Terry O. Brown P.E.

X-Ray New Mexico
5900 Jefferson St., N.E.- Albuquerque, NM

FINAL
Traffic Impact Study

October 5, 2021

HT#E17D011
Received 10/12/2021

Presented to:

Matthew Grush, P.E.
Transportation Development Section
Plaza del Sol Building
600 Second St., NW
City of Albuquerque

Prepared for:

Jeff Jesionowski
Aim Management Corp.
9751 Carmel Ave., N.E.
Albuquerque, NM 87122

TERRY O. BROWN
NEW MEXICO
6407
LICENSED PROFESSIONAL ENGINEER

Terry O. Brown P.E.
P.O. Box 92051
Albuquerque, NM 87199
505 · 883 · 8807

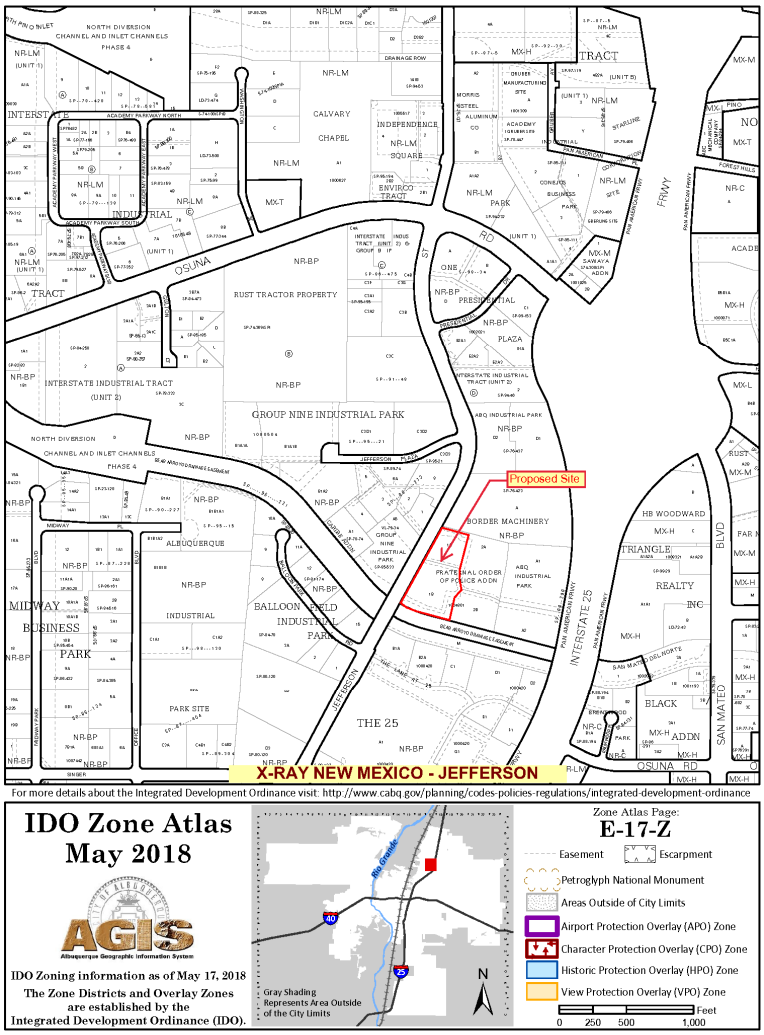
X-RAY New Mexico
5900 Jefferson St., N.E., Albuquerque, NM
Traffic Impact Study

Executive Summary

The purpose of this Traffic Impact Study (TIS) is to evaluate the transportation conditions before and after implementation of the proposed X-RAY New Mexico medical office/warehouse to determine the impact of the development on the adjacent transportation system and recommend mitigation measures where necessary. This study is prepared in accordance with the requirements of the City of Albuquerque, NM. The scoping summary for this TIS is in Appendix page A-49 thru A-51.

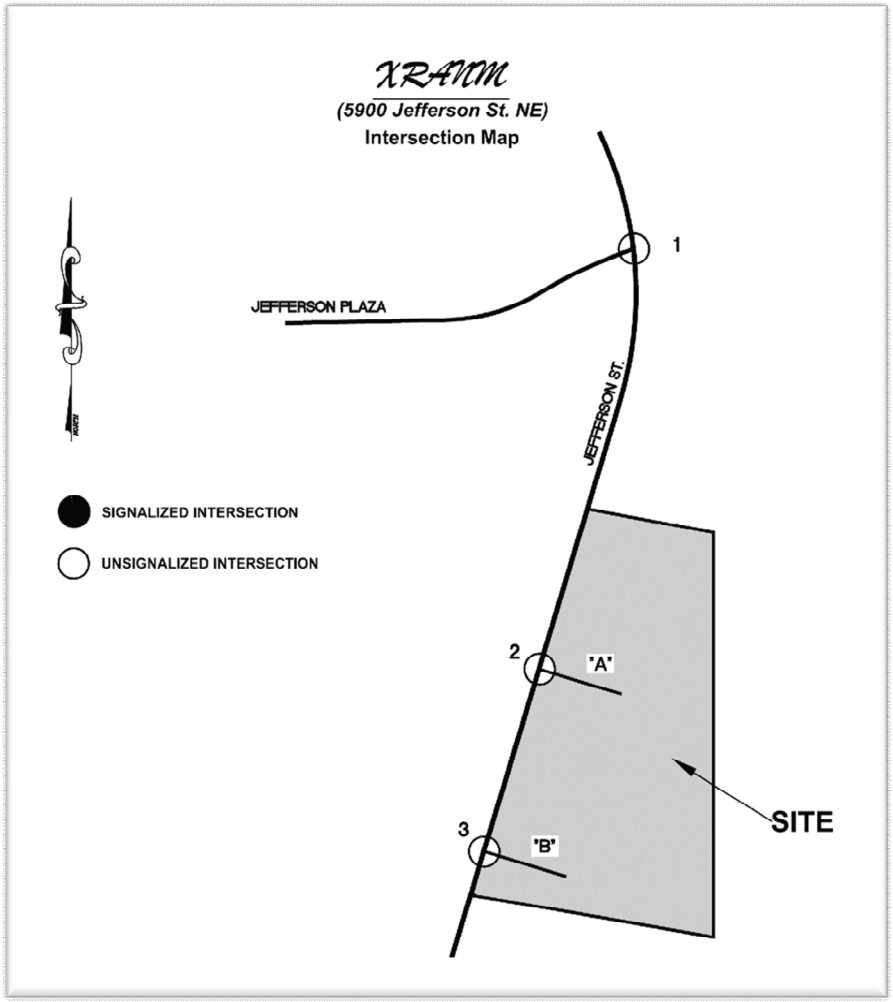
Site Location and Study Area

The proposed X-RAY New Mexico is to be located at the northwest corner of 5900 Jefferson St., N.E.in the City of Albuquerque, NM. See vicinity map below.



The study area includes the three intersections listed below and shown on the following map:

1. Jefferson Plaza & Jefferson St.(Unsignalized)
2. Driveway 'A' & Jefferson St.(Unsignalized)
3. Driveway 'B' & Jefferson St.(Unsignalized)



Development Description

The proposed project is to be developed as a 14,000 square medical office/warehouse on 4.6-acres of land. The land for the project is currently undeveloped and the study area is mostly developed. See the Site Plan below.

The anticipated implementation year for this project is 2022 and the horizon year is 2032. According to the Institute of Traffic Engineers') trip generation rates for a Medical Office Building (ITE Code 720), Small Office Building (ITE Code 712), and Warehousing (ITE Code 150) for the project is anticipated to generate 92 new entering trips and 26 new exiting trips during the weekday AM Peak Hour period and 43 new entering trips and 111 new exiting trips during the PM Peak Hour period. A pass-by trip rate reduction is not included in the trips generated.

Background traffic volumes were calculated by applying historical annual background traffic growth rates to the existing traffic volumes for the implementation year. **Existing traffic volumes** were collected during August of 2021.

A capacity analysis of the study area intersections was conducted in accordance with the Highway Capacity Manual (HCM6) V.6, for the signalized intersections using McTrans HCS7 (release 7.9.6) HCM modeling software. See Appendix pages A-28 thru A-47. A summary of the analysis results for the 2022 implementation year and 2032 horizon year are included in the following tables:

HCM Results Summary Table

XRANM - Albuquerque, NM

Intersection	Signalization	Movement	Implementation Year -2022											
			NO BUILD						BUILD					
			AM			PM			AM			PM		
			LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)
1 - Jefferson Plaza & Jefferson St.	Unsignalized	EB	C	16.2	0.10	C	17.5	0.50	C	16.3	0.10	C	17.9	0.50
		WB	B	12.6	0.00	C	17.7	0.10	B	12.7	0.00	C	18.5	0.10
		NB	A	9.7	0.10	A	9.8	0.00	A	9.9	0.10	A	9.8	0.00
		SB	A	9	0.00	A	8.9	0.00	A	9.1	0.00	A	9.1	0.00
Intersection LOS -Delay*			C-16.2			C - 17.7			C- 16.3			C - 18.5		
2 - Driveway 'A' & Jefferson St.	Unsignalized	EB	B	14.5	0.10	C	17.1	0.20	C	15.3	0.10	C	17.7	0.3
		WB	0	0	0.00	0	0	0.00	C	17.1	0.20	C	19	1.0
		NB	B	12.6	0.10	B	13.1	0.00	B	12.6	0.10	B	13.1	0.0
		SB	A	9	0.00	A	8.9	0.00	A	9.2	0.10	A	9	0.1
Intersection LOS -Delay*			B-14.5			B-17.1			B - 17.1			B-17.7		
3 - Driveway 'B' & Jefferson St.	Unsignalized	EB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
		WB	0	0	0.00	0	0	0.00	B	10.8	0.00	B	10.7	0.1
		NB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
		SB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
Intersection LOS -Delay*									B - 10.8			B-10.7		

* - Level-of-Service / Delay for an unsignalized intersection are reported based on the turning movement with the worst results.

Intersection	Signalization	Movement	Horizon Year -2032											
			NO BUILD						BUILD					
			Noon			PM			Noon			PM		
			LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)
1 - Jefferson Plaza & Jefferson St.	Unsignalized	EB	C	17.2	0.10	C	18.4	0.60	C	17.3	0.10	C	18.9	0.60
		WB	B	12.9	0.00	C	18.6	0.10	B	13	0.00	C	19.5	0.10
		NB	A	9.9	0.10	A	10	0.00	B	10	0.10	B	10	0.00
		SB	A	9.2	0.00	A	9	0.00	A	9.2	0.00	A	9.2	0.00
Intersection LOS -Delay*			C-17.2			C - 18.6			C- 17.3			C - 19.5		
2 - Driveway 'A' & Jefferson St.	Unsignalized	EB	B	15	0.10	C	18	0.30	C	15.8	0.10	C	18.7	0.3
		WB	0	0	0.00	0	0	0.00	C	17.8	0.20	C	20	1.0
		NB	B	13	0.10	B	13.5	0.00	B	13	0.10	B	13.5	0.0
		SB	A	9.1	0.00	A	9	0.00	A	9.3	0.10	A	9.1	0.1
Intersection LOS -Delay*			B-15.0			B-18.0			C - 17.8			C-18.7		
3 - Driveway 'B' & Jefferson St.	Unsignalized	EB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
		WB	0	0	0.00	0	0	0.00	B	11	0.00	B	10.9	0.1
		NB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
		SB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
Intersection LOS -Delay*									B - 11.0			B-10.9		

* - Level-of-Service / Delay for an unsignalized intersection are reported based on the turning movement with the worst results.

Summary of Impacts and Recommendations

Summary of Impacts

1. Analysis of the intersection of ***Jefferson Plaza & Jefferson St.*** demonstrates that the proposed X-RAY New Mexico will have minimal delays and a LOS=C or better for all movements for the 2022 and 2032 BUILD conditions during the AM and PM peak periods. Therefore, no mitigative measures are recommended.
1. **Driveway A and Driveway B. (Unsignalized)** Analysis of the intersections at Driveway A and Driveway B demonstrates that the proposed X-RAY New Mexico will have minimal adverse impact on the traffic movements at these intersections for the 2022 and 2032 conditions. LOS is acceptable (LOS better than D) for both intersections.
2. **Queueing analysis** shows that queueing capacity is adequate at all intersections in the study area. The **95 % Queue lengths** for all movements are within the capacity of the existing roadways and **Volume to Capacity Ratios (V/C)** are less than 1 indicating no areas of congestion.
3. **Determination of Warrants for Deceleration Lanes** for Driveway A and Jefferson St., N.E. indicate the following:
    a. A southbound left turn deceleration lane on Jefferson St. is warranted at Driveway 'A'. However, there is an existing southbound left turn lane on Jefferson St. at Driveway "A" which exceeds requirements. A northbound right turn deceleration lane is not warranted at Driveway 'A'. However, there is an existing northbound right turn lane on Jefferson St. at Driveway "A".
    b. A northbound right turn deceleration lane is marginally warranted at Driveway "B". However, this Study does not recommend that the northbound right turn lane on Jefferson at Driveway "B" be required due to field constraints described above and due to the nature of the driveway (secondary vs. primary).

In summary, the proposed X-RAY New Mexico will have minimal adverse impact to the adjacent transportation system provided the recommendations above are implemented.

Recommendations

1. Design and construction of the new X-RAY New Mexico shall preserve adequate sight distances to the extent possible.
2. Driveway "A" – Driveway "A" should be designed and constructed as a full access unsignalized driveway with one entering lane and one exiting lane (minimum). The 95th Percentile queue length for westbound exiting traffic at Driveway "A" is one vehicle. Therefore, the throat depth at Driveway "A" should be at least 50 feet long (75 feet preferrable to provide some buffer).
3. Driveway "B" – should be designed and constructed as a right-in, right-out only unsignalized driveway with one entering lane and one exiting lane. The throat depth for Driveway "B" should be at least 50 feet long.

X-RAY New Mexico
5900 Jefferson St., N.E.- Albuquerque, NM
Traffic Impact Study

Table of Contents

Executive Summary i
Site Location and Study Area i
Development Description ii
Summary of Impacts and Recommendations v
Introduction 1
Description of Proposed Development 1
Land Use and Intensity 2
Development Phasing and Timing 2
Existing and Planned Zoning 2
Site Access 2
Study Area Conditions 3
Study Area 3
Existing Land Use 4
Other Planned or Approved Development and Transportation Improvements 4
Existing Roadways 4
Analysis of Existing Conditions 4
Existing Traffic Volumes 4
Level of Service (LOS) 5
Analysis of Implementation Year and Horizon Year Conditions 5
Traffic Projections 5
Background Traffic 5
Assumptions 6
Trip Generation 6
Trip Distribution and Trip Assignments 6
NO BUILD and BUILD Traffic Volumes 10
Traffic Analysis 10
INTERSECTION 1 – Jefferson Plaza & Jefferson St. 11
(Unsignalized, Existing) 11
INTERSECTION 2 – Driveway 'A' & Jefferson St., N.E. 12
(Unsignalized, Proposed, Full Access) 12
INTERSECTION 3 – Driveway 'B' & Jefferson St. 14
(Unsignalized, Proposed) 14
Queuing Analysis 16
Crash Analysis 16
Determination of Warrants for Deceleration Lanes 18
Access Design Specifications 19
Summary of Impacts and Recommendations 19
Summary of Impacts 19
Recommendations 20
APPENDIX 22

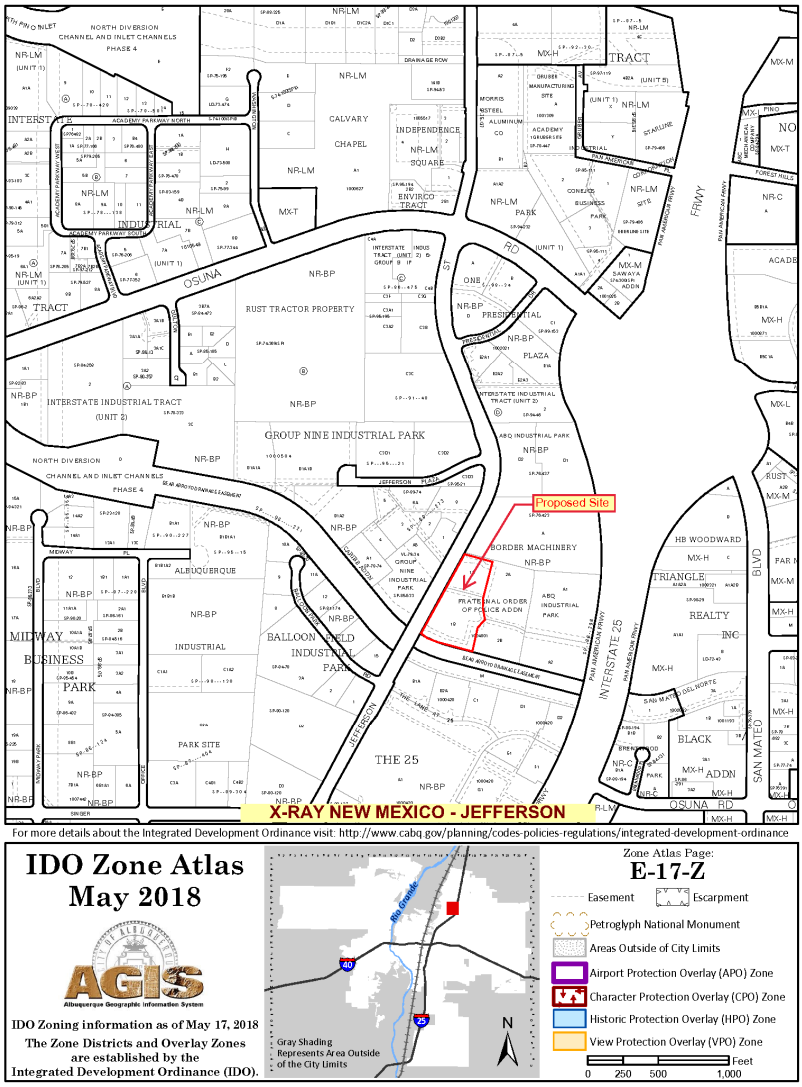
X-RAY New Mexico
5900 Jefferson St., N.E.- Albuquerque, NM
Traffic Impact Study

Introduction

The purpose of this Traffic Impact Study (TIS) is to evaluate the transportation conditions before and after implementation of the proposed X-RAY New Mexico medical office/warehouse to determine the impact of the development on the adjacent transportation system and recommend mitigation measures where necessary. This study is prepared in accordance with the requirements of the City of Albuquerque, NM. The scoping summary for this TIS is in Appendix page A-49 thru A-51.

Description of Proposed Development

The proposed X-RAY New Mexico is to be located at the northwest corner of 5900 Jefferson St., N.E.in the City of Albuquerque, NM. See vicinity map below.



Land Use and Intensity

The proposed development is located at 5900 Jefferson St., N.E., approximately ½ mile south of Paseo del Norte, in the City of Albuquerque, NM. It is to be developed as as a 14,000 square medical office/warehouse on 4.6-acres of land. The land for the project is currently undeveloped and the study area is mostly developed. See the Site Plan below.

Development Phasing and Timing

The development will be built in one phase. The anticipated implementation year for this project is 2022 and the horizon year is 2032.

Existing and Planned Zoning

The site and the adjacent lands are zoned NR-BP (Non-residential, Business Park) as designated on the City of Albuquerque's IDO Zone Look-up Map.

Site Access

Two new access driveways (Driveway 'A' and Driveway 'B') are proposed for the development. Driveway 'A' is to be a full access driveway located 1000-feet south of Jefferson Plaza, N.E. on the east side of Jefferson St., N.E. (centerline to centerline). Driveway 'B' is to be a right-in/right-

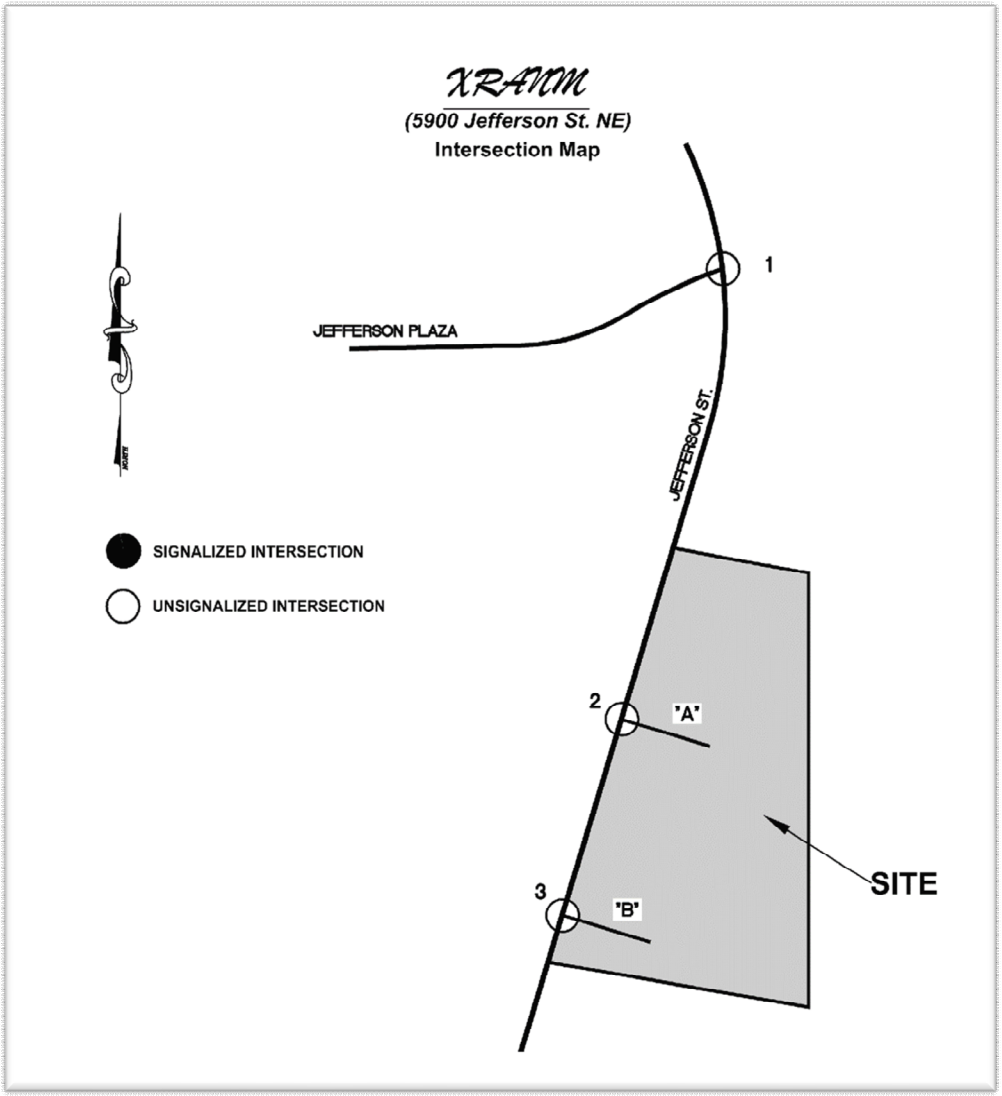
out only driveway located 350-feet south of Driveway 'A' (Centerline to centerline). See the proposed site plan above.

Study Area Conditions

Study Area

A Traffic Impact Study Scoping Meeting was held (online) on August 16, 2021, with City of Albuquerque staff and the consultant team. At the Scoping Meeting, it was determined that the study area for the TIS would include the intersections listed below and shown on the following map:

1. Jefferson Plaza & Jefferson St. (Unsignalized)
2. Driveway 'A' & Jefferson St. (Unsignalized)
3. Driveway 'B' & Jefferson St. (Unsignalized)



Existing Land Use

The land for the project is undeveloped with and the study area is mostly developed with business/professional offices and warehouses.

Other Planned or Approved Development and Transportation Improvements

There are no other major developments or transportation projects planned or approved in the influence area.

Existing Roadways

Jefferson St. is classified as an urban minor arterial roadway on the NMDOT Regional Roadway Functional Class Map. It is a four-lane roadway with a raised divided median with curbs and gutters. The posted speed limit is 35-mph. There are pedestrian facilities along both sides of Jefferson St.

Jefferson Plaza is a local unclassified 2-lane roadway with sidewalks curbs and gutters and no median. The speed limit is 30 mph.

All existing intersections and the Jefferson St. corridor in the study area have adequate **lighting**.

There are existing bike lanes in the study area.

Analysis of Existing Conditions

Existing Traffic Volumes

Base traffic volumes for the intersection of Jefferson Plaza & Jefferson St. were collected in the field on Thursday, August 26, 2021. Through volumes along Jefferson St. are estimated volumes based on AADT data from the Mid-region Council of Governments, Transportation Analysis and Querying Application (TAQA). See Appendix Page A-48 for a table with the AM and PM peak hour traffic volumes on Jefferson St. Existing traffic volumes for the existing eastbound driveway directly west of proposed Driveway 'A" were estimated using the Institute of Traffic Engineers' (ITE) trip generation rates. The existing driveway is used to access a Lazyboy furniture warehouse. The ITE trip generation table for this business is provided below.

XRANM Project (5900 Jefferson St. NE)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

LazyBoy Warehouse West of Driveway "A"

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Warehousing (150)	45.00	117	24	7	9	24
Subtotal		**117**	**24**	**7**	**9**	**24**

Level of Service (LOS)

According to the City of Albuquerque, Design Process Manual (DPM), LOS standards are defined by Access Category. Table 7.5.89 identifies the minimum acceptable LOS standards according to Functional Classification & Roadway Type and City of Albuquerque's ABC Comp Plan Type (see below).

TABLE 7.5.88 **Desired LOS by Location and Corridor Type**

Functional Classification & Roadway Type	ABC Comp Plan Center Type						
	Transit Station Area	Downtown	Urban Center	Activity Center	Village Center	Employment Center	Outside Center
Premium Transit	E-F	E-F	E-F	E-F	E-F	E-F	E-F
Major Transit	E	E-F	E	E	D-E	D-E	D-E
Multi-modal	E	E	E	E	D-E	D-E	D-E
Commuter	E	E	D-E	D-E	D-E	D-E	D
Other Arterial	E	E	E	D-E	D-E	D-E	D
Minor Arterial	E	E	D-E	D-E	D-E	D	D
Collector	E	D-E	D	D	C-D	C-D	C-D

Because Jefferson St. is a Minor Arterial outside of defined center, intersections along the Jefferson St. corridor should have a LOS=D or better or mitigated to maintain the LOS at existing (NO BUILD) condition levels.

Analysis of Implementation Year and Horizon Year Conditions

Traffic Projections

The anticipated implementation year for this project is 2022 and the Horizon Year is 2032. NMDOT AADT data (https://nmdot.public.ms2soft.com/tcds/tsearch.asp?loc=Nmdot) (from 2011 to 2019 was used to determine the historical growth rates along Jefferson St. The calculated **growth rate** at the intersections is negative 0.5% for the Implementation Year and Horizon Year, however, a positive growth rate of 0.5% is used in the analysis to account for possible future growth. See Appendix A-8 for the Historic Growth Rate Graph.

Background Traffic

Background traffic volumes were calculated by applying historical annual background traffic growth rates to the existing traffic volumes for the implementation year.

Assumptions

The following assumptions as agreed upon in the project scoping meeting and included in the scope of work were made in preparation of this study.

1. There are no major developments or transportation projects in the influence area that would affect the results of the analysis in this TIS.
2. Trip Generation volumes are based on site plan provided by the developer or developer's representative (square footage of building proposed and other land uses on site as defined on site plan.)
3. Traffic count data (i.e., AM and PM Peak Hour turning movements demand volumes) is representative of pre-COVID 19 traffic conditions and therefore are not adjusted to account for any changes in traffic conditions due to the COVID 19 shutdowns.
4. Trip Distribution and Trip Assignments of the newly generated traffic are based on interpolated 2012 and 2040 Socioeconomic Forecasts by Data Analysis Subzones (DASZ) for the Mid-Region of New Mexico as published by the Mid-Region Council of Government's (MRCOG).
5. Only AM and PM Peak analysis is performed.

Trip Generation

According to the Institute of Traffic Engineers' (ITE) trip generation rates, the project is anticipated to generate 92 new entering trips and 26 new exiting trips (118 trips total) during the weekday AM Peak Hour period and 43 new entering trips and 111 new exiting trips (154 trips total) during the PM Peak Hour period. A pass-by trip rate reduction is not included in the trips generated. See the Trip Generation Data Table below and the detailed trip generation data sheets for each land use in Appendix pages A-5 thru A-7.

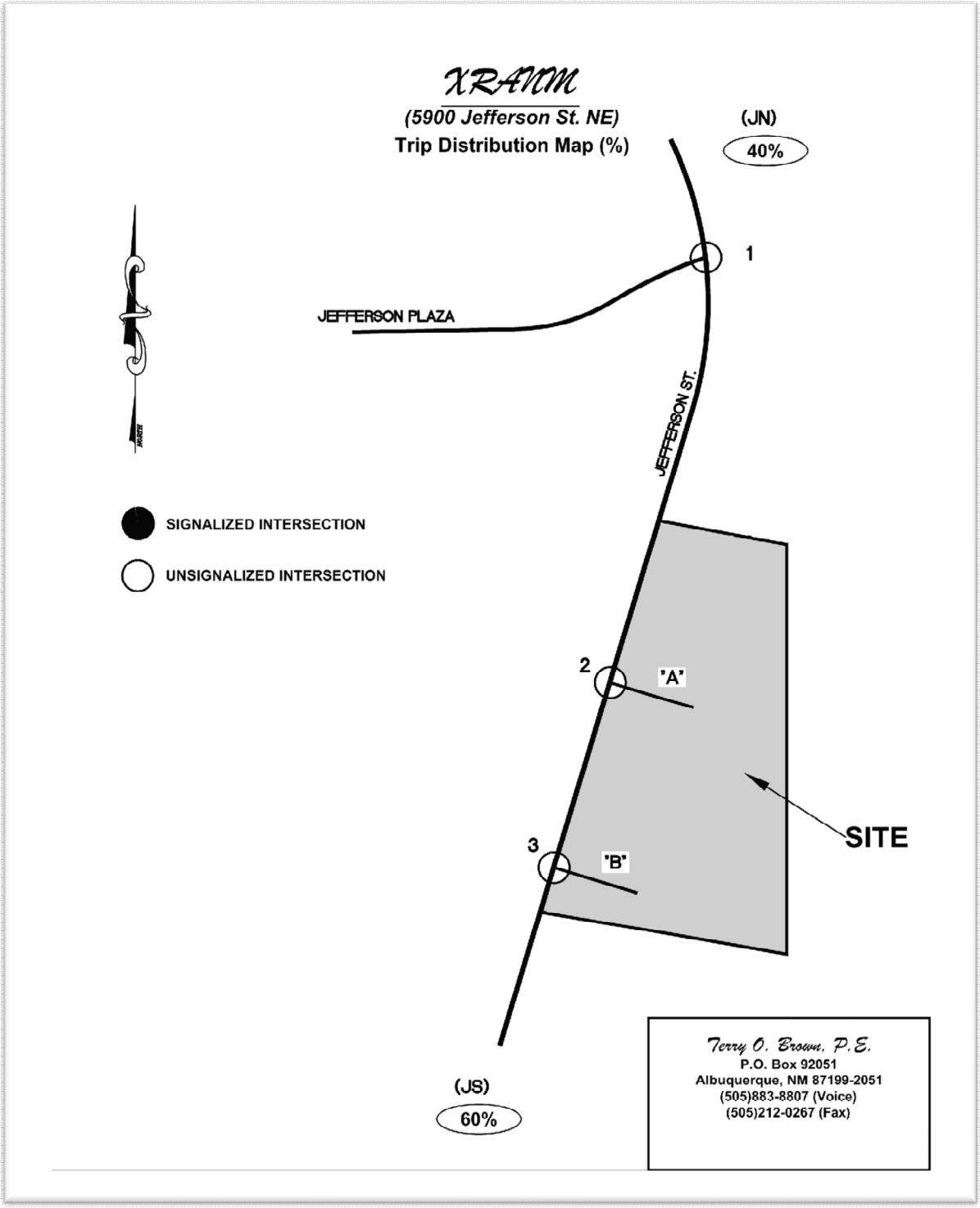
XRANM Project (5900 Jefferson St. NE)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

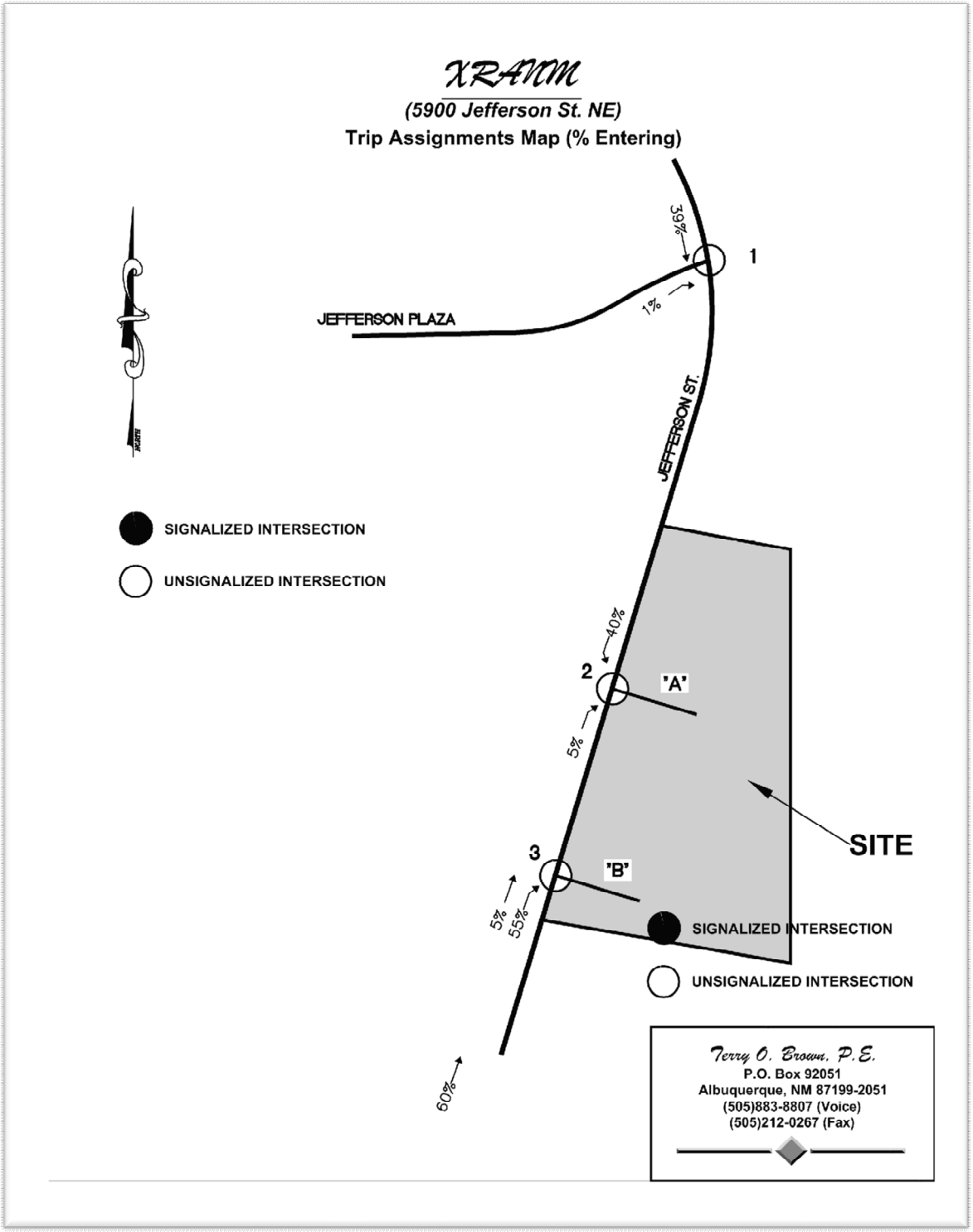
USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Medical-Dental Office Building (720)	34.16	1,225	67	19	33	85
Small Office Building (712)	2.80	45	4	1	2	5
Warehousing (150)	11.20	63	21	6	8	21
Subtotal		**1,333**	**92**	**26**	**43**	**111**
	TOTAL		**118 AM Peak Hr. Trips**		**154 PM Peak Hr. Trips**	

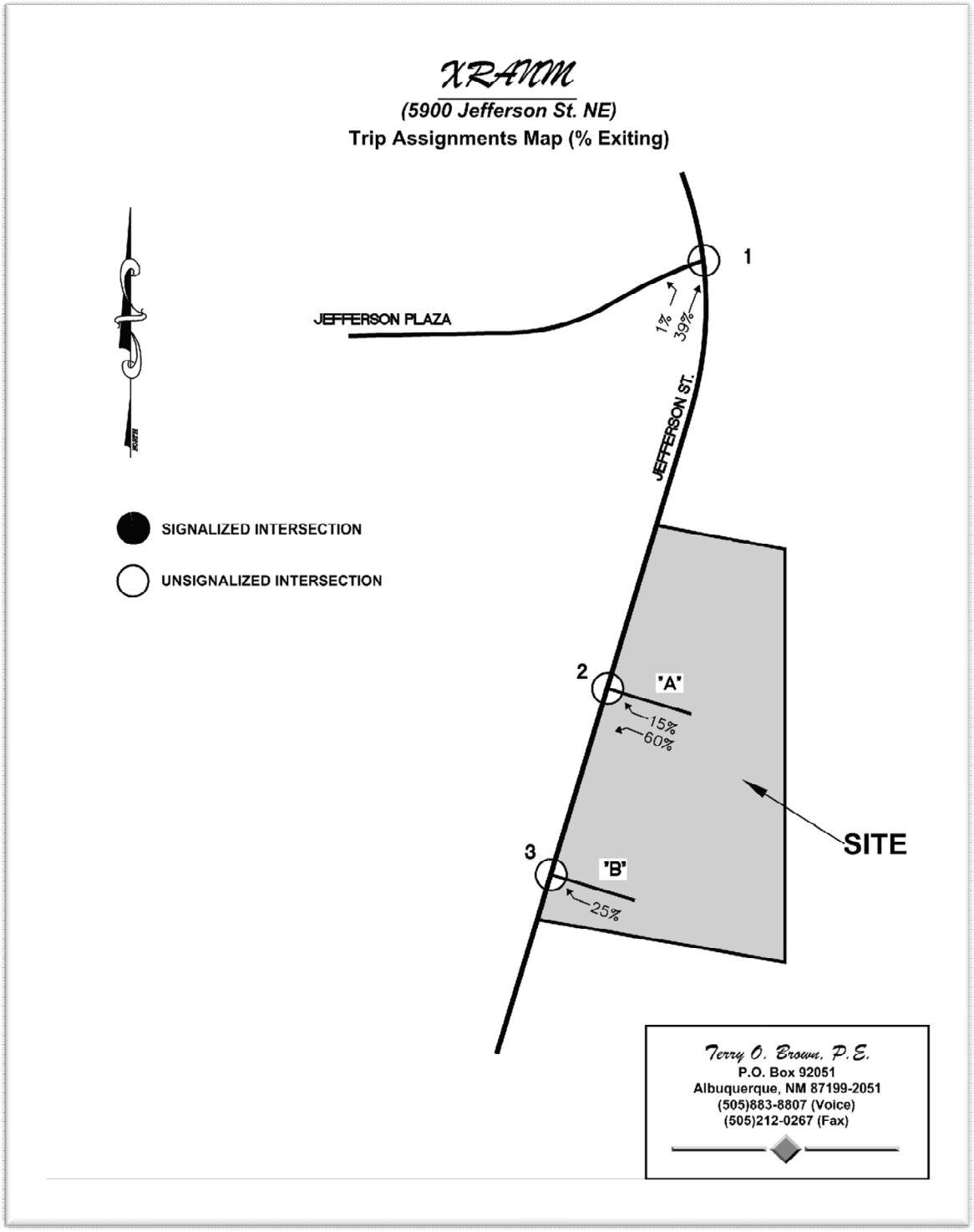
Trip Distribution and Trip Assignments

The commercial Trip Distribution map can be found below. See the DASZ data tables used to calculate the percentile distribution in Appendix on Page A-10.



Trip assignments percentages for vehicles entering and exiting are derived from data established in the trip distribution determination process and logical routing. See the turning movement maps below for the distribution of entering and exiting traffic volumes.


XRANM
(5900 Jefferson St. NE)
Trip Assignments Map (% Entering)
30%
1
1%
JEFFERSON PLAZA
JEFFERSON ST.
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION
40%
2
"A"
5%
SITE
3
"B"
5%
55%
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION
60%
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)


XRANM
(5900 Jefferson St. NE)
Trip Assignments Map (% Exiting)
JEFFERSON PLAZA
1
1%
39%
JEFFERSON ST.
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION
2
"A"
15%
60%
SITE
3
"B"
25%
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

NO BUILD and BUILD Traffic Volumes

NO BUILD volumes were generated by adjusting the existing volumes with the background traffic growth. BUILD volumes were calculated by increasing the NO BUILD volumes by the trips generated by the project. The trip assignment percentages were used to distribute the trips generated to the individual traffic movements at each intersection. The turning movement counts for the **2022 and 2032 AM and PM Peak Hour Demand, NO BUILD, and BUILD** conditions for each movement in each intersection the study area are provided in the Appendix on Pages A-14 thru A-27.

Traffic Analysis

The Highway Capacity Manual, 6th Edition defines signalized and unsignalized intersection levels-of-service (LOS) based on the calculated average control delay of a turning movement, lane group, or overall intersection. The thresholds for various levels-of-service are summarized in the following tables:

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 20	B
> 20 and ≤ 35	C
> 35 and ≤ 55	D
> 55 and ≤ 80	E
> 80	F

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	F

A Level-of-Service D or better is an acceptable parameter in urban areas for design purposes. A capacity analysis was conducted in accordance with the HCM6 for the unsignalized intersections using McTrans HCS7 (release 7.9.6) HCM modeling software. The results of the analysis for the intersections in the study area are summarized in the tables the Executive Summary and detailed in the following sections.

INTERSECTION 1 – Jefferson Plaza & Jefferson St.

(Unsignalized, Existing)

The following table summarizes the 2022 Implementation Year and 2032 Horizon Year analysis results for the signalized intersection of Jefferson Plaza & Jefferson St. See Appendix pages A-28 thru A-31 for 2022 detailed peak hour HCS7 reports. See Appendix pages A-38 thru A-41 for 2032 HCS7 reports.

Intersection	Signalization	Movement	Implementation Year -2022											
			NO BUILD						BUILD					
			AM			PM			AM			PM		
			LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)
1 - Jefferson Plaza & Jefferson St.	Unsignalized	EB	C	16.2	0.10	C	17.5	0.50	C	16.3	0.10	C	17.9	0.50
		WB	B	12.6	0.00	C	17.7	0.10	B	12.7	0.00	C	18.5	0.10
		NB	A	9.7	0.10	A	9.8	0.00	A	9.9	0.10	A	9.8	0.00
		SB	A	9	0.00	A	8.9	0.00	A	9.1	0.00	A	9.1	0.00
Intersection LOS -Delay*			C-16.2			C - 17.7			C- 16.3			C - 18.5		

Intersection	Signalization	Movement	Horizon Year -2032											
			NO BUILD						BUILD					
			Noon			PM			Noon			PM		
			LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)
1 - Jefferson Plaza & Jefferson St.	Unsignalized	EB	C	17.2	0.10	C	18.4	0.60	C	17.3	0.10	C	18.9	0.60
		WB	B	12.9	0.00	C	18.6	0.10	B	13	0.00	C	19.5	0.10
		NB	A	9.9	0.10	A	10	0.00	B	10	0.10	B	10	0.00
		SB	A	9.2	0.00	A	9	0.00	A	9.2	0.00	A	9.2	0.00
Intersection LOS -Delay*			C-17.2			C - 18.6			C- 17.3			C - 19.5		

Analysis of the intersection of Jefferson Plaza & Jefferson St. demonstrates that the proposed X-RAY New Mexico will have no impact on the LOS and minimal impact on delays for the 2022 and 2032 BUILD condition during the AM and PM peak period. Delays become worse by less than 1 seconds per vehicle and LOS remains at C or better for all movements in the intersection. Therefore, no mitigative measures are recommended.

<u>INTERSECTION 2 – Driveway 'A' & Jefferson St., N.E.</u>

(Unsignalized, Proposed, Full Access)

The following table summarizes the 2022 Implementation Year and 2032 Horizon Year analysis results for the signalized intersection of Jefferson St. & Driveway A. See Appendix pages A-32 thru A-35 for 2022 detailed peak hour HCS7 reports. See Appendix pages A-42 thru A-45 for 2032 HCS7 reports.

HCM Results Summary Table

XRANM - Albuquerque, NM

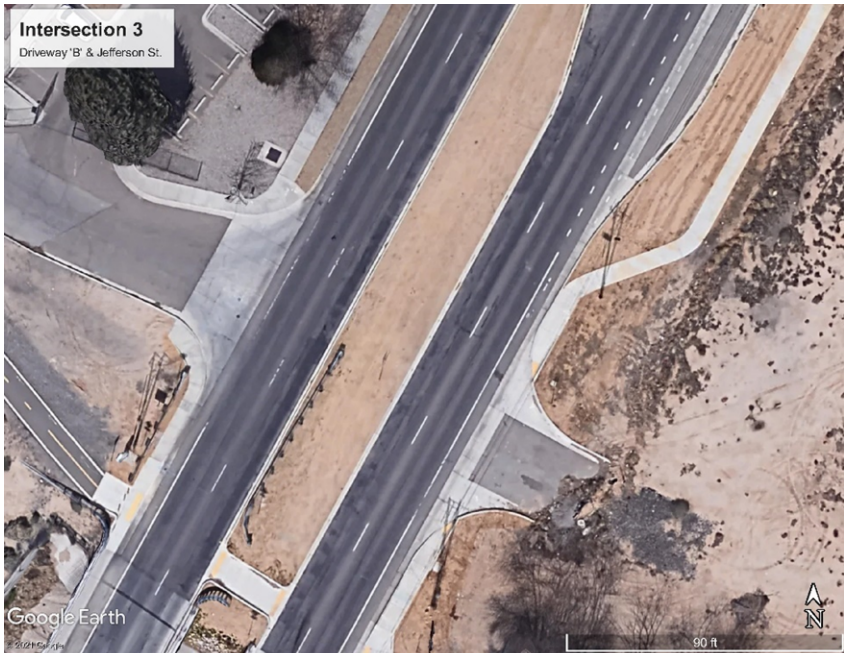
Intersection	Signalization	Movement	Implementation Year -2022											
			NO BUILD						BUILD					
			AM			PM			AM			PM		
			LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)
2 - Driveway 'A' & Jefferson St.	Unsignalized	EB	B	14.5	0.10	C	17.1	0.20	C	15.3	0.10	C	17.7	0.3
		WB	0	0	0.00	0	0	0.00	C	17.1	0.20	C	19	1.0
		NB	B	12.6	0.10	B	13.1	0.00	B	12.6	0.10	B	13.1	0.0
		SB	A	9	0.00	A	8.9	0.00	A	9.2	0.10	A	9	0.1
Intersection LOS -Delay*			B-14.5			B-17.1			B - 17.1			B-17.7		

Intersection	Signalization	Movement	Horizon Year -2032											
			NO BUILD						BUILD					
			Noon			PM			Noon			PM		
			LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)
2 - Driveway 'A' & Jefferson St.	Unsignalized	EB	B	15	0.10	C	18	0.30	C	15.8	0.10	C	18.7	0.3
		WB	0	0	0.00	0	0	0.00	C	17.8	0.20	C	20	1.0
		NB	B	13	0.10	B	13.5	0.00	B	13	0.10	B	13.5	0.0
		SB	A	9.1	0.00	A	9	0.00	A	9.3	0.10	A	9.1	0.1
Intersection LOS -Delay*			B-15.0			B-18.0			C - 17.8			C-18.7		

Analysis of the intersection of Driveway 'A' & Jefferson St. demonstrates that the proposed X-RAY New Mexico will have minimal adverse impact on the traffic movements at this intersection for the 2022 and 2032 conditions. The LOS remains the same and delays become worse by less than 1 second per vehicle for all existing movements (EB, NB, SB) for the 2022 and 2032 NO BUILD and BUILD conditions. And the proposed driveway (WB movement) has a LOS=C for all BUILD conditions. Therefore, no mitigative measures are proposed for this intersection.

<u>INTERSECTION 3 – Driveway 'B' & Jefferson St.</u>

(Unsignalized, Proposed)



The following table summarizes the 2022 Implementation Year and 2032 Horizon Year analysis results for the unsignalized intersection of Driveway 'B' & Jefferson St. See Appendix pages A-36 thru A-37 for detailed peak hour HCS7 reports. See Appendix pages A-45 thru A-47 for 2032 HCS7 reports.

HCM Results Summary Table

XRANM - Albuquerque, NM

Intersection	Signalization	Movement	Implementation Year -2022											
			NO BUILD						BUILD					
			AM			PM			AM			PM		
			LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)
3 - Driveway 'B' & Jefferson St.	Unsignalized	EB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
		WB	0	0	0.00	0	0	0.00	B	10.8	0.00	B	10.7	0.1
		NB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
		SB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
Intersection LOS -Delay*									B - 10.8			B-10.7		

Intersection	Signalization	Movement	Horizon Year -2032											
			NO BUILD						BUILD					
			Noon			PM			Noon			PM		
			LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)	LOS	Delay	95th % Queue (vehicles)
3 - Driveway 'B' & Jefferson St.	Unsignalized	EB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
		WB	0	0	0.00	0	0	0.00	B	11	0.00	B	10.9	0.1
		NB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
		SB	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.0
Intersection LOS -Delay*									B - 11.0			B-10.9		

Analysis of the intersection of Driveway 'B' & Jefferson St. demonstrates that the proposed X-RAY New Mexico will have minimal adverse impact on the traffic movements at this intersection for the 2022 and 2032 conditions. The LOS remains the same and delays become worse by less than 1 second per vehicle for all existing movements (EB, NB, SB) for the 2022 and 2032 NO BUILD and BUILD conditions. And the proposed driveway (WB movement) has a LOS=C for all BUILD conditions. Therefore, no mitigative measures are proposed for this intersection.

Queuing Analysis

Queueing analysis shows that queueing capacity is adequate at all intersections in the study area. The **95 % Queue lengths** for all movements are within the capacity of the existing roadways and **Volume to Capacity Ratios (V/C)** are less than 1 indicating no areas of congestion. See HCS7 reports in Appendix Pages A- thru A-.

Crash Analysis

Crash data on Jefferson St. from I-25 to Jefferson Plaza Dr. was collected for this Study beginning on January 1, 2015 and extending through December 31, 2019 (a five-year period of time). The crash data was derived from the New Mexico Department of Transportation's Safety Bureau Records which collects all reported crash data in the State of New Mexico.

There were 10 recorded crashes in the study area for the five-year study period. The number of crashes over the past five years in the study area is so low that, rather than classifying the crashes at each intersection and along the link between intersections, this Study will summarize all crashes in the study area. The average crash rate in the study area is 2 crashes per year. The following tables summarize the types of crashes in the study area:

Crash Data Summary Table:

Intersection: Study Area (Jefferson St. From I-25 to Jefferson Plaza)

Year: 2015

Severity	Driver Inattention	Failure to Yield Right of Way	Following Too Closely	Disregarded Traffic Signal	Made Improper Turn	Improper Overtaking	Other / None	Alchohol	SUBTOTAL
PDO	0	1	0	0	0	0	1	0	**2**
Injury	0	0	1	0	0	0	0	0	**1**
Fatality	0	0	0	0	0	0	0	0	**0**
Subtotal	0	1	1	0	0	0	1	0	**3**

Year: 2016

Severity	Driver Inattention	Failure to Yield Right of Way	Following Too Closely	Disregarded Traffic Signal	Made Improper Turn	Improper Overtaking	Other / None	Alchohol	SUBTOTAL
PDO	1	0	1	0	0	0	0	0	**2**
Injury	1	0	0	0	0	0	0	0	**1**
Fatality	0	0	0	0	0	0	0	0	**0**
Subtotal	2	0	1	0	0	0	0	0	**3**

Year: 2017

Severity	Driver Inattention	Failure to Yield Right of Way	Following Too Closely	Disregarded Traffic Signal	Made Improper Turn	Improper Overtaking	Other / None	Alchohol	SUBTOTAL
PDO	0	0	0	0	0	0	0	0	**0**
Injury	0	1	0	0	0	0	1	0	**2**
Fatality	0	0	0	0	0	0	0	0	**0**
Subtotal	0	1	0	0	0	0	1	0	**2**

Year: 2018

Severity	Driver Inattention	Failure to Yield Right of Way	Following Too Closely	Disregarded Traffic Signal	Made Improper Turn	Improper Overtaking	Other / None	Alchohol	SUBTOTAL
PDO	0	1	0	0	0	0	0	0	**1**
Injury	0	0	0	0	0	0	0	0	**0**
Fatality	0	0	0	0	0	0	0	0	**0**
Subtotal	0	1	0	0	0	0	0	0	**1**

Year: 2019

Severity	Driver Inattention	Failure to Yield Right of Way	Following Too Closely	Disregarded Traffic Signal	Made Improper Turn	Improper Overtaking	Other / None	Alchohol	SUBTOTAL
PDO	0	0	0	0	0	0	1	0	**1**
Injury	0	0	0	0	0	0	0	0	**0**
Fatality	0	0	0	0	0	0	0	0	**0**
Subtotal	0	0	0	0	0	0	1	0	**1**

The crash analysis demonstrates that this is a low crash area and there are no patterns in the crashes that have occurred over that past five years that would suggest corrective measures that would reduce the crash rates. Therefore, no recommendation is made based on crash data.

Determination of Warrants for Deceleration Lanes

Determination of Warrants for Deceleration Lanes for Driveway A and Jefferson St. were conducted in accordance with the City of Albuquerque Development Process Manual (DPM) Criteria. The following table defines the City's warrant criteria for right and left turn lanes at driveways:

TABLE 7.4.67 **Turn Lane Warrants**			
Left Turn		**Right Turn**	
Design Speed (MPH)	**Turning Volume per Hour**	**Design Speed (MPH)**	**Turning Volume per Hour**
25	50	25	60
30-40	40	30-40	50
45	30	45	45

Determination of Warrants for Deceleration Lanes for Driveway 'A' and Driveway 'B' indicate the following (See Auxiliary Lane Warrant Analyses on Appendix Pages A-52 thru A-53):

- A southbound left turn lane on Jefferson St. at Driveway "A" is not warranted based on City of Albuquerque DPM criteria in Bael 7.4.67. However, a southbound left turn lane on Jefferson St. at Driveway "A" exists and it approximately 275 feet long (including transition).
- A northbound right turn deceleration lane is not warranted at Driveway 'A'. However, a 200 feet long right turn deceleration lane exists on Jefferson St. at Driveway "A".
- A 250-feet long (including taper) northbound right turn deceleration lane is marginally warranted at Driveway "B". However, there is not sufficient room to construct a northbound right turn deceleration lane due to the presences of an existing drainage channel approximately 40 feet south of the driveway. Therefore, no recommendation is made.
- Since Driveway 'B' is a right-in/right-out only access, a southbound left-turn lane is not required.

Jefferson St. in the study area is posted at 35 MPH. Based on Albuquerque DPM Table 7.4.67 (above), the warrant volume for a right turn lane is 50 vehicles per hour. Based on this Study, it is assumed that about 90% of the northbound traffic on Jefferson St. will turn right into Driveway "B" to access the new project. This 90% assumption results in 51 vehicles per hour turning right into Driveway "B". The 51-vehicle projected peak hour volume is marginally over the threshold for a right turn lane. Since Driveway "B" is a secondary driveway and Driveway "A" is the primary driveway with an existing northbound right turn deceleration lane, then it is likely that a slightly

higher volume of the northbound traffic would opt to use the main driveway (Driveway "A"), thus reducing the right turn volume at Driveway "B" to below the threshold. It will only require a reduction of two vehicles per hour at Driveway "B" for it to fall below the threshold. Therefore, this Study suggests that the existing northbound right turn lane on Jefferson at Driveway "A" along with the fact that Driveway "A" will be perceived as the primary access will cause at least a few northbound vehicles to bypass Driveway "B" and opt to turn right at Driveway "A". Therefore, this Study does not recommend that the northbound right turn lane at Driveway "B" be required.

Access Design Specifications

Sight distances at Driveway 'A' and Driveway 'B' are greater than 500-feet north and south of each driveway. There are no vertical or horizontal curves along this portion of Jefferson Plaza, and there are no structures that are blocking sight distance into and out of the driveway.

The distance between Driveway "A" and Driveway "B" is 320 feet (centerline to centerline). This Study finds the driveway spacing to be acceptable. Additionally, both driveway stubouts exist which implies that their locations were approved in the past by the City of Albuquerque.

Summary of Impacts and Recommendations

In summary, the proposed X-RAY New Mexico will have minimal adverse impact to the adjacent transportation system. A summary of the impacts and recommendations based on the results of the analysis, are stated below.

Summary of Impacts

1. Analysis of the intersection of ***Jefferson Plaza & Jefferson St.*** demonstrates that the proposed X-RAY New Mexico will have minimal delays and a LOS=C or better for all movements for the 2022 and 2032 BUILD conditions during the AM and PM peak periods. Therefore, no mitigative measures are recommended.
2. **Driveway A and Driveway B. (Unsignalized)** Analysis of the intersections at Driveway A and Driveway B demonstrates that the proposed X-RAY New Mexico will have minimal adverse impact on the traffic movements at these intersections for the 2022 and 2032 conditions. LOS is acceptable (LOS better than D) for both intersections.
3. **Queueing analysis** shows that queueing capacity is adequate at all intersections in the study area. The **95 % Queue lengths** for all movements are within the capacity of the existing roadways and **Volume to Capacity Ratios (V/C)** are less than 1 indicating no areas of congestion.
4. **Determination of Warrants for Deceleration Lanes** for Driveway A and Jefferson St., N.E. indicate the following:

a. A southbound left turn deceleration lane on Jefferson St. is warranted at Driveway 'A'. However, there is an existing southbound left turn lane on Jefferson St. at Driveway "A" which exceeds requirements. A northbound right turn deceleration lane is not warranted at Driveway 'A'. However, there is an existing northbound right turn lane on Jefferson St. at Driveway "A".
b. A northbound right turn deceleration lane is marginally warranted at Driveway "B". However, this Study does not recommend that the northbound right turn lane on Jefferson at Driveway "B" be required due to field constraints described above and due to the nature of the driveway (secondary vs. primary).

In summary, the proposed X-RAY New Mexico will have minimal adverse impact to the adjacent transportation system provided the recommendations above are implemented.

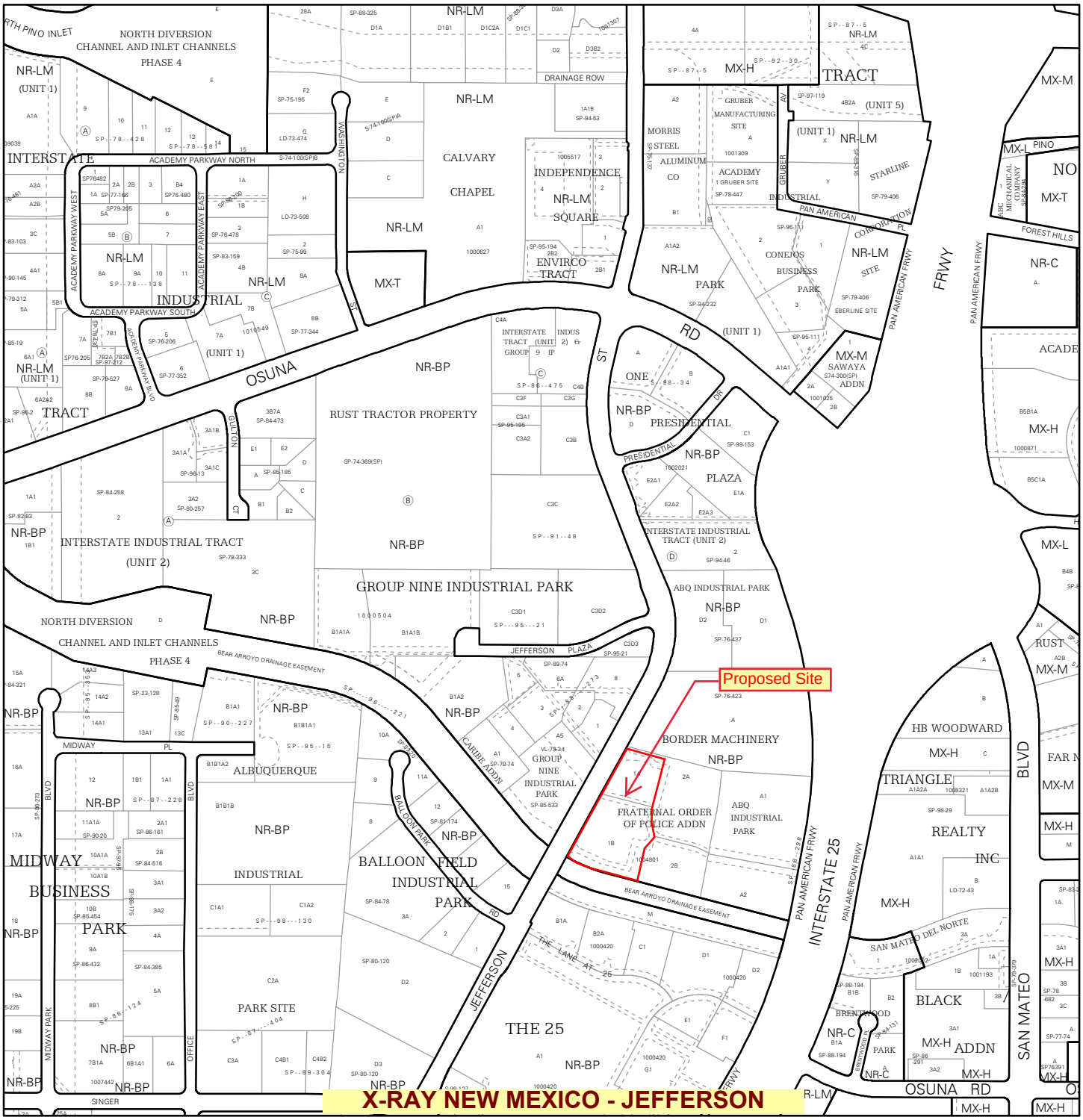
Recommendations

1. Design and construction of the new X-RAY New Mexico shall preserve adequate sight distances to the extent possible.
2. Driveway "A" – Driveway "A" should be designed and constructed as a full access unsignalized driveway with one entering lane and one exiting lane (minimum). The 95th Percentile queue length for westbound exiting traffic at Driveway "A" is one vehicle. Therefore, the throat depth at Driveway "A" should be at least 50 feet long (75 feet preferrable to provide some buffer).
3. Driveway "B" – should be designed and constructed as a right-in, right-out only unsignalized driveway with one entering lane and one exiting lane. The throat depth for Driveway "B" should be at least 50 feet long.

Appendix

SITE INFORMATION	
Vicinity Map	*A-1*
Aerial Map	*A-2*
Proposed Site Plan	*A-3*
TRIP GENERATION	
Trip Generation Summary Table	*A-4*
Trip Generation per Land Use Tables	*A-5 thru A-7*
HISTORIC GROWTH RATE	
Historic Growth Rate Graph	*A-8*
TRIP DISTRIBUTION AND TRIP ASSIGNMENTS	
Trip Distribution Subarea Map	*A-9*
Trip Distribution Table	*A-10*
Trip Distribution Map (%)	*A-11*
Trip Assignments Map (% Entering)	*A-12*
Trip Assignments Map (% Exiting)	*A-13*
TURNING MOVEMENT COUNTS 2022	
Intersection 1 – Jefferson Plaza/Jefferson St.	*A-14 thru A-16*
Intersection 2 – Driveway A./Jefferson St.	*A-17 & A-18*
Intersection 3 –Driveway B./Jefferson St.	*A-19 & A-20*
TURNING MOVEMENT COUNTS 2032	
Intersection 1 – Jefferson Plaza/Jefferson St.	*A-21 thru A-23*
Intersection 2 – Driveway A./Jefferson St.	*A-24 & A-25*
Intersection 3 –Driveway B./Jefferson St.	*A-26 & A-27*
INTERSECTION ANALYSIS 2022	
Intersection 1 – Jefferson Plaza/Jefferson St.	*A-28 thru A-32*
Intersection 2 – Driveway A./Jefferson St.	*A-33 thru A-35*
Intersection 3 –Driveway B./Jefferson St.	*A-36 & A-37*
INTERSECTION ANALYSIS 2032	
Intersection 1 – Jefferson Plaza/Jefferson St.	*A-38 thru A-42*
Intersection 2 – Driveway A./Jefferson St.	*A-43 thru A-45*
Intersection 3 –Driveway B./Jefferson St.	*A-46 & A-47*
TAQA PEAK HOUR TIMES/VOLUMES on Jefferson St.	*A-48*
SCOPING MEETING SUMMARY	*A-49 thru A-51*
DECELERATION LANE WARRANT ANALYSIS	*A-52 & A-53*

APPENDIX



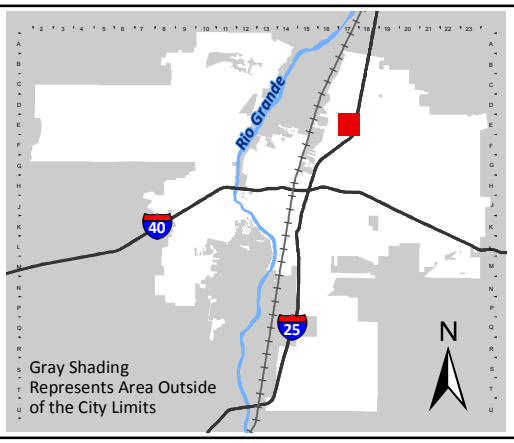
For more details about the Integrated Development Ordinance visit: http://www.cabq.gov/planning/codes-policies-regulations/integrated-development-ordinance

IDO Zone Atlas
May 2018

Albuquerque Geographic Information System

IDO Zoning information as of May 17, 2018

The Zone Districts and Overlay Zones are established by the Integrated Development Ordinance (IDO).

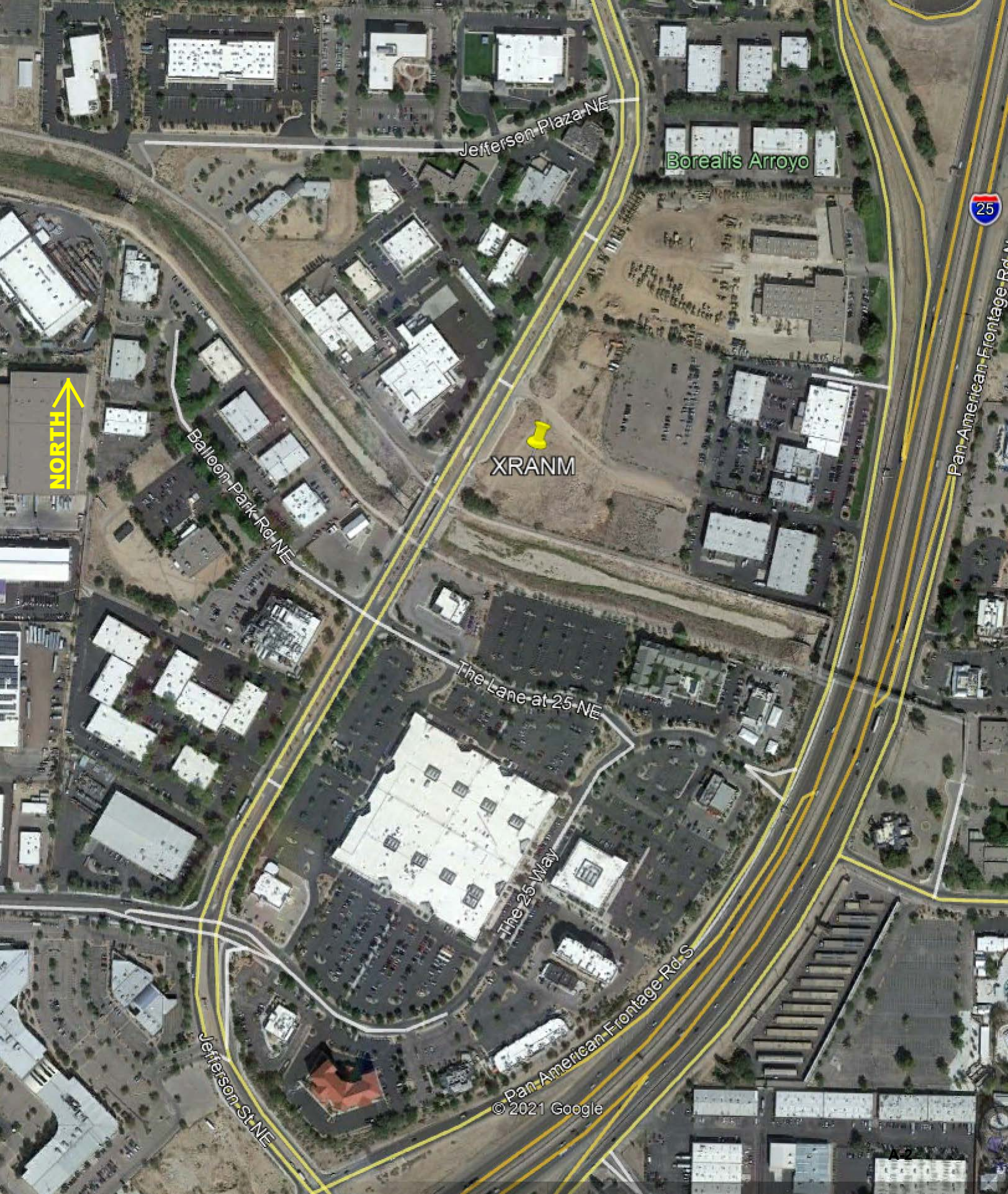


Zone Atlas Page:

E-17-Z

- Easement
- Escarpment
- Petroglyph National Monument
- Areas Outside of City Limits
- Airport Protection Overlay (APO) Zone
- Character Protection Overlay (CPO) Zone
- Historic Protection Overlay (HPO) Zone
- View Protection Overlay (VPO) Zone

Feet: 0 250 500 1,000


Jefferson Plaza NE
Borealis Arroyo
25
NORTH
Balloon Park Rd NE
XRANM
Pan American Frontage Rd
The Lane at 25 NE
The 25 Way
Pan American Frontage Rd S
Jefferson St NE
© 2021 Google

A1 SITE PLAN
1" = 30'-0"

0 15' 30' 60'

Plan North True North

STUDIO SW ARCHITECTS
2101 Mountain Road NW Suite B | Albuquerque NM 87104
505-843-9639 | www.studioswarch.com

© 2021 Studio Southwest Architects, Inc. Duplication or reproduction by any means without the express written consent of Studio Southwest Architects, Inc. is a violation of federal and international law. The information contained in this document is the intellectual property of Studio Southwest Architects, Inc. and all rights thereto are reserved.

CONSULTANTS

Architect Engineer

NOT FOR CONSTRUCTION

XRANM JEFFERSON OFFICE

5900 JEFFERSON ST., NE
ALBUQUERQUE. NM
87109

No	Date	Description

Revision Schedule

ISSUE:	PRT APPLICATION
PROJECT NUMBER:	21XX
FILE:	SSWA_Inc_2019_Template.rte
DRAWN BY:	Author
CHECKED BY:	Checker
DATE:	JUNE 18, 2021

SHEET TITLE

SITE PLAN W ACAD

AS-103

7/2/2021 4:24:55 PM

C:\Users\ssco\Documents\2120 XRANM_ARCH_Central_sagecox.rvt

XRANM Project (5900 Jefferson St. NE)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Medical-Dental Office Building (720)	34.16	1,225	67	19	33	85
Small Office Building (712)	2.80	45	4	1	2	5
Warehousing (150)	11.20	63	21	6	8	21
Subtotal		**1,333**	**92**	**26**	**43**	**111**

XRANM Project (5900 Jefferson St. NE)
Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Medical-Dental Office Building (720)	***34.16***	1,225	67	19	33	85
	1,000 S.F.					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = ***38.42*** **(X) +** ***-87.62***

50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

Ln(T) = ***0.89*** **Ln(X) +** ***1.31***

78% Enter, ***22%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

T = ***3.39*** **(X) +** ***2.02***

28% Enter, ***72%*** Exit

Comments:

Tract No.

Based on ITE Trip Generation Manual - 10th Edition

XRANM Project (5900 Jefferson St. NE)
Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
Small Office Building (712)	*2.80* 1,000 S.F.	45	4	1	2	5

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = ***16.19*** **(X) +** ***0***
50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

T = ***1.92*** **(X) +** ***0***
83% Enter, ***17%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

T = ***2.45*** **(X) +** ***0***
32% Enter, ***68%*** Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 10th Edition

XRANM Project (5900 Jefferson St. NE)
Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
Warehousing (150)	***11.20*** **1,000 S.F.**	63	21	6	8	21

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = ***1.58*** **(X) +** ***45.54***
50% Enter, ***50%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR

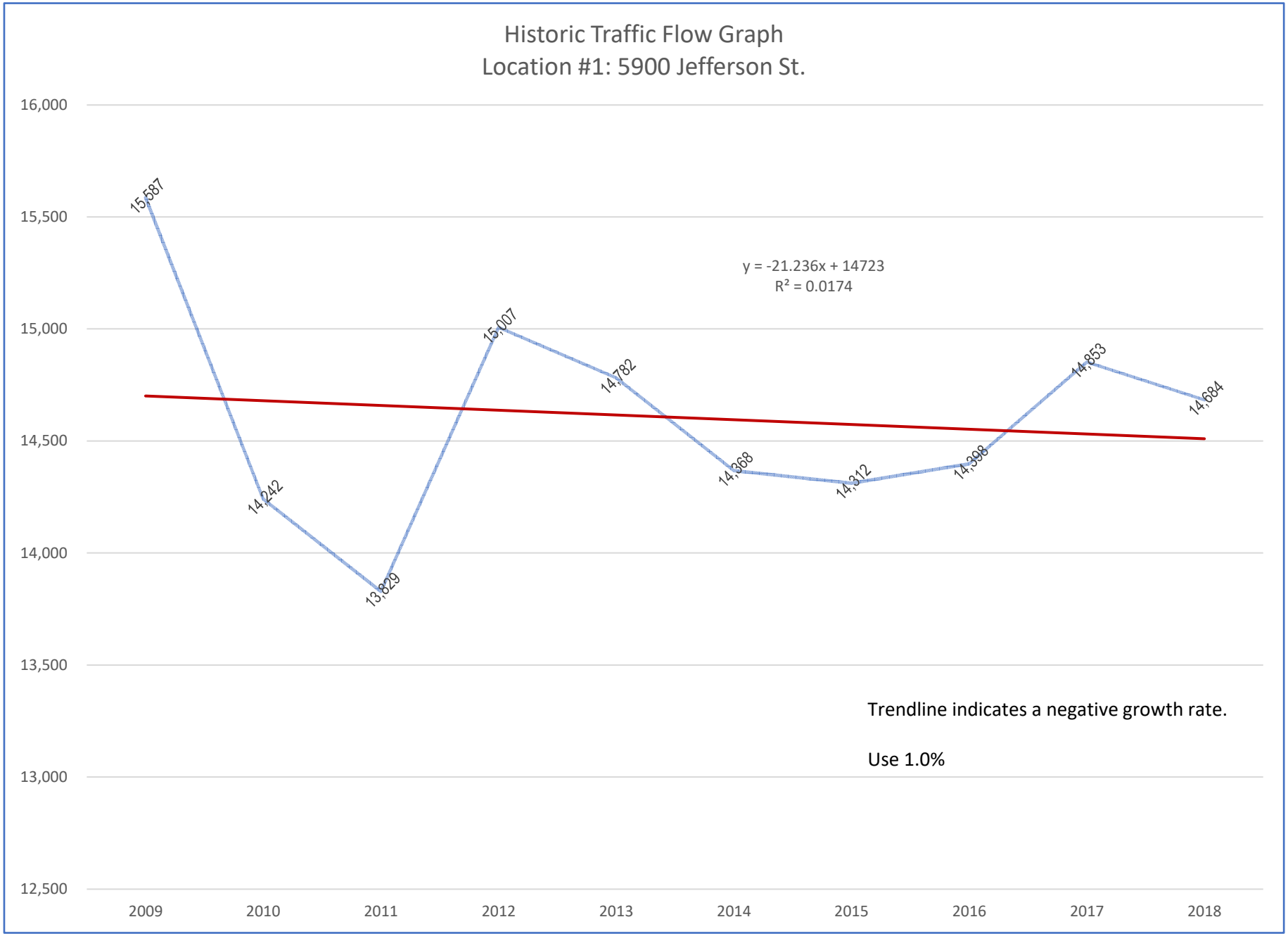
T = ***0.12*** **(X) +** ***25.32***
77% Enter, ***23%*** Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR

T = ***0.12*** **(X) +** ***27.82***
27% Enter, ***73%*** Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 10th Edition


Historic Traffic Flow Graph
Location #1: 5900 Jefferson St.
16,000
15,500
15,000
14,500
14,000
13,500
13,000
12,500
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
15,587
14,242
13,829
15,007
14,782
14,368
14,312
14,398
14,853
14,684
y = -21.236x + 14723
R² = 0.0174
Trendline indicates a negative growth rate.
Use 1.0%

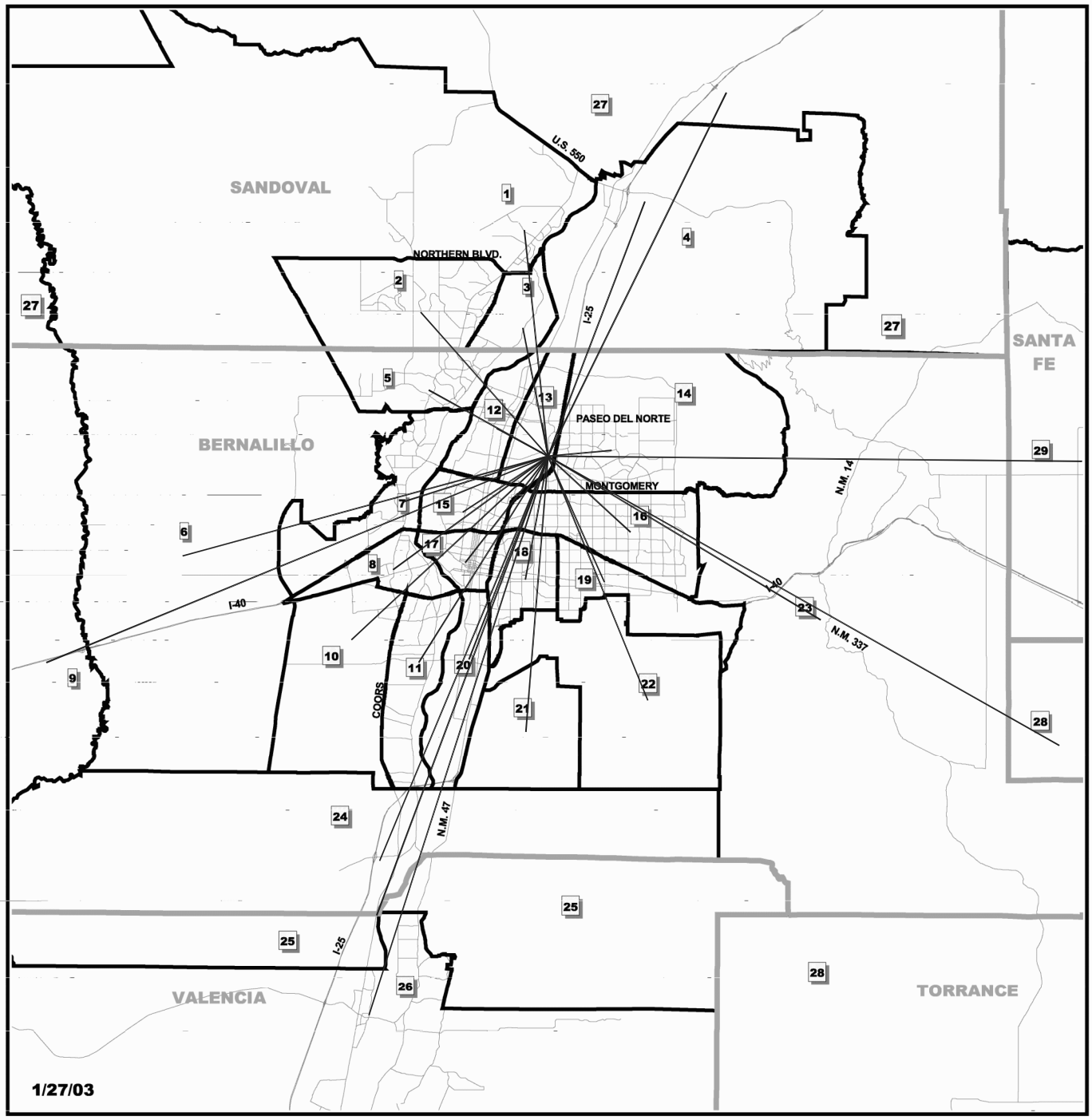


Figure 6

22 Subarea Identification Number

Subareas of the MRCOG Region

Mid-Region
Council of Governments
317 Commercial NE, Suite 104
Albuquerque, NM 87102
505-247-1750

Subarea boundaries extend to county boundary where full extent of subarea not shown except for Subarea 29 which only includes southern Santa Fe County.

XRANM
(5900 Jefferson St. NE)
Trip Distribution Subarea Map

Trip Distribution Table

XRANM (5900 Jefferson St. NE)

Sub Area Employment Data:
For determination of Trip Distribution for Proposed **Office Development Trips**

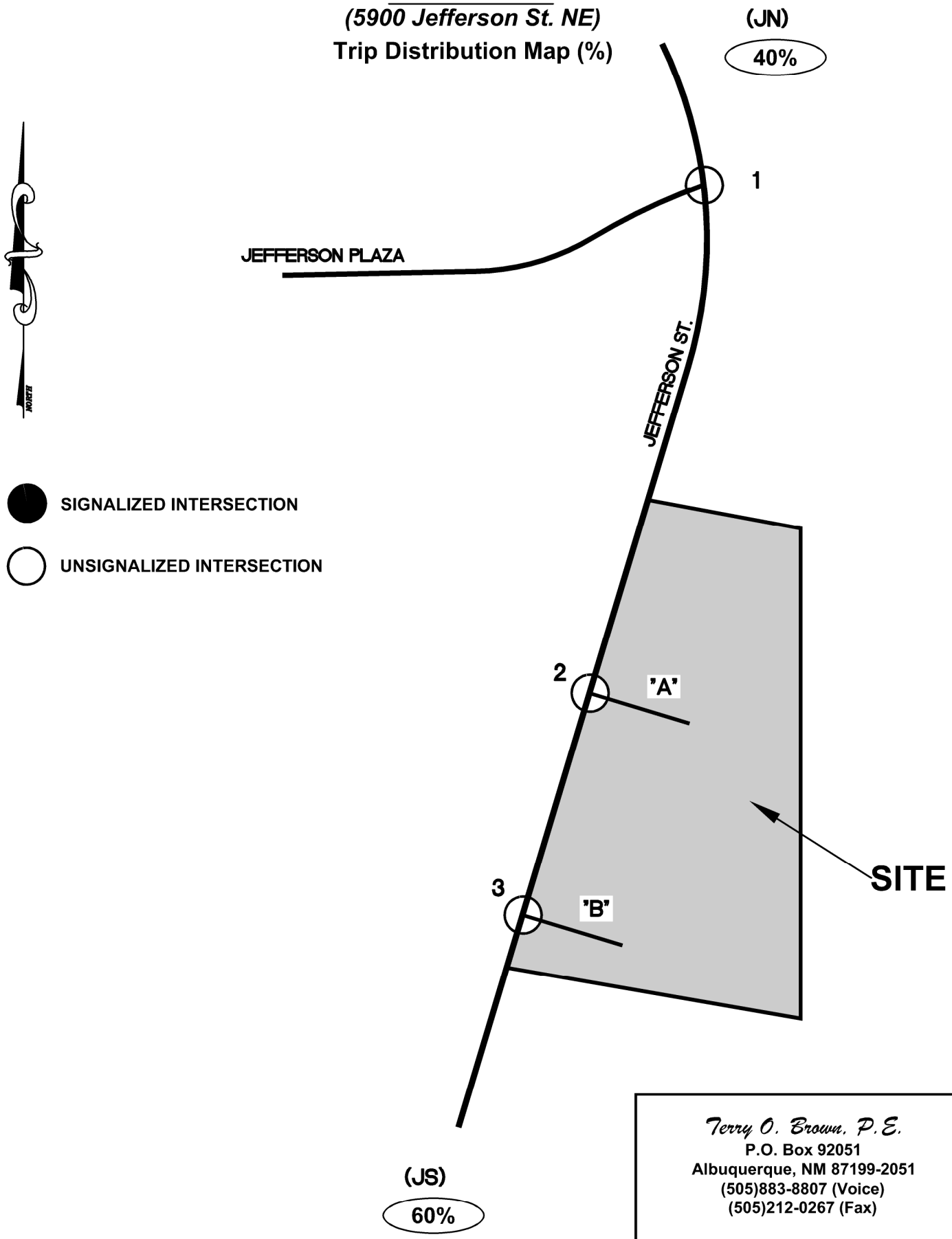
2015 and 2025 Data Taken from Mid-Region Council of Governments' 203
Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexic

									(JN) Jefferson St. North			(JS) Jefferson St. South		
Sub Area I.D.#	**% Sub Area in Study**	**2012 Employment**	**2040 Employment**	**Interpolated Employment for the Year**	Employment in Study	Dist. (Mi.)	**Employment / Distance**	**% Employment / Distance**	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2012	**2040**	**2022**										
1	100%	41,773	89,955	58,981	58,981	9.7	**6,081**	**3.45%**	100%	3.45%	6,081	0%	0.00%	0
2	100%	52,210	76,330	60,824	60,824	8.2	**7,418**	**4.21%**	100%	4.21%	7,418	0%	0.00%	0
3	100%	8,435	9,663	8,874	8,874	5.6	**1,585**	**0.90%**	100%	0.90%	1,585	0%	0.00%	0
4	100%	13,455	18,633	15,304	15,304	11.6	**1,319**	**0.75%**	100%	0.75%	1,319	0%	0.00%	0
5	100%	54,991	80,932	64,256	64,256	5.8	**11,079**	**6.29%**	100%	6.29%	11,079	0%	0.00%	0
6	100%	6,893	25,941	13,696	13,696	16.2	**845**	**0.48%**	0%	0.00%	0	100%	0.48%	845
7	100%	58,237	88,165	68,926	68,926	6.5	**10,604**	**6.02%**	10%	0.60%	1,060	90%	5.42%	9,544
8	100%	31,958	37,515	33,943	33,943	8.2	**4,139**	**2.35%**	0%	0.00%	0	100%	2.35%	4,139
9	100%	2,204	3,708	2,741	2,741	23.2	**118**	**0.07%**	0%	0.00%	0	100%	0.07%	118
10	100%	61,778	81,503	68,823	68,823	11.5	**5,985**	**3.40%**	0%	0.00%	0	100%	3.40%	5,985
11	100%	33,442	33,861	33,592	33,592	10.4	**3,230**	**1.83%**	0%	0.00%	0	100%	1.83%	3,230
12	100%	16,148	18,410	16,956	16,956	2.5	**6,782**	**3.85%**	0%	0.00%	0	100%	3.85%	6,782
13*	100%	9,753	15,594	11,839	11,839	1.4	**8,456**	**4.80%**	80%	3.84%	6,765	20%	0.96%	1,691
14	100%	98,446	115,425	104,510	104,510	2.7	**38,707**	**21.98%**	80%	17.58%	30,966	20%	4.40%	7,741
15	100%	24,994	28,460	26,232	26,232	4.4	**5,962**	**3.38%**	0%	0.00%	0	100%	3.38%	5,962
16	100%	110,074	134,252	118,709	118,709	4.8	**24,731**	**14.04%**	0%	0.00%	0	100%	14.04%	24,731
17	100%	21,562	42,074	28,888	28,888	5.8	**4,981**	**2.83%**	0%	0.00%	0	100%	2.83%	4,981
18	100%	44,105	63,905	51,176	51,176	5.4	**9,477**	**5.38%**	0%	0.00%	0	100%	5.38%	9,477
19	100%	65,521	85,453	72,640	72,640	5.9	**12,312**	**6.99%**	0%	0.00%	0	100%	6.99%	12,312
20	100%	9,623	22,190	14,111	14,111	9.3	**1,517**	**0.86%**	0%	0.00%	0	100%	0.86%	1,517
21	100%	2	80,695	28,821	28,821	11.8	**2,442**	**1.39%**	0%	0.00%	0	100%	1.39%	2,442
22	100%	3,562	3,697	3,610	3,610	11.3	**319**	**0.18%**	0%	0.00%	0	100%	0.18%	319
23	100%	19,369	26,046	21,754	21,754	13.6	**1,600**	**0.91%**	0%	0.00%	0	100%	0.91%	1,600
24	100%	2,512	3,373	2,820	2,820	18.7	**151**	**0.09%**	0%	0.00%	0	100%	0.09%	151
25	100%	913	1,207	1,018	1,018	20.9	**49**	**0.03%**	0%	0.00%	0	100%	0.03%	49
26	100%	75,135	124,471	92,755	92,755	25.1	**3,695**	**2.10%**	0%	0.00%	0	100%	2.10%	3,695
27	100%	19,816	24,526	21,498	21,498	17.3	**1,243**	**0.71%**	100%	0.71%	1,243	0%	0.00%	0
28	100%	16,269	22,258	18,408	18,408	25.1	**733**	**0.42%**	0%	0.00%	0	100%	0.42%	733
29	100%	10,268	17,661	12,908	12,908	22.8	**566**	**0.32%**	100%	0.32%	566	0%	0.00%	0
		913,448	1,375,903	1,078,611	1,078,611		**176,126**	**100.00%**		38.65%	**68,081**		61.35%	**108,046**
											38.65%			61.35%

XRAMM

(5900 Jefferson St. NE)

Trip Distribution Map (%)

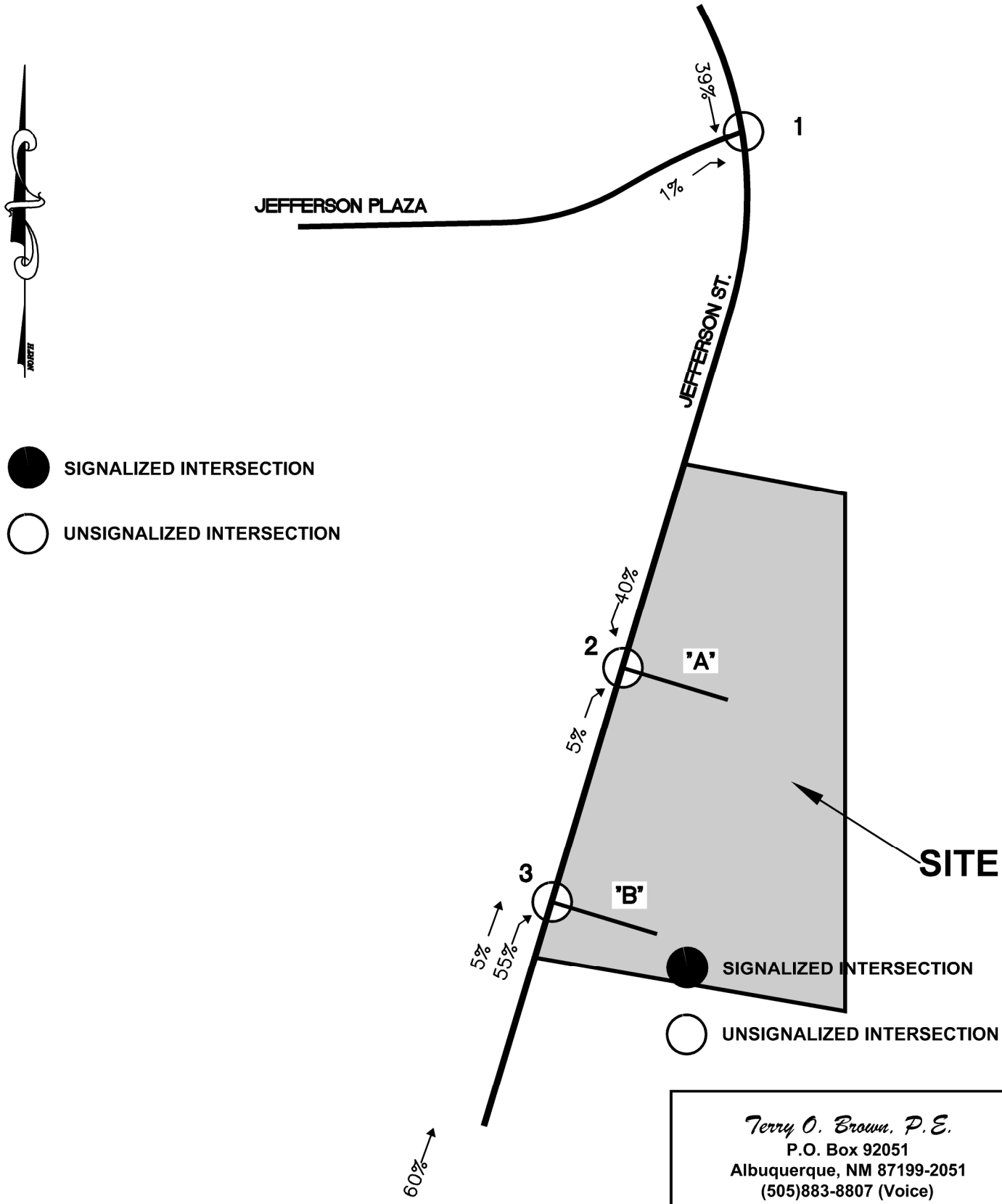


Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

XRAMM

(5900 Jefferson St. NE)

Trip Assignments Map (% Entering)

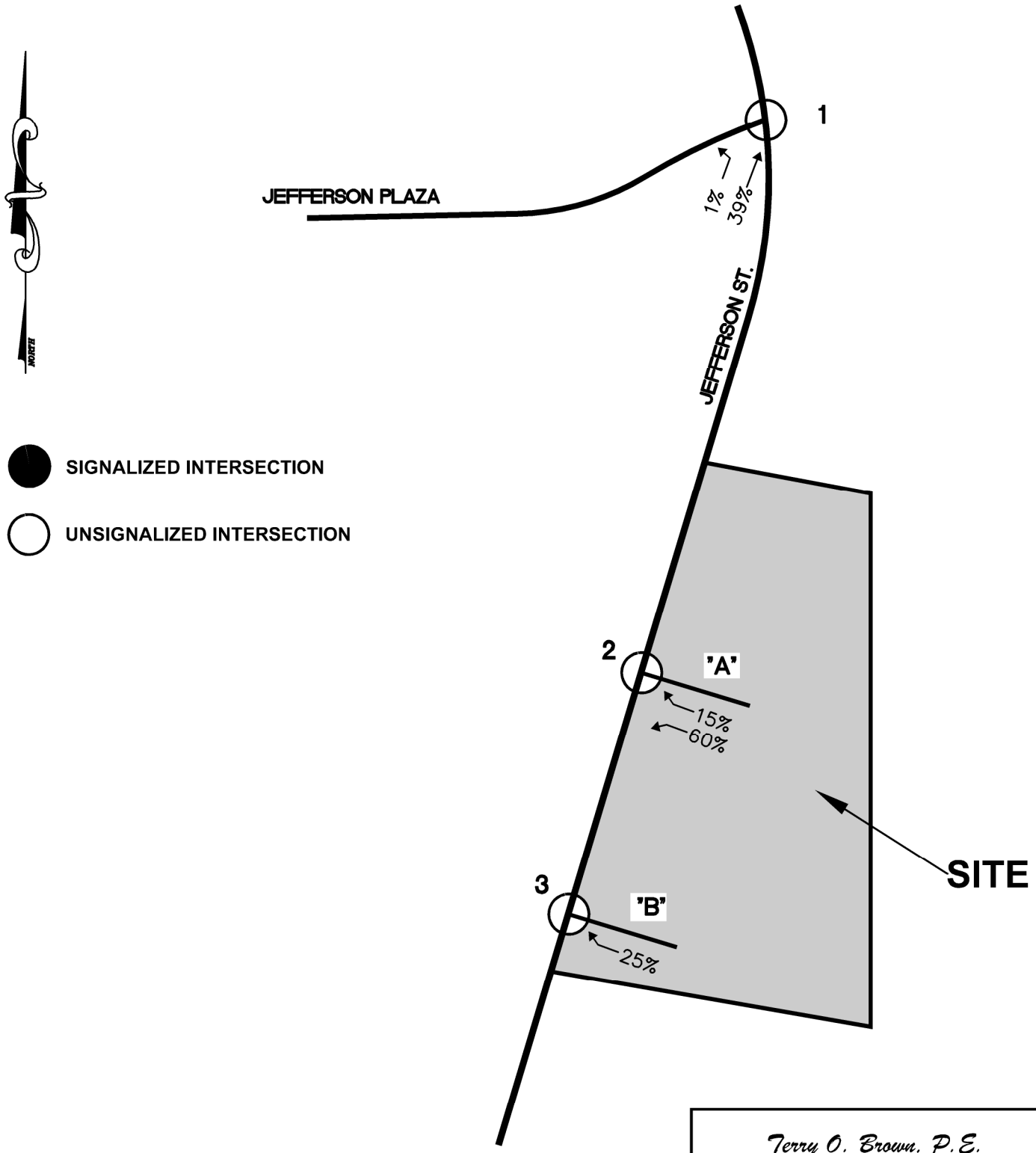


Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

XRAMM

(5900 Jefferson St. NE)

Trip Assignments Map (% Exiting)



Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

XRANM - Albuquerque (5900 Jefferson St. NE)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2022) - 100% Development

INTERSECTION: **Summary**

Jefferson Plaza / Jefferson St.

(1)

3.0% Truck

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	7	0	5	1	0	3	23	680	6	5	786	43
2022 (NO BUILD - A.M.)	*7*	*0*	*5*	*1*	*0*	*3*	*23*	*683*	*6*	*5*	*790*	*43*
2022 (BUILD - A.M.)	***7***	***0***	***6***	***1***	***0***	***3***	***23***	***693***	***6***	***5***	***826***	***43***

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	24	0	24	10	0	1	8	648	0	6	860	6
2022 (NO BUILD - P.M.)	*24*	*0*	*24*	*10*	*0*	*1*	*8*	*651*	*0*	*6*	*864*	*6*
2022 (BUILD - P.M.)	***24***	***0***	***24***	***10***	***0***	***1***	***9***	***694***	***0***	***6***	***881***	***6***

Driveway "A" / Jefferson St.

(2)

3.0% Truck

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	2	0	5	0	0	0	14	680	0	0	786	10
2022 (NO BUILD - A.M.)	*2*	*0*	*5*	*0*	*0*	*0*	*14*	*683*	*0*	*0*	*790*	*10*
2022 (BUILD - A.M.)	***2***	***0***	***5***	***16***	***0***	***4***	***14***	***683***	***5***	***37***	***790***	***10***

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	10	0	14	0	0	0	6	648	0	0	860	3
2022 (NO BUILD - P.M.)	*10*	*0*	*14*	*0*	*0*	*0*	*6*	*651*	*0*	*0*	*864*	*3*
2022 (BUILD - P.M.)	***10***	***0***	***14***	***67***	***0***	***17***	***6***	***651***	***2***	***17***	***864***	***3***

Driveway "B" / Jefferson St.

(3)

3.0% Truck

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	0	0	0	0	0	0	0	680	0	0	786	0
2022 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*683*	*0*	*0*	*790*	*0*
2022 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***7***	***0***	***688***	***51***	***0***	***790***	***0***

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	0	0	0	0	0	0	0	648	0	0	860	0
2022 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*651*	*0*	*0*	*864*	*0*
2022 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***28***	***0***	***653***	***24***	***0***	***864***	***0***

XRANM - Albuquerque (5900 Jefferson St. NE)

Projected Turning Movements Worksheet

Jefferson Plaza / Jefferson St.

INTERSECTION: E-W Street: **Jefferson Plaza** (1)

N-S Street: **Jefferson St.**

Year of Existing Counts 2015

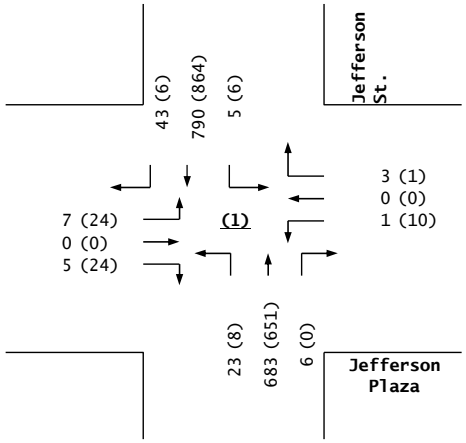
Implementation Year **2022**

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
Growth Rates	0.50%			0.50%			0.50%			0.50%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	7	0	5	1	0	3	22	660	6	5	763	42
Background Traffic Growth	0	0	0	0	0	0	1	23	0	0	27	1
Subtotal (NO BUILD - A.M.)	***7***	***0***	***5***	***1***	***0***	***3***	***23***	***683***	***6***	***5***	***790***	***43***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	***1.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***39.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	***39.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	1	0	0	0	0	10	0	0	36	0
Total AM Peak Hour BUILD Volumes	**7**	**0**	**6**	**1**	**0**	**3**	**23**	**693**	**6**	**5**	**826**	**43**

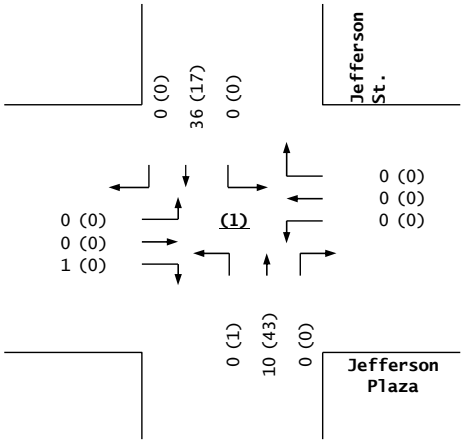
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	23	0	23	10	0	1	8	629	0	6	835	6
Background Traffic Growth	1	0	1	0	0	0	0	22	0	0	29	0
Subtotal (NO BUILD - P.M.)	***24***	***0***	***24***	***10***	***0***	***1***	***8***	***651***	***0***	***6***	***864***	***6***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	***1.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***39.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	***39.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	0	1	43	0	0	17	0
Total PM Peak Hour BUILD Volumes	**24**	**0**	**24**	**10**	**0**	**1**	**9**	**694**	**0**	**6**	**881**	**6**

	Entering	Exiting		
Number of Office Trips Generated	**92**	**26**	A.M.	100% Medical / Office Development
	43	**111**	P.M.	

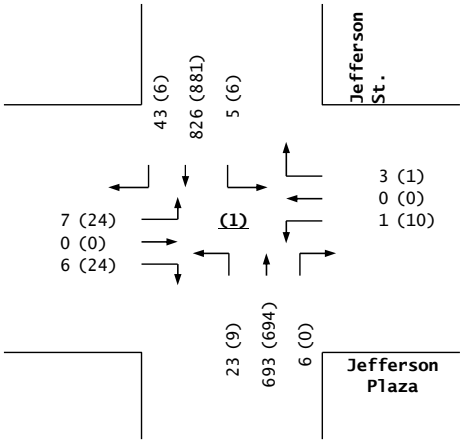
2022
NO BUILD



Trips



2022
BUILD



Jefferson Plaza / Jefferson St.

XRANM - Albuquerque (5900 Jefferson St. NE)

Projected Turning Movements Worksheet

Driveway "A" / Jefferson St.

INTERSECTION: E-W Street: **Driveway "A"** (2)
N-S Street: **Jefferson St.**

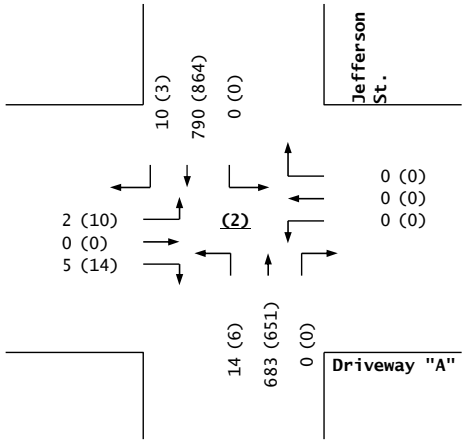
Year of Existing Counts 2015
Implementation Year **2022**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
Growth Rates	0.50%			0.50%			0.50%			0.50%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	2	0	5	0	0	0	14	660	0	0	763	10
Background Traffic Growth	0	0	0	0	0	0	0	23	0	0	27	0
Subtotal (NO BUILD - A.M.)	***2***	***0***	***5***	***0***	***0***	***0***	***14***	***683***	***0***	***0***	***790***	***10***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.00%***	***40.00%***	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	***60.00%***	*0.00%*	***15.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	16	0	4	0	0	5	37	0	0
Total AM Peak Hour BUILD Volumes	**2**	**0**	**5**	**16**	**0**	**4**	**14**	**683**	**5**	**37**	**790**	**10**

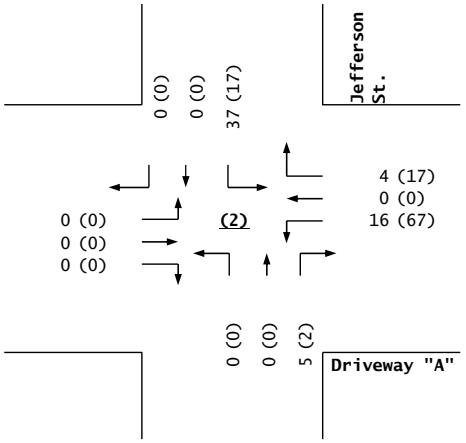
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	10	0	14	0	0	0	6	629	0	0	835	3
Background Traffic Growth	0	0	0	0	0	0	0	22	0	0	29	0
Subtotal (NO BUILD - P.M.)	***10***	***0***	***14***	***0***	***0***	***0***	***6***	***651***	***0***	***0***	***864***	***3***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.00%***	***40.00%***	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	***60.00%***	*0.00%*	***15.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	67	0	17	0	0	2	17	0	0
Total PM Peak Hour BUILD Volumes	**10**	**0**	**14**	**67**	**0**	**17**	**6**	**651**	**2**	**17**	**864**	**3**

	Entering	Exiting		
Number of Office Trips Generated	**92**	**26**	A.M.	100% Medical / Office Development
	43	**111**	P.M.	

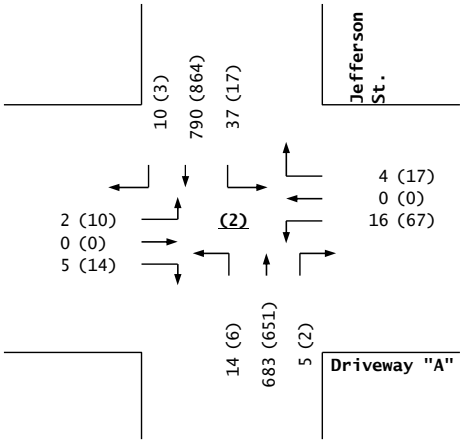
2022
NO BUILD



Trips



2022
BUILD



Driveway "A" / Jefferson St.

XRANM - Albuquerque (5900 Jefferson St. NE)

Projected Turning Movements Worksheet

Driveway "B" / Jefferson St.

INTERSECTION: E-W Street: **Driveway "B"** (3)
N-S Street: **Jefferson St.**

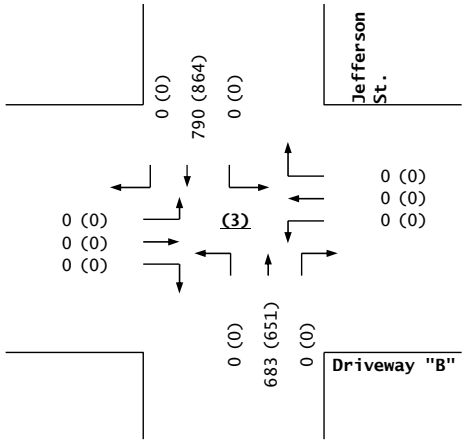
Year of Existing Counts 2015
Implementation Year **2022**

	Growth Rates	0.50%			0.50%			0.50%			0.50%		
		Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0	0	0	0	0	0	660	0	0	763	0
Background Traffic Growth		0	0	0	0	0	0	0	23	0	0	27	0
Subtotal (NO BUILD - A.M.)		***0***	***0***	***0***	***0***	***0***	***0***	***0***	***683***	***0***	***0***	***790***	***0***
Percent Office Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.00%***	***55.00%***	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***25.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	0	0	0	0	7	0	5	51	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**0**	**0**	**0**	**0**	**7**	**0**	**688**	**51**	**0**	**790**	**0**

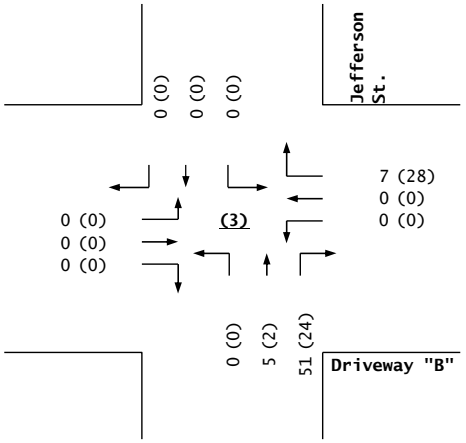
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	629	0	0	835	0
Background Traffic Growth	0	0	0	0	0	0	0	22	0	0	29	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***651***	***0***	***0***	***864***	***0***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.00%***	***55.00%***	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***25.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	28	0	2	24	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**653**	**24**	**0**	**864**	**0**

	Entering	Exiting		
Number of Office Trips Generated	**92**	**26**	A.M.	100% Medical / Office Development
	43	**111**	P.M.	

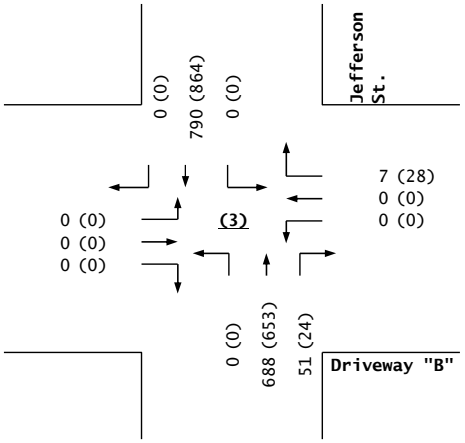
2022
NO BUILD



Trips



2022
BUILD



Driveway "B" / Jefferson St.

XRANM - Albuquerque (5900 Jefferson St. NE)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2032) - 100% Development

INTERSECTION: **Summary**

Jefferson Plaza / Jefferson St.

(1)

3.0% Truck	0.90			0.90			0.90			0.90		PHF
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	7	0	5	1	0	3	23	680	6	5	786	43
2032 (NO BUILD - A.M.)	*8*	*0*	*5*	*1*	*0*	*3*	*24*	*716*	*7*	*5*	*828*	*46*
2032 (BUILD - A.M.)	***8***	***0***	***6***	***1***	***0***	***3***	***24***	***726***	***7***	***5***	***864***	***46***

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	24	0	24	10	0	1	8	648	0	6	860	6
2032 (NO BUILD - P.M.)	*25*	*0*	*25*	*11*	*0*	*1*	*9*	*682*	*0*	*7*	*906*	*7*
2032 (BUILD - P.M.)	***25***	***0***	***25***	***11***	***0***	***1***	***10***	***725***	***0***	***7***	***923***	***7***

Driveway "A" / Jefferson St.

(2)

3.0% Truck	0.90			0.90			0.90			0.90		PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	2	0	5	0	0	0	14	680	0	0	786	10
2032 (NO BUILD - A.M.)	*2*	*0*	*5*	*0*	*0*	*0*	*15*	*716*	*0*	*0*	*828*	*11*
2032 (BUILD - A.M.)	***2***	***0***	***5***	***16***	***0***	***4***	***15***	***716***	***5***	***37***	***828***	***11***

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	10	0	14	0	0	0	6	648	0	0	860	3
2032 (NO BUILD - P.M.)	*11*	*0*	*15*	*0*	*0*	*0*	*7*	*682*	*0*	*0*	*906*	*3*
2032 (BUILD - P.M.)	***11***	***0***	***15***	***67***	***0***	***17***	***7***	***682***	***2***	***17***	***906***	***3***

Driveway "B" / Jefferson St.

(3)

3.0% Truck	0.90			0.90			0.90			0.90		PHF
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	0	0	0	0	0	0	0	680	0	0	786	0
2032 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*716*	*0*	*0*	*828*	*0*
2032 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***7***	***0***	***721***	***51***	***0***	***828***	***0***

	0.90			0.90			0.90			0.90		PHF
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2021)	0	0	0	0	0	0	0	648	0	0	860	0
2032 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*682*	*0*	*0*	*906*	*0*
2032 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***28***	***0***	***684***	***24***	***0***	***906***	***0***

XRANM - Albuquerque (5900 Jefferson St. NE)

Projected Turning Movements Worksheet

Jefferson Plaza / Jefferson St.

INTERSECTION: E-W Street: **Jefferson Plaza** (1)

N-S Street: **Jefferson St.**

Year of Existing Counts 2015

Horizon Year **2032**

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
Growth Rates	0.50%			0.50%			0.50%			0.50%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	7	0	5	1	0	3	22	660	6	5	763	42
Background Traffic Growth	1	0	0	0	0	0	2	56	1	0	65	4
Subtotal (NO BUILD - A.M.)	***8***	***0***	***5***	***1***	***0***	***3***	***24***	***716***	***7***	***5***	***828***	***46***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	***1.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***39.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	***39.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	1	0	0	0	0	10	0	0	36	0
Total AM Peak Hour BUILD Volumes	**8**	**0**	**6**	**1**	**0**	**3**	**24**	**726**	**7**	**5**	**864**	**46**

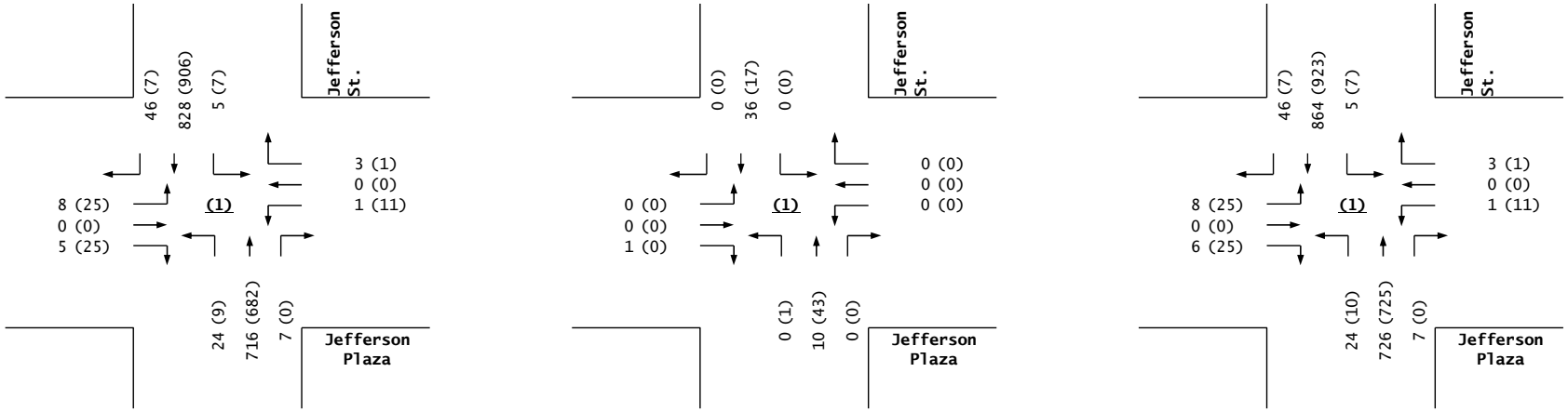
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	23	0	23	10	0	1	8	629	0	6	835	6
Background Traffic Growth	2	0	2	1	0	0	1	53	0	1	71	1
Subtotal (NO BUILD - P.M.)	***25***	***0***	***25***	***11***	***0***	***1***	***9***	***682***	***0***	***7***	***906***	***7***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	***1.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***39.00%***	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	***39.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	0	1	43	0	0	17	0
Total PM Peak Hour BUILD Volumes	**25**	**0**	**25**	**11**	**0**	**1**	**10**	**725**	**0**	**7**	**923**	**7**

	Entering	Exiting		
Number of Office Trips Generated	**92**	**26**	A.M.	100% Medical / Office Development
	43	**111**	P.M.	

2032
NO BUILD

Trips

2032
BUILD



Jefferson Plaza / Jefferson St.

XRANM - Albuquerque (5900 Jefferson St. NE)

Projected Turning Movements Worksheet

Driveway "A" / Jefferson St.

INTERSECTION: E-W Street: **Driveway "A"** (2)
N-S Street: **Jefferson St.**

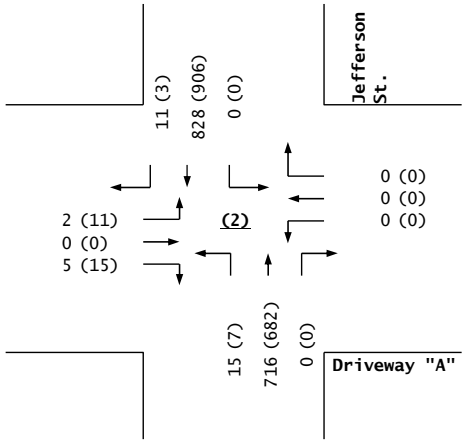
Year of Existing Counts 2015
Horizon Year **2032**

	Growth Rates	0.50%			0.50%			0.50%			0.50%		
		Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		2	0	5	0	0	0	14	660	0	0	763	10
Background Traffic Growth		0	0	0	0	0	0	1	56	0	0	65	1
Subtotal (NO BUILD - A.M.)		***2***	***0***	***5***	***0***	***0***	***0***	***15***	***716***	***0***	***0***	***828***	***11***
Percent Office Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.00%***	***40.00%***	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	***60.00%***	*0.00%*	***15.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	0	0	16	0	4	0	0	5	37	0	0
Total AM Peak Hour BUILD Volumes		**2**	**0**	**5**	**16**	**0**	**4**	**15**	**716**	**5**	**37**	**828**	**11**

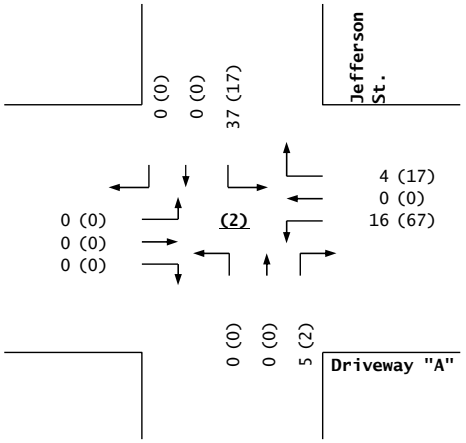
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	10	0	14	0	0	0	6	629	0	0	835	3
Background Traffic Growth	1	0	1	0	0	0	1	53	0	0	71	0
Subtotal (NO BUILD - P.M.)	***11***	***0***	***15***	***0***	***0***	***0***	***7***	***682***	***0***	***0***	***906***	***3***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.00%***	***40.00%***	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	***60.00%***	*0.00%*	***15.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	67	0	17	0	0	2	17	0	0
Total PM Peak Hour BUILD Volumes	**11**	**0**	**15**	**67**	**0**	**17**	**7**	**682**	**2**	**17**	**906**	**3**

	Entering	Exiting		
Number of Office Trips Generated	**92**	**26**	A.M.	100% Medical / Office Development
	43	**111**	P.M.	

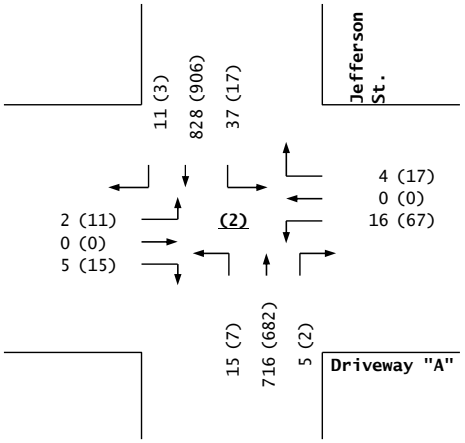
2032
NO BUILD



Trips



2032
BUILD



Driveway "A" / Jefferson St.

XRANM - Albuquerque (5900 Jefferson St. NE)

Projected Turning Movements Worksheet

Driveway "B" / Jefferson St.

INTERSECTION: E-W Street: **Driveway "B"** (3)

N-S Street: **Jefferson St.**

Year of Existing Counts 2015

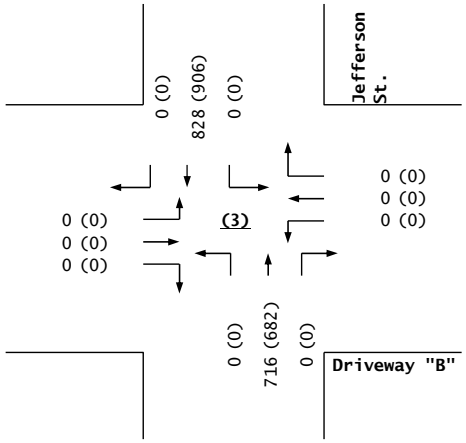
Horizon Year **2032**

	Growth Rates	0.50%			0.50%			0.50%			0.50%		
		Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0	0	0	0	0	0	660	0	0	763	0
Background Traffic Growth		0	0	0	0	0	0	0	56	0	0	65	0
Subtotal (NO BUILD - A.M.)		***0***	***0***	***0***	***0***	***0***	***0***	***0***	***716***	***0***	***0***	***828***	***0***
Percent Office Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.00%***	***55.00%***	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***25.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	0	0	0	0	7	0	5	51	0	0	0
Total AM Peak Hour BUILD Volumes		**0**	**0**	**0**	**0**	**0**	**7**	**0**	**721**	**51**	**0**	**828**	**0**

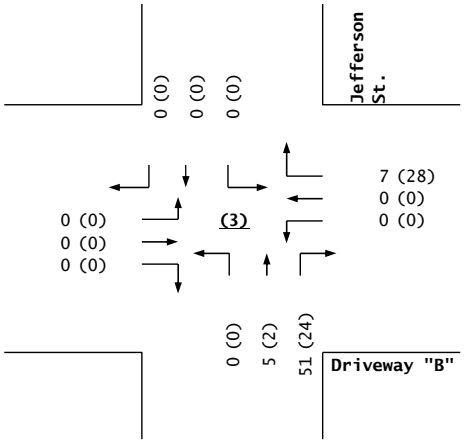
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	629	0	0	835	0
Background Traffic Growth	0	0	0	0	0	0	0	53	0	0	71	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***682***	***0***	***0***	***906***	***0***
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***5.00%***	***55.00%***	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***25.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	28	0	2	24	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**684**	**24**	**0**	**906**	**0**

	Entering	Exiting		
Number of Office Trips Generated	**92**	**26**	A.M.	100% Medical / Office Development
	43	**111**	P.M.	

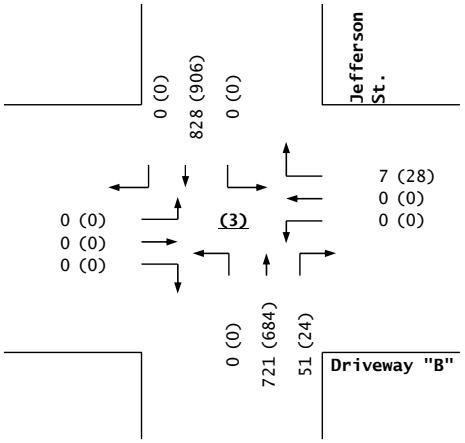
2032
NO BUILD



Trips



2032
BUILD



Driveway "B" / Jefferson St.

HCS7 Two-Way Stop-Control Report

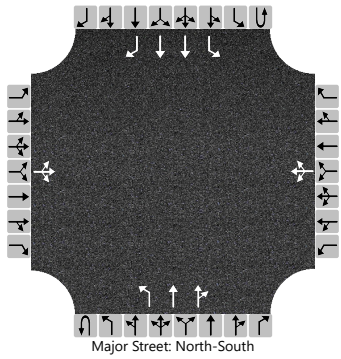
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2022
Time Analyzed	2022 AM NO BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Jeff. Plaza & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Jefferson Plaza, NE
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	0	0	1	2	1
Configuration			LTR				LTR			L	T	TR		L	T	R
Volume (veh/h)		7	0	5		1	0	3	0	23	683	6	0	5	790	43
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized													No			
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			12				4			23				5		
Capacity, c (veh/h)			333				477			789				895		
v/c Ratio			0.04				0.01			0.03				0.01		
95% Queue Length, Q_{95} (veh)			0.1				0.0			0.1				0.0		
Control Delay (s/veh)			16.2				12.6			9.7				9.0		
Level of Service (LOS)			C				B			A				A		
Approach Delay (s/veh)	16.2				12.6				0.3				0.1			
Approach LOS	C				B											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

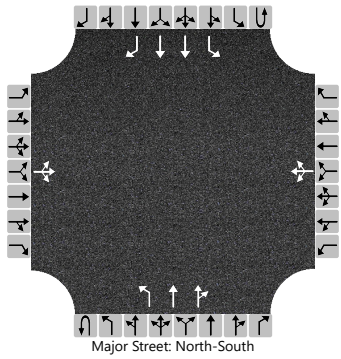
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2022
Time Analyzed	2022 AM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Jeff. Plaza & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Jefferson Plaza, NE
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	0	0	1	2	1
Configuration			LTR				LTR			L	T	TR		L	T	R
Volume (veh/h)		7	0	6		1	0	3	0	23	693	6	0	5	826	43
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized													No			
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			13				4			23				5		
Capacity, c (veh/h)			331				469			765				887		
v/c Ratio			0.04				0.01			0.03				0.01		
95% Queue Length, Q_{95} (veh)			0.1				0.0			0.1				0.0		
Control Delay (s/veh)			16.3				12.7			9.9				9.1		
Level of Service (LOS)			C				B			A				A		
Approach Delay (s/veh)	16.3				12.7				0.3				0.1			
Approach LOS	C				B											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

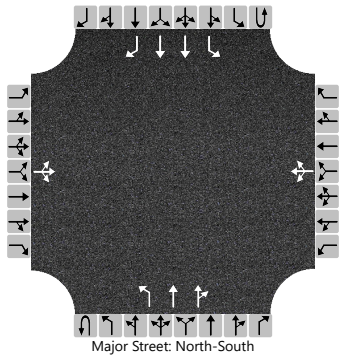
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2022
Time Analyzed	2022 PM NO BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Jeff. Plaza & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Jefferson Plaza, NE
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	0	0	1	2	1
Configuration			LTR				LTR			L	T	TR		L	T	R
Volume (veh/h)		24	0	24		10	0	1	0	8	651	0	0	6	864	6
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized													No			
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			48				11			8				6		
Capacity, c (veh/h)			336				293			764				925		
v/c Ratio			0.14				0.04			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.5				0.1			0.0				0.0		
Control Delay (s/veh)			17.5				17.7			9.8				8.9		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)	17.5				17.7				0.1				0.1			
Approach LOS	C				C											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

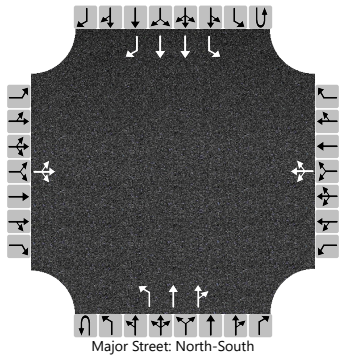
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2022
Time Analyzed	2022 PM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Jeff. Plaza & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Jefferson Plaza, NE
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	0	0	1	2	1
Configuration			LTR				LTR			L	T	TR		L	T	R
Volume (veh/h)		24	0	24		10	0	1	0	9	694	0	0	6	881	6
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized													No			
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			48				11			9				6		
Capacity, c (veh/h)			327				278			753				891		
v/c Ratio			0.15				0.04			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.5				0.1			0.0				0.0		
Control Delay (s/veh)			17.9				18.5			9.8				9.1		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)	17.9				18.5				0.1				0.1			
Approach LOS	C				C											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

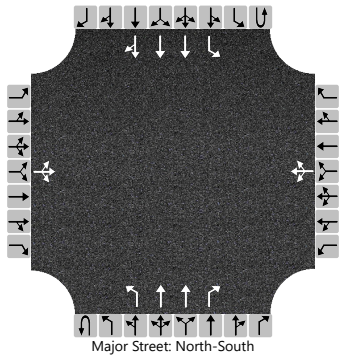
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2021
Time Analyzed	2022 AM NO BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'A' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'A"
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	3	0
Configuration			LTR				LTR			L	T	R		L	T	TR
Volume (veh/h)		2	0	5		0	0	0	0	14	683	0	0	0	790	10
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	6.9		5.3				4.1		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	6.96		5.36				4.16		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.3		3.1				2.2		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.33		3.13				2.23		

Delay, Queue Length, and Level of Service

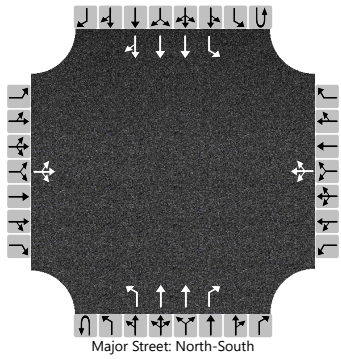
Flow Rate, v (veh/h)			7				0			14				0		
Capacity, c (veh/h)			385							485				899		
v/c Ratio			0.02							0.03				0.00		
95% Queue Length, Q_{95} (veh)			0.1							0.1				0.0		
Control Delay (s/veh)			14.5							12.6				9.0		
Level of Service (LOS)			B							B				A		
Approach Delay (s/veh)	14.5								0.3				0.0			
Approach LOS	B															

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	J. Becker	Intersection	Driveway 'A' & Jeff. St.
Agency/Co.	Terry O. Brown, P. E.	Jurisdiction	City of Albuquerque
Date Performed	9/1/2021	East/West Street	Driveway 'A"
Analysis Year	2022	North/South Street	Jefferson St. NE
Time Analyzed	2022 AM BUILD	Peak Hour Factor	1.00
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	XRANM		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	3	0
Configuration			LTR				LTR			L	T	R		L	T	TR
Volume (veh/h)		2	0	5		16	0	4	0	14	683	5	0	37	790	10
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	6.9		5.3				4.1		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	6.96		5.36				4.16		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.3		3.1				2.2		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.33		3.13				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			7				20			14				37		
Capacity, c (veh/h)			358				316			485				895		
v/c Ratio			0.02				0.06			0.03				0.04		
95% Queue Length, Q_{95} (veh)			0.1				0.2			0.1				0.1		
Control Delay (s/veh)			15.3				17.1			12.6				9.2		
Level of Service (LOS)			C				C			B				A		
Approach Delay (s/veh)	15.3				17.1				0.3				0.4			
Approach LOS	C				C											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

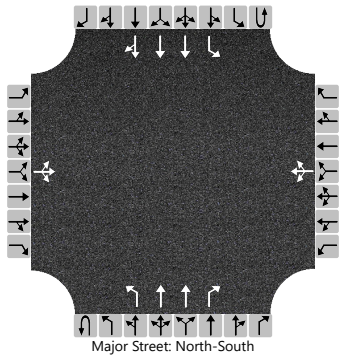
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2022
Time Analyzed	2022 PM NO BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'A' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'A"
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	3	0
Configuration			LTR				LTR			L	T	R		L	T	TR
Volume (veh/h)		10	0	14		0	0	0	0	6	651	0	0	0	864	3
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	6.9		5.3				4.1		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	6.96		5.36				4.16		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.3		3.1				2.2		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.33		3.13				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			24				0			6				0		
Capacity, c (veh/h)			321							450				925		
v/c Ratio			0.07							0.01				0.00		
95% Queue Length, Q_{95} (veh)			0.2							0.0				0.0		
Control Delay (s/veh)			17.1							13.1				8.9		
Level of Service (LOS)			C							B				A		
Approach Delay (s/veh)	17.1								0.1				0.0			
Approach LOS	C															

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

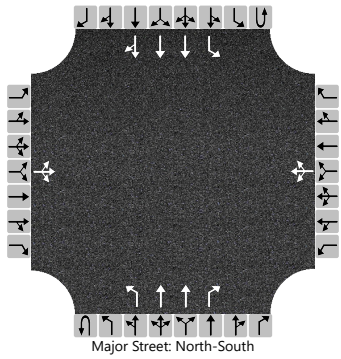
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2022
Time Analyzed	2022 PM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'A' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'A"
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	3	0
Configuration			LTR				LTR			L	T	R		L	T	TR
Volume (veh/h)		10	0	14		67	0	17	0	6	651	2	0	17	864	3
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	6.9		5.3				4.1		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	6.96		5.36				4.16		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.3		3.1				2.2		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.33		3.13				2.23		

Delay, Queue Length, and Level of Service

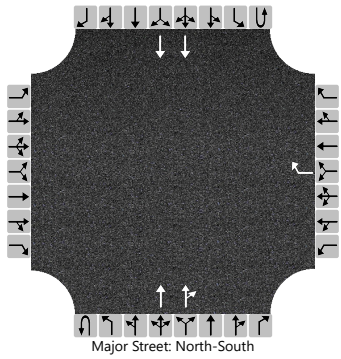
Flow Rate, v (veh/h)			24				84			6				17		
Capacity, c (veh/h)			307				340			450				923		
v/c Ratio			0.08				0.25			0.01				0.02		
95% Queue Length, Q_{95} (veh)			0.3				1.0			0.0				0.1		
Control Delay (s/veh)			17.7				19.0			13.1				9.0		
Level of Service (LOS)			C				C			B				A		
Approach Delay (s/veh)	17.7				19.0				0.1				0.2			
Approach LOS	C				C											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	J. Becker	Intersection	Driveway 'B' & Jeff. St.
Agency/Co.	Terry O. Brown, P. E.	Jurisdiction	City of Albuquerque
Date Performed	9/1/2021	East/West Street	Driveway 'B'
Analysis Year	2022	North/South Street	Jefferson St. NE
Time Analyzed	2022 AM BUILD	Peak Hour Factor	1.00
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	XRANM		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								7			688	51			790	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					Yes											
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)								6.9								
Critical Headway (sec)								6.96								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								7								
Capacity, c (veh/h)								625								
v/c Ratio								0.01								
95% Queue Length, Q_{95} (veh)								0.0								
Control Delay (s/veh)								10.8								
Level of Service (LOS)								B								
Approach Delay (s/veh)					10.8											
Approach LOS					B											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

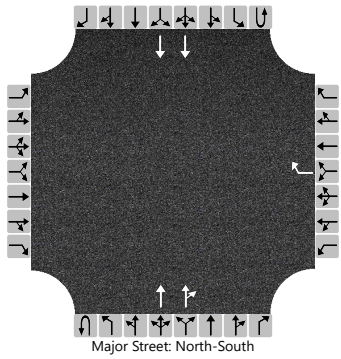
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2022
Time Analyzed	2022 PM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'B' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'B'
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								28			653	24			864	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					Yes											
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)								6.9								
Critical Headway (sec)								6.96								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								28								
Capacity, c (veh/h)								654								
v/c Ratio								0.04								
95% Queue Length, Q_{95} (veh)								0.1								
Control Delay (s/veh)								10.7								
Level of Service (LOS)								B								
Approach Delay (s/veh)					10.7											
Approach LOS					B											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

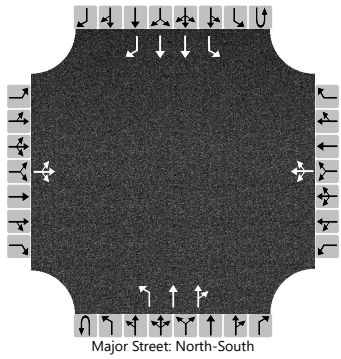
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 AM NO BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Jeff. Plaza & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Jefferson Plaza, NE
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	0	0	1	2	1
Configuration			LTR				LTR			L	T	TR		L	T	R
Volume (veh/h)		8	0	5		1	0	3	0	24	716	7	0	5	828	46
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized													No			
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			13				4			24				5		
Capacity, c (veh/h)			309				458			761				869		
v/c Ratio			0.04				0.01			0.03				0.01		
95% Queue Length, Q_{95} (veh)			0.1				0.0			0.1				0.0		
Control Delay (s/veh)			17.2				12.9			9.9				9.2		
Level of Service (LOS)			C				B			A				A		
Approach Delay (s/veh)	17.2				12.9				0.3				0.1			
Approach LOS	C				B											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

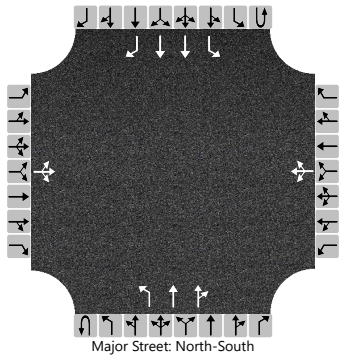
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 AM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Jeff. Plaza & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Jefferson Plaza, NE
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	0	0	1	2	1
Configuration			LTR				LTR			L	T	TR		L	T	R
Volume (veh/h)		8	0	6		1	0	3	0	24	726	7	0	5	864	46
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized													No			
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			14				4			24				5		
Capacity, c (veh/h)			307				451			738				861		
v/c Ratio			0.05				0.01			0.03				0.01		
95% Queue Length, Q_{95} (veh)			0.1				0.0			0.1				0.0		
Control Delay (s/veh)			17.3				13.0			10.0				9.2		
Level of Service (LOS)			C				B			B				A		
Approach Delay (s/veh)	17.3				13.0				0.3				0.1			
Approach LOS	C				B											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

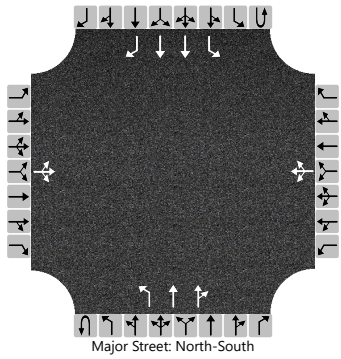
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 PM NO BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Jeff. Plaza & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Jefferson Plaza, NE
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	0	0	1	2	1
Configuration			LTR				LTR			L	T	TR		L	T	R
Volume (veh/h)		25	0	25		11	0	1	0	9	682	0	0	7	906	7
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized													No			
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			50				12			9				7		
Capacity, c (veh/h)			318				276			736				900		
v/c Ratio			0.16				0.04			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.6				0.1			0.0				0.0		
Control Delay (s/veh)			18.4				18.6			10.0				9.0		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)	18.4				18.6				0.1				0.1			
Approach LOS	C				C											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

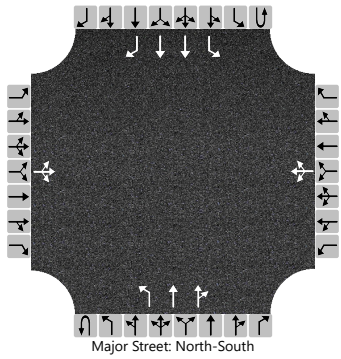
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 PM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Jeff. Plaza & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Jefferson Plaza, NE
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	0	0	1	2	1
Configuration			LTR				LTR			L	T	TR		L	T	R
Volume (veh/h)		25	0	25		11	0	1	0	10	725	0	0	7	923	7
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized													No			
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			50				12			10				7		
Capacity, c (veh/h)			309				261			725				867		
v/c Ratio			0.16				0.05			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.6				0.1			0.0				0.0		
Control Delay (s/veh)			18.9				19.5			10.0				9.2		
Level of Service (LOS)			C				C			B				A		
Approach Delay (s/veh)	18.9				19.5				0.1				0.1			
Approach LOS	C				C											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

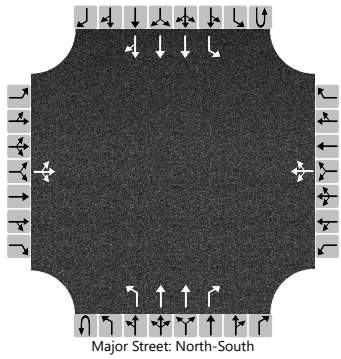
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 AM NO BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'A' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'A"
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	3	0
Configuration			LTR				LTR			L	T	R		L	T	TR
Volume (veh/h)		2	0	5		0	0	0	0	15	716	0	0	0	828	11
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	6.9		5.3				4.1		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	6.96		5.36				4.16		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.3		3.1				2.2		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.33		3.13				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			7				0			15				0		
Capacity, c (veh/h)			368							465				874		
v/c Ratio			0.02							0.03				0.00		
95% Queue Length, Q_{95} (veh)			0.1							0.1				0.0		
Control Delay (s/veh)			15.0							13.0				9.1		
Level of Service (LOS)			B							B				A		
Approach Delay (s/veh)	15.0								0.3				0.0			
Approach LOS	B															

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

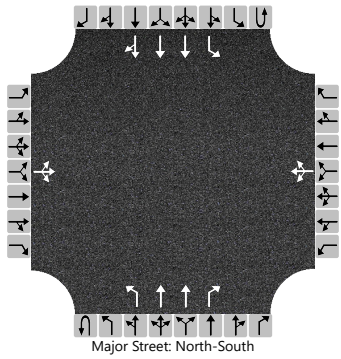
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 AM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'A' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'A"
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	3	0
Configuration			LTR				LTR			L	T	R		L	T	TR
Volume (veh/h)		2	0	5		16	0	4	0	15	716	5	0	37	828	11
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	6.9		5.3				4.1		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	6.96		5.36				4.16		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.3		3.1				2.2		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.33		3.13				2.23		

Delay, Queue Length, and Level of Service

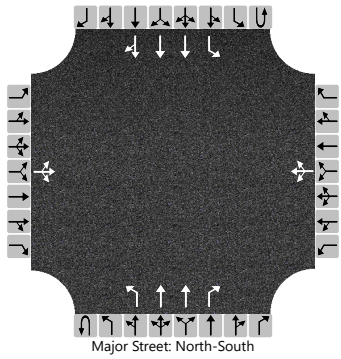
Flow Rate, v (veh/h)			7				20			15				37		
Capacity, c (veh/h)			342				301			465				870		
v/c Ratio			0.02				0.07			0.03				0.04		
95% Queue Length, Q_{95} (veh)			0.1				0.2			0.1				0.1		
Control Delay (s/veh)			15.8				17.8			13.0				9.3		
Level of Service (LOS)			C				C			B				A		
Approach Delay (s/veh)	15.8				17.8				0.3				0.4			
Approach LOS	C				C											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	J. Becker	Intersection	Driveway 'A' & Jeff. St.
Agency/Co.	Terry O. Brown, P. E.	Jurisdiction	City of Albuquerque
Date Performed	9/1/2021	East/West Street	Driveway 'A"
Analysis Year	2032	North/South Street	Jefferson St. NE
Time Analyzed	2032 PM BUILD	Peak Hour Factor	1.00
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	XRANM		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	3	0
Configuration			LTR				LTR			L	T	R		L	T	TR
Volume (veh/h)		11	0	15		0	0	0	0	7	682	0	0	0	906	3
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	6.9		5.3				4.1		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	6.96		5.36				4.16		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.3		3.1				2.2		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.33		3.13				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			26				0			7				0		
Capacity, c (veh/h)			302							430				900		
v/c Ratio			0.09							0.02				0.00		
95% Queue Length, Q_{95} (veh)			0.3							0.0				0.0		
Control Delay (s/veh)			18.0							13.5				9.0		
Level of Service (LOS)			C							B				A		
Approach Delay (s/veh)	18.0								0.1				0.0			
Approach LOS	C															

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

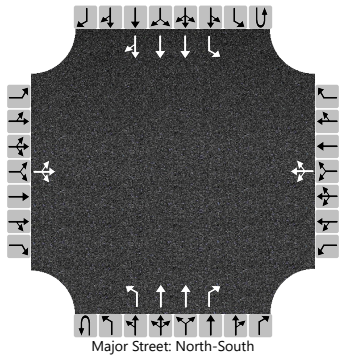
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 PM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'A' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'A"
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	2	1	0	1	3	0
Configuration			LTR				LTR			L	T	R		L	T	TR
Volume (veh/h)		11	0	15		67	0	17	0	7	682	2	0	17	906	3
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	6.9		5.3				4.1		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	6.96		5.36				4.16		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.3		3.1				2.2		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.33		3.13				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			26				84			7				17		
Capacity, c (veh/h)			288				324			430				898		
v/c Ratio			0.09				0.26			0.02				0.02		
95% Queue Length, Q_{95} (veh)			0.3				1.0			0.0				0.1		
Control Delay (s/veh)			18.7				20.0			13.5				9.1		
Level of Service (LOS)			C				C			B				A		
Approach Delay (s/veh)	18.7				20.0				0.1				0.2			
Approach LOS	C				C											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

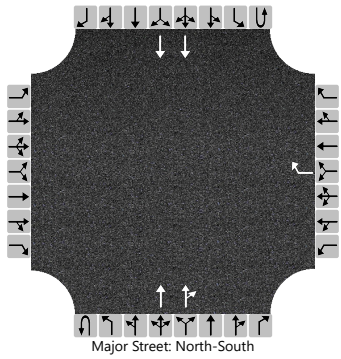
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 AM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'B' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'B'
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								7			721	51			828	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					Yes											
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)								6.9								
Critical Headway (sec)								6.96								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								7								
Capacity, c (veh/h)								610								
v/c Ratio								0.01								
95% Queue Length, Q_{95} (veh)								0.0								
Control Delay (s/veh)								11.0								
Level of Service (LOS)								B								
Approach Delay (s/veh)					11.0											
Approach LOS					B											

Copyright © 2021 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

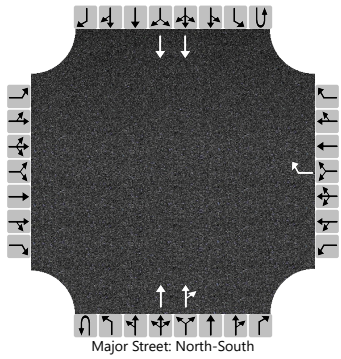
General Information

Analyst	J. Becker
Agency/Co.	Terry O. Brown, P. E.
Date Performed	9/1/2021
Analysis Year	2032
Time Analyzed	2032 PM BUILD
Intersection Orientation	North-South
Project Description	XRANM

Site Information

Intersection	Driveway 'B' & Jeff. St.
Jurisdiction	City of Albuquerque
East/West Street	Driveway 'B'
North/South Street	Jefferson St. NE
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								28			684	24			906	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					Yes											
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)								6.9								
Critical Headway (sec)								6.96								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								28								
Capacity, c (veh/h)								639								
v/c Ratio								0.04								
95% Queue Length, Q_{95} (veh)								0.1								
Control Delay (s/veh)								10.9								
Level of Service (LOS)								B								
Approach Delay (s/veh)					10.9											
Approach LOS					B											

Copyright © 2021 University of Florida. All Rights Reserved.

Peak Hour Times / Volumes (from Mid-Region Council of Governments' TAQA)

Project: XRANM

Intersection: Jefferson Plaza
Jefferson St.

						VOLUMES									
						AM Peak Hour					PM Peak Hour				
COGOID		Roadway	Location	Date	AADT	Time	NB Vol	SB Vol	EB Vol	WB Vol	Time	NB Vol	SB Vol	EB Vol	WB Vol
21418	West Leg (EB)	JEFFERSON	N. OF ENT. DIGITAL PARKING LOT	2015	15378	**730**	660	763	0	0	**1645**	629	835	0	0

SCOPE OF TRAFFIC IMPACT STUDY (TIS)

TO: Terry Brown
Terry O. Brown, P.E.
P. O. Box 92051
Albuquerque, NM 87199-2051

MEETING DATE: August 12, 2021 (9:00 AM)

ATTENDEES: Matthew Grush; COA Transportation Development Review; Jeff Jesionowski, Aim Management Corp., and Terry Brown.

PROJECT: **XRANM Development – 5900 Jefferson St. NE**

REQUESTED CITY ACTION: ___ Zone Change __X__ Site Development Plan

___ Subdivision ___ Building Permit ___ Sector Plan ___ Sector Plan Amendment

___ Curb Cut Permit ___ Conditional Use ___ Annexation ___ Site Plan Amendment

ASSOCIATED APPLICATION: Description of development, where, what, etc. Include acreage, uses, etc. Proposed medical office and office / warehouse buildings.

SCOPE OF REPORT:
The Traffic Impact Study should follow the standard report format, which is outlined in the DPM. The following supplemental information is provided for the preparation of this specific study.

1. Trip Generation - Use Trip Generation Manual, 10th Edition.
   Local data may be used for certain land use types as determined by staff.
   Consultant to provide.

2. Appropriate study area:
   Signalized Intersections; NONE

   Unsignalized Intersections;
   a. Jefferson Plaza Jefferson St.
   b. Access driveways (2)

   Driveway Intersections: all site drives.

3. Intersection turning movement counts
   Study Time – 7-9 a.m. peak hour, 4-6 p.m. peak hour
   Consultant to provide for all intersections listed above. Base traffic volumes for Traffic Impact Study will be derived from Streetlightdata.com and adjusted to conform to recent TAQA count data.

4. Type of intersection progression and factors to be used.
Type III arrival type (see “Highway Capacity Manual, current edition” or equivalent as approved by staff). Unless otherwise justified, peak hour factors and % heavy commercial should be taken directly from the MRCOG turning movement data provided or as calculated from current count data by consultant.

5. Boundaries of area to be used for trip distribution.
   City Wide - residential, office or industrial;

x mile radius – commercial;
Interstate or to be determined by consultant - motel/hotel
APS district boundary mapping for each school and bus routes

6. Basis for trip distribution.

Residential – Use inverse relationship based upon distance and employment. Use employment data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Office/Industrial - Use inverse relationship based upon distance and population. Use population data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Commercial - Use relationship based upon population. Use population data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Residential - $Ts = (Tt) (Se / D) / (Se / D)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Se = Subarea Employment
D = Distance from Development to Subarea

Office/Industrial - $Ts = (Tt) (Sp / D) / (Sp / D)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Sp = Subarea Population
D = Distance from Development to Subarea

Commercial -
$Ts = (Tt) (Sp) / (Sp)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Sp = Subarea Population

7. Traffic Assignment. Logical routing on the major street system.

8. Proposed developments which have been approved but not constructed that are to be Included in the analyses. Projects in the area include:
   a. None

9. Method of intersection capacity analysis - planning or operational (see "2016 Highway Capacity Manual" or equivalent [i.e. HCS, Synchro, Teapac, etc.] as approved by staff). Must use latest version of design software and/or current edition of design manual.
   Implementation Year: 2022
   Horizon Year: 2032

10. Traffic conditions for analysis:
    a. Existing analysis __ yes _X_ no - year (xxxx);
    b. Phase implementation year(s) without proposed development – 2022
    c. Phase implementation year(s) with proposed development – 2022
    d. Project horizon year without proposed development – 2032
    e. Project horizon year with proposed development – 2032
    f. Other –

11. Background traffic growth.
    Method: use 10-year historical growth based on standard data from the MRCOG Traffic Flow Maps. Minimum growth rate to be used is 1/2%.

12. Planned (programmed) traffic improvements.
    List planned CIP improvements in study area and projected project implementation year:
    a. Project – Location (Implementation Year)

13. Items to be included in the study:
    a. Intersection analysis.
    b. Signal progression - An analysis is required if the driveway analysis indicates a traffic signal is possibly warranted. Analysis Method:
    c. Arterial LOS analysis; Jefferson St. from Balloon Park Rd. to Jefferson Plaza)
    d. Recommended street, intersection and signal improvements.
    e. Site design features such as turning lanes, median cuts, queuing requirements and site circulation, including driveway signalization and visibility.
    f. Transportation system impacts.
    g. Other mitigating measures.
    h. Accident analyses _X_ yes __ no; Location(s): (Jefferson St. from Balloon Park Rd. to Jefferson Plaza)
    i. Weaving analyses __ yes _X_ no; Location(s):

14. Other: N/A

SUBMITTAL REQUIREMENTS:

1. Number of copies of report required
   a. 1 digital copy
2. Submittal Fee – $1300 for up to 3 reviews

The Traffic Impact Study for this development proposal, project name, shall be performed in accordance with the above criteria. If there are any questions regarding the above items, please contact me at 924-3362.

M Grush P.E.

8/12/2021

Matt Grush, P.E., PTOE
Senior Engineer
City of Albuquerque, Planning
Transportation Development Section

Date

via: email
C: TIS Task Force Attendees, file

Determination of Warrants for Auxiliary Lanes

Project Name: **X-ray New Mexico - Albuquerque, NM**
Name of Highway: **Jefferson St., N.E.**
Name of Cross Street: **Driveway 'A'**

Determination of Warrants for: **Right-turn Eastbound Deceleration Lane**

Implementation Year Volumes - **2022** **Posted Speed Limit:** **35** **mph**

Right Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Right Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length (Include. Taper)	Taper Ratio
AM Peak Hour NO BUILD	**2022**	-	-	342		N/A		-	**N/A**	**N/A**
AM Peak Hour BUILD	**2022**	5	730	342		N/A		-	**N/A**	**N/A**
PM Peak Hour NO BUILD	**2022**	-	-	326		N/A		-	**N/A**	**N/A**
PM Peak Hour BUILD	**2022**	2	9,999	326		N/A		-	**N/A**	**N/A**

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

Left Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Left Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length (Include. Taper)	Taper Ratio
AM Peak Hour NO BUILD	**2022**	-	-	395		N/A		N/A	**N/A**	**N/A**
AM Peak Hour BUILD	**2022**	37	126	395	✓	250	1.00	-	**250**	**8:1**
PM Peak Hour NO BUILD	**2022**	-	-	432		N/A		N/A	**N/A**	**N/A**
PM Peak Hour BUILD	**2022**	17	266	432	✓	250	1.00	25	**275**	**8:1**

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

* **Lane Length Requirements based on Table 18.K-1 (Deceleration and Acceleraion Lengths)**
** **Enter Grade Adjustment Factor from Table 18.K-2 or other criteria.**
*** **Lane Storage Length is Based on a calculated 3-minute queue based on average arrival rate per minute.**
= Volume/Hr. divided by 60 times three (rounded) times 25 feet per vehicle.
Lane Storage Length for right turn decel lanes is zero unless there is a stop condition.

Notes and Comments:

Worksheet Developed by Terry O. Brown, P.E.

Determination of Warrants for Auxiliary Lanes

Project Name: **X-ray New Mexico - Albuquerque, NM**
Name of Highway: **Jefferson St., N.E.**
Name of Cross Street: **Driveway 'B'**

Determination of Warrants for: **Right-turn Eastbound Deceleration Lane**

Implementation Year Volumes - **2022** **Posted Speed Limit:** **35** **mph**

Right Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Right Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length (Include. Taper)	Taper Ratio
AM Peak Hour NO BUILD	**2022**	-	-	342		N/A		-	**N/A**	**N/A**
AM Peak Hour BUILD	**2022**	51	1	344	✓	250	1.00	-	**250**	**8:1**
PM Peak Hour NO BUILD	**2022**	-	-	326		N/A		-	**N/A**	**N/A**
PM Peak Hour BUILD	**2022**	24	236	327	✓	250	1.00	-	**250**	**8:1**

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

Left Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Left Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length (Include. Taper)	Taper Ratio
AM Peak Hour NO BUILD	**2022**	-	-	395		N/A		N/A	**N/A**	**N/A**
AM Peak Hour BUILD	**2022**	-	-	395		N/A		-	**N/A**	**N/A**
PM Peak Hour NO BUILD	**2022**	-	-	432		N/A		N/A	**N/A**	**N/A**
PM Peak Hour BUILD	**2022**	-	-	432		N/A		N/A	**N/A**	**N/A**

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

* **Lane Length Requirements based on Table 18.K-1 (Deceleration and Acceleraion Lengths)**
** **Enter Grade Adjustment Factor from Table 18.K-2 or other criteria.**
*** **Lane Storage Length is Based on a calculated 3-minute queue based on average arrival rate per minute.**
= Volume/Hr. divided by 60 times three (rounded) times 25 feet per vehicle.
Lane Storage Length for right turn decel lanes is zero unless there is a stop condition.

Notes and Comments:

Worksheet Developed by Terry O. Brown, P.E.