ELECTRONIC COMMUNICATIONS DEVICE, 20=FAILED TO YIELD RIGHT OF WAY (added August 2014), 97=OTHER, 99 UNKNOWN

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

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

TOTAL 54

CITY OF SCOTTSDALE

'15 -'16 COLLISION SUMMARY

REPORT #	DATE TIME YYMMDD HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV #1 #2	PHYS. COND. #1 #2	VIOLATION #1 #2	ACTION #1 #2	TRAV. DIR. #1 #2	MANNER OF COLLISION	COMMENTS
15-18021	150817 1200	70	ST	GOLD DUST	AV	AT		2 1	0 0	7 1	6 1	SB NB		3
15-10218	150503 0133	70	ST	GOLD DUST	AV	AT		1	0 0	1	10 14	NB		8
15-11554	150520 2109	70	ST	GOLD DUST	AV	AT		1 1	0 0	99 99	1 1	WB SB		2
16-08622	160412 1719	70	ST	GOLD DUST	AV	AT		1 1	0 0	20 1	4 1	NB SB		5
15-06988	150325 1736	73	ST	GOLD DUST	AV	AT		1 2	0 0	97 1	1 1	SB EB		2
15-16641	150729 1803	SCOTTSDALE	RD	COCHISE	RD	AT		1 1	0 0	1	1 3	NB NB		4
15-18788	150827 1705	SCOTTSDALE	RD	COCHISE	RD	N	175	1 1	0 0	1	4 1	WB NB		2
15-27940	151221 1745	SCOTTSDALE	RD	COCHISE	RD	AT		1 1	0 0	12 1	8 1	NB NB		6
16-04318	160222 1002	SCOTTSDALE	RD	COCHISE	RD	AT		1 1	0 0	20 1	97 1	SB SB		2
16-12345	160528 2107	SCOTTSDALE	RD	COCHISE	RD	N	243	1 1	0 0	20 1	4 1	WB SB		3
15-16983	150803 0714	SCOTTSDALE	RD	GOLD DUST	BL	AT		1 1	0 0	6 1	1 1	NB WB		2
15-03276	150207 1901	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	7 1	4 1	EB WB		3
15-04265	150220 1425	SCOTTSDALE	RD	GOLD DUST	AV	N	480	1 1	0 0	20 1	4 1	WB NB		2
15-05116	50303 0756	SCOTTSDALE	RD	GOLD DUST	AV	AT		2 1	0 0	2 1	1 3	SB SB		4 MULTI VEH 3
15-05311	150305 1455	SCOTTSDALE	RD	GOLD DUST	AV	W	335	1 1	0 0	20 1	1 1	NB EB		2
15-06983	150325 1620	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 2	0 0	4 1	1 2	NB NB		4
16-12138	160526 0831	SCOTTSDALE	RD	GOLD DUST	AV	W	332	1 3	0 0	20 1	1 1	NB WB		2
15-07710	150403 1049	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 2	0 0	2 1	1 3	NB NB		4
15-18296	150821 0845	SCOTTSDALE	RD	GOLD DUST	AV	AT		2 1	0 0	2 1	1 3	NB NB		4
16-06654	160320 1423	SCOTTSDALE	RD	GOLD DUST	AV	AT		99 3	99 0	2 1	1 3	NB NB		4 HIT AND RUN
16-04011	160218 1452	SCOTTSDALE	RD	GOLD DUST	AV	AT		99 3	99 0	20 1	5 17	EB NB		97 CAR/PEDESTRIAN, HIT AND RUN
15-01840	150123 1517	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0	2 1	2 3	NB NB		4

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								#1	#2	#1	#2	#1	#2	#1	#2	#1	#2		
16-05075	160301 1726	SCOTTSDALE	RD	GOLD DUST	AV	AT		99	99	99	99	1	1	3	3	NB	NB	4	HIT AND RUN
16-12328	160528 1726	SCOTTSDALE	RD	GOLD DUST	AV	AT		1	1	0	0	6	1	17	5	WB	NB	2	CAR/BICYCLE
15-22368	151014 1116	SCOTTSDALE	RD	GOLD DUST	AV	AT		1	1	0	0	6	1	1	4	NB	SB	2	
15-23948	151103 0727	SCOTTSDALE	RD	GOLD DUST	AV	AT		1	1	0	0	20	1	4	1	NB	WB	3	
16-00782	160110 1638	SCOTTSDALE	RD	GOLD DUST	AV	AT		1	1	0	0	2	1	2	3	NB	NB	4	
16-10356	160504 1427	SCOTTSDALE	RD	GOLD DUST	AV	N	465	1	1	0	0	20	1	4	1	NB	NB	2	
15-17326	150807 1752	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	588	2	1	0	0	20	1	1	1	WB	SB	2	

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