

TO:

### County of Fresno

### DEPARTMENT OF PUBLIC WORKS AND PLANNING STEVEN E. WHITE, DIRECTOR

DATE: January 30, 2025

Department of Public Works and Planning, Attn: Steven E. White, Director Department of Public Works and Planning, Attn: Bernard Jimenez, Planning and Resource Management Officer Development Services and Capital Projects, Attn: William M. Kettler, Deputy Director of Planning Development Services and Capital Projects, Attn: Chris Motta, Division Manager Development Services and Capital Projects, Attn: Tawanda Mtunga, Principal Planner, Current Planning Unit Development Services and Capital Projects, Attn: James Anders, Principal Planner, Development Engineering Unit Development Services and Capital Projects, Current/Environmental Planning, Attn: David Randall, Senior Planner Development Services and Capital Projects, Policy Planning, Attn: Mohammed Khorsand, Senior Planner Development Services and Capital Projects, Zoning & Permit Review, Attn: Daniel Gutierrez, Senior Planner Development Services and Capital Projects, Building and Safety/Plan Check, Attn: Mike Granat, Chief Building Inspector/Arnulfo Valdivia, Supervising Building Inspector Development Services and Capital Projects, Development Engineering, Attn: Laurie Kennedy, Office Assistant III Water and Natural Resources Division, Attn: Augustine Ramirez, Division Manager/Roy Jimenez, Senior Planner Water and Natural Resources Division, Transportation Planning, Attn: Hector Luna, Senior Planner/ Brody Hines/Darren Findley Design Division, Attn: Mohammad Alimi, Division Manager; Erin Haagenson, Principal Staff Analyst Resources Division, Attn: Daniel Amann, Division Manger Road Maintenance and Operations Division, Attn: Wendy Nakagawa, Supervising Engineer Department of Public Health, Environmental Health Division, Attn: Deep Sidhu, Supervising Environmental Health Specialist; Kevin Tsuda, Environmental Health Specialist; Agricultural Commissioner, Attn: Melissa Cregan California Department of Fish and Wildlife, Attn: R4CEQA@wildlife.ca.gov U.S. Fish and Wildlife Service, Attn: Patricia Cole/ Matthew Nelson Sheriff's Office, Attn: Assistant Sheriff Ryan Hushaw, Lt. David Pugliese, Lt. Ryan Gilbert, Lt. Kathy Curtice, Lt. Adam Maldonado Fresno County Fire Protection District, Attn: FKU. Prevention-Planning@fire.ca.gov California Highway Patrol, Attn: Captain Austin Matulonis/Sergeant Miguel Andrade Pacific Gas and Electric, Centralized Review Team, Attn: PGEPlanReview@pge.com CALTRANS, Attn: David Padilla, Division Chief/Nicholas Isla, Transportation Planner Department of Conservation, Geologic Energy Management Division, Attn: CalGEMInland@conservation.gov

San Joaquin Valley Unified Air Pollution Control District (PIC-CEQA Division), Attn: PIC Supervisor CA Regional Water Quality Control Board, Attn: <u>centralvalleyfresno@waterboards.ca.gov</u> State Water Resources Control Board, Division of Drinking Water, Attn: Cinthia Reyes Westlands Water District(and Westside Subbasin GSA), Attn: Allison Febbo, General Manager/ Jose Gutierrez, Assistant General Manager

- FROM: Jeremy Shaw, Planner Development Services and Capital Projects Division
- SUBJECT: Unclassified Conditional Use Permit Application No. 3815 and Initial Study No. 8656
- APPLICANT: Daniel Barnes

### DUE DATE: February 12, 2025

The Department of Public Works and Planning, Development Services and Capital Projects Division is reviewing the subject application proposing to allow an Interstate Freeway Interchange Commercial development, comprised of a 3,900 square-foot Convenience Store with a six position MPD fueling canopy; and a separate 6,800 square-foot convenience store with a six position MPD fueling canopy, and 1,691 square-feet dedicated to fast-food services. Both proposed convenience stores will include the sale of beer and wine. The proposed project will be developed on a 2.82-acre parcel within the AE-40 (Exclusive Agricultural, 40-acre minimum parcel size) Zone District and within the I-5/ Lassen Avenue commercial interchange area.

The subject parcel is located on the West side of Lassen Avenue (SR 269) approximately 780 feet north of its intersection with Interstate 5 (085-130-23S)(SUP DIST. 4).

The Department is also reviewing for environmental effects, as mandated by the California Environmental Quality Act (CEQA) and for conformity with plans and policies of the County. An Environmental Impact Report (EIR) is being prepared to determine the likely environmental impacts associated with the project. If you would like to receive that notice, please reach out to me and we will include you in the routing for the formal EIR Scoping Process.

Based upon this review, a determination will be made regarding conditions to be imposed on the project, including necessary on-site and off-site improvements.

We must have your comments by **February 12**, **2025**. Any comments received after this date may not be used.

### If you do not have comments, please provide a "NO COMMENT" response to our office by the above deadline (e-mail is acceptable; see email address below).

Please address any correspondence or questions related to environmental and/or policy/design issues to me, Jeremy Shaw, Planner, Development Services and Capital Projects Division, Fresno County Department of Public Works and Planning, 2220 Tulare Street, Sixth Floor, Fresno, CA 93721, or call (559) 600-4207, or email jshaw@fresnocountyca.gov

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Activity Code (Internal Review): 2384

Enclosures



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P.O Box 3820 Turlock, CA 95381 (209) 634-4832

### November 14th, 2024

Fresno County Department of Public Works and Planning 2220 Tulare St, Sixth Floor Fresno, CA 93721

### **Subject: Operational Statement**

Project: Huron Gas Station Fresno County Project #: TBD RMK Project #: RMK-0046 APN: 085-130-23S Pre-Application Review No.: 20-110582

### **Operational Statement**

- 1. Nature of the operation--what do you propose to do?
  - a. The proposed project is developing a currently vacant parcel. The proposed development will include a 3,960 SF Convenience Store with a proposed 6 MPD fueling Canopy. The development will include a separate 6,800 SF Convenience Store with a proposed 6 MPD Fueling Canopy. 1,691 SF of the 6,800 SF Convenience Store will be used as fast-food restaurant(s). None of the proposed restaurants are including a drive thru. Both convenience stores are requesting the off sale of beer and wine.
- 2. Operational time limits
  - a. All businesses will be open 24 hours a day, 7 days a week.
- 3. Number of customers or visitors
  - a. The estimated number of visitors for the combined uses would be between 500 to 1,200 customers per day.
- 4. Number of employees
  - a. The estimated number of employees is estimated to be 102. The total number of employees on a given shift is estimated to be 17. With 357 estimated 8 hour shifts. The breakdown per buildings is as follows: Use / Total Number of 8 Hr Shifts per Week / Total Number of Estimated Employees
    - i. C-Store (A) / 63 / 18
    - ii. C-Store (B) / 84 / 24
    - iii. QSR 1 (B) / 42 / 12
    - iv. QSR 2 (B) / 84 / 24
    - v. QSR 3 (B) / 84 / 24
- 5. Service and delivery vehicles
  - a. The convenience stores and fueling will require daily deliveries for fuel and weekly deliveries for inventory
- 6. Access to the site
  - a. All parcels are accessible by the fronting State Route 269 (Lassen Avenue), as seen on the proposed site plan.
- 7. Number of parking spaces for employees, customers, and service/delivery vehicles
  - a. The proposed development is providing 67 parking for employees, customers, and deliveries. All proposed parking will be on newly constructed pavement. A detailed parking analysis can be found on sheet C1.0.
- 8. Are any goods to be sold on-site? If so, are these goods grown or produced on-site or at some other location?



- a. The site will sell goods that will be produced at other locations and shipped onsite. The goods will consist of typical merchandise, foods, vehicle parts that would be sold at a convenience store, fast food restaurant.
- 9. What equipment is used?
  - a. There is no significant equipment proposed.
- 10. What supplies or materials are used and how are they stored?
  - a. Any materials needed for the proposed buildings will be stored in the designated storage areas shown on the floor plan.
- 11. Does the use cause an unsightly appearance?
  - a. The existing site is in conformance with the surrounding uses. There is an existing fueling station located on the South Side of I-5 along SR 269. The project will not add any unsightly presence that would disturb the surrounding properties. To reduce dust all parking and traffic will be routed through paved surfaces.
- 12. List any solid or liquid wastes to be produced.
  - a. Each of the (2) proposed buildings will require a wastewater supply for raw sewage services. The proposed site plan will use an onsite leach field to dispose of liquid wastes.
    - i. The estimated wastewater discharge to the septic field is = 6,300 gpd using the Fresno County OWTS requirements.
  - b. Solid wastes are to be captured and disposed of in the proposed trash enclosures. Trash Enclosure solid waste will be hauled to the nearest landfill and recycling center.
- 13. Estimated volume of water to be used (gallons per day)
  - a. Each of the (2) proposed buildings will require a domestic water supply. The proposed development will require an onsite well.
  - b. The total estimated domestic water use is assumed to be equal to the wastewater discharge of = 6,300 gpd
- 14. Describe any proposed advertising including size, appearance, and placement?
  - a. A future sign program will be submittal and processed for the project. Fuel price signs and a monument sign will be placed fronting SR-269.
- 15. Will existing buildings be used or will new buildings be constructed?
  - a. All proposed buildings will be new constructed buildings. There will be no existing buildings reused for the development.
- 16. Explain which buildings or what portion of buildings will be used in the operation
  - a. The 6,800 SF Building will reserve 1,691 SF for future restaurant(s). The remaining space will be used for a Convenience Store. The convenience store will have typical facilities including public restrooms. The 3,960 SF building will be uses entirely as a convenience store. Both buildings will include the off-sale off beer and wine.
- 17. Will any outdoor lighting or an outdoor sound amplification system be used?
  - a. The site will be appropriately lighted using onsite parking lot lights.
- 18. Landscaping or fencing proposed?
  - a. Landscape plans will be produced during the construction document phase of the project. The current site plan contains a fenced park area.
- 19. Any other information that will provide a clear understanding of the project or operation.
  - a. For a more detailed description of the site plan and proposed buildings uses refer to the provided plans for the development.
- 20. Identify all Owners, Officers and/or Board Members for each application submitted; this may be accomplished by submitting a cover letter in addition to the information provided on the signed application forms.
  - a. The property is owned by Sandeep Chauhan. The property is being developed by Sandeep and her husband Daljinder Chauhan.



P.O Box 3820 Turlock, CA 95381 (209) 634-4832

Tank M Ban Sincerely,

Daniel Barnes, PE Project Manager

	CONTOURS	MONUMENT SIGN	BOLLARD		BENCHMARK	ELECTRICAL BOX	STREET LIGHT	POWER POLE &		GAS	STORM DRAIN	SANITARY SEWER	WATER	CURB RAMP (TYPES VARY)		CURB, GUTTER,		RIDGE $\rightarrow$ $\rightarrow$ $\rightarrow$ $\rightarrow$ $\rightarrow$	DRAINAGE SWALE N/A GRADE BREAK ムムムム	MASONRY WALL	WOOD FENCE	EASEMENT	RIGHT OF WAY    (EX) ROW       PROPERTY LINE    (EX) LL	SECTION LINE	
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FLOOR PLAN NOTES	WALL TYPES
1. REFER TO SHEET A201 FOR ACCESSORY SCHEDULES.          101       DOOR KEY         1i       WALL KEY         1t       WINDOW KEY	EXTERIOR - NON RATED         A       2x6 WOOD STUDS AT 16" OC WITH R-19 BATT INSULATION.         5/8" GYP BOARD AT INTERIOR SIDE AND 7/8" CEMENT STUCCO SYSTEM AT EXTERIOR.         EXTERIOR - 1 HOUR FIRE RATED         A1       2x6 WOOD STUDS AT 16" OC WITH R-19 BATT INSULATION.         5/8" GYP BOARD AT INTERIOR SIDE AND 7/8" CEMENT STUCCO SYSTEM AT EXTERIOR.         A1       2x6 WOOD STUDS AT 16" OC WITH R-19 BATT INSULATION.         5/8" GYP BOARD AT INTERIOR SIDE AND 7/8" CEMENT STUCCO SYSTEM AT EXTERIOR.
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FLOOR PLAN





1 FLOOR PLAN 1/8" = 1'-0"

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Convenience Store Building B

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FLOOR PLAN

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FLOOR PLAN NOTES							
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		INTERIOR - NON RATED (STC 40)					
¢		2x6 WOOD STUDS AT 16" OC WITH R-19 BATT INSULATION. 5/8" GYP BOARD AT BOTH SIDES. MAX 10'-0" HEIGHT					
		INTERIOR - 1 HR FIRE RATED (STC 54)					
		2x6 WOOD STUDS AT 16" OC WITH R-19 BATT INSULATION. 5/8" GYP BOARD AT BOTH SIDES. MAX 10'-0" HEIGHT					



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M-2	OMEGA PRODUCTS INTERNATIONAL 3 COAT STUCCO SYSTEM WITH OMEGAFLEX ACRYLIC FINISH COLOR - 9225 CHINCHILLA
M-3	OMEGA PRODUCTS INTERNATIONAL 3 COAT STUCCO SYSTEM WITH OMEGAFLEX ACRYLIC FINISH COLOR - 404 BARN SWALLOW
M-4	STONE WAINSCOT CULTURED STONE VENEER PRO-FIT LEDGESTONE COLOR - MOJAVE ESR-1364
M-5	FABRIC AWNING WITH STEEL FRAME
M-6	PRE CAST CONCRETE SILL - NATURAL FINISH
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BUILDING ELEVATIONS





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M-2	OMEGA PRODUCTS INTERNATIONAL 3 COAT STUCCO SYSTEM WITH OMEGAFLEX ACRYLIC FINISH COLOR - 9225 CHINCHILLA	M-5	STONE WAINSCOT CULTURED STONE VENEER PRO-FIT LEDGESTONE COLOR - MOJAVE ESR-1364
M-3	OMEGA PRODUCTS INTERNATIONAL 3 COAT STUCCO SYSTEM WITH OMEGAFLEX ACRYLIC FINISH COLOR - 9218 SHADE TREE	M-6	STEEL FRAMED FABRIC AWNING
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Chevron Convenience Store Building B

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### **Traffic Impact Study**

for

### Gas Station with Convenience Store At the Interchange of Interstate 5 and State Route 269, Fresno, Fresno County, California

September 3rd, 2021

Project No. 21-930



Submitted by: \_

Matthew K. VoVilla, R.C.E. 43130

Date

*LAV//Pinnacle* Engineering 12418 Rosedale Highway, Suite A Bakersfield, CA 93312 (661) 869-0184

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### Appendix "A" Exhibits and Figures:

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Figure 2:	Year 2021 Existing A.M. Peak Hour Volumes & Turning Movements
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Figure 4B:	P.M. Project Generated Traffic
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Figure 6B:	Year 2023 P.M. Peak Hour Volumes & Turning Movements (Opening Day)
Figure 7A:	Year 2023 A.M. Peak Hour Volumes & Turning Movements Plus Project
	Generated Traffic (Opening Day)

(Continued)

### **Appendix "A" Exhibit and Figures (Continued):**

- Figure 7B: Year 2023 P.M. Peak Hour Volumes & Turning Movements Plus Project Generated Traffic (Opening Day)
- Figure 8A: Year 2042 Projected A.M. Peak Hour Volumes & Turning Movements
- Figure 8B: Year 2042 Projected P.M. Peak Hour Volumes & Turning Movements
- Figure 9A: Year 2042 Projected A.M. Peak Hour Volumes & Turning Movements Plus Project Generated Traffic
- Figure 9B: Year 2042 Projected P.M. Peak Hour Volumes & Turning Movements Plus Project Generated Traffic

### **APPENDIX "B" – Level of Service Calculations**

### **APPENDIX "C" – Pass-By Survey**

### I. INTRODUCTION

This traffic impact study was prepared, as required by the California Department of Transportation (Caltrans), for two proposed gas station and convenience markets. At the time of this report, an application for a Zone Change and General Plan Amendment has been submitted to the County of Kern. As part of the environmental document to satisfy the California Environmental Quality Act (CEQA), various environmental studies, including this traffic impact study, has been required by the County of Kern.

### A. Project Description

As mentioned, the Project is the construction of two gas stations, a 3,500 square foot convenience market, and a 6,500 square foot convenience market. Each gas station will have 12 automobile fueling locations, for a total of 24 fueling positions. The Project will *not* have the capacity to fuel trucks.

The Project site is currently vacant fallow ground, covered in native and non-native grasses. Previously, the site was used for agriculture.

### B. Existing and Surrounding Land Use

The Project is located along State Route 269, also known as Lassen Ave, a north-south running road located approximately 10 miles northwest from Kettleman City in Fresno County. To the south, SR 269 intersects with Interstate 5, with ramps located approximately 500 ft and 1,300 ft away from the project entrance.

The surrounding area is mostly farmland. Approximately 1/3 of a mile south of the Project is a travel center, consisting of a convenience market, passenger fueling, and truck fueling. Approximately a mile southeast of the Project is a PG&E compressor station. There is no residential sites within the vicinity of the Project.

Figure 1 includes an aerial photo taken in 2021 showing the Project site and the surrounding area. Since 2021, there has been no further development in the vicinity of the Project.

### **II. EXISTING LOCAL STREET NETWORK**

The following is a description of streets in the vicinity of the site, which may be impacted to some extent by the Project.

**State Road 269:** Also known as Lassen Ave, SR 269 is a two-lane road that runs north-south approximately 30 miles along the Fresno-Kings County line. The southern terminus of SR 269 is in Avenal, where it intersects with SR 33. The northern terminus is at SR 145 near Five Points.

**Interstate 5**: Interstate 5 is the main north-south freeway through central California and runs from the Mexican border through California, Oregon and Washington, to the Canadian Border.

Interstate 5 connects all major metropolitan areas in central California and is the most significant route along the west coast for transport of goods and travelers.

In the vicinity of the Project, I-5 is a four-lane freeway.

### **III. METHOD OF LEVEL OF SERVICE ANALYSIS & TRAFFIC ESTIMATES**

### A. General

Additional detailed descriptions of methods and "findings" are provided in the appropriate sections herein. However, as a preface to the following sections, a brief step-by-step description used for analysis in this report, as follows:

- 1. Existing conditions of the Project and surrounding area are surveyed, including traffic volumes, traffic patterns, laneage, and intersection control.
- 2. Project-generated traffic, based on the proposed land use, is estimated and distributed onto the existing street network. Traffic is also distributed onto future streets if appropriate.
- 3. Using growth rates based on historic growth rates of roadways in the vicinity of the Project, future Traffic Volumes are estimated for Year 2023 (Opening Day), and Year 2042. Existing traffic volumes are known from traffic counts (Step 1).
- 4. The estimated Project-generated traffic is added to existing traffic volumes, and to future traffic volumes (estimated as described in Item 3 above), to determine the total traffic upon completion of the Project.
- 5. Street segments and intersections are analyzed for "Level of Service" (LOS) for the various scenarios: A) Existing conditions with No Project; B) Existing Conditions with Project; C) Year 2023, or "Opening Day" with No Project; D) Year 2023, or "Opening Day" with Project; E) Year 2042 with No Project; F) Year 2042 with Project, and G) And as determined herein, Year 2042 with Project and any mitigation improvements necessary to restore or improve a LOS to a satisfactory condition. Year 2023 was considered an "opening day" scenario. This is discussed in further detail later in this report.
- 6. Mitigation or capacity/level of service improvements are determined for any of the above scenarios which result in an unacceptable "Level of Service" (LOS). Resultant or "after mitigation" LOS's are determined to validate the improvements. Any planned improvements funded by the Regional Transportation Impact Fee program are evaluated for adequacy under future traffic conditions. The Project's obligation for funding of any needed mitigation improvements that are not covered by the RTIF program is also determined. The Project's obligation to fund mitigation not covered in the RTIF program, in very simplified terms, is the ratio of Project-generated traffic to total estimate future year traffic volume, multiplied by the total cost of the specific improvement.

7. Vehicle Miles Traffic: The total daily Vehicle Miles Traveled (VMT) is calculated for Project generated trips. The methodology for estimating VMT is provided in Section V of this report.

Again, methodology, findings, and mitigation are discussed in further detail in the following sections.

### **B.** Traffic Counts

Traffic counts were performed over the existing street network to determine existing intersection and roadway volumes, and traffic flow patterns. As discussed in the following section, future year traffic volumes are estimated by applying annual historic traffic growth rates for roadways in the vicinity of the Project.

Traffic counts were performed in March of 2021 during the morning and evening peak periods of weekdays, excluding Mondays, Fridays, holidays, and days preceding or following holidays. Weekdays before or after holidays or weekends are not representative of normal traffic patterns and thus are not counted or considered appropriate for analysis.

Counts were performed during the morning peak period between 6:30 A.M. and 8:30 A.M. as well as the evening peak period between 4:00 P.M. and 6:00 P.M. Often the peak period for various intersections and streets do not occur at identical times. In this study, conservatively, the highest one-hour volumes for each intersection or street segment within their respective peak periods were used for analysis in this report.

Figures 2 & 3, included in Appendix "A" of this study, show the peak hour volumes field counted during the morning and evening peak period, respectively. These figures also show the actual turning movements at all counted intersections. It should be noted that an adjustment factor of 1.05 has been applied to the specified traffic counts in order to account for reduced traffic due to Covid-19.

### C. Future Year Traffic Volumes

Normally future traffic volumes are estimated by applying growth rates derived from the Freno Council of Governments (Kern COG) computer traffic model. (Fresno COG is an association of city and county governments created to address regional transportation issues. Fresno COG maintains a computer traffic model for Fresno County, which includes monitoring of demographic trends). Often growth rates derived from the Fresno COG model are very close to population growth from published census data, and historical traffic growth. However, since the latest data available was from 2018, historical traffic growth rates for SR 269 and I-5 were used in lieu of model data. These values were considered appropriate given interstate traffic is not necessarily tied to local population growth.

Table 1 herein derives an annual average growth rate based on historical annual traffic increases for Interstate 5 and State Route 269. The final annual growth rate used to extrapolate future traffic from existing volumes is an annual average which is weighted based on the respective historical

volumes of I-5 and SR 58. Derivation of the average annual growth rates is shown herein in Table 1. Again, these rates were applied to existing traffic counts to yield future traffic volumes for Years 2023 and 2042.

### **Table 1: Projected Average Annual Growth Rates**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					Average Dai	ily Volume	e by Year	Average	Factor:	Factor:
Item					Average			Annual	Year	Year
No.	Road Segment	From	То	Year	Daily	Year	Average Daily	Growth	2021	2021
					Volume		Volume	Rate	to Year	to Year
								(%)	2023	2042
1.	SR 269	Plymouth Ave	Avenal Cutoff Road	2013	5,750	2019	5,450	-0.9%	0.9823	0.8216
2.	CA I-5	SR 269	Lassen Avenue	2013	35,750	2019	39,250	1.6%	1.0316	1.4084

 Weighted Average:
 1.3%
 1.0255
 1.3032

Note

1) All calculations we obtained using Caltrans census data for years 2013 and 2019.

2) Fresno County's annual growth rate is 0.71% in the past year.

3) California's annual growth rate is 0.05% according to census data from July 1,2019-July 1,2020

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Figure 6, included in Appendix A, shows the Year 2023 peak hour volumes and turning movements for intersections and roads within the Study scope. Similarly, Figure 7, also in Appendix A, shows the estimate peak hour volumes and turning movements for 2042.

### **D. Project Generated Traffic**

Project generated vehicular trips were estimated using the <u>Institute of Transportation Engineers</u> <u>Trip Generation Manual</u>, 10th Edition, hereinafter referred to as the ITE Manual. The ITE Manual provides mathematical correlations between various land uses and trip generation. The ITE Manual provides average rates for each land use type. Some ITE land uses also include fitted curves for trip generation rates. Said ITE Manual provides relationships for trip generated based on the number of fueling sites or the floor area of the convenience market. Both analyses have been provided in Appendix A of this Study; however, trip generation based on floor area of the convenience market yield the larger traffic volume and thus was used for analysis in this Study.

As indicated, trip generation rates are provided by the ITE Manual; however, to avoid doublecounting, reductions in those trips are permitted due to the phenomena of "Capture", "Pass-By" and "Diverted Link" trips. These phenomena are discussed in the following:

**"Pass-By"** trips are intermediate stops taken within the process of the primary trip, without diverting from the route of the primary trip. An example of a "Pass-By would be stopping for fuel during the work to home commute. The work to home commute is the primary trip, and the stop for gas is the "pass-by" trip, since it is not the primary purpose of the trip. Normally the stop at the market or fast-food restaurant would be tallied as two trips (arrival and departure trips). In this example, without an adjustment factor for "pass-by", three trips would be added to the local street network instead of 1 (for the primary commuting trip). Obviously, an over-estimation of Project impact to the local street network would result without a reduction for "pass-by". It should be noted again that a "pass-by" trip does not divert from the route of the primary trip. Diversions from the primary trips are defined as "diverted link" trips as described in the next paragraph.

**"Diverted Link"** trips are essentially "pass-by" trips, except the motorist must depart slightly from the primary route to reach an interim destination. An example of a "Diverted Link" trip as follows: As part of the primary trip from work to home, the motorist stops at a fast-food restaurant that requires leaving the primary route and impacting another road to reach said restaurant. In the case of the Project, a diverted link trip is created if a motorist departs from I-5 freeway to purchase fuel at the Project, then returns to I-5 to continue the primary trip. In these cases, "Diverted Link" trips do not add to the total freeway traffic, but do impact the freeway ramps and the side street (Comanche). Therefore, in this study, there were no deductions taken for diverted link trips for either Level of Service (LOS) analysis or estimation of Vehicle Miles Traveled (VMT).

"Capture": "Capture" can be described as trips that are made internally within the limits of a mixed-use project. An example of captured trips may include stopping for gas and fast food within the same commercial center. In this scenario, the stop at the gas station is two trips and the stop at the fast food is also considered two trips. Summing both stops within the same commercial center yields 4 trips, when the correct number of trips to apply to the local street network is two.

As with "pass-by", the deduction for "capture" helps offset double counting of on the local street network. In the case of this report, there were no deductions (for capture) were taken.

In accordance with Caltrans' *Guide for the Preparation of Traffic Impact Studies*, trip generation calculations for the commercial components of the Project were reduced by 15% to account for the phenomenon of "Pass-By". Again, no other deductions were taken for the LOS analysis. However, calculation of VMT requires a more "site-specific" analysis of "pass-by" and "diverted-link" trips. This is discussed in detail in Section V of this report.

Again, since "diverted" link trips impact the freeway ramps, ramp intersections, and a short segment of SR 269, no deductions were taken for these phenomena.

Table 2 herein in the following, shows the Project trip generation rates and estimated trips used for the LOS analysis.

### Table 2: Trip Generation for Gasoline/Service Station with Convenience Market at CA SR-269 and the CA I-5 Intersection in Fresno California

Date: 6/8/2021

Commercial - Land Uses 24 Hour						Trips A.M. Peak Hour Trips							P.M. Peak Hour Trips						
ltem No.	Proposed Land Use	ITE Code	Vehicle Fueling Positions	Trip Rate	Veh Trips (vpd)		Trip Rate	Veh Trips (vph)	Split In	Split Out		Trip Rate	Veh Trips (vph)	Split In	Split Out				
1	Gasoline/Service Station with Convenience Market	945	12.0	205.36	2,464		12.47	150	76	73		13.99	168	86	82				
2	Gasoline/Service Station with Convenience Market	945	12.0	205.36	2,464	164 1		150	76	73		13.99	168	86	82				
		4,929			150	76	73			168	86	82							
20% Reduction for "Pass-by" - All Land Uses:								(30)	(15)	(15)			(34)	(17)	(16)				
	Vehicle Trip Total:							120	61	59			134	68	66				

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### E. Trip Distribution and Assignment

Again, Project generated trips estimated as shown in Table 3 and were distributed onto the existing street network proportional to the existing traffic patterns.

Figure 4, included in Appendix "A" of this report, show the cumulative distribution of Projectgenerated traffic generated during the peak hour of the adjacent street network. It should be noted that since almost all trips to the Project are anticipated to be either "pass-bys" or "diverted link" trips, the peak hour for the proposed project is likely the same as that for the adjacent streets.

### F. Trip Assimilation

Based on information provided by the Kern Council of Governments (Kern COG), the average work commute travel time for Kern County is 20 minutes. At an average speed of 33 miles per hour, this yields an average work-commute trip of 11 miles. Assuming a 50/50 split of work-commute trips less than and greater than 11 miles, an average trip assimilation rate of 8.33 percent per mile is derived. This rate of assimilation is likely conservative and accepted by various reviewing agencies; however, given the high percentage of "diverted link" trips anticipated from either Interstate 5 or State Route 269, there were no reductions taken in this analysis for assimilation.

### **IV. IMPACT OF PROJECT TRAFFIC**

### A. Level of Service (LOS)

Operational analysis of streets and intersections were performed using methods outlined in the *Transportation Research Board, National Research Council <u>Highway Capacity Manual</u>, HCM, 2016.* 

Level of Service (LOS) is the generally accepted gauge for describing the quality of operation of either a road segment or street intersection. Other attributes of operational quality associated with each Level of Service are v/c - volume to capacity ratio, vehicle delay through an intersection, and reserve capacity of an intersection approach. For each type of street segment or intersection analysis, the Level of Service criteria varies slightly. Levels of Service for every type of roadway or intersection are described thoroughly in the <u>Highway Capacity Manual</u>, however, the brief descriptions have been provided in the following:

Level Of Service	Average Control Delay (seconds/vehicle)	General Description
А	≥ 10	Free Flow
В	10-20	Stable Flow (slight delay)
С	20-35	Stable Flow (acceptable delay)
D	35-55	Approaching Unstable Flow (tolerable delay)
E	55-80	Unstable Flow (intolerable delay)
$F^1$	> 80	Forced Flow (congested and queues fail to clear)

**Table 3: Level of Service for Signalized Intersections** 

 Table 4: Level of Service for Unsignalized Intersections

Level Of Service	Average Control Delay (seconds/vehicle)	General Description
А	≥ 10	Free Flow
В	10-15	Stable Flow (slight delay)
С	15-25	Stable Flow (acceptable delay)
D	25-35	Approaching Unstable Flow (tolerable delay)
Е	35-50	Unstable Flow (intolerable delay)
$F^1$	> 50	Forced Flow (congested and queues fail to clear)

Note 1: When demand volume exceeds the capacity of the lane, extreme delays will be encountered. This condition usually warrants improvement to the intersection.

Level of Service	Description
А	Free flow conditions, unimpeded ability to maneuver and pass, very little delay, no platoons, highest average travel speeds.
В	Mostly free flow conditions; presence of other vehicles begins to be noticeable. Passing is required to maintain speeds, slightly less average travel speeds than Level of Service "A".
С	Traffic density clearly affects the ability to pass and maneuver within the stream. Speeds are reduced to about 50 mph on highways and to about 50% of the average on urban arterials.
D	Unstable flow. Speeds are reduced from 40% to 60% of normal. Passing demand is high although mostly impossible on 2-Lane Highways. Traffic disruptions usually cause extensive queues.
Е	Very unstable flow at or near capacity. Passing and maneuvering virtually impossible. Extensive platooning on highways and queuing on arterials. Speeds range from 20 mph or less on arterials and 2-Lane Highways, and up to 50 mph on Multi-Lane Highways.
F	Forced or breakdown flow. Demand exceeds capacity. Vehicles experience short spurts of movement followed by stoppages. Intersection congestion, long queues and delays are common.

### Table 5: Level of Service for Highways and Arterials

### Table 6: Level of Service Criteria for Freeway Merge and Diverge Segments

Level of Service	Density (pc/mi/ln)	Comments
А	≤10	Unrestricted operations
В	>10-20	Merging and diverging maneuvers noticeable to drivers
С	>20-28	Influence area speeds begin to decline
D	>28-35	Influence area turbulence becomes intrusive
Е	>35	Turbulence felt by virtually all drivers
F	Demand exceeds capacity	Ramp and freeway queues form

Note 1: Table 6 is Exhibit 13-2 from the Highway Capacity Manual 2010.

### **B.** Traffic Impact Analysis

As discussed in Section III herein, Project-generated traffic was distributed onto the existing street network based on existing patterns. It should be noted that construction of the new gas station and convenience market was underway, and not open for business at the time traffic counts were performed for this study. Since the existing facility had been demolished for the Project, and was not generating traffic at the time of field traffic counts, it would be improper to take trip credits, or trip reductions for the existing gas station and market. Therefore, other than normal deductions for "pass-bys" and "capture", there were no other deductions to Project-generated traffic calculated as shown in Table 2 herein.

In accordance with Kern County criteria, any street segment or intersection, currently operating at or above a "C" Level of Service, must be analyzed if it receives 50 or more Project-generated peak hour trips. If the facility currently operates at a "D", "E" or "F", the analysis threshold drops to 40, 20 and 10 trips, respectively.

Level of Service calculations (LOS) are based on methods outlined in the <u>Highway Capacity</u> <u>Manual, 2016</u>. Computer software from "McTrans Highway Capacity" package was used to facilitate extensive calculations.

In accordance with County of Kern and Caltrans' requirement, various traffic scenarios were analyzed to include present day traffic, and the addition of Project-generated traffic to existing (Year 2021) and future traffic (Year 2042). In addition, an "opening day" scenario for Year 2023 was analyzed. The following lists the various specific scenarios that were analyzed and provides a reference to the appropriate figures.

**Existing Year 2021 A.M. Peak Hour without Project – (No Project Scenario).** These volumes are actual traffic counts, as discussed in Section III, and are shown in Figure 2 herein.

**Existing Year 2021 P.M Peak Hour without Project – (No Project Scenario).** These volumes are actual traffic counts, as discussed in Section III, and are shown in Figure 3 herein.

**Year 2021 A.M. Peak Hour Volumes with the addition of Project-Generated traffic.** These volumes can be referenced in Figure 5A of this report.

**Year 2021 P.M. Peak Hour Volumes with the addition of Project-Generated traffic.** These volumes can be referenced in Figure 5B of this report.

**Year 2023 "Opening Day" A.M Peak Hour without Project – (No Project Scenario).** Derivation of these volumes is discussed in Section III and is shown in Figure 6A of this report.

Year 2023 "Opening Day" A.M. Peak Hour Volumes with the addition of Project-Generated traffic. These volumes can be referenced in Figure 7A of this report.

**Year 2023 "Opening Day" P.M Peak Hour without Project – (No Project Scenario).** Derivation of these volumes is discussed in Section III and is shown in Figure 6B of this report.

**Year 2023 P.M. "Opening Day" Peak Hour Volumes with the addition of Project-Generated traffic.** These volumes can be referenced in Figure 7B of this report.

Year 2042 A.M. Peak Hour Volumes without the addition of Project-Generated Traffic ("No Project" Scenario). Derivation of these volumes is discussed in Section III of this report, and can be referenced in Figure 8A herein.

Year 2042 A.M. Peak Hour Volumes plus Project-Generated Traffic. These volumes can be referenced in Figure 9A of this report.

Year 2042 P.M. Peak Hour Volumes without the addition of Project-Generated Traffic ("No Project" Scenario). Derivation of these volumes is discussed in Section III of this report, and can be referenced in Figure 8B herein.

Year 2042 P.M. Peak Hour Volumes plus Project-Generated Traffic. These volumes can be referenced in Figure 9B of this report.

**Year 2042 P.M. Peak Hour Volumes plus Project-Generated Traffic – Evaluated under proposed mitigation improvements.** In addition to the above scenarios, any facility needing mitigation was analyzed to determine the resultant Level of Service once proposed improvements were in-place.

The criteria to warrant mitigation is discussed in Section V of this report.

Summaries of the Level of Service calculations for the various scenarios described have been included in the following tables:

- Table 7 show the results of the intersection Level of Service calculations.
- Tables 8A and 8B show the results of Level of Service calculations for various street segments within the scope of this study.
- Tables 9A and 9B show the results of Level of Service calculations for the freeway ramps within the scope of this study.

TA	BLE 7: Interse	ection Level of Service (LO	Hou	r															Date:	6/23/2021	
	Legend:	1W = On	e Way	Stop Co	ntrol		4W = .	All Way	Stop				R = Rou								
				N	Northbo	und		Southbound					astbou	nd		v	Vestbou	nd	Comp	Intersection Delay	Peak Hour Warrant Met
No.	Intersection	Time Period	Control	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	LOS	(sec/veh)	(Yes/No)
1)		Year 2021 A.M. Existing	1W	А	-	-		-	-	-		-	-	-		А	-	А	А	4.0	No
		Year 2021 A.M. with Project	1W	А	-	-		-	-	-		-	-	-		В	-	Α	А	3.4	No
		Year 2023 A.M. Existing	1W	А	-	-		-	-	-		-	-	-		А	-	А	А	4.0	No
		Year 2023 A.M. with Project	1W	А	-	-		-	-	-		-	-	-		В	-	А	А	3.4	No
		Year 2042 A.M. without Project	1W	А	-	-	_	-	-	-		-	-	-		В	-	А	А	4.2	No
		Year 2042 A.M. with Project	1W	А	-	-		-	-	-		-	-	-	ļ	В	-	Α	А	3.7	No
	Ramps		-							1				1	. r		1		T	1	
		Year 2021 P.M. Existing	1W	А	-	-		-	-	-		-	-	-		В	-	Α	А	5.9	No
		Year 2021 P.M. with Project	1W	А	-	-		-	-	-		-	-	-		В	-	Α	А	5.2	No
		Year 2023 P.M. Existing	1W	А	-	-		-	-	-		-	-	-		В	-	Α	А	6.0	No
		Year 2023 P.M. with Project	1W	А	-	-		-	-	-		-	-	-		В	-	А	А	5.3	No
		Year 2042 P.M. without Project	1W	А	-	-		-	-	-		-	-	-		В	-	А	А	6.3	No
		Year 2042 P.M. with Project	1W	А	-	-		-	-	-		-	-	-	ļ	В	-	Α	А	5.9	No
		1		1	1				1	1	1 1	-	1		1 1		1		T	[	1
2)		Year 2021 A.M. Existing	1W	-	-	-	_	A	-	-		A	-	A		-	-	-	A	2.2	No
		Year 2021 A.M. with Project	1W	-	-	-	-	A	-	-		В	-	A		-	-	-	A	3.8	No
		Year 2023 A.M. Existing	1W	-	-	-	-	А	-	-		A	-	A		-	-	-	A	2.2	No
		Year 2023 A.M. with Project	1W	-	-	-		А	-	-		В	-	A		-	-	-	A	3.8	No
		Year 2042 A.M. without Project	1W	-	-	-		А	-	-		A	-	A		-	-	-	A	2.3	No
	SR 269 & SB	Year 2042 A.M. with Project	1W	-	-	-		Α	-	-		В	-	Α	ļ	-	-	-	A	3.6	No
	Ramps			1	1	1			-	1	1		[	r	) r		1		1	1	
		Year 2021 P.M. Existing	1W	-	-	-		А	-	-		A	-	A		-	-	-	A	2.7	No
		Year 2021 P.M. with Project	1W	-	-	-		А	-	-		В	-	A		-	-	-	A	4.0	No
		Year 2023 P.M. Existing	1W	-	-	-	_	А	-	-		Α	-	A		-	-	-	A	2.7	No
		Year 2023 P.M. with Project	1W	-	-	-		А	-	-		В	-	Α		-	-	-	A	4.0	No
		Year 2042 P.M. without Project	1W	-	-	-		А	-	-		А	-	Α		-	-	-	Α	2.8	No
		Year 2042 P.M. with Project	1W	-	-	-		А	-	-		В	-	А		-	-	-	А	3.9	No

IAI	BLE 7: Intersection Level of Service (LOS) - Peak Hour (cont.)																Date:	6/23/2021			
	Legend:	S = Signalized	1W = One	way S	/ay Stop Control				All Way	Stop				R = Rou	undal						
	1		1	N	orthbou	und		So	outhbou	Ind		Eastbound				v	/estbou	nd	Comp	Intersection Delay	Peak Hour Warrant Met
No.	Intersection	Time Period	Control	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	LOS	(sec/veh)	(Yes/No)
3)		Year 2021 A.M. with Project	1W	А	-	-		-	-	-		-	А	-		-	-	-	А	7.9	N/A
		Year 2023 A.M. with Project	1W	А	-	-		-	-	-		-	А	-		-	-	-	А	7.9	N/A
		Year 2042 A.M. with Project	1W	А	-	-		-	-	-		-	А	-		-	-	-	А	7.9	N/A
	SR 269 & Project Entrance																				
	Entrance	Year 2021 P.M. with Project	1W	А	-	-		-	-	-		-	А	-		-	-	-	А	7.9	N/A
		Year 2023 P.M. with Project	1W	А	-	-		-	-	-		-	А	-		-	-	-	А	7.9	N/A
		Year 2042 P.M. with Project	1W	А	-	-		-	-	-		-	А	-		-	-	-	А	7.9	N/A

### the level of Common (LOC) Dook Hours (comt) DIE 7 1.1

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#### TABLE 8a: Street Segment Level of Service for AM Peak Hour

Date: 6/23/2021

		Year 2021 Existing A.M. Traffic (Figure 2) Year 2021 Existing A.M. Plus Project Traffic (Figure 6A)		2021 A.M. Plus Traffic re 6A)	Year 2023 Existing A.M. Without Project Traffic (Figure 7A)		Year 2023 Existing A.M. Plus Project Traffic (Figure 8A)		Year 2042 Existing A.M. Without Project Traffic (Figure 9A)		Year 204 A.M. Pli Traffic (F	12 Existing us Project Figure 10A)			
ltem	Street Segment	Limits	Existing Laneage - Both Directions	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)
1)	SR 269	I5 NB Ramps/Jayne Ave	2	42/60	А	102/118	В	43/62	А	103/120	В	54/78	A	114/136	В
2)	SR 269	I5 NB Ramps/I5 SB Ramps	2	100/81	А	130/112	В	103/83	А	133/114	В	130/105	В	160/136	В
3)	SR 269	I5 SB Ramps/Avenal Cutoff Rd.	2	83/72	А	85/74	А	86/74	A	88/76	А	108/93	A	110/95	A

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#### TABLE 8b: Street Segment Level of Service for PM Peak Hour

																Date:	6/23/2021
				Year : Existin Traffic (F	2021 g P.M. igure 3)	Year 2021 Existing P.M. Plus Project Traffic (Figure 6B)		Year 2023 Existing P.M. Without Project Traffic (Figure 7B)		Year 2023 Existing P.M. Plus Project Traffic (Figure 8B)		Year Existin Withou Traffic (		ear 2042 isting P.M. nout Project ic (Figure 9B)		Year 204 P.M. Plu Traffic (F	12 Existing us Project igure 10B)
ltem	Street Segment	Limits	Existing Laneage - Both Directions	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)	PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)		PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)		PH Vol (vph) (wb/eb) or (sb/nb)	Level of Service (LOS)
1)	SR 269	I5 NB Ramps/Jayne Ave	2	154/67	В	221/132	В	159/69	В	226/134	В		200/87	В		267/152	С
2)	SR 269	I5 NB Ramps/I5 SB Ramps	2	131/135	В	164/169	В	135/139	В	168/173	В		171/175	В		204/209	В
3)	SR 269	I5 SB Ramps/Avenal Cutoff Rd.	2	129/102	A	130/103	В	133/105	В	134/106	В		168/133	В		169/134	В

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					A.M. Volumes	Mitigate (Not	d Ramp e 3)	
ltem	Ramp Segment	Junction Type	Analysis Scenario	PH Vol (vph)	Density (pc/mi/ln)	Level of Service (LOS)	Density (pc/mi/ln)	Level of Service (LOS)
			2021	42	25.1	С	N/A	N/A
			2021 + Project	70	25.1	С	N/A	N/A
			2023	43	25.5	С	N/A	N/A
1)	SR 269 & I-5	Merge	2023 + Project	71	25.8	С	N/A	N/A
±,	NB On-Ramp	Wieige	2042	55	32.5	D	N/A	N/A
			2042 + Project	83	32.7	D	N/A	N/A
			2042 + Project + Mitigated	83	-	-	20.1	В
	1							_
			2021	43	27.3	С	N/A	N/A
			2021 + Project	72	27.3	С	N/A	N/A
			2023	44	27.8	С	N/A	N/A
2)	SR 269 & I-5	Diverge	2023 + Project	73	27.8	С	N/A	N/A
	нь оп-капр		2042	56	35.4	E	N/A	N/A
			2042 + Project	85	35.4	E	N/A	N/A
			2042 + Project + Mitigated	85	-	-	19.8	В
	[					_		
			2021	54	25.2	С	N/A	N/A
			2021 + Project	82	25.2	С	N/A	N/A
			2023	56	25.7	C	N/A	N/A
3)	SR 269 & I-5 SB On-Bamp	Merge	2023 + Project	84	25.9	C	N/A	N/A
	30 On-Kamp		2042	70	32.6	D	N/A	N/A
			2042 + Project	98	32.8	D	N/A	N/A
			2042 + Project + Mitigated	98	-	-	20.2	В
		[	2024	25	07.0	-		
			2021	25	27.3	C	N/A	N/A
			2021 + Project	54	27.3	С	N/A	N/A
			2023	26	27.8	C	N/A	N/A
4)	SR 269 & I-5 SB Off-Ramp	Diverge	2023 + Project	55	27.8	С	N/A	N/A
			2042	33	35.4	É	N/A	N/A
			2042 + Project	62	35.4	E	N/A	N/A
			2042 + Project + Mitigated	62	-	-	19.8	В

#### TABLE 9a: Freeway Ramp Junction Levels of Service - AM Peak Hour

					A.M. Volume	Mitigated Ramp (Note 3)			
ltem	Ramp Segment	Junction Type	Analysis Scenario	PH Vol (vph)	Density (pc/mi/ln)	Level of Service (LOS)	Densit (pc/mi/	y (n) Level of Service (LOS)	
			2021	78	25.4	С	N/A	N/A	
			2021 + Project	110	25.6	С	N/A	N/A	
			2023	80	25.9	С	N/A	N/A	
1)	SR 269 & I-5	Merge	2023 + Project	112	26.1	С	N/A	N/A	
-/	NB On-Ramp	merge	2042	101	32.8	D	N/A	N/A	
			2042 + Project	133	33.1	D	N/A	N/A	
			2042 + Project + Mitigated	133	-	-	20.4	В	
	1	[							
			2021	161	27.3	С	N/A	N/A	
			2021 + Project	194	27.3	С	N/A	N/A	
			2023	166	27.8	С	N/A	N/A	
2)	SR 269 & I-5 NB Off-Ramp	Diverge	2023 + Project	199	27.8	C	N/A	N/A	
			2042	210	35.4	E	N/A	N/A	
			2042 + Project	243	35.4	E	N/A	N/A	
			2042 + Project + Mitigated	243	-	-	20.0	В	
			2021	40	25.4	6		NI / A	
			2021	48	25.1	C C	N/A	N/A	
			2021 + Project	80	25.4	C C	N/A	N/A	
	SP 260 8 1 5		2023	49	25.6	C	N/A	N/A	
3)	SB On-Ramp	Merge	2023 + Project	81	25.9	C P	N/A	N/A	
			2042	63	32.5	D	N/A	N/A	
			2042 + Project	95	32.8	D	N/A	N/A	
			+ Mitigated	95	-	-	20.2	В	
			2021	62	27.2	6		NI ( A	
			2021	02	27.3	C		N/A	
			2021 + Project	95	27.3			N/A	
	SP 260 & L5		2023	04	27.8			N/A	
4)	SB Off-Ramp	Diverge	2025 + Project	97	27.ð 25.4	E E		N/A	
			2042	01	55.4 25.4	с г		N/A	
			2042 + Project	114	55.4	Ľ	IN/A	IN/A	
			+ Mitigated	114	-	-	19.9	В	

#### TABLE 9b: Freeway Ramp Junction Levels of Service - PM Peak Hour

Notes (Table 9a & 9b):

- 1) For Item #1 and #4 the freeway volume is 2729 vph for Year 2021, 2782 vph for Year 2023, and 3551 vph for Year 2042. The freeway volume was extrapolated from Caltrans' 2019 Traffic Volumes on California State Highways.
- 2) For Item #2 and #3 the freeway volume is 2730 vph for Year 2021, 2783 vph for Year 2023, and 3551 vph for Year 2042. The freeway volume was extrapolated from Caltrans' 2019 Traffic Volumes on California State Highways.
- 3) Mitigation for all ramp segments include the addition of one ramp lane & one freeway lane. It should be noted that the mitigation is not funded by the RTIF Program.

#### C. Traffic Signal Warrant Analysis

Non-signalized intersections within a Project's vicinity are typically analyzed for satisfaction of the Peak Hour Volume Warrant as described in Section 9 of the <u>Caltrans Traffic Manual</u> and the <u>Manual of Uniform Traffic Control Devices</u>. A brief explanation of the intersection warrant analysis is provided as follows:

The Manual of Uniform Traffic Control Devices (MUTCD) prescribes "tests" which are conducted to determine the need for installation of a traffic signal. These "tests" are referred to as "warrants". The MUTCD list minimum signal "warrants", which have been adopted by the California Department of Transportation and most California agencies, including the City of Bakersfield and the County of Kern. These "warrants" consist of evaluation of various criteria that have been determined as critical for the installation of a signal. The warrant criterion has been derived empirically.

In actual practice, justification for signal installation is usually based on satisfaction of a number of warrants as well as poor Levels of Service for multiple movements. In keeping within the scope of this traffic study, non-signalized intersections were evaluated for signalization, including expansion of the intersection, based solely on satisfaction of the Peak Hour Signal Warrant described in The Manual of Uniform Traffic Control Devices (MUTCD).

As shown in Table 10 herein, no intersections satisfied the traffic signal warrant.

#### Table 10: Peak Hour Warrant Analysis

		Year 202	20 Existing V (Figure 3)	'olumes	Year 202 Plus F	20 Existing V Project (Figu	olumes re 5)	Year 2023 Volumes (Figures 6)				
No.	Existing Non- Signalized Intersection	Highest Minor Approach Volume (vph)	Total Major Approach Volume (vph)	Peak Hour Warrant Satisfied	Highest Minor Approach Volume (vph)	Total Major Approach Volume (vph)	Peak Hour Warrant Satisfied	Highest Minor Approach Volume (vph)	Total Major Approach Volume (vph)	Peak Hour Warrant Satisfied		
	SR 269 and I-5 SB Ramps AM	25	153	No	54	185	No	26	177	No		
1)	SR 269 and I-5 SB Ramps PM	62	182	No	95	216	No	64	187	No		
		-										
2)	SR 269 and I-5 NB Ramps AM	43	141	No	72	230	No	44	145	No		
2)	SR 269 and I-5 NB Ramps PM	161	202	No	194	301	No	166	208	No		

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#### Table 10: Peak Hour Warrant Analysis (cont.)

		Year 2023	Volumes Plu (Figure 7)	us Project		Year 2042 Volumes (Figures 8)				Year 2042 Volumes Plus Project (Figure 9)			
No.	Existing Non- Signalized Intersection	Highest Minor Approach Volume (vph)	Total Major Approach Volume (vph)	Peak Hour Warrant Satisfied		Highest Minor Approach Volume (vph)	Total Major Approach Volume (vph)	Peak Hour Warrant Satisfied		Highest Minor Approach Volume (vph)	Total Major Approach Volume (vph)	Peak Hour Warrant Satisfied	
	SR 269 and I-5 SB Ramps AM	55	190	No		33	198	No		62	230	No	
1)	SR 269 and I-5 SB Ramps PM	97	221	No		81	237	No		114	271	No	
		1	1	1	-								
21	SR 269 and I-5 NB Ramps AM	73	234	No		56	183	No		85	272	No	
2)	SR 269 and I-5 NB Ramps PM	199	307	No		210	262	No		243	361	No	

### V. PROJECT VEHICLE MILES TRAVELED

#### A. Background

The California Legislature, through Senate Bill 746, Senate Bill 32, and Executive Order, have required the California Environmental Quality Act (CEQA) to consider the effects of a project on the surrounding transportation system, with Vehicle Miles Traveled (VMT) as an appropriate measure of impact. The specific goal is reduction of greenhouse gas emission by reducing reliance on individual vehicles, improving mass transit, and reduction in trip length via denser infill development.

Senate Bill 32 requires the State of California to reduce greenhouse gas emission to 40 percent below 1990 levels by Year 2030; and Executive Order requires reduction of greenhouse gas emission to 90 percent below 1990 levels by Year 2050.

The calculation of VMT of any project, simply put, is the number of project-generated trips multiplied by the travel length of each trip. Obviously, there is no completely precise method for determining VMT for any project prior to development and occupancy; however, the best available data must be used for estimating both project-generated trips and trip length.

#### **B.** Project Generated Trips and Trip Length for VMT Calculation

The phenomena of "Capture", "Pass-by" and "Diverted Link" trips have been previously discussed. However; trip reductions taken for these phenomena for the purpose of Level of Service (LOS) analysis are typically under-represented. To ensure a conservative Level of Service analysis most agencies generally mandate maximum trip reduction rates for the combined effects of "Capture", "Pass-by" and "Diverted-Link" trips, to around 15 percent. This provides a factor of safety for Level of Service Analysis and development of mitigation. Referencing Table 2 herein, a 15 percent reduction in trips were taken only to avoid double-counting of "pass-bys". As part of the LOS analysis, there were no deductions taken for either "Capture" or "Diverted Link" trips. However, for fast food counters, gas stations, or convenient stores, it is difficult, if not impossible to find a traffic engineering publication that indicates the combined effect of "pass-by and "diverted-link" trips should be as low as 15 percent. As in one example, the Institute of Transportation Engineers Trip Generation Manual (ITE) indicates a PM peak hour "Pass-By" rate of 61 percent for convenience markets. Similarly, the ITE Manual indicates "pass-by" rates of 30 percent for shopping centers, 36 percent for supermarkets, and 50 to 80 percent for convenience stores with gas pumps. Again, these are only the rates of "pass-by" and do not include reductions for "capture" or "diverted link" trips.

**Driveway Survey of Travel Center at 44779 Lassen Ave:** To properly estimate Project Vehicle Miles Traveled (VMT), the rates of "pass-by" and "diverted link" trips, in addition to the "diverted link" trip origins (either I-5 or SR 269), and diverted trip travel length, must accurately represent the Project. This is especially true for a rural and isolated highway commercial project. To better determine these travel characteristics, a driveway survey was performed at the existing EZ Trip travel center located 1/3-mile south of the project. Although the travel center is south of I-5 and a distance away from the project, considering the lack of any other commercial facility in the

vicinity, the trip characteristics should be nearly identical (to that of the Project). The drive survey was performed during the morning peak hour, and yielded the breakdown of traffic into "diverted link", "pass-by", and "primary" trips. As shown in Table 12, the breakdown of trips from the survey resulted in 20 percent as "pass-by", 80 percent as "diverted link", and 0 percent as primary trips. For purposes of calculating VMT, the driveway survey data was broken down between "diverted link" trips and "pass-by" trips, with an associated trip length as follows:

- a) Trips originating from northbound I-5, stopping at the Project, and returning to I-5 northbound to continue on to the primary destination: "Diverted link" trips. 55.0%. Trip Length 0.18 miles.
- b) Trips originating from southbound I-5, stopping at the Project, and returning to I-5 southbound to continue on to the primary destination: "Diverted link" trips 20.0%. Trip Length 0.48 miles.
- c) Trips originating from SR 269, stopping at the Project, and returning to SR 269 to continue on to the primary destination: **"Pass-By" trip**. **20.0%**.
- d) Trips originating from northbound I-5, stopping at the Project and continuing on to SR 269 north to the primary destination: "Pass-By" trip. 0.0%.
- e) Trips originating from northbound I-5, stopping at the Project and continuing on to SR 269 south to the primary destination: **"Diverted link" trips 0.0%. Trip Length 0.33 miles.**
- f) Trips originating from southbound I-5, stopping at the Project and continuing on to SR 269 north to the primary destination: **"Pass-By" trip**. **5.0%.**
- g) Trips originating from southbound I-5, stopping at the Project and continuing on to SR 269 south to the primary destination: **"Diverted link" trips 0.0%. Trip Length 0.48 miles.**
- h) Trips originating from SR 269, stopping at the Project, and continuing on to northbound I-5 to primary destination: "**Pass-By**" trip. – 0.0%.
- i) Trips originating from SR 269, stopping at the Project, and continuing on to southbound I-5 to primary destination: **"Pass-By" trip**. – **0.0%.**

As shown in Table 12, Project generated trips were broken down using the same percentage shown in the above. This breakdown and associated trip lengths were used to calculate Project VMT.

Scenario	(Primary Trip) Arriving From	(Primary Trip) Departing To	Trip Type	Percentage of Trips (%)	Vehicle Trips	Distance (mi)	Daily Vehicle Miles Travelled	Annual Vehicle Miles Travelled
А	I-5 NB	I-5 NB	Diverted Link	55%	2,711	0.18	244.0	89,055
В	I-5 SB	I-5 SB	Diverted Link	20%	986	0.5	236.6	86,356
С	SR 269	SR 269	Pass-by	20%	986	N/A	N/A	N/A
D	I-5 NB	SR 269 NB	Pass-by	0%	0	N/A	N/A	N/A
E	I-5 NB	SR 269 SB	Diverted Link	0%	0	0.3	0.0	0
F	I-5 SB	SR 269 NB	Pass-by	5%	246	N/A	N/A	N/A
G	I-5 SB	SR 269 SB	Diverted Link	0%	0	0.48	0.0	0
Н	SR 269	I-5 NB	Pass-by	0%	0	N/A	N/A	N/A
I	SR 269	I-5 SB	Pass-by	0%	0	N/A	N/A	N/A
			Total:	100%	4,929		481	175,411

#### Table 11: Total Vehicle Miles Traveled

Note:

Scenarios C, D, F, H, and I are "pass-by's" and therefore do not generate VMTs

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### VI. TRAFFIC MITIGATION

#### A. Requirements for Mitigation

Mitigation is normally considered necessary if a particular intersection or street segment, under any existing or future scenario, (with or without the addition of Project-generated traffic), is anticipated to function at a less than Level of Service (LOS) "C". Generally, the objective of traffic mitigation is to restore the Level of Service to a "C" or better.

#### **B.** Funding for Mitigation Improvements

A more complicated issue is funding for traffic mitigation improvements, and the Project's obligation or share of those costs. Prior to 1997, needed mitigation improvements were often attached as a <u>Conditions of Approval</u> to abutting or nearby land development projects. In theory, these land development projects were the cause of increased traffic and degraded Level of Service, and therefore were responsible for mitigation to restore a satisfactory LOS. In reality, these land development projects often only contributed the last increment of traffic, (or the proverbial last straw), to an existing Level of Service already on threshold of dropping below "C".

Attaching the entirety of mitigation costs rendered many projects economically infeasible and caused land developers to avoid sites that would trigger costly improvements, (such as bridge widening, canal culverts, grade separations, and even traffic signals). This contributed to "leap-frog" development and created a street system with many bottlenecks, since segments remained unimproved, un-widened, or un-signalized.

In 1997, the Metropolitan Bakersfield Transportation Impact Fee (TIF) program was greatly expanded to include and fund a comprehensive list of transportation improvements intended to restore and maintain an overall satisfactory LOS within the metropolitan Bakersfield area as well as some main corridors well beyond the City limits. A nexus study at that time calculated the cost of that comprehensive improvement list, and derived fees for all new development to fund said list. In theory, all new land development, to include residential homes and commercial sites, with payment of the RTIF, would fund engineering, right of way acquisition, and construction of traffic mitigation improvements identified by the RTIF program. Although new development was still burdened with the majority of the cost of constructing the RTIF improvement list, it was more palatable to land developers since the cost was spread equally to all projects. Since 1997, the RTIF program has been updated to account for inflation in construction costs.

Generally, the RTIF program funds road widening and intersection signalization for all main arterials, again with the intent of maintaining an overall satisfactory LOS. In addition, the RTIF also funds high-cost items such as bridges, canal culverts and grade separations.

Although the RTIF program is intended to be comprehensive, it is still the obligation of any TIS to substantiate that traffic impact from new developments is mitigated. This includes validating those improvements listed in the RTIF program are sufficient to improve affected facilities to a LOS of "C" or better. If the improvements listed on the RTIF program are insufficient, or

incomplete, additional improvements must be identified by the TIS. This is the part of the scope of this study, and any development related TIS.

If RTIF funded improvements are proven sufficient to mitigate traffic for a specific project, then the Project's only obligation is to pay the Regional Transportation Impact Fee. However, a project must contribute funding for additional mitigation if the following conditions are met: 1) Projectgenerated traffic degrades the LOS to less than "C"; 2) The Project degrades any facility, already operating at less than "C", to a lower LOS; and 3) Improvements necessary to mitigate the facility are not included and funded by the RTIF program. In these cases, the Project must contribute its pro-rata share of the mitigation cost. The derivation of Project share is discussed in detail in the following section.

#### C. Project's Pro-Rata Share of Mitigation

Again, in a condition where degradation of a facility's LOS to less than "C" is directly attributable to the Project, and the RITF program does not fund specific improvements, the Project is obligated to pay its pro-rata share of needed mitigation. It is noted that in these cases, if a facility's LOS was a "C" or better prior to the addition of project-generated traffic, the required mitigation is to restore the LOS to a "C" or better. If the facilities existing LOS was a "D" or worse, mitigation is only required to restore the LOS to a pre-project condition.

Generally, the Project's pro-rata share of mitigation improvement cost is computed as the ratio of Project traffic to future traffic in the Year 2042. Year 2042 volume is considered as the "Base" volume plus Project-generated traffic. In other words, in the pro-rata share calculation, Project-generated traffic is the numerator and the total Year 2042 traffic volume is the denominator. There are a number of agency variations of this formula to determine Project share of mitigation.

#### **D. Proposed Mitigation**

As discussed in detail earlier in this report, a poor operational Level of Service for multiple movements, and satisfaction of the Peak Hour Warrant were considered justification for installation of a traffic signal or upgrading an existing signalized intersection (to full expansion in accordance with all local standards).

Degradation of the LOS of a street segment to less than "C", whether or not attributable to Projecttraffic, was considered justification for mitigation. However, as discussed, the Project's obligation for funding mitigation is based on a number of factors, including the Project's pro-rata share of traffic, and the existing and future Level of Service without the addition of Project-generated traffic.

The actual proposed mitigation improvements are based on the estimated future year traffic, in this case, Year 2042.

It should be noted that in the analysis of an intersection, every through and turning movement is evaluated for its own Level of Service. However, the average estimated delay of all vehicles passing through the intersection is used to determine a composite, or average Level of Service. The composite level of service is used to determine if mitigation is required. In the following, the

need for mitigation is discussed for every intersection and street segment within the scope of this study.

#### **Intersections:**

1. **Intersection of I-5 NB Ramps and SR 269:** At this intersection, the I-5 NB off ramp "approach" is stop-controlled. As shown in Table 7, this intersection, under any present or future traffic scenario, with or without the addition of Project-generated traffic, does not degrade to a Level of Service less than "A". In addition, the Peak Hour Signal Warrant is not satisfied under any present or future scenario.

Therefore, no mitigation is recommended for this intersection.

2. **Intersection of I-5 SB Ramps and SR 269:** At this intersection, the I-5 SB off ramp "approach" is stop-controlled. As shown in Table 7, this intersection, under any present or future traffic scenario, with or without the addition of Project-generated traffic, does not degrade to a Level of Service less than "A". In addition, the Peak Hour Signal Warrant is not satisfied under any present or future scenario.

Therefore, no mitigation is recommended for this intersection.

3. **Intersection of SR 269 and the Project Entrance:** At this intersection, the Project entrance is stop-controlled. As shown in Table 7, this intersection, under any present or future traffic scenario, with or without the addition of Project-generated traffic, does not degrade to a Level of Service less than "A". In addition, the Peak Hour Signal Warrant is not satisfied under any present or future scenario.

Therefore, no mitigation is recommended for this intersection.

#### **Street Segments:**

1. **SR 269:** As shown in Table 8, SR 269, under any present or future traffic scenario, with or without the addition of Project-generated traffic, never dropped to a Level of Service less than "C".

Therefore, no mitigation is recommended for this intersection.

#### **Freeway Ramps:**

1. As shown on Table 9, without the addition of Project-Generated traffic, the present-day Level of Service of all ramps calculated to a "C". Again, without the addition of Project-generated traffic, by the Year 2042 the LOS is anticipated to degrade to a "D" and "E" for the on and off-ramps respectively. In any present or future scenario, the addition of Project-generated traffic did not further degrade the LOS. Therefore, the Project should have no obligation to fund mitigation for freeway ramps.

However, under any present day or future scenario, the addition of one lane to freeway ramps and one lane to I-5 has been calculated to improve the LOS to a "B" or better.

#### **VII. CONCLUSIONS & RECOMMENDATIONS**

The analysis herein has shown that the addition of Project-generated traffic, in any present day or future scenario, does not cause any intersection, street segment, or freeway ramp to degrade to a LOS less than the existing condition. With the exception of the freeway ramps, the analysis indicated all intersections and street segment and intersection will function at a Level of Service above "C", with or without the Project through the Year 2042.

All freeway ramps, under present day traffic volumes function at a Level of Service "C". The addition of Project-generated traffic to present day and opening day traffic (Year 2022), does not degrade the LOS further. Estimated future year traffic, (Year 2042), without the addition of Project-generated traffic, will degrade all ramps to a Level of Service of "D" and "E" for the on and off-ramps respectively. The addition of Project-generated traffic to Year 2042 traffic does not degrade the Level of Service further. Mitigation, being one additional lane to the ramp and I-5, has been shown herein to improve the Level of Service in any future year scenario to a "B". Since degradation of ramp LOS is not attributable to the Project, there should be no obligation for funding additional traffic mitigation improvements.

The VMT analysis herein has also shown that the majority of trips are "diverted link" trips originating from the freeway. The balance of trips, with the exception of employees, are "pass-bys" adding no vehicle miles traveled. The "diverted link" trips have been estimated to yield 481 daily vehicle miles traveled. However, it can be argued that these VMT would be "used" at another fueling station, if the Project was not developed, and given the proximity of the fueling station to the freeway, fueling at another location could conceivably generated more VMT.

Finally, the calculations and "findings" of this report have shown that with implementation of mitigation currently funded by the Regional Transportation Impact Fee Program, the impact of the Project to its surrounding street network will be "less-than-significant".

# **Appendix "A" Exhibits and Figures**



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### **FIGURE 6A**

YEAR 2021 A.M. PEAK HOUR VOLUMES AND TURNING MOVEMENTS PLUS PROJECT **GENERATED TRAFFIC** 

LEGEND:





0

1/8 mi

1/4 mi



### **FIGURE 6B**

YEAR 2021 P.M. PEAK HOUR VOLUMES AND TURNING MOVEMENTS PLUS PROJECT **GENERATED TRAFFIC** 

LEGEND:



12418 Rosedale Hwy, Suite A, Bakersfield, CA 93312 Phone: (661) 869-0184 Fax: (661) 885-4155









# FIGURE 8B YEAR 2023 P.M. PEAK HOUR VOLUMES AND TURNING MOVEMENTS PLUS PROJECT **GENERATED TRAFFIC** (OPENING DAY) LEGEND: EXISTING FREEWAY EXISTING ARTERIAL STREET EXISTING COLLECTOR STREET SEGMENT VOLUME - PEAK HOUR コロ INTERSECTION TURNING MOVEMENTS ٦ 1/8 mi 0 1/4 mi DATE: March 2021 LAV// Pinnacle Engineering 12418 Rosedale Hwy, Suite A, Bakersfield, CA 93312 Phone: (661) 869-0184 Fax: (661) 885-4155







## FIGURE 10A

YEAR 2042 A.M. PEAK HOUR VOLUMES AND TURNING MOVEMENTS PLUS PROJECT GENERATED TRAFFIC

LEGEND:







## FIGURE 10B

YEAR 2042 P.M. PEAK HOUR VOLUMES AND TURNING MOVEMENTS PLUS PROJECT GENERATED TRAFFIC

LEGEND:





# Appendix "B" LOS Calculations

# Intersections

	HCS7 Two-Way Stop-Control Report										
General Information		Site Information									
Analyst	DMBR	Intersection	269 & Project								
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO								
Date Performed	6/23/2021	East/West Street	Project Entrance								
Analysis Year	2021	North/South Street	269								
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88								
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00								
Project Description	SR-269 & Project Entrance + Project										

#### Lanes



Major Street: North-South

Vehicle Volumes and Adj	/ehicle Volumes and Adjustments															
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	10	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		1		58						60	0				0	1
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage				Undi	vided											
Critical and Follow-up He	eadwa	ays														
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																
Delay, Queue Length, and	d Leve	el of S	ervice	•												
Flow Rate, v (veh/h)			67							68						
Capacity, c (veh/h)			1076							1613						
v/c Ratio			0.06							0.04						
95% Queue Length, Q <sub>95</sub> (veh)			0.2							0.1						
Control Delay (s/veh)			8.6							7.3						
Level of Service, LOS			A							А						
Approach Delay (s/veh)	8.6								7.3							
Approach LOS	A															
HCS7 Two-Way Stop-Control Report																
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General Information		Site Information														
Analyst	DMBR	Intersection	269 & Project													
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO													
Date Performed	6/23/2021	East/West Street	Project Entrance													
Analysis Year	2023	North/South Street	269													
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88													
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00													
Project Description	n SR-269 & Project Entrance + Project															



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		1		58						60	0				0	1
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)			0													
Right Turn Channelized		No No						No								
Median Type/Storage		Undivided														
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						
Delay, Queue Length, and	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)			67							68						
Capacity, c (veh/h)			1076							1613						
v/c Ratio			0.06							0.04						
95% Queue Length, Q <sub>95</sub> (veh)			0.2							0.1						
Control Delay (s/veh)			8.6							7.3						
Level of Service, LOS			A							A						
Approach Delay (s/veh)	8.6							7.3								
Approach LOS	A															

HCS7 Two-Way Stop-Control Report										
General Information		Site Information								
Analyst	DMBR	Intersection	269 & Project							
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO							
Date Performed	6/23/2021	East/West Street	Project Entrance							
Analysis Year	2042	North/South Street	269							
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	SR-269 & Project Entrance + Project									



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	10	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		1		58						60	0				0	1
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)			0													
Right Turn Channelized		No No						No No								
Median Type/Storage		Undivided														
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						
Delay, Queue Length, and	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)			67							68						
Capacity, c (veh/h)			1076							1613						
v/c Ratio			0.06							0.04						
95% Queue Length, Q <sub>95</sub> (veh)			0.2							0.1						
Control Delay (s/veh)			8.6							7.3						
Level of Service, LOS			A							A						
Approach Delay (s/veh)	8.6							7.3								
Approach LOS		A														

HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	DMBR	Intersection	I5 & 269						
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO						
Date Performed	6/29/2021	East/West Street	I5 NB Ramps						
Analysis Year	2021	North/South Street	269						
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88						
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00						
Project Description	TIS I5 & 269								



Major Street: North-South

Vehicle	Volumes	and Adjustments	

Approach		Eastb	ound			Westbound				North	bound			South	bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0	
Configuration						LT		R		LT						TR	
Volume, V (veh/h)						44	0	1		42	43				61	2	
Percent Heavy Vehicles (%)						3	3	3		3							
Proportion Time Blocked																	
Percent Grade (%)					0												
Right Turn Channelized		N	lo		No					N	о		No				
Median Type/Storage				Undi	vided												
Critical and Follow-up Headways																	
Base Critical Headway (sec)						7.1	6.5	6.2		4.1							
Critical Headway (sec)						6.43	6.53	6.23		4.13							
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2							
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23							
Delay, Queue Length, and	d Leve	el of S	ervice	;													
Flow Rate, v (veh/h)						50		1		48							
Capacity, c (veh/h)						771		1016		1521							
v/c Ratio						0.06		0.00		0.03							
95% Queue Length, Q <sub>95</sub> (veh)						0.2		0.0		0.1							
Control Delay (s/veh)						10.0		8.5		7.4							
Level of Service, LOS						А		А		А							
Approach Delay (s/veh)					10.0			3.8									
Approach LOS					A												

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HCS7 Two-Way Stop-Control Report										
General Information		Site Information								
Analyst	DMBR	Intersection	15 & 269							
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO							
Date Performed	6/23/2021	East/West Street	I5 NB Ramps							
Analysis Year	2021	North/South Street	269							
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	ct Description TIS I5 & 269 + PROJECT									

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Major Street: North-South

venicle volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0
Configuration						LT		R		LT						TR
Volume, V (veh/h)						42	0	30		40	72				88	30
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No						No				١	10			
Median Type/Storage				Undi	vided											
Critical and Follow-up H	eadwa	ays														
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																
Delay, Queue Length, an	d Leve	el of S	ervice	9							<u> </u>				<u> </u>	
Flow Rate, v (veh/h)						48		34		45						
Capacity, c (veh/h)						699		974		1443						
v/c Ratio						0.07		0.03		0.03						
95% Queue Length, Q <sub>95</sub> (veh)						0.2		0.1		0.1						
Control Delay (s/veh)						10.5		8.8		7.6						
Level of Service, LOS						В		A		A						
Approach Delay (s/veh)		-	-	-	9.8			2.8								
Approach LOS						A										

HCS7 Two May Stop Control Poport											
HC37 Two-Way Stop-Control Report											
General Information		Site Information									
Analyst	DMBR	Intersection	I5 & 269								
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO								
Date Performed	3/30/2021	East/West Street	I5 NB Ramps								
Analysis Year	2023	North/South Street	269								
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88								
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00								
Project Description	TIS 15 & 269										



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	bound		Northbound					South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0
Configuration						LT		R		LT						TR
Volume, V (veh/h)						43	0	1		41	42				60	2
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized		No No							Ν	lo		No				
Median Type/Storage		Undivided														
Critical and Follow-up Headways																
Base Critical Headway (sec)						7.1	6.5	6.2		4.1						
Critical Headway (sec)						6.43	6.53	6.23		4.13						
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2						
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23						
Delay, Queue Length, and	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)						49		1		47						
Capacity, c (veh/h)						775		1017		1522						
v/c Ratio						0.06		0.00		0.03						
95% Queue Length, Q <sub>95</sub> (veh)						0.2		0.0		0.1						
Control Delay (s/veh)						10.0		8.5		7.4						
Level of Service, LOS						A		А		А						
Approach Delay (s/veh)				9.9			3.8									
Approach LOS			A													

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HCS7 Two-Way Stop-Control Report										
General Information		Site Information								
Analyst	DMBR	Intersection	15 & 269							
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO							
Date Performed	6/23/2021	East/West Street	I5 NB Ramps							
Analysis Year	2023	North/South Street	269							
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	Description TIS I5 & 269 + PROJECT									

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Major Street: North-South

venicle volumes and Adj	ustme	ents																
Approach		Eastb	ound			West	bound			North	bound			South	bound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R		
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6		
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0		
Configuration						LT		R		LT						TR		
Volume, V (veh/h)						43	0	30		41	73				90	30		
Percent Heavy Vehicles (%)					3 3					3								
Proportion Time Blocked																		
Percent Grade (%)					0													
Right Turn Channelized		Ν	lo		No				No				No					
Median Type/Storage				Undi	vided	<i>v</i> ided												
Critical and Follow-up H	eadwa	iys																
Base Critical Headway (sec)																		
Critical Headway (sec)																		
Base Follow-Up Headway (sec)																		
Follow-Up Headway (sec)																		
Delay, Queue Length, an	d Leve	el of S	ervice	e														
Flow Rate, v (veh/h)						49		34		47								
Capacity, c (veh/h)						693		973		1440								
v/c Ratio						0.07		0.03		0.03								
95% Queue Length, Q <sub>95</sub> (veh)						0.2		0.1		0.1								
Control Delay (s/veh)						10.6		8.8		7.6								
Level of Service, LOS						В		A	A									
Approach Delay (s/veh)						9	.9		2.9									
Approach LOS							A											

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HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	DMBR	Intersection	I5 & 269						
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO						
Date Performed	3/30/2021	East/West Street	I5 NB Ramps						
Analysis Year	2042	North/South Street	269						
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88						
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00						
Project Description	TIS I5 & 269								



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0
Configuration						LT		R		LT						TR
Volume, V (veh/h)						55	0	1		52	53				75	3
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No							Ν	lo			Ν	10		
Median Type/Storage		Undivided														
Critical and Follow-up He	eadwa	ays														
Base Critical Headway (sec)						7.1	6.5	6.2		4.1						
Critical Headway (sec)						6.43	6.53	6.23		4.13						
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2						
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23						
Delay, Queue Length, and	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)						62		1		59						
Capacity, c (veh/h)						722		1002		1500						
v/c Ratio						0.09		0.00		0.04						
95% Queue Length, Q <sub>95</sub> (veh)						0.3		0.0		0.1						
Control Delay (s/veh)						10.5		8.6		7.5						
Level of Service, LOS						BA			A							
Approach Delay (s/veh)		-	-	-		1(	0.4	-		3	.9	-				
Approach LOS		В														

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HCS7 TM TWSC Version 7.1 15 & 269 NB Ramps AM 2042.xtw

HCS7 Two-Way Stop-Control Report										
General Information		Site Information								
Analyst	DMBR	Intersection	15 & 269							
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO							
Date Performed	6/23/2021	East/West Street	I5 NB Ramps							
Analysis Year	2042	North/South Street	269							
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	TIS I5 & 269+Project									



					Major	1 🕈 🍸 Street: No	rth-South	ſ							
Vehicle Volumes and Ad	justme	ents													
Approach	Τ	Eastb	ound			West	bound			North	bound			South	bound
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1
Configuration						LT		R		LT					
Volume, V (veh/h)						55	0	30		52	84				105
Percent Heavy Vehicles (%)		3 3 3 3													
Proportion Time Blocked															
Percent Grade (%)							D								
Right Turn Channelized		Ν	10			Ν	lo			N	lo			Ν	٩٥
Median Type/Storage		Undivided													
Critical and Follow-up H	leadwa	ys													
Base Critical Headway (sec)						7.1	6.5	6.2		4.1					
Critical Headway (sec)						6.43	6.53	6.23		4.13					
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2					
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23					
Delay, Queue Length, ar	nd Leve	el of S	ervice	e											
Flow Rate, v (veh/h)						62		34		59					
Capacity, c (veh/h)						645		958		1419					
v/c Ratio						0.10		0.04		0.04					
95% Queue Length, Q <sub>95</sub> (veh)						0.3		0.1		0.1					
Control Delay (s/veh)						11.2		8.9		7.6					
Level of Service, LOS						В		А		А					
Approach Delay (s/veh)						1(	).4			3	.1				
							_								

I5 & 269 NB Ramps AM 2042+Project.xtw

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	HCS7 Two-Way Stop-Control Report										
General Information		Site Information									
Analyst	DMBR	Intersection	15 & 269								
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO								
Date Performed	6/29/2021	East/West Street	I5 SB Ramp								
Analysis Year	2021	North/South Street	269								
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88								
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00								
Project Description	TIS I5 & 269										



Major Street: North-South

Vehicle Volumes and Adju	ustme	ents														
Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		0	0	26							43	33		24	61	
Percent Heavy Vehicles (%)		3	3	3									3			
Proportion Time Blocked																
Percent Grade (%)		(	)													
Right Turn Channelized		N	lo			Ν	lo		No				No			
Median Type/Storage				Undi	vided											
Critical and Follow-up He	adwa	iys														
Base Critical Headway (sec)		7.1	6.5	6.2										4.1		
Critical Headway (sec)		6.43	6.53	6.23										4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23		
Delay, Queue Length, and	d Leve	el of S	ervice	•												
Flow Rate, v (veh/h)		0		30										27		
Capacity, c (veh/h)		0		990										1501		
v/c Ratio				0.03										0.02		
95% Queue Length, Q <sub>95</sub> (veh)				0.1										0.1		
Control Delay (s/veh)		5.0		8.7										7.4		
Level of Service, LOS		А		А										А		
Approach Delay (s/veh)		8	.7										2.2			
Approach LOS		/	4													

	HCS7 Two-Way Stop-Control Report										
General Information		Site Information									
Analyst	DMBR	Intersection	15 & 269								
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO								
Date Performed	6/23/2021	East/West Street	I5 SB Ramp								
Analysis Year	2021	North/South Street	269								
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88								
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00								
Project Description	TIS I5 & 269+PROJECT										



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		29	0	25							43	31		51	60	
Percent Heavy Vehicles (%)		3	3	3										3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		Ν	No No					No				No				
Median Type/Storage				Undi	ndivided											
Critical and Follow-up He	eadwa	ays														
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																
Delay, Queue Length, and	d Leve	el of S	ervice	9												
Flow Rate, v (veh/h)		33		28										58		
Capacity, c (veh/h)		736		992										1505		
v/c Ratio		0.04		0.03										0.04		
95% Queue Length, Q <sub>95</sub> (veh)		0.1 0.1												0.1		
Control Delay (s/veh)		10.1 8.7												7.5		
Level of Service, LOS		В		А										А		
Approach Delay (s/veh)		9	.5										3.6			
Approach LOS			4													

	HCS7 Two-Way Stop-Control Report										
General Information		Site Information									
Analyst	DMBR	Intersection	15 & 269								
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO								
Date Performed	3/30/2021	East/West Street	I5 SB Ramp								
Analysis Year	2023	North/South Street	269								
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88								
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00								
Project Description	TIS I5 & 269										



Major Street: North-South

Vehicle Volumes and Adju	ustme	ents														
Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		0	0	26							42	32		24	60	
Percent Heavy Vehicles (%)		3	3	3										3		
Proportion Time Blocked																
Percent Grade (%)		(	)													
Right Turn Channelized		N	lo			Ν	lo			Ν	lo		No			
Median Type/Storage				Undi	vided											
Critical and Follow-up He	adwa	iys														
Base Critical Headway (sec)		7.1	6.5	6.2										4.1		
Critical Headway (sec)		6.43	6.53	6.23										4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23		
Delay, Queue Length, and	d Leve	el of S	ervice	•												
Flow Rate, v (veh/h)		0		30										27		
Capacity, c (veh/h)		0		992										1505		
v/c Ratio				0.03										0.02		
95% Queue Length, Q <sub>95</sub> (veh)				0.1										0.1		
Control Delay (s/veh)		5.0		8.7										7.4		
Level of Service, LOS		А		А										А		
Approach Delay (s/veh)		8	.7										2.2			
Approach LOS		1	4		İ İ											

	HCS7 Two-Way Stop-Control Report										
General Information		Site Information									
Analyst	DMBR	Intersection	15 & 269								
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO								
Date Performed	6/23/2021	East/West Street	I5 SB Ramp								
Analysis Year	2023	North/South Street	269								
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88								
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00								
Project Description	TIS I5 & 269+PROJECT										



Major Street: North-South

Vehicle Volumes and Adju	ustme	ents														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		29	0	26							44	32		52	62	
Percent Heavy Vehicles (%)		3	3	3										3		
Proportion Time Blocked																
Percent Grade (%)		(	0													
Right Turn Channelized		No No					No No									
Median Type/Storage			Undivided													
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																
Delay, Queue Length, and	d Leve	el of S	ervice	•												
Flow Rate, v (veh/h)		33		30										59		
Capacity, c (veh/h)		730		989										1502		
v/c Ratio		0.05		0.03										0.04		
95% Queue Length, Q <sub>95</sub> (veh)		0.1 0.1												0.1		
Control Delay (s/veh)		10.2 8.8												7.5		
Level of Service, LOS		BA												А		
Approach Delay (s/veh)		9	.5										3.6			
Approach LOS	A															

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HCS7 Two-Way Stop-Control Report										
General Information		Site Information								
Analyst	DMBR	Intersection	15 & 269							
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO							
Date Performed	3/30/2021	East/West Street	I5 SB Ramp							
Analysis Year	2042	North/South Street	269							
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	TIS I5 & 269									



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	oound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		0	0	33							53	40		30	75	
Percent Heavy Vehicles (%)		3	3	3										3		
Proportion Time Blocked																
Percent Grade (%)		(	)													
Right Turn Channelized		N	lo		No				No					Ν	lo	
Median Type/Storage				Undi	vided	vided							-			
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1	6.5	6.2										4.1		
Critical Headway (sec)		6.43	6.53	6.23										4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23		
Delay, Queue Length, and	d Leve	el of S	ervice	9												
Flow Rate, v (veh/h)		0		38										34		
Capacity, c (veh/h)		0		970										1478		
v/c Ratio				0.04										0.02		
95% Queue Length, Q <sub>95</sub> (veh)				0.1										0.1		
Control Delay (s/veh)		5.0		8.9										7.5		
Level of Service, LOS		А		А										А		
Approach Delay (s/veh)		8	.9										2.3			
Approach LOS		/	4													

	HCS7 Two-Way Stop-Control Report											
General Information		Site Information										
Analyst	DMBR	Intersection	15 & 269									
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO									
Date Performed	6/23/2021	East/West Street	I5 SB Ramp									
Analysis Year	2042	North/South Street	269									
Time Analyzed	AM Peak Hours	Peak Hour Factor	0.88									
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00									
Project Description	TIS I5 & 269+PROJECT											



Major Street: North-South

Vehicle Volumes and Adjustments																
Approach		Eastb	ound			West	oound		Northbound				Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		29	0	33							55	40		58	77	
Percent Heavy Vehicles (%)		3	3	3										3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		N	lo		No				No					Ν	lo	
Median Type/Storage				Undi	vided											
Critical and Follow-up He	eadwa	ys														
Base Critical Headway (sec)		7.1	6.5	6.2										4.1		
Critical Headway (sec)		6.43	6.53	6.23										4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23		
Delay, Queue Length, and	d Leve	el of S	ervice	3												
Flow Rate, v (veh/h)		33		38										66		
Capacity, c (veh/h)		685		967										1476		
v/c Ratio		0.05		0.04										0.04		
95% Queue Length, Q <sub>95</sub> (veh)		0.2		0.1										0.1		
Control Delay (s/veh)		10.5		8.9										7.6		
Level of Service, LOS		В		А										А		
Approach Delay (s/veh)		9	.6										3.4			
Approach LOS		/	4													

HCS7 Two Way Stop Control Papart										
General Information		Site Information								
Analyst	DMBR	Intersection	269 & Project							
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO							
Date Performed	6/23/2021	East/West Street	Project Entrance							
Analysis Year	2021	North/South Street	269							
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	SR-269 & Project Entrance + Project									



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastk	ound			West	oound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		1		65						67	0				0	1
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No					No No									
Median Type/Storage				Undivided												
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						
Delay, Queue Length, and	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)			75							76						
Capacity, c (veh/h)			1076							1613						
v/c Ratio			0.07							0.05						
95% Queue Length, Q <sub>95</sub> (veh)			0.2							0.1						
Control Delay (s/veh)			8.6							7.3						
Level of Service, LOS		A								A						
Approach Delay (s/veh)	8.6							7.3								
Approach LOS	A															

	HCS7 Two-Way Stop	o-Control Report	
General Information		Site Information	
Analyst	DMBR	Intersection	269 & Project
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO
Date Performed	6/23/2021	East/West Street	Project Entrance
Analysis Year	2023	North/South Street	269
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description	SR-269 & Project Entrance + Project		



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastk	ound			West	oound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		1		65						67	0				0	1
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No					No No									
Median Type/Storage				Undivided												
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						
Delay, Queue Length, and	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)			75							76						
Capacity, c (veh/h)			1076							1613						
v/c Ratio			0.07							0.05						
95% Queue Length, Q <sub>95</sub> (veh)			0.2							0.1						
Control Delay (s/veh)			8.6							7.3						
Level of Service, LOS		A								A						
Approach Delay (s/veh)	8.6							7.3								
Approach LOS	A															

HCS7 Two May Stop Control Poport										
General Information		Site Information								
Analyst	DMBR	Intersection	269 & Project							
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO							
Date Performed	6/23/2021	East/West Street	Project Entrance							
Analysis Year	2042	North/South Street	269							
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	SR-269 & Project Entrance + Project									



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastk	ound			West	oound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		1		65						67	0				0	1
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No					No No									
Median Type/Storage				Undivided												
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						
Delay, Queue Length, and	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)			75							76						
Capacity, c (veh/h)			1076							1613						
v/c Ratio			0.07							0.05						
95% Queue Length, Q <sub>95</sub> (veh)			0.2							0.1						
Control Delay (s/veh)			8.6							7.3						
Level of Service, LOS		A								A						
Approach Delay (s/veh)	8.6							7.3								
Approach LOS	A															

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	HCS7 Two-Way Stop-Control Report											
General Information		Site Information										
Analyst	DMBR	Intersection	15 & 269									
Agency/Co.		Jurisdiction	FRESNO									
Date Performed	3/30/2021	East/West Street	I5 NB Ramps									
Analysis Year	2021	North/South Street	269									
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88									
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00									
Project Description	TIS I5 & 269											



Major Street: North-South

Vehicle Volumes and Adjustments	
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Approach		Eastb	ound			West	bound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0
Configuration						LT		R		LT						TR
Volume, V (veh/h)						65	9	87		68	67				66	1
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)						(	)									
Right Turn Channelized		N	lo			N	lo			N	0			Ν	lo	
Median Type/Storage				Undi	vided											
Critical and Follow-up Headways																
Base Critical Headway (sec)						7.1	6.5	6.2		4.1						
Critical Headway (sec)						6.43	6.53	6.23		4.13						
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2						
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23						
Delay, Queue Length, and	l Leve	l of S	ervice	•												
Flow Rate, v (veh/h)						84		99		77						
Capacity, c (veh/h)						668		982		1515						
v/c Ratio						0.13		0.10		0.05						
95% Queue Length, Q <sub>95</sub> (veh)						0.4		0.3		0.2						
Control Delay (s/veh)						11.2		9.1		7.5						
Level of Service, LOS						В		А		А						
Approach Delay (s/veh)					10.0			4.0								
Approach LOS						I	3									

HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	DMBR	Intersection	I5 & 269						
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO						
Date Performed	6/23/2021	East/West Street	I5 NB Ramps						
Analysis Year	2021	North/South Street	269						
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88						
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00						
Project Description	Project Description TIS I5 & 269+PROJECT								



					ארי Major	1 1 Y Street: No	rth-South	r							
Vehicle Volumes and Ad	ljustme	ents													
Approach		Eastb	ound		Westbound				Northbound				Southbound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1
Configuration						LT		R		LT					
Volume, V (veh/h)						65	9	120		68	101				99
Percent Heavy Vehicles (%)						3	3	3		3					
Proportion Time Blocked															
Percent Grade (%)													·		
Right Turn Channelized		No No No									No				
Median Type/Storage		Undivided													
Critical and Follow-up H	leadwa	iys													
Base Critical Headway (sec)						7.1	6.5	6.2		4.1					
Critical Headway (sec)						6.43	6.53	6.23		4.13					
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2					
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23					
Delay, Queue Length, ar	nd Leve	el of S	ervice	9											
Flow Rate, v (veh/h)	Т					84		136		77					
Capacity, c (veh/h)						588		934		1423					
v/c Ratio						0.14		0.15		0.05					1
95% Queue Length, Q <sub>95</sub> (veh)						0.5		0.5		0.2					
Control Delay (s/veh)						12.1		9.5		7.7					
Level of Service, LOS						В		A		A					
Approach Delay (s/veh)			-			1(	).5			- 3	.3				-
	1								i						

I5 & 269 NB Ramps PM 2021+Project.xtw

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HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	DMBR	Intersection	15 & 269						
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO						
Date Performed	3/30/2021	East/West Street	I5 NB Ramps						
Analysis Year	2023	North/South Street	269						
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88						
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00						
Project Description	Project Description TIS I5 & 269								



#### Major Street: North-South

Approach		Fasth	ound			Weeth	ound			North	bound			South	hound	
Арргоасн						vvesu					-	-		Journ	bound -	
Movement	U	L		R	U	L	1	R	U	L	-	R	U	L	1	R
Priority		10	11	12		7	8	9	10	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0
Configuration						LT		R		LT						TR
Volume, V (veh/h)						67	9	90		70	69				68	1
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No					No				No					
Median Type/Storage		Undivided														
Critical and Follow-up H	eadwa	iys														
Base Critical Headway (sec)						7.1	6.5	6.2		4.1						
Critical Headway (sec)						6.43	6.53	6.23		4.13						
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2						
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23						
Delay, Queue Length, an	d Leve	el of S	ervice	9												
Flow Rate, v (veh/h)						86		102		80						
Capacity, c (veh/h)						660		979		1512						
v/c Ratio						0.13		0.10		0.05						
95% Queue Length, Q <sub>95</sub> (veh)						0.4		0.3		0.2						
Control Delay (s/veh)						11.3		9.1		7.5						
Level of Service, LOS						В		A		A						
Approach Delay (s/veh)					10.1			4.0								
Approach LOS						l	В									

HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	DMBR	Intersection	15 & 269						
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO						
Date Performed	6/23/2021	East/West Street	I5 NB Ramps						
Analysis Year	2023	North/South Street	269						
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88						
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00						
Project Description	oject Description TIS I5 & 269+PROJECT								



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0
Configuration						LT		R		LT						TR
Volume, V (veh/h)						67	9	123		70	103				101	33
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No					No No									
Median Type/Storage		Undivided														
Critical and Follow-up H	eadwa	iys														
Base Critical Headway (sec)						7.1	6.5	6.2		4.1						
Critical Headway (sec)						6.43	6.53	6.23		4.13						
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2						
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23						
Delay, Queue Length, an	d Leve	el of S	ervice	9												
Flow Rate, v (veh/h)						86		140		80						
Capacity, c (veh/h)						580		932		1420						
v/c Ratio						0.15		0.15		0.06						
95% Queue Length, Q <sub>95</sub> (veh)						0.5		0.5		0.2						
Control Delay (s/veh)						12.3		9.5		7.7						
Level of Service, LOS						В		A		А						
Approach Delay (s/veh)					10.6			3.4								
Approach LOS							В									

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HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	DMBR	Intersection	15 & 269						
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO						
Date Performed	3/30/2021	East/West Street	I5 NB Ramps						
Analysis Year	2042	North/South Street	269						
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88						
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00						
Project Description	TIS I5 & 269								



Major Street: North-South

Vehicle Volumes and	Adjustments
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Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0
Configuration						LT		R		LT						TR
Volume, V (veh/h)						85	12	113		88	87				86	1
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized		N	0			N	lo			N	о			Ν	lo	
Median Type/Storage				Undi	vided											
Critical and Follow-up Headways																
Base Critical Headway (sec)						7.1	6.5	6.2		4.1						
Critical Headway (sec)						6.43	6.53	6.23		4.13						
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2						
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23						
Delay, Queue Length, and	l Leve	l of S	ervice	•												
Flow Rate, v (veh/h)						111		128		100						
Capacity, c (veh/h)						589		953		1486						
v/c Ratio						0.19		0.13		0.07						
95% Queue Length, Q <sub>95</sub> (veh)						0.7		0.5		0.2						
Control Delay (s/veh)						12.5		9.4		7.6						
Level of Service, LOS						В		А		А						
Approach Delay (s/veh)					10.8			4.1								
Approach LOS					В											

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HCS7 Two-Way Stop-Control Report									
General Information		Site Information							
Analyst	DMBR	Intersection	15 & 269						
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO						
Date Performed	6/23/2021	East/West Street	I5 NB Ramps						
Analysis Year	2042	North/South Street	269						
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88						
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00						
Project Description	Project Description TIS I5 & 269+Project								



Major Street: North-South

Vehicle Volumes and Adjustments																
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	1	0	0	1	0	0	0	1	0
Configuration						LT		R		LT						TR
Volume, V (veh/h)						85	12	146		88	121				119	33
Percent Heavy Vehicles (%)						3	3	3		3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No					No No									
Median Type/Storage			Undivided													
Critical and Follow-up H	eadwa	iys														
Base Critical Headway (sec)						7.1	6.5	6.2		4.1						
Critical Headway (sec)						6.43	6.53	6.23		4.13						
Base Follow-Up Headway (sec)						3.5	4.0	3.3		2.2						
Follow-Up Headway (sec)						3.53	4.03	3.33		2.23						
Delay, Queue Length, an	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)						111		166		100						
Capacity, c (veh/h)						518		907		1396						
v/c Ratio						0.21		0.18		0.07						
95% Queue Length, Q <sub>95</sub> (veh)						0.8		0.7		0.2						
Control Delay (s/veh)						13.8		9.9		7.8						
Level of Service, LOS						В		А		A						
Approach Delay (s/veh)						1	1.5		3.6							
Approach LOS							В									

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	HCS7 Two-Way Sto	p-Control Report								
General Information		Site Information								
Analyst	DMBR	Intersection	15 & 269							
Agency/Co.		Jurisdiction	FRESNO							
Date Performed	3/30/2021	East/West Street	I5 SB Ramps							
Analysis Year	2021	North/South Street	269							
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	TIS 15 & 269									



Major Street: North-South

Vehicle Volumes and Adjustments																
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		0	0	62							67	35		13	67	
Percent Heavy Vehicles (%)		3	3	3										3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No No						No No								
Median Type/Storage			Undivided													
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1	6.5	6.2										4.1		
Critical Headway (sec)		6.43	6.53	6.23										4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23		
Delay, Queue Length, and	d Leve	el of S	ervice	e												
Flow Rate, v (veh/h)		0		70										15		
Capacity, c (veh/h)		0		982										1465		
v/c Ratio				0.07										0.01		
95% Queue Length, Q <sub>95</sub> (veh)				0.2										0.0		
Control Delay (s/veh)		5.0		8.9										7.5		
Level of Service, LOS		A		A										А		
Approach Delay (s/veh)		8	.9										1.3			
Approach LOS			4													

	HCS7 Two-Way Stop	p-Control Report								
General Information		Site Information								
Analyst	DMBR	Intersection	15 & 269							
Agency/Co.	LAV PINNACLE	Jurisdiction	FRESNO							
Date Performed	6/23/2021	East/West Street	I5 SB Ramps							
Analysis Year	2021	North/South Street	269							
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	TIS I5 & 269+PROJECT									



Major Street: North-South

Vehicle Volumes and Adjustments																	
Approach		Eastb	ound			West	oound			North	bound			South	bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0	
Configuration		LT		R								TR		LT			
Volume, V (veh/h)		33	0	62							68	35		45	68		
Percent Heavy Vehicles (%)		3	3	3										3			
Proportion Time Blocked																	
Percent Grade (%)		(	0														
Right Turn Channelized		N	lo		No					No				Ν	lo		
Median Type/Storage				Undi	vided												
Critical and Follow-up He	eadwa	iys															
Base Critical Headway (sec)		7.1	6.5	6.2										4.1			
Critical Headway (sec)		6.43	6.53	6.23										4.13			
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2			
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23			
Delay, Queue Length, and	d Leve	el of S	ervice	3													
Flow Rate, v (veh/h)		38		70										51			
Capacity, c (veh/h)		711		980										1464			
v/c Ratio		0.05		0.07										0.03			
95% Queue Length, Q <sub>95</sub> (veh)		0.2		0.2										0.1			
Control Delay (s/veh)		10.3		9.0										7.5			
Level of Service, LOS		В		А										А			
Approach Delay (s/veh)		9	.4										3.2				
Approach LOS		1	4														

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	HCS7 Two-Way Stop-Control Report										
General Information		Site Information									
Analyst	DMBR	Intersection	15 & 269								
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO								
Date Performed	3/30/2021	East/West Street	I5 SB Ramps								
Analysis Year	2023	North/South Street	269								
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88								
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00								
Project Description	TIS I5 & 269										



Major Street: North-South

Vehicle Volumes and Adjustments																	
Approach		Eastb	ound			West	oound			North	bound			South	bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0	
Configuration		LT		R								TR		LT			
Volume, V (veh/h)		0	0	64							69	36		13	69		
Percent Heavy Vehicles (%)		3	3	3										3			
Proportion Time Blocked																	
Percent Grade (%)		(	C														
Right Turn Channelized		N	lo			Ν	lo		No				No				
Median Type/Storage				Undi	vided												
Critical and Follow-up He	eadwa	iys															
Base Critical Headway (sec)		7.1	6.5	6.2										4.1			
Critical Headway (sec)		6.43	6.53	6.23										4.13			
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2			
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23			
Delay, Queue Length, and	d Leve	el of S	ervice	•													
Flow Rate, v (veh/h)		0		73										15			
Capacity, c (veh/h)		0		979										1461			
v/c Ratio				0.07										0.01			
95% Queue Length, Q <sub>95</sub> (veh)				0.2										0.0			
Control Delay (s/veh)		5.0		9.0										7.5			
Level of Service, LOS		А		А										А			
Approach Delay (s/veh)		9	.0										1.3				
Approach LOS		/	4														

	HCS7 Two-Way Stop	p-Control Report								
General Information		Site Information								
Analyst	DMBR	Intersection	15 & 269							
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO							
Date Performed	6/23/2021	East/West Street	I5 SB Ramps							
Analysis Year	2023	North/South Street	269							
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88							
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00							
Project Description	TIS I5 & 269+Project									



Major Street: North-South

Vehicle Volumes and Adjustments																
Approach		Eastb	ound			West	oound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		33	0	64							70	36		45	70	
Percent Heavy Vehicles (%)		3	3	3										3		
Proportion Time Blocked																
Percent Grade (%)		(	0													
Right Turn Channelized		Ν	lo		No				No					Ν	lo	
Median Type/Storage				Undi	<i>r</i> ided											
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1	6.5	6.2										4.1		
Critical Headway (sec)		6.43	6.53	6.23										4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23		
Delay, Queue Length, and	d Leve	el of S	ervice	9												
Flow Rate, v (veh/h)		38		73										51		
Capacity, c (veh/h)		706		977										1459		
v/c Ratio		0.05		0.07										0.03		
95% Queue Length, Q <sub>95</sub> (veh)		0.2		0.2										0.1		
Control Delay (s/veh)		10.4		9.0										7.6		
Level of Service, LOS		В		A										А		
Approach Delay (s/veh)		9	.5										3.1			
Approach LOS			4													

	HCS7 Two-Way Stop-Control Report										
General Information		Site Information									
Analyst	DMBR	Intersection	15 & 269								
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO								
Date Performed	3/30/2021	East/West Street	I5 SB Ramps								
Analysis Year	2042	North/South Street	269								
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88								
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00								
Project Description	TIS 15 & 269										



Major Street: North-South

Vehicle Volumes and Adj	ustme	ents														
Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		LT		R								TR		LT		
Volume, V (veh/h)		0	0	81							87	46		17	87	
Percent Heavy Vehicles (%)		3	3	3										3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No					No			Ν	10			Ν	lo	
Median Type/Storage	Undivided															
Critical and Follow-up He	eadwa	iys														
Base Critical Headway (sec)		7.1	6.5	6.2										4.1		
Critical Headway (sec)		6.43	6.53	6.23										4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23		
Delay, Queue Length, and	d Leve	el of S	ervice	9												
Flow Rate, v (veh/h)		0		92										19		
Capacity, c (veh/h)		0		953										1422		
v/c Ratio				0.10										0.01		
95% Queue Length, Q <sub>95</sub> (veh)		0.3												0.0		
Control Delay (s/veh)		5.0 9.2												7.6		
Level of Service, LOS		A A												A		
Approach Delay (s/veh)		9	.2										1.3			
Approach LOS	A															

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	HCS7 Two-Way Stop	p-Control Report							
General Information		Site Information							
Analyst	DMBR	Intersection	15 & 269						
Agency/Co.	LAV Pinnacle	Jurisdiction	FRESNO						
Date Performed	6/23/2021	East/West Street	I5 SB Ramps						
Analysis Year	2042	North/South Street	269						
Time Analyzed	PM Peak Hours	Peak Hour Factor	0.88						
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00						
Project Description	TIS I5 & 269+PROJECT								



#### Major Street: North-South

Vehicle Volumes and Adj	ustme	ents															
Approach		Eastb	ound			West	oound		Northbound				Southbound				
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	1		0	0	0	0	0	1	0	0	0	1	0	
Configuration		LT		R								TR		LT			
Volume, V (veh/h)		33	0	81							88	46		49	88		
Percent Heavy Vehicles (%)		3	3	3										3			
Proportion Time Blocked																	
Percent Grade (%)	0																
Right Turn Channelized	No			No			No			No							
Median Type/Storage	Undivided																
Critical and Follow-up He	eadwa	iys															
Base Critical Headway (sec)		7.1	6.5	6.2										4.1			
Critical Headway (sec)		6.43	6.53	6.23										4.13			
Base Follow-Up Headway (sec)		3.5	4.0	3.3										2.2			
Follow-Up Headway (sec)		3.53	4.03	3.33										2.23			
Delay, Queue Length, and	d Leve	el of S	ervice	9													
Flow Rate, v (veh/h)		38		92										56			
Capacity, c (veh/h)		655		952										1421			
v/c Ratio		0.06		0.10										0.04			
95% Queue Length, Q <sub>95</sub> (veh)		0.2		0.3										0.1			
Control Delay (s/veh)		10.8		9.2										7.6			
Level of Service, LOS		В		А										А			
Approach Delay (s/veh)	9.7										2.9						
Approach LOS	A																

**Street Segments** 

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period AM Peak Hours Highway SR 269 I5 NB Ramps/I5 SB Ramps From/To Jurisdiction Fresno Analysis Year 2021 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr % Terrain type mi % No-passing zones 20 % Access point density 8 Grade: Length - mi 8 Up/down \_ /mi Analysis direction volume, Vd 100 veh/h Opposing direction volume, Vo 81 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.8 1.9 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.954 0.949 1.00 Grade adj. factor,(note-1) fg 1.00 119 pc/h Directional flow rate, (note-2) vi 97 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 0.6 Average travel speed, ATSd 55.7 mi/h Percent Free Flow Speed, PFFS 96.0 ŝ

Percent Time-Spent-Follo	wing				
Direction Analysis(d) PCE for trucks, ET 1.1		Opposing (o) 1.1			
PCE for RVs, ER 1.0		1.	0		
Heavy-vehicle adjustment factor. fHV 0 994			994		
Grade adjustment factor (note-1) for 1 00		U.	00		
Directional flow rate (note 2) wi	ng/h	1.	ng/h		
Directional riow race, (note-2) vi rif	pC/II	ر ر م	perm		
Base percent time-spent-torrowing, (note-4) BPISFO	1 13.1	6			
Adjustment for no-passing zones, inp	30.2	0			
Percent time-spent-following, Pisra	29.7	5			
Level of Service and Other Perfor	mance M	easures_			
Level of service, LOS	A				
Volume to capacity ratio, v/c	0.53				
Peak 15-min vehicle-miles of travel VMT15	0	veh-m	1 i		
Deak-bour webigle-miles of travel VMT60	0	ven m	1 <u>1</u>		
Peak 15 min total travel time TT15	0	ven-n	11		
Generative from ARG GAARG	1700	ven-n	2		
Capacity from AIS, COAIS	1700	ven/n			
Capacity from PISF, COPISF	1700	ven/n	Ĺ		
Directional Capacity	1700	veh/h	Ĺ		
Passing Lane Analysi	.s				
Total length of analysis segment. Lt		0 0	) mi		
Length of two-lane highway unstream of the passin	a lane	T.11 -	mi		
Length of pagging lane including tapers. In	ig fanc,	<u>ц</u>	mi		
Average travel gread ATCd (from above)		 E E	mi/h		
Average traver speed, Arsu (from above)		55.	7 III⊥/11		
Level of service LOGI (from shows)		29.	1		
Level of service, LOSA (from above)		A			
Average Travel Speed with Pas	sing La	ne			
Downstream length of two-lane highway within effe	otive				
length of passing lane for average travel spe	ed Lde	_	mi		
Length of two-lane highway downstream of effective					
longth of the pagging lane for average travel	anood	тd	mi		
Tengen of the passing faile for average traver	speed,	та -			
Adj. factor for the effect of passing lane					
on average speed, Ipl	-	-			
Average travel speed including passing lane, ATSp	→⊥ 	-			
Percent free flow speed including passing lane, P	FFSpl	0.0	50		
Percent Time-Spent-Following with	Passin	g Lane			
Downstroom longth of two long bishing within after	ations 1	ongth			
of pegging long for remember the mark ( )?	durve l				
of passing lane for percent time-spent-follow	ing, La	e –	ml		
Length of two-lane highway downstream of effectiv	re lengt.	h of			
the passing lane for percent time-spent-follo	wing, L	d –	mı		
Adj. factor for the effect of passing lane					
on percent time-spent-following, fpl		-			
Percent time-spent-following					
including passing lane, PTSFpl		-	00		
Level of Service and Other Performance Meas	ures wi	th Passi	.ng Lane		
Lowel of correction including pagaing long (00-1	Ţ				
Level of service including passing lane, LOSpl	E	_ 1 _ 1			
Peak 15-min total travel time, TT15	-	ven-h	L		
Bicycle Level of Servi	.ce				

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	113.6
Effective width of outside lane, We	33.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	0.32
Bicycle LOS	A

Notes:

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period AM Peak Hours Highway SR 269 From/To I5 NB Ramps/I5 SB Ramps Jurisdiction Fresno Analysis Year 2021+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 130 veh/h Opposing direction volume, Vo 112 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.7 1.8 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.960 0.954 Grade adj. factor,(note-1) fg 1.00 1.00 154 pc/h Directional flow rate, (note-2) vi 133 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 1.0 Average travel speed, ATSd 54.8 mi/h Percent Free Flow Speed, PFFS 94.5 %

Phone:

Fax:

Percent Time-Spent-Follow	wing				
Direction Analysis(d) PCE for trucks, ET 1.1		Opposing (o) 1.1			
PCE for RVs, ER1.0Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00	(1	1.0 0.9 1.0	94 0		
Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	16.7 33.4	128 %	pc/n		
Percent time-spent-following, PTSFd	34.7	5			
Level of Service and Other Perform	mance Me	easures			
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15	В 0.53 0	veh-mi			
Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15	0.0	veh-mi veh-h			
Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	1700 1700 1700	veh/h veh/h veh/h			
Passing Lane Analysis	3				
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	g lane,	0.0 Lu - - 54.8 34.7 B	mi mi mi/h		
Average Travel Speed with Pass	sing La	ne			
Downstream length of two-lane highway within effect length of passing lane for average travel spec	ctive ed, Lde	-	mi		
Length of two-lane highway downstream of effective length of the passing lane for average travel Adi. factor for the effect of passing lane	e speed,	Ld -	mi		
on average speed, fpl Average travel speed including passing lane, ATSpl	L	-			
Percent free flow speed including passing lane, PA	FFSpl	0.0	90		
Percent Time-Spent-Following with	Passing	g Lane			
Downstream length of two-lane highway within effect of passing lane for percent time-spent-follow: Length of two-lane highway downstream of effective	ctive le ing, Lde e lengtl	ength e - h of	mi		
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane	wing, Lo	d –	mi		
Percent time-spent-following including passing lane, PTSFpl		_	\$		
Level of Service and Other Performance Measu	ures wit	th Passin	g Lane		
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h			
Bicycle Level of Servio	ce				

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	147.7
Effective width of outside lane, We	30.30
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.31
Bicycle LOS	A

Notes:

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.
Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period AM Peak Hours Highway SR 269 I5 NB Ramps/I5 SB Ramps From/To Jurisdiction Fresno Analysis Year 2023 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 mi % No-passing zones 20 % Access point density 8 Grade: Length – mi 8 Up/down \_ /mi Analysis direction volume, Vd 103 veh/h Opposing direction volume, Vo 83 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.8 1.9 PCE for RVs, ER 1.0 1.0 0.949 Heavy-vehicle adj. factor,(note-5) fHV 0.954 1.00 Grade adj. factor,(note-1) fg 1.00 123 pc/h Directional flow rate, (note-2) vi 99 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 0.6 Average travel speed, ATSd 55.7 mi/h Percent Free Flow Speed, PFFS 96.0 ŝ

Percent Time-Spent-Fo	llowing		
Direction Analysis PCE for trucks, ET 1.1	(d) (	Opposing 1.1	(0)
PCE for RVs, ER1.0Heavy-vehicle adjustment factor, fHV0.99Grade adjustment factor, (note-1) fg1.00	4	1.0 0.994 1.00	
Directional flow rate, (note-2) vi 118 Base percent time-spent-following, (note-4) BPT Adjustment for no-passing zones fun	pc/h 'SFd 13.5 <sup>9</sup> 30 5	95 %	pc/h
Percent time-spent-following, PTSFd	30.4	0	
Level of Service and Other Per	formance Meas	sures	
Level of service, LOS	A		
Volume to capacity ratio, v/c	0.53		
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi	
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi	
Peak 15-min total travel time, TT15	0.0	veh-h	
Capacity from ATS, CdATS	1700	veh/h	
Capacity from PTSF, CdPTSF	1700	veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Anal	ysis		
Total length of analysis segment, Lt		0.0	mi
Length of two-lane highway upstream of the pas	sing lane, Lu	u –	mi
Length of passing lane including tapers. Lpl		_	mi
Average travel speed ATSd (from above)		55 7	mi/h
Percent time-spent-following PTSEd (from above	·e)	30 4	
Level of service, LOSd (from above)	C /	A	
Average Travel Speed with	Passing Lane		
Deversion levels of the level bishess within a			
Jonath of magine long for manage transl	TIECLIVE		
length of passing lane for average travel	speed, Lae	-	mı
Length of two-lane highway downstream of effect	tive	_	
length of the passing lane for average tra	vel speed, Lo	d –	mi
Adj. factor for the effect of passing lane			
on average speed, fpl		-	
Average travel speed including passing lane, A	TSpl	-	
Percent free flow speed including passing lane	, PFFSpl	0.0	00
Percent Time-Spent-Following w	ith Passing 1	Lane	
Downstream length of two-lane highway within e	ffective lend	qth	
of passing lane for percent time-spent-fol	lowing. Ide	_	mi
Length of two-lane highway downstream of effect	tive length (	h	
the passing lane for percent time-spent-fo	llowing Id	_	mi
Adj factor for the effect of pagging land			
on porgont time grant following fol			
Democrate time apont following, Ipi		-	
including passing lane, PTSFpl		-	%
Level of Service and Other Performance M	leasures with	Passing 1	Lane
Level of service including passing lane, LOSpl	E	_	
Peak 15-min total travel time, TT15	-	veh-h	
Bicycle Level of Se	rvice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	117.0
Effective width of outside lane, We	32.73
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	0.42
Bicycle LOS	А

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 6/23/2021 Analysis Time Period AM Peak Hours Highway SR 269 I5 NB Ramps/I5 SB Ramps From/To Jurisdiction Fresno Analysis Year 2023+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 133 veh/h Opposing direction volume, Vo 114 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.7 1.8 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.960 0.954 1.00 Grade adj. factor,(note-1) fg 1.00 157 pc/h Directional flow rate, (note-2) vi 136 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h Observed total demand, (note-3) V \_ veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 1.0 54.7 Average travel speed, ATSd mi/h Percent Free Flow Speed, PFFS 94.3 %

Percent Time-Spent-Follow	ing			
Direction Analysis(d) PCE for trucks, ET 1.1		Оррс	sing 1.1	(0)
PCE for RVS, ER1.0Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00Directional flow rate, (note-2) vi152	c/h		1.0 0.994 1.00 130	pc/h
Base percent time-spent-following,(note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	17.0 33.6 35.1	olo		F 0 / 11
Level of Service and Other Performa	ance Me	easure	es	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS	B 0.53 0 0.0 1700	vel vel vel vel	1-mi 1-mi 1-h 1/h	
Capacity from PTSF, CdPTSF Directional Capacity	1700 1700	ver ver	i/h i/h	
Passing Lane Analysis				
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	( Lu - 5 3 E	).0 - 54.7 35.1 3	mi mi mi/h
Average Travel Speed with Pass	ing Lar	ne		
Downstream length of two-lane highway within effect length of passing lane for average travel speed	tive d, Lde	-	-	mi
length of the passing lane for average travel a Adj. factor for the effect of passing lane	speed,	Ld -	-	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	-	- - ).0	8
Percent Time-Spent-Following with I	Passing	g Lane	2	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	tive le ng, Lde length	ength e - n of	-	mi
the passing lane for percent time-spent-follow. Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Lo	- £	-	mi
Percent time-spent-following including passing lane, PTSFpl		-	-	00
Level of Service and Other Performance Measu:	res wit	ch Pas	ssing 1	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veł	ı-h	
Bicycle Level of Service	e			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	151.1
Effective width of outside lane, We	30.03
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.40
Bicycle LOS	А

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- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period AM Peak Hours Highway SR 269 I5 NB Ramps/I5 SB Ramps From/To Jurisdiction Fresno Analysis Year 2042 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0 ft 0.0 mi ft % Trucks crawling 0.0 mi Truck crawl speed 0.0 % Recreational vehicles 4 Lane width % Segment length mi/hr Level Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 130 veh/h Opposing direction volume, Vo 105 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.7 1.8 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.960 0.954 1.00 Grade adj. factor,(note-1) fg 1.00 154 pc/h Directional flow rate, (note-2) vi 125 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.9 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 54.9 mi/h Percent Free Flow Speed, PFFS 94.7 ŝ

Percent Time-Spent-Follow	ving		
DirectionAnalysis(d)PCE for trucks, ET1.1		Opposing 1.1	( 0 )
PCE for RVs, ER1.0Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00Directional flow rate, (note-2) vi149	oc/h	1.0 0.99 1.00 120	4 pc/h
Base percent time-spent-following,(note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	16.7 32.9 34.9	2	F 0 / 11
Level of Service and Other Perform	nance Me	easures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	B 0.53 0 0.0 1700 1700 1700	veh-mi veh-mi veh-h veh/h veh/h veh/h	
Passing Lane Analysis	8		
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	g lane,	0.0 Lu - - 54.9 34.9 B	mi mi mi/h
Average Travel Speed with Pass	sing Lar	ne	
Downstream length of two-lane highway within effect length of passing lane for average travel spec	ctive ed, Lde	_	mi
Length of two-rane highway downstream of effective length of the passing lane for average travel Adj. factor for the effect of passing lane	speed,	Ld -	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	- FSpl	- 0.0	8
Percent Time-Spent-Following with	Passing	g Lane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-followi Length of two-lane highway downstream of effective	tive le ng, Lde length	ength e - h of	mi
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ving, Lo	d – –	mi
Percent time-spent-following including passing lane, PTSFpl		_	20
Level of Service and Other Performance Measu	ares wit	th Passing	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Servic	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	147.7
Effective width of outside lane, We	30.30
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.31
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 6/23/2021 Date Performed6/23/2021Analysis Time PeriodAM Peak Hours Highway SR 269 I5 NB Ramps/I5 SB Ramps From/To Jurisdiction Fresno Analysis Year 2042+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 mi % No-passing zones 20 % Access point density 8 Grade: Length – mi % Up/down \_ /mi Analysis direction volume, Vd 160 veh/h Opposing direction volume, Vo 136 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.6 1.7 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.965 0.960 1.00 Grade adj. factor, (note-1) fg 1.00 188 pc/h Directional flow rate, (note-2) vi 161 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 1.3 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 54.0 mi/h Percent Free Flow Speed, PFFS 93.1 %

Percent Time-Sp	ent-Followi	ing			
Direction An PCE for trucks, ET	alysis(d) 1.1		Opr	posing 1.1	( 0 )
PCE for RVs, ER Heavy-vehicle adjustment factor, fHV Grade adjustment factor.(note-1) fg	1.0 0.994 1.00			1.0 0.994 1.00	
Directional flow rate, (note-2) vi Base percent time-spent-following, (note-	183 pc 4) BPTSFd	c/h 20.0	0\0	155	pc/h
Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd		36.1 39.5	olo		
Level of Service and Oth	er Performa	ance Me	easui	res	
Level of service, LOS		В			
Volume to capacity ratio, v/c		0.53			
Peak 15-min vehicle-miles of travel, VMT	15	0	ve	eh-mi	
Peak-hour vehicle-miles of travel, VMT60		0	ve	eh-mi	
Peak 15-min total travel time, TT15		0.0	ve	eh-h	
Capacity from ATS, CdATS		1700	ve	eh/h	
Capacity from PTSF, CdPTSF		1700	ve	eh/h	
Directional Capacity		1700	ve	eh/h	
Passing Lan	e Analysis_				
Total length of analysis segment, Lt				0.0	mi
Length of two-lane highway upstream of t	he passing	lane,	Lu	-	mi
Length of passing lane including tapers,	Lpl			-	mi
Average travel speed, ATSd (from above)	-			54.0	mi/h
Percent time-spent-following, PTSFd (fro	m above)			39.5	
Level of service, LOSd (from above)				В	
Average Travel Speed	with Passi	ing Lar	ne		
Downstream length of two-lane highway wi	thin effect	ive			
length of passing lane for average t	ravel speed	J Lde		_	mi
Length of two-lane highway downstream of	affective	I, Due			
length of the pagging lane for avera	ellective	boogr	та		mi
Idi forten for the offert of regging la	ge traver s	speed,	цα	-	111 1
Adj. Tactor for the effect of passing Ta	ne				
on average speed, ipi	···· 300-1			-	
Average travel speed including passing I	ane, Arspi			-	0
Percent free flow speed including passin	g lane, PFF	spi		0.0	6
Percent Time-Spent-Follo	wing with P	Passing	g Lar	ne	
Downstream length of two-lane highway wi	thin effect	cive le	enati	ı	
of passing lane for percent time-spe	nt-followir	ia, I.de	2	_	mi
Length of two-lane highway downstream of	effective	length	- n of		
the passing lane for percent time-sp	ent-followi	ina La	1 01	_	mi
Adj factor for the effect of passing la	ne		~		
on percent time-spent-following fol				_	
Dercent time-spent-following					
including passing lane, PTSFpl				-	00
Level of Service and Other Perform	ance Measur	res wit	:h Pa	assing	Lane
Lowel of geruide including pageing land	I OSpl	F			
Peak 15-min total travel time, TT15	тдеот	<u>г</u>	ve	eh-h	
Bicycle Level	of Service	9			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	181.8
Effective width of outside lane, We	27.60
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	2.19
Bicycle LOS	В

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period AM Peak Hours Highway SR 269 From/To I5 NB/Jayne Ave Jurisdiction Fresno Analysis Year 2021 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0 ft 0.0 mi % Trucks crawling Lane width 0.0 % tt % Trucks crawing
mi Truck crawl speed 0.0
% Recreational vehicles 4
20 Segment length mi/hr Level Terrain type 8 % No-passing zones 20 Access point density 8 Grade: Length - mi % Up/down \_ 00 /mi Analysis direction volume, Vd 42 veh/h Opposing direction volume, Vo 60 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.9 1.9 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.949 0.949 1.00 Grade adj. factor,(note-1) fg 1.00 Directional flow rate, (note-2) vi 50 pc/h 72 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.6 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 56.4 mi/h Percent Free Flow Speed, PFFS 97.3 %

Phone:

Fax:

Percent Time-Spent-F	'ollowing		
Direction Analysi PCE for trucks, ET 1.1	.s(d)	Opposing 1.1	(0)
PCE for RVs, ER 1.0	)	1.0	
Heavy-vehicle adjustment factor, fHV 0.9	94	0.994	
Grade adjustment factor (note-1) fg 1 0	10	1 00	
Directional flow rate (note-2) vi 48	nc/h	69	pc/h
Page pergent time_spent_following (note_4) PD		2	pc/11
Adjustment for no pagging gapage for	20 /	0	
Adjustment for no-passing zones, inp	30.4 10.4	0,	
Percent time-spent-torrowing, pisra	10.4	6	
Level of Service and Other Pe	rformance Mea	sures	
Level of service, LOS	А		
Volume to capacity ratio, v/c	0 53		
Peak 15-min vehicle-miles of travel VMT15	0	veh-mi	
Poak hour uchigle miles of travel MT60	0	ven mi	
Peak-Hour vehicle-miles of claver, vmrou	0	ven-mi	
Peak 15-min total travel time, 1115	0.0	ven-n	
Capacity from ATS, COATS	1700	ven/n	
Capacity from PTSF, CdPTSF	1700	veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Ana	lysis		
Total longth of analyzig gogmont. It		0 0	mi
Total length of analysis segment, ht		0.0	
Length of two-lane highway upstream of the pa	ssing lane, L	u –	mi
Length of passing lane including tapers, Lpl		-	mı
Average travel speed, ATSd (from above)		56.4	mi/h
Percent time-spent-following, PTSFd (from abo	ve)	18.4	
Level of service, LOSd (from above)		A	
Average Travel Speed with	Passing Lane	·	
Downstream length of two-lane highway within	effective		
length of passing lane for average travel	. speed, Lde	-	mi
Length of two-lane highway downstream of effe	ctive		
length of the passing lane for average tr	avel speed, L	.d –	mi
Adj. factor for the effect of passing lane			
on average speed, fpl		_	
Average travel speed including passing lane,	ATSpl	-	
Percent free flow speed including passing lan	ie, PFFSpl	0.0	00
	·		
Percent Time-Spent-Following	with Passing	Lane	
Downstream length of two-lane highway within	effective len	lgth	
of passing lane for percent time-spent-fo	llowing, Lde	_	mi
Length of two-lane highway downstream of effe	ctive length	of	
the passing lane for percent time-spent-f	ollowing Id	_	mi
Adj factor for the offect of pagging lane	orrowing, ha		
on porgont time grant fallering fal			
Devreent time-spent-tollowing, ipl		-	
including passing lane PTSED		_	٩
including passing lane, rispr			o
Level of Service and Other Performance	Measures with	Passing 1	Lane
Level of service including passing lane. LOSp	J E		
Peak 15-min total travel time TT15		veh-h	
		V C 11 11	
Bicycle Level of S	ervice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	47.7
Effective width of outside lane, We	38.22
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	-1.98
Bicycle LOS	А

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Fax:

E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 6/23/2021 Date Performed6/23/2021Analysis Time PeriodAM Peak Hours Highway SR 269 I5 NB/Jayne Ave From/To Jurisdiction Fresno Analysis Year 2021+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type % - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 102 veh/h Opposing direction volume, Vo 118 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.8 1.8 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.954 0.954 Grade adj. factor,(note-1) fg 1.00 1.00 121 pc/h Directional flow rate, (note-2) vi 141 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 1.1 54.9 Average travel speed, ATSd mi/h Percent Free Flow Speed, PFFS 94.6 %

Phone:

Percent Time-Spent-Follow	ing		
DirectionAnalysis(d)PCE for trucks, ET1.1PCE for RVsER10		Oppos: 1 1	ing (o) .1 0
Heavy-vehicle adjustment factor, fHV 0.994 Grade adjustment factor, (note-1) fg 1.00	c /b	0 1	.994 .00
Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	13.4 32.2	2. 8 0.	55 pc/11
Percent time-spent-torrowing, Pisra	20.4	6	
Level of Service and Other Perform	ance Me	easures_	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF	B 0.53 0 0.0 1700 1700	veh-t veh-t veh-l veh/l veh/l	ni ni h h
Directional Capacity	1700	veh/l	h
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	0.0 Lu – 54 28 B	0 mi mi mi .9 mi/h .4
Average Travel Speed with Pass	ing Lar	ne	
Downstream length of two-lane highway within effec length of passing lane for average travel spee	tive d, Lde	_	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel Adj. factor for the effect of passing lane	speed,	Ld -	mi
on average speed, fpl Average travel speed including passing lane, ATSpl Dergent free flow speed including passing lane, DE	FCD	-	n e
reicent liee liow speed including passing lane, Fr		-	0 70
Percent Time-Spent-Following with	Passing	g Lane	
Downstream length of two-lane highway within effec of passing lane for percent time-spent-followi Length of two-lane highway downstream of effective	tive length	ength e - n of	mi
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Lo	d – b	mi
Percent time-spent-following including passing lane, PTSFpl		_	8
Level of Service and Other Performance Measu	res wit	th Pass:	ing Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E 	veh-l	h
Bicycle Level of Servic	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	115.9
Effective width of outside lane, We	32.82
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	0.39
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period AM Peak Hours Highway SR 269 I5 NB/Jayne Ave From/To Jurisdiction Fresno Analysis Year 2023 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0 ft 0.0 mi % Trucks crawling 0.0 Lane width % ft % Trucks crawing mi Truck crawl speed 0.0 % Recreational vehicles 4 Segment length mi/hr Level Terrain type % % No-passing zones 20 Access point density 8 Grade: Length – mi 8 Up/down \_ 00 /mi Analysis direction volume, Vd 43 veh/h Opposing direction volume, Vo 62 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.9 1.9 PCE for RVs, ER 1.0 1.0 0.949 Heavy-vehicle adj. factor,(note-5) fHV 0.949 1.00 Grade adj. factor,(note-1) fg 1.00 51 pc/h Directional flow rate, (note-2) vi 74 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.6 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 56.4 mi/h Percent Free Flow Speed, PFFS 97.3 %

Percent Time-Spent	-Following		
Direction Analy PCE for trucks, ET 1	sis(d) .1	Opposing 1.1	( 0 )
PCE for RVs. ER 1	. 0	1.0	
Heavy-vehicle adjustment factor, fHV 0	994	0 99	4
Grade adjustment factor (note-1) fa 1	00	1 00	-
Directional flow rate (note-2) vi	9 pc/h	71	nc/h
Page pergent time apont following (note 4)		م م	pc/II
Base percent time-spent-forrowing, (note-4)	20 F	6	
Pergent time great following DTSEd	10 E	٩.	
Percent time-spent-torrowing, Pisra	10.5	6	
Level of Service and Other	Performance Me	asures	
Level of service, LOS	A		
Volume to capacity ratio, v/c	0.53		
Peak 15-min vehicle-miles of travel. VMT15	0	veh-mi	
Peak-hour vehicle-miles of travel VMT60	0	veh-mi	
Peak 15-min total travel time TT15	0 0	veh-h	
Capacity from ATS COATS	1700	ven n veh/h	
Capacity from DECE CODECE	1700	ven/n	
Capacity from PISF, COPISF	1700	vell/ll	
Directional Capacity	1700	ven/n	
Passing Lane A	nalysis		
Total length of analysis segment. It		0_0	mi
Length of two-lane highway upstream of the	nagging lane	T.11 -	mi
Length of pagging lane ingluding tapers. In	jassing tane,		mi
hunrage travel aread ATCd (from above)	L		mi /h
Average traver speed, Also (from above)		10 E	111 / 11
Level of genuing, PISFU (IFOM a.	50VE)	L0.5	
Level of service, Losa (from above)		A	
Average Travel Speed wi	th Passing Lan	.e	
Downstream length of two-lane highway within	n effective		
length of pagging lane for average trav	al greed Ide	_	mi
I angth of two land highway downstroom of of	foatino	_	
Length of the reasing long for every	Lective	тa	
length of the passing lane for average	travel speed,	La -	mı
Adj. factor for the effect of passing lane			
on average speed, tpl		-	
Average travel speed including passing lane	, ATSpl	-	
Percent free flow speed including passing l	ane, PFFSpl	0.0	00
Percent Time-Spent-Following	g with Passing	Lane	
Description learning of the learning beach and the			
Downstream length of two-lane highway within	a errective le	ngth	
of passing lane for percent time-spent-	tollowing, Lde	-	mı
Length of two-lane highway downstream of ef	fective length	of	
the passing lane for percent time-spent	-following, Ld	-	mi
Adj. factor for the effect of passing lane			
on percent time-spent-following, fpl		-	
Percent time-spent-following			
including passing lane, PTSFpl		-	00
Level of Service and Other Performanc	e Measures wit	h Passing	Lane
Level of service including pagaing lange IO	Sul r		
Deak 15-min total travel time TTIE	- -	veh-h	
reak 15-min local liavel lime, 1115	-	v e11-11	
Bicycle Level of	Service		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	48.9
Effective width of outside lane, We	38.13
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	-1.93
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 6/23/2021 Date Performed6/23/2021Analysis Time PeriodAM Peak Hours Highway SR 269 I5 NB/Jayne Ave From/To Jurisdiction Fresno Analysis Year 2023+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type % - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 103 veh/h Opposing direction volume, Vo 120 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.8 1.8 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.954 0.954 1.00 Grade adj. factor,(note-1) fg 1.00 123 pc/h Directional flow rate, (note-2) vi 143 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 1.1 Average travel speed, ATSd 54.8 mi/h Percent Free Flow Speed, PFFS 94.5 %

Phone:

Fax:

Percent Time-Spent-Foll	lowing		
Direction Analysis(c PCE for trucks, ET 1.1 PCE for RVs ER 1.0	d )	Opposing 1.1 1 0	( 0 )
Heavy-vehicle adjustment factor, fHV1.0Grade adjustment factor, (note-1) fg1.00		0.994 1.00	1
Directional flow rate, (note-2) vi 118 Base percent time-spent-following, (note-4) BPTSE Adjustment for no-passing zones, fnp	pc/h Fd 13.5 32.3	137 %	pc/h
Percent time-spent-following, PTSFd	28.4	00	
Level of Service and Other Perfo	ormance Me	easures	
Level of service, LOS	B 0 F 2		
Deak 15-min webigle-miles of travel MMT15	0.55	web_mi	
Peak is mill vehicle-miles of travel VMT60	0	ven-mi	
Peak 15-min total travel time. TT15	0 0	veh-h	
Capacity from ATS, CdATS	1700	veh/h	
Capacity from PTSF, CdPTSF	1700	veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Analys	sis		
Total length of analysis segment, Lt		0.0	mi
Length of two-lane highway upstream of the pass	ing lane,	Lu –	mi
Length of passing lane including tapers, Lpl		-	mi
Average travel speed, ATSd (from above)		54.8	mi/h
Percent time-spent-following, PTSFd (from above)	)	28.4	
Level of service, LOSd (from above)		В	
Average Travel Speed with Pa	assing La	ne	
Downstream length of two-lane highway within eff	fective		
length of passing lane for average travel sp Length of two-lane highway downstream of effects	peed, Lde ive	-	mi
length of the passing lane for average trave	el speed,	Ld -	mi
on average speed, fpl		_	
Average travel speed including passing lane, ATS	Spl	_	
Percent free flow speed including passing lane,	PFFSpl	0.0	00
Percent Time-Spent-Following wit	th Passing	g Lane	
Downstream length of two-lane highway within eff	fective le	ength	
of passing lane for percent time-spent-follo	owing, Lde	e –	mi
Length of two-lane highway downstream of effects	ive length	h of	
the passing lane for percent time-spent-fold	lowing, Lo	d –	mi
on percent time-spent-following. fp]		_	
Percent time-spent-following			
including passing lane, PTSFpl		-	010
Level of Service and Other Performance Mea	asures wit	th Passing	Lane
Level of service including passing lane, LOSpl	E		
Peak 15-min total travel time, TT15	-	veh-h	
Bicycle Level of Serv	vice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	117.0
Effective width of outside lane, We	32.73
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	0.42
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period AM Peak Hours Highway SR 269 From/To I5 NB/Jayne Ave Jurisdiction Fresno Analysis Year 2042 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0 ft 0.0 mi % Trucks crawling 0.0 Lane width % tt % Trucks crawing
mi Truck crawl speed 0.0
% Recreational vehicles 4
20 Segment length mi/hr Level Terrain type % % No-passing zones 20 Access point density 8 Grade: Length - mi % Up/down \_ 00 /mi Analysis direction volume, Vd 54 veh/h Opposing direction volume, Vo 78 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.9 1.9 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.949 0.949 1.00 Grade adj. factor, (note-1) fg 1.00 Directional flow rate, (note-2) vi 65 pc/h 93 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.6 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 56.2 mi/h Percent Free Flow Speed, PFFS 96.8 %

Percent Time-Spent-F	ollowing		
Direction Analysi PCE for trucks, ET 1.1	s(d)	Opposing 1.1	( 0 )
PCE for RVs, ER 1.0		1.0	
Heavy-vehicle adjustment factor, fHV 0.9	94	0.994	
Grade adjustment factor (note-1) fg 1 0	0	1 00	
Directional flow rate (note-2) vi	nc/h	89	nc/h
Directional flow face, (note 2) vi 02		ر ن	pc/11
Base percent time-spent-ioriowing, (note-4) BP	15FU 7.5	6	
Adjustment for no-passing zones, inp	30.5	0	
Percent time-spent-following, PISFa	20.0	8	
Level of Service and Other Pe	rformance Me	asures	
Level of service, LOS	А		
Volume to capacity ratio, v/c	0.53		
Deak 15-min vehicle-miles of travel VMT15	0	veh-mi	
Peak hour uchigle miles of trough MMTG	0	ven mi	
Peak-Hour vehicle-miles of traver, vmroo	0	ven-mi	
Peak 15-min total travel time, 1115	0.0	ven-n	
Capacity from ATS, CdATS	1700	veh/h	
Capacity from PTSF, CdPTSF	1700	veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Ana	lysis		
Total length of analysis segment I.t		0 0	mi
Length of two-lane highway unstream of the na	ccinc lane	U.U	mi
Length of two-falle highway upstream of the pa	ssing tane,	Lu –	
Length of passing lane including tapers, Lpi		-	
Average travel speed, ATSd (from above)	、 、	56.2	mı/h
Percent time-spent-following, PTSFd (from abo	ve)	20.0	
Level of service, LOSd (from above)		A	
Average Travel Speed with	Passing Lan	e	
Downstream length of two-lane highway within	offoativo		
longth of pagging long for success theread	errective		
Tengen of passing fane for average traver	speed, Lde	-	1111
Length of two-lane highway downstream of effe	ctive		
length of the passing lane for average tr	avel speed,	Ld –	mi
Adj. factor for the effect of passing lane			
on average speed, fpl		-	
Average travel speed including passing lane,	ATSpl	-	
Percent free flow speed including passing lan	e, PFFSpl	0.0	00
Percent Time-Spent-Following	with Passing	Lane	
	-		
Downstream length of two-lane highway within	effective le	ngth	
of passing lane for percent time-spent-fo	llowing, Lde	-	mi
Length of two-lane highway downstream of effe	ctive length	of	
the passing lane for percent time-spent-f	ollowing, Ld	-	mi
Adi. factor for the effect of passing lane	5.		
on percent time-spent-following fpl		_	
Dergont time grant following			
including passing lane, PTSFpl		_	8
Level of Service and Other Performance	Measures wit	h Passing	Lane
Level of service including passing lane. LOSp	l E		
Peak 15-min total travel time, TT15	-	veh-h	
Bicycle Level of S	ervice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	61.4
Effective width of outside lane, We	37.14
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	-1.45
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
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Percent Time-Spent-Follow	ving		
Direction Analysis(d) PCE for trucks, ET 1.1		Opposing 1.1	(0)
PCE for RVS, ER1.0Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00		1.0 0.99 1.00	4
Directional flow rate, (note-2) vi 130 p Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones fnp	bc/h 14.8 33 7	155 ۶	pc/h
Percent time-spent-following, PTSFd	30.2	20	
Level of Service and Other Perform	nance Me	easures	
Level of service, LOS Volume to capacity ratio, v/c	в 0.53		
Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Deak 15-min total travel time TT15	0 0	veh-mi veh-mi veh-b	
Capacity from ATS, CdATS	1700	veh/h veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Analysis	5		
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	g lane,	0.0 Lu - - 54.4 30.2 B	mi mi mi/h
Average Travel Speed with Pass	sing La	ne	
Downstream length of two-lane highway within effect length of passing lane for average travel spee	ctive ed, Lde	_	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel	speed,	Ld -	mi
Adj. factor for the effect of passing lane on average speed, fpl		-	
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	0.0	<u>8</u>
Percent Time-Spent-Following with	Passing	g Lane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-followi Length of two-lane highway downstream of effective	ctive le ing, Lde e lengtl	ength e - h of	mi
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane	ving, Lo	d –	mi
on percent time-spent-following, fpl Percent time-spent-following including passing lane PTSFpl		_	2
Level of Service and Other Performance Measu	ures wit	th Passing	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Servic	ce		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	129.5
Effective width of outside lane, We	31.74
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	0.80
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period AM Peak Hours Highway SR 269 I5 SB Ramps/Avenall Cutoff Rd From/To Jurisdiction Fresno Analysis Year 2021 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0 ft 0.0 mi ft % Trucks crawling 0.0 mi Truck crawl speed 0.0 % Recreational vehicles 4 Lane width % Segment length mi/hr Level Terrain type 8 % No-passing zones 20 Access point density 8 Grade: Length – mi 8 Up/down \_ 8 /mi Analysis direction volume, Vd 83 veh/h Opposing direction volume, Vo 72 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.9 1.9 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.949 0.949 1.00 Grade adj. factor, (note-1) fg 1.00 Directional flow rate, (note-2) vi 99 pc/h 86 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.6 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 55.9 mi/h Percent Free Flow Speed, PFFS 96.5 %

Percent Time-Spent-Follow	ing			
Direction Analysis(d) PCE for trucks, ET 1.1		Oppo	sing	( 0 )
PCE for RVs, ER 1.0			1.0	
Heavy-vehicle adjustment factor, fHV 0.994			0.994	
Grade adjustment factor (note-1) fg 1 00			1 00	
Directional flow rate (note-2) vi 95 r	nc/h		82	nc/h
Page pergent time great following (note 4) PDTSEd	11 1	0	02	pc/m
Base percent time-spent-forrowing, (note-4) BPISFG		6		
Adjustment for no-passing zones, inp	29.7	0		
Percent time-spent-following, PISFa	27.0	6		
Level of Service and Other Perform	nance Me	easure	≥s	
Level of service, LOS	А			
Volume to capacity ratio, v/c	0.53			
Peak 15-min vehicle-miles of travel VMT15	0	veł	ı-mi	
Deak-hour webigle-miles of travel VMT60	0	vei	1 1mi	
Deak 15 min total travel time TT15	0 0	vei	$1 - 111 \pm 1$	
Peak 15-mill colai craver cime, 1115	1700	ver	1-11	
Capacity from ATS, COATS	1700	ver	1/n	
Capacity from PTSF, CdPTSF	1700	veł	ı/h	
Directional Capacity	1700	veł	ı/h	
Passing Lane Analysis	8			
Total length of analysis segment It		ſ	) ()	mi
Length of two-lane highway unstream of the nagging	lano	T.11 -	_	mi
Length of two-falle highway upscream of the passing	j lane,	шu		mi
Length of passing falle including tapers, Lpi		-	-	III⊥ 
Average travel speed, Also (from above)			22.9	111 / 11
Percent time-spent-following, PTSFd (from above)		4	27.0	
Level of service, LOSd (from above)		1	7	
Average Travel Speed with Pass	ing La	ne		
Downstream length of two-lane highway within effect	tive			
length of pagging lane for average travel spee			_	mi
I angth of two long bighters downgtwoom of offortive	eu, Lue	-	-	1111
Length of two-lane highway downstream of effective		т.]		
length of the passing lane for average travel	speed,	La -	-	mı
Adj. factor for the effect of passing lane				
on average speed, fpl		-	-	
Average travel speed including passing lane, ATSpl	-	-	-	
Percent free flow speed including passing lane, PF	FSpl	(	).0	00
Percent Time-Spent-Following with	Passing	g Lane	<u>ء</u>	
Downstream length of two-lane highway within effect	tive le	ength		
of passing lane for percent time-spent-followi	.ng, Lde	е -	-	mi
Length of two-lane highway downstream of effective	e lengtl	h of		
the passing lane for percent time-spent-follow	ing, Lo	d -	-	mi
Adj. factor for the effect of passing lane				
on percent time-spent-following, fpl		-	-	
Percent time-spent-following				
including passing lane, PTSFpl		-	-	00
Level of Service and Other Performance Measu	ares wit	th Pas	ssing	Lane
	_			
Level of service including passing lane, LOSpl	E		_	
Peak 15-min total travel time, TT15	-	veł	ı-h	
Bicycle Level of Servic	e			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	94.3
Effective width of outside lane, We	34.53
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	-0.29
Bicycle LOS	А

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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Percent Time-Spent-	Following		
Direction Analys PCE for trucks, ET 1.	is(d) 1	Opposing 1.1	( 0 )
PCE for RVs, ER 1.	0	1.0	
Heavy-vehicle adjustment factor, fHV 0.	994	0.994	
Grade adjustment factor (note-1) fg 1	00	1 00	
Directional flow rate (note-2) vi 97	nc/h	85	pc/h
Page pergent time aport following (note 4) P	DTCEA 11 2	<u>ه</u>	PC/11
Adjustment for no pagaing gonog for	20 7	0	
Adjustment for no-passing zones, inp		0,	
percent time-spent-torrowing, pisra	27.1	6	
Level of Service and Other P	erformance Mea	asures	
Level of service, LOS	А		
Volume to capacity ratio, v/c	0 53		
Peak 15-min vehicle-miles of travel VMT15	0	veh_mi	
Poak hour wohigle miles of travel VMT60	0	vch mi	
Peak-Hour Vehicle-miles of traver, VM100	0	ven-mi	
Peak 15-min total travel time, 1115	0.0	ven-n	
Capacity from ATS, COATS	1700	ven/n	
Capacity from PTSF, CdPTSF	1700	veh/h	
Directional Capacity	1700	veh/h	
Passing Lane An	alysis		
Total length of analyzic segment It		0 0	mi
Total length of analysis segment, bt		0.0	
Length of two-lane nighway upstream of the p	assing lane, l	_u –	mı
Length of passing lane including tapers, Lpl		-	mı
Average travel speed, ATSd (from above)		55.9	mi/h
Percent time-spent-following, PTSFd (from ab	ove)	27.1	
Level of service, LOSd (from above)		A	
Average Travel Speed wit	h Passing Lane	e	
Downstream length of two-lane highway within	effective		
length of passing lane for average trave	l speed, Lde	-	mi
Length of two-lane highway downstream of eff	ective		
length of the passing lane for average t	ravel speed, I	Ld -	mi
Adj. factor for the effect of passing lane			
on average speed, fpl		-	
Average travel speed including passing lane,	ATSpl	_	
Percent free flow speed including passing la	ne, PFFSpl	0.0	90
		<b>T</b>	
Percent Time-Spent-Following	with Passing	Lane	
Downstream length of two-lane highway within	effective ler	ngth	
of passing lane for percent time-spent-f	ollowing, Lde	-	mi
Length of two-lane highway downstream of eff	ective length	of	
the passing lane for percent time-spent-	following, Ld	-	mi
Adj. factor for the effect of passing lane	5,		
on percent time-spent-following fpl		_	
Dercent time-spent-following			
including passing lane, PTSFpl		_	8
Level of Service and Other Performance	Measures with	1 Passing 1	Lane
Bever of bervice and other reflormance	HEUDULED WILL	I LUBBILLY I	
Level of service including passing lane. LOS	F. Ia		
Peak 15-min total travel time TT15		veh-h	
		V CII II	
Bicycle Level of	Service		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	96.6
Effective width of outside lane, We	34.35
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	-0.22
Bicycle LOS	А

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
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- 3. For the analysis direction only and for v>200 veh/h.
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Percent Time-	Spent-Follow:	ing			
Direction PCE for trucks, ET	Analysis(d) 1.1		Opp	posing 1.1	( 0 )
PCE for RVs, ER	1.0			1.0	
Heavy-vehicle adjustment factor, fHV	0.994			0.994	
Grade adjustment factor.(note-1) fg	1.00			1.00	
Directional flow rate (note-2) vi	101 00	∼/h		87	pc/h
Base percent time-spent-following (not	-4) BDTGFd	11 7	2	0,	20/11
Adjustment for no-pagging zoneg fnp	c i, bribia	20 7	0		
Porgent time grout following DTSEd		29.7	o,		
reicent time-spent-torrowing, rista		21.1	0		
Level of Service and O	ther Performa	ance Me	easui	res	
Level of service, LOS		A			
Volume to capacity ratio, $v/c$		0 53			
Deak 15-min vehicle-miles of travel V	MTT1 5	0	374	-h-mi	
Peak hour upbials miles of travel.	60 60	0	~ ~ ~	sh mi	
Peak-nour venicle-miles of traver, vmr	00	0	Ve		
Peak 15-min total travel time, 1115		0.0	Ve		
Capacity from ATS, CdATS		1700	ve	eh/h	
Capacity from PTSF, CdPTSF		1700	ve	eh/h	
Directional Capacity		1700	ve	eh/h	
Passing L	ane Analysis <sub>.</sub>				
Total longth of analyzig gogmont It				0 0	mi
Total length of analysis segment, ht		7	Ŧ	0.0	
Length of two-lane highway upstream of	the passing	lane,	Lu	-	mi
Length of passing lane including tapera	s, Lpl			-	mı
Average travel speed, ATSd (from above	)			55.9	mi/h
Percent time-spent-following, PTSFd (f:	rom above)			27.7	
Level of service, LOSd (from above)				A	
Average Travel Speed	d with Pass:	ing Lar	ne		
Downstream length of two-lane highway	within effect	tive -			
length of passing lane for average	travel speed	d, Lde		-	mi
Length of two-lane highway downstream	of effective				
length of the passing lane for ave	rage travel :	speed,	Ld	-	mi
Adj. factor for the effect of passing	lane				
on average speed, fpl				_	
Average travel speed including passing	lane, ATSpl			_	
Percent free flow speed including pass	ing lane, PFI	FSpl		0.0	010
Percent Time-Spent-Fol	lowing with 1	Passing	g Lar	ne	
Downstream length of two-lane highway	within effect	tive le	engtl	ı	
of passing lane for percent time-sp	pent-followin	ng, Lde	3	-	mi
Length of two-lane highway downstream	of effective	length	n of		
the passing lane for percent time-	spent-follow <sup>.</sup>	ina. Lo	3	_	mi
Adj factor for the effect of pagging	lane		~		
on porgont time grant following f					
Demonst time grant fallering, 1	£⊤			-	
including passing lane. PTSFpl				_	90
			- h - T		T a m a
Level of Service and Other Perfo	rmance Measu	res wit	in Pa	assing	Lane
Level of service including passing land	e, LOSpl	Е			
Peak 15-min total travel time, TT15	-	_	ve	eh-h	
Bicycle Lev	el of Service	e			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	100.0
Effective width of outside lane, We	34.08
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	-0.11
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
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Percent Time-Sper	it-Following			
Direction Anal PCE for trucks, ET	lysis(d) 1.1	С	pposing 1.1	( 0 )
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	0 994		0 994	L
Grade adjustment factor (note-1) fo	1 00		1 00	•
Directional flow rate (note-2) wi	98 pg/h		2.00 85	ng/h
Dece persons time grant following (note 4)		1 0.	0.5	pc/II
Base percent time-spent-tollowing, (note-4)	BPISFO II	.4 6		
Adjustment for no-passing zones, inp	29	. /		
Percent time-spent-following, PlSFd	27	.3 %		
Level of Service and Other	Performanc	e Meas	ures	
Level of service, LOS	A			
Volume to capacity ratio, v/c	0.	53		
Peak 15-min vehicle-miles of travel. VMT1	5 0		veh-mi	
Peak-hour vehicle-miles of travel VMT60	, 0		veh-mi	
Deak 15-min total travel time TT15	0	0	ven mi	
Connaity from ATS COMTS	17	00	ven n veh /h	
Capacity from AIS, COAIS	17	00	vell/ll	
Capacity from PTSF, COPTSF	17	00	ven/n	
Directional Capacity	Τ./	00	ven/n	
Passing Lane	Analysis			
Total length of analysis segment. It			0.0	mi
Length of two-lane highway unstream of the	nagging la	ne I.11	-	mi
Longth of pagging lang ingluding taporg I	passing ia 'nl	пе, шu		mi
Deligen of passing falle including tapers, i	ърт			
Average travel speed, Also (from above)	- h )		22.9	[[[]] / ]]
Percent time-spent-following, PTSFd (from	above)		27.3	
Level of service, LOSd (from above)			A	
Average Travel Speed w	with Passing	Lane_		
Downstream length of two-lane highway with	nin effectiv	۵		
length of pagging lang for average tra	avel sneed	L.d.o	_	mi
I angeli of passing falle for average the	iver speed,	пае	_	1111
Length of the unprivation loss for a	errective			
length of the passing lane for average	e travel spe	ed, La		mı
Adj. factor for the effect of passing lane	2			
on average speed, fpl			-	
Average travel speed including passing lar	ıe, ATSpl		-	
Percent free flow speed including passing	lane, PFFSp	1	0.0	00
Percent Time-Spent-Follow	ing with Pas	sing L	ane	
		. ] .	la	
Downstream length of two-lane highway with	iin effectiv	e leng	LII	
of passing lane for percent time-spent	:-following,	Lde	_	mı
Length of two-lane highway downstream of e	effective le	ngth o	f	
the passing lane for percent time-sper	it-following	, Ld	-	mi
Adj. factor for the effect of passing lane	5			
on percent time-spent-following, fpl			_	
Percent time-spent-following				
including passing lane, PTSFpl			-	00
Level of Service and Other Performan	nce Measures	with	Passing	Lane
Level of service including passing lane, I	JOSpl E			
Peak 15-min total travel time, TT15	-		veh-h	
Bicycle Level of	of Service _			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	97.7
Effective width of outside lane, We	34.26
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	-0.18
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
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Percent Time-Spent-Follo	owing			
Direction Analysis(d) PCE for trucks, ET 1.1	)	Opr	posing 1.1	( 0 )
PCE for RVs, ER 1.0			1.0	
Heavy-vehicle adjustment factor, fHV 0.994			0.994	ł
Grade adjustment factor, (note-1) fq 1.00			1.00	
Directional flow rate, (note-2) vi 123	pc/h		106	pc/h
Base percent time-spent-following, (note-4) BPTSFC	14.0	00		-
Adjustment for no-passing zones, fnp	31.1			
Percent time-spent-following, PTSFd	30.7	010		
Level of Service and Other Perfor	rmance M	easui	ces	
Level of service, LOS	А			
Volume to capacity ratio v/c	0 53			
Deak 15-min vehicle-miles of travel VMT15	0.55	376	-h-mi	
Peak hour wohigle miles of travel, VMT60	0		sh mi	
Peak-nour venicie-miles of craver, vmroo	0		$h_{\rm h}$	
Comparing from ATC Colors	1700	Ve	=11-11 = h / h	
capacity from ATS, COATS	1700	Ve		
Capacity from PTSF, CdPTSF	1700	ve	en/n	
Directional Capacity	1700	ve	eh/h	
Passing Lane Analysi	ls			
Total length of analysis segment Lt			0 0	mi
Length of two-lane highway unstream of the paggir	na lane	T.11	_	mi
Longth of pagging lang ingluding taporg. Inl	ig talle,	ши		mi
Decrease travel aread ATCd (from chores)			- - 1	IIII mi/b
Average traver speed, Arsu (from above)			20.4	111 / 11
Level of remaine LOGI (from above)			30.7	
Level of service, LOSA (from above)			A	
Average Travel Speed with Pas	ssing La	ne		
Downstream length of two-lane highway within effe	ective			
length of pagging lang for average travel goe	ad Ide		_	mi
Length of two-lane highway downgtream of effective	70 Juc			
longth of the pagging lane for average travel	/e I anood	та		mi
Tengen of the passing falle for average travel	r speed,	Цα	-	
Adj. lactor for the effect of passing lane				
on average speed, ipi	-		-	
Average travel speed including passing lane, ATS			-	•
Percent free flow speed including passing lane, I	PFFSpl		0.0	96
Percent Time-Spent-Following with	n Passin	g Lar	ne	
Downstream length of two land highway within offe	ativa 1	on at 1	h	
of pagging long for pagging this such falls	inc I	engri	1	
of passing lane for percent time-spent-follow	ving, La	e	-	mı
Length of two-lane highway downstream of effectiv	<i>r</i> e lengt.	n or		
the passing lane for percent time-spent-follo	owing, L	d	-	mı
Adj. factor for the effect of passing lane				
on percent time-spent-following, fpl			-	
Percent time-spent-following				
including passing lane, PTSFpl			-	00
Level of Service and Other Performance Meas	sures wi	th Pa	assing	Lane
Level of cervice including pagging lang I oggi	F			
Deck 15 min total transl time mm15	凸	·	h h	
Peak is-min total travel time, TT15	-	ve	=11-U	
Bicycle Level of Servi	ice			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	122.7
Effective width of outside lane, We	32.28
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	0.59
Bicycle LOS	А

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 6/23/2021 Date Performed6/23/2021Analysis Time PeriodAM Peak Hours Highway SR 269 I5 SB Ramps/Avenall Cutoff Rd From/To Jurisdiction Fresno Analysis Year 2042+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr % Terrain type - mi % No-passing zones 20 - % Access point density 8 Grade: Length 8 Up/down /mi Analysis direction volume, Vd 110 veh/h Opposing direction volume, Vo 95 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.8 1.9 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.954 0.949 1.00 Grade adj. factor,(note-1) fg 1.00 131 pc/h Directional flow rate, (note-2) vi 114 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 0.8 Average travel speed, ATSd 55.3 mi/h Percent Free Flow Speed, PFFS 95.4 %

Percent Time-Spent-Follow	ing			
Direction Analysis(d) PCE for trucks, ET 1.1		0ppo	sing (o)	)
PCE for RVs, ER1.0Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00Dimentional flaw mate (note 2) with the second seco	a /b	-	1.0 0.994 1.00	ng (b
Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp	14.3 31.4	010 010	109	perm
Percent time-spent-following, PTSFd	31.1	5		
Level of Service and Other Perform	ance Me	easure	5	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15	A 0.53 0	veh	-mi	
Peak-nour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS	0 0.0 1700	ven veh veh	-m1 -h /h	
Capacity from PTSF, CdPTSF Directional Capacity	1700 1700	veh veh	/h /h	
Passing Lane Analysis				
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	0 Lu – 5 3 A	.0 r r 5.3 r 1.1	ni ni ni/h
Average Travel Speed with Pass	ing Lar	ne		
Downstream length of two-lane highway within effect length of passing lane for average travel spee	tive d, Lde	-	r	ni
Length of two-lane highway downstream of effective length of the passing lane for average travel Adj. factor for the effect of passing lane	speed,	Ld -	r	ni
on average speed, fpl Average travel speed including passing lane, ATSpl		-		
Percent free flow speed including passing lane, PF	'FSpl	0	.0 9	8
Percent Time-Spent-Following with	Passing	g Lane		
Downstream length of two-lane highway within effect of passing lane for percent time-spent-followi Length of two-lane highway downstream of effective	tive le ng, Lde length	ength e - n of	r	ni
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane	ing, Lo	- b	ľ	ni
Percent time-spent-following including passing lane, PTSFpl		-	Ş	2
Level of Service and Other Performance Measu	res wit	th Pas	sing Lar	ne
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh	-h	
Bicycle Level of Servic	e			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	125.0
Effective width of outside lane, We	32.10
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	0.66
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period PM Peak Hours Highway SR 269 I5 NB Ramps/I5 SB Ramps From/To Jurisdiction Fresno Analysis Year 2021 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0 ft 0.0 mi ft % Trucks crawling 0.0 mi Truck crawl speed 0.0 % Recreational vehicles 4 Lane width % Segment length mi/hr Level Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 131 veh/h Opposing direction volume, Vo 135 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.7 1.7 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.960 0.960 1.00 Grade adj. factor,(note-1) fg 1.00 155 pc/h Directional flow rate, (note-2) vi 160 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 1.3 mi/h Adjustment for no-passing zones, fnp 54.3 Average travel speed, ATSd mi/h Percent Free Flow Speed, PFFS 93.6 %

Percent Time-Spent-Follow	ing			
DirectionAnalysis(d)PCE for trucks, ET1.1PCE for RVs, ER1.0		0ppo	sing ( 1.1 1.0	0)
Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00Directional flow rate, (note-2) vi150	c/h		0.994 1.00 154	pc/h
Base percent time-spent-following,(note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	16.8 35.2 34.2	olo		
Level of Service and Other Perform	ance Me	easure	s	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	B 0.53 0 0.0 1700 1700 1700	veh veh veh veh veh	-mi -mi -h /h /h	
Dessing Long Analysis	1,00	VCII	/ 11	
Passing Lane Analysis				
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	0 Lu – 5 3 B	.0 4.3 4.2	mi mi mi/h
Average Travel Speed with Pass	ing Lar	ne		
Downstream length of two-lane highway within effect length of passing lane for average travel speed	tive d, Lde	-		mi
Length of two-lane highway downstream of effective length of the passing lane for average travel Adj. factor for the effect of passing lane	speed,	Ld -		mi
on average speed, fpl Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	_ _ 0	.0	ୖୄ
Percent Time-Spent-Following with	Passing	g Lane		
Downstream length of two-lane highway within effec of passing lane for percent time-spent-following Length of two-lane highway downstream of effective	tive le ng, Lde lengtl	ength e - n of		mi
<pre>the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane on percent time-spent-following, fpl</pre>	ing, Lo	– £		mi
Percent time-spent-following including passing lane, PTSFpl		-		00
Level of Service and Other Performance Measu	res wit	ch Pas	sing L	ane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh	-h	
Bicycle Level of Service	e			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	148.9
Effective width of outside lane, We	30.21
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.34
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

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Percent Time-Spent	-Following		
Direction Analy PCE for trucks, ET 1	sis(d)	Opposing 1.1	( 0 )
PCE for RVs, ER 1	. 0	1.0	
Heavy-vehicle adjustment factor, fHV 0	.994	0.994	4
Grade adjustment factor,(note-1) fg 1	.00	1.00	
Directional flow rate,(note-2) vi 1	.87 pc/h	193	pc/h
Base percent time-spent-following,(note-4)	BPTSFd 20.3	00	
Adjustment for no-passing zones, fnp	39.5		
Percent time-spent-following, PTSFd	39.7	%	
Level of Service and Other	Performance Me	asures	
Level of service, LOS	В		
Volume to capacity ratio, v/c	0.53		
Peak 15-min vehicle-miles of travel. VMT15	0	veh-mi	
Peak-hour vehicle-miles of travel VMT60	0	veh-mi	
Peak 15-min total travel time TT15	0 0	ven mi	
Capacity from ATS COATS	1700	ven n veh/h	
Capacity from DTSE CODTSE	1700	ven/n veh/h	
Directional Capacity	1700	ven/n veh/h	
Dagging Lane A		,	
	.11a1y515		
Total length of analysis segment, Lt		0.0	mi
Length of two-lane highway upstream of the	passing lane,	Lu –	mi
Length of passing lane including tapers, Lp	1	_	mi
Average travel speed, ATSd (from above)		53.2	mi/h
Percent time-spent-following, PTSFd (from a	bove)	39.7	
Level of service, LOSd (from above)		В	
Average Travel Speed wi	th Passing Lar	ie	
Deconstructor longth of two long highway within	n offorting		
longth of pagging lang for sucrage train	I effective		mi
Tength of two long highway downstroom of of	forting	—	1111
Length of two-lane highway downstream of en	rective	т -1	
length of the passing lane for average	travel speed,	La -	mı
Adj. factor for the effect of passing lane			
on average speed, fpl		-	
Average travel speed including passing lane	, ATSpl	-	0
Percent free flow speed including passing I	ane, PFFSpl	0.0	50
Percent Time-Spent-Followin	g with Passing	J Lane	
Downstream length of two-lane highway withi	n effective le	nath	
of passing lane for percent time-spent-	following Ide		mi
Length of two-lane highway downstream of ef	fective length	, of	
the passing lane for percent time, cont	-following Id		mi
Adj factor for the offect of pagging lane	-IUIIOWING, LO	ι –	1111
Auj. lactor for the effect of passing falle			
Devrent time ment fellewing, ipi		—	
including passing lane, PTSFpl		-	00
Level of Cervice and Other Derformance	A Masqurad wit	h Dagaing	Lane
	e measures wit	II FASSIIY	лане
Level of service including passing lane, LC	Spl E		
Peak 15-min total travel time, TT15	-	veh-h	
Bicycle Level of	Service		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	186.4
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.13
Bicycle LOS	С

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
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Percent Time-Spent-Follow	ing		
DirectionAnalysis(d)PCE for trucks, ET1.1PCE for RVs, ER1.0		Opposing 1.1 1.0	g (o)
Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00Directional flow rate, (note-2) vi154	c/h	0.99 1.00 159	94 ) pc/h
Base percent time-spent-following,(note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	17.2 35.7 34.8	0'0 0'0	
Level of Service and Other Perform	ance Me	easures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	B 0.53 0 0.0 1700 1700 1700	veh-mi veh-mi veh-h veh/h veh/h veh/h	
Dessing Long Analysis	1700	V C11/ 11	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	0.0 Lu - 54.1 34.8 B	mi mi mi/h
Average Travel Speed with Pass	ing Lar	ne	
Downstream length of two-lane highway within effec length of passing lane for average travel spee	tive d, Lde	_	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel Adj. factor for the effect of passing lane	speed,	Ld -	mi
on average speed, fpl Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	- - 0.0	ર
Percent Time-Spent-Following with	Passing	g Lane	
Downstream length of two-lane highway within effec of passing lane for percent time-spent-followi Length of two-lane highway downstream of effective	tive le ng, Lde length	ength e - n of	mi
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Lo	- b	mi
Percent time-spent-following including passing lane, PTSFpl		_	<b>e</b>
Level of Service and Other Performance Measu	res wit	th Passing	g Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Servic	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	153.4
Effective width of outside lane, We	29.85
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.46
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
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Percent Time-Spent-Fo	llowing		
Direction Analysis PCE for trucks, ET 1.1	(d)	Opposing 1.1	(0)
PCE for RVs, ER 1.0		1.0	
Heavy-vehicle adjustment factor, fHV 0.99	4	0.994	
Grade adjustment factor, (note-1) fq 1.00		1.00	
Directional flow rate, (note-2) vi 192	pc/h	198	pc/h
Base percent time-spent-following (note-4) BPT	SFd 20.8	00	1
Adjustment for no-passing zones, fnp	40.1		
Percent time-spent-following, PTSFd	40.5	00	
Level of Service and Other Per	formance Mea	asures	
Level of service LOS	в		
Volume to capacity ratio $V/c$	0 53		
Deak 15-min vehicle-miles of travel VMT15	0.55	web_mi	
Peak is-mill vehicle-miles of travel, VMIIS	0	ven-mi	
Peak-Hour Vehicle-miles of travel, VM160	0	ven-mi	
Peak 15-min total travel time, 1115	0.0	ven-n	
Capacity from ATS, COATS	1700	ven/n	
Capacity from PTSF, CdPTSF	1700	ven/n	
Directional Capacity	1700	veh/h	
Passing Lane Anal	ysis		
Total length of analysis segment Lt		0 0	mi
Length of two-lane highway unstream of the pas	sing lane I		mi
Length of pagging lane including tapers. In	sing rane, r		mi
Average travel greed ATSd (from above)		53 0	mi/h
Dergent time_gnent_following DTSEd (from above)		10 5	111 / 11
Level of gorvige 100d (from above)	e)	40.5 D	
Level of service, Losa (from above)		В	
Average Travel Speed with	Passing Lane	2	
Downstream length of two-lane highway within e	ffective		
length of passing lane for average travel	speed. Lde	_	mi
Length of two-lane highway downstream of effect	tive		
length of the passing lane for average tra	vel speed I	– b.	mi
Adj factor for the effect of pagging lane	Ver Bpeeu, r		
on average speed fpl		_	
Average travel speed including passing lane A	T C D ]	_	
Dergent free flow greed including passing lane, A	ייסקד מישבע	0 0	9
Percent free from speed including passing fane	, PFFSPI	0.0	6
Percent Time-Spent-Following w	ith Passing	Lane	
Downstream length of two-lane highway within e	ffective ler	nath	
of passing lane for percent time-spent-fol	lowing, Ide		mi
Length of two-lane highway downstream of effect	tive length	of	
the passing lane for percent time-spent-fo	llowing Id	_	mi
Adj factor for the offect of pagging lane	TTOWING, DO	_	
Adj. Tactor for the effect of passing falle			
on percent time-spent-rollowing, Ipi		-	
including passing lane PTSFpl		_	0
including passing fanc, fisipi			0
Level of Service and Other Performance M	easures with	n Passing 1	Lane
Level of service including passing lane, LOSpl	E		
Peak 15-min total travel time, TT15	_	veh-h	
Bicycle Level of Se	rvice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	190.9
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.15
Bicycle LOS	С

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period PM Peak Hours Highway SR 269 I5 NB Ramps/I5 SB Ramps From/To Jurisdiction Fresno Analysis Year 2042 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0 ft 0.0 mi ft % Trucks crawling 0.0 mi Truck crawl speed 0.0 % Recreational vehicles 4 Lane width % Segment length mi/hr Level Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 171 veh/h Opposing direction volume, Vo 175 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.5 1.5 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.971 0.971 1.00 Grade adj. factor,(note-1) fg 1.00 200 pc/h Directional flow rate, (note-2) vi 205 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 1.7 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 53.1 mi/h Percent Free Flow Speed, PFFS 91.6 %

Percent Time-Spent-	Following		
Direction Analys PCE for trucks, ET 1.	is(d) 1	Opposing 1.1	( 0 )
PCE for RVs, ER 1.	0	1.0	
Heavy-vehicle adjustment factor, fHV 0.	994	0.994	
Grade adjustment factor.(note-1) fg 1.	00	1.00	
Directional flow rate (note-2) vi 19	5  pc/h	200	pc/h
Page pergent time_spent_following (note_1) P	DTCEA 21 1	200	20/11
Dase percent time-spent-torrowing, (note-4) b	AD A	0	
Adjustment for no-passing zones, inp	40.4	0,	
Percent time-spent-following, PisFd	41.0	6	
Level of Service and Other P	erformance Mea	sures	
Level of service, LOS	В		
Volume to capacity ratio, v/c	0.53		
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi	
Peak-hour vehicle-miles of travel VMT60	0	veh-mi	
Deak 15-min total travel time TT15	0 0	ven mi	
Connaity from ATC CONTR	1700	ven n web/b	
Capacity from AIS, COAIS	1700		
Capacity from PTSF, COPTSF	1700	ven/n	
Directional Capacity	1700	veh/h	
Passing Lane An	alysis		
Total length of analysis segment I.t		0 0	mi
Ionath of two long highway unstroom of the n	agging lang I	0.0	mi
Length of two-falle highway upstream of the p	assing lane, L	u –	1111 
Length of passing lane including tapers, Lpi		-	mi ()
Average travel speed, ATSd (from above)		53.l	mı/h
Percent time-spent-following, PTSFd (from ab	ove)	41.0	
Level of service, LOSd (from above)		В	
Average Travel Speed wit	h Passing Lane		
Deconstructor longth of two long bighters within			
Downstream rength of two-rane highway within	errective		
length of passing lane for average trave	l speed, Lde	-	mı
Length of two-lane highway downstream of eff	ective		
length of the passing lane for average t	ravel speed, L	d –	mi
Adj. factor for the effect of passing lane			
on average speed, fpl		-	
Average travel speed including passing lane,	ATSpl	-	
Percent free flow speed including passing la	ne, PFFSpl	0.0	00
Dergent Time Spont Following	with Dagaing	Tano	
Percent Time-spent-fortowing	with Passing .		
Downstream length of two-lane highway within	effective len	gth	
of passing lane for percent time-spent-f	ollowing, Lde	-	mi
Length of two-lane highway downstream of eff	ective length	of	
the passing lane for percent time-spent-	following, Ld	-	mi
Adj. factor for the effect of passing lane	2, -		
on percent time-spent-following fpl		_	
Dercent time-spent-following			
including passing lane, PTSFpl		_	00
Level of Service and Other Performance	Measures with	Passing	Lane
Bever of bervice and other refformance	HEUDULED WILL	LABBILLY .	
Level of service including passing lane. LOS	pl E		
Peak 15-min total travel time, TT15	-	veh-h	
Bicycle Level of	Service		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	194.3
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.16
Bicycle LOS	С

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
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- 4. For the analysis direction only.
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Percent Time-Spent-Follow	ing		
Direction Analysis(d) PCE for trucks, ET 1.1		Opposing 1.1	(0)
PCE for RVS, ER1.0Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00Directional flow rate, (note-2) vi233	c/h	1.0 0.99 1.00 239	4 pc/h
Base percent time-spent-following,(note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	26.3 39.8 45.9	olo olo	
Level of Service and Other Perform	ance Me	easures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	B 0.53 0 0.0 1700 1700 1700	veh-mi veh-mi veh-h veh/h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	0.0 Lu - 52.6 45.9 B	mi mi mi mi/h
Average Travel Speed with Pass	ing Lar	ne	
Downstream length of two-lane highway within effec length of passing lane for average travel spee	tive d, Lde	-	mi
Length of two-falle highway downstream of effective length of the passing lane for average travel Adj. factor for the effect of passing lane	speed,	Ld -	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	- 0.0	ଚ୍ଚ
Percent Time-Spent-Following with	Passing	g Lane	
Downstream length of two-lane highway within effec of passing lane for percent time-spent-followi Length of two-lane highway downstream of effective	tive le ng, Lde length	ength e - h of	mi
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Lo	d – –	mi
Percent time-spent-following including passing lane, PTSFpl		_	8
Level of Service and Other Performance Measu	res wit	th Passing	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Servic	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	231.8
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.25
Bicycle LOS	С

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
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- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period PM Peak Hours Highway SR 269 I5 NB/Jayne Ave From/To Jurisdiction Fresno Analysis Year 2021 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses 6 % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type % - mi % No-passing zones 20 - % Access point density 8 Grade: Length 8 Up/down /mi Analysis direction volume, Vd 154 veh/h Opposing direction volume, Vo 67 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.6 1.9 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.965 0.949 1.00 Grade adj. factor,(note-1) fg 1.00 181 pc/h Directional flow rate, (note-2) vi 80 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.6 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 55.4 mi/h Percent Free Flow Speed, PFFS 95.4 %

Percent Time-Spent-Fo	ollowing		
Direction Analysis PCE for trucks, ET 1.1	s(d)	Opposing 1.1	(0)
PCE for RVs, ER 1.0		1.0	
Heavy-vehicle adjustment factor, fHV 0.99	94	0.994	
Grade adjustment factor, (note-1) fg 1.00	)	1.00	
Directional flow rate, (note-2) vi 176	pc/h	77	pc/h
Base percent time-spent-following.(note-4) BP	rsFd 19.3	9	1 - /
Adjustment for no-passing zones, fnp	28.8		
Percent time-spent-following, PTSFd	39.3	00	
Level of Service and Other Per	formance Mea	sures	
Level of cervice LOS	D		
Nolume to appeality ratio $w/a$			
Dook 15 min uchigle mileg of trouble MMT15	0.55	ttob mi	
Peak 15-min vehicle-miles of travel, VMI15	0	ven-mi	
Peak-nour vehicle-miles of travel, VMT60	0	ven-mi	
Peak 15-min total travel time, 1715	0.0	ven-n	
Capacity from ATS, CdATS	1700	veh/h	
Capacity from PTSF, CdPTSF	1700	veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Anal	lysis		
Total length of analysis segment I.t		0 0	mi
Length of two-lane highway unstream of the page	raina lang I	11 -	mi
Longth of pagaing lane ingluding tapora Inl	,sing tane, t	lu	mi
hengen of passing fane filtidding tapers, bpf			lll⊥ mi/b
Average traver speed, Arsu (from above)		22.4	111 / 11
Level of sources 100d (from shows)	/e)	39.3	
Level of service, LOSA (from above)		В	
Average Travel Speed with	Passing Lane		
Downstream length of two-lane highway within a	effective		
length of passing lane for average travel	speed. Lde	_	mi
Length of two-lane highway downstream of effect	stive		
length of the pagging lane for average tra	val gnaad I	- b.	mi
Adj factor for the offect of pagging lane	iver speed, r		
Adj. factor for the effect of passing falle			
On average speed, ipi	V T C T l	-	
Average travel speed including passing lane, A	AISPI	-	0,
Percent free from speed including passing lane	, PFFSpi	0.0	6
Percent Time-Spent-Following w	vith Passing	Lane	
Downstream length of two-lane highway within a	ffective len	ath	
of pagging lang for pergent time grant for	llowing Ida	-	mi
Jongth of two long highway downstroom of offer	stive longth	- of	1111
the reaging long for remeant time grout for	llouing Id	01	
the passing lane for percent time-spent-ic	pliowing, La	_	mı
Adj. factor for the effect of passing lane			
on percent time-spent-tollowing, tpl		-	
Percent time-spent-following			•
including passing lane, PTSFpl		-	00
Level of Service and Other Performance M	leasures with	Passing I	Lane
Level of service including passing lane LOSpi	.स		
Peak 15-min total travel time TT15	-	veh-h	
		V C 11 11	
Bicycle Level of Se	ervice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	175.0
Effective width of outside lane, We	28.14
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	2.02
Bicycle LOS	В

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Fax:

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Percent Time-Spent-Follow	ving			
Direction Analysis(d) PCE for trucks, ET 1.1		Opp	osing 1.1	( 0 )
PCE for RVs, ER1.0Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fq1.00			1.0 0.994 1.00	
Directional flow rate, (note-2) vi 253 p Base percent time-spent-following, (note-4) BPTSFd	bc/h 26.3	olo	151	pc/h
Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	34.6 48.0	olo		
Level of Service and Other Perform	nance Me	easur	es	
Level of service, LOS	В			
Volume to capacity ratio, v/c	0.53			
Peak 15-min vehicle-miles of travel, VMT15	0	ve	h-mi	
Peak-hour vehicle-miles of travel, VMT60	0	ve	h-mi	
Peak 15-min total travel time, TT15	0.0	ve	h-h	
Capacity from ATS, CdATS	1700	ve	h/h	
Capacity from PTSF, CdPTSF	1700	ve	h/h	
Directional Capacity	1700	ve	h/h	
Passing Lane Analysis	8			
Total length of analysis segment, Lt			0.0	mi
Length of two-lane highway upstream of the passing	g lane,	Lu	_	mi
Length of passing lane including tapers, Lpl			-	mi
Average travel speed, ATSd (from above)			53.5	mi/h
Percent time-spent-following, PTSFd (from above)			48.0	
Level of service, LOSd (from above)			В	
Average Travel Speed with Pass	sing La	ne		
Downstream length of two-lane highway within effect	rtive			
length of passing lane for average travel spee	ad Lde		_	mi
Length of two-lane highway downgtream of effective	, Due			
length of the pagging lane for average travel	anood	та		mi
Idi fostor for the offost of reasing land	speed,	цα	-	111 1
Adj. Tactor for the effect of passing fane				
on average speed, ipi			-	
Average travel speed including passing lane, ATSPI	-		-	0
Percent free flow speed including passing lane, Pr	FSPI		0.0	6
Percent Time-Spent-Following with	Passing	g Lan	e	
Downstream length of two-lane highway within effect	tive le	enqth		
of passing lane for percent time-spent-followi	ng. Ide	e	_	mi
Length of two-lane highway downstream of effective	lengt	h of		
the passing lane for percent time-spent-follow	ina. La	1	_	mi
Adi, factor for the effect of passing lane		- *		
on percent time-spent-following fpl			_	
Dercent time-spent-following				
including passing lane, PTSFpl			_	00
Level of Service and Other Performance Measu	ares wit	th Pa	ssing	Lane
Level of service including passing land IOCal	F			
Peak 15-min total travel time, TT15	-	ve	h-h	
Bicycle Level of Servic	ce			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	251.1
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.29
Bicycle LOS	С

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
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- 4. For the analysis direction only.
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Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period PM Peak Hours Highway SR 269 From/To I5 NB/Jayne Ave Jurisdiction Fresno Analysis Year 2023 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 159 veh/h Opposing direction volume, Vo 69 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.6 1.9 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.965 0.949 1.00 Grade adj. factor,(note-1) fg 1.00 187 pc/h Directional flow rate, (note-2) vi 83 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.6 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 55.3 mi/h Percent Free Flow Speed, PFFS 95.3 %

Percent Time-Spent-Foll	owing			
Direction Analysis(d PCE for trucks, ET 1.1	)	Oppo	sing	( 0 )
PCE for RVs, ER 1.0			1.0	
Heavy-vehicle adjustment factor, fHV 0.994			0.994	
Grade adjustment factor (note-1) fg 1.00			1.00	
Directional flow rate. (note-2) vi 182	pc/h		79	pc/h
Base percent time-spent-following (note-4) BPTSE	d 19 9	0		F • /
Adjustment for no-passing zones, fnp	2.8 9	U U		
Percent time-spent-following, PTSFd	40.1	00		
I and of Convice and Other Device	www.enge.M			
Level of Service and Other Perio	rmance M	leasure	:S	
Level of service, LOS	В			
Volume to capacity ratio, v/c	0.53			
Peak 15-min vehicle-miles of travel, VMT15	0	veł	ı-mi	
Peak-hour vehicle-miles of travel, VMT60	0	veł	ı-mi	
Peak 15-min total travel time, TT15	0.0	veł	ı-h	
Capacity from ATS, CdATS	1700	veł	ı/h	
Capacity from PTSF CdPTSF	1700	ver	י, ו/h	
Directional Capacity	1700	ver	1/11 1/h	
			-,	
Passing Lane Analys	is			
Total length of analysis segment, Lt		C	).0	mi
Length of two-lane highway upstream of the passi	ng lane,	Lu -	-	mi
Length of passing lane including tapers. Lpl			_	mi
Average travel speed ATSd (from above)		5	53	mi/h
Percent time-spent-following PTSFd (from above)		2	40 1	
Level of service. LOSd (from above)		F	3	
		-		
Average Travel Speed with Pa	ssing La	ine		
Downstream length of two-lane highway within eff	ective			
length of passing lane for average travel sp	eed Lde	- <i>-</i>	-	mi
Length of two-lane highway downstream of effective	ve	-		
length of the pagging lane for average trave	laneed	ī.d -	_	mi
Adj factor for the officiat of pagging lane	i speed,	Ца		
Adj. factor for the effect of passing falle				
on average speed, ipi		-	•	
Average travel speed including passing lane, Als	brecoj	-		0_
Percent free flow speed including passing lane,	PFFSpl	Ĺ	1.0	6
Percent Time-Spent-Following wit	h Passin	ig Lane		
Downstream length of two-lane highway within eff	ective 1	ength		
of passing lane for percent time-spent-follo	wing, Ld	le -	-	mı
Length of two-lane highway downstream of effecti	ve lengt	h of		
the passing lane for percent time-spent-foll	owing, L	₁d -	-	mi
Adj. factor for the effect of passing lane				
on percent time-spent-following, fpl		-	-	
Percent time-spent-following				
including passing lane, PTSFpl		-		8
Level of Service and Other Performance Mea	sures wi	th Pas	sing	Lane
Level of ceruide including pagaing lange Iogal	Ū			
Deak 15 min total travel time TT15	E.		h	
Peak 15-MIII LOLAI LIAVEI LIME, TTI5	_	ver	1-11	
Bicycle Level of Serv	ice			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	180.7
Effective width of outside lane, We	27.69
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	2.17
Bicycle LOS	В

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Fax:

Phone:

E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 6/23/2021 Analysis Time Period PM Peak Hours Highway SR 269 I5 NB/Jayne Ave From/To Jurisdiction Fresno Analysis Year 2023+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 mi % No-passing zones 20 % Access point density 8 Grade: Length – mi % Up/down \_ /mi Analysis direction volume, Vd 226 veh/h Opposing direction volume, Vo 134 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.4 1.7 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.977 0.960 1.00 Grade adj. factor, (note-1) fg 1.00 263 pc/h Directional flow rate, (note-2) vi 159 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 1.3 Average travel speed, ATSd 53.4 mi/h Percent Free Flow Speed, PFFS 92.1 %

Percent Time-Spent-F	ollowing		
Direction Analysi PCE for trucks, ET 1.1	.s(d) 0	pposing ( 1.1	0)
PCE for RVs, ER1.0Heavy-vehicle adjustment factor, fHV0.9Grade adjustment factor, (note-1) fg1.0	) 994 )0	1.0 0.994 1.00	
Directional flow rate, (note-2) vi 258 Base percent time-spent-following, (note-4) BE Adjustment for no-passing zones, fnp	} pc/h ?TSFd 26.7 % 34.5	153	pc/h
Percent time-spent-following, PTSFd	48.4 %		
Level of Service and Other Pe	erformance Meas	ures	
Level of service, LOS	В		
Volume to capacity ratio, v/c	0.53		
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi	
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi	
Peak 15-min total travel time, TT15	0.0	veh-h	
Capacity from ATS, CdATS	1700	veh/h	
Capacity from PTSF CdPTSF	1700	veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Ana	alysis		
Total length of analysis segment. It		0 0	mi
Ionath of two long highway ungtwoom of the ne	aging long In	0.0	
Length of two-lane highway upstream of the pa	issing lane, Lu	. —	mı
Length of passing lane including tapers, Lpl		-	mı
Average travel speed, ATSd (from above)		53.4	mi/h
Percent time-spent-following, PTSFd (from abo	ove)	48.4	
Level of service, LOSd (from above)		В	
Average Travel Speed with	1 Passing Lane_		
Downstream length of two-lane highway within	effective		
length of passing lane for average travel	speed, Lde	_	mi
length of the passing lane for average tr	avel speed, Ld	. –	mi
Adj. factor for the effect of passing lane	,,		
on average speed, fpl	_	-	
Average travel speed including passing lane,	ATSpl	_	
Percent free flow speed including passing lar	ie, PFFSpl	0.0	00
Percent Time-Spent-Following	with Passing L	ane	
Downstream length of two-lane highway within	effective leng	th	
of passing lane for percent time-spent-fo	ollowing, Lde	-	mi
Length of two-lane highway downstream of effe	ective length o	f	
the passing lane for percent time-spent-f	following, Ld	-	mi
Adi, factor for the effect of passing lane	5, ==		
on percent time-spent-following fol		_	
Deveent time aport fellering			
including passing lane, PTSFpl		_	00
Level of Service and Other Performance	Measures with	Passing I	ane
	-	LABBING T	
Level of service including passing lane, LOSp	>l E		
Peak 15-min total travel time, TT15	_	veh-h	
Bicycle Level of S	Service		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	256.8
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.30
Bicycle LOS	С

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
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- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period PM Peak Hours Highway SR 269 From/To I5 NB/Jayne Ave Jurisdiction Fresno Analysis Year 2042 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type % mi % No-passing zones 20 % Access point density 8 Grade: Length – mi 8 Up/down \_ /mi Analysis direction volume, Vd 200 veh/h Opposing direction volume, Vo 87 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.5 1.9 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.971 0.949 1.00 Grade adj. factor,(note-1) fg 1.00 234 pc/h Directional flow rate, (note-2) vi 104 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.7 mi/h Adjustment for no-passing zones, fnp 54.7 Average travel speed, ATSd mi/h Percent Free Flow Speed, PFFS 94.3 %

Percent Time-Spent-Foll	owing		
Direction Analysis(d PCE for trucks, ET 1.1 PCE for PVs FP 1.0	)	Opposing 1.1 1 0	( 0 )
Heavy-vehicle adjustment factor, fHV 0.994 Grade adjustment factor, (note-1) fg 1.00	ng/h	0.994	ng /h
Base percent time-spent-following, (note-4) BPTSF Adjustment for no-passing zones, fnp Percent time-spent-following, PTSEd	d 24.2 29.7 44 9	8 8 9	perm
Level of Service and Other Perfo	rmance Me	agureg	
	rmanee ne		
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF	B 0.53 0 0.0 1700 1700	veh-mi veh-mi veh-h veh/h veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Analys	is		
Total length of analysis segment, Lt Length of two-lane highway upstream of the passi Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	ng lane,	0.0 Lu - 54.7 44.9 B	mi mi mi/h
Average Travel Speed with Pa	ssing Lar	1e	
Downstream length of two-lane highway within eff length of passing lane for average travel sp	ective eed, Lde	_	mi
Length of two-lane highway downstream of effecti length of the passing lane for average trave Adj factor for the effect of passing lane	ve l speed,	Ld -	mi
on average speed, fpl Average travel speed including passing lane, ATS	pl		
Percent free flow speed including passing lane,	PFFSpl	0.0	00
Percent Time-Spent-Following wit	h Passing	g Lane	
Downstream length of two-lane highway within eff of passing lane for percent time-spent-follo Length of two-lane highway downstream of effecti	ective le wing, Lde ve length	ength e - n of	mi
the passing lane for percent time-spent-foll Adj. factor for the effect of passing lane on percent time-spent-following, fpl	owing, Lo	d – 1 –	mi
Percent time-spent-following including passing lane, PTSFpl		_	<u> </u>
Level of Service and Other Performance Mea	sures wit	ch Passing	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Serv	ice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	227.3
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.24
Bicycle LOS	С

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Phone:

Fax:

Percent Time-Spent	-Following			
Direction Analy PCE for trucks, ET 1	rsis(d) 1	Opp	osing 1.1	(0)
PCE for RVs, ER	0		1.0	
Heavy-vehicle adjustment factor, fHV (	.994		0.994	
Grade adjustment factor, (note-1) fq 1	.00		1.00	
Directional flow rate, (note-2) vi	05 pc/h		174	pc/h
Base percent time-spent-following, (note-4)	BPTSFd 30.6	00		-
Adjustment for no-passing zones, fnp	34.2			
Percent time-spent-following, PTSFd	52.4	010		
Level of Service and Other	Performance M	leasur	es	
Level of service. LOS	C			
Volume to capacity ratio v/c	0 53			
Deak 15-min vehicle-miles of travel VMT15	0.55	170	h_mi	
Peak hour wohigle miles of travel WMT60	0	170	h mi	
Peak 15 min total travel time TT15	0	Ve	.11-1111 	
Generative from ATC GdATC	0.0	Ve	:11-11 .h /h	
Capacity from ATS, COATS	1700	ve		
Capacity from PTSF, COPTSF	1700	ve	en/n	
Directional Capacity	1700	ve	h/h	
Passing Lane A	nalysis			
Total length of analysis segment Lt			0.0	mi
Length of two-lane highway unstream of the	naccing lane	Τ.11	-	mi
Longth of pagging lane ingluding tapora. Ir	passing tane,	ши		mi
Length of passing falle including tapers, by	· _		- 50 7	mi /b
Average traver speed, Arsu (from above)	harra)		52.7	111 / 11
Level of remaine LOGI (from charac)	(bove)		52.4	
Level of service, LOSA (from above)			C	
Average Travel Speed wi	th Passing La	ine		
Downstream length of two-lane highway withi	n effective			
length of passing lane for average tray	vel speed I.de	2	_	mi
Length of two-lane highway downstream of ef	factiva			
length of the pagging lane for average	travel creed	та	_	mi
Adj factor for the offect of pagaing lane	clavel speed,	Шα	_	
Adj. lactor for the effect of passing lane				
On average speed, ipi	л ш О l		-	
Average travel speed including passing lane	, ATSPI		-	0
Percent free flow speed including passing J	ane, PFFSpl		0.0	8
Percent Time-Spent-Followir	ıg with Passin	ıg Lan	.e	
Downstream length of two-lane highway with	n effective 1	enath		
of pagging lane for percent time creat	following Ta	la la	_	mi
Jongth of two long highway downstroom of of	foctive lengt	h of	-	1111
the perging long for pergent time grout	fellouing	.11 OL		
the passing lane for percent time-spent	iollowing, L	a	-	mı
Adj. factor for the effect of passing lane				
on percent time-spent-tollowing, fpl			-	
Percent time-spent-following				0
including passing lane, PTSFp1			-	50
Level of Service and Other Performance	e Measures wi	th Pa	ssing	Lane
Level of service including passing lane LC	NSpl E			
Peak 15-min total travel time, TT15	~ <u>_</u>	ve	h-h	
Bicycle Level of	Service			

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	303.4
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.38
Bicycle LOS	С

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Percent Time-Spe	ent-Followi	ng			
Direction Ana PCE for trucks, ET	alysis(d) 1.1		Opr	posing 1.1	( 0 )
Heavy-vehicle adjustment factor, fHV Grade adjustment factor,(note-1) fg	1.0 0.994 1.00			1.0 0.994 1.00	
Directional flow rate, (note-2) vi Base percent time-spent-following, (note-4	147 pc 1) BPTSFd	/h 16.5	olo	117	pc/h
Adjustment for no-passing zones, inp Percent time-spent-following, PTSFd		32.6 34.7	010		
Level of Service and Othe	er Performa	nce Me	easur	res	
Level of service, LOS		A			
Volume to capacity ratio, v/c		0.53			
Peak 15-min vehicle-miles of travel, VMT	L5	0	ve	eh-mi	
Peak-hour vehicle-miles of travel, VMT60		0	ve	eh-mi	
Peak 15-min total travel time, TT15		0.0	ve	eh-h	
Capacity from ATS, CdATS		1700	ve	eh/h	
Capacity from PTSF, CdPTSF		1700	ve	eh/h	
Directional Capacity		1700	ve	eh/h	
Passing Lane	e Analysis_				
Total longth of analyzin cogmont. It				0 0	
Total length of analysis segment, Lt		-	-	0.0	mı
Length of two-lane nighway upstream of th	le passing	lane,	Lu	-	mı
Length of passing lane including tapers,	ГЪТ			-	mı
Average travel speed, ATSd (from above)				55.0	mi/h
Percent time-spent-following, PTSFd (from	n above)			34.7	
Level of service, LOSd (from above)				A	
Average Travel Speed	with Passi	ng Lan	le		
Downstream length of two-lane highway wit	thin effect	ive			
length of passing lane for average tr	ravel speed	. Ide		_	mi
Length of two-lane highway downstream of	offective	, 100			
longth of the pagging lane for average		pood	та		mi
Add faster for the offert of reading lar	je liavei s	peeu,	цα	-	1111
Adj. lactor for the effect of passing lar	le				
on average speed, ipl				-	
Average travel speed including passing la	ane, ATSpl	a 1		-	0
Percent free flow speed including passing	J lane, PFF	Spl		0.0	6
Percent Time-Spent-Follow	ving with P	assing	l Lar	1e	
Downstream length of two-lane highway wit	chin effect	ive le	nat ł	ı	
of passing lane for percent time-sper	nt-followin	a I.de		_	mi
I ongth of two long highway downgtroom of		longth	of		
the manine land for more time and	ellective	Tengui			
the passing lane for percent time-spe	HIL-LOLLOW1	пд, го	L	_	1111
Adj. factor for the effect of passing lar	ie				
on percent time-spent-following, fpl				-	
Percent time-spent-following					
including passing lane, PTSFpl				-	010
Level of Service and Other Performa	ance Measur	es wit	h Pa	assing	Lane
Level of service including passing lane.	LOSpl	E			
Peak 15-min total travel time, TT15	<b>L</b>	-	ve	eh-h	
Bicycle Level	of Service				

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	146.6
Effective width of outside lane, We	30.39
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.28
Bicycle LOS	A

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- 3. For the analysis direction only and for v>200 veh/h.
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Percent Time-Spent-Follow	ving		
Direction Analysis(d) PCE for trucks, ET 1.1		Opposing 1.1	( 0 )
PCE for RVs, ER1.0Heavy-vehicle adjustment factor, fHV0.994Grade adjustment factor, (note-1) fg1.00Directional flow rate (note-2) vi149	oc/h	1.0 0.99 1.00 118	4 pc/h
Base percent time-spent-following, (note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	16.7 32.7 34.9	8 8	20711
Level of Service and Other Perform	mance Me	easures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60	B 0.53 0 0	veh-mi veh-mi	
Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	1700 1700 1700 1700	veh/h veh/h veh/h	
Passing Lane Analysis	6		
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	g lane,	0.0 Lu - - 55.0 34.9 B	mi mi mi/h
Average Travel Speed with Pass	sing Lar	ne	
Downstream length of two-lane highway within effective length of passing lane for average travel spec	ctive ed, Lde	-	mi
Length of two-falle highway downstream of effective length of the passing lane for average travel Adj. factor for the effect of passing lane	speed,	Ld -	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	l FFSpl	- 0.0	8
Percent Time-Spent-Following with	Passing	g Lane	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-follows Length of two-lane highway downstream of effective	ctive le ing, Lde e length	ength e - h of	mi
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane on percent time-spent-following, fpl	wing, Lo	d – –	mi
Percent time-spent-following including passing lane, PTSFpl		-	20
Level of Service and Other Performance Measu	ures wit	th Passing	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Servic	ce		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	147.7
Effective width of outside lane, We	30.30
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.31
Bicycle LOS	A

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- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period PM Peak Hours Highway SR 269 I5 SB Ramps/Avenal Cutoff Rd. From/To Jurisdiction Fresno Analysis Year 2023 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 133 veh/h Opposing direction volume, Vo 105 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.7 1.8 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.960 0.954 1.00 Grade adj. factor,(note-1) fg 1.00 157 pc/h Directional flow rate, (note-2) vi 125 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.9 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 54.9 mi/h Percent Free Flow Speed, PFFS 94.7 ŝ

Percent Time-Spent-Follows	ing		
Direction Analysis(d) PCE for trucks, ET 1.1 PCE for PVs FR 1.0		Oppos 1 1	ing (o) .1
Heavy-vehicle adjustment factor, fHV 0.994 Grade adjustment factor, (note-1) fg 1.00 Directional flow rate, (note-2) vi 152 pc	c/h	1 0 1 1	.0 .994 .00 20 pc/h
Base percent time-spent-following,(note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	17.0 32.9 35.4	010 010	
Level of Service and Other Performa	ance Me	easures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60	B 0.53 0 0	veh- veh-	mi mi
Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	0.0 1700 1700 1700	veh- veh/ veh/ veh/	h h h h
Passing Lane Analysis_			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	0. Lu – 54 35 B	0 mi mi mi .9 mi/h .4
Average Travel Speed with Pass	ing Lar	ne	
Downstream length of two-lane highway within effect length of passing lane for average travel speed	tive d, Lde	_	mi
length of the passing lane for average travel s Adj. factor for the effect of passing lane	speed,	Ld -	mi
Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PFF	FSpl	- 0.	0 %
Percent Time-Spent-Following with H	Passing	g Lane_	
Downstream length of two-lane highway within effect of passing lane for percent time-spent-followin Length of two-lane highway downstream of effective	tive le ng, Lde length	ength e - 1 of	mi
the passing lane for percent time-spent-follows Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Lo	d –	mi
Percent time-spent-following including passing lane, PTSFpl		_	8
Level of Service and Other Performance Measur	res wit	h Pass	ing Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-	h
Bicycle Level of Service	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	151.1
Effective width of outside lane, We	30.03
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.40
Bicycle LOS	А

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 6/23/2021 Analysis Time Period PM Peak Hours Highway SR 269 I5 SB Ramps/Avenal Cutoff Rd. From/To Jurisdiction Fresno Analysis Year 2023+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 134 veh/h Opposing direction volume, Vo 106 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.7 1.8 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.960 0.954 1.00 Grade adj. factor,(note-1) fg 1.00 159 pc/h Directional flow rate, (note-2) vi 126 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h 0.9 mi/h Adjustment for no-passing zones, fnp Average travel speed, ATSd 54.9 mi/h Percent Free Flow Speed, PFFS 94.6 %

Percent Time-Spent-Follow	ing		
DirectionAnalysis(d)PCE for trucks, ET1.1PCE for RVsER10		Opposin 1.1	g (o)
Heavy-vehicle adjustment factor, fHV 0.994 Grade adjustment factor, (note-1) fg 1.00 Directional flow rate (note-2) vi 153 p	c/h	1.0 0.9 1.0 121	94 0
Base percent time-spent-following,(note-4) BPTSFd Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	17.1 33.0 35.5	8	P0/11
Level of Service and Other Perform	ance Me	easures	
Level of service, LOS	В		
Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60	0.53 0 0	veh-mi veh-mi	
Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF Directional Capacity	0.0 1700 1700 1700	veh-h veh/h veh/h veh/h	
Passing Lane Analysis			
Total length of analysis segment, Lt Length of two-lane highway upstream of the passing Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	lane,	0.0 Lu - 54.9 35.5 B	mi mi mi/h
Average Travel Speed with Pass	ing Lar	ne	
Downstream length of two-lane highway within effec length of passing lane for average travel spee	tive d, Lde	_	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel Adj. factor for the effect of passing lane	speed,	Ld -	mi
on average speed, fpl Average travel speed including passing lane, ATSpl Percent free flow speed including passing lane, PF	FSpl	_ _ 0.0	8
Percent Time-Spent-Following with	Passing	g Lane	
Downstream length of two-lane highway within effec of passing lane for percent time-spent-followi Length of two-lane highway downstream of effective	tive lengt	ength e - h of	mi
the passing lane for percent time-spent-follow Adj. factor for the effect of passing lane on percent time-spent-following, fpl	ing, Lo	d – –	mi
Percent time-spent-following including passing lane, PTSFpl		-	0
Level of Service and Other Performance Measu	res wit	th Passin	g Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Servic	e		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	152.3
Effective width of outside lane, We	29.94
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	1.43
Bicycle LOS	A

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 4/6/2021 Analysis Time Period PM Peak Hours Highway SR 269 I5 SB Ramps/Avenal Cutoff Rd. From/To Jurisdiction Fresno Analysis Year 2042 Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 - mi % No-passing zones 20 - % Access point density 8 Grade: Length % Up/down /mi Analysis direction volume, Vd 168 veh/h Opposing direction volume, Vo 133 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.5 1.7 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.971 0.960 1.00 Grade adj. factor,(note-1) fg 1.00 197 pc/h Directional flow rate, (note-2) vi 157 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 1.3 Average travel speed, ATSd 54.0 mi/h Percent Free Flow Speed, PFFS 93.1 %

Percent Time-Spent-Foll	Lowing		
Direction Analysis(d) PCE for trucks, ET 1.1 PCE for RVs. ER 1.0	1)	Opposing 1.1 1 0	(0)
Heavy-vehicle adjustment factor, fHV 0.994 Grade adjustment factor, (note-1) fg 1.00		0.994	
Base percent time-spent-following, (note-4) BPTSF Adjustment for no-passing zones, fnp Percent time-spent-following, PTSFd	pc/n Fd 20.8 35.9 40.8	152 % %	pc/n
Level of Service and Other Perfo	ormance Me	asures	
Level of service, LOS Volume to capacity ratio, v/c Peak 15-min vehicle-miles of travel, VMT15 Peak-hour vehicle-miles of travel, VMT60 Peak 15-min total travel time, TT15 Capacity from ATS, CdATS Capacity from PTSF, CdPTSF	B 0.53 0 0.0 1700 1700	veh-mi veh-mi veh-h veh/h veh/h	
Directional Capacity	1700	veh/h	
Passing Lane Analys	sis		
Total length of analysis segment, Lt Length of two-lane highway upstream of the passi Length of passing lane including tapers, Lpl Average travel speed, ATSd (from above) Percent time-spent-following, PTSFd (from above) Level of service, LOSd (from above)	ing lane,	0.0 Lu - - 54.0 40.8 B	mi mi mi mi/h
Average Travel Speed with Pa	assing Lan	.e	
Downstream length of two-lane highway within eff	fective		mi
Length of two-lane highway downstream of effecti length of the passing lane for average trave	lve el speed,	Ld -	mi
Adj. factor for the effect of passing lane on average speed, fpl		_	
Average travel speed including passing lane, ATS Percent free flow speed including passing lane,	Spl PFFSpl	- 0.0	8
Percent Time-Spent-Following wit	ch Passing	Lane	
Downstream length of two-lane highway within eff of passing lane for percent time-spent-follo Length of two-lane highway downstream of effecti	ective le wing, Lde ve length	ngth - of	mi
the passing lane for percent time-spent-foll Adj. factor for the effect of passing lane	lowing, Ld	-	mi
Percent time-spent-following including passing lane, PTSFpl		-	8
Level of Service and Other Performance Mea	asures wit	h Passing	Lane
Level of service including passing lane, LOSpl Peak 15-min total travel time, TT15	E -	veh-h	
Bicycle Level of Serv	vice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	190.9
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.15
Bicycle LOS	С

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax: E-Mail: \_\_\_\_\_Directional Two-Lane Highway Segment Analysis\_\_\_\_\_\_ Analyst DMBR Agency/Co. LAVPinnacle Date Performed 6/23/2021 Analysis Time Period PM Peak Hours Highway SR 269 I5 SB Ramps/Avenal Cutoff Rd. From/To Jurisdiction Fresno Analysis Year 2042+Project Description TIS SR 269 & I-5 Project \_\_\_\_\_Input Data\_\_\_\_\_ Peak hour factor, PHF 0.88 Highway class Class 1 Shoulder width 6.0 ft % Trucks and buses б % 12.0ft% Trucks crawling0.00.0miTruck crawl speed0.0Level% Recreational vehicles4 Lane width % Segment length mi/hr Terrain type 8 mi % No-passing zones 20 % Access point density 8 Grade: Length - mi % Up/down \_ /mi Analysis direction volume, Vd 169 veh/h Opposing direction volume, Vo 134 veh/h \_\_\_\_\_Average Travel Speed\_\_\_\_\_Average Travel Speed\_\_\_\_\_ Direction Analysis(d) Opposing (o) PCE for trucks, ET 1.5 1.7 PCE for RVs, ER 1.0 1.0 Heavy-vehicle adj. factor,(note-5) fHV 0.971 0.960 1.00 Grade adj. factor, (note-1) fg 1.00 198 pc/h Directional flow rate, (note-2) vi 159 pc/h Free-Flow Speed from Field Measurement: Field measured speed, (note-3) S FM mi/h \_ Observed total demand, (note-3) V veh/h Estimated Free-Flow Speed: Base free-flow speed, (note-3) BFFS 60.0 mi/h Adj. for lane and shoulder width, (note-3) fLS 0.0 mi/h Adj. for access point density,(note-3) fA 2.0 mi/h Free-flow speed, FFSd 58.0 mi/h mi/h Adjustment for no-passing zones, fnp 1.3 Average travel speed, ATSd 53.9 mi/h Percent Free Flow Speed, PFFS 93.0 %

Percent Time-Spent-F	ollowing		
Direction Analysi PCE for trucks, ET 1.1	s(d)	Opposing 1.1	(0)
PCE for RVs, ER 1.0		1.0	
Heavy-vehicle adjustment factor, fHV 0.9	94	0.994	
Grade adjustment factor, (note-1) fg 1.0	0	1.00	
Directional flow rate, (note-2) vi 193	pc/h	153	pc/h
Base percent time-spent-following, (note-4) BP	TSFd 20.9	00	
Adjustment for no-passing zones, fnp	36.0		
Percent time-spent-following, PTSFd	41.0	00	
Level of Service and Other Pe	rformance Mea	sures	
Level of service, LOS	В		
Volume to capacity ratio, v/c	0.53		
Peak 15-min vehicle-miles of travel VMT15	0	veh-mi	
Peak-hour vehicle-miles of travel VMT60	0	ven mi	
Deak 15-min total travel time TT15		ven mit veh-h	
Capacity from ATS COATS	1700	ven n veh/h	
Capacity from DTSE CODTSE	1700	ven/n web/b	
Capacity from PISF, Cupisf	1700	ven/n	
Directional Capacity	1700	ven/n	
Passing Lane Ana	lysis		
Total length of analysis segment. It		0.0	mi
Length of two-lane highway upstream of the pa	ssing lane L		mi
Length of passing lane including tapers [.n]	bbing fanc, h	_	mi
Average travel speed ATSd (from above)		53 0	mi/h
Dercent time-spect, Albu (110m above)	VO)	41 0	
Level of service LOSd (from above)	vc)	41.0 B	
Level of service, host (from above)		Ы	
Average Travel Speed with	Passing Lane		
Downstream length of two-lane highway within	effective		
length of passing lane for average travel	speed. Lde	_	mi
Length of two-lane highway downstream of effe	ctive		
length of the pagging lane for average tr	avel greed I.	- b.	mi
Adj factor for the officiat of pagaing land	aver speed, i	u –	
Adj. factor for the effect of passing falle			
Nucross trougl speed, ipi	۸ m c m l	-	
Average travel speed including passing lane,	AISPI	-	0,
Percent free from speed including passing fan	e, prrspi	0.0	6
Percent Time-Spent-Following	with Passing	Lane	
Downstream length of two-lane highway within	effective len	ath	
of pagging lang for pargont time grant for	llowing Ide		mi
Jongth of two long highway downstroom of offo	ative longth	- of	1111
the reasing long for persons time arout f	clive length	01	
the passing lane for percent time-spent-f	ollowing, La	-	mı
Aaj. factor for the effect of passing lane			
on percent time-spent-tollowing, fpl		-	
Percent time-spent-following			•
including passing lane, PTSFpl		-	96
Level of Service and Other Performance	Measures with	Passing I	Lane
Level of service including pagging lane IOS	] F		
Deak 15-min total travel time TT15	т п –	veh_h	
reak 15-min cocar craver crme, 1115	_	v G11-11	
Bicycle Level of S	ervice		

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	192.0
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	3.15
Bicycle LOS	С

- 1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
- 2. If vi (vd or vo ) >= 1,700 pc/h, terminate analysis-the LOS is F.
- 3. For the analysis direction only and for v>200 veh/h.
- 4. For the analysis direction only.
- 5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

**Freeway Ramps** 

## HCS7 Freeway Diverge Report

### **Project Information**

Froject mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	8 8 I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1	1	
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration L	ength (LD)	, ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-		
Final Speed Adjustment Factor (SAF	)		1.000	1.000		
Final Capacity Adjustment Factor (C	AF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2730	43		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000		
Heavy Vehicle Adjustment Factor (f	IV)		1.000	1.000		
Flow Rate (vi), pc/h			3102	49		
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.65	0.02		
Speed and Density						
Upstream Equilibrium Distance (LEQ)	, ft	-	Speed Index (Ds)		0.432	
Downstream Equilibrium Distance (l	leq), ft	-	Flow Outer Lanes (voa), pc/h/ln -		-	
Prop. Freeway Vehicles in Lane 1 and	d 2 (Pfd)	1.000	Off-Ramp Influence Area Speed	(SR), mi/h	61.0	
Flow in Lanes 1 and 2 (v12), pc/h		3102	Outer Lanes Freeway Speed (So	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	, pc/h	-	Ramp Junction Speed (S), mi/h		61.0	
Density in Ramp Influence Area (DR)	, pc/mi/ln	27.3	Average Density (D), pc/mi/ln 25.4		25.4	

Level of Service (LOS)	С			
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SR 269 & I-5 NB Off-Ramp 2021 AM.xuf				

## HCS7 Freeway Diverge Report

#### **Project Information**

Project mormation						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenie	nt Store	·		
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleratior	n Length (Lo)	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right	Right	
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-		
Final Speed Adjustment Factor (SAF)			1.000	1.000		
Final Capacity Adjustment Factor (	(CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2730	72		
Peak Hour Factor (PHF) 0.88 0.88						
Total Trucks, %	al Trucks, % 0.00 0.00					
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000		
Heavy Vehicle Adjustment Factor (	(fнv)		1.000	1.000		
Flow Rate (vi), pc/h			3102	82		
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.65	0.04		
Speed and Density						
Upstream Equilibrium Distance (Le	a), ft	-	Speed Index (Ds)		0.435	
Downstream Equilibrium Distance	(LEQ), ft	-	Flow Outer Lanes (voa), pc/h	ı/ln	-	
Prop. Freeway Vehicles in Lane 1 a	ind 2 (PFD)	1.000	Off-Ramp Influence Area Sp	eed (SR), mi/h	60.9	
Flow in Lanes 1 and 2 (v12), pc/h		3102	Outer Lanes Freeway Speed	(So), mi/h	-	
Flow Entering Ramp-Infl. Area (VR1	2), pc/h	-	Ramp Junction Speed (S), m	i/h	60.9	
Density in Ramp Influence Area (D	R), pc/mi/ln	27.3	Average Density (D), pc/mi/l	In	25.5	

Level of Service (LOS)	С		
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	SR 269 & I-5 NB Off-Rar	np 2021 AM+Project.xuf	

# HCS7 Freeway Diverge Report

#### **Project Information**

Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2023		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description TIS SR 269 & I-5 Gas/Convenient St			Store			
Geometric Data						
			Freeway	Ramp	Ramp	
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration Length (LD), ft			1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familiar		
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-		
Final Speed Adjustment Factor (SAF)			1.000	1.000		
Final Capacity Adjustment Factor (CAF)			1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2783	44		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (Et)			2.000	2.000		
Heavy Vehicle Adjustment Factor (f <sub>HV</sub> )			1.000	1.000		
Flow Rate (vi), pc/h			3162	50		
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.66	0.02		
Speed and Density						
Upstream Equilibrium Distance (LEQ), ft -		-	Speed Index (Ds)		0.432	
Downstream Equilibrium Distance (LEQ), ft		-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and 2 (PFD) 1.00		1.000	Off-Ramp Influence Area Speed (SR), mi/h		61.0	
Flow in Lanes 1 and 2 (v12), pc/h		3162	Outer Lanes Freeway Speed (So), mi/h		-	
Flow Entering Ramp-Infl. Area (vR12), pc/h		-	Ramp Junction Speed (S), mi/h		61.0	
Density in Ramp Influence Area (DR), pc/mi/In		27.8	Average Density (D), pc/mi/ln		25.9	
Level of Service (LOS)	С					
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Project information						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	Project Description TIS SR 269 & I-5 Gas/Convenien		nt Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (LD)	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2783	73		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	f́н∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3162	83	83	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.04	0.04	
Speed and Density						
Upstream Equilibrium Distance (Le	Q), ft	-	Speed Index (Ds)		0.435	
Downstream Equilibrium Distance	(LEQ), ft	-	Flow Outer Lanes (VOA), pc/h	ı/ln	-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (PFD)	1.000	Off-Ramp Influence Area Sp	beed (SR), mi/h	60.9	
Flow in Lanes 1 and 2 (v12), pc/h		3162	Outer Lanes Freeway Speed	(So), mi/h	-	
Flow Entering Ramp-Infl. Area (VR1	2 <b>), pc/h</b>	-	Ramp Junction Speed (S), m	ıi/h	60.9	
Density in Ramp Influence Area (D	R), pc/mi/ln	27.8	Average Density (D), pc/mi/	In	26.0	

Level of Service (LOS)	С			
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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2042		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (LD)	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	56		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (1	fн∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	64	64	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.84	0.03		
Speed and Density						
Upstream Equilibrium Distance (Leo	ຊ), ft	-	Speed Index (Ds)		0.434	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (PFD)	1.000	Off-Ramp Influence Area Speed	(SR), mi/h	60.9	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So),	, mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	2), pc/h	-	Ramp Junction Speed (S), mi/h		60.9	
Density in Ramp Influence Area (D	R), pc/mi/ln	35.4	Average Density (D), pc/mi/ln 3		33.1	

Level of Service (LOS)	E				
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Project mormation						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	icle	Analysis Year	2042+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description TIS SR 269 & I-5 Gas/Convenient		nt Store	· · ·			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleratio	n Length (L <sub>D</sub> )	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)	1		1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	85		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor	(fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	97	97	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.84	0.05		
Speed and Density						
Upstream Equilibrium Distance (L	EQ), ft	-	Speed Index (Ds)		0.437	
Downstream Equilibrium Distance	e (Leq), ft	-	Flow Outer Lanes (voa), pc/h	/In	-	
Prop. Freeway Vehicles in Lane 1	and 2 (PFD)	1.000	Off-Ramp Influence Area Sp	eed (SR), mi/h	60.8	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed	(So), mi/h	-	
Flow Entering Ramp-Infl. Area (vR	12 <b>), pc/h</b>	-	Ramp Junction Speed (S), mi	i/h	60.8	
Density in Ramp Influence Area (I	DR), pc/mi/ln	35.4	Average Density (D), pc/mi/l	n	33.2	

Level of Service (LOS)	E			
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Project Information						
Analyst	DMBR		Date	6/23/2021		
Agency	LAV Pinnac	le	Analysis Year	2042+Proje	ect	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak H	our	
Project Description TIS SR 269 & I-5 Truck Stop+Proje		& I-5 Truck Stop+Projec	t			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			3	2		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (Lo	), ft	1500	1200		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	r	
Weather Type			Non-Severe Weather	Non-Severe Weather		
Incident Type			No Incident	-		
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Demand Volume (Vi), veh/h			3551	62		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Heavy Vehicle Adjustment Factor (	fнv)		1.000	1.000		
Flow Rate (vi), pc/h			4035	70		
Capacity (c), pc/h			7200	4000		
Volume-to-Capacity Ratio (v/c)			0.56	0.02	0.02	
Speed and Density						
Upstream Equilibrium Distance (Leo	ຊ), ft	-	Density in Ramp Influence Area (I	א, pc/mi/ln	13.3	
Distance to Upstream Ramp (Lup),	ft	-	Speed Index (Ds)		0.434	
Downstream Equilibrium Distance	eam Equilibrium Distance (LEQ), ft - Flow Outer Lanes (VOA), pc/l		Flow Outer Lanes (voa), pc/h/ln		1729	
Distance to Downstream Ramp (LDOWN), ft -		Off-Ramp Influence Area Speed (S <sub>R</sub> ), mi/h		60.9		
Prop. Freeway Vehicles in Lane 1 a	nd 2 (P <sub>FD</sub> )	0.450	Outer Lanes Freeway Speed (So),	mi/h	79.9	
Flow in Lanes 1 and 2 (v12), pc/h		2306	Ramp Junction Speed (S), mi/h		67.8	
Flow Entering Ramp-Infl. Area (vR12	), pc/h	-	Average Density (D), pc/mi/ln		19.8	
Level of Service (LOS)		В				

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roject mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	8 8 I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration L	ength (L <sub>D</sub> )	, ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type		No Incident	-	-		
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2729	25		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	v)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3101	28	28	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.65	0.01		
Speed and Density						
Upstream Equilibrium Distance (LEQ)	, ft	-	Speed Index (Ds)		0.431	
Downstream Equilibrium Distance (L	_eq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	d 2 (PFD)	1.000	Off-Ramp Influence Area Speed	d (SR), mi/h	61.0	
Flow in Lanes 1 and 2 (v12), pc/h		3101	Outer Lanes Freeway Speed (Sc	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	-	Ramp Junction Speed (S), mi/h		61.0	
Density in Ramp Influence Area (DR)	, pc/mi/ln	27.3	Average Density (D), pc/mi/ln		25.4	

Level of Service (LOS)	С				
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Project information						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	icle	Analysis Year	2021+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	Project Description TIS SR 269 & I-5 Gas/Convenient		it Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (LD)	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SA	Final Speed Adjustment Factor (SAF)		1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2729	54		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3101	61	61	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.65	0.03		
Speed and Density						
Upstream Equilibrium Distance (Le	q), ft	-	Speed Index (Ds)		0.433	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (voa), pc/h,	/ln	-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (PFD)	1.000	Off-Ramp Influence Area Spo	eed (SR), mi/h	60.9	
Flow in Lanes 1 and 2 (v12), pc/h		3101	Outer Lanes Freeway Speed	(So), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	2), pc/h	-	Ramp Junction Speed (S), mi	i/h	60.9	
Density in Ramp Influence Area (D	R), pc/mi/ln	27.3	Average Density (D), pc/mi/l	n	25.5	

Level of Service (LOS)	С			
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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration L	ength (L <sub>D</sub> )	, ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)	)		1.000	1.000	1.000	
Final Capacity Adjustment Factor (CA	AF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2782	26		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (fr	v)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3161	30	30	
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.66	0.02		
Speed and Density						
Upstream Equilibrium Distance (LEQ),	, ft	-	Speed Index (Ds)		0.431	
Downstream Equilibrium Distance (L	_EQ), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	d 2 (P <sub>FD</sub> )	1.000	Off-Ramp Influence Area Speed	(Sr), mi/h	61.0	
Flow in Lanes 1 and 2 (v12), pc/h		3161	Outer Lanes Freeway Speed (So)	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	-	Ramp Junction Speed (S), mi/h		61.0	
Density in Ramp Influence Area (D <sub>R</sub> ),	, pc/mi/ln	27.8	Average Density (D), pc/mi/ln 25.9		25.9	

Level of Service (LOS)	С				
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Project Information						
Analyst [	DMBR		Date	6/23/202	1	
Agency	_AV Pinna	cle	Analysis Year	2023+Pro	oject	
Jurisdiction F	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description 1	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration Le	ength (L <sub>D</sub> )	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)			1.000	1.000	1.000	
Final Capacity Adjustment Factor (CA	AF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2782	55		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (few	/)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3161	62	62	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.03		
Speed and Density						
Upstream Equilibrium Distance (LEQ),	ft	-	Speed Index (Ds)		0.434	
Downstream Equilibrium Distance (L	EQ), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	I 2 (Pfd)	1.000	Off-Ramp Influence Area Speed	l (SR), mi/h	60.9	
Flow in Lanes 1 and 2 (v12), pc/h		3161	Outer Lanes Freeway Speed (So	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	-	Ramp Junction Speed (S), mi/h		60.9	
Density in Ramp Influence Area (DR),	pc/mi/ln	27.8	Average Density (D), pc/mi/ln		26.0	

Level of Service (LOS)	С		
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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2042		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration L	_ength (L <sub>D</sub> )	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF	)		1.000	1.000	1.000	
Final Capacity Adjustment Factor (CAF)			1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	33		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	ıv)		1.000	1.000		
Flow Rate (vi), pc/h			4035	38	38	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.84	0.02		
Speed and Density						
Upstream Equilibrium Distance (LEQ)	), ft	-	Speed Index (Ds)		0.431	
Downstream Equilibrium Distance (I	Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	d 2 (Pfd)	1.000	Off-Ramp Influence Area Speed (	SR), mi/h	61.0	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	, pc/h	-	Ramp Junction Speed (S), mi/h		61.0	
Density in Ramp Influence Area (DR), pc/mi/ln 35.4		Average Density (D), pc/mi/ln 33.1		33.1		

Level of Service (LOS)	E			
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Project mormation						
Analyst E	DMBR		Date	6/23/202	1	
Agency	_AV Pinna	cle	Analysis Year	2042+Pro	oject	
Jurisdiction F	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description T	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration Le	ength (L <sub>D</sub> )	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	62		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (few	/)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	70	70	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.84	0.04		
Speed and Density						
Upstream Equilibrium Distance (LEQ),	ft	-	Speed Index (Ds)		0.434	
Downstream Equilibrium Distance (L	eq), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	I 2 (Pfd)	1.000	Off-Ramp Influence Area Speed	(SR), mi/h	60.9	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	-	Ramp Junction Speed (S), mi/h		60.9	
Density in Ramp Influence Area (DR), pc/mi/ln 35.4		Average Density (D), pc/mi/ln	erage Density (D), pc/mi/ln 33.1			

Level of Service (LOS)	E		
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Project Information						
Analyst	DMBR		Date	6/23/2021		
Agency	LAV Pinnac	le	Analysis Year	2042+Proje	2042+Project+Mitigated	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak H	our	
Project Description	TIS SR 269	& I-5 Truck Stop+Projec	t			
Geometric Data	Geometric Data					
			Freeway	Ramp		
Number of Lanes (N)			3	2		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (LD)	), ft	1500	1200		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	r	
Weather Type			Non-Severe Weather	Non-Seve	re Weather	
Incident Type			No Incident	-		
Final Speed Adjustment Factor (SA	F)		1.000	1.000		
Final Capacity Adjustment Factor (	CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Demand Volume (Vi), veh/h			3551	62		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Heavy Vehicle Adjustment Factor (1	fн∨)		1.000	1.000		
Flow Rate (vi), pc/h			4035	70		
Capacity (c), pc/h			7200	4000		
Volume-to-Capacity Ratio (v/c)			0.56	0.02		
Speed and Density						
Upstream Equilibrium Distance (Leo	ຊ), ft	-	Density in Ramp Influence Area (D	DR), pc/mi/ln	13.3	
Distance to Upstream Ramp (Lup), t	ft	-	Speed Index (Ds) 0.434		0.434	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		1729	
Distance to Downstream Ramp (Loown), ft -		Off-Ramp Influence Area Speed (S	Sr), mi/h	60.9		
Prop. Freeway Vehicles in Lane 1 and	nd 2 (P <sub>FD</sub> )	0.450	Outer Lanes Freeway Speed (So), I	mi/h	79.9	
Flow in Lanes 1 and 2 (v12), pc/h		2306	Ramp Junction Speed (S), mi/h		67.8	
Flow Entering Ramp-Infl. Area (VR12	), pc/h	-	Average Density (D), pc/mi/ln		19.8	
Level of Service (LOS)		В				

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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	n Length (LA)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (S	AF)		1.000	1.000	1.000	
Final Capacity Adjustment Factor	(CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)	1		1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2729	42		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor	(fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3101	48		
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.02		
Speed and Density						
Upstream Equilibrium Distance (L	eq), ft	-	Speed Index (Ms)		0.356	
Downstream Equilibrium Distance	e (Leq), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	and 2 (PFM)	1.000	On-Ramp Influence Area Speed	(SR), mi/h	63.5	
Flow in Lanes 1 and 2 (v12), pc/h		3101	Outer Lanes Freeway Speed (So)	, mi/h	-	
Flow Entering Ramp-Infl. Area (vr	12 <b>), pc/h</b>	3149	Ramp Junction Speed (S), mi/h		63.5	
Density in Ramp Influence Area (DR), pc/mi/ln 25.1		Average Density (D), pc/mi/ln 24.8		24.8		

Level of Service (LOS)	с				
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Project Information						
Analyst [	DMBR		Date	6/23/202	.1	
Agency	_AV Pinna	cle	Analysis Year	2021+Pro	oject	
Jurisdiction F	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description T	TIS SR 269	& I-5 Gas/Convenient	Store			
Geometric Data						
		Freeway	Ramp			
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration Le	ength (L <sub>A</sub> ),	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2729	70		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (fev	/)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3101	80		
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.66	0.04		
Speed and Density						
Upstream Equilibrium Distance (LEQ),	ft	-	Speed Index (Ms)		0.359	
Downstream Equilibrium Distance (L	eq), ft	-	Flow Outer Lanes (voa), pc/h/ln	ו	-	
Prop. Freeway Vehicles in Lane 1 and	I 2 (Рғм)	1.000	On-Ramp Influence Area Spee	d (SR), mi/h	63.4	
Flow in Lanes 1 and 2 (v12), pc/h		3101	Outer Lanes Freeway Speed (Se	o), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	3181	Ramp Junction Speed (S), mi/h	1	63.4	
Density in Ramp Influence Area (DR),	pc/mi/ln	25.3	Average Density (D), pc/mi/ln		25.1	

Level of Service (LOS)	С		
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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	8 I-5 Gas/Convenient	Store			
Geometric Data						
		Freeway	Ramp			
Number of Lanes (N)		2	1			
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (L <sub>A)</sub>	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population		All Familiar	All Familia	ar		
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type		No Incident	-	-		
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (C	CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			2782	43		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	fн∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3161	49	49	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.67	0.02		
Speed and Density						
Upstream Equilibrium Distance (LEC	ລ), ft	-	Speed Index (Ms)		0.362	
Downstream Equilibrium Distance (	(Leq), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 ar	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed	(SR), mi/h	63.3	
Flow in Lanes 1 and 2 (v12), pc/h		3161	Outer Lanes Freeway Speed (So	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	e), pc/h	3210	Ramp Junction Speed (S), mi/h		63.3	
Density in Ramp Influence Area (DR), pc/mi/ln 25.5 Average Density (D), pc/mi/ln		25.4				

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Project Information						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data	•					
			Freeway	Ramp		
Number of Lanes (N)		2	1			
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleratic	on Length (La)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type		Non-Severe Weather	Non-Seve	ere Weather		
Incident Type	Incident Type		No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor	r (CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF	-)		1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			2782	71		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor	r (fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3161	81	81	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.68	0.04		
Speed and Density						
Upstream Equilibrium Distance (	Leq), ft	-	Speed Index (Ms)		0.365	
Downstream Equilibrium Distanc	e (Leq), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1	and 2 (PFM)	1.000	On-Ramp Influence Area Speed	(SR), mi/h	63.2	
Flow in Lanes 1 and 2 (v12), pc/h		3161	Outer Lanes Freeway Speed (So)	, mi/h	-	
Flow Entering Ramp-Infl. Area (v	R12 <b>), pc/h</b>	3242	Ramp Junction Speed (S), mi/h		63.2	
Density in Ramp Influence Area (	Ramp Influence Area (DR), pc/mi/ln 25.8 Average Density (D), pc/mi/ln		25.6			

Level of Service (LOS)	С			
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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2042		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (L <sub>A</sub> )	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (	CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			3551	55		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (1	fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	62	62	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.85	0.03	0.03	
Speed and Density						
Upstream Equilibrium Distance (Leo	ຊ), ft	-	Speed Index (Ms)		0.500	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed	(SR), mi/h	58.7	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So)	, mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	2), pc/h	4097	Ramp Junction Speed (S), mi/h		58.7	
Density in Ramp Influence Area (DR), pc/mi/ln 32.5		32.5	Average Density (D), pc/mi/ln		34.9	

Level of Service (LOS)	D				
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Project Information						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	acle	Analysis Year	2042+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)	Number of Lanes (N)		2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleratio	on Length (L <sub>A</sub> )	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population		All Familiar	All Famili	ar		
Weather Type		Non-Severe Weather	Non-Seve	ere Weather		
Incident Type		No Incident	-	-		
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Facto	or (CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DA	F)		1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			3551	83		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Facto	or (fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	94	94	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.86	0.05	0.05	
Speed and Density						
Upstream Equilibrium Distance	(Leq), ft	-	Speed Index (Ms)		0.507	
Downstream Equilibrium Distan	ce (Leq), ft	-	Flow Outer Lanes (voa), pc/h/l	n	-	
Prop. Freeway Vehicles in Lane 1	1 and 2 (PFM)	1.000	On-Ramp Influence Area Spee	ed (SR), mi/h	58.5	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (	So), mi/h	-	
Flow Entering Ramp-Infl. Area (v	/R12), pc/h	4129	Ramp Junction Speed (S), mi/	ĥ	58.5	
Density in Ramp Influence Area	(Dr), pc/mi/ln	32.7	Average Density (D), pc/mi/ln		35.3	

Level of Service (LOS)	D		
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Proi	iect	Information
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Project Information						
Analyst [	OMBR		Date	6/23/2021		
Agency L	AV Pinnac	le	Analysis Year	2042+Proje	ect+Mitigated	
Jurisdiction F	resno		Time Period Analyzed	AM Peak H	our	
Project Description 1	ris sr 269	& I-5 Gas/Convenient S	tore			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			3	2		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration L	ength (L <sub>A</sub> ),	, ft	1500	1500		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population		All Familiar	All Familia	r		
Weather Type			Non-Severe Weather	Non-Seve	re Weather	
Incident Type			No Incident	-		
Final Speed Adjustment Factor (SAF)			1.000	1.000	1.000	
Final Capacity Adjustment Factor (CAF)			1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Demand Volume (Vi), veh/h			3551	83		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Heavy Vehicle Adjustment Factor (f	H∨ <b>)</b>		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	94	94	
Capacity (c), pc/h			7200	4000		
Volume-to-Capacity Ratio (v/c)			0.57	0.02	0.02	
Speed and Density						
Upstream Equilibrium Distance (LEQ)	), ft	-	Density in Ramp Influence Area (	Dr), pc/mi/ln	14.8	
Distance to Upstream Ramp (Lup), ft	:	-	Speed Index (Ms)		0.259	
Downstream Equilibrium Distance (I	LEQ), ft	-	Flow Outer Lanes (voa), pc/h/ln		1729	
Distance to Downstream Ramp (LDO	wn), ft	-	On-Ramp Influence Area Speed	(SR), mi/h	66.7	
Prop. Freeway Vehicles in Lane 1 an	d 2 (Р <sub>ғм</sub> )	0.555	Outer Lanes Freeway Speed (So), mi/h 71.0		71.0	
Flow in Lanes 1 and 2 (v12), pc/h		2306	Ramp Junction Speed (S), mi/h		68.4	
Flow Entering Ramp-Infl. Area (vR12)	, pc/h	2400	Average Density (D), pc/mi/ln		20.1	
Level of Service (LOS)		В				

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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2021		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (L <sub>A</sub> )	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)			1.000	1.000	1.000	
Final Capacity Adjustment Factor (C	CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			2730	54		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000		
Heavy Vehicle Adjustment Factor (f	fнv)		1.000	1.000		
Flow Rate (vi), pc/h			3102	61	61	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.03	0.03	
Speed and Density						
Upstream Equilibrium Distance (Lec	ຊ), ft	-	Speed Index (Ms) 0.357		0.357	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (VOA), pc/h/ln -		-	
Prop. Freeway Vehicles in Lane 1 ar	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed (	SR), mi/h	63.5	
Flow in Lanes 1 and 2 (v12), pc/h		3102	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	e), pc/h	3163	Ramp Junction Speed (S), mi/h		63.5	
Density in Ramp Influence Area (DR), pc/mi/ln 25.2		Average Density (D), pc/mi/ln		24.9		

Level of Service (LOS)	С		
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Project Information						
Analyst [	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021+Pro	oject	
Jurisdiction F	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)	Number of Lanes (N)		2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration Le	ength (L <sub>A</sub> ),	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)			1.000	1.000		
Final Capacity Adjustment Factor (CA	AF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2730	82		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (few	v)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3102	93		
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.67	0.05		
Speed and Density						
Upstream Equilibrium Distance (LEQ),	ft	-	Speed Index (Ms)		0.360	
Downstream Equilibrium Distance (L	eq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	12 (Рғм)	1.000	On-Ramp Influence Area Speed	(SR), mi/h	63.4	
Flow in Lanes 1 and 2 (v12), pc/h		3102	Outer Lanes Freeway Speed (So)	, mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	3195	Ramp Junction Speed (S), mi/h		63.4	
Density in Ramp Influence Area (D <sub>R</sub> ),	pc/mi/ln	25.4	Average Density (D), pc/mi/ln		25.2	

Level of Service (LOS)	С		
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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (L <sub>A)</sub>	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2783	56		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3162	64	64	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.67	0.03		
Speed and Density						
Upstream Equilibrium Distance (Leo	q), ft	-	Speed Index (Ms)		0.363	
Downstream Equilibrium Distance	(LEQ), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed	l (S <sub>R</sub> ), mi/h	63.3	
Flow in Lanes 1 and 2 (v12), pc/h		3162	Outer Lanes Freeway Speed (So	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	2), pc/h	3226	Ramp Junction Speed (S), mi/h		63.3	
Density in Ramp Influence Area (DR), pc/mi/ln 25.7		25.7	Average Density (D), pc/mi/ln 25.5		25.5	

Level of Service (LOS)	С				
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Project Information						
Analyst	DMBR		Date	6/23/202	.1	
Agency	LAV Pinna	cle	Analysis Year	2023+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	nt Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (LA)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (	CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2783	84		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3162	95		
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.68	0.05		
Speed and Density						
Upstream Equilibrium Distance (Leo	ຊ), ft	-	Speed Index (Ms)		0.366	
Downstream Equilibrium Distance	(LEQ), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 ar	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed	(SR), mi/h	63.2	
Flow in Lanes 1 and 2 (v12), pc/h		3162	Outer Lanes Freeway Speed (So)	, mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	2), pc/h	3257	Ramp Junction Speed (S), mi/h		63.2	
Density in Ramp Influence Area (De	R), pc/mi/ln	25.9	Average Density (D), pc/mi/ln		25.8	

Level of Service (LOS)	С		
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Project information						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2042		
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration L	ength (L <sub>A</sub> ),	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	70		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (E⊤)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (fr	v)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	80	80	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.86	0.04	0.04	
Speed and Density						
Upstream Equilibrium Distance (LEQ)	, ft	-	Speed Index (Ms)		0.504	
Downstream Equilibrium Distance (L	_eq), ft	-	Flow Outer Lanes (VOA), pc/h/ln -		-	
Prop. Freeway Vehicles in Lane 1 and	d 2 (Рғм)	1.000	On-Ramp Influence Area Speed	(SR), mi/h	58.6	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (vR12),	pc/h	4115	Ramp Junction Speed (S), mi/h		58.6	
Density in Ramp Influence Area (DR)	, pc/mi/ln	32.6	Average Density (D), pc/mi/ln 35.1		35.1	

Level of Service (LOS)	D				
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Project Information						
Analyst	DMBR		Date	6/23/202	.1	
Agency	LAV Pinna	icle	Analysis Year	2042+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	AM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	nt Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Accelera	ation Length (LA)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Facto	or (SAF)		1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (I	DAF)		1.000	1.000		
Demand and Capacity	/					
Volume (Vi), veh/h			3551	98		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000		
Heavy Vehicle Adjustment Fac	ctor (fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	111		
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/o	c)		0.86	0.06		
Speed and Density						
Upstream Equilibrium Distanc	e (Leq), ft	-	Speed Index (Ms)		0.511	
Downstream Equilibrium Dista	ance (LEQ), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lan	e 1 and 2 (Рғм)	1.000	On-Ramp Influence Area Speed	l (S <sub>R</sub> ), mi/h	58.3	
Flow in Lanes 1 and 2 (v12), pc	:/h	4035	Outer Lanes Freeway Speed (So	), mi/h	-	
Flow Entering Ramp-Infl. Area	a (vr12), pc/h	4146	Ramp Junction Speed (S), mi/h		58.3	
Density in Ramp Influence Area (DR), pc/mi/ln 32.8		32.8	Average Density (D), pc/mi/ln 3		35.6	

Level of Service (LOS)	D		
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Project Information						
Analyst [	DMBR		Date	6/23/2021		
Agency	LAV Pinnac	le	Analysis Year	2042+Proje	ect+Mitigated	
Jurisdiction F	Fresno		Time Period Analyzed	AM Peak H	our	
Project Description	TIS SR 269	& I-5 Truck Stop+Projec	ect			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			3	2		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration L	_ength (L <sub>A</sub> )	, ft	1500	1500		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	r	
Weather Type			Non-Severe Weather	Non-Seve	re Weather	
Incident Type		No Incident	-			
Final Speed Adjustment Factor (SAF	-)		1.000	1.000		
Final Capacity Adjustment Factor (C	AF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Demand Volume (Vi), veh/h			3551	98		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Heavy Vehicle Adjustment Factor (f	HV)		1.000	1.000		
Flow Rate (vi), pc/h			4035	111		
Capacity (c), pc/h			7200	4000		
Volume-to-Capacity Ratio (v/c)			0.58	0.03		
Speed and Density						
Upstream Equilibrium Distance (Leo)	), ft	-	Density in Ramp Influence Area (E	Ŋĸ), pc/mi/ln	14.9	
Distance to Upstream Ramp (Lup), ft	t	-	Speed Index (Ms)		0.260	
Downstream Equilibrium Distance (	Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		1729	
Distance to Downstream Ramp (Loc	wn), ft	-	On-Ramp Influence Area Speed (SR), mi/h 66.7		66.7	
Prop. Freeway Vehicles in Lane 1 an	d 2 (Рғм)	0.555	Outer Lanes Freeway Speed (So),	mi/h	71.0	
Flow in Lanes 1 and 2 (v12), pc/h		2306	Ramp Junction Speed (S), mi/h		68.4	
Flow Entering Ramp-Infl. Area (vR12)	, pc/h	2417	Average Density (D), pc/mi/ln		20.2	
Level of Service (LOS)		В				

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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration L	ength (LD)	, ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF	)		1.000	1.000	1.000	
Final Capacity Adjustment Factor (Ca	Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2730	161		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %				-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	ıv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3102	183	183	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.65	0.09		
Speed and Density						
Upstream Equilibrium Distance (LEQ)	, ft	-	Speed Index (Ds)		0.444	
Downstream Equilibrium Distance (I	_eq), ft	-	Flow Outer Lanes (voa), pc/h/ln -		-	
Prop. Freeway Vehicles in Lane 1 and	d 2 (Pfd)	1.000	Off-Ramp Influence Area Speed	(SR), mi/h	60.6	
Flow in Lanes 1 and 2 (v12), pc/h		3102	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	, pc/h	-	Ramp Junction Speed (S), mi/h		60.6	
Density in Ramp Influence Area (D <sub>R</sub> ), pc/mi/ln 27.3		Average Density (D), pc/mi/ln 25.6		25.6		

Level of Service (LOS)	С				
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Project mormation						
Analyst	DMBR		Date	6/24/202	1	
Agency	LAV Pinna	icle	Analysis Year	2021+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenier	nt Store	·		
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleratior	Length (LD)	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type		Non-Severe Weather	Non-Seve	ere Weather		
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2730	194		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (E⊤)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	(fн∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3102	220	220	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.65	0.11		
Speed and Density						
Upstream Equilibrium Distance (L	:q), ft	-	Speed Index (Ds)		0.448	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (voa), pc/h	ı/ln	-	
Prop. Freeway Vehicles in Lane 1 a	and 2 (PFD)	1.000	Off-Ramp Influence Area Sp	eed (SR), mi/h	60.4	
Flow in Lanes 1 and 2 (v12), pc/h		3102	Outer Lanes Freeway Speed	(So), mi/h	-	
Flow Entering Ramp-Infl. Area (VR1	2), pc/h	-	Ramp Junction Speed (S), m	i/h	60.4	
Density in Ramp Influence Area (D <sub>R</sub> ), pc/mi/ln 27.3		Average Density (D), pc/mi/ln 2		25.7		

Level of Service (LOS)	С			
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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	8 I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration I	Length (L <sub>D</sub> )	, ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type		No Incident	-	-		
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			2783	166		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	н∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3162	189	189	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.09	0.09	
Speed and Density						
Upstream Equilibrium Distance (LEQ	), ft	-	Speed Index (Ds)		0.445	
Downstream Equilibrium Distance (	Leq), ft	-	Flow Outer Lanes (voa), pc/h/lr	1	-	
Prop. Freeway Vehicles in Lane 1 an	d 2 (PFD)	1.000	Off-Ramp Influence Area Spee	d (SR), mi/h	60.5	
Flow in Lanes 1 and 2 (v12), pc/h		3162	Outer Lanes Freeway Speed (S	o), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12)	), pc/h	-	Ramp Junction Speed (S), mi/h	1	60.5	
Density in Ramp Influence Area (DR), pc/mi/ln 27.8		Average Density (D), pc/mi/ln		26.1		

Level of Service (LOS)	С				
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Project information						
Analyst	DMBR		Date	6/24/202	1	
Agency	LAV Pinna	acle	Analysis Year	2023+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenien	t Store			
Geometric Data						
-			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (LD)	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SA	Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000	
Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			2783	199		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (E⊤)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	(fн∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3162	226		
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.11	0.11	
Speed and Density						
Upstream Equilibrium Distance (L	a), ft	-	Speed Index (Ds)		0.448	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	ind 2 (PFD)	1.000	Off-Ramp Influence Area Speed	(SR), mi/h	60.4	
Flow in Lanes 1 and 2 (v12), pc/h		3162	Outer Lanes Freeway Speed (So)	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR1	2), pc/h	-	Ramp Junction Speed (S), mi/h		60.4	
Density in Ramp Influence Area (DR), pc/mi/ln 27.8		Average Density (D), pc/mi/ln		26.2		

Level of Service (LOS)	С			
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Project information							
Analyst	DMBR		Date	4/22/202	1		
Agency	LAV Pinna	icle	Analysis Year	2042			
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour		
Project Description	roject Description TIS SR 269 & I-5 Gas/Convenier			t Store			
Geometric Data							
			Freeway	Ramp			
Number of Lanes (N)			2	1			
Free-Flow Speed (FFS), mi/h			75.4	35.0			
Segment Length (L) / Deceleration L	ength (LD)	), ft	1500	400			
Terrain Type			Level	Level			
Percent Grade, %			-	-			
Segment Type / Ramp Side			Freeway	Right			
Adjustment Factors							
Driver Population			All Familiar	All Familia	ar		
Weather Type			Non-Severe Weather	Non-Seve	ere Weather		
Incident Type			No Incident	-	-		
Final Speed Adjustment Factor (SAF)	)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000	1.000		
Demand and Capacity							
Volume (Vi), veh/h			3551	210			
Peak Hour Factor (PHF)			0.88	0.88			
Total Trucks, %			0.00	0.00	0.00		
Single-Unit Trucks (SUT), %			-	-	-		
Tractor-Trailers (TT), %			-	-	-		
Passenger Car Equivalent (ET)			2.000	2.000	2.000		
Heavy Vehicle Adjustment Factor (f	IV)		1.000	1.000	1.000		
Flow Rate (vi), pc/h			4035	239	239		
Capacity (c), pc/h			4800	2000	2000		
Volume-to-Capacity Ratio (v/c)			0.84	0.12			
Speed and Density							
Upstream Equilibrium Distance (LEQ)	, ft	-	Speed Index (Ds)		0.450		
Downstream Equilibrium Distance (L	_eq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-		
Prop. Freeway Vehicles in Lane 1 and	d 2 (PFD)	1.000	Off-Ramp Influence Area Speed	(S <sub>R</sub> ), mi/h	60.4		
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So)	, mi/h	-		
Flow Entering Ramp-Infl. Area (VR12),	, pc/h	-	Ramp Junction Speed (S), mi/h		60.4		
Density in Ramp Influence Area (D <sub>R</sub> ), pc/mi/ln 35.4		Average Density (D), pc/mi/ln 33.4		33.4			

Level of Service (LOS)	E				
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Project Information						
Analyst	DMBR		Date	6/24/202	1	
Agency	LAV Pinna	cle	Analysis Year	2042+Prc	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Truck Stop				
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (L <sub>D</sub> )	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type		Non-Severe Weather	Non-Seve	Non-Severe Weather		
Incident Type		No Incident	-	-		
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			3551	243		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (fi	н∨)		1.000	1.000		
Flow Rate (vi), pc/h			4035	276	276	
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.84	0.14		
Speed and Density						
Upstream Equilibrium Distance (LEQ	), ft	-	Speed Index (Ds)		0.453	
Downstream Equilibrium Distance (	(Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 an	nd 2 (PFD)	1.000	Off-Ramp Influence Area Speed	(SR), mi/h	60.3	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12)	), pc/h	-	Ramp Junction Speed (S), mi/h		60.3	
Density in Ramp Influence Area (D <sub>R</sub> ), pc/mi/ln 35.4		35.4	Average Density (D), pc/mi/ln 33.5		33.5	

Level of Service (LOS)	E			
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Project Information					
Analyst	DMBR		Date	6/24/2021	
Agency	LAV Pinnac	le	Analysis Year	2042+Proje	ect
Jurisdiction	Fresno		Time Period Analyzed	PM Peak H	our
Project Description TIS SR 269 & I-5 Truck Stop		<u>.</u>			
Geometric Data					
			Freeway	Ramp	
Number of Lanes (N)			3	2	
Free-Flow Speed (FFS), mi/h			75.4	35.0	
Segment Length (L) / Deceleration	Length (L <sub>D</sub> )	), ft	1500	1200	
Terrain Type			Level	Level	
Percent Grade, %			-	-	
Segment Type / Ramp Side			Freeway	Right	
Adjustment Factors					
Driver Population			All Familiar	All Familia	r
Weather Type			Non-Severe Weather	Non-Seve	re Weather
Incident Type		No Incident	-		
Final Speed Adjustment Factor (SAF	-)		1.000	1.000	
Final Capacity Adjustment Factor (CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000	
Demand and Capacity					
Demand Volume (Vi), veh/h			3551	243	
Peak Hour Factor (PHF)			0.88	0.88	
Total Trucks, %			0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	
Tractor-Trailers (TT), %			-	-	
Heavy Vehicle Adjustment Factor (f	н∨)		1.000	1.000	
Flow Rate (vi), pc/h			4035	276	
Capacity (c), pc/h			7200	4000	
Volume-to-Capacity Ratio (v/c)			0.56	0.07	
Speed and Density					
Upstream Equilibrium Distance (LEQ	), ft	-	Density in Ramp Influence Area (E	א, pc/mi/ln	13.3
Distance to Upstream Ramp (Lup), f	t	-	Speed Index (Ds)		0.453
Downstream Equilibrium Distance (	LEQ), ft	-	Flow Outer Lanes (voa), pc/h/ln 1729		1729
Distance to Downstream Ramp (Loo	own), ft	-	Off-Ramp Influence Area Speed (SR), mi/h 60.3		60.3
Prop. Freeway Vehicles in Lane 1 an	nd 2 (P <sub>FD</sub> )	0.450	Outer Lanes Freeway Speed (So), I	ni/h	79.9
Flow in Lanes 1 and 2 (v12), pc/h		2306	Ramp Junction Speed (S), mi/h		67.4
Flow Entering Ramp-Infl. Area (VR12	), pc/h	-	Average Density (D), pc/mi/ln		20.0
Level of Service (LOS)		В			

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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	n Length (Lo)	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2729	62		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor	(fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3101	70	70	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.65	0.04	0.04	
Speed and Density						
Upstream Equilibrium Distance (L	EQ), ft	-	Speed Index (Ds)		0.434	
Downstream Equilibrium Distance	e (Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	and 2 (PFD)	1.000	Off-Ramp Influence Area Speed	d (S <sub>R</sub> ), mi/h	60.9	
Flow in Lanes 1 and 2 (v12), pc/h		3101	Outer Lanes Freeway Speed (So	o), mi/h	-	
Flow Entering Ramp-Infl. Area (vr	12), pc/h	-	Ramp Junction Speed (S), mi/h		60.9	
Density in Ramp Influence Area (I	DR), pc/mi/ln	27.3	Average Density (D), pc/mi/ln		25.5	

Level of Service (LOS)	С				
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Project mormation						
Analyst	DMBR		Date	6/24/202	1	
Agency	LAV Pinna	icle	Analysis Year	2021+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store+Project			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration Le	ength (L <sub>D</sub> )	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CA	AF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2729	95		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (few	v)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3101	108	108	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.65	0.05		
Speed and Density						
Upstream Equilibrium Distance (LEQ),	ft	-	Speed Index (Ds)		0.438	
Downstream Equilibrium Distance (L	eq), ft	-	Flow Outer Lanes (voa), pc/h/lr	า	-	
Prop. Freeway Vehicles in Lane 1 and	2 (Pfd)	1.000	Off-Ramp Influence Area Spee	ed (SR), mi/h	60.8	
Flow in Lanes 1 and 2 (v12), pc/h		3101	Outer Lanes Freeway Speed (S	io), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h		Ramp Junction Speed (S), mi/h	 ו	60.8	
Density in Ramp Influence Area (DR),	pc/mi/ln	27.3	Average Density (D), pc/mi/ln		25.5	

Level of Service (LOS)	С			
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Project information						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	Store	·		
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration L	ength (L <sub>D</sub> )	, ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ir	
Weather Type			Non-Severe Weather	Non-Seve	re Weather	
Incident Type		No Incident	-	-		
Final Speed Adjustment Factor (SAF)			1.000	1.000	1.000	
Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2782	64		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (fr	v)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3161	73	73	
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.66	0.04		
Speed and Density						
Upstream Equilibrium Distance (LEQ)	, ft	-	Speed Index (Ds)		0.435	
Downstream Equilibrium Distance (L	_EQ), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	d 2 (P <sub>FD</sub> )	1.000	Off-Ramp Influence Area Speed (	(S <sub>R</sub> ), mi/h	60.9	
Flow in Lanes 1 and 2 (v12), pc/h		3161	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	-	Ramp Junction Speed (S), mi/h		60.9	
Density in Ramp Influence Area (DR)	, pc/mi/ln	27.8	Average Density (D), pc/mi/ln		26.0	

Level of Service (LOS)	С				
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Project Information						
Analyst	DMBR		Date	6/24/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023+Prc	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Truck Stop				
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (L <sub>D</sub> )	, ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type		Non-Severe Weather	Non-Seve	Non-Severe Weather		
Incident Type		No Incident	-	-		
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)		1.000	1.000			
Demand and Capacity						
Volume (Vi), veh/h			2782	97		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	нv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3161	110	110	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.06	0.06	
Speed and Density						
Upstream Equilibrium Distance (LEQ	), ft	-	Speed Index (Ds)		0.438	
Downstream Equilibrium Distance (	(Leq), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 an	nd 2 (PFD)	1.000	Off-Ramp Influence Area Speed	(SR), mi/h	60.8	
Flow in Lanes 1 and 2 (v12), pc/h		3161	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12)	), pc/h	-	Ramp Junction Speed (S), mi/h		60.8	
Density in Ramp Influence Area (DR), pc/mi/ln 27.8		Average Density (D), pc/mi/ln		26.0		

Level of Service (LOS)	С				
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Project information						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2042		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (LD)	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SA	ιF)		1.000	1.000	1.000	
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	81		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	92	92	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.84	0.05		
Speed and Density						
Upstream Equilibrium Distance (Leo	q), ft	-	Speed Index (Ds)		0.436	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (PFD)	1.000	Off-Ramp Influence Area Speed	(SR), mi/h	60.8	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So)	, mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	2), pc/h	-	Ramp Junction Speed (S), mi/h		60.8	
Density in Ramp Influence Area (D	R), pc/mi/ln	35.4	Average Density (D), pc/mi/ln 33.2		33.2	

Level of Service (LOS)	E				
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Project Information						
Analyst	DMBR		Date	6/24/2021	1	
Agency	LAV Pinna	cle	Analysis Year	2042+Pro	ject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak I	Hour	
Project Description	TIS SR 269	9 & I-5 Truck Stop	<u>.</u>			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Deceleration	Length (L <sub>D</sub> )	), ft	1500	400		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population		All Familiar	All Familia	ar		
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type		No Incident	-	-		
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (C	CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	114		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000		
Heavy Vehicle Adjustment Factor (f	нv)		1.000	1.000		
Flow Rate (vi), pc/h			4035	130	130	
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.84	0.06		
Speed and Density						
Upstream Equilibrium Distance (LEQ	a), ft	-	Speed Index (Ds)		0.440	
Downstream Equilibrium Distance (	(Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 ar	nd 2 (PFD)	1.000	Off-Ramp Influence Area Speed (	SR), mi/h	60.7	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12)	), pc/h	-	Ramp Junction Speed (S), mi/h		60.7	
Density in Ramp Influence Area (DR), pc/mi/ln 35.4		35.4	Average Density (D), pc/mi/ln		33.2	

Level of Service (LOS)	E					
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Project mormation						
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Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2021		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleratior	n Length (LA)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor	(CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2729	78		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor	(fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3101	89	89	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.04	0.04	
Speed and Density						
Upstream Equilibrium Distance (L	EQ), ft	-	Speed Index (Ms)		0.360	
Downstream Equilibrium Distance	e (Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	and 2 (PFM)	1.000	On-Ramp Influence Area Speed	d (S <sub>R</sub> ), mi/h	63.4	
Flow in Lanes 1 and 2 (v12), pc/h		3101	Outer Lanes Freeway Speed (So	o), mi/h	-	
Flow Entering Ramp-Infl. Area (vr	12), pc/h	3190	Ramp Junction Speed (S), mi/h		63.4	
Density in Ramp Influence Area (DR), pc/mi/In 25.4 Average Density		Average Density (D), pc/mi/ln		25.2		

Level of Service (LOS)	С				
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Project Information						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021+Prc	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (L <sub>A)</sub>	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAR	F)		1.000	1.000		
Final Capacity Adjustment Factor (C	CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2729	110		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	- HV)		1.000	1.000		
Flow Rate (vi), pc/h			3101	125	125	
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.67	0.06	0.06	
Speed and Density						
Upstream Equilibrium Distance (LEQ	a), ft	-	Speed Index (Ms)		0.363	
Downstream Equilibrium Distance (	(Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 ar	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed (	SR), mi/h	63.3	
Flow in Lanes 1 and 2 (v12), pc/h		3101	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12)	), pc/h	3226	Ramp Junction Speed (S), mi/h		63.3	
Density in Ramp Influence Area (DR	R), pc/mi/ln	25.6	Average Density (D), pc/mi/ln 25.5		25.5	

Level of Service (LOS)	С			
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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2023		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (LA)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (	CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2782	80		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	fнv)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3161	91	91	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.68	0.05		
Speed and Density						
Upstream Equilibrium Distance (Leo	q), ft	-	Speed Index (Ms)		0.366	
Downstream Equilibrium Distance	(LEQ), ft	-	Flow Outer Lanes (voa), pc/h/lr	1	-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (Рғм)	1.000	On-Ramp Influence Area Spee	d (S <sub>R</sub> ), mi/h	63.2	
Flow in Lanes 1 and 2 (v12), pc/h		3161	Outer Lanes Freeway Speed (S	o), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	2), pc/h	3252	Ramp Junction Speed (S), mi/h		63.2	
Density in Ramp Influence Area (D	R), pc/mi/ln	25.9	Average Density (D), pc/mi/ln 25.7		25.7	

Level of Service (LOS)	С				
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Project Information						
Analyst E	DMBR		Date	6/23/202	1	
Agency	_AV Pinna	cle	Analysis Year	2023+Pro	oject	
Jurisdiction F	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description T	TIS SR 269	& I-5 Gas/Convenient	Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration Le	ength (L <sub>A</sub> ),	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (CA	AF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2782	112		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (fev	/)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3161	127	127	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.68	0.06		
Speed and Density						
Upstream Equilibrium Distance (LEQ),	ft	-	Speed Index (Ms)		0.369	
Downstream Equilibrium Distance (L	eq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	I 2 (Рғм)	1.000	On-Ramp Influence Area Speed	d (S <sub>R</sub> ), mi/h	63.1	
Flow in Lanes 1 and 2 (v12), pc/h		3161	Outer Lanes Freeway Speed (So	o), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	3288	Ramp Junction Speed (S), mi/h		63.1	
Density in Ramp Influence Area (DR),	pc/mi/ln	26.1	Average Density (D), pc/mi/ln 26.1		26.1	

Level of Service (LOS)	С			
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Project information						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2042		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
-			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (L <sub>A</sub> )	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAI	F)		1.000	1.000	1.000	
Final Capacity Adjustment Factor (CAF)		1.000	1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	101		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000		
Heavy Vehicle Adjustment Factor (f	н∨)		1.000	1.000		
Flow Rate (vi), pc/h			4035	115	115	
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.86	0.06		
Speed and Density						
Upstream Equilibrium Distance (LEQ	2), ft	-	Speed Index (Ms)		0.512	
Downstream Equilibrium Distance (	(Leq), ft	-	Flow Outer Lanes (VOA), pc/h/ln -		-	
Prop. Freeway Vehicles in Lane 1 ar	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed (	Sr), mi/h	58.3	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12)	), pc/h	4150	Ramp Junction Speed (S), mi/h		58.3	
Density in Ramp Influence Area (DR), pc/mi/ln 32.8 Average		Average Density (D), pc/mi/ln		35.6		

Level of Service (LOS)	D				
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Project Information						
Analyst E	DMBR		Date	6/23/202	1	
Agency	_AV Pinna	cle	Analysis Year	2042+Pro	oject	
Jurisdiction F	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description T	TIS SR 269	& I-5 Gas/Convenient	Store	<b>\</b>		
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration Le	ength (L <sub>A</sub> ),	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000	1.000		
Final Capacity Adjustment Factor (CA	AF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	133		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (few	/)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	151		
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.87	0.08		
Speed and Density						
Upstream Equilibrium Distance (LEQ),	ft	-	Speed Index (Ms)		0.521	
Downstream Equilibrium Distance (L	eq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	I 2 (Рғм)	1.000	On-Ramp Influence Area Speed	l (SR), mi/h	58.0	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (Sc	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	pc/h	4186	Ramp Junction Speed (S), mi/h		58.0	
Density in Ramp Influence Area (DR),	pc/mi/ln	33.1	Average Density (D), pc/mi/ln 36.1		36.1	

Level of Service (LOS)	D			
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Project Information						
Analyst [	ombr		Date	6/23/2021		
Agency	_AV Pinnac	le	Analysis Year	2042+Proje	ect+Mitigated	
Jurisdiction F	resno		Time Period Analyzed	PM Peak H	our	
Project Description 1	FIS SR 269	& I-5 Truck Stop+Projec	ect			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			3	2		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration L	_ength (L <sub>A</sub> )	, ft	1500	1500		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	r	
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-		
Final Speed Adjustment Factor (SAF	.)		1.000	1.000		
Final Capacity Adjustment Factor (C	AF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Demand Volume (Vi), veh/h			3551	133		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00		
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Heavy Vehicle Adjustment Factor (f	HV <b>)</b>		1.000	1.000		
Flow Rate (vi), pc/h			4035	151		
Capacity (c), pc/h			7200	4000		
Volume-to-Capacity Ratio (v/c)			0.58	0.04		
Speed and Density						
Upstream Equilibrium Distance (LEQ)	), ft	-	Density in Ramp Influence Area (I	Dℝ), pc/mi/ln	15.2	
Distance to Upstream Ramp (Lup), ft	t	-	Speed Index (Ms)		0.262	
Downstream Equilibrium Distance (I	Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		1729	
Distance to Downstream Ramp (LDO	wn), ft	-	On-Ramp Influence Area Speed (S <sub>R</sub> ), mi/h 66.6		66.6	
Prop. Freeway Vehicles in Lane 1 an	d 2 (Р <sub>FM</sub> )	0.555	Outer Lanes Freeway Speed (So),	mi/h	71.0	
Flow in Lanes 1 and 2 (v12), pc/h		2306	Ramp Junction Speed (S), mi/h		68.3	
Flow Entering Ramp-Infl. Area (vR12)	, pc/h	2457	Average Density (D), pc/mi/ln		20.4	
Level of Service (LOS)		В				

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Project mormation						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2021		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	t Store			
Geometric Data						
		Freeway	Ramp			
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration L	ength (L <sub>A)</sub>	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF	)		1.000	1.000	1.000	
Final Capacity Adjustment Factor (Ca	AF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			2730	48		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (f	IV)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3102	55	55	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.66	0.03		
Speed and Density						
Upstream Equilibrium Distance (LEQ)	, ft	-	Speed Index (Ms)		0.357	
Downstream Equilibrium Distance (I	leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 and	d 2 (PFM)	1.000	On-Ramp Influence Area Speed	d (S <sub>R</sub> ), mi/h	63.5	
Flow in Lanes 1 and 2 (v12), pc/h		3102	Outer Lanes Freeway Speed (So	o), mi/h	-	
Flow Entering Ramp-Infl. Area (VR12),	, pc/h	3157	Ramp Junction Speed (S), mi/h		63.5	
Density in Ramp Influence Area (DR)	, pc/mi/ln	25.1	Average Density (D), pc/mi/ln		24.9	

Level of Service (LOS)	С				
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Project Information						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	cle	Analysis Year	2021+Prc	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	& I-5 Gas/Convenient	nt Store			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration I	Length (L <sub>A</sub> ),	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF	-)		1.000	1.000		
Final Capacity Adjustment Factor (C	CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2730	80		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (fi	н∨)		1.000	1.000		
Flow Rate (vi), pc/h			3102	91		
Capacity (c), pc/h			4800	2000		
Volume-to-Capacity Ratio (v/c)			0.67	0.05		
Speed and Density						
Upstream Equilibrium Distance (LEQ	), ft	-	Speed Index (Ms)		0.360	
Downstream Equilibrium Distance (	LEQ), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 an	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed (	Sr), mi/h	63.4	
Flow in Lanes 1 and 2 (v12), pc/h		3102	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (VR12)	), pc/h	3193	Ramp Junction Speed (S), mi/h		63.4	
Density in Ramp Influence Area (DR	), pc/mi/ln	25.4	Average Density (D), pc/mi/ln		25.2	

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Project information						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	cle	Analysis Year	2023		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	8 I-5 Gas/Convenient	t Store			
Geometric Data						
		Freeway	Ramp			
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (LA)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	Non-Severe Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (	CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF)			1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			2783	49		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	fн∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3162	56		
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.67	0.03	0.03	
Speed and Density						
Upstream Equilibrium Distance (L	q), ft	-	Speed Index (Ms)		0.362	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed	(SR), mi/h	63.3	
Flow in Lanes 1 and 2 (v12), pc/h		3162	Outer Lanes Freeway Speed (So	), mi/h	-	
Flow Entering Ramp-Infl. Area (VR1	2), pc/h	3218	Ramp Junction Speed (S), mi/h		63.3	
Density in Ramp Influence Area (D	R), pc/mi/ln	25.6	Average Density (D), pc/mi/ln		25.4	

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Project information						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	icle	Analysis Year	2023+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Truck Stop+Pro	ject	-		
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (LA)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (SAF)		1.000	1.000			
Final Capacity Adjustment Factor (	CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			2783	81		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor (	fн∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			3162	92	92	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.68	0.05		
Speed and Density						
Upstream Equilibrium Distance (Le	q), ft	-	Speed Index (Ms)		0.366	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (VOA), pc/h/ln		-	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (Рғм)	1.000	On-Ramp Influence Area Speed	(S <sub>R</sub> ), mi/h	63.2	
Flow in Lanes 1 and 2 (v12), pc/h		3162	Outer Lanes Freeway Speed (So)	, mi/h	-	
Flow Entering Ramp-Infl. Area (VR12	2), pc/h	3254	Ramp Junction Speed (S), mi/h		63.2	
Density in Ramp Influence Area (D	R), pc/mi/ln	25.9	Average Density (D), pc/mi/ln		25.7	

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Project Information						
Analyst	DMBR		Date	4/22/202	1	
Agency	LAV Pinna	icle	Analysis Year	2042		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenient	Store			
Geometric Data						
-			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleratio	n Length (L <sub>A</sub> )	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (S	AF)		1.000	1.000	1.000	
Final Capacity Adjustment Factor	(CAF)		1.000	1.000	1.000	
Demand Adjustment Factor (DAF	)		1.000	1.000	1.000	
Demand and Capacity						
Volume (Vi), veh/h			3551	63		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-		
Tractor-Trailers (TT), %			-	-		
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor	(fн∨)		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	72	72	
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.86	0.04		
Speed and Density						
Upstream Equilibrium Distance (L	₋eq), ft	-	Speed Index (Ms)		0.502	
Downstream Equilibrium Distanc	e (Leq), ft	-	Flow Outer Lanes (voa), pc/h/ln -		-	
Prop. Freeway Vehicles in Lane 1	and 2 (PFM)	1.000	On-Ramp Influence Area Speed (	SR), mi/h	58.6	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed (So),	mi/h	-	
Flow Entering Ramp-Infl. Area (vr	812), pc/h	4107	Ramp Junction Speed (S), mi/h		58.6	
Density in Ramp Influence Area (DR), pc/mi/In 32.5		Average Density (D), pc/mi/ln 35.0		35.0		

Level of Service (LOS)	D				
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Project mormation						
Analyst	DMBR		Date	6/23/202	1	
Agency	LAV Pinna	cle	Analysis Year	2042+Pro	oject	
Jurisdiction	Fresno		Time Period Analyzed	PM Peak	Hour	
Project Description	TIS SR 269	9 & I-5 Gas/Convenier	it Store + Project			
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			2	1		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	n Length (La)	, ft	1500	800		
Terrain Type			Level	Level		
Percent Grade, %			-	-		
Segment Type / Ramp Side			Freeway	Right		
Adjustment Factors						
Driver Population			All Familiar	All Famili	ar	
Weather Type			Non-Severe Weather	Non-Seve	ere Weather	
Incident Type			No Incident	-	-	
Final Speed Adjustment Factor (S	AF)		1.000	1.000	1.000	
Final Capacity Adjustment Factor	(CAF)		1.000	1.000		
Demand Adjustment Factor (DAF)	)		1.000	1.000		
Demand and Capacity						
Volume (Vi), veh/h			3551	95		
Peak Hour Factor (PHF)			0.88	0.88	0.88	
Total Trucks, %			0.00	0.00	0.00	
Single-Unit Trucks (SUT), %			-	-	-	
Tractor-Trailers (TT), %			-	-	-	
Passenger Car Equivalent (ET)			2.000	2.000	2.000	
Heavy Vehicle Adjustment Factor	(f <sub>HV</sub> )		1.000	1.000	1.000	
Flow Rate (vi), pc/h			4035	108		
Capacity (c), pc/h			4800	2000	2000	
Volume-to-Capacity Ratio (v/c)			0.86	0.05		
Speed and Density						
Upstream Equilibrium Distance (L	eq), ft	-	Speed Index (Ms)		0.511	
Downstream Equilibrium Distance	e (Leq), ft	-	Flow Outer Lanes (voa), pc/h	/ln	-	
Prop. Freeway Vehicles in Lane 1	and 2 (Рғм)	1.000	On-Ramp Influence Area Spe	eed (SR), mi/h	58.3	
Flow in Lanes 1 and 2 (v12), pc/h		4035	Outer Lanes Freeway Speed	(So), mi/h	-	
Flow Entering Ramp-Infl. Area (vR	12 <b>), pc/h</b>	4143	Ramp Junction Speed (S), mi	i/h	58.3	
Density in Ramp Influence Area (I	DR), pc/mi/ln	32.8	Average Density (D), pc/mi/l	n	35.5	

Level of Service (LOS)	D		
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Project Information						
Analyst	DMBR		Date	6/23/2021		
Agency	LAV Pinnac	le	Analysis Year	2042+Project+Mitigated		
Jurisdiction	Fresno		Time Period Analyzed	PM Peak Hour		
Project Description	TIS SR 269	& I-5 Gas/Convenient S	tore + Project	·		
Geometric Data						
			Freeway	Ramp		
Number of Lanes (N)			3	2		
Free-Flow Speed (FFS), mi/h			75.4	35.0		
Segment Length (L) / Acceleration	Length (L <sub>A</sub> )	, ft	1500	1500		
Terrain Type			Level	Level		
Percent Grade, %		-	-			
Segment Type / Ramp Side			Freeway	Right	Right	
Adjustment Factors						
Driver Population			All Familiar	All Familia	ar	
Weather Type			Non-Severe Weather	Non-Seve	re Weather	
Incident Type			No Incident	-		
Final Speed Adjustment Factor (SAF)			1.000	1.000		
Final Capacity Adjustment Factor (CAF)		1.000	1.000			
Demand Adjustment Factor (DAF)			1.000	1.000		
Demand and Capacity						
Demand Volume (Vi), veh/h			3551	95		
Peak Hour Factor (PHF)			0.88	0.88		
Total Trucks, %		0.00	0.00			
Single-Unit Trucks (SUT), %		-	-			
Tractor-Trailers (TT), %		-	-			
Heavy Vehicle Adjustment Factor (f <sub>HV</sub> )		1.000	1.000	1.000		
Flow Rate (vi), pc/h		4035	108	108		
Capacity (c), pc/h		7200	4000			
Volume-to-Capacity Ratio (v/c)		0.58	0.03	0.03		
Speed and Density						
Upstream Equilibrium Distance (L	q), ft	-	Density in Ramp Influence Area (DR), pc/mi/In 14.9		14.9	
Distance to Upstream Ramp (Lup),	ft	-	Speed Index (Ms) 0.260		0.260	
Downstream Equilibrium Distance	(Leq), ft	-	Flow Outer Lanes (voA), pc/h/ln 1729			
Distance to Downstream Ramp (L	oown), ft	-	On-Ramp Influence Area Speed (SR), mi/h 66.7		66.7	
Prop. Freeway Vehicles in Lane 1 a	nd 2 (Р <sub>ғм</sub> )	0.555	Outer Lanes Freeway Speed (So), mi/h 71.0		71.0	
Flow in Lanes 1 and 2 (v12), pc/h		2306	Ramp Junction Speed (S), mi/h 68.4		68.4	
Flow Entering Ramp-Infl. Area (vR1	2), pc/h	2414	Average Density (D), pc/mi/ln 20.2		20.2	
Level of Service (LOS)		В				

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# Appendix "C" Pass-By Survey

Driveway Survey for I-5 and SR-269						Date:	2/1/2021			
				Primary Route - Arrival		Primary Route - Departure		Survey By:		N/A
No.	Purpose of your trip:	Trip Origin:	Trip Destination:	15	SR-269	15	SR-269	Pass-Bys	Diverted Link	Time:
1)	Business	Sacramento	Barstow	N		S			х	12:10
2)	Business	Local	269 AG		Ν		S	х		12:15
3)	Business	San Francisco	Los Angeles	N		S			х	12:20
4)	Family	Ventura	Avenal Prison	S			S		х	12:22
5)	Business	Coalinga	Lost Hills	N		S			х	12:25
6)	Personal	Elk Grove	Paso Robles	N		S			х	12:30
7)	Moving	Livermoore	Arizona	N		S			х	12:45
8)	Pleasure	San Francisco	Los Angeles	N		S			х	1:00
9)	Lunch	Avenal	Gas Station		Ν		S	х		1:10
10)	PG&e Business	Sacramento	San Luis Obispo	N		S			х	1:20
11)	Personal	Bakersfield	Oakland	S		N			х	1:25
12)	Vacation	Las Vegas	San Francisco	S		N			х	1:30
13)	Business	Huron	Avenal		N		S	х		1:30
14)	Pleasure	Kettleman City	Harris Ranch	S		N			х	1:45
15)	PG&E	Los Banos	Lost Hills	N		S			х	1:52
16)	Moving	San Francisco	San Diego	N		S			х	1:58
17)	Vacation	Oregon	Arizona	N		S			х	2:10
18)	Lunch	Ag East of I-5	Ag East of I-5		Ν		N	Х		2:15
19)	Vacation	Bakersfield	Santa Cruz	S		N			х	2:20
20)	Dog Show	Oregon	Ventura	N		S			х	2:30
							Tota Pass-By Diverted Link	20%		

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