APPENDIX R: SUB-AREA MODEL VALIDATION

Memorandum

To: Hatem A. Abou-Senna, PhD., P.E.
Project Manager
Orange County Transportation
Planning Division

Date: December 15, 2021

Project #: 63835.00

From: VHB

Re: Northeast Orange County Areawide Transportation Study (NEOCATS) – Subarea Model Validation and Future Forecasts Memorandum

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This memorandum documents the subarea model validation information, year 2045 model development and traffic projections for the NEOCATS study area. The Central Florida Regional Planning Model Version 7 (CFRPM7.0) was used for this study. The travel demand model is an evaluation tool that represents land use and transportation interaction to assess the capability of the region's roadway networks to support anticipated growth. The objective of model validation is to build a reliable subarea model that will reflect current traffic pattern distributions, travel demand, and travel times (average speeds) within the study area. To this effect, the subarea model calibration and validation followed the procedures outlined in FDOT's 2019 Project Traffic Forecasting Handbook (PTF) and Florida Standard Urban Transportation Model Structure (FSUTMS) Model Calibration and Validation Standards.

Subarea Model Development:

The model validation is performed to ensure that the model is accurate enough (per the FDOT's model validation standards) to reflect the year 2020 traffic conditions in the study area and to study the traffic flow patterns for the future year 2045. The level of accuracy of the model is checked by percent error by volume groups, percent error by facility types, screenline counts, UCF area counts, congested speeds for SR 50, SR 434, CR 419 and McCulloch Road, StreetLight OD data for the external zones (routing patterns), and the percent root mean square error (RMSE) for the study area. The subarea extends from Rouse Road in the west to Chuluota Road in the east, and from SR 50 (E Colonial Drive) in the south to the Seminole County line in the north, as shown in **Figure 1**. The year 2020 AADT counts for individual roadway segments were obtained from the methodology document (included in **Appendix A**) developed for determining existing 2020 traffic volumes. The Peak Season Weekday Average Daily Traffic (PSWADT) obtained from CFRPM7.0 was converted to Annual Average Daily Traffic (AADT) using the 2020 model output conversion factor (MOCF) of 0.98 for Orange County. The CFRPM7.0 model has the base year of 2015 and the horizon year of 2045. The year 2020 socio-economic (SE) data provided as part of the CFRPM7.0 was used in the model validation. The roadway segments evaluated for the base year 2020 in the vicinity of the study area are included in **Appendix A**.

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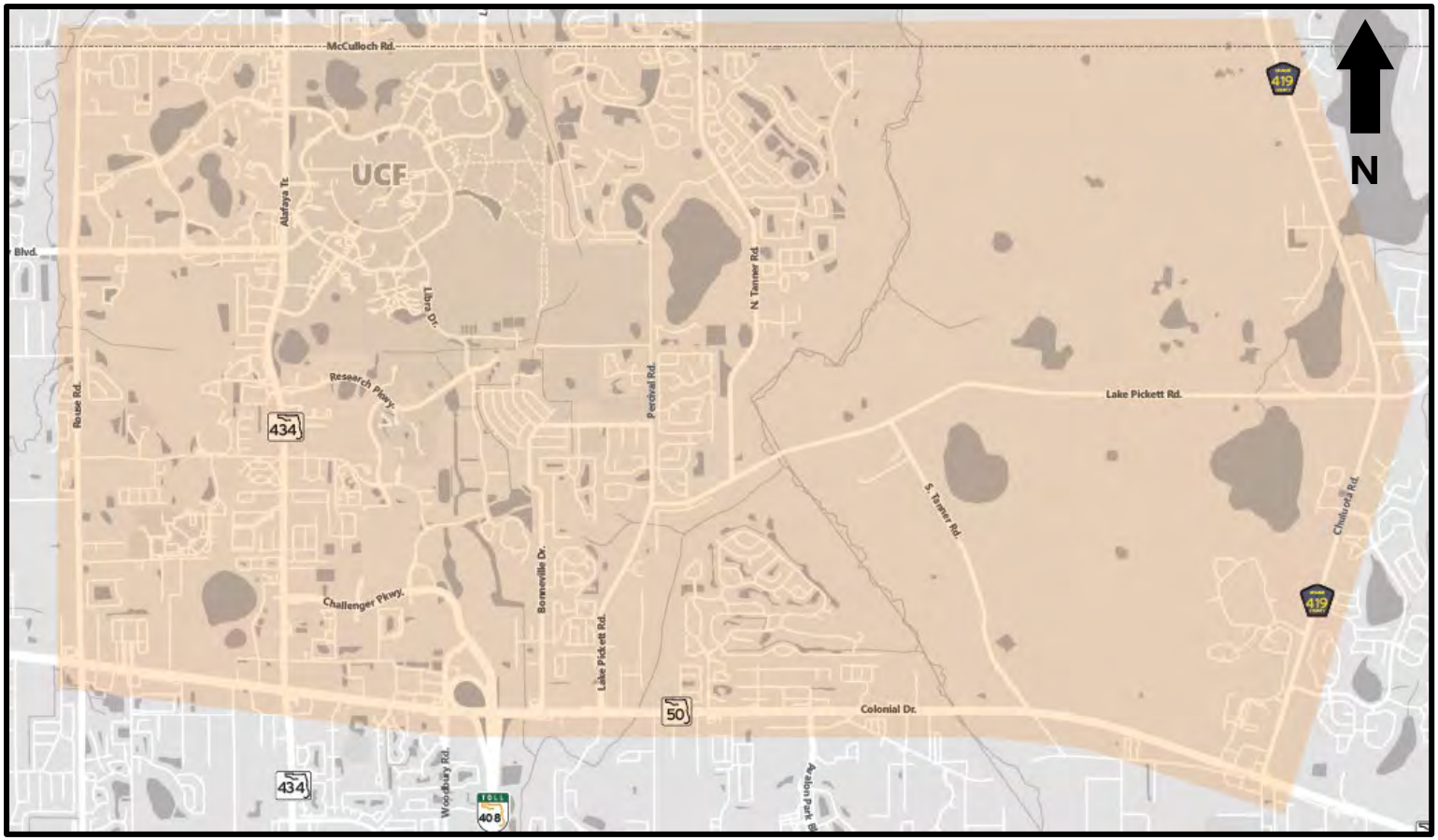
Figure 1: Subarea Map



As part of the validation effort, the following changes were incorporated in the base year subarea model.

Network Changes:

1. Added a two-lane roadway, Bonneville Drive from SR 50 to Sussex Drive, with area type 31 and facility type 43.
2. Added a two-lane roadway, Sussex Drive from Bonneville Drive to Percival Road, with area type 31 and facility type 43.
3. Libra Drive from Ara Drive to Gemini Boulevard: changed from 2 lanes to 4 lanes
4. Libra Drive from Gemini Boulevard to Research Parkway: changed facility type from 43 to 42.
5. Research Parkway from Alafaya Trail to Discovery Drive: changed facility type from 44 to 41.
6. Science Drive from Alafaya Trail to Ingenuity Drive: changed facility type from 45 to 43.
7. S Tanner Road from SR 50 to Lake Pickett Road: changed posted speed from 45 mph to 40 mph.
8. Waterford Chase Parkway from Lake Underhill Road to Avalon Park Boulevard: changed facility type from 47 to 42 and posted speed from 25 mph to 30 mph.
9. Woodbury Road from SR 50 to Lake Underhill Road: changed facility type from 33 to 32.

Centroid Loading and Zone Splits:

1. Traffic Analysis Zone (TAZ) 4539: This TAZ was further split into 3 zones (4539, 4871, and 4872) to represent the field conditions.
2. TAZ 4549: This TAZ was further split into 2 zones to represent the field conditions.
3. TAZ 4596: This TAZ was further split into 4 zones (4596, 4877, 4869, and 4878) to represent the field conditions.
4. TAZ 4629: This TAZ was further split into 3 zones (4629, 4880, and 4870) to assign traffic to Science Drive and Challenger Parkway along with Alafaya Trail.
5. TAZ 4654: This TAZ was further split into 2 zones (4654 and 4879) to represent the field conditions.
6. TAZ 4717: This TAZ was further split into 2 zones (4717 and 4875) to represent the field conditions.
7. The centroid loadings were moved/adjusted for the TAZs # 4662, 4683, 4694, 4699, 4717, 4758, 4773, and 7237.

Land Use Changes:

1. TAZs 4539 & 4871: Added 364 multi-family units to represent the “Plaza on University” apartment complex.
2. TAZ 4571: Added 179 hotel units (90 employees) to represent “The Celeste” hotel.
3. Central Florida Research Park: The employee (Industrial and Service) total was changed from 2,507 to 13,000 and two more TAZs (4873 and 4874) were added to represent the field conditions.

Table 1 shows the percent deviation error by facility type. The percent deviation is defined as ((base year model assignment in AADT – base year actual count in AADT)/ (base year actual count in AADT)). **Table 2** shows the percent deviation error by volume group. As shown in **Tables 1 and 2**, the traffic count percent errors for both facility type and volume groups are within the preferable FDOT model validation standards for the "After" validation condition.

The percent (Root Mean Square Error) RMSE for the study area is another aggregate measure of how well the model has been validated against the ground counts. The RMSE for the study area comprising the study roadway links is 14.62% and usually can be +/-35% to 45%. **Table 3** shows the adjusted network has been revised to replicate the existing traffic counts within the study area. The base year model plots are provided in **Appendix A**.

Few segments around the University of Central Florida (UCF) were verified to further check the reasonableness of the model validation. **Table 4** shows that the updated model replicates the field conditions around UCF.

Further, screenline analysis was performed in all four directions along exterior roads. As shown in **Table 5**, the screenlines are within acceptable ranges.

Table 1: Volume-over-Count Ratio and Percent Error by Facility Type

Facility Type	FDOT Standards		Base Year 2020 Model Validation	
	Acceptable	Preferable	Before	After
Freeway (FT1X, FT8X, FT9X)	+/- 7%	+/- 6%	N/A	N/A
Divided Arterial (FT2X)	+/- 15%	+/- 10%	-9.22%	-8.25%
Undivided Arterial (FT3X)	+/- 15%	+/- 10%	-8.84%	-1.16%
Collector (FT 4X)	+/- 25%	+/- 20%	-30.33%	-8.33%
Undivided Arterial (FT3X)	+/- 25%	+/- 20%	N/A	N/A

Source: FSUTMS - Cube Framework Phase II Model Calibration and Validation Standards

Table 2: Percent Error by Volume Group

Volume Group	FDOT Standards		Base Year 2020 Model Validation	
	Acceptable	Preferable	Before	After
< 10,000 Volume	50%	25%	-28.41%	-6.06%
10,000 - 30,000	30%	20%	-22.83%	-6.86%
30,000 - 50,000	25%	15%	-2.64%	8.89%
50,000 - 65,000	20%	10%	-4.49%	-2.63%
65,000 - 75,000	15%	10%	-4.46%	-4.86%
> 75,000	10%	5%	N/A	N/A

Source: FSUTMS - Cube Framework Phase II Model Calibration and Validation Standards

Table 3: Percent Root Mean Square Error by Volume Group

Volume Group	% RMSE	Acceptable % RMSE	Preferable % RMSE
1 - 5,000:	34.94%	100%	45%
5,000 - 10,000:	26.18%	45%	35%
10,000 - 15,000:	23.38%	35%	27%
15,000 - 20,000:	11.69%	30%	25%
20,000 - 30,000:	18.78%	27%	15%
30,000 - 50,000:	14.10%	25%	15%
50,000 - 60,000:	8.10%	20%	10%
> 60,000	11.81%	19%	10%
Areawide	**14.62%**	**45%**	**35%**

Source: FSUTMS - Cube Framework Phase II Model Calibration and Validation Standards

Table 4: UCF Area Comparison

Location	UCF Study (AADT)*	Model Before Validation	Model After Validation
University Boulevard, Alafaya Trail to Gemini Boulevard	21,282	18,784	20,195
Centaurus Boulevard, east of Alafaya Trail	7,553	6,227	5,523
Gemini Boulevard, east of Alafaya Trail	16,453	8,118	18,344
Orion Boulevard, South of McCulloch Road	14,779	11,032	13,783
Libra Drive, North of Research Parkway	8,337	1,413	9,205
Central Florida Boulevard, east of Alafaya Trail	6,455	17,824	5,391
Total (AADT)	**74,859**	**62,130**	**70,992**
Difference %		**-17.00%**	**-5.17%**

*2020-2030 UCF Campus Master Plan Update

Table 5: Screenline Analysis

Cutline	Roadway Name	Count AADT	Model AADT Before	Model AADT After	Before	After
West Screen Line	University Boulevard west of Rouse Road	66,670	55,528	57,663		
	SR 50 west of Rouse Road	58,281	56,663	56,553		
	Buck Road west of Rouse Road	8,400	4,909	6,049		
	Total	**133,351**	**117,099**	**120,265**	**-13.88%**	**-9.81%**
North Screen Line	SR 434 north of McCulloch Road	60,648	51,277	54,415		
	Lockwood Boulevard north of McCulloch Road	19,600	17,300	19,563		
	Old Lockwood Road north of McCulloch Road	5,000	6,451	5,414		
	CR 419 north of Seminole County Line	11,090	12,917	12,819		
	Total	**96,338**	**87,945**	**92,212**	**-9.54%**	**-4.28%**
East Screen Line	SR 50 east of CR 419	38,336	41,197	42,263		
	Lake Pickett Road east of CR 419	5,800	4,135	4,910		
	Total	**44,136**	**45,332**	**47,173**	**2.64%**	**6.88%**
South Screen Line	Rouse Road south of SR 50	21,260	14,247	20,084		
	SR 434 south of SR 50	53,219	51,543	51,455		
	Woodbury Road south of SR 50	19,000	14,968	16,200		
	SR 408 NE off ramp	35,697	33,409	37,338		
	Avalon Park Boulevard south of SR 50	28,000	34,536	33,031		
	Total	**157,176**	**148,703**	**158,108**	**-5.70%**	**0.59%**

Screenline Validation Standards:
Screenlines with greater than 70,000 AADT should achieve +/-10 percent.
Screenlines with 35,000 to 70,000 AADT should achieve +/-15 percent; and
Screenlines with less than 35,000 AADT should achieve +/-20 percent

Origin-Destination (OD) Data and Travel Patterns

Since the travel demand model has been validated to replicate the existing traffic counts within the study area, the next step is to adjust (if needed) the model to replicate the traffic flow characteristics observed in the field using the OD data and travel patterns. The updated subarea model should reflect current traffic pattern distributions, travel demand, and congested speeds within the study area. StreetLight Data, extracted for typical weekday conditions in September 2019, was used to understand travel patterns between origins and destinations within the study area. StreetLight Data uses location-based service data from cell phones and navigation devices to give insights into the vehicle, bicyclist, and pedestrian travel patterns. StreetLight uses machine learning algorithms to process and validate the data using traffic counters and sensors. The OD locations were initially provided by Orange County and refined based on coordination between the project team and the county. The final 42 OD locations are shown in **Figure 2**. It is to be noted that each OD location is both an origin and a destination.

The subarea model (as shown in **Figure 3)** with 16 external zones was extracted from CFRPM7.0 validated model to verify/compare the traffic pattern distributions and congested speeds with the corresponding StreetLight Data. **Table 6** represents the OD trips (%) for all 16 external zones from StreetLight Data. **Table 7** shows the OD trips (%) for the same 16 external Zones from CFRPM. It should be noted that the trip patterns such as predominant destinations for a specific zone were compared. It is not reasonable to compare the exact trip percentages because of the distinct differences in these two sources. Based on **Tables 6** and **7**, it must be noted that the OD trips (%) were comparable and the CFRPM model traffic pattern distributions reflect the StreetLight OD field data. For instance, as per **Table 7** - CFRPM, most of the trips originated from SR 408 (Zones #70 & #71) were destined to Avalon Park Boulevard (Zone 61) and SR 50, east of CR 419 (Zone 62), which match with the traffic patterns shown in **Table 6** based on StreetLight Data.

Figure 2: OD Location Map - StreetLight

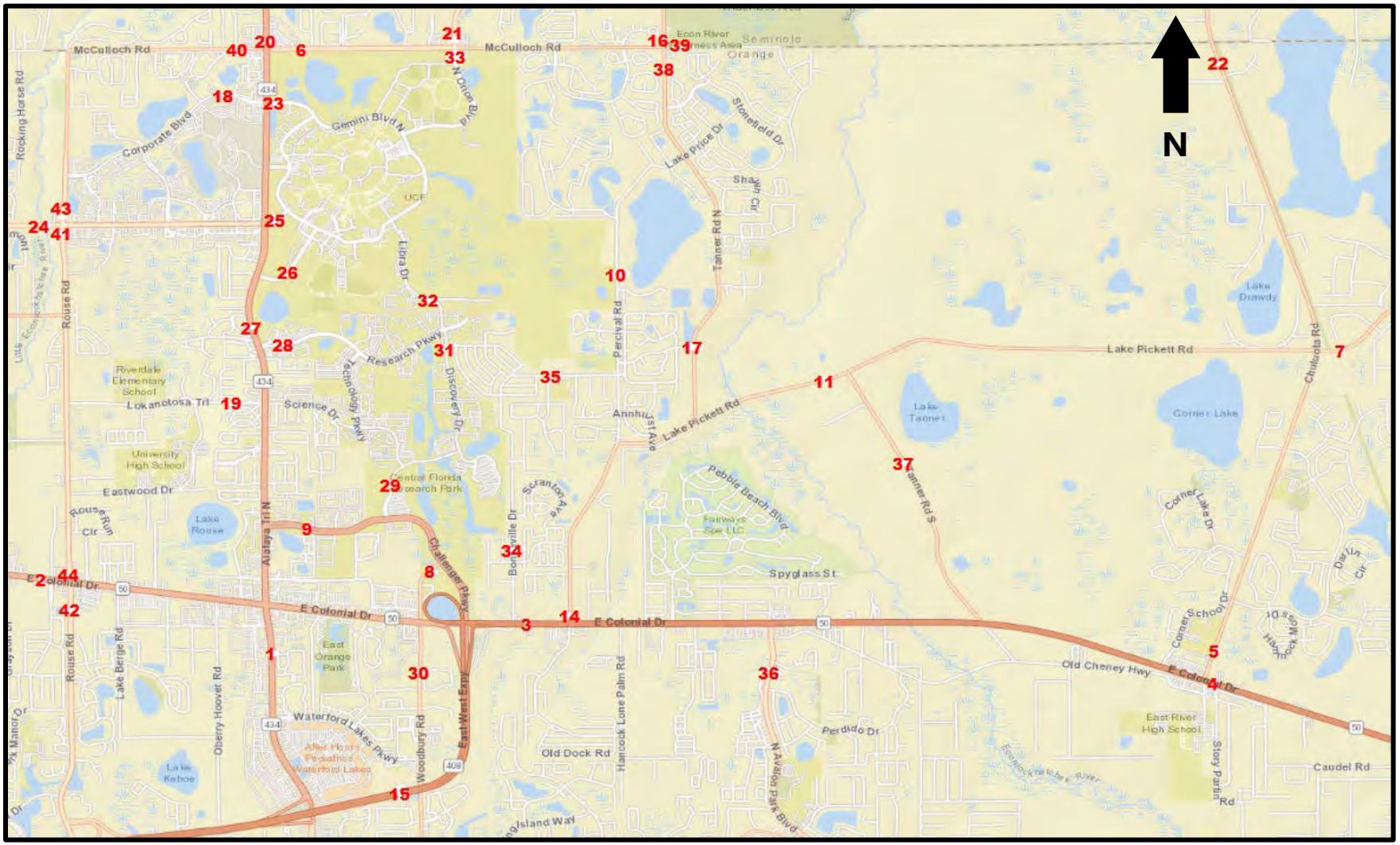


Figure 3: OD Subarea Map – CFRPM7.0

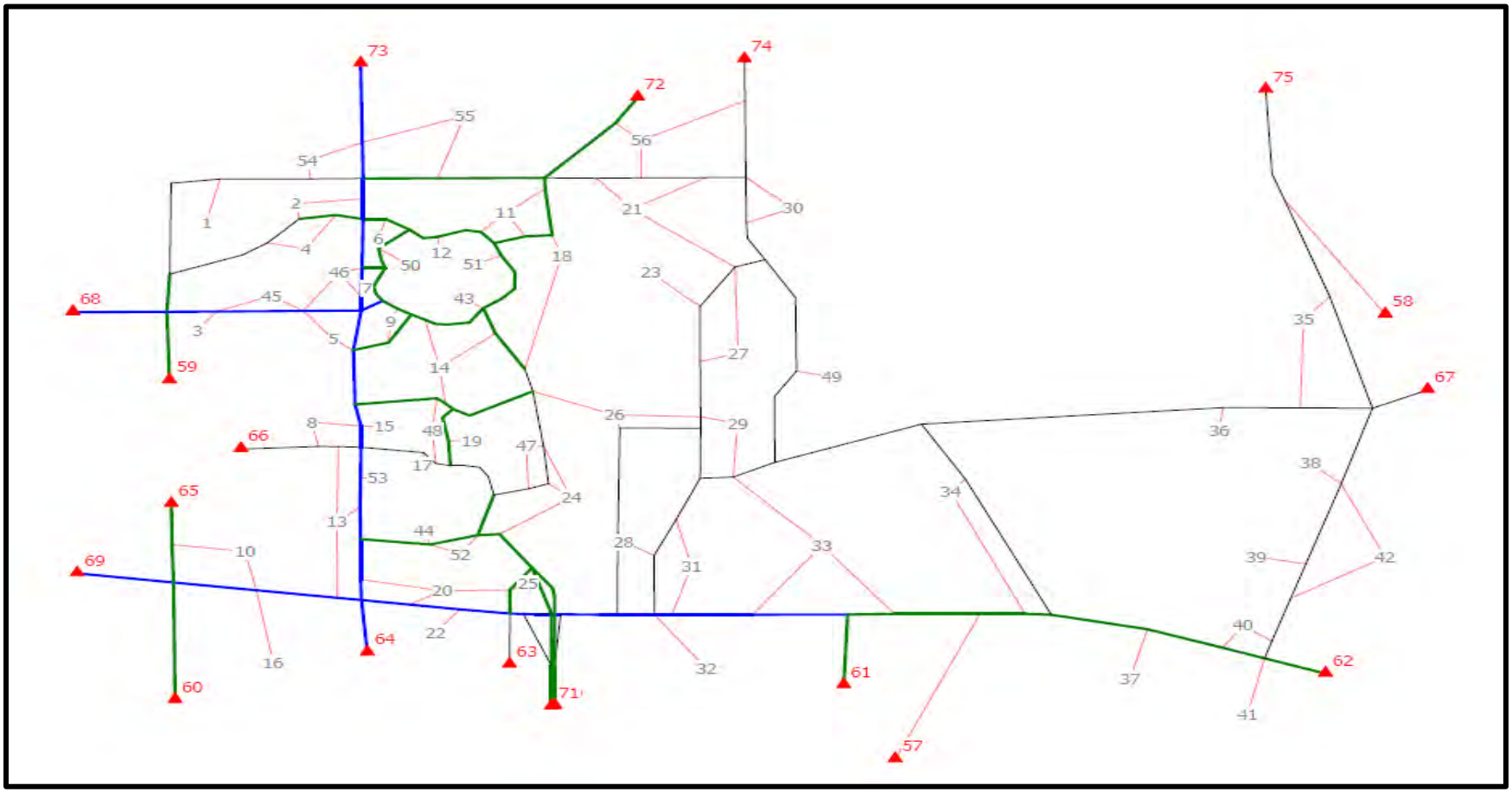


Table 6: OD Trip Percentages from StreetLight Data

Zone Name	External Zones	70, 71	64	61	75	67	72	60	59	65	73	62	69	68	63
		SR 408_W_WoodburyRd	AlafayaTr_S_SR50	AvalonParkBlvd_S_SR50	CR419_N_LakePickettRd	LakePickettRd_E_CR419	LockwoodBlvd_N_McCullochRd	RouseRd_S_SR50	RouseRd_S_UniversityBlvd	RouseRd_N_SR50	AlafayaTr_N_McCullochRd	SR50_E_CR419	SR50_W_RouseRd	UniversityBlvd_W_RouseRd	WoodburyRd_S_SR50
SR 408_W_WoodburyRd	**70, 71**		2.96%	29.40%	10.76%	4.20%	2.57%	1.29%	0.82%	0.94%	2.05%	31.87%	3.26%	1.86%	3.86%
AlafayaTr_S_SR50	**64**	1.31%		3.39%	0.90%	0.39%	2.76%	2.79%	5.01%	6.70%	20.33%	5.00%	29.95%	9.81%	4.79%
AvalonParkBlvd_S_SR50	**61**	28.09%	5.62%		3.15%	0.74%	0.30%	1.04%	2.52%	4.02%	4.18%	15.15%	21.91%	4.11%	5.18%
CR419_N_LakePickettRd	**75**	24.74%	4.58%	6.41%		4.31%	0.66%	0.52%	0.39%	0.44%	1.49%	42.42%	6.88%	0.80%	5.55%
LakePickettRd_E_CR419	**67**	31.48%	5.26%	6.26%	15.00%		0.60%	2.58%	0.30%	0.50%	2.38%	9.14%	10.53%	3.67%	8.34%
LockwoodBlvd_N_McCullochRd	**72**	1.70%	7.93%	0.46%	0.37%	0.15%		2.65%	7.41%	5.28%	32.22%	0.85%	4.80%	32.63%	1.11%
RouseRd_S_SR50	**60**	0.54%	3.56%	0.74%	0.08%	0.08%	1.05%		19.71%	40.62%	2.91%	0.76%	19.67%	7.14%	0.67%
RouseRd_S_UniversityBlvd	**59**	0.23%	4.26%	1.15%	0.04%	0.03%	1.58%	14.52%		34.63%	5.53%	0.75%	11.97%	20.77%	0.65%
RouseRd_N_SR50	**65**	0.27%	6.06%	1.46%	0.05%	0.03%	1.10%	24.18%	28.93%		3.79%	0.96%	18.63%	10.16%	0.74%
AlafayaTr_N_McCullochRd	**73**	0.86%	22.52%	2.61%	0.38%	0.29%	14.52%	3.25%	9.68%	6.49%		2.30%	6.04%	25.85%	1.59%
SR50_E_CR419	**62**	21.00%	7.86%	10.31%	14.75%	0.92%	0.46%	1.04%	1.41%	2.04%	2.86%		25.32%	2.40%	8.03%
SR50_W_RouseRd	**69**	1.05%	24.59%	7.17%	0.80%	0.50%	0.92%	11.82%	10.27%	18.37%	3.87%	10.63%		3.04%	4.22%
UniversityBlvd_W_RouseRd	**68**	0.86%	9.32%	2.35%	0.19%	0.28%	7.94%	6.53%	26.52%	16.35%	16.76%	2.16%	4.14%		1.28%
WoodburyRd_S_SR50	**63**	12.13%	11.50%	11.90%	4.67%	1.98%	1.74%	1.72%	2.40%	3.21%	4.87%	18.23%	16.32%	4.19%	

Notes:
1) Highlighted cells in orange color represent the predominant destinations for a specific origin
2) Zones #66 and #74 were not considered due to the insignificant number of trips

Table 7: OD Trip Percentages from CFRPM7.0

Zone Name	External Zones	70,71	64	61	75	67	72	60	59	65	73	62	69	68	63
		SR 408_W_WoodburyRd	AlafayaTr_S_SR50	AvalonParkBlvd_S_SR50	CR419_N_LakePickettRd	LakePickettRd_E_CR419	LockwoodBlvd_N_McCullochRd	RouseRd_S_SR50	RouseRd_S_UniversityBlvd	RouseRd_N_SR50	AlafayaTr_N_McCullochRd	SR50_E_CR419	SR50_W_RouseRd	UniversityBlvd_W_RouseRd	WoodburyRd_S_SR50
SR 408_W_WoodburyRd	**70,71**		0.00%	22.21%	8.13%	11.55%	0.00%	0.00%	0.00%	0.00%	0.00%	53.34%	0.00%*	0.00%*	4.77%
AlafayaTr_S_SR50	**64**	0.00%		0.70%	0.49%	0.71%	5.39%	0.07%	0.00%	7.91%	31.32%	4.69%	40.51%	8.20%	0.00%
AvalonParkBlvd_S_SR50	**61**	11.83%	0.79%		5.33%	2.29%	0.21%	0.57%	0.00%	4.61%	5.43%	30.16%	36.84%	0.00%*	1.95%
CR419_N_LakePickettRd	**75**	10.40%	2.01%	13.94%		5.53%	0.00%	0.19%	0.00%	0.03%	0.00%	62.79%	2.48%	0.00%*	2.63%
LakePickettRd_E_CR419	**67**	34.04%	4.92%	10.18%	15.67%		0.26%	0.60%	0.00%	0.60%	0.93%	12.62%	13.14%	1.98%	5.04%
LockwoodBlvd_N_McCullochRd	**72**	0.57%	23.20%	0.46%	0.00%	0.06%		0.00%	16.95%	0.00%	20.71%	0.49%	0.00%	36.93%	0.64%
RouseRd_S_SR50	**60**	0.00%	1.31%	0.62%	0.08%	0.12%	0.00%		0.00%	75.89%	0.00%	1.97%	19.79%	0.00%*	0.22%
RouseRd_S_UniversityBlvd	**59**	0.00%	0.00%	0.00%	0.00%	0.00%	15.26%	0.00%		0.00%*	23.81%	0.00%	0.00%	60.93%	0.00%
RouseRd_N_SR50	**65**	0.00%	6.11%	2.65%	0.01%	0.10%	0.00%	51.56%	0.00%*		0.00%	2.00%	36.17%	0.00%*	1.39%
AlafayaTr_N_McCullochRd	**73**	0.00%	47.82%	7.24%	0.00%	0.11%	10.30%	0.00%	13.64%	0.00%		1.29%	0.00%	15.82%	3.79%
SR50_E_CR419	**62**	19.10%	7.84%	19.67%	21.13%	2.18%	0.14%	1.29%	0.00%	2.12%	1.04%		19.73%	0.00%*	5.79%
SR50_W_RouseRd	**69**	0.00%	29.11%	15.24%	0.28%	1.04%	0.00%	8.13%	0.00%*	26.48%	0.00%	12.15%		0.00%*	7.56%
UniversityBlvd_W_RouseRd	**68**	0.00%	8.00%	0.00%	0.00%	0.58%	31.59%	0.00%	37.76%	0.00%*	22.07%	0.00%*	0.00%*		0.00%
WoodburyRd_S_SR50	**63**	20.74%	4.00%	5.47%	2.52%	2.81%	0.53%	0.24%	0.00%	4.82%	5.40%	18.38%	35.10%	0.00%*	

Notes:
*1) *Zero percent for these cells is because of the lack of roadway network continuation for Rouse Road in the subarea model*
2) Highlighted cells in orange color represent the predominant destinations for a specific origin
3) Zones #66 and #74 were not considered due to the insignificant number of trips

Congested Speeds

Furthermore, congested speeds for the following roadways were compared between StreetLight Data and the CFRPM7.0 model for the daily conditions.

- SR 434/Alafaya Trail from south of SR 50 to north of McCulloch Road
- SR 50 from west of Rouse Road to east of CR 419
- McCulloch Road from east of SR 434 to east of N Tanner Road
- CR 419 from north of SR 50 to south of Seminole County Line
- Lake Pickett Road from north of SR 50 to the east of CR 419

Table 8 summarizes the comparison of congested speeds between StreetLight Data and the CFRPM7.0 Model. The StreetLight based congested speeds are comparable (within 80% to 120%) to the model-based congested speeds.

Table 8: Congested Speeds Comparison

Roadway Segment	Direction	StreetLight Data Average Speed (MPH)	CFRPM7.0 Model Congested Speed (MPH)	% difference
SR 434/Alafaya Trail from south of SR 50 to north of McCulloch Road	NB	24.0	30.2	80%
	SB	24.0	28.0	86%
SR 50 from west of Rouse Road to east of CR 419	EB	30.0	30.9	97%
	WB	31.0	25.3	123%
CR 419 from north of SR 50 to north of Lake Pickett Road	NB	43.0	43.4	99%
	SB	43.0	46.6	92%
Lake Pickett Road from north of SR 50 to east of CR 419	EB/NB	35.0	34.9	100%
	WB/SB	36.0	38.0	95%
McCulloch Road East of SR 434 to East of Old Lockwood Road	EB/NB	25.0	27.9	90%
	WB/SB	26.0	26.0	100%

Year 2045 Travel Demand Model

Based on the validation efforts performed, the model is considered acceptable for use in estimating future travel demand within the study area. The year 2045 subarea model was developed based on these calibration efforts to obtain future year volume forecasts for both No Build and Build 1 alternatives.

NEOCATS Study Alternatives: For future conditions, two model runs were conducted – Year 2045 No Build alternative and year 2045 Build 1 alternative.

- **No Build Alternative:** The No Build alternative represents the existing roadway configuration plus programmed (or committed) improvements within the NEOCATS study area. Outside the study area, the Cost-Feasible (CF) 2045 roadway network from the CFRPM7.0 was used.
- **Build 1 Alternative**: The Build 1 alternative included programmed and planned improvements identified in Orange County's Long Range Transportation Plan (2030 LRTP) including all public-private partnership projects (PPP), 2045 Metropolitan Transportation Plan (MTP), and 2040 Seminole County Master Plan.

The Year 2045 SE data was reviewed and updated based on future developments within NEOCATS study area:

1. TAZ 4696: The Multi-family units/population were changed from 288/870 to 544/1,643 to incorporate Waterford Lakes Multi-family Planned Development (PD) project.
2. TAZ 4615 was split into two TAZs: 4615 and 4874. The Multi-family units/population were changed for TAZ 4874 from 93/316 to 258/877 to incorporate Science & Technology Development Plan (DP) for the redevelopment project.
3. TAZ 4563: To incorporate for the Collegiate Village Inn DP for the redevelopment, the hotel units was changed from 204 to 327, commercial employees was changed from 71 to 455 and service employees was changed from 746 to 771.
4. TAZ 4654: The Multi-family units/population were changed from 306/1,041 to 457/1,555 and commercial employees was changed from 557 to 340 to incorporate Cottages at Alafaya DP for the redevelopment project.
5. TAZ 4543: The single-family units/population were changed from 115/318 to 156/431 to incorporate Rouse Road Preliminary Subdivision Plan (PSP) project.
6. TAZ 4764: Following changes were made to incorporate The GROW PD.
    a. The single-family units/population were changed from 373/1,149 to 1,749/5,514.
    b. The multi-family units/population were changed from 209/480 to 300/689.
    c. The commercial employees was changed from 0 to 413 and service employees was changed from 48 to 146.
7. TAZ 4753: The single-family units/population were changed from 1,079/3,284 to 2,538/7,725 to incorporate the Sustanee development.

Programmed and Planned Improvements:

The future year travel demand model considered all the programmed and planned improvements in the vicinity of the study area that are consistent with the regional transportation plans including the following:

- FY 2021/22 - 2025/26 Orlando Urban Area Transportation Improvement Program, Adopted July 7, 2021
- 2045 Metropolitan Transportation Plan, updated June 9, 2021, and MetroPlan Orlando Online Data Viewer
- Seminole County 2040 Transportation Plan, updated February 23, 2018
- Orange County 2030 Long Range Transportation Plan - Map 1 revised 5/9/2017
- Input from Orange County

Table 9 summarizes the list of capacity improvement projects included in future model for No Build and Build 1 alternatives.

Table 9: Capacity Improvement Projects

Road Name	From	To	Improvement	Model Coding	
				No Build	Build 1
SR 50	Old Cheney Highway	Chuluota Road	Widening 4 to 6 Lanes	X	X
	Chuluota Road	SR 520		X	X
Chuluota Road	SR 50	Lake Pickett Road	Widening 2 to 4 Lanes		X
	Lake Pickett Road	Seminole CL			X
Fort Christmas Road	SR 50	West Christmas Road	Widening 2 to 4 Lanes		X
	West Christmas Road	Lake Pickett Road			X
Lake Pickett Road	SR 50	Percival Road	Widening 2 to 4 Lanes		X
	Percival Road	South Tanner Road			X
	South Tanner Road	Chuluota Road			X
	Chuluota Road	Fort Christmas Road			X
Lake Underhill Road	Chickasaw Trail	Econ Trail	Widening 2 to 4 Lanes		X
	Econ Trail	Rouse Road			X
McCulloch Road	North Orion Boulevard	North Tanner Road	Widening 2 to 4 Lanes		X
Richard Crotty Parkway	SR 436	Goldenrod Road	New 4 Lane Roadway	X	X
	Goldenrod Road	Dean Road			X
	Dean Road	Rouse Road			X
	Rouse Road	Alafaya Trail			X
	Alafaya Trail	North Tanner Road			X
Woodbury Road	Lake Underhill Road	SR 50	Widening 2 to 4 Lanes		X

The development of traffic projections for the study area required the examination of historical growth, proposed development levels within the vicinity, and a basic understanding of local traffic circulation patterns and travel characteristics of the corridor. As such, the following sources were used to derive reasonable future traffic forecasts for the study corridor.

- **Population Projections**: The population estimates obtained from the most current Bureau of Economic and Business Research (BEBR), Florida Population Studies, Volume 54 Bulletin 189, dated April 2021 was used.
- **Historical Traffic Trends Analysis:** Historical traffic trends analysis based on least squares regression analysis was conducted for the study roadways using traffic data from the 2020 Florida Traffic Online (FTO), and the 2020 Orange County Traffic Count Programs.
- **Travel Demand Models**: The CFRPM7.0 model was used in the traffic forecasting process.

Population Projections:

Low, medium, and high population projections for Orange County were obtained from the latest BEBR publication (Volume 54, Bulletin 189, dated April 2021). **Table 10** shows the growth rates derived from the population estimates for the year 2045. As shown in **Table 10**, the BEBR reported an annual growth rate of 1.44%, 2.82%, and 4.29% per year for the low, medium, and high population estimates for Orange County. The BEBR projection estimates are provided in **Appendix B**.

Table 10: Population Analysis Summary

Orange County BEBR	2020	2045	Growth%
Low	1,415,260	1,602,500	0.50%
Medium	1,415,260	1,941,800	1.50%
High	1,415,260	2,331,800	2.60%

Historical Traffic Trends Analysis:

Based on the historical count information obtained from the 2020 FTO and 2020 Orange County Annual Traffic Count Programs, linear regression trends analyses were performed for the study roadways and the results are summarized in **Table 11**. The trends analysis sheets are provided in **Appendix C.**

Model Based Growth Rates:

Table 12 summarizes the growth rates derived using the 2020 base year and the horizon year 2045 model volumes for the No Build and Build 1 alternatives. The future year 2045 model plots for both No Build and Build 1 alternatives are included in the **Appendix D.**

Recommended Growth Rates & Future AADTs:

Based on the comparison of annual growth rates from the three primary sources (historical trends analysis, CFRPM7.0 models, and BEBR population estimates), **Tables 13** and **14** show the recommended growth rates and the future forecasted AADTs for No Build and Build 1 alternatives, respectively.

Table 11: TRENDS Summary

Station ID	Roadway	Segment Limits	Growth Rate to Design Year
OC #259	SR 50	West of Rouse Rd	3.95%
OC #261		Rouse Rd to Alafaya Trail	5.73%
OC #263		Alafaya Trail to Woodbury Rd	7.61%
OC #610		SR 408 Ramps to Lake Pickett Rd	6.36%
OC #611		Lake Pickett Rd to Pebble Beach Rd	2.85%
OC #313.5		Avalon Park Blvd to S. Tanner Rd	3.71%
FDOT #750561		Avalon Park Blvd to S. Tanner Rd	3.53%
OC #313.0		S. Tanner Rd to CR 419/Chuluota Rd	4.53%
OC #314		East of CR 419/Chuluota Rd	4.27%
			4.73%
OC #8040	McCulloch Rd	Rouse Rd to Alafaya Trail	11.14%
OC #8050		Alafaya Trail to Lockwood Blvd	-2.36%
OC #8060		Lockwood Blvd to Worchester Dr	1.48%
			6.31%
FDOT #758272	CR 419/Chuluota Rd	SR 50 to Corner Lake Dr	8.38%
OC #8142		SR 50 to Cypress Lake Glen Blvd	0.00%
OC #306		Cypress Lake Glen Blvd to Lake Pickett Rd	1.37%
OC #304		Lake Pickett Rd to Old Lake Pickett Rd	6.59%
OC #8044		Old Lake Pickett Rd to Seminole County Line	4.30%
			4.13%
OC #7142	Avalon Park Blvd	0.49 Miles N. of Waterford Chase Py	**6.52%**
OC #297	Lake Pickett Rd	SR 50 to Percival Rd	1.25%
OC #299		N Tanner Rd to S Tanner Rd	-5.52%
FDOT #758333		S. Tanner Rd to CR 419/Chuluota Rd	-1.15%
OC #303		S. Tanner Rd to CR 419/Chuluota Rd	-4.92%
			1.25%
OC #8043	South Tanner Rd	North of SR 50	**-0.29%**
FDOT #758188	North Tanner Rd	Lake Pickett Rd to Stonebriar Way	8.37%
OC #2010		Stonebriar Way to Lake Price Dr	-2.88%
OC #298	Percival Rd	Lake Pickett Rd to Sussex Dr	0.00%
OC #8042		Sussex Dr to N. Tanner Rd	-3.36%
FDOT #752195	SR 408 Ramps	SR 408 NB Off ramp to SR 50	3.41%
FDOT #752194		SR 408 SB On ramp from SR 50 EB	5.42%
FDOT #752196		SR 408 SB On ramp from SR 50 WB	1.80%
			3.54%
OC #7180	Challenger Pkwy	Alafaya Trail to Ingenuity Dr	-2.00%
OC #7173		Ingenuity Dr to Woodbury Rd	**3.88%**
OC #8041	Corporate Blvd	West of Alafaya Trail	**3.08%**
FDOT #758359		West of Alafaya Trail	-3.08%
OC #2012	Woodbury Rd	North of SR 50	**1.95%**
OC #427	Rouse Rd	South of SR 50	2.70%
OC #260		SR 50 to Lokanotosa Trail	4.43%
OC #253		North of University Blvd	2.70%
			3.28%
OC #251	University Blvd	West of Rouse Rd	**0.42%**
OC #255		Rouse Rd to Quadrangle Blvd	-4.14%
OC #264	Alafaya Trail	South of SR 50	1.34%
OC #488		SR 50 to Challenger Pkwy	3.35%
FDOT #750488		Challenger Pkwy to Science Dr	2.90%
OC #257		Science Dr to Research Pkwy	-0.15%
OC #256		Corporate Blvd/Gemini Blvd to Centaurus Blvd	-2.13%
FDOT #750559		McCulloch Rd to Corporate Blvd/Gemini Blvd	-0.30%
			1.86%

Note: Positive growth rates were only used to derive the average growth rate.

Table 12: Model Based Growth Summary

Roadway / Segment	2020Model PSWADT	2045 No Build AADT	2045 Build 1 AADT	No Build Growth Rate	Build Growth Rate
Alafaya Trail				**0.34%**	**0.22%**
South of SR 50	52,505	52,469	53,931	0.08%	0.19%
SR 50 to Challenger Pkwy	58,196	61,898	58,045	0.34%	0.07%
Challenger Pkwy to Science Dr	53,942	59,860	56,797	0.53%	0.30%
Science Dr to Research Pkwy	51,992	57,760	58,384	0.53%	0.58%
Research Pkwy to Central Florida Blvd	57,320	59,934	56,189	0.27%	0.00%
Central Florida Blvd to University Blvd	51,021	51,205	45,330	0.10%	-0.37%
Centaurus Blvd to University Blvd	55,933	58,110	58,869	0.24%	0.30%
Corporate Blvd/Gemini Blvd to Centaurus Blvd	55,515	54,660	55,575	0.02%	0.09%
McCulloch Rd to Corporate Blvd/Gemini Blvd	58,806	58,376	58,645	0.05%	0.07%
Chapman Rd to McCulloch Rd	55,526	56,496	57,008	0.15%	0.19%
SR 50					
West of Rouse Rd	57,707	60,252	58,779	0.26%	0.16%
Rouse Rd to Alafaya Trail	56,819	58,332	58,559	0.19%	0.21%
Alafaya Trail to Woodbury Rd	50,144	56,354	56,449	0.59%	0.59%
SR 408 Ramps to Lake Pickett Rd	74,489	82,614	83,018	0.53%	0.55%
Lake Pickett Rd to Pebble Beach Rd	62,262	69,216	68,261	0.54%	0.47%
Pebble Beach Rd to Avalon Park Blvd	55,922	66,230	65,155	0.83%	0.76%
				0.49%	**0.46%**
Avalon Park Blvd to S. Tanner Rd	44,501	69,784	68,339	2.40%	2.27%
S. Tanner Rd to CR 419/Chuluota Rd	46,495	73,686	71,687	2.47%	2.29%
East of CR 419/Chuluota Rd	43,126	68,718	72,164	2.50%	2.83%
				2.46%	**2.46%**
McCulloch Rd				**1.07%**	**1.08%**
Rouse Rd to Alafaya Trail	10,071	14,765	12,274	1.98%	0.97%
Alafaya Trail to Lockwood Blvd	30,086	35,179	35,824	0.77%	0.86%
Lockwood Blvd to Worchester Dr	21,601	25,458	27,905	0.81%	1.27%
Worchester Dr to N Tanner Rd	18,232	21,060	23,322	0.71%	1.22%
CR 419/Chuluota Rd				**2.32%**	**4.50%**
SR 50 to Corner Lake Dr					
SR 50 to Cypress Lake Glen Blvd	17,277	26,270	31,729	2.21%	3.50%
Cypress Lake Glen Blvd to Lake Pickett Rd	13,361	19,071	25,658	1.83%	3.84%
Lake Pickett Rd to Old Lake Pickett Rd	11,490	18,687	24,825	2.64%	4.82%
Old Lake Pickett Rd to Seminole County Line	12,446	20,059	28,582	2.58%	5.37%
Seminole County Line to Lake Mills Rd	13,081	20,356	28,831	2.35%	5.00%
Avalon Park Blvd					
South of SR 50	33,705	39,756	38,235	0.81%	0.63%
Lake Pickett Rd				**3.45%**	**7.35%**
SR 50 to Percival Rd	15,624	19,580	26,712	1.12%	2.98%
Percival Rd to N Tanner Rd	11,359	17,644	30,931	2.34%	7.11%
N Tanner Rd to S Tanner Rd	15,164	25,107	45,987	2.76%	8.38%
S. Tanner Rd to CR 419/Chuluota Rd	9,392	21,291	34,392	5.25%	10.95%
South Tanner Rd				**3.49%**	**4.62%**
North of SR 50	5,107	9,643	10,805	3.71%	4.64%
South of Lake Pickett Rd	5,423	9,663	11,436	3.27%	4.61%
North Tanner Rd				**1.47%**	**1.09%**
Lake Pickett Rd to Stonebriar Way	13,917	17,582	24,390	1.16%	3.15%
Stonebriar Way to Lake Price Dr	13,016	16,565	13,490	1.19%	0.23%
Lake Price Dr to McCulloch Rd	15,416	22,870	14,634	2.06%	-0.13%
Percival Rd				**2.38%**	**5.95%**
Lake Pickett Rd to Sussex Dr	7,049	8,502	17,613	0.92%	6.20%
Sussex Dr to Richard Crotty Pkwy (New Rd)	5,346	8,770	20,058	2.70%	11.31%
Richard Crotty Pkwy (New Rd) to N. Tanner Rd	5,346	7,943	5,679	2.06%	0.34%
SR 408 Ramps				**0.79%**	**1.38%**
SR 408 NB Off ramp to SR 50	13,256	16,204	17,690	0.99%	1.45%
SR 408 SB On ramp from SR 50 EB	2,901	3,334	3,672	0.69%	1.17%
SR 408 SB On ramp from SR 50 WB	8,679	9,950	11,771	0.68%	1.54%
Research Pkwy/Richard Crotty Pkwy (New Rd)				**-1.41%**	**10.26%**
Dean Rd to Rouse Rd		-	37,522		
Rouse Rd to Alafaya Trail		-	31,241		
Alafaya Trail to Technology Pkwy	13,337	8,873	31,148	-1.28%	5.53%
Technology Pkwy to Discovery Dr	6,243	3,778	29,029	-1.53%	14.98%
Discovery Rd to Percival Rd		-	37,277		
Percival Rd to N Tanner Rd		-	16,161		
Challenger Pkwy				**1.90%**	**0.74%**
Alafaya Trail to Ingenuity Dr	5,916	7,454	6,381	1.14%	0.40%
Ingenuity Dr to Woodbury Rd	25,676	31,595	21,185	1.02%	-0.63%
Woodbury Rd to SR 50 (FDOT 750659)	13,087	24,147	20,672	3.53%	2.45%

Table 12: Model Based Growth Summary

Roadway / Segment	2020Model PSWADT	2045 No Build AADT	2045 Build 1 AADT	No Build Growth Rate	Build Growth Rate
Gemini Blvd				**1.19%**	**1.34%**
Central Florida Blvd to University Blvd	14,557	17,914	13,796	1.02%	-0.13%
University Blvd to Centaurus Blvd	6,589	11,689	15,206	3.24%	5.42%
North of Centaurus Blvd	10,805	17,269	19,623	2.52%	3.41%
N Orion Blvd to Scorpious St (North)	13,598	15,913	14,279	0.78%	0.29%
South of Scorpious St (North)	15,633	17,335	18,339	0.53%	0.79%
East of Alafaya Trail	18,344	13,773	10,090	-0.94%	-1.75%
Orion Blvd					
South of McCulloch Rd	13,783	16,670	10,434	0.94%	-0.91%
Corporate Blvd					
West of Alafaya Trail	7,269	7,125	6,919	0.00%	-0.12%
Libra Dr					
North of Research Pkwy	8,833	13,254	15,522	2.12%	3.17%
Woodbury Rd				**1.46%**	**1.69%**
South of SR 50	16,531	19,447	25,219	0.80%	2.23%
North of SR 50	15,688	23,549	19,782	2.13%	1.15%
Bonneville Dr					
North of SR 50	6,022	12,365	8,395	4.38%	1.69%
Science Dr				**0.35%**	**-0.62%**
Alafaya Trail to Technology Pkwy	8,628	7,855	6,139	-0.28%	-1.10%
Technology Pkwy to Ingenuity Dr	9,336	11,388	8,798	0.98%	-0.15%
Ingenuity Dr				**0.62%**	**-0.61%**
Challenger Pkwy to Science Dr	19,977	23,452	16,281	0.79%	-0.67%
Science Dr to Discovery Dr	13,451	14,682	11,407	0.46%	-0.54%
Technology Pkwy					
Research Pkwy to Science Dr	5,944	6,193	5,837	0.25%	0.01%
Rouse Rd				**1.30%**	**1.22%**
South of SR 50	20,497	28,117	28,214	1.60%	1.62%
SR 50 to Lokanotosa Trail	25,743	31,468	30,643	0.99%	0.86%
Lokanotosa Trail to Richard Crotty Pkwy (New Rd)	24,135	31,969	29,849	1.41%	1.05%
Richard Crotty Pkwy (New Rd) to University Blvd	24,135	29,359	34,327	0.97%	1.81%
North of University Blvd	16,953	22,937	19,894	1.52%	0.79%
University Blvd				**0.71%**	**0.10%**
West of Rouse Rd	58,840	62,073	58,006	0.31%	0.02%
Rouse Rd to Quadrangle Blvd	54,595	62,182	56,157	0.65%	0.20%
Quadrangle Blvd to Alafaya Trail	47,226	55,313	47,229	0.78%	0.08%
Alafaya Trail to Gemini Blvd	20,195	27,841	25,348	1.63%	1.12%

The average of individual segments was shown in bold

Table 13: Recommended Growth Rates and Future No Build 2045 AADT Volumes

Roadway/Segment	Existing Year 2020 AADT	Source for Growth Rates	Recommended Growth Rate	Year 2045 No Build Traffic Forecasts
Alafaya Trail				
South of SR 50	53,219	Avg of Model, TRENDS & BEBR Med	1.20%	69,650
SR 50 to Challenger Pkwy	59,187	Avg of Model, TRENDS & BEBR Med	1.20%	76,940
Challenger Pkwy to Science Dr	51,000	Avg of Model, TRENDS & BEBR Med	1.20%	66,300
Science Dr to Research Pkwy	60,228	Avg of Model, TRENDS & BEBR Med	1.20%	78,300
Research Pkwy to Central Florida Blvd	60,000	Avg of Model, TRENDS & BEBR Med	1.20%	78,000
Central Florida Blvd to University Blvd	49,100	Avg of Model, TRENDS & BEBR Med	1.20%	63,830
Centaurus Blvd to University Blvd	43,400	Avg of Model, TRENDS & BEBR Med	1.20%	56,420
Corporate Blvd/Gemini Blvd to Centaurus Blvd	45,478	Avg of Model, TRENDS & BEBR Med	1.20%	59,120
McCulloch Rd to Corporate Blvd/Gemini Blvd	50,000	Avg of Model, TRENDS & BEBR Med	1.20%	65,000
Chapman Rd to McCulloch Rd	60,648	Avg of Model, TRENDS & BEBR Med	1.20%	78,840
SR 50				
West of Rouse Rd	58,281	Avg of Model, BEBR Med & Trends	2.24%	90,900
Rouse Rd to Alafaya Trail	54,194	Avg of Model, BEBR Med & Trends	2.24%	84,520
Alafaya Trail to Woodbury Rd	47,758	Avg of Model, BEBR Med & Trends	2.24%	74,490
SR 408 Ramps to Lake Pickett Rd	70,664	BEBR Med	1.50%	97,160
Lake Pickett Rd to Pebble Beach Rd	56,235	Avg of Model, BEBR Med & Trends	2.24%	87,710
Pebble Beach Rd to Avalon Park Blvd	54,000	Avg of Model, BEBR Med & Trends	2.24%	84,220
Avalon Park Blvd to S. Tanner Rd	43,000	Avg of Model & Trends	3.59%	81,620
S. Tanner Rd to CR 419/Chuluota Rd	41,485	Avg of Model & Trends	3.59%	78,740
East of CR 419/Chuluota Rd	38,336	Avg of Model & Trends	3.59%	72,760
McCulloch Rd				
Rouse Rd to Alafaya Trail	12,612	Avg of Model & BEBR Med	1.29%	16,660
Alafaya Trail to Lockwood Blvd	31,341	Avg of Model	1.07%	39,730
Lockwood Blvd to Worchester Dr	24,784	Avg of Model & BEBR Med	1.29%	32,750
Worchester Dr to N Tanner Rd	17,300	Avg of Model & BEBR Med	1.29%	22,860
CR 419/Chuluota Rd				
SR 50 to Cypress Lake Glen Blvd	14,528	Avg of Model	2.32%	22,950
Cypress Lake Glen Blvd to Lake Pickett Rd	14,050	Avg of Model	2.32%	22,200
Lake Pickett Rd to Old Lake Pickett Rd	13,393	Avg of Model	2.32%	21,160
Old Lake Pickett Rd to Seminole County Line	12,520	Avg of Model	2.32%	19,780
Seminole County Line to Lake Mills Rd	11,090	Avg of Model	2.32%	17,520
Avalon Park Blvd				
South of SR 50	25,000	Avg of Model & BEBR Med	1.16%	32,230
Lake Pickett Rd				
SR 50 to Percival Rd	15,831	Avg of Model & BEBR Med	2.48%	25,630
Percival Rd to N Tanner Rd	10,300	Avg of Model	3.45%	19,180
N Tanner Rd to S Tanner Rd	11,505	Avg of Model	3.45%	21,430
S. Tanner Rd to CR 419/Chuluota Rd	8,998	Model	5.25%	20,810
South Tanner Rd				
North of SR 50	4,008	Avg of Model	3.49%	7,500
South of Lake Pickett Rd	4,100	Avg of Model	3.49%	7,680
North Tanner Rd				
Lake Pickett Rd to Stonebriar Way	11,800	Highest of Model	2.06%	17,860
Stonebriar Way to Lake Price Dr	11,523	Highest of Model	2.06%	17,440
Lake Price Dr to McCulloch Rd	15,000	Highest of Model	2.06%	22,710
Percival Rd				
Lake Pickett Rd to Sussex Dr	6,647	Avg of Model	2.38%	10,600
Sussex Dr to Richard Crotty Pkwy (New Rd)	5,858	Avg of Model	2.38%	9,340
Richard Crotty Pkwy (New Rd) to N. Tanner Rd	5,858	Avg of Model	2.38%	9,340
SR 408 Ramps				
SR 408 NB Off ramp to SR 50	14,000	Avg of Model	0.79%	16,750
SR 408 SB On ramp from SR 50 EB	2,200	Avg of Model	0.79%	2,630
SR 408 SB On ramp from SR 50 WB	11,500	Avg of Model	0.79%	13,760
Research Pkwy/Richard Crotty Pkwy (New Rd)				
Dean Rd to Rouse Rd	-		-	-
Rouse Rd to Alafaya Trail	-		-	-
Alafaya Trail to Technology Pkwy	11,000	BEBR Med	1.50%	15,130
Technology Pkwy to Discovery Dr	8,500	BEBR Med	1.50%	11,690
Discovery Rd to Percival Rd	-		-	-
Percival Rd to N Tanner Rd	-		-	-
Challenger Pkwy				
Alafaya Trail to Ingenuity Dr	8,610	Avg of Model	1.90%	12,700
Ingenuity Dr to Woodbury Rd	28,000	BEBR Low	0.50%	31,500
Gemini Blvd				
Central Florida Blvd to University Blvd	18,408	Avg of Model	1.19%	23,900
University Blvd to Centaurus Blvd	12,942	Avg of Model & BEBR Med	2.37%	20,610
North of Centaurus Blvd	13,100	Avg of Model & BEBR Med	2.01%	19,690
N Orion Blvd to Scorpius St (North)	23,067	Avg of Model	1.19%	29,940
South of Scorpius St (North)	20,807	Avg of Model	1.19%	27,010
East of Alafaya Trail	16,453	Avg of Model	1.19%	21,360
Orion Blvd				
South of McCulloch Rd	15,000	Avg of Model	0.94%	18,510
Corporate Blvd				
West of Alafaya Trail	12,100	BEBR Med	1.50%	16,640
Libra Dr				
North of Research Pkwy	8,337	Avg of Model	2.12%	12,760
Woodbury Rd				
South of SR 50	19,000	Avg of Model	1.46%	25,960
North of SR 50	15,499	Avg of Model	1.46%	21,170
Bonneville Dr				
North of SR 50	9,500	BEBR Med	1.50%	13,060
Science Dr				
Alafaya Trail to Technology Pkwy	10,600	Avg of Model	0.98%	13,190
Technology Pkwy to Ingenuity Dr	10,100	Avg of Model	0.98%	12,570
Ingenuity Dr				
Challenger Pkwy to Science Dr	24,000	Avg of Model	0.62%	27,740
Science Dr to Discovery Dr	13,800	Avg of Model	0.62%	15,950
Technology Pkwy				
Research Pkwy to Science Dr	7,400	BEBR Med	1.50%	10,180
Rouse Rd				
South of SR 50	21,260	Avg of Model & BEBR Med	1.40%	28,690
SR 50 to Lokanotosa Trail	28,617	Avg of Model & BEBR Med	1.40%	38,620
Lokanotosa Trail to Richard Crotty Pkwy (New Rd)	25,000	Avg of Model & BEBR Med	1.40%	33,740
Richard Crotty Pkwy (New Rd) to University Blvd	25,000	Avg of Model & BEBR Med	1.40%	33,740
North of University Blvd	24,000	Avg of Model & BEBR Med	1.40%	32,390
University Blvd				
West of Rouse Rd	66,670	Model	0.31%	71,770
Rouse Rd to Quadrangle Blvd	55,640	Avg of Model	0.71%	65,580
Quadrangle Blvd to Alafaya Trail	54,868	Avg of Model	0.71%	64,670

Table 14: Recommended Growth Rates and Future Build 2045 AADT Volumes

Roadway/Segment	Existing Year 2020 AADT	Source for Growth Rates	Recommended Growth Rate	Year 2045 Build Traffic Forecasts
Alafaya Trail				
South of SR 50	53,219	Avg of Build Model & TRENDS	1.00%	67,080
SR 50 to Challenger Pkwy	59,187	Avg of Build Model & TRENDS	1.00%	73,980
Challenger Pkwy to Science Dr	51,000	Avg of Build Model & TRENDS	1.00%	63,750
Science Dr to Research Pkwy	60,228	Avg of Build Model & TRENDS	1.00%	75,290
Research Pkwy to Central Florida Blvd	60,000	Avg of Build Model & TRENDS	1.00%	75,000
Central Florida Blvd to University Blvd	49,100	Avg of Build Model & TRENDS	1.00%	61,380
Centaurus Blvd to University Blvd	43,400	Avg of Build Model & TRENDS	1.00%	54,250
Corporate Blvd/Gemini Blvd to Centaurus Blvd	45,478	Avg of Build Model & TRENDS	1.00%	56,850
McCulloch Rd to Corporate Blvd/Gemini Blvd	50,000	Avg of Build Model & TRENDS	1.00%	62,500
Chapman Rd to McCulloch Rd	60,648	Avg of Build Model & TRENDS	1.00%	75,810
SR 50				
West of Rouse Rd	58,281	Avg of Build Model & BEBR Med	0.98%	72,530
Rouse Rd to Alafaya Trail	54,194	Avg of Build Model & BEBR Med	0.98%	67,450
Alafaya Trail to Woodbury Rd	47,758	Avg of Build Model & BEBR Med	1.05%	60,260
SR 408 Ramps to Lake Pickett Rd	70,664	Avg of Build Model & BEBR Med	0.98%	87,950
Lake Pickett Rd to Pebble Beach Rd	56,235	Avg of Build Model & BEBR Med	0.98%	69,990
Pebble Beach Rd to Avalon Park Blvd	54,000	Avg of Build Model & BEBR Med	0.98%	67,210
Avalon Park Blvd to S. Tanner Rd	43,000	Avg of Build Model	2.46%	69,490
S. Tanner Rd to CR 419/Chuluota Rd	41,485	Avg of Build Model	2.46%	67,040
East of CR 419/Chuluota Rd	38,336	Avg of Build Model	2.46%	61,950
McCulloch Rd				
Rouse Rd to Alafaya Trail	12,612	Avg of Build Model & BEBR Med	1.29%	16,680
Alafaya Trail to Lockwood Blvd	31,341	Avg of Build Model	1.08%	39,820
Lockwood Blvd to Worchester Dr	24,784	Avg of Build Model & BEBR Med	1.29%	32,780
Worchester Dr to N Tanner Rd	17,300	Avg of Build Model & BEBR Med	1.29%	22,880
CR 419/Chuluota Rd				
SR 50 to Cypress Lake Glen Blvd	14,528	Avg of Build Model	4.50%	30,890
Cypress Lake Glen Blvd to Lake Pickett Rd	14,050	Avg of Build Model	4.50%	29,870
Lake Pickett Rd to Old Lake Pickett Rd	13,393	Avg of Build Model	4.50%	28,470
Old Lake Pickett Rd to Seminole County Line	12,520	Avg of Build Model	4.50%	26,620
Seminole County Line to Lake Mills Rd	11,090	Avg of Build Model	4.50%	23,580
Avalon Park Blvd				
South of SR 50	25,000	Avg of Build Model & BEBR Med	1.07%	31,660
Lake Pickett Rd				
SR 50 to Percival Rd	15,831	Avg of Build Model & BEBR Med	4.43%	33,350
Percival Rd to N Tanner Rd	10,300	Avg of Build Model	7.35%	29,240
N Tanner Rd to S Tanner Rd	11,505	Avg of Build Model	7.35%	32,660
S. Tanner Rd to CR 419/Chuluota Rd	8,998	Avg of Build Model	7.35%	25,540
South Tanner Rd				
North of SR 50	4,008	Avg of Build Model	4.62%	8,640
South of Lake Pickett Rd	4,100	Avg of Build Model	4.62%	8,840
North Tanner Rd				
Lake Pickett Rd to Stonebriar Way	11,800	Avg of Build Model	1.69%	16,790
Stonebriar Way to Lake Price Dr	11,523	Avg of Build Model	1.69%	16,400
Lake Price Dr to McCulloch Rd	15,000	Avg of Build Model	1.69%	21,340
Percival Rd				
Lake Pickett Rd to Sussex Dr	6,647	Avg of Build Model	8.76%	21,200
Sussex Dr to Richard Crotty Pkwy (New Rd)	5,858	Avg of Build Model	8.76%	18,680
Richard Crotty Pkwy (New Rd) to N. Tanner Rd	5,858	Avg of Build Model	5.95%	14,570
SR 408 Ramps				
SR 408 NB Off ramp to SR 50	14,000	Avg of Build Model	1.38%	18,840
SR 408 SB On ramp from SR 50 EB	2,200	Avg of Build Model	1.38%	2,960
SR 408 SB On ramp from SR 50 WB	11,500	Avg of Build Model	1.38%	15,480
Research Pkwy/Richard Crotty Pkwy (New Rd)				
Dean Rd to Rouse Rd	-	Build Model	-	37,520
Rouse Rd to Alafaya Trail	-	Build Model	-	31,240
Alafaya Trail to Technology Pkwy	11,000	Build Model	-	31,150
Technology Pkwy to Discovery Dr	8,500	Build Model	-	29,030
Discovery Rd to Percival Rd	-	Build Model	-	37,280
Percival Rd to N Tanner Rd	-	Build Model	-	16,160
Challenger Pkwy				
Alafaya Trail to Ingenuity Dr	8,610	Avg of Build Model	0.74%	10,200
Ingenuity Dr to Woodbury Rd	28,000	BEBR Low	0.50%	31,500
Gemini Blvd				
Central Florida Blvd to University Blvd	18,408	Avg of Build Model	1.34%	24,560
University Blvd to Centaurus Blvd	12,942	Avg of Build Model	1.34%	17,270
North of Centaurus Blvd	13,100	Avg of Build Model	1.34%	17,480
N Orion Blvd to Scorpius St (North)	23,067	Avg of Build Model	1.34%	30,770
South of Scorpius St (North)	20,807	Avg of Build Model	1.34%	27,760
East of Alafaya Trail	16,453	Avg of Build Model	1.34%	21,950
Orion Blvd				
South of McCulloch Rd	15,000	BEBR Med	1.50%	20,630
Corporate Blvd				
West of Alafaya Trail	12,100	BEBR Med	1.50%	16,640
Libra Dr				
North of Research Pkwy	8,337	Build Model	3.17%	14,950
Woodbury Rd				
South of SR 50	19,000	Avg of Build Model	1.69%	27,010
North of SR 50	15,499	Avg of Build Model	1.69%	22,040
Bonneville Dr				
North of SR 50	9,500	BEBR Med	1.50%	13,060
Science Dr				
Alafaya Trail to Technology Pkwy	10,600	BEBR Med	1.50%	14,580
Technology Pkwy to Ingenuity Dr	10,100	BEBR Med	1.50%	13,890
Ingenuity Dr				
Challenger Pkwy to Science Dr	24,000	BEBR Low	0.50%	27,000
Science Dr to Discovery Dr	13,800	BEBR Low	0.50%	15,530
Technology Pkwy				
Research Pkwy to Science Dr	7,400	BEBR Med	1.50%	10,180
Rouse Rd				
South of SR 50	21,260	Avg of Build Model	1.22%	27,770
SR 50 to Lokanotosa Trail	28,617	Avg of Build Model	1.22%	37,370
Lokanotosa Trail to Richard Crotty Pkwy (New Rd)	25,000	Avg of Build Model	1.22%	32,650
Richard Crotty Pkwy (New Rd) to University Blvd	25,000	Avg of Build Model	1.22%	33,650
North of University Blvd	24,000	Avg of Build Model	1.22%	31,340
University Blvd				
West of Rouse Rd	66,670	Avg of Build Model	0.10%	68,360
Rouse Rd to Quadrangle Blvd	55,640	Avg of Build Model & BEBR Low	0.30%	59,820
Quadrangle Blvd to Alafaya Trail	54,868	Avg of Build Model & BEBR Low	0.30%	58,990

Appendix A

Model Validation Documents

Roadway Name	FDOT Year 2020 AADT Count	Facility Type Before	2020 Model PSWADT Before Validation	2020 Model AADT Before Validation Total	Facility Type After	2020 Model PSWADT After Validation	2020 Model AADT After Validation Total	Volume / Count (Before)	Volume / Count (After)
Alafaya Trail									
Chapman Road to McCulloch Road	60,648	23	52,323	51,277	23	55,526	54,415	0.85	0.90
McCulloch Road to Corporate Boulevard/Gemini Boulevard	50,000	23	55,500	54,390	23	58,806	57,630	1.09	1.15
Corporate Boulevard/Gemini Boulevard to Centaurus Boulevard	45,478	23	47,733	46,778	23	55,515	54,405	1.03	1.20
Centaurus Boulevard to University Boulevard	43,400	23	41,881	41,043	23	55,933	54,814	0.95	1.26
University Boulevard to Central Florida Boulevard	49,100	23	35,288	34,582	23	51,021	50,001	0.70	1.02
Central Florida Boulevard to Research Parkway	60,000	23	54,056	52,975	23	57,320	56,174	0.88	0.94
Research Parkway to Science Drive	60,228	23	53,753	52,678	23	51,992	50,952	0.87	0.85
Science Drive to Challenger Parkway	51,000	23	52,890	51,832	23	53,942	52,863	1.02	1.04
Challenger Parkway to SR 50	59,187	23	56,864	55,727	23	58,196	57,032	0.94	0.96
South of SR 50	53,219	23	52,595	51,543	23	52,505	51,455	0.97	0.97
SR 50									
West of Rouse Road	58,281	23	57,819	56,663	23	57,707	56,553	0.97	0.97
Rouse Road to Alafaya Trail	54,194	23	56,153	55,030	23	56,819	55,683	1.02	1.03
Alafaya Trail to Woodbury Road	47,758	23	52,368	51,321	23	50,144	49,141	1.07	1.03
SR 408 Ramps to Lake Pickett Road	70,664	23	77,229	75,684	23	74,489	72,999	1.07	1.03
Lake Pickett Road to Pebble Beach Road	56,235	23	61,321	60,095	23	62,262	61,017	1.07	1.09
Pebble Beach Road to Avalon Park Boulevard	54,000	23	55,079	53,977	23	55,922	54,804	1.00	1.01
Avalon Park Boulevard to S. Tanner Road	42,232	23	43,137	42,274	23	44,501	43,611	1.00	1.03
S. Tanner Road to CR 419/Chuluota Road	41,485	23	44,730	43,835	23	46,495	45,565	1.06	1.10
East of CR 419/Chuluota Road	38,336	23	42,038	41,197	23	43,126	42,263	1.07	1.10
McCulloch Road									
Rouse Road to Alafaya Trail	12,612	42	9,379	9,191	42	10,071	9,870	0.73	0.78
Alafaya Trail to Lockwood Boulevard	31,341	24	29,737	29,142	24	30,086	29,484	0.93	0.94
Lockwood Boulevard to Worchester Drive	24,784	42	21,146	20,723	42	21,601	21,169	0.84	0.85
Worchester Drive to N Tanner Road	17,300	42	18,253	17,888	42	18,232	17,867	1.03	1.03
CR 419/Chuluota Road									
SR 50 to Corner Lake Drive	17,100	32	16,377	16,049	32	17,277	16,931	0.94	0.99
Cypress Lake Glen Boulevard to Lake Pickett Road	14,050	32	12,316	12,070	32	13,361	13,094	0.86	0.93
Lake Pickett Road to Old Lake Pickett Road	13,393	32	11,451	11,222	32	11,490	11,260	0.84	0.84
Old Lake Pickett Road to Seminole County Line	12,520	32	12,469	12,220	32	12,446	12,197	0.98	0.97
Seminole County Line to Lake Mills Road	11,090	32	13,181	12,917	32	13,081	12,819	1.16	1.16
Avalon Park Boulevard									
South of SR 50	28,000	24	35,241	34,536	24	33,705	33,031	1.23	1.18
0.49 Miles N. of Waterford Chase Parkway	25,119	24	27,962	27,403	24	27,808	27,252	1.09	1.08
Lake Pickett Road									
SR 50 to Percival Road	15,831	42	19,293	18,907	42	15,624	15,312	1.19	0.97
Percival Road to N Tanner Road	10,300	42	11,026	10,805	42	11,359	11,132	1.05	1.08
N Tanner Road to S Tanner Road	11,505	42	13,187	12,923	42	15,164	14,861	1.12	1.29
S. Tanner Road to CR 419/Chuluota Road	8,998	42	7,736	7,581	42	9,392	9,204	0.84	1.02
South Tanner Road									
North of SR 50	4,008	46	5,879	5,761	46	5,107	5,005	1.44	1.25
South of Lake Pickett Road	4,100	46	6,036	5,915	46	5,423	5,315	1.44	1.30
North Tanner Road									
Lake Pickett Road to Stonebriar Way	11,800	42	11,430	11,201	42	13,917	13,639	0.95	1.16
Stonebriar Way to Lake Price Drive	11,523	42	11,430	11,201	42	13,016	12,756	0.97	1.11
Lake Price Drive to McCulloch Road	15,000	42	20,933	20,514	42	15,416	15,108	1.37	1.01
Percival Road									
Lake Pickett Road to Sussex Drive	6,647	43	12,234	11,989	43	7,049	6,908	1.80	1.04
Sussex Drive to N. Tanner Road	5,858	43	6,696	6,562	43	5,346	5,239	1.12	0.89
SR 408 Ramps									
SR 408 NB Off ramp to SR 50	14,000	71	13,929	13,650	71	13,256	12,991	0.98	0.93
SR 408 SB On ramp from SR 50 EB	2,200	71	2,663	2,610	71	2,901	2,843	1.19	1.29
SR 408 SB On ramp from SR 50 WB	11,500	72	9,209	9,025	72	8,679	8,505	0.78	0.74
Research Parkway									
Alafaya Trail to Technology Parkway	11,000	44	3,278	3,212	41	13,337	13,070	0.29	1.19
Technology Parkway to Discovery Drive	8,500	44	2,408	2,360	41	6,243	6,118	0.28	0.72
Challenger Parkway									
Alafaya Trail to Ingenuity Drive	8,610	24	1,235	1,210	24	5,916	5,798	0.14	0.67
Ingenuity Drive to Woodbury Road	28,000	24	10,587	10,375	24	25,676	25,162	0.37	0.90
Gemini Boulevard									
Central Florida Boulevard to University Boulevard	18,408	25	18,784	18,408	25	14,557	14,266	1.00	0.77
University Boulevard to Centaurus Boulevard	12,942	25	0	0	25	6,589	6,457	0.00	0.50
North of Centaurus Boulevard	8,232	25	6,227	6,102	25	10,805	10,589	0.74	1.29
N Orion Boulevard to Scorpious St (North)	23,067	25	11,029	10,808	25	13,598	13,326	0.47	0.58
South of Scorpious St (North)	20,807	25	1,352	1,325	25	15,633	15,320	0.06	0.74
East of Alafaya Trail	16,453	25	8,118	7,956	25	18,344	17,977	0.48	1.09

Roadway Name	FDOT Year 2020 AADT Count	Facility Type Before	2020 Model PSWADT Before Validation	2020 Model AADT Before Validation Total	Facility Type After	2020 Model PSWADT After Validation	2020 Model AADT After Validation Total	Volume / Count (Before)	Volume / Count (After)
Orion Boulevard									
South of McCulloch Road	15,000	25	11,032	10,811	25	13,783	13,507	0.72	0.90
Corporate Boulevard									
West of Alafaya Trail	12,100	43	351	344	43	7,269	7,124	0.03	0.59
Libra Drive									
North of Research Parkway	8,337	43	1,041	1,020	43	8,833	8,656	0.12	1.04
Woodbury Road									
South of SR 50	19,000	33	15,273	14,968	33	16,531	16,200	0.79	0.85
North of SR 50	15,499	44	14,274	13,989	44	15,688	15,374	0.90	0.99
Bonneville Drive									
North of SR 50	9,500		0	0	43	6,022	5,902	0.00	0.62
Science Drive									
Alafaya Trail to Technology Parkway	10,600	45	2,871	2,814	43	8,628	8,455	0.27	0.80
Technology Parkway to Ingenuity Drive	10,100	45	6,207	6,083	43	9,336	9,149	0.60	0.91
Ingenuity Drive									
Challenger Parkway to Science Drive	24,000	42	4,516	4,426	42	19,977	19,577	0.18	0.82
Science Drive to Discovery Drive	13,800	43	1,759	1,724	43	13,451	13,182	0.12	0.96
Technology Parkway									
Research Parkway to Science Drive	7,400	44	1,094	1,072	44	5,944	5,825	0.14	0.79
Rouse Road									
North of University Boulevard	12,645	42	11,301	11,075	42	16,953	16,614	0.88	1.31
University Boulevard to Lokanotosa Trail	25,000	24	23,706	23,232	24	24,135	23,652	0.93	0.95
Lokanotosa Trail to SR 50	28,617	24	25,435	24,926	24	25,743	25,228	0.87	0.88
South of SR 50	21,260	24	14,538	14,247	24	20,497	20,087	0.67	0.94
University Boulevard									
Gemini Boulevard to Alafaya Trail	21,282	25	18,784	18,408	25	20,195	19,791	0.86	0.93
Alafaya Trail to Quadrangle Boulevard	54,868	23	44,246	43,361	23	47,226	46,281	0.79	0.84
Quadrangle Boulevard to Rouse Road	55,640	23	56,418	55,290	23	54,595	53,503	0.99	0.96
West of Rouse Road	66,670	23	56,661	55,528	23	58,840	57,663	0.83	0.86

Table 1: Existing Traffic Counts Summary

Roadway / Segment	County/FDOT	2021 AADT	2018 AADT	2019 AADT	2020 AADT	2019 Vs 2020	UCF Master (2019)	UCF - CFRP Study (2019)	Growth	StreetLight based 2019 AADT	Recommended Existing Year 2020 AADT
Alafaya Trail											
South of SR 50	OC #264		53,219	51,373	42,390	-17.5%					53,219
SR 50 to Challenger Pkwy	OC #488		58,218	59,187	40,124	-32.2%					59,187
Challenger Pkwy to Science Dr	FDOT #750488		51,000	48,000	46,000	-4.2%					51,000
Science Dr to Research Pkwy	OC #257		58,853	60,228	38,027	-36.9%	62,659	60,000			60,228
Research Pkwy to Central Florida Blvd	**Field Collected**	40,500					59,749				60,000
Central Florida Blvd to University Blvd	**Field Collected**	38,500							27.5%		49,100
Centaurus Blvd to University Blvd	**Field Collected**	34,000							27.5%		43,400
Corporate Blvd/Gemini Blvd to Centaurus Blvd	OC #256		44,820	45,478	30,807	-32.3%	43,674				45,478
McCulloch Rd to Corporate Blvd/Gemini Blvd	FDOT #750559		49,000	50,000	29,000	-42.0%		43,000			50,000
Chapman Rd to McCulloch Rd	SC #289		51,833	60,648	45,552	-24.9%	45,264				60,648
			366,943	**374,914**	**271,900**	**-27.5%**					
SR 50											
West of Rouse Rd	OC #259		55,784	58,281	46,869	-19.6%	53,060				58,281
Rouse Rd to Alafaya Trail	OC #261		53,233	54,194	47,677	-12.0%					54,194
Alafaya Trail to Woodbury Rd	OC #263		45,485	47,758	38,884	-18.6%		43,000			47,758
SR 408 Ramps to Lake Pickett Rd	OC #610		65,843	70,664	61,262	-13.3%		62,000			70,664
Lake Pickett Rd to Pebble Beach Rd	OC #611		52,655	56,235	54,833	-2.5%					56,235
Pebble Beach Rd to Avalon Park Blvd	**Field Collected**	54,000								50,000	54,000
Avalon Park Blvd to S. Tanner Rd	OC #313.5		39,335	42,232	37,840	-10.4%					42,232
Avalon Park Blvd to S. Tanner Rd	FDOT #750561		43,000	43,000	41,000	-4.7%					43,000
S. Tanner Rd to CR 419/Chuluota Rd	OC #313.0		38,348	41,485	37,557	-9.5%					41,485
East of CR 419/Chuluota Rd	OC #314		36,622	38,336	33,132	-13.6%					38,336
			430,305	**452,184**	**399,054**	**-11.7%**					
McCulloch Rd											
Rouse Rd to Alafaya Trail	OC #8040		16,762	12,612	9,614	-23.8%					12,612
Alafaya Trail to Lockwood Blvd	OC #8050		29,941	31,341	21,634	-31.0%	28,560	30,000			31,341
Lockwood Blvd to Worchester Dr	OC #8060		24,153	24,784	14,817	-40.2%	20,229				24,784
Worchester Dr to N Tanner Rd	**Field Collected**	13,000							33.0%		17,300
East of N Tanner Rd	**Field Collected**	1,700							33.0%		2,300
			70,856	**68,738**	**46,065**	**-33.0%**					
CR 419/Chuluota Rd											
SR 50 to Corner Lake Dr	FDOT #758272		16,900	17,100	14,800	-13.5%					17,100
SR 50 to Cypress Lake Glen Blvd	OC #8142		13,588	14,528	11,432	-21.3%					14,528
Cypress Lake Glen Blvd to Lake Pickett Rd	OC #306		14,050	12,757	13,442	5.4%					14,050
Lake Pickett Rd to Old Lake Pickett Rd	OC #304		11,950	13,393	12,217	-8.8%					13,393
Old Lake Pickett Rd to Seminole County Line	OC #8044		11,217	12,520	10,422	-16.8%					12,520
Seminole County Line to Lake Mills Rd	SC #055A		10,484	10,729	11,090	3.4%					11,090
			78,189	**81,026**	**73,403**	**-9.4%**					
Avalon Park Blvd											
South of SR 50	**Field Collected**	25,000								28,000	28,000
0.49 Miles N. of Waterford Chase Py	OC #7142		23,990	25,119	20,105	-20.0%					25,119
Lake Pickett Rd											
SR 50 to Percival Rd	OC #297		15,429	15,831	14,708	-7.1%					15,831
Percival Rd to N Tanner Rd	**Field Collected**	9,500							8.8%		10,300
N Tanner Rd to S Tanner Rd	OC #299		10,644	11,505	10,068	-12.5%					11,505
S. Tanner Rd to CR 419/Chuluota Rd	OC #303		7,771	8,998	8,368	-7.0%					8,998
			33,844	**36,334**	**33,144**	**-8.8%**					
South Tanner Rd											
North of SR 50	OC #8043		3,908	4,008	2,697	-32.7%					4,008
South of Lake Pickett Rd	**Field Collected**	3,100							32.7%		4,100
North Tanner Rd											
Lake Pickett Rd to Stonebriar Way	FDOT #758188		11,600	11,800	10,100	-14.4%					11,800
Stonebriar Way to Lake Price Dr	OC #2010		11,126	11,523	0	-100.0%					11,523
Lake Price Dr to Mcculloch Rd	**Field Collected**	13,500								15,000	15,000
Percival Rd											
Lake Pickett Rd to Sussex Dr	OC #298		6,090	6,647	6,199	-6.7%	6,121				6,647
Sussex Dr to N. Tanner Rd	OC #8042		5,268	5,858	4,877	-16.8%					5,858
SR 408 Ramps											
SR 408 NB Off ramp to SR 50	FDOT #752195		12,000	14,000	13,500	-3.6%					14,000
SR 408 SB On ramp from SR 50 EB	FDOT #752194		2,000	2,200	2,100	-4.5%					2,200
SR 408 SB On ramp from SR 50 WB	FDOT #752196		10,500	11,500	11,000	-4.3%					11,500
Research Pkwy											
Alafaya Trail to Technology Pkwy	**Field Collected**	4,400						11,000			11,000
Technology Pkwy to Discovery Dr	**Field Collected**	3,600						8,500			8,500
Challenger Pkwy											
Alafaya Trail to Ingenuity Dr	OC #7180		8,469	8,610	4,048	-53.0%					8,610
Ingenuity Dr to Woodbury Rd	OC #7173		26,908	25,996	9,727	-62.6%		28,000			28,000
Woodbury Rd to SR 50 (FDOT 750659)	**Field Collected**	6,700	13,300	15,600	14,900						15,600
Gemini Blvd											
Central Florida Blvd to University Blvd	**Field Collected**	6,500					18,408	17,000			18,408
University Blvd to Centaurus Blvd	**Field Collected**	4,600					12,942		281%		12,942
North of Centaurus Blvd	**Field Collected**	3,800					8,232		217%		8,232
N Orion Blvd to Scorpious St (North)	**Field Collected**	6,700					23,067				23,067
South of Scorpious St (North)	**Field Collected**	9,500					20,807		219%		20,807
East of Alafaya Trail	**Field Collected**	6,400					16,453				16,453
		17,900					**41,981**		235%		
Orion Blvd											
South of McCulloch Rd	**Field Collected**	5,000					14,779	15,000			15,000
Corporate Blvd											
West of Alafaya Trail	OC #8041		13,725	14,043	8,137	-42.1%					14,043
West of Alafaya Trail	FDOT #758359		12,100	10,500	10,000	-4.8%					12,100
Libra Dr											
North of Research Pkwy	**Field Collected**	5,600					8,337				8,337
Woodbury Rd											
South of SR 50	**Field Collected**	19,000								19,000	19,000
North of SR 50	OC #2012		14,660	15,499	6,914	-55.4%					15,499
Bonneville Dr											
North of SR 50	**Field Collected**	6,500									9,500
Science Dr											
Alafaya Trail to Technology Pkwy	**Field Collected**	4,500						9,200			10,600
Technology Pkwy to Ingenuity Dr	**Field Collected**	4,300						8,100			10,100
Ingenuity Dr											
Challenger Pkwy to Science Dr	**Field Collected**	9,500						24,000			24,000
Science Dr to Discovery Dr	**Field Collected**	5,900									13,800
Technology Pkwy											
Research Pkwy to Science Dr	**Field Collected**	2,800						7,400			7,400

Table 1: Existing Traffic Counts Summary

Roadway / Segment	County/FDOT	2021 AADT	2018 AADT	2019 AADT	2020 AADT	2019 Vs 2020	UCF Master (2019)	UCF - CFRP Study (2019)	Growth	StreetLight based 2019 AADT	Recommended Existing Year 2020 AADT
Rouse Rd											
South of SR 50	OC #427		20,452	21,260	15,156	-28.7%					21,260
SR 50 to Lokanotosa Trail	OC #260		26,225	28,617	18,266	-36.2%					28,617
Lokanotosa Trail to University Blvd	**Field Collected**	19,500								25,000	25,000
North of University Blvd	OC #253		12,585	12,645	9,223	-27.1%					12,645
University Blvd											
West of Rouse Rd	OC #251		64,277	66,670	40,040	-39.9%					66,670
Rouse Rd to Quadrangle Blvd	OC #255		55,230	55,640	32,182	-42.2%					55,640
Quadrangle Blvd to Alafaya Trail	**Field Collected**	32,000					54,868	53,000			54,868
Alafaya Trail to Gemini Blvd	**Field Collected**	7,800					21,282				21,282

2018/2019 AADT is considered as existing year AADT

2021 field collected counts adjusted based on 2019 AADT

2019 AADT from UCF Master Plan or UCF - CFRP Study is considered as existing year AADT

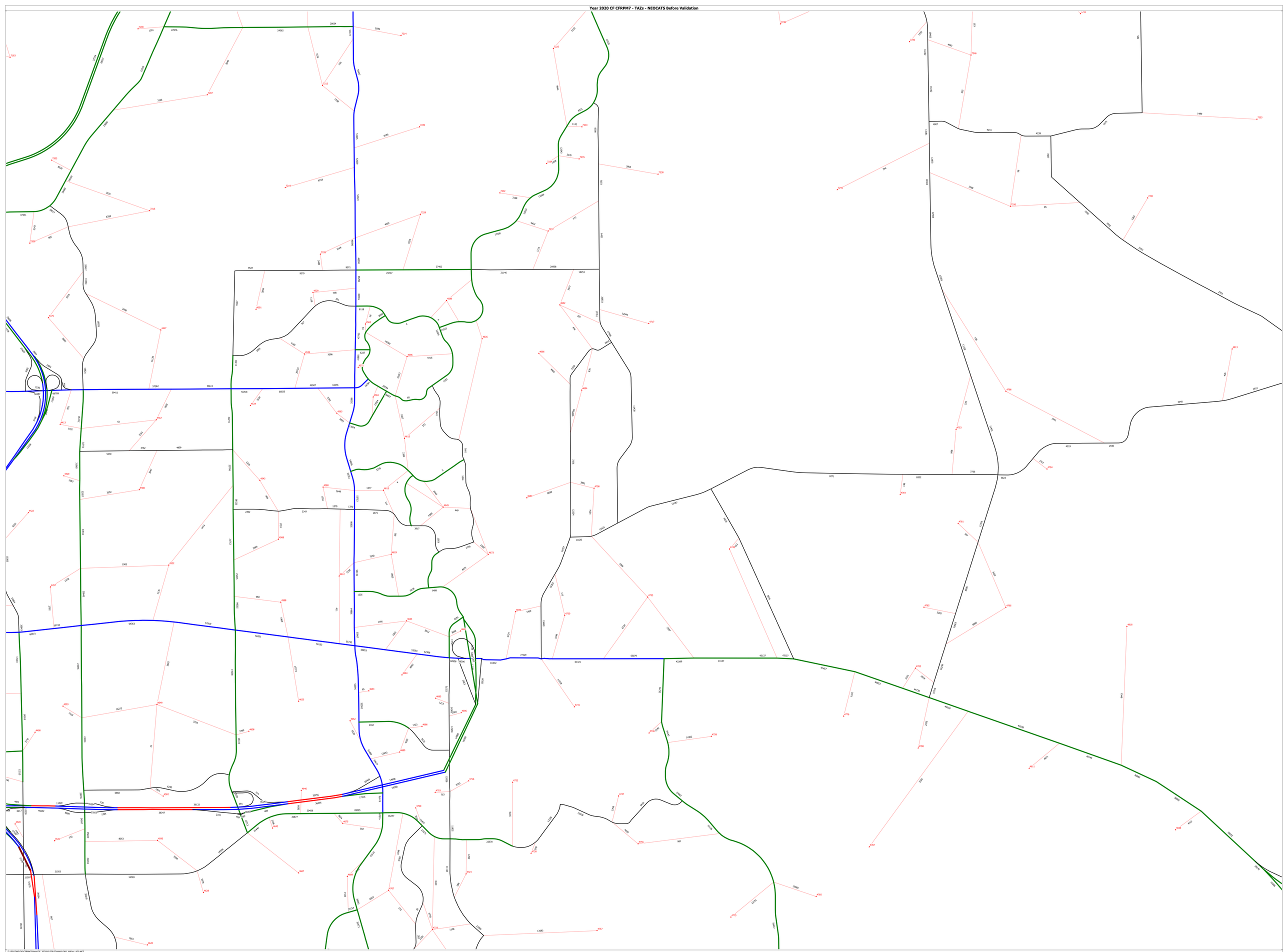
Highest of 2021 field collected count and StreetLight based 2019 AADT is considered as existing year AADT

2020 AADT is considered as existing year AADT

2021 field collected counts adjusted based on UCF Master Plan 2019 AADT for Gemini Boelevard

2017 AADT from Colonial Pkwy PTAR grown by 2% per year to derive existing year AADT

Year 2020 CF CFRPM7 - TAZs - NEOCATS Before Validation



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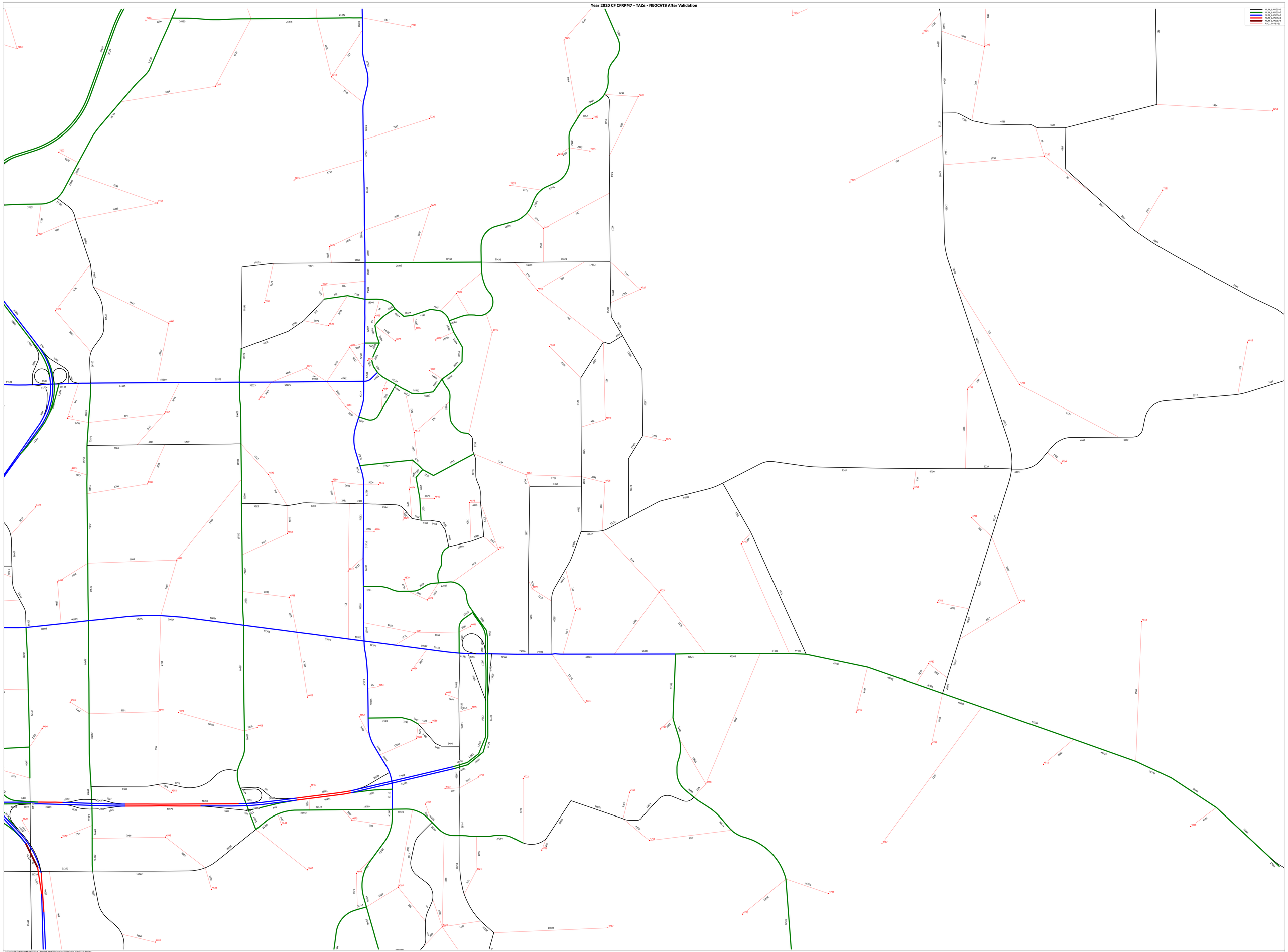
(Licensed to Vanasse Hangen Brustlin Inc)

Year 2020 CF CFRPM7 - TAZs - NEOCATS After Validation



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Appendix B

BEBR Population Projections

College of Liberal Arts and Sciences
Bureau of Economic and Business Research

Florida Population Studies

BEBR

Volume 54, Bulletin 189, April 2021

Projections of Florida Population by County, 2025–2045, with Estimates for 2020

Stefan Rayer, Population Program Director
Ying Wang, Research Demographer

The Bureau of Economic and Business Research (BEBR) has been making population projections for Florida and its counties since the 1970s. This report presents our most recent set of projections and describes the methodology used to construct those projections. To account for uncertainty regarding future population growth, we publish three series of projections. We believe the medium series is the most likely to provide accurate forecasts in most circumstances, but the low and high series provide an indication of the uncertainty surrounding the medium series. It should be noted that these projections refer solely to permanent residents of Florida; they do not include tourists or seasonal residents. Furthermore, we note that this set of projections is still based on the Census 2010 counts and the BEBR population estimates since then. The next set of BEBR county projections, scheduled for release in early 2022, will incorporate the Census 2020 counts.

State projections

The starting point for the state-level projections was the April 1, 2010 census population count by age, sex, race, and Hispanic origin, as adjusted by the National Center for Health Statistics (NCHS) in the Vintage 2017 bridged race population estimates. Projections were made in one-year intervals using a cohort-component methodology in which births, deaths, and migration are projected separately for each age-sex cohort in Florida for non-Hispanic whites, non-Hispanic nonwhites, and Hispanics. We applied three different sets of assumptions to provide low, medium, and high series of projections. Although the low and high series do not provide absolute bounds on future population change, they provide a reasonable range in which Florida's future population is likely to fall.

Survival rates were applied by single year of age, sex, race, and Hispanic origin to project future deaths in the population. These rates were based on Florida Life Tables for 2012–2018, using mortality data published by the Office of Vital Statistics in the Florida Department of Health. The survival rates were adjusted upward each year until 2044 to account for projected increases in life expectancy. These adjustments were based on projected increases in survival rates released by the U.S. Census Bureau. We used the same mortality assumptions for all three series of projections because there is less uncertainty regarding future changes in mortality rates than is true for migration and fertility rates.

Domestic migration rates by age and sex were based on Public Use Microdata Sample (PUMS) files from the 2010–2019 American Community Survey (ACS) 1-year estimates, and the 2014–2018 and 2015–2019 ACS 5-year estimates. We first calculated an average of the 2010–2018 1-year estimates and the 2014–2018 5-year estimates. Next, we calculated an average of the 2011–2019 1-year estimates and the 2015–2019 5-year estimates. Our final domestic migration rates were based on an average of these two

Projections of Florida Population by County, 2025–2045, with Estimates for 2020 (continued)

County and State	Estimates April 1, 2020	2025	2030	2035	2040	2045
MIAMI-DADE	2,832,794					
Low		2,791,500	2,844,300	2,871,900	2,880,900	2,876,900
Medium		2,992,700	3,128,300	3,234,600	3,322,200	3,398,200
High		3,186,900	3,423,300	3,621,000	3,799,900	3,964,600
MONROE	77,823					
Low		73,600	72,200	70,500	68,700	66,700
Medium		78,800	79,400	79,800	80,000	80,200
High		84,300	87,500	90,100	92,200	94,200
NASSAU	89,258					
Low		89,500	93,600	96,800	99,300	100,800
Medium		99,200	107,500	114,600	121,100	126,900
High		108,200	121,600	134,900	148,200	161,400
OKALOOSA	203,951					
Low		200,200	202,800	204,000	204,500	203,800
Medium		214,600	223,200	230,000	236,000	241,100
High		228,500	244,000	257,200	269,700	280,900
OKEECHOBEE	42,112					
Low		40,600	40,500	40,300	39,900	39,500
Medium		43,400	44,500	45,300	46,000	46,700
High		46,500	49,100	51,500	53,700	55,900
ORANGE	1,415,260					
Low		1,429,800	1,494,500	1,542,300	1,577,800	1,602,500
Medium		1,558,700	1,678,400	1,777,900	1,864,300	1,941,800
High		1,674,800	1,857,100	2,021,600	2,179,700	2,331,800
OSCEOLA	387,055					
Low		409,200	447,500	476,000	499,500	518,300
Medium		453,600	512,500	560,700	603,600	643,100
High		491,900	574,500	649,300	723,900	798,500
PALM BEACH	1,466,494					
Low		1,440,900	1,465,500	1,482,000	1,491,200	1,491,500
Medium		1,544,900	1,612,200	1,668,600	1,717,000	1,758,500
High		1,645,000	1,763,800	1,868,600	1,966,800	2,055,400
PASCO	542,638					
Low		543,900	565,700	578,700	586,200	589,400
Medium		593,000	635,700	668,800	696,400	720,500
High		637,100	703,000	758,500	809,700	857,600
PINELLAS	984,054					
Low		960,600	959,500	953,100	943,000	930,500
Medium		1,011,800	1,031,400	1,045,200	1,055,500	1,063,800
High		1,067,900	1,116,700	1,153,300	1,184,100	1,210,200
POLK	715,090					
Low		718,300	747,800	770,200	785,000	794,600
Medium		783,100	840,200	888,400	929,300	965,800
High		841,400	929,200	1,009,500	1,084,500	1,156,200
PUTNAM	73,723					
Low		69,300	67,900	66,400	64,800	63,300
Medium		74,200	74,700	75,100	75,500	75,800
High		79,400	82,200	84,900	87,100	89,400
ST. JOHNS	261,900					
Low		274,700	297,000	314,400	328,600	339,400
Medium		304,600	340,500	370,900	398,000	422,800
High		330,200	381,300	428,800	476,200	522,900
ST. LUCIE	322,265					
Low		326,300	342,800	353,400	360,300	364,400
Medium		355,800	384,800	407,500	426,400	443,100
High		382,300	426,000	463,200	497,800	530,300

Appendix C

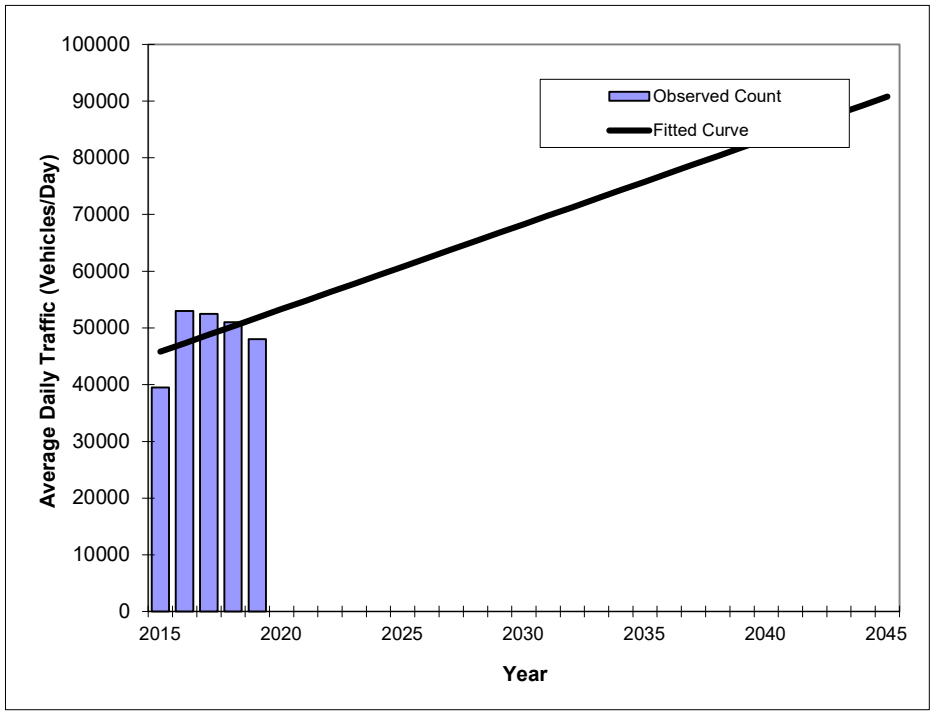
TRENDS sheets

Traffic Trends - V03.a

ALAFAYA TRAIL -- Challenger Pkwy to Science Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	750488
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	39500	45800
2016	53000	47300
2017	52500	48800
2018	51000	50300
2019	48000	51800
2025 Opening Year Trend		
2025	N/A	60800
2035 Mid-Year Trend		
2035	N/A	75800
2045 Design Year Trend		
2045	N/A	90800
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

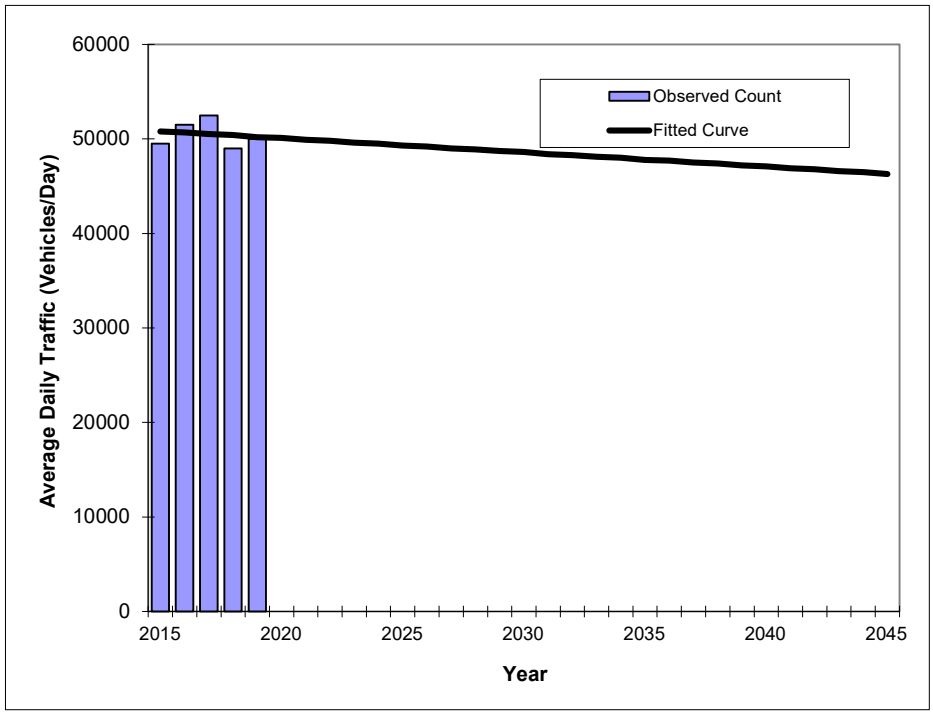
** Annual Trend Increase:	1,500
Trend R-squared:	18.25%
Trend Annual Historic Growth Rate:	3.28%
Trend Growth Rate (2019 to Design Year):	2.90%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

ALAFAYA TRAIL -- McCulloch Rd to Corporate Blvd/Gemini Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	750559
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	49500	50800
2016	51500	50700
2017	52500	50500
2018	49000	50400
2019	50000	50200
2025 Opening Year Trend		
2025	N/A	49300
2035 Mid-Year Trend		
2035	N/A	47800
2045 Design Year Trend		
2045	N/A	46300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-150
Trend R-squared:	2.65%
Trend Annual Historic Growth Rate:	-0.30%
Trend Growth Rate (2019 to Design Year):	-0.30%
Printed:	1-Nov-21
Straight Line Growth Option	

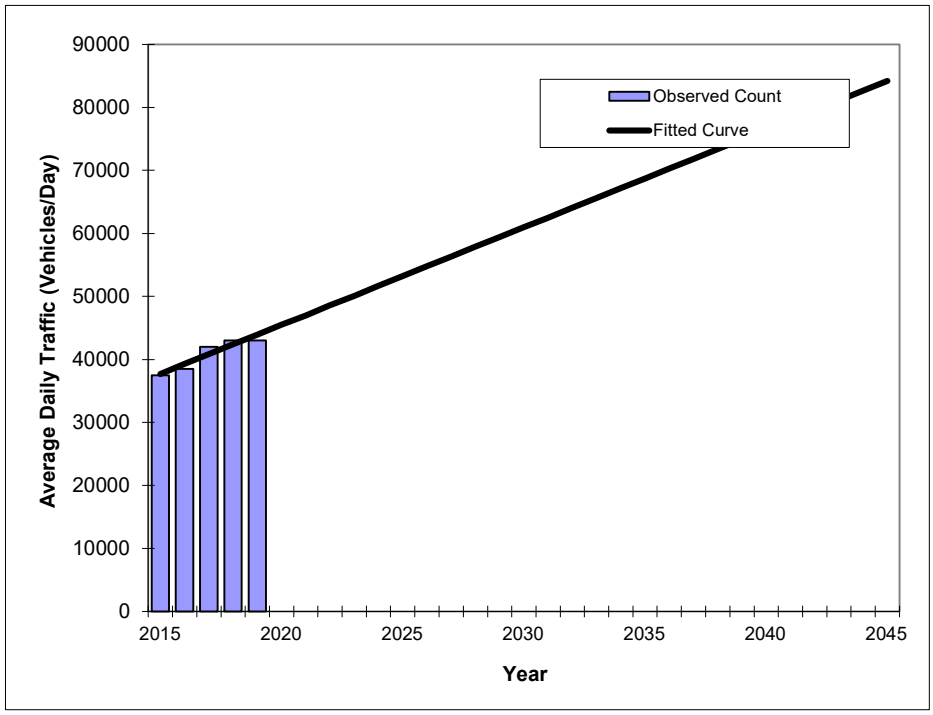
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Avalon Park Blvd to S Tanner Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	750561
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2015	37500	37700
2016	38500	39300
2017	42000	40800
2018	43000	42400
2019	43000	43900
2025 Opening Year Trend		
2025	N/A	53200
2035 Mid-Year Trend		
2035	N/A	68700
2045 Design Year Trend		
2045	N/A	84200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,550
Trend R-squared:	88.00%
Trend Annual Historic Growth Rate:	4.11%
Trend Growth Rate (2019 to Design Year):	3.53%
Printed:	1-Nov-21
Straight Line Growth Option	

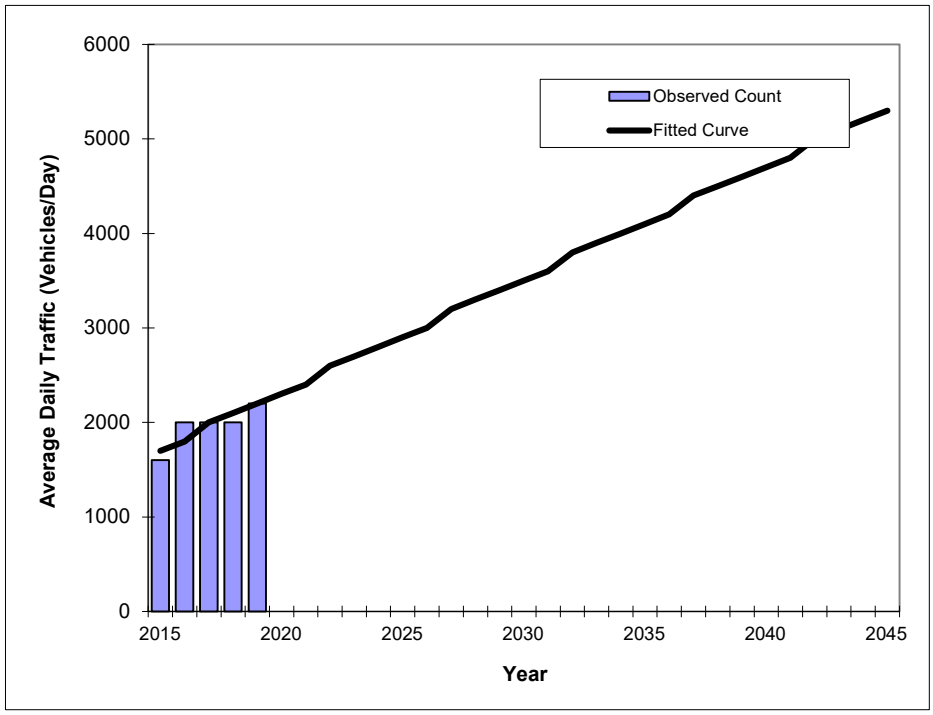
***Axle-Adjusted**

Traffic Trends - V03.a

SR 408 Ramps -- SR 408 SB On Ramp from SR 50 EB

FIN#	1234
Location	1

County:	Orange (75)
Station #:	752194
Highway:	SR 408 Ramps



Year	Traffic (ADT/AADT) Count*	Trend**
2015	1600	1700
2016	2000	1800
2017	2000	2000
2018	2000	2100
2019	2200	2200
2025 Opening Year Trend		
2025	N/A	2900
2035 Mid-Year Trend		
2035	N/A	4100
2045 Design Year Trend		
2045	N/A	5300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	120
Trend R-squared:	75.00%
Trend Annual Historic Growth Rate:	7.35%
Trend Growth Rate (2019 to Design Year):	5.42%
Printed:	1-Nov-21
Straight Line Growth Option	

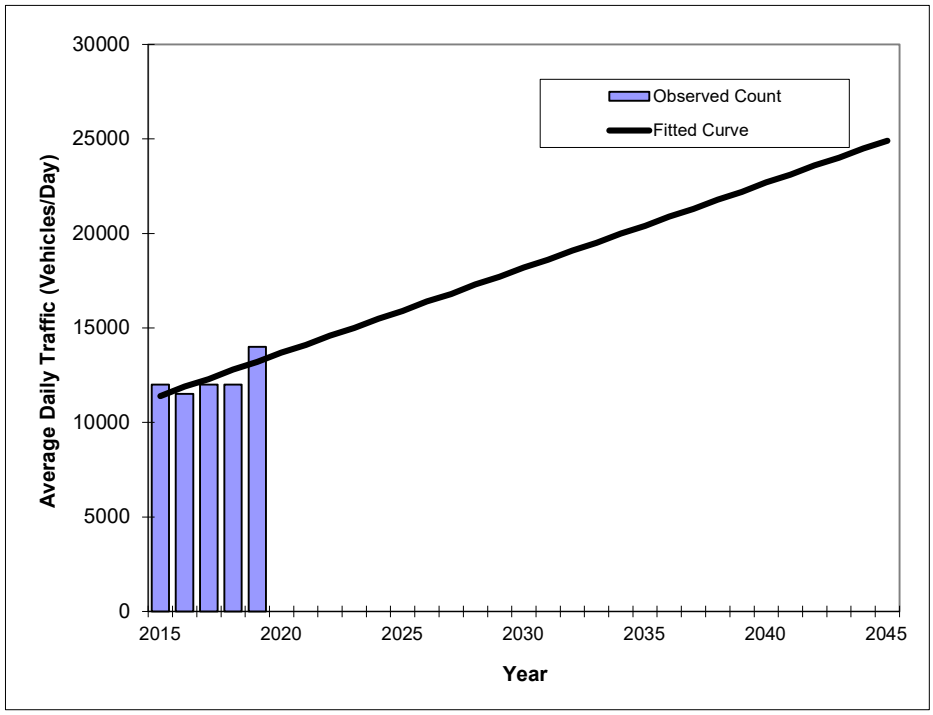
***Axle-Adjusted**

Traffic Trends - V03.a

SR 408 Ramps -- SR 408 NB Off Ramp to SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	752195
Highway:	SR 408 Ramps



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12000	11400
2016	11500	11900
2017	12000	12300
2018	12000	12800
2019	14000	13200
2025 Opening Year Trend		
2025	N/A	15900
2035 Mid-Year Trend		
2035	N/A	20400
2045 Design Year Trend		
2045	N/A	24900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	450
Trend R-squared:	53.29%
Trend Annual Historic Growth Rate:	3.95%
Trend Growth Rate (2019 to Design Year):	3.41%
Printed:	1-Nov-21
Straight Line Growth Option	

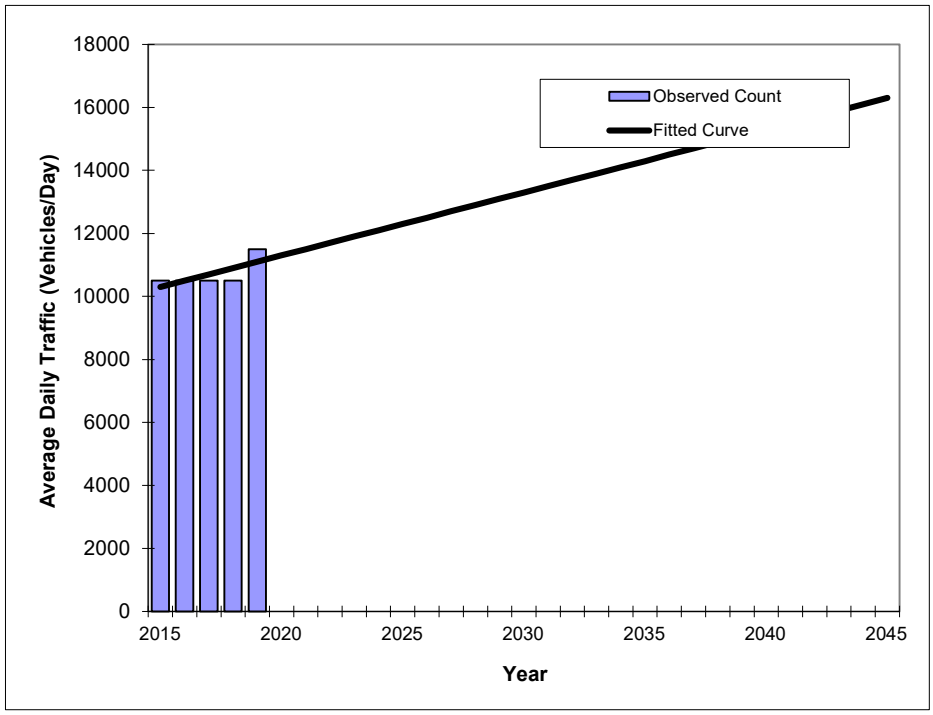
***Axle-Adjusted**

Traffic Trends - V03.a

SR 408 Ramps -- SR 408 SB On Ramp from SR 50 WB

FIN#	1234
Location	1

County:	Orange (75)
Station #:	752196
Highway:	SR 408 Ramps



Year	Traffic (ADT/AADT) Count*	Trend**
2015	10500	10300
2016	10500	10500
2017	10500	10700
2018	10500	10900
2019	11500	11100
2025 Opening Year Trend		
2025	N/A	12300
2035 Mid-Year Trend		
2035	N/A	14300
2045 Design Year Trend		
2045	N/A	16300
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

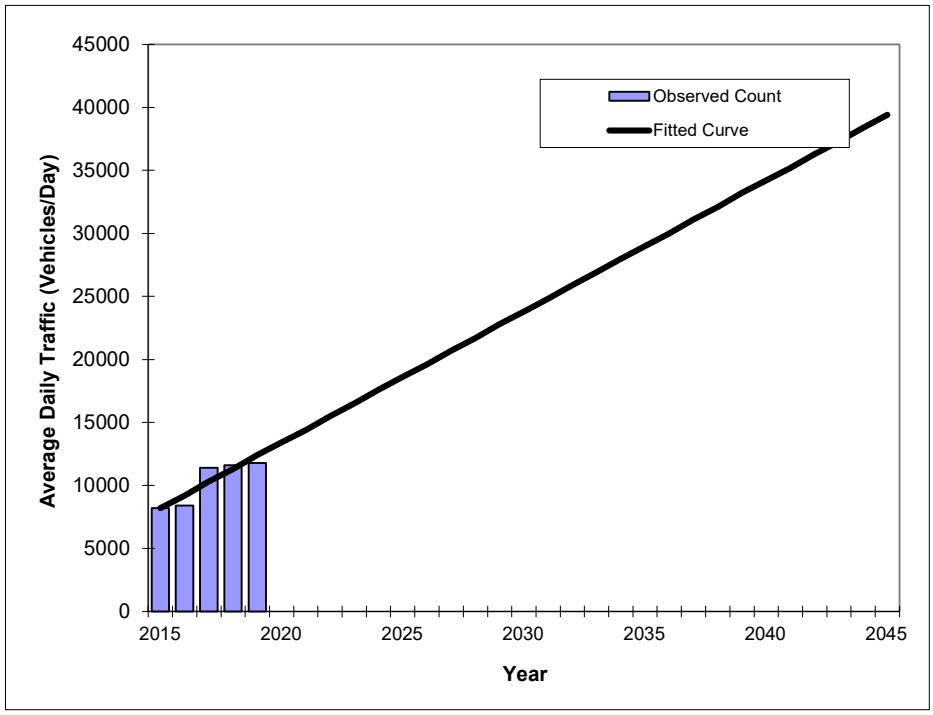
**** Annual Trend Increase:**	200
Trend R-squared:	50.00%
Trend Annual Historic Growth Rate:	1.94%
Trend Growth Rate (2019 to Design Year):	1.80%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

North Tanner Rd -- Lake Pickett Rd to Stonebriar Way

FIN#	1234
Location	1

County:	Orange (75)
Station #:	758188
Highway:	North Tanner Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	8200	8200
2016	8400	9200
2017	11400	10300
2018	11600	11300
2019	11800	12400
2025 Opening Year Trend		
2025	N/A	18600
2035 Mid-Year Trend		
2035	N/A	29000
2045 Design Year Trend		
2045	N/A	39400
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

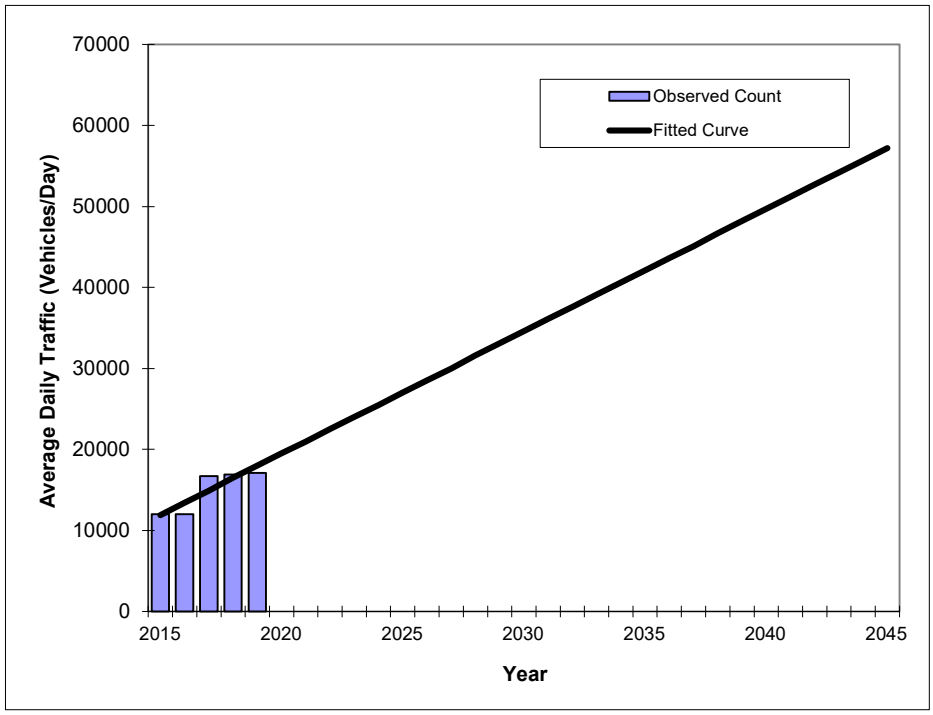
**** Annual Trend Increase:**	1,040
Trend R-squared:	82.14%
Trend Annual Historic Growth Rate:	12.80%
Trend Growth Rate (2019 to Design Year):	8.37%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

CR 419/Chuluota Rd -- SR 50 to Corner Lake Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	758272
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12000	11900
2016	12000	13400
2017	16700	14900
2018	16900	16500
2019	17100	18000
2025 Opening Year Trend		
2025	N/A	27000
2035 Mid-Year Trend		
2035	N/A	42100
2045 Design Year Trend		
2045	N/A	57200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,510
Trend R-squared:	78.92%
Trend Annual Historic Growth Rate:	12.82%
Trend Growth Rate (2019 to Design Year):	8.38%
Printed:	1-Nov-21
Straight Line Growth Option	

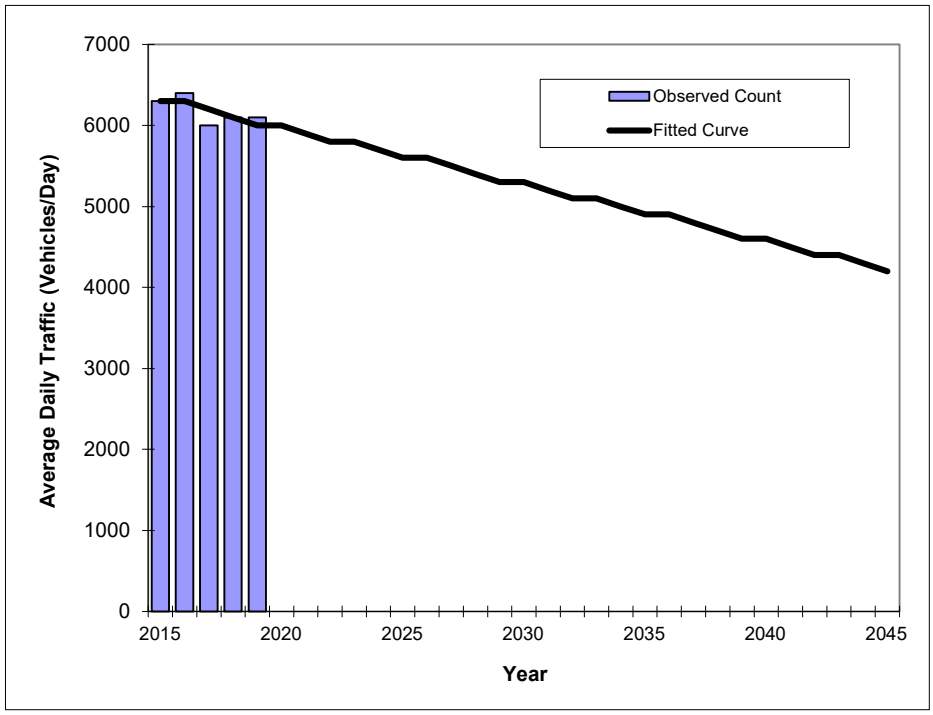
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE PICKETT RD -- S Tanner Rd to CR 419/Chuluota Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	758333
Highway:	LAKE PICKETT RD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	6300	6300
2016	6400	6300
2017	6000	6200
2018	6100	6100
2019	6100	6000
2025 Opening Year Trend		
2025	N/A	5600
2035 Mid-Year Trend		
2035	N/A	4900
2045 Design Year Trend		
2045	N/A	4200
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

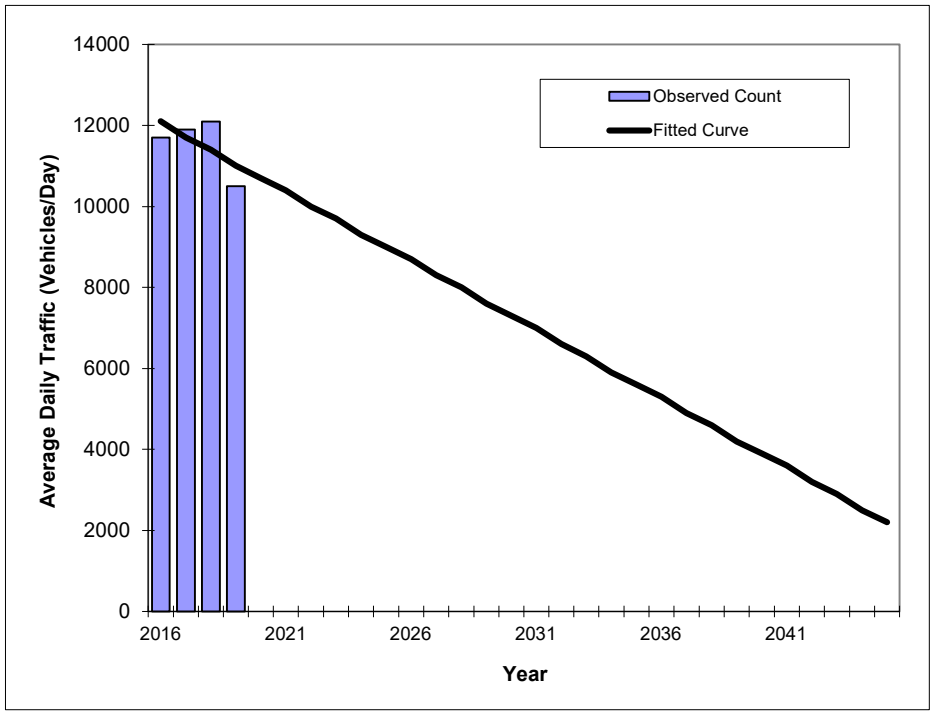
**** Annual Trend Increase:**	-70
Trend R-squared:	45.37%
Trend Annual Historic Growth Rate:	-1.19%
Trend Growth Rate (2019 to Design Year):	-1.15%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

Corporate Blvd -- West of Alafaya Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	758359
Highway:	Corporate Blvd



Year	Traffic (ADT/AADT) Count*	Trend**
2016	11700	12100
2017	11900	11700
2018	12100	11400
2019	10500	11000
2025 Opening Year Trend		
2025	N/A	9000
2035 Mid-Year Trend		
2035	N/A	5600
2045 Design Year Trend		
2045	N/A	2200
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

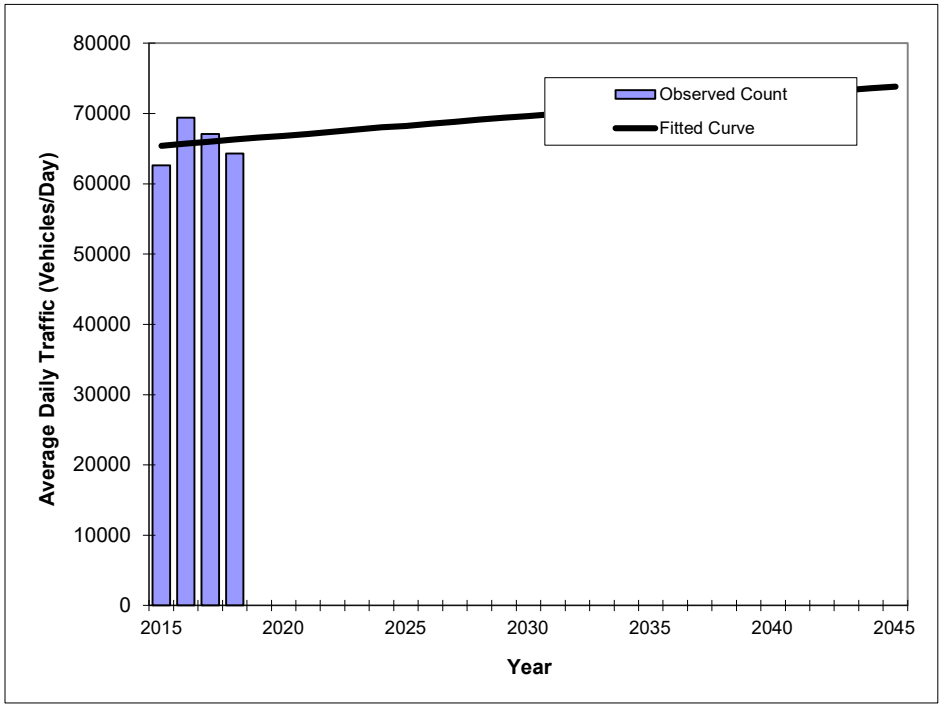
** Annual Trend Increase:	-340
Trend R-squared:	37.29%
Trend Annual Historic Growth Rate:	-3.03%
Trend Growth Rate (2019 to Design Year):	-3.08%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

UNIVERSITY BLVD -- West of Rouse Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	251
Highway:	UNIVERSITY BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	62600	65400
2016	69400	65700
2017	67100	66000
2018	64300	66300
2025 Opening Year Trend		
2025	N/A	68200
2035 Mid-Year Trend		
2035	N/A	71000
2045 Design Year Trend		
2045	N/A	73800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	280
Trend R-squared:	1.44%
Trend Annual Historic Growth Rate:	0.46%
Trend Growth Rate (2018 to Design Year):	0.42%
Printed:	1-Nov-21
Straight Line Growth Option	

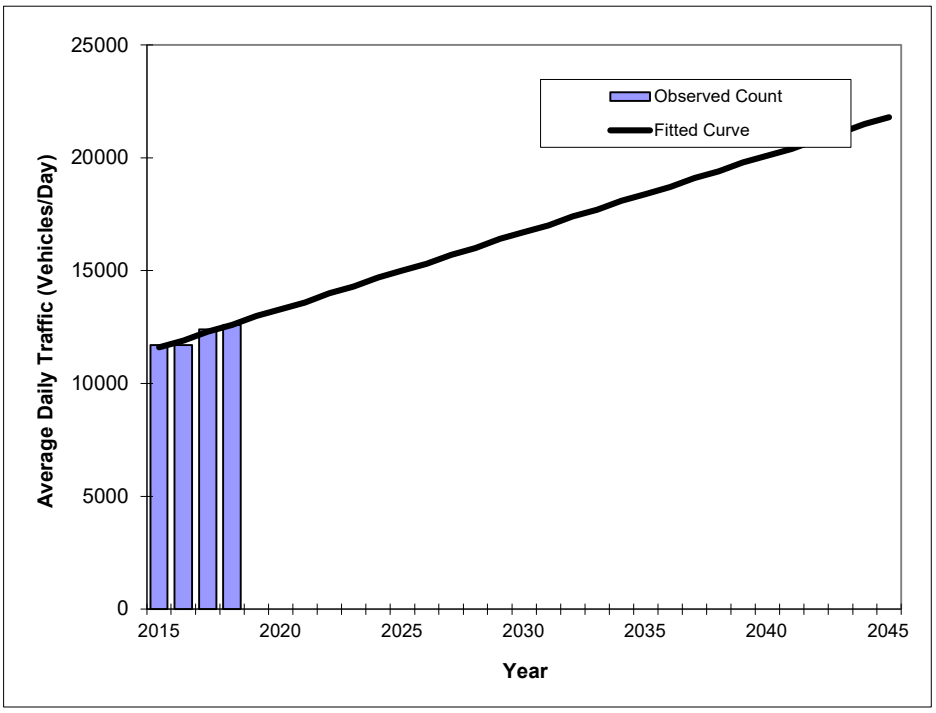
***Axle-Adjusted**

Traffic Trends - V03.a

ROUSE ROAD -- North of University Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	253
Highway:	ROUSE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	11700	11600
2016	11700	11900
2017	12400	12300
2018	12600	12600
2025 Opening Year Trend		
2025	N/A	15000
2035 Mid-Year Trend		
2035	N/A	18400
2045 Design Year Trend		
2045	N/A	21800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	340
Trend R-squared:	87.58%
Trend Annual Historic Growth Rate:	2.87%
Trend Growth Rate (2018 to Design Year):	2.70%
Printed:	1-Nov-21
Straight Line Growth Option	

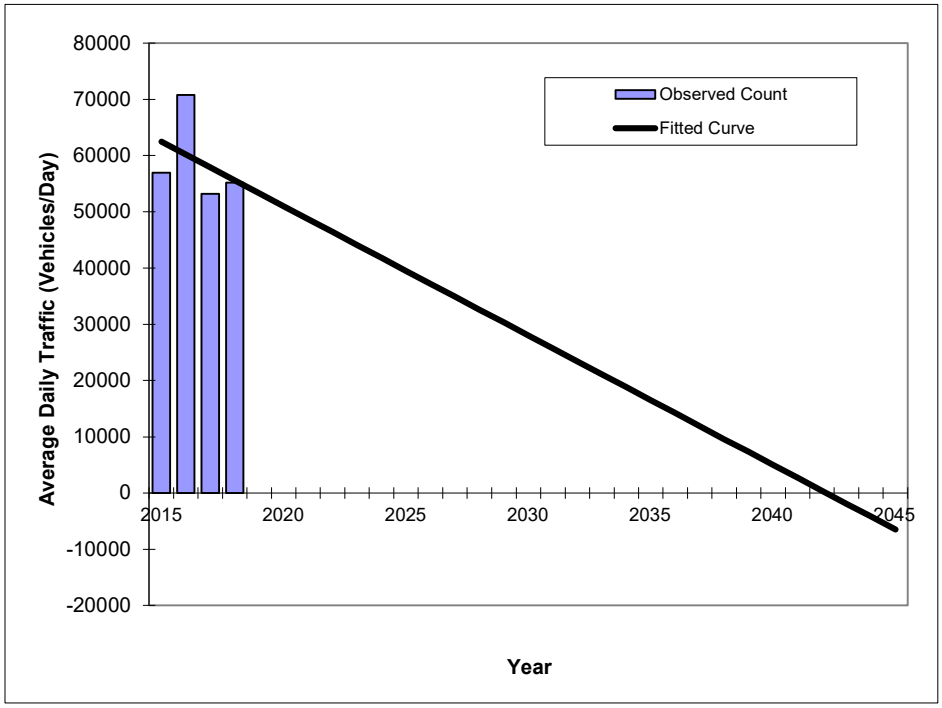
***Axle-Adjusted**

Traffic Trends - V03.a

UNIVERSITY BLVD -- Rouse Rd to Quadrangle Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	255
Highway:	UNIVERSITY BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	57000	62500
2016	70800	60200
2017	53200	57900
2018	55200	55600
2025 Opening Year Trend		
2025	N/A	39500
2035 Mid-Year Trend		
2035	N/A	16500
2045 Design Year Trend		
2045	N/A	-6500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-2,300
Trend R-squared:	13.83%
Trend Annual Historic Growth Rate:	-3.68%
Trend Growth Rate (2018 to Design Year):	-4.14%
Printed:	1-Nov-21
Straight Line Growth Option	

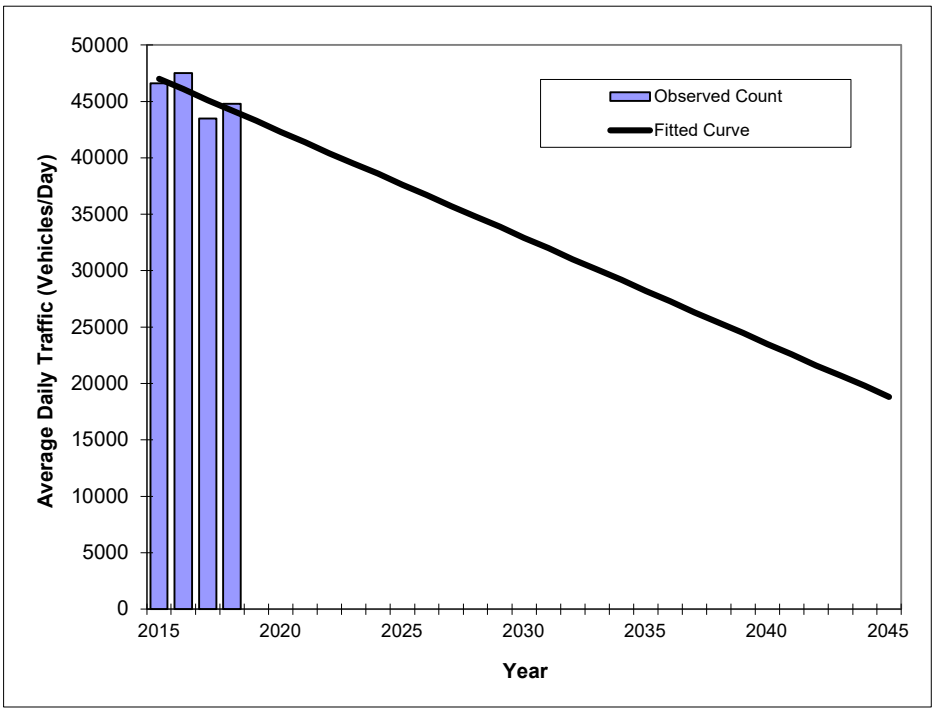
***Axle-Adjusted**

Traffic Trends - V03.a

ALAFAYA TRAIL -- Corporate Blvd/Gemini Blvd to Centaurus Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	256
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	46600	47000
2016	47500	46100
2017	43500	45100
2018	44800	44200
2025 Opening Year Trend		
2025	N/A	37600
2035 Mid-Year Trend		
2035	N/A	28200
2045 Design Year Trend		
2045	N/A	18800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-940
Trend R-squared:	45.73%
Trend Annual Historic Growth Rate:	-1.99%
Trend Growth Rate (2018 to Design Year):	-2.13%
Printed:	1-Nov-21
Straight Line Growth Option	

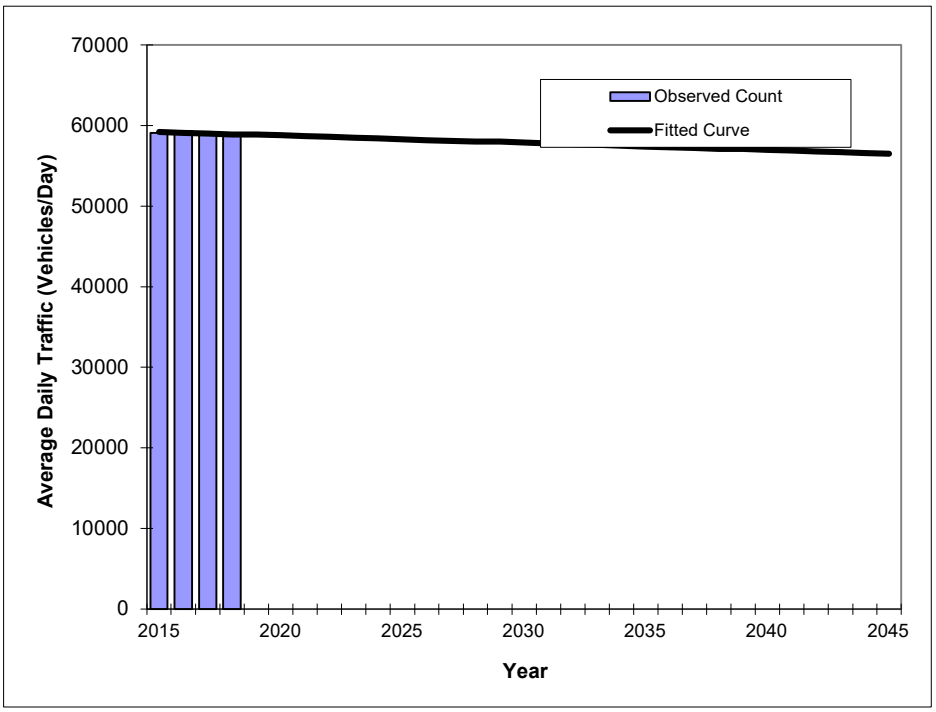
***Axle-Adjusted**

Traffic Trends - V03.a

ALAFAYA TRAIL -- Science Dr to Research Pkwy

FIN#	1234
Location	1

County:	Orange (75)
Station #:	257
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	59100	59200
2016	59300	59100
2017	59000	59000
2018	58900	58900
2025 Opening Year Trend		
2025	N/A	58300
2035 Mid-Year Trend		
2035	N/A	57400
2045 Design Year Trend		
2045	N/A	56500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-90
Trend R-squared:	46.29%
Trend Annual Historic Growth Rate:	-0.17%
Trend Growth Rate (2018 to Design Year):	-0.15%
Printed:	1-Nov-21
Straight Line Growth Option	

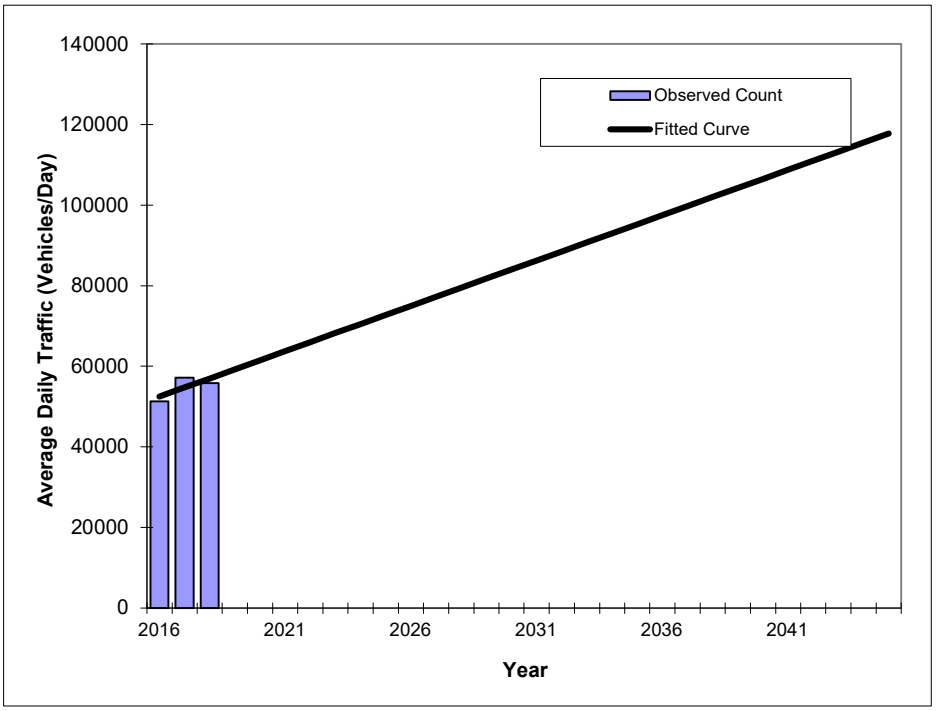
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- West of Rouse Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	259
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	51300	52500
2017	57200	54800
2018	55800	57000
2025 Opening Year Trend		
2025	N/A	72800
2035 Mid-Year Trend		
2035	N/A	95300
2045 Design Year Trend		
2045	N/A	117800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	2,250
Trend R-squared:	53.27%
Trend Annual Historic Growth Rate:	4.29%
Trend Growth Rate (2018 to Design Year):	3.95%
Printed:	1-Nov-21
Straight Line Growth Option	

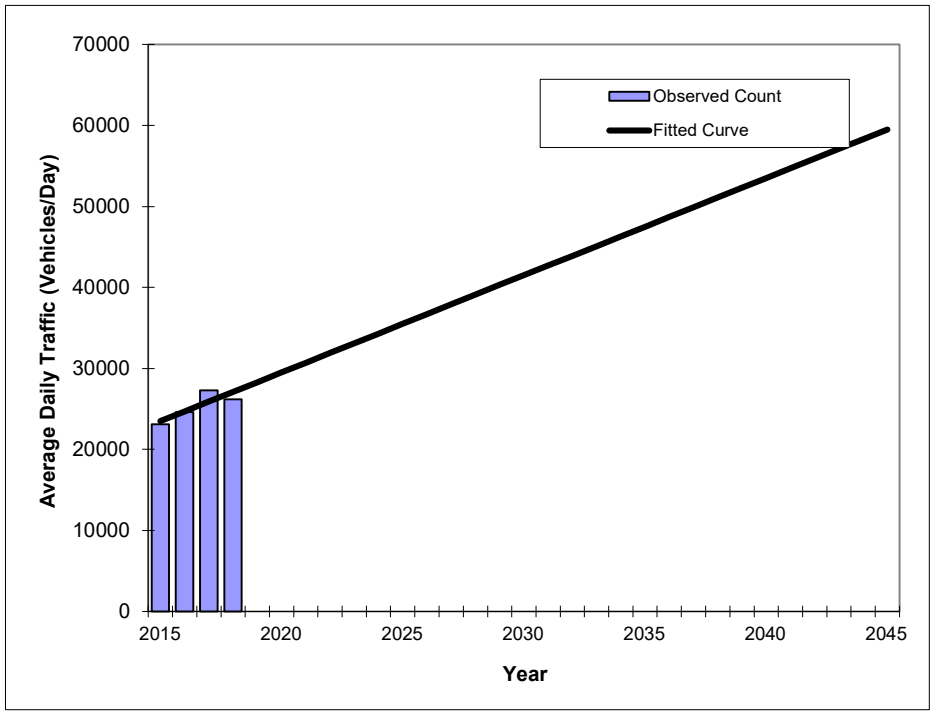
***Axle-Adjusted**

Traffic Trends - V03.a

ROUSE ROAD -- SR 50 to Lokanotosa Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	260
Highway:	ROUSE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	23100	23500
2016	24600	24700
2017	27300	25900
2018	26200	27100
2025 Opening Year Trend		
2025	N/A	35500
2035 Mid-Year Trend		
2035	N/A	47500
2045 Design Year Trend		
2045	N/A	59500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,200
Trend R-squared:	71.01%
Trend Annual Historic Growth Rate:	5.11%
Trend Growth Rate (2018 to Design Year):	4.43%
Printed:	1-Nov-21
Straight Line Growth Option	

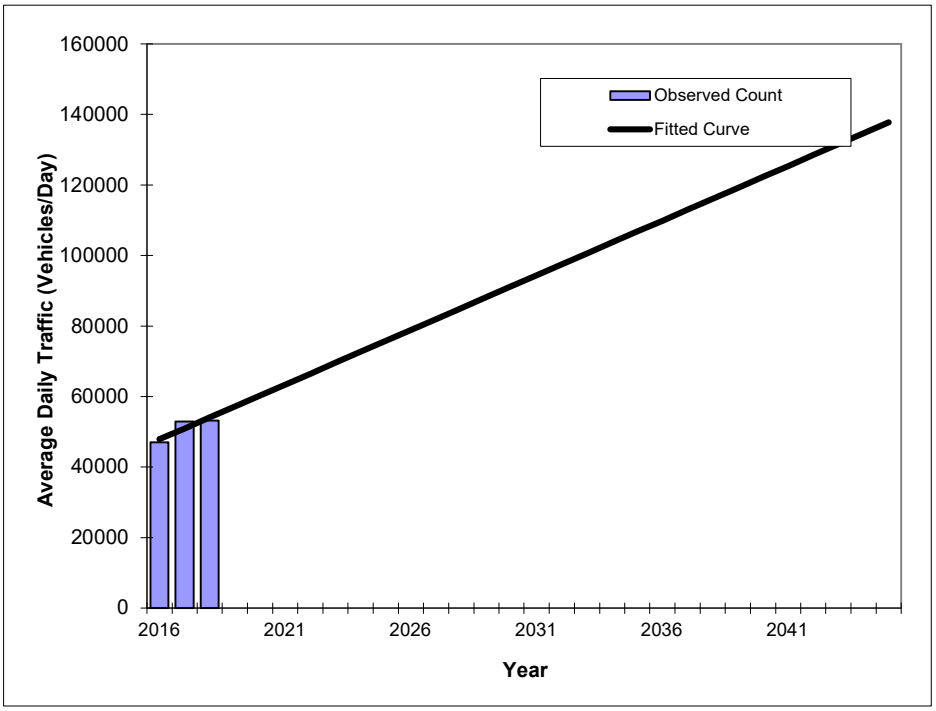
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Rouse Rd to Alafaya Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	261
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	47000	47900
2017	52900	51000
2018	53200	54100
2025 Opening Year Trend		
2025	N/A	75800
2035 Mid-Year Trend		
2035	N/A	106800
2045 Design Year Trend		
2045	N/A	137800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	3,100
Trend R-squared:	78.62%
Trend Annual Historic Growth Rate:	6.47%
Trend Growth Rate (2018 to Design Year):	5.73%
Printed:	1-Nov-21
Straight Line Growth Option	

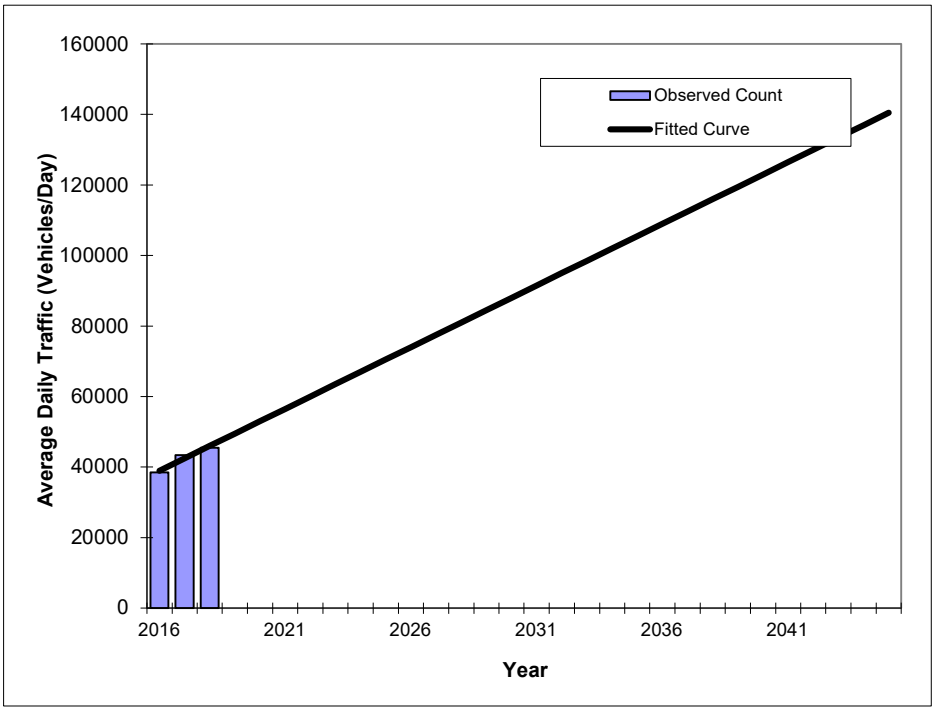
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Alafaya Tr to Woodbury Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	263
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	38500	39000
2017	43400	42500
2018	45500	46000
2025 Opening Year Trend		
2025	N/A	70500
2035 Mid-Year Trend		
2035	N/A	105500
2045 Design Year Trend		
2045	N/A	140500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	3,500
Trend R-squared:	94.94%
Trend Annual Historic Growth Rate:	8.97%
Trend Growth Rate (2018 to Design Year):	7.61%
Printed:	1-Nov-21
Straight Line Growth Option	

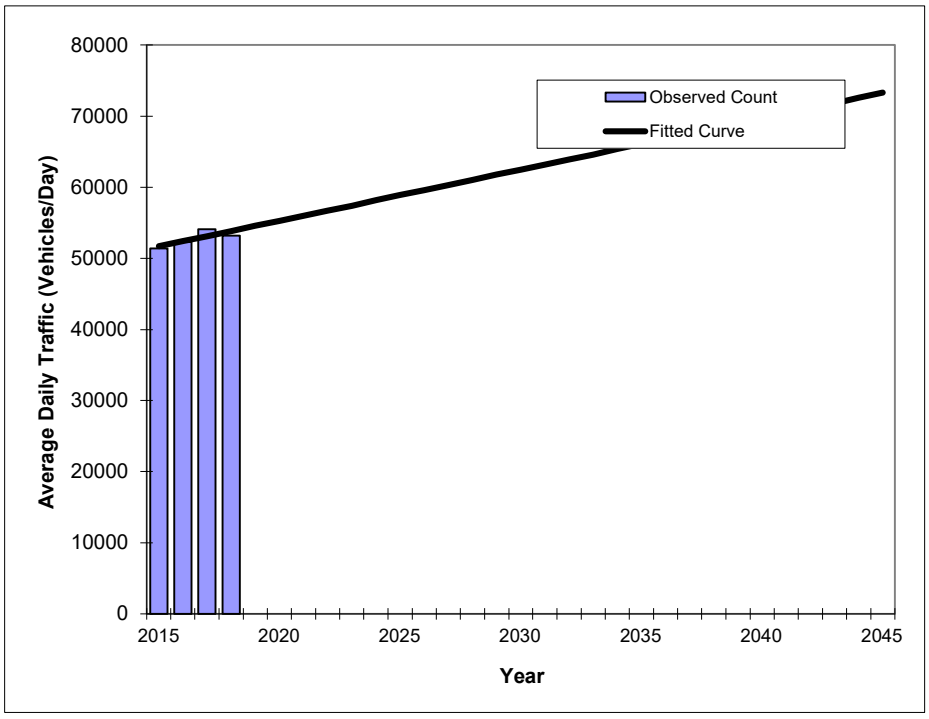
***Axle-Adjusted**

Traffic Trends - V03.a

ALAFAYA TRAIL -- South of SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	264
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	51400	51700
2016	52300	52400
2017	54100	53100
2018	53200	53800
2025 Opening Year Trend		
2025	N/A	58900
2035 Mid-Year Trend		
2035	N/A	66100
2045 Design Year Trend		
2045	N/A	73300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	720
Trend R-squared:	64.00%
Trend Annual Historic Growth Rate:	1.35%
Trend Growth Rate (2018 to Design Year):	1.34%
Printed:	1-Nov-21
Straight Line Growth Option	

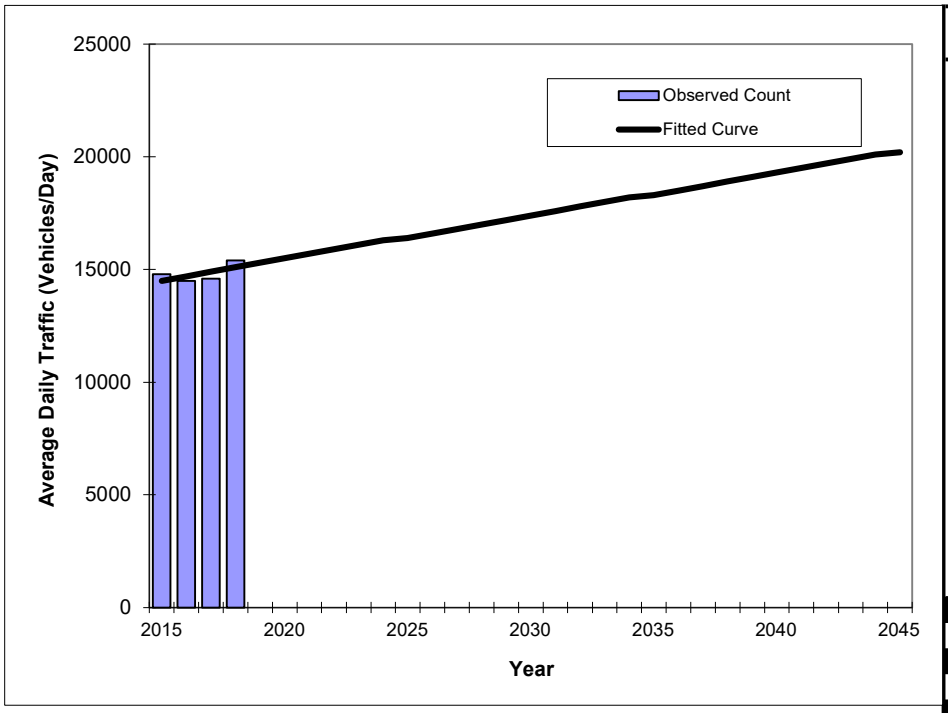
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE PICKETT RD -- SR 50 to Percival Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	297
Highway:	LAKE PICKETT RD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	14800	14500
2016	14500	14700
2017	14600	14900
2018	15400	15100
2025 Opening Year Trend		
2025	N/A	16400
2035 Mid-Year Trend		
2035	N/A	18300
2045 Design Year Trend		
2045	N/A	20200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	190
Trend R-squared:	37.03%
Trend Annual Historic Growth Rate:	1.38%
Trend Growth Rate (2018 to Design Year):	1.25%
Printed:	1-Nov-21
Straight Line Growth Option	

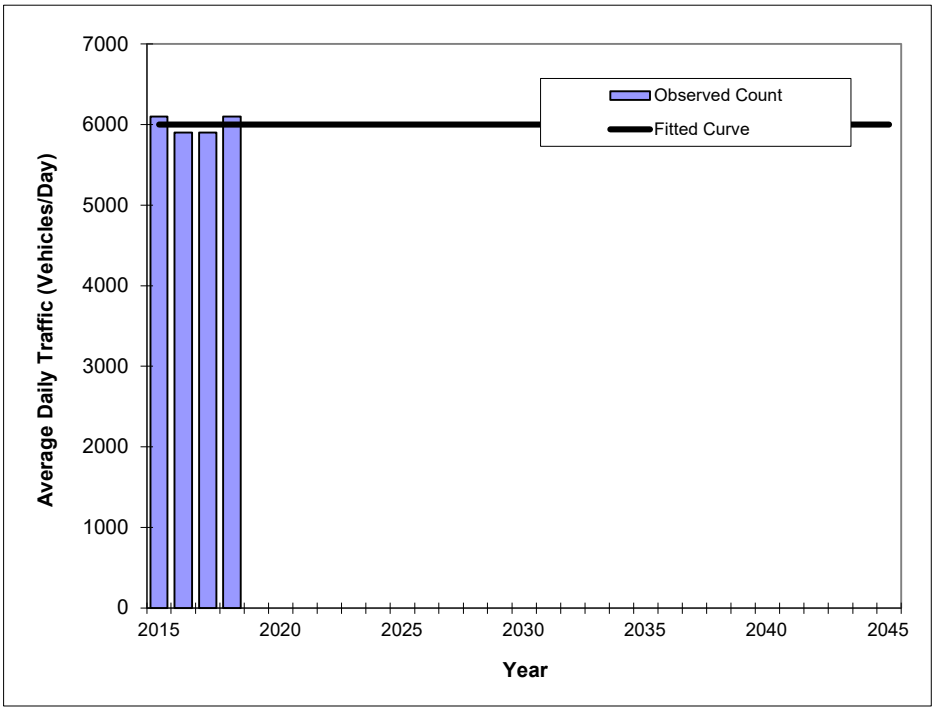
***Axle-Adjusted**

Traffic Trends - V03.a

Percival Rd -- Lake Pickett Rd to Sussex Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	298
Highway:	Percival Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	6100	6000
2016	5900	6000
2017	5900	6000
2018	6100	6000
2025 Opening Year Trend		
2025	N/A	6000
2035 Mid-Year Trend		
2035	N/A	6000
2045 Design Year Trend		
2045	N/A	6000
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	0
Trend R-squared:	0.00%
Trend Annual Historic Growth Rate:	0.00%
Trend Growth Rate (2018 to Design Year):	0.00%
Printed:	1-Nov-21
Straight Line Growth Option	

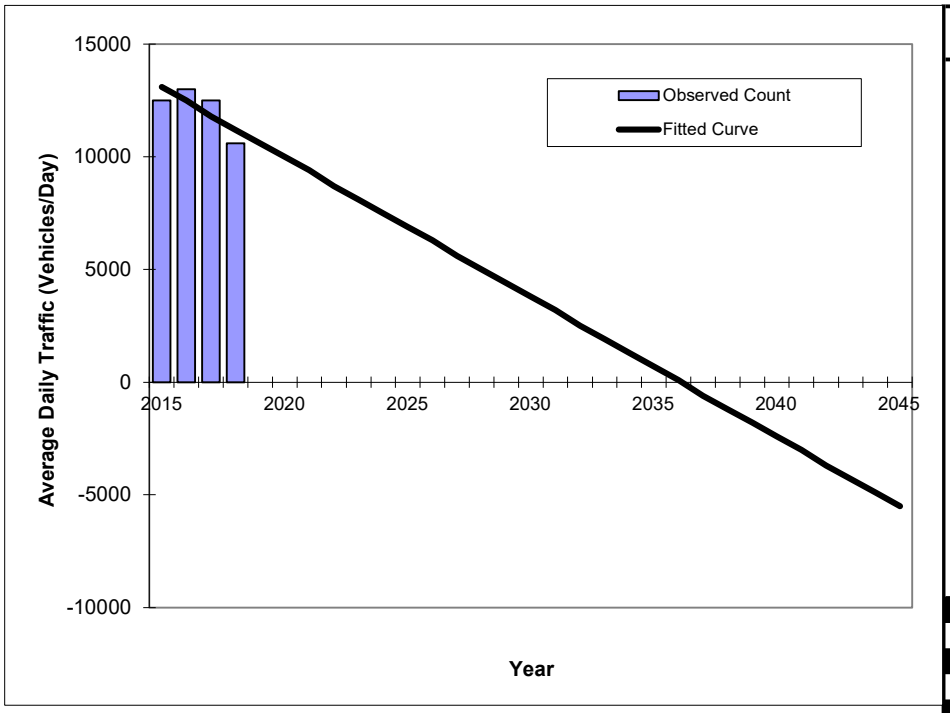
*Axle-Adjusted

Traffic Trends - V03.a

LAKE PICKETT RD -- N Tanner Rd to S Tanner Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	299
Highway:	LAKE PICKETT RD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12500	13100
2016	13000	12500
2017	12500	11800
2018	10600	11200
2025 Opening Year Trend		
2025	N/A	6900
2035 Mid-Year Trend		
2035	N/A	700
2045 Design Year Trend		
2045	N/A	-5500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-620
Trend R-squared:	57.03%
Trend Annual Historic Growth Rate:	-4.83%
Trend Growth Rate (2018 to Design Year):	-5.52%
Printed:	1-Nov-21
Straight Line Growth Option	

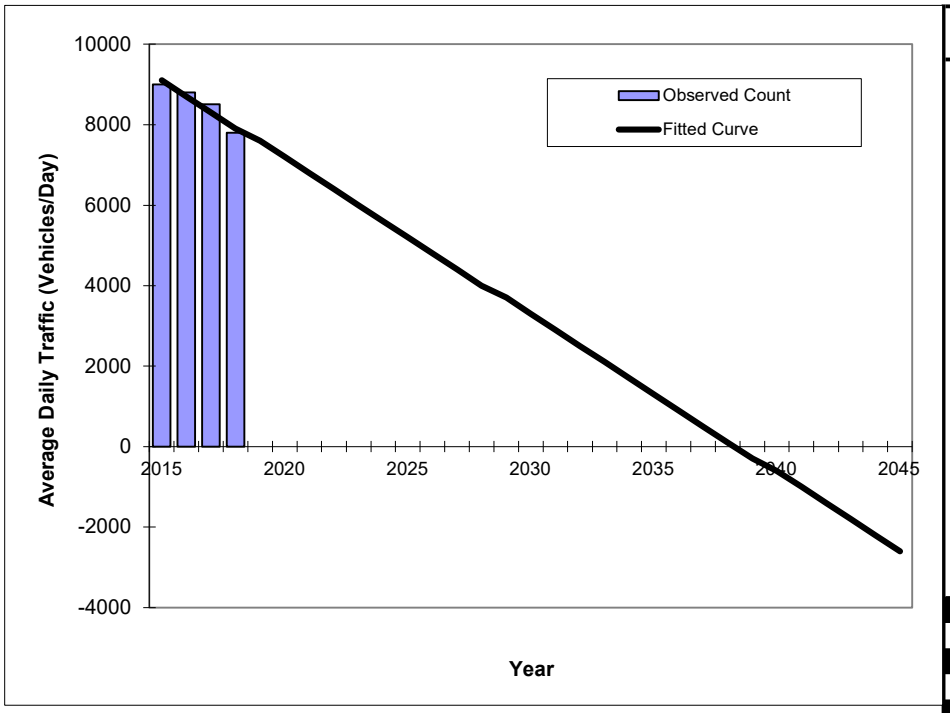
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE PICKETT RD -- S Tanner Rd to CR 419/Chuluota Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	303
Highway:	LAKE PICKETT RD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	9000	9100
2016	8800	8700
2017	8500	8300
2018	7800	7900
2025 Opening Year Trend		
2025	N/A	5200
2035 Mid-Year Trend		
2035	N/A	1300
2045 Design Year Trend		
2045	N/A	-2600
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

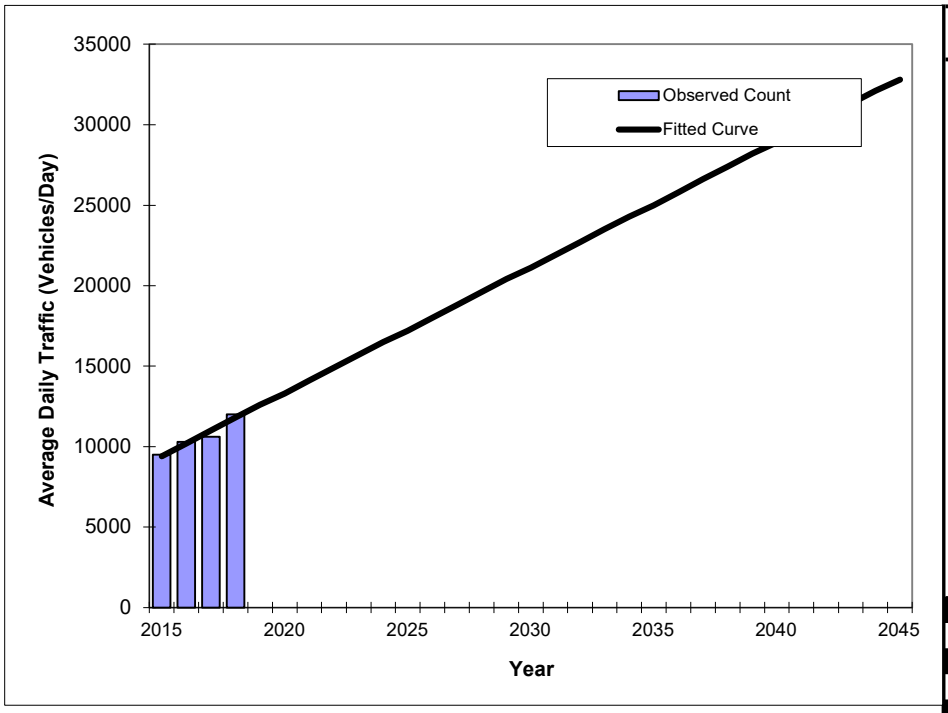
**** Annual Trend Increase:**	-390
Trend R-squared:	91.90%
Trend Annual Historic Growth Rate:	-4.40%
Trend Growth Rate (2018 to Design Year):	-4.92%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

CR 419/Chuluota Rd -- Lake Pickett Rd to Old Lake Pickett Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	304
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	9500	9400
2016	10300	10200
2017	10600	11000
2018	12000	11800
2025 Opening Year Trend		
2025	N/A	17200
2035 Mid-Year Trend		
2035	N/A	25000
2045 Design Year Trend		
2045	N/A	32800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	780
Trend R-squared:	93.31%
Trend Annual Historic Growth Rate:	8.51%
Trend Growth Rate (2018 to Design Year):	6.59%
Printed:	1-Nov-21
Straight Line Growth Option	

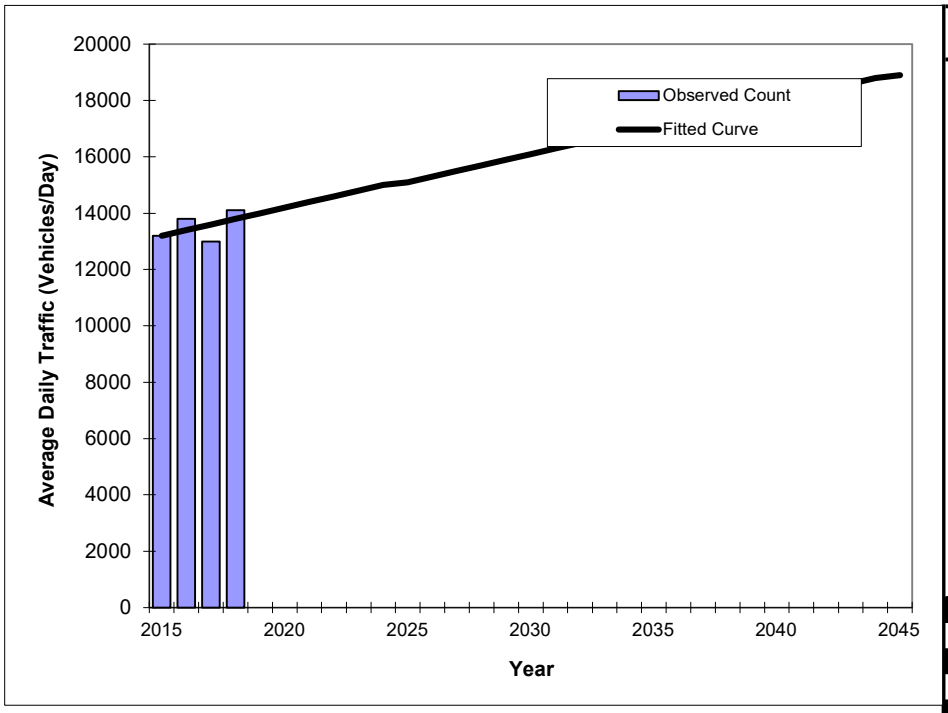
***Axle-Adjusted**

Traffic Trends - V03.a

CR 419/Chuluota Rd -- Cypress Lake Glen Blvd to Lake Pickett Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	306
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	13200	13200
2016	13800	13400
2017	13000	13600
2018	14100	13800
2025 Opening Year Trend		
2025	N/A	15100
2035 Mid-Year Trend		
2035	N/A	17000
2045 Design Year Trend		
2045	N/A	18900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	190
Trend R-squared:	22.92%
Trend Annual Historic Growth Rate:	1.52%
Trend Growth Rate (2018 to Design Year):	1.37%
Printed:	1-Nov-21
Straight Line Growth Option	

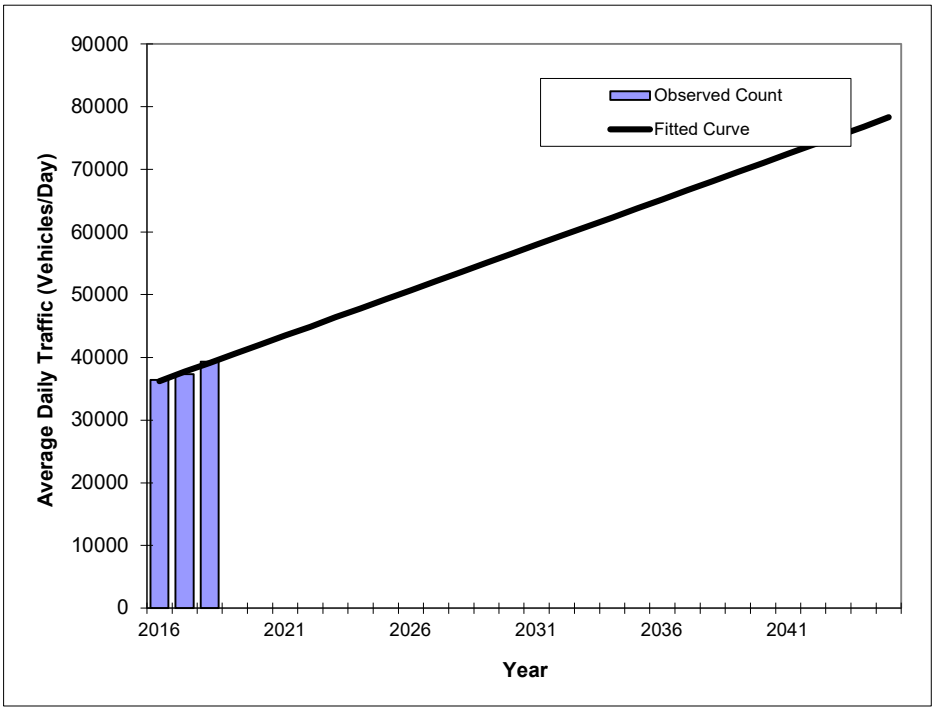
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Avalon Park Blvd to S Tanner Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	313.5
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	36400	36200
2017	37300	37700
2018	39300	39100
2025 Opening Year Trend		
2025	N/A	49300
2035 Mid-Year Trend		
2035	N/A	63800
2045 Design Year Trend		
2045	N/A	78300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,450
Trend R-squared:	95.42%
Trend Annual Historic Growth Rate:	4.01%
Trend Growth Rate (2018 to Design Year):	3.71%
Printed:	1-Nov-21
Straight Line Growth Option	

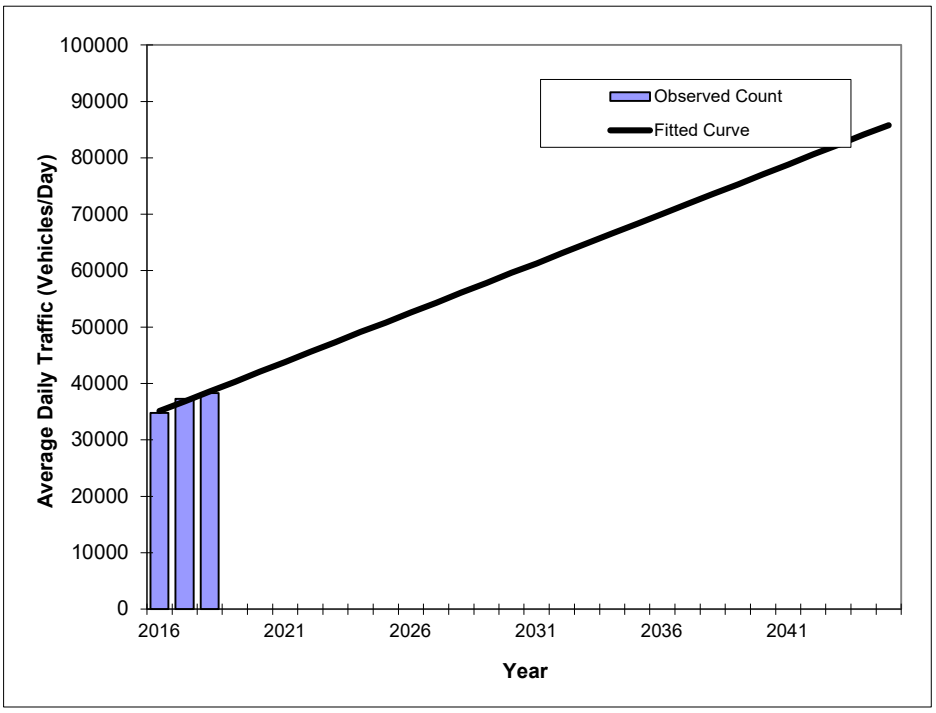
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- S Tanner Rd to CR 419/Chuluota Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	313
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	34800	35100
2017	37300	36800
2018	38300	38600
2025 Opening Year Trend		
2025	N/A	50800
2035 Mid-Year Trend		
2035	N/A	68300
2045 Design Year Trend		
2045	N/A	85800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,750
Trend R-squared:	94.23%
Trend Annual Historic Growth Rate:	4.99%
Trend Growth Rate (2018 to Design Year):	4.53%
Printed:	1-Nov-21
Straight Line Growth Option	

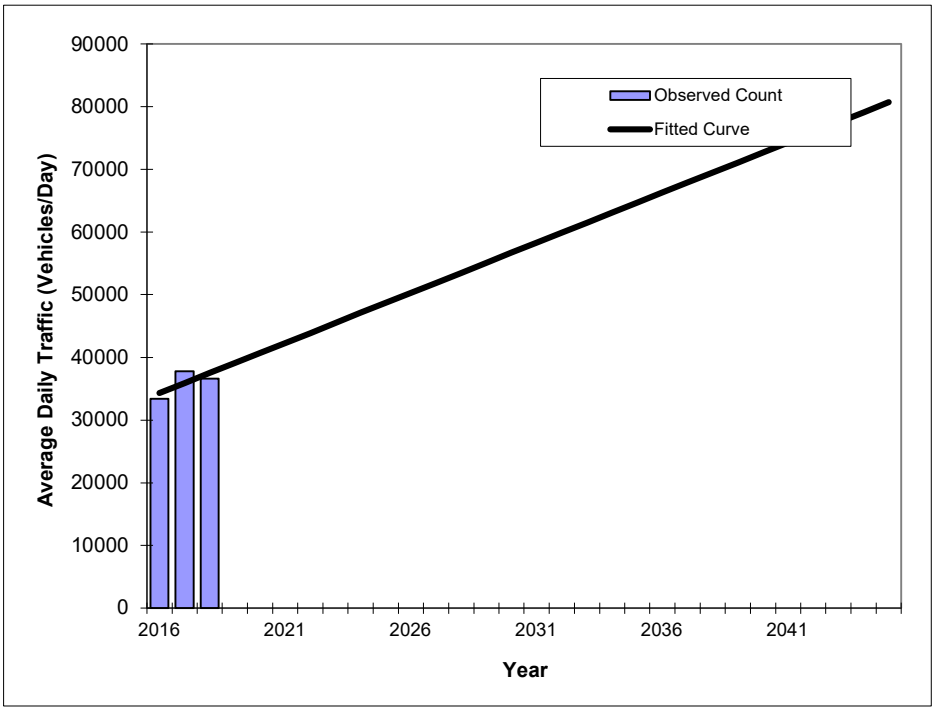
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- East of CR 419/Chuluota Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	314
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	33400	34300
2017	37800	35900
2018	36600	37500
2025 Opening Year Trend		
2025	N/A	48700
2035 Mid-Year Trend		
2035	N/A	64700
2045 Design Year Trend		
2045	N/A	80700
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,600
Trend R-squared:	49.48%
Trend Annual Historic Growth Rate:	4.66%
Trend Growth Rate (2018 to Design Year):	4.27%
Printed:	1-Nov-21
Straight Line Growth Option	

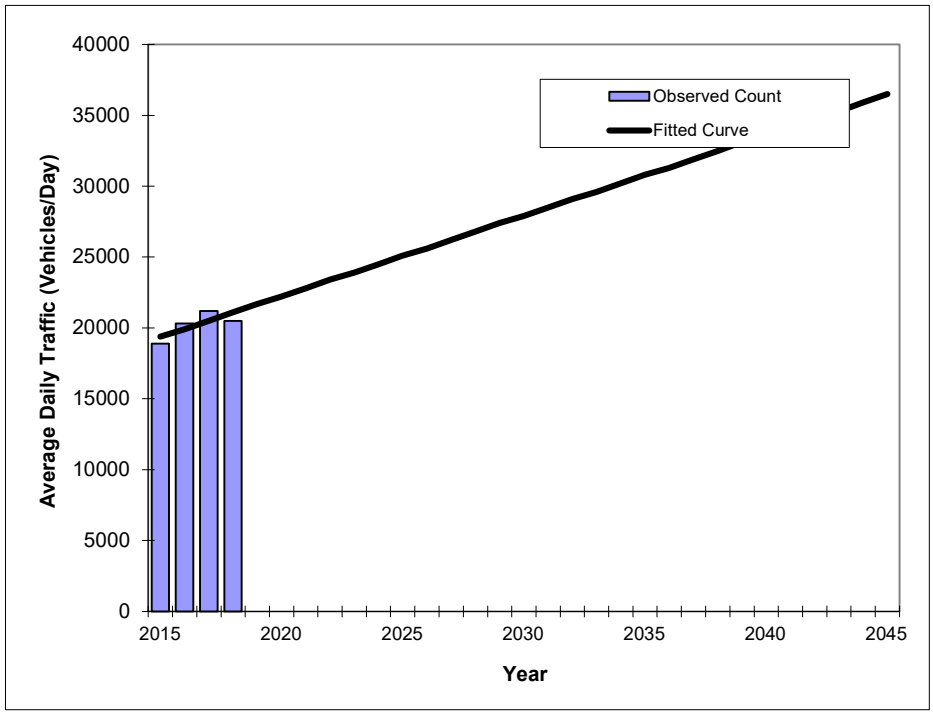
***Axle-Adjusted**

Traffic Trends - V03.a

ROUSE ROAD -- South of SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	427
Highway:	ROUSE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	18900	19400
2016	20300	19900
2017	21200	20500
2018	20500	21100
2025 Opening Year Trend		
2025	N/A	25100
2035 Mid-Year Trend		
2035	N/A	30800
2045 Design Year Trend		
2045	N/A	36500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	570
Trend R-squared:	58.28%
Trend Annual Historic Growth Rate:	2.92%
Trend Growth Rate (2018 to Design Year):	2.70%
Printed:	1-Nov-21
Straight Line Growth Option	

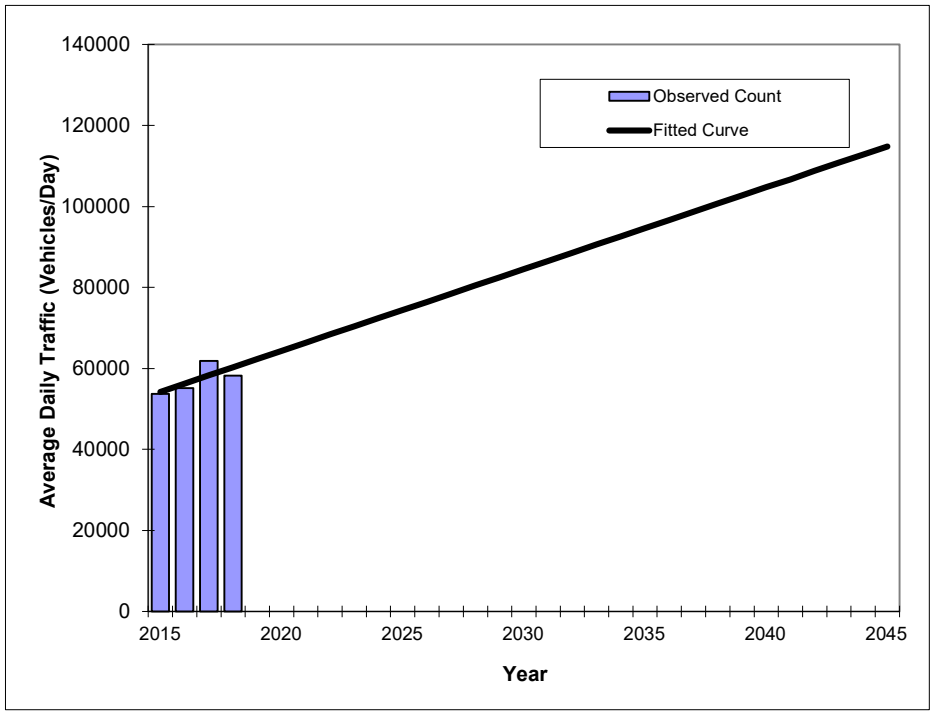
***Axle-Adjusted**

Traffic Trends - V03.a

ALAFAYA TRAIL -- SR 50 to Challenger Pkwy

FIN#	1234
Location	1

County:	Orange (75)
Station #:	488
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	53700	54200
2016	55200	56200
2017	61900	58300
2018	58200	60300
2025 Opening Year Trend		
2025	N/A	74400
2035 Mid-Year Trend		
2035	N/A	94600
2045 Design Year Trend		
2045	N/A	114800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	2,020
Trend R-squared:	51.87%
Trend Annual Historic Growth Rate:	3.75%
Trend Growth Rate (2018 to Design Year):	3.35%
Printed:	1-Nov-21
Straight Line Growth Option	

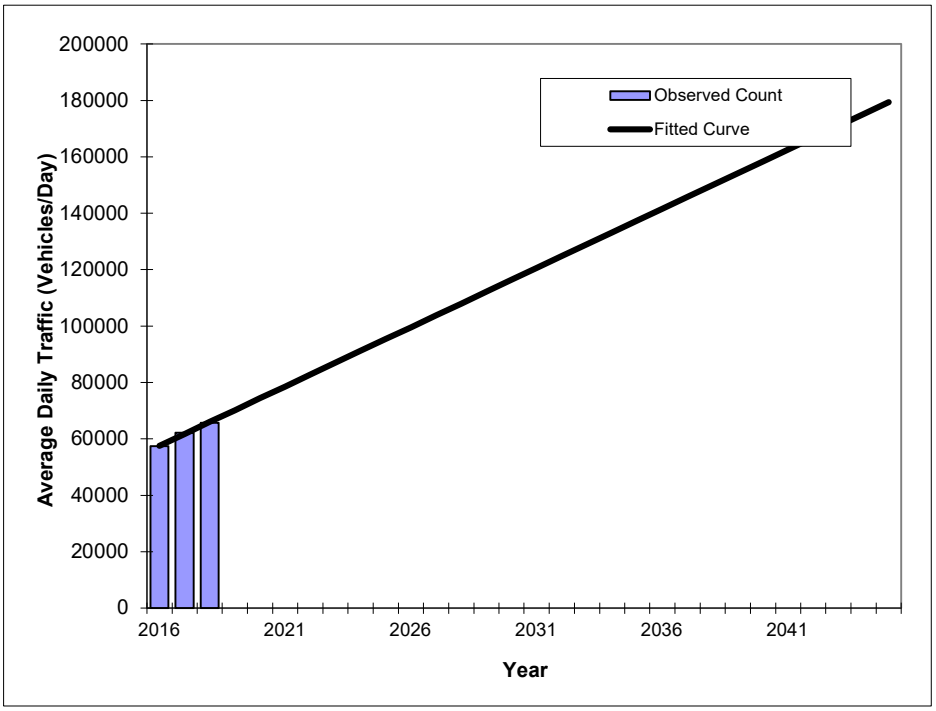
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- SR 408 Ramps to Lake Pickett Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	610
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	57400	57600
2017	62200	61800
2018	65800	66000
2025 Opening Year Trend		
2025	N/A	95400
2035 Mid-Year Trend		
2035	N/A	137400
2045 Design Year Trend		
2045	N/A	179400
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	4,200
Trend R-squared:	99.32%
Trend Annual Historic Growth Rate:	7.29%
Trend Growth Rate (2018 to Design Year):	6.36%
Printed:	1-Nov-21
Straight Line Growth Option	

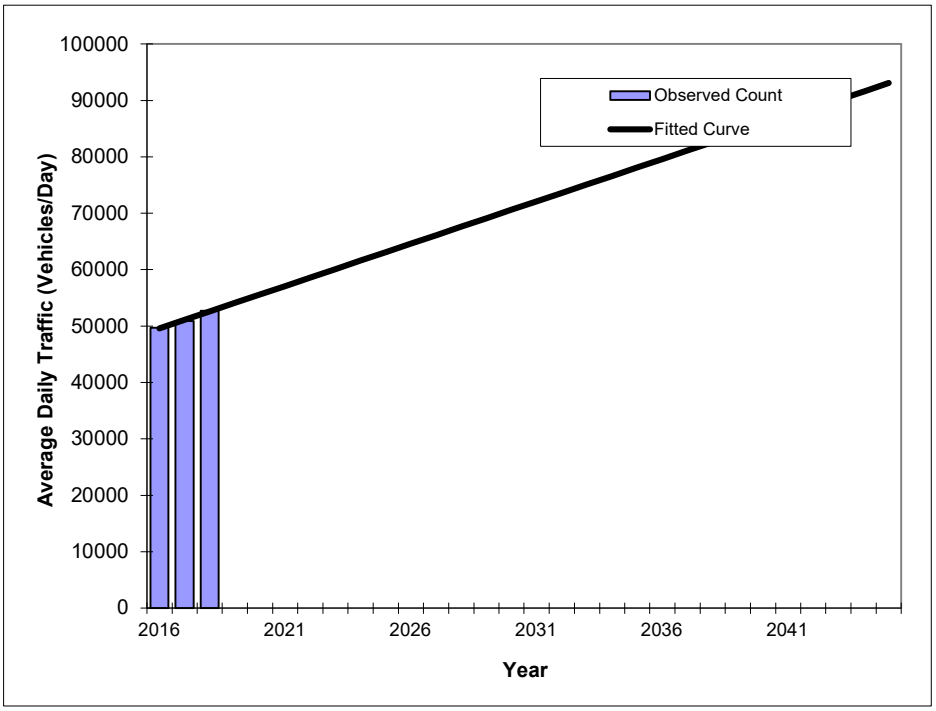
*Axle-Adjusted

Traffic Trends - V03.a

SR 50 -- Lake Pickett Rd to Pebble Beach Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	611
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	49700	49600
2017	50900	51100
2018	52700	52600
2025 Opening Year Trend		
2025	N/A	63100
2035 Mid-Year Trend		
2035	N/A	78100
2045 Design Year Trend		
2045	N/A	93100
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	1,500
Trend R-squared:	98.68%
Trend Annual Historic Growth Rate:	3.02%
Trend Growth Rate (2018 to Design Year):	2.85%
Printed:	1-Nov-21
Straight Line Growth Option	

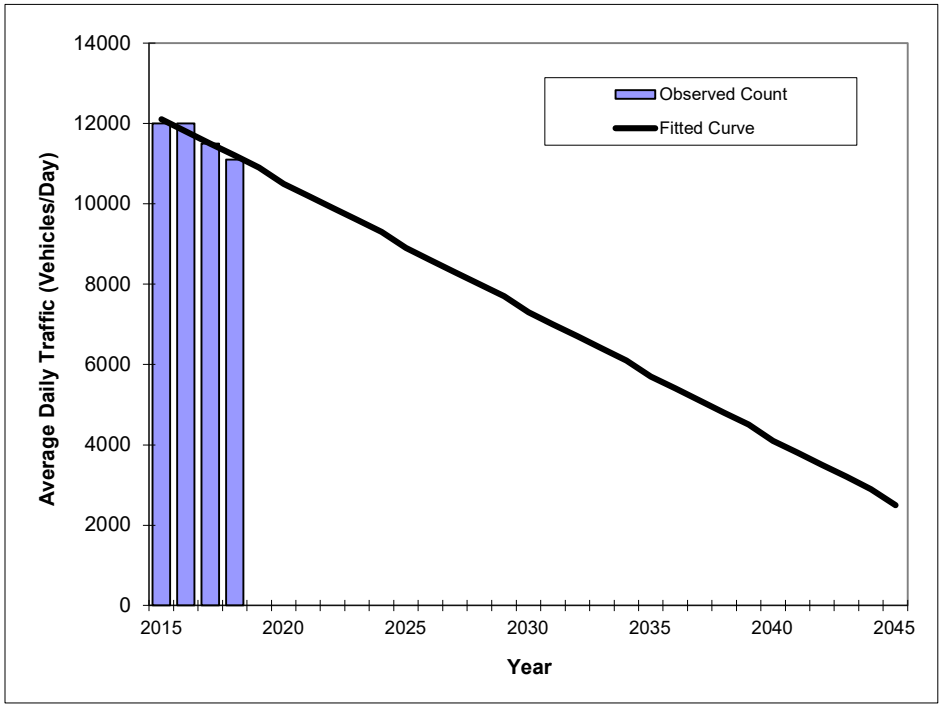
*Axle-Adjusted

Traffic Trends - V03.a

North Tanner Rd -- Stonebriar Way to Lake Price Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	2010
Highway:	North Tanner Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12000	12100
2016	12000	11800
2017	11500	11500
2018	11100	11200
2025 Opening Year Trend		
2025	N/A	8900
2035 Mid-Year Trend		
2035	N/A	5700
2045 Design Year Trend		
2045	N/A	2500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-320
Trend R-squared:	89.82%
Trend Annual Historic Growth Rate:	-2.48%
Trend Growth Rate (2018 to Design Year):	-2.88%
Printed:	1-Nov-21
Straight Line Growth Option	

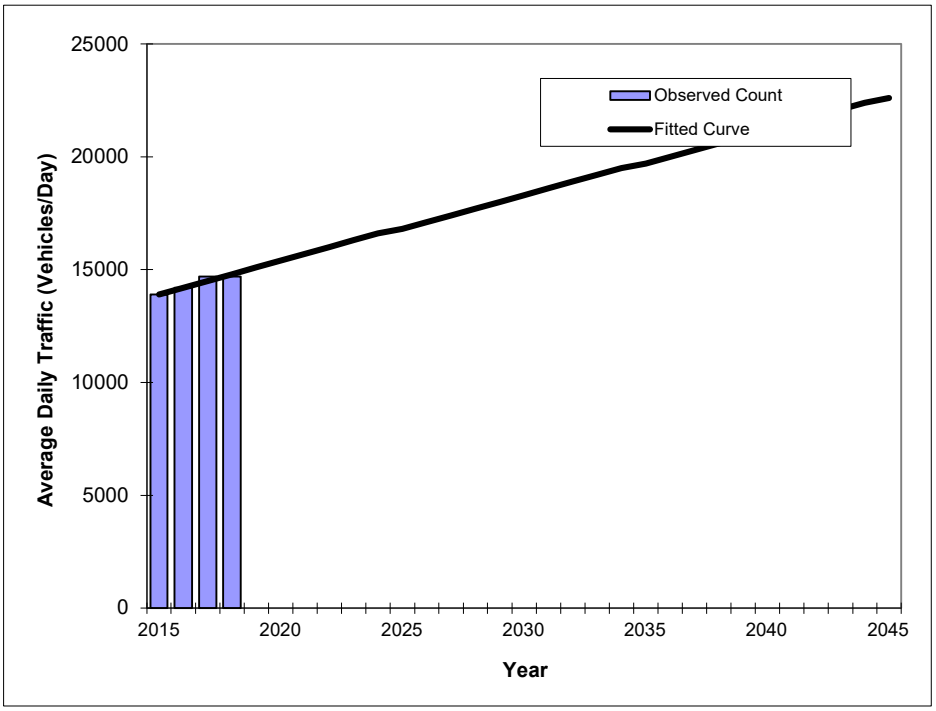
***Axle-Adjusted**

Traffic Trends - V03.a

Woodbury Rd -- North of SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	2012
Highway:	Woodbury Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	13900	13900
2016	14200	14200
2017	14700	14500
2018	14700	14800
2025 Opening Year Trend		
2025	N/A	16800
2035 Mid-Year Trend		
2035	N/A	19700
2045 Design Year Trend		
2045	N/A	22600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	290
Trend R-squared:	89.95%
Trend Annual Historic Growth Rate:	2.16%
Trend Growth Rate (2018 to Design Year):	1.95%
Printed:	1-Nov-21
Straight Line Growth Option	

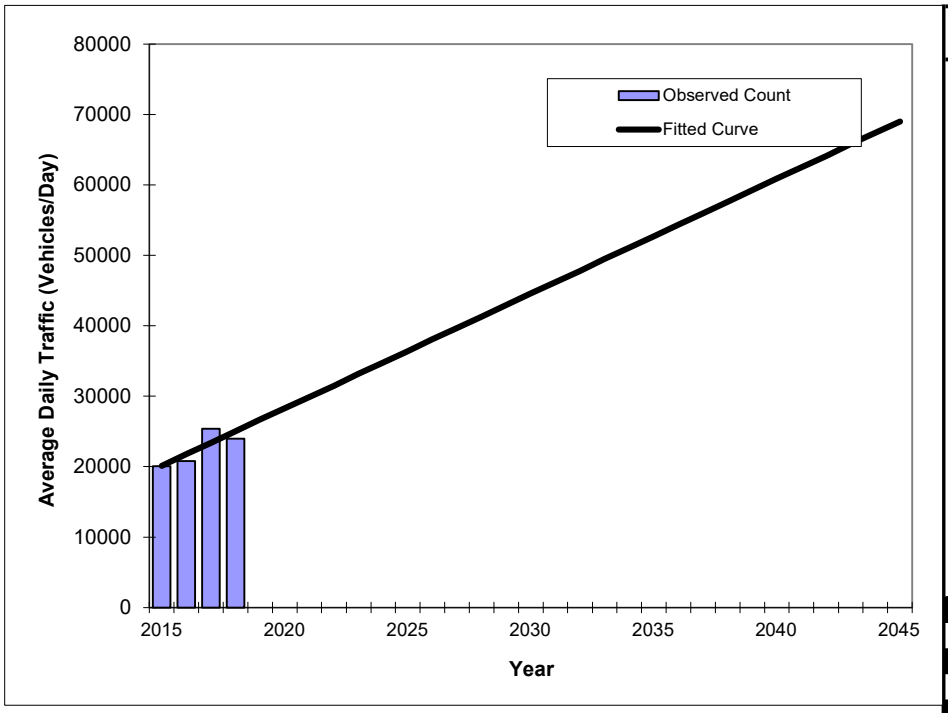
***Axle-Adjusted**

Traffic Trends - V03.a

Avalon Park Blvd -- 0.49 Miles N of Waterford Chase Pkwy

FIN#	1234
Location	1

County:	Orange (75)
Station #:	7142
Highway:	Avalon Park Blvd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	20100	20100
2016	20800	21800
2017	25400	23400
2018	24000	25000
2025 Opening Year Trend		
2025	N/A	36400
2035 Mid-Year Trend		
2035	N/A	52700
2045 Design Year Trend		
2045	N/A	69000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,630
Trend R-squared:	68.88%
Trend Annual Historic Growth Rate:	8.13%
Trend Growth Rate (2018 to Design Year):	6.52%
Printed:	1-Nov-21
Straight Line Growth Option	

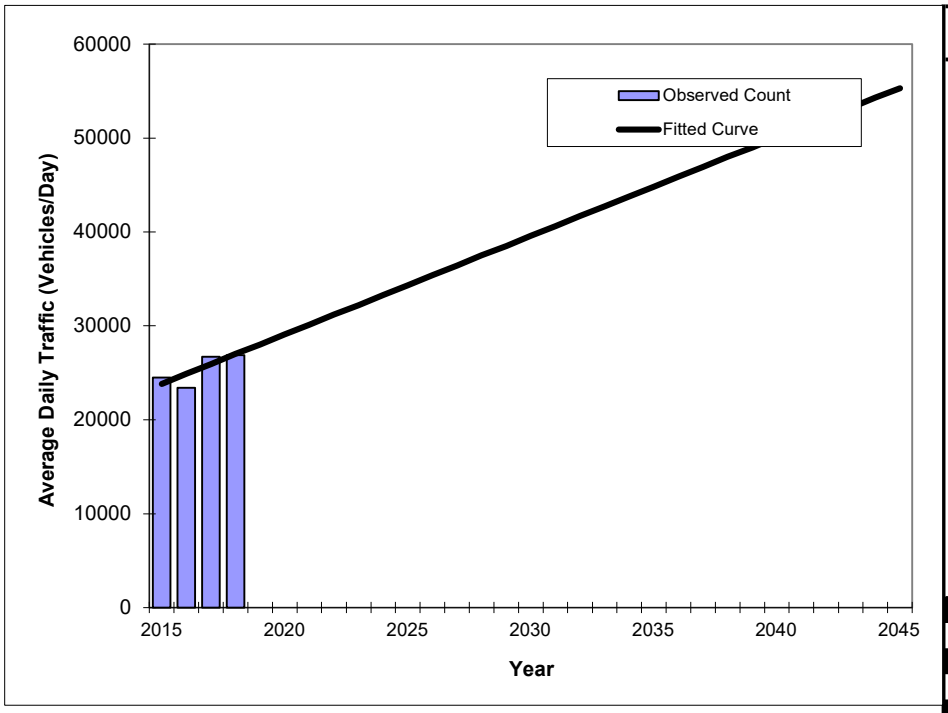
***Axle-Adjusted**

Traffic Trends - V03.a

Challenger Pkwy -- Ingenuity Dr to Woodbury Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	7173
Highway:	Challenger Pkwy



Year	Traffic (ADT/AADT) Count*	Trend**
2015	24500	23800
2016	23400	24900
2017	26700	25900
2018	26900	27000
2025 Opening Year Trend		
2025	N/A	34300
2035 Mid-Year Trend		
2035	N/A	44800
2045 Design Year Trend		
2045	N/A	55300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,050
Trend R-squared:	63.02%
Trend Annual Historic Growth Rate:	4.48%
Trend Growth Rate (2018 to Design Year):	3.88%
Printed:	1-Nov-21
Straight Line Growth Option	

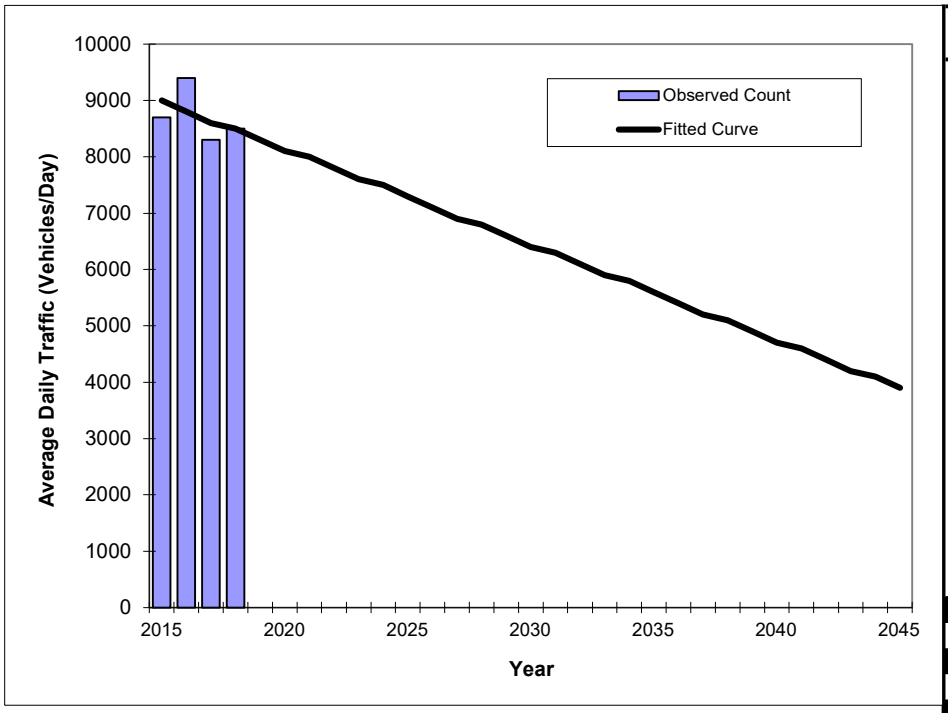
***Axle-Adjusted**

Traffic Trends - V03.a

Challenger Pkwy -- Alafaya Tr to Ingenuity Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	7142
Highway:	Challenger Pkwy



Year	Traffic (ADT/AADT) Count*	Trend**
2015	8700	9000
2016	9400	8800
2017	8300	8600
2018	8500	8500
2025 Opening Year Trend		
2025	N/A	7300
2035 Mid-Year Trend		
2035	N/A	5600
2045 Design Year Trend		
2045	N/A	3900
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

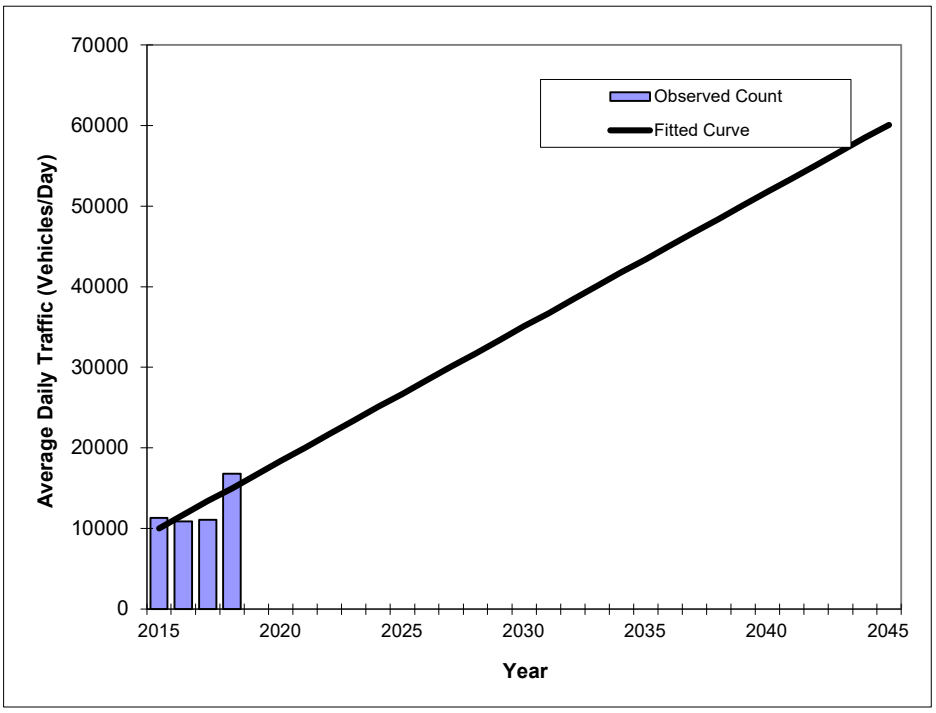
**** Annual Trend Increase:**	-170
Trend R-squared:	21.02%
Trend Annual Historic Growth Rate:	-1.85%
Trend Growth Rate (2018 to Design Year):	-2.00%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

McCulloch Rd -- Rouse Rd to Alafaya Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8040
Highway:	McCulloch Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	11300	10000
2016	10900	11700
2017	11100	13400
2018	16800	15000
2025 Opening Year Trend		
2025	N/A	26700
2035 Mid-Year Trend		
2035	N/A	43400
2045 Design Year Trend		
2045	N/A	60100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,670
Trend R-squared:	57.04%
Trend Annual Historic Growth Rate:	16.67%
Trend Growth Rate (2018 to Design Year):	11.14%
Printed:	1-Nov-21
Straight Line Growth Option	

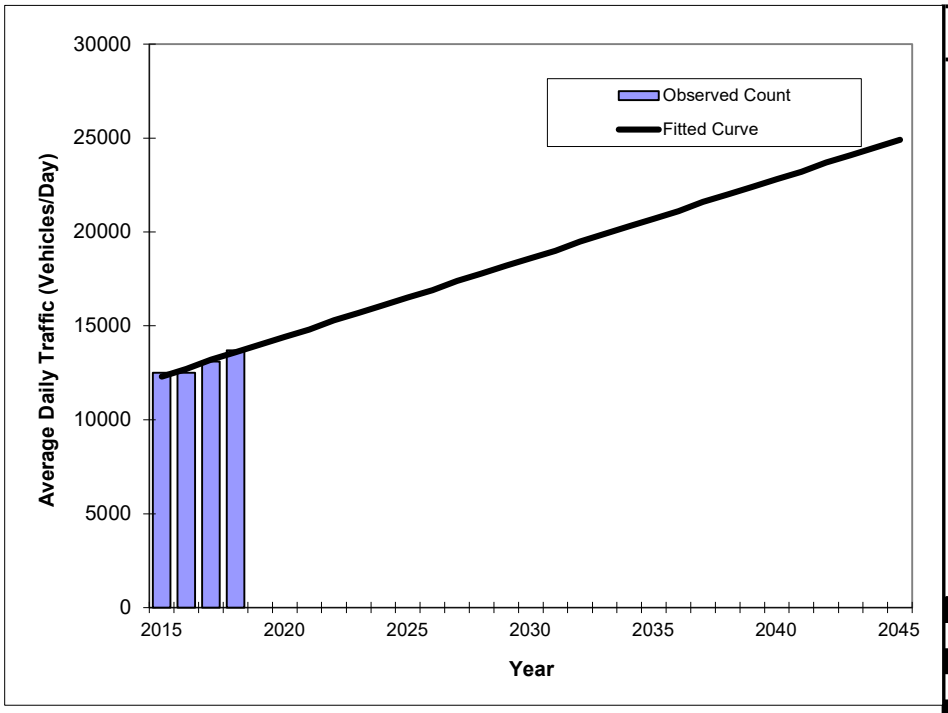
***Axle-Adjusted**

Traffic Trends - V03.a

Corporate Blvd -- West of Alafaya Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8041
Highway:	Corporate Blvd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12500	12300
2016	12500	12700
2017	13100	13200
2018	13700	13600
2025 Opening Year Trend		
2025	N/A	16500
2035 Mid-Year Trend		
2035	N/A	20700
2045 Design Year Trend		
2045	N/A	24900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	420
Trend R-squared:	89.09%
Trend Annual Historic Growth Rate:	3.52%
Trend Growth Rate (2018 to Design Year):	3.08%
Printed:	1-Nov-21
Straight Line Growth Option	

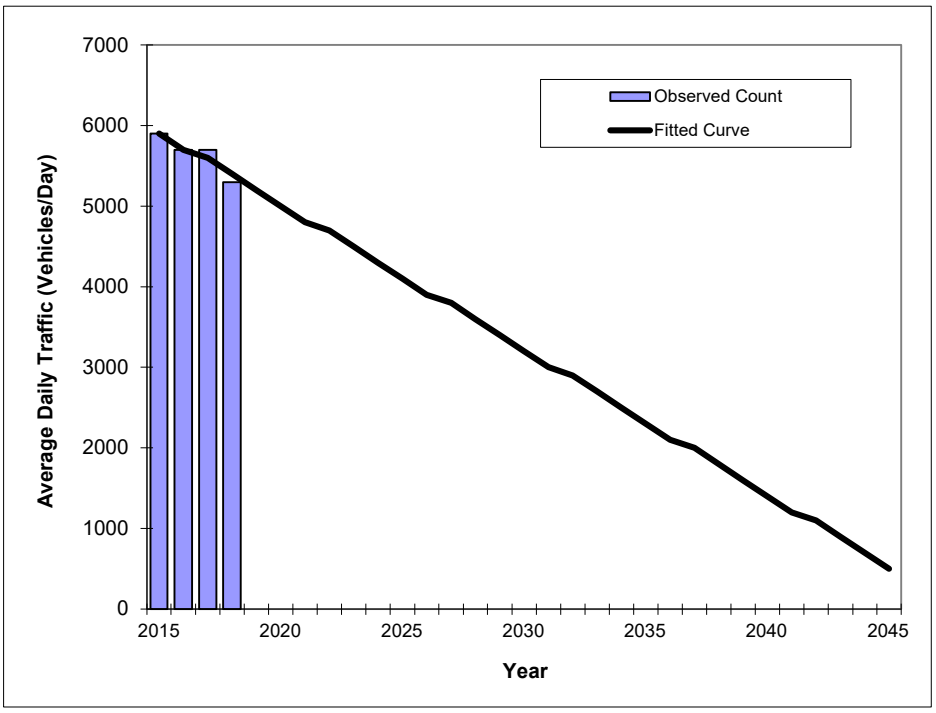
***Axle-Adjusted**

Traffic Trends - V03.a

Percival Rd -- Sussex Dr to N Tanner Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8042
Highway:	Percival Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	5900	5900
2016	5700	5700
2017	5700	5600
2018	5300	5400
2025 Opening Year Trend		
2025	N/A	4100
2035 Mid-Year Trend		
2035	N/A	2300
2045 Design Year Trend		
2045	N/A	500
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

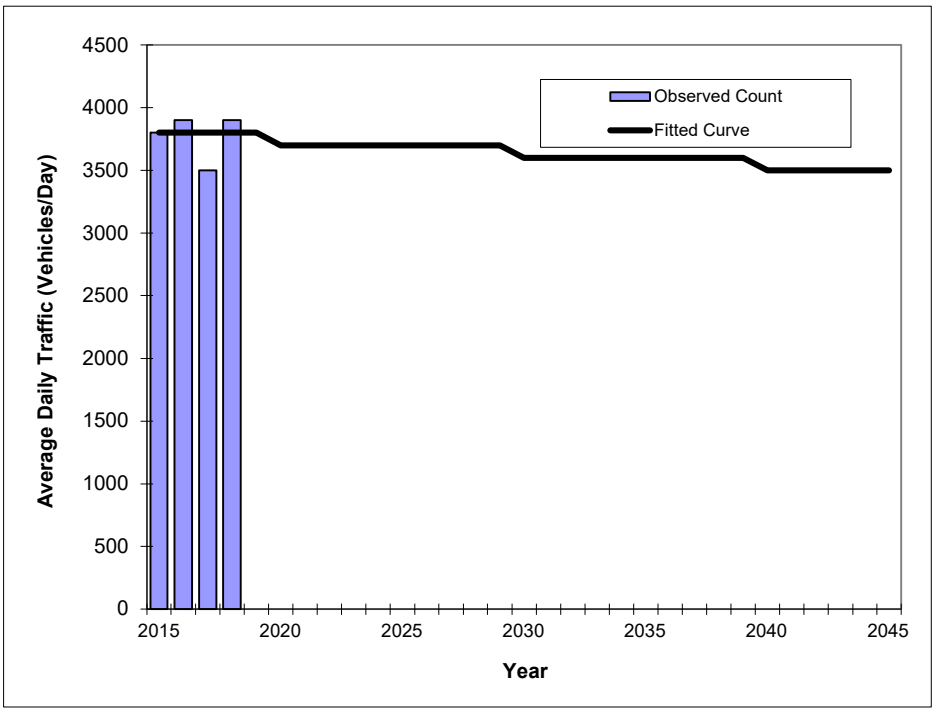
** Annual Trend Increase:	-180
Trend R-squared:	85.26%
Trend Annual Historic Growth Rate:	-2.82%
Trend Growth Rate (2018 to Design Year):	-3.36%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

South Tanner Rd -- North of SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8043
Highway:	South Tanner Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	3800	3800
2016	3900	3800
2017	3500	3800
2018	3900	3800
2025 Opening Year Trend		
2025	N/A	3700
2035 Mid-Year Trend		
2035	N/A	3600
2045 Design Year Trend		
2045	N/A	3500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-10
Trend R-squared:	0.47%
Trend Annual Historic Growth Rate:	0.00%
Trend Growth Rate (2018 to Design Year):	-0.29%
Printed:	1-Nov-21
Straight Line Growth Option	

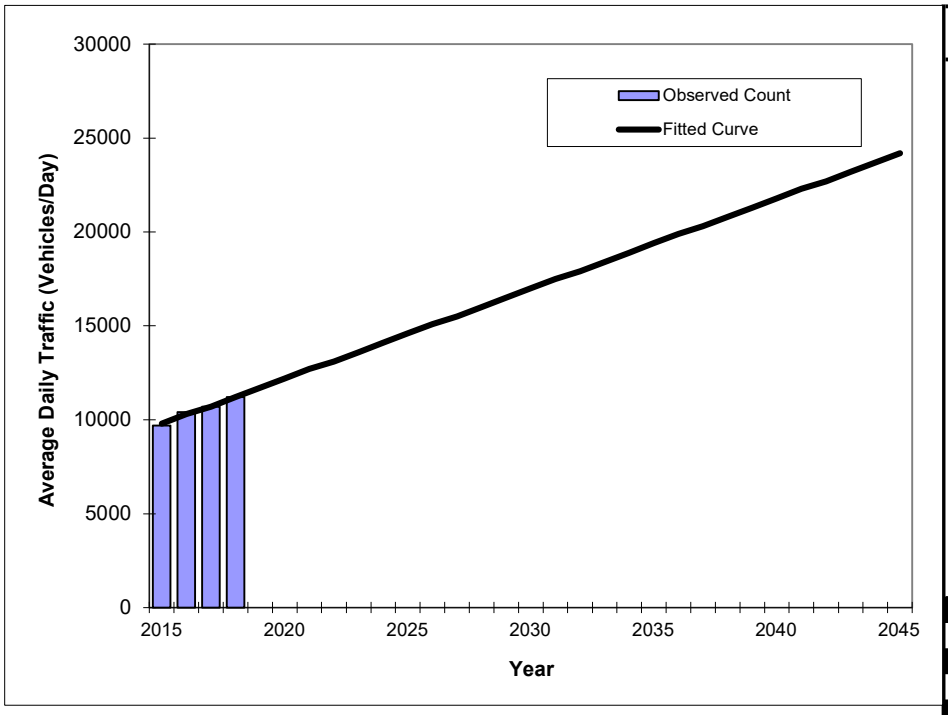
***Axle-Adjusted**

Traffic Trends - V03.a

CR 419/Chuluota Rd -- Old Lake Pickett Rd to Seminole County Line

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8044
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	9700	9800
2016	10400	10300
2017	10700	10700
2018	11200	11200
2025 Opening Year Trend		
2025	N/A	14600
2035 Mid-Year Trend		
2035	N/A	19400
2045 Design Year Trend		
2045	N/A	24200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	480
Trend R-squared:	97.63%
Trend Annual Historic Growth Rate:	4.76%
Trend Growth Rate (2018 to Design Year):	4.30%
Printed:	1-Nov-21
Straight Line Growth Option	

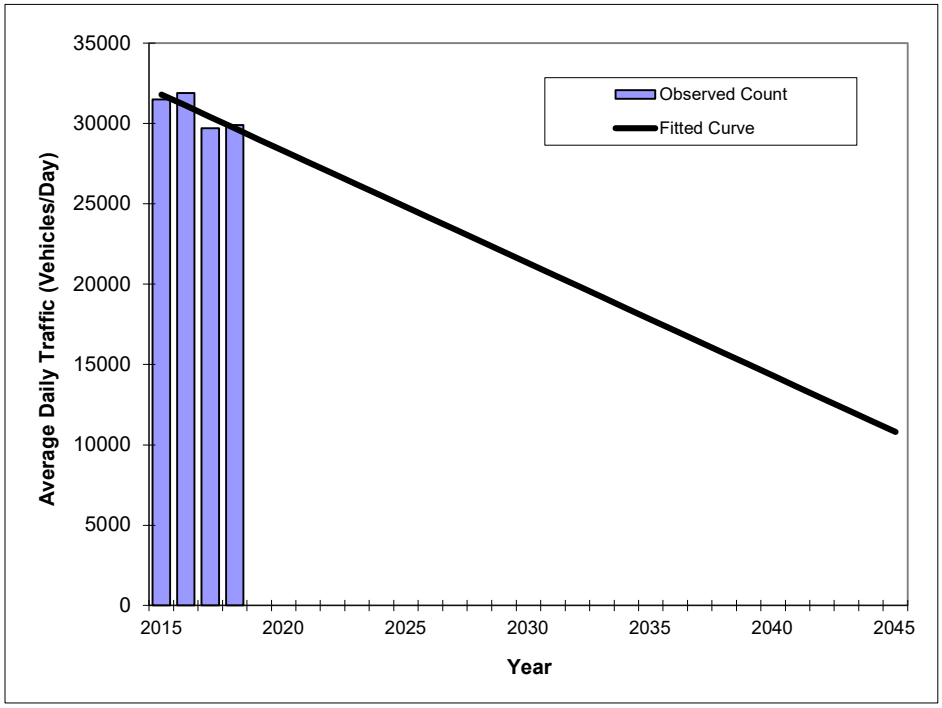
***Axle-Adjusted**

Traffic Trends - V03.a

McCulloch Rd -- Alafaya Tr to Lockwood Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8050
Highway:	McCulloch Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	31500	31800
2016	31900	31100
2017	29700	30400
2018	29900	29700
2025 Opening Year Trend		
2025	N/A	24800
2035 Mid-Year Trend		
2035	N/A	17800
2045 Design Year Trend		
2045	N/A	10800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-700
Trend R-squared:	66.04%
Trend Annual Historic Growth Rate:	-2.20%
Trend Growth Rate (2018 to Design Year):	-2.36%
Printed:	1-Nov-21

Straight Line Growth Option

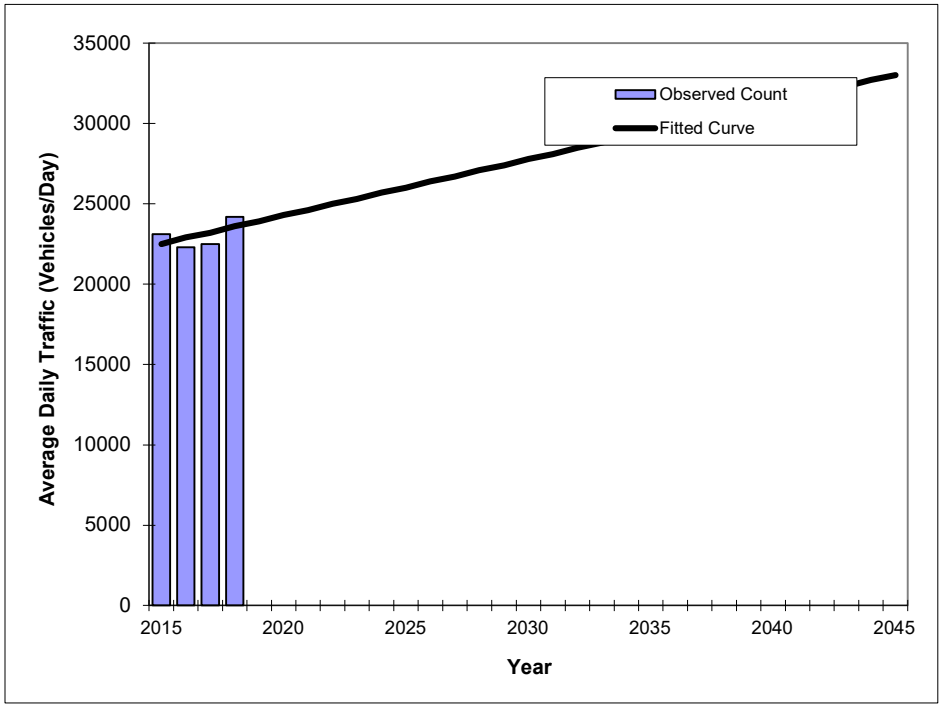
***Axle-Adjusted**

Traffic Trends - V03.a

McCulloch Rd -- Lockwood Blvd to Worchester Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8060
Highway:	McCulloch Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	23100	22500
2016	22300	22900
2017	22500	23200
2018	24200	23600
2025 Opening Year Trend		
2025	N/A	26000
2035 Mid-Year Trend		
2035	N/A	29500
2045 Design Year Trend		
2045	N/A	33000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	350
Trend R-squared:	28.00%
Trend Annual Historic Growth Rate:	1.63%
Trend Growth Rate (2018 to Design Year):	1.48%
Printed:	1-Nov-21
Straight Line Growth Option	

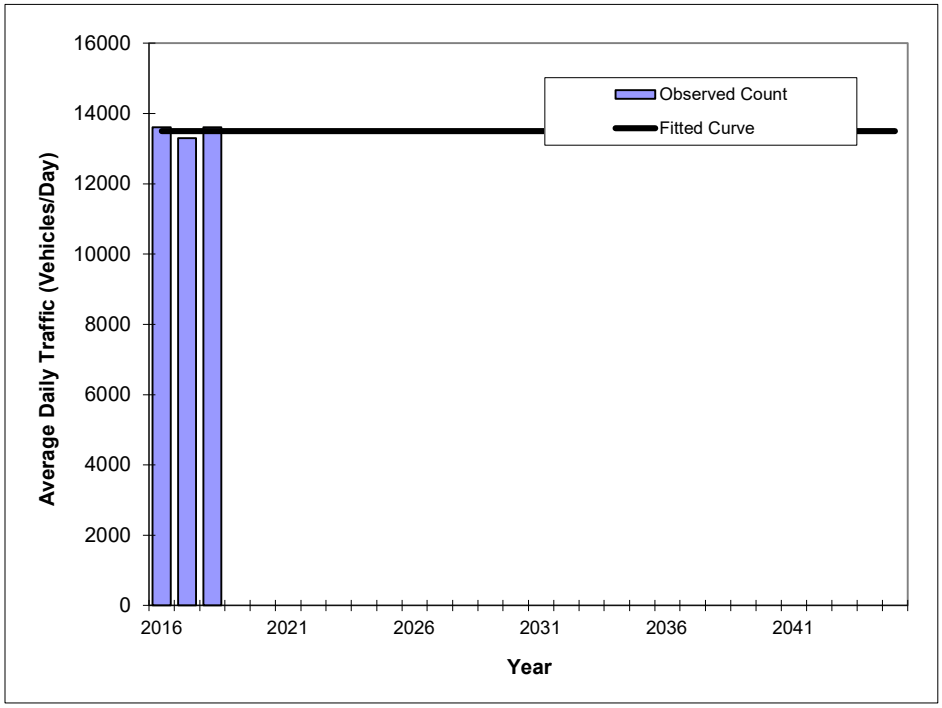
***Axle-Adjusted**

Traffic Trends - V03.a

CR 419/Chuluota Rd -- SR 50 to Cypress Lake Glen Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8142
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2016	13600	13500
2017	13300	13500
2018	13600	13500
2025 Opening Year Trend		
2025	N/A	13500
2035 Mid-Year Trend		
2035	N/A	13500
2045 Design Year Trend		
2045	N/A	13500
TRANPLAN Forecasts/Trends		

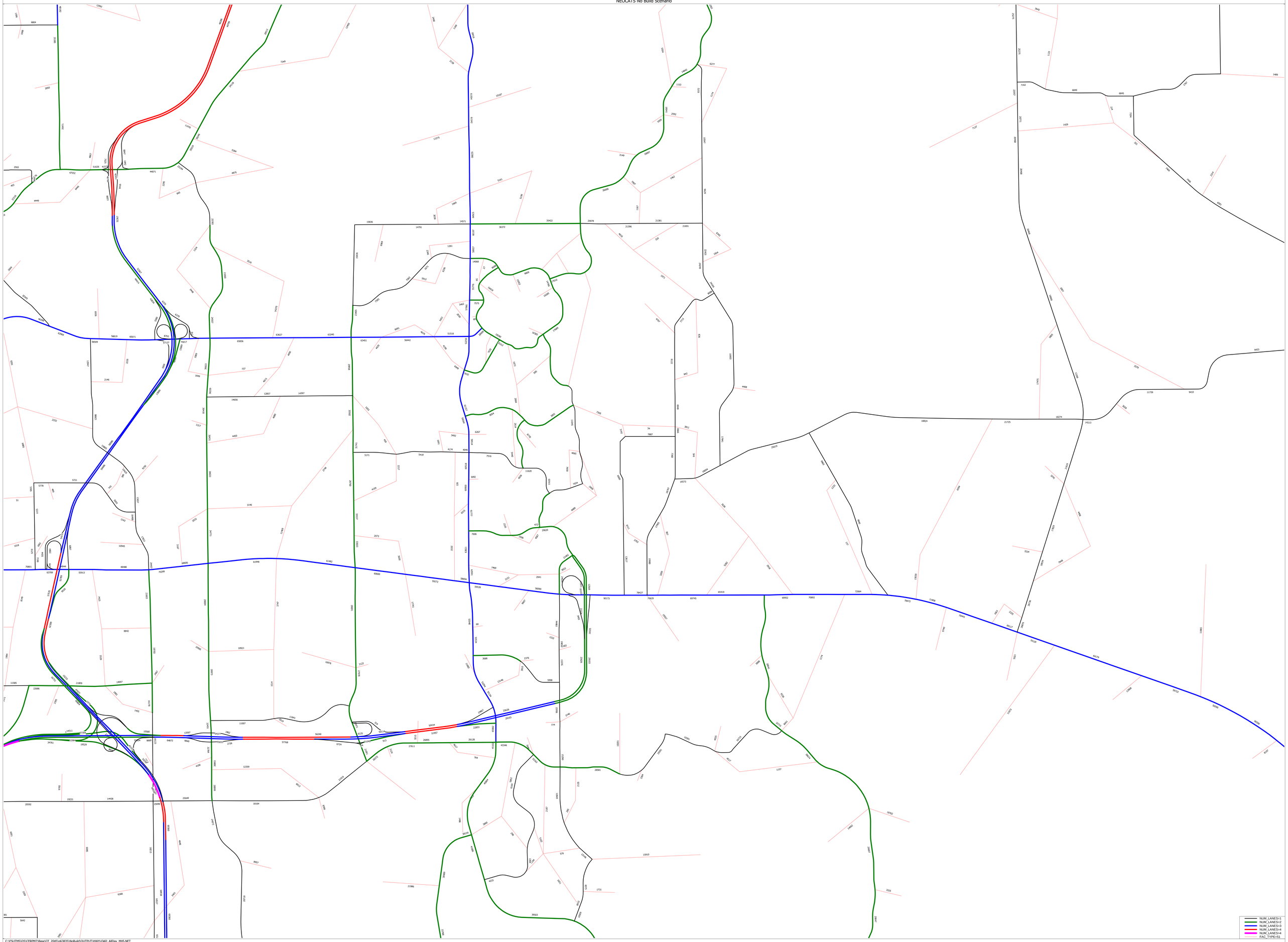
**** Annual Trend Increase:**	0
Trend R-squared:	0.00%
Trend Annual Historic Growth Rate:	0.00%
Trend Growth Rate (2018 to Design Year):	0.00%
Printed:	1-Nov-21
Straight Line Growth Option	

***Axle-Adjusted**

Appendix D

CFRPM7.0 Model Plots

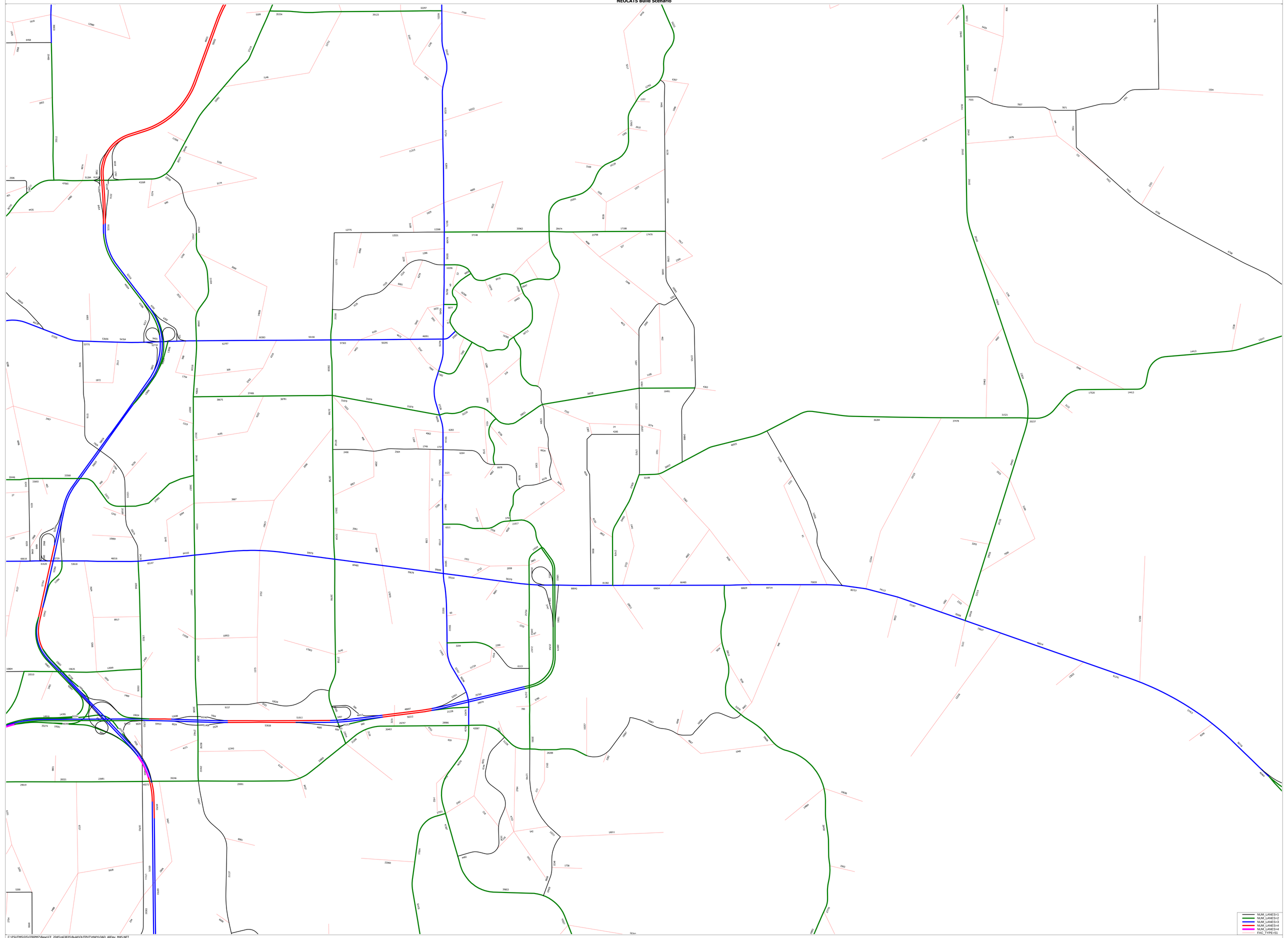
CFRPM7 - CF_2045 - Total Two-way Traffic Volumes (PSWADT)
NEOCATS No Build Scenario



C:\PSUTMS\DS\CRPM7\Base\CF_2045\p63835\NoBuild\OUTPUT\HWYLOAD_AllDay_M45.NET

(Licensed to Vanasse Hangen Brustlin Inc)

CFRPM7 - CF_2045 - Total Two-way Traffic Volumes (PSWADT)
NEOCATS Build Scenario



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aimsun
(Licensed to Vanasse Hangen Brustlin Inc)

RANGE 27 EAST | RANGE 28 EAST | RANGE 29 EAST | RANGE 33 EAST

TOWNSHIP 20 SOUTH | TOWNSHIP 21 SOUTH | TOWNSHIP 22 SOUTH | TOWNSHIP 23 SOUTH | TOWNSHIP 24 SOUTH

ORANGE COUNTY GOVERNMENT FLORIDA

0 1.5 3

1 Inch = 3 Miles

ORANGE COUNTY, FLORIDA
COMPREHENSIVE PLAN TRANSPORTATION ELEMENT

MAP 1

ORANGE COUNTY 2030 LONG RANGE TRANSPORTATION PLAN



- Jurisdictions
- County Partnership
- Programmed County Roadways
- Planned County Roadways
- State Roadway Project (FY 2016/17 to FY 2020/21)
- Limited Access Collocated Toll Facility
- Alternative Mobility Area
- Urban Service Area
- Alternative Analysis Corridor
- Intermodal Centers
- Proposed Rail Stations
- Innovation Way MMTN
- SunRail Phase 1 (Completed)
- SunRail Phase 2
- Transit Multi-Use Corridor
- OIA Connector Phase 1
- OIA Connector Phase 2 Study Area (General Alignment May Include Mag Lev)

Disclaimer:
Data is provided "as is" without any warranty or any representation of accuracy, timeliness, or completeness. The burden of determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requestor. The County makes no warranties, express or implied, as to the use of the Data. There are no implied warranties of merchantability or fitness for a particular purpose. The requestor acknowledges and accepts the limits of the Data, including the fact that the Data is dynamic and is in a constant state of maintenance, correction, and update.
*Partnership roadways are depicted on the map conceptually and do not represent actual alignments.
Not to be resold -- Data, maps, or digital files may not be resold without prior consent of the Orange County Board of County Commissioners

Apopka | Ocoee | Winter Garden | Oakland | Windermere | Maitland | Winter Park | Orlando | Edgewood | Belle Isle | Bay Lake | Lake Buena Vista

Wekiva Py | W Kelly Park Rd | Sadler Rd | Plymouth Sorrento Rd | Ponkan Rd | Fudge Road | Clarcona Rd | Clarcona Ocoee Road | Apopka Vineland Rd | Ocoee Apopka Rd | Pine Hills Rd Ext | Edgewater Dr | Kennedy Bv | Forest City Rd | Lake Destiny Dr | Maitland Bv | Pine Hills Rd | E Plant St | Colonial Dr | SR 408 | Florida's Turnpike | Young Pine Rd | John Young Pkwy | Interstate 4 | Orange Av | Lake Bryan Beach Bv | Lake Bryan Beach Bv Ext | Vineland Av | Lake St | Westwood Bv Ext | Daryl Carter Parkway | International Dr | Western Way | Buena Vista Drive | Hartzog Rd | Avalon Rd | Seidel Rd | Schofield Rd | Horizon Bv | New Independence Py | Valencia Py | Hamlin Groves Trail Extension | Tiny Rd | Ficquette Rd | Reams Rd | APF Road C | APF Road B | Summerlake Park Bv | W Sand Lake Rd | Sand Lake Rd | Mandarin Dr | Palm Parkway | Destination Py | Taft Vineland Rd Seg. 2 | Beachline Ex | Holden Av | Texas Av | Semoran Bv | Econlockhatchee Tl | Dean Rd | Lake Underhill Rd | Valencia College Ln | Lake Underhill Rd | Lake Pickett Rd | Chuluota Rd | Woodbury Rd | Woodbury Road | SR 50 | Fort Christmas Rd | McCulloch Rd | Richard Crotty Py | New East West Rd | SR 417 | Econlockhatchee Tl | Line Ridge School Rd | Fairway Woods Boulevard | Boggy Creek Rd | Boggy Creek Dr/Rd E | Widham Lakes Bv | Pinar Rd | Dowden Road | Starwood West Py | Starwood North Py | Monument Py | Innovation Way | Innovation Place Connector Road | Tavistock Rd | Dowden Rd | Sunbridge Py | Tavistock2 Rd | SR 15 | SR 528 | Beachline Ex

Produced By Orange County Community, Environmental and Development Services Department
Transportation Planning Division

Revision Date: 5/9/2017

RANGE 30 EAST | RANGE 31 EAST | RANGE 32 EAST | RANGE 34 EAST

APPENDIX S: BEBR POPULATION ESTIMATES

College of Liberal Arts and Sciences
Bureau of Economic and Business Research

Florida Population Studies

BEBR

Volume 54, Bulletin 189, April 2021

Projections of Florida Population by County, 2025–2045, with Estimates for 2020

Stefan Rayer, Population Program Director
Ying Wang, Research Demographer

The Bureau of Economic and Business Research (BEBR) has been making population projections for Florida and its counties since the 1970s. This report presents our most recent set of projections and describes the methodology used to construct those projections. To account for uncertainty regarding future population growth, we publish three series of projections. We believe the medium series is the most likely to provide accurate forecasts in most circumstances, but the low and high series provide an indication of the uncertainty surrounding the medium series. It should be noted that these projections refer solely to permanent residents of Florida; they do not include tourists or seasonal residents. Furthermore, we note that this set of projections is still based on the Census 2010 counts and the BEBR population estimates since then. The next set of BEBR county projections, scheduled for release in early 2022, will incorporate the Census 2020 counts.

State projections

The starting point for the state-level projections was the April 1, 2010 census population count by age, sex, race, and Hispanic origin, as adjusted by the National Center for Health Statistics (NCHS) in the Vintage 2017 bridged race population estimates. Projections were made in one-year intervals using a cohort-component methodology in which births, deaths, and migration are projected separately for each age-sex cohort in Florida for non-Hispanic whites, non-Hispanic nonwhites, and Hispanics. We applied three different sets of assumptions to provide low, medium, and high series of projections. Although the low and high series do not provide absolute bounds on future population change, they provide a reasonable range in which Florida's future population is likely to fall.

Survival rates were applied by single year of age, sex, race, and Hispanic origin to project future deaths in the population. These rates were based on Florida Life Tables for 2012–2018, using mortality data published by the Office of Vital Statistics in the Florida Department of Health. The survival rates were adjusted upward each year until 2044 to account for projected increases in life expectancy. These adjustments were based on projected increases in survival rates released by the U.S. Census Bureau. We used the same mortality assumptions for all three series of projections because there is less uncertainty regarding future changes in mortality rates than is true for migration and fertility rates.

Domestic migration rates by age and sex were based on Public Use Microdata Sample (PUMS) files from the 2010–2019 American Community Survey (ACS) 1-year estimates, and the 2014–2018 and 2015–2019 ACS 5-year estimates. We first calculated an average of the 2010–2018 1-year estimates and the 2014–2018 5-year estimates. Next, we calculated an average of the 2011–2019 1-year estimates and the 2015–2019 5-year estimates. Our final domestic migration rates were based on an average of these two

Projections of Florida Population by County, 2025–2045, with Estimates for 2020 (continued)

County and State	Estimates April 1, 2020	2025	2030	2035	2040	2045
MIAMI-DADE	2,832,794					
Low		2,791,500	2,844,300	2,871,900	2,880,900	2,876,900
Medium		2,992,700	3,128,300	3,234,600	3,322,200	3,398,200
High		3,186,900	3,423,300	3,621,000	3,799,900	3,964,600
MONROE	77,823					
Low		73,600	72,200	70,500	68,700	66,700
Medium		78,800	79,400	79,800	80,000	80,200
High		84,300	87,500	90,100	92,200	94,200
NASSAU	89,258					
Low		89,500	93,600	96,800	99,300	100,800
Medium		99,200	107,500	114,600	121,100	126,900
High		108,200	121,600	134,900	148,200	161,400
OKALOOSA	203,951					
Low		200,200	202,800	204,000	204,500	203,800
Medium		214,600	223,200	230,000	236,000	241,100
High		228,500	244,000	257,200	269,700	280,900
OKEECHOBEE	42,112					
Low		40,600	40,500	40,300	39,900	39,500
Medium		43,400	44,500	45,300	46,000	46,700
High		46,500	49,100	51,500	53,700	55,900
ORANGE	1,415,260					
Low		1,429,800	1,494,500	1,542,300	1,577,800	1,602,500
Medium		1,558,700	1,678,400	1,777,900	1,864,300	1,941,800
High		1,674,800	1,857,100	2,021,600	2,179,700	2,331,800
OSCEOLA	387,055					
Low		409,200	447,500	476,000	499,500	518,300
Medium		453,600	512,500	560,700	603,600	643,100
High		491,900	574,500	649,300	723,900	798,500
PALM BEACH	1,466,494					
Low		1,440,900	1,465,500	1,482,000	1,491,200	1,491,500
Medium		1,544,900	1,612,200	1,668,600	1,717,000	1,758,500
High		1,645,000	1,763,800	1,868,600	1,966,800	2,055,400
PASCO	542,638					
Low		543,900	565,700	578,700	586,200	589,400
Medium		593,000	635,700	668,800	696,400	720,500
High		637,100	703,000	758,500	809,700	857,600
PINELLAS	984,054					
Low		960,600	959,500	953,100	943,000	930,500
Medium		1,011,800	1,031,400	1,045,200	1,055,500	1,063,800
High		1,067,900	1,116,700	1,153,300	1,184,100	1,210,200
POLK	715,090					
Low		718,300	747,800	770,200	785,000	794,600
Medium		783,100	840,200	888,400	929,300	965,800
High		841,400	929,200	1,009,500	1,084,500	1,156,200
PUTNAM	73,723					
Low		69,300	67,900	66,400	64,800	63,300
Medium		74,200	74,700	75,100	75,500	75,800
High		79,400	82,200	84,900	87,100	89,400
ST. JOHNS	261,900					
Low		274,700	297,000	314,400	328,600	339,400
Medium		304,600	340,500	370,900	398,000	422,800
High		330,200	381,300	428,800	476,200	522,900
ST. LUCIE	322,265					
Low		326,300	342,800	353,400	360,300	364,400
Medium		355,800	384,800	407,500	426,400	443,100
High		382,300	426,000	463,200	497,800	530,300

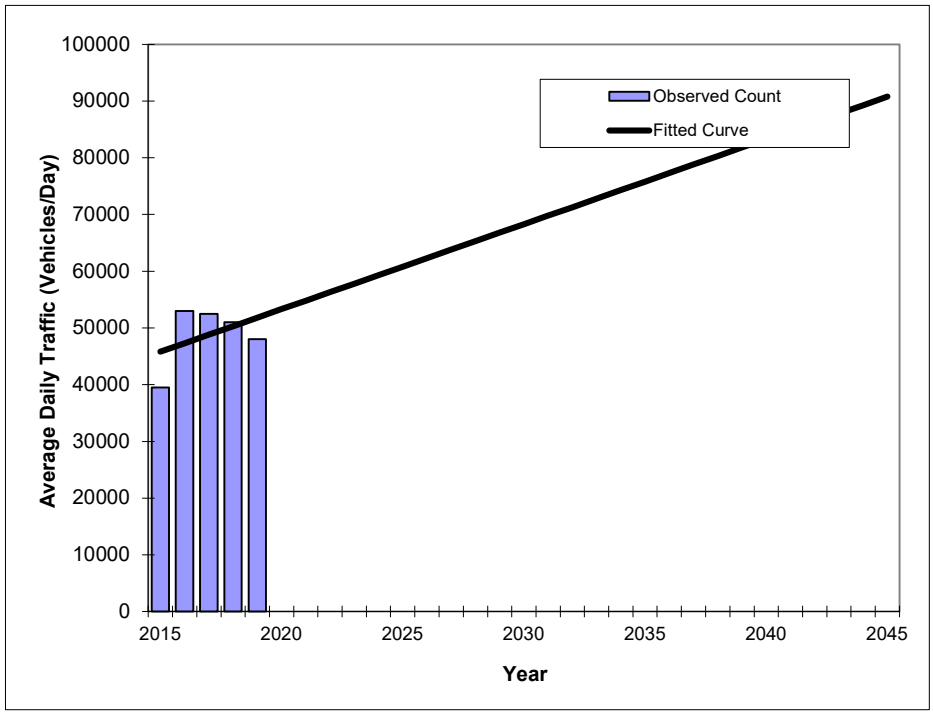
APPENDIX T: TRENDS SHEETS

Traffic Trends - V03.a

ALAFAYA TRAIL -- Challenger Pkwy to Science Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	750488
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	39500	45800
2016	53000	47300
2017	52500	48800
2018	51000	50300
2019	48000	51800
2025 Opening Year Trend		
2025	N/A	60800
2035 Mid-Year Trend		
2035	N/A	75800
2045 Design Year Trend		
2045	N/A	90800
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

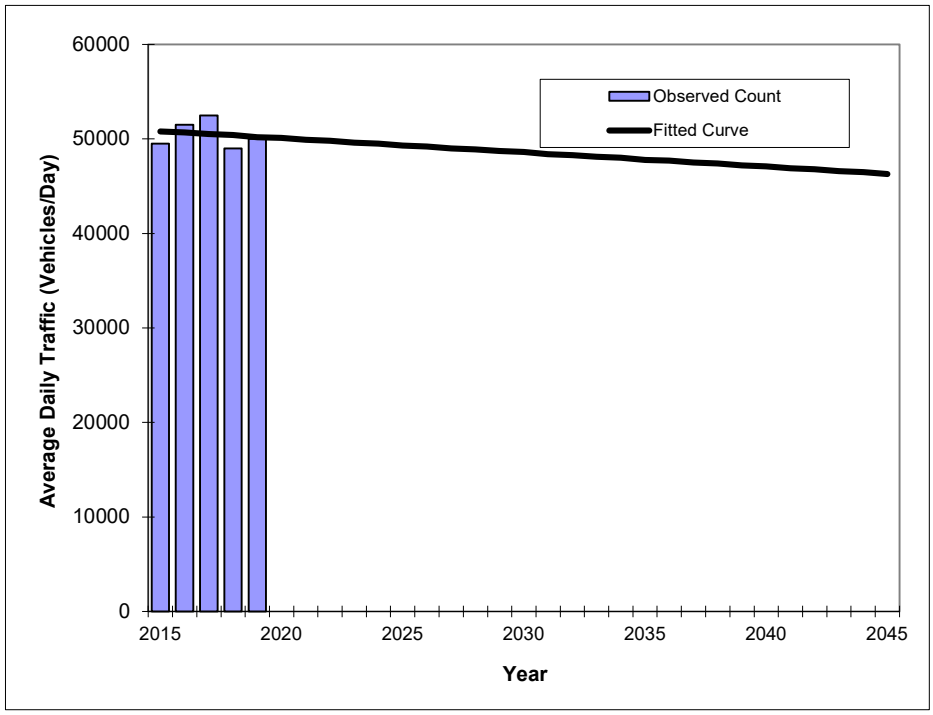
** Annual Trend Increase:	1,500
Trend R-squared:	18.25%
Trend Annual Historic Growth Rate:	3.28%
Trend Growth Rate (2019 to Design Year):	2.90%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

ALAFAYA TRAIL -- McCulloch Rd to Corporate Blvd/Gemini Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	750559
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	49500	50800
2016	51500	50700
2017	52500	50500
2018	49000	50400
2019	50000	50200
2025 Opening Year Trend		
2025	N/A	49300
2035 Mid-Year Trend		
2035	N/A	47800
2045 Design Year Trend		
2045	N/A	46300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-150
Trend R-squared:	2.65%
Trend Annual Historic Growth Rate:	-0.30%
Trend Growth Rate (2019 to Design Year):	-0.30%
Printed:	1-Nov-21
Straight Line Growth Option	

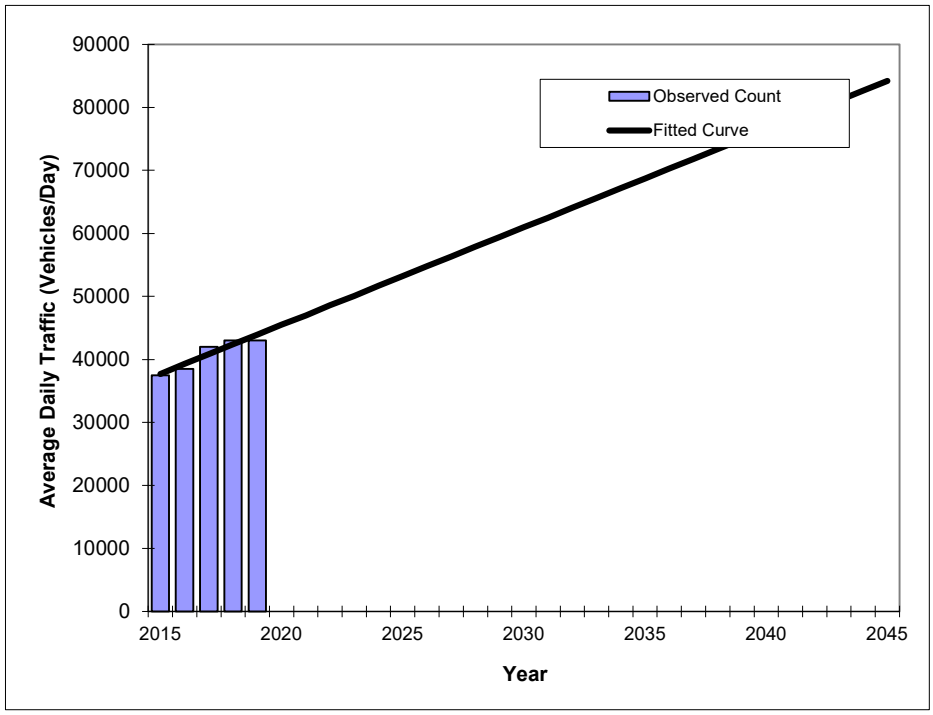
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Avalon Park Blvd to S Tanner Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	750561
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2015	37500	37700
2016	38500	39300
2017	42000	40800
2018	43000	42400
2019	43000	43900
2025 Opening Year Trend		
2025	N/A	53200
2035 Mid-Year Trend		
2035	N/A	68700
2045 Design Year Trend		
2045	N/A	84200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,550
Trend R-squared:	88.00%
Trend Annual Historic Growth Rate:	4.11%
Trend Growth Rate (2019 to Design Year):	3.53%
Printed:	1-Nov-21
Straight Line Growth Option	

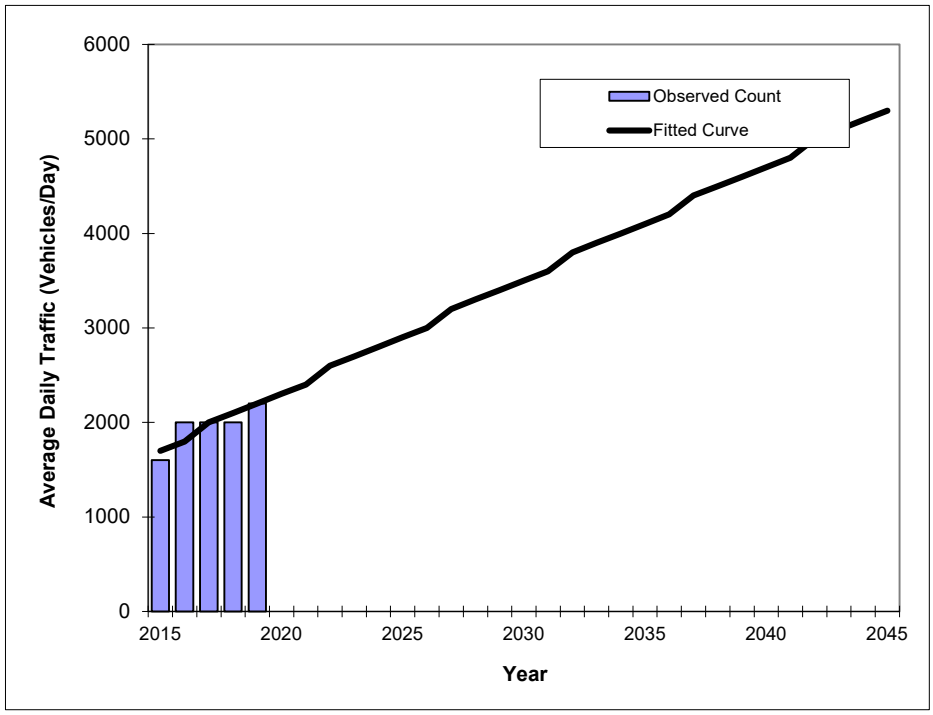
***Axle-Adjusted**

Traffic Trends - V03.a

SR 408 Ramps -- SR 408 SB On Ramp from SR 50 EB

FIN#	1234
Location	1

County:	Orange (75)
Station #:	752194
Highway:	SR 408 Ramps



Year	Traffic (ADT/AADT) Count*	Trend**
2015	1600	1700
2016	2000	1800
2017	2000	2000
2018	2000	2100
2019	2200	2200
2025 Opening Year Trend		
2025	N/A	2900
2035 Mid-Year Trend		
2035	N/A	4100
2045 Design Year Trend		
2045	N/A	5300
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

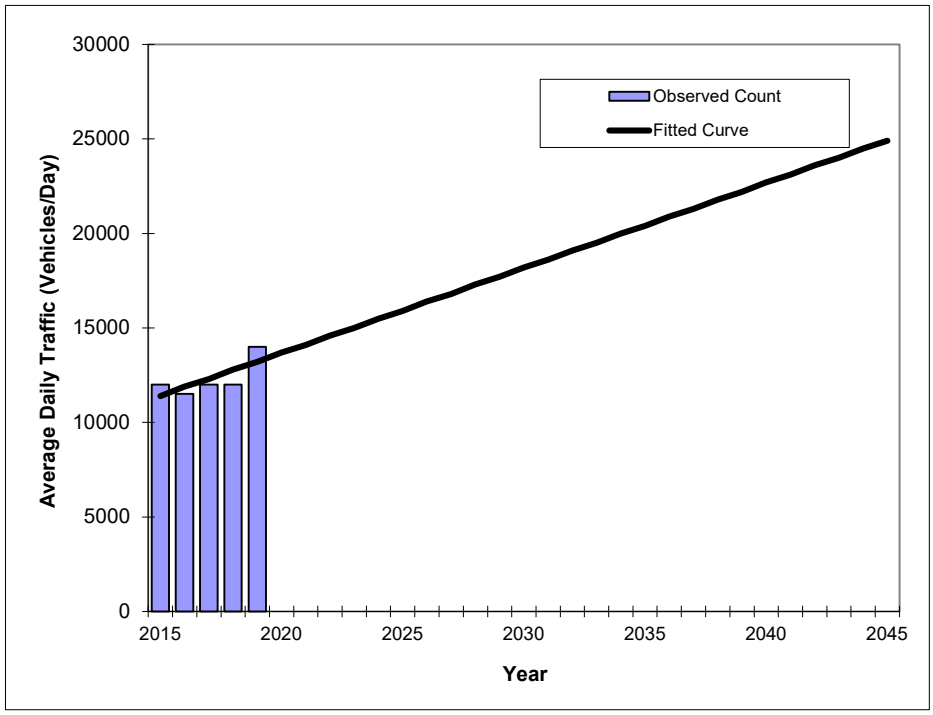
**** Annual Trend Increase:**	120
Trend R-squared:	75.00%
Trend Annual Historic Growth Rate:	7.35%
Trend Growth Rate (2019 to Design Year):	5.42%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

SR 408 Ramps -- SR 408 NB Off Ramp to SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	752195
Highway:	SR 408 Ramps



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12000	11400
2016	11500	11900
2017	12000	12300
2018	12000	12800
2019	14000	13200
2025 Opening Year Trend		
2025	N/A	15900
2035 Mid-Year Trend		
2035	N/A	20400
2045 Design Year Trend		
2045	N/A	24900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	450
Trend R-squared:	53.29%
Trend Annual Historic Growth Rate:	3.95%
Trend Growth Rate (2019 to Design Year):	3.41%
Printed:	1-Nov-21
Straight Line Growth Option	

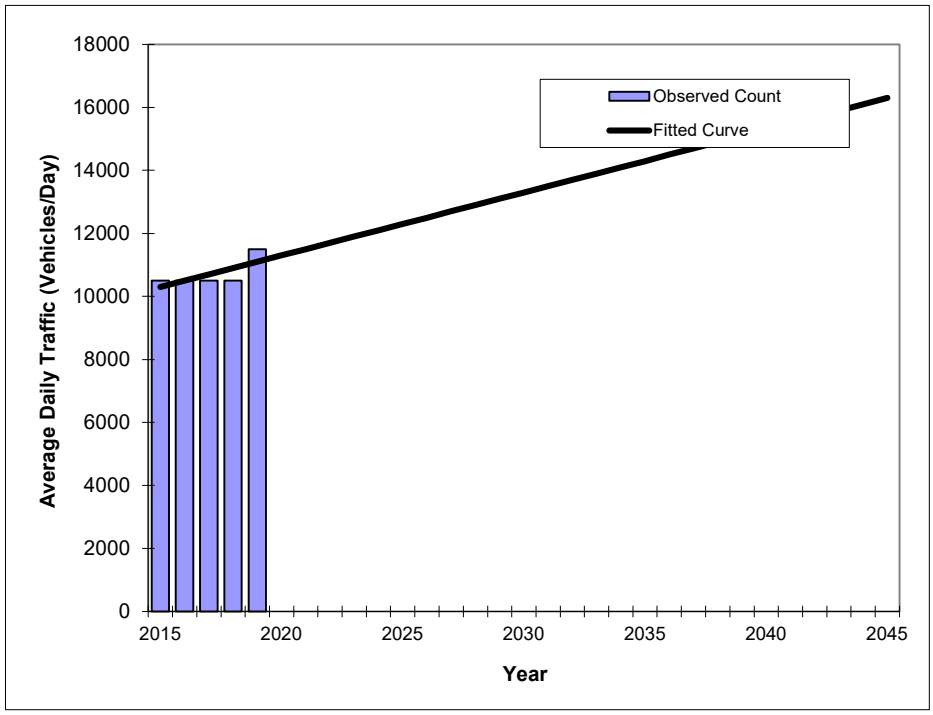
***Axle-Adjusted**

Traffic Trends - V03.a

SR 408 Ramps -- SR 408 SB On Ramp from SR 50 WB

FIN#	1234
Location	1

County:	Orange (75)
Station #:	752196
Highway:	SR 408 Ramps



Year	Traffic (ADT/AADT) Count*	Trend**
2015	10500	10300
2016	10500	10500
2017	10500	10700
2018	10500	10900
2019	11500	11100
2025 Opening Year Trend		
2025	N/A	12300
2035 Mid-Year Trend		
2035	N/A	14300
2045 Design Year Trend		
2045	N/A	16300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	200
Trend R-squared:	50.00%
Trend Annual Historic Growth Rate:	1.94%
Trend Growth Rate (2019 to Design Year):	1.80%
Printed:	1-Nov-21
Straight Line Growth Option	

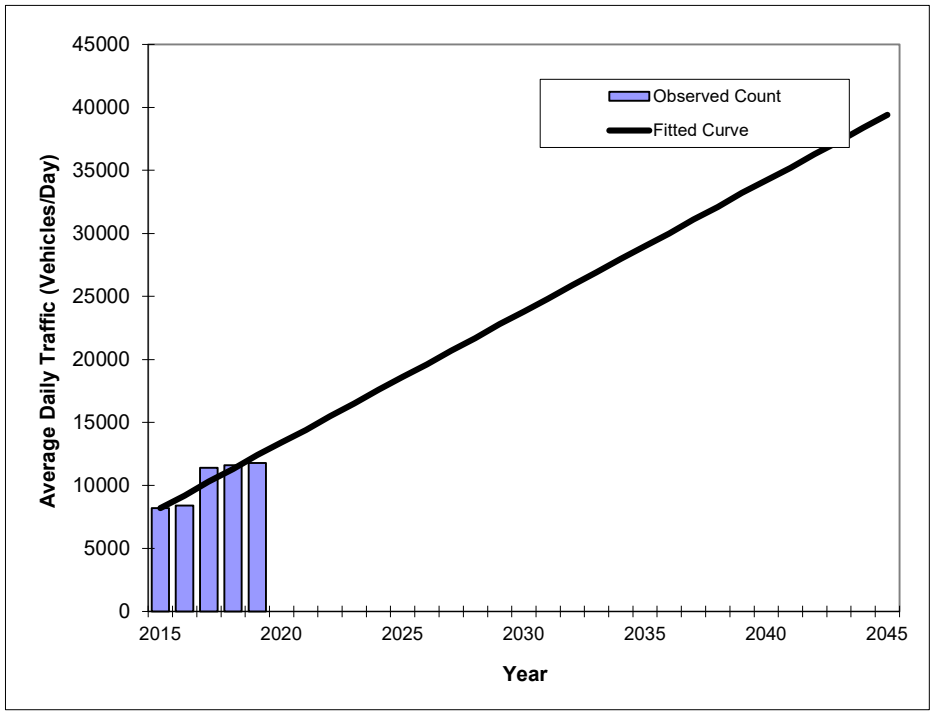
***Axle-Adjusted**

Traffic Trends - V03.a

North Tanner Rd -- Lake Pickett Rd to Stonebriar Way

FIN#	1234
Location	1

County:	Orange (75)
Station #:	758188
Highway:	North Tanner Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	8200	8200
2016	8400	9200
2017	11400	10300
2018	11600	11300
2019	11800	12400
2025 Opening Year Trend		
2025	N/A	18600
2035 Mid-Year Trend		
2035	N/A	29000
2045 Design Year Trend		
2045	N/A	39400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,040
Trend R-squared:	82.14%
Trend Annual Historic Growth Rate:	12.80%
Trend Growth Rate (2019 to Design Year):	8.37%
Printed:	1-Nov-21
Straight Line Growth Option	

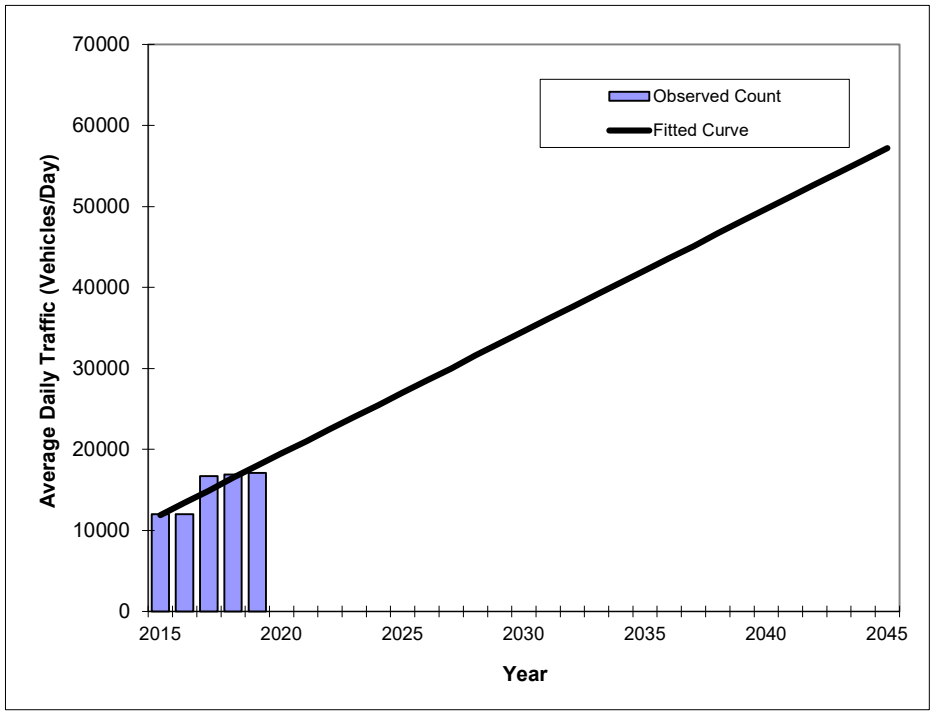
***Axle-Adjusted**

Traffic Trends - V03.a

CR 419/Chuluota Rd -- SR 50 to Corner Lake Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	758272
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12000	11900
2016	12000	13400
2017	16700	14900
2018	16900	16500
2019	17100	18000
2025 Opening Year Trend		
2025	N/A	27000
2035 Mid-Year Trend		
2035	N/A	42100
2045 Design Year Trend		
2045	N/A	57200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,510
Trend R-squared:	78.92%
Trend Annual Historic Growth Rate:	12.82%
Trend Growth Rate (2019 to Design Year):	8.38%
Printed:	1-Nov-21
Straight Line Growth Option	

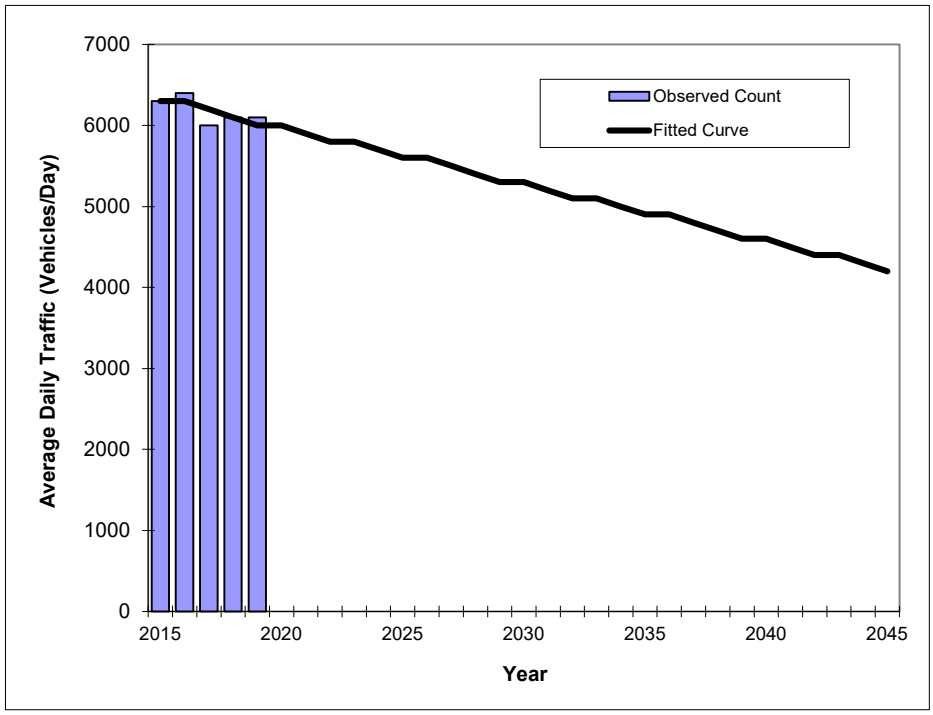
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE PICKETT RD -- S Tanner Rd to CR 419/Chuluota Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	758333
Highway:	LAKE PICKETT RD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	6300	6300
2016	6400	6300
2017	6000	6200
2018	6100	6100
2019	6100	6000
2025 Opening Year Trend		
2025	N/A	5600
2035 Mid-Year Trend		
2035	N/A	4900
2045 Design Year Trend		
2045	N/A	4200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-70
Trend R-squared:	45.37%
Trend Annual Historic Growth Rate:	-1.19%
Trend Growth Rate (2019 to Design Year):	-1.15%
Printed:	1-Nov-21
Straight Line Growth Option	

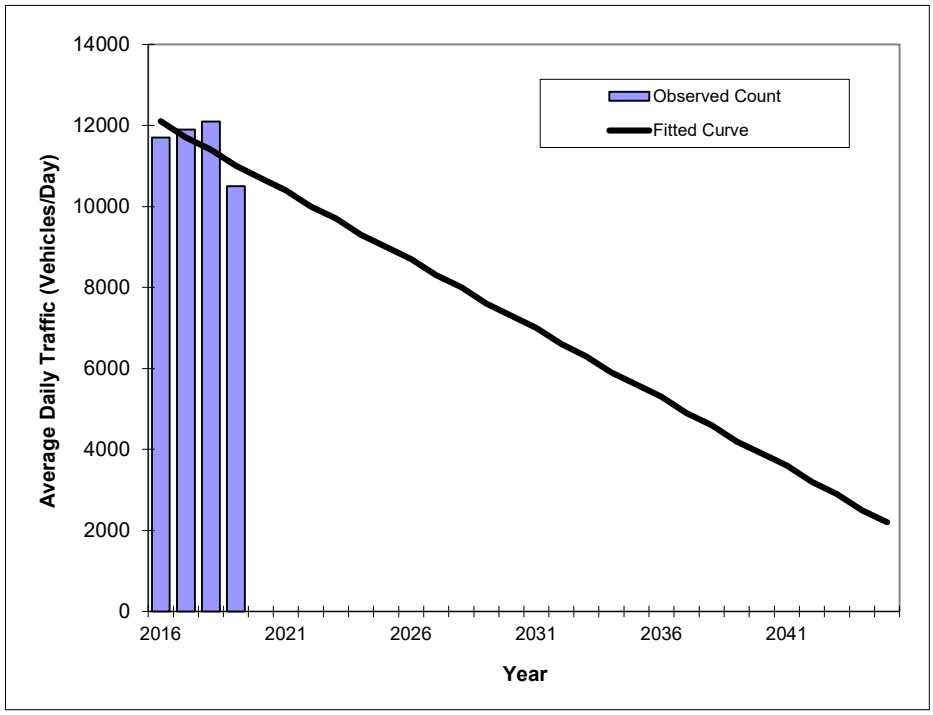
***Axle-Adjusted**

Traffic Trends - V03.a

Corporate Blvd -- West of Alafaya Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	758359
Highway:	Corporate Blvd



Year	Traffic (ADT/AADT) Count*	Trend**
2016	11700	12100
2017	11900	11700
2018	12100	11400
2019	10500	11000
2025 Opening Year Trend		
2025	N/A	9000
2035 Mid-Year Trend		
2035	N/A	5600
2045 Design Year Trend		
2045	N/A	2200
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

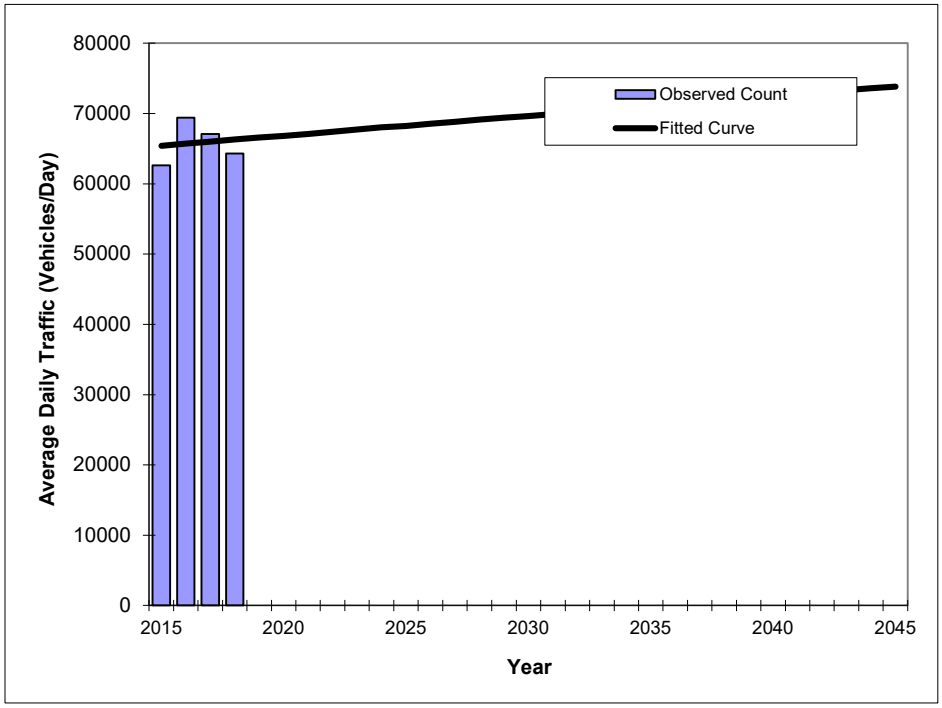
** Annual Trend Increase:	-340
Trend R-squared:	37.29%
Trend Annual Historic Growth Rate:	-3.03%
Trend Growth Rate (2019 to Design Year):	-3.08%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

UNIVERSITY BLVD -- West of Rouse Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	251
Highway:	UNIVERSITY BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	62600	65400
2016	69400	65700
2017	67100	66000
2018	64300	66300
2025 Opening Year Trend		
2025	N/A	68200
2035 Mid-Year Trend		
2035	N/A	71000
2045 Design Year Trend		
2045	N/A	73800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	280
Trend R-squared:	1.44%
Trend Annual Historic Growth Rate:	0.46%
Trend Growth Rate (2018 to Design Year):	0.42%
Printed:	1-Nov-21
Straight Line Growth Option	

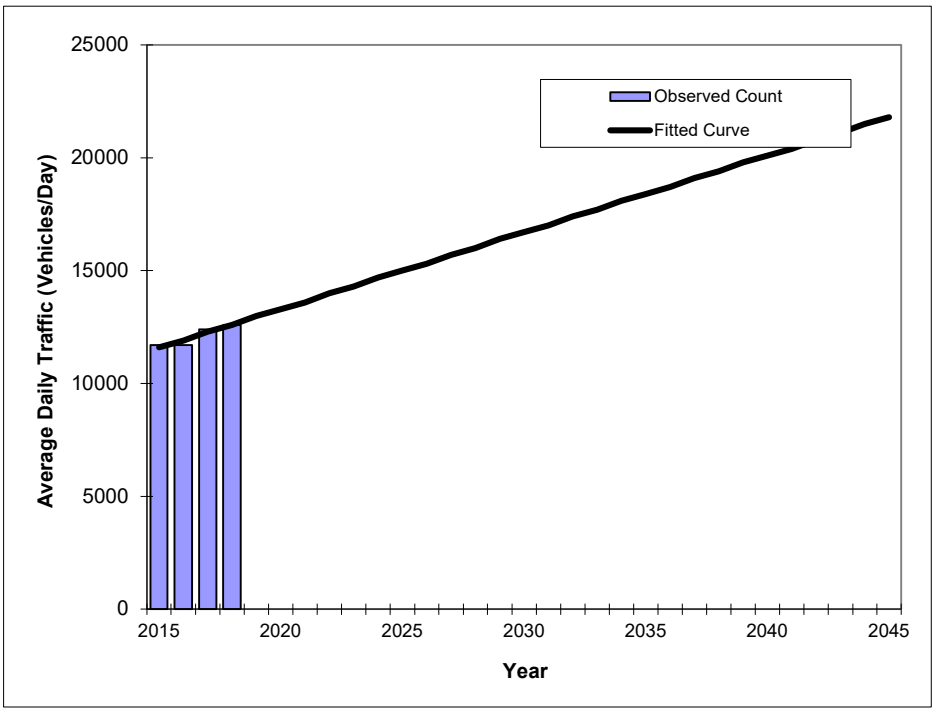
***Axle-Adjusted**

Traffic Trends - V03.a

ROUSE ROAD -- North of University Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	253
Highway:	ROUSE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	11700	11600
2016	11700	11900
2017	12400	12300
2018	12600	12600
2025 Opening Year Trend		
2025	N/A	15000
2035 Mid-Year Trend		
2035	N/A	18400
2045 Design Year Trend		
2045	N/A	21800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	340
Trend R-squared:	87.58%
Trend Annual Historic Growth Rate:	2.87%
Trend Growth Rate (2018 to Design Year):	2.70%
Printed:	1-Nov-21
Straight Line Growth Option	

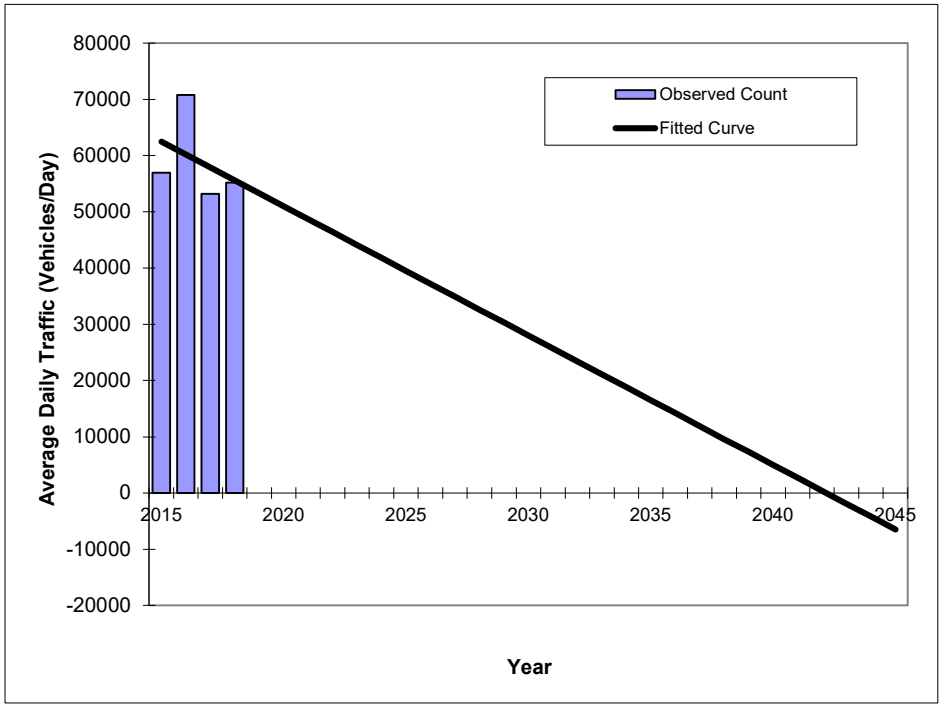
***Axle-Adjusted**

Traffic Trends - V03.a

UNIVERSITY BLVD -- Rouse Rd to Quadrangle Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	255
Highway:	UNIVERSITY BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	57000	62500
2016	70800	60200
2017	53200	57900
2018	55200	55600
2025 Opening Year Trend		
2025	N/A	39500
2035 Mid-Year Trend		
2035	N/A	16500
2045 Design Year Trend		
2045	N/A	-6500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-2,300
Trend R-squared:	13.83%
Trend Annual Historic Growth Rate:	-3.68%
Trend Growth Rate (2018 to Design Year):	-4.14%
Printed:	1-Nov-21
Straight Line Growth Option	

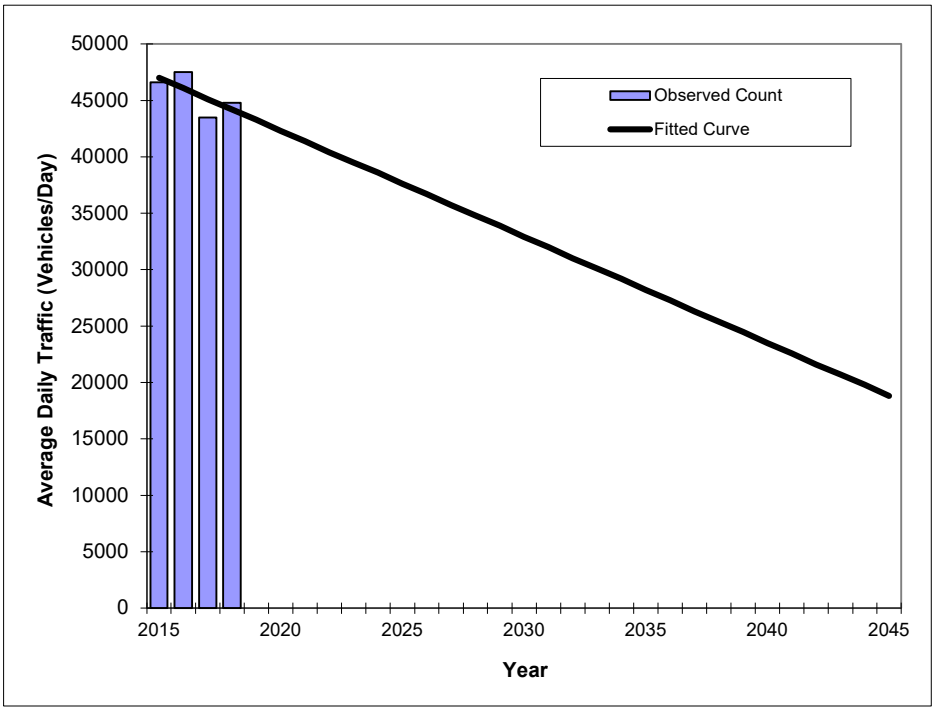
***Axle-Adjusted**

Traffic Trends - V03.a

ALAFAYA TRAIL -- Corporate Blvd/Gemini Blvd to Centaurus Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	256
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	46600	47000
2016	47500	46100
2017	43500	45100
2018	44800	44200
2025 Opening Year Trend		
2025	N/A	37600
2035 Mid-Year Trend		
2035	N/A	28200
2045 Design Year Trend		
2045	N/A	18800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-940
Trend R-squared:	45.73%
Trend Annual Historic Growth Rate:	-1.99%
Trend Growth Rate (2018 to Design Year):	-2.13%
Printed:	1-Nov-21
Straight Line Growth Option	

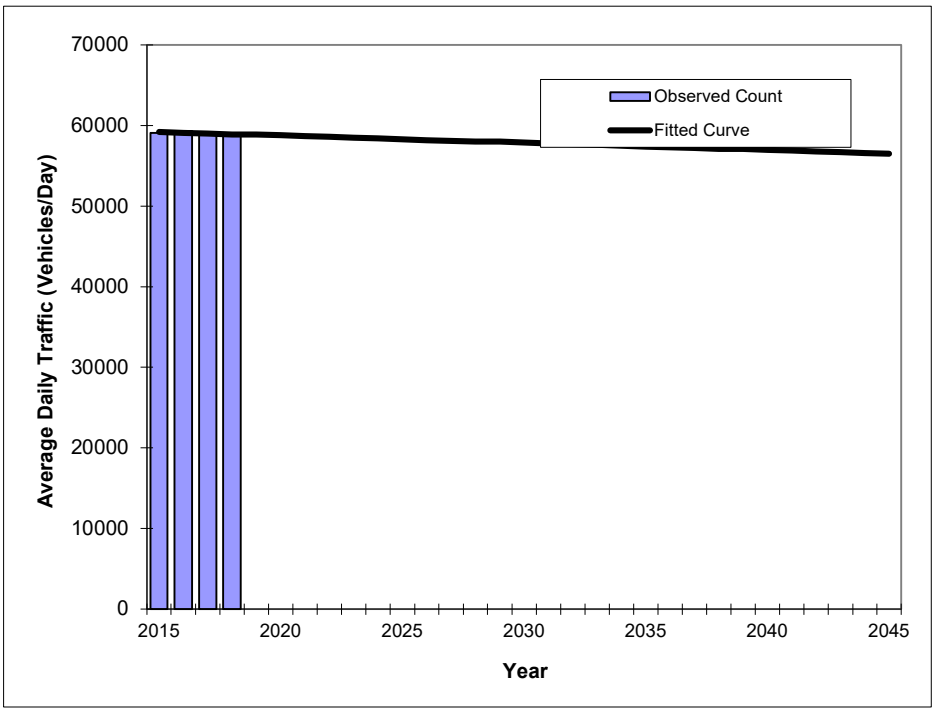
***Axle-Adjusted**

Traffic Trends - V03.a

ALAFAYA TRAIL -- Science Dr to Research Pkwy

FIN#	1234
Location	1

County:	Orange (75)
Station #:	257
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	59100	59200
2016	59300	59100
2017	59000	59000
2018	58900	58900
2025 Opening Year Trend		
2025	N/A	58300
2035 Mid-Year Trend		
2035	N/A	57400
2045 Design Year Trend		
2045	N/A	56500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-90
Trend R-squared:	46.29%
Trend Annual Historic Growth Rate:	-0.17%
Trend Growth Rate (2018 to Design Year):	-0.15%
Printed:	1-Nov-21
Straight Line Growth Option	

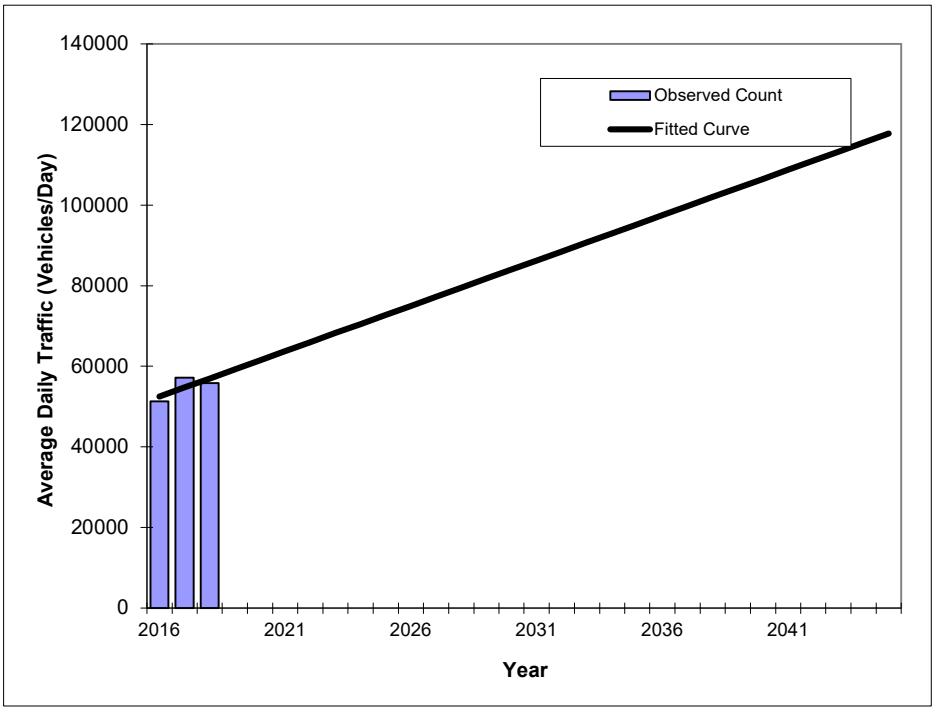
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- West of Rouse Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	259
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	51300	52500
2017	57200	54800
2018	55800	57000
2025 Opening Year Trend		
2025	N/A	72800
2035 Mid-Year Trend		
2035	N/A	95300
2045 Design Year Trend		
2045	N/A	117800
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

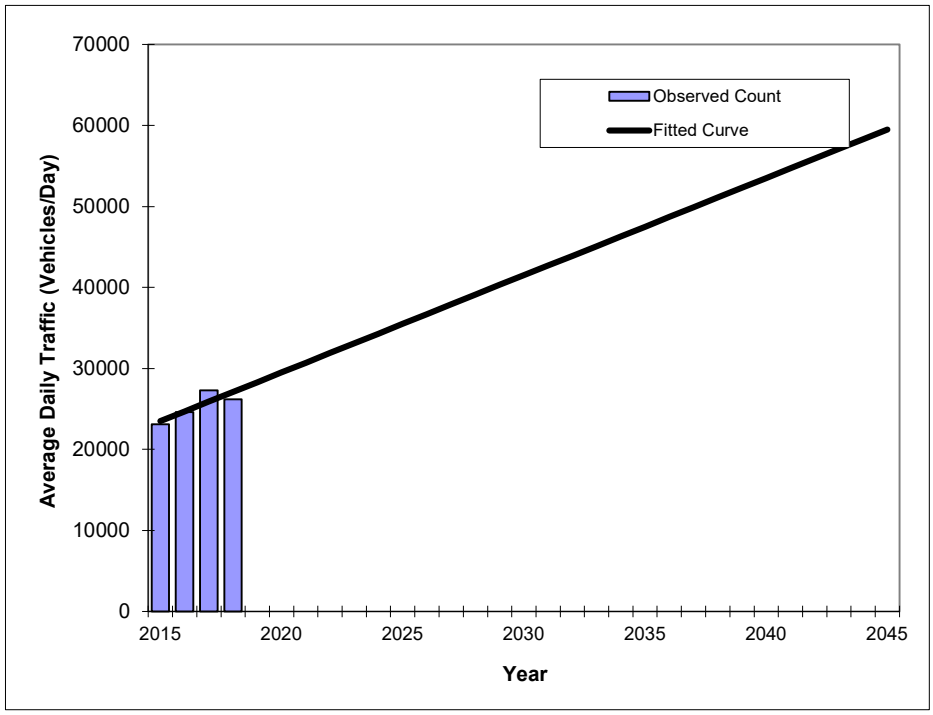
**** Annual Trend Increase:**	2,250
Trend R-squared:	53.27%
Trend Annual Historic Growth Rate:	4.29%
Trend Growth Rate (2018 to Design Year):	3.95%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

ROUSE ROAD -- SR 50 to Lokanotosa Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	260
Highway:	ROUSE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	23100	23500
2016	24600	24700
2017	27300	25900
2018	26200	27100
2025 Opening Year Trend		
2025	N/A	35500
2035 Mid-Year Trend		
2035	N/A	47500
2045 Design Year Trend		
2045	N/A	59500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,200
Trend R-squared:	71.01%
Trend Annual Historic Growth Rate:	5.11%
Trend Growth Rate (2018 to Design Year):	4.43%
Printed:	1-Nov-21
Straight Line Growth Option	

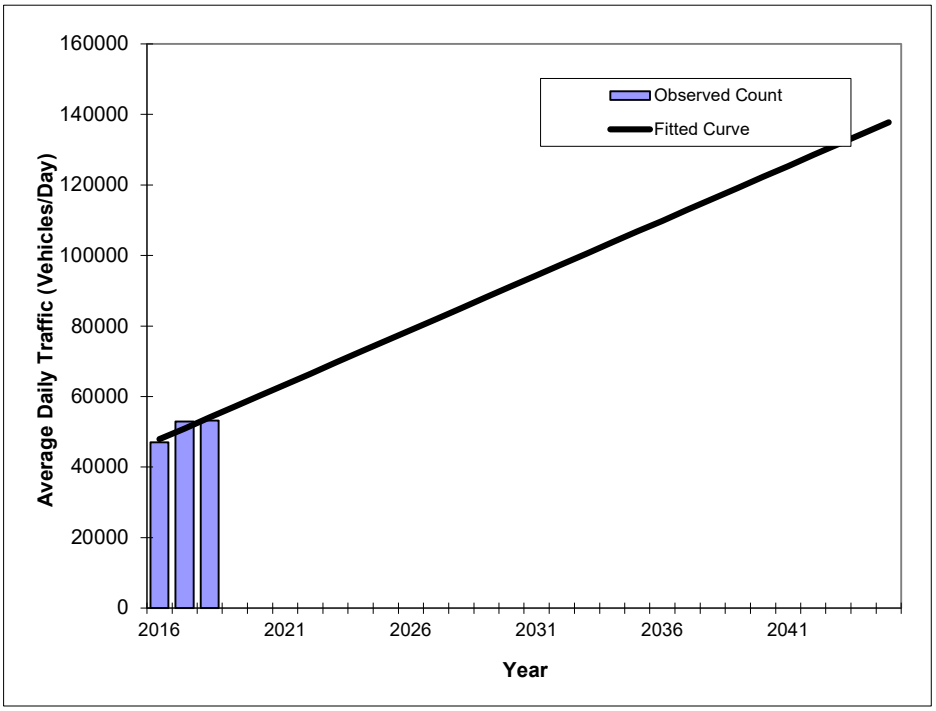
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Rouse Rd to Alafaya Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	261
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	47000	47900
2017	52900	51000
2018	53200	54100
2025 Opening Year Trend		
2025	N/A	75800
2035 Mid-Year Trend		
2035	N/A	106800
2045 Design Year Trend		
2045	N/A	137800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	3,100
Trend R-squared:	78.62%
Trend Annual Historic Growth Rate:	6.47%
Trend Growth Rate (2018 to Design Year):	5.73%
Printed:	1-Nov-21
Straight Line Growth Option	

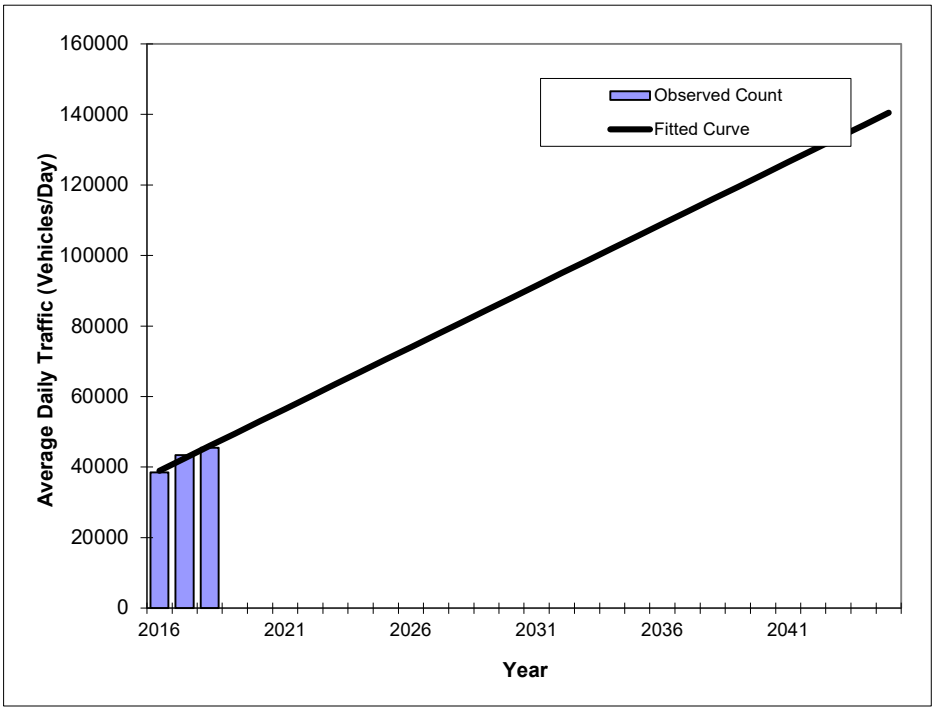
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Alafaya Tr to Woodbury Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	263
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	38500	39000
2017	43400	42500
2018	45500	46000
2025 Opening Year Trend		
2025	N/A	70500
2035 Mid-Year Trend		
2035	N/A	105500
2045 Design Year Trend		
2045	N/A	140500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	3,500
Trend R-squared:	94.94%
Trend Annual Historic Growth Rate:	8.97%
Trend Growth Rate (2018 to Design Year):	7.61%
Printed:	1-Nov-21
Straight Line Growth Option	

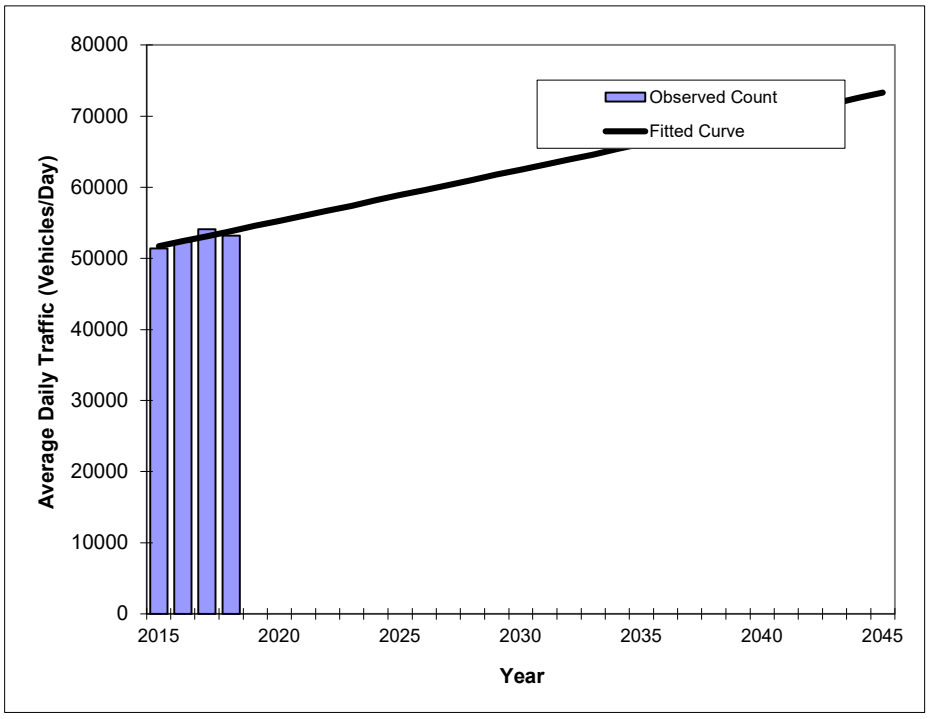
***Axle-Adjusted**

Traffic Trends - V03.a

ALAFAYA TRAIL -- South of SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	264
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	51400	51700
2016	52300	52400
2017	54100	53100
2018	53200	53800
2025 Opening Year Trend		
2025	N/A	58900
2035 Mid-Year Trend		
2035	N/A	66100
2045 Design Year Trend		
2045	N/A	73300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	720
Trend R-squared:	64.00%
Trend Annual Historic Growth Rate:	1.35%
Trend Growth Rate (2018 to Design Year):	1.34%
Printed:	1-Nov-21
Straight Line Growth Option	

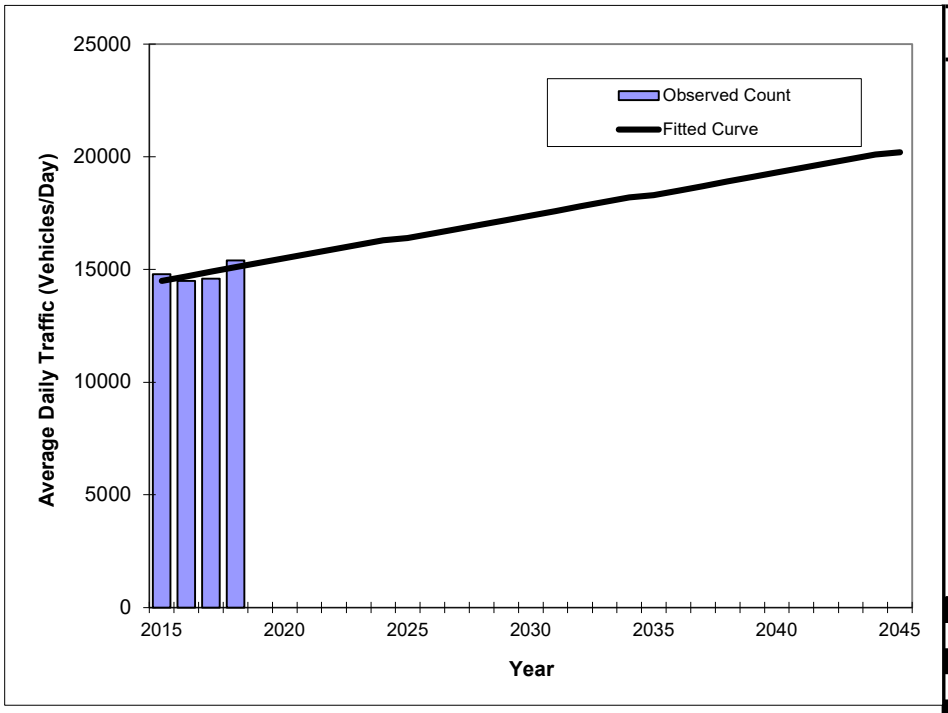
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE PICKETT RD -- SR 50 to Percival Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	297
Highway:	LAKE PICKETT RD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	14800	14500
2016	14500	14700
2017	14600	14900
2018	15400	15100
2025 Opening Year Trend		
2025	N/A	16400
2035 Mid-Year Trend		
2035	N/A	18300
2045 Design Year Trend		
2045	N/A	20200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	190
Trend R-squared:	37.03%
Trend Annual Historic Growth Rate:	1.38%
Trend Growth Rate (2018 to Design Year):	1.25%
Printed:	1-Nov-21
Straight Line Growth Option	

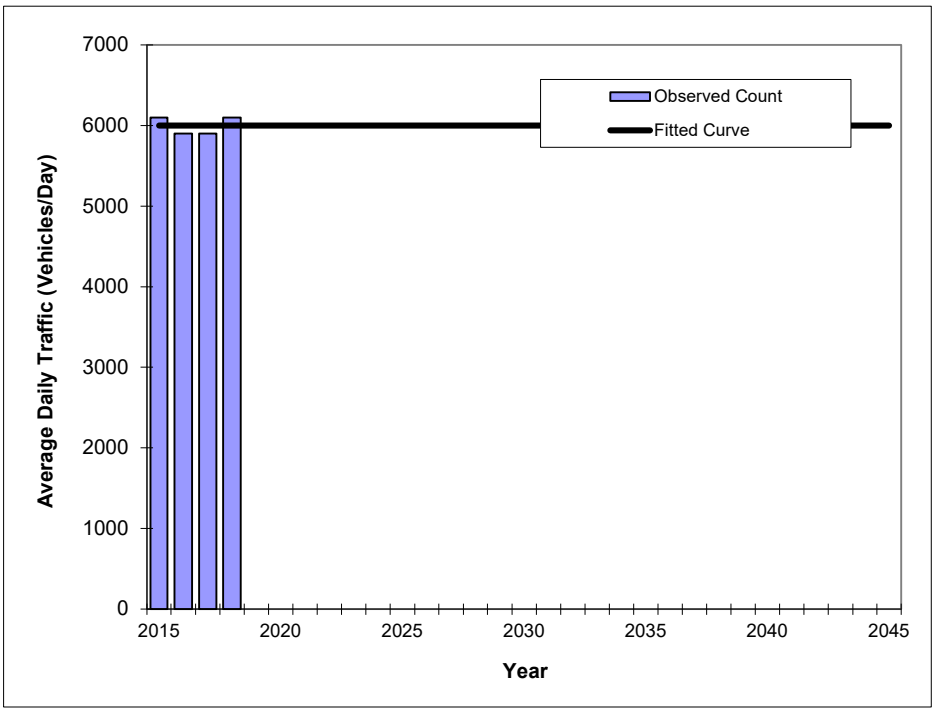
***Axle-Adjusted**

Traffic Trends - V03.a

Percival Rd -- Lake Pickett Rd to Sussex Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	298
Highway:	Percival Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	6100	6000
2016	5900	6000
2017	5900	6000
2018	6100	6000
2025 Opening Year Trend		
2025	N/A	6000
2035 Mid-Year Trend		
2035	N/A	6000
2045 Design Year Trend		
2045	N/A	6000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	0
Trend R-squared:	0.00%
Trend Annual Historic Growth Rate:	0.00%
Trend Growth Rate (2018 to Design Year):	0.00%
Printed:	1-Nov-21
Straight Line Growth Option	

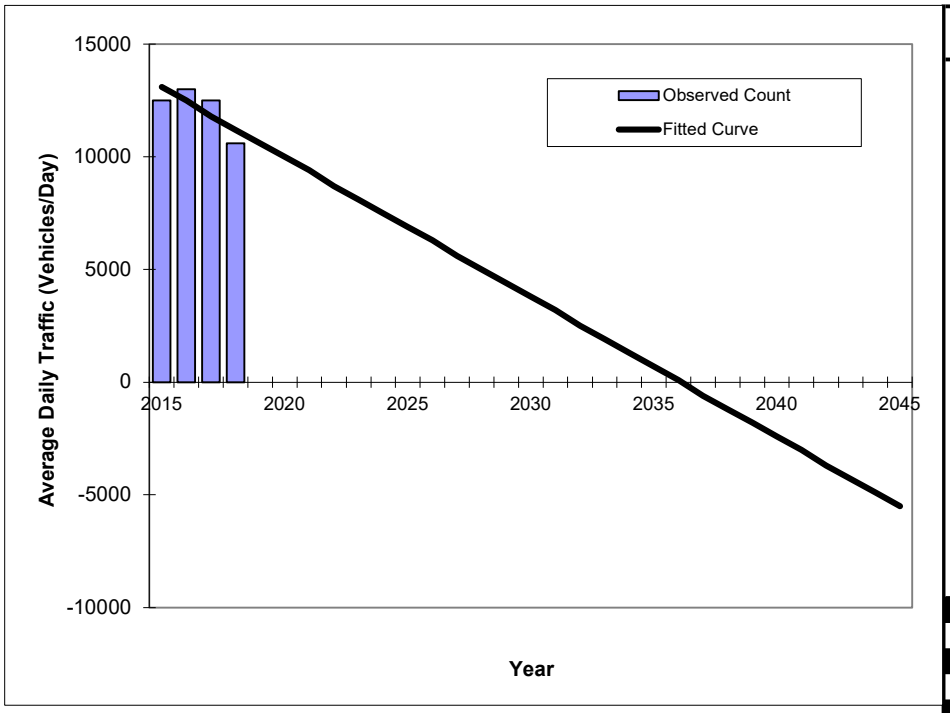
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE PICKETT RD -- N Tanner Rd to S Tanner Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	299
Highway:	LAKE PICKETT RD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12500	13100
2016	13000	12500
2017	12500	11800
2018	10600	11200
2025 Opening Year Trend		
2025	N/A	6900
2035 Mid-Year Trend		
2035	N/A	700
2045 Design Year Trend		
2045	N/A	-5500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-620
Trend R-squared:	57.03%
Trend Annual Historic Growth Rate:	-4.83%
Trend Growth Rate (2018 to Design Year):	-5.52%
Printed:	1-Nov-21
Straight Line Growth Option	

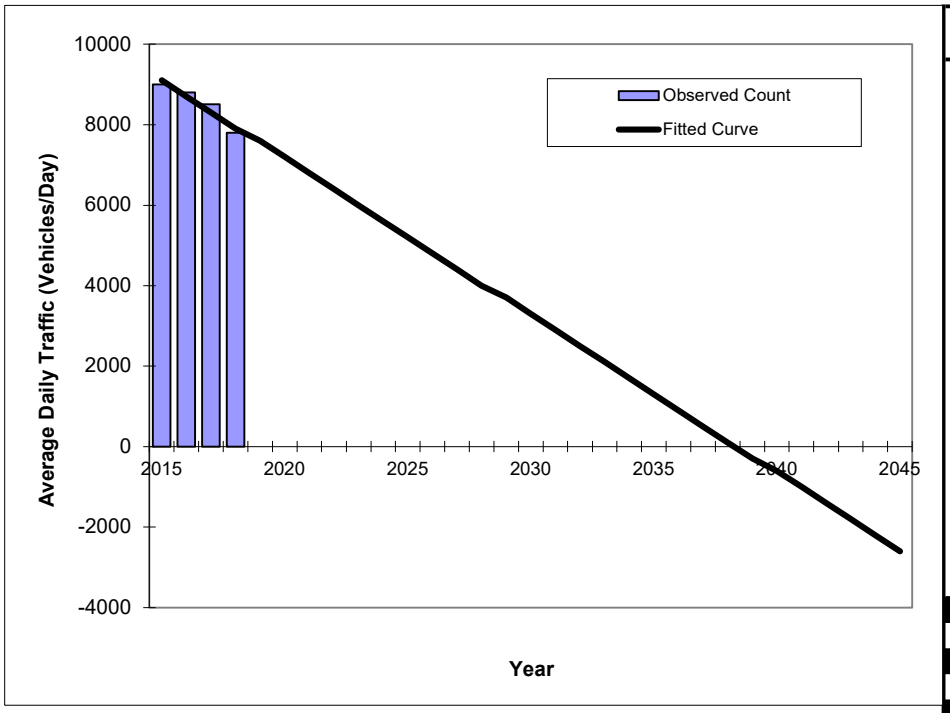
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE PICKETT RD -- S Tanner Rd to CR 419/Chuluota Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	303
Highway:	LAKE PICKETT RD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	9000	9100
2016	8800	8700
2017	8500	8300
2018	7800	7900
2025 Opening Year Trend		
2025	N/A	5200
2035 Mid-Year Trend		
2035	N/A	1300
2045 Design Year Trend		
2045	N/A	-2600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-390
Trend R-squared:	91.90%
Trend Annual Historic Growth Rate:	-4.40%
Trend Growth Rate (2018 to Design Year):	-4.92%
Printed:	1-Nov-21
Straight Line Growth Option	

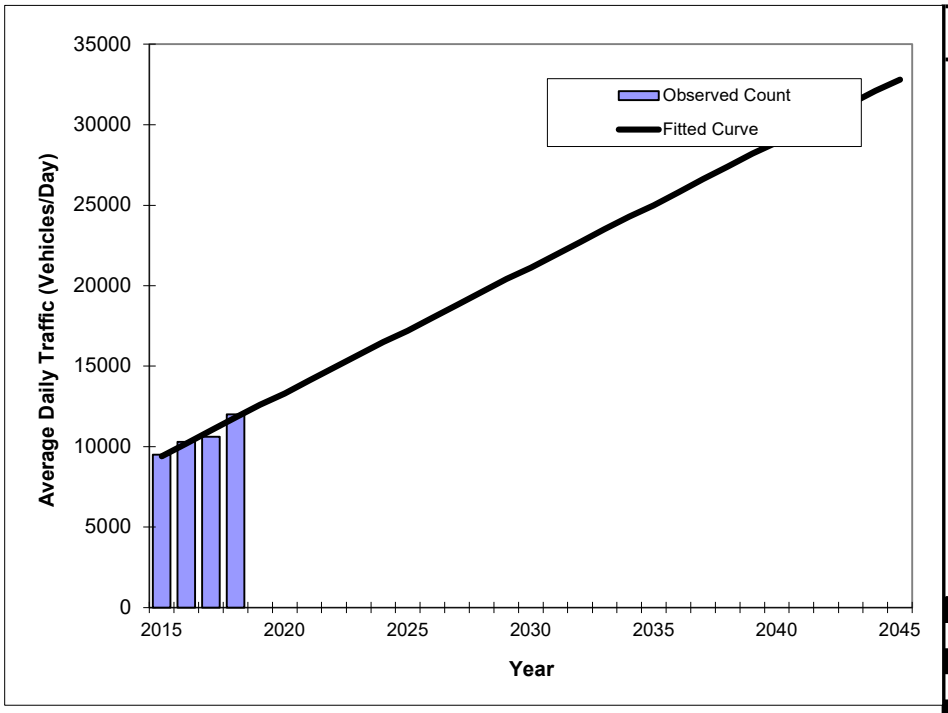
***Axle-Adjusted**

Traffic Trends - V03.a

CR 419/Chuluota Rd -- Lake Pickett Rd to Old Lake Pickett Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	304
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	9500	9400
2016	10300	10200
2017	10600	11000
2018	12000	11800
2025 Opening Year Trend		
2025	N/A	17200
2035 Mid-Year Trend		
2035	N/A	25000
2045 Design Year Trend		
2045	N/A	32800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	780
Trend R-squared:	93.31%
Trend Annual Historic Growth Rate:	8.51%
Trend Growth Rate (2018 to Design Year):	6.59%
Printed:	1-Nov-21
Straight Line Growth Option	

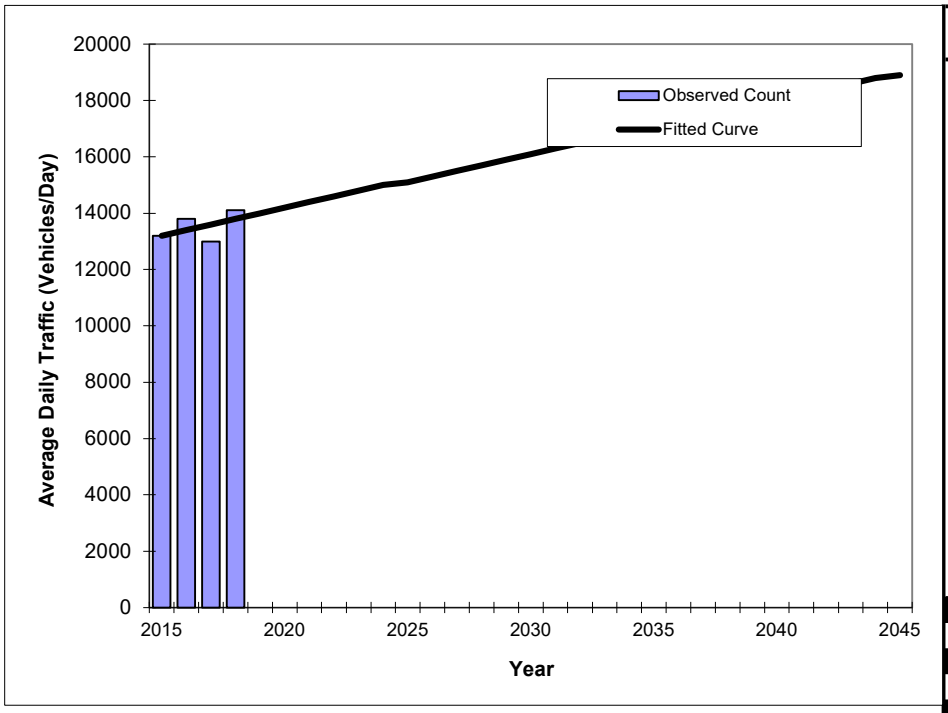
***Axle-Adjusted**

Traffic Trends - V03.a

CR 419/Chuluota Rd -- Cypress Lake Glen Blvd to Lake Pickett Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	306
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	13200	13200
2016	13800	13400
2017	13000	13600
2018	14100	13800
2025 Opening Year Trend		
2025	N/A	15100
2035 Mid-Year Trend		
2035	N/A	17000
2045 Design Year Trend		
2045	N/A	18900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	190
Trend R-squared:	22.92%
Trend Annual Historic Growth Rate:	1.52%
Trend Growth Rate (2018 to Design Year):	1.37%
Printed:	1-Nov-21
Straight Line Growth Option	

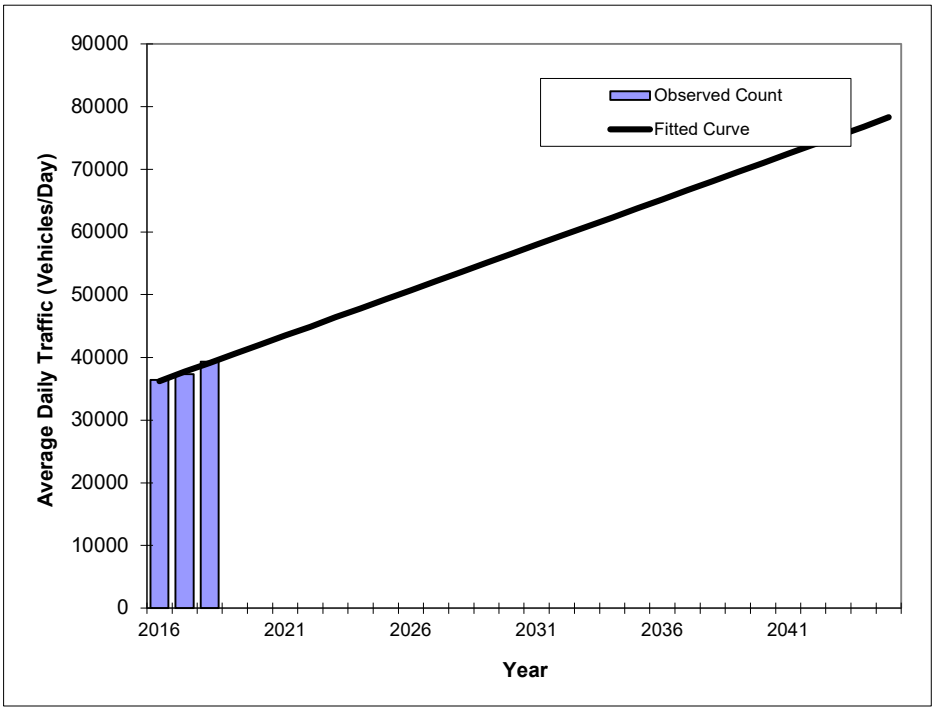
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Avalon Park Blvd to S Tanner Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	313.5
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	36400	36200
2017	37300	37700
2018	39300	39100
2025 Opening Year Trend		
2025	N/A	49300
2035 Mid-Year Trend		
2035	N/A	63800
2045 Design Year Trend		
2045	N/A	78300
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

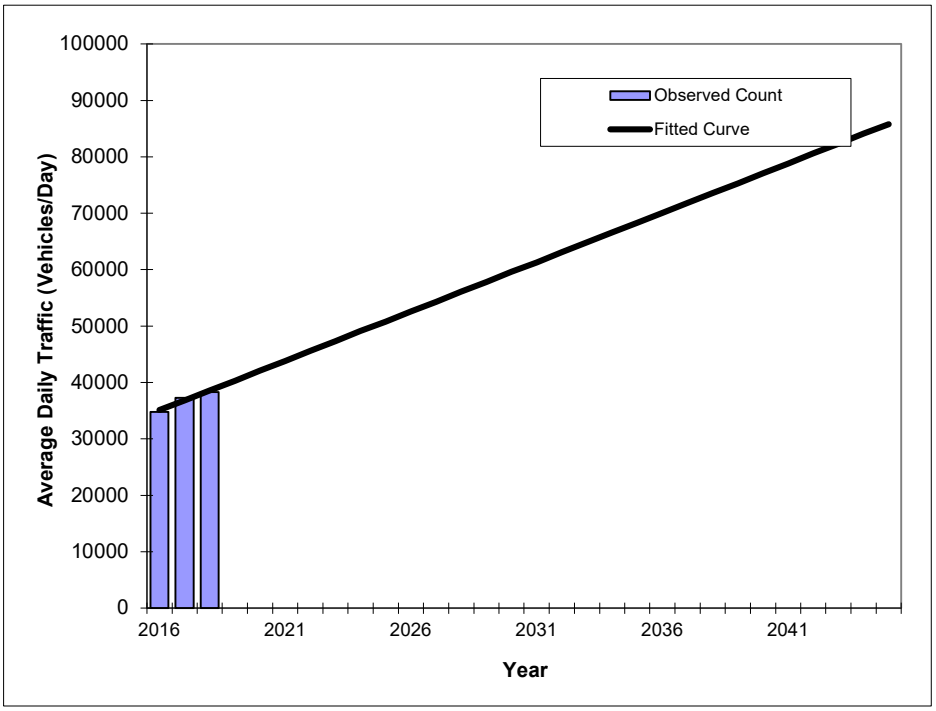
**** Annual Trend Increase:**	1,450
Trend R-squared:	95.42%
Trend Annual Historic Growth Rate:	4.01%
Trend Growth Rate (2018 to Design Year):	3.71%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

SR 50 -- S Tanner Rd to CR 419/Chuluota Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	313
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	34800	35100
2017	37300	36800
2018	38300	38600
2025 Opening Year Trend		
2025	N/A	50800
2035 Mid-Year Trend		
2035	N/A	68300
2045 Design Year Trend		
2045	N/A	85800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,750
Trend R-squared:	94.23%
Trend Annual Historic Growth Rate:	4.99%
Trend Growth Rate (2018 to Design Year):	4.53%
Printed:	1-Nov-21
Straight Line Growth Option	

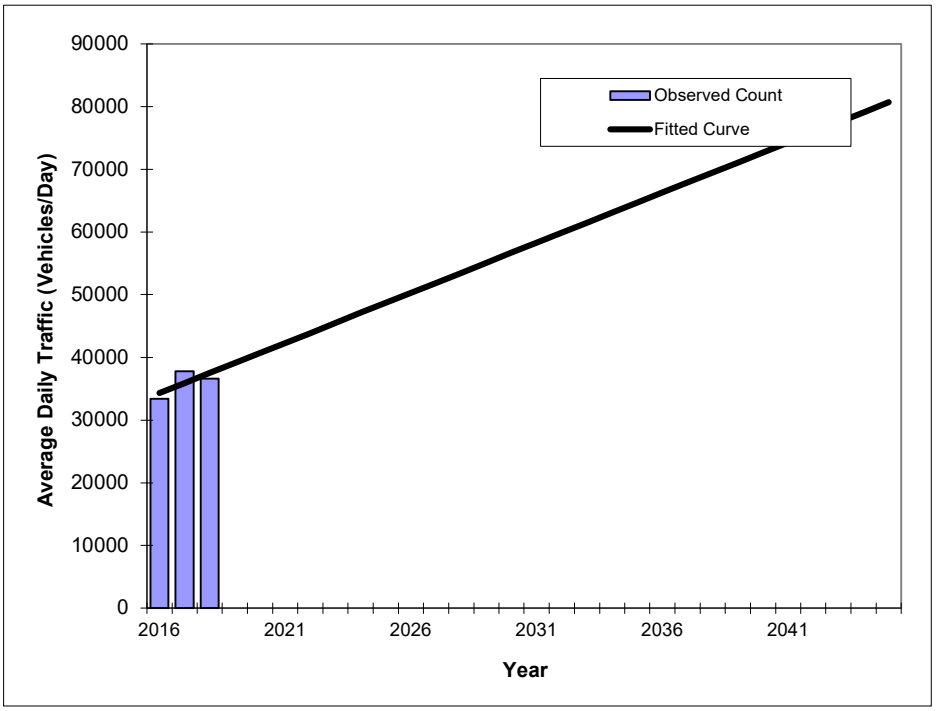
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- East of CR 419/Chuluota Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	314
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	33400	34300
2017	37800	35900
2018	36600	37500
2025 Opening Year Trend		
2025	N/A	48700
2035 Mid-Year Trend		
2035	N/A	64700
2045 Design Year Trend		
2045	N/A	80700
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,600
Trend R-squared:	49.48%
Trend Annual Historic Growth Rate:	4.66%
Trend Growth Rate (2018 to Design Year):	4.27%
Printed:	1-Nov-21
Straight Line Growth Option	

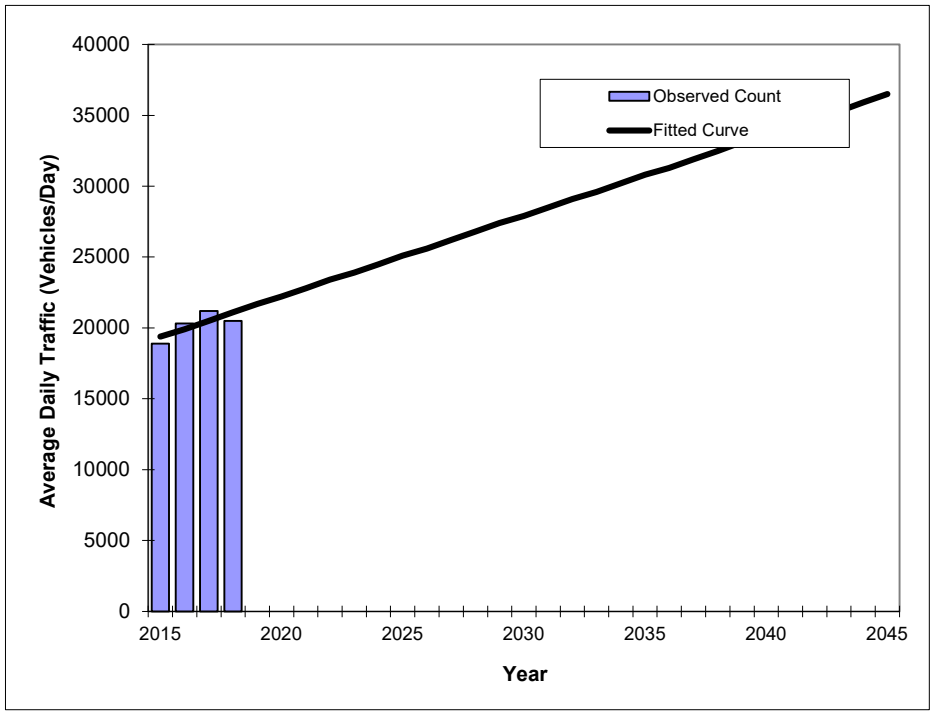
***Axle-Adjusted**

Traffic Trends - V03.a

ROUSE ROAD -- South of SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	427
Highway:	ROUSE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2015	18900	19400
2016	20300	19900
2017	21200	20500
2018	20500	21100
2025 Opening Year Trend		
2025	N/A	25100
2035 Mid-Year Trend		
2035	N/A	30800
2045 Design Year Trend		
2045	N/A	36500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	570
Trend R-squared:	58.28%
Trend Annual Historic Growth Rate:	2.92%
Trend Growth Rate (2018 to Design Year):	2.70%
Printed:	1-Nov-21
Straight Line Growth Option	

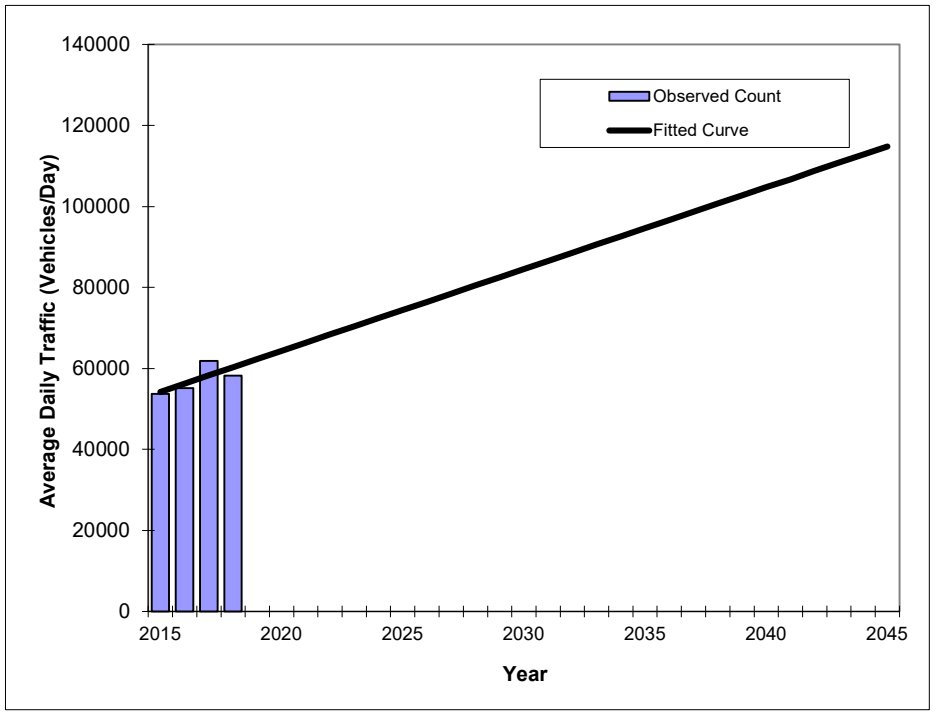
***Axle-Adjusted**

Traffic Trends - V03.a

ALAFAYA TRAIL -- SR 50 to Challenger Pkwy

FIN#	1234
Location	1

County:	Orange (75)
Station #:	488
Highway:	ALAFAYA TRAIL



Year	Traffic (ADT/AADT) Count*	Trend**
2015	53700	54200
2016	55200	56200
2017	61900	58300
2018	58200	60300
2025 Opening Year Trend		
2025	N/A	74400
2035 Mid-Year Trend		
2035	N/A	94600
2045 Design Year Trend		
2045	N/A	114800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	2,020
Trend R-squared:	51.87%
Trend Annual Historic Growth Rate:	3.75%
Trend Growth Rate (2018 to Design Year):	3.35%
Printed:	1-Nov-21
Straight Line Growth Option	

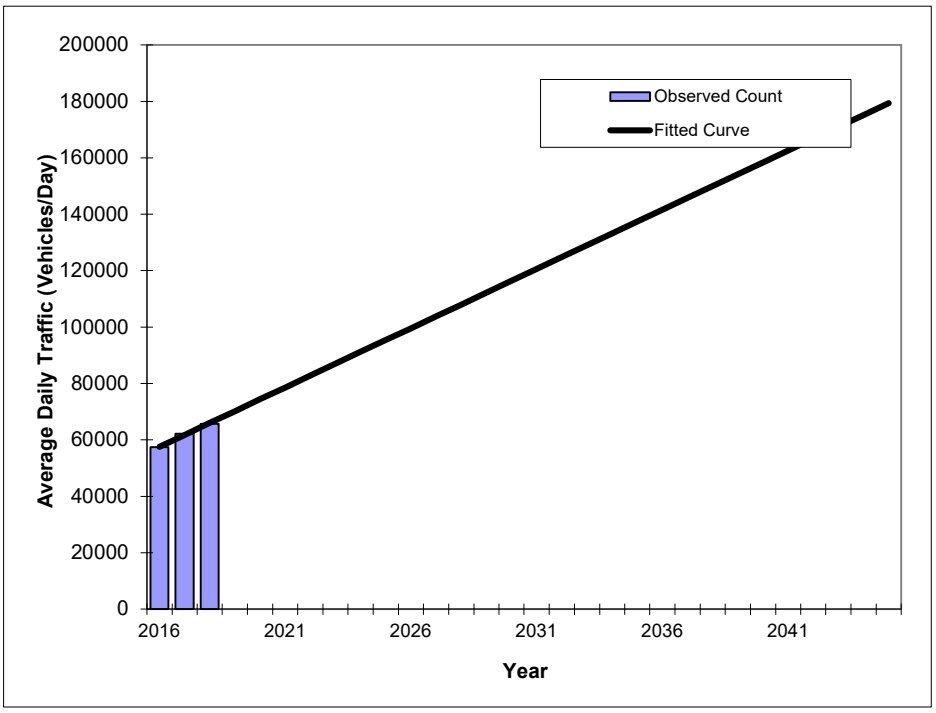
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- SR 408 Ramps to Lake Pickett Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	610
Highway:	SR 50



Year	Traffic (ADT/AADT) Count*	Trend**
2016	57400	57600
2017	62200	61800
2018	65800	66000
2025 Opening Year Trend		
2025	N/A	95400
2035 Mid-Year Trend		
2035	N/A	137400
2045 Design Year Trend		
2045	N/A	179400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	4,200
Trend R-squared:	99.32%
Trend Annual Historic Growth Rate:	7.29%
Trend Growth Rate (2018 to Design Year):	6.36%
Printed:	1-Nov-21
Straight Line Growth Option	

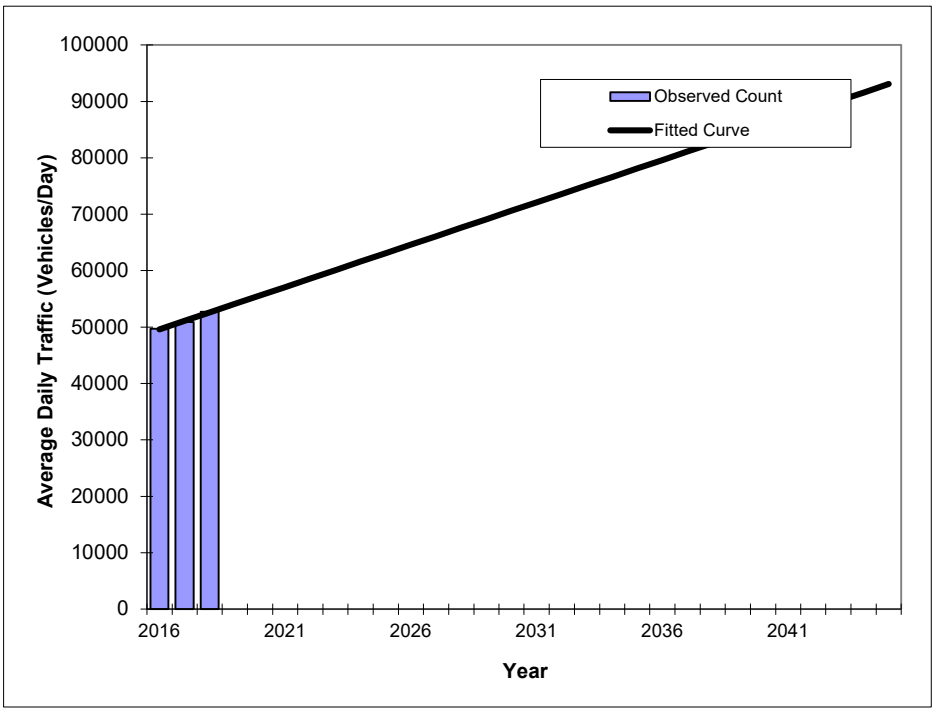
***Axle-Adjusted**

Traffic Trends - V03.a

SR 50 -- Lake Pickett Rd to Pebble Beach Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	611
Highway:	SR 50



** Annual Trend Increase:	1,500
Trend R-squared:	98.68%
Trend Annual Historic Growth Rate:	3.02%
Trend Growth Rate (2018 to Design Year):	2.85%
Printed:	1-Nov-21
Straight Line Growth Option	

Year	Traffic (ADT/AADT) Count*	Trend**
2016	49700	49600
2017	50900	51100
2018	52700	52600
2025 Opening Year Trend		
2025	N/A	63100
2035 Mid-Year Trend		
2035	N/A	78100
2045 Design Year Trend		
2045	N/A	93100
TRANPLAN Forecasts/Trends		

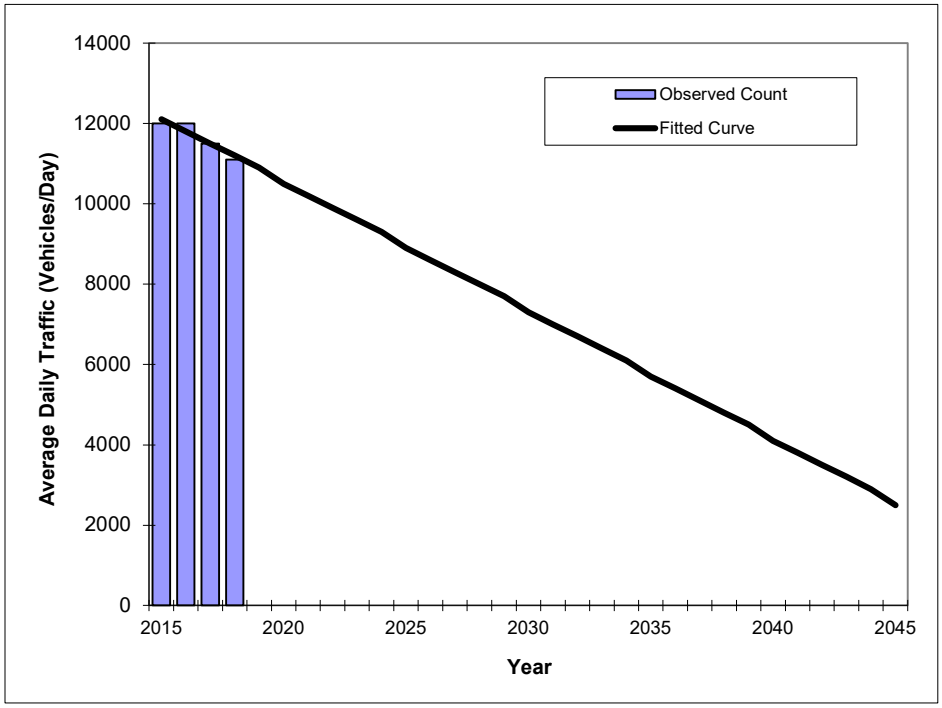
*Axle-Adjusted

Traffic Trends - V03.a

North Tanner Rd -- Stonebriar Way to Lake Price Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	2010
Highway:	North Tanner Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12000	12100
2016	12000	11800
2017	11500	11500
2018	11100	11200
2025 Opening Year Trend		
2025	N/A	8900
2035 Mid-Year Trend		
2035	N/A	5700
2045 Design Year Trend		
2045	N/A	2500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-320
Trend R-squared:	89.82%
Trend Annual Historic Growth Rate:	-2.48%
Trend Growth Rate (2018 to Design Year):	-2.88%
Printed:	1-Nov-21
Straight Line Growth Option	

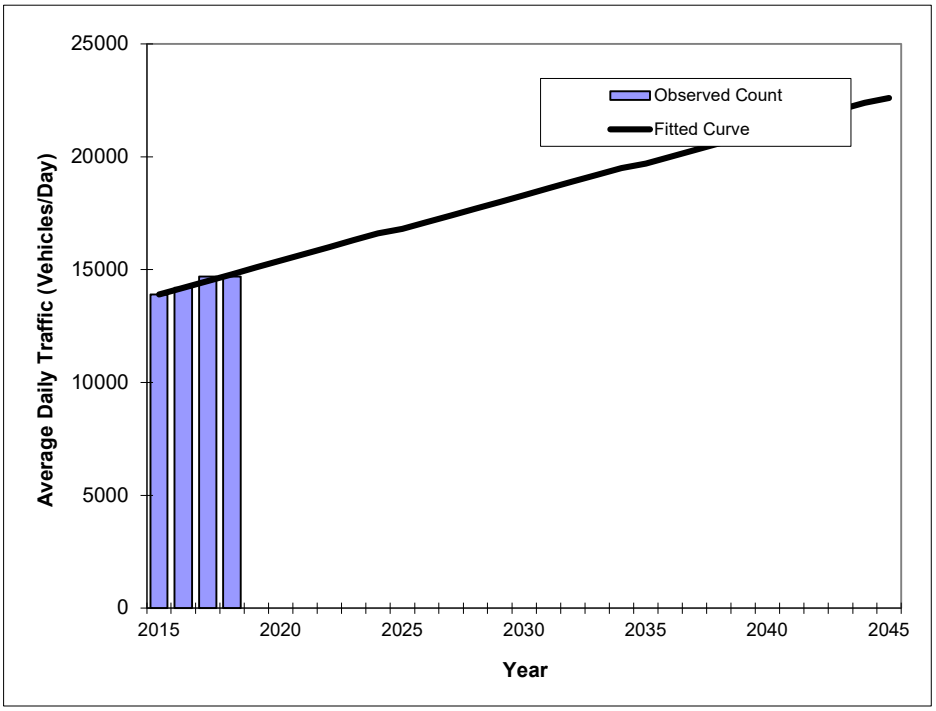
***Axle-Adjusted**

Traffic Trends - V03.a

Woodbury Rd -- North of SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	2012
Highway:	Woodbury Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	13900	13900
2016	14200	14200
2017	14700	14500
2018	14700	14800
2025 Opening Year Trend		
2025	N/A	16800
2035 Mid-Year Trend		
2035	N/A	19700
2045 Design Year Trend		
2045	N/A	22600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	290
Trend R-squared:	89.95%
Trend Annual Historic Growth Rate:	2.16%
Trend Growth Rate (2018 to Design Year):	1.95%
Printed:	1-Nov-21
Straight Line Growth Option	

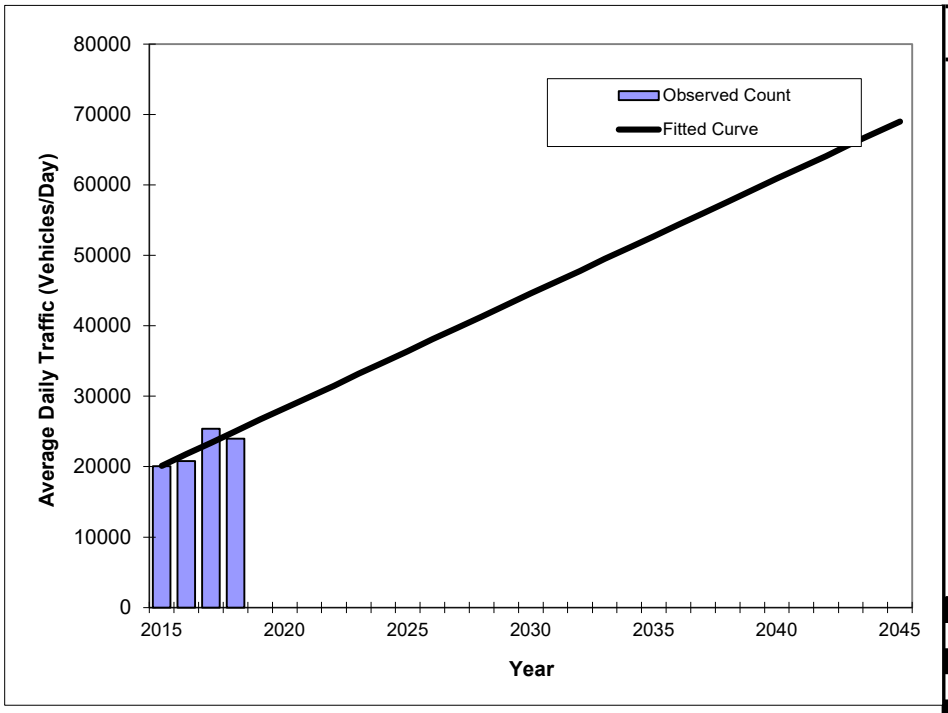
***Axle-Adjusted**

Traffic Trends - V03.a

Avalon Park Blvd -- 0.49 Miles N of Waterford Chase Pkwy

FIN#	1234
Location	1

County:	Orange (75)
Station #:	7142
Highway:	Avalon Park Blvd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	20100	20100
2016	20800	21800
2017	25400	23400
2018	24000	25000
2025 Opening Year Trend		
2025	N/A	36400
2035 Mid-Year Trend		
2035	N/A	52700
2045 Design Year Trend		
2045	N/A	69000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,630
Trend R-squared:	68.88%
Trend Annual Historic Growth Rate:	8.13%
Trend Growth Rate (2018 to Design Year):	6.52%
Printed:	1-Nov-21
Straight Line Growth Option	

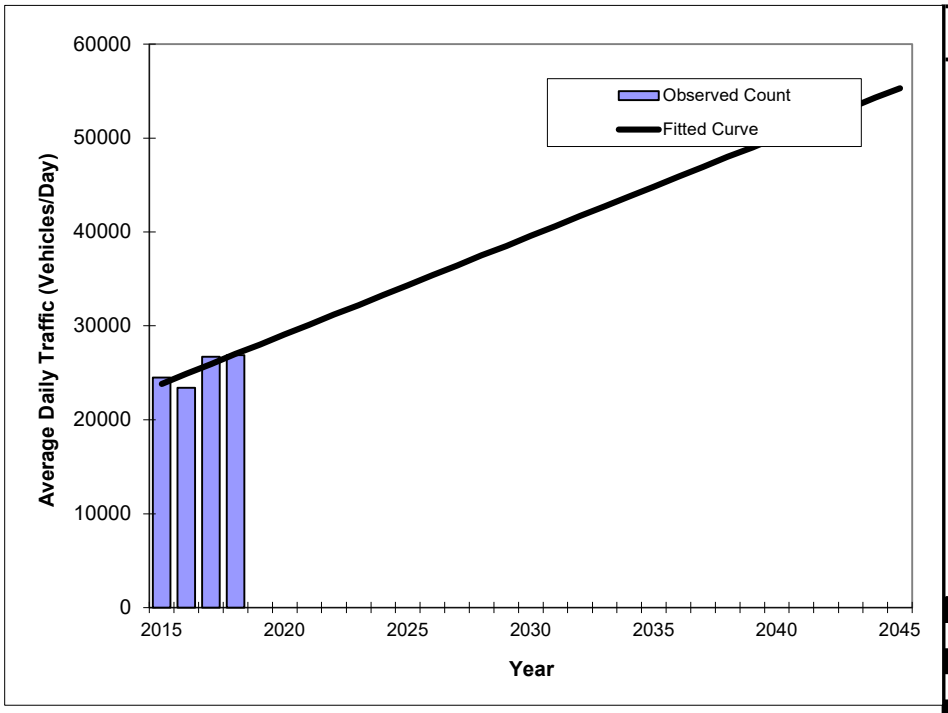
***Axle-Adjusted**

Traffic Trends - V03.a

Challenger Pkwy -- Ingenuity Dr to Woodbury Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	7173
Highway:	Challenger Pkwy



Year	Traffic (ADT/AADT) Count*	Trend**
2015	24500	23800
2016	23400	24900
2017	26700	25900
2018	26900	27000
2025 Opening Year Trend		
2025	N/A	34300
2035 Mid-Year Trend		
2035	N/A	44800
2045 Design Year Trend		
2045	N/A	55300
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,050
Trend R-squared:	63.02%
Trend Annual Historic Growth Rate:	4.48%
Trend Growth Rate (2018 to Design Year):	3.88%
Printed:	1-Nov-21
Straight Line Growth Option	

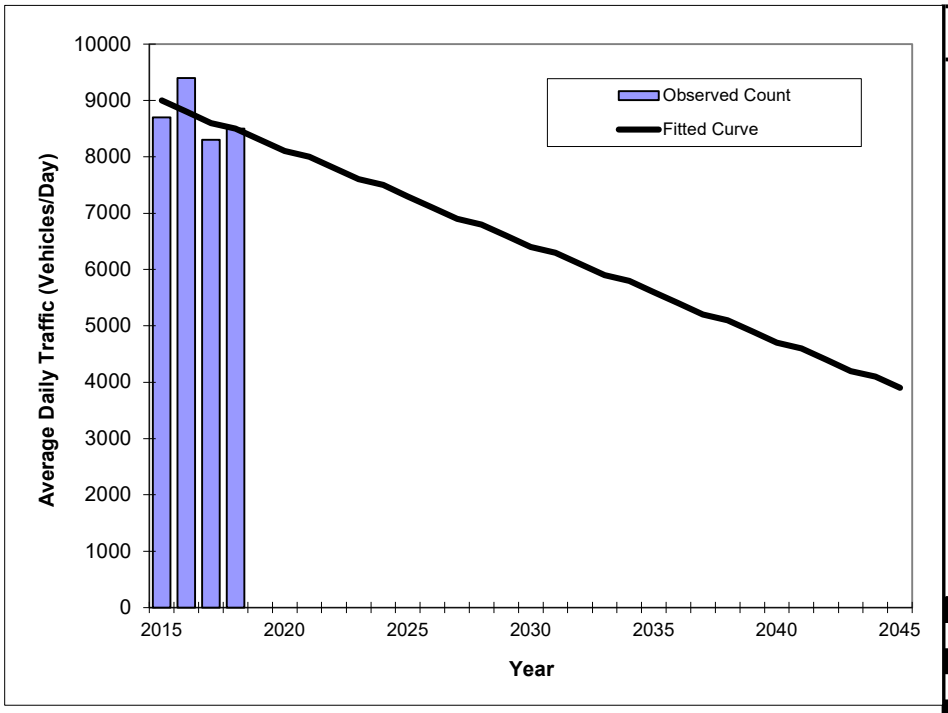
***Axle-Adjusted**

Traffic Trends - V03.a

Challenger Pkwy -- Alafaya Tr to Ingenuity Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	7142
Highway:	Challenger Pkwy



Year	Traffic (ADT/AADT) Count*	Trend**
2015	8700	9000
2016	9400	8800
2017	8300	8600
2018	8500	8500
2025 Opening Year Trend		
2025	N/A	7300
2035 Mid-Year Trend		
2035	N/A	5600
2045 Design Year Trend		
2045	N/A	3900
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

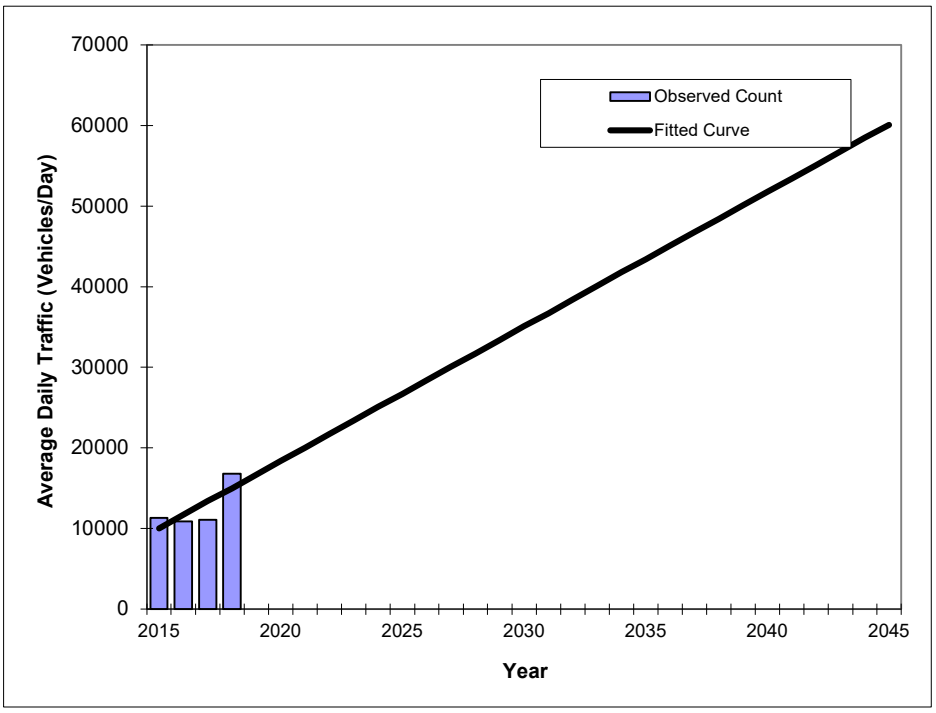
**** Annual Trend Increase:**	-170
Trend R-squared:	21.02%
Trend Annual Historic Growth Rate:	-1.85%
Trend Growth Rate (2018 to Design Year):	-2.00%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

McCulloch Rd -- Rouse Rd to Alafaya Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8040
Highway:	McCulloch Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	11300	10000
2016	10900	11700
2017	11100	13400
2018	16800	15000
2025 Opening Year Trend		
2025	N/A	26700
2035 Mid-Year Trend		
2035	N/A	43400
2045 Design Year Trend		
2045	N/A	60100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,670
Trend R-squared:	57.04%
Trend Annual Historic Growth Rate:	16.67%
Trend Growth Rate (2018 to Design Year):	11.14%
Printed:	1-Nov-21
Straight Line Growth Option	

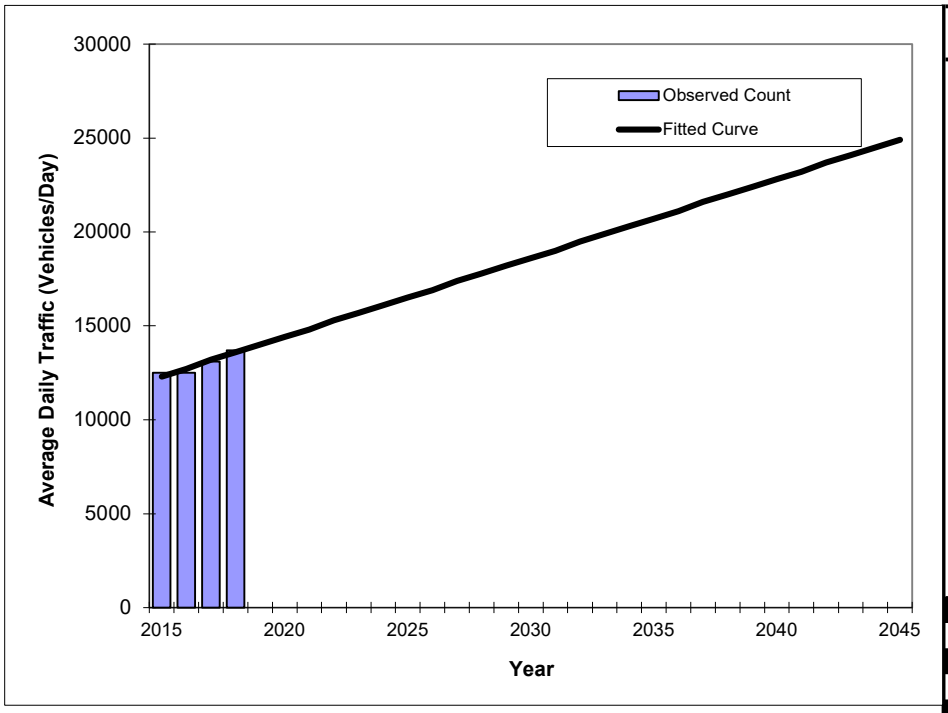
***Axle-Adjusted**

Traffic Trends - V03.a

Corporate Blvd -- West of Alafaya Tr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8041
Highway:	Corporate Blvd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	12500	12300
2016	12500	12700
2017	13100	13200
2018	13700	13600
2025 Opening Year Trend		
2025	N/A	16500
2035 Mid-Year Trend		
2035	N/A	20700
2045 Design Year Trend		
2045	N/A	24900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	420
Trend R-squared:	89.09%
Trend Annual Historic Growth Rate:	3.52%
Trend Growth Rate (2018 to Design Year):	3.08%
Printed:	1-Nov-21
Straight Line Growth Option	

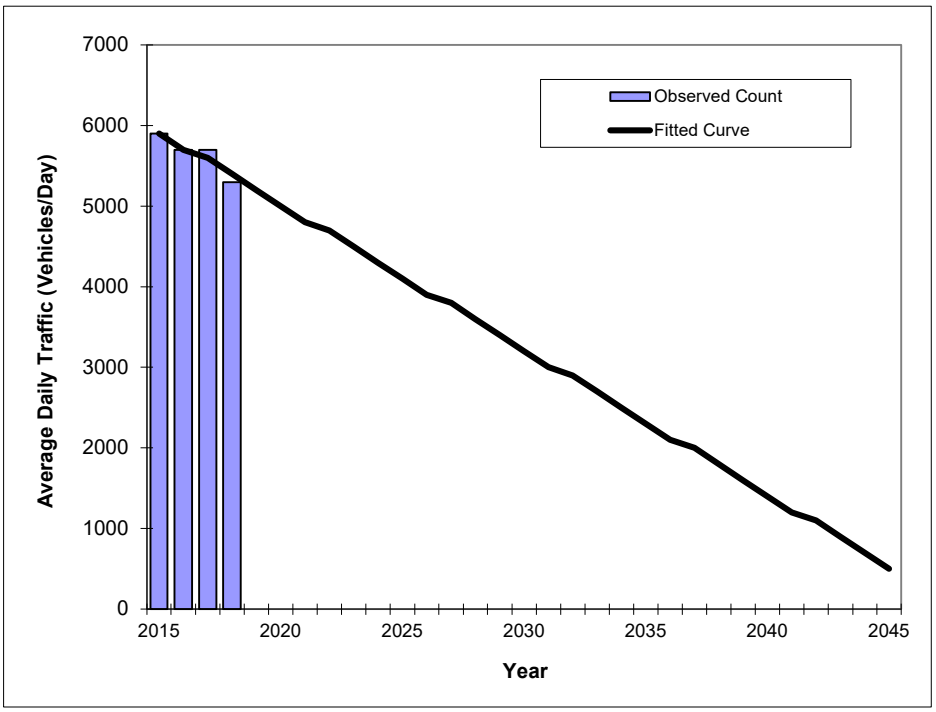
***Axle-Adjusted**

Traffic Trends - V03.a

Percival Rd -- Sussex Dr to N Tanner Rd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8042
Highway:	Percival Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	5900	5900
2016	5700	5700
2017	5700	5600
2018	5300	5400
2025 Opening Year Trend		
2025	N/A	4100
2035 Mid-Year Trend		
2035	N/A	2300
2045 Design Year Trend		
2045	N/A	500
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

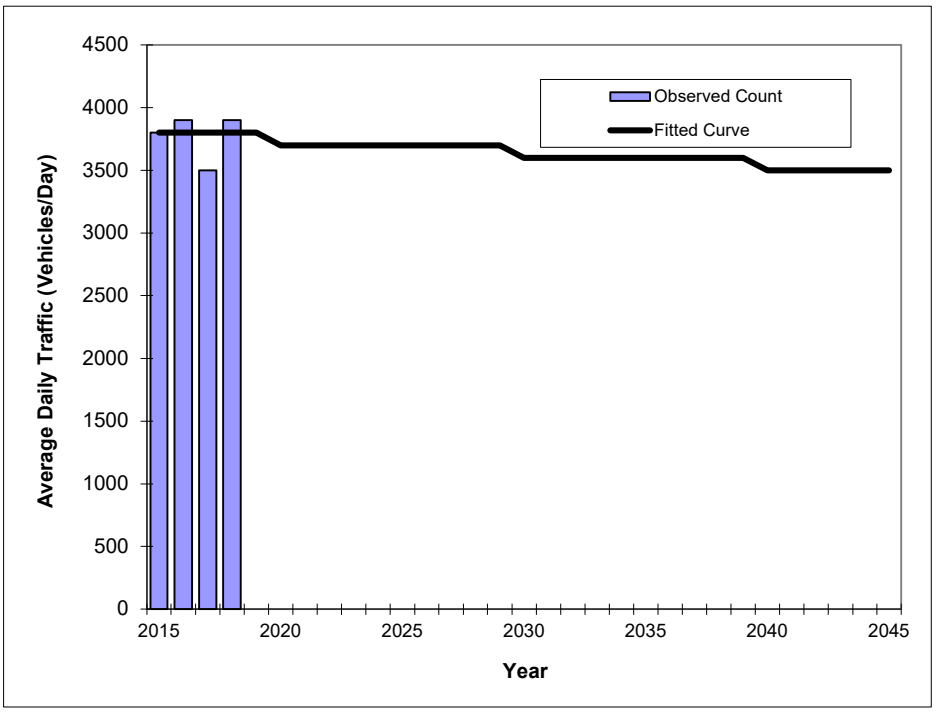
** Annual Trend Increase:	-180
Trend R-squared:	85.26%
Trend Annual Historic Growth Rate:	-2.82%
Trend Growth Rate (2018 to Design Year):	-3.36%
Printed:	1-Nov-21
Straight Line Growth Option	

Traffic Trends - V03.a

South Tanner Rd -- North of SR 50

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8043
Highway:	South Tanner Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	3800	3800
2016	3900	3800
2017	3500	3800
2018	3900	3800
2025 Opening Year Trend		
2025	N/A	3700
2035 Mid-Year Trend		
2035	N/A	3600
2045 Design Year Trend		
2045	N/A	3500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-10
Trend R-squared:	0.47%
Trend Annual Historic Growth Rate:	0.00%
Trend Growth Rate (2018 to Design Year):	-0.29%
Printed:	1-Nov-21
Straight Line Growth Option	

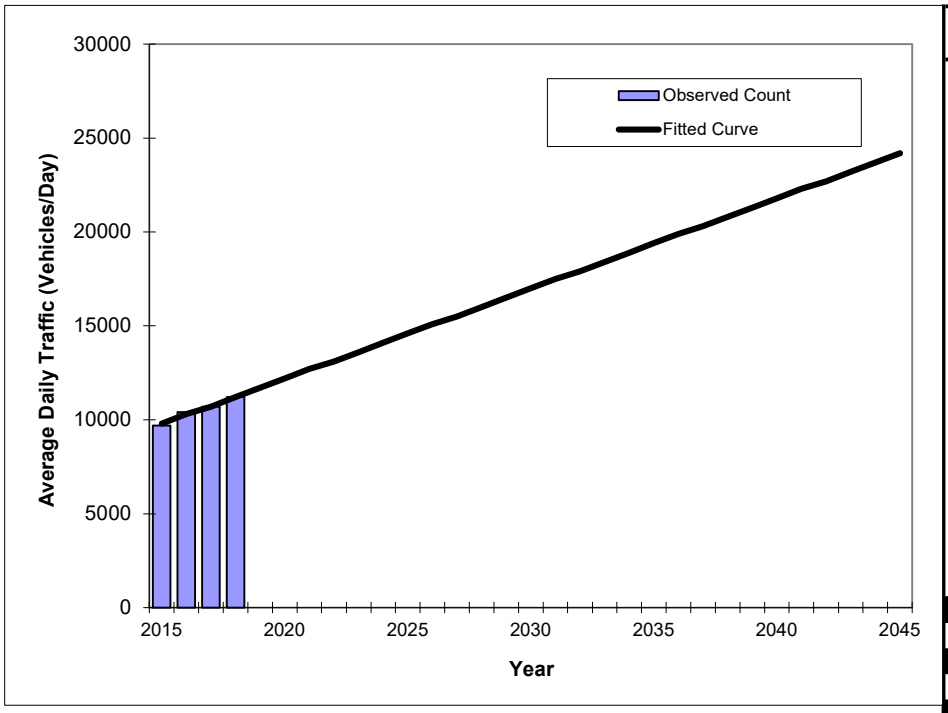
***Axle-Adjusted**

Traffic Trends - V03.a

CR 419/Chuluota Rd -- Old Lake Pickett Rd to Seminole County Line

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8044
Highway:	CR 419/Chuluota Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	9700	9800
2016	10400	10300
2017	10700	10700
2018	11200	11200
2025 Opening Year Trend		
2025	N/A	14600
2035 Mid-Year Trend		
2035	N/A	19400
2045 Design Year Trend		
2045	N/A	24200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	480
Trend R-squared:	97.63%
Trend Annual Historic Growth Rate:	4.76%
Trend Growth Rate (2018 to Design Year):	4.30%
Printed:	1-Nov-21
Straight Line Growth Option	

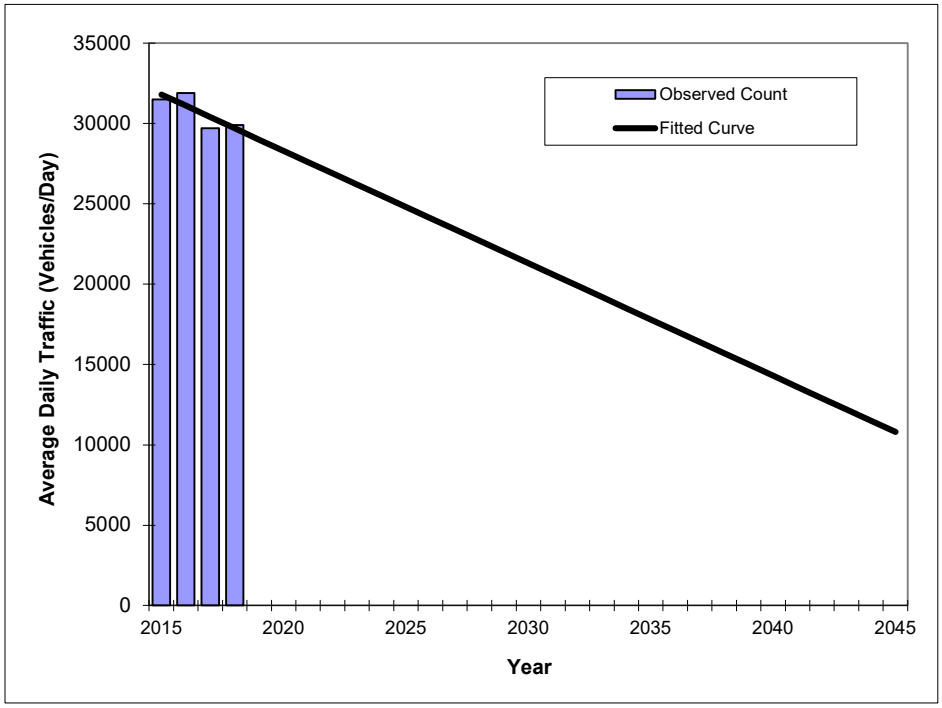
***Axle-Adjusted**

Traffic Trends - V03.a

McCulloch Rd -- Alafaya Tr to Lockwood Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8050
Highway:	McCulloch Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	31500	31800
2016	31900	31100
2017	29700	30400
2018	29900	29700
2025 Opening Year Trend		
2025	N/A	24800
2035 Mid-Year Trend		
2035	N/A	17800
2045 Design Year Trend		
2045	N/A	10800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-700
Trend R-squared:	66.04%
Trend Annual Historic Growth Rate:	-2.20%
Trend Growth Rate (2018 to Design Year):	-2.36%
Printed:	1-Nov-21

Straight Line Growth Option

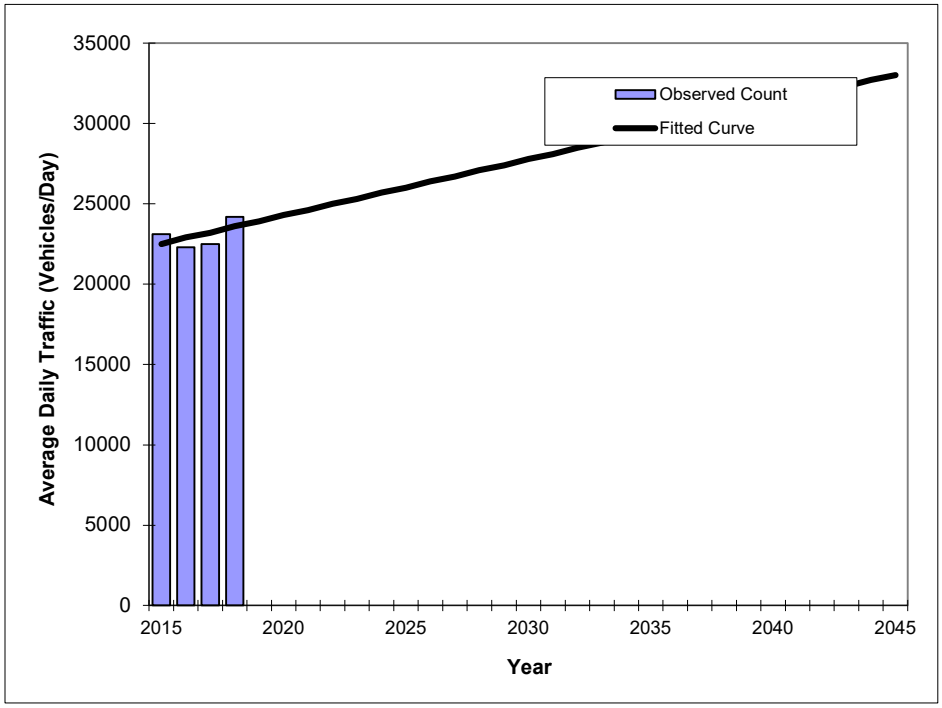
***Axle-Adjusted**

Traffic Trends - V03.a

McCulloch Rd -- Lockwood Blvd to Worchester Dr

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8060
Highway:	McCulloch Rd



Year	Traffic (ADT/AADT) Count*	Trend**
2015	23100	22500
2016	22300	22900
2017	22500	23200
2018	24200	23600
2025 Opening Year Trend		
2025	N/A	26000
2035 Mid-Year Trend		
2035	N/A	29500
2045 Design Year Trend		
2045	N/A	33000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	350
Trend R-squared:	28.00%
Trend Annual Historic Growth Rate:	1.63%
Trend Growth Rate (2018 to Design Year):	1.48%
Printed:	1-Nov-21
Straight Line Growth Option	

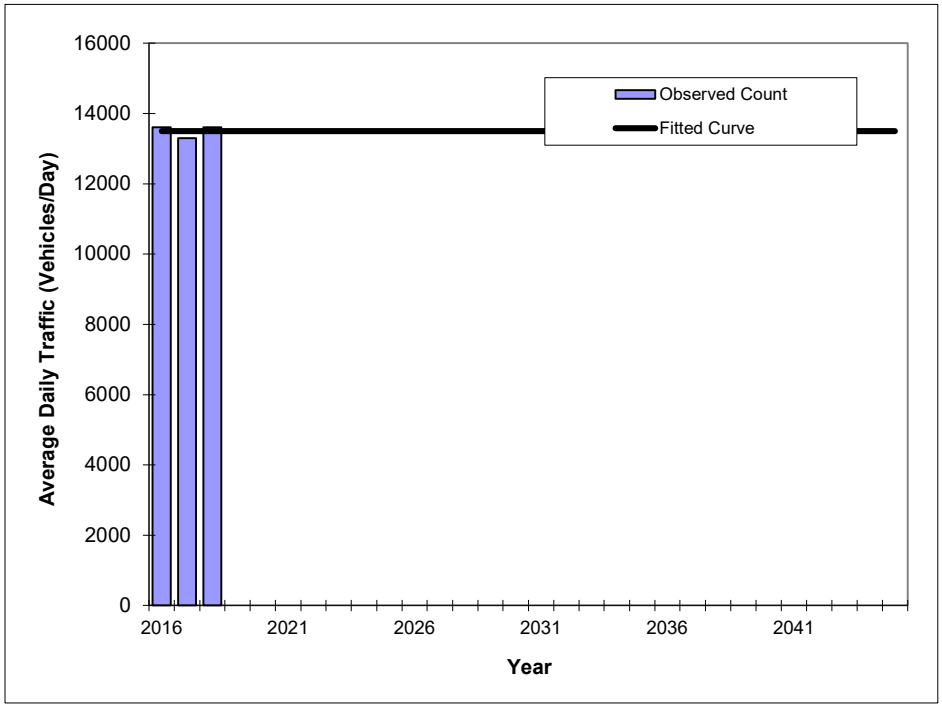
***Axle-Adjusted**

Traffic Trends - V03.a

CR 419/Chuluota Rd -- SR 50 to Cypress Lake Glen Blvd

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8142
Highway:	CR 419/Chuluota Rd



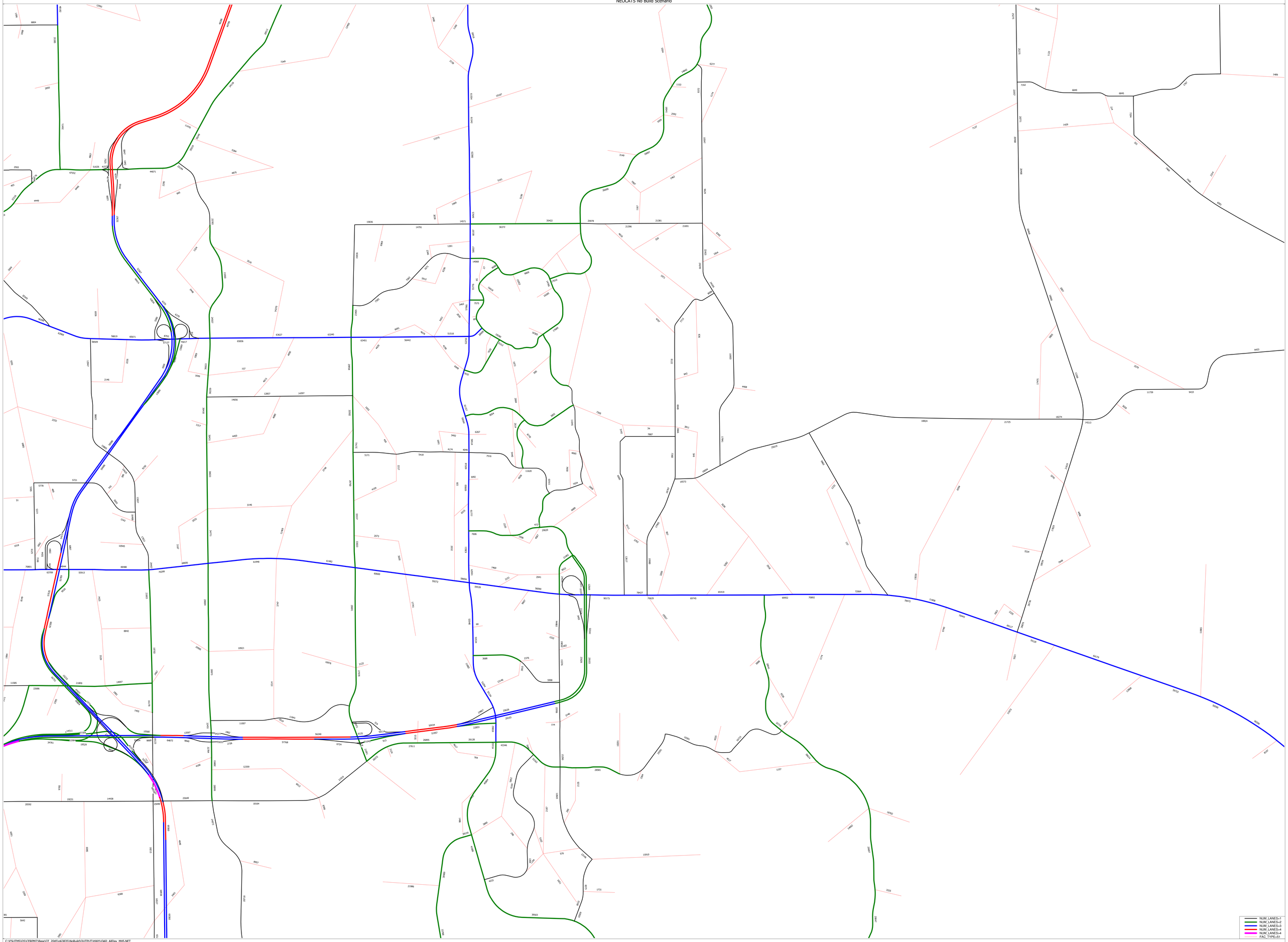
Year	Traffic (ADT/AADT) Count*	Trend**
2016	13600	13500
2017	13300	13500
2018	13600	13500
2025 Opening Year Trend		
2025	N/A	13500
2035 Mid-Year Trend		
2035	N/A	13500
2045 Design Year Trend		
2045	N/A	13500
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	0
Trend R-squared:	0.00%
Trend Annual Historic Growth Rate:	0.00%
Trend Growth Rate (2018 to Design Year):	0.00%
Printed:	1-Nov-21
Straight Line Growth Option	

***Axle-Adjusted**

APPENDIX U: 2045 MODEL OUTPUTS

CFRPM7 - CF_2045 - Total Two-way Traffic Volumes (PSWADT)
NEOCATS No Build Scenario



C:\PSUTMS\DS\CRPM7\Base\CF_2045\p63835\NoBuild\OUTPUT\HWYLOAD_AllDay_M45.NET

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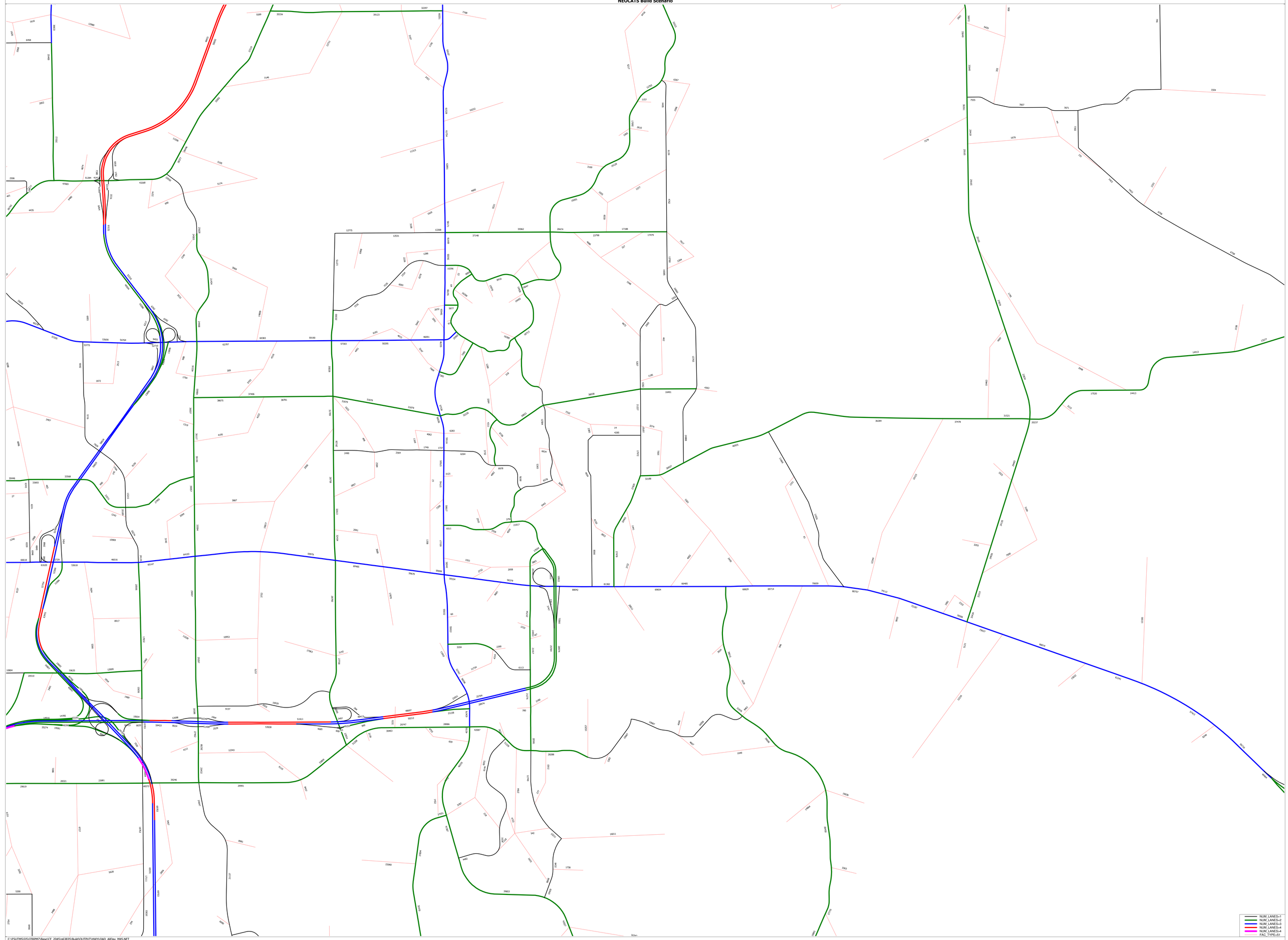
CFRPM7 - CF_2045 - Total Two-way Traffic Volumes (PSWADT)
NEOCATS Build Scenario



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