Transportation Master Plan

Santa Fe Midtown

Prepared for

City of Santa Fe, New Mexico

Prepared by

Wilson & Company
410 N. 44th Street, Suite 460
Phoenix, AZ 85008

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1.0 INTRODUCTION

The Midtown development, located in Santa Fe, New Mexico, is a proposed downtown revitalization area that will provide a unique offering of attractions for residents and visitors alike. The redevelopment is intended to complement surrounding land uses and contribute to the vibrancy, economic vitality, and local character of the community. The Midtown redevelopment is intended to improve walkability and enable more transportation choices to advance the community's resiliency and climate change objectives. Four elements were identified to guide sustainable development at Midtown: Equity, Environment, Economy, and Culture. The overall vision for the Midtown Master Plan is to provide mixed-use opportunity for residential and business spaces, support cultural allure, and appeal to the diversity of Santa Fe's residents and visitors.

2.0 PROPOSED MIDTOWN AREA REDEVELOPMENT

The proposed Midtown development is a 76-acre master-planned site, occupying the former Santa Fe University of Art & Design (SFUAD) and replacing the campus with a regional mixed-use cultural center. **Figure 1** depicts the area location and displays the anticipated land uses. While specific uses are not known at this time, a reasonable estimate of the location, type, and size of uses has been developed for purposes of this Transportation Master Plan (TMP), as detailed in **Table 1**. The development will encompass a mixture of residential and commercial amenities including retail, restaurant, institutional and theatre facilities, as well as office space. The master-planned center is scheduled for phased development with the first phase (Phase I) including 32 acres of commercial, office, institutional, residential, and open space land use; the second phase (Phase II) including 26 acres of commercial, office, institutional, residential, and open space land use; and the third phase (Phase III) which involves continuing connectivity outside the study area. This TMP will encompass Phase I and Phase II which will occur within the immediate study area.

A key focus of the Midtown master plan development is to support the City's vision for creating a sustainable, pedestrian-oriented community that will provide employment and housing opportunities, improved mobility options, and access to recreation and public spaces. The Midtown center will provide amenities for several transportation modes and all users as well as provide increased connectivity and access to surrounding neighborhoods, regional parks, trails and open space, schools, commercial centers and transit routes, including the Rail Runner.

Figure 1: Study Area

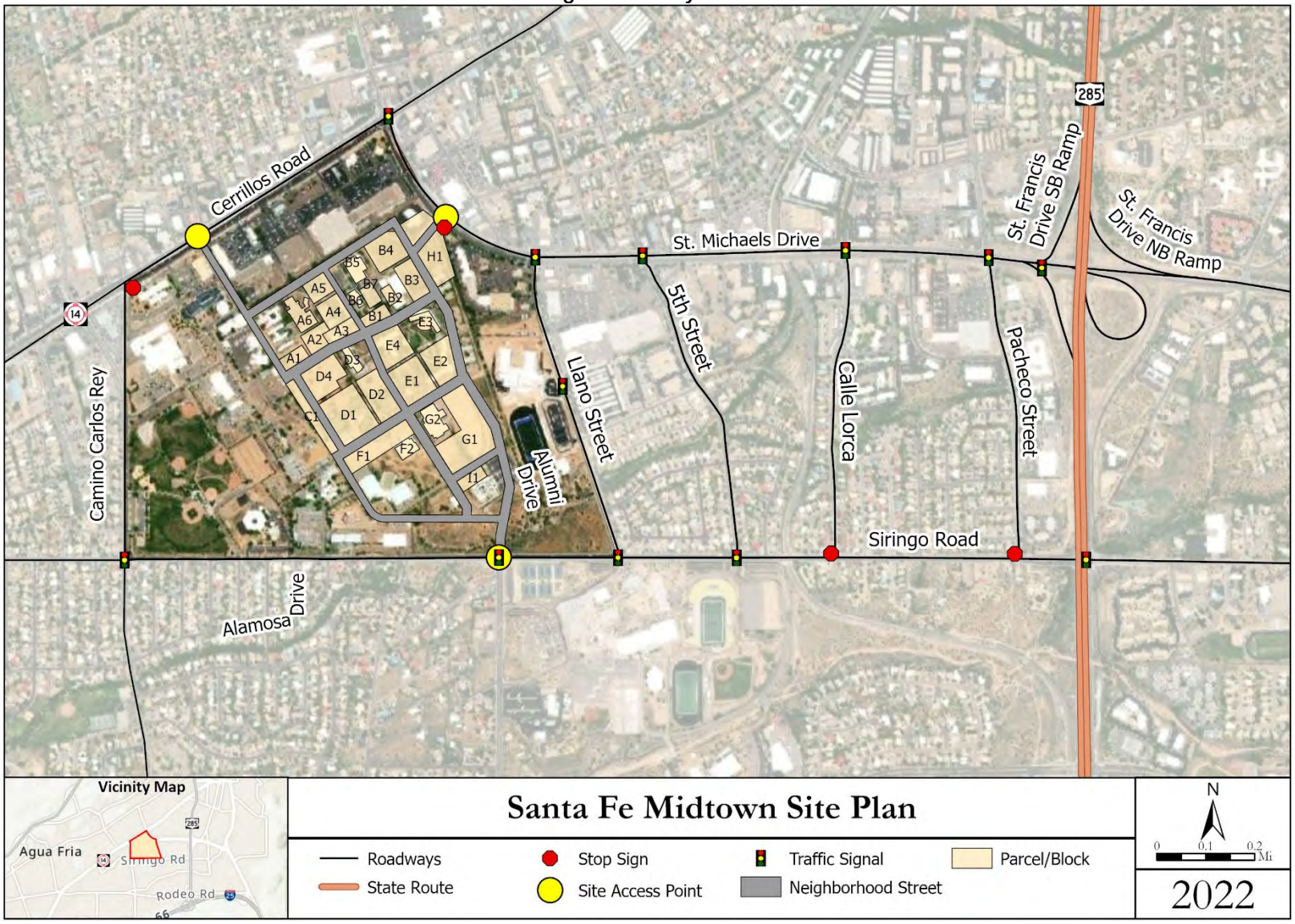


Table 1: Summary of Anticipated Land Uses

Lot	Size	Unit	Land Use	Phase
A -1	15.0	Dwelling Units	Residential - Townhouse	1
A-2	6.0	Dwelling Units	Residential - Townhouse	1
	52.0	Dwelling Units	Residential - Midrise Apts	
A-3	3.5	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	2
	3.5	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	
	3.5	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	
	7.9	1000 SQFT	Bar	
	100.0	Rooms	Lodging (Boutique Hotel)	
A-4	14.0	Dwelling Units	Residential - Townhouse	1
	90.0	Dwelling Units	Residential - Midrise Apts	
A-5	17.5	1000 SQFT	Community/Assembly/Library (Visual Art Complex)	1
	17.5	1000 SQFT	Community/Assembly/Library (Visual Art Complex)	
A-6	17.5	1000 SQFT	Community/Assembly/Library (Barracks)	1
B1	37.0	Dwelling Units	Residential - Midrise Apts with Ground Floor Retail	1
B2	45.6	1000 SQFT	Community/Assembly/Library (Fogelson Library)	1
B3	7.0	Dwelling Units	Residential - Townhouse	1
	35.0	Dwelling Units	Residential - Low Rise Multifamily	
B4	8.0	Dwelling Units	Residential - Townhouse	1
	37.0	Dwelling Units	Residential - Midrise Apts	
B5	165.0	Seats	Cinema (Garson Theatre) 165 Seats	1
B6	17.0	Dwelling Units	Residential - Townhouse	1
B7	8.7	1000 SQFT	Office (Medium-trip) (Administration Building)	1
C1	30.0	Dwelling Units	Residential - Townhouse	2
D1	21.0	Dwelling Units	Residential - Townhouse	2
	36.0	Dwelling Units	Residential - Low Rise Multifamily	
	135.7	1000 SQFT	Office (Medium trip)	
	43.0	1000 SQFT	Office (Medium trip)	
D2	19.0	Dwelling Units	Residential - Townhouse	2
	82.0	Dwelling Units	Residential - Midrise Apts	

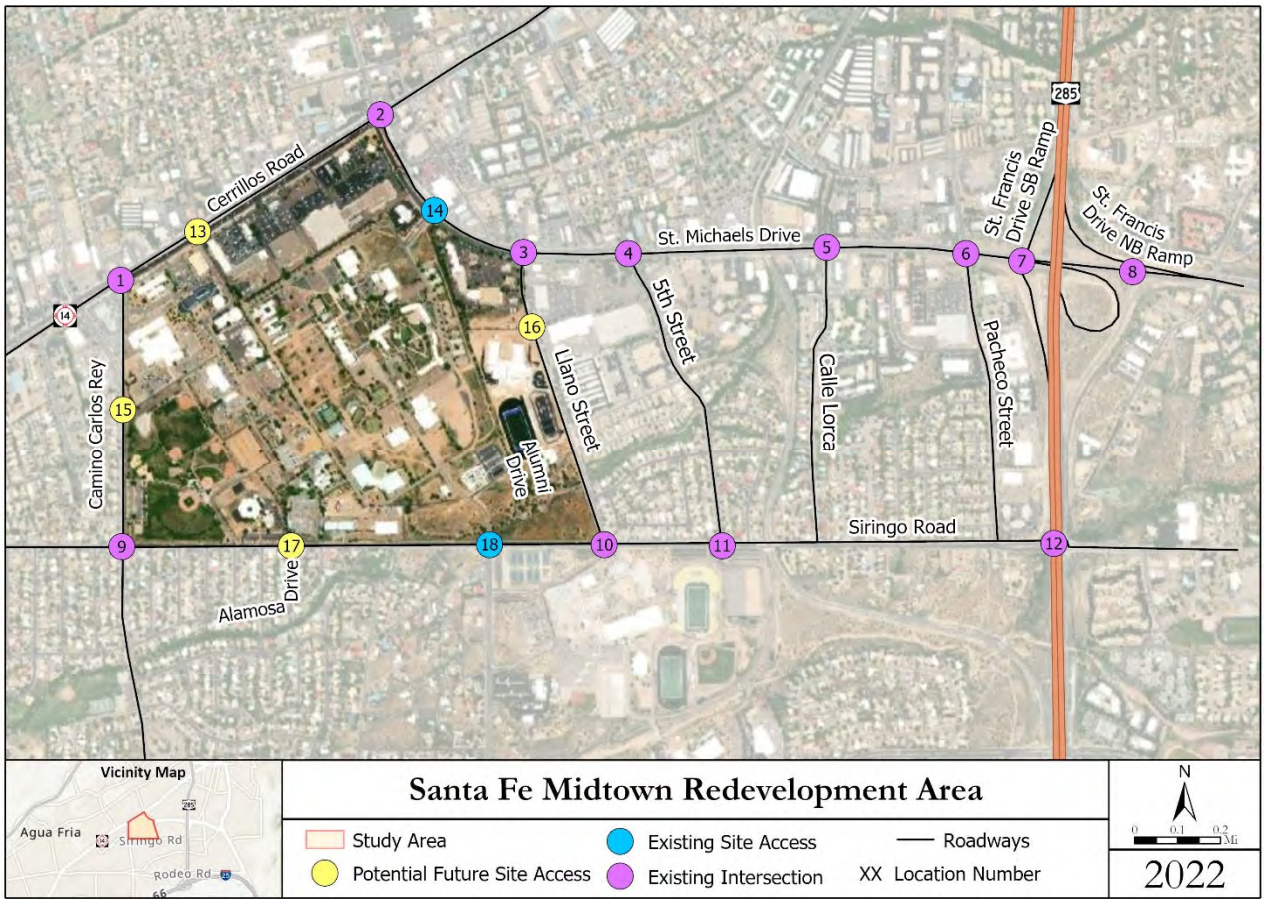
Table 1: Summary of Anticipated Land Uses (continued)

Lot	Size	Unit	Land Use	Phase
D3	40.0	Dwelling Units	Residential - Midrise Apts with Ground Floor Retail	2
D4	27.8	1000 SQFT	Office (Medium trip) (Benildus Hall)	2
D5	24.0	Dwelling Units	Residential - Townhouse	2
	55.0	Dwelling Units	Residential - Low Rise Multifamily	
E1	15.0	Dwelling Units	Residential - Townhouse	2
	151.0	Dwelling Units	Residential - Midrise Apts	
E2	19.0	Dwelling Units	Residential - Townhouse	2
	44.0	Dwelling Units	Residential - Low Rise Multifamily	
E3	30.1	1000 SQFT	Community/Assembly/Library (King Hall)	2
E4	3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	2
	3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	
	3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	
	3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	
	3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	
	5.0	Dwelling Units	Residential - Townhouse	
	35.0	Dwelling Units	Residential - Midrise Apts	
F1	155.6	1000 SQFT	Office (Medium-trip)	2
	51.9	1000 SQFT	Film (production)	
F2	13.2	1000 SQFT	Office (Medium-trip)	2
	39.7	1000 SQFT	Film (production) (Discoll Hall)	
G1	12.3	1000 SQFT	Office (Medium trip)	1
	165.0	Seats	Film (production) (Garson StudiosTheater)	
G2	222.4	1000 SQFT	Film (production)	1
H1	35.0	Dwelling Units	Residential - Townhouse	1
	65.0	Dwelling Units	Residential - Midrise Apts	
H2	128.0	Dwelling Units	Residential - Midrise Apts	1
I1	91.7	1000 SQFT	Film (production)	2
O1		1000 SQFT	Open Space	2
O2		1000 SQFT	Open Space	1

3.0 STUDY AREA

The proposed Midtown development is a 76-acre master-planned site, located in Santa Fe, New Mexico, west St. Francis Drive/US 285. The redevelopment area is encompassed by five roadways: Cerrillos Road to the northwest, St. Michaels Drive to the northeast, Llano Street to the east, Siringo Road to the south, and Camino Carlos Rey to the west (**refer to Figure 2**). Internally, traffic within the study area is served primarily by Alumni Drive. Future traffic growth associated with the redevelopment is anticipated to access the study area via St Michaels Drive and Siringo Road. In addition to the intersections surrounding the redevelopment, major intersecting roads between the study area and St Francis Drive/US 285 were identified for detailed traffic analysis including 5th Street, Calle Lorca, and Pacheco Street.

Figure 2: Study Area



3.1 STUDY AREA LAND USE

The Midtown study area occupies the former the SFUAD campus. The facilities and land uses are all related to the activities of the campus including a variety of civic and recreational uses, offices, Garson Studios, Greer Garson Theatre, Shellaburger Tennis Center, indoor soccer complex, and Vital Spaces Art Studio.

The surrounding area of the proposed Midtown center is predominately residential with Franklin Miles Park and Hopewell-Mann neighborhoods located within proximity to the study area. However, the absence of multimodal options restrict access to these locations. These two neighboring land uses are currently served by the local roadway network and described below.

Hopewell-Mann Neighborhood

Hopewell-Man neighborhood occupies approximately 7.04 acres on north side of St. Michaels Road, approximately 0.35 miles east of the Cerrillos Rd and St. Michael's Dr. Intersection.

Franklin Miles Park

Franklin Miles Park occupies approximately 28.6 acres east of Camino Carlos Rey, approximately 0.3 miles west of Garson Studio's.

3.2 STUDY AREA ROADWAYS

The Midtown center is served by several major roadways that provide access to the study area. Characteristics of the roadways serving the Midtown center are described below.

3.2.1 Cerrillos Road / New Mexico Highway 14

Cerrillos Road is a principal arterial and part of Highway 14 that connects Albuquerque to Santa Fe, New Mexico. This roadway runs east-west for approximately half a mile along the northwest border of the study area and has a posted speed limit of 40 miles per hour (mph). Cerrillos Road is one of Santa Fe's most heavily traveled roadways, with three lanes in both the east and westbound directions. In between Camino Carlos Rey and St. Michaels Drive, there is a raised median separating the eastbound and westbound traffic, with dedicated left turning lanes for access to surrounding businesses (**Figure 3**). Within the study area, there is only one signalized intersection along Cerrillos Road at St. Michaels Drive. There are dedicated on-street bicycle lanes along Cerrillos Road as well as sidewalks on both sides of the roadway. Commuters have access to two bus stops along Cerrillos Road.

Figure 3: Cerrillos Road

3.2.2 Camino Carlos Rey

Camino Carlos Rey acts as the western boundary to the study area and is a two-lane minor arterial that runs from Siringo Road to approximately 950 feet south of Cerrillos Road, where the northbound travel lane forks to continue straight north, providing one-way access to businesses and a right-turn only onto Cerrillos Road (illustrated in **Figure 4**). A full access, signalized intersection of Camino Carlos Rey and Cerrillos is also located approximately 400 feet southwest of the one-way right-turn access. Camino Carlos Rey has a posted speed limit of 25 mph and a segment with a posted speed limit of 15 mph which is a school zone. There is a sidewalk on both sides of the roadway from Siringo Road to Cerrillos Road, three crosswalks and one dedicated bike lane in each direction until Camino Carlos Rey becomes a one-way road (refer to **Figure 4**). There are no bus stops along Camino Carlos Rey.

Figure 4: Camino Carlos Rey

3.2.3 Siringo Road

Siringo Road acts as the southern boundary to the study area and is a two-lane minor arterial that has a posted speed limit of 25 mph (see **Figure 5**). The Francis X Nava Elementary school zone has a posted speed limit of 15 mph along Siringo Road from San Lorenzo Drive to Alamosa Drive. There is a sidewalk on both sides of the roadway and four crosswalks along Siringo Road. Commuters have access to five bus stops along Siringo Road. Siringo Road is a shared vehicle/bicycle lane and has a two-way left-turn center lane from Camino Carlos Rey until Rancho Siringo Road, where the road converts to a dedicated vehicle lane and a dedicated bicycle lane with no center-lane or median. Siringo Road has five signalized intersections within the study area at the following locations:

Figure 5: Siringo Road

- Camino Carlos Rey
- Alumni Drive/Yucca Street
- Llano Street
- 5th Street
- St. Francis Drive/ US Highway 285

3.2.4 St. Michaels Drive / State Route 466

St. Michaels Drive/State Route 466 acts as the northeast boundary to the study area and is a 6-lane principal arterial/State Route that runs east-west. Within the study area, St. Michaels Drive has a posted speed limit of 40 mph. There are two signalized intersections along St. Michaels Drive within the study area and a raised median separating the eastbound and westbound traffic lanes, with dedicated left-turn pockets for access to surrounding businesses. There are sidewalks on both sides of the roadway, but no dedicated on-street bicycle lanes within the study area (see **Figure 6**). Commuters have access to two bus stops along St. Michaels Drive.

Figure 6: St. Michaels Drive / State Route 466

3.2.5 Llano Street

Llano Street acts as the eastern boundary to the study area and is a two-lane major collector that connects Siringo Road and St. Michaels Drive. Llano street has a posted speed limit of 25 mph and transitions to 15 mph at the Milagro Middle School zone. There are sidewalks and dedicated on-street bicycle lanes on both sides of the roadway (refer to **Figure 7**). There are three signalized intersections, a raised median for portions of the roadway and three pedestrian crosswalks along Llano Street.

Figure 7: Llano Street

3.3 STUDY AREA INTERSECTIONS

Based on the major roadways serving the Midtown study area, twelve key intersections were identified for detailed traffic analysis (intersections 1-12 below). In addition, there are two existing access locations to the Midtown development area, and potentially four additional locations proposed for future site access, all listed below. The initial analysis of site access was limited to the two existing access points to St. Michaels Drive and Siringo Street (intersections 14 and 18), and a single new access to Cerrillos Road (intersection 13).

1. Cerrillos Road & Camino Carlos Rey
2. Cerrilos Road & St. Micahels Drive
3. St. Michaels Drive & Llano Street
4. St. Michaels Drive & 5th Street
5. St. Michaels Drive & Calle Lorca
6. St. Micahels Drive & Pacheco Street
7. St. Micahels Drive & St. Francis Drive southbound ramps
8. St. Michaels Drive & St. Francis Drive northbound ramps
9. Siringo Road & Camino Carlos Rey
10. Siringo Road & Llano Street
11. Siringo Road & 5th Street
12. Siringo Road & St. Francis Drive
13. New site access to Cerrilos Road (approximately Luane Street alignment)
14. Existing site access to St. Micahels Drive (via Alumni Drive)
15. New site access to Camino Carlos Rey (location undetermined at this time)
16. New site access to Llano Street (location undetermined at this time)
17. New site access to Siringo Road (approximately Alamosa Drive alignment)
18. Existing site access to Siringo Street (via Alumni Drive)

Figure 8 depicts the existing geometry and traffic control at each intersection.

Figure 8: Intersection Geometry and Traffic Control

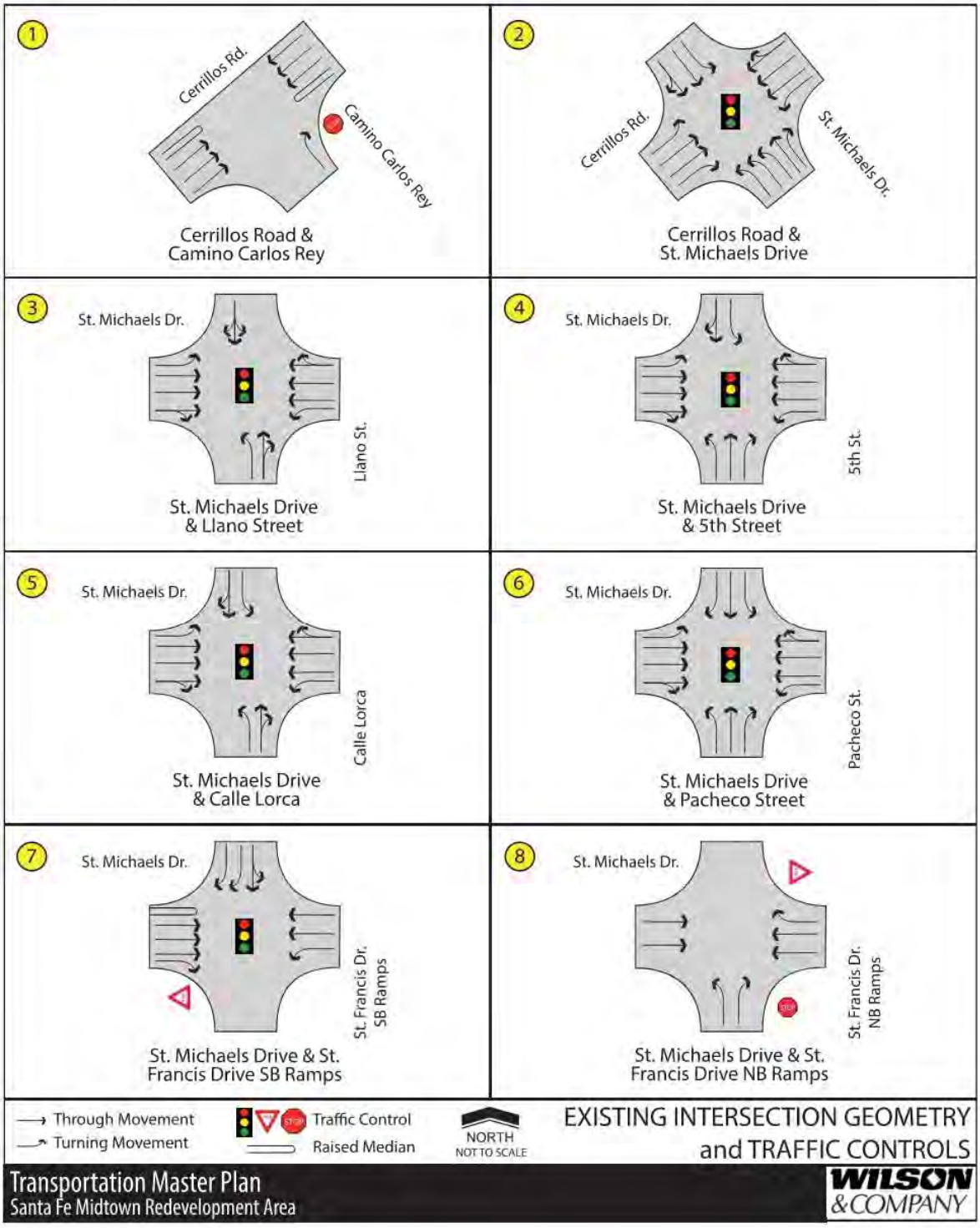
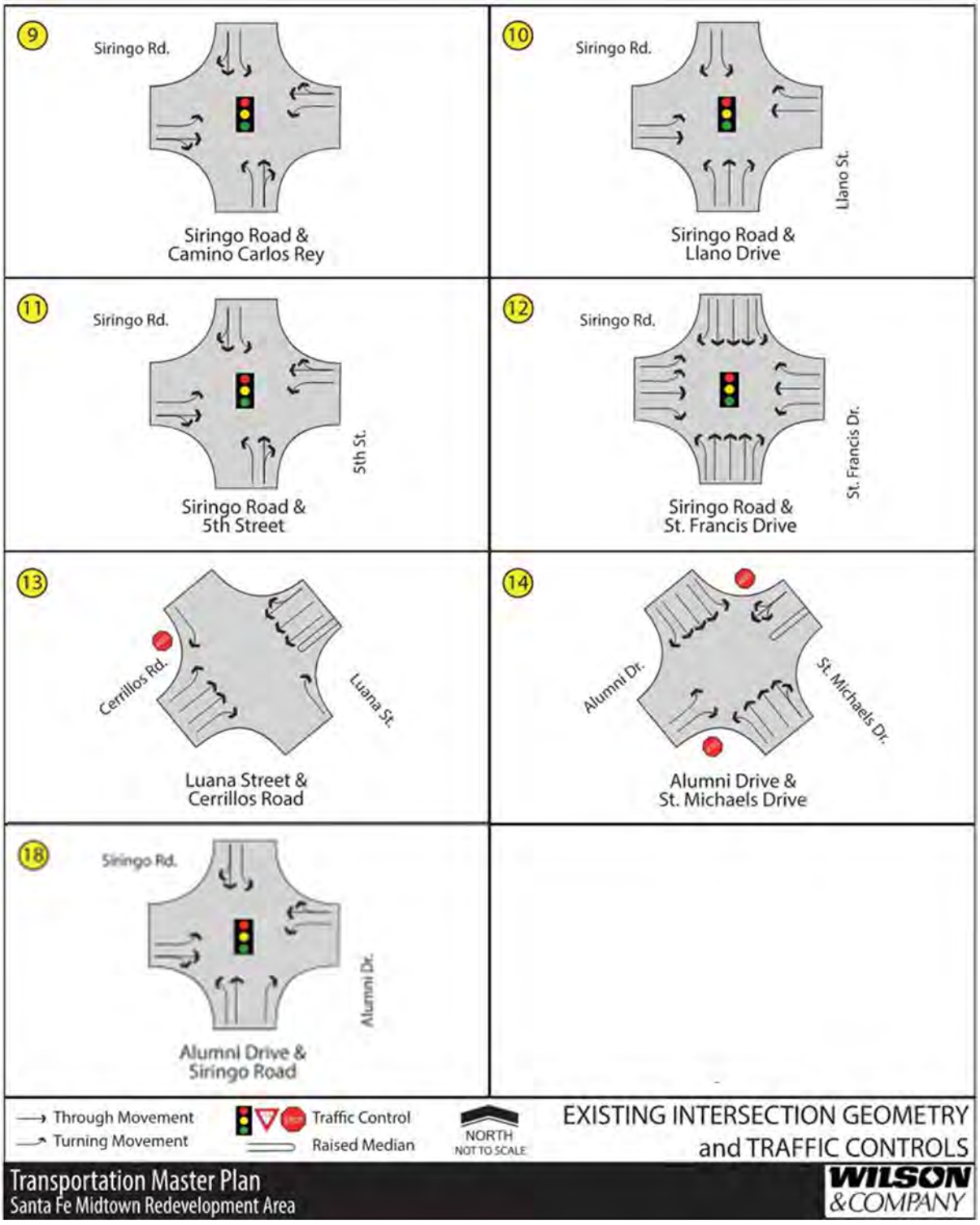


Figure 8: Intersection Geometry and Traffic Control Continued



3.3.1 Safety Assessment

A major component of the Midtown Transportation Plan is developing a strategy to protect and ensure the safety of all users of the transportation system within the area, including pedestrians, cyclists, and automobiles alike. A crash analysis of the proposed Midtown redevelopment area was conducted to identify crash characteristics including location, severity of incident, collision type, and vehicle violations. Crash data was obtained surrounding the immediate study area as well as along St. Michaels Drive and Siringo Road to St Francis Drive/US 285, provided by the Santa Fe Metropolitan Planning Organization for years 2010-2020. While a ten year period extends beyond the more traditional 3-5 timeframe for safety assessments, the study aimed at taking a comprehensive, historical look at crashes within the area, particularly with regard to bicyclists and pedestrians, given the multimodal emphasis of the proposed redevelopment and desire to connect to the neighboring developments.

Figures 9 to **11** are visual heat maps that represent the "density" of crash occurrences at each intersection in the study area. The heat map visualizations rely on crash data to show the magnitude of crashes and the degree to which crashes are clustered or spread out within the study area. Locations represented in green indicate lower-density crash areas while locations represented in red indicate the highest-density crash areas.

These figures indicate that the highest density crash locations are proximate to the major intersections along corridors with the greatest level of traffic activity. The greatest density of fatal and serious injury crashes is at those locations where major routes intersect, such as Cerrillos Road at St. Michaels Drive and along St. Francis Drive.

Figure 9: 2010-2020 Study area all crashes heat map

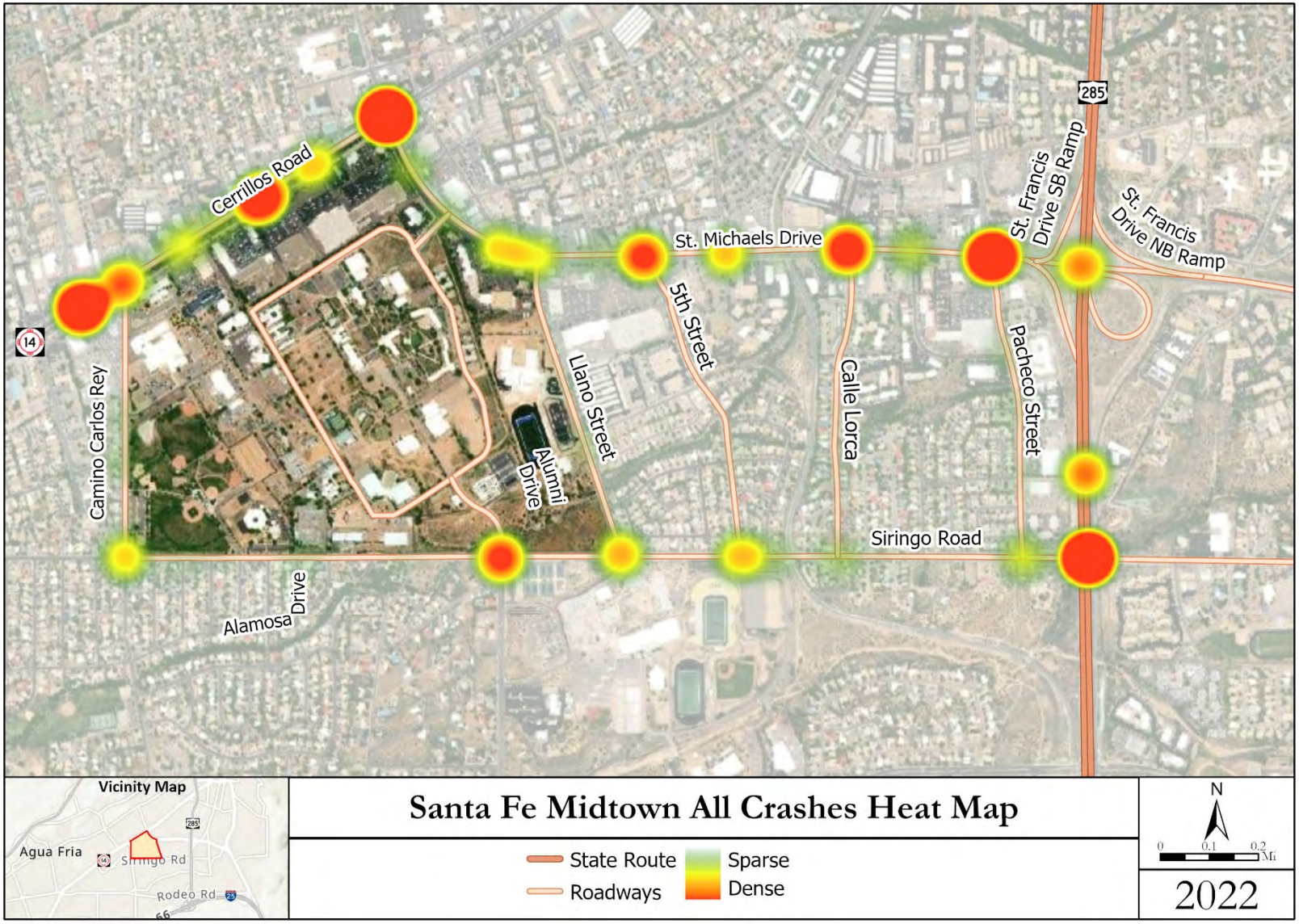


Figure 10: 2010-2020 Study area fatal and serious injury crashes heat map

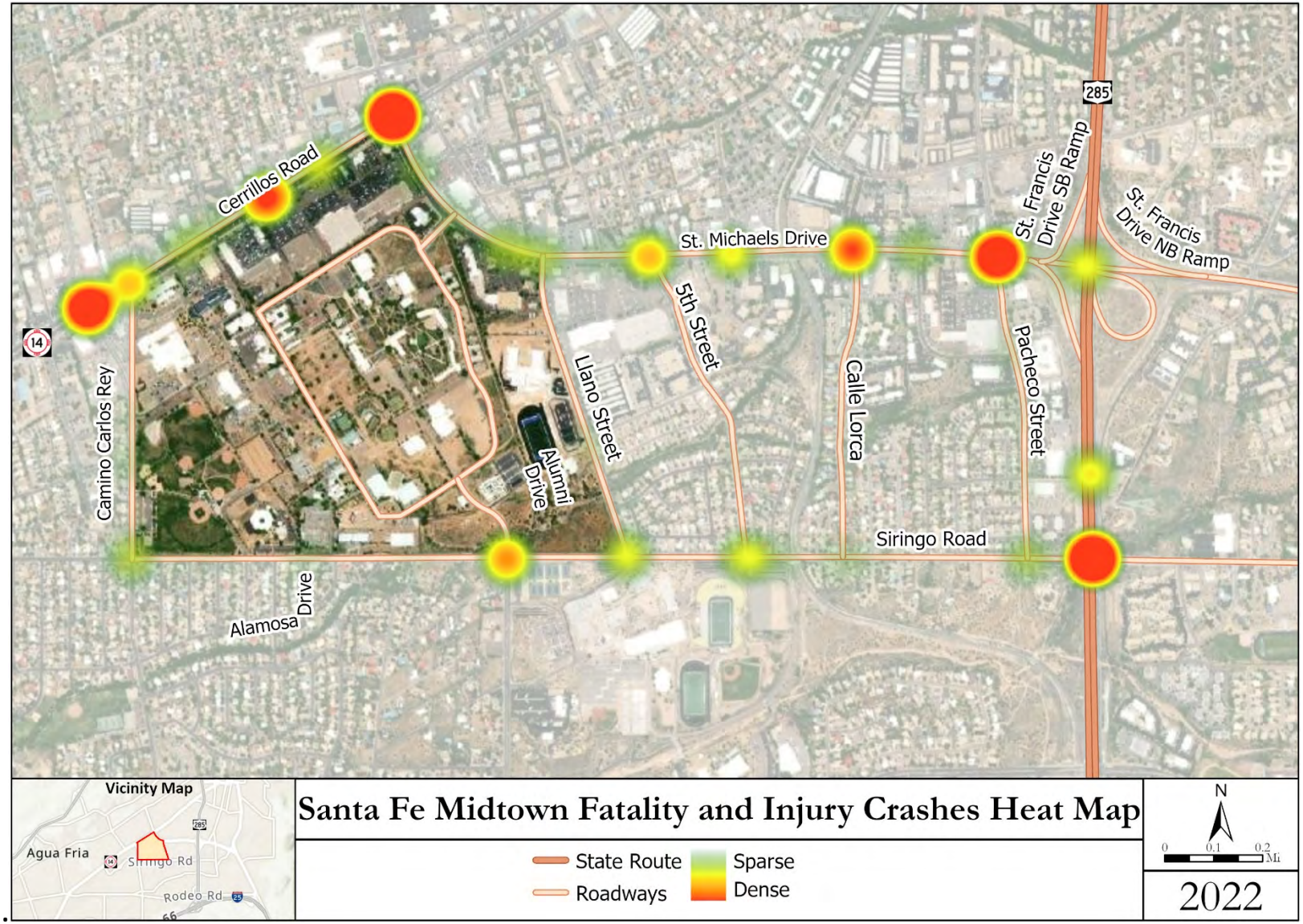


Figure 11: 2010-2020 Study area fatal crashes heat map

In addition to the crash severity, the collision type provides definition to the manner and/or event of the incident resulting in a reported crash. The most common collision type indicates 911 of total crashes (77 percent) in the study area involved a "from same direction/rear end collision," with an annual average of 83 collisions associated with the crash type. The second most common collision type involved same direction/sideswipe incidents, accounting for 175 total crashes (15 percent), with an annual average of 16 same direction/sideswipe collisions. These types of collisions are most common along corridors exhibiting a high degree of congestion. **Table 2** summarizes the statistical data for all reported collision types in the study area for the last 11 years. **Figure 12** provides a visual of the breakdown of vehicle collisions. It should be noted that fewer than 5 percent of crashes involved either pedestrians or cyclists.

Table 2: Collision types represented in the study area, 2010-2020

Year	Other Vehicle - From Same Direction/ Sideswipe Collision	Other Vehicle - From Opposite Direction/ Sideswipe Collision	Other Vehicle - From Same Direction/Rear End Collision	Pedestrian Collision - Vehicle Going Straight	Pedestrian Collision - Vehicle Turning Left	Pedestrian Collision - Vehicle Turning Right	Pedal cyclist Struck Vehicle
2010	17	10	50	2	0	0	1
2011	17	10	49	2	0	0	0
2012	14	4	86	2	1	2	2
2013	17	3	78	2	0	1	0
2014	14	1	84	1	1	3	0
2015	16	2	107	3	1	0	0
2016	16	3	100	0	0	0	2
2017	18	1	108	4	1	1	1
2018	19	7	99	2	2	1	1
2019	15	7	120	1	1	2	2
2020	12	1	30	3	1	2	0
11-yr Total	**175**	**49**	**911**	**22**	**8**	**12**	**9**
Annual average	**15.9**	**4.5**	**82.8**	**2.0**	**0.7**	**1.1**	**0.8**

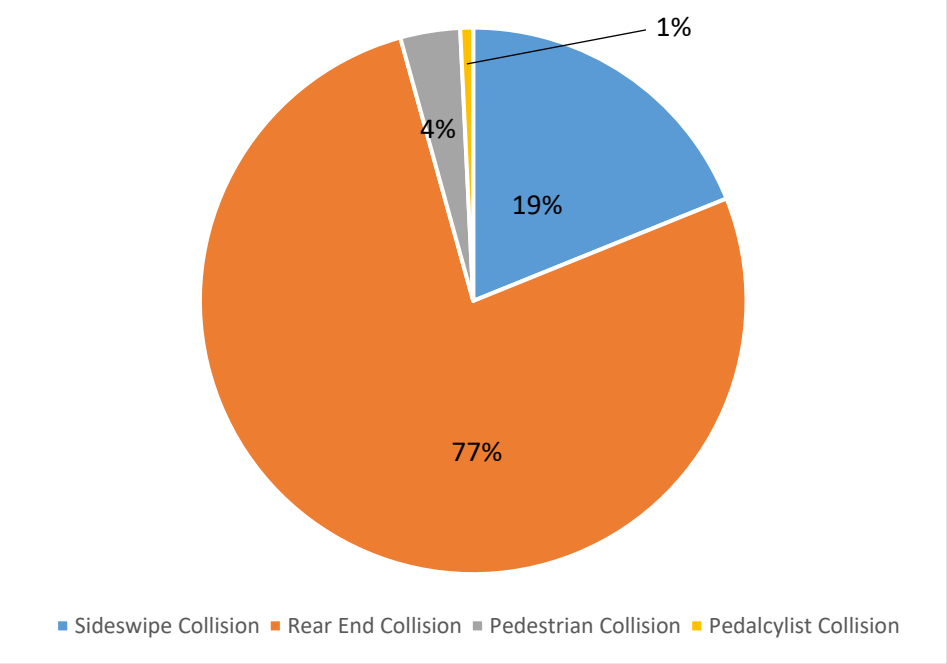


Figure 12: Breakdown of vehicle collisions

Vehicle operator violation information is also reported with the incident crash data. Vehicle violation data is used to designate whether a reported crash was the direct result of a particular action by the motorist. In some cases, a crash may be the result of multiple vehicle violations or none at all. **Table 3** details all primary vehicle violations resulting in reported collisions in the study area during the 10-year period. According to reporting for the last 10 years, most primary violations that resulted in a collision were following too closely, totaling 836 incidents (41 percent), an annual average of 84 collisions.

Table 3: Summary of vehicle violations

Year	Failed to Yield Right of Way	Speed Too Fast for Conditions	Made Improper Turn	Drove Left of Center	Improper Lane Change	Following Too Closely	Driver Inattention	Other Improper Driving	None
2010	40	2	5	2	7	70	33	7	4
2011	44	2	8	2	6	79	41	5	15
2012	47	2	10	1	6	62	29	15	23
2013	43	4	6	0	9	56	27	6	12
2014	37	1	3	1	6	89	31	6	12
2015	45	4	9	1	12	90	35	8	14
2016	42	2	9	0	14	96	34	7	17
2017	52	7	10	2	14	98	31	15	12
2018	44	5	8	1	14	90	34	7	16
2019	38	5	6	1	13	106	46	13	11
10-yr Total	**432**	**34**	**74**	**11**	**101**	**836**	**341**	**89**	**136**
Annual average	**43.2**	**3.4**	**7.4**	**1.1**	**10.1**	**83.6**	**34.1**	**8.9**	**13.6**

3.4 TRANSIT

The City and County of Santa Fe is served by local and regional transit routes operated by the North Central Regional Transportation District (NCRTD). This section details the transit services available for accessing the study area.

3.4.1 Santa Fe Trails Bus Service

The Santa Fe Trails is a local bus network operated by the Santa Fe Trails Bus service that serves a majority of the city of Santa Fe with ten different bus routes, stemming from either the downtown transit center or the Santa Fe Place Transit center. The Santa Fe Trails also provides connection to the Rail Runner train station via route 2, route 4, route 5, and route 6.

The following routes have a bus stop near the study area (routes depicted in **Figure 13**):

Route 2:

This route travels between the Downtown Transit Center and Santa Fe Place Transit Center, via Cerrillos Road, providing a bus stop near the intersections of Cerrillos Road and St. Michaels Drive, just northeast of the study area. This route operates weekdays every 15 minutes in the morning and every 30 minutes in the evening to Downtown Transit Center and

every 20 minutes in the morning and every 30 minutes in the evening returning to the Santa Fe Transit Center.

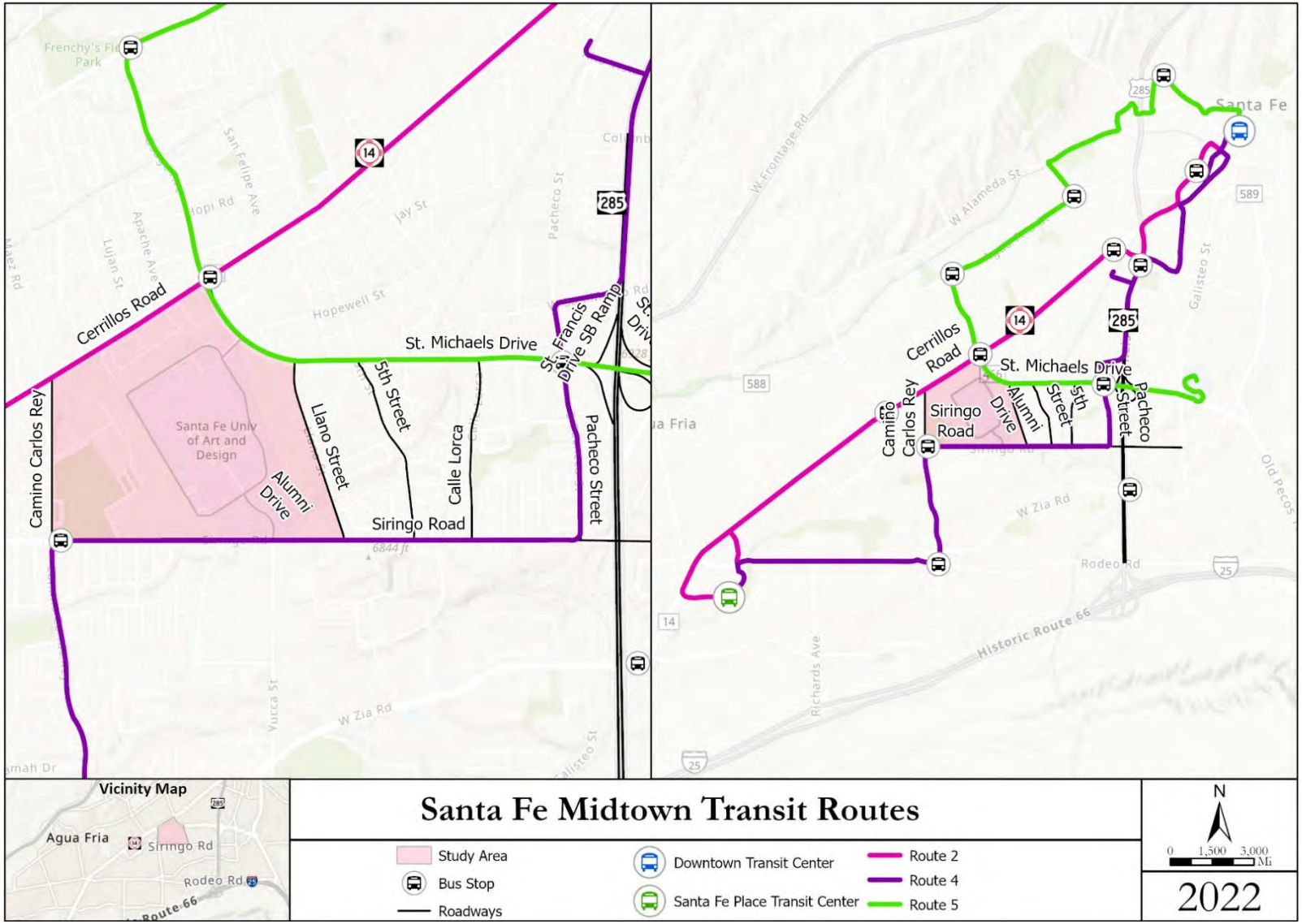
Route 4:

This route travels between the Downtown Transit Center and Santa Fe Place Transit Center, via a series of roadways, including the span of Siringo Road within the study area, providing a bus stop at the intersections of Camino Carlos Rey and Siringo Road. This route operates weekdays/weekends every hour in the morning and evening in both directions.

Route 5:

This route travels between the Downtown Transit Center and Christus St. Vincent Hospital, via a series of roadways, including the span of St. Michaels Drive within the study area, providing a bus stop at the intersections of Cerrillos Road and St. Michaels Drive. This route operates weekdays/weekends based on on-demand trips every hour in the morning and evening in both directions.

Figure 13: Study Area Transit Services



3.5 PEDESTRIAN AND BICYCLE CONNECTIVITY

Pedestrian Connectivity

The Midtown study area currently has limited pedestrian accommodations surrounding the site area. Transit stations are sparsely located around the area for pedestrians to access the site and there is currently no internal transit station or circulator for the Midtown site. Similarly, the current level of sidewalk presence provides pedestrian access however existing facilities will likely not encourage significant pedestrian traffic as lighting conditions and safe crosswalks should be further improved upon. Overall walkability is a focus of the TMP and a key component for fostering a more sustainable and environmentally-conscience community. The Development Plan encompasses the following pedestrian connectivity improvements:

- Improved or new sidewalks
- Multi-use paths
- Connections to existing trails, parks (General Franklin Miles Park), nearby neighborhoods (Hopewell-Mann) and schools
- Crosswalks
- Awnings and galleries that protect pedestrians from sun and rain
- Urban pedestrian pathways between building use and within green space

Bicycle Connectivity

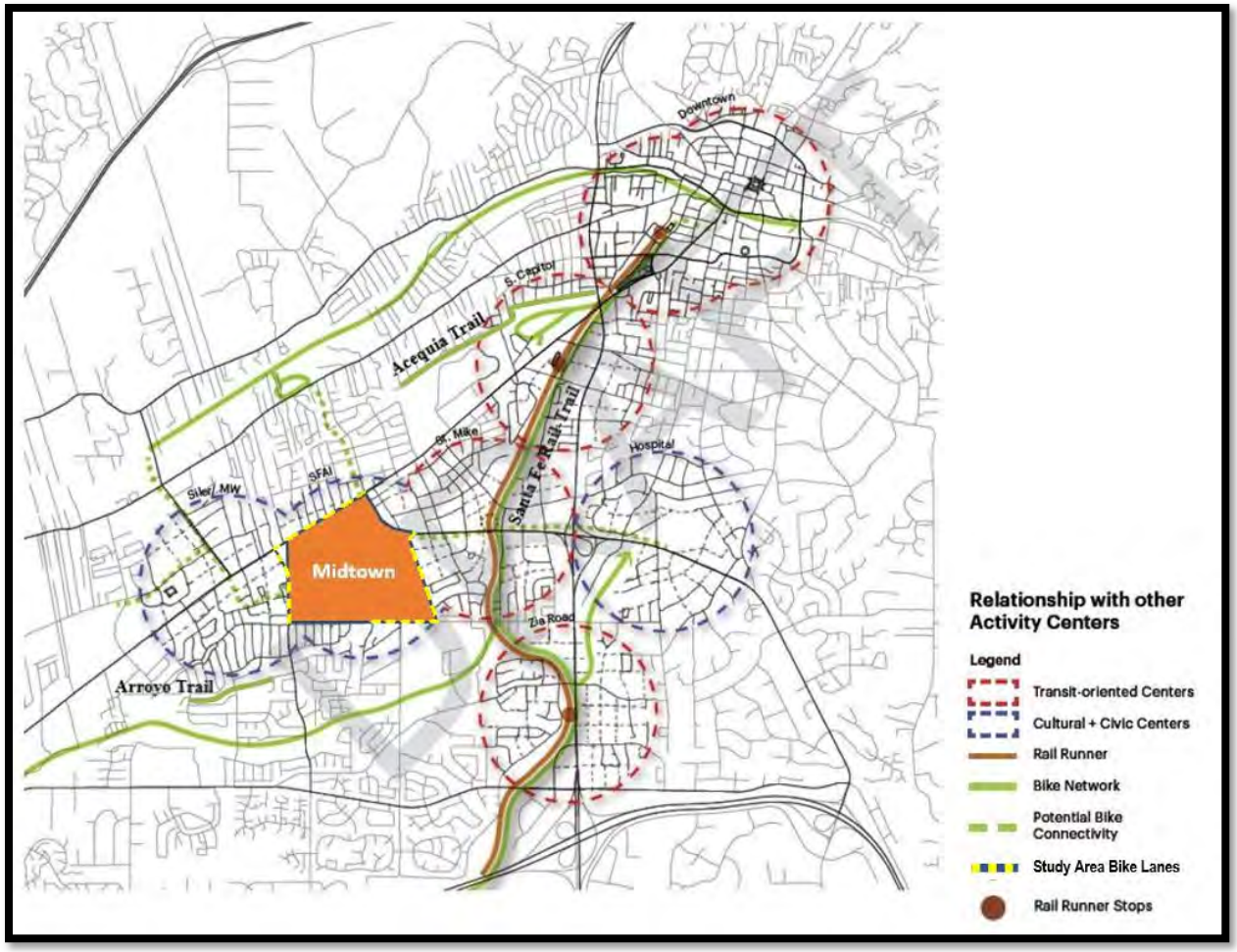
The Midtown study area currently has limited bicycle accommodations surrounding the site area. Currently, all bicycle access to Midtown is limited to on-street bicycle lanes with no direct access to trails or multiuse paths. Of the five roadways bordering the site, four offer on-street bicycle lanes and provide limited connectivity to nearby trail/cyclist networks (refer to **Figure 14**). There is only one existing multi-use path within approximately a quarter mile of the study area. The Development Plan encompasses the following bicycle connectivity improvements:

- Multi-use paths
- Connections to existing trails, parks (General Franklin Miles Park), nearby neighborhoods (Hopewell-Mann) and schools
- Dedicated on-street bicycle lanes

The Acequia Trail, Arroyo de los Chamisos trail (East) and Santa Fe Rail Trail are all part of Santa Fe's multi-use trail system just outside of the study area which provides potential for increased pedestrian and cyclist connectivity. The Acequia trailhead is approximately 0.7 miles northeast of the study area, providing connectivity between Saint Francis Drive, within Downtown Santa Fe, to southwestern neighborhoods (Sierra Vista and Casa Alegre), Larragoite Park Trailhead and

Ashbaugh Trailhead. The Arroyo Chamiso trailhead is approximately 0.85 miles from the study area and spans just north of the Zia Road Rail Runner station to provide connection to the Genoveva Chavez Access Trail and the Nava Ade Trail just southwest of the study area. The Santa Fe Rail Trail is located east of the study area and runs for 15 miles starting from the Santa Fe Depot, in the Railyards arts District (northeast of the study area) and ending at the US Route 285, near Lamy (southeast of the study area. The Rail Trail is just steps from the Zia Road Train Station Platform.

Figure 14: Midtown Potential Connectivity for Bike and Pedestrian Facilities



4.0 TRAFFIC IMPACT ANALYSIS

This section of the report describes essential elements relating to the traffic within the study area and traffic generated by the proposed project.

4.1 EXISTING TRAFFIC

To assess the current level of traffic within the study area, 24-hour traffic counts were collected on May 10, 2022 along the following streets:

- Camino Carlos Rey,
- Cerrillos Road,
- Llano Street,
- Siringo Road, and
- St. Michaels Drive.

Average Daily Traffic (ADT) volumes for these locations are presented in **Figure 15.**

In addition to the 24-hour daily traffic counts, same-day AM and PM peak period turning movement counts were also collected at each of the eighteen study area intersections.

The turning movement counts for the fifteen intersections identified for detailed analysis are depicted in **Figure 16**. Comprehensive reports for the data collections are provided in Appendix A.

Figure 15: Existing Average Daily Traffic

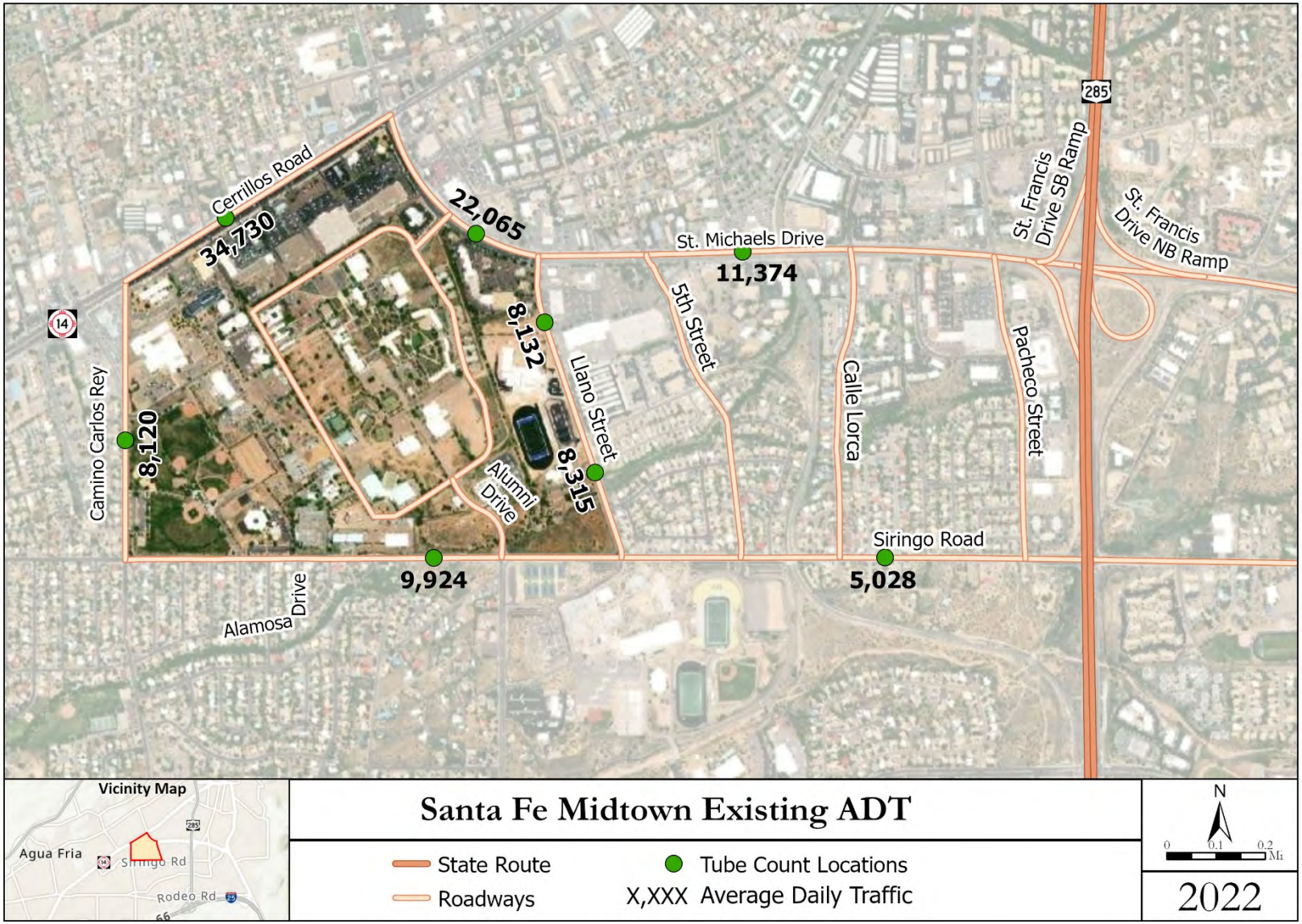


Figure 16: Existing AM and PM Peak Hour Volumes

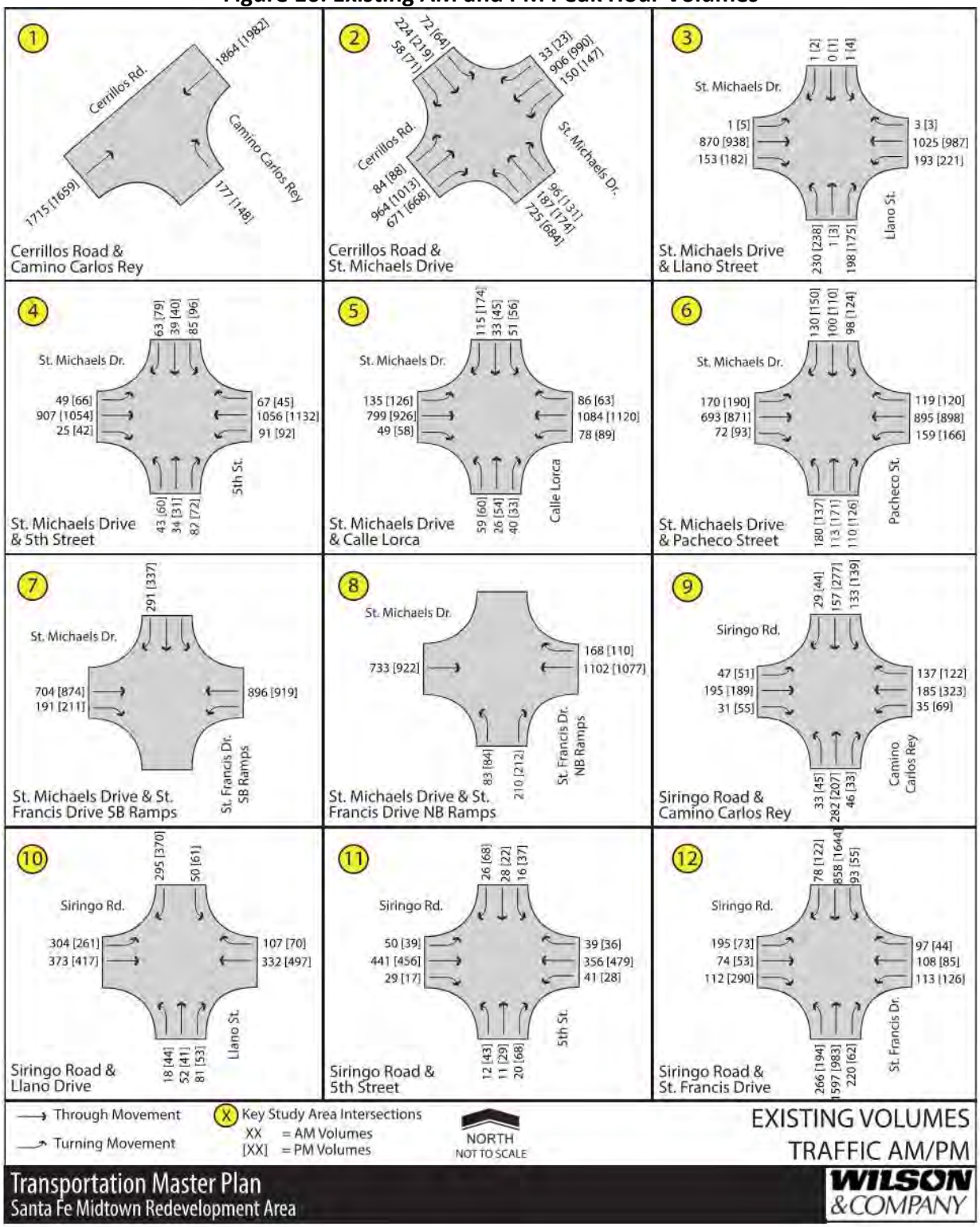
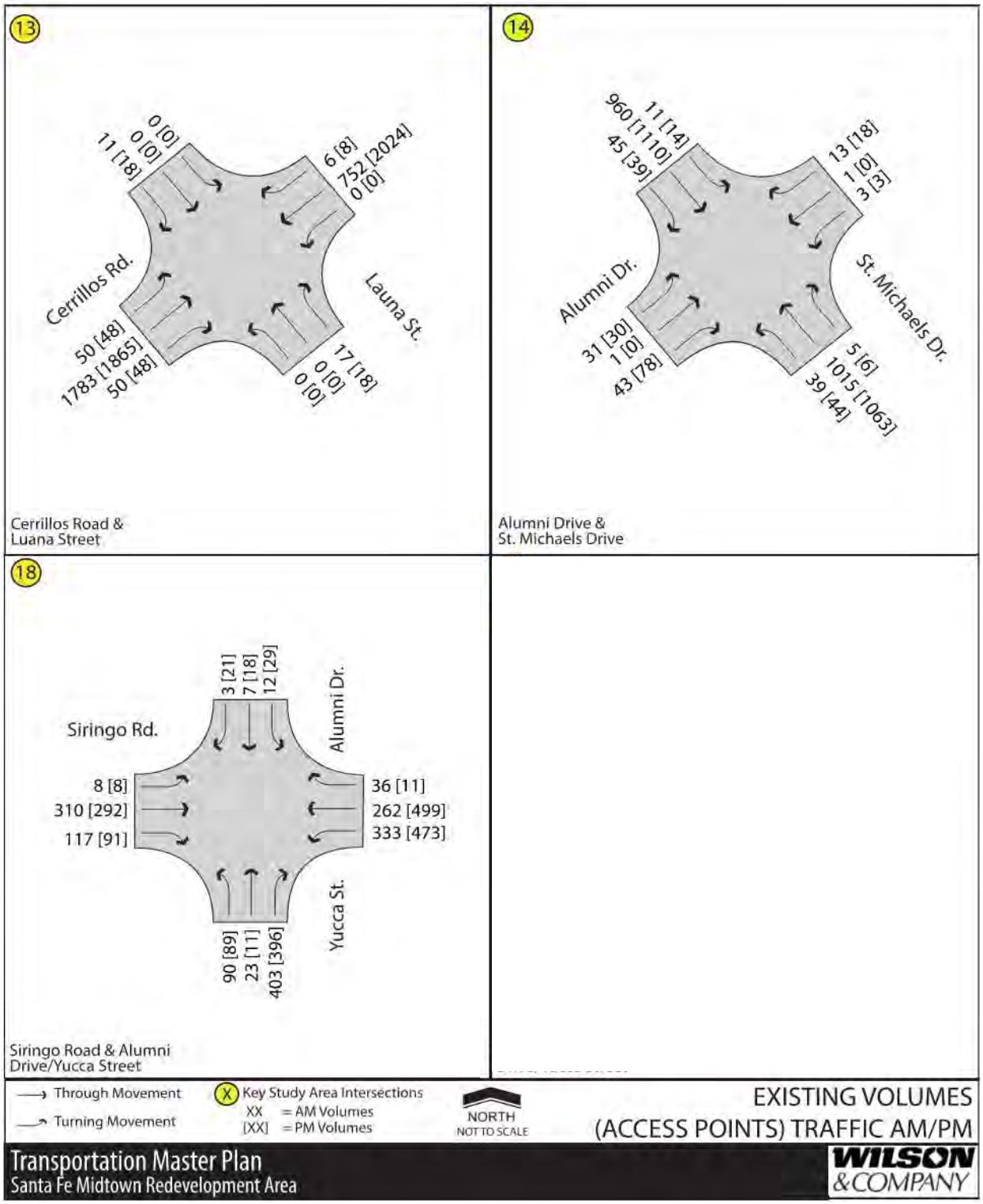


Figure 16: Existing AM and PM Peak Hour Volumes (Continued)



4.2 BACKGROUND TRAFFIC

The proposed development is planned to be completed in three phases; however, for the scope of this Transportation Master Plan, only the buildout year in 2040 will be analyzed. In order to identify the impacts of traffic and necessary roadway improvements associated with the proposed development for the buildout year, it is first necessary to understand the level of traffic activity that would be expected to occur in the study area without the proposed redevelopment. This process facilitates the assessment of intersection operations that would occur with "background traffic" growth, or growth not associated with the development, and then subsequent identification of the impacts associated with the additional future development traffic.

The methodology for determining background traffic involved growing the collected existing traffic count data using growth rates based on the regional Travel Demand Model (TDM) maintained by Santa Fe Metropolitan Planning Organization. From the TDM, the daily traffic growth rate along streets surrounding the study area averages to approximately 2%. An assessment of the peak period model conditions indicated that 2% traffic growth is appropriate for the morning peak hour as well, while the evening peak hour is anticipated to experience a 3% increase in background traffic growth. These annual growth rates were applied to the existing daily traffic volumes and peak-hour turning movement volumes at all intersections analyzed within the study area to determine the background traffic in year 2040. Resulting background daily forecast volumes for year 2040 are presented in **Figure 17**. The resulting background traffic turning movement volumes for the 2040 analysis year are depicted in **Figure 18**.

Figure 17: Projected Average Daily Traffic

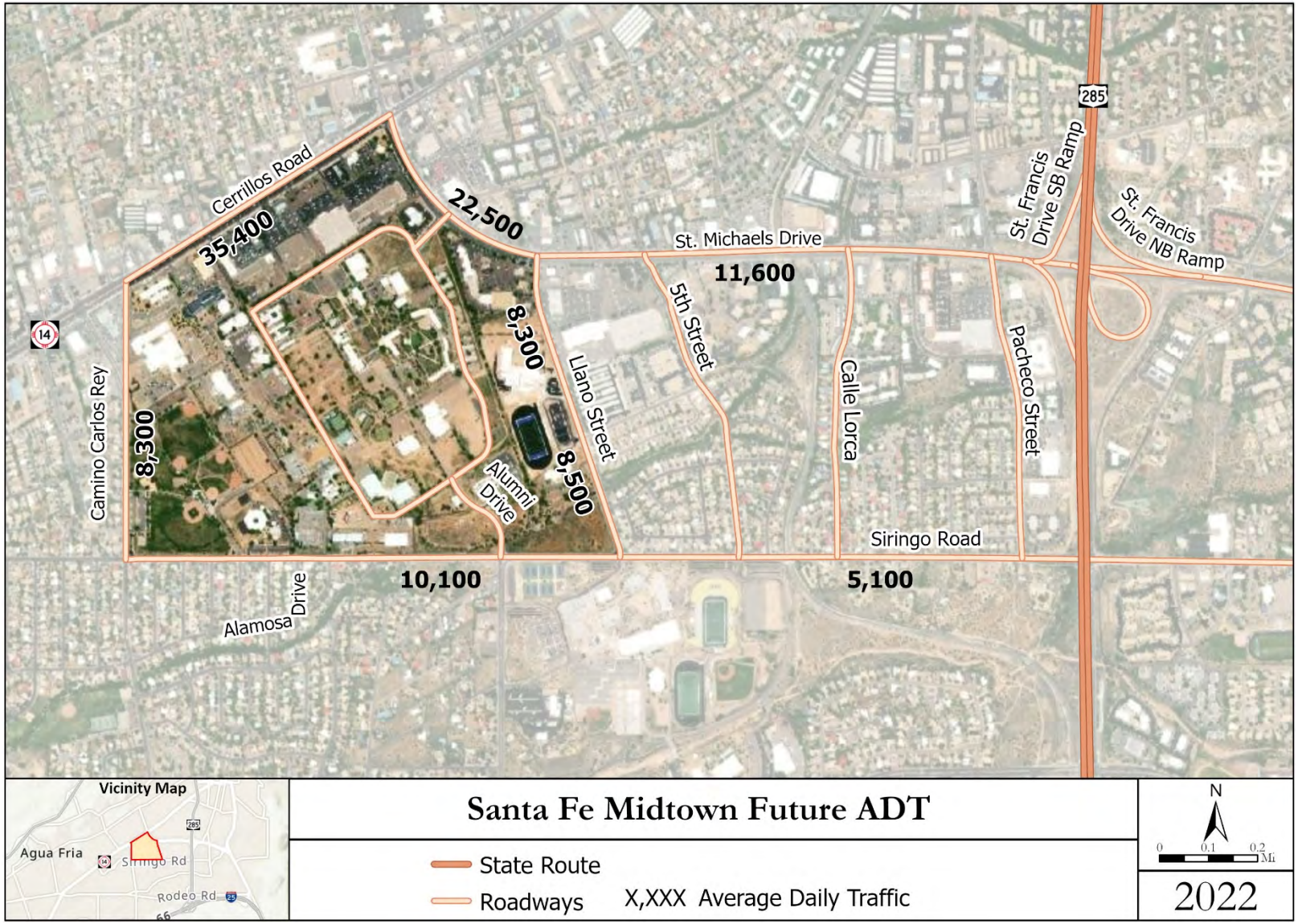


Figure 18: Year 2040 AM and PM Peak Hour Background Traffic

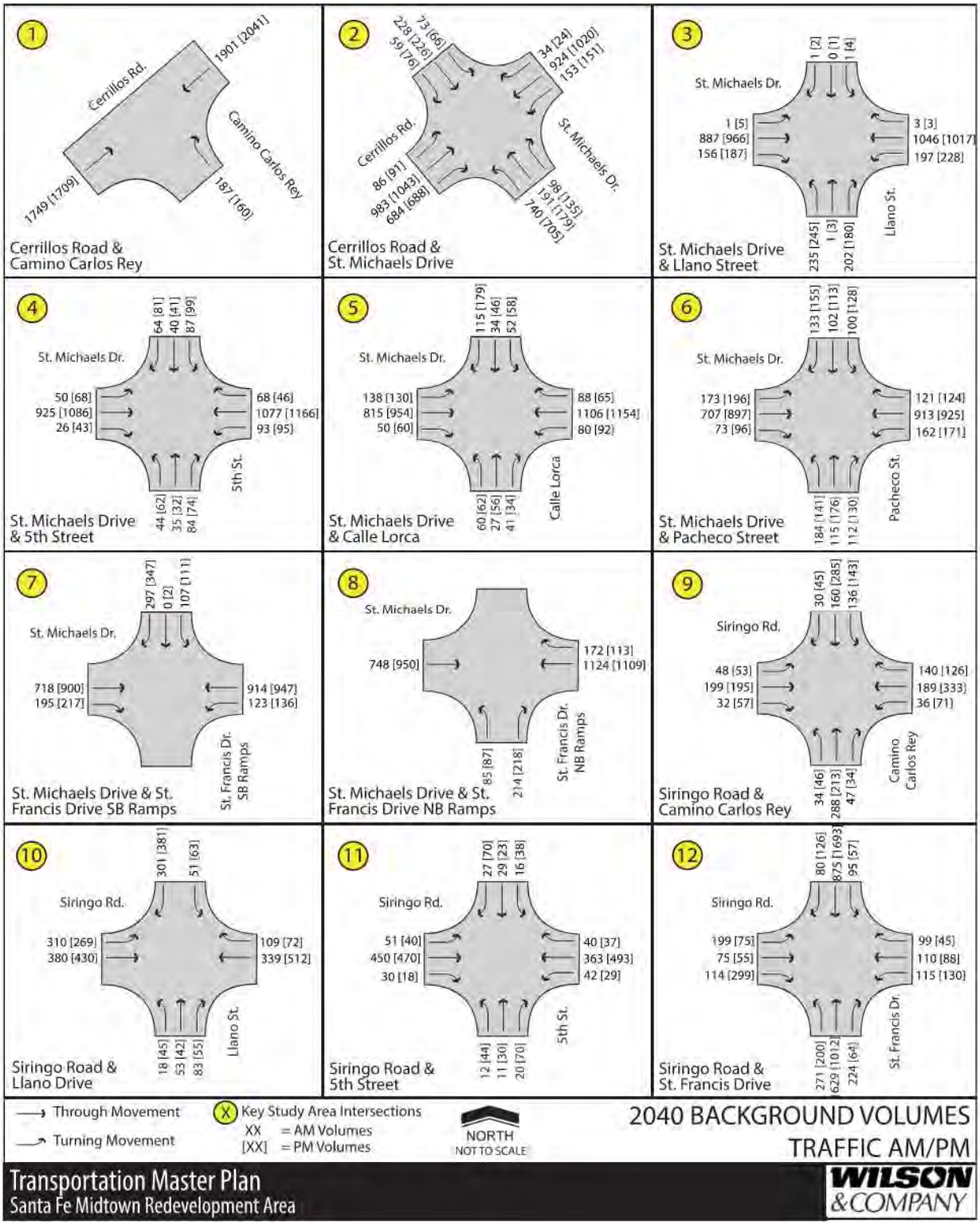
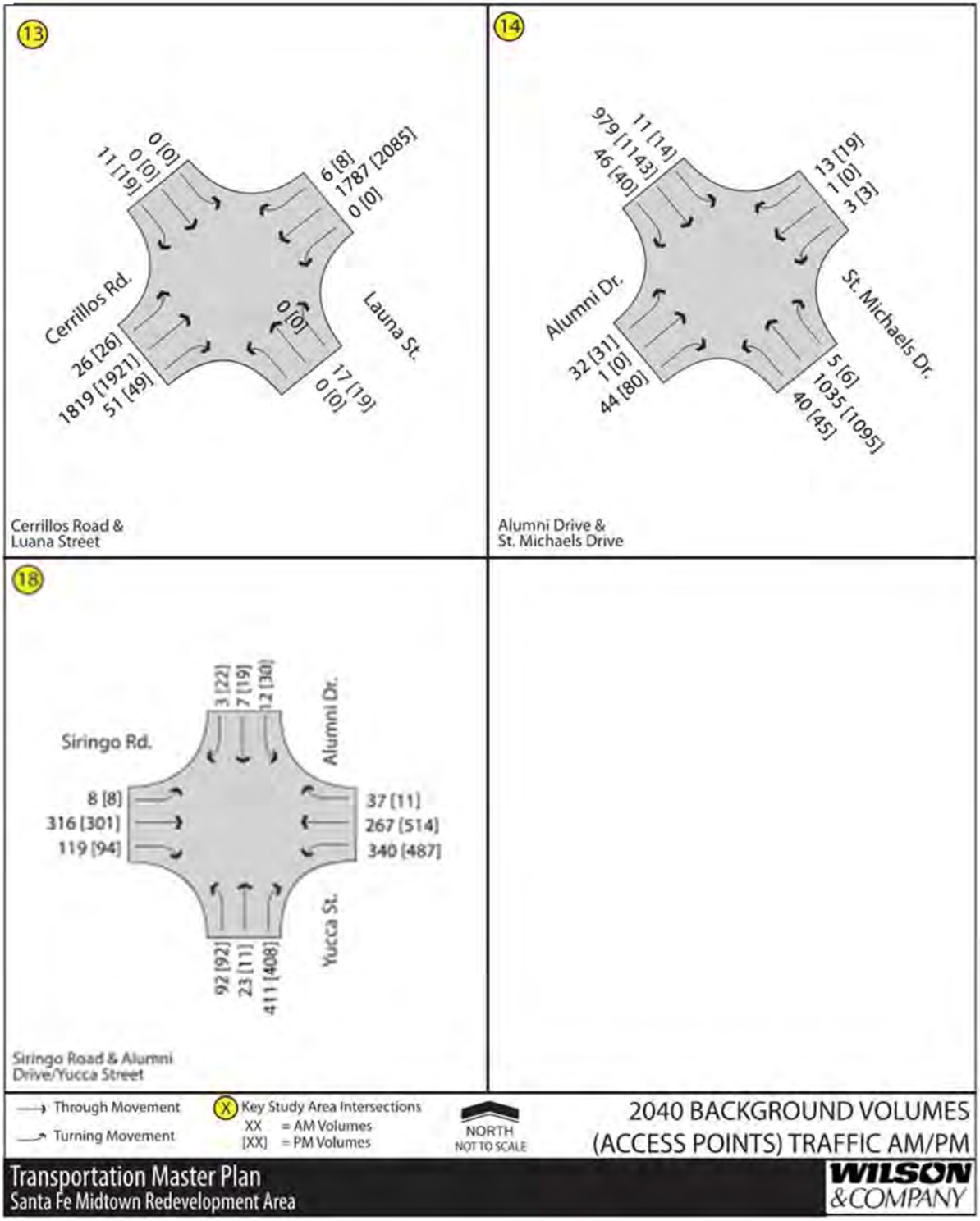


Figure 18: Year 2040 AM and PM Peak Hour Background Traffic Volumes (Continued)



4.3 DEVELOPMENT TRAFFIC

Projected vehicle trips generated by the proposed development were estimated using Land Use Codes documented in the Trip Generation Manual, Tenth Edition, published by the Institute of Transportation Engineers (ITE). The applicable ITE Land Use Codes are identified in **Table 4**, along with the Daily, AM and PM peak-hour vehicle-trips generated by the site. Due to the mix of uses on site, it is anticipated that some of the trips that would traditionally be served for the individual uses by automobile will be replaced with walk and/or bicycle trips. This internal trip capture was determined based on methodology from the ITS Trip Generation Handbook. The resulting internally captured trips and remaining external trips are also detailed in **Table 4**.

The distribution of this new site traffic was determined based on a select zone analysis from the regional TDM. Trips specific to the model zone representing the Midtown redevelopment area were allocated by the model to the specific roadway segments. The volume of traffic was then compared to the total volume of traffic entering and exiting the zone to arrive at the trip distribution. The resulting distribution, depicted in **Figure 19**, includes 29% entering from the west along Cerrillos Road, 12% from the southwest along Siringo Road, 10% from the south along Alumni Drive, 8% from the east along Siringo Road, 23% from the east along St. Michaels Drive, and 18% from the northeast along Cerrillos Road. A large portion of the traffic is routed through the access point along St. Michaels Drive due to this location being within the closest proximity to State Route 285 and northern Cerrillos Road, in which most of the traffic is entering the network. Based on the distribution of development traffic, volumes projected from the Midtown trip generation were routed through the study network to one of four initial site access points and assigned to a corresponding turning movement. **Figure 20** displays the new trips at each intersection associated with the Midtown development.

Table 4: Trip Generation

Phase	Block	size	unit	land use	Weekday										
					AM Peak					PM Peak					
					LUC	Rate	%Enter	#Enter	#Exit	Total	Rate	%Enter	#Enter	#Exit	Total
Phase 1	A -1	15.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	2	5	7	0.56	0.63	5	3	8
	A-2	6.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	1	2	3	0.56	0.63	2	1	3
		52.0	Dwelling Units	Residential - Midrise Apts	221	0.36	0.26	5	14	19	0.44	0.61	14	9	23
	A-4	14.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	1	5	6	0.56	0.63	5	3	8
		90.0	Dwelling Units	Residential - Midrise Apts	221	0.36	0.26	8	24	32	0.44	0.61	24	15	40
	A-5	17.5	1000 SQFT	Community/Assembly/Library (Visual Art Complex)	540	0.11	0.81	2	0	2	0.11	0.56	1	1	2
		17.5	1000 SQFT	Community/Assembly/Library (Visual Art Complex)	580	0.28	0.86	4	1	5	0.18	0.16	1	3	3
	A-6	17.5	1000 SQFT	Community/Assembly/Library (Barracks)	540	0.11	0.81	2	0	2	0.11	0.56	1	1	2
	B1	37.0	Dwelling Units	Residential - Midrise Apts with 1st Floor Commercial	231	0.3	0.28	3	8	11	0.36	0.7	9	4	13
	B2	45.6	1000 SQFT	Community/Assembly/Library (Fogelson Library)	590	1	0.71	32	13	45	8.16	0.48	179	193	372
	B3	7.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	1	2	3	0.56	0.63	2	1	4
		35.0	Dwelling Units	Residential - Low Rise Multifamily	220	0.46	0.23	4	12	16	0.56	0.63	12	7	20
	B4	8.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	1	3	4	0.56	0.63	3	2	4
		37.0	Dwelling Units	Residential - Midrise Apts	221	0.36	0.26	3	10	13	0.44	0.61	10	6	16
	B5	165.0	Seats	Cinema (Garson Theatre) 165 Seats	444			0	0	0	0.5	1	83	0	83
	B6	17.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	2	6	8	0.56	0.63	6	4	10
	B7	8.7	1000 SQFT	Office (Medium-trip) (Administration Building)	710	1.16	0.86	9	1	10	1.15	0.16	2	8	10
	G1	12.3	1000 SQFT	Office (Medium-trip)	710	1.16	0.86	12	2	14	1.15	0.16	2	12	14
		165.0	Seats	Film (production) (Garson Studios Lot)	444			0	0	0	0.5	1	83	0	83
	G2	222.4	1000 SQFT	Film (production)				0	0	0			0	0	0
	H1	35.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	4	12	16	0.56	0.63	12	7	20
		65.0	Dwelling Units	Residential - Midrise Apts	221	0.36	0.26	6	17	23	0.44	0.61	17	11	29
	H2	128.0	Dwelling Units	Residential - Midrise Apts	221	0.36	0.26	12	34	46	0.44	0.61	34	22	56
	Phase 1 Total							**113**	**171**	**284**			**508**	**314**	**822**

Table 4: Trip Generation (continued)

	Block	size	unit	land use	Weekday										
					AM Peak					PM Peak					
					LUC	Rate	%Enter	#Enter	#Exit	Total	Rate	%Enter	#Enter	#Exit	Total
Phase 2	A-3	3.5	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	936	101.14	0.51	182	175	357	36.31	0.5	64	64	128
		3.5	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	930	2.07	0.67	5	2	7	14.13	0.55	27	22	50
		3.5	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	876	1	0.8	3	1	4	4.12	0.51	7	7	15
		7.9	1000 SQFT	Bar	925			0	0	0	11.36	0.66	59	31	90
		100.0	Rooms	Lodging (Boutique Hotel)	310	0.47	0.59	28	19	47	0.6	0.51	31	29	60
	C1	30.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	3	11	14	0.56	0.63	11	6	17
	D1	21.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	2	7	9	0.56	0.63	7	4	12
		36.0	Dwelling Units	Residential - Low Rise Multifamily	221	0.36	0.26	3	10	13	0.44	0.61	10	6	16
		135.7	1000 SQFT	Office (Medium-trip)	710	1.16	0.86	135	22	157	1.15	0.16	25	131	156
		43.0	1000 SQFT	Office (Medium-trip)	720	2.78	0.78	93	26	119	3.46	0.28	42	107	149
	D2	19.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	2	7	9	0.56	0.63	7	4	11
		82.0	Dwelling Units	Residential - Midrise Apts	221	0.36	0.26	8	22	30	0.44	0.61	22	14	36
	D3	40.0	Dwelling Units	Residential - Midrise Apts with 1st Floor Commercial	231	0.3	0.28	3	9	12	0.36	0.7	10	4	14
				Commercial											
	D4	27.8	1000 SQFT	Office (Medium-trip) (Benildus Hall)	710	1.16	0.86	28	5	33	1.15	0.16	5	27	32
	D5	24.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	3	9	12	0.56	0.63	8	5	13
		55.0	Dwelling Units	Residential - Low Rise Multifamily	220	0.46	0.23	6	19	25	0.56	0.63	19	11	31
	E1	15.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	2	5	7	0.56	0.63	5	3	8
		151.0	Dwelling Units	Residential - Midrise Apts	221	0.36	0.26	14	40	54	0.44	0.61	41	26	66
	E2	19.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	2	7	9	0.56	0.63	7	4	11
		44.0	Dwelling Units	Residential - Low Rise Multifamily	220	0.46	0.23	5	16	21	0.56	0.63	16	9	25
	E3	30.1	1000 SQFT	Community/Assembly/Library (King Hall)	730	3.34	0.75	75	25	100	1.71	0.25	13	39	52
	E4	3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	930	2.07	0.67	5	2	7	14.13	0.55	28	23	52
		3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	930	2.07	0.67	5	2	7	14.13	0.55	28	23	52

Table 4: Trip Generation (continued)

Phase	Block	size	unit	land use	Weekday										
					AM Peak					PM Peak					
					LUC	Rate	%Enter	#Enter	#Exit	Total	Rate	%Enter	#Enter	#Exit	Total
Phase 2 (Continued)	E4	3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	814	3.18	0.57	7	5	12	6.84	0.52	13	12	25
		3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	911	22.54	0.52	43	40	83	26.4	0.51	49	47	96
		3.7	1000 SQFT	Ground Floor Retail (Bicycle/ Pedestrian Oriented)	920	2.78	0.75	8	3	11	7.42	0.44	12	15	27
		5.0	Dwelling Units	Residential - Townhouse	220	0.46	0.23	1	2	3	0.56	0.63	2	1	3
		35.0	Dwelling Units	Residential - Midrise Apts	221	0.36	0.26	3	9	12	0	1	9	6	15
	F1	155.616	1000 SQFT	Office (Medium-trip)	710	1.16	0.86	155	25	180	1.15	0.16	28	150	178
		51.872	1000 SQFT	Film (production)				0	0	0			0	0	0
	F2	13.2245	1000 SQFT	Office (Medium-trip)	710	1.16	0.86	13	2	15	1.15	0.16	2	12	15
		39.6735	1000 SQFT	Film (production) (Discoll Hall)				0	0	0			0	0	0
	Phase 2 Total							**841**	**527**	**1368**			**609**	**846**	**1455**
	Phase 1 + 2 Total							**954**	**698**	**1652**			**1116**	**1160**	**2276**
	Internal Mixed-Use Trip Capture							**147**	**147**	**294**			**165**	**165**	**330**
	Total External Trips							**806**	**549**	**1355**			**950**	**994**	**1944**

Figure 19: Trip Assignment/Directional Distribution

Figure 20: Development Traffic Volumes

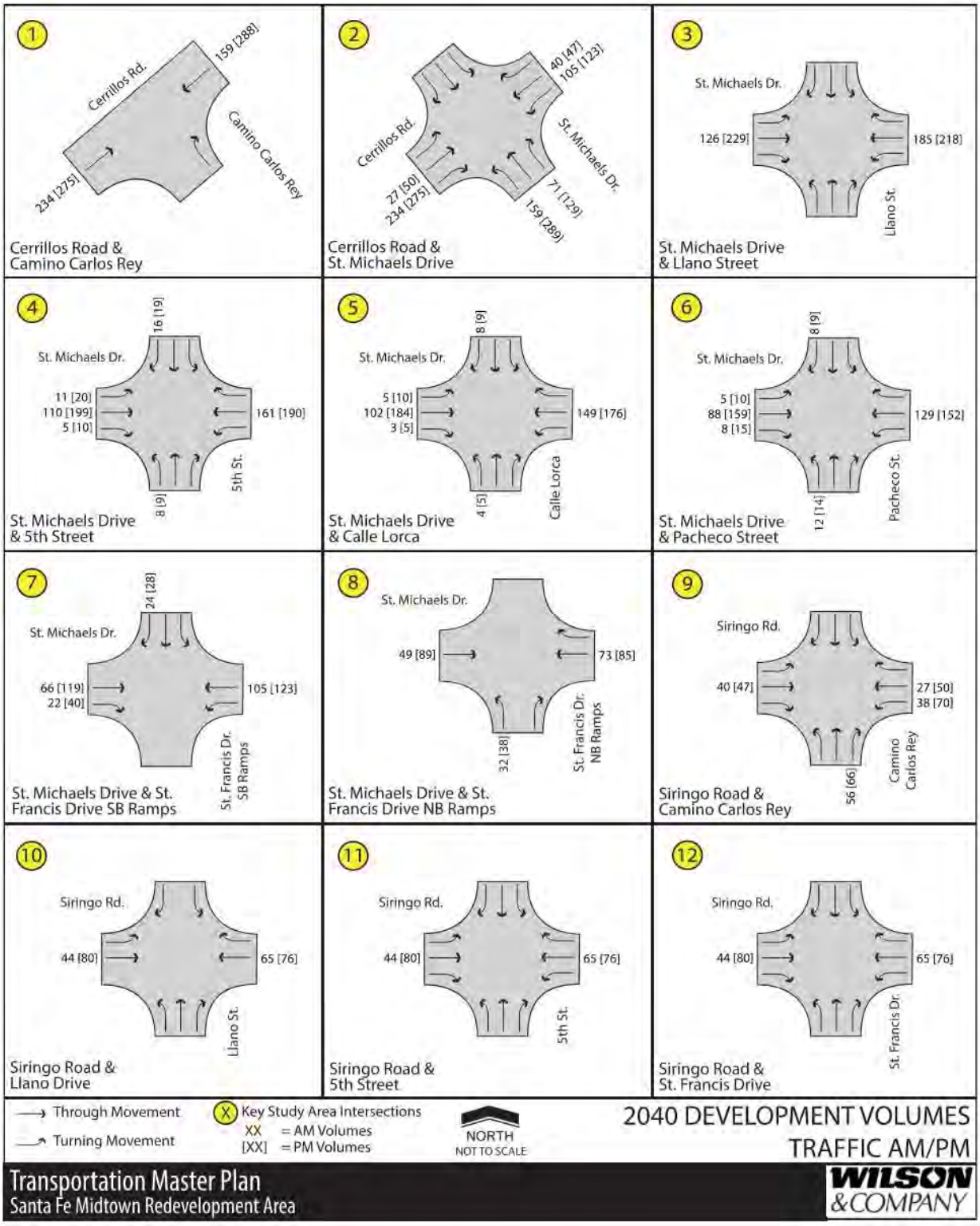
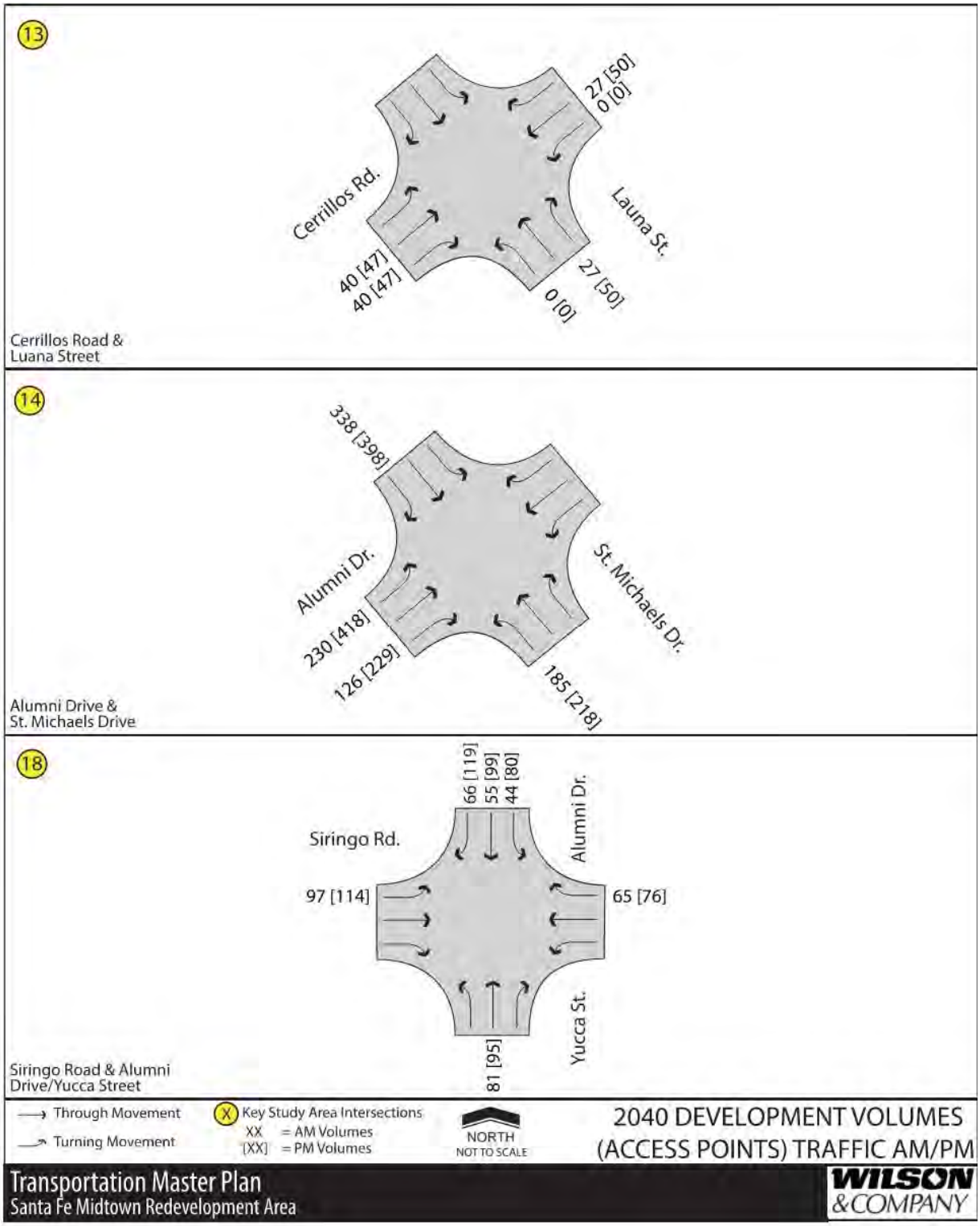


Figure 20: Development Volumes Only (Continued)



4.4 COMBINED TRAFFIC

Site-generated traffic was assigned to the public roadway network in accordance with the directional distribution discussed above (refer to **Figure 19**) and added to the background traffic volumes for the analysis year (refer to **Figure 18**). The resulting AM and PM combined peak hour turning movements associated with the buildout year (year 2040) are depicted in **Figure 21.**

4.5 LEVEL OF SERVICE ANALYSIS

Peak-hour capacity analyses were performed using Synchro 11 traffic modeling software for existing and future conditions. Synchro 11 utilizes methodologies contained in the Highway Capacity Manual (HCM) 2016 developed by the Transportation Research Board (TRB) in consultations with the National Research Council (NRC). The Synchro 11 analyses result in a qualitative measure of the operational characteristics of an intersection.

The fifteen study area intersection were evaluated to determine estimated operating conditions, measured in seconds of vehicle delay and reported as Level of Service (LOS). As defined in the Highway Capacity Manual 2016 (HCM2016), LOS is a qualitative measure describing operating conditions associated with traffic flow. HCM2016 defines a range of LOS parameters representing varying operating conditions at intersections and the driver's perception of these conditions. Most simply, LOS refers to a standard measurement used by transportation officials to reflect the relative ease of traffic flow, i.e., volume of traffic relative to design capacity of the roadway. A scale of 'A' to 'F' has been adopted, with free-flow traffic conditions being rated LOS 'A' and conditions of heavy congestion and delay are rated as LOS 'F.' LOS 'D' is commonly enforced as the minimum acceptable standard of operation for highways and intersections. Refer to the **figure** at right for a visual representation of LOS thresholds.

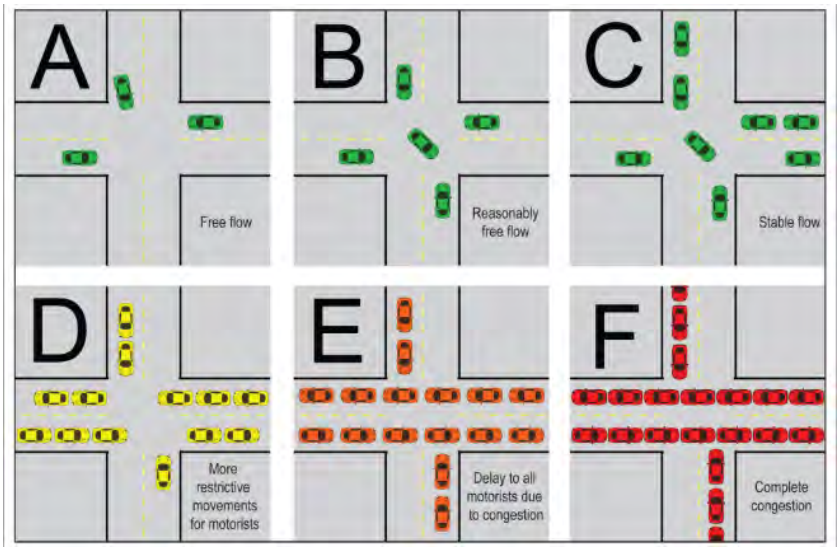


Figure 21: Year 2040 AM and PM Peak Hour Combined Traffic Volumes

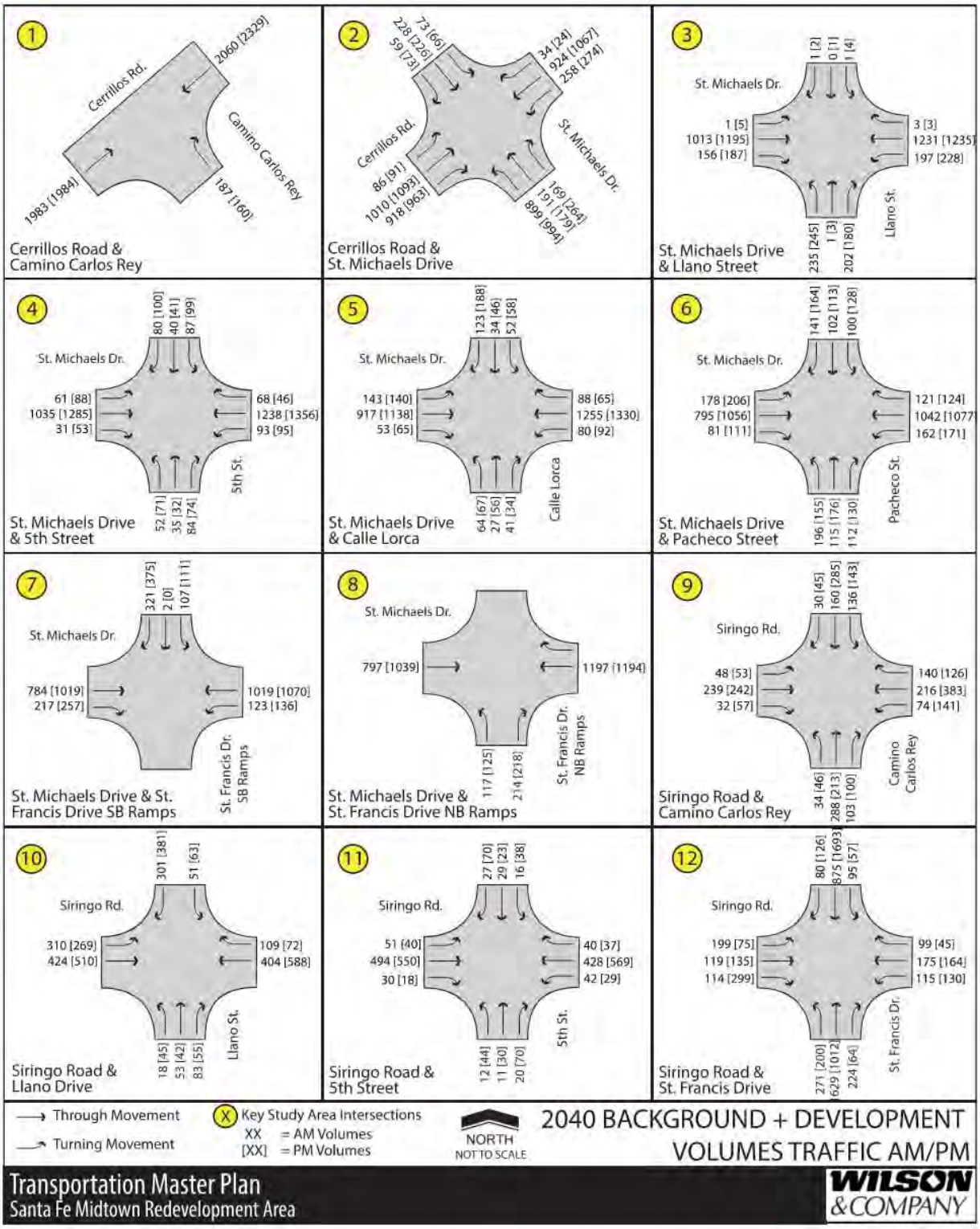
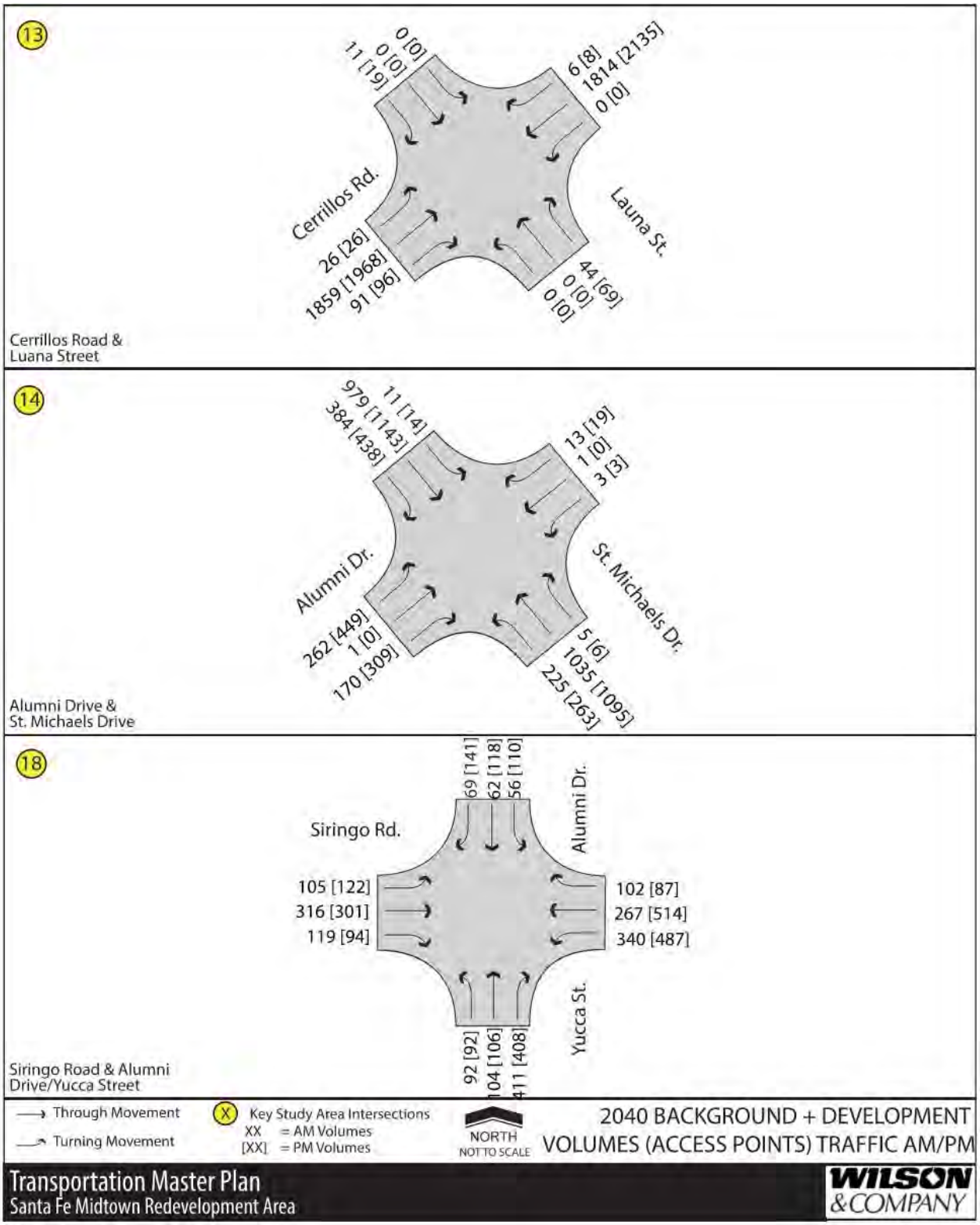


Figure 21: Year 2040 AM and PM Peak Hour Combined Traffic Volumes (Continued)



For signalized and unsignalized intersections (all-way stop-controlled and side-street stop-controlled intersections), control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue.

Signalized intersections are analyzed using a weighted average of the average control delay based on the traffic volume level within each lane group.

For unsignalized intersections, only those critical movements that will experience delay are analyzed. For side-street stop-controlled intersections, the delay reported in this study represents the worst-case minor approach. For all-way stop-controlled intersections, the average control delay represents the whole intersection. Two-way, stop-controlled intersection LOS is defined in terms of the average vehicle delay of an individual movement(s), because performance is more closely reflected by individual movements, rather than all approaches as a whole. **Table 5** summarizes the relationship between delay and LOS for both signalized and unsignalized intersections.

Table 5: Level of Service Criteria for Signalized and Unsignalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)		General Description
	Signalized Intersections	Unsignalized Intersections	
A	≤ 10.0	≤ 10.0	Free Flow
B	> 10.0 and ≤ 20.0	> 10.0 and ≤ 15.0	Stable Flow (slight delays)
C	> 20.0 and ≤ 35.0	> 15.0 and ≤ 25.0	Stable flow (acceptable delays)
D	> 35.0 and ≤ 55.0	> 25.0 and ≤ 35.0	Approaching unstable flow
E	> 55.0 and ≤ 80.0	> 35.0 and ≤ 50.0	Unstable flow (intolerable delay)
F	> 80.0	> 50.0	Forced flow (jammed)
	Source: Highway Capacity Manual 2016, 6th Edition (HCM2016), Transportation Research Board (TRB), 2016		

4.5.1 Existing Year Level of Service

Existing year LOS analysis was conducted using the collected turning movement volumes (refer to **Figure 16**) and based on the existing roadway network intersection configurations and traffic control (refer to **Figure 8**). Results for the existing AM and PM peak hours are presented in **Table 6**. Each of the analyzed intersections is currently operating with overall acceptable delays, though some approaches may be experiencing longer delays (LOS E or LOS F). These delays could likely be reduced with modifications to traffic control.

Table 6: Existing Conditions Level of Service

AM (PM)		Approach			
Intersection		NB	SB	EB	WB
Cerrillos Rd & Camino Carlos Rey (Two-Way Stop)	Delay	74.0(48.6)	-	0.0(0.0)	0.0(0.0)
	LOS	F(E)	-	A(A)	A(A)
	Delay	-			
	LOS	-			
Cerrillos Rd & St Michaels Dr (Signal)	Delay	53.7(47.9)	51.3(56.0)	23.3(24.4)	29.8(20.7)
	LOS	D(D)	D(E)	C(C)	B(C)
	Delay	33.8(32.8)			
	LOS	C(C)			
St. Michaels Dr & Llano St (Signal)	Delay	17.1(16.8)	12.6(12.7)	19.1(20.7)	10.6(11.6)
	LOS	B(B)	B(B)	B(C)	B(B)
	Delay	14.9(16.1)			
	LOS	B(B)			
St. Michaels Dr & 5th St (Signal)	Delay	26.9(34.9)	27.4(35.5)	19.5(13.7)	37.1(27.8)
	LOS	C(C)	C(D)	B(B)	D(C)
	Delay	29.0(23.0)			
	LOS	C(C)			
St. Michaels Dr & Calle Lorca (Signal)	Delay	35.7 (35.8)	35.4(37.1)	1.4(10.3)	4.8(5.6)
	LOS	D(D)	D(D)	A(B)	A(A)
	Delay	7.4(12.2)			
	LOS	A(B)			
St. Michaels Dr & Pacheco St (Signal)	Delay	43.4(40.5)	48.5(41.1)	12.6(18.3)	13.6(2.0)
	LOS	D(D)	D(D)	B(B)	B(A)
	Delay	21.5(18.0)			
	LOS	C(B)			
St. Michaels Dr & St. Francis Dr southbound ramps (Signal)	Delay	-	30.7(31.6)	5.8(5.3)	9.7(9.9)
	LOS	-	C(C)	A(A)	A(A)
	Delay	12.3(12.3)			
	LOS	B(B)			
St. Michaels Dr & St. Francis Dr northbound ramps (Two-Way Stop)	Delay	77.1(148)	-	0.0(0.0)	0.0(0.0)
	LOS	F(F)	-	A(A)	A(A)
	Delay	-			
	LOS	-			
Siringo Rd & Camino Carlos Rey (Signal)	Delay	36.8(37.2)	25.7(42.4)	30.0(26.5)	36.1(35.2)
	LOS	D(D)	D(D)	C(C)	D(D)
	Delay	32.5(36.0)			
	LOS	C(D)			
Siringo Rd & Llano St (Signal)	Delay	38.1(44.4)	-	36.1(32.8)	16.8(1.4)
	LOS	D(D)	-	D(C)	B(A)
	Delay	29.6(21.1)			
	LOS	C(C)			
Siringo Rd & 5th St (Signal)	Delay	46.3(44.8)	47.8(44.4)	0.9(1.1)	4.4(7.1)
	LOS	D(D)	D(D)	A(A)	A(A)
	Delay	7.2(12.3)			
	LOS	A(B)			
Siringo Rd & St. Francis Dr (Signal)	Delay	15.4(25.0)	14.8(30.6)	53.3(49.1)	54.7(49.1)
	LOS	B(C)	B(C)	D(D)	D(D)
	Delay	22.5(32.5)			
	LOS	C(C)			
Cerrillos Rd & Luana St (Two-Way Stop)	Delay	23.9(25.5)	22.1(28.0)	0.5(0.7)	0.0(0.0)
	LOS	C(D)	C(D)	A(A)	A(A)
	Delay	-			
	LOS	-			

Table 6: Existing Conditions Level of Service Continued

St. Michaels Drive & Alumni Dr (Two-Way Stop)	Delay	0.6(0.8)	0.2(0.2)	34.9(40.1)	28.6(23.7)
	LOS	A(A)	A(A)	D(E)	D(C)
	Delay	-			
	LOS	-			
Siringo Rd & Alumni Dr (Signal)	Delay	51.7(50.9)	32.5(34.2)	25.5(29.2)	11.7(22.8)
	LOS	D(D)	C(C)	C(C)	B(C)
	Delay	28.6(31.7)			
	LOS	C(C)			

4.5.2 Background Traffic Level of Service

Background traffic during the AM and PM peak hours in year 2040 were also analyzed using existing intersection geometry and traffic control to identify deficiencies and necessary intersection improvements that will likely be necessary, but not specifically attributable to the proposed development. The resulting LOS for background traffic is presented in **Table 7**. Based on the results depicted, the majority of intersections are anticipated to operate with overall acceptable LOS. Similar to the existing conditions LOS results, some approaches may experience longer delays (LOS E or LOS F), particularly the side-street intersections which suggest study area improvements are needed.

Table **7**: Background Traffic Level of Service (No Intersection Improvements)

AM (PM)		Approach			
Intersection		NB	SB	EB	WB
Cerrillos Rd & Camino Carlos Rey (Two-Way Stop)	Delay	83.5(56.3)	-	0.0(0.0)	0.0(0.0)
	LOS	F(F)	-	A(A)	A(A)
	Delay	-			
	LOS	-			
Cerrillos Rd & St Michaels Dr (Signal)	Delay	53.4(52.6)	61.2(61.4)	25.1(25.5)	21.0(21.4)
	LOS	D(D)	E(E)	C(C)	C(C)
	Delay	35.6(35.1)			
	LOS	D(D)			
St. Michaels Dr & Llano St (Signal)	Delay	17.3(17.0)	12.6(12.7)	19.4(21.3)	10.8(12.0)
	LOS	B(B)	B(B)	B(C)	B(B)
	Delay	15.2(16.6)			
	LOS	B(B)			
St. Michaels Dr & 5th St (Signal)	Delay	26.9(35.1)	27.5(35.8)	19.7(13.9)	37.4(28.2)
	LOS	C(D)	C(D)	B(B)	D(C)
	Delay	29.2(23.3)			
	LOS	C(C)			
St. Michaels Dr & Calle Lorca (Signal)	Delay	35.7(36.3)	35.5(37.6)	1.4(10.4)	4.9(5.8)
	LOS	D(D)	D(D)	A(B)	A(A)
	Delay	7.4(12.3)			
	LOS	A(B)			
St. Michaels Dr & Pacheco St (Signal)	Delay	43.1(40.7)	48.3(40.9)	12.9(18.7)	13.9(2.1)
	LOS	D(D)	D(D)	B(B)	B(A)
	Delay	21.7(18.2)			
	LOS	C(B)			
St. Michaels Dr & St. Francis Dr southbound ramps (Signal)	Delay	-	30.9(32.9)	5.8(5.3)	9.8(9.5)
	LOS	-	C(C)	A(A)	A(A)
	Delay	12.4(12.3)			
	LOS	B(B)			

Table 7: Background Traffic Level of Service (No Intersection Improvements) Continued

St. Michaels Dr & St. Francis Dr northbound ramps (Two-Way Stop)	Delay	85.8(183.4)	-	0.0(0.0)	0.0(0.0)
	LOS	F(F)	-	A(A)	A(A)
	Delay	-			
	LOS	-			
Siringo Rd & Camino Carlos Rey (Signal)	Delay	39.3(36.2)	26.7(40.8)	29.1(27.8)	35.0(38.7)
	LOS	D(D)	C(D)	C(C)	D(D)
	Delay	32.9(36.8)			
	LOS	C(D)			
Siringo Rd & Llano St (Signal)	Delay	38.2(44.5)	-	36.4(33.2)	17.1(1.5)
	LOS	D(D)	-	D(C)	B(A)
	Delay	29.9(21.3)			
	LOS	C(C)			
Siringo Rd & 5th St (Signal)	Delay	46.3(44.6)	48.0(44.3)	0.9(1.1)	4.5(7.3)
	LOS	D(D)	D(D)	A(A)	A(A)
	Delay	7.3(12.4)			
	LOS	A(B)			
Siringo Rd & St. Francis Dr (Signal)	Delay	15.8(25.3)	15.2(37.2)	53.4(39.6)	54.7(42.1)
	LOS	B(C)	B(D)	D(D)	D(D)
	Delay	22.8(33.8)			
	LOS	C(D)			
Cerrillos Rd & Luana St. (Two-Way Stop)	Delay	24.6(26.7)	22.7(29.3)	0.5(0.8)	0.0(0.0)
	LOS	C(D)	C(D)	A(A)	A(A)
	Delay	-			
	LOS	-			
St. Michaels Dr & Alumni Dr (Two-Way Stop)	Delay	0.6(0.8)	0.2(0.2)	37.3(45.5)	30.0(25.4)
	LOS	A(A)	A(A)	E(E)	D(D)
	Delay	-			
	LOS	-			
Siringo Rd & Alumni Dr (Signal)	Delay	52.1(51.5)	32.1(33.7)	26.8(32.0)	12.4(25.5)
	LOS	D(D)	C(C)	C(C)	B(C)
	Delay	29.4(33.7)			
	LOS	C(C)			

4.5.3 Combined Traffic Level of Service

Future traffic conditions with the additional traffic generated by the redevelopment was analyzed in year 2040 during AM and PM peak hours. The "background plus development" traffic volumes were modeled at each intersection with existing geometries as well as existing traffic control to identify deficiencies specifically attributable to the redevelopment-generated traffic. The results of the 2040 build analysis are depicted in **Table 8.**

Based on the analysis with development-added-traffic, several intersection approaches experience deteriorated LOS particularly noticeable at all two-way stop-controlled intersections. Additionally, the intersection of Cerrillos Road and St. Michaels Drive is expected to perform at LOS E in the evening peak hour, indicating the intersection will experience unacceptable levels of delay with the redevelopment by 2040 or sooner.

As noted in Table 8, the eastbound/westbound delay at the intersection of St. Michaels Drive and Alumni Drive was not able to be calculated or reported by Synchro. The intersection was further

investigated and a queuing analysis of the simulation was performed for buildout conditions to determine that the LOS for the eastbound approach is expected to fail by 2040 or sooner.

Table 8: Combined Traffic Level of Service (No Intersection Improvements)

AM (PM)		Approach			
Intersection		NB	SB	EB	WB
Cerrillos Rd & Camino Carlos Rey (Two-Way Stop)	Delay	149.5(104.3)	-	0.0(0.0)	0.0(0.0)
	LOS	F(F)	-	A(A)	A(A)
	Delay	-			
	LOS	-			
Cerrillos Rd & St Michaels Dr (Signal)	Delay	40.6(63.1)	40.9(70.7)	48.6(70.1)	27.9(38.3)
	LOS	D(E)	D(E)	D(E)	C(D)
	Delay	38.8(57.8)			
	LOS	D(E)			
St Michaels Dr & Llano St (Signal)	Delay	17.3(17.0)	12.6(12.7)	21.5(28.3)	11.6(13.4)
	LOS	B(B)	B(B)	C(C)	B(B)
	Delay	16.2(20.2)			
	LOS	B(C)			
St Michaels Dr & 5th St (Signal)	Delay	27.4(32.4)	27.8(32.3)	20.5(19.0)	40.2(27.1)
	LOS	C(C)	C(C)	C(B)	D(C)
	Delay	30.9(24.3)			
	LOS	C(C)			
St. Michaels Dr & Calle Lorca (Signal)	Delay	36.4(37.3)	35.9(38.3)	1.5(2.0)	5.4(6.6)
	LOS	D(D)	D(D)	A(B)	A(A)
	Delay	7.6(9.0)			
	LOS	A(A)			
St. Michaels Dr & Pacheco St (Signal)	Delay	42.0(39.9)	47.7(40.5)	14.2(26.5)	15.5(2.5)
	LOS	D(D)	D(D)	B(C)	B(A)
	Delay	22.1(20.6)			
	LOS	C(C)			
St Michaels Dr & St Francis Dr southbound ramps (Signal)	Delay	-	31.3(33.6)	5.9(5.6)	10.3(10.1)
	LOS	-	C(C)	A(A)	B(B)
	Delay	12.7(12.6)			
	LOS	B(B)			
St Michaels Dr & St Francis Dr northbound ramps (Two-Way Stop)	Delay	78.6(216.9)	-	0.0(0.0)	0.0(0.0)
	LOS	F(F)	-	A(A)	A(A)
	Delay	-			
	LOS	-			
Siringo Rd & Camino Carlos Rey (Signal)	Delay	49.7(53.0)	26.3(48.5)	30.8(31.6)	36.1(38.0)
	LOS	D(D)	C(D)	C(C)	D(D)
	Delay	36.9(42.4)			
	LOS	D(D)			
Siringo Rd & Llano St (Signal)	Delay	38.2(44.6)	-	30.6(32.3)	18.1(2.0)
	LOS	D(D)	-	C(C)	B(A)
	Delay	26.9(20.7)			
	LOS	C(C)			
Siringo Rd & 5th St (Signal)	Delay	46.3(44.6)	48.1(44.3)	1.0(1.3)	4.8(8.1)
	LOS	D(D)	D(D)	A(A)	A(A)
	Delay	7.1(12.0)			
	LOS	A(B)			
Siringo Rd & St. Francis Dr (Signal)	Delay	18.4(28.0)	17.9(43.1)	49.0(39.8)	48.0(39.6)
	LOS	B(C)	B(D)	D(D)	D(D)
	Delay	24.6(37.4)			
	LOS	C(D)			

Table 8: Combined Traffic Level of Service (No Intersection Improvements) Continued

Cerrillos Rd & Luana St (Two-Way Stop)	Delay	29.2(38.9)	23.1(35.3)	0.5(0.9)	0.0 (0.0)
	LOS	D(E)	C(E)	A(A)	A(A)
	Delay	-			
	LOS	-			
St. Michaels Drive & Alumni Dr (Two-Way Stop)	Delay	22.4(69.5)	0.1(0.2)	-[a]	-[a]
	LOS	C(F)	A(A)	F(F)	F(F)
	Delay	-			
	LOS	-			
Siringo Rd & Alumni Dr (Signal)	Delay	48.2(47.2)	35.0(51.2)	24.0(29.9)	24.6(28.0)
	LOS	D(D)	C(D)	C(C)	C(C)
	Delay	32.4(36.2)			
	LOS	C(D)			

[a]: Delay cannot be calculated

5.0 IMPROVEMENT RECOMMENDATIONS

Based on the results of the LOS analysis presented in **Section 4**, the following improvements are recommended to maintain overall LOS D performance under background and combined traffic conditions.

5.1 YEAR 2040

Background Traffic Conditions

At the intersection of Cerrillos Road and Camino Carlos Rey, the northbound approach is already experiencing LOS E delays under existing conditions. With the anticipated growth in background traffic prior to construction of the proposed development, delays will continue to increase. Under background conditions alone, drivers will begin experiencing delays prompting potential reroutes to the traffic signal at Cerrillos Road and Camino Carlos Rey intersection.

At the intersection of St. Michaels Drive and Alumni Drive, the eastbound approach is already experiencing LOS E delays under existing conditions. With the anticipated growth in background traffic prior to construction of the proposed development, delays will continue to increase, and a traffic signal will be required to properly serve vehicles entering/exiting the Midtown development. In addition to the vehicles utilizing this intersection as an access point to the site, the installation of a traffic signal will accommodate a portion of the traffic traveling from the west since the Cerrillos Road access point is right-in/right-out only.

At the intersection of St. Michaels Drive and St. Francis Drive northbound ramps, vehicles exiting State Route 285 are already experiencing LOS F delays under existing conditions. Additional growth in background traffic will continue to degrade the northbound approach. Therefore, monitoring and analysis of this location is recommended to determine at what point

in time traffic volumes will warrant installation of a traffic signal to alleviate the LOS F conditions.

Combined Traffic Conditions

The southbound approach at Cerrillos Road and St. Michaels Drive is already experiencing LOS E delays under existing conditions and is anticipated to operate at LOS E in background travel conditions. With the additional traffic associated with Phase II development, the intersection operations will degrade to LOS E. Therefore, the first priority for additional access points to the development is the new site access point along Camino Carlos Rey. This access point will not only alleviate the unstable LOS conditions at Cerrillos Road and St. Michaels Drive, but it will also serve the rerouted vehicles from Cerrillos Road and Luana Street. A portion of the traffic exiting the site from the Cerrillos Road and Luana Street access point will likely reroute to the Camino Carlos Rey and Calle DeOriente access point. It should be noted that this new driveway is intended to divert traffic to/from Cerrillos Road. Traffic from this new driveway would be contained primarily in the northern segment of Camino Carlos Ray, in the more commercial section of the roadway, rather than to residential neighborhoods further south.

5.2 LEVELS OF SERVICE WITH IMPROVEMENTS

The resulting LOS with implementation of the recommended improvement discussed above is presented in **Table 9**. As depicted, all intersections would operate with overall LOS D or better. (Refer to **Appendix C** for full Synchro Reports.)

Table 9: Development + Background Traffic (Intersection Improvements)

AM (PM)		Approach			
Intersection		NB	SB	EB	WB
Cerrillos Rd & Camino Carlos Rey (Two-Way Stop)	Delay	34.9(34.9)	-	0.0(0.0)	0.0(0.0)
	LOS	D(D)	-	A(A)	A(A)
	Delay	-			
	LOS	-			
Cerrillos Rd & St Michaels Dr (Signal)	Delay	40.6(56.7)	40.9(69.3)	48.6(69.5)	27.9(36.5)
	LOS	D(E)	D(E)	D(E)	C(D)
	Delay	38.8(55.0)			
	LOS	D(D)			
St. Michaels Dr & Llano St (Signal)	Delay	17.3(17.0)	12.6(12.7)	21.5(28.3)	11.6(13.4)
	LOS	B(B)	B(B)	C(C)	B(B)
	Delay	16.2(20.2)			
	LOS	B(C)			
St. Michaels Dr & 5th St (Signal)	Delay	27.4(32.4)	27.8(32.3)	20.5(19.0)	40.2(27.1)
	LOS	C(C)	C(C)	C(B)	D(C)
	Delay	30.9(24.3)			
	LOS	C(C)			
St. Michaels Dr & Calle Lorca (Signal)	Delay	36.4(37.3)	35.9(38.3)	1.5(2.0)	5.4(6.6)
	LOS	D(D)	D(D)	A(B)	A(A)
	Delay	7.6(9.0)			
	LOS	A(A)			
St. Michaels Dr & Pacheco St (Signal)	Delay	42.0(39.9)	47.7(40.5)	14.2(26.5)	15.5(2.5)
	LOS	D(D)	D(D)	B(C)	B(A)
	Delay	22.1(20.6)			
	LOS	C(C)			
St. Michaels Dr & St Francis Dr southbound ramps (Signal)	Delay	-	31.3(33.6)	5.9(5.6)	10.3(10.1)
	LOS	-	C(C)	A(A)	B(B)
	Delay	12.7(12.6)			
	LOS	B(B)			
St. Michaels Dr & St Francis Dr northbound ramps (Signal)	Delay	11.1(11.3)	-	8.9(10.8)	8.7(8.7)
	LOS	B(B)	-	A(B)	A(A)
	Delay	8.9(9.8)			
	LOS	A(A)			
Siringo Rd & Camino Carlos Rey (Signal)	Delay	49.7(53.0)	26.3(48.5)	30.8(31.6)	36.1(38.0)
	LOS	D(D)	C(D)	C(C)	D(D)
	Delay	36.9(42.4)			
	LOS	D(D)			
Siringo Rd & Llano St (Signal)	Delay	38.2(44.6)	-	30.6(32.3)	18.1(2.0)
	LOS	D(D)	-	C(C)	B(A)
	Delay	26.9(20.7)			
	LOS	C(C)			
Siringo Rd & 5th St (Signal)	Delay	46.3(44.6)	48.1(44.3)	1.0(1.3)	4.8(8.1)
	LOS	D(D)	D(D)	A(A)	A(A)
	Delay	7.1(12.0)			
	LOS	A(B)			
Siringo Rd & St. Francis Dr (Signal)	Delay	18.4(28.0)	17.9(43.1)	49.0(39.8)	48.0(39.6)
	LOS	B(C)	B(D)	D(D)	D(D)
	Delay	24.6(37.4)			
	LOS	C(D)			
Cerrillos Rd & Luana St (Two-Way Stop)	Delay	29.2(28.8)	23.1(27.6)	0.5(0.7)	0.0 (0.0)
	LOS	D(D)	C(D)	A(A)	A(A)
	Delay	-			
	LOS	-			

Table 9: Development + Background Traffic (Intersection Improvements)

St. Michaels Drive & Alumni Dr (Signalized)	Delay	7.6(15.7)	9.0(16.2)	-	36.4(44.8)
	LOS	A(B)	A(B)	-	D(D)
	Delay	16.9(18.1)			
	LOS	B(B)			
Camino Carlos Rey & Calle De Oriente (Two-Way Stop)	Delay	8.2(6.2)	6.9 (11.3)	27.2(24.2)	34.6(38.2)
	LOS	A(A)	C(B)	C(C)	C(D)
	Delay	-			
	LOS	-			
Siringo Rd & Alumni Dr (Signal)	Delay	48.2(47.2)	35.0(51.2)	24.0(29.9)	24.6(28.0)
	LOS	D(D)	C(D)	C(C)	C(C)
	Delay	32.4(36.2)			
	LOS	C(D)			

6.0 PARKING

A supplemental analysis has been conducted to determine the appropriate number of parking spaces to accommodate the multiple land uses associated with the proposed Santa Fe Midtown Center development. This section will present the following five scenarios for determining recommended parking supply, based on varying parking ratios by land use and consideration of shared parking opportunities:

- spaces per city code
- spaces per Urban Land Institute (ULI) standards
- spaces per ULI standards with shared parking
- spaces per residential use and non-residential use
- spaces per townhouse/other residential uses and non-residential use

Table 10 provides a summary of the resulting parking demand for each scenario. It is recommended that approximately 3,370 spaces be provided. The following discussion provides details of each scenario.

Table 10: Summary of Required Parking

Scenario	Parking Standards	Required Parking
1	Municipal Code Base Parking Requirement	4,740
2	ULI Parking Standards	4,628
3	ULI Parking Standards with shared parking	3,371
4	Max of 2 spaces per residential use and 2 spaces per 1000 square feet (SF) of non-residential	3,671
5	2 Spaces per townhouse, 1 space for other residential units, 2 spaces per 1000sf non-residential	2,684

Scenario 1 reflects the required number of spaces based on parking ratios cited in the City of Santa Fe municipal code and does not take into consideration the mix of uses, opportunities for shared parking, or potential for a lower number of vehicles per residential unit resulting from the mixed-use nature of the development. As a result, in represents the highest and most conservative estimate of parking demand. **Table 11** provides a summary of the city code parking ratios and resulting number of required spaces.

Table 11: **Required Parking per City Municipal Code – Phase I and Phase II Development**

Land Use Assumptions			Parking Ratio	Required Spaces
Land use	**Size**	**Unit**		
Residential	1,121	units	2	2242
Hotel	100	units	1	100
Bar	7,927	SF	1 Space / 30 SF	264
Retail	44,302	SF	1 Space / 200 SF	222
General Office (non-medical)	172,125	SF	1 Space / 350 SF	492
Medical Office	43,031	SF	1 Space / 200 SF	215
Film Production Office (non-medical office)	181,141	SF	1 Space / 350 SF	518
Junior/Community College (assuming private school of instruction)	34,974	SF	1 Space / 200 SF	175
Museum	17,474	SF	1 Space / 250 SF	70
Library	45,573	SF	1 Space / 250 SF	182
Government Office Building (Post office was used, more conservative compared to non-medical)	30,139	SF	1 Space / 200 SF	151
Theatre	330	units	1 Space / 3 seats	110
			TOTAL	**4,740**

Scenario 2 uses ULI parking ratios representative of developments across the United States. Use of these parking ratios results in a parking demand similar to that required by City Code. The ULI parking ratios and resulting number of spaces are summarized in **Table 12**.

Table 12: ULI Parking Requirements – Phase I and Phase II Development

Land Use Assumptions			Parking Ratio*	Required Spaces
Land use	**Size**	**Unit**		
Residential	1,121	units	1.80	2,018
Hotel	100	units	1.15	115
Bar	7,927	SF	19.00	151
Fast Casual (1 from block A3, 2 from block E4)	10,381	SF	14.70	159
Bank (block E4)	3,653	SF	6.00	22
Remainder of Retail < 400,000 sf (Coffee shop, apparel store, variety store, & copy print express)	10,852	SF	4.00	43
Coffee Shop	3,500	SF	4.00	14
1st floor Commercial	15,468	SF	4.00	62
General Office (Office 100k-500k sf)	172,125	SF	3.29	567
Medical Office	43,031	SF	4.60	198
Film Production Office (Office 100k-500k sf)	181,141	SF	3.28	594
Museum	17,474	SF	5.00	87
Library	45,573	SF	3.90	178
Theater	330	Seats	0.40	132
Government Office Building (Office 25k-100k sf)	30,139	SF	3.77	114
			TOTAL	**4,628**

Scenario 3 uses the same ULI parking ratios but recognizes the potential for shared due to the mix of uses proposed for the site. The varying uses will exhibit varying levels of parking utilization throughout the day. For example, residential uses will demand the greatest level of parking during the late evening and early morning hours. Parking needs for retail and restaurant uses will be greatest during the afternoon and early evening hours. Office uses will experience the greatest parking demand during normal business hours, roughly 8AM to 5PM. The ULI Shared Parking Manual provides a variety of cases studies that document the parking characteristics of mixed-use sites, and documents hourly variations in parking demand for a variety of uses. Data from this manual provided the basis for determination of the shared parking potential for the Santa Fe Midtown Center.

Table 13 provides a summary of the hourly variation in parking demand for the various uses proposed at Santa Fe Midtown Center. The hourly variations were applied to the base parking requirements (Table 12) to determine the maximum anticipated parking demand throughout the day. **Table 14** provides a summary of the hourly parking demand for each land use. **Figure 21** displays the cumulative parking need for the site. The maximum level of shared parking demand occurs at approximately 10AM, when 3,371 spaces are required.

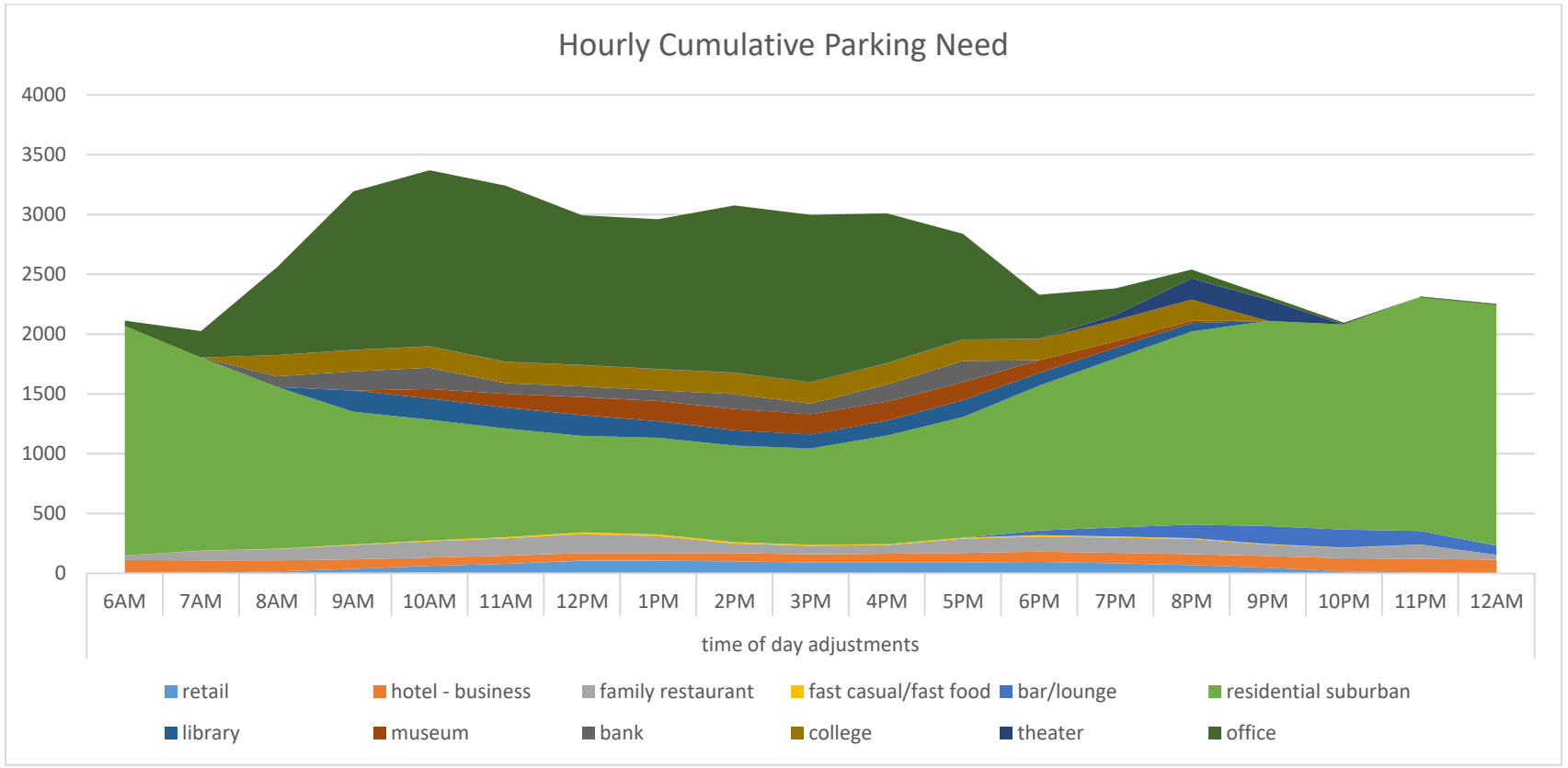
Table 13: Time of Day Adjustments for Proposed Site Use

Land Use	Time of Day Adjustments																		
	6AM	7AM	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	12AM
retail	1%	5%	15%	35%	60%	75%	100%	100%	95%	85%	85%	85%	90%	80%	65%	45%	15%	5%	0%
hotel - business	95%	90%	80%	70%	60%	60%	55%	55%	60%	60%	65%	70%	75%	75%	80%	85%	95%	100%	100%
family restaurant	25%	50%	60%	75%	85%	90%	100%	90%	50%	45%	45%	75%	80%	80%	80%	60%	55%	75%	25%
fast casual/fast food	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
bar/lounge	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	50%	75%	100%	100%	75%	50%
residential suburban	95%	80%	67%	55%	50%	45%	40%	40%	40%	40%	45%	50%	60%	70%	80%	85%	85%	97%	100%
library	0%	0%	0%	100%	100%	98%	98%	78%	72%	65%	70%	79%	60%	50%	40%	0%	0%	0%	0%
museum	0%	0%	0%	0%	45%	65%	85%	95%	100%	95%	90%	85%	60%	30%	10%	0%	0%	0%	0%
bank	0%	0%	50%	90%	100%	50%	50%	50%	70%	50%	80%	100%	0%	0%	0%	0%	0%	0%	0%
college	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	0%
theater	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	25%	100%	100%	0%	0%	0%
office	3%	15%	50%	90%	100%	100%	85%	85%	95%	95%	85%	60%	25%	15%	5%	2%	1%	0%	0%

Table 14: Hourly Parking Demand

Land Use	Time of Day Parking Demand																		
	6AM	7AM	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	12AM
retail	1	5	16	37	63	79	105	105	100	89	89	89	95	84	68	47	16	5	0
hotel - business	109	104	92	81	69	69	63	63	69	69	75	81	86	86	92	98	109	115	115
family restaurant	40	80	95	119	135	143	159	143	80	72	72	119	127	127	127	95	87	119	40
fast casual/fast food	1	1	3	4	8	12	14	14	13	8	8	8	12	11	7	4	3	1	1
bar/lounge	0	0	0	0	0	0	0	0	0	0	0	0	38	75	113	151	151	113	75
residential suburban	1917	1614	1352	1110	1009	908	807	807	807	807	908	1009	1211	1413	1614	1715	1715	1957	2018
library	0	0	0	178	178	174	174	139	128	116	124	140	107	89	71	0	0	0	0
museum	0	0	0	0	80	116	151	169	178	169	160	151	107	53	18	0	0	0	0
bank	0	0	89	160	178	89	89	89	124	89	142	178	0	0	0	0	0	0	0
college	0	0	178	178	178	178	178	178	178	178	178	178	178	178	178	0	0	0	0
theater	0	0	0	2	2	2	2	2	2	2	2	2	2	44	178	178	0	0	0
office	44	221	736	1325	1472	1472	1251	1251	1399	1399	1251	883	368	221	74	29	15	0	0
TOTAL DEMAND	**2112**	**2025**	**2561**	**3193**	**3371**	**3241**	**2994**	**2960**	**3076**	**2997**	**3009**	**2839**	**2329**	**2382**	**2540**	**2318**	**2096**	**2311**	**2249**

Figure 22: Hourly Cumulative Parking Need



The remaining two scenarios use estimated parking ratios based on consolidation of the various types of land uses to either residential or non-residential. Scenario 4 emulates the municipal code requirement of 2 spaces per residential unit and simplifies the parking ratio for all non-residential uses to 2 spaces per 1,000 square feet, which is less demanding than most ratios in the municipal code. **Table 15** summarizes the resulting number of required spaces, which is similar to that calculated in Scenario 3 for shared use parking.

Table 15: Scenario 4 Parking Requirements – Phase I and Phase II Development

Land Use Assumptions			Parking Ratio*	Required Spaces
Land use	**Size**	**Unit**		
Residential	1,221	units	2	2,242
Non-Residential	576,685	SF	2	1,153
Theatre				75
			TOTAL	**3,671**

* Parking ratio indicates the number of spaces per units for residential uses or the number of spaces per 1,000SF for all other uses.

Scenario 5 uses the same simplified parking ratio for all non-residential uses of 2 spaces per 1,000 square feet, retains the municipal code requirement of 2 spaces per residential unit for townhomes, and introduces a reduced parking ratio of 1 space per units for all other residential units. This is the least conservative approach, and results in the lowest level of parking demand, as summarized in **Table 16**.

Table 16: Scenario 5 Parking Requirements – Phase I and Phase II Development

Land Use Assumptions			Parking Ratio*	Required Spaces
Land use	**Size**	**Unit**		
Townhouse	235	units	2	470
Other residential units (Low Rise/Mid Rise/Hotel)	986	units	1	986
Non-Residential	576,685	SF	2	1,153
Theatre				75
			TOTAL	**2,684**

* Parking ratio indicates the number of spaces per units for residential uses or the number of spaces per 1,000SF for all other uses.

Based on the above analysis, it recommended that the targeted parking supply for the site be approximately 3,370 vehicles, consistent with Scenario 3. This scenario is based on collected data for the specific uses and daily variation in parking demand, and results in a parking supply similar to Scenario 4.