Community and Economic Development
Planning Division

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PLANNING COMMISSION DATE: November 1, 2016

AGENDA ITEM: #4

GP	**#2015-002**	**General Plan Amendment, Rezone, and Variance to allow Travel Center with Fuel Station**
CZ	**#2015-002**	
VA	**#2015-004**	**Applicant: Ravinder S. Grewal**
APN	**# 048-191-013**	**Owner: RNDS PROP LLC**
CEQA	**MND #2016-06**	**Mitigated Negative Declaration**

REQUEST:

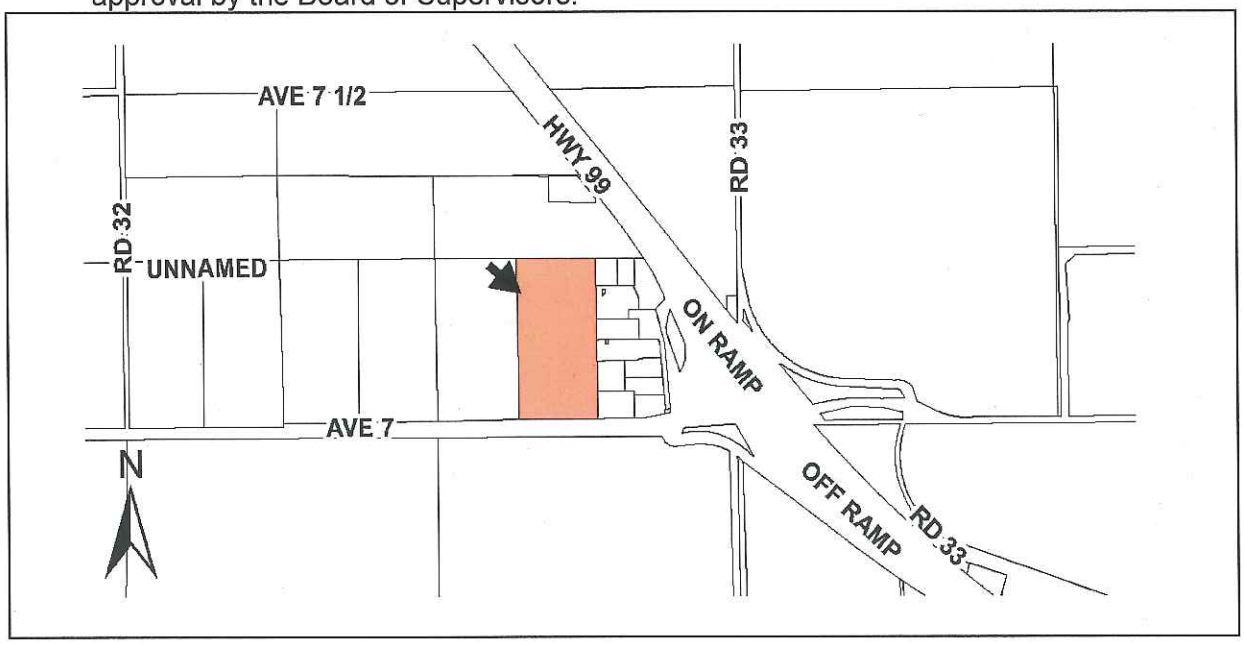
The applicant is requesting a General Plan Amendment from AE (Agricultural, Exclusive) Designation to HSC (Highway, Service, Commercial) Designation, Rezone from ARE-20 (Agricultural, Rural, Exclusive-20 Acre) District to PDD (Planned Development District), a Variance to allow a 100'-0" sign where 35'-0" is allowed by ordinance and a Variance for two additional 45'-0" signs where 35'-0" is allowed by ordinance.

LOCATION:

The property is located on the north side of Avenue 7, approximately 750 feet west of its intersection with SR 99 (no situs), Madera.

ENVIRONMENTAL ASSESSMENT:

A Mitigated Negative Declaration (MND #2016-06) has been prepared and is subject to approval by the Board of Supervisors.



RECOMMENDATION: **Staff recommends approval of the General Plan Amendment (GP 2015-002), Rezone (CZ #2015-002), Variance (VA 2015-004) for the 100'-0" sign and Mitigated Negative Declaration (ND 2016-06) subject to conditions and the mitigation monitoring program and denial of the Variance for two 45'0" signs.**

GENERAL PLAN DESIGNATION (Exhibit A-1)**:**

SITE: AE (Agricultural, Exclusive) and HSC (Highway, Service, Commercial) Designations

SURROUNDING: AE (Agricultural, Exclusive) and HSC (Highway, Service, Commercial) Designations

PROPOSED GENERAL PLAN DESIGNATION:

HSC (Highway, Service, Commercial) Designation

ZONING (Exhibit B)**:**

SITE: ARE-20 (Agricultural, Rural, Exclusive – 20 Acre) District

SURROUNDING: ARE-20 (Agricultural, Rural, Exclusive-20 Acre), ARE-40 (Agricultural, Rural, Exclusive-40 Acre) and PDD (Planned Development District) Districts

PROPOSED ZONING: PDD (Planned Development District) District

LAND USE:

SITE: Agriculture, Vineyards

SURROUNDING: To the north is vineyards; south is agriculture; east is commercial; west is vineyards.

SIZE OF PROPERTY: 19.37 Acres

ACCESS (Exhibit A)**:** Ingress and egress to the property is from Avenue 7.

BACKGROUND AND PRIOR ACTIONS:

The subject parcel was Lot 14 of the Tharsa Colony Farm which recorded November 6, 1911. It was then reconfigured as Parcel #3 of Lot Line Adjustment 2004-47 and again as Parcel #3 of Lot Line Adjustment 2007-45. The property was then divided by Parcel Map 4154 in 2011. This parcel was the remainder parcel. The Subdivision Map Act states that "A designated remainder or any omitted parcel may subsequently be sold without any further requirement of the filing of a parcel map or final map, but the local agency may require a certificate of compliance or conditional certificate of compliance."

The project site was included within the Joaquin Bend Study Area which was adopted by the Board of Supervisors on July 28, 2008. Joaquin Bend was established as a Study Area in order to allow the Department to create a comprehensive planning strategy for the area surrounding the Avenue 7 interchange. The area incorporates the subject property as well as properties on all sides of the Avenue 7 interchange. To date, Joaquin Bend Study area has not been initiated or studied further by developers or the Planning Department (Exhibit F).

PROJECT DESCRIPTION:

The applicant is requesting a General Plan Amendment from AE (Agricultural, Exclusive) Designation to HSC (Highway, Service Commercial) Designation, Rezone from ARE-20 (Agricultural, Rural, Exclusive-20 Acre) District to PDD (Planned Development District) District, a Variance in order to allow a 100'-0'' sign where 35'-0" is allowed by ordinance and a Variance for two additional 45'-0" signs where 35'-0" is allowed by ordinance. The property is currently being used for agriculture. There is a Chevron Service Station and a

future commercial center to the east. The proposal is for a maximum of 16,487 square foot travel plaza. The operational statement indicates restrooms, a Deli, Pizza Hut/KFC, Taco Bell, Fatburger, Yogurt Land, Coffee Beans & Tea Leaf, a beverage bar and foot store. Offices will be located on the second floor. The site plan shows 198 parking spaces. All parking and circulation will be paved.

ORDINANCES/POLICIES:

California Government Code Section 65358(a) establishes authority for amending the General Plan by the Board of Supervisors.

Section 18.110.010 of the Madera County Zoning Ordinance provides the authority under California Government Code Section 65804 to amend or change zoning district boundaries by the Board of Supervisors.

Section 18.67 of the Madera County Zoning Ordinance outlines the permitted uses within the PDD (Planned Development District) zone district.

Section 18.106 of the Madera County Zoning Ordinance outlines the procedures for obtaining Variances.

Madera County Code 18.90 governs the requirements for signs.

ANALYSIS:

The project site consists of 19.37 acres and is located on the north side of Avenue 7, approximately 750 feet west of its intersection with State Route 99, approximately one mile north of the Madera-Fresno County line at the San Joaquin River. The size of adjacent properties range from 1 acre to 35 acres. Parcels on the east side of Avenue 7 range from 250 to 350 acres. The uses on the adjacent properties vary with those directly to the north and west being zoned agricultural, and consisting of vineyards. The property directly to the east is commercially zoned and consists of a service station and a proposed commercial center. This project consists of a General Plan Amendment and Rezoning to allow for a travel plaza, and Variance for signs. The Rezoning is from ARE-20 (Agricultural, Rural, Exclusive-20 Acres) to a PDD (Planned Development District) that requires a complete project plan submitted with the rezone application. The operational statement and site plan indicates that the project site will be developed with fast food services onsite and a service station to accommodate travelers on State Route 99.

In July 2008, the Planning Department also proposed a new study area for either a Specific Plan or Area Plan around the Avenue 7 and Highway 99 interchange, known as Joaquin Bend. This proposal included the subject property and adjacent properties to the south and east of the interchange (Exhibit F). This proposal initiated in order to allow for orderly development around the interchange. This project has not gone forward into initial planning stages since the Board of Supervisors direction on July 8, 2008. This project could be initiated by developers or by the County at any time. However, this

proposal would not conflict with the intent of this proposal as it is currently planned within the General Plan for commercial activities.

The General Plan designation is AE (Agricultural Exclusive) and HSC (Highway Service Commercial). The proposed General Plan designation is HSC (Highway Service Commercial) which would allow for restaurants, service stations, truck stops, hotels and motels, and retail and amusement uses that are oriented principally to highway and through traffic, public and quasi-public uses, and similar and compatible uses. The FAR (Floor Area Ratio) shall not exceed 0.40. Rezoning the property to Planned Development District allows the applicant to develop the property with the unique layout to accommodate specific needs. The uses allowed are a reflection of the General Plan designation. The proposed project will be located on 10.91 acres of the 19.37 acre parcel. The project is a traveler's food court and service station. It is anticipated that up to 70 employees would be needed with approximately 1,000 visitors per day.

The subject parcel is adjacent to an existing service station and future commercial center. The property is located just off of State Route 99 on Avenue 7. The project will convert Farmland of Statewide Importance to non-agricultural use. Project site soils are designated "Prime and Unique Farmland" on the 2012 Madera County Important Farm Land Map prepared by the California Department of Conservation. The Soil Survey of Madera County prepared by the Soil Conservation Service indicates soils are classified as Hanford (Ripperdan) fine sandy loam. The Hanford soil which comprises the majority of the property is considered a prime soil when irrigated; however, the Hanford soil is only considered a Class III soil. The project proposes to convert the site from agricultural use to permanent gas station and food court which is a permitted use in the proposed Highway Service Commercial and Planned Development Districts. The parcel is 19.37 acres in size. The loss of agricultural land due to the proposed project represents approximately 0.00235 percent of the total of 823,384 acres agriculturally zoned in Madera County. This amount of loss would constitute a very small portion of the agricultural land in the county and a less-than significant impact will result.

The operational statement has identified that they will be using approximately 12,212 GPD (gallons per day) from the existing Avenue 7 Partnership water system which will be upgraded to non-transient non-community water system. Waste water will be directed to an advanced aerobic treatment plant and disposal field similar to the adjacent Chevron Gas Station. The facility will be regulated under the Hazardous Material Business Plan (Article I, Chapter 6.95, of the California Health & Safety Code).

The application is also for a variance to allow a 100'-0" sign where a 35'-0' is allowed by ordinance and two additional 45'-0" signs where 35'-0" is allowed by ordinance. Within commercial districts, sign heights are limited to 35'-0''. Sign 1, the 100'-0" high Highway Quadrant Sign will be located approximately 91'-2" north of Avenue 7 and 60'-5" east of the western property line.

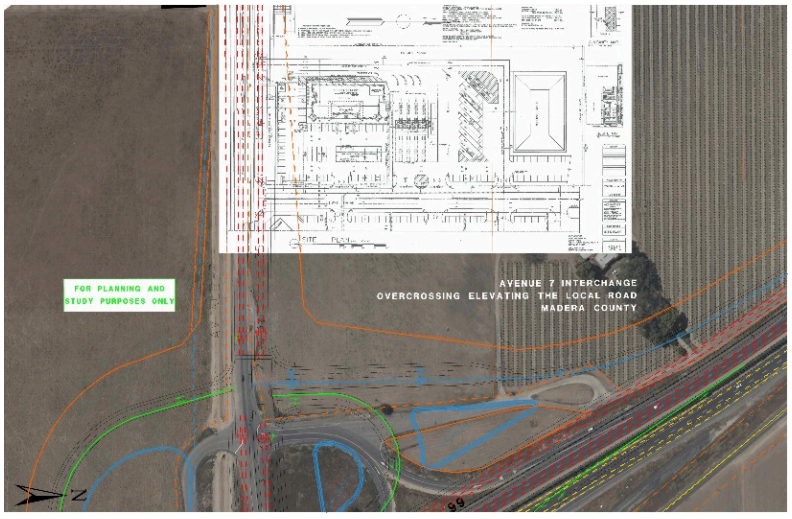
There are two 45'-0" high signs to be located on the west entrance to the parking lot and at the new north entrance to the parking lot. There have been other signs which have received height variances in the similar areas (highway commercial centers) due to the distinctive nature of the highway development. The proximity of the commercial area to the highway requires additional height for signage in order to notify motorists of the businesses and services available at the location in a timely matter. The added height for signs allows for proper preparation to exit the highway safely in order to use the commercial center. Highway oriented services, as designated in the General Plan, are designed to be convenient and provide immediate service needs for motorists. Without

added height for a sign, it would be increasingly difficult for businesses of a highway nature to be viable. This unique feature of highway commercial centers meets the requirement for special circumstances for granting a variance. Moreover, the granting of the variance would be consistent and not a granting of special privileges for this property, because other properties in the area have been granted additional height for signage. There is a 100'-0" sign on the commercial development to the east, next to Highway 99. It is evident that the sign is visible at 100'-0'' and lower from a mile away if not obstructed by features such as other highway signs, trees, or the Avenue 7 overpass. It is also evident that the sign is visible at lower heights to northbound traffic on Highway 99 as there are no obstructions. However, the two 45'-0" entrance signs have not been approved for other development and might be considered a special privilege. The 100'-0" highway sign has notified the customer where to turn. A 35'-0" sign should be adequate to direct the customer into the parking lot.

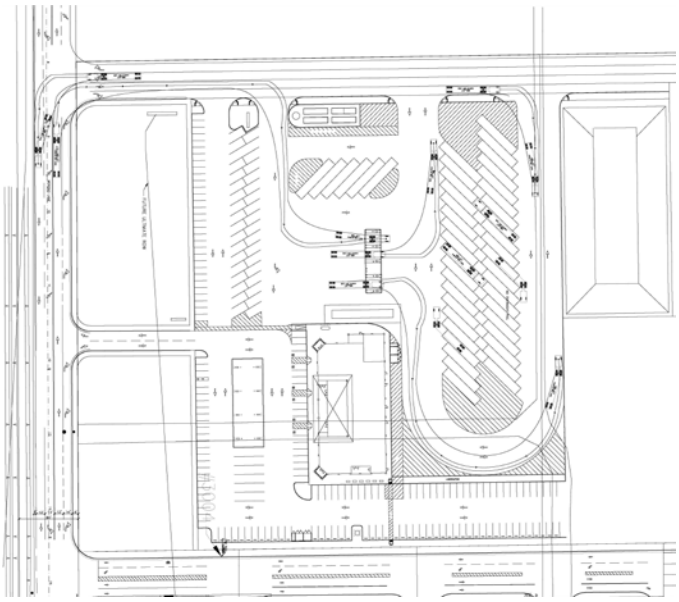
The sign would advertise all proposed businesses within the complex so additional large signage would not be allowed. Additional signage on site would only include building signs or directional signs.

This project was circulated to departments and outside agencies for review. This included Caltrans, Regional Water Quality Control, San Joaquin Valley Air Pollution Control Board, Department of Fish and Game, Local Native American Tribes and local School Districts. The only comments received from outside agencies are from the San Joaquin Valley Air Pollution Control District (SJVAPCD) (Exhibit O). The SJVAPCD concludes that the project would not exceed the Districts significance threshold and would have no significant adverse impact on air quality, however since more than 2,000 square feet of commercial construction is proposed with this project, it must comply with District Rule 9510.

The project was submitted to the California Department of Transportation (CalTrans) for review. CalTrans requested a travel study and indicated that in the future, the interchange would be re-designed and that the proposed project would need to be moved to accommodate the re-design. The project was moved and a traffic study was completed, and the conclusions of the study indicated that the project will contribute to significant impacts that will require mitigation. No mitigations are required in the existing project scenario. However, the project will be responsible for its share of the ultimate mitigations for year 2036 cumulative impacts. The ultimate configurations at the study intersections will generally include widening of Avenue 7, construction of a median to prevent turns, and signalization and widening of the intersections within the SR99/Avenue 7 interchange.



At the October Planning Commission meeting, a number of people expressed their concerns about traffic safety entering and exiting the proposed facility. Madera County Public Work again reviewed the project and placed conditions of approval on the project to help mitigate the potential safety hazards. Access to Ewell Drive will be eliminated. A new entry will be created off of Avenue 7 for cars only and trucks will enter by way of the new road on the west side of the property. Right and left turn lanes, a refuge land and an acceleration lane would be required prior to opening day (Exhibit Q).



If the Planning Commission were to approve the project, the applicant will need to submit a check, made out to the County of Madera, in the amount of $2,260.25 to cover the Notice of Determination (CEQA) filing at the Clerks' office. The amount covers the current $2,210.25 Department of Fish and Wildlife fee and the County Clerk $50.00 filing fee. In lieu of the Fish and Wildlife fee, the applicant may choose to contact the Fresno office of the Department of Fish and Wildlife to apply for a fee waiver. The County Clerk Fee and Department of Fish and Wildlife Fee (or waiver if approved) is due within five days of approval of this permit.

FINDINGS OF FACT:

The following findings of fact must be made to approve this Variance application. Should the Planning Commission vote to approve the project, Staff recommends that the Planning Commission concur with the following in light of the proposed conditions of approval.

1. *There are exceptional or extraordinary circumstances or conditions applying to the land, building or use referred to in the application, which circumstances or conditions do not apply generally to land, buildings, and/or uses in the same zoning district.* The property is located in close proximity to Highway 99. The need to safely notify travelers and motorists is unique to areas near the highway. With traffic going at high rates of speed, it is essential to give ample time to motorists so that they may make the decision to enter the commercial area safely.

2. *The granting of the application is necessary for the preservation and enjoyment of substantial property rights of the petitioner.* In order to properly utilize the highway commercial property, the variance would be needed in order to ensure that the property keeps it value. The height required to notify motorists is more than that needed for regular commercial areas. Therefore, for the applicant to retain the designated use of the property, the variance for a 100'-0'' high sign is needed to preserve the underlying rights of the property. However, the entrance signs are not necessary for the preservation and enjoyment of the property owners.

3. *The granting of such application will not, under the circumstances of this particular case, materially affect adversely the health or safety of persons residing or working in the neighborhood of the property of the applicant and will not, in the circumstances of this particular case, be materially detrimental to the public welfare or injurious to the property or improvements in that neighborhood.* The granting of the variance would not be contrary to public health or safety. In fact, the granting of the variance would enhance motorist safety by allowing for ample time to exit the highway to utilize the commercial properties of the area.

4. *The granting of the variance shall not constitute a grant of special privilege inconsistent with the limitations upon other properties in the vicinity and zone in which subject property is situated.* The limitations of the zone district would prevent the property owner from exhibiting similar uses allowed by adjacent commercial properties in the area. Existing signs exceed the highway requirement as a necessity within the highway commercial area in order to notify motorists of the existing commercial businesses.

5. *Because of special circumstances, applicable to subject property, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance would deprive the subject property of privileges enjoyed by other properties in the vicinity and under identical zone classifications.* The strict application of the height limitation for structures, in this case, a sign advertising use of the commercial property, would deprive the property owner of the privileges of surrounding commercial properties in the area. The location as a highway oriented commercial center requires special considerations that involves sign height in order to properly notify motorists of the uses available. However, no variances have been issued for entrance signs and the location does not warrant it.

WILLIAMSON ACT:

The property is not subject to a Williamson Act contract.

GENERAL PLAN CONSISTENCY:

The proposed General Plan designation is HSC (Highway Service Commercial) which would allow for restaurants, service stations, truck stops, hotels and motels, and retail and amusement uses that are oriented principally to highway and through traffic, public and quasi-public uses, and similar and compatible uses. Rezoning the property to Planned Development District allows the applicant to develop the property with a unique layout to accommodate specific needs. The uses allowed are a reflection of the General Plan designation. The proposed variance would be consistent with the Madera County General Plan and its commercial land use policies. Policies promoting commercial centers for travelers and motorists (1.D.4) would be consistent with the project approval. Therefore, the proposal is consistent with the Plan.

RECOMMENDATION:

The analysis provided in this report supports approval of General Plan Amendment (GP #2015-002), Rezone (CZ #2015-002), Variance (VA #2015-004) for the 100’-0” and Mitigated Negative Declaration (MND #2016-06) subject to conditions and the mitigation monitoring program as presented and denial of the Variance for the two 45’-0” signs.

CONDITIONS:

See Attached

ATTACHMENTS:

1. Exhibit A, General Plan Map
2. Exhibit B, Zoning Map
3. Exhibit C, Assessor's Map
4. Exhibit D-1, ***REVISED*** Site Plan
5. Exhibit D-2, Sign Plan
6. Exhibit D-3, Floor Plan
7. Exhibit D-4, Elevation
8. Exhibit D-5, Elevation
9. Exhibit D-6, Elevation
10. Exhibit E-1, Road Improvement
11. Exhibit E-2, Road Improvement
12. Exhibit F, Joaquin Bend Study Area Boundaries
13. Exhibit G, Aerial Map
14. Exhibit H, Topographical Map
15. Exhibit I, Operational Statement
16. Exhibit J, Environmental Health Comments
17. Exhibit K, Environmental Health Comments – August 28, 2016
18. Exhibit L, Fire Prevention Comments
19. Exhibit M, Public Works Comments – February 23, 2016
20. Exhibit N, Public Works Comments – August 22, 2016
21. Exhibit O, Public Works Comments (Grading) – February 23, 2016
22. Exhibit P, Public Works Comments (Grading) – August 22, 2016
23. Exhibit Q, Public Works Conditions – October 7, 2016
24. Exhibit R, San Joaquin Valley Air Pollution Control District Comments
25. Exhibit S, CalTrans' Comments – July 1, 2015
26. Exhibit T, CalTrans Proposed Realignment
27. Exhibit U, CalTrans' Comments – October 20, 2015
28. Exhibit V, Traffic Impact Study
29. Exhibit W, Caltrans' Comments – March 3, 2016
30. Exhibit X, Caltrans' Comments – August 25, 2016
31. Exhibit Y, Initial Study
32. Exhibit Z, Mitigated Negative Declaration
33. Exhibit AA, Letters of Concern
34. Exhibit AB, Letter of Support
35. Exhibit AC, Applicant's Letter

CONDITIONS OF APPROVAL

PROJECT NAME: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

PROJECT LOCATION: north side of Avenue 7, approximately 750 feet west of its intersection with SR 99 (no situs), Madera

PROJECT DESCRIPTION: travel plaza with food court and gas station

APPLICANT: Grewal, Ravinder S

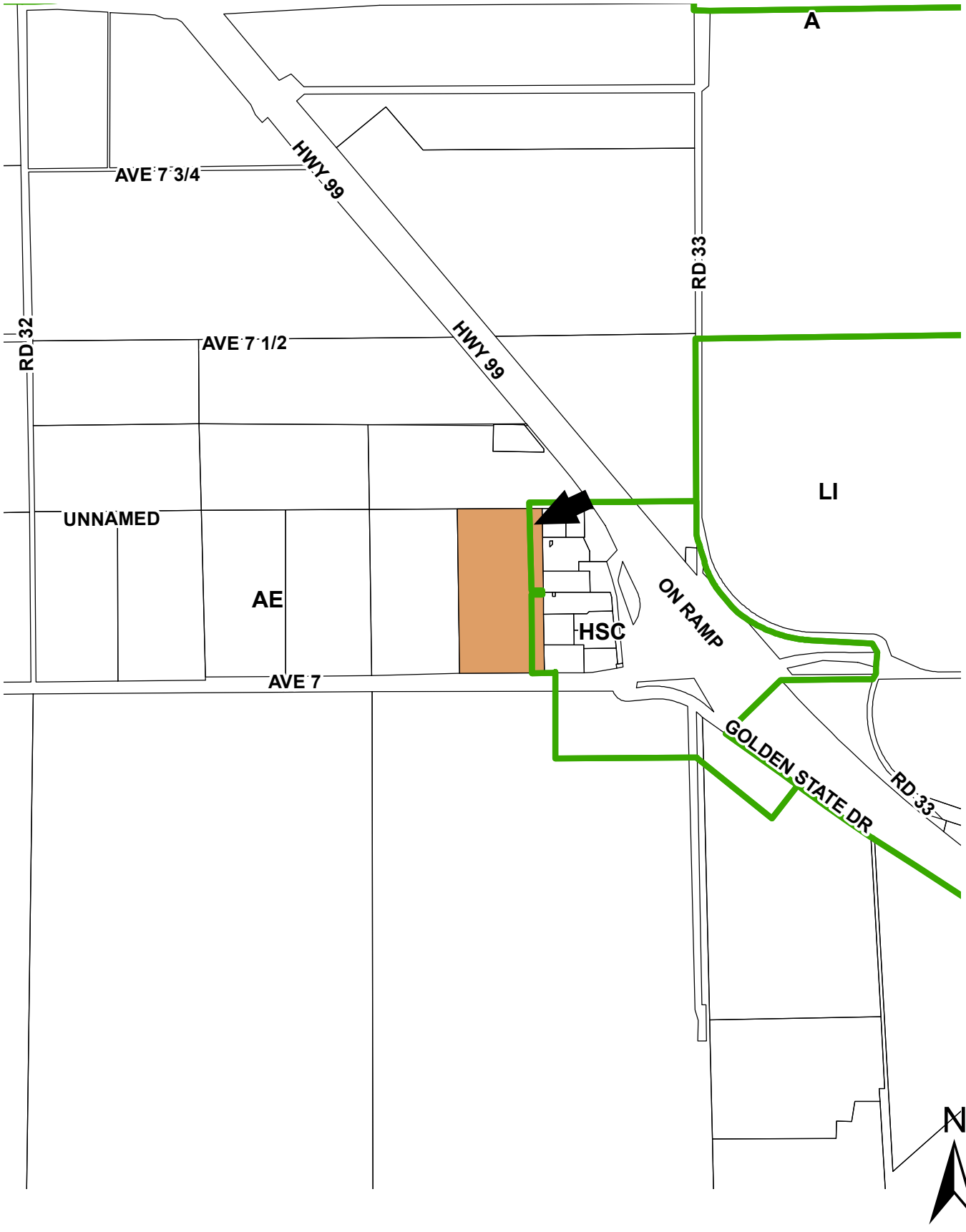
CONTACT PERSON/TELEPHONE NUMBER: (661) 900-9578

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
PUBLIC WORKS - ENGINEERING DIVISION					
1	Owner must submit a Storm Water Pollution Prevention Plan (SWPPP) to the State Water Resources Control Board Division of Water Quality and must show the Waste Discharge Identification Number (WDID) on the cover sheet prior to receiving a Grading and Drainage Permit.				
2	Grading and Drainage Plans must be submitted with a Drainage Report showing calculations of storm water runoff per Madera County design requirements.				
CED - ENVIRONMENTAL HEALTH DIVISION					
3	Solid waste collection with sorting for green, recycle, and garbage is required.				
4	Environmental Health Division food plan check will be required for review and approval.				
5	Environmental Health Division underground storage tank plan check will be required for review and approval.				
6	The construction and then ongoing operation must be done in a manner that shall not allow any type of public nuisance(s) to occur including but not limited to the following nuisance(s); Dust, Odor(s), Noise(s), Lighting, Vector(s) or Litter. This must be accomplished under accepted and approved Best Management Practices (BMP) and as required by the County General Plan, County Ordinances and any other related State and/or Federal jurisdiction.				
7	The owner/operator must obtain all the necessary Environmental Health Division permits prior to any construction activities on site and must comply with Madera County Code(s) Title 13 and 14 throughout the property development as it pertains to the Sewage Disposal System(s) and Water System(s).				
CED - FIRE PREVENTION DIVISION					
8	A water storage and distribution system for fire suppression purposes will be required. Size, pumping capacity and hydrant system design will be based on number, size and construction type of proposed buildings.				
9	Fire Sprinklers may be required. Final determination cannot be made until building permits are applied for/ plans have been designed.				

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
10	A County Standard Dry Barrel Hydrant shall be installed within 400 feet of the furthest portion of the proposed buildings measured by way of drivable access. The hydrant location shall be approved by the Madera County Fire Marshal prior to installation of any portion of the system. (CFC, Section 507.5.1)				
CED - PLANNING DIVISION					
11	The project shall be developed and operate in accordance with the operational statement and site plan submitted, except as modified by the mitigation measures and other conditions of approval required for the project.				
12	A landscaping and irrigation plan shall be submitted to the Planning Department for review and approval. The plan shall show the type of species to be planted, along with their size, location, spacing, etc. Sizing of plants and or trees shall be adequate so as to provide, where required, a fully functional screen within three years of normal growth. The landscaping shall be kept viable and free of weeds and debris.				
13	All landscaping must comply with the County's Water Efficient Landscape Ordinance.				
14	Parking lot must comply with Madera County Code Section 18.102.120				
15	All mitigation measures outlined in the Mitigated Negative Declaration #2016-06 shall be implemented in development of this project unless added to, deleted from, and/or otherwise modified by the Planning Commission or Board of Supervisors.				
16	The new road to be built on the west side of the project is to be a public road.				
17	No overnight parking. Maximum stay is 8 hours.				
18	The applicant will supply onsite security from 8:00 p.m. to 5:00 a.m.				
PUBLIC WORKS - ROAD DIVISION					
19	Prior to any construction within the County road of right-of-way, the developer is required to apply for and obtain an Encroachment Permit from the Public Works Department. Once this permit is secured, the applicant may commence with construction.				
20	The developer is required to construct all proposed driveway approaches to current County Commercial Standards. Maximum driveway approaches for commercial is 35 feet each and shall not be more than 50% of the frontage of the site. However, approaches wider than the stated maximum may be allowed subject to the prior approval of the Public Works Director or his designee.				
21	No driveway approaches shall be permitted within 150 feet of the closest curb return at a dedicated right turn lane.				
22	The developer is to provide grading, drainage calculations, erosion control measures, and any street improvement plans for the proposed development to the Public Works Department for review and approval. Onsite improvement plans may be required to provide and demonstrate that there are adequate turning radii for delivery vehicles to safely maneuver throughout the site.				
23	The developer shall provide any necessary mitigation measures to maintain the existing drainage pattern in the area.				

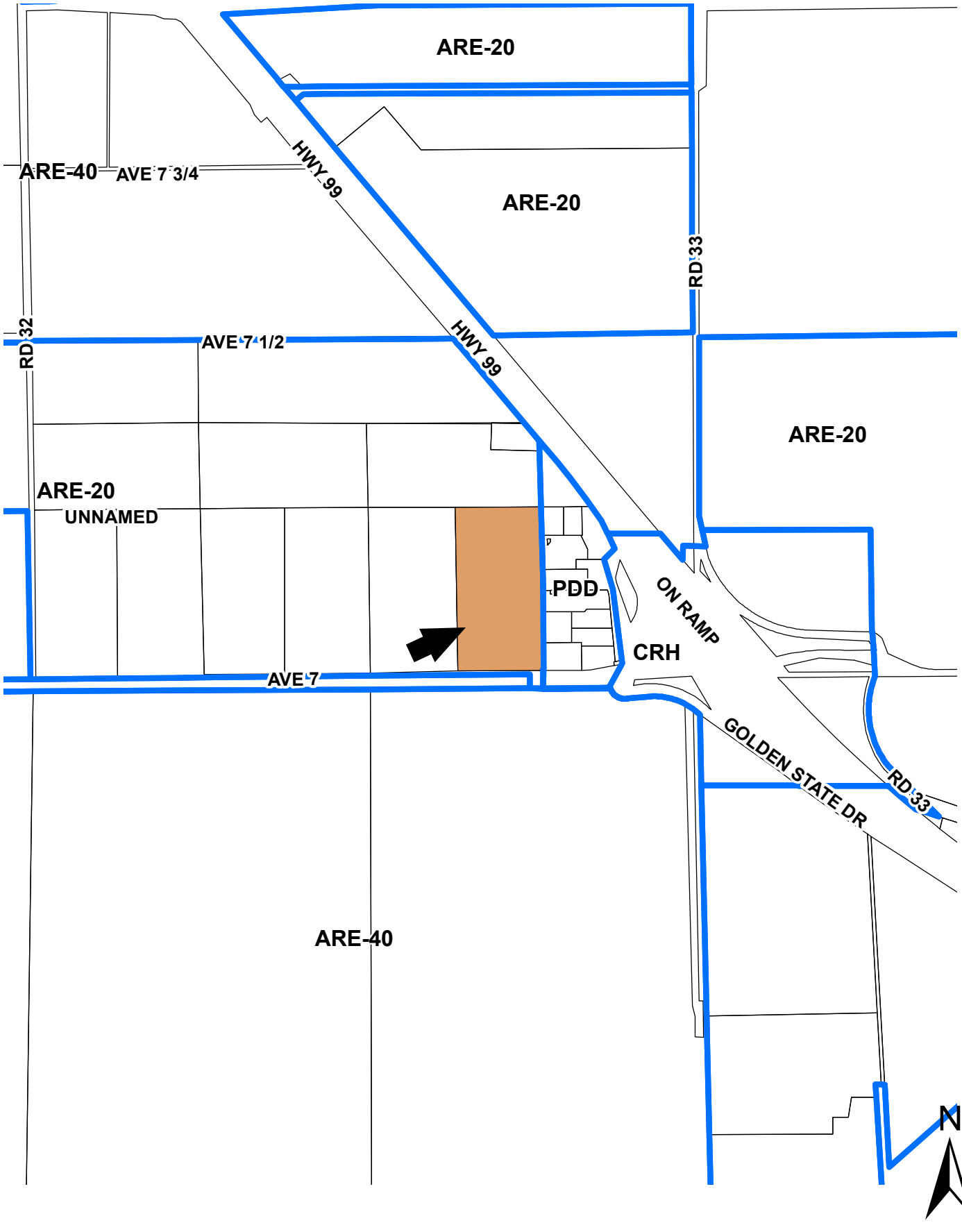
No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
24	The developer/contractor shall be responsible for locating all underground utilities prior to the start of any work by contacting Underground Service Alert (USA) 48 hours prior to any excavation. Applicant/Developer shall be responsible for contacting the appropriate party in advance of any work for necessary inspections in compliance to these plans, standard plans and standard specifications.				
25	All stabilized construction on and off site access locations shall be constructed per the latest edition of the California Stormwater Quality Association (CASQA) details to effectively prevent tracking of sediment onto paved areas. If applicable, all BMPS to be inspected weekly and before and after each rain event. Repair or replace as necessary. The contractor shall abide all of the laws, ordinances, and regulations associated with the NPDES and the Clean Water Act.				

EXHIBIT A



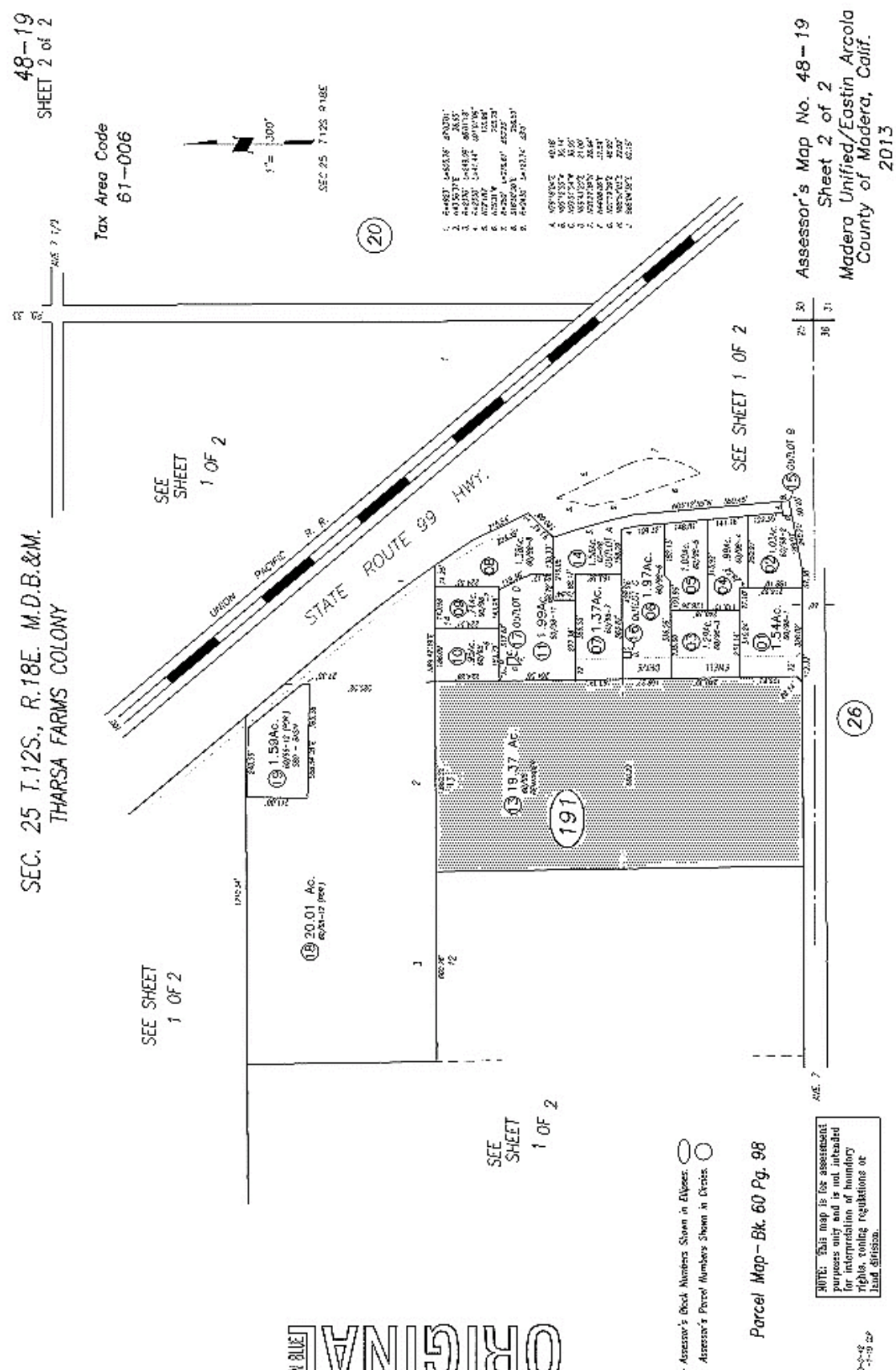
GENERAL PLAN MAP

EXHIBIT B



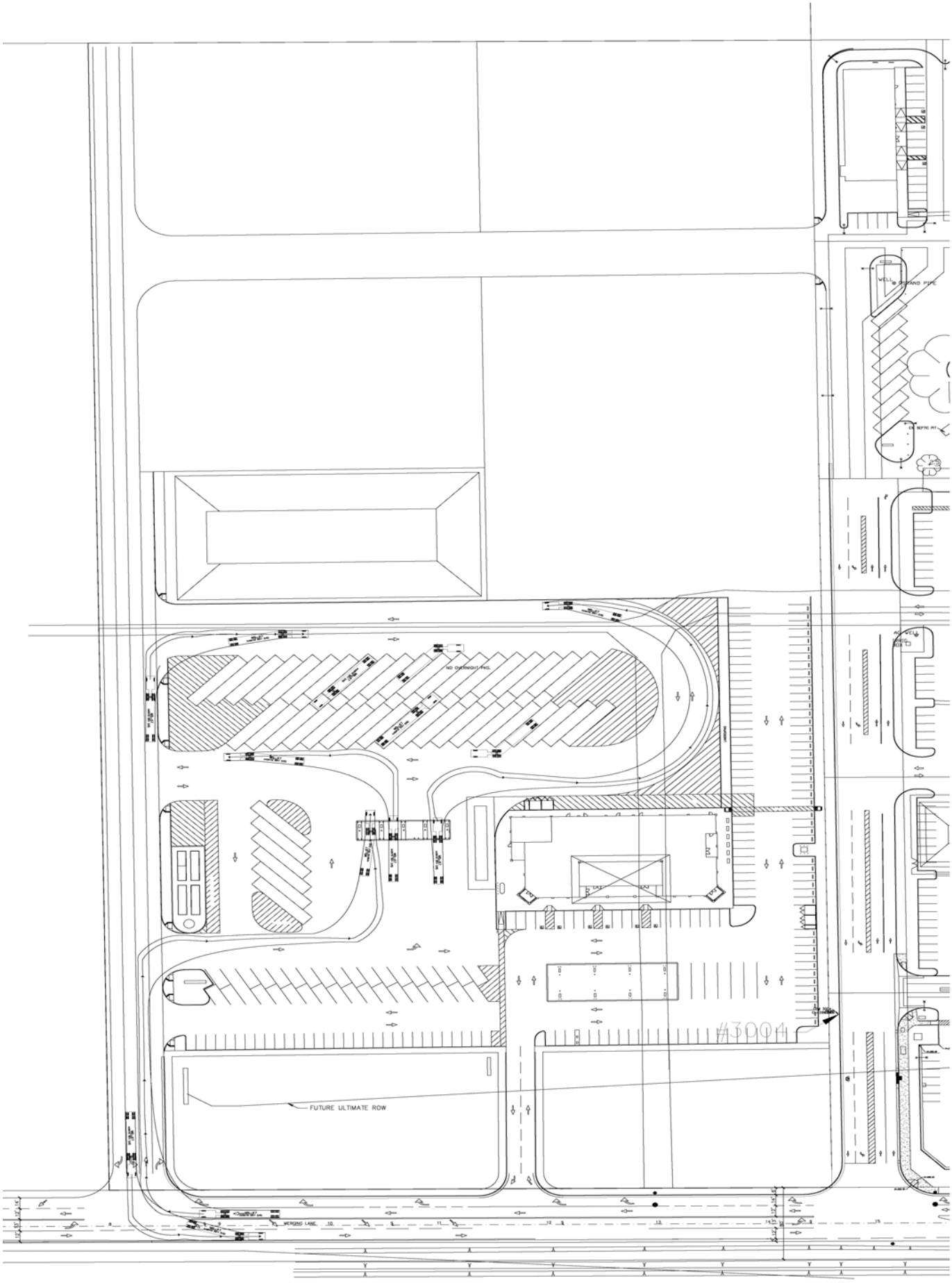
ZONING MAP

EXHIBIT C



ASSESSOR'S MAP

EXHIBIT D-1

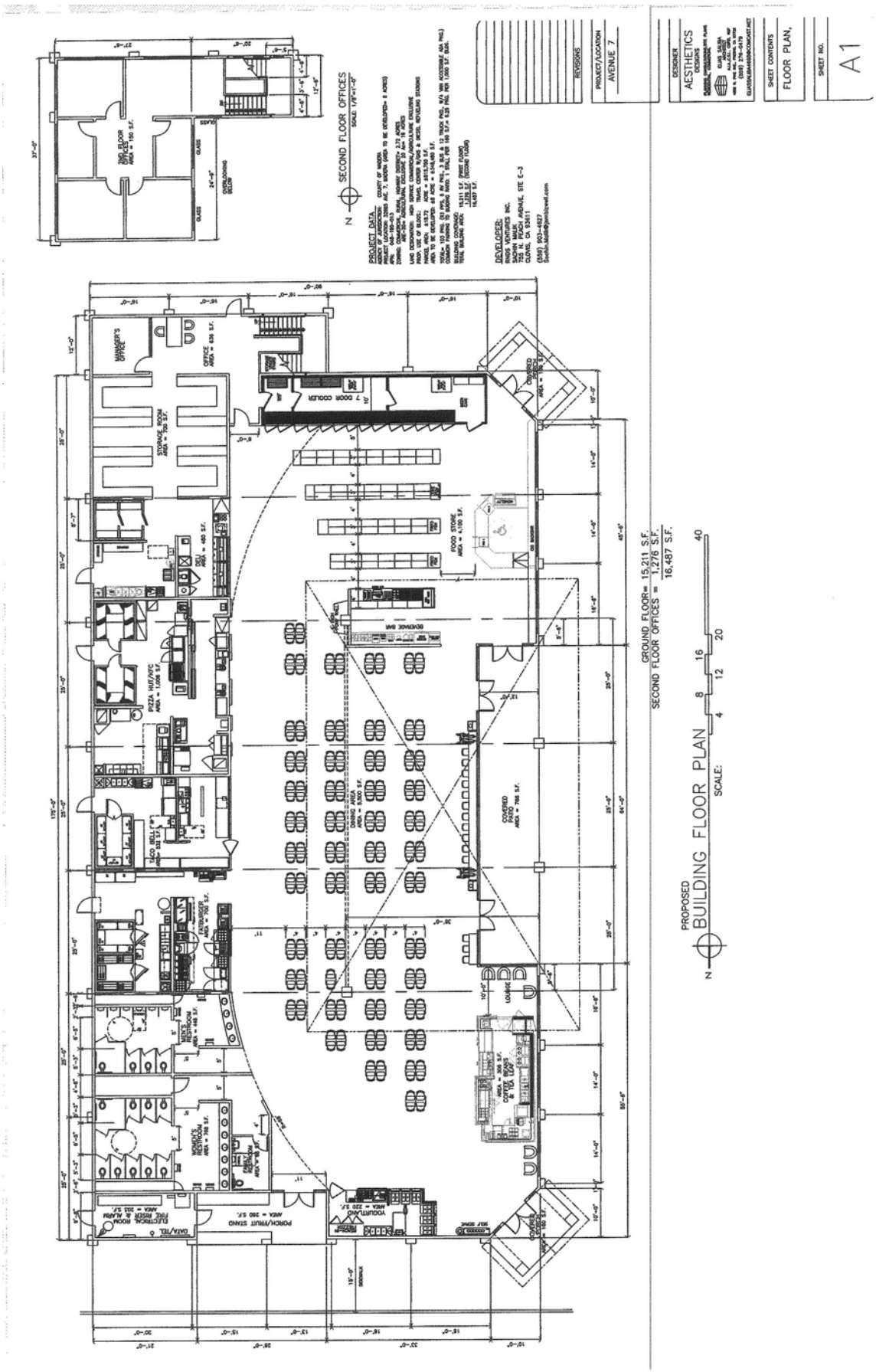


SITE PLAN

EXHIBIT D-2

SIGN PLAN

EXHIBIT D-3

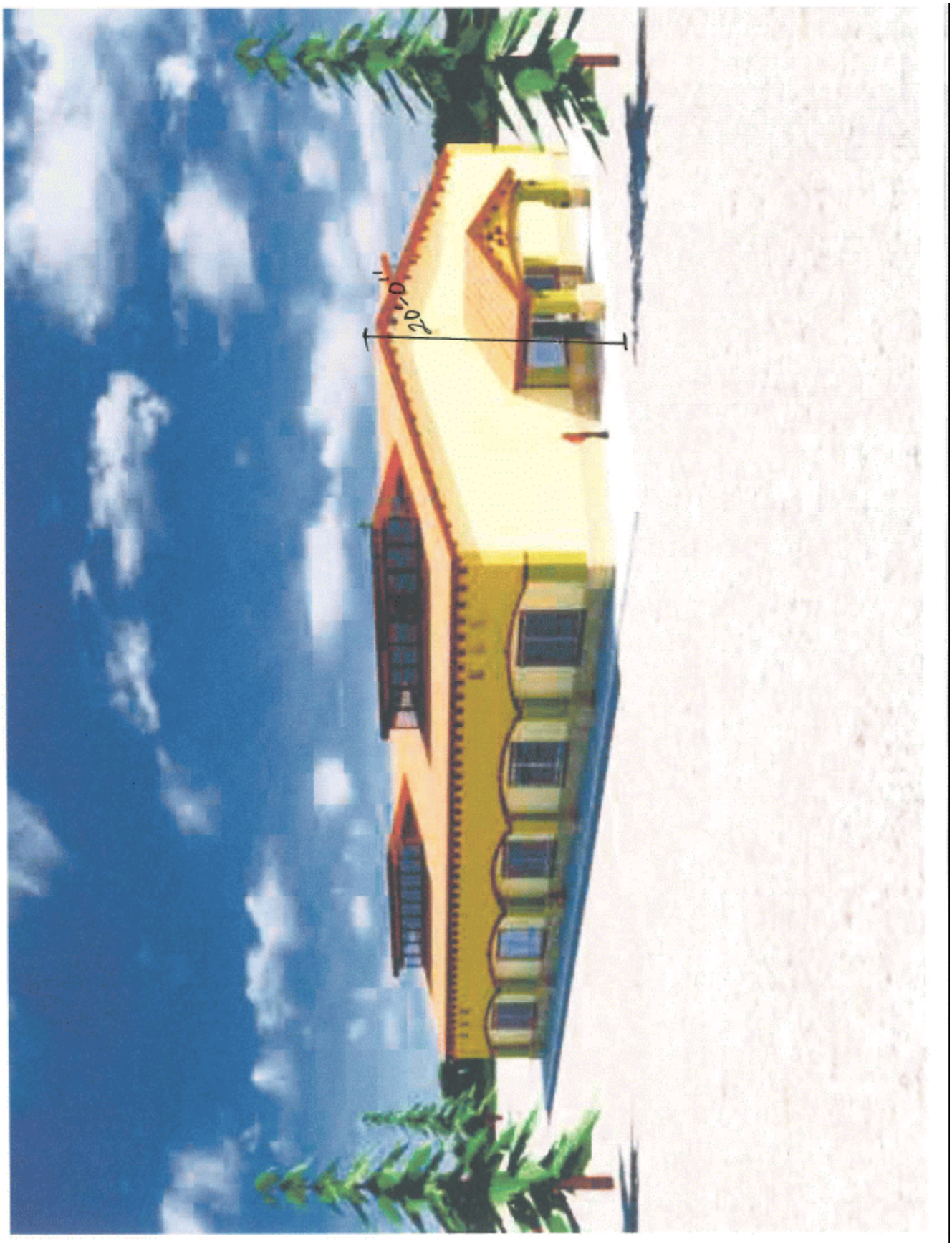


FLOOR PLANS

EXHIBIT D-4

ELEVATIONS

EXHIBIT D-5

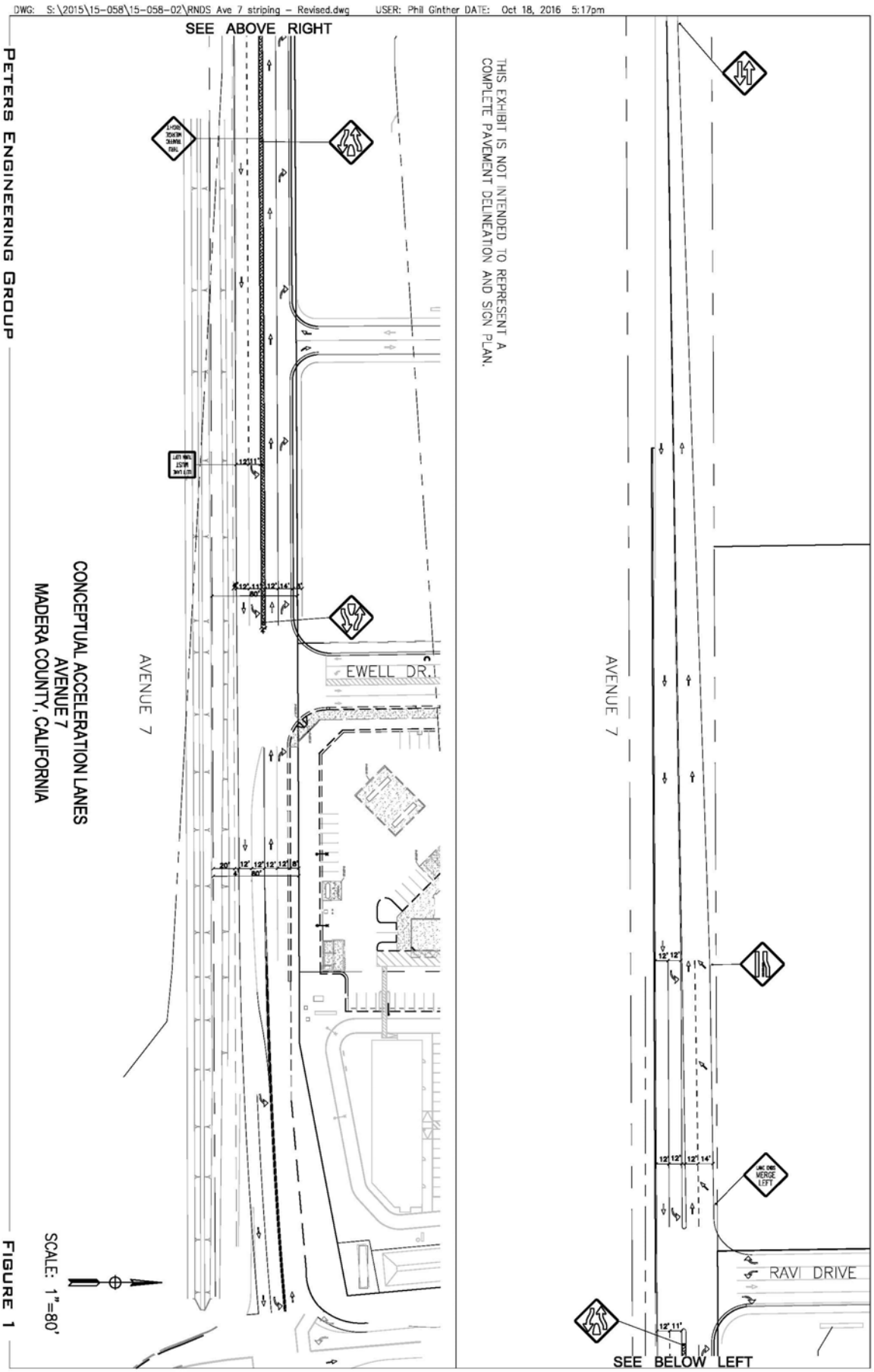


ELEVATION PLAN

EXHIBIT D-6

ELEVATION PLAN

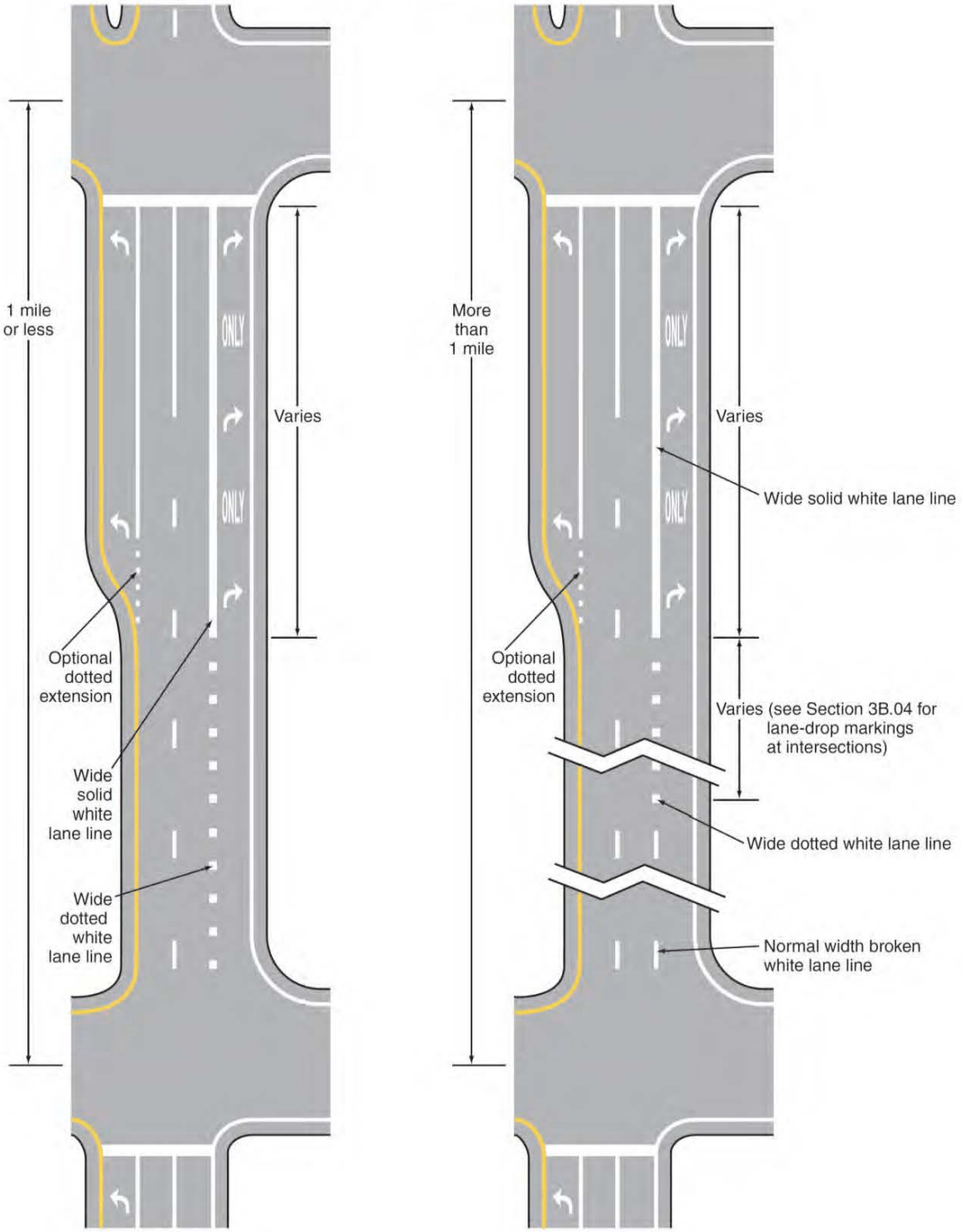
EXHIBIT E-1



ROAD IMPROVEMENT

Figure 3B-11. Examples of Applications of Conventional Road Lane-Drop Markings
(Sheet 2 of 2)

B – Auxiliary lane between intersections



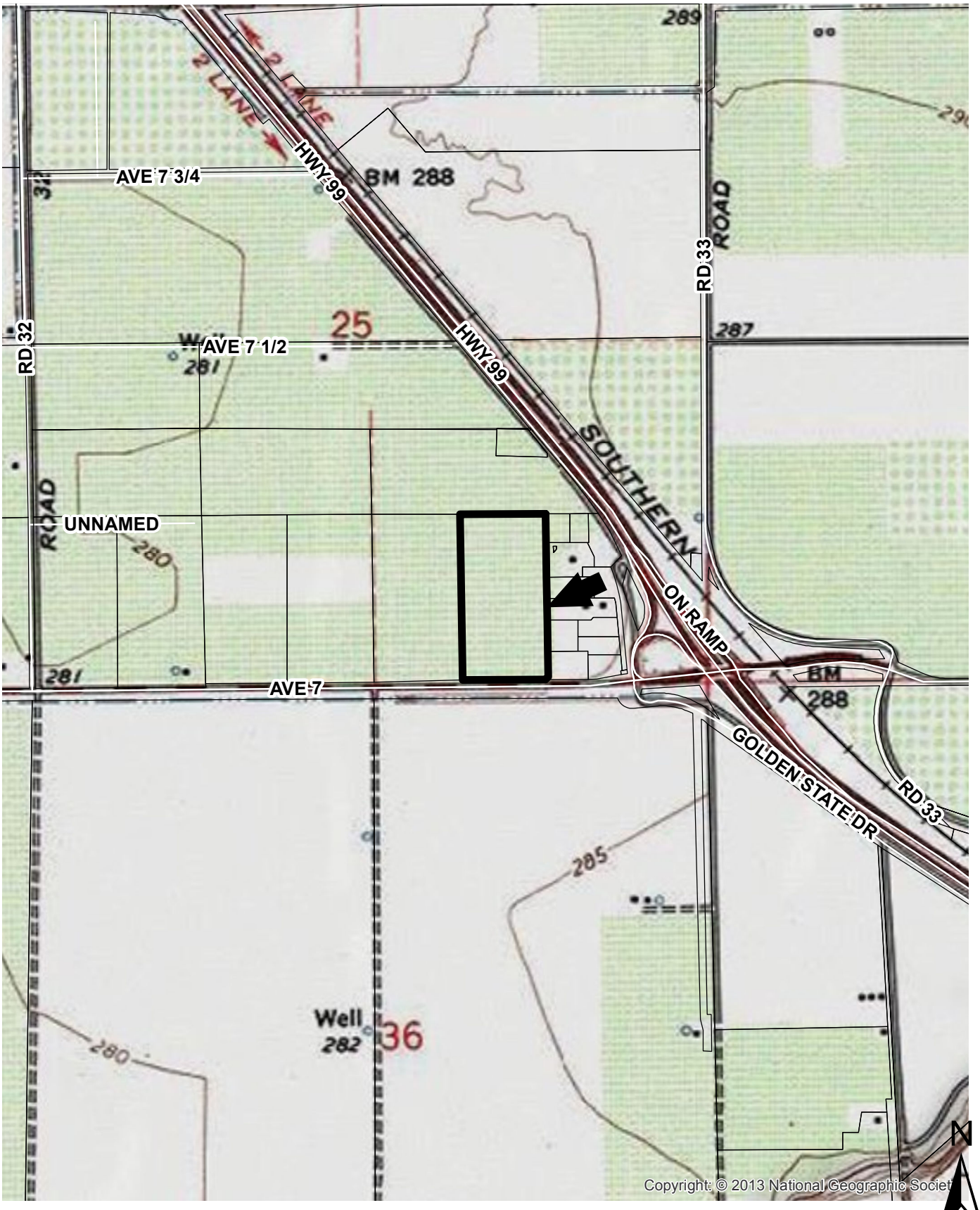
EXHIBIT

Joaquin Bend Study Area Boundaries

EXHIBIT

AERIAL MAP

EXHIBIT H



TOPOGRAPHICAL MAP

EXHIBIT I

Community and Economic Development
Planning Division

Norman L. Allinder, AICP
Director

- 200 W 4th Street
- Suite 3100
- Madera, CA 93637
- (559) 675-7821
- FAX (559) 675-6573
- TDD (559) 675-8970
- mc_planning@madera-county.com

OPERATIONAL/ENVIRONMENTAL STATEMENT CHECKLIST

It is important that the operational/environmental statement provides for a complete understanding of your project proposal. Please be as detailed as possible.

1. Please provide the following information:
   Assessor's Parcel Number: 048-191-013
   Applicant's Name: RAVINDER S. GREWAL
   Address: 11806 PEAK RD, CHATSWORTH, CA 91311
   Phone Number: 310-748-1348, 661-900-9578

2. Describe the nature of your proposal/operation.
   BUILD OUT A TRAVEL PLAZA.

3. What is the existing use of the property?
   AGRICULTURAL.

4. What products will be produced by the operation? Will they be produced onsite or at some other location? Are these products to be sold onsite?
   FAST FOOD SERVICES, ONSITE

5. What are the proposed operational time limits?
   Months (if seasonal):
   Days per week: 7
   Hours (from____to _): Total Hours per day: 24 HRS

6. How many customers or visitors are expected?
   Average number per day: 1000
   Maximum number per day: 1000+
   What hours will customers/visitors be there? ROUND THE CLOCK(24 HRS)

7. How many employees will there be?
   Current: NONE
   Future: 70+
   Hours they work: 8 HRS (FULLTIME)
   Do any live onsite? If so, in what capacity (i.e. caretaker)? NO

8. What equipment, materials, or supplies will be used and how will they be stored? If appropriate, provide pictures or brochures.

FUEL, FOOD

9. Will there be any service and delivery vehicles? YES.

Number: 4 TO 10

Type: FOOD AND FUELS DELIVERY

Frequency: UPTO 2 TIMES A WEEK.

10. Number of parking spaces for employees, customers, and service/delivery vehicles. Type of surfacing on parking area.

103 PS DRIVING ON ASPHALT CONCRETE PAVEMENT.

11. How will access be provided to the property/project? (street name)

EWELL DRIVE AND AVE 7

12. Estimate the number and type (i.e. cars or trucks) of vehicular trips per day that will be generated by the proposed development.

500+

13. Describe any proposed advertising, inlcuding size, appearance, and placement.

100' FREEWAY SIGN - MONUMENT SIGN WITH VARIANCE

14. Will existing buildings be used or will new buildings be constructed? Indicate which building(s) or portion(s) of will be utilized and describe the type of construction materials, height, color, etc. Provide floor plan and elevations, if applicable.

NEW CONSTRUCTION. SEE ATTACHED SITE PLAN AND FLOOR PLAN.

15. Is there any landscaping or fencing proposed? Describe type and location.

MINIMAL ALONG PERIMETER.

16. What are the surrounding land uses to the north, south, east and west property boundaries?

NORTH - VINEYARD, SOUTH - AGRICULTURE, EAST - COMMERCIAL, WEST - VINEYARD

17. Will this operation or equipment used, generate noise above other existing parcels in the area?

NO

18. On a daily or annual basis, estimate how much water will be used by the proposed development, and how is water to be supplied to the proposed development (please be specific).

12,212 GPD FROM EXISTING (TNCWS) AVE PARTNERSHIP WATER SYSTEM WHICH WILL BE UPGRADED TO (NTNCWS) NON-TRANSIENT NON-COMMUNITY WATER SYSTEM.

19. On a daily or weekly basis, how much wastewater will be generated by the proposed project and how will it be disposed of?
12,212 GPD OF WASTE WATER DIRECTED TO ADVANCED AEROBIC TREATMENT PALNT & DISPOSAL FIELD SIMILAR TO THE ADJACENT JQFS CHEVRON GAS STATION.

20. On a daily or weekly basis, how much solid waste (garbage) will be generated by the proposed project and how will it be disposed of?
1.5 CU YD PER DAY SOLID WASTE. 10 CU YD / DAY RECYCLABLES WILL BE HAULED BY LOCAL COMPANY TO LANDFILL/ RECYCLING CENTER (2 TIMES PER WEEK ESTMTD.).

21. Will there be any grading? Tree removal? (please state the purpose, i.e. for building pads, roads, drainage, etc.)
VERY MINOR FOR BUILDING, PADS, ROADS

22. Are there any archeological or historically significant sits located on this property? If so, describe and show location on site plan.
NONE.

23. Locate and show all bodies of water on application plot plan or attached map.
NONE.

24. Show any ravines, gullies, and natural drainage courses on the property on the plot plan.
NONE.

25. Will hazardous materials or waste be produced as part of this project? If so, how will they be shipped or disposed of?
NONE.

26. Will your proposal require use of any public services or facilities? (i.e. schools, parks, fire and police protection or special districts?)
NO

27. How do you see this development impacting the surrounding area?
NO

28. How do you see this development impacting schools, parks, fire and police protection or special districts?
NOT IMPACTING AT ALL.

29. If your proposal is for commercial or industrial development, please complete the following; Proposed Use(s): TRAVEL PLAZA
Square feet of building area(s): 22,814 APPROX.
Total number of employees: 70+
Building Heights: 35 FTW / 2ND STORY OFFICE PORTION. 35' FT

30. If your proposal is for a land division(s), show any slopes over 10% on the map or on an attached map.

NONE (FLAT LAND).

EXHIBIT

Community and Economic Development
Environmental Health Division
Dexter Marr, Deputy Director

200 West 4th Street
Madera, CA 93637
(559) 675-7823

MEMORANDUM

TO: Becky Beavers

FROM: Dexter Marr, Environmental Health Division

DATE: February 23, 2016

RE: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

Comments

TO:Planning Department
FROM:Environmental Health Department
DATE:June 16, 2015
RE:Project: #2015-003, Grewal, Ravinder- Madera- APN 048-191-013

The Environmental Health Division Comments:

The project shall be served by a community water system. Water services for any structure(s), within this parcel map must be connected to an approved community water system and approved by Madera County Environmental Health Division and State Division of Drinking Water (DDW).

The project shall be served by a community sewer system to which all of the structure(s) within the development shall connect. Sewer service for all structure(s) within the parcel map must be connected to an approved community sewer system that is approved by Regional Water Quality Control Board (RWQCB).

Solid waste collection with sorting for green, recycle, and garbage is required.

Environmental Health Division food plan check will be required for review and approval.

Environmental Health Division underground storage tank plan check will be required for review and approval.

The facility will be regulated under the Hazardous Material Business Plan (Article I, Chapter 6.95, of the California Health & Safety Code)

As of January 2013 all CUPA regulated businesses must submit their Hazardous Material Business Plan electronically into the California Environmental Reporting System (CERS) at: www.cers.calepa.ca.gov

The construction and then ongoing operation must be done in a manner that shall not allow any type of public nuisance(s) to occur including but not limited to the following nuisance(s); Dust, Odor(s), Noise(s), Lighting, Vector(s) or Litter. This must be accomplished under accepted and approved Best Management Practices (BMP) and as required by the County General Plan, County Ordinances and any other related State and/or Federal jurisdiction.

During the application process for required County permits, a more detailed review of the proposed project's compliance with all current local, state & federal requirements will be reviewed by this department. The owner/operator of this property must submit all applicable permit applications to be reviewed and approved by this department prior to commencement of any work activities.

If there are any questions or comments regarding these conditions/requirements or for copies of any Environmental Health Permit Application forms, contact this department at (559) 675-7823, M-F, 8:00 am to 5:00 pm.

EXHIBIT

Community and Economic Development
Environmental Health Division
Dexter Marr, Deputy Director

200 West 4th Street
Madera, CA 93637
(559) 675-7823

MEMORANDUM

TO: Becky Beavers

FROM: Dexter Marr, Environmental Health Division

DATE: August 22, 2016

RE: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

Comments

TO:Planning Department
FROM:Environmental Health Department
DATE:August 22, 2016
RE:Project: #2015-003, Grewal, Ravinder- Madera- APN 048-191-013

The Environmental Health Division Comments:

Water services for all structure(s), within this project must be connected to an approved community water system and approved by Madera County Environmental Health Division and/or State Division of Drinking Water (DDW).

Sewer service for all structure(s) within the project must be connected to an approved community sewer system that is approved by Madera County Environmental Health and/or Regional Water Quality Control Board (RWQCB).

The owner/operator must obtain all the necessary Environmental Health Division permits prior to any construction activities on site and must comply with Madera County Code(s) Title 13 and 14 throughout the property development as it pertains to the Sewage Disposal System(s) and Water System(s).

Solid waste collection with sorting for green, recycle, and garbage is required.

Environmental Health Division food plan check will be required for review and approval.

Environmental Health Division underground storage tank plan check will be required for review and approval.

The facility will be regulated under the Hazardous Material Business Plan (Article I, Chapter 6.95, of the California Health & Safety Code)

As of January 2013 all CUPA regulated businesses must submit their Hazardous Material Business Plan electronically into the California Environmental Reporting System (CERS) at: www.cers.calepa.ca.gov

The construction and then ongoing operation must be done in a manner that shall not allow any type of public nuisance(s) to occur including but not limited to the following nuisance(s); Dust, Odor(s), Noise(s), Lighting, Vector(s) or Litter. This must be accomplished under accepted and approved Best

Management Practices (BMP) and as required by the County General Plan, County Ordinances and any other related State and/or Federal jurisdiction.

During the application process for required County permits, a more detailed review of the proposed project's compliance with all current local, state & federal requirements will be reviewed by this department. The owner/operator of this property must submit all applicable permit applications to be reviewed and approved by this department prior to commencement of any work activities.

If there are any questions or comments regarding these conditions/requirements or for copies of any Environmental Health Permit Application forms, contact this department at (559) 675-7823,

EXHIBIT

Community and Economic Development

Fire Protection Division

DEBORAH KEENAN
MADERA COUNTY FIRE MARSHAL

200 W. 4th Street
MADERA, CALIFORNIA 93637
(559) 661-6333
(559) 675-6973 FAX

MEMORANDUM

TO: Becky Beavers

FROM: Deborah Keenan, Fire Marshal

DATE: February 23, 2016

RE: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

Conditions

A water storage and distribution system for fire suppression purposes will be required. Size, pumping capacity and hydrant system design will be based on number, size and construction type of proposed buildings.

Fire Sprinklers may be required. Final determination cannot be made until building permits are applied for/ plans have been designed.

A County Standard Dry Barrel Hydrant shall be installed within 400 feet of the furthest portion of the proposed buildings measured by way of drivable access. The hydrant location shall be approved by the Madera County Fire Marshal prior to installation of any portion of the system. (CFC, Section 507.5.1)

At the time of application for a Building Permit, a more in-depth plan review of the proposed project's compliance with all current fire and life safety codes will be conducted by the Madera County Fire Marshal. (CFC, Section 105)

EXHIBIT

COUNTY OF MADERA
DEPARTMENT OF PUBLIC WORKS

AHMAD M. ALKHAYYAT
INTERIM DIRECTOR

200 West 4th Street
Madera, CA 93637-8720
Main Line - (559) 675-7811
Special districts - (559) 675-7820
Fairmead Landfill - (559) 665-1310

MEMORANDUM

DATE: February 23, 2016

TO: Becky Beavers

FROM: Phu Duong, Public Works

SUBJECT: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

Comments

The Public Works Department has reviewed the PRJ#2015-003, Ravinder Grewal, APN 048-191-013 located on northwest corner of Avenue 7 and Ewell Drive. The department comments and conditions of approval are described as follow:

The proposed development does not appear to be located within a flood prone area.

The subject property is not within, or adjacent to, a Maintenance District or Service Area administered by the Public Works Department.

As a condition of approval, the developer is required to construct any proposed driveway approach(es) to current County Commercial Standards.

Prior to any construction within the County road of right-of-way, the applicant is required to apply for and obtain an Encroachment Permit from the Public Works Department and pay any applicable fee. Once this permit is secured, the applicant may commence with construction.

The developer is to provide grading, drainage, erosion control, and any street improvement plans for the proposed development to the Public Works for review.

The developer shall provide necessary mitigation measure to maintain the existing drainage pattern located within the area of proposed approach.

The developer/contractor shall be responsible for locating all underground utilities prior to the start of any work by contacting Underground Service Alert (USA) 48 hours prior to any excavation. Applicant/Developer shall be responsible for contacting the appropriate party in advance of any work for necessary inspections in compliance to these plans, standard plans and standard specifications.

All stabilized construction on and off site access locations shall be constructed per the latest edition of the California Stormwater Quality Association (CASQA) details to effectively prevent tracking of sediment onto paved areas. If applicable, all BMPS to be inspected weekly and before and after each rain event. Repair or replace as necessary. The contractor shall abide all of the laws, ordinances, and regulations associated with the NPDES and the Clean Water Act.

EXHIBIT

COUNTY OF MADERA
DEPARTMENT OF PUBLIC WORKS

AHMAD M. ALKHAYYAT
INTERIM DIRECTOR

200 West 4th Street
Madera, CA 93637-8720
Main Line - (559) 675-7811
Special districts - (559) 675-7820
Fairmead Landfill - (559) 665-1310

MEMORANDUM

DATE: August 22, 2016

TO: Becky Beavers

FROM: Phu Duong, Public Works

SUBJECT: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

Comments

Public Works Department has finished reviewing the revised site plan dated August 3, 2016 associated with the application number PRJ#2015-003. Below are the Department conditions of approval:

Prior to any construction within the County road of right-of-way, the developer is required to apply for and obtain an Encroachment Permit from the Public Works Department. Once this permit is secured, the applicant may commence with construction.

The developer is required to construct all proposed driveway approaches to current County Commercial Standards. Maximum driveway approaches for commercial is 35 feet each and shall not be more than 50% of the frontage of the site. However, approaches wider than the stated maximum may be allowed subject to the prior approval of the Public Works Director or his designee.

No driveway approaches shall be permitted within 150 feet of the closest curb return at a dedicated right turn lane.

The developer is to provide grading, drainage calculations, erosion control measures, and any street improvement plans for the proposed development to the Public Works Department for review and approval. Onsite improvement plans may be required to provide and demonstrate that there are adequate turning radii for deliver vehicles to safely maneuver throughout the site.

The developer shall provide any necessary mitigation measures to maintain the existing drainage pattern in the area.

The developer/contractor shall be responsible for locating all underground utilities prior to the start of any work by contacting Underground Service Alert (USA) 48 hours prior to any excavation. Applicant/Developer shall be responsible for contacting the appropriate party in advance of any work for necessary inspections in compliance to these plans, standard plans and standard specifications.

All stabilized construction on and off site access locations shall be constructed per the latest edition of the California Stormwater Quality Association (CASQA) details to effectively prevent tracking of sediment onto paved areas. If applicable, all BMPS to be inspected weekly and before and after each rain event. Repair or replace as necessary. The contractor shall abide all of the laws, ordinances, and regulations associated with the NPDES and the Clean Water Act.

EXHIBIT

COUNTY OF MADERA
DEPARTMENT OF PUBLIC WORKS

AHMAD M. ALKHAYYAT
INTERIM DIRECTOR

200 West 4th Street
Madera, CA 93637-8720
Main Line - (559) 675-7811
Special districts - (559) 675-7820
Fairmead Landfill - (559) 665-1310

MEMORANDUM

DATE: February 23, 2016

TO: Becky Beavers

FROM: Leopoldo Espino, Public Works

SUBJECT: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

Comments

October 07, 2015
RE: PRJ #2015-003

Proposed project will require a SIte Grading and Drainage Permit with the following requirements:

1) Owner must submit a Storm Water Pollution Prevention Plan (SWPPP) to the State Water Resources Control Board
Division of Water Quality and must show the Waste Discharge Identification Number (WDID) on the cover sheet prior to receiving a Grading and Drainage Permit.

2) Grading and Drainage Plans must be submitted with a Drainage Report showing calculations of storm water runoff per Madera County design requirements.

Additional requirements may be needed prior to the Madera County Public Works Department approving any Building Permits.

Leopoldo Espino EIT
Engineer I

Madera County Public Works Department
Capital Improvement Projects Division
200 W. 4th Street, 3rd Floor
Madera, CA 93637
P 559.675.7811 ext 3106
F 559.675.7631
leopoldo.espino@co.madera.ca.gov

EXHIBIT

COUNTY OF MADERA
DEPARTMENT OF PUBLIC WORKS

AHMAD M. ALKHAYYAT
INTERIM DIRECTOR

200 West 4th Street
Madera, CA 93637-8720
Main Line - (559) 675-7811
Special districts - (559) 675-7820
Fairmead Landfill - (559) 665-1310

MEMORANDUM

DATE: August 22, 2016

TO: Becky Beavers

FROM: Leopoldo Espino, Public Works

SUBJECT: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

Comments

August 10, 2016
RE: PRJ #2015-003

Proposed project will require a SIte Grading and Drainage Permit with the following requirements:

1) Owner must submit a Storm Water Pollution Prevention Plan (SWPPP) to the State Water Resources Control Board
Division of Water Quality and must show the Waste Discharge Identification Number (WDID) on the cover sheet prior to receiving a Grading and Drainage Permit.

2) Grading and Drainage Plans must be submitted with a Drainage Report showing calculations of storm water runoff per Madera County design requirements.

Additional requirements may be needed prior to the Madera County Public Works Department approving any Building Permits.

Leopoldo Espino EIT
Engineer I

Madera County Public Works Department
Capital Improvement Projects Division
200 W. 4th Street, 3rd Floor
Madera, CA 93637
P 559.675.7811 ext 3106
F 559.675.7631
leopoldo.espino@co.madera.ca.gov

EXHIBIT

From: Phu Duong
To: Becky Beavers
Cc: Ahmad Alkhayyat; Jared Carter
Subject: PRJ2015-003 Travel Plaza
Date: Friday, October 07, 2016 3:19:03 PM

Becky,

Below are Public Works Dept. additional conditions:

East side of the proposed site entrance, provide the following improvements:

A separate westbound right turn lane onto the site. Proper length is to be determined by the design engineer.

A separate center refuge lane on Avenue 7 for trucks that are exiting the site and heading toward the highway to pick up speed before merging onto the eastbound through traffic.

The center refuge lane striping can be extended to where the existing left turn lane onto Ewell Drive begins.

West side of the proposed site entrance, provide the following improvements:

A separate eastbound left turn lane onto the site. Proper length is to be determined by the design engineer.

A separate acceleration lane or adequate taper for trucks that are exiting the site to pick up speed before merging onto the westbound through traffic.

The lane configuration at the proposed site entrance and Avenue 7 intersection must adequately designed to accommodate commercial trucks.

Please contact our department if you have any questions.

Thanks!

Phu Duong
Development Services Engineer

County of Madera, Department of Public Works
Capital Improvement Projects Division
200 W. 4th Street, 3rd floor
Madera, CA 93637
Office: (559) 675-7811, Ext 3510
phu.duong@co.madera.ca.gov

EXHIBIT

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

June 24, 2015

Becky Beavers
County of Madera
Planning Department
2037 W. Cleveland Avenue
Madera, CA 93637

Project: PRJ #2015-003 (APN# 048-191-013)

District CEQA Reference No: 20150531

Dear Ms. Beavers:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above consisting of a travel plaza with food court and gas station located on the north side of Avenue 7 approximately 750 feet west of its intersection with State Route 99, in Madera, CA. The District offers the following comments:

1) The District's initial review of the project concludes that emissions resulting from construction and/or operation of the project may exceed the following thresholds of significance: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10). The District recommends that a more detailed preliminary review of the project be conducted. The additional environmental review of the project's potential impact on air quality should consider the following:

   1a) Project Emissions should be identified and quantified.

      i) Permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. Preparation of an Environmental Impact Report (EIR) is recommend should emissions from either source exceed the following amounts: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

      ii) Pre- and post-project emissions should be identified.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

1b) Nuisance Odors should be discussed as to whether the project would create objectionable odors affecting a substantial number of people.

Toxic Air Contaminants (TACs) –are defined as air pollutants that which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. The most common source of TACs can be attributed to diesel exhaust fumes that are emitted from both stationary and mobile sources. If the project is located near residential/ sensitive receptors, the proposed project should be evaluated to determine the health impact of TACs to the near-by receptors. If the analysis indicates that TACs are a concern, the District recommends that a Health Risk Assessment (HRA) be performed. If an HRA is to be performed, it is recommended that the project proponent contact the District to review the proposed modeling approach. More information on TACs, prioritizations and HRAs can be obtained by:

- E-mailing inquiries to: hramodeler@valleyair.org; or
- Visiting the District's website at: http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

2) If preliminary review indicates that a Mitigated Negative Declaration should be prepared, in addition to the effects identified above, the document should include:

2a) Mitigation Measures – If preliminary review indicates that with mitigation, the project would have a less than significant adverse impact on air quality, the effectiveness of each mitigation measure incorporated into the project should be discussed.

2b) District's attainment status – The document should include a discussion of whether the project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. Information on the District's attainment status can be found online by visiting the District's website at http://valleyair.org/aqinfo/attainment.htm.

3) If preliminary review indicates that an Environmental Impact Report (EIR) should be prepared, in addition to the effects identified above, the document should also include the following:

3a) A discussion of the methodology, model assumptions, inputs and results used in characterizing the project's impact on air quality.

3b) A discussion of the components and phases of the project and the associated emission projections, (including ongoing emissions from each previous phase).

4) Based on information provided to the District, the food court may equal or exceed 2,000 square feet of commercial space. Therefore, the District concludes that the food court portion of the project may be subject to District Rule 9510 (Indirect Source Review).

   District Rule 9510 is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site mitigation fees. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees before issuance of the first building permit. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm.

5) Particulate Matter 2.5 microns or less in size (PM2.5) from under-fired charbroilers (UFCs) pose immediate health risk. Since the cooking of meat can release carcinogenic PM2.5 species like polycyclic aromatic hydrocarbons (PAH), controlling emissions from under-fired charbroilers will have a substantial positive impact on public health.

   Charbroiling emissions occur in populated areas, near schools and residential neighborhoods, resulting in high exposure levels for sensitive Valley residents. The air quality impacts on neighborhoods near restaurants with UFCs can be significant on days when meteorological conditions are stable, when dispersion is limited and emissions are trapped near the surface within the surrounding neighborhoods. This potential for neighborhood-level concentration of emissions during evening or multi-day stagnation events raises environmental concerns.

   In addition, the cooking emissions source category is one of the largest single contributors of directly emitted PM2.5 in the Valley. Photochemical modeling conducted for the 2012 PM2.5 Plan showed that reducing commercial charbroiling emissions is critical to achieving PM2.5 attainment in the Valley.

   The District will amend Rule 4692 (Commercial Charbroiling) in 2016, with a 2017 compliance date, to add emission control requirements for UFCs, as committed to in the District's 2012 PM2.5 Plan. Installing charbroiler emissions control systems during construction of new facilities is likely to result in substantial economic benefit compared to costly retrofitting.

   Therefore, the District strongly recommends that your agency require new restaurants that will operate UFCs to install emission control systems during the construction phase. To ease the financial burden for Valley businesses that wish to install control equipment before it is required, the District will offer incentive funding

during the time leading up to the 2016 amendment. Restaurants with UFCs may be eligible to apply for funding to add emission control systems. Please contact the District at (559) 230-5858 for more information.

6) The gas station will be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and will require District permits. Prior to construction, the project proponent should submit to the District an application for an Authority to Construct (ATC). For further information or assistance, the project proponent may contact the District's Small Business Assistance (SBA) Office at (559) 230-5888**.**

7) The proposed project may be subject to the following District rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

8) The District recommends that a copy of the District's comments be provided to the project proponent.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call Sharla Yang at (559) 230-5934.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Sharla Yang

For Chay Thao
Program Manager

AM: sy

EXHIBIT

DEPARTMENT OF TRANSPORTATION
DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 445-5868
FAX (559) 488-4088
TTY 711
www.dot.ca.gov

Serious drought.
Help save water!

July 1, 2015

06-MAD-99-R01.128
Grewal's Travel Plaza
Project Review Request

Ms. Becky Beavers
Senior Planner
Madera County Planning
200 West 4th Street, 3rd Floor
Madera, CA 93637

Dear Ms. Beavers:

We have completed our review of the Grewal's Travel Plaza Project Review Request. The Project is proposing to construct an approximate 10,000 square-foot travel center with a food court, retail, and a gas station. The project is located at the northwest quadrant of the State Route (SR) 99 and Avenue 7 interchange in the County of Madera. Caltrans has the following comments:

The proposed project may generate a significant amount of A.M. and P.M. peak hour trips. The project-generated trips could have significant impacts to SR 99 at the Avenue 7 interchange. In order to determine the estimated trip generation, the applicant needs to provide a detailed project description. The applicant should provide the square-footage for both the food court and travel center. In addition, the application should also provide the total number of pumps for the gas station.

The lack of trip generation information prevents us from providing a complete and thorough project review. Dependent on the trip generation calculations, the project may need a traffic impact study to determine any potential impacts it may have to the State facility.

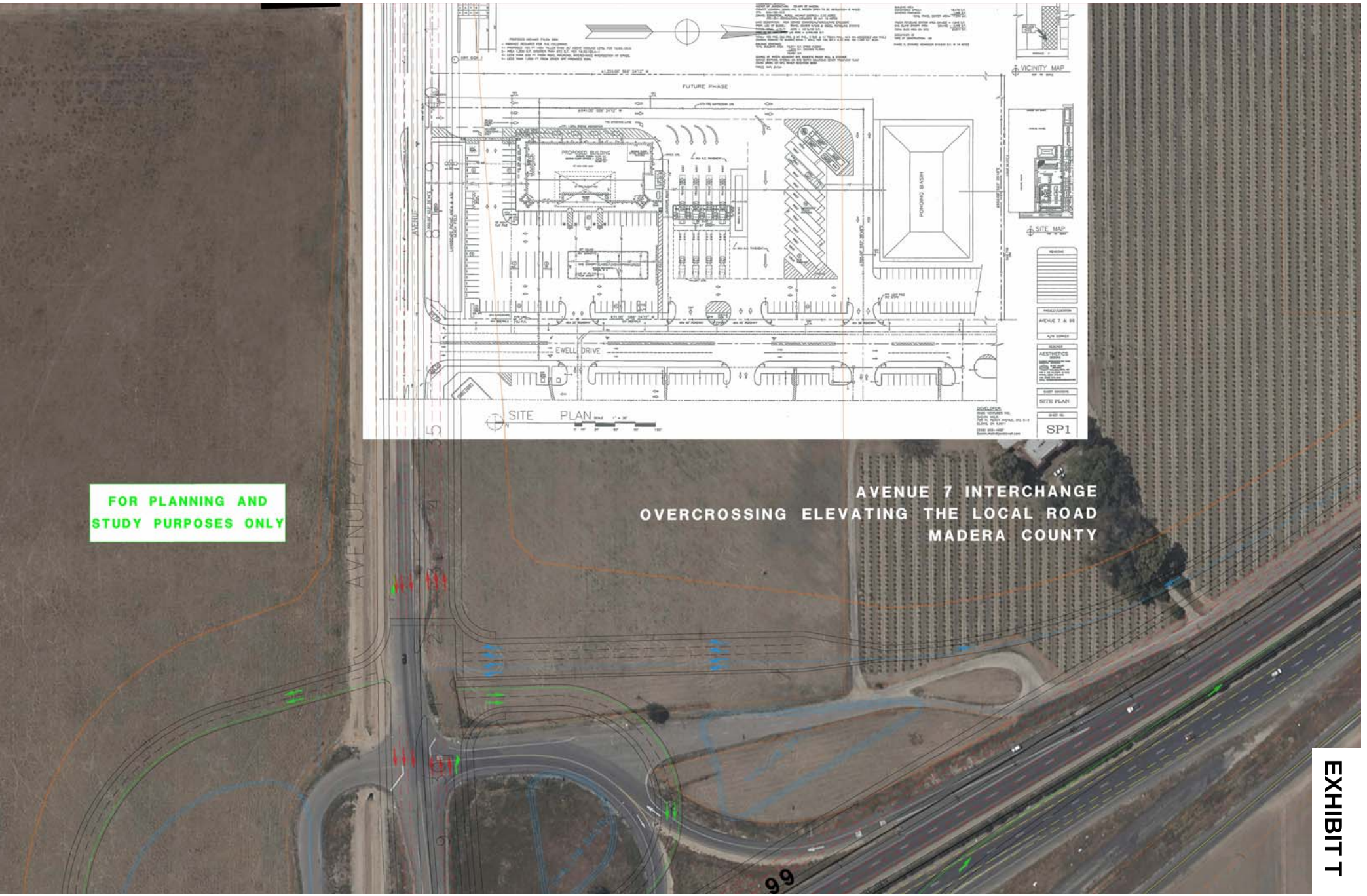
Please resubmit the project description with the details as mentioned.

If you have any further questions, please contact David Padilla, Associate Transportation Planner, at (559) 444-2493.

Sincerely,

Joanne Struthers

MICHAEL NAVARRO
Chief, Transportation Planning
North Branch



FOR PLANNING AND STUDY PURPOSES ONLY

AVENUE 7 INTERCHANGE
OVERCROSSING ELEVATING THE LOCAL ROAD
MADERA COUNTY

EXHIBIT T

EXHIBIT U

DEPARTMENT OF TRANSPORTATION
DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 445-5868
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October 20, 2015

06-MAD-99-R01.128
RNDS (Grewal's) Travel Plaza
PRJ 2015-03

Ms. Becky Beavers
Senior Planner
Madera County Planning
200 West 4th Street, 3rd Floor
Madera, CA 93637

Dear Ms. Beavers:

We have completed our review of the RNDS Travel Center (PRJ 2015-03) previously commented as the "Grewal's Travel Center". The Project is proposing to construct an approximate 22,814 square-foot travel center that includes a food court, retail store, eight vehicle-fueling pumps, and four truck-fueling pumps. The project is located at the northwest quadrant of the State Route (SR) 99 and Avenue 7 interchange in the County of Madera. Caltrans has the following comments:

The project in detail from the revised site plan is as follows:

- 8 vehicle-fueling pumps (16 vehicle fueling positions);
- 4 truck-fueling pumps;
- 4,100 square-foot food store;
- 1,008 square-foot Pizza Hut/KFC;
- 700 square-foot Fatburger;
- 220 square-foot Yogurtland;
- 306 square-foot Coffee Beans & Tea Leaf; and
- 636 square-foot office space.

Based on the operational statement and revised site plan, the proposed project will generate a significant amount of A.M. and P.M. peak hour trips. Using the *Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012*; it is anticipated that the project will generate approximately 183 A.M. peak hour trips and 243 P.M. peak hour trips. The project-generated trips will have a considerable impact to SR 99 at the Avenue 7 interchange.

A Traffic Impact Study (TIS) is needed to assess the project-related impacts to the State Highway system and appropriate mitigation measures. Please have the preparer of the traffic study reference the Caltrans Guide for the Preparation of Traffic Impact Studies, dated December 2002, and send the scope of the TIS to Caltrans before the traffic study is conducted. The Caltrans Guide, while advisory, contains Best Practices and gives insight into Caltrans' expectations when reviewing a traffic study. If the traffic consultant has any issues or concerns regarding the use of the Guide or its interpretation, please contact us so resolution can be reached.

If you have any further questions, please contact David Padilla, Associate Transportation Planner, at (559) 444-2493.

Sincerely,

MICHAEL NAVARRO, Chief
Planning North Branch

Traffic Impact Study

Proposed Travel Center

Northwest of the Avenue 7 / State Route 99 Interchange
Madera County, California

Prepared For:

RNDS Ventures, Inc.
755 North Peach Avenue, Suite E-3
Clovis, California 93611

Date:

January 25, 2016

Job No.:

15-058.01

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Mr. Sachin Malik
RNDS Ventures, Inc.
755 North Peach Avenue, Suite E-3
Clovis, California 93611

January 25, 2016

Subject: Traffic Impact Study
Proposed Travel Center
Northwest of the Avenue 7 / State Route 99 Interchange
Madera County, California

Dear Mr. Malik:

1.0 INTRODUCTION

This report presents the results of a traffic impact study for a proposed travel center in Madera County, California. This analysis focuses primarily on the anticipated effect of vehicle traffic resulting from the Project.

2.0 PROJECT DESCRIPTION

The proposed travel center (hereinafter referred to as "Project") site is located on approximately 3.43 acres northwest of the interchange of Avenue 7 and State Route (SR) 99 in Madera County, California. The project consists of a travel center with a 16,487-square-foot building and a gas station with 16 vehicle fueling positions and four truck fueling positions. Site access will be taken from two driveways connecting to the proposed Ewell Drive and one driveway connecting to Avenue 7. A vicinity map is presented in the attached Figure 1, Site Vicinity Map, following the text of this report. The proposed land use plan is presented in Figure 2, Site Plan.

3.0 STUDY AREA AND TIME PERIOD

This report includes analysis of the following intersections:

1. Ewell Road and Avenue 7;
2. SR 99 Southbound Ramps and Avenue 7; and
3. SR 99 Northbound Ramps and Avenue 7.

The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The peak hours are analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Conditions;
- Cumulative (Year 2036) No-Project Conditions; and
- Cumulative (Year 2036) With-Project Conditions.

4.0 LEVEL OF SERVICE

The Transportation Research Board *Highway Capacity Manual*, 2010 (HCM2010) defines level of service (LOS) as, "A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst." Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 1 and 2.

Table 1
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Reference: *Highway Capacity Manual,* Transportation Research Board, 2010

Table 2
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is low. Progression is exceptionally favorable or the cycle length is very short.	<10
B	Volume-to-capacity ratio is low. Progression is highly favorable or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference: *Highway Capacity Manual,* Transportation Research Board, 2010

5.0 SIGNIFICANCE CRITERIA

5.1 County of Madera Criteria

According to LOS Policy 2.A.8 in the Transportation and Circulation Section of the General Plan Policy Document, the County shall develop and manage its roadway system to maintain a minimum LOS of D on all State and County roadways.

For purposes of this study, a significant traffic impact will be recognized at County locations if:

- the Project will cause the LOS to decrease below D at an intersection or road segment;
- the Project will cause the LOS to drop from E to F at an intersection or road segment; or
- the Project will exacerbate the delay at an intersection already operating below the minimum acceptable LOS by increasing the average delay by 5.0 seconds or more.

5.2 Caltrans Criteria

The Caltrans *Guide for the Preparation of Traffic Impact Studies* dated December 2002 indicates that Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D.

For purposes of this study, a significant traffic impact will be recognized at State locations if:

- the Project will cause the LOS to decrease below C at an intersection or road segment;
- the Project will cause the LOS to drop from D to E, from D to F, or from E to F at an intersection or road segment; or
- the Project will exacerbate the delay at an intersection already operating below the minimum acceptable LOS by increasing the average delay by 5.0 seconds or more.

6.0 LANE CONFIGURATIONS AND INTERSECTION CONTROL

The existing lane configurations and intersection control at the study locations are presented in Figure 3, Existing Lane Configurations and Intersection Control. For purposes of this study it is assumed that these lane configurations will remain through the year 2036.

7.0 EXISTING TRAFFIC VOLUMES

Existing peak-hour traffic volumes at the study intersections were determined by performing manual turning-movement counts between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. on a weekday. The data sheets are attached in Appendix A and indicate the dates the counts were performed. The existing peak-hour turning movement volumes are presented in Figure 4, Existing Peak-Hour Traffic Volumes.

8.0 PROJECT TRIP GENERATION

8.1 Vehicle Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 9th Edition*, are typically used to estimate the number of trips anticipated to be generated by a project.

Data presented in the ITE *Trip Generation Handbook* dated June 2004 (TGH) suggest that captured-trip reductions are applicable to the proposed Project. Captured-trip reductions are applied to account for the interaction between the various individual land uses assumed for the trip generation calculations. A common example of a captured trip occurs in a multi-use development containing both offices and shops. Trips made by office workers to shops within the site are defined as internal to (i.e., "captured within") the multi-use site. A more complete description of captured trips is presented in the TGH. An example of a captured trip for the proposed project is a traveler who stops to buy gasoline and also eats at one of the restaurants.

An internal capture rate of 20 percent was obtained from Tables 7.1 and 7.2 of the TGH and was applied to the combined restaurant trips to account for internal capture between the restaurants and the gas station. Data are not presented in Tables 7.1 and 7.2 of the TGH for the a.m. peak hour; therefore, the p.m. peak hour internal capture percentage was applied to the a.m. peak hour.

Data available on the Caltrans web site (www.traffic-counts.dot.ca.gov/docs/2014_aadt_truck.pdf) indicate that approximately 15 percent of the vehicle trips on State Route 99 at the Madera/Fresno County line are vehicles of three axles or more (a ratio of 3 trucks per 20 total vehicles). The proposed gas station provides a ratio of four truck fueling positions per 20 total fueling positions. Since trucks typically require additional time to fuel, for the purposes of trip generation calculations the four truck fueling positions are assumed to generate the same number of trips as two vehicle fueling positions. Therefore, the trip generation estimates are based on a gas station with 18 fueling positions.

Table 3 presents the trip generation estimates for the Project.

Table 3
Project Trip Generation

Land Use	Units	Weekday		A.M. Peak Hour					P.M. Peak Hour				
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
High-Turnover (Sit-Down) Restaurant (932)	2,714 sq. ft.	127.15	345	10.81	55:45	16	14	30	9.85	60:40	16	11	27
Fast-Food Restaurant without Drive-Through (933)	532 sq. ft.	496.12 *	264	43.87	60:40	14	10	24	26.15	51:49	7	7	14
Gasoline/Service Station With Convenience Market (945)	18 Fuel Pos	162.78	2,930	10.16	50:50	92	91	183	13.51	50:50	122	122	244
Internal Capture **	-	-	-	-	-	-6	-4	-10	-	-	-4	-3	-7
TOTALS:	**-**	**-**	**3,539**	**-**	**-**	**116**	**111**	**227**	**-**	**-**	**141**	**137**	**278**

Reference: *Trip Generation Manual, 9th Edition*, Institute of Transportation Engineers 2012
Rates are reported in trips per unit or per 1,000 square feet, as applicable
In:Out are percentages of the total.

* Daily rate not available for Code 933. Rate obtained from Code 934 (Fast Food With Drive through).

** Internal capture rate of 20% based on information provided in Tables 7.1 and 7.2 of the *Trip Generation Handbook, Second Edition*, Institute of Transportation Engineers, June 2004 applied to the combined restaurant trips.

Since trucks are generally expected to make fewer stops than vehicles and the Project is not proposing specific truck rest stop services such as a Love's travel center, it is assumed that 10 percent of the Project trips will be trucks of three axles or more. This equates to 354 trucks per day (177 entering and 177 exiting).

8.2 Project Vehicle Trip Distribution and Assignment

The Project trips were distributed to the adjacent road network using engineering judgment considering the distribution of existing traffic volumes, the locations and types of streets in the study area, and complementary land uses in the region. The anticipated percentage distribution of Project trips is presented in Figure 5, Project Trip Distribution Percentages.

The peak-hour Project traffic volumes presented in Table 3 were assigned to the adjacent road network in accordance with the trip distribution percentages described above. The peak-hour Project traffic volumes are presented in Figure 6, Peak Hour Project Traffic Volumes.

9.0 EXISTING PLUS PROJECT TRAFFIC VOLUMES

The existing-plus-Project peak-hour turning movement volumes are presented in Figure 7, Existing-Plus-Project Peak-Hour Traffic Volumes.

10.0 CUMULATIVE YEAR 2036 TRAFFIC VOLUMES

Cumulative year 2036 traffic volume forecasts were estimated based on the cumulative 2035 Madera County travel model maintained by the Madera County Transportation Commission (MCTC) using an increment method. The increment method forecasts future traffic volumes by adding the growth projected by the model to the existing traffic volumes. The travel model output is attached in Appendix B. An additional one percent increase was added to the year 2035 volumes to estimate the year 2036 volumes. In addition, traffic estimated to be

generated by land uses allowed on Parcel Map 4154 adjacent to the site were included in the analyses.

Year 2036 turning movement volumes were estimated based on the methods presented in Chapter 8 of the Transportation Research Board National Cooperative Highway Research Program Report 255 entitled "Highway Traffic Data for Urbanized Area Project Planning and Design." Projected year 2036 cumulative no-Project traffic volumes are presented in Figure 8, Year 2036 Cumulative No-Project Peak-Hour Traffic Volumes. Projected year 2036 cumulative-with-Project traffic volumes are presented in Figure 9, Year 2036 Cumulative With-Project Peak-Hour Traffic Volumes.

11.0 IMPACT ANALYSES

The levels of service at the study intersections were determined using the computer program Synchro 8, which is based on the HCM2010 procedures for calculating levels of service. The intersection analysis sheets are included in the attached Appendix C.

Tables 4 through 7 present the results of the intersection analyses. For no-project scenarios, delays and levels of service below the minimum acceptable levels are indicated bold type. For Project scenarios, significant LOS impacts are presented in bold type.

Table 4
Intersection LOS Summary – Existing Conditions

Intersection	Control Type	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Ewell / Ave 7	One-way stop	10.7	B	13.0	B
SR 99 SB ramps / Ave 7	Two-way stop	15.0	C	**26.0**	**D**
SR 99 NB ramps / Ave 7	One-way stop	11.6	B	11.5	B

Table 5
Intersection LOS Summary – Existing-Plus-Project Conditions

Intersection	Control Type	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Ewell / Ave 7	One-way stop	13.5	B	19.1	C
SR 99 SB ramps / Ave 7	Two-way stop	19.7	C	**40.0**	**E**
SR 99 NB ramps / Ave 7	One-way stop	14.6	B	15.1	C

Table 6
Intersection LOS Summary – Cumulative (2036) No-Project Conditions

Intersection	Control Type	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Ewell / Ave 7	One-way stop	**253.8**	**F**	**1,046.5**	**F**
SR 99 SB ramps / Ave 7	Two-way stop	**143.8**	**F**	*	**F**
SR 99 NB ramps / Ave 7	One-way stop	**155.1**	**F**	**491.8**	**F**

Table 7
Intersection LOS Summary – Cumulative (2036) With-Project Conditions

Intersection	Control Type	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Ewell / Ave 7	One-way stop	**466.8**	**F**	**1,702.1**	**F**
SR 99 SB ramps / Ave 7	Two-way stop	**346.1**	**F**	**1,112.7**	**F**
SR 99 NB ramps / Ave 7	One-way stop	**300.6**	**F**	**916.6**	**F**

12.0 DISCUSSION OF IMPACT ANALYSIS

12.1 Existing Conditions

The results of the intersection analyses indicate that the intersection of the SR 99 southbound ramps and Avenue 7 currently operates at LOS D on the northbound and southbound approaches (left-turn and through movements) during the p.m. peak hour. It is noted that the combined left-turn and through movement peak-hour volume on the northbound approach is three vehicles and on the southbound approach is nine vehicles. The other movements at the intersection serve much greater traffic volumes at acceptable levels of service.

The other study intersections are operating at acceptable levels of service.

12.2 Existing-Plus-Project Conditions

The existing-plus-Project conditions analyses represent conditions that would occur after construction of the Project in the absence of other pending projects and regional growth. This scenario isolates the specific impacts of the Project.

The analyses indicate that the Project is expected to cause the LOS on the northbound and southbound approaches at the intersection of SR 99 southbound ramps and Avenue 7 to drop from D to E during the p.m. peak hour. However, the Project is not expected to generate new trips on the movements experiencing the poor levels of service (total of three vehicles on the northbound approach and nine vehicles on the southbound approach. The installation of all-way stop control or traffic signals is not warranted to improve the LOS for only nine vehicles, and would increase delays for all other movements at the intersection. Therefore, no mitigation is recommended to improve the substandard LOS (which also is substandard in the existing condition).

The other study locations are either expected to continue to operate at acceptable levels of service.

12.3 Cumulative (Year 2036) No-Project Conditions

The year 2036 No-Project conditions analyses are based on the assumption that the Project site is undeveloped but other development and growth in the region occurs, resulting in increased traffic volumes at the study locations. This scenario assumes that parcels shown in Parcel Map 4154 have been developed.

The results of the intersection analyses indicate that all three of the study intersections are expected to operate at LOS F by the year 2036.

12.4 Cumulative (Year 2036) Conditions With Project

The year 2036 with-Project conditions analyses are based on the assumption that the Project is in operation and generating the trips discussed above, and that other development and growth in the region occurs, resulting in increased traffic as discussed in preceding sections of this report.

The results of the intersection analyses indicate that the Project will exacerbate delays at all three of the study intersections, which are already expected to operate at LOS F by the year 2036 even without the Project. The intersection improvements expected to be required by the year 2036 are described below.

Intersection of Ewell Road and Avenue 7

Caltrans has indicated that future improvements are expected at the interchange located east of Ewell Road, and that the intersection of Ewell Road and Avenue 7 is too close to the interchange to remain a full-access intersection. Furthermore, there are parcels on the north side of Parcel Map 4154 that do not appear to have access via Ewell Road and would likely require an access road to the west of Ewell Road. Therefore, the ultimate condition should include a full-access intersection west of Ewell Road that would potentially require signalization (to be determined by future traffic studies when Parcel Map 4154 begins to develop).

The ultimate configuration at the intersection of Ewell Road and Avenue 7 should include a median that prevents the southbound-to-eastbound left-turn movement. The ultimate configuration would be as follows:

Eastbound approach: one left-turn lane and two through lanes;

Westbound approach: two through lanes and one right-turn lane;

Southbound approach: right-turn only.

The mitigated intersection analysis sheets are presented in the attached Appendix D.

Intersection of SR 99 Southbound Ramps and Avenue 7

In order to operate at acceptable levels of service based on the projected year 2036 traffic volumes, the intersection of the SR 99 southbound ramps and Avenue 7 would require signalization with protected left-turn phasing and intersection widening to the following minimum configuration:

Eastbound approach: two left-turn lanes and one through lane with a shared right turn;

Westbound approach: one left-turn lane, one through lane, and one right-turn lane;

Northbound approach: one left-turn lane, one through lane, and one right-turn lane;

Southbound approach: one left-turn lane, one through lane, and one right-turn lane.

This configuration assumes that Golden State Boulevard south of Avenue 7 is included in the intersection.

The mitigated intersection analysis sheets are presented in the attached Appendix D.

Intersection of SR 99 Northbound Ramps and Avenue 7

In order to operate at acceptable levels of service based on the projected year 2036 traffic volumes, the intersection of the SR 99 northbound ramps and Avenue 7 would require signalization with protected left-turn phasing and intersection widening to the following minimum configuration:

Eastbound approach: one left-turn lane and one through lane;

Westbound approach: one through lane with a shared right turn;

Northbound approach: one shared left-turn/through lane and one right-turn lane;

Southbound approach: does not exist.

The mitigated intersection analysis sheets are presented in the attached Appendix D.

13.0 EQUITABLE SHARE CALCULATIONS

Where required future mitigations are not included in established development fees and are not the sole responsibility of a particular project, but rather a cumulative result of regional growth, the responsibility for mitigations is determined based on equitable share calculations as presented in the Caltrans *Guide for the Preparation of Traffic Impact Studies*. Caltrans recommends the following equation to determine a project's equitable share of the cost of improvements:

$$P = \frac{T}{T_B - T_E}$$

where:

P = The equitable share of the project's traffic impact;
T = The project trips generated during the peak hour of the adjacent State Highway facility;
T_B = The forecasted (future with project) traffic volume on the impacted State highway facility;
T_E = The existing traffic on the State Highway facility plus approved projects traffic.

Table 8 presents equitable share responsibility calculations.

Table 8
Equitable Share Responsibility Calculations – Weekday P.M. Peak Hour

Location	Recommended Improvement	Project Trips	Existing Traffic	Future Traffic	Equitable Share
Ewell Road / Avenue 7	Widening	278	585	2,343	15.81%
SR 99 SB ramps / Avenue 7	Signals and Widening	223	688	2,174	15.01%
SR 99 NB ramps / Avenue 7	Signals and Widening	122	495	1,485	12.32%

Cost estimates for actual mitigations should be developed in coordination with County of Madera and Caltrans staff based on the actual improvements anticipated to be constructed by 2036. If required, cost estimates and mitigation fees would be presented under separate cover.

14.0 CONCLUSIONS AND RECOMMENDATIONS

Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future.

The traffic impact study found that the Project will contribute to significant impacts that will require mitigation as described in this report. No mitigations are required in the existing-plus-Project scenario. However, the Project will be responsible for its share of the ultimate mitigations for year 2036 cumulative impacts. The ultimate configurations at the study intersections are described in detail in the report and will generally include widening of Avenue 7, construction of a median to prevent turns, and signalization and widening of the intersections within the SR 99 / Avenue 7 interchange.

Thank you for the opportunity to perform this traffic impact study. Please feel free to contact our office if you have any questions.

PETERS ENGINEERING GROUP

John Rowland, PE, TE

Attachments: Figures 1 through 9
Appendix A - Traffic Count Data Sheets
Appendix B - Madera County Travel Model
Appendix C - Intersection Analysis Sheets
Appendix D - Mitigated Intersection Analysis Sheets

FIGURES

Proposed Travel Center
Madera County, California

VICINITY MAP

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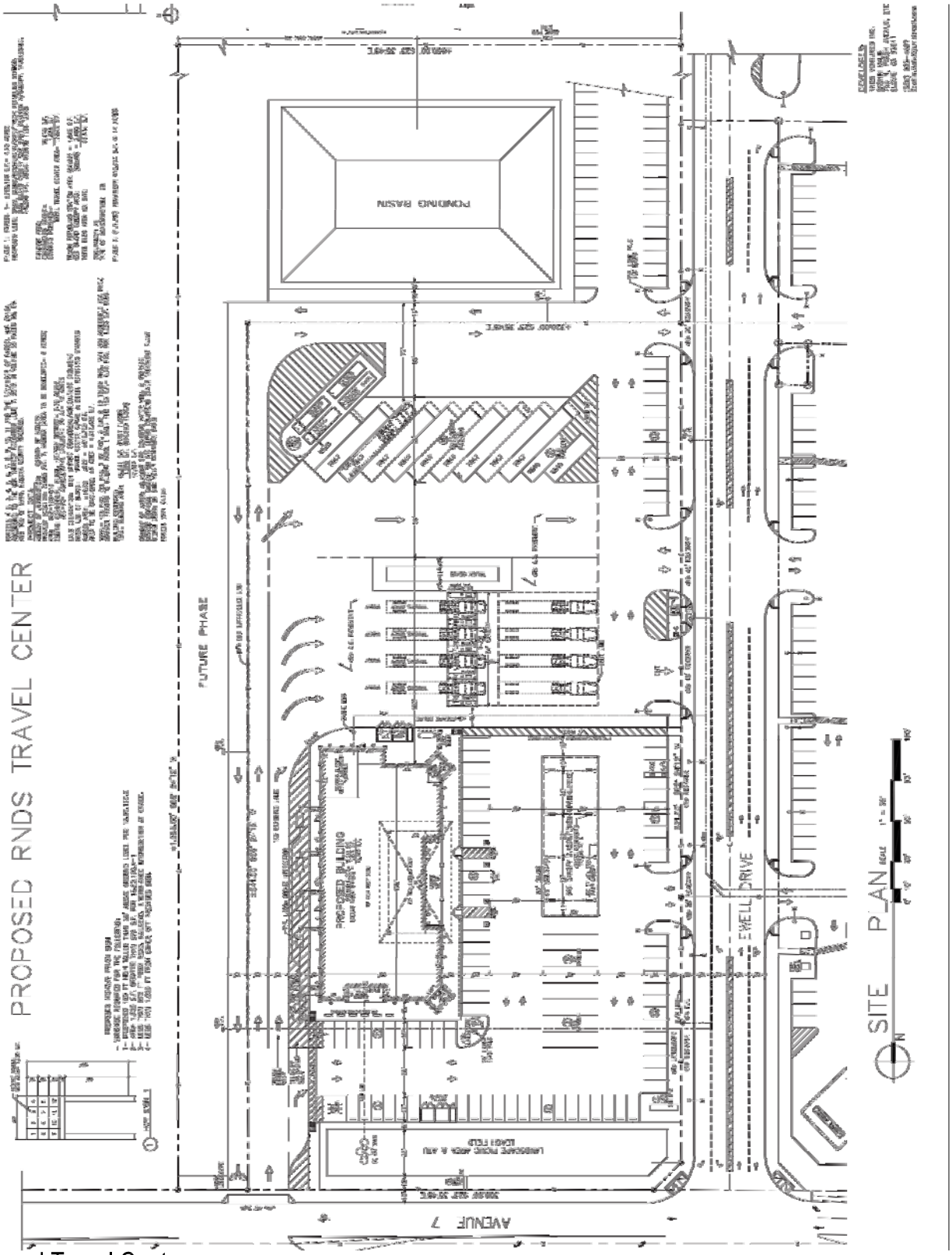

Proposed Travel Center
Madera County, California

SITE PLAN

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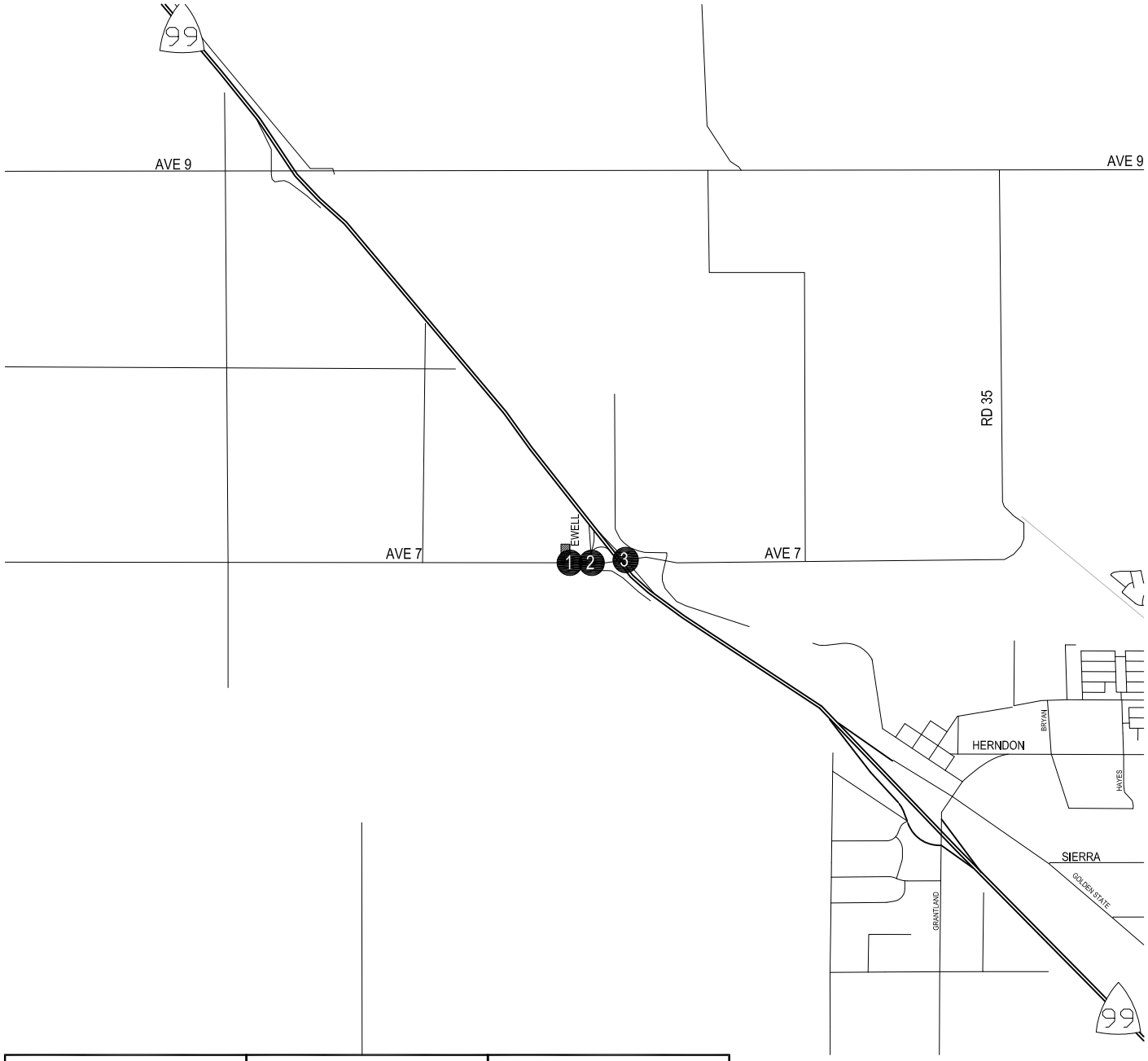

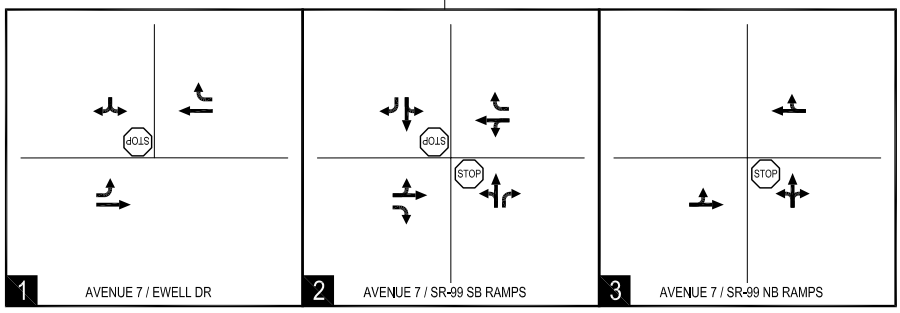

LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- SIGNALIZED INTERSECTION
- STOP STOP SIGN
- DIRECTION OF TRAVEL

Proposed Travel Center
Madera County, California

EXISTING LANE CONFIGURATIONS AND INTERSECTION CONTROL

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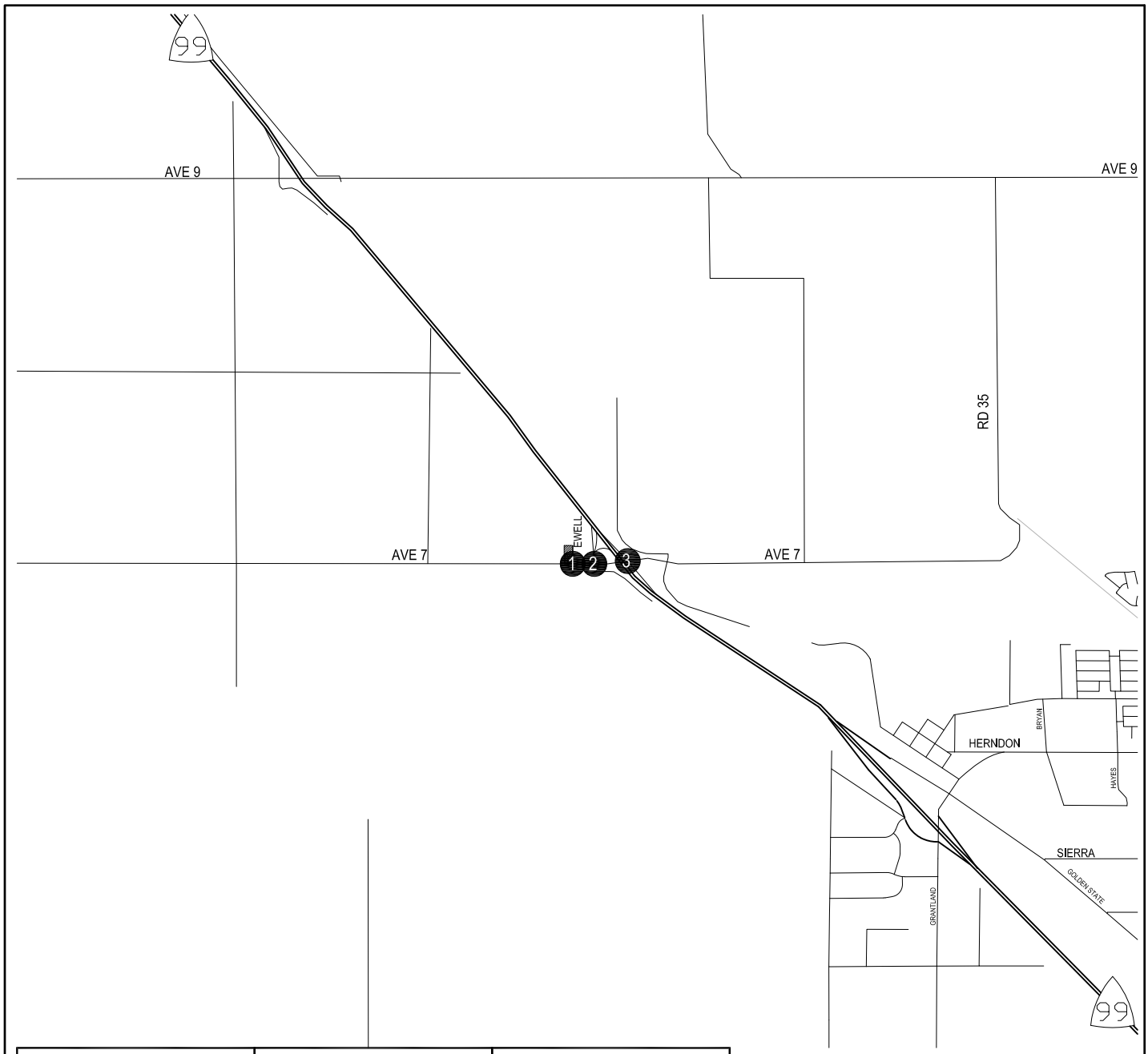
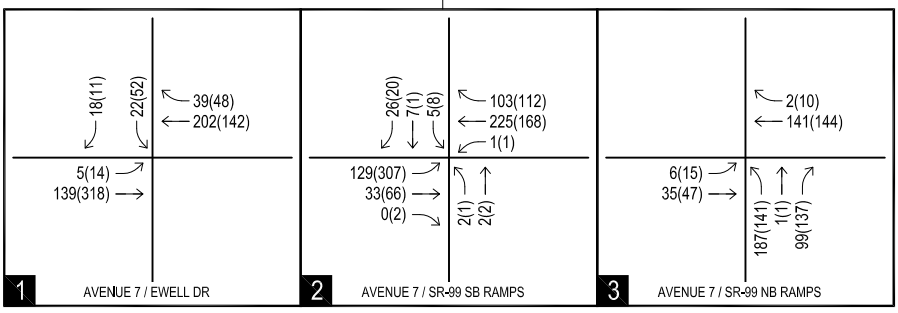




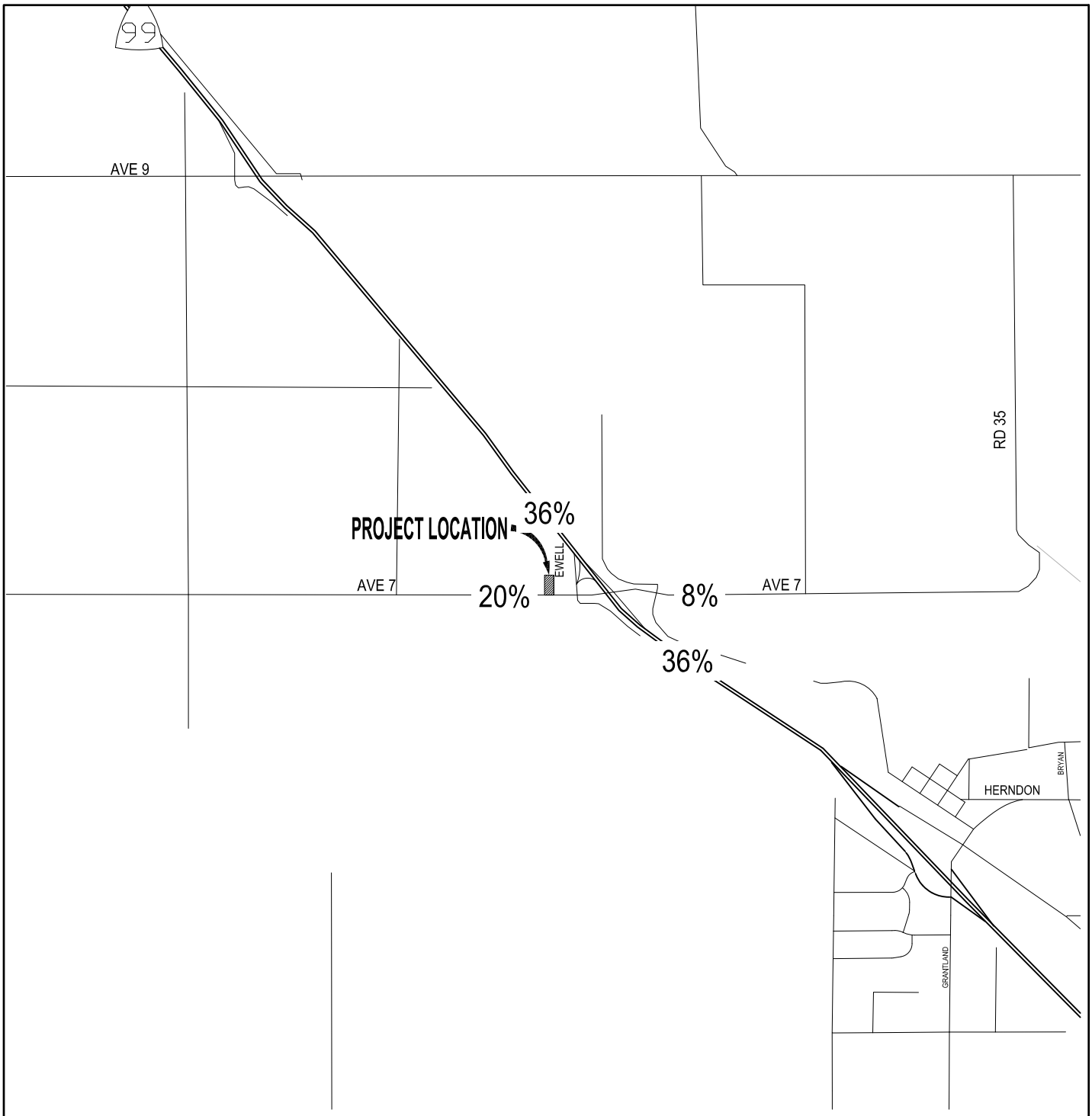
LEGEND

ⓧ	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) VOLUMES
	PROJECT SITE

Proposed Travel Center
Madera County, California

EXISTING PEAK-HOUR TRAFFIC VOLUMES

Not to Scale



Proposed Travel Center
Madera County, California

PROJECT TRIP DISTRIBUTION PERCENTAGE

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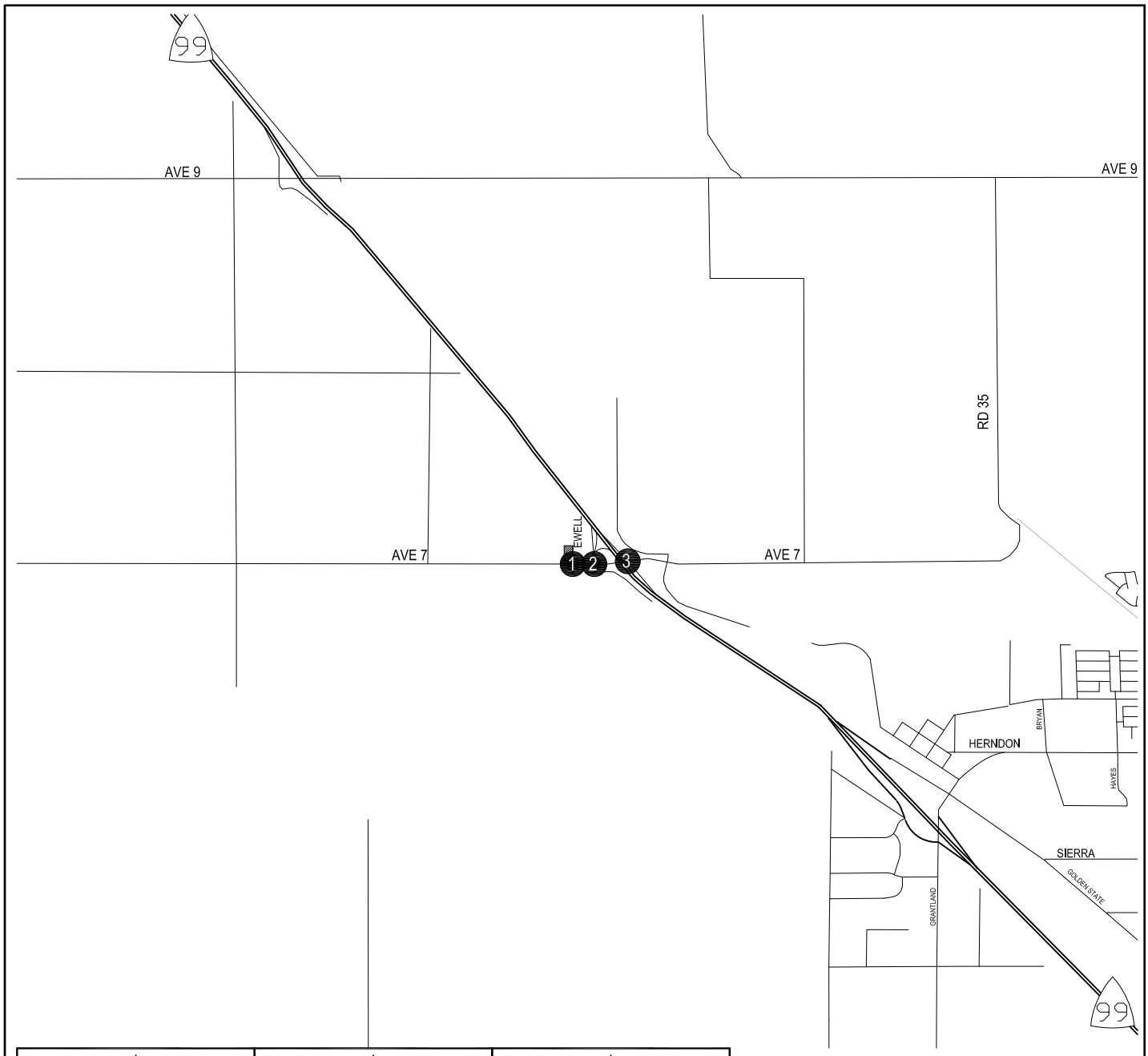
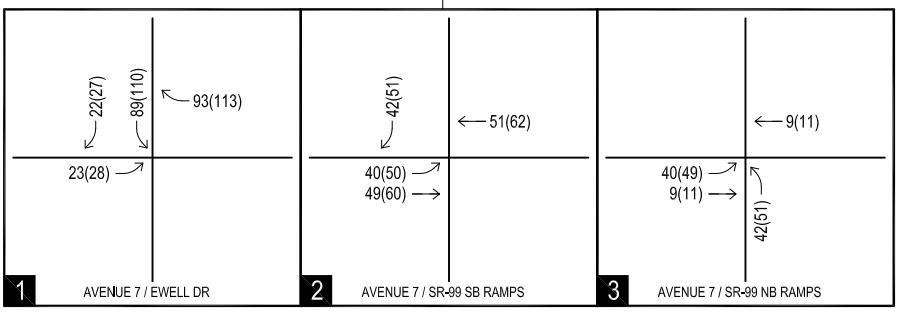




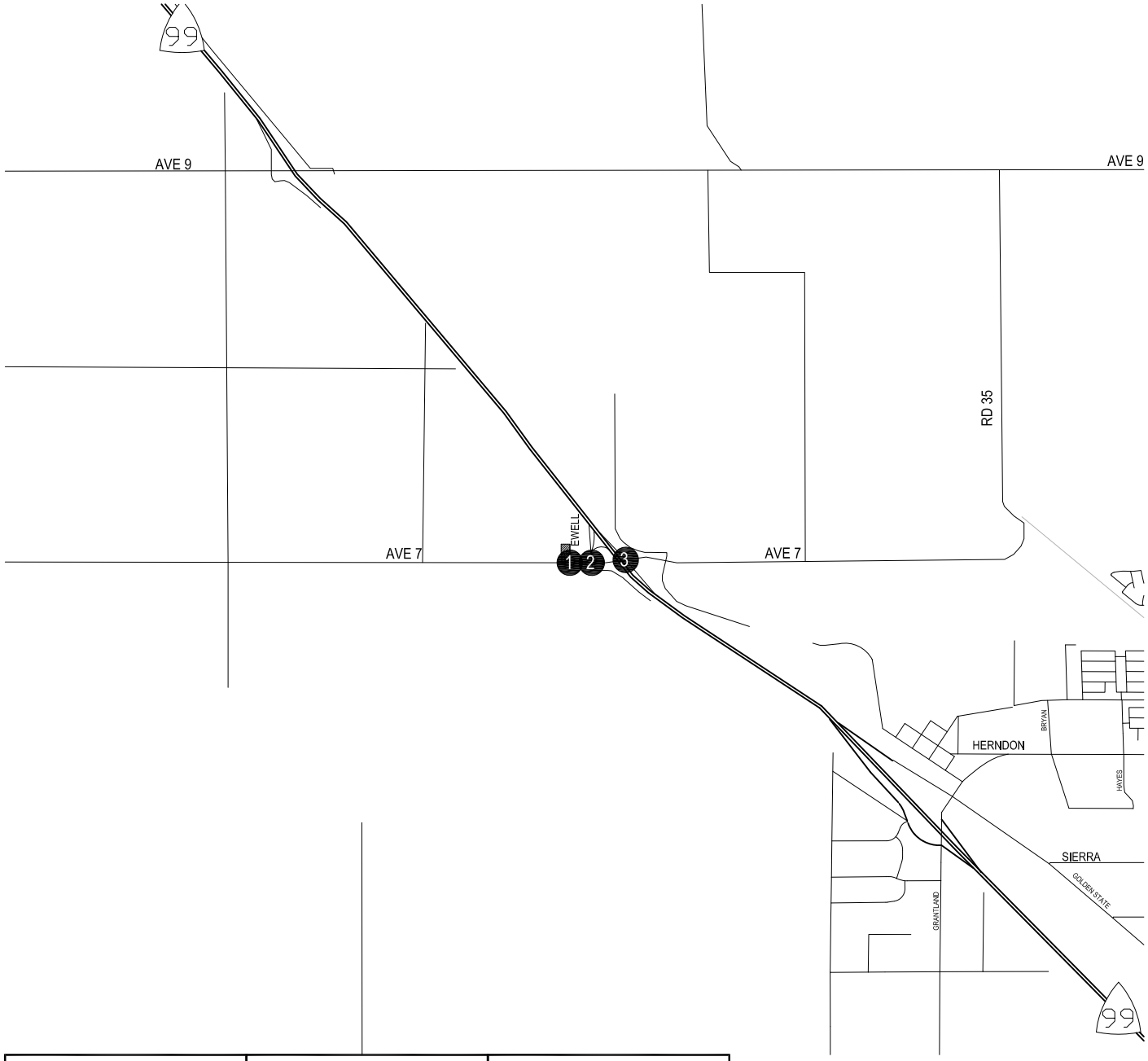
LEGEND

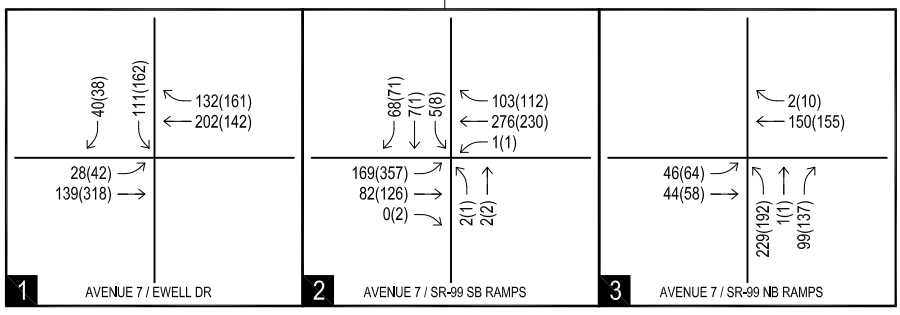
ⓧ	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) VOLUMES
	PROJECT SITE

Proposed Travel Center
Madera County, California

PEAK-HOUR PROJECT TRAFFIC VOLUMES

Not to Scale





LEGEND

ⓧ	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) VOLUMES
	PROJECT SITE

Proposed Travel Center
Madera County, California

EXISTING PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

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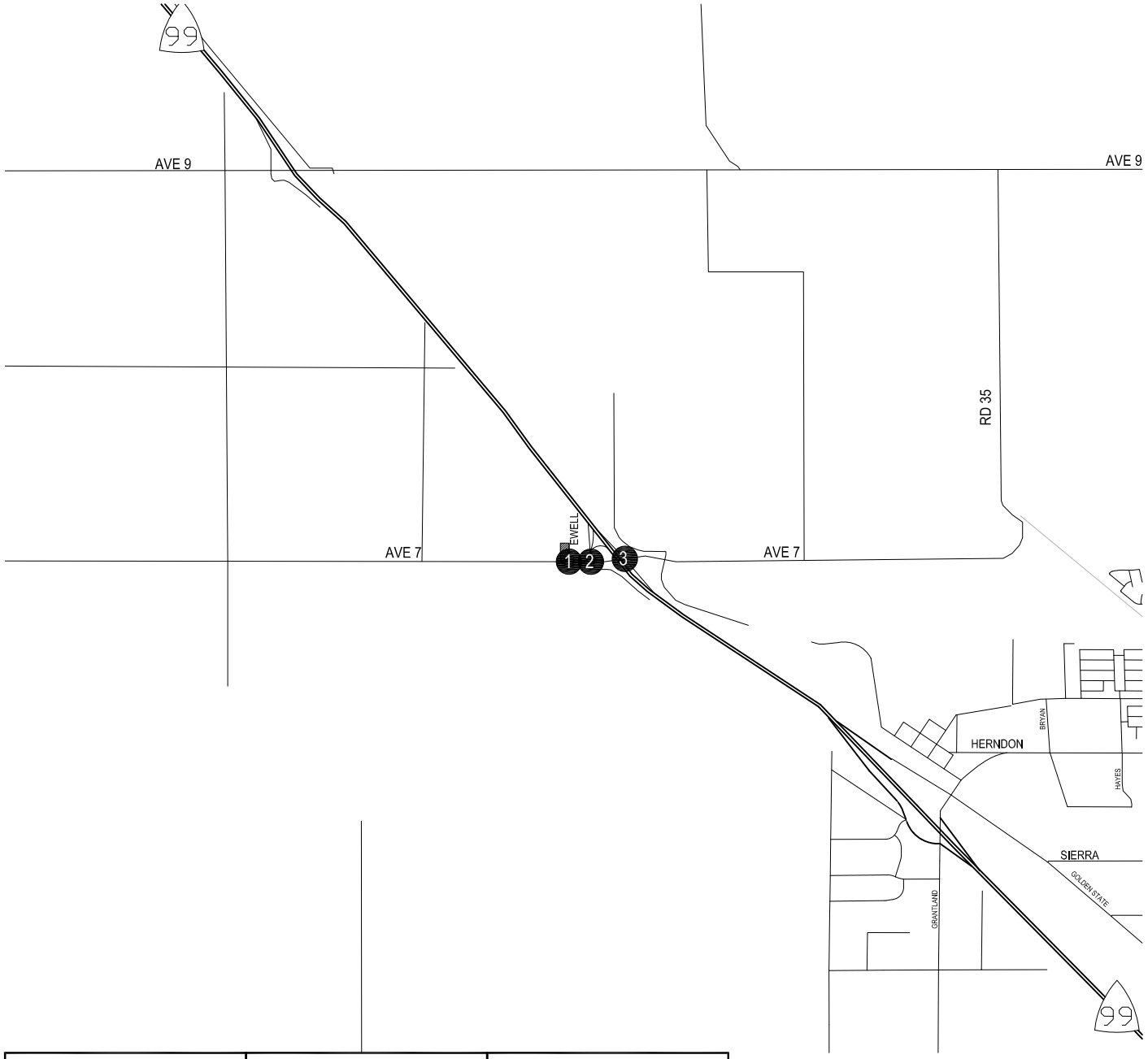
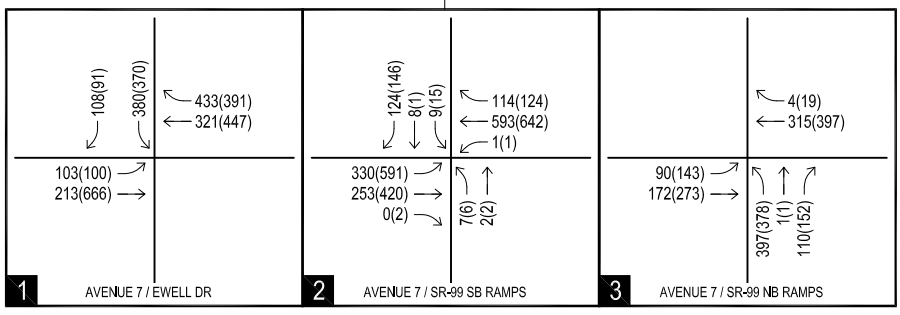




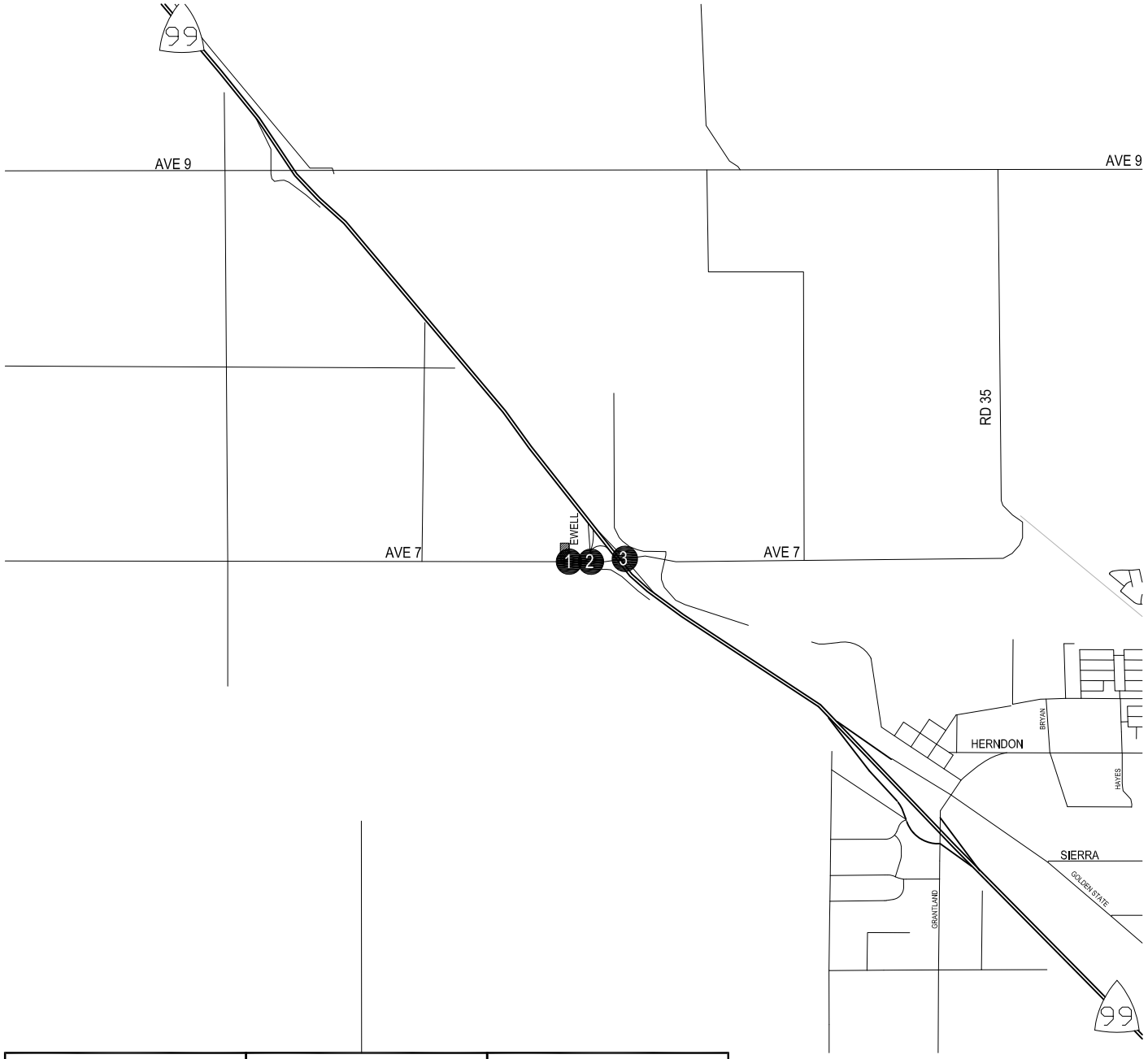
LEGEND

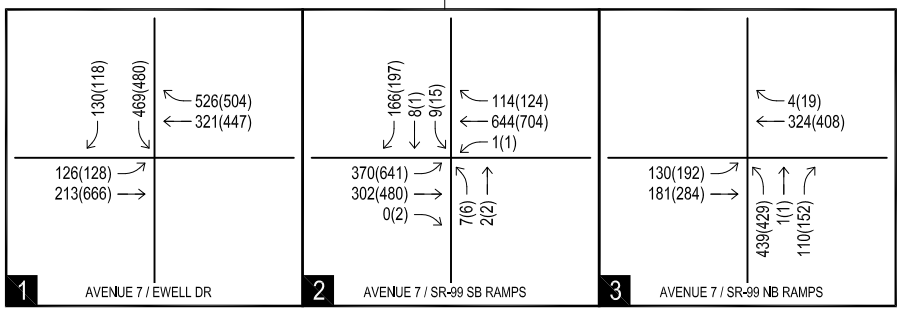
ⓧ	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) VOLUMES
	PROJECT SITE

Proposed Travel Center
Madera County, California

CUMULATIVE 2036 NO PEAK-HOUR TRAFFIC VOLUMES

Not to Scale





LEGEND

ⓧ	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) VOLUMES
	PROJECT SITE

Proposed Travel Center
Madera County, California

CUMULATIVE 2036 WITH PEAK-HOUR TRAFFIC VOLUMES

Not to Scale

APPENDIX A
TRAFFIC COUNT DATA SHEETS

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Peters Engineering Group
952 Pollasky Avenue
Clovis, CA 93612

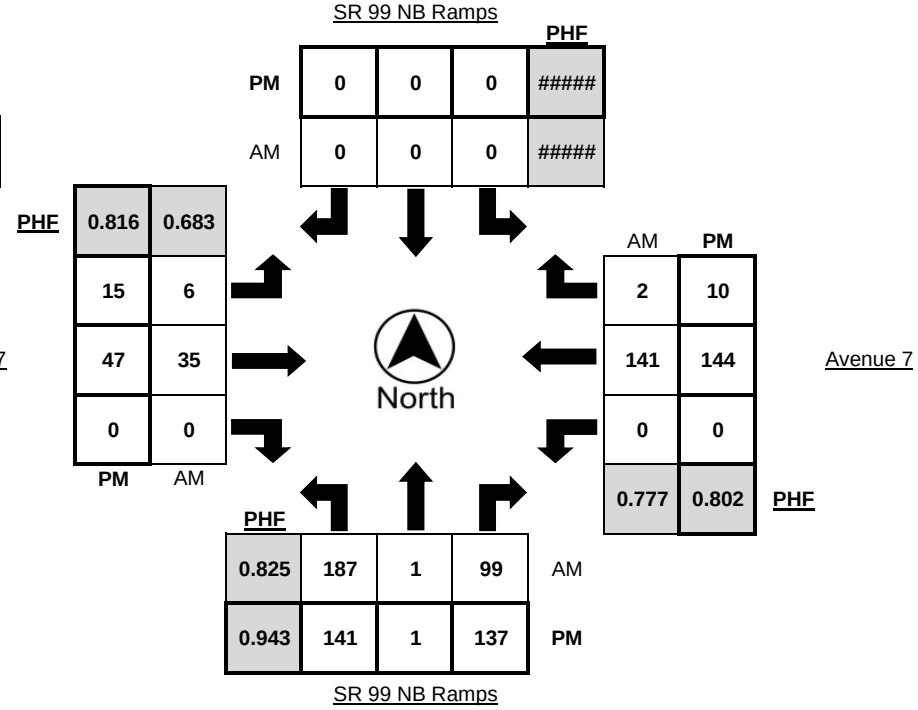
LOCATION Avenue 7 @ SR 99 NB Ramps
LATITUDE 36.851522°
COUNTY Madera
LONGITUDE -119.946319°
COLLECTION DATE Thursday, December 17, 2015
WEATHER Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	49	0	20	2	0	0	0	0	3	3	0	1	0	29	0	2
7:15 AM - 7:30 AM	46	1	31	4	0	0	0	0	3	6	0	1	0	32	1	1
7:30 AM - 7:45 AM	65	0	22	7	0	0	0	0	0	15	0	0	0	37	0	2
7:45 AM - 8:00 AM	42	0	25	5	0	0	0	0	1	6	0	0	0	27	0	0
8:00 AM - 8:15 AM	34	0	21	9	0	0	0	0	2	8	0	1	0	45	1	0
8:15 AM - 8:30 AM	29	1	17	4	0	0	0	0	5	6	0	0	0	34	1	2
8:30 AM - 8:45 AM	28	0	11	7	0	0	0	0	5	10	0	0	0	22	0	2
8:45 AM - 9:00 AM	24	1	5	6	0	0	0	0	2	6	0	1	0	13	1	1
TOTAL	**317**	**3**	**152**	**44**	**0**	**0**	**0**	**0**	**21**	**60**	**0**	**4**	**0**	**239**	**4**	**10**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	25	0	26	4	0	0	0	0	10	18	0	1	0	37	2	0
4:15 PM - 4:30 PM	37	1	30	5	0	0	0	0	3	9	0	0	0	33	2	0
4:30 PM - 4:45 PM	38	0	36	5	0	0	0	0	4	9	0	0	0	45	3	0
4:45 PM - 5:00 PM	31	0	35	4	0	0	0	0	5	14	0	1	0	31	1	2
5:00 PM - 5:15 PM	35	0	36	0	0	0	0	0	3	15	0	0	0	35	4	0
5:15 PM - 5:30 PM	27	0	30	1	0	0	0	0	4	7	0	0	0	25	1	0
5:30 PM - 5:45 PM	36	0	17	2	0	0	0	0	4	17	0	3	0	37	0	2
5:45 PM - 6:00 PM	35	0	21	2	0	0	0	0	2	13	0	3	0	27	0	0
TOTAL	**264**	**1**	**231**	**23**	**0**	**0**	**0**	**0**	**35**	**102**	**0**	**8**	**0**	**270**	**13**	**4**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	187	1	99	25	0	0	0	0	6	35	0	2	0	141	2	3
4:15 PM - 5:15 PM	141	1	137	14	0	0	0	0	15	47	0	1	0	144	10	2

	PHF	Trucks
AM	0.847	6.4%
PM	0.917	3.4%



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Turning Movement Report

Prepared For:

Peters Engineering Group
952 Pollasky Avenue
Clovis, CA 93612

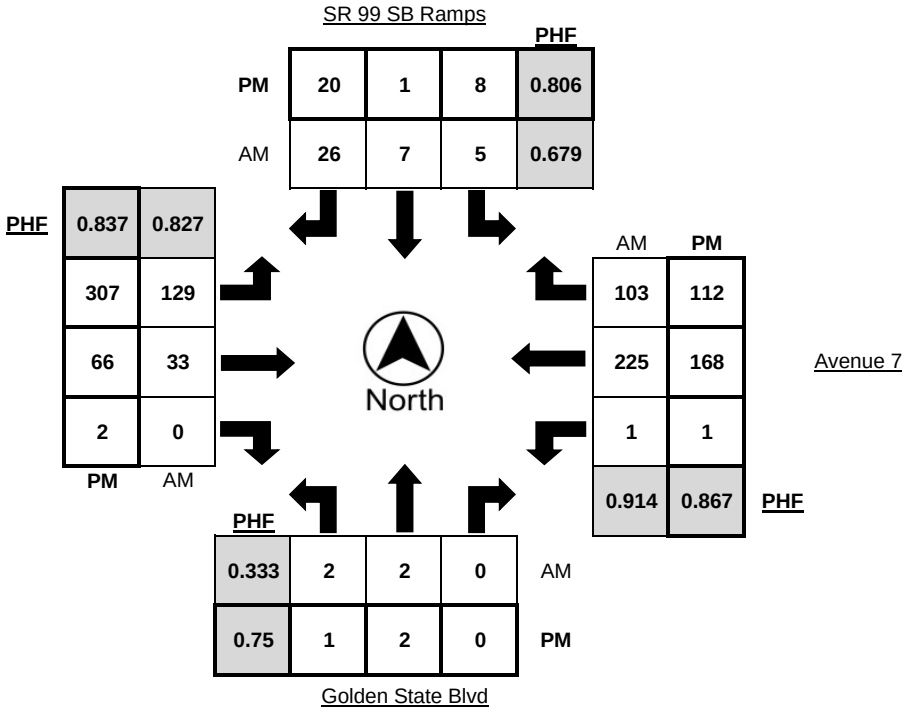
LOCATION Avenue 7 @ SR 99 SB Ramps
LATITUDE 36.851262°
COUNTY Madera
LONGITUDE -119.949043°
COLLECTION DATE Thursday, December 17, 2015
WEATHER Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	1	0	0	0	4	4	4	0	34	5	0	3	0	59	22	4
7:15 AM - 7:30 AM	0	0	0	0	1	2	11	0	28	8	0	1	0	56	27	4
7:30 AM - 7:45 AM	1	2	0	0	0	1	4	0	34	15	0	5	1	68	21	6
7:45 AM - 8:00 AM	0	0	0	0	0	0	7	0	33	5	0	0	0	42	33	5
8:00 AM - 8:15 AM	0	1	1	0	3	0	7	0	29	7	0	3	1	41	34	6
8:15 AM - 8:30 AM	0	0	0	0	1	0	1	0	25	10	0	2	0	37	28	6
8:30 AM - 8:45 AM	0	0	0	0	1	0	9	0	25	12	1	7	2	27	20	7
8:45 AM - 9:00 AM	0	1	0	0	3	0	10	0	31	9	2	2	0	25	13	6
TOTAL	**2**	**4**	**1**	**0**	**13**	**7**	**53**	**0**	**239**	**71**	**3**	**23**	**4**	**355**	**198**	**44**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	1	7	0	2	0	2	0	64	12	0	3	0	30	25	2
4:15 PM - 4:30 PM	1	0	0	1	2	0	2	0	75	18	1	6	0	41	30	4
4:30 PM - 4:45 PM	0	1	0	0	2	1	6	0	65	12	0	3	0	49	32	5
4:45 PM - 5:00 PM	0	1	0	0	2	0	5	0	72	19	1	5	1	37	32	3
5:00 PM - 5:15 PM	0	0	0	0	2	0	7	0	95	17	0	9	0	41	18	1
5:15 PM - 5:30 PM	0	0	0	0	0	0	5	0	66	12	0	2	0	34	31	1
5:30 PM - 5:45 PM	0	3	0	0	1	0	3	0	56	15	1	6	0	57	21	1
5:45 PM - 6:00 PM	0	1	0	0	2	0	2	0	39	17	1	4	0	36	22	0
TOTAL	**1**	**7**	**7**	**1**	**13**	**1**	**32**	**0**	**532**	**122**	**4**	**38**	**1**	**325**	**211**	**17**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 8:00 AM	2	2	0	0	5	7	26	0	129	33	0	9	1	225	103	19
4:15 PM - 5:15 PM	1	2	0	1	8	1	20	0	307	66	2	23	1	168	112	13

	PHF	Trucks
AM	0.906	5.3%
PM	0.956	5.4%



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Turning Movement Report

Prepared For:

Peters Engineering Group
952 Pollasky Avenue
Clovis, CA 93612

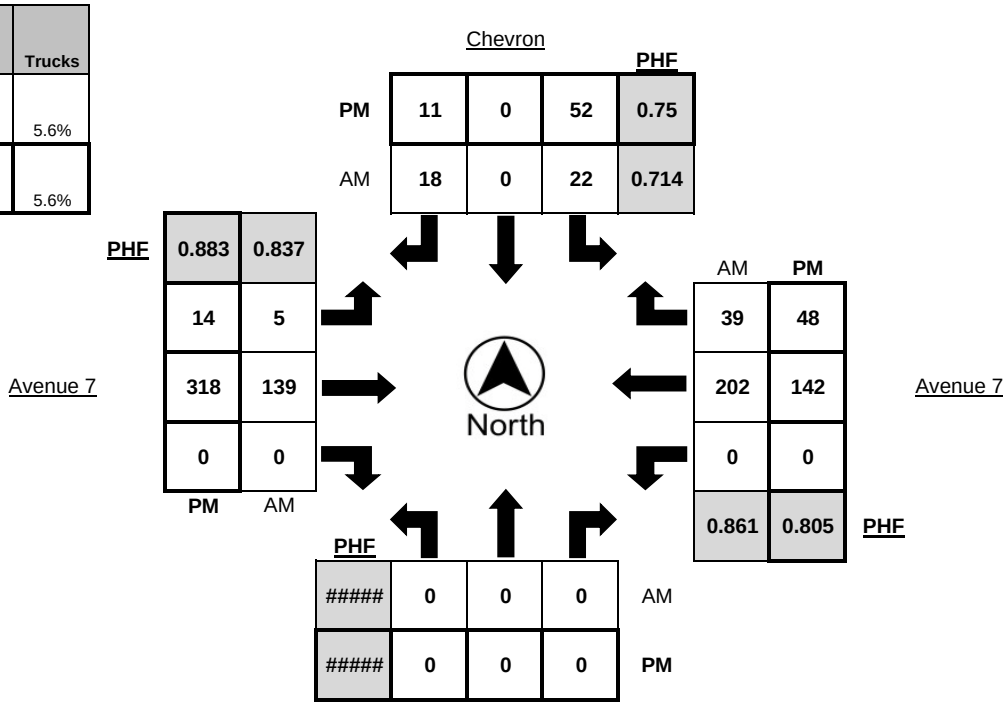
LOCATION Avenue 7 @ Chevron Driveway
LATITUDE 36.851266°
COUNTY Madera
LONGITUDE -119.951189°
COLLECTION DATE Thursday, December 17, 2015
WEATHER Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	0	0	0	4	0	4	2	1	30	0	1	0	60	8	3
7:15 AM - 7:30 AM	0	0	0	0	7	0	7	0	2	35	0	1	0	52	9	3
7:30 AM - 7:45 AM	0	0	0	0	6	0	3	0	2	41	0	4	0	61	9	6
7:45 AM - 8:00 AM	0	0	0	0	5	0	4	0	0	33	0	1	0	29	13	3
8:00 AM - 8:15 AM	0	0	0	0	9	0	5	2	4	26	0	3	0	37	13	5
8:15 AM - 8:30 AM	0	0	0	0	8	0	2	1	2	28	0	1	0	35	7	4
8:30 AM - 8:45 AM	0	0	0	0	10	0	3	1	1	34	0	6	0	27	7	6
8:45 AM - 9:00 AM	0	0	0	0	7	0	0	0	1	33	0	3	0	28	11	5
TOTAL	**0**	**0**	**0**	**0**	**56**	**0**	**28**	**6**	**13**	**260**	**0**	**20**	**0**	**329**	**77**	**35**

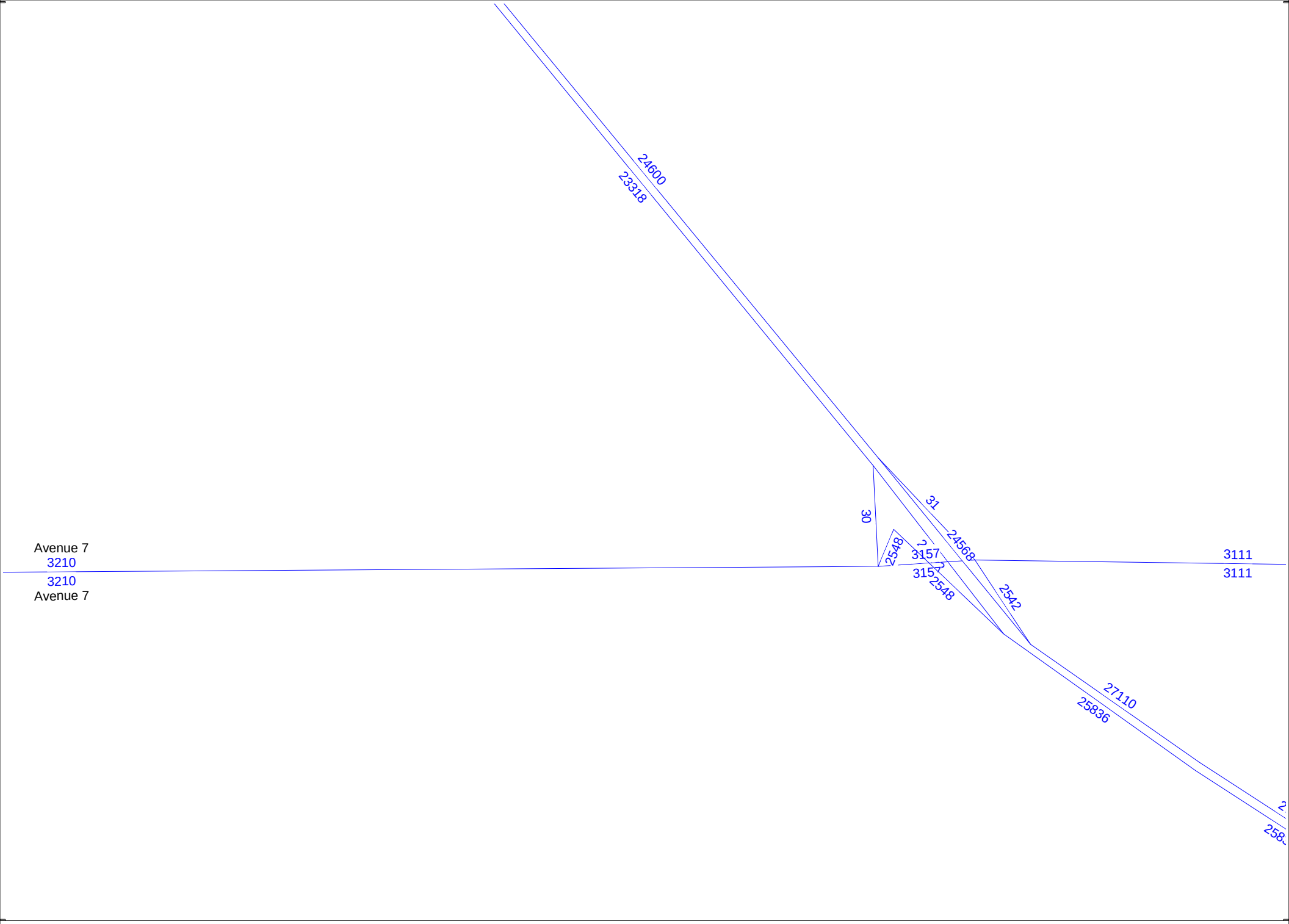
	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	0	0	0	7	0	1	0	0	72	0	3	0	30	4	2
4:15 PM - 4:30 PM	0	0	0	0	4	0	4	0	1	87	0	6	0	35	7	5
4:30 PM - 4:45 PM	0	0	0	0	18	0	3	0	8	65	0	1	0	44	15	4
4:45 PM - 5:00 PM	0	0	0	0	14	0	3	0	3	74	0	6	0	26	10	3
5:00 PM - 5:15 PM	0	0	0	0	16	0	1	0	2	92	0	7	0	37	16	1
5:15 PM - 5:30 PM	0	0	0	0	16	0	2	0	2	58	0	1	0	28	10	1
5:30 PM - 5:45 PM	0	0	0	0	9	0	3	1	2	67	0	4	0	49	8	1
5:45 PM - 6:00 PM	0	0	0	0	8	0	2	0	2	52	0	4	0	33	9	1
TOTAL	**0**	**0**	**0**	**0**	**92**	**0**	**19**	**1**	**20**	**567**	**0**	**32**	**0**	**282**	**79**	**18**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 8:00 AM	0	0	0	0	22	0	18	2	5	139	0	7	0	202	39	15
4:15 PM - 5:15 PM	0	0	0	0	52	0	11	0	14	318	0	20	0	142	48	13

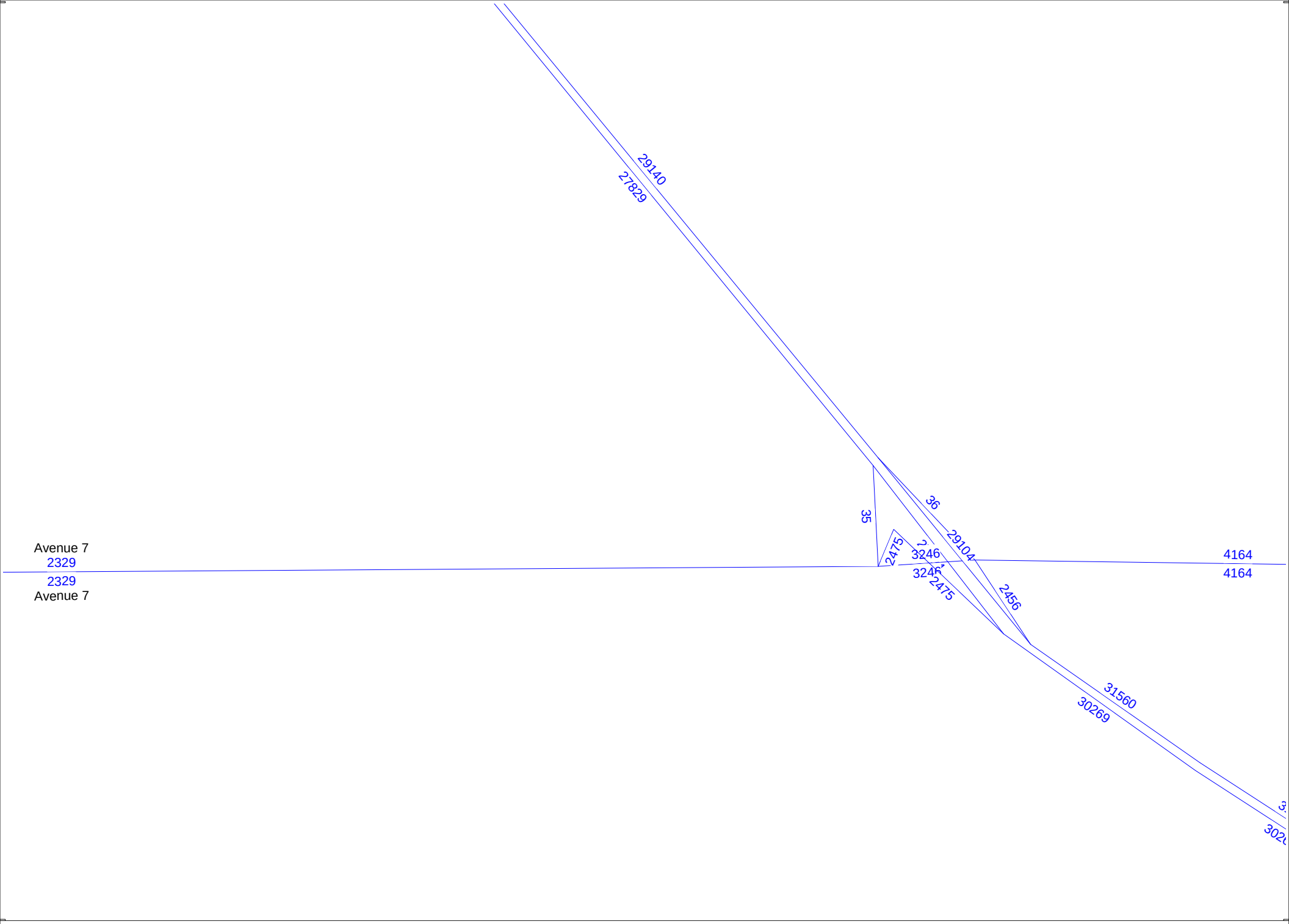
	PHF	Trucks
AM	0.871	5.6%
PM	0.892	5.6%



APPENDIX B
MADERA COUNTY TRAVEL MODEL



2010 Madera County Model
Daily Volumes



2035 Madera County Model
Daily Volumes

APPENDIX C
INTERSECTION ANALYSIS SHEETS

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	139	202	39	22	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	6	158	230	44	25	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	230	0	-	0	399	230
Stage 1	-	-	-	-	230	-
Stage 2	-	-	-	-	169	-
Critical Hdwy	4.16	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.254	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1315	-	-	-	599	799
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	851	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1315	-	-	-	596	799
Mov Cap-2 Maneuver	-	-	-	-	596	-
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	847	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1315	-	-	-	673
HCM Lane V/C Ratio	0.004	-	-	-	0.068
HCM Control Delay (s)	7.8	-	-	-	10.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	129	33	0	1	225	103	2	2	0	5	7	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	65	-	-	100	-	-	50	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	91	91	91	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	147	38	0	1	247	113	2	2	0	6	8	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	247	0	0	38	0	0	584	580	38	581	580	247
Stage 1	-	-	-	-	-	-	331	331	-	249	249	-
Stage 2	-	-	-	-	-	-	253	249	-	332	331	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1296	-	-	1547	-	-	417	420	1023	419	420	782
Stage 1	-	-	-	-	-	-	674	638	-	746	693	-
Stage 2	-	-	-	-	-	-	742	693	-	673	638	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1296	-	-	1547	-	-	359	371	1023	380	371	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	371	-	380	371	-
Stage 1	-	-	-	-	-	-	596	564	-	659	692	-
Stage 2	-	-	-	-	-	-	705	692	-	593	564	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.5	0	15	11.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	365	-	1296	-	-	1547	-	-	375	782
HCM Lane V/C Ratio	0.012	-	0.113	-	-	0.001	-	-	0.036	0.038
HCM Control Delay (s)	15	0	8.1	0	-	7.3	0	-	15	9.8
HCM Lane LOS	C	A	A	A	-	A	A	-	C	A
HCM 95th %tile Q(veh)	0	-	0.4	-	-	0	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	35	0	0	141	2	187	1	99	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	7	40	0	0	160	2	212	1	112	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	163	0	0	40	0	0	214	216	40
Stage 1	-	-	-	-	-	-	53	53	-
Stage 2	-	-	-	-	-	-	161	163	-
Critical Hdwy	4.16	-	-	4.16	-	-	6.46	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	5.46	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.46	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354
Pot Cap-1 Maneuver	1392	-	-	1544	-	-	765	675	1020
Stage 1	-	-	-	-	-	-	959	843	-
Stage 2	-	-	-	-	-	-	858	756	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1392	-	-	1544	-	-	761	0	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	761	0	-
Stage 1	-	-	-	-	-	-	954	0	-
Stage 2	-	-	-	-	-	-	858	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.1	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	761	1020	1392	-	-	1544	-	-
HCM Lane V/C Ratio	0.281	0.11	0.005	-	-	-	-	-
HCM Control Delay (s)	11.6	9	7.6	0	-	0	-	-
HCM Lane LOS	B	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	1.2	0.4	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	14	318	142	48	52	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	16	361	161	55	59	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	161	0	-	0	554	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	393	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1400	-	-	-	488	876
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	676	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1400	-	-	-	482	876
Mov Cap-2 Maneuver	-	-	-	-	482	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	668	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1400	-	-	-	523
HCM Lane V/C Ratio	0.011	-	-	-	0.137
HCM Control Delay (s)	7.6	-	-	-	13
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	307	66	2	1	168	112	1	2	0	8	1	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	65	-	-	100	-	-	50	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	349	75	2	1	191	127	1	2	0	9	1	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	191	0	0	75	0	0	967	966	75	967	966	191
Stage 1	-	-	-	-	-	-	773	773	-	193	193	-
Stage 2	-	-	-	-	-	-	194	193	-	774	773	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1365	-	-	1505	-	-	231	252	978	231	252	843
Stage 1	-	-	-	-	-	-	387	404	-	802	735	-
Stage 2	-	-	-	-	-	-	801	735	-	387	404	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1365	-	-	1505	-	-	177	185	978	182	185	843
Mov Cap-2 Maneuver	-	-	-	-	-	-	177	185	-	182	185	-
Stage 1	-	-	-	-	-	-	284	296	-	588	734	-
Stage 2	-	-	-	-	-	-	777	734	-	281	296	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	7	0	25.2	14.6
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	182	-	1365	-	-	1505	-	-	182	843
HCM Lane V/C Ratio	0.019	-	0.256	-	-	0.001	-	-	0.056	0.027
HCM Control Delay (s)	25.2	0	8.5	0	-	7.4	0	-	26	9.4
HCM Lane LOS	D	A	A	A	-	A	A	-	D	A
HCM 95th %tile Q(veh)	0.1	-	1	-	-	0	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	47	0	0	144	10	141	1	137	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	17	53	0	0	164	11	160	1	156	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	175	0	0	53	0	0	257	263	53
Stage 1	-	-	-	-	-	-	88	88	-
Stage 2	-	-	-	-	-	-	169	175	-
Critical Hdwy	4.15	-	-	4.15	-	-	6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345
Pot Cap-1 Maneuver	1383	-	-	1534	-	-	725	637	1006
Stage 1	-	-	-	-	-	-	928	816	-
Stage 2	-	-	-	-	-	-	854	749	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1383	-	-	1534	-	-	716	0	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	0	-
Stage 1	-	-	-	-	-	-	916	0	-
Stage 2	-	-	-	-	-	-	854	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.8	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	716	1006	1383	-	-	1534	-	-
HCM Lane V/C Ratio	0.225	0.155	0.012	-	-	-	-	-
HCM Control Delay (s)	11.5	9.2	7.6	0	-	0	-	-
HCM Lane LOS	B	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	0.9	0.5	0	-	-	0	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	28	139	202	132	111	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	32	158	230	150	126	45

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	230	0	-	0	452	230
Stage 1	-	-	-	-	230	-
Stage 2	-	-	-	-	222	-
Critical Hdwy	4.16	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.254	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1315	-	-	-	558	799
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	806	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1315	-	-	-	544	799
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	786	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1315	-	-	-	594
HCM Lane V/C Ratio	0.024	-	-	-	0.289
HCM Control Delay (s)	7.8	-	-	-	13.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	169	82	0	1	276	103	2	2	0	5	7	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	65	-	-	100	-	-	50	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	91	91	91	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	192	93	0	1	303	113	2	2	0	6	8	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	303	0	0	93	0	0	786	782	93	783	782	303
Stage 1	-	-	-	-	-	-	477	477	-	305	305	-
Stage 2	-	-	-	-	-	-	309	305	-	478	477	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.16	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.554	4.054	3.354
Pot Cap-1 Maneuver	1235	-	-	1477	-	-	305	321	953	306	321	727
Stage 1	-	-	-	-	-	-	562	549	-	696	655	-
Stage 2	-	-	-	-	-	-	693	655	-	561	549	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1235	-	-	1477	-	-	233	268	953	266	268	727
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	268	-	266	268	-
Stage 1	-	-	-	-	-	-	470	459	-	582	654	-
Stage 2	-	-	-	-	-	-	611	654	-	467	459	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.7	0	19.7	11.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	249	-	1235	-	-	1477	-	-	267	727
HCM Lane V/C Ratio	0.018	-	0.156	-	-	0.001	-	-	0.051	0.106
HCM Control Delay (s)	19.7	0	8.5	0	-	7.4	0	-	19.2	10.5
HCM Lane LOS	C	A	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-	0	-	-	0.2	0.4

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	46	44	0	0	150	2	229	1	99	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	52	50	0	0	170	2	260	1	112	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	173	0	0	50	0	0	327	328	50
Stage 1	-	-	-	-	-	-	155	155	-
Stage 2	-	-	-	-	-	-	172	173	-
Critical Hdwy	4.16	-	-	4.16	-	-	6.46	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	5.46	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.46	5.56	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354
Pot Cap-1 Maneuver	1380	-	-	1531	-	-	659	584	1007
Stage 1	-	-	-	-	-	-	864	762	-
Stage 2	-	-	-	-	-	-	848	748	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1380	-	-	1531	-	-	633	0	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	633	0	-
Stage 1	-	-	-	-	-	-	830	0	-
Stage 2	-	-	-	-	-	-	848	0	-

Approach	EB	WB	NB
HCM Control Delay, s	3.9	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	633	1007	1380	-	-	1531	-	-
HCM Lane V/C Ratio	0.413	0.112	0.038	-	-	-	-	-
HCM Control Delay (s)	14.6	9	7.7	0	-	0	-	-
HCM Lane LOS	B	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	2	0.4	0.1	-	-	0	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	42	318	142	161	162	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	48	361	161	183	184	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	161	0	-	0	618	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1400	-	-	-	448	876
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	631	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1400	-	-	-	433	876
Mov Cap-2 Maneuver	-	-	-	-	433	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	609	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	19.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1400	-	-	-	479
HCM Lane V/C Ratio	0.034	-	-	-	0.474
HCM Control Delay (s)	7.7	-	-	-	19.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.5

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	357	126	2	1	230	112	1	2	0	8	1	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	65	-	-	100	-	-	50	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	406	143	2	1	261	127	1	2	0	9	1	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	261	0	0	143	0	0	1219	1219	143	1220	1219	261
Stage 1	-	-	-	-	-	-	955	955	-	264	264	-
Stage 2	-	-	-	-	-	-	264	264	-	956	955	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1286	-	-	1421	-	-	155	178	897	155	178	770
Stage 1	-	-	-	-	-	-	307	333	-	735	685	-
Stage 2	-	-	-	-	-	-	735	685	-	306	333	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1286	-	-	1421	-	-	101	117	897	112	117	770
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	117	-	112	117	-
Stage 1	-	-	-	-	-	-	201	218	-	482	684	-
Stage 2	-	-	-	-	-	-	656	684	-	199	218	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.7	0	38.5	13.6
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	111	-	1286	-	-	1421	-	-	113	770
HCM Lane V/C Ratio	0.031	-	0.315	-	-	0.001	-	-	0.091	0.105
HCM Control Delay (s)	38.5	0	9.1	0	-	7.5	0	-	40	10.2
HCM Lane LOS	E	A	A	A	-	A	A	-	E	B
HCM 95th %tile Q(veh)	0.1	-	1.4	-	-	0	-	-	0.3	0.4

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	64	58	0	0	155	10	192	1	137	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	73	66	0	0	176	11	218	1	156	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	188	0	0	66	0	0	393	399	66
Stage 1	-	-	-	-	-	-	211	211	-
Stage 2	-	-	-	-	-	-	182	188	-
Critical Hdwy	4.15	-	-	4.15	-	-	6.45	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	5.45	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.45	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345
Pot Cap-1 Maneuver	1368	-	-	1517	-	-	606	534	989
Stage 1	-	-	-	-	-	-	817	722	-
Stage 2	-	-	-	-	-	-	842	739	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1368	-	-	1517	-	-	573	0	989
Mov Cap-2 Maneuver	-	-	-	-	-	-	573	0	-
Stage 1	-	-	-	-	-	-	772	0	-
Stage 2	-	-	-	-	-	-	842	0	-

Approach	EB	WB	NB
HCM Control Delay, s	4.1	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	573	989	1368	-	-	1517	-	-
HCM Lane V/C Ratio	0.383	0.157	0.053	-	-	-	-	-
HCM Control Delay (s)	15.1	9.3	7.8	0	-	0	-	-
HCM Lane LOS	C	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	1.8	0.6	0.2	-	-	0	-	-

Intersection	
Int Delay, s/veh	80

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	103	213	321	433	380	108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	112	232	349	471	413	117

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	349	0	-	0	804	349
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	455	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1204	-	-	-	~ 351	692
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	637	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1204	-	-	-	~ 318	692
Mov Cap-2 Maneuver	-	-	-	-	~ 318	-
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	578	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	253.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1204	-	-	-	361
HCM Lane V/C Ratio	0.093	-	-	-	1.469
HCM Control Delay (s)	8.3	-	-	-	253.8
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	28.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	330	253	0	1	593	114	7	2	0	9	8	124
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	65	-	-	100	-	-	50	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	359	275	0	1	645	124	8	2	0	10	9	135

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	645	0	0	275	0	0	1643	1639	275	1640	1639	645
Stage 1	-	-	-	-	-	-	992	992	-	647	647	-
Stage 2	-	-	-	-	-	-	651	647	-	993	992	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	935	-	-	1282	-	-	79	100	761	80	100	470
Stage 1	-	-	-	-	-	-	295	322	-	458	465	-
Stage 2	-	-	-	-	-	-	456	465	-	294	322	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	935	-	-	1282	-	-	32	55	761	50	55	470
Mov Cap-2 Maneuver	-	-	-	-	-	-	32	55	-	50	55	-
Stage 1	-	-	-	-	-	-	161	176	-	251	465	-
Stage 2	-	-	-	-	-	-	319	465	-	159	176	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.4	0	143.8	26.9
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	35	-	935	-	-	1282	-	-	52	470
HCM Lane V/C Ratio	0.28	-	0.384	-	-	0.001	-	-	0.355	0.287
HCM Control Delay (s)	143.8	0	11.2	0	-	7.8	0	-	108.4	15.7
HCM Lane LOS	F	A	B	A	-	A	A	-	F	C
HCM 95th %tile Q(veh)	0.9	-	1.8	-	-	0	-	-	1.3	1.2

Intersection	
Int Delay, s/veh	58.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	90	172	0	0	315	4	397	1	110	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	98	187	0	0	342	4	432	1	120	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	347	0	0	187	0	0	728	730	187
Stage 1	-	-	-	-	-	-	383	383	-
Stage 2	-	-	-	-	-	-	345	347	-
Critical Hdwy	4.13	-	-	4.13	-	-	6.43	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	5.43	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.43	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327
Pot Cap-1 Maneuver	1206	-	-	1381	-	-	~ 389	348	852
Stage 1	-	-	-	-	-	-	687	610	-
Stage 2	-	-	-	-	-	-	715	633	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1206	-	-	1381	-	-	~ 354	0	852
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 354	0	-
Stage 1	-	-	-	-	-	-	624	0	-
Stage 2	-	-	-	-	-	-	715	0	-

Approach	EB	WB	NB
HCM Control Delay, s	2.8	0	123.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	354	852	1206	-	-	1381	-	-
HCM Lane V/C Ratio	1.222	0.14	0.081	-	-	-	-	-
HCM Control Delay (s)	155.1	9.9	8.2	0	-	0	-	-
HCM Lane LOS	F	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	18.6	0.5	0.3	-	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	234

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	100	666	447	391	370	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	109	724	486	425	402	99

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	486	0	-	0	1427	486
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	941	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1072	-	-	-	~ 148	579
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	~ 378	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1072	-	-	-	~ 133	579
Mov Cap-2 Maneuver	-	-	-	-	~ 133	-
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	~ 340	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	$ 1046.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1072	-	-	-	157
HCM Lane V/C Ratio	0.101	-	-	-	3.192
HCM Control Delay (s)	8.7	-	-		$ 1046.5
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.3	-	-	-	47

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	591	420	2	1	642	124	6	2	0	15	1	146
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	65	-	-	100	-	-	50	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	642	457	2	1	698	135	7	2	0	16	1	159

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	698	0	0	457	0	0	2442	2441	457	2442	2441	698
Stage 1	-	-	-	-	-	-	1741	1741	-	700	700	-
Stage 2	-	-	-	-	-	-	701	700	-	1742	1741	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	894	-	-	1099	-	-	21	31	602	21	31	439
Stage 1	-	-	-	-	-	-	110	140	-	428	440	-
Stage 2	-	-	-	-	-	-	428	440	-	110	140	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	894	-	-	1099	-	-	-	~ 1	602	-	~ 1	439
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 1	-	-	~ 1	-
Stage 1	-	-	-	-	-	-	~ 4	5	-	~ 15	439	-
Stage 2	-	-	-	-	-	-	272	439	-	~ 2	5	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	894	-	-	1099	-	-	-	439
HCM Lane V/C Ratio	-	-	0.719	-	-	0.001	-	-	-	0.361
HCM Control Delay (s)	-	0	18.6	0	-	8.3	0	-	-	17.8
HCM Lane LOS	-	A	C	A	-	A	A	-	-	C
HCM 95th %tile Q(veh)	-	-	6.4	-	-	0	-	-	-	1.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	138.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	143	273	0	0	397	19	378	1	152	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	155	297	0	0	432	21	411	1	165	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	452	0	0	297	0	0	1050	1060	297
Stage 1	-	-	-	-	-	-	608	608	-
Stage 2	-	-	-	-	-	-	442	452	-
Critical Hdwy	4.13	-	-	4.13	-	-	6.43	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	5.43	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.43	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327
Pot Cap-1 Maneuver	1103	-	-	1259	-	-	~ 251	223	740
Stage 1	-	-	-	-	-	-	541	484	-
Stage 2	-	-	-	-	-	-	646	569	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1103	-	-	1259	-	-	~ 209	0	740
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 209	0	-
Stage 1	-	-	-	-	-	-	450	0	-
Stage 2	-	-	-	-	-	-	646	0	-

Approach	EB	WB	NB
HCM Control Delay, s	3	0	$ 354.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	209	740	1103	-	-	1259	-	-
HCM Lane V/C Ratio	1.971	0.223	0.141	-	-	-	-	-
HCM Control Delay (s)	$ 491.8	11.3	8.8	0	-	0	-	-
HCM Lane LOS	F	B	A	A	-	A	-	-
HCM 95th %tile Q(veh)	30.4	0.9	0.5	-	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	157.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	126	213	321	526	469	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	137	232	349	572	510	141

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	349	0	-	0	854	349
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	505	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1204	-	-	-	~ 328	692
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	604	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1204	-	-	-	~ 291	692
Mov Cap-2 Maneuver	-	-	-	-	~ 291	-
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	535	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	$ 466.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1204	-	-	-	333
HCM Lane V/C Ratio	0.114	-	-	-	1.955
HCM Control Delay (s)	8.4	-	-	-	$ 466.8
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	45.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	370	302	0	1	644	114	7	2	0	9	8	166
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	65	-	-	100	-	-	50	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	402	328	0	1	700	124	8	2	0	10	9	180

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	700	0	0	328	0	0	1840	1835	328	1836	1835	700
Stage 1	-	-	-	-	-	-	1133	1133	-	702	702	-
Stage 2	-	-	-	-	-	-	707	702	-	1134	1133	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	892	-	-	1226	-	-	58	75	711	58	75	438
Stage 1	-	-	-	-	-	-	245	277	-	427	439	-
Stage 2	-	-	-	-	-	-	424	439	-	245	277	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	892	-	-	1226	-	-	16	34	711	31	34	438
Mov Cap-2 Maneuver	-	-	-	-	-	-	16	34	-	31	34	-
Stage 1	-	-	-	-	-	-	110	124	-	192	438	-
Stage 2	-	-	-	-	-	-	244	438	-	108	124	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.8	0	$ 346.1	37.4
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	18	-	892	-	-	1226	-	-	32	438
HCM Lane V/C Ratio	0.543	-	0.451	-	-	0.001	-	-	0.577	0.412
HCM Control Delay (s)	$ 346.1	0	12.3	0	-	7.9	0	-	218.1	18.9
HCM Lane LOS	F	A	B	A	-	A	A	-	F	C
HCM 95th %tile Q(veh)	1.5	-	2.4	-	-	0	-	-	1.9	2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	124.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	130	181	0	0	324	4	439	1	110	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	141	197	0	0	352	4	477	1	120	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	357	0	0	197	0	0	833	836	197
Stage 1	-	-	-	-	-	-	479	479	-
Stage 2	-	-	-	-	-	-	354	357	-
Critical Hdwy	4.13	-	-	4.13	-	-	6.43	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	5.43	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.43	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327
Pot Cap-1 Maneuver	1196	-	-	1370	-	-	~ 337	302	842
Stage 1	-	-	-	-	-	-	621	553	-
Stage 2	-	-	-	-	-	-	708	627	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1196	-	-	1370	-	-	~ 293	0	842
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 293	0	-
Stage 1	-	-	-	-	-	-	539	0	-
Stage 2	-	-	-	-	-	-	708	0	-

Approach	EB	WB	NB
HCM Control Delay, s	3.5	0	266.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	293	842	1196	-	-	1370	-	-
HCM Lane V/C Ratio	1.632	0.142	0.118	-	-	-	-	-
HCM Control Delay (s)	$ 330.6	10	8.4	0	-	0	-	-
HCM Lane LOS	F	B	A	A	-	A	-	-
HCM 95th %tile Q(veh)	29.3	0.5	0.4	-	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	434.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	128	666	447	504	480	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	139	724	486	548	522	128

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	486	0	-	0	1488	486
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	1002	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1072	-	-	-	~ 136	579
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	~ 354	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1072	-	-	-	~ 118	579
Mov Cap-2 Maneuver	-	-	-	-	~ 118	-
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	~ 308	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	$ 1702.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1072	-	-	-	140
HCM Lane V/C Ratio	0.13	-	-	-	4.643
HCM Control Delay (s)	8.9	-	-		$ 1702.1
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	67.4

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	19.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	641	480	2	1	704	124	6	2	0	15	1	197
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	65	-	-	100	-	-	50	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	697	522	2	1	765	135	7	2	0	16	1	214

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	522	0	0	2683	2682	522	2683	2682	765
Stage 1	-	-	-	-	-	-	1915	1915	-	767	767	-
Stage 2	-	-	-	-	-	-	768	767	-	1916	1915	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	844	-	-	1039	-	-	14	22	553	~ 14	22	402
Stage 1	-	-	-	-	-	-	87	115	-	393	410	-
Stage 2	-	-	-	-	-	-	393	410	-	87	115	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	844	-	-	1039	-	-	~ 6	22	553	~ 13	22	402
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 6	22	-	~ 13	22	-
Stage 1	-	-	-	-	-	-	87	115	-	393	409	-
Stage 2	-	-	-	-	-	-	183	409	-	85	115	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	0	$ 1112.7	80
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	7	-	844	-	-	1039	-	-	13	402
HCM Lane V/C Ratio	1.242	-	0.826	-	-	0.001	-	-	1.338	0.533
HCM Control Delay (s)	$ 1112.7	0	25.9	0	-	8.5	0	-	$ 773.2	23.7
HCM Lane LOS	F	A	D	A	-	A	A	-	F	C
HCM 95th %tile Q(veh)	1.9	-	9.4	-	-	0	-	-	2.8	3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	267.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	192	284	0	0	408	19	429	1	152	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	209	309	0	0	443	21	466	1	165	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	464	0	0	309	0	0	1180	1190	309
Stage 1	-	-	-	-	-	-	726	726	-
Stage 2	-	-	-	-	-	-	454	464	-
Critical Hdwy	4.13	-	-	4.13	-	-	6.43	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	5.43	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.43	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327
Pot Cap-1 Maneuver	1092	-	-	1246	-	-	~ 209	187	729
Stage 1	-	-	-	-	-	-	477	428	-
Stage 2	-	-	-	-	-	-	638	562	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1092	-	-	1246	-	-	~ 161	0	729
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 161	0	-
Stage 1	-	-	-	-	-	-	~ 367	0	-
Stage 2	-	-	-	-	-	-	638	0	-

Approach	EB	WB	NB
HCM Control Delay, s	3.7	0	$ 680.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	161	729	1092	-	-	1246	-	-
HCM Lane V/C Ratio	2.903	0.227	0.191	-	-	-	-	-
HCM Control Delay (s)	$ 916.6	11.4	9.1	0	-	0	-	-
HCM Lane LOS	F	B	A	A	-	A	-	-
HCM 95th %tile Q(veh)	42.4	0.9	0.7	-	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

APPENDIX D
MITIGATED INTERSECTION ANALYSIS SHEETS

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	126	682	321	526	0	299
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	137	741	349	572	0	325

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	349	0	-	0	994	174
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	645	-
Critical Hdwy	4.16	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	1199	-	-	-	240	836
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	482	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1199	-	-	-	213	836
Mov Cap-2 Maneuver	-	-	-	-	329	-
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	427	-

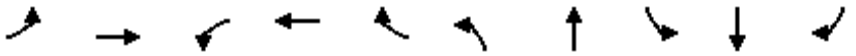
Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1199	-	-	-	836
HCM Lane V/C Ratio	0.114	-	-	-	0.389
HCM Control Delay (s)	8.4	-	-	-	12
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	370	302	0	1	644	114	7	2	0	9	8	166
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	402	328	0	1	700	124	8	2	0	10	9	180
Adj No. of Lanes	2	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	714	1010	0	224	859	730	17	268	228	17	268	228
Arrive On Green	0.21	0.55	0.00	0.26	0.93	0.93	0.01	0.15	0.00	0.01	0.15	0.15
Sat Flow, veh/h	3408	1845	0	1757	1845	1568	1757	1845	1568	1757	1845	1568
Grp Volume(v), veh/h	402	328	0	1	700	124	8	2	0	10	9	180
Grp Sat Flow(s),veh/h/ln	1704	1845	0	1757	1845	1568	1757	1845	1568	1757	1845	1568
Q Serve(g_s), s	11.6	10.8	0.0	0.0	12.0	0.7	0.5	0.1	0.0	0.6	0.5	12.2
Cycle Q Clear(g_c), s	11.6	10.8	0.0	0.0	12.0	0.7	0.5	0.1	0.0	0.6	0.5	12.2
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	714	1010	0	224	859	730	17	268	228	17	268	228
V/C Ratio(X)	0.56	0.32	0.00	0.00	0.82	0.17	0.48	0.01	0.00	0.59	0.03	0.79
Avail Cap(c_a), veh/h	714	1010	0	224	859	730	128	268	228	128	268	228
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.86	0.86	0.86	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	13.7	0.0	35.7	2.4	2.1	54.2	40.2	0.0	54.3	40.4	45.4
Incr Delay (d2), s/veh	1.0	0.9	0.0	0.0	7.3	0.4	19.4	0.1	0.0	29.2	0.2	23.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	5.7	0.0	0.0	6.4	0.4	0.3	0.1	0.0	0.4	0.3	6.8
LnGrp Delay(d),s/veh	40.0	14.6	0.0	35.7	9.8	2.5	73.6	40.3	0.0	83.5	40.6	69.0
LnGrp LOS	D	B		D	A	A	E	D		F	D	E
Approach Vol, veh/h		730			825			10			199	
Approach Delay, s/veh		28.6			8.7			66.9			68.5	
Approach LOS		C			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	20.9	18.9	65.1	5.1	20.9	27.9	56.1
Change Period (Y+Rc), s	4.0	4.9	4.9	4.9	4.0	4.9	4.9	4.9
Max Green Setting (Gmax), s	8.0	16.0	7.1	60.2	8.0	16.0	16.1	51.2
Max Q Clear Time (g_c+I1), s	2.6	2.1	2.0	12.8	2.5	14.2	13.6	14.0
Green Ext Time (p_c), s	0.0	0.0	0.7	1.9	0.0	0.1	0.4	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	24.0
HCM 2010 LOS	C



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	402	328	1	700	124	8	2	10	9	180
v/c Ratio	0.83	0.25	0.01	0.69	0.13	0.08	0.01	0.10	0.03	0.47
Control Delay	61.5	7.3	59.0	12.9	1.2	50.6	40.5	50.9	40.9	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	7.3	59.0	12.9	1.2	50.6	40.5	50.9	40.9	10.5
Queue Length 50th (ft)	143	55	1	306	3	6	1	7	6	0
Queue Length 95th (ft)	#214	178	m1	431	m18	22	9	25	21	62
Internal Link Dist (ft)		540		723			10		220	
Turn Bay Length (ft)	250		100		100					50
Base Capacity (vph)	497	1326	113	1021	937	127	275	127	275	387
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.25	0.01	0.69	0.13	0.06	0.01	0.08	0.03	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	181	0	0	324	4	439	1	110	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1900	1900	1845	1845			
Adj Flow Rate, veh/h	141	197	0	0	352	4	477	1	0			
Adj No. of Lanes	1	1	0	0	1	0	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	434	1122	0	0	576	7	531	1	475			
Arrive On Green	0.49	1.00	0.00	0.00	0.32	0.32	0.30	0.30	0.00			
Sat Flow, veh/h	1757	1845	0	0	1820	21	1753	4	1568			
Grp Volume(v), veh/h	141	197	0	0	0	356	478	0	0			
Grp Sat Flow(s),veh/h/ln	1757	1845	0	0	0	1841	1757	0	1568			
Q Serve(g_s), s	5.3	0.0	0.0	0.0	0.0	18.0	28.7	0.0	0.0			
Cycle Q Clear(g_c), s	5.3	0.0	0.0	0.0	0.0	18.0	28.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.01	1.00		1.00			
Lane Grp Cap(c), veh/h	434	1122	0	0	0	582	532	0	475			
V/C Ratio(X)	0.32	0.18	0.00	0.00	0.00	0.61	0.90	0.00	0.00			
Avail Cap(c_a), veh/h	434	1122	0	0	0	582	709	0	633			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	22.3	0.0	0.0	0.0	0.0	31.9	36.7	0.0	0.0			
Incr Delay (d2), s/veh	0.4	0.3	0.0	0.0	0.0	4.7	11.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.6	0.1	0.0	0.0	0.0	9.9	15.5	0.0	0.0			
LnGrp Delay(d),s/veh	22.7	0.3	0.0	0.0	0.0	36.6	48.4	0.0	0.0			
LnGrp LOS	C	A				D	D					
Approach Vol, veh/h		338			356			478				
Approach Delay, s/veh		9.7			36.6			48.4				
Approach LOS		A			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		38.2		71.8			32.1	39.7
Change Period (Y+Rc), s		4.9		4.9			4.9	4.9
Max Green Setting (Gmax), s		44.4		55.8			16.1	34.8
Max Q Clear Time (g_c+I1), s		30.7		2.0			7.3	20.0
Green Ext Time (p_c), s		2.6		1.4			0.9	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	33.6
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	141	197	356	478	120
v/c Ratio	0.55	0.18	0.49	0.83	0.21
Control Delay	45.9	6.0	29.8	46.6	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	6.0	29.8	46.6	12.1
Queue Length 50th (ft)	95	65	188	308	26
Queue Length 95th (ft)	161	9	312	393	61
Internal Link Dist (ft)		723	620	665	
Turn Bay Length (ft)	200				50
Base Capacity (vph)	256	1075	722	708	672
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.18	0.49	0.68	0.18

Intersection Summary

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	128	1146	447	504	0	315
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	160	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	139	1246	486	548	0	342

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	486	0	-	0	1387	243
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	901	-
Critical Hdwy	4.16	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	1066	-	-	-	133	755
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	354	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1066	-	-	-	116	755
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	308	-

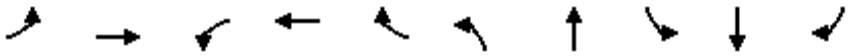
Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1066	-	-	-	755
HCM Lane V/C Ratio	0.131	-	-	-	0.453
HCM Control Delay (s)	8.9	-	-	-	13.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	641	480	2	1	704	124	6	2	0	15	1	197
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	697	522	2	1	765	135	7	2	0	16	1	214
Adj No. of Lanes	2	1	0	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	809	1205	5	113	892	758	232	268	228	267	268	228
Arrive On Green	0.24	0.66	0.66	0.13	0.97	0.97	0.15	0.15	0.00	0.15	0.15	0.15
Sat Flow, veh/h	3408	1836	7	1757	1845	1568	1150	1845	1568	1396	1845	1568
Grp Volume(v), veh/h	697	0	524	1	765	135	7	2	0	16	1	214
Grp Sat Flow(s),veh/h/ln	1704	0	1843	1757	1845	1568	1150	1845	1568	1396	1845	1568
Q Serve(g_s), s	21.6	0.0	15.0	0.1	8.8	0.4	0.6	0.1	0.0	1.1	0.1	14.9
Cycle Q Clear(g_c), s	21.6	0.0	15.0	0.1	8.8	0.4	0.6	0.1	0.0	1.2	0.1	14.9
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	809	0	1210	113	892	758	232	268	228	267	268	228
V/C Ratio(X)	0.86	0.00	0.43	0.01	0.86	0.18	0.03	0.01	0.00	0.06	0.00	0.94
Avail Cap(c_a), veh/h	809	0	1210	113	892	758	232	268	228	267	268	228
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.71	0.71	0.71	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	0.0	9.1	44.8	1.1	0.9	40.5	40.2	0.0	40.7	40.2	46.5
Incr Delay (d2), s/veh	9.4	0.0	1.1	0.0	7.7	0.4	0.2	0.1	0.0	0.4	0.0	45.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	0.0	7.9	0.0	4.0	0.2	0.2	0.1	0.0	0.5	0.0	9.3
LnGrp Delay(d),s/veh	49.7	0.0	10.2	44.9	8.8	1.3	40.7	40.3	0.0	41.1	40.2	92.0
LnGrp LOS	D		B	D	A	A	D	D		D	D	F
Approach Vol, veh/h		1221			901			9			231	
Approach Delay, s/veh		32.7			7.7			40.6			88.3	
Approach LOS		C			A			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.9	12.0	77.1		20.9	31.0	58.1
Change Period (Y+Rc), s		4.9	4.9	4.9		4.9	4.9	4.9
Max Green Setting (Gmax), s		16.0	7.1	72.2		16.0	26.1	53.2
Max Q Clear Time (g_c+I1), s		2.6	2.1	17.0		16.9	23.6	10.8
Green Ext Time (p_c), s		0.6	1.3	3.4		0.0	0.8	6.3

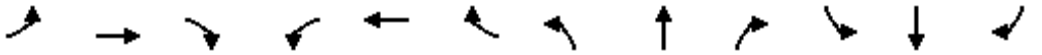
Intersection Summary	
HCM 2010 Ctrl Delay	28.6
HCM 2010 LOS	C



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	697	524	1	765	135	7	2	16	1	214
v/c Ratio	0.90	0.39	0.01	0.86	0.17	0.03	0.01	0.07	0.00	0.51
Control Delay	56.4	6.8	59.0	22.1	2.0	41.0	40.5	41.8	40.0	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	6.8	59.0	22.1	2.0	41.0	40.5	41.8	40.0	10.4
Queue Length 50th (ft)	244	101	1	333	10	4	1	10	1	0
Queue Length 95th (ft)	#339	230	m2	#692	m11	18	9	31	6	68
Internal Link Dist (ft)		540		723			10		220	
Turn Bay Length (ft)	250		100		100					50
Base Capacity (vph)	806	1355	113	892	818	214	283	214	283	421
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.39	0.01	0.86	0.17	0.03	0.01	0.07	0.00	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	192	284	0	0	408	19	429	1	152	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1900	1900	1845	1845			
Adj Flow Rate, veh/h	209	309	0	0	443	21	466	1	0			
Adj No. of Lanes	1	1	0	0	1	0	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	401	1143	0	0	605	29	511	1	457			
Arrive On Green	0.46	1.00	0.00	0.00	0.35	0.35	0.29	0.29	0.00			
Sat Flow, veh/h	1757	1845	0	0	1747	83	1753	4	1568			
Grp Volume(v), veh/h	209	309	0	0	0	464	467	0	0			
Grp Sat Flow(s),veh/h/ln	1757	1845	0	0	0	1830	1757	0	1568			
Q Serve(g_s), s	9.3	0.0	0.0	0.0	0.0	24.4	28.2	0.0	0.0			
Cycle Q Clear(g_c), s	9.3	0.0	0.0	0.0	0.0	24.4	28.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.05	1.00		1.00			
Lane Grp Cap(c), veh/h	401	1143	0	0	0	634	512	0	457			
V/C Ratio(X)	0.52	0.27	0.00	0.00	0.00	0.73	0.91	0.00	0.00			
Avail Cap(c_a), veh/h	401	1143	0	0	0	634	609	0	543			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.93	0.93	0.00	0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	25.6	0.0	0.0	0.0	0.0	31.5	37.6	0.0	0.0			
Incr Delay (d2), s/veh	1.1	0.5	0.0	0.0	0.0	7.3	16.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.5	0.2	0.0	0.0	0.0	13.5	15.9	0.0	0.0			
LnGrp Delay(d),s/veh	26.7	0.5	0.0	0.0	0.0	38.8	53.9	0.0	0.0			
LnGrp LOS	C	A				D	D					
Approach Vol, veh/h		518			464			467				
Approach Delay, s/veh		11.1			38.8			53.9				
Approach LOS		B			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		37.0		73.0			30.0	43.0
Change Period (Y+Rc), s		4.9		4.9			4.9	4.9
Max Green Setting (Gmax), s		38.1		62.1			19.1	38.1
Max Q Clear Time (g_c+I1), s		30.2		2.0			11.3	26.4
Green Ext Time (p_c), s		1.9		2.3			1.4	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Group Flow (vph)	209	309	464	467	165
v/c Ratio	0.69	0.28	0.65	0.87	0.31
Control Delay	49.8	6.9	34.1	53.1	17.6
Queue Delay	0.0	0.0	0.3	0.0	0.0
Total Delay	49.8	6.9	34.4	53.1	17.6
Queue Length 50th (ft)	141	45	271	303	50
Queue Length 95th (ft)	#235	30	407	421	101
Internal Link Dist (ft)		723	620	665	
Turn Bay Length (ft)	200				50
Base Capacity (vph)	304	1115	710	608	586
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	33	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.28	0.69	0.77	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

DEPARTMENT OF TRANSPORTATION
DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 445-5868
FAX (559) 488-4088
TTY 711
www.dot.ca.gov

Serious drought.
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March 3, 2016

06-MAD-99-R01.128
RNDS (Grewal's) Travel Plaza
Traffic Impact Study

Ms. Becky Beavers
Senior Planner
Madera County Planning
200 West 4th Street, 3rd Floor
Madera, CA 93637

Dear Ms. Beavers:

We have completed our review of the RNDS Travel Center traffic impact study dated January 25, 2016 prepared by Peters Engineering Group. The Project is proposing to construct an approximate 22,814 square-foot travel center that includes a food court, retail store, eight vehicle-fueling pumps, and four truck-fueling pumps. The project is located in the northwest quadrant of the State Route (SR) 99 and Avenue 7 interchange in the County of Madera. Caltrans has the following comments:

1. The Synchro analysis showed queuing on the westbound through approach on Avenue 7 at the southbound ramps at 692 feet, and the eastbound left-turn on Avenue 7 to southbound on-ramp at 339 feet for the Cumulative 2036 Project-Mitigated traffic condition. Therefore, two through lanes on Avenue 7 in both directions would be needed to mitigate the queuing. **A cost estimate and fair share calculation will be needed for this interim improvement.**
2. Dual left-turn lanes from the northbound off-ramp to Avenue 7 would be needed for the Cumulative 2036 Project traffic condition since the v/c ratio is 0.91. **A cost estimate and fair share calculation will be needed for this interim improvement.**
3. Caltrans has established a conceptual plan for the future interchange at SR 99 and Avenue 7. The plan would construct a new 6-lane bridge on Avenue 7 including dual left-turn lanes on Avenue 7, a raised median, ramp widening, a southbound slip on-ramp, southbound ramp intersection realignment, and Golden State Blvd realignment. See attached conceptual plan for the future interchange. The timing of the interchange improvement depends on the future proposed development along Avenue 7 near the interchange. An interim improvement such as signals at the ramp intersections and left-turn channelization with a raised median may be constructed prior to the major reconstruction of the interchange and as stated previously, a cost estimate and fair share calculation should be provided.

4. Based on the future conceptual interchange plan, the proposed access at Ewell Drive would be impacted:
    a. In the future, the access at Ewell Drive would be closed due to the elevation difference on Avenue 7. The circulation within the Project site should be re-evaluated.
    b. The access west of Ewell Drive should be located at a minimum of 1,000 feet from the SR 99 southbound on/off ramp.
    c. The south side of the parking lot within the Project site plan would be impacted by the future embankment for the future Avenue 7 widening. The proposed building may be too close to the future right-of- way plans. It is suggested that the site plan be modified to minimize future impacts.
    d. It is recommended that the Project proponent provide an irrevocable offer of dedication along the Project frontage for the future Avenue 7 widening in order to preserve the future interchange footprint.

The conceptual interchange plan is not intended to represent a project or be equivalent to the detailed studies associated with a Project Initiation Document (PID). The design is a planning level effort that should be used for in planning of the future transportation network and for the preservation of right of way.

If you have any further questions, please contact David Padilla, Associate Transportation Planner, at (559) 444-2493.

Sincerely,

MICHAEL NAVARRO, Chief
Planning North Branch

Enclosure

EXHIBIT X

From: Padilla, Dave@DOT
To: Becky Beavers
Subject: PRJ # 2015-003
Date: Thursday, August 25, 2016 3:18:43 PM
Attachments: RNDS Travel Center TIS Comments.pdf

Hello Becky,

After reviewing the project site plan and description. It appears no changes have been made other than site orientation. Our previous comments dated March 3, 2016 still apply. Our previous comment letter is attached for your convenience.

Sincerely,

David Padilla
Associate Transportation Planner
Office of Planning & Local Assistance
1352 W. Olive Avenue
Fresno, CA 93778-2616
Office: (559) 444-2493, Fax: (559) 445-5875
District 6

INITIAL STUDY

Title of Proposal: Grewal, Ravinder S - Project - BdS - Madera (048-191-013-000)

Date Checklist Submitted: 5/22/2015

Agency Requiring Checklist: Madera County Planning Department

Agency Contact*:* Becky Beavers ***Phone:*** (559) 675-7821

Description of Initial Study/Requirement

The Initial Study is a public document used by the decision-making lead agency to determine whether a project may have significant effects on the environment. In the case of the proposed project, the Madera County Planning Department, acting as lead agency, will use the initial study to determine whether the project has a significant effect on the environment. In accordance with CEQA, Guidelines (Section 15063[a]), an environmental impact report (EIR) must be prepared if there is substantial evidence (such as results of the Initial Study) that a project may have significant effect on the environment. This is true regardless of whether the overall effect of the project would be adverse or beneficial. A negative declaration (ND) or mitigated negative declaration (MND) may be prepared if the lead agency determines that the project would have no potentially significant impacts or that revisions to the project, or measures agreed to by the applicant, mitigate the potentially significant impacts to a less-than-significant level.

The initial study considers and evaluates all aspects of the project which are necessary to support the proposal. The complete project description includes the site plan, operational statement, and other supporting materials which are available in the project file at the office of the Madera County Planning Department.

Description of Project:
The request is for a General Plan Amendment from HSC (Highway Service Commercial) and AE (Agricultural Exclusive) to HSC (Highway Service Commercial) and a Rezone from ARE-20 (Agricultural Rural Exclusive-20 Acre) to PDD (Planning Development District) to allow a travel plaza with food court and gas station and a Variance to allow a 100'-0'' high sign where 35’ is allowed by ordinance and for two additional 45’-0” high signs where 35’ is allowed by ordinance.

Project Location*:*
The project is located on the north side of Avenue 7, approximately 750 feet west of its intersection with SR 99 (no situs), Madera

Applicant Name and Address*:*
Grewal, Ravinder S
11806 Peak Road
Chatsworth , CA 91311

General Plan Designation*:*
HSC (Highway Service Commercial) and AE (Agricultural Exclusive) to HSC (Highway Service Commercial)

Zoning Districts*:*
ARE-20 (Agricultural, Rural, Exclusive, Twenty Acre) to PDD (Planned Development District)

Surrounding Land Uses and Setting*:*
The subject property is located in a predominately agricultural area with rural estate residential, commercial and vineyards. The parcel is flat with an elevation of approximate 260 feet.

Other Public Agencies whose approval is required*:* None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology /Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance

DETERMINATION:

Completed by the Lead Agency: Madera County Planning Department

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIV DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

CATEGORY	**ANALYSIS SUMMARY** (See individual pages for details) *Potentially Significant Impact* *Less than Significant Impact with Project Mitigation* *Less than Significant Impact* *No Impact*				*Comments*
1. AESTHETICS	☐	☒	☐	☐	*Lighting and Glare*
2. AGRICULTURE/FORESTRY RESOURCES	☐	☐	☐	☒	
3. AIR QUALITY	☐	☒	☐	☐	*Must contact SJVAPCD for Permits.*
4. BIOLOGICAL RESOURCES	☐	☐	☒	☐	
5. CULTURAL RESOURCES	☐	☐	☒	☐	
6. GEOLOGY/SOILS/SEISMICITY	☐	☐	☒	☐	
7. GREENHOUSE GAS EMISSIONS	☐	☐	☐	☒	
8. HAZARDS/HAZARDOUS MATERIALS	☐	☒	☐	☐	*The facility will be regulated under the hazardous Material Business Plan (Article I, Chapter 6.95, of the California Health & Safety Code).*
9. HYDROLOGY/WATER QUALITY	☐	☐	☒	☐	
10. LAND USE/LAND USE PLANNING	☐	☐	☐	☒	
11. MINERAL RESOURCES	☐	☐	☐	☒	
12. NOISE	☐	☐	☒	☐	
13. POPULATION/HOUSING	☐	☐	☐	☒	
14. PUBLIC SERVICES	☐	☐	☒	☐	
15. RECREATION	☐	☐	☐	☒	
16. TRANSPORTATION/TRAFFIC	☐	☒	☐	☐	*Comply with CalTrans' conditions.*
17. UTILITIES/SERVICE SYSTEMS	☐	☐	☒	☐	
18. MANDATORY FINDINGS OF SIGNIFICANCE	☐	☒	☐	☐	*All Above.*

1. Aesthetics

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Discussion:

(a) Less than Significant Impact

The proposed project is consistent with the General Plan of the area and would be an extension of the commercial development to the east of the parcel. Landscaping will be included in development of the property by the applicant in order to lessen aesthetic impacts to surrounding properties.

(b) No Impact

There is not a designated scenic highway within the immediate vicinity of the project.

(c-d) Less than Significant Impact with Mitigation Incorporated

The area already allows commercial development on the parcels to the east of the proposed project site. The general plan amendment and rezoning would be expanding this area. The development is subject to specific mitigation measures on a project by project basis. Any lighting for the projects will be directed away from adjacent properties as to not create any sort of impact.

General Information:

A nighttime sky in which stars are readily visible is often considered a valuable scenic/visual resource. In urban areas, views of the nighttime sky are being diminished by "light pollution." Light pollution, as defined by the International Dark-Sky Association, is any adverse effect of artificial light, including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste. Two elements of light pollution may affect city residents: sky glow and light trespass. Sky glow is a result of light fixtures that emit a portion of their light directly upward into the sky where light scatters, creating an orange-yellow glow above a city or town. This light can interfere with views of the nighttime sky and can diminish the number of stars that are visible. Light trespass occurs when poorly shielded or poorly aimed fixtures cast light into unwanted areas, such as neighboring property and homes.

Light pollution is a problem most typically associated with urban areas. Lighting is necessary for nighttime viewing and for security purposes. However, excessive lighting or inappropriately designed lighting fixtures can disturb nearby sensitive land uses through indirect illumination. Land uses which are considered "sensitive" to this unwanted light include residences, hospitals, and care homes.

Daytime sources of glare include reflections off of light-colored surfaces, windows, and metal details on cars traveling on nearby roadways. The amount of glare depends on the intensity and direction of sunlight, which is more acute at sunrise and subset because the angle of the sun is lower during these times.

2. Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526) or timberland zoned Timberland Protection (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest land?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact

The project will convert Farmland of Statewide Importance to non-agricultural use. Project site soils are designated "Prime and Unique Farmland" on the 2012 Madera County Important Farm Land Map prepared by the California Department of Conservation. The Soil Survey of Madera County prepared by the Soil Conservation Service indicates soils are classified as Hanford (Ripperdan) fine sandy loam. The Hanford soil which comprises the majority of the property is considered a prime soil when irrigated; however, the Hanford soil is only considered a Class III soil. The project proposes to convert the site from agricultural use to permanent gas station and food court which is a permitted use in the proposed Highway Service Commercial and Planned Development Districts. The parcel is 19.37 acres in size. The loss of agricultural land due to the proposed project represents approximately 0.00235 percent of the total of 823,384 acres agriculturally zoned in Madera County. This amount of loss would constitute a very small portion of the agricultural land in the county and a less-than significant impact will result.

(b) No Impact

The project will convert land currently being farmed with grape vines to a service station and food court. The lands surrounding the site are either farmed or have been approved for commercial use. Nothing about the conversion to commercial use will affect the ability to farm surrounding farmland or result in the conversion of additional farmland. The commercial use of the site will not interfere with agricultural uses on surrounding lands so it is anticipated the project will have a less-than significant impact.

(c-e) No Impact
The project is not subject to the Williamson Act. The proposed project is not significantly displacing the existing agricultural operation or within any Timberland Protection zone.

General Information:

The California Land Conservation Act of 1965--commonly referred to as the Williamson Act--enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

The Department of Conservation oversee the Farmland Mapping and Monitoring Program. The Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. The program's definition of land is below:

PRIME FARMLAND (P): Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

FARMLAND OF STATEWIDE IMPORTANCE (S): Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

UNIQUE FARMLAND (U): Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

FARMLAND OF LOCAL IMPORTANCE (L): Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

GRAZING LAND (G): Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

URBAN AND BUILT-UP LAND (D): Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

OTHER LAND (X): Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☒	☐	☐

Environmental Setting

The project area is primarily a semi-rural area dominated by agricultural lands to the south and the west and rural residential to the north and east. It's situated on the floor of the San Joaquin Valley on Avenue 7 just west of State Route 99 at an elevation ranging from 295-325 ft. above sea level. The Site is located within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD).

The SJVAPCD is responsible for enforcing, within its jurisdiction, air quality standards established by the California Air Resources Board (CARB) and the federal Environmental Protection Agency (EPA). The SJVAPCD is federally designated as in Extreme Nonattainment for the 1-hour ozone standard, and Nonattainment for the 8-hour ozone, PM 10, and PM 2.5 standards. As specified in the California Clean Air Act of 1988 (CCAA), Chapters 1568-1588, it is the responsibility of SJVAPCD to attain and maintain California's Ambient Air Quality Standards (CCAA).

The CCAA requires that an Attainment Plan be developed by all non-attainment air districts for ozone (O_3), carbon monoxide (CO), sulfur oxides (SO_x), lead, sulfates, hydrogen sulfide, vinyl and nitrogen oxides (NO_x) that are either receptors or contributors of transported air pollutants. The purpose of the Attainment Plan is to comply with the requirements of the CCAA as implemented through the California Health and Safety Code (H&S Code). SJVAPCD monitors air quality and has adopted an Air Quality Management Plan (AQMP) to reduce air pollution to healthful levels. Ozone violations are caused in part by combustion sources and are occasionally influenced by smoke impacts from wildfires. The primary emission source is the internal combustion engine.

Particulate matter is a mixture of solid particles and liquid droplets found in the air. Particulate matter may be produced by natural causes (e.g., pollen, ocean salt spray, and soil erosion) and by human activity (e.g., road dust, agricultural operations, fuel combustion products, wood burning, rock crushing, cement production, and motor vehicles). The California Environmental Protection Agency (Cal-EPA) and the federal EPA regulate "respirable" particles at the 10-micron level (PM_{10}) and "fine" particles at the 2.5-micron level ($PM_{2.5}$). Both coarse and fine particles are of health concern because they can increase frequency and severity of asthma attacks and bronchitis, and even premature death in people with existing cardiac or respiratory disease. When particle levels in the air increase, so do reports of adverse health outcomes. Those most sensitive to particle pollution include people with existing respiratory and cardiac problems, children, and the elderly. Prolonged and repeated exposure can also have adverse impacts. Life expectancy is somewhat lower in areas with high particle levels. All inhalable particles are harmful – both "coarse" particles, those with a diameter of 2.5 to 10 microns, and "fine" particles, those with a diameter smaller than 2.5 microns. Ozone is formed by a photochemical reaction between NO_x and reactive organic

gases. These ozone precursors are emitted as part of the exhaust of internal combustion engines and are transported northward via the prevailing winds. Ozone is a seasonal problem, typically occurring during the months of May through October. Ozone acts as a strong irritant that attacks the body's respiratory system. Symptoms include shortness of breath, chest pain when inhaling deeply, wheezing, and coughing. When ozone levels are high, people with lung disease (e.g., chronic bronchitis, emphysema, and asthma) are particularly susceptible to adverse health impacts. NO_x and reactive organic compounds (ROCs) are used in the formation of ozone. Nitrogen dioxide (NO_2), a toxic reddish-brown gas, and nitric oxide (NO), a colorless gas, comprise NO_x. NO_x is an ingredient in the formation of ozone, and is referred to as an ozone precursor. NO_2 is associated with adverse health effects and is formed in the atmosphere when NO is oxidized to NO_2. Both NO_2 and NO are produced as a result of fuel combustion. ROCs are hydrocarbons released during fuel combustion.

Based on the above discussion in the Environmental Setting, the following Best Management practices (BMPs) will ALSO be implemented where feasible, to further minimize project emissions.

- Individual truck idling in excess of five consecutive minutes will be prohibited, unless allowed under Title 13 of the California Code of Regulations §2485 (CARB's Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling).
- Diesel-power construction equipment shall use low-sulfur diesel fuel.
- Ensure that all construction equipment is properly tuned and maintained prior to and for the duration of construction.
- Provide adequate ingress and egress to minimize vehicle idling and traffic congestion.
- All contractors will comply with all applicable SJVAPCD rules and regulations in carrying out project activities.
- Maintain slow speeds with all vehicles.
- Covering of soil stockpiles during non-work hours to abate dispersion by wind and rain.
- Contractors will implement feasible measures, as necessary, to reduce construction emissions during high-emission construction phases from vehicles and other fuel driven construction engines and activities that generate fugitive dust.

Table 1, Federal and state Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Standard	California Standard
Ozone (O_3)	8 Hour	0.075 ppm (147 µg/m^3)	0.070 ppm (137 µg/m^3)
	1 Hour	—	0.09 ppm (180 µg/m^3)
Carbon Monoxide (CO)	8 Hour	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1 Hour	35 ppm (40 mg/m^3)	20 ppm (23 mg/m^3)
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.053 ppm (100 µg/m^3)	0.030 ppm (57 µg/m^3)
	1 Hour	0.100 ppm (188 µg/m^3)	0.18 ppm (339 µg/m^3)
Sulfur Dioxide (SO_2)	24 Hour	—	0.04 ppm (105 µg/m^3)
	3 Hour	0.5 ppm	—
	1 Hour	0.075 ppm (196 µg/m^3)	0.25 ppm (655 µg/m^3)
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	—	20 µg/m^3
	24 Hour	150 µg/m^3	50 µg/m^3
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	15 µg/m^3	12 µg/m^3
	24 Hour	35 µg/m^3	—
Sulfates (SO_4)	24 Hour	—	25 µg/m^3
Lead	30 Day Average	—	1.5 µg/m^3
	Rolling 3-Month Average	0.15 µg/m^3	—
Hydrogen Sulfide (H_2S)	1 Hour	—	0.03 ppm (42 µg/m^3)
Vinyl Chloride (chloroethene)	24 Hour	—	0.01 ppm (26 µg/m^3)

Visibility Reducing Particulates	8 Hour	—	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.
SOURCE: California Air Resources Board, Ambient Air Quality Standards, http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm accessed June 14, 2016 and US EPA, National Ambient Air Quality Standards, http://www.epa.gov/air/criteria.html, accessed June 14, 2016			

A summary of federal and State air quality standards is provided in Table 1, Potential Health Effects in Table 2, and Criteria Pollutant Thresholds in Table 3.

Table 2, Potential Health Effects of Air Pollutants

Air Pollutant	Primary Source	Primary Health and Welfare Effects
Lead (Pb)	Contaminated soil	Behavioral and hearing disabilities in children; Nervous system impairment
Sulfur Dioxide (SO_2)	Combustion of sulfur-containing fossil fuels; Smelting of sulfur-bearing metal ores; Industrial processes	Aggravation of respiratory diseases (asthma, emphysema); Reduced lung function
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon-containing substances, such as motor vehicle exhaust; Natural events, such as decomposition of organic matter	Aggravation of some heart diseases (angina); Reduced tolerance for exercise; Impairment of mental function; Impairment of fetal development; Death at high levels of exposure
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust; High-temperature stationary combustion; Atmospheric reactions	Aggravation of respiratory illness
Ozone (O_3)	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	Aggravation of respiratory and cardiovascular diseases; Reduced lung function, Increased cough and chest discomfort
Fine Particulate Matter (PM_{10}0 and $PM_{2.5}$)	Stationary combustion of solid fuels; Construction activities; Industrial processes; Atmospheric chemical reactions	Reduced lung function; Aggravation of respiratory & cardio-respiratory diseases; Increases in mortality rate; Reduced lung function growth in children

SOURCE: SJVAPCD. http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds- of-Significance.pdf. Accessed June 14, 2016.

Table 3, Air Quality Thresholds of significance – Criteria Pollutants

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

SOURCE: SJVAPCD. http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds- of-Significance.pdf. Accessed June 14, 2016.

However, in the interest of streamlining CEQA requirements, SJVAPCD published guidance on determining CEQA applicability, significance of impacts. SJVAPCD established thresholds of significance for criteria pollutant emissions, which are based on New Source Review (NSR) offset requirements for stationary and mobile sources. Using project type and size of proposed projects, SJVAPCD has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants. Projects that fit the descriptions and are less than the project sizes provided below are deemed to have a less than significant impact on air quality due to criteria pollutant emissions and as such, are excluded from quantifying criteria pollutant emissions for CEQA purposes.

The SJVAPCD has established a three-tiered approach to determining significance related to a project's quantified ozone precursor emissions. The three levels of analysis include Small Project Analysis Level (SPAL), Cursory Analysis Level (CAL), and Full-Analysis Level (FAL). The SJVAPCD pre-calculated the emissions on a large number of types of projects to identify the level at which a project would have no potential to exceed emission thresholds. This information was determined for five land use categories according to the number of vehicle trips a project type generates, and according to the sizes of various development projects. Projects under the size thresholds qualify to complete the SPAL approach. According to the SPAL requirements, no quantification of ozone precursor emissions is needed for projects less than or equal to the size thresholds, by vehicle trips and by project type. If other emission factors such as toxic air contaminants, hazardous materials, asbestos, or odors are apparent, these emissions must be addressed.

The proposed project would involve the construction of a two-story 16,487-square-foot food mart. It would not involve the demolition or renovation of any existing buildings. Based on the SPAL by Vehicle Trips, the Commercial category estimates 1,673 trips/day. A traffic study was complete and indicates that 623 automobile trips plus 354 truck tripe per day are anticipated. Therefore, the proposed travel center would not exceed the SPAL threshold by Vehicle Trip type. Since the proposed project could not definitively qualify for a land use category for a SPAL, a cursory-level air quality analysis for the proposed project was conducted using CalEEMod 2011.1.1 to determine whether or not project specific emissions would exceed SJVAPCD significance thresholds.

Discussion:

(a-e) Less than Significant Impact with Mitigation Incorporated

The proposed project is subject to the standards of the San Joaquin Valley Air Pollution Control District standards. The project is subject to the requirements for District Rule 9510 for Indirect Source Emissions. The SJVAPCD has attainment plans in place that identify strategies to bring regional emissions into compliance with federal and state air quality standards. The proposed travel plaza with food court and gas station would be an extension of a previously approved commercial development next to Highway 99 at Avenue 7, and will acquire the proper zoning and permits to be in conformance with Madera County zoning and land use designations. To ensure the proposed project complies with applicable SJVAPCD rules and regulations, mitigation measures would be required.

4. Biological Resources

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒

c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact

While the list below indicates that there are species of concern, given that the area has been developed since 1964, the chances of any of the listed species being present are less than likely. There is still the potential of the species existing in the quadrangle, but since this parcel has many buildings and is an active facility, most habitats may not exist. No contact was made by the Department of Fish and Game (as of this date) to either add to the information provided or dispute the findings.

(b-f) No Impact

The project does not contain any natural riparian habitat or designated wetlands. In addition, it is not redirecting, obstructing or changing in a wildlife corridor for native resident species. This parcel has been in agricultural production for a number of years and is adjacent to a commercial operation.

General Information:

Special Status Species include:

- Plants and animals that are legally protected or proposed for protection under the California Endangered Species Act (CESA) or Federal Endangered Species Act (FESA);
- Plants and animals defined as endangered or rare under the California Environmental Quality Act (CEQA) §15380;
- Animals designated as species of special concern by the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Game (CDFG);
- Animals listed as "fully protected" in the Fish and Game Code of California (§3511, §4700, §5050 and §5515); and
- Plants listed in the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California.

A review of both the County's and Department of Fish and Game's databases for special status species have identified the following species:

Species	Federal Listing	State Listing	Dept. of Fish and Game Listing	CNPS Listing
San Joaquin pocket mouse	None	None	-	-
San Joaquin kit fox	Endangered	Threatened	-	-
American badger	None	None	0.1	-

Valley elderberry longhorn beetle	Threatened	None	-	-
Hairy Orcutt grass	Endangered	Endangered	-	1B

List 1A: Plants presumed extinct
List 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.
List 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
List 3 Plants which more information is needed – a review list
List 4: Plants of Limited Distributed - a watch list

Ranking
0.1 – Seriously threatened in California (high degree/immediacy of threat)
0.2 – Fairly threatened in California (moderate degree/immediacy of threat)
0.3 – Not very threatened in California (low degree/immediacy of threats or no current threats known)

Effective January 1, 2007, Senate Bill 1535 took effect that has changed de minimis findings procedures. The Senate Bill takes the de minimis findings capabilities out of the Lead Agency hands and puts the process into the hands of the California Department of Fish and Wildlife (formally the California Department of Fish and Game). A Notice of Determination filing fee is due each time a NOD is filed at the jurisdictions Clerk's Office. The authority comes under Senate Bill 1535 (SB 1535) and Department of Fish and Wildlife Code 711.4. Each year the fee is evaluated and has the potential of increasing. For the most up-to-date fees, please refer to http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

The Valley elderberry longhorn beetle was listed as a threatened species in 1980. Use of the elderberry bush by the beetle, a wood borer, is rarely apparent. Frequently, the only exterior evidence of the elderberry's use by the beetle is an exit hole created by the larva just prior to the pupal stage. According to the USFWWS, the Valley Elderberry Longhorn Beetle habitat is primarily in communities of clustered Elderberry plants located within riparian habitat. The USFWS stated that VELB habitat does not include every Elderberry plant in the Central Valley, such as isolated, individual plants, plants with stems that are less than one inch in basal diameter or plants located in upland habitat.

5. Cultural Resources

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion:

(a-d) Less than Significant Impact
The project has been farmed in the past so it is unlikely that any archeological or historical features of any significance exist on the parcel. However, in the event that materials are discovered, the property owners should immediately contact the Planning Department and cease any excavation activities on the property.

General Information:

Public Resource Code 5021.1(b) defines a historic resource as "any object building, structure, site, area or place which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." These resources are of such importance, that it is codified in CEQA (PRC Section 21000) which prohibits actions that "disrupt, or adversely affect a prehistoric or historic archaeological site or a property of historical or

cultural significance to a community or ethnic or social groups; or a paleontological site except as part of a scientific study."

Archaeological importance is generally, although not exclusively, a measure of the archaeological research value of a site which meets one or more of the following criteria:

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory.
- Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions.
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.
- Is at least 100 years old and possesses substantial stratigraphic integrity (i.e. it is essentially undisturbed and intact).
- Involves important research questions that historic research has shown can be answered only with archaeological methods.

Reference CEQA Guidelines §15064.5 for definitions.

Most of the archaeological survey work in the County has taken place in the foothills and mountains. This does not mean, however, that no sites exist in the western part of the County, but rather that this area has not been as thoroughly studied. There are slightly more than 2,000 recorded archaeological sites in the County, most of which are located in the foothills and mountains. Recorded prehistoric artifacts include village sites, camp sites, bedrock milling stations, pictographs, petroglyphs, rock rings, sacred sites, and resource gathering areas. Madera County also contains a significant number of potentially historic sites, including homesteads and ranches, mining and logging sites and associated features (such as small camps, railroad beds, logging chutes, and trash dumps.

6. Geology and Soils

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
	ii) Strong seismic ground shaking?	☐	☐	☐	☒
	iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
	iv) Landslides?	☐	☐	☐	☒
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Discussion:

(a-e) No Impact

Foothill and Sierra Nevada regions of California are areas that are crossed by very few faults. There is an unnamed fault line that crosses through the southeastern portion of the County and is a part of the Hartley Springs Fault Zone. As such, the chances of rupture of faults in the vicinity are less than likely. Chances are better in feeling shock waves from faultlines that do rupture, depending on their magnitude.

General Information:

Madera County is divided into two major physiographic and geologic provinces: the Sierra Nevada Range and the Central Valley. The Sierra Nevada physiographic province in the northeastern portion of the county is underlain by metamorphic and igneous rock. It consists mainly of homogenous types of granitic rocks, with several islands of older metamorphic rock. The central and western parts of the county are part of the Central Valley province, underlain by marine and non-marine sedimentary rocks.

The foothill area of the county is essentially a transition zone, containing old alluvial soils that have been dissected by the west-flowing rivers and streams which carry runoff from the Sierra Nevada's.

Seismicity varies greatly between the two major geologic provinces represented in Madera County. The Central valley is an area of relatively low tectonic activity bordered by mountain ranges on either side. The Sierra Nevada's, partly within Madera County, are the result of movement of tectonic plates which resulted in the creation of the mountain range. The Coast Ranges on the west side of the Central Valley are also a result of these forces, and continued movement of the Pacific and North American tectonic plates continues to elevate the ranges. Most of the seismic hazards in Madera County result from movement along faults associated with the creation of these ranges.

There are no active or potentially active faults of major historic significance within Madera County. The County does not lie within any Alquist Priolo Special Studies Zone for surface faulting or fault creep.

However, there are two significant faults within the larger region that have been and will continue to be, the principle sources of potential seismic activity within Madera County.

San Andreas Fault: The San Andreas Fault lies approximately 45 miles west of the county line. The fault has a long history of activity and is thus a concern in determining activity in the area.

Owens Valley Fault Group: The Owens Valley Fault Group is a complex system containing both active and potentially active faults on the eastern base of the Sierra Nevada Range. This group is located approximately 80 miles east of the County line in Inyo County. This system has historically been the source of seismic activity within the County.

The *Draft Environmental Impact Report* for the state prison project near Fairmead identified faults within a 100 mile radius of the project site. Since Fairmead is centrally located along Highway 99 within the county, this information provides a good indicator of the potential seismic activity which might be felt within the County. Fifteen active faults (including the San Andreas and Owens Valley Fault Group) were identified in the *Preliminary Geotechnical Investigation*. Four of the faults lie along the eastern portion of the Sierra Nevada Range, approximately 75 miles to the northeast of Fairmead. These are the Parker Lake, Hartley Springs, Hilton Creek and Mono Valley Faults. The remaining faults are in the western portion of the San Joaquin Valley, as well as within the Coast Range, approximately 47 miles west of Fairmead. Most of the remaining 11 faults are associated with the San Andreas, Calaveras, Hayward and Rinconada Fault Systems which collectively form the tectonic plate boundary of the Central Valley.

In addition, the Clovis Fault, although not having any historic evidence of activity, is considered to be active within quaternary time (within the past two million years), is considered potentially active. This fault line lies approximately six miles south of the Madera County line in Fresno County. Activity along this fault could potentially generate more seismic activity in Madera County than the San Andreas or Owens Valley fault systems. However, because of the lack of historic activity along the Clovis Fault, there is inadequate evidence for assessing maximum earthquake impacts.

Seismic ground shaking, however, is the primary seismic hazard in Madera County because of the County's seismic setting and its record of historical activity (General Plan Background Element and Program EIR). The project represents no specific threat or hazard from seismic ground shaking, and all new construction will comply with current local and state building codes. Other geologic hazards, such as landslides, lateral spreading, subsidence, and liquefaction have not been known to occur within

Madera County.

According to the Madera County General Plan Background Report, groundshaking is the primary seismic hazard in Madera County. The valley portion of Madera County is located on alluvium deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from groundshaking than those located in the foothill and mountain areas.

Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged ground shaking. According to the Madera County General Plan Background Report, although there are areas of Madera County where the water table is at 30 feet or less below the surface, soil types in the area are not conducive to liquefaction because they are either too coarse in texture or too high in clay content; the soil types mitigate against the potential for liquefaction.

7. Greenhouse Gas Emissions

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact
The greenhouse emissions generated by the project would not be substantial as the uses will be related to highway needs, therefore, the majority of the trips generated will likely travel a limited distance from Highway 99 to the project site. In addition, the proposed construction of each building will need to comply with building standards which require measures that attempt to mitigate GHG generation.

(b) No Impact
No impacts are identified as a result of this project.

General Information:

Greenhouse Gas (GHG) Emissions: The potential effect of greenhouse gas emission on global climate change is an emerging issue that warrants discussion under CEQA. Unlike the pollutants discussed previously that may have regional and local effects, greenhouse gases have the potential to cause global changes in the environment. In addition, greenhouse gas emissions do not directly produce a localized impact, but may cause an indirect impact if the local climate is adversely changed by its cumulative contribution to a change in global climate. Individual development projects contribute relatively small amounts of greenhouse gases that when added to other greenhouse gas producing activities around the world would result in an increase in these emissions that have led many to conclude is changing the global climate. However, no threshold has been established for what would constitute a cumulatively considerable increase in greenhouse gases for individual development projects. The State of California has taken several actions that help to address potential global climate change impacts.

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, outlines goals for local agencies to follow in order to bring Greenhouse Gas (GHG) emissions to 1990 levels (a 25% overall reduction) by the year 2020. The California Air Resources Board (CARB) holds the responsibility of monitoring and reducing GHG emissions through regulations, market mechanisms and other actions. A Draft Scoping Plan was adopted by CARB in order to provide guidelines and policy for the State to follow in its steps to reduce GHG. According to CARB, the scoping plan's GHG reduction actions include: direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

Following the adoption of AB 32, the California State Legislature adopted Senate Bill 375, which became the first major bill in the United States that would aim to limit climate change by linking directly to "smart growth" land use principles and transportation. It adds incentives for projects which intend to be in-fill, mixed use, affordable and self-contained developments. SB 375 includes the creation of a Sustainable Communities Strategy (SCS) through the local Metropolitan

Planning Organizations (MPO) in order to create land use patterns which reduce overall emissions and vehicle miles traveled. Incentives include California Environmental Quality Act streamlining and possible exemptions for projects which fulfill specific criteria.

8. Hazards and Hazardous Materials

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact with Mitigation Incorporated

The proposed project will also include fueling stations, which will involve the transport, use, handling, and storage of hazardous materials, such as gasoline and diesel fuel. If spilled, these substances could pose a risk to the environment and to human health. The facility will be regulated under the Hazardous Material Business Plan (Article I, Chapter 6.95, of the California Health & Safety Code). As of January 2013 all CUPA regulated businesses must submit their Hazardous Material Business Plan electronically into the California Environmental Reporting System (CERS) at: www.cers.calepa.ca.gov.

(b) No Impact

No impacts are identified. As mentioned above, no materials will be onsite, and thus will not constitute a hazard to surrounding properties.

(c) No Impact

No hazardous materials are expected to be used on site during normal operations. The facility is not within 1/4 mile of a school.

(d) No Impact
No impacts are identified. There are no sites in the immediate vicinity that qualify as a site having had hazardous materials on site, or listed as such.

(e) No Impact
The project site is not within an Airport/Airspace Overlay District nor within proximity to any known airports and airstrips. No impacts are identified.

(f) No Impact
The project site is not within an Airport/Airspace Overlay District nor within proximity to any known airports and airstrips. No impacts are identified.

(g) No Impact
No impacts are identified as a result of this project.

(h) No Impact
The area is not located in a wildfire risk area. However, equipment used during construction could create sparks and cause fires in the agricultural areas that surround the project site.

Normal operations will not pose significant risk of fire.

General Information:
Any hazardous material because of its quantity, concentration, physical or chemical properties, pose a significant present or potential hazard to human health and safety, or the environment the California legislature adopted Article I, Chapter 6.95 of the Health and Safety Code, Sections 25500 to 25520 that requires any business handling or storing a hazardous material or hazardous waste to establish a Business Plan. The information obtained from the completed Business Plans will be provided to emergency response personnel for a better-prepared emergency response due to a release or threatened release of a hazardous material and/or hazardous waste.

Business owners that handle or store a hazardous material or mixtures containing a hazardous material, which has a quantity at any one time during the year, equal to or greater than:

1) A total of 55 gallons,
2) A total of 500 pounds,
3) 200 cubic feet at standard temperature and pressure of compressed gas,
4) any quantity of Acutely Hazardous Material (AHM).

Assembly Bill AB 2286 requires all business and agencies to report their Hazardous Materials Business Plans to the Certified Unified Program Agency (CUPA) information electronically at http://cers.calepa.ca.gov

9. Hydrology and Water Quality

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site?	☐	☐	☐	☒
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f)	Otherwise substantially degrade water quality?	☐	☐	☐	☒
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion:

(a) No Impact
Any installation of facilities such as septic tanks would require permits and need to be properly setback from wells to prevent contamination. However, the development of this project should not substantially contribute to ground water contamination.

(b) Less than Significant Impact
The project proposes to develop a community water system to be privately maintained by the property owners. That system would be required to complete stringent testing in order to ensure that groundwater meets current standards. In addition, the proposed uses would use less water than surrounding agricultural uses and therefore should not contribute to overdraft for the area but actually allow for recharge.

(c-j) No Impact
Natural drainage patterns run through the middle of the project. All increased drainage will be required to be retained on the parcel.

It is not anticipated that the proposed project would create any need to mitigate for additional degradation of water quality. The residential nature of the project does not typically have any sort of storage of materials which could cause water quality issues like an industrial or heavy commercial project would.

The site is not near any creeks or streams or bodies of water in which runoff could have an impact to water quality. With best management practices during business operations in place, this impact will be insignificant.

The site is not within a special flood zone indicating 100-year floods.

General Information:

Groundwater quality contaminants of concern in the Valley Floor include high salinity (total dissolved solids), nitrate, uranium, arsenic, methane gas, iron, manganese, slime production, and dibromochloropropane with the maximum contaminant level

exceeded in some areas. Despite the water quality issues noted above, most of the groundwater in the Valley Floor is of suitable quality for irrigation. Groundwater of suitable quality for public consumption has been demonstrated to be present in most of the area at specific depths.

Groundwater quality contaminants of concern in the Foothills and Mountains include manganese, iron, high salinity, hydrogen sulfide gas, uranium, nitrate, arsenic, and methylbutylethylene (MTBE) with the maximum concentration level being exceeded in some areas. Despite these problems, there are substantial amounts of good-quality groundwater in each of the areas evaluated in the Foothills and Mountains. Iron and manganese are commonly removed by treatment. Uranium treatment is being conducted on a well by the Bass Lake Water Company.

A seiche is an occasional and sudden oscillation of the water of a lake, bay or estuary producing fluctuations in the water level and caused by wind, earthquakes or changes in barometric pressure. A tsunami is an unusually large sea wave produced by seaquake or undersea volcanic eruption (from the Japanese language, roughly translated as "harbor wave"). According to the California Division of Mines and Geology, there are no active or potentially active faults of major historic significance within Madera County. As this property is not located near any bodies of water, no impacts are identified.

The flood hazard areas of the County of Madera are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare. These flood losses are caused by uses that are inadequately elevated, floodproofed, or protected from flood damage. The cumulative effect of obstruction in areas of special flood hazards which increase flood height and velocities also contribute to flood loss.

10. Land Use and Planning

Would the project result in:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion:

(a) No Impact

The project location is within an area which is planned for highway commercial activities. The proposal would be consistent with the long term vision of the interchange area. Various other commercial activities are already allowed to be constructed on the adjacent parcel.

(b) No Impact

No known impacts exist.

The zone district for this parcel is being requested to be changed to commercial that would allow the proposed operation.

(c) No Impact

There is not an adopted habitat conservation plan or natural community conservation plan for the proposed project location.

11. Mineral Resources

Would the project result in:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion:

(a) No Impact
The project site does not have any known mineral resources and has not been identified a locally important recovery site by any plan.

(b) No Impact
No resource recovery sites are in the vicinity of this project. No impacts identified as a result of this project.

12. Noise

Would the project result in:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☒	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d)	A substantial temporary or periodic increase in ambient levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion:

(a-d) Less than Significant Impact
The proposed project will have some noise impacts as far as construction and grading are concerned. Those activities are subject to the Madera County Code in terms of defining times and levels of noise acceptable. That ordinance is enforced by the Environmental Health Department. Ambient noise levels would be raised above the current level because there currently is not anything present on the property. Appliances, electricity, cars are among the various sources which will

now be present in the area to raise ambient levels. However, that level is not deemed to be significant.

Operations of this facility are not expected to increase noise levels substantially. It is acknowledged that traffic in and out of the facilities parking lot will generate minimal noise levels during ingress and egress.

Ambient noise levels are not expected to increase.

(e-f) No Impact
This project is not within proximity to an airstrip or airport or an airport/airspace overlay district.

General Discussion:

The Noise Element of the Madera County General Plan (Policy 7.A.5) provides that noise which will be created by new non-transportation noise sources shall be mitigated so as not to exceed the Noise Element noise level standards on lands designated for noise-sensitive uses. However, this policy does not apply to noise levels associated with agricultural operations. All the surrounding properties, while include some residential units, are designated and zoned for agricultural uses. This impact is therefore considered less than significant.

Construction noise typically occurs intermittently and varies depending upon the nature or phase of construction (e.g. demolition/land clearing, grading and excavation, erection). The United States Environmental Protection Agency has found that the average noise levels associated with construction activities typically range from approximately 76 dBA to 84 dBA Leq, with intermittent individual equipment noise levels ranging from approximately 75 dBA to more than 88 dBA for brief periods.

Short Term Noise

Noise from localized point sources (such as construction sites) typically decreases by approximately 6 dBA with each doubling of distance from source to receptor. Given the noise attenuation rate and assuming no noise shielding from either natural or human-made features (e.g. trees, buildings, fences), outdoor receptors within approximately 400 feet of construction site could experience maximum noise levels of greater than 70 dBA when onsite construction-related noise levels exceed approximately 89 dBA at the project site boundary. Construction activities that occur during the more noise-sensitive eighteen hours could result in increased levels of annoyance and sleep disruption for occupants of nearby existing residential dwellings. As a result, noise-generating construction activities would be considered to have a potentially significant short-term impact. However with implementation of mitigation measures, this impact would be considered less than significant.

Long Term Noise

Mechanical building equipment (e.g. heating, ventilation and air conditioning systems, and boilers), associated with the proposed structures, could generate noise levels of approximately 90 dBA at 3 feet from the source. However, such mechanical equipment systems are typically shielded from direct public exposure and usually housed on rooftops, within equipment rooms, or within exterior enclosures.

Landscape maintenance equipment, such as leaf blowers and gasoline powered mowers, associated with the proposed operations could result in intermittent noise levels that range from approximately 80 to 100 dBA at 3 feet, respectively. Based on an equipment noise level of 100 dBA, landscape maintenance equipment (assuming a noise attenuation rate of 6 dBA per doubling of distance from the source) may result in exterior noise levels of approximately 75 dBA at 50 feet.

MAXIMUM ALLOWABLE NOISE EXPOSURE FOR
NON-TRANSPORTATION NOISE SOURCES*

		Residential	Commercial	Industrial (L)	Industrial (H)	Agricultural
Residential	AM	50	60	55	60	60
	PM	45	55	50	55	55
Commercial	AM	60	60	60	65	60
	PM	55	55	55	60	55
Industrial (L)	AM	55	60	60	65	60
	PM	50	55	55	60	55
Industrial (H)	AM	60	65	65	70	65
	PM	55	60	60	65	60
Agricultural	AM	60	60	60	65	60
	PM	55	55	55	60	55

*As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers at the property line.

AM = 7:00 AM to 10:00 PM
PM = 10:00 PM to 7:00 AM
L = Light
H = Heavy

Note: Each of the noise levels specified above shall be lowered by 5 dB for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).

Vibration perception threshold: The minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects. The perception threshold shall be presumed to be a motion velocity of one-tenth (0.1) inches per second over the range of one to one hundred Hz.

Reaction of People and Damage to Buildings from Continuous Vibration Levels		
Velocity Level, PPV (in/sec)	**Human Reaction**	**Effect on Buildings**
0.006 to 0.019	Threshold of perception; possibility of intrustion	Damage of any type unlikely
0.08	Vibration readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Continuous vibration begins to annoy people	Virtually no risk of architectural damage to normal buildings
0.20	Vibration annoying to people in buildings	Risk of architectural damage to normal dwellings such as plastered walls or ceilings
0.4 to 0.6	Vibration considered unpleasant by people subjected to continuous vibrations vibration	Architectural damage and possibly minor structural damage
Source: Whiffen and Leonard 1971		

13. Population and Housing

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

(a) No Impact
The project as mitigated would not result in substantial population growth, and would not displace existing housing or people.

(b) No Impact
No impacts are identified as a result of this project. No homes will be displaced as a result of this project.

(c) No Impact
No impacts are identified as a result of this project. No one will be displaced as a result of this project.

General Information:

According to the California Department of Finance, in January of 2012, the County wide population was 152,074 with a total of 49,334 housing units. This works out to an average of 3.33 persons per housing unit. The vacancy rate was 11.84%.

14. Public Services

Would the project:			Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
	i)	Fire protection?	☐	☐	☒	☐
	ii)	Police protection?	☐	☐	☒	☐
	iii)	Schools?	☐	☐	☐	☒
	iv)	Parks?	☐	☐	☐	☒
	v)	Other public facilities?	☐	☐	☒	☐

Discussion:

(a-i – a-ii) Less than Significant Impact
The proposed project site is within the jurisdiction of the Madera County Fire Department. Crime and emergency response is provided by the Madera County Sheriff's Department. The proposed project will have no impact on local parks and will not create demand for additional parks. Development fees include capital facilities fees which contribute to police and fire services.

The Madera County Fire Department exists through a contract between Madera County and the CALFIRE (California Department of Forestry and Fire Prevention) and operates six stations for County responses in addition to the state-funded CALFIRE stations for state responsibility areas. Under an "Amador Plan" contract, the County also funds the wintertime staffing of four fire seasonal CALFIRE stations. In addition, there are ten paid-call (volunteer) fire companies that operate from their own stations. The administrative, training, purchasing, warehouse, and other functions of the Department operate through a single management team with County Fire Administration.

Crime and emergency response is provided by the Madera County Sheriff's Department. There will be an incidental need for law enforcement in the event of theft or vandalism on the project site.

(a-iii) No Impact
The project is within the Madera Unified School District. The development of commercial buildings would be required to pay School District Impact Fees in order to offset potential impacts of the development.

(a-iv) No Impact
The project is not subject to the Quimby Act fee that was established for development of park facilities within Madera County. That fee is dependent on the number of units which can be built by the project and would be required to be paid prior to final recordation of a map. The project is not zoned for residential and therefore is not subject to the fee.

(a-v) Less than Significant Impact
The Madera County Fire Station #9 is located approximately 9.25 miles northeast of the project site, in the Ranchos Subdivision. Operation of the Highway 99 Truck Stop project would include expansion of an existing developed use in an area without developed fire safety facilities. Because of this, fire risk hazards could increase. In response to this common condition in agricultural areas of the County, the Madera County Fire Department imposes requirements for on-site water storage for fire protection. Sprinklers will also be required. Compliance with measures as set forth by the Fire Department would be required as conditions of approval and would reduce fire risk and hazard to levels found acceptable by the Madera County Fire Department.

The Madera County Sheriff Department, located in the County of Madera, provides service to the project area. The Madera County Sheriff Department located approximately 10 miles to the northwest provides service to the project area.

General Information:

The proposed project site is within the jurisdiction of the Madera County Fire Department. Crime and emergency response is provided by the Madera County Sherriff's Department. The proposed project will have no impact on local parks and will not create demand for additional parks.

The Madera County Fire Department exists through a contract between Madera County and the CALFIRE (California Department of Forestry and Fire Prevention) and operates six stations for County responses in addition to the state-funded CALFIRE stations for state responsibility areas. Under an "Amador Plan" contract, the County also funds the wintertime staffing of four fire seasonal CALFIRE stations. In addition, there are ten paid-call (volunteer) fire companies that operate from their own stations. The administrative, training, purchasing, warehouse, and other functions of the Department operate through a single management team with County Fire Administration.

A Federal Bureau of Investigations 2009 study suggests that there is on average of 2.7 law enforcement officials per 1,000 population for all reporting counties. The number for cities had an average of 1.7 law enforcement officials per 1,000 population.

Single Family Residences have the potential for adding to school populations. The average per Single Family Residence is:

Grade	Student Generation per Single Family Residence
K – 6	0.425
7 – 8	0.139
9 – 12	0.214

The Madera County General Plan allocates three acres of park available land per 1,000 residents' population.

15. Recreation

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion:

(a) No Impact
No impact identified as a result of this project. The proposed development would not be subject to the Quimby Act fees, as previously mentioned, due to the project not being zoned residential.

(b) No Impact
No impacts are identified as a result of this project. See above.

General Information:

The Madera County General Plan allocates three acres of park available land per 1,000 residents' population.

16. Transportation/Traffic

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b)	Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures or other standards, established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e)	Result in inadequate emergency access?	☐	☐	☐	☒
f)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact
The proposed project is located on the north side of Avenue 7, approximately 750 feet west of its intersection with SR 99, Madera. The proposed project has access onto Avenue 7 which is designated as a an 80' Arterial (General Plan Policy Document). There are no public transportation facilities or routes in the area. Thus, the area is almost totally dependent on private automobile and truck access. There are no rail or airport facilities in the area. A traffic study was prepared, generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future. The traffic impact study found that the Project will contribute to significant impacts that will require mitigation as described in this report. No mitigations are required in the existing plus-project scenario.

(b) Less than Significant Impact with Mitigation Incorporated

The project will have a maximum of 1000 visitors per day. A traffic study was prepared, generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future. The traffic impact study found that the Project will contribute to significant impacts that will require mitigation as described in this report. No mitigations are required in the existing plus-project scenario. The Project will be responsible for its share of the ultimate mitigations for year 2036 cumulative impacts. The ultimate configurations at the study intersections and will generally include widening of Avenue 7, construction of a median to prevent turns, and signalization and widening of the intersections within the SR 99 / Avenue 7 interchange.

(c) No Impact

The site is not located in the vicinity of an airport or airstrip, nor is it in an Airport/Airspace Overlay District. No impacts anticipated as a result of this project. The project is not large enough to significantly affect air traffic patterns of the area. In addition, there are no alternative transportation plans or policies in the area which would be affected. Emergency access will be enhanced by the project through the development of standards required by the Madera County Road Department.

(d) No Impact

No impacts are anticipated as a result of this project.

(e) No Impact

No impacts are anticipated as a result of this project.

(f) No Impact

No impacts are anticipated as a result of this project.

General Information:

According to the Institute of Traffic Engineers (9th Edition, pg. 268-9) the trips per day for one single-family residence are 9.57.

Madera County currently uses Level Of Service "D" as the threshold of significance level for roadway and intersection operations. The following charts show the significance of those levels.

Level of Service	Description	Average Control Delay (sec./car)
A	Little or no delay	0 – 10
B	Short traffic delay	>10 – 15
C	Medium traffic delay	> 15 – 25
D	Long traffic delay	> 25 – 35
E	Very long traffic delay	> 35 – 50
F	Excessive traffic delay	> 50

Unsignalized intersections.

Level of Service	Description	Average Control Delay (sec./car)
A	Uncongested operations, all queues clear in single cycle	< 10
B	Very light congestion, an occasional phase is fully utilized	>10 – 20
C	Light congestion; occasional queues on approach	> 20 – 35
D	Significant congestion on critical approaches, but intersection is functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing queues formed.	> 35 – 55
E	Severe congestion with some long-standing queues on critical approaches. Traffic queues may block nearby intersection(s) upstream of critical approach(es)	> 55-80

F	Total breakdown, significant queuing	> 80

Signalized intersections.

Level of service	Freeways	Two-lane rural highway	Multi-lane rural highway	Expressway	Arterial	Collector
A	700	120	470	720	450	300
B	1,100	240	945	840	525	350
C	1,550	395	1,285	960	600	400
D	1,850	675	1,585	1,080	675	450
E	2,000	1,145	1,800	1,200	750	500

Capacity per hour per lane for various highway facilities

Madera County is predicted to experience significant population growth in the coming years (62.27 percent between 2008 and 2030). Accommodating this amount of growth presents a challenge for attaining and maintain air quality standards and for reducing greenhouse gas emissions. The increase in population is expected to be accompanied by a similar increase in vehicle miles traveled (VMT) (61.36 percent between 2008 and 2030).

Horizon Year	Total Population (thousands)	Employment (thousands)	Average Weekday VMT (millions)	Total Lane Miles
2010	175	49	5.4	2,157
2011	180	53	5.5	NA
2017	210	63	6.7	NA
2020	225	68	7.3	2,264
2030	281	85	8.8	2,277

Source: MCTC 2007 RTP

The above table displays the predicted increase in population and travel. The increase in the lane miles of roads that will serve the increase in VMT is estimated at 120 miles or 0.94 percent by 2030. This indicates that roadways in Madera County can be expected to become much more crowded than is currently experienced.

Emissions of CO (Carbon Monoxide) are the primarily mobile-source criteria pollutant of local concern. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed and delay. Carbon monoxide transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested roadway or intersection may reach unhealthy levels, affecting local sensitive receptors (residents, school children, hospital patients, the elderly, etc.). As a result, the SJVAPCP recommends analysis of CO emissions of a local rather than regional level. Local CO concentrations at intersections projected to operate at level of service (LOS) D or better do not typically exceed national or state ambient air quality standards. In addition, non-signalized intersections located within areas having relatively low background concentrations do not typically have sufficient traffic volumes to warrant analysis of local CO concentrations.

17. Utilities and Service Systems

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion:

(a) No Impact
Facilities are not being built that would require any permitting through the Regional Water Quality Control Board. Community waste water and septic systems is being proposed to be used for the project and would be reviewed for applicable standards by the Environmental Health Department.

(b-d) Less than Significant Impact
The proposed project will connect to an existing waste water facilities that meets specific standards as regulated by the Environmental Health Department. In addition, the drainage which exists on the properties will be constructed in a fashion not to contaminate or interfere with septic or water facilities.

(e-g) No Impact
There is not a wastewater treatment provider in the area which will be impacted by the proposed project. The Fairmead Landfill was recently expanded to allow for a higher capacity of solid waste and could therefore serve this project. Waste disposal would be required for each commercial business.

General Discussion:

Madera County has 34 County Service Areas and Maintenance Districts that together operate 30 small water systems and 16 sewer systems. Fourteen of these special districts are located in the Valley Floor, and the remaining 20 special districts are in the Foothills and Mountains. MD-1 Hidden Lakes, Bass Lake (SA-2B and SA-2C) and SA-16 Sumner Hill have surface water treatment plants, with the remaining special districts relying solely on groundwater.

The major wastewater treatment plants in the County are operated in the incorporated cities of Madera and Chowchilla and the community of Oakhurst. These wastewater systems have been recently or are planned to be upgraded, increasing opportunities for use of recycled water. The cities of Madera and Chowchilla have adopted or are in the process of developing Urban Water Management Plans. Most of the irrigation and water districts have individual groundwater management plans. All of these agencies engage in some form of groundwater recharge and management.

Groundwater provides almost the entire urban and rural water use and about 75 percent of the agricultural water use in the Valley Floor. The remaining water demand is met with surface water. Almost all of the water use in the Foothills and Mountains is from groundwater with only three small water treatment plants relying on surface water from the San Joaquin River and its tributaries.

In areas of higher precipitation (Oakhurst, North Fork, and the topographically higher part of the Coarsegold Area), groundwater recharge is adequate for existing uses. However, some problems have been encountered in parts of these areas due to well interference and groundwater quality issues. In areas of lower precipitation (Raymond-Hensley Lake and the lower part of the Coarsegold area), groundwater recharge is more limited, possibly requiring additional water supply from other sources to support future development.

Madera County is served by a solid waste facility (landfill) in Fairmead. There is a transfer station in North Fork. The Fairmead facility also provides for Household Hazardous Materials collections on Saturdays. The unincorporated portion of the County is served by Red Rock Environmental Group. Above the 1000 foot elevation, residents are served by EMADCO services for solid waste pick-up.

18. Mandatory Findings of Significance

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion:

(a-c) Less than Significant Impact with Mitigation Incorporated
The project, as proposed, does have some impacts which will need to be mitigated in order to limit the effect on humans, historical and cultural resources, habitat and resources. Mitigation measures listed above do mitigate the potential impacts to a less than significant level. The size of the project is not significant enough to have an impact by itself, thus, the mitigation measures can offset what impacts are created.

General Information:
CEQA defines three types of impacts or effects:

- Direct impacts are caused by a project and occur at the same time and place (CEQA §15358(a)(1).
- Indirect or secondary impacts are reasonably foreseeable and are caused by a project but occur at a different time or place. They may include growth inducing effects and other effects related to changes in the pattern of land use, population density or growth rate and related effects on air, water and other natural systems, including ecosystems (CEQA §15358(a)(2).
- Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts (CEQA §15355(b)). Impacts from individual projects may be considered minor, but considered retroactively with other projects over a period of time, those impacts could be significant, especially where listed or sensitive species are involved.

Documents/Organizations/Individuals Consulted
In Preparation of this
Initial Study

Madera County General Plan

California Department of Finance

California Integrated Waste Management Board

California Environmental Quality Act Guidelines

United States Environmental Protection Agency

Caltrans website http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm accessed October 31, 2008

California Department of Fish and Game "California Natural Diversity Database"
http://www.dfg.ca.gov/biogeodata/cnddb/

Madera County Integrated Regional Water Management Plan.

State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark.* Sacramento, California, May 2012

EXHIBIT Z

MITIGATED NEGATIVE DECLARATION

MND 2016-06

RE: Grewal, Ravinder S – General Plan Amendment, Rezone, and Variance - Madera (048-191-013-000)

Location and Description of Project:

The request is for a General Plan Amendment from HSC (Highway Service Commercial) and AE (Agricultural Exclusive) to HSC (Highway Service Commercial) and a Rezone from ARE-20 (Agricultural Rural Exclusive – 20 Acre) to PDD (Planning Development District) to allow a travel plaza with food court and gas station and a Variance in order to allow a 100'-0" high sign where 35'-0' is allowed by ordinance and two additional 45'-0" high signs where 35'-0' is allowed by ordinance. The project is located on the north side of Avenue 7, approximately 750 feet west of its intersection with SR 99 (no situs), Madera.

Environmental Impact:

No adverse environmental impact is anticipated from this project. The following mitigation measures are included to avoid any potential impacts.

Basis for Negative Declaration:

SEE ATTACHED

_____

Madera County Environmental Committee

A copy of the negative declaration and all supporting documentation is available for review at the Madera County Planning Department, 200 West 4th Street, Madera, California.

DATED: August 24, 2016
FILED:
PROJECT APPROVED:

MITIGATION MONITORING REPORT

MND # 2016-006

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
						Initials	Date	Remarks
Aesthetics								
1	Any proposed lighting shall be hooded and directed away from surrounding properties and roadways							
Agricultural Resources								
Air Quality								
2	Comply San Joaquin Valley Air Pollution Control District conditions							
Biological Resources								
Cultural Resources								
Geology and Soils								
Hazards and Hazardous Materials								
Hydrology and Water Quality								
3	Sewer service for all structure(s) within the project must be connected to an approved community sewer system that is approved by Madera County Environmental Health and/or Regional Water Quality Control Board (RWQCB).							
4	Water services for all structure(s), within this project must be connected to an approved community water system and approved by Madera County Environmental Health Division and/or State Division of Drinking Water (DDW).							
Land Use and Planning								
Mineral Resources								
Noise								
Population and Housing								
Public Services								
Recreation								

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
						Initials	Date	Remarks
Transportation and Traffic								
5	The Project will be responsible for its share of the ultimate mitigations for year 2036 cumulative impacts. The ultimate configurations at the study intersections and will generally include widening of Avenue 7, construction of a median to prevent turns, and signalization and widening of the intersections within the SR 99 / Avenue 7 interchange.							
6	Comply with CalTran's Conditions							
Utilities and Service Systems								

EXHIBIT AA

From: JC
To: Becky Beavers
Subject: Proposed Travel Center, truck stop on Ave. 7, hearing October 4, 2016
Date: Thursday, September 29, 2016 4:58:00 PM

Planning Commission,

I think that if a truck stop with 1,000 customers a day were to be allowed, Ave. 7 should be four lanes and at least a turn lane into the truck stop coming from the West.
If Ave. 7, was not upgraded before a project like the one considered , it would cause major problems. Vehicles would be backed up all the way to Highway 99. Many people use Ave. 7 to commute to Firebaugh and to Interstate 5, daily. During summer and fall harvesting of grapes, nuts, row crops, traffic is at its peak and the road cannot safely handle anymore vehicles. Last summer we had a truck accident right in front of the existing Chevron station. I also have concerns about the appearance of a Travel Center along a Madera Wine Trail route. I looked at Mr. Grewal's Travel Center in Baker, California and it was rated 1 1/2 stars. That is a good indication how the Travel Center will be managed.

Thank you,

Jeannine Crossland

From: JC
To: Becky Beavers
Subject: Re: Proposed Travel Center, truck stop on Ave. 7, hearing October 4, 2016
Date: Saturday, October 01, 2016 9:57:02 AM

> On Sep 29, 2016, at 4:57 PM, JC <jmxland@sbcglobal.net> wrote:
>
> Planning Commission,
>
> I think that if a truck stop with 1,000 customers a day were to be allowed, Ave. 7 should be four lanes and at least a turn lane into the truck stop coming from the West.
> If Ave. 7, was not upgraded before a project like the one considered , it would cause major problems. Vehicles would be backed up all the way to Highway 99. Many people use Ave. 7 to
> commute to Firebaugh and to Interstate 5, daily. During summer and fall harvesting of grapes, nuts, row crops, traffic is at its peak and the road cannot safely handle anymore vehicles. Last summer we had a truck accident right in front of the existing Chevron station. I also have concerns about the appearance of a Travel Center along a Madera Wine Trail route. I looked at Mr. Grewal's Travel Center in Baker, California and it was rated 1 1/2 stars. That is a good indication how the Travel Center will be managed.
>
> Thank you,
>
> Jeannine Crossland
>
>

From:	Ashley Crossland
To:	Becky Beavers
Subject:	Proposed Truck stop
Date:	Friday, September 30, 2016 12:05:44 AM

Hello,

I have lived by the proposed truck stop site my whole life except for my college years. Our family has had other land in Madera county for 100 years and our ranch is directly across from the truck stop. Our ranch has only had 2 owners since 1873 until now. Mistakenly the report on page 3 says, adjacent properties are 1 to 35 acres. Our parcel directly across from the proposed truck stop is 280 acres and the one adjacent to west is 320 acres (we own both properties).

Also, the traffic study uses a time frame for traditional jobs in town which is 7-9am and 4-6pm. Page 43. Our traffic more then doubles in the summer and the commute time for Ag jobs is from 5:30-8am and 3-5:30pm.

I feel that the travel center would be much better suited for Ave. 12, where it is more industrial. Ave. 7 is the gateway to wine tasting in Madera county and I hate to see the blooming industry destroyed by having the public see a giant truck stop with over 1000 vehicles a day as their first impression of Madera county.

Sincerely,
Ashley Crossland
559.779.9693

From: Troy Ewell
To: Becky Beavers
Cc: rlewell@att.net
Subject: Avenue 7 Development
Date: Tuesday, September 13, 2016 1:48:20 PM

Becky:

If you recall, my father and I own property at the intersection of Highway 99 and Avenue 7. We processed Parcel Map #4154 on the property creating 11 parcels and rezoned the 11 parcels to PCD. We sold the remainder parcel to RNDS Properties, which was not benefitted by any of the easements created or improvements installed to serve the planned **commercial** district created (since the remainder was, and I assume still is, zoned Ag and under the general plan as Ag).

It has come to our attention that RNDS intends to develop the remainder parcel into a travel plaza. Since the remainder is designated ag in the general plan and zoned ag, I assume that RNDS is processing a general plan amendment and rezone, but would like confirmation of that. However, our real concern lies with the fact that we have just learned that RNDS has designated Ewell Drive as an entrance point and the public water system established for Parcel Map #4154 as the water source. Ewell Drive is a **private** road that does not benefit the RNDS property. Additionally, the public water system installed for the planned commercial development established under Parcel Map #4154 does not benefit the RNDS property (ag property). These private improvements will not be available for use by RNDS.

I would appreciate if you could provide me with a brief description of the substance of RNDS' application to the County and request that you notify me of any public hearings on the proposed development. I would be happy to discuss this matter with you any time. Please do not hesitate to contact me. Thank you.

Troy T. Ewell
Attorney
WANGER JONES HELSLEY PC
265 E. River Park Circle, Suite 310
Fresno, California 93720
Phone: (559) 233-4800 Ext. 110
Fax: (559) 233-9330
Website: www.wjhattorneys.com

From: Troy Ewell
To: Becky Beavers
Cc: Rolland Ewell
Subject: RE: Avenue 7 Development
Date: Friday, September 30, 2016 2:38:32 PM

Thanks for your response. It is greatly appreciated.

Avenue 7 Partners, LLC opposes the proposed project on several grounds.

The site plan and operational statement in the Staff Report designate Ewell Drive as the access point (or at least one of them) for RNDS' proposed development. Ewell Drive is a **private** road, installed and paid for by Avenue 7 Partners, LLC, and RND has no right to use Ewell Drive to access the property proposed to be developed. The only property with the right to use Ewell Drive is identified in the recorded Covenants as the planned commercial development property developed through the recording of Parcel Map 4154 (which does not include the Ag property remainder that RNDS is proposing to convert to commercial use through this application). Since RNDS' application is based on using Ewell Drive as an access point with no legal right to do so, the application is fatally flawed. Further, while RNDS' application is based on using the water system established for Parcel Map 4154, RNDS does not have the right to use the water system established for Parcel Map 4154 for the same reason. I would be happy to send you the CC&Rs and amendment for your file evidencing that RNDS has no right to use Ewell Drive or the water system, if you would like. Please let me know.

While Avenue 7 Partners and RNDS may have been able to come to a resolution regarding use of Ewell Drive (and the water system serving Parcel Map 4154), RNDS did not even bring this matter to Avenue 7 Partner's attention until 2-3 weeks prior to the scheduled Planning Commission meeting. Further, the two developments lie contiguous to each other and if they are truly to be a "planned commercial development", coordination and cooperation between the parties are necessary. Without that coordination and cooperation, the development will be anything but planned and well-reasoned. Based on that, we would request, at a minimum, that the hearing be continued to allow the parties to harmonize the two developments and provide an opportunity to negotiate the use of Ewell Drive and the future expansion northward of Ewell Drive with respect to the responsibility for payment between the two developments and individual parcels.

It is also highly surprising that an EIR is not being required by the County for this proposed development. The failure to require an EIR for this proposal seems highly unusual based on the conversion of 19.37 acres of prime Ag land to commercial and traffic and air quality that would be significantly impacted by the conversion and the immediate development of a 5 acre travel plaza on property designated as Ag land. This proposal is also questionable based on the fact that there are +/- 10 acres of commercial

property lying contiguous to the proposed development that is available to develop the proposed travel plaza with the same zoning making the application and conversion of the property to commercial property wholly unnecessary.

Troy T. Ewell
Attorney
WANGER JONES HELSLEY PC
265 E. River Park Circle, Suite 310
Fresno, California 93720
Phone: (559) 233-4800 Ext. 110
Fax: (559) 233-9330
Website: www.wjhattorneys.com

-----Original Message-----
From: Becky Beavers [mailto:BBeavers@co.madera.ca.gov]
Sent: Wednesday, September 14, 2016 5:54 AM
To: Troy Ewell
Subject: Re: Avenue 7 Development

The RNDS have applied for a General Plan Amendment and Rezoning. They have been working with Caltrans and intent to build an entrance road on the opposite side of their property. Caltrans has inform them that some day in the future the interchange will be redesigned and there will an elevation difference between Ave 7 and Ewell Dr. The new road would then be able to serve all development. They will be required to have a public water system. If they are able to negotiate with you and your system will satisfy the need that's fine otherwise they will have to build their own. This item will be heard by the Planning Commission on October 4. I will have a staff report sent to you when they

are sent out. If you have any questions just let me know. I am currently out of town at a conference but am alway available be email

Becky

Sent from my iPhone

On Sep 13, 2016, at 2:48 PM, Troy Ewell <tewell@wjhattorneys.com<mailto:tewell@wjhattorneys.com>> wrote:

Becky:

If you recall, my father and I own property at the intersection of Highway 99 and Avenue 7. We processed Parcel Map #4154 on the property creating 11 parcels and rezoned the 11 parcels to PCD. We sold the remainder parcel to RNDS Properties, which was not benefitted by any of the easements created or improvements installed to serve the planned commercial district created (since the remainder was, and I assume still is, zoned Ag and under the general plan as Ag).

It has come to our attention that RNDS intends to develop the remainder parcel into a travel plaza. Since the remainder is designated ag in the general plan and zoned ag, I assume that RNDS is processing a general plan amendment and rezone, but would like confirmation of that. However, our real concern lies with the fact that we have just learned that RNDS has designated Ewell Drive as an entrance point and the public water system established for Parcel Map #4154 as the water source. Ewell Drive is a private road that does not benefit the RNDS property. Additionally, the public water system installed for the planned commercial development established under Parcel Map #4154 does not benefit the RNDS property (ag property). These private improvements will not be available for use by RNDS.

I would appreciate if you could provide me with a brief description of the substance of RNDS' application to the County and request that you notify me of any public hearings on the proposed development. I would be happy to discuss this matter with you any time. Please do not hesitate to contact me. Thank you.

Troy T. Ewell
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Fax: (559) 233-9330
Website:

www.wjhattorneys.com<https://webmail.joneshelsley.com/exchweb/bin/redir.asp?URL=http://www.wjhattorneys.com/>

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For more information please visit http://www.mimecast.com

Senior Planner
Madera Co. Planning
200 West 4th Ave. 3rd floor
Madera, Ca 93637

Dear Mr. Beavers,

I live near by the property which is to be transformed into a "Travel Center". I am totally against this project because it will completely ruin our farm family way of life.

There sufficient Truck Stops in Madera and Fresno and I am extremely fearful for my safety having all this activity (drugs, prostitution etc) so near my family home.

Thank You for giving this matter your attention,

Mary Fiddler
7311 Rd 31
Madera, Ca 93637

From: Steven Ficklin
To: Becky Beavers
Subject: TRUCK STOP AT AVE 7 AND HWY 99
Date: Friday, September 30, 2016 8:18:35 PM

Dear Planning Commission;

My name is Steve Ficklin, I am a 3rd generation farmer and winery owner in Southern Madera County.

We are absolutely opposed to a truck stop in our area where we are raising our grandkids. This is horrible!!!!

In delivering our products to market I have frequented truck stops and this is not what we want in our quiet neighborhood. I have seen first hand the prostitution, drugs and ugly people these facilities attract.

I must ask if you would like this in your back yard????

The Chevron station you approved is bad enough, our mail boxes have been broken into, vehicles stripped and burned and all the while we are trying to promote the Wine Trail in Madera County.

Come on---wise up---Wine Trail, peaceful farming family's or Truck Stop------ not much of a decision the way we see it.

Sincerely,

Steven H. Ficklin and Family

EXHIBIT AB

BAKER COMMUNITY SERVICES DISTRICT

P.O. BOX 590 72730 BAKER BLVD. BAKER, CA 92309
PH. 760-733-4402 FAX 760-733-4661

Monday, October 3, 2016

Re: Ravinder Grewal

To whom it may concern:

My name is Jacob Overson, General Manager of Baker Community Services District. Ravinder Grewal is a business owner in our small community of Baker, CA of four establishments. Since he arrived in Baker in 2002 his businesses have grown and prospered employing over one-hundred employees in a town of a population of seven-hundred thirty- five residents. I can vouch for Mr. Grewal's character and business ethic. He is personable and a professional citizen of our community.

He is largely responsible for an increase in traffic volume and was the first business owner in Baker to build a traffic signal, resulting in profit increases for the local business growth in our community. His growth has enabled to attract major food and retail franchises to open at his locations. He is easy to work with, thinks creatively, and effectively communicates his ideas. With his relentless motivation to expand his business, Mr. Grewal is a citizen that will achieve his business objectives.

Among his professional traits, Mr. Ravinder Grewal is also generous citizen that is fond of sponsoring several charitable events, assisting fundraisers for our local School & non-profit organizations. traditions he caters an Annual Thanksgiving Dinner to travelers and members of the community.

He has my highest endorsement, please feel free to contact me at the address above.

Best Regards,

Jacob Overson
General Manager
Baker Community Services District

EXHIBIT AC

RNDS Properties,LLC
755 N Peach Ave, STE E-3,
Clovis, CA 93611

Planning Commission
200 W. 4th St, Ste 3100
Madera, CA 93637

Oct 02, 2016

Dear Sir/Madam,

On behalf of our company, RNDS Properties LLC, I would like to take this opportunity to thank your department in assisting us bring forth the project to develop a Travel Plaza on site available on the NW corner of Ave 7 and CA 99. As it stands; in order to bring the project to fruition, the site needs to go through a General Plan Amendment from Agriculture to Highway Commercial as well as Rezone from Agriculture to Planned Development District (PDD), prior to approval. There have been many challenges requiring assistance from your department and I must say, staff from your department has gone above and beyond in assisting us and guiding us to navigate the entire process. **In particular, we are grateful for Ms. Becky Beavers' steadfast approach in assisting us, whenever help was needed**.

It is also my pleasure to take time and elaborate briefly on the upcoming Travel Plaza project. It is estimated that an approx. **16000 SQFT building** shall be constructed, housing a food court and convenience store, catering to the needs of the highway travelers, along with onsite Gasoline as well as Diesel fueling services for commercial fleet trucks. The project will bring about an estimated **80** jobs for the Madera community immediately upon commencement of the Travel Plaza, and needless to say, project of this size will generate decent tax revenue for Madera community and thus, furthering the cause for community development in the area. We have contacted consulting agencies to ensure that our project becomes **Green certified**, including but not limited to the use of **Solar Energy**. An estimated **USD 9MM** will have been spent on bringing the project to life. I further claim that we are dedicated to offering further controlled development as there is a conceptual project for a **Conference Center** in the works for future on a **different site**, on pads 8, 9, 10 & 11 of Map 4154 (APCAL site), since RNDS Properties, LLC owns those pads as well, another projected **USD 5MM** shall be spent in **phase 2** to develop such concept in next 3 to 5 years.

I would also like to take time and respond to concerns brought forth to Ms. Becky, regarding the use of Ewell Drive as an entrance point and the use of community water. We understood that the Ewell drive was a common drive dividing pad 1(Chevron Gas) and our 20 Acre parcel. After having submitted our application for rezone, we were advised by CalTrans that there is a future CA 99 & Ave 7 interchange raised highway off

ramp and widening of the same conceptual planned, asking us to dedicate right of way and create an entry point at a minimum of **1000 FT** west of Ewell Drive from future highway on/off ramp, which we complied, and the future Entry point into the project is clearly visible on the site plan submitted. Therefore, a mere existence of a common (private) Ewell drive is not something we can control. We have dedicated land on-site for our entry point and circulation of traffic within the project.

Second concern brought forth is regarding use of water which is not an issue at all. We clearly understand that the project of our size will indeed require drilling water well on site which we shall abide by once site is approved.

I must also bring to light the fact that we are following CalTrans' conditions of approval to the dot. They have informed us via official communication that Ewell Drive will be closed off to traffic in future, therefore, we have incorporated our entry ways on the west end of our property as mentioned earlier. In addition, we are dedicating land for East-West traffic thoroughfare as clearly visible on site plan. This is done to accommodate possible integration with Mr. Ewell property lying on the east side of the proposed Project. We are already doing our bit to integrate harmoniously in near future.

I would also like to comment briefly on some of the recent comments Planning dept has received from neighboring community complaining about this project being a sole Truck Stop, when it is not. This is rather a family friendly Travel Plaza with onsite food court, along with value added Truck Fueling Service. Additionally, we have provided frontage on the building plan for farm fresh fruit stand showcasing local produce. Additionally, we already promote and support booming local wine industry, evidenced by the fact that RNDS also owns APCAL property. We firmly believe in advancing the local wine craft industry. Also, there have bene comments on traffic congestion on Ave 7 due to our project which again is without merit. Once again, we are following CalTrans' conditions of approval whereby, they would require 2 lanes each way on Ave 7 as a mitigation measure.

My hope with this explanation is to clarify the department about our position. RNDS Properties, LLC is continuing on developing the project within legal bounds of the law and complying with all regulatory requirements. We stay committed to developing projects in the Madera community area in a healthy, environmentally conscious manner.

Sincerely,

Sachin Malik
Member-Partner, RNDS PROPERTIES, LLC
Cell: 559.903.4627
Email: Saach78@gmail.com