

3000⁽¹⁾ North Partners, LLC

2021

Alpenglo Subdivision Traffic Impact Study



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Management and Engineering

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10/21/2021

Traffic Impact Study Disclaimer

All recommendations and/or advice presented in this document regarding probable project conditions are the opinions of Civilize, PLLC. Project conditions are based on information and data sources that are readily available from the public sector, provided by the project owner, previously published studies by other competent professionals, and other reliable sources including state agencies and local municipal government entities, all of which are relied upon as accurate. Our recommendations and/or advice are made on the basis of our experience and represent our judgment and opinions. We have no control over new and/or non-public information, changed conditions, cost of land, cost of labor, materials, equipment, and/or other construction costs, or over competitive bidding or market conditions. Therefore, we do not guarantee that actual conditions or actual costs will not vary from those presented in this report.



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TRAFFIC IMPACT ANALYSIS

Executive Summary

3000 North Partners, LLC

Alpenglo

I. Introduction

A. Site Location and Study Area

Alpenglo is proposed 55-lot subdivision located in Teton County. More particularly, the development is situated on the northeast corner of the intersection of Hwy 33 and W 3000 N in Teton County, Idaho. The parent parcels are 82.5 and 80 acres for a total of 162.5 acres and are zoned agriculture/rural residential 2.5. The proposed access is an approach on Hwy. 33 approximately 640 feet north of the intersection of Hwy. 33 and W 3000 N. Figure 1 shows the location of the proposed development.



B. The TIS is conducted in a Methods

The TIS is conducted in accordance with the guidelines for a traffic impact study as published by the Idaho Transportation Department (ITD) in the document titled, *Requirements for Transportation Impact Studies* as well as the guidance document titled *Transportation Impact Analyses for Site Development* published by the Institute of Transportation Engineers (ITE).

1. Horizon Years

This traffic impact study evaluates the existing transportation conditions, the buildout condition projected for 2025, and a horizon year 20 years beyond the Phase I buildout year in 2047:

- 2021 existing background traffic,
- 2027 assumed full build-out year,
- 2047 horizon year

2. Traffic Flow

Highway 33 is a regional transportation route that provides access to Jackson, Wyoming for recreational as well as daily commuting traffic for work purposes, connects the Teton Basin with Rexburg and Idaho Falls, serves as a route to connect Yellowstone and Grand Teton National Parks, provides a cutoff route for travelers traversing between Montana and Wyoming, and serves local and out-of-town sportsmen and tourists in the Teton Basin including those accessing Grand Targhee for skiing and the west side of the Tetons for hiking and camping. As such, the route experiences significant seasonal variation in traffic flows with the peak month occurring in July. Because of the seasonal nature of the traffic flows, the relevant value selected for analysis was the Peak Hour Volume (PHV) for the Average Daily Traffic (ADT) for the peak month of July.

After evaluating traffic flow from ITD Automated Traffic Recorders (ATRs) for Hwy. 33 at Newdale and Hwy 32 at Lamont, combining the values to estimate the traffic at the intersection of Hwy 33 and Hwy 32 northwest of Tetonia, adjusting the traffic estimate to the current date, and proportioning those values to the Milepost 138, which is closest to the project, a reasonable estimate of the 2021 background traffic for the Maximum Month Average Daily Traffic (MADT) was estimated. The value estimated at MP 138 for 8,152 vpd with a directional split of 3,505 southbound and 4,647 northbound. Similarly, the calculation for the Maximum Month Peak Hour was estimated at 598 vph with a direction split of 257 vph southbound and 341 vph northbound (43% southbound and 57% northbound).

PARAMETER	TRAFFIC VOLUME	SOUTH BOUND	NORTH BOUND
Maximum Month Average Daily Traffic (MADT)	8,152	3,505	4,647
Maximum Month Average Peak Hour (PH)	598	257	341

- ITD will seek a variance from the District Engineer to allow the improved approach to be located less than 660 feet from existing approaches.

D. Analysis

1. Existing Traffic – Year 2021

Results for the existing traffic conditions analyzed with the existing intersection control and lane configurations suggest that Highway 33 operates at a Level of Service (LOS) of B while the existing intersection of Dry Creek Trail and Hwy 33 operates within approved thresholds for Level of Service. However, a left-hand turn lane for northbound traffic on Hwy. 33 into Dry Creek Trail is warranted.

2. Project Buildout Year (2027)

a. Background Traffic

For the 2027 background traffic conditions analyzed with the existing intersection control and lane configurations, or the preceding mitigation improvements, Hwy 33 remains at an LOS of B while the existing intersection of Dry Creek Trail and Hwy 33 operates within approved thresholds for Level of Service. However, a left-hand turn lane for northbound traffic on Hwy. 33 into Dry Creek Trail is warranted as well as a left-hand turn lane for southbound traffic into the proposed development. In addition, a right-hand turn lane for northbound traffic on Hwy 33 into the proposed development is also warranted.

b. Background Plus Project Traffic

For the 2027 background traffic conditions plus the project traffic analyzed with the existing intersection control and lane configurations, or the preceding mitigation improvements described as the warranted turn lanes, Hwy 33 remains at an LOS of B the existing intersection of Dry Creek Trail and Hwy 33 operates within approved thresholds for Level of Service.

c. Safety Analysis of Intersections with Respect to Turn Warrants

The intersections were also evaluated for safety using ITD guidelines which recommend using the *National Cooperative Highway Research Report 745 – Left-Turn Accommodations at Unsignalized Intersections (NCHRP 745)* to evaluate left-hand turns and *National Cooperative Highway Research Report 457: Evaluating Intersection Improvements: An Engineering Study Guide (NCHRP 457)* to evaluate right-turn movements to determine if turning movements are consistent with national standards for safety based on traffic volumes.

- The intersection of Alpenglo Road and Hwy. 33 warrants a left-hand turn lane for westbound traffic turning left (south) onto Hwy. 33.
- The intersection of Alpenglo Road and Hwy. 33 warrants a right-hand turn lane for westbound traffic turning right (north) onto Hwy. 33.

3. Horizon Year (2047)

a. Background Traffic

For the 2047 background traffic conditions analyzed with the existing intersection control and lane configurations, or the preceding mitigation improvements, Hwy 33 southbound falls to a LOS of D while Hwy. 33 northbound drops to a LOS E. Background Plus Project Traffic

For the 2047 site plus background traffic conditions analyzed with the existing intersection control and lane configurations, or with the preceding mitigation improvements, all study elements remain the same as the 2027 horizon year analyzed with background traffic as the development generated traffic is small in comparison to the background traffic.

E. Recommendations

1. Mitigation for Existing Traffic (2021)

Based on Level of Service (LOS) a left-hand turn lane for northbound traffic on Hwy. 33 into Dry Creek Trail is recommended to mitigate existing traffic for 2021. However, this improvement is the responsibility of ITD or others and will be designed and constructed by the State of Idaho at their discretion and schedule.

2. Mitigation for Project Buildout Year (2027)

a. Background Traffic

Based on Level of Service (LOS) a left-hand turn lane for northbound traffic on Hwy. 33 into Dry Creek Trail and a left-hand turn lane for southbound traffic on Hwy. 33 into Alpenglo Road are recommended to mitigate existing traffic for 2021. In addition, a right-hand turn lane for northbound traffic on Hwy. 33 into Alpenglo Road is also warranted.

b. Background Plus Project Traffic

A safety analysis of the traffic egressing from the proposed subdivision onto Hwy. 33 results in a recommendation for a left-hand turn lane for westbound traffic turning south onto Hwy. 33 and a right-hand turn lane for westbound traffic turning north onto Hwy. 33 as warranted.

3. Mitigation for the Horizon Year (2047)

a. Background Traffic

It is likely that mitigation based on LOS will be necessary for southbound and northbound traffic on Hwy. 33 based on the traffic volume to capacity ration.

b. Background Plus Project Traffic

No additional mitigation is warranted for background traffic plus project traffic.

TRAFFIC IMPACT ANALYSIS

3000 North Partners, LLC

Alpenglo Subdivision

I. Introduction and Summary

Alpenglo is a proposed 55-lot subdivision located in Teton County and half a mile outside the impact area of the City of Driggs. The Teton County Planning & Zoning Commission approved the Concept Plan for the subdivision and the Preliminary Plat submittal is currently being presented to the Teton County Planning & Zoning Commission for consideration. The application for Preliminary Plat Submittal has several stipulations that apply to a proposed subdivision including the requirement for a Traffic Impact Analysis to ascertain the impact traffic from the proposed development may have on the public transportation system.

Civilize, PLLC has been retained by 3000 N Partners LLC to prepare a Traffic Impact Study for the Alpenglo project in accordance with the requirements of Teton County.

A. Project Identification

The following table lists important project identification information and contact information for the project.

Project Name	Victor Hotel and Workforce Housing
Owner	3000 North Partners, LLC
Owner Contact Person	Matt Hail
Owner Address	2677 Arapahoe Trail Tetonia, ID 83452
Owner Telephone Number	(208) 399-8080
Owner Email	matthaildriggs@gmail.com
Engineer	Civilize, PLLC
Engineer Contact Person	Brent E. "Husk" Crowther, P.E.
Engineer Address	3853 W. Mountain View Dr. Rexburg, ID 83440
Engineer Project Number	01-20-0030
Engineer Telephone Number	208-351-2824
Engineer Email	bcrowther@civilize.design

B. Location

Alpenglo is proposed 55-lot subdivision located in Teton County. More particularly, the development is situated on the northeast corner of the intersection of Hwy 33 and W 3000 N in Teton County, Idaho. The parent parcels are 82.5 and 80 acres for a total of 162.5 acres and are zoned agriculture/rural residential 2.5. The proposed access is an approach on Hwy. 33 approximately 640 feet north of the intersection of Hwy. 33 and W 3000 N. Figure 1 shows the location of the proposed development.



Figure 1: Location Map

The TIS is conducted in accordance with the guidelines for a traffic impact study as published by the Idaho Transportation Department (ITD) in the document titled, *Requirements for Transportation Impact Studies* as well as the guidance document titled *Transportation Impact Analyses for Site Development* published by the Institute of Transportation Engineers (ITE).

C. Applicable Regulations

The Teton County Code, Title 9 Subdivision Regulations, Chapter 3 Procedure for Approval, Section 2 Subdivision or Planned Unit Development, Paragraph C Preliminary Plat Phase, Paragraph 3 Regulations That May Apply, Item d Traffic Impact Study states:

Due to the impact that a subdivision or PUD may have on traffic levels, congestion levels, and levels of service on roads, the applicant for a proposed subdivision containing more than ten (10) lots or a proposed PUD containing more than ten (10) lots or dwelling units shall traffic impact study prepared by a professional engineer. A TIS may also be required if the Planning Administrator, the Commission, or the Board think that the condition of one or more of the roads that would provide access between the proposed development and the nearest State Highway is so poor that traffic from ten (10) or fewer lots or dwelling units could create public safety risks or interfere with the efficient flow of traffic. Each required traffic impact study shall meet the following standards: (amd. 11-14-08)

The existing access for the property is an unimproved approach from Hwy. 33 located approximately 670 feet north of the intersection of Hwy. 33 and W 3000 North while the proposed access for the Alpenglo Subdivision is also from Hwy. 33 and located approximately 640 feet north of the intersection of Hwy. 33 and W 3000 North directly opposite the approach for Dry Creek Trail that provides access to the Dry Creek Ranch subdivision. Preliminary conversations with the Idaho Transportation Department (ITD) indicate that the agency has a preference for the proposed development to access the property from W 3000 North and to abandon the existing unimproved and non-permitted (grandfathered) approach from Hwy. 33. Subsequent meetings with ITD and Teton County indicate that Teton County has no plans to establish a county road on W 3000 North given the existence of a county at 2500 North, which may limit the availability of an alternate location for access to the proposed development. The distance between existing approaches and the new improved approach for the development is less than stipulated in Idaho Statute and requires an exception from ITD. However, with the position of Teton County regarding construction of a road at W 3000 North, ITD has agreed to pursue a variance to allow the approach as presented in the preliminary plat. In either case, the principal intersection evaluated pertains to the proposed subdivision with no other traffic from County Roads or subdivision utilizing the approach and the background and projected traffic on Hwy. 33 remains the same, therefore, the analysis for the intersection in this document and the conclusions drawn are applicable regardless of the location of the single approach to the subdivision.

The internal road network is planned for private roads. Consequently, the proposed development does not utilize any County roadways for immediate ingress or egress, unless the location for the approach is moved to W 3000 North. Any recommendations for mitigation to Hwy. 33 then are under the purview of the State of Idaho.

D. Purpose of Report and Study Objectives

The purpose of the Traffic Impact Study (TIS) is to evaluate the traffic impacts resulting from the proposed development and to make recommendations for mitigation to the impacts if such prove necessary. The scope of the study includes the following:

- Characterization of the proposed development in terms of land use and the type of development anticipated,
- Trip generation of the proposed development, both daily and peak hour,
- Site traffic distribution and traffic assignment,
- Research and presentation of background traffic volumes, both daily and peak hour,

- Internal and off-site roadway traffic projections,
- Capacity analysis of existing and proposed intersections and approaches for existing conditions and three horizon years; project opening (existing background traffic), project buildout, and a 20-year planning horizon, and includes analysis of the following intersections:
 - Site access/approach onto Hwy 33
- Analysis of turn lane and deceleration lane warrants,
- Development and analysis of traffic mitigation alternatives, and
- Recommendations for traffic mitigation.

II. Proposed Development

A. Off-Site Development

Existing development in the area surrounding the proposed development Consists of rural residential subdivision and scattered residential structures along with dwindling agricultural operations. There is a four-leg intersection to the south and just outside of one-half mile radius from the primary approach to the development, which is the intersection of State Highway 33 and W 2500 N. The semi-rural hamlet of Driggs lies approximately one mile south of the development and there are some residential lots, including the 21-lot Dry Creek Ranch, some with homes, across State Highway 33 from the development. There are more residential lots, some with homes, adjacent to Alpenglo on the north side of the property. Figure 2 presents the location of Alpenglo with respect to existing development.

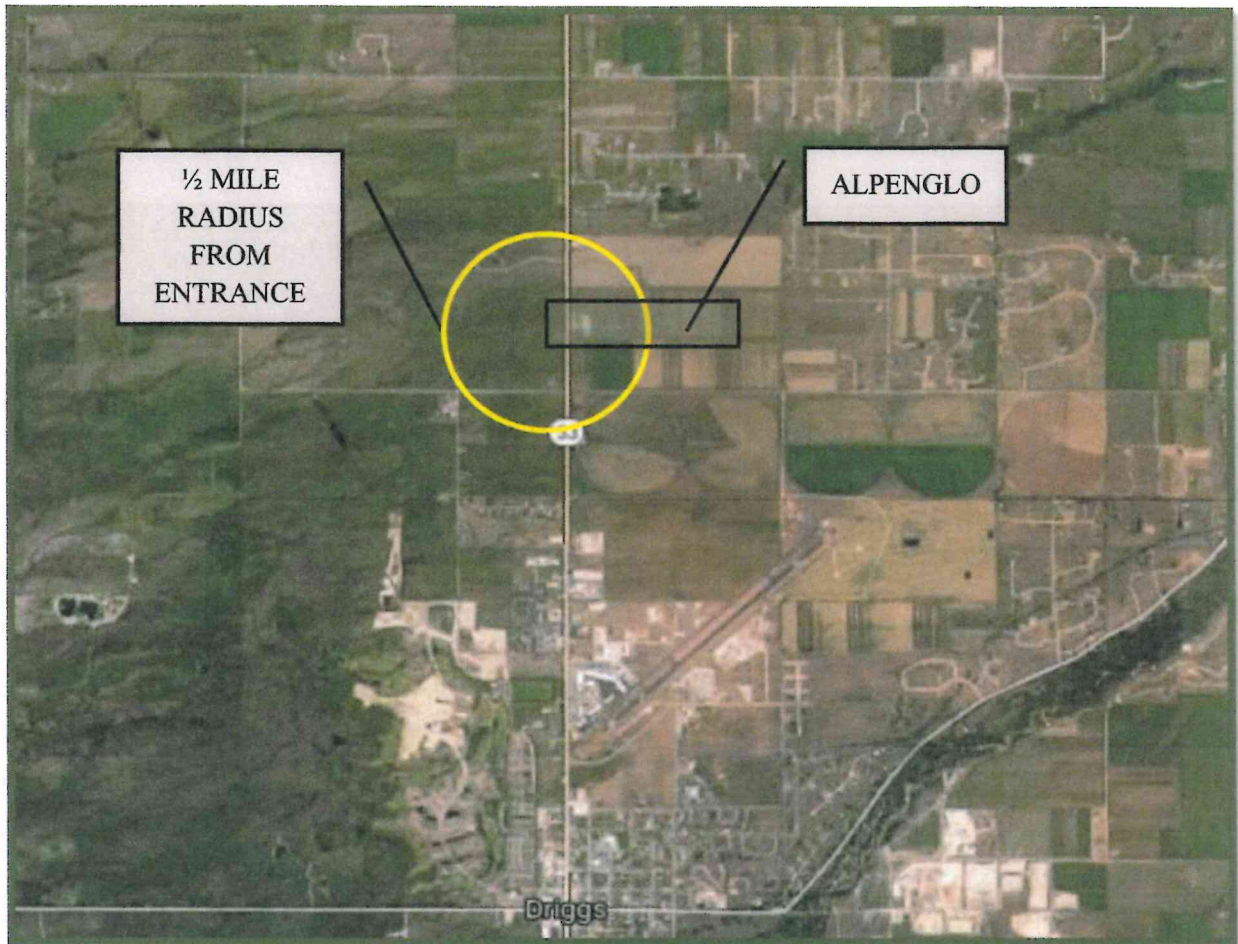


Figure 2 - Development in the Vicinity of the Proposed Project.

Teton County has prepared Transportation Planning Study that may be referenced throughout the document along with information gleaned from the Hwy. 33 Corridor Study commissioned by the Idaho Transportation.

B. Description of On-Site Development

1. Description

The development plans call for 55 single family residences. The Traffic Impact Study (TIS) will be based on the that type of development.

2. Location

As presented previously, the proposed development is comprised of two parcels totaling of 162.5 acres located on the northeast corner of the intersection of Hwy. 33 and Dry Creek Lane can be seen in Figure 1 and Figure 2.

With respect to the public land survey system, the property is located in the South 1/2 of the Southeast 1/4 of Section 11 and the South 1/2 of the Southwest 1/4 of Section 12, Township 5 North, Range 45 East, B.M.

3. Zoning

Currently, the Teton County lists the property as A/RR 2.5, which is designated for agriculture and for one and two-family structures on parcels with a minimum size of 2.5 acres. Alpenglo does not propose to alter the zoning.

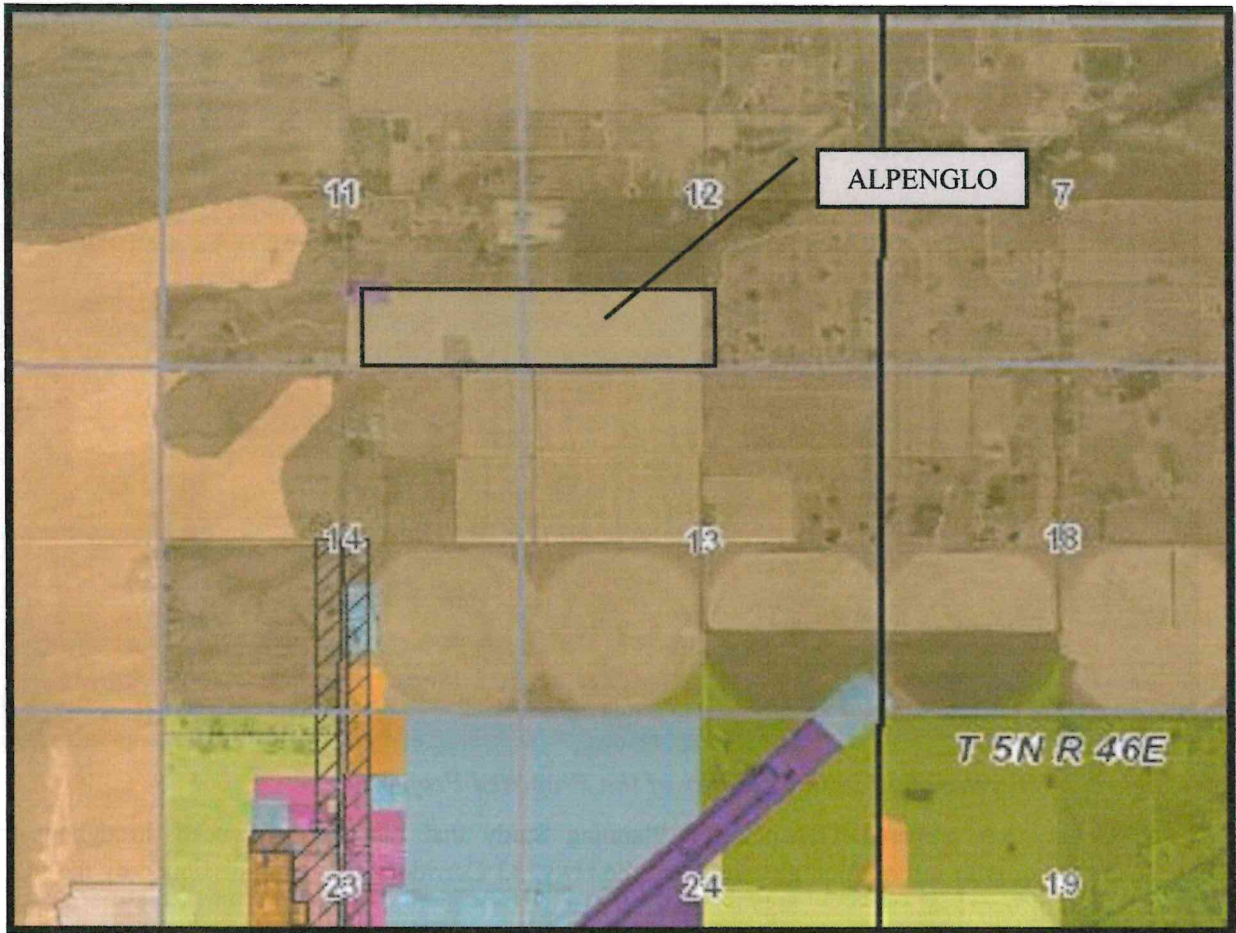


Figure 3 - Zoning Map for the City of Driggs, Idaho.

Quoting from the *Teton County Zoning Ordinance, Title 8*, adopted on September 09, 2013, the purpose and intent of the A/RR 2.5 zone is:

- 1. Purpose: The purpose of this district is to designate and provide opportunity for development of residential land use on marginal agricultural land.*
- 2. Intent: The intent of this district is to be used where small increment agriculture or rural residential activities are the primary use of the land.*

4. Site Plan

The master plan has been prepared and presented to Teton County. That plan is presented in Figure 4 and a larger version presented in Appendix A – Proposed Site Plan. Although the site configuration may change slightly in the future, the Site Master Plan represents the best information regarding anticipated future development for land use and will be the basis of traffic projections generated by the proposed development.

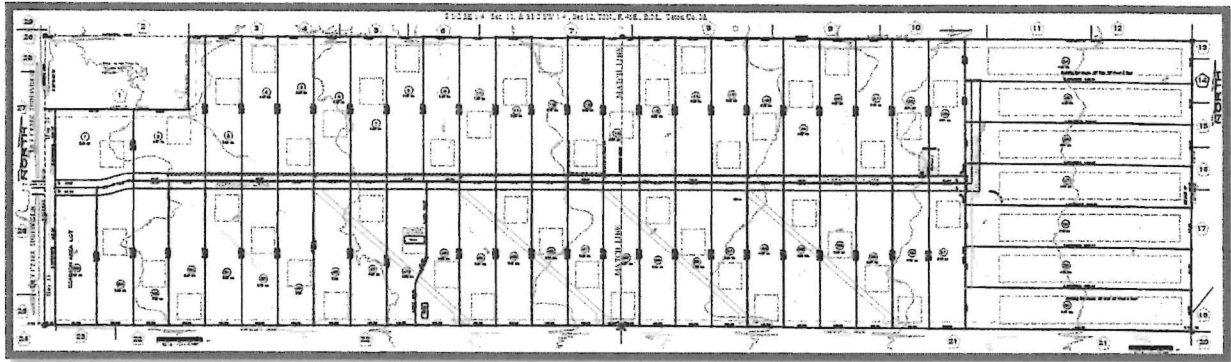


Figure 4 - Proposed Site Plan.

5. Land Use and Intensity

The proposed development is 162.5 acres. The development as proposed consists of 55 single-family residences. While future development may occur in the area of the proposed project, that development is not currently defined and will not be considered in the traffic modeling, rather that responsibility will be relegated to future developers.

Table 1 Land Use and Intensity

Lot No.	Development Use	% of Total	Acres
1.	Single-Family Residences	100%	162.5
	Totals	100%	162.5

6. Phasing and Timing

a. Existing Conditions

Existing conditions for the subject property are described as agricultural with seasonal traffic generated for farming activity which will be considered negligible with respect to existing traffic conditions. The existing conditions for Hwy 33 will be ascertained from traffic counts conducted by ITD as well as Teton County.

The existing conditions generate a baseline level of traffic and create the traffic conditions as they currently exist.

b. Buildout Conditions

The buildout of the project will entail all 55 lots constructed with single-family homes. For purpose of the TIS, this is assumed to occur in 2027.

c. Horizon Year 2042

Longer term traffic conditions will be projected to year 2042. The proposed development will remain as described for buildout. Highway 33 traffic conditions will be extrapolated from the planning documents developed by ITD and Teton County. As mentioned earlier, this TIS will not consider additional traffic that may be generated from unknown development west of the proposed project.

III. Study Approach

The scope of this TIS is based on ITD's *Requirements for Transportation Impact Studies* (Supplement to Board Policy B-12-06) as well as the guidance document titled *Transportation Impact Analyses for Site Development* published by the Institute of Transportation Engineers (ITE). The specific parameters and requirements for the TIS were also based on verbal consultation with the Traffic Engineer for ITD District VI in Rigby, Idaho.

A. Study Area

The study area consists of the intersection of Highway 33/Dry Creek on the southwest corner of the development. (If the proposed approach is approved by ITD, the analysis presented remains valid for that location).

1. Intersection #1 – Highway 33/Dry Creek.

B. Study Period

The following study periods were identified for analysis:

1. 2021 (Existing)
2. 2027 (Project Buildout)
3. 2042 (Horizon year)

The following time intervals were identified for analysis:

1. Weekend AM peak hour.
2. Weekend PM peak hour

C. Study Methodology, Limitations and Assumptions

The following methodology, limitations and assumptions were used for this analysis:

- The Traffic Impact Study includes one intersection; Highway 33/Dry Creek, a three-leg intersection for the 2021 Horizon Year, and a four-leg intersection for the 2027 and 2047 Horizon Year.
- No other intersections were included in the TIS. ITD or Teton County may require analysis of additional intersections which will require an amendment to this TIS.
- A separate phasing analysis may be required by ITD or Teton County to identify when mitigation improvements are triggered. Phasing analysis in addition to the study periods identified above is not included in this TIS and will be conducted in a separate study if required.

- The Transportation Research Board's 2016 *Highway Capacity Manual (2016 HCM)* methodologies were utilized to determine the level of service (LOS) for signalized and unsignalized intersections. LOS ratings are based on the average control delay per vehicle and a volume to capacity ratio (v/c). Synchro 9.1 (904.125) was used for signalized, stop-controlled analysis, and roundabout analysis.
- Right-hand turn and left-hand turn warrant analysis followed the guidance found in ITD's *Traffic Manual: Idaho's Supplementary Guide to the MUTCD*, which references *NCHRP Report 745 – Left-Turn Accommodations at Unsignalized Intersections*. In addition, the *NCHRP 457 – Evaluating Intersection Improvements: An Engineering Study Guide* was utilized for right-turn movements.
- The traffic volumes were modeled using the Peak Hour Volume (PHV) defined as the highest hourly volume during an average day.
- The Design Hourly Volume (DHV) is typically defined as the 30th highest hourly volume in a design year. The choice of the 30th highest hourly volume is a long-held concept which stems from research published in *A Policy on Geometric Design of Rural Highways* from the American Association of State Highway Officials (AASHO) in 1965 (pages 54-56).

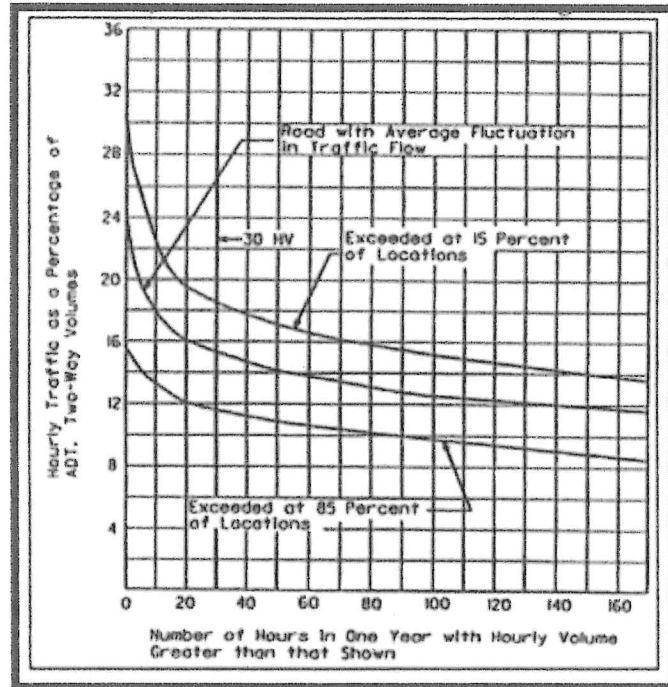


Figure 5 - Relationship of Highest Hourly Volume and ADT on Rural Arterials (*The Green Book*).

The data from which FIGURE 5 was developed represent a multitude of rural arterials covering a wide range of volumes and geographic conditions. The horizontal axis of the figure indicates the 170 highest number of traffic hours in a typical year of 8,760 total hours. The vertical axis shows the value of the volume of traffic during these hours as a percentage of the average daily traffic (ADT) at the study locations. The vast amount of data points included in the study are bracketed by trend lines that capture the bulk of the results (70 percent as indicated by the curve labels), as shown by the upper and lower curves in the figure. The middle line represents sites that exhibited an average fluctuation in traffic flow. Visually comparing all of the trend lines together indicates that drastic traffic flow changes occurred near the 30th highest hour of the year, as the steepness of the curves indicates between the 1st highest hourly volume and the 30th. For the remainder of the hours between the 30th and the 170th, there is very little change in the slope of the curves, indicating that designing for that 30th hour would cover the expected traffic volume at almost any given hour in a given day of a given week in a given month of a given year.

IV. Area Conditions

A. Study Area

1. Area of Influence

A one-half mile buffer was placed around the proposed development as the area of influence. The area of influence is presented in Figure 6.

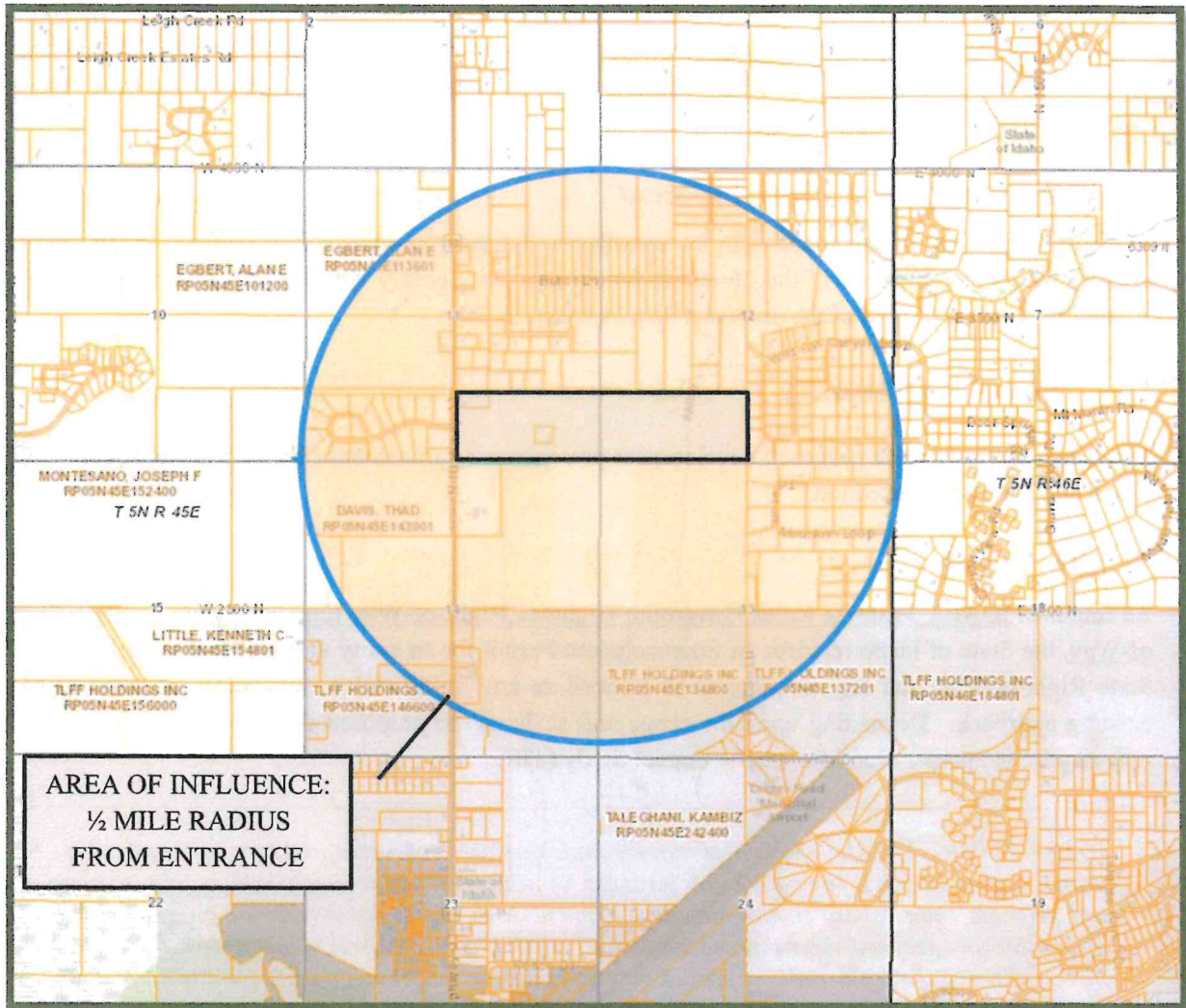


Figure 6 - Area of Influence.

B. Area of Significant Traffic Impact

The area of influence selected for evaluation of traffic impacts is 1/2 mile surrounding the proposed development. The area that will be studied is:

1. Intersection #1 – Highway 33/Dry Creek.

C. Study Area Land Use

1. Existing Land Uses

The current land use is agricultural interspersed with scattered rural residential use. The City of Driggs is a small rural community located about one mile south of the development. The use can be observed in the various figures presented and in viewing the parcels using various commercial mapping platforms available to the public such as Google Earth, Bing Maps, and the Teton County GIS parcel viewer.

2. Existing Zoning

According to the Teton County zoning map, the parcel is zoned Agricultural / Rural Residential with a 2.5-acre minimum lot size (A/RR 2.5), as is all the land surrounding the proposed development. The use of the land reflects that zone.

3. Anticipated Future Development

The only known future development in the area that will utilize the intersection analyzed is the proposed project, which is comprised of the 55 single-family lots that comply with the current zoning; reference Appendix A for a site plan of the proposed development.

D. Site Accessibility

The Concept Plan for the proposed development presents an approach onto Hwy 33 north of the W 3000 North and Hwy 33 intersection.

1. Site Access

As found in IDAPA 39.03.42 Rules Governing Highway Right-of-Way Encroachments on State Rights-of-Way, the State of Idaho requires an Encroachment Permit for an entity to perform any work within the State Right-of-Way and any new approach as well as any modification, relocation, or removal of an existing approach. Depending upon the scope and scale of the proposed development, that application may require the preparation of a Traffic Impact Study (TIS).

IDAPA 39.03.42.200.01 To help preserve the highways as constructed and provide responsible growth where allowed, any individual, business, or other entity planning to add, modify, change use, relocate, maintain, or remove an encroachment on the state highway or use highway right-of-way for any purpose other than normal travel, shall obtain a permit to use state highway right-of-way. Encroachment permits approved by the Department are required for private and public approaches (driveways and streets), utilities and other miscellaneous encroachments.

Preliminary consultation with ITD suggests they prefer the development utilize the intersection of W 3000 North for access. However, there is not an existing county road at W 3000 North and no plans to construct a road at that location. Therefore, ITD is exploring a variance in the distance between approaches to allow the approach in the location proposed (See Appendix B).

a. Road Network Functional Classification.

For access guidelines, the Road Classification Map published by Teton County and IDAPA 39.03.42 Rules Governing Highway Right-of-Way Encroachments on State Rights-of-Way. (See Appendix C)

(1) Teton County

Teton County labels Highway 33 as a state highway or a minor arterial and Dry Creek as a minor neighborhood as seen in Figure 7.

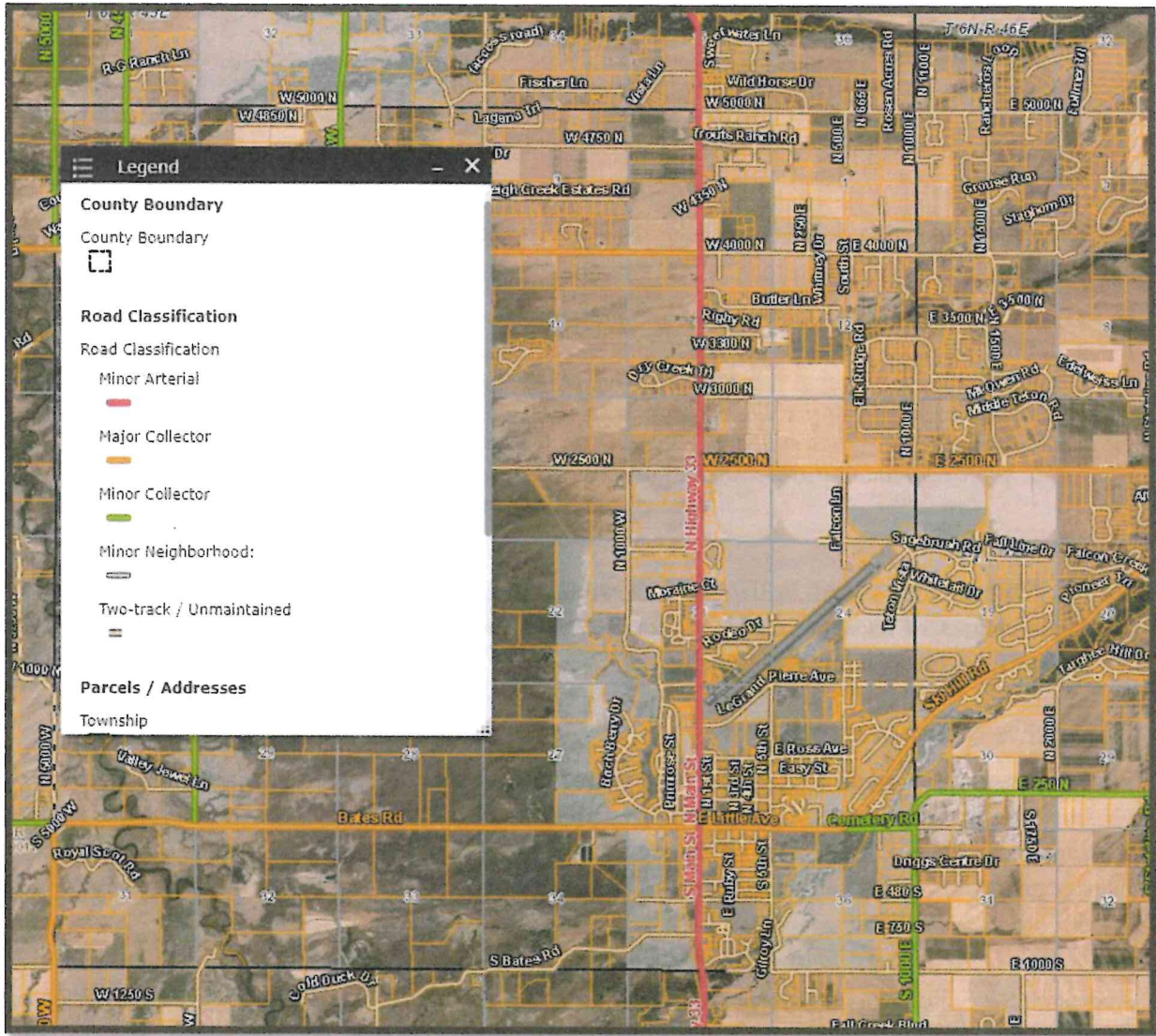


Figure 7 - Teton County Road Classification Map

(2) Idaho Transportation Department

The State of Idaho (ITD) classifies Highway 33 as a Minor Arterial and W 3000 N as a Minor Collector road, though it does not currently exist. In the manual Idaho Transportation Department Systems Procedures published in 2016, Chapter 3.0 Functional Classifications, ITD defines a Minor Arterial as thus:

Minor arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher arterial counterparts and offer connectivity to the higher arterial system. Through a series of routes, they are expected to provide for relatively high, overall travel speeds with minimum interference to through movement. Minor arterials interconnect and augment the higher arterial system, provide intra-community connectivity and may carry local bus routes. They should be identified and spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a higher-level arterial.

The same publication defines a collector road as follows:

Collector streets provide both land access and traffic circulation for residential, commercial, and industrial areas. Their access function is more important than that of arterials, and unlike arterials, their operation is not always dominated by traffic signals. Collectors are broken down into two categories: Major Collectors and Minor Collectors. Collectors generally serve intra-county travel (rather than statewide) and constitute those routes on which (independent of traffic volume) predominant travel distances are shorter than on arterial routes; consequently, more moderate speeds may be posted.

(3) Information Required by ITD for Modifications to an Approach

Modifications of an approach by a permittee shall include a design describing the width, grade, surface type, landscaping, and drainage.

2. Access Management

Access management within a city is intended to facilitate safe and convenient access and circulation for vehicular traffic, pedestrians, and bicycles within a jurisdiction. Access management for the state highway system intended to provide safe transit for regional and interstate traffic. As such, the objectives of access management within a city can sometimes be different than those for a state highway system.

a. Idaho Transportation Department

Access on the State Highway System is defined in *IDAPA Rules 39.03.42 Rules for Governing Highway Right-of-Way Encroachments on State Rights-of-Way* and managed by the Idaho Transportation Department. IDAPA 39.03.42.300 requires an encroachment permit for any new, modified, or relocated approach.

IDAPA 39.03.43.200.01. Required. To help preserve the highways as constructed and provide responsible growth where allowed, any individual, business, or other entity planning to add.

modify, relocate, maintain, or remove an encroachment on the State highway or use highway right-of-way for any purpose other than normal travel, shall obtain a permit to use State highway right-of-way. Encroachment permits approved by the Department are required for private and public approaches (driveways and streets), utilities and other miscellaneous encroachments

IDAPA 39.03.42.300 describes the requirement that an applicant must obtain a right-of-way use permit and meet all access requirements that correspond to the state highway being affected for all new or additional approaches.

IDAPA 39.03.43.300.01. All new or additional approaches, or the modification in design or use, relocation or removal of existing approaches require an approved State highway right-of-way use permit and shall meet all access control requirements that correspond to the state highway being affected.

Access to a Major Collector requires a Type I access which excerpting from IDAPA 39.03.42 is described as follows:

IDAPA 39.03.42.011.02 Type I (Major Collector). Type I access control is applicable to segments of the State Highway System functionally classified as major collectors. All major collectors shall be upgraded to a minor arterial or higher class once located within an urban area. (3-30-01)

Access to a Minor Arterial requires a Type II access which excerpting from IDAPA 39.03.42 is described as follows:

IDAPA 39.03.42.011.02 Type II (Minor Arterial). Type II access control is applicable to segments of the State Highway System functionally classified as minor arterials and some selected segments classified as major collectors that exhibit characteristics of minor arterials. Public highway connections and new private approaches may be permitted in accordance with Department spacing standards. Joint-use approaches are encouraged. As land uses change, existing approaches should be reviewed to encourage development of frontage roads.

The access from Alpenglo to Hwy. 33, a Major Collector, will need to conform with a Type I access. If the subdivision accesses W 3000 N, a Minor Arterial, then it should conform with a Type II access.

b. Teton County

Access management for Teton County is governed by the publication Highway & Street Guidelines for Design and Construction in Teton County, Idaho as amended April 11, 2013. A review of that publication does not reveal any specific requirements for access management.

3. Location and Design Standards for Approaches

For state highways, ITD has jurisdiction regarding the approval of all approaches including the location, design, construction and operation of all approaches. When reviewing an application for an approach, ITD follows guidelines such as current and future property access requirements and reduction of conflicts associated with access points including channelization, auxiliary lanes, joint-use approaches, frontage and other local roads, restricted on-street parking and off-street traffic circulation.

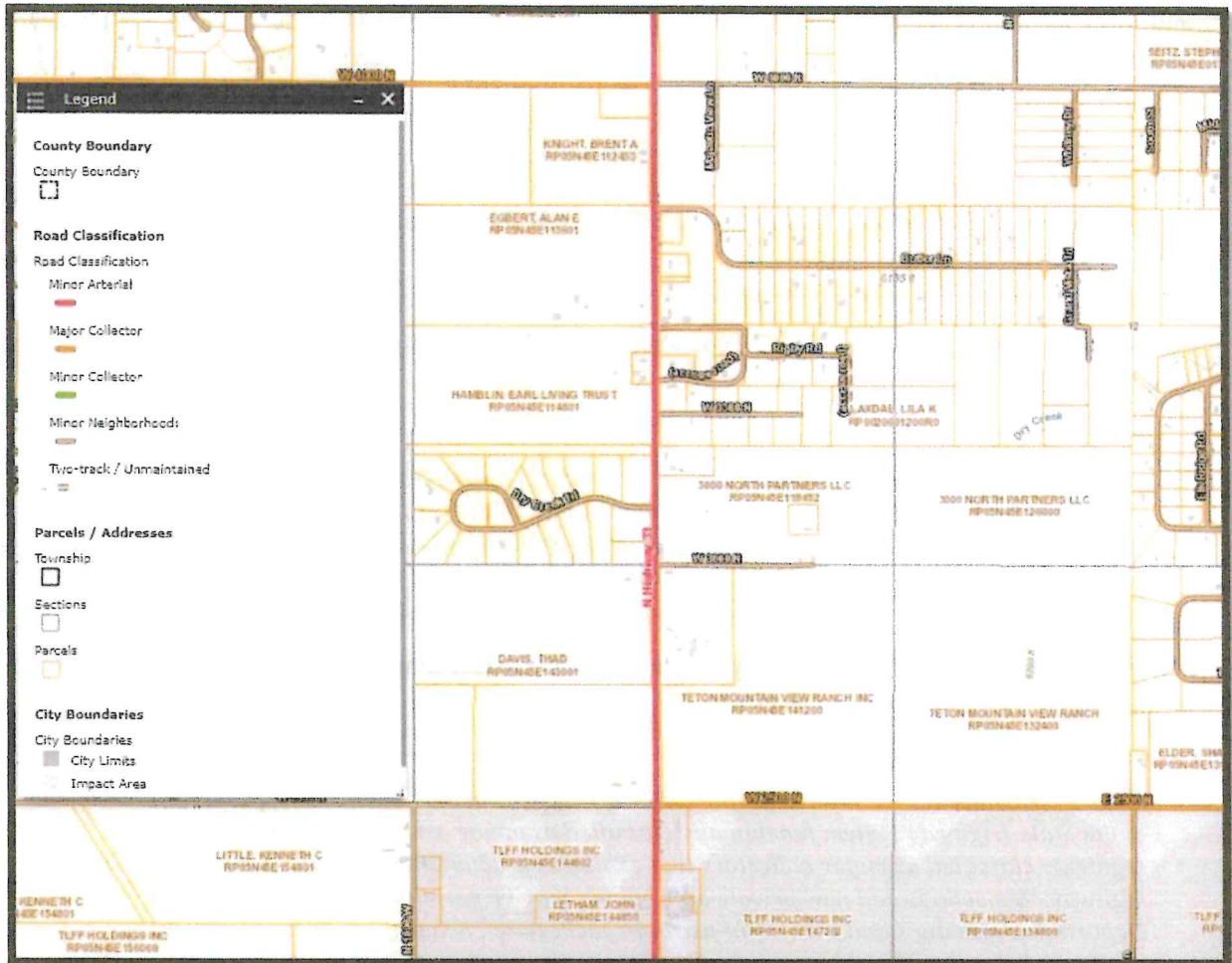


Figure 8: Teton County Road Classification (Teton County GIS, 2021)

c. Access Spacing

According to approach spacing found in IDAPA 39.03.42 Rules Governing Highway Right-of-Way Encroachments on State Rights-of-Way, the minimum recommended spacing for public roads on a Regional Route (Highway 33) in a transitional area is 1,320 feet (1/4 mile), the driveway distance upstream from a public road intersection is 690 feet, the driveway distance downstream from an unsignalized public road intersection is 360 feet, and the distance between unsignalized accesses other than public roads is 360 feet as shown in Figure 8.

The District Engineer has authority to approve a decrease in the minimum access spacing distances provided the basis for any exception is justified and documented.

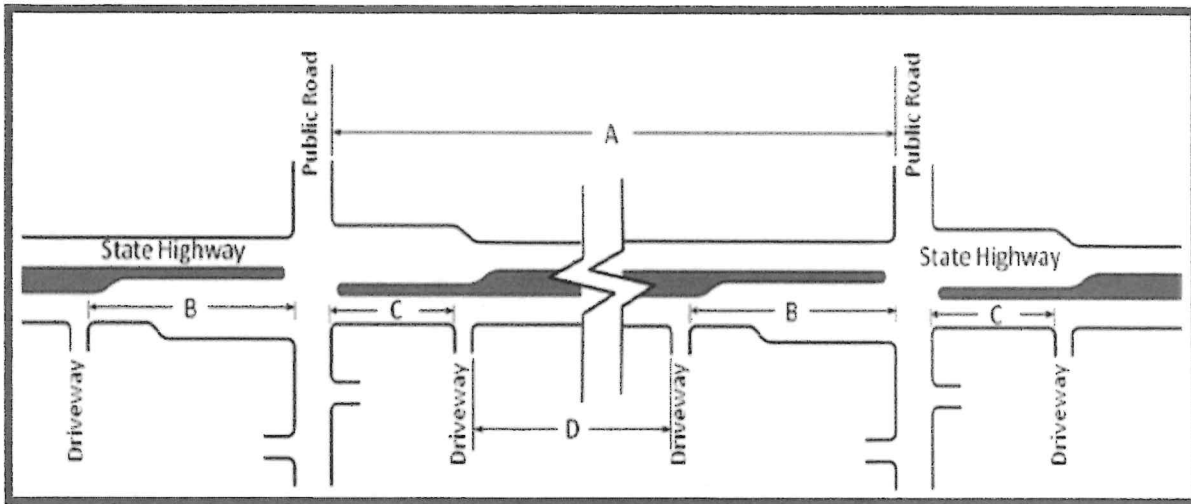


TABLE 1 – ACCESS SPACING*

HIGHWAY TYPE	AREA TYPE	Signalized Road Spacing	Public Road Spacing (A)	Driveway Distance Upstream From Public Road Intersection (B)	Driveway Distance Downstream From Unsignalized Public Road Intersection (C)	Distance Between Unsignalized Accesses Other Than Public Roads (D)
Interstate	All	Accessible only by interchanges (ramps) and requires approval by the Board and Federal Highway Administration.				
Freeway	All	Accessible only by interchanges (ramps).				
Expressway	All	Accessible only at locations specified by the Department.				
Statewide Route	Rural	5,280 ft	5,280 ft	1,000 ft	650 ft	650 ft
	Transitional	5,280 ft	2,640 ft	760 ft	500 ft	500 ft
	Urban >35 mph	2,640 ft	1,320 ft	790 ft	500 ft	500 ft
	Urban ≤35 mph	2,640 ft	1,320 ft	790 ft	250 ft**	250 ft**
Regional Route	Rural	5,280 ft	2,640 ft	1,000 ft	650 ft	650 ft
	Transitional	2,640 ft	1,320 ft	690 ft	360 ft**	360 ft**
	Urban >35 mph	2,640 ft	660 ft	660 ft	360 ft**	360 ft**
	Urban ≤35 mph	2,640 ft	660 ft	660 ft	250 ft**	250 ft**
District Route	Rural	2,640 ft	1,320 ft	760 ft	500 ft	500 ft
	Transitional	2,640 ft	660 ft	660 ft	360 ft**	360 ft**
	Urban >35 mph	1,320 ft	660 ft	660 ft	360 ft**	360 ft**
	Urban ≤35 mph	1,320 ft	660 ft	660 ft	250 ft**	250 ft**

*Distances in table are minimums based on optimal operational and safety conditions such as adequate sight distance and level grade. Definitions of spacing designated by (A), (B), (C), and (D) are represented on Figure 1.

** Where the public road intersection or private access intersection is signalized, the distances in the table are for driveways restricted to right-in/right-out movements only. For unrestricted driveways the minimum distance shall be 500 feet from a signalized intersection.

Figure 9 - Access Configuration and Spacing per IDAPA 39.03.42.

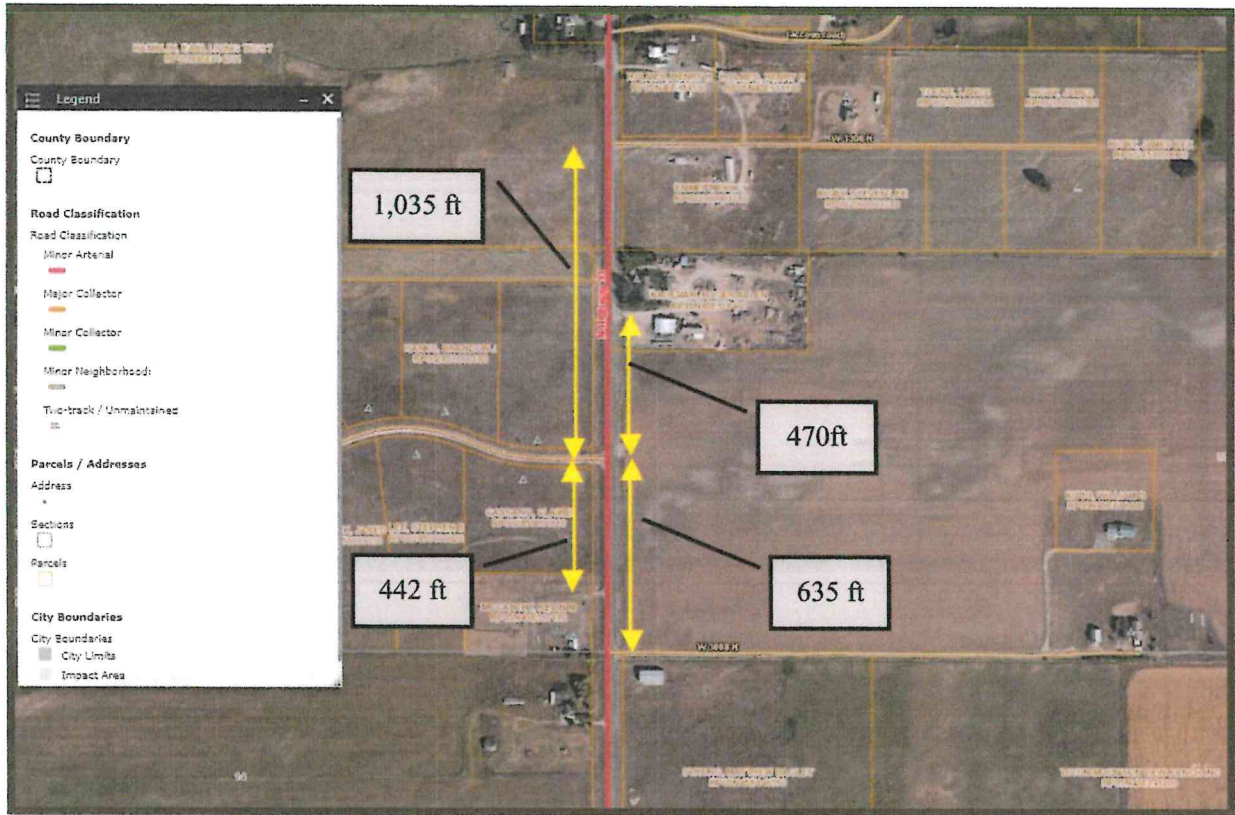


Figure 10: Spacing of Existing Approaches (Teton County GIS 2021)

d. Corner Clearance

Approaches should be located as far from corners as practicable to preserve visibility at the intersection.

e. Approach Alignment

Whenever possible, approaches should intersect the state highway at right angles and be aligned with the existing approaches to facilitate safety and the development of turn lanes.

f. Width and Radius

The minimum and maximum recommended approach widths and radii per IDAPA 39.03.42 are presented in the following table. For a multiple residential approach accessing a roadway with a posted speed >35 mph, the minimum throat width is 28 feet, and the maximum width is 40 feet. The minimum radius is 20 feet, and the maximum radius is 30 feet

Table 2 – Minimum and Maximum Approach Widths and Radii per IDAPA 39.03.42.

APPROACH USE	< 35 MPH		≥ 35 MPH		RADII	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Single Residential, Farmacyard, Field	12ft	40ft	20ft	40ft	20ft	30ft
Multiple Residential	28ft	40ft	28ft	40ft	20ft	30ft
Commercial (One-Way)	15ft	30ft	20ft	30ft	30ft	40ft
Commercial (Two-Way)	25ft	40ft	25ft	40ft	30ft	40ft
Boulevard Approach	84ft	84ft	84ft	84ft	Contact Department	
Joint-Use Residential/Farm	25ft	40ft	25ft	40ft	20ft	30ft
Joint-Use Commercial	12ft	40ft	20ft	40ft	30ft	40ft
Public Highways	28ft	N/A	28ft	N/A	30ft	50ft

Area Transportation Elements and Roadway System

a. Existing Roadway Network

There is one (1) main roadway traversing the area of influence: Highway 33 situated on the west boundary of the proposed development. If we reference the *Teton County Transportation Plan*, we can discern the functional classification of the existing road network and determine some characteristics for the roads in the area of impact for this development.

- Highway 33 has a speed limit of 55 mph in the area of influence with no bicycle or pedestrian facilities.
- Highway 33. This roadway serves as a Regional Route with one travel lane in each direction at the intersection of Hwy. 33 and Dry Creek.
- The intersection of Hwy. 33 and W 2500 North and the intersection of Hwy. 33 and W 4000 North feature one travel lane in each direction plus a center left turn lane for both northbound and southbound traffic and a right-hand deceleration lane for both northbound and southbound traffic.

b. Transit Service

TRPTA operates public transit services in the area.

c. Bicycle and Pedestrian Facilities

There are no bicycle or pedestrian facilities on the roads in the vicinity of the development.

d. Future

Other than the roads for the proposed development including the approach onto Hwy. 32, there are no known future road improvements in the vicinity.

4. Accident History

a. ITD Crash Data

According to the Idaho Local Road Crash Data that was obtained from the Local Highway Technical Assistance Council (LHTAC), between 2016 and 2020 there have been ten (10) crashes within the area of influence for this study, all on Hwy. 33 as depicted in Figure 9, and two crashes just outside the area of influence at the two nearest major intersections with Highway 33 (also see Appendix D)

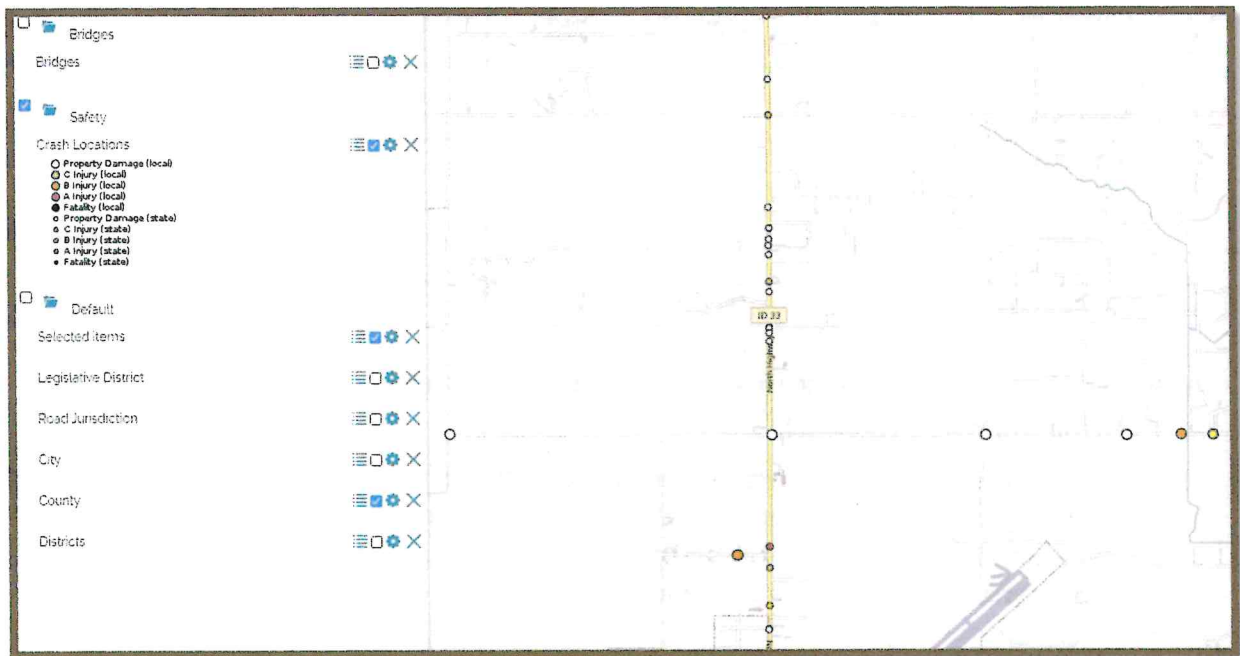


Figure 11 - LHTAC Crash Data 2016-2020

A summary describing the year, severity, driver action and the event if presented in the following table.

Table 3 - Crash Data for Hwy. 33 from 2016 to 2020 (LHTAC).

Date	Severity	Intersection	Driver Action	Impaired	Most Harmful Event	Events
5/28/2016	Property Dmg Report	Not at intersection	Going Straight	FALSE	Embankment	Embankment,
1/14/2017	Property Dmg Report	Not at intersection	Going Straight	FALSE	Rear-End	Loss of Control, Rear-End,
10/14/2017	Property Dmg Report	Not at intersection	Going Straight	FALSE	Overturn	Loss of Control, Ran Off Road, Overturn,
10/18/2017	Property Dmg Report	Not at intersection	Turning Left	FALSE	Rear-End Turning	
7/27/2018	Property Dmg Report	Not at intersection	Going Straight	FALSE	Fence	Fence,
8/21/2018	Property Dmg Report	Not at intersection	Going Straight	FALSE	Ditch	Ran Off Road, Ditch,
8/28/2018	Property Dmg Report	T-Intersection	Going Straight	FALSE	Rear-End	Rear-End,
11/13/2018	C Injury Accident	Four-way Intersection	Turning Left	FALSE	Angle Turning	Angle Turning,
4/24/2019	C Injury Accident	Not at intersection	Slowing in Traffic	FALSE	Rear-End	
10/15/2019	Property Dmg Report	Not at intersection	Starting in Traffic	FALSE	Rear-End	Rear-End,
8/30/2020	Property Dmg Report	Not at intersection	Going Straight	FALSE	Animal Domestic	Animal Domestic,
8/28/2020	Property Dmg Report	Not at intersection	Going Straight	FALSE	Animal Domestic	Animal Domestic,

There were no reported fatalities at the study area intersections between 2016 and 2020. Existing crash rates for the study area intersections are below the base rate for a similar intersection type in Idaho.

V. Existing 2021 Traffic Volumes and Conditions

A. Traffic Forecasting

There are diverse ways to forecast future traffic flow and patterns. A common forecasting method is to take the historic population and forecast the traffic from those values. However, in this situation, recreation and tourism is a major factor, therefore using traffic data trends from ITD traffic counts will provide more satisfactory results from which to draw conclusions and make recommendations for mitigation. This study will use traffic data obtained from the ITD to determine traffic conditions for the 2020 and 2021 (existing), 2027 (Project buildout), and the 2042 (Future) horizon years.

B. Analysis of Existing 2021 Traffic Conditions

Within the area of influence there will be one (1) roadway segments (Hwy. 33) and one (1) intersection examined. The segments will be analyzed with the intersections. The intersections are:

1. Intersection #1 – Highway 33/Dry Creek

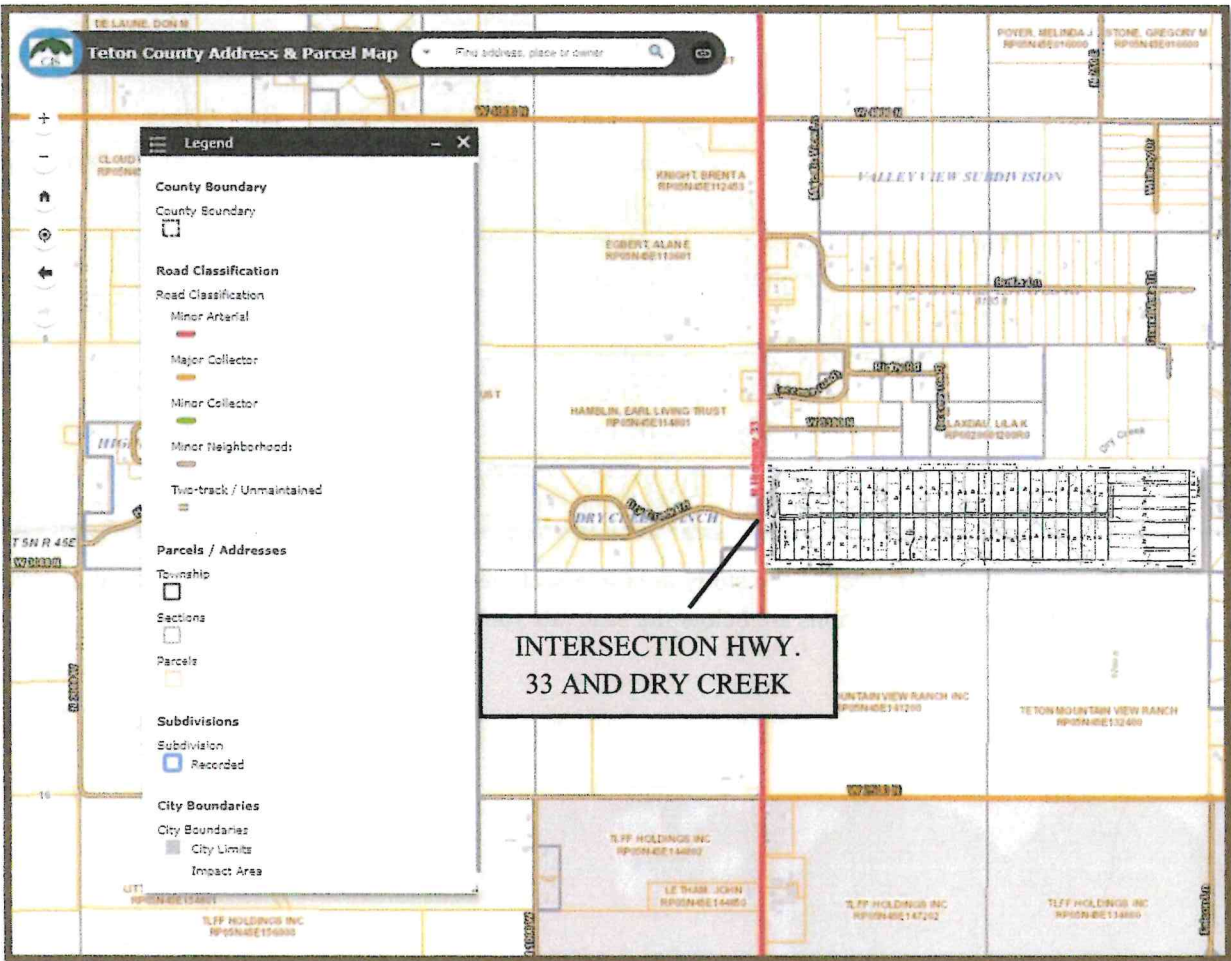


Figure 12: Transportation Elements Analyzed.

1. Existing Traffic Volumes

This section discusses the ADT, the peak hour flows, and the trip distribution for the existing traffic.

a. Average Daily Traffic (ADT) and Monthly Average Daily Traffic (MADT)

As a recreational destination, the traffic volumes fluctuate throughout the year with the summer months exhibiting the highest ADT. The ITD website for Road Data features an interactive map that allows a query by road milepost for Average Annual Daily Traffic (AADT), which is the total volume of traffic on a road for a year divided by the number of days (365) in a year. ITD reports the following AADT values at the mileposts bracketing the intersection of Hwy. 32 and Hwy. 33.

- Milepost 137: Just north of the Hwy. 33/W 4000 North intersection the AADT is 4,000.
- Milepost 138: Just north of the Hwy. 33/Dry Creek Trail intersection the AADT is 4,500.
- Milepost 139: Just south of the Hwy. 33/W 2500 North intersection the AADT is 4,500.

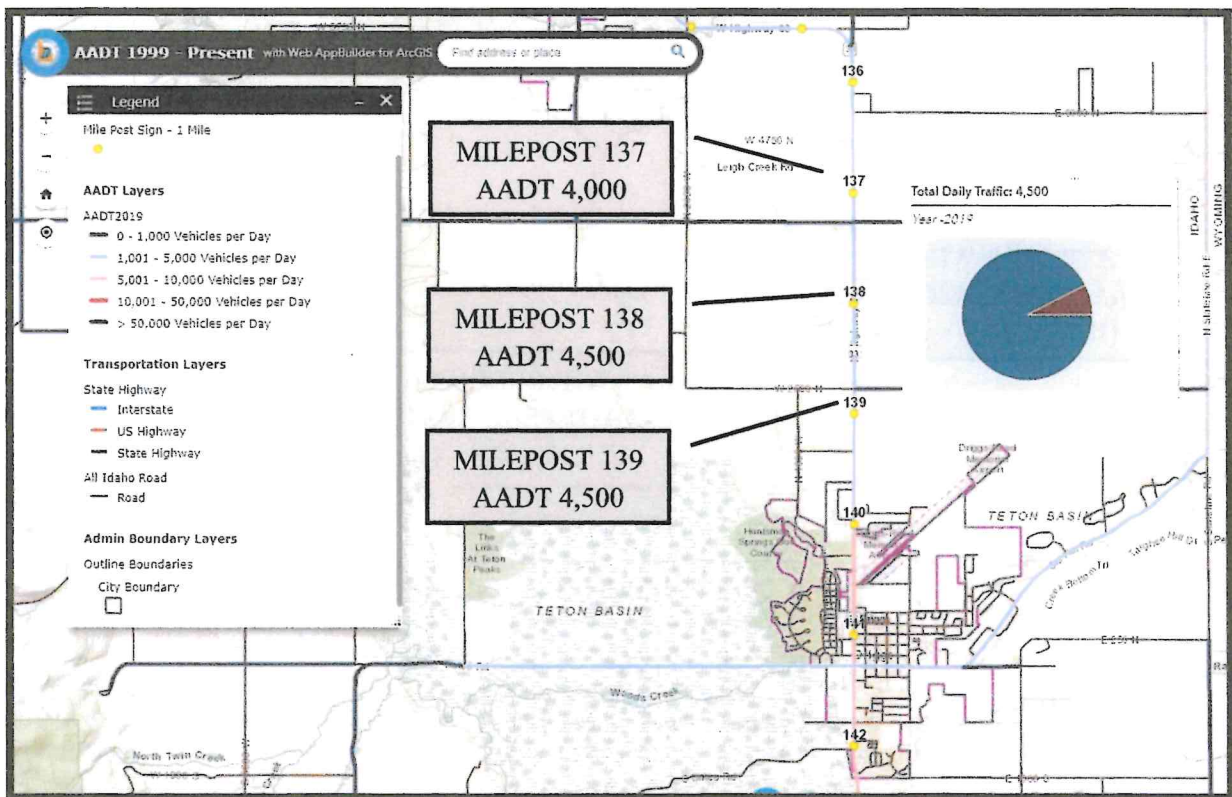


Figure 13: Map for Annual Average Daily Traffic (AADT) by Milepost per ITD for 2019

Therefore, the relevant traffic count for 2019 is 4,500 annual average daily traffic (AADT) with 4,170 (92.67%) classified as passenger vehicles and 330 classified as other than passenger vehicles (7.33%).

However, these values are annual averages rather than peak days that reflect summertime travel. ITD maintains Automatic Traffic Recorders (ATRs) throughout the state including District 6, four of which are in the Teton Basin. The ATRs relevant to this project include ATR #59 in Madison County near Newdale which records the traffic on Hwy. 33 and ATR #75 located on Hwy. 32 approximately 10 miles north of the intersection of Hwy. 32 and Hwy. 33. The monthly AADT for ATR #59 in 2021 ranged from a low in February of 2,129 to a high in July of 4,073 while the monthly AADT for ATR #75 ranged from 401 in February of 2021 to a high of 1,708 in July of 2021. This study will focus on the July MADT or peak season and not the ADT. (See Appendix E)

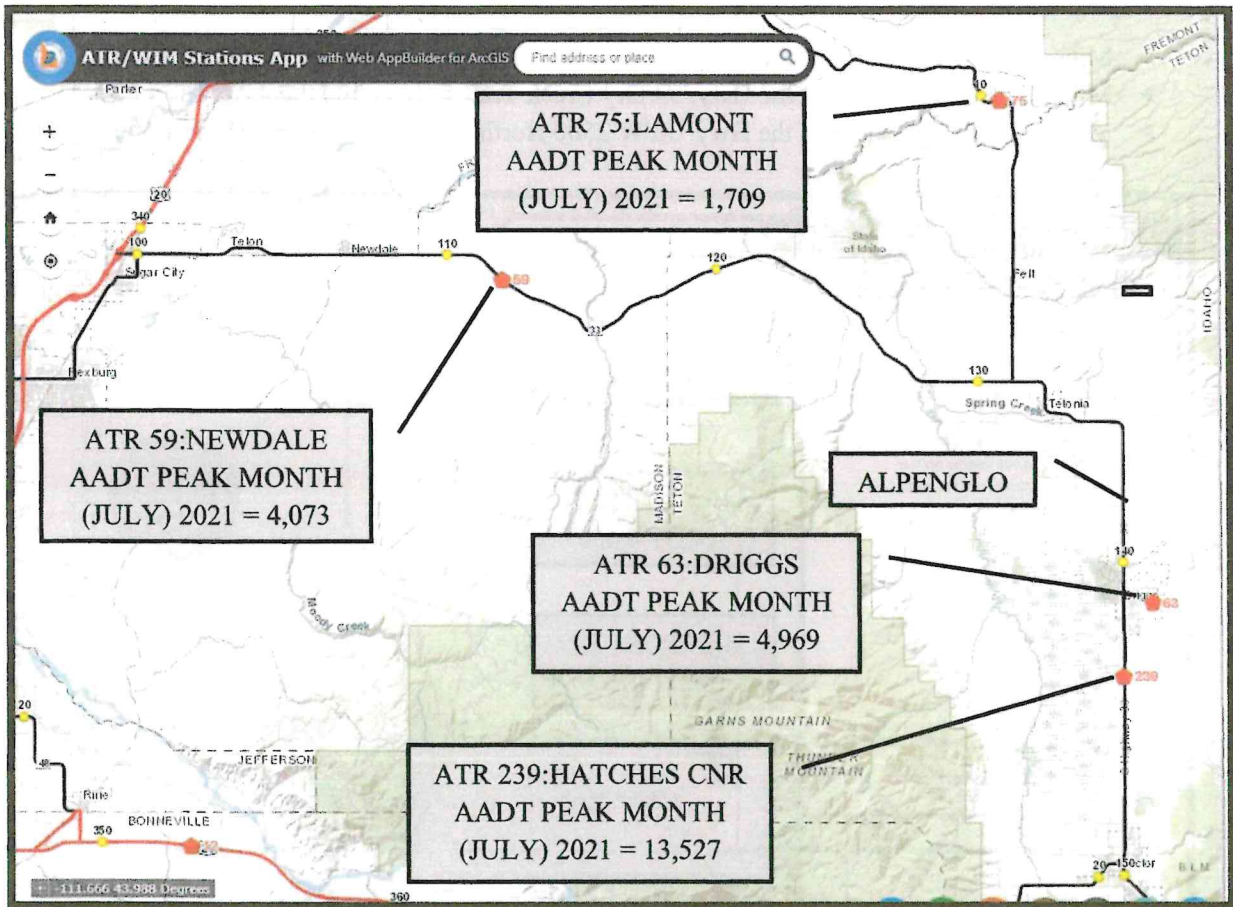


Figure 14 - ITD District 6 Automatic Traffic Recorder (ATR) Locations near Project.

The AADT for both roads reflect an annual increase in traffic of 4.57% for Hwy. 32 from 1997 to 2019 and 3.57% for Hwy. 33 from 1990 to 2019. The last 5-6 years the increase in traffic has been more significant at 7.62% and 7.31%, although in both cases the percent increase in traffic stabilized after the slump for the recession beginning in 2008. Therefore, the longer-term trend will be used for future traffic projections.

The ITD AADT interactive map reports an AADT of 2,700 in 2019 for Hwy. 33 at milepost 113 which is just east of ATR #59. The AADT at milepost 130 for 2019 was 3,000 which is an 11.1% increase in traffic over the 24 mile stretch of Hwy. 33. Similarly, the interactive map reports an AADT of 720 in

volume of 311 vph with a directional split of 131 vph eastbound and 180 vph westbound (42% eastbound and 58% westbound).

Per ITD records, the 2019 estimated AADT at the Newdale ATR is estimated at 2,700 vpd.

(b) Existing 2021 Highway 32 MADT, ATR 75 Lamont

From the ITD Monthly Hourly Volume for July 2021 (see Appendix F), it can be calculated that the MADT is 1,709 vpd. The maximum monthly average peak hour of the day was between 10:00 a.m. and 11 a.m. with a monthly average hourly volume of 146 vph with a directional split of 80 vph bound southeast and 66 vph bound northwest (55% eastbound and 45% westbound).

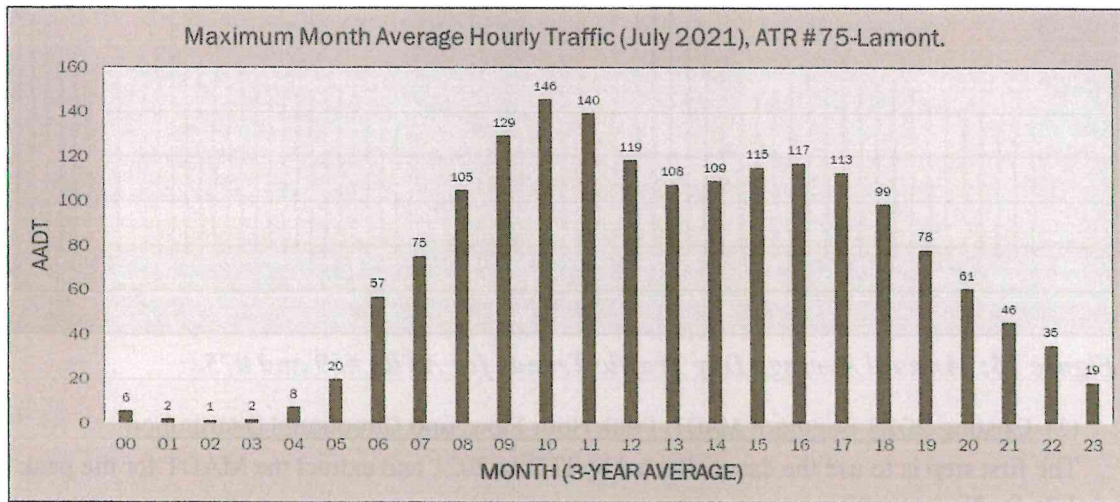


Figure 17: Maximum Month Average Hourly Traffic, ATR #75-Lamont.

However, the two peak hours for the Hwy 33 at Newdale and Hwy. 32 at Lamont don't coincide. Given that the traffic volume for Hwy 33 is about twice the volume as Hwy. 32 for the peak hour, it may be more apropos to use the hourly volumes for Hwy. 32 for the 5 p.m. to 6 p.m. time slot in order to combine the traffic volumes for the two ATRs in order to further extrapolate traffic volumes further east on Hwy. 33. In that case, the monthly average peak hour between 5 p.m. and 6 p.m. has a monthly average hourly volume of 113 vph with a directional split of 53 vph bound southeast and 60 vph bound northwest (47% eastbound and 53% westbound).

Per ITD records, the 2019 estimated AADT at the Lamont ATR is estimated at 720 vpd.

(c) Existing Segment MADT, Highway 33 and Highway 32 at MP 0/MP 132

Because there is little opportunity for any significant amount of traffic to leave Hwy. 33 and Hwy 32 between the two reported ATRs and the junction of the two highways just northwest of the City of Tetonia, we can combine the traffic volumes from the two ATRs to arrive at a reasonable estimate of the traffic volume on Hwy. 33 at the junction of the two highways. Therefore, the segment MADT traffic volume is estimated at 5,782 vpd for July of 2021 (4,073 vpd Hwy. 33 + 1,709 vpd Hwy. 32). By applying the same logic and procedure to the peak hour, we conclude the maximum month average peak hour flow as 424 vph with a direction distribution of traffic

calculated as 184 vph eastbound and 240 vph westbound (43% vph eastbound and 57 vph westbound)

Per ITD records, the 2019 estimated AADT at MP 0 of Hwy. 32 and MP 131 of Hwy. 33, which are coincident is estimated at 3,200 vpd. The same value is reported at MP 132 one mile east of the intersection of Hwy. 32 and Hwy. 33.

(d) Existing Segment MADT, Highway 33 at MP 138

Recall the AADT estimate from ITD for MP 132 is 3,200 and the AADT estimate for MP 138, which is near the project site is,4,500 vpd. That represents a 41% increase in the traffic volume from MP 132 to MP 138. If we apply the same percentage increase to the Maximum Month Average Daily Traffic calculated at MP 0/ MP 131 to estimate the MMADT at MP 138, the result is 8,152 vpd (141% x 5,782 vpd). Similarly, the calculation for the MMPH calculates as 598 vph (141% x 424 vph) with a direction split of 257 vph southbound and 341 vph northbound (43% southbound and 57% northbound).

Table IV – Existing Segment MADT, Peak Hour, and Trip Distribution Traffic Volumes

PARAMETER	TRAFFIC VOLUME	SOUTH BOUND	NORTH BOUND
Maximum Month Average Daily Traffic (MADT)	8,152	3,505	4,647
Maximum Month Average Peak Hour (PH)	598	257	341

(2) Existing 2021 Intersection #1 Peak Hour Flow Turning Movements

Intersection #1, Hwy. 33 and Dry Creek is a minor T-intersection. Visual counts on Friday, October 22, 2021 during the PM Peak hour were taken; these counts can be seen in Figure 16 later on in this chapter. These counts will be used as the base counts for this analysis from Dry Creek.

2. Existing 2021 Traffic Conditions

a. Segment

At the time of this study, the free flow speed (FFS) was not available for the specific road segment being analyzed. Therefore, in order to determine the LOS for the road segment through this area, the volume to capacity ratio (v/c ratio) will be used. In order to determine the v/c ratio, we divide the volume of the roadway by the capacity. According to the Highway Capacity Manual, the capacity of a two-lane highway is 1,700 vehicles per hour for each direction of travel. By dividing the peak hour by the peak hour capacity, we get a v/c ratio. The following table shows the correlation between the v/c ratio and the LOS.

Table 5 Level of Service Criteria for General Two-Lane Highway Segments

Level of Service Criteria for General Two-Lane Highway Segments																						
LOS	% Time Delay	Avg. ² Speed	V/C Ratio ^a																			
			Level Terrain						Rolling Terrain						Mountainous Terrain							
			% No-Passing Zone						% No-Passing Zone						% No-Passing Zone							
			0	20	40	60	80	100	Avg. ² Speed	0	20	40	60	80	100	Avg. ² Speed	0	20	40	60	80	100
A	≤ 30	≥ 58	0.15	0.12	0.09	0.07	0.05	0.04	≥ 57	0.15	0.10	0.07	0.05	0.04	0.03	≥ 56	0.14	0.09	0.07	0.04	0.02	0.01
B	≤ 45	≥ 55	0.27	0.24	0.21	0.19	0.17	0.16	≥ 54	0.26	0.23	0.19	0.17	0.15	0.13	≥ 54	0.25	0.20	0.16	0.13	0.12	0.10
C	≤ 60	≥ 52	0.43	0.39	0.36	0.34	0.33	0.32	≥ 51	0.42	0.39	0.35	0.32	0.30	0.28	≥ 49	0.39	0.33	0.28	0.23	0.20	0.16
D	≤ 75	≥ 50	0.64	0.62	0.60	0.59	0.58	0.57	≥ 49	0.62	0.57	0.52	0.48	0.46	0.43	≥ 45	0.58	0.50	0.45	0.40	0.37	0.33
E	> 75	≥ 45	1.00	1.00	1.00	1.00	1.00	1.00	≥ 40	0.97	0.94	0.92	0.91	0.90	0.90	≥ 35	0.91	0.87	0.84	0.82	0.80	0.78
F	100	< 45	-	-	-	-	-	-	< 40	-	-	-	-	-	-	< 35	-	-	-	-	-	-

(1) Existing 2021 Highway 33 Peak Hour

It was found earlier that the monthly average peak hour flow during the 5:00 p.m. peak hour is 257 vph for southbound traffic and 341 vph for the northbound traffic. Dividing these volumes by 1700 vph, the v/c ratio is 0.15 for southbound and 0.20 for northbound. The terrain within the study area is considered level and a 60% no passing zone will be used. This results in a LOS of B for southbound and LOS of C for northbound directions.

(a) Existing 2021 Peak Hour Conclusions

It has been found that the level of service for the southbound direction is B while that of the northbound direction is C. The following table shows a breakdown of the results.

Table VI – Existing Segment, Hwy. 33 @ MP 138, Level of Service

Horizon Year	HIGHWAY AND LOCATION	SOUTH BOUND			NORTH BOUND		
		Volume	v/c Ratio	LOS	Volume	v/c Ratio	LOS
2021	Hwy. 33 @ MP 138	257	0.15	B	341	0.20	C

(2) Mitigation Measures

The worst Level of Service for the existing road segment on Hwy. 33 adjacent to the proposed development is a C. Therefore, in accordance with ITD guidelines, no improvements are warranted for the existing conditions.

b. Existing Intersection 2021

In order to determine how well an intersection is functioning, the intersection’s Measures of Effectiveness (MOEs) for the peak hour is analyzed. The MOEs include:

1. Level of Service (LOS)
2. Control Delay
3. Volume/Capacity Ratio (V/C Ratio)
4. 95th Percentile Queue

Using the traffic volumes and turning movements shown previously, the 2020 existing MOEs for the intersection of Highway 33/Dry Creek can be determined.

(1) Intersection #1 – Hwy 33/Dry Creek

(a) *Peak Hour Volumes*

The peak hour flows used in the traffic model for the 2021 existing traffic are shown in the following figure.












Figure 18: 2021 Existing Intersection PM Peak Hour Flows

(b) *Peak Hour MOEs*

These peak hour flows were entered into the traffic modeling software Synchro with the resulting MOEs shown in the following table.

Table 7 –Existing (2021) Peak Hour MOEs for Intersection 1

HCM 2000 SIGNING SETTINGS	 EBL	 EBR	 NBL	 NBT	 SBT	 SBR
Lanes and Sharing (#RL)						
Traffic Volume (vph)	5	3	6	341	257	5
Future Volume (vph)	5	3	6	341	257	5
Sign Control	Stop			Free	Free	
Median Width (ft)	12			0	0	
TWLT Median	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Right Turn Channelized		None		None		None
Critical Gap, IC (s)	6.4	6.2	4.1			
Follow Up Time, IF (s)	3.5	3.3	2.2			
Volume to Capacity Ratio	0.02	0.02	0.01	0.01	0.17	0.17
Control Delay (s)	12.3	12.3	0.1	0.2	0.0	0.0
Level of Service	B	B	A	A	A	A
Queue Length 95th (ft)	1	1	0	0	0	0
Approach Delay (s)	12.3			0.2	0.0	

(c) Existing Peak Hour Results

All turning movements at Intersection 1 are calculated to be operating at acceptable levels.

(d) Mitigation Alternatives

Since the worst LOS is a B, no improvements are warranted for the existing conditions.

(2) Recommendations to Accommodate the Existing Traffic

Due to the fact that the maximum LOS is B, no improvements to the intersection are warranted for the existing 2021 traffic.

c. Turn Lane Warrants Based on Safety Analysis of Intersections

(1) Existing Conditions Hwy. 33/Dry Creek Left Turn Lane Analysis

Intersection #1 was evaluated for safety using ITD guidelines which recommend using the *National Cooperative Highway Research Report 745 –Left-Turn Accommodations at Unsignalized Intersections (NCHRP 745)* to evaluate left-hand turns and *National Cooperative Highway Research Report 457: Evaluating Intersection Improvements: An Engineering Study Guide (NCHRP 457)* to evaluate right-turn movements to determine if turning movements are consistent with national standards for safety based on traffic volumes. Based on these guidelines, both the northbound and southbound traffic exceed the 200 vph threshold for a three-leg intersection warranting a left turn lane for the existing conditions (See Appendix K).

(2) Existing Conditions Hwy. 33/Dry Creek Right Turn Lane Analysis

The Right-hand turn warrant analysis follows the guidance found in ITD's *Traffic Manual: Idaho's Supplementary Guide to the MUTCD*; the following figure was extracted for the right turn lane analysis.

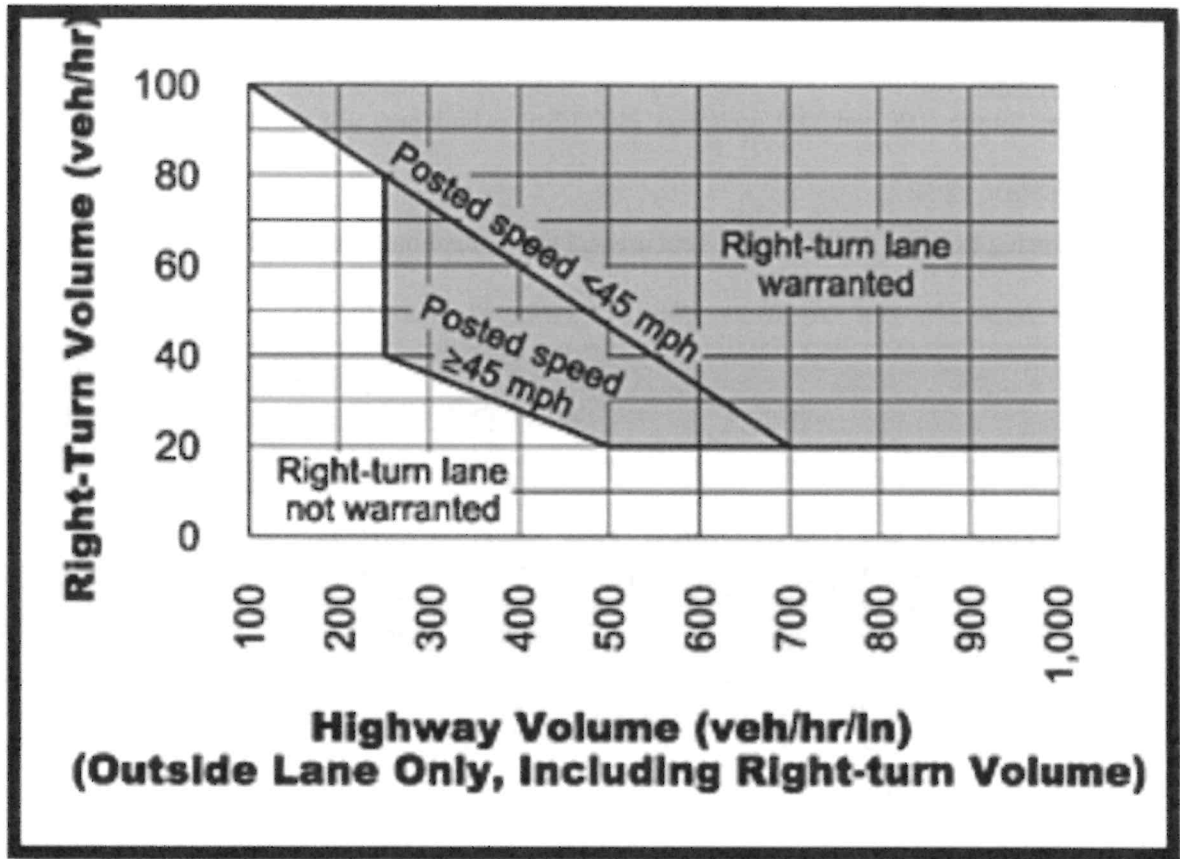


Figure 19: Right Turn Lane Guidelines (Idaho's Supplementary Guide to the MUTCD)

Basically, if a highway has more than 20 vph turning right in the peak hour of the day, a right turn lane is warranted. Analysis of these guidelines show that a right-turn lane is not warranted in order to accommodate the southbound peak traffic (5 vph turning right on Dry Creek) for the existing conditions.

VI. Projected Traffic

A. Site Traffic

1. Trip Generation

In order to determine the trips generated by the proposed development, the ITE Trip Generation 10th Edition Manual was used. This study will use traffic data obtained from the ITD to determine traffic conditions for the 2020 and 2021 (existing), 2027 (Project buildout), and the 2042 (Future) horizon years.

a. Buildout (2027)

The following two (2) tables show the land use and trip generation for the ADT and the peak hour.

Table 8- Land Use and Trip Generation (ADT) for Buildout (2027)

Land Use Category	ITE Code	Size	Units	Trip Generation Per Unit	Total Trips	Internal Capture Trips		Pass-by Trips		Primary Trips Total
						%	Trips	%	Trips	
Weekday Trips										
Single-Family Detached Housing	210	55	Dwellings	9.57	526	0%	0	0%	0	526

Table 9- Land Use and Trip Generation (Peak Hour) for Buildout (2027)

Land Use Category	ITE Code	Size	Units	Trip Generation Per Unit	Total Trips	Internal Capture Trips		Pass-by Trips		Primary Trips Total
						%	Trips	%	Trips	
Peak Hour Trips										
Single-Family Detached Housing, AM Peak	210	55	Dwellings	0.76	42	0%	0	0%	0	42
Single-Family Detached Housing, PM Peak	210	55	Dwellings	1	55	0%	0	0%	0	55

2. Trip Distribution

Trip distribution is a percentage indicating what percentage of traffic is entering or exiting the study area. The ITE Trip Generation Handbook outlines the trip distribution for each land use. The following table shows the breakdown of the trip distribution.

b. Buildout (2025)

The following two (2) tables show the land use, trip generation, and trip distribution for the ADT and the peak hour.

Table 10- Trip Distribution (ADT) for Buildout (2027)

Land Use Category	ITE Code	Size	Units	Trip Generation Per Unit	Total Trips	Internal Capture Trips		Pass-by Trips		Primary Trips	
						%	Trips	%	Trips	%	Trips
Weekday Trips											
Single-Family Detached Housing	210	55	Dwellings	9.57	526	0%	0	0%	0	50%	263

Table 11- Trip Distribution (Peak Hour) for Buildout (2027)

Land Use Category	ITE Code	Size	Units	Trip Generation Per Unit	Total Trips	Internal Capture		Pass-by		Primary Trips Entering		Primary Trips Exiting	
						%	Trips	%	Trips	%	Trips	%	Trips
Peak Hour Trips						%	Trips	%	Trips	%	Trips	%	Trips
Single-Family Detached Housing, AM Peak	210	55	Dwellings	0.76	42	0%	0	0%	0	26%	11	74%	31
Single-Family Detached Housing, PM Peak	210	55	Dwellings	1	55	0%	0	0%	0	64%	35	36%	20

3. Modal Split

Modal split is the determination of different travel modes (automobile, heavy vehicles, walk, etc.) from an origin to a given destination. Analyzing the pedestrian traffic is outside the scope of this study and it is assumed that no heavy vehicles will be generated from the development. A standard 5% heavy vehicle percentage will be applied to this study.

4. Trip Assignment

In order to determine the trip assignment to be used in this study, a visual count at the intersection of Hwy. 33 and Butler Avenue (just north of the proposed development) were obtained. The results of this visual counts can be seen in the following figure.

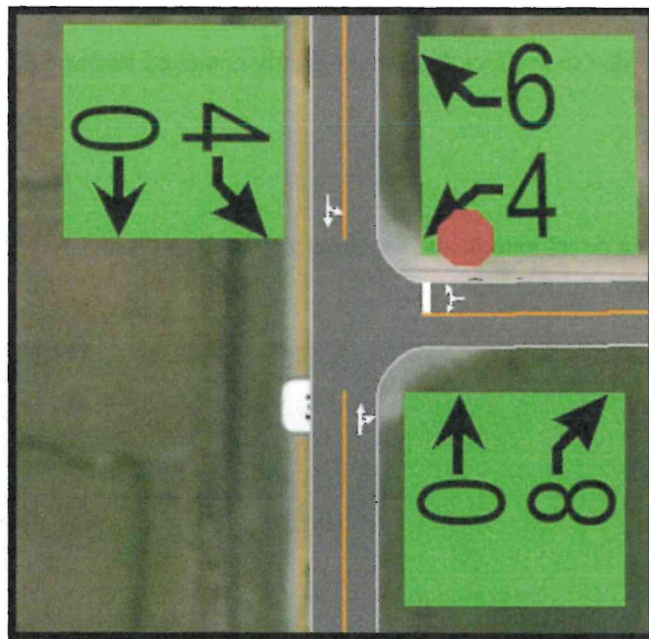


Figure 20: Hwy 33/Butler Ln Trip Assignment

The traffic generated by the Alpenglo Subdivision is assumed to use similar trip assignments as the Hwy. 33/Butler Lane intersection.

B. Through Traffic (Non-Site Traffic)

1. Non-Site Traffic for anticipated Development in Study Area

a. Method of Projections

Pass-by trips are made as intermediate stops on the way from an origin to a destination without a route diversion. In other words, a pass-by trip is when the traffic on an adjacent roadway is attracted to a certain land use in a development as non-site traffic. The trip generally goes from origin to generator and then returns to the origin. The proposed development does not have any land uses that would be considered pass-by trips.

b. Trip Distribution

This section is not applicable due to the fact that single-family detached housing is not considered a non-site traffic generator.

c. Modal Split

This section is not applicable due to the fact that single-family detached housing is not considered a non-site traffic generator.

d. Trip Assignment

This section is not applicable due to the fact that single-family detached housing is not considered a non-site traffic generator.

C. Total Traffic

The total trips generated by the development and the impact to each intersection for the 2027 Buildout are shown in the following figures

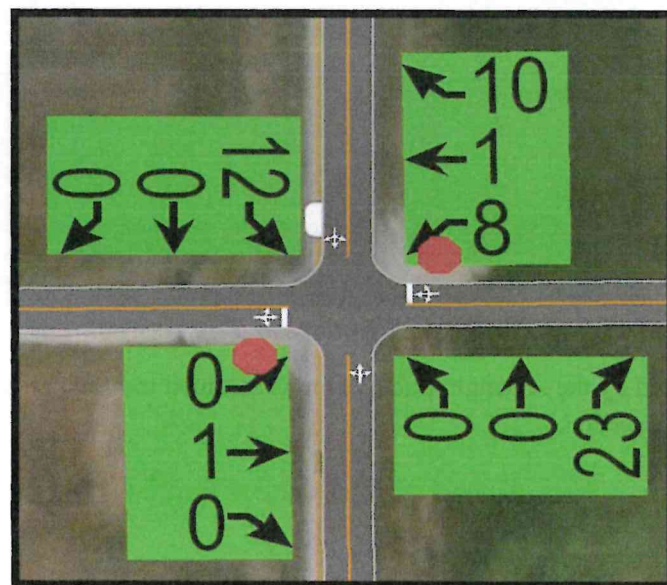


Figure 21: Intersection 1- PM Peak Generated Traffic

VII. 2027 Horizon Year Traffic Analysis (Buildout)

A. On-Site Development

Buildout is assumed to be complete by the year 2027.

B. Roadway Network

Within the area of influence there will be one (1) roadway segments (Hwy. 33) and one (1) intersection examined. The intersection is:

1. Intersection #1 –Highway 33/Dry Creek

C. Traffic Volumes

a. 2027 Background Segment Traffic Volumes

The background traffic is the existing traffic forecasted to a horizon year without the development.

- (1) 2027 Background Segment Monthly Average Daily Traffic (MADT) and Peak Hour Traffic

Using the population growth formula ($P=P_0(e^{rt})$) and the growth percentages outline in Chapter 5 (4.57%), we calculate the forecasted traffic volumes for the horizon years. The following table shows the 2021 and forecasted 2027 MADT, peak hour, and trip distribution traffic counts that will be used throughout this study.

Table 12 Forecasted 2027 Segment MADT, Peak Hour, and Trip Distribution Volumes for Highway 33

Hwy 33	2021	2027
MADT		
Southbound	3505	4611
Northbound	4647	6113
Peak Hour Total		
Southbound	257	338
Northbound	341	449

- (2) 2027 Background Intersection Peak Hour Traffic

Increasing the traffic by the growth rates outlined in Chapter 5, the forecasted traffic volumes for Intersection 1 was calculated; see the following figure for the results.

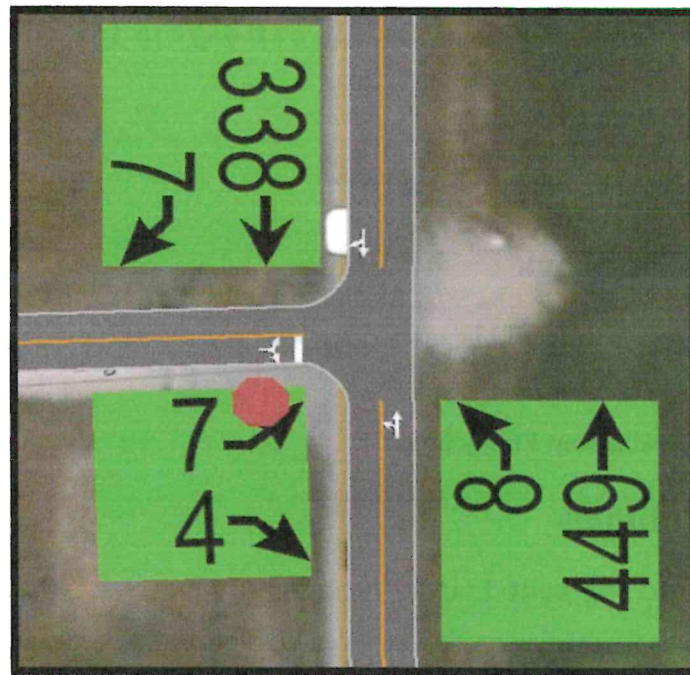


Figure 22: Intersection 1 2027 Background PM Peak Traffic

b. 2027 Background plus Site Traffic

The development will add an east leg to the Hwy. 33/Dry Creek intersection. The site traffic outlined in the previous chapter was added to the 2027 background traffic with the results shown in the following figure.

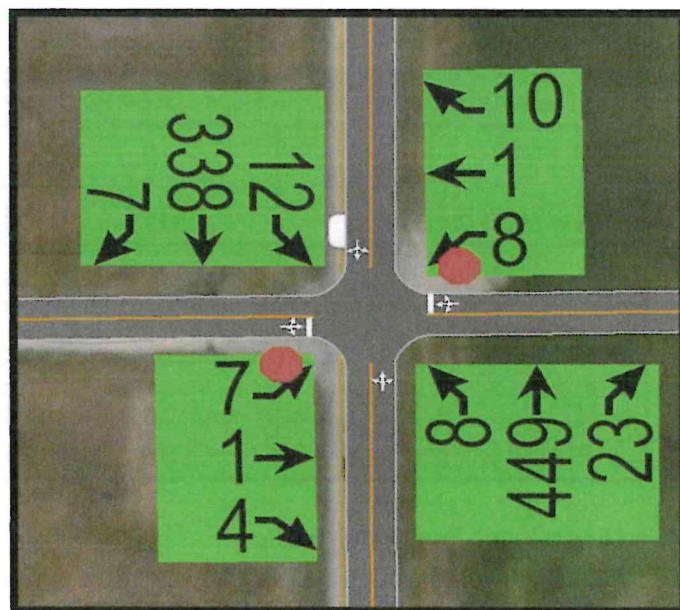


Figure 23: Intersection 1 2027 Background plus Site PM Peak Traffic

D. 2027 Traffic Conditions

1. Highway 33 Segment v/c Ratio and LOS

From the traffic counts shown previously in this chapter, the v/c ratio and LOS are determined; see the following table for the results.

Table 13 –2027 Highway 33 v/c ratio and LOS

Horizon Year	HIGHWAY AND LOCATION	SOUTH BOUND			NORTH BOUND		
		Volume	v/c Ratio	LOS	Volume	v/c Ratio	LOS
2021	Hwy. 33 @ MP 138 Level of Service (LOS)	257	0.15	B	341	0.20	C
2027	Hwy. 33 @ MP 138 Level of Service (LOS)	338	0.20	B	449	0.26	C

2. Intersection 1: Hwy 33/Dry Creek

In order to determine how well an intersection is functioning, the intersection’s Measures of Effectiveness (MOEs) for peak hour is analyzed. The MOEs include:

1. Level of Service (LOS)
2. Control Delay
3. Volume/Capacity Ratio (V/C Ratio)
4. 95th Percentile Queue

a. 2027 Background Traffic Peak Hour MOEs

The background traffic (without the proposed development) peak hour flows were entered into the traffic modeling software Synchro with the resulting MOEs shown in the following table.

Table 14 –Intersection 1 2027 Background Traffic Peak Hour MOEs

HCM 2000 SIGNING SETTINGS	EBL	EBR	NBL	NBT	SBT	SBR
Lanes and Sharing (#RL)	2	1	1	1	1	1
Traffic Volume (vph)	7	4	8	449	338	7
Future Volume (vph)	7	4	8	449	338	7
Sign Control	Stop	—	—	Free	Free	—
Median Width (ft)	12	—	—	0	0	—
TWLT Median	<input type="checkbox"/>	—	—	<input type="checkbox"/>	<input type="checkbox"/>	—
Right Turn Channelized	—	None	—	None	—	None
Critical Gap, IC (s)	6.4	6.2	4.1	—	—	—
Follow Up Time, IF (s)	3.5	3.3	2.2	—	—	—
Volume to Capacity Ratio	0.03	0.03	0.01	0.01	0.22	0.22
Control Delay (s)	14.8	14.8	0.1	0.2	0.0	0.0
Level of Service	B	B	A	A	A	A
Queue Length 95th (ft)	2	2	1	1	0	0
Approach Delay (s)	14.8	—	—	0.2	0.0	—

b. 2027 Background plus Site Traffic Peak Hour MOEs

It should be noted that an east leg will be added to Intersection #1 for the Alpenglo Subdivision. The background traffic plus site traffic peak hour flows were entered into the traffic modeling software Synchro with the resulting MOEs shown in the following table.

Table 15 –Intersection 1 2027 Background plus Site Traffic Peak Hour MOEs

HCM 2000 SIGNING SETTINGS												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lanes and Sharing (#RL)	7	1	4	8	1	10	8	449	23	12	338	7
Traffic Volume (vph)	7	1	4	8	1	10	8	449	23	12	338	7
Future Volume (vph)	7	1	4	8	1	10	8	449	23	12	338	7
Sign Control	—	Stop	—	—	Stop	—	—	Free	—	—	Free	—
Median Width (ft)	—	0	—	—	0	—	—	0	—	—	0	—
TWLT Median	—	<input type="checkbox"/>	—	—	<input type="checkbox"/>	—	—	<input type="checkbox"/>	—	—	<input type="checkbox"/>	—
Right Turn Channelized	—	—	None	—	—	None	—	—	None	—	—	None
Critical Gap, IC (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1	—	—	4.1	—	—
Follow Up Time, IF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2	—	—	2.2	—	—
Volume to Capacity Ratio	0.04	0.04	0.04	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01
Control Delay (s)	17.6	17.6	17.6	16.0	16.0	16.0	0.1	0.2	0.2	0.1	0.4	0.4
Level of Service	C	C	C	C	C	C	A	A	A	A	A	A
Queue Length 95th (ft)	3	3	3	5	5	5	1	1	1	1	1	1
Approach Delay (s)	—	17.6	—	—	16.0	—	—	0.2	—	—	0.4	—

c. 2027 Traffic Left Turn Lane Warrants Based on Safety Analysis of Intersections

Intersection #1 was evaluated for safety using ITD guidelines, which recommend using the *National Cooperative Highway Research Report 745 –Left-Turn Accommodations at Unsignalized Intersections (NCHRP 745)* to evaluate left-hand turns and *National Cooperative Highway Research Report 457: Evaluating Intersection Improvements: An Engineering Study Guide (NCHRP 457)* to evaluate right-turn movements to determine if turning movements are consistent with national standards for safety based on traffic volumes.

(1) 2027 Background Traffic Conditions Hwy. 33/Dry Creek Left Turn Lane Analysis

Based on these guidelines, both the northbound and southbound traffic exceed the 150 vph threshold for a four-leg intersection warranting a left turn lane for the 2027 background traffic (See Appendix K).

(2) 2027 Background plus Site Traffic Conditions Hwy. 33/Dry Creek Left Turn Lane Analysis

Based on these guidelines, both the northbound and southbound traffic exceed the 150 vph threshold for a four-leg intersection warranting a left turn lane for the 2027 background plus site traffic (See Appendix K).

d. 2027 Background Traffic Conditions Hwy. 33/Dry Creek Right Turn Lane Analysis

The Right-hand turn warrant analysis follows the guidance found in ITD's *Traffic Manual: Idaho's Supplementary Guide to the MUTCD*. Basically, if a highway has more than 20 vph turning right in the peak hour of the day, a right turn lane is warranted; see Figure 17 in Chapter 1.

(1) 2027 Background Traffic Conditions Hwy. 33/Dry Creek Right Turn Lane Analysis

Based on these guidelines, the forecasted southbound right-turn volume (5 vph) does not warrant a right-turn lane for the 2027 background traffic.

(2) 2027 Background plus Site Traffic Conditions Hwy. 33/Dry Creek Right Turn Lane Analysis

Based on these guidelines, the forecasted northbound right-turn volume (23 vph) warrants a right-turn lane for the 2027 background plus site traffic and does not warrant a right-turn lane for the southbound traffic.

e. 2027 Peak Hour Conclusions

(1) Hwy 33. 2027 Peak Hour Conclusions

From this analysis, Highway 33 is forecasted to operate at an acceptable level for the 2027 Horizon Year with or without the proposed subdivision.

(2) Intersection 1 2027 Peak Hour Conclusions

From this analysis, Intersection 1 is forecasted to operate at an acceptable level for the 2027 Horizon Year with or without the proposed subdivision. It should be noted that the traffic model indicates that the intersection of Hwy 33/Dry Creek is forecasted to operate at an acceptable level without the addition of left and right turn lanes. However, in order to comply with ITD guidelines, left-turn lanes are warranted for both the northbound and southbound traffic while only a right-turn lane is warranted for the northbound traffic. The addition of these turn lanes will be added to the 2047 Horizon Year traffic model.

VIII. 2047 Horizon Year Traffic Analysis

A. On-Site Development

Complete buildout of the development is proposed to be complete in 2027. No additional construction is considered for the 2047 Horizon Year.

B. Roadway Network

Within the area of influence there will be one (1) roadway segments (Hwy. 33) and one (1) intersection examined. The intersection is:

1. Intersection #1 –Highway 33/Dry Creek

C. Traffic Volumes

a. 2047 Background Segment Traffic Volumes

The background traffic is the existing traffic forecasted to a horizon year without the development.

(1) 2027 Background Segment Monthly Average Daily Traffic (MADT) and Peak Hour Traffic

Using the population growth formula ($P=P_0(e^{rt})$) and the growth percentages outline in Chapter 5 (4.57%), we calculate the forecasted traffic volumes for the horizon years. The following table shows the 2021, the forecasted 2027, and the 2047 MADT, peak hour, and trip distribution traffic counts that will be used throughout this study.

Table 16 Forecasted 2047 Segment MADT, Peak Hour, and Trip Distribution Volumes for Highway 33

Hwy 33	2021	2027	2047
MADT			
Southbound	3505	4611	11501
Northbound	4647	6113	15248
Peak Hour Total			
Southbound	257	338	843
Northbound	341	449	1119

(2) 2047 Background Intersection Peak Hour Traffic

Increasing the traffic by the growth rates outlined in Chapter 5, the forecasted traffic volumes for Intersection 1 was calculated; see the following figure for the results. It should be noted that for the 2021 existing traffic, the northbound left-turn traffic warranted a left-turn lane. This lane has been entered into the model for the 2047 Horizon Year analysis.

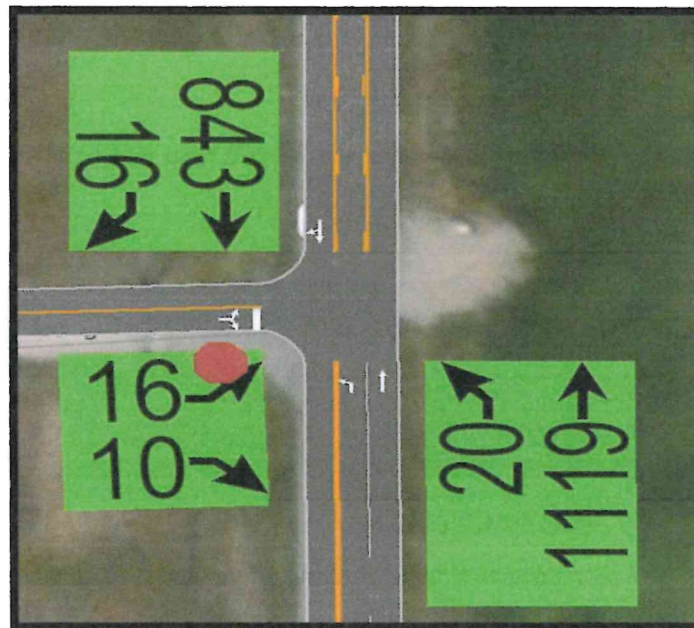


Figure 24: Intersection 1 2047 Background PM Peak Traffic

b. 2047 Background plus Site Traffic

The development will add an east leg to the Hwy. 33/Dry Creek intersection. The site traffic outlined in the previous chapter was added to the 2047 background traffic with the results shown in the following figure. It should be noted that the 2021 existing conditions warranted a left-turn lane for the northbound traffic, for the 2027 Horizon Year shows that the addition of the Alpenglo Subdivision warranted a left-turn lane for the southbound traffic, and for the 2027 Horizon Year shows that the addition of the Alpenglo Subdivision warranted a right-turn lane for the northbound traffic.

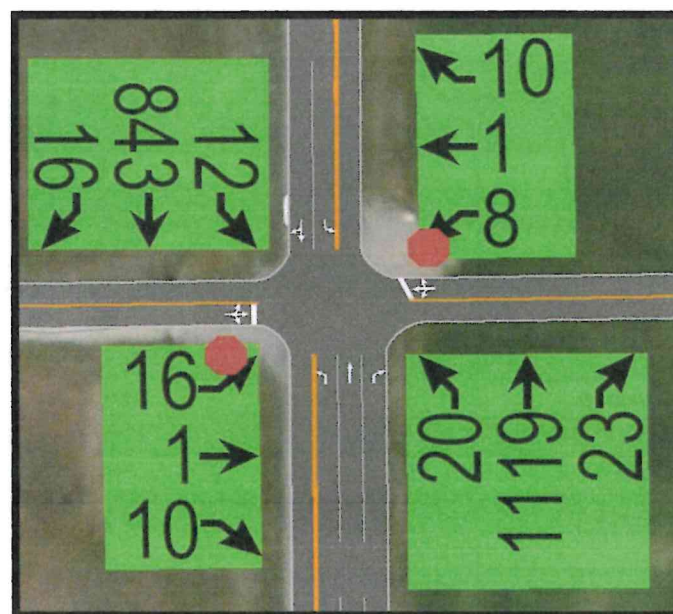


Figure 25: Intersection 1 2047 Background plus Site PM Peak Traffic

IX. Conclusions.

After evaluating the proposed development within the context of zoning; projected land use; existing transportation system; background traffic counts for the principal roadways within the study impact area; projected traffic for horizon years corresponding with project opening, project buildout, and a 20-year horizon year; the findings of the Traffic Impact Study are summarized below.

A. 2021 Existing Traffic Conditions

The roadway geometry was modeled to match the existing geometry.

1. 2021 Existing Traffic Hwy 33 Road Segment

This study has found that Hwy 33 is determined to meet the required minimum threshold for capacity. However, it has been determined that for the 2021 existing traffic (without the Alpenglow Subdivision) a left-turn lane is warranted for the northbound traffic turning left onto Dry Creek; since there is not an east leg to the intersection, a southbound left-turn lane is not warranted.

2. 2021 Existing Traffic Hwy 33/Dry Creek Intersection

This study has found that the intersection of Hwy 33/Dry Creek meets the required minimum threshold for delay times and LOS. No improvements to accommodate delay times or LOS are warranted for the 2021 existing conditions.

3. 2021 Existing Traffic Recommendations

Both the roadway segment and intersection meet the required minimum thresholds for capacity, delay times, or LOS but does not meet the minimum criteria for a left turn lane for the northbound traffic.

a. 2021 Existing Traffic Mitigation Measures

In order to meet the minimum thresholds, a left turn lane for the northbound traffic entering Dry Creek is warranted for the 2021 existing condition (without the Alpenglow Subdivision).

B. 2027 Horizon Year (Build Out)

The roadway geometry was altered from the 2021 existing traffic geometry. A left-turn lane for the northbound traffic was added and a fourth leg (east) was added to the intersection of Hwy 33/Dry Creek.

1. 2027 Horizon Year (Buildout) Traffic Hwy 33 Road Segment

This study has found that Hwy 33 is determined to meet the required minimum threshold for capacity. However, with the addition of the east leg to access the Alpenglow Subdivision it has been determined that a left-turn lane is warranted for the southbound traffic turning left into the new subdivision. Additionally, analysis shows that a right-turn lane for the northbound traffic entering the Alpenglow Subdivision is also warranted.

- 2021 Existing Conditions – A left-turn lane for the northbound traffic is warranted.
- 2027 Buildout - A left turn lane for the southbound traffic and a right-turn lane for the northbound traffic entering the Alpenglo Subdivision are warranted.
- 2047 Horizon Year – An additional northbound lane is warranted.

Appendix A

Site Master Plan



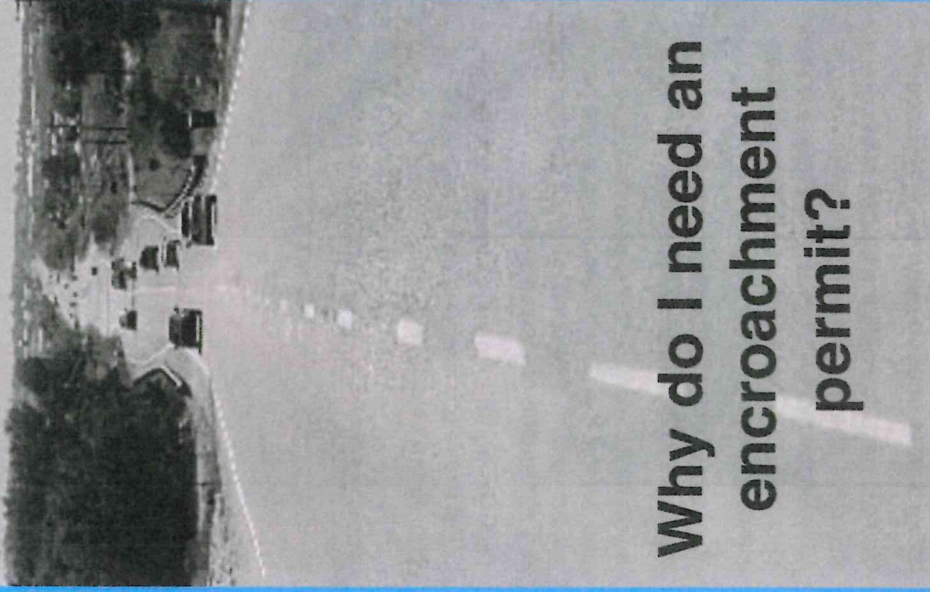
DISTRICT OFFICES



- **District 1 Office (Coeur d'Alene)**
(208) 772-1200
- **District 2 Office (Lewiston)**
(208) 799-5090
- **District 3 Office (Boise)**
(208) 334-8300
- **District 4 Office (Shoshone)**
(208) 886-7800
- **District 5 Office (Pocatello)**
(208) 239-3300
- **District 6 Office (Rigby)**
(208) 745-7781

Frequently Asked Questions

APPROACH PERMITS



Why do I need an encroachment permit?



www.itd.idaho.gov

State of Idaho
Transportation
Department
P.O. Box 7129
Boise, Idaho 83707
(208) 334-8000

100410 500



Frequently Asked Questions

This brochure provides a general description of ITD's procedures and requirements to process applications for Right-of-Way Encroachment Permits for approaches such as driveways, alleys, and private or public roads.

Who needs a permit for an approach?

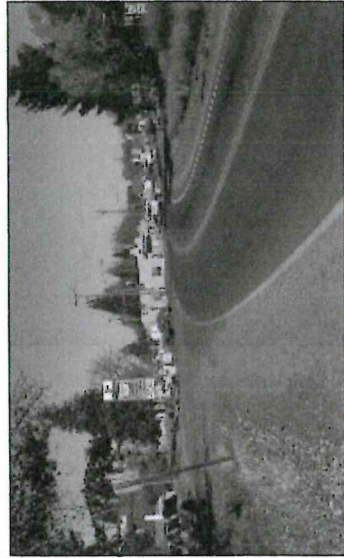
A Right-of-Way Encroachment Permit is required for any activity other than normal travel on State Highway rights-of-way including:

- new approaches to a state highway;
- to change the use, width, or location of an existing highway approach;
- construction of a temporary approach for a limited-time duration.

How do I obtain a permit?

Pre-Application Meeting

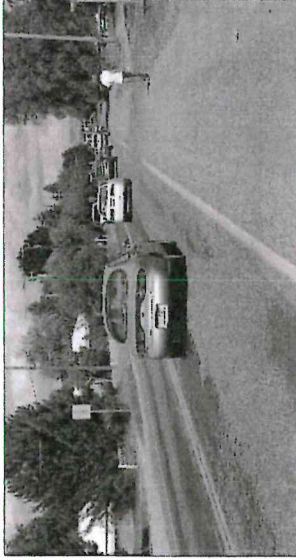
You may be able to expedite the application process and reduce site design and engineering costs by requesting a pre-application conference with ITD.



The conference is an opportunity to discuss issues that may arise during the permitting process, such as fees, items that will be required for submittal with the application, and options for

access location and design.

Depending on the use of your proposed approach, a transportation impact study may be required.



What's next once my permit is approved?

You will need to notify the District office at least five days prior to beginning any work within State highway right-of-way. Generally, the work should be completed within 30 days after construction begins.

The permit and all attachments must be at the work site while work is in progress.

If you do not complete the permitted work within one year of the permit being issued, the permit will be void. At that point, you will need to start the application process again.

One six-month extension may be granted at ITD's discretion if requested by you in writing prior to the expiration date.



Completing the Application

Applications are available from any District office. ITD staff will assist you in completing the application and will inform you of any additional information required to process your application.

Local Government Approval

ITD may require you to provide documentation of the local jurisdiction's land-use approval before processing your application. You must coordinate with the local land-use planning office for any required land use approvals.

Application Review and Decision

ITD's decision to approve or deny applications is based on IDAPA 39.03.42 *Rules Governing Highway Right-of-Way Encroachments on State Highway Rights-of-Way*, and *ITD Policies and Procedures*. These documents can be obtained online at itd.idaho.gov or at any District office.

If your application is approved, you may be required to provide construction and traffic-control plans prior to the permit being issued.

If your application is denied, you will be notified of the reasons for denial and options for appeal of the decision by certified mail.

Information on other types of Encroachment Permits - such as utilities, landscaping, mailbox turnouts and other miscellaneous uses - can be obtained at any ITD District office.





Instructions For Completing ITD 2109, Right-of-Way Encroachment Application And Permit - Approaches or Public Streets

Idaho Transportation Department

Note: An incomplete application will delay processing.

You may be able to expedite the application process and reduce site designing and engineering costs by requesting a pre-application conference with the Idaho Transportation Department (ITD). Contact your local ITD District Office and ask to speak with the Permits Coordinator to schedule a meeting.

<u>District 1</u>	<u>District 2</u>	<u>District 3</u>	<u>District 4</u>	<u>District 5</u>	<u>District 6</u>
600 W. Prairie Ave. Coeur d'Alene, Idaho 83815-8764 (208) 772-1200	P.O. Box 837 Lewiston, Idaho 83501-0837 (208) 799-4300	8150 Chinden Blvd. Boise, Idaho 83714-8028 (208) 334-8300	216 S. Date St. Shoshone, Idaho 83352-0820 (208) 886-7800	5151 S. 5th Ave. Pocatello, Idaho 83205-4700 (208) 239-3300	206 N. Yellowstone Ave. Rigby, Idaho 83442-0097 (208) 745-7781
Counties served: Benewah, Bonner, Boundary, Kootenai, Shoshone	Counties served: Clearwater, Idaho, Latah, Lewis, Nez Perce	Counties served: Ada, Adams, Boise, Canyon, Elmore, Gem, Owyhee, Payette, Valley, Washington	Counties served: Blaine, Camas, Cassia, Custer, Gooding, Jerome, Lincoln, Minidoka, Twin Falls	Counties served: Bannock, Bear Lake, Bingham, Caribou, Franklin, Oneida, Power	Counties served: Bonneville, Butte, Clark, Custer, Fremont, Jefferson, Lemhi, Madison, Teton

1. Use one form for each requested approach. The form initially serves as an **application** for a connection between an adjacent property and a state highway. If approved, the completed form becomes a **permit** for the state highway connection.
2. Please print (in ink), type, or complete the application in Microsoft Word and print the form.
3. Read and understand these instructions and all of the General Requirements on the form. These requirements apply to all approach permits and if you are granted a permit; you must adhere to each of them. Additional permit-specific provisions may be a part of any approved permit, and you will be given the opportunity to review them prior to accepting your permit.
4. Complete each item in the shaded area under "Applicant Information" and "Request Details."
5. Include the following with your application:
 - a. Non-refundable application fee (ranges from \$50-\$100 - please confirm the applicable amount with ITD).
 - b. A copy of the latest deed of record which identifies the property owner and provides the legal description of the property abutting the State Highway Right-of-Way where the proposed access is being requested. If ownership of the property changes during the permit process, a new form must be submitted with the new ownership documentation.
 - c. Photographs of the proposed driveway location, including one looking each direction along the highway from the proposed location. Digital photographs are acceptable.
 - d. Plans or drawings as follows:
 - i. For agricultural, single-family, or joint-use approaches, include an 8 ½" x 11" or 11" x 17" drawing showing the location of the proposed access on your property which is shown in relation to property lines, highway, existing and proposed buildings. A second drawing or map should be included that shows the location of your property in relation to other roads and landmarks. Show all dimensions, mark which direction is north and if possible, draw to scale. Include copies of any easements or agreements with adjacent property owners.
 - ii. For commercial, multi-family, subdivision, or public street approaches, include a site/plot plan, grading and drainage plans. Show the parcel layout, proposed lots, dimensions, north arrow, building locations and sizes, parking, internal drive aisles, street layouts, etc. A second drawing or map should be included that shows the location of your property in relation to other roads and landmarks. Show all dimensions, drawn to scale. Include copies of any easements or agreements with adjacent property owners.
 - e. Unless the requirement is waived by the District Engineer, a Traffic Impact Study shall also be required when a new or expanded development seeks direct access to a state highway, and at full build out will generate one hundred (100) or more new trips during the peak hour, the new volume of trips will equal or exceed one thousand (1000) vehicles per day, or the new vehicle volume will result from development that equals or exceeds the threshold values in Table 2. The Traffic Impact Study is created by a licensed engineer in the State of Idaho at their cost.

Table 2	
LAND USE TYPE	THRESHOLD VALUE
Residential	100 Dwelling Units
Retail	35,000 square feet
Office	50,000 square feet
Industrial	70,000 square feet
Lodging	100 rooms
School (K-12)	All (Sections 67-6508 & 67-6519, Idaho Code)

6. Transportation Impact Study (TIS). Details regarding the required contents of a TIS are available from the District Permits Coordinator or District Traffic Engineer after your application is received:
- a. ITD will review the application for completeness. The application will then be discussed internally with staff. Your request may be approved, approved with conditions, or denied. If there are any unusual conditions that need to be met, ITD will contact you in advance.
 - b. Once the application is approved and signed by ITD, the application becomes your **permit** to begin work. ITD will send your approved permit by email and the original by USPS.
 - i. All work under the permit shall be completed within one year from the date that the Department issues the permit to begin work. Applicant may request, in writing, one, 6 month extension prior to expiration of the permit. For large developments the ITD District Engineer may, at their discretion, extend the expiration date.
 - ii. If permittee does not agree with all conditions in the approved permit they may send a written notice to ITD to cancel the permit or negotiate new terms.
 - iii. All permitted work shall be completed and available for final inspection within thirty (30) days after construction begins, unless otherwise stated in the special provisions of the permit.
 - iv. After construction is completed you must notify the ITD Maintenance Foreman for final inspection of the permitted work. The contact information for the foreman will be included in your permit package.
 - v. Permit will be considered **temporary** until final approval by the ITD.
 - vi. Failure to complete all work in accordance with the requirements of the permit and receive final approval within the allotted time will render the permit null and void.
 - vii. Only Changes in deeded access will be recorded with the County following the final approval by ITD. You will receive a copy of the recorded document which should be retained for future reference.
 - c. If your application is denied, you will be notified by certified mail. The reason(s) for the denial and the process for appealing the denial will be outlined in the letter you receive.
7. If your application is approved, your signature indicates you understand the following:
- a. Approaches shall be for the bona fide purpose of securing access and not for parking, conducting business, or servicing vehicles on the Highway Right-of-Way. A list of all prohibited uses of ITD Right-of-Way is available in I.D.A.P.A. 39.03.42.
 - b. Any permit or privilege granted under an ITD 2109 shall not be deemed or held to be an exclusive one and shall not prohibit the state from using any of its highways, streets, or public places or affect its right to full supervision and control over all or any part of them. ITD reserves the right to add, remove, modify, repair, or relocate any encroachment(s) or appurtenance(s) within the Highway Right-of-Way which currently exists or has been authorized by this permit, to accomplish the relocation, reconstruction, widening, or maintenance of the highway and/or to improve safety or mobility on or adjacent to the highway system.
 - c. Any traffic control features or devices in the State Highway Right-of-Way, such as islands, median openings, traffic signals, illumination, and other traffic control devices required as a condition of a permit, are not an integral part of the approach authorized by the permit and as such shall become property of the State upon final inspection and approval by ITD. ITD reserves the right to change these features and devices in the future in order to promote safety and/or mobility within the State Highway Right-of-Way. Expenditure of monies for purchase or installation of said features or devices shall not create an ownership interest in the features or devices.



Right-of-Way Encroachment Application And Permit Approaches Or Public Streets

ITD Permit Application Number _____

For ITD Use

Project Number From ITD Highway Plan		Date Application Received		In City Limits	
Route	Segment	C/L Milepost <input type="checkbox"/> Right <input type="checkbox"/> Left		C/L Station <input type="checkbox"/> Right <input type="checkbox"/> Left	
Traffic Impact Study Required <input type="checkbox"/> Yes <input type="checkbox"/> No		Appraisal Required <input type="checkbox"/> Yes <input type="checkbox"/> No		Number of Lanes	
				Access Purchased <input type="checkbox"/> Yes <input type="checkbox"/> No	
Distance From Nearest Approach (Both sides, both directions of roadway)					
Site Distance Right Left		Reason if Restricted to Right Or Left		Culvert Needed <input type="checkbox"/> Yes <input type="checkbox"/> No	
				If Yes, Enter Minimum Size Dia. Length	

Applicant Information (Please Print or Type)

Applicant(s) Name (Printed)		Mailing Address or P.O. Box		City		State	Zip Code
E-Mail Address (If available)			Daytime Phone Number		Alternate Phone Number		
Property Owner's Name (Printed)		Property Address and TAX ID Number		City (If in city limits)		County	
Nearest Public Street/Road	Current Property Use		Current Zoning		Proposed Property Use		Proposed Zoning
How is Access Currently Gained?			Property Owner Owns Adjacent Properties <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Describe				

Request Details

Is this a new approach? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is this a temporary approach <input type="checkbox"/> Yes <input type="checkbox"/> No	If this is a proposed modification to an existing approach, check all that apply <input type="checkbox"/> Location <input type="checkbox"/> Width <input type="checkbox"/> Use <input type="checkbox"/> Remove <input type="checkbox"/> Consolidate Multiple					
Desired Approach Width (Without flares at property line)		Type of Approach Requested <input type="checkbox"/> Agricultural <input type="checkbox"/> SF Residential <input type="checkbox"/> Joint Use <input type="checkbox"/> MF Residential <input type="checkbox"/> Subdivision <input type="checkbox"/> Commercial <input type="checkbox"/> Public Street <input type="checkbox"/> Other					
Additional information you would like ITD to be aware of - Attach additional sheets if necessary.							

Contacts	Construction Contractor		Phone Number		E-Mail Address	
	Traffic Control Contractor		Phone Number		E-Mail Address	
	Traffic Control Plan Submitted <input type="checkbox"/> Yes <input type="checkbox"/> No		Projected Start Date		Project Duration	

List any conditions of approval
List reason(s) for denial recommendation

Acceptance and Approval to Work

ITD Permit Application Number _____

By signing this permit, the permittee or his authorized representative certify that they have been made aware of and agree with all requirements of the permit, including any and all restrictions and further agree to indemnify, save harmless, and defend regardless of outcome ITD from the expenses of and against all suits or claims, including costs, expenses, and attorney fees that may be incurred by reason of any act or omission, neglect, or misconduct of the permittee or its contractor in the design, construction, and maintenance of the work, which is the subject of this permit.

Property Owner/Authorized Representative's Signature	Company Name (If applicable)	Phone Number	Date
X			

Subject to all terms, conditions, and provisions of this permit or attachments, permission is hereby granted to begin work within the State Highway Right-of-Way.

Idaho Transportation Department Authorized Representative's Signature	Title	Date
X		

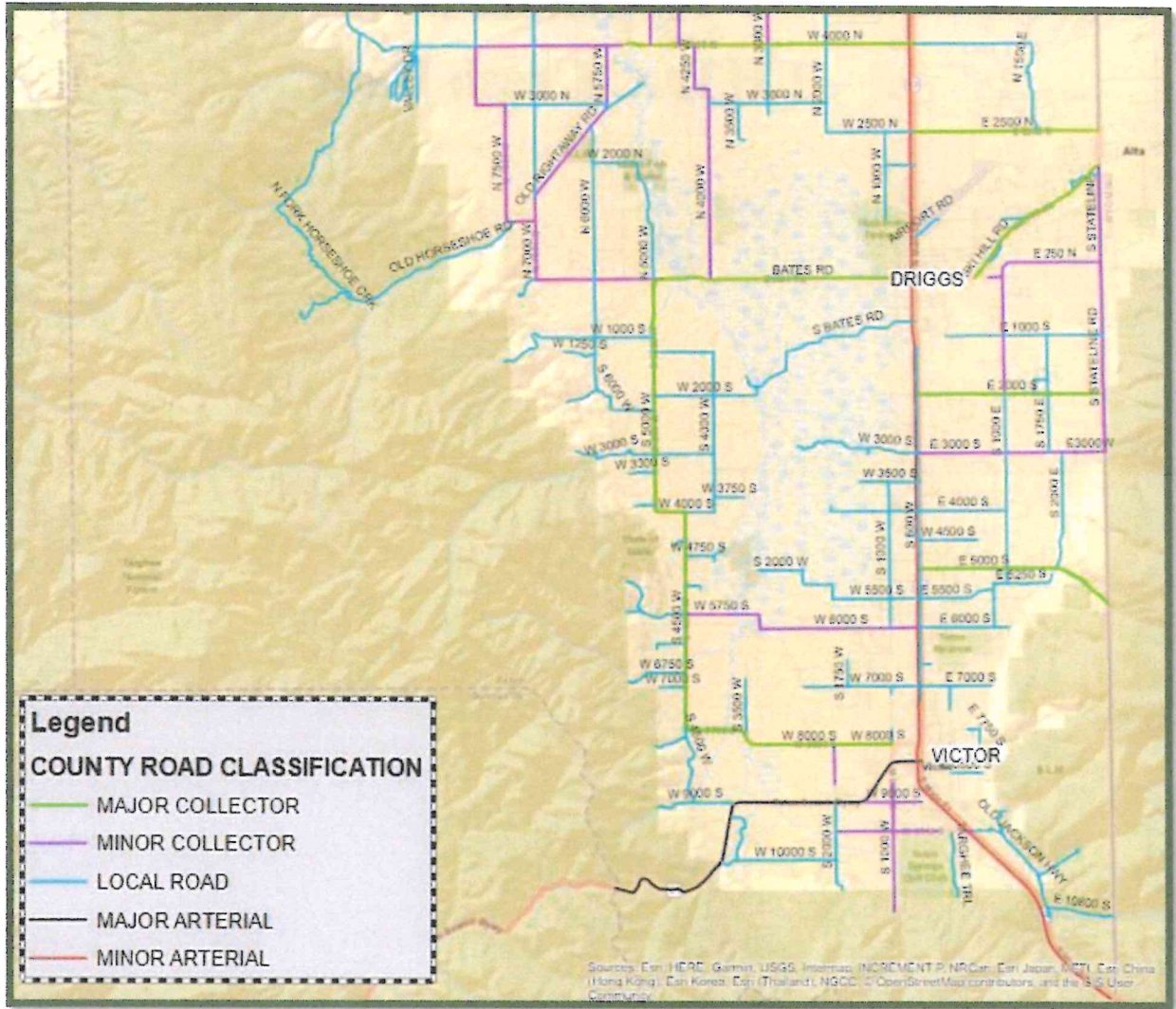
General Requirements

ITD Permit Application Number _____

1. The original permit or a copy must be kept on the job site whenever work is taking place.
2. No work shall commence until the permittee is given notice to proceed by an authorized representative of ITD. The permittee shall notify ITD five (5) working days prior to commencing the permitted work if work does not commence immediately upon notice by ITD.
3. During the progress of all work, traffic control devices shall be erected and maintained as necessary or as directed. All traffic control devices shall conform to the most current edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways*, as adopted by the State. Equipment or materials left within the Highway Right-of-Way when work is not taking place shall be delineated and protected with appropriate approved traffic control devices.
4. All work within the State Highway Right-of-Way shall comply with the requirements of the ITD Workzone Safety and Mobility Policy. Copies available from ITD upon request.
5. All work herein permitted shall conform to current government and industry standards, including Americans with Disabilities Act, and shall be performed and completed to the satisfaction of ITD. The expense of any required supervision of work performed under this permit shall be borne by the permittee.
6. Work done under this permit shall be constructed in a manner that shall not cause water to flow onto the roadway or shoulder, and shall not interfere with the existing drainage on the State Highway System or any adjacent drainage system.
7. All utilities shall be installed under culverts.
8. The permittee shall furnish all material, labor, and equipment involved in the construction of the approach and its appurtenances. This shall include furnishing drainage pipe, curb, gutter, concrete sidewalk, etc., where required.
9. ITD may inspect the materials and workmanship during construction and upon completion to determine that all terms and conditions of the permit are met. Inspectors are authorized to enforce the conditions of the permit during construction and to halt any activities within state Right-of-Way that do not comply with the provisions of the permit, that conflict with concurrent highway construction or maintenance work, and/or that endanger highway property, natural or cultural resources protected by law, or the health and safety of workers or the public.
10. ITD shall be reimbursed by the permittee for any additional inspection required to insure compliance with the conditions of this permit. Inspection fees will be based upon inspection time including travel from the ITD facility and charged at rates commensurate with industry standards.
11. Upon completion of the permitted work, any disturbance of the highway, Right-of-Way, and/or traffic control devices shall be restored to the satisfaction of ITD including the removal of all rubbish and debris and may include seeding, planting and grading.
12. Any encroachment that is found to be in non-compliance with the terms of the approved permit may be required to be modified, relocated, or removed at the sole expense of the permittee upon written notification by the District Engineer or his authorized representative.
13. The permittee shall maintain at its sole expense the encroachment for which this permit is granted.
14. Changes in the use as defined in I.D.A.P.A. 39.03.42, of the permitted access not consistent with the terms and conditions listed on the permit may be considered a violation of the permit. Any modification, relocation, or removal of an encroachment or subject granted by this permit shall require a new permit prior to commencement of such work.
15. ITD may revoke, amend, amplify, or terminate this permit or any of the conditions herein enumerated if the permittee fails to comply with any or all of its provisions, requirements, or regulations as herein set forth or through willful or unreasonable neglect, fails to heed or comply with notices given, or if the approach, structure, or subject herein granted is not installed or operated and maintained in conformity herewith.

Appendix C

Existing Transportation System Mapping

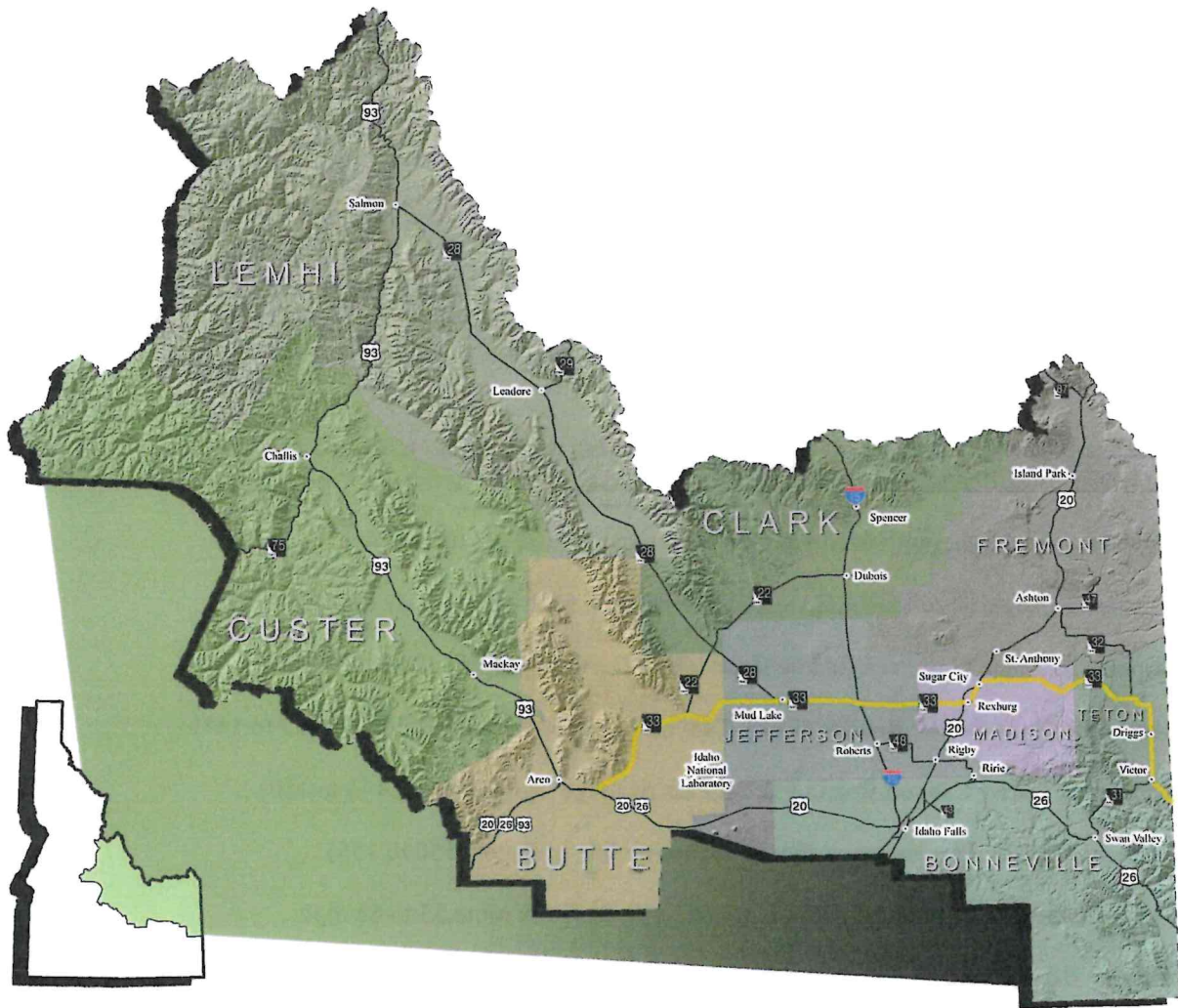


Appendix D

LHTAC Crash Data

Appendix E

Historical Traffic Volumes



Idaho 33 in eastern Idaho (District 6).

Idaho 33

Idaho 33 runs between Butte City and Wyoming across the Snake River Plain into Teton Valley before dropping south to Driggs and Victor and then southeast to Wyoming near Teton Pass (elev. 8,431 ft.). District 6 manages the 140-mile stretch as two corridors (sections of highway).

East Idaho Loop

The first corridor is the East Idaho Loop, starting at the junction of Idaho 33 and U.S. 20/26 east of Butte City and running 78 miles northeast-east to U.S. 20 in Rexburg. The route includes five bridges.

Average daily traffic of Idaho 33 between U.S. 20/26 and Howe is 670 vehicles, dropping to 320 vehicles between Idaho 22 and INL Road east of Howe. Average daily traffic is 660 vehicles east of INL Road, increasing to 1,700 vehicles east of Idaho 28 near Mud Lake.

Average daily traffic increases to 2,600 vehicles between Mud Lake and Rexburg, where average daily traffic jumps to 15,000 vehicles. ITD expects traffic volume in the rural areas to remain constant and in the Rexburg area to continue its upward trend.

Fatal crashes on the mostly two-lane route, which is in good condition, average one per year, with the speed limit 65 mph.

U.S. 20 to Wyoming Line

The second corridor is the 62-mile stretch (milepost 78 to 79, 334 to 340, and 100 to 155) between the Rexburg interchange (overpass) of U.S. 20 in Rexburg and the Wyoming line. It runs east-northeast to Teton Valley and south-southeast to Wyoming. District 6 divides the corridor into one loop and six segments:

Rexburg-Sugar City Business Loop. Rexburg overpass to stoplight on Idaho 33 north of Sugar City (milepost 78 to 79 and 334 to 340).

Segment 1. Stoplight north of Sugar City to Newdale (milepost 100 to 106).

Segment 2. Newdale to Idaho 32 west of Tetonia (milepost 106 to 131).

Segment 3. Idaho 32 to Pack Saddle Road (4000 North) (milepost 131 to 137).

Segment 4. Pack Saddle Road to Darby Canyon Road (300 South) (milepost 137 to 144).

Segment 5. Darby Canyon Road to Teton Pass message sign (milepost 144 to 150).

Segment 6. Teton Pass message sign to Wyoming line (milepost 150 to 155).

The highway has 21 bridges, with the speed limit along the route 25 to 65 mph.

Average daily traffic on 2nd East, which is the busiest stretch of the Rexburg-Sugar City business loop, is 23,000 vehicles, decreasing to 2,900 vehicles in Sugar City.

Average daily traffic at the stoplight north of Sugar City is 4,000 vehicles, decreasing to 2,900 vehicles in Teton and to 2,100 vehicles in Newdale. Average daily traffic increases to 7,000 vehicles in Driggs but decreases to 4,400 vehicles at the Wyoming line.

Winter storms frequently close segment 2 east of Newdale. Fatal crashes on the second corridor average two per year, with incidences highest in segment 2.

ITD expects traffic volume gradually to increase, especially in Rexburg. The second corridor, which also is in good condition, is mostly two lanes, except for four lanes in Rexburg.

Idaho 33 has two weather information stations to collect data on road conditions (click "Cameras" at <http://lb.511.idaho.gov/idlb/cameras/routeselect.jsf;jsessionid=70D4821415F131B6D95A0329622B8F1F?view=state&text=m&textOnly=false>).



Your Safety • Your Mobility
Your Economic Opportunity

DISTRICT SIX 2016 RURAL TRAFFIC FLOW MAP STATE OF IDAHO

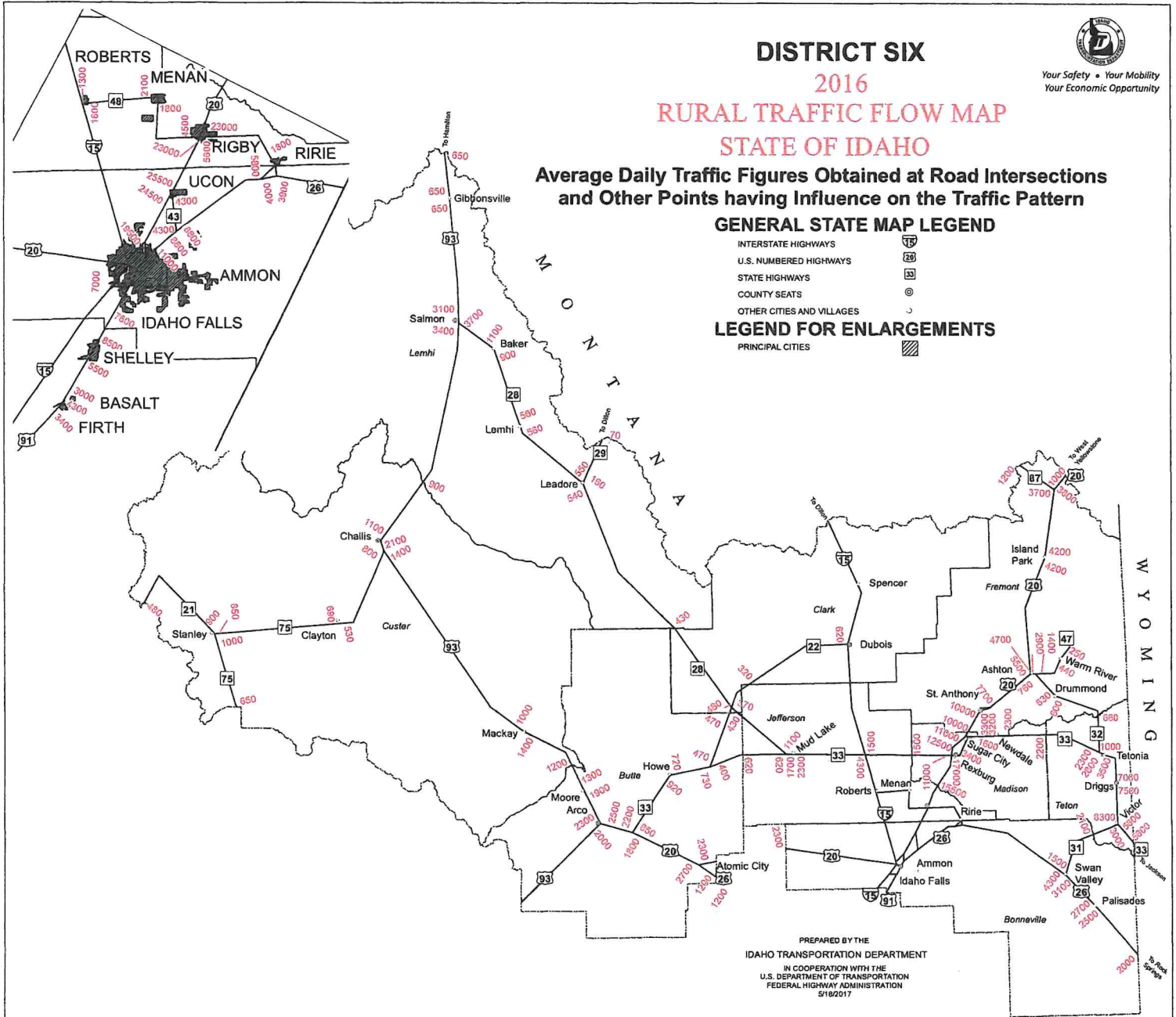
Average Daily Traffic Figures Obtained at Road Intersections
and Other Points having Influence on the Traffic Pattern

GENERAL STATE MAP LEGEND

- INTERSTATE HIGHWAYS
- U.S. NUMBERED HIGHWAYS
- STATE HIGHWAYS
- COUNTY SEATS
- OTHER CITIES AND VILLAGES

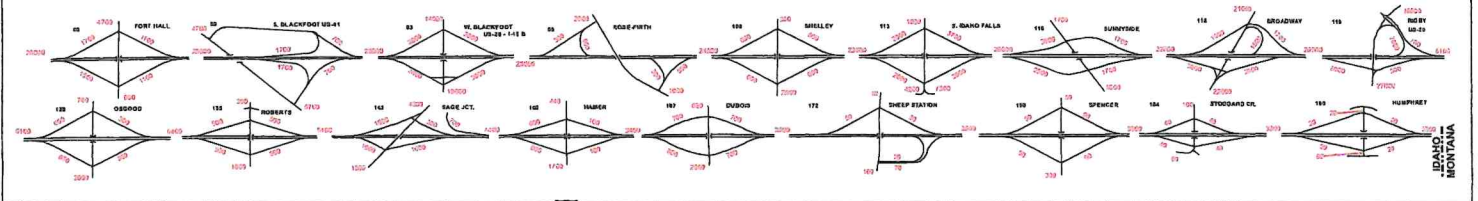
LEGEND FOR ENLARGEMENTS

- PRINCIPAL CITIES

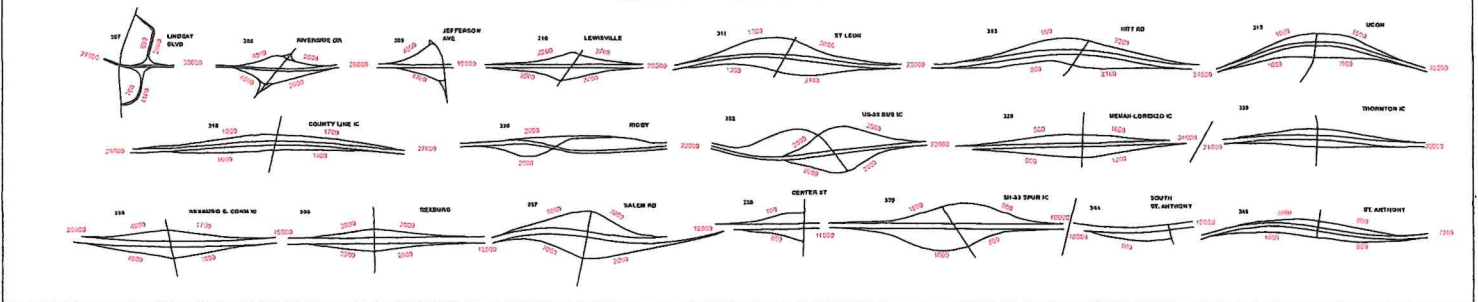


PREPARED BY THE
IDAHO TRANSPORTATION DEPARTMENT
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
5/16/2017

15 INTERSTATE 15 INTERCHANGES



20 US-20 INTERCHANGES





Your Safety • Your Mobility
Your Economic Opportunity

DISTRICT SIX 2016 RURAL TRAFFIC FLOW MAP STATE OF IDAHO

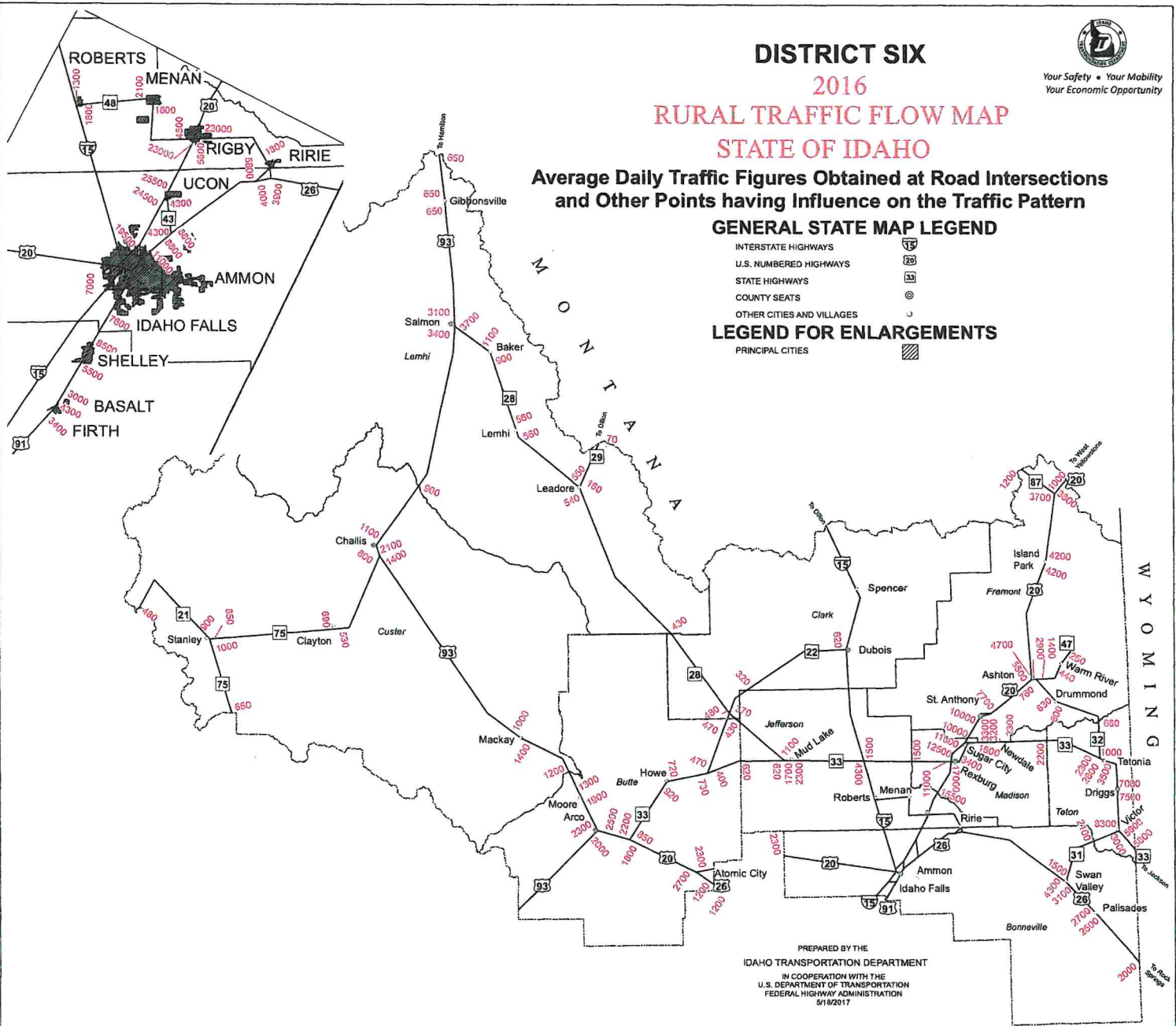
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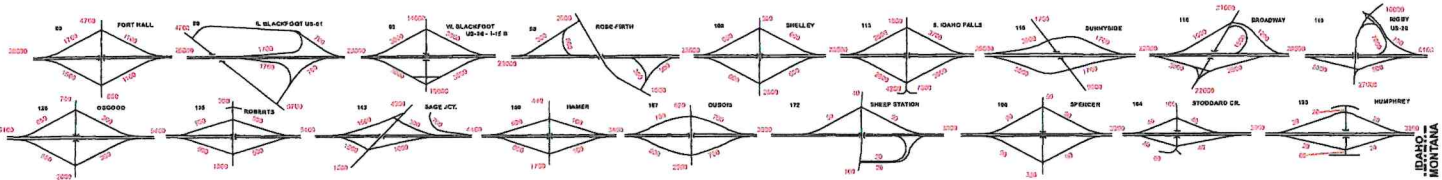
LEGEND FOR ENLARGEMENTS

- PRINCIPAL CITIES

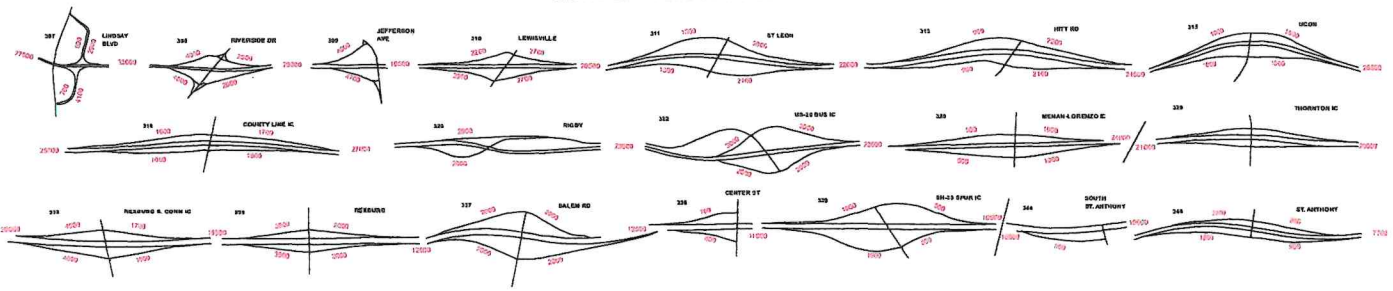


PREPARED BY THE
IDAHO TRANSPORTATION DEPARTMENT
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
5/18/2017

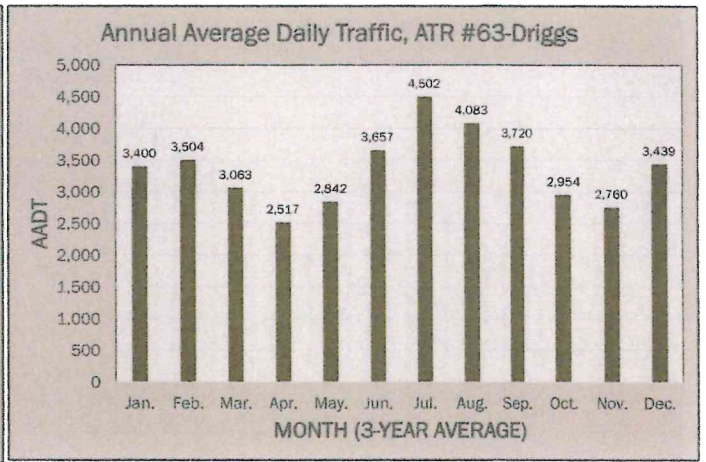
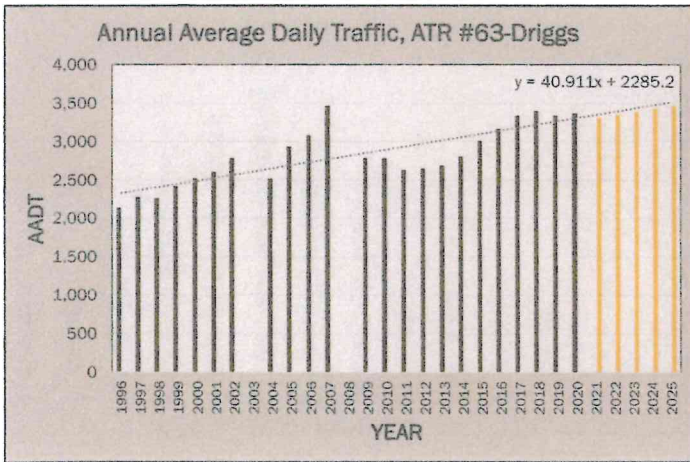
15 INTERSTATE 15 INTERCHANGES



20 US-20 INTERCHANGES

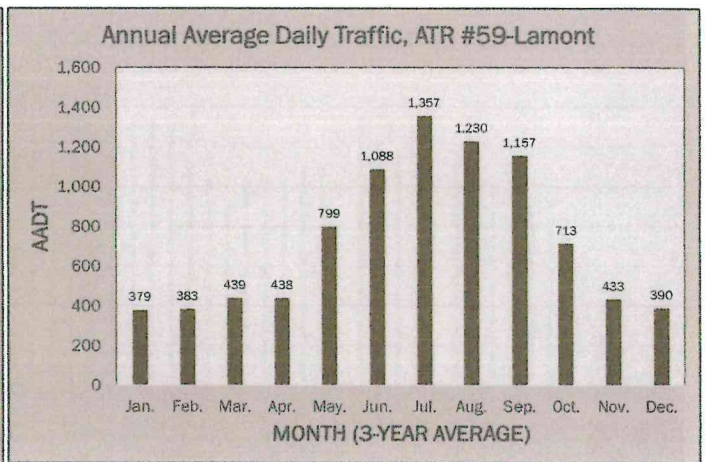
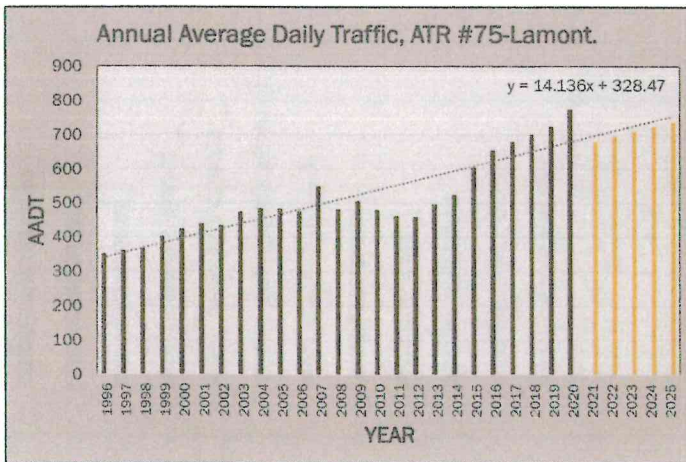


Client:	3000 North Partners												DESIGNED	BEC
Project:	Alpenglo												CHECKED	BEC
Project No.:	01-21-0043												DATE:	10/20/2021
Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	24-Hour Annual Avg.	
1990														
1991														
1992										1,388	1,463	1,627		
1993	1,552	1,647	1,817	1,516	1,468	1,845	2,158	2,022	1,684	1,377	1,277	1,734	1,676	
1994	1,759	1,752	1,915	1,694	1,595	1,887	2,391	2,231	1,837	1,502	1,758	1,930	1,856	
1995	1,829	1,964	1,956	1,629	1,660	2,004	2,462	2,394	1,942	1,687	1,769	2,308	1,967	
1996	1,978	2,006	2,145	1,737	1,834	2,293	2,793	2,675	2,222	1,957	1,964	1,973	2,131	
1997	2,078	2,201	2,285	2,097	2,085	2,443	2,961	2,698	2,225	1,939	1,918	2,359	2,274	
1998	2,098	2,287	2,435	2,014	1,985	2,269	2,836	2,664	2,224	1,951	1,990	2,352	2,259	
1999	2,289	2,128	2,361	2,120	2,040	2,552	3,205	3,086	2,456	2,179	2,044	2,580	2,418	
2000	2,384	2,600	2,587	2,188	2,202	2,595	3,208	3,051	2,537	2,333	2,097	2,482	2,522	
2001	2,547	2,573	2,637	2,239	2,453	2,777	3,236	3,217	2,637	2,220	2,170	2,578	2,607	
2002	2,493	2,585	2,677	2,338	2,518	3,002	3,519	3,441	2,749	2,657	2,541	2,894	2,785	
2003	2,885	2,871	2,818								2,531	2,559		
2004	2,447	2,536	2,716	2,249	2,052	2,417	2,851	2,745	2,510	2,396	2,412	2,887	2,518	
2005	2,838	2,966	2,906	2,567	2,651	3,102	3,509	3,491	3,080	2,617	2,555	2,944	2,936	
2006	2,925	3,048	2,893	2,643	2,758	3,420	3,955	3,728	3,188	2,739	2,642	3,097	3,086	
2007	2,992	3,319	3,288	3,039	3,414	3,864	4,339	4,241	3,605	3,306	3,130	3,108	3,470	
2008		2,950	3,267	2,817	2,958	3,543	4,161	3,770	3,271	2,851	2,620	2,811		
2009	2,770	3,057	2,860	2,473	2,463	2,988	3,765	3,348	2,350	2,232	2,274	2,902	2,790	
2010	2,955	3,002	2,932	2,450	2,224	2,765	3,640	3,311	2,847	2,340	2,250	2,740	2,788	
2011	2,631	2,786	2,688	2,291	2,147	2,651	3,702	3,264	2,722	2,179	1,991	2,557	2,634	
2012	2,652	2,682	2,569	2,311	2,189	2,846	3,714	3,189	2,680	2,182	2,100	2,688	2,650	
2013	2,495	2,805	2,689	2,309	2,230	2,783	3,700	3,265	2,689	2,304	2,325	2,646	2,687	
2014	2,904	2,930	2,854	2,483	2,404	2,946	3,623	3,327	2,752	2,403	2,232	2,840	2,808	
2015	2,970	3,194	2,957	2,538	2,436	3,166	4,075	3,441	3,110	2,526	2,589	3,130	3,011	
2016	3,206	3,257	3,130	2,647	2,613	3,491	4,195	3,773	3,320	2,632	2,556	3,212	3,169	
2017	2,943	3,324	3,195	2,734	2,849	3,627	4,468	4,461	3,412	2,822	2,797	3,484	3,343	
2018	3,572	3,525	3,262	2,759	2,892	3,675	4,481	4,092	3,595	2,758	2,823	3,402	3,403	
2019	3,269	3,440	3,263	2,776	2,899	3,711	4,523	4,038	3,528	2,830	2,521	3,273	3,339	
2020	3,360	3,546	2,665	2,015	2,735	3,584	4,501	4,119	4,038	3,274	2,936	3,643	3,368	
2021	3,862	4,014	3,915	3,060	3,392	4,458	4,969	4,360	4,084				3,308	
2022													3,349	
2023													3,390	
2024													3,431	
2025	2,519												3,472	
Three-Year Average	3,400	3,504	3,063	2,517	2,842	3,657	4,502	4,083	3,720	2,954	2,760	3,439	3,370	



Client:	3000 North Partners												DESIGNED	BEC
Project:	Alpenglo												CHECKED	BEC
Project No.:	01-21-0043												DATE:	10/20/2021

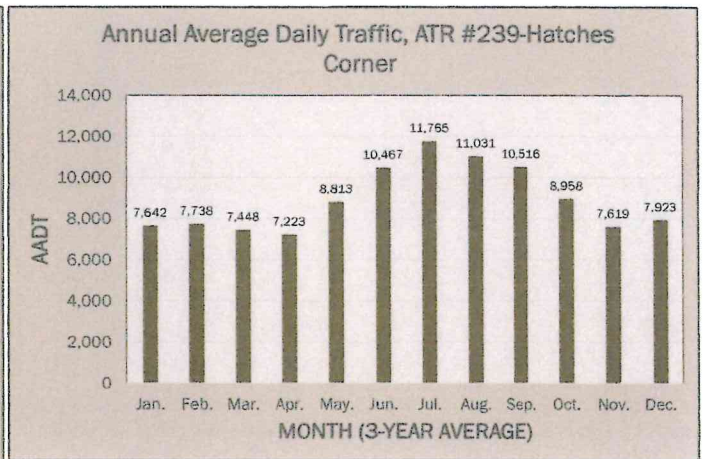
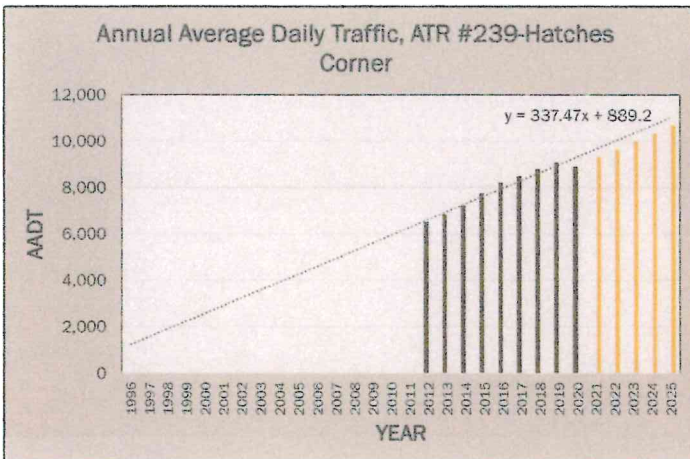
Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	24-Hour Annual Avg.
1990													
1991													
1992													
1993													
1994													
1995											256	212	
1996	163	201	265	266	426	489	620	609	488	342	218	120	351
1997	135	205	262	279	370	483	634	626	531	367	236	202	361
1998	140	209	261	280	359	496	660	641	548	378	252	189	368
1999	187	177	298	305	413	540	732	700	585	375	307	211	403
2000	193	270	317	352	483	564	709	749	554	395	283	226	425
2001	255	285	368	444	548	545	695	625	529	408	335	229	439
2002	235	277	320	301	529	590	724	693	586	379	307	278	435
2003	297	271	315	367	499	623	841	785	645	482	320	242	474
2004	216	282	354	473	504	623	773	744	752	464	352	278	485
2005	260	317	347	399	556	659	903	738	578	453	331	256	483
2006	214	293	333	375	536	664	799	744	623	477	361	306	477
2007	289	298	434	460	634	730	862	865	721	567	434	303	550
2008	262	272	357	372	514	700	792	759	665	481	361	245	482
2009	272	314	329	370	562	686	887	815	751	454	354	275	506
2010	255	307	354	371	558	666	885	761	668	447	267	221	480
2011	252	234	298	306	500	621	891	789	700	440	273	250	463
2012	231	263	313	377	519	638	815	788	642	416	272	244	460
2013	247	289	325	336	538	698	881	861	697	526	310	266	498
2014	275	268	338	354	585	738	907	819	868	557	308	286	525
2015	312	379	449	495	735	904	1,040	984	831	505	345	274	605
2016	313	380	418	481	822	990	1,113	1,073	1,036	548	408	282	655
2017	299	337		440	862	1,038	1,195	1,307	956	609	392	351	680
2018	374	367	439	475	878	1,079	1,263	1,127	1,031	623	409	362	702
2019	389	318	495	521	849	1,155	1,333	1,168	1,011	651	435	374	725
2020	375	463	383	318	669	1,029	1,474	1,396	1,428	865	455	434	774
2021	488	401	553	687	1,241	1,678	1,708	1,447	1,427				882
2022													696
2023													710
2024													724
2025	2,519												738
Three-Year Average	379	383	439	438	799	1,088	1,357	1,230	1,157	713	433	390	734



Client: **3000 North Partners**
Project: **Alpenglo**
Project No.: **01-21-0043**

DESIGNED: BEC
CHECKED: BEC
DATE: 10/20/2021

Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	24-Hour Annual Avg.
1990													
1991													
1992													
1993													
1994													
1995													
1996													
1997													
1998													
1999													
2000													
2001													
2002													
2003													
2004													
2005													
2006													
2007													
2008													
2009													
2010													
2011												5,467	
2012	5,281	5,529	5,530	5,881	6,470	7,409	8,638	8,149	7,425	6,379	5,604	5,734	6,502
2013	5,556	5,877	5,874	6,018	6,769	7,894	9,023	8,521	7,565	6,864	5,929	6,053	6,829
2014	6,094	6,146	6,194	6,473	7,304	8,388	9,326	8,740	8,262	7,273	6,032	6,344	7,215
2015	6,342	6,894	6,984	7,011	7,753	9,071	10,011	9,337	8,645	7,621	6,587	6,732	7,749
2016	6,862	7,179	7,138	7,388	8,430	9,604	10,528	10,235	9,327	7,902	7,107	6,876	8,215
2017	6,809	7,122	7,301	7,541	8,798	9,860	10,976	10,758	9,500	8,326	7,275	7,593	8,488
2018	7,630	7,664	7,536	7,773	9,051	10,381	11,520	10,479	10,033	8,579	7,451	7,656	8,813
2019	7,656	7,347	7,861	8,101	9,141	10,800	11,987	11,145	10,308	8,874	7,829	7,965	9,084
2020	7,641	8,203	6,947	5,795	8,247	10,221	11,789	11,468	11,206	9,421	7,576	8,148	8,889
2021	8,297	8,503	8,901	9,057	10,891	12,878	13,527	12,279	11,761				9,326
2022													9,663
2023													10,001
2024													10,338
2025	2,519												10,676
Three-Year Average	7,642	7,738	7,448	7,223	8,813	10,467	11,765	11,031	10,516	8,958	7,619	7,923	8,929



Appendix F

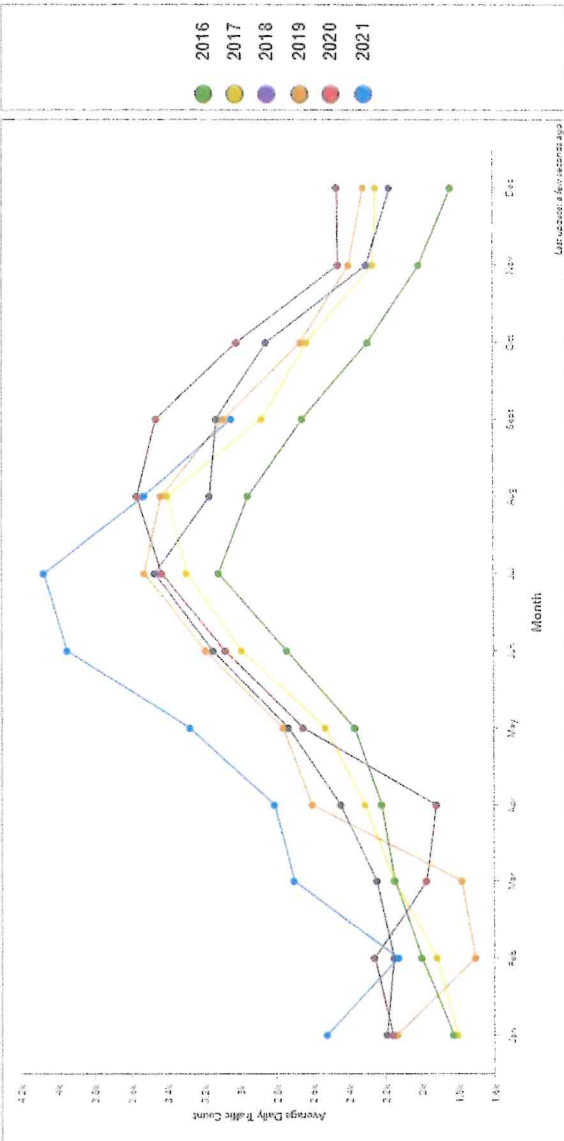
Existing Conditions (2020) Traffic Volumes

ATR Monthly Averages

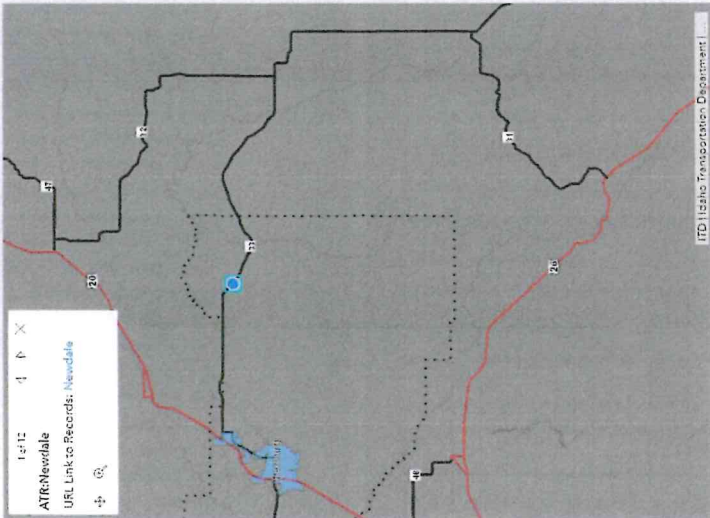
Select by County: Madison

Select by City: All Cities

Select by Road: SR-33



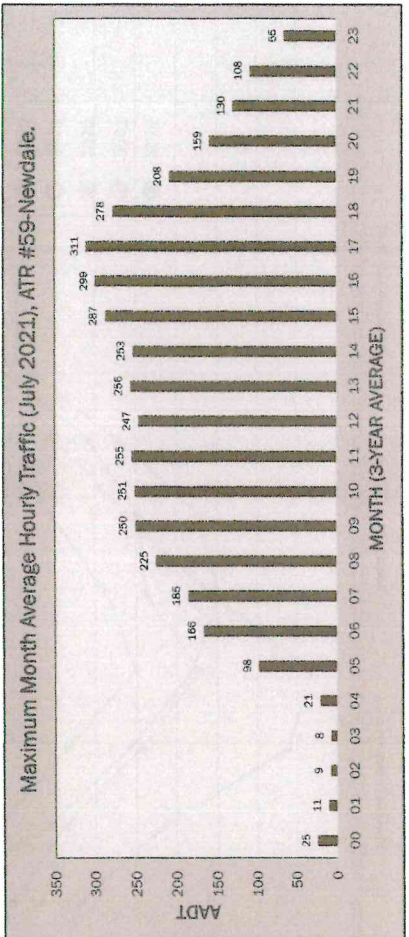
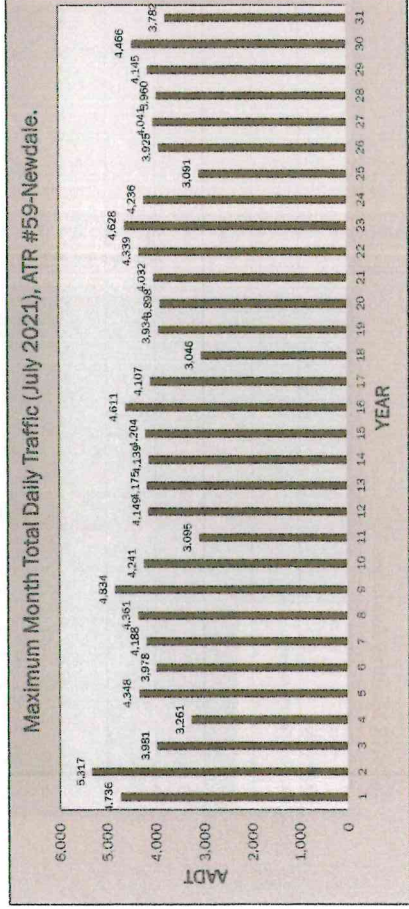
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ITD | Idaho Transportation Department

Client: **3000 North Partners** DESIGNED: _____ CHECKED: _____ DATE: _____
 Project: **Alpenglo** PROJECT NO.: **01-21-0043** ATR #59, Newdale, Idaho

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	TOTAL
1	22	15	10	6	27	131	193	252	279	293	263	280	264	270	263	342	354	360	377	238	186	106	66	4,736	
2	31	9	12	11	28	123	205	223	272	329	278	298	292	314	340	378	418	418	352	296	212	174	115	5,317	
3	70	44	18	7	30	90	97	153	184	196	219	223	271	276	234	278	267	231	259	201	187	157	144	3,991	
4	54	22	7	11	16	39	47	89	127	200	223	206	232	217	203	233	239	231	174	182	133	138	107	3,261	
5	28	12	12	16	18	66	133	159	227	277	314	338	314	307	334	282	279	295	255	206	165	123	51	4,548	
6	20	1	7	7	23	126	198	252	256	274	256	236	247	225	238	193	297	242	237	250	155	83	40	3,978	
7	13	6	11	4	24	108	194	257	256	263	251	253	192	275	249	304	290	317	286	217	157	132	86	4,168	
8	17	7	5	9	19	115	215	224	225	279	265	260	236	226	266	335	293	368	296	234	163	148	54	4,361	
9	24	13	9	9	24	97	227	193	273	276	286	272	284	275	313	288	341	366	355	248	212	144	99	4,934	
10	53	18	11	6	23	63	106	182	199	280	281	302	283	315	276	307	325	286	244	181	165	126	81	4,241	
11	37	15	5	7	8	20	49	79	101	173	241	235	207	224	195	257	267	227	189	172	128	127	87	45	3,085
12	16	13	11	6	25	121	203	211	227	275	248	232	231	317	219	275	294	335	308	209	132	96	104	41	4,149
13	16	7	5	6	24	127	231	220	234	276	267	207	241	218	233	272	310	335	281	241	151	114	105	54	4,175
14	9	12	5	8	22	132	226	214	260	236	260	230	221	257	231	309	268	323	301	200	150	116	99	60	4,139
15	17	6	8	11	21	120	196	249	246	240	262	254	241	227	262	278	276	318	314	191	159	134	106	68	4,204
16	20	12	10	6	21	104	197	219	252	259	244	280	278	303	282	292	329	355	333	245	169	180	150	91	4,611
17	52	19	11	13	22	60	112	154	243	252	258	275	259	252	268	274	335	292	230	219	168	140	122	78	4,107
18	39	12	19	9	8	24	35	70	158	142	220	224	204	217	195	280	230	211	206	145	155	102	88	46	3,646
19	21	8	7	8	30	128	220	215	222	234	249	216	237	219	226	270	276	334	281	175	139	116	78	27	3,898
20	16	2	6	12	24	128	240	218	234	226	218	242	217	242	224	223	276	334	281	175	139	116	78	27	3,898
21	16	4	7	4	27	137	203	234	248	255	245	233	222	250	203	263	304	331	266	180	152	134	87	43	4,032
22	12	7	9	10	26	126	217	208	232	262	254	258	240	244	244	335	319	348	311	233	142	109	62	45	4,339
23	17	8	3	11	18	91	195	214	237	230	255	255	309	270	295	388	331	355	311	199	140	157	106	88	4,236
24	30	14	11	11	11	51	92	127	222	300	286	295	282	300	285	367	310	280	254	234	149	130	107	88	4,236
25	29	14	12	9	29	39	68	119	187	180	249	240	218	228	253	207	230	228	205	176	160	133	57	41	3,091
26	9	4	4	7	24	140	226	197	233	246	244	291	198	228	249	244	265	327	290	166	125	98	66	42	3,925
27	13	6	10	9	37	138	226	176	242	249	237	244	205	225	250	233	282	348	299	196	157	132	88	39	4,041
28	13	6	3	5	26	133	206	198	263	240	282	214	198	248	235	249	278	316	282	205	154	96	77	51	3,960
29	18	5	10	11	19	201	187	231	244	244	204	207	252	252	249	305	319	334	300	208	151	166	111	50	4,145
30	18	10	11	4	21	118	159	203	245	277	251	325	301	265	272	337	369	372	267	219	132	119	111	60	4,498
31	26	16	4	3	13	41	74	105	228	294	261	258	236	262	263	305	284	265	182	181	170	130	93	78	3,782
Three-Year Average	25	11	9	8	21	98	168	185	229	250	251	255	247	259	283	287	299	311	276	208	159	108	65	45	4,106



MAXIMUM MONTH HOURLY TRAFFIC VOLUME BY DAY - EASTBOUND

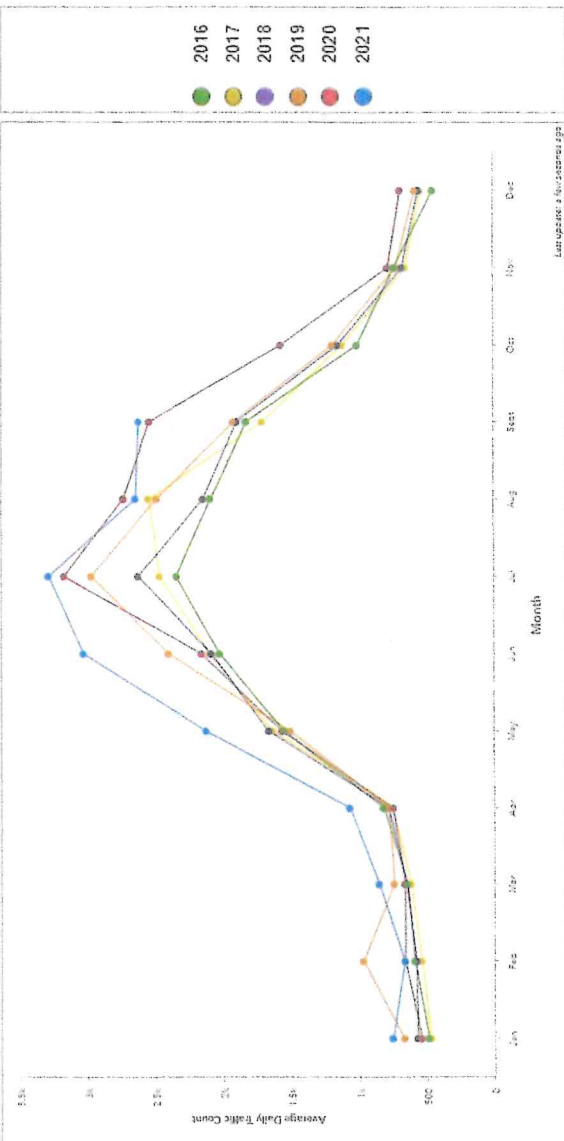
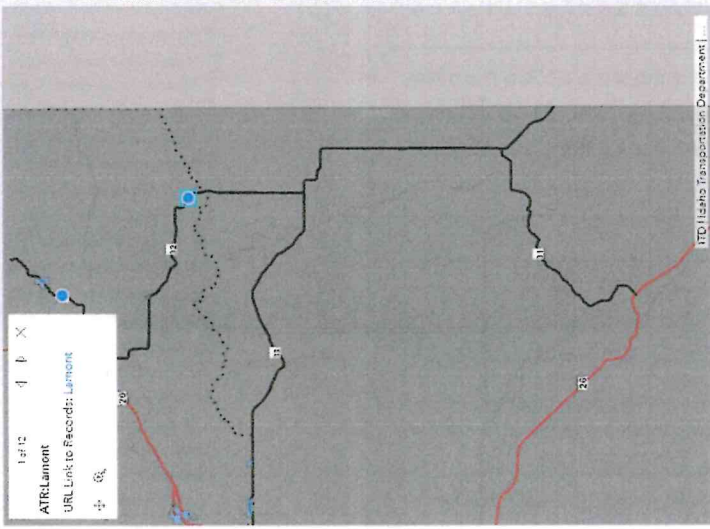
DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	TOTAL
1	12	7	7	4	21	110	161	175	178	160	118	125	123	125	140	201	146	151	156	104	95	65	52	33	2,469
2	15	7	6	7	21	109	171	153	182	195	146	140	161	144	175	183	229	212	182	145	98	73	62	44	2,660
3	42	11	13	3	25	73	77	88	116	79	113	118	148	152	139	151	121	116	115	75	60	45	33	58	1,968
4	31	12	4	7	14	36	35	44	62	84	97	113	148	126	109	136	135	109	77	93	52	53	39	30	1,613
5	15	5	7	10	12	58	99	104	120	140	122	121	136	145	142	139	115	129	101	95	70	48	44	20	1,697
6	16	1	2	3	20	111	163	170	157	156	133	96	122	102	122	65	133	54	80	111	65	46	31	13	1,974
7	10	5	5	3	15	95	156	187	167	130	137	125	57	153	132	145	123	121	86	93	69	38	14	2,125	
8	11	8	4	4	20	78	182	131	181	145	124	119	128	130	153	123	170	191	178	120	98	61	59	42	2,460
9	16	4	8	4	15	47	78	120	107	131	127	159	124	145	139	128	152	126	98	83	78	43	42	25	1,969
10	21	12	12	3	6	15	27	37	51	64	94	100	104	90	94	158	132	114	101	76	64	51	38	20	1,472
11	11	10	6	4	21	109	168	134	128	152	124	99	112	179	97	135	131	122	105	97	58	46	44	13	2,105
12	8	4	4	3	20	112	188	154	148	144	153	92	109	114	113	114	148	105	100	106	61	49	45	23	2,117
13	8	7	3	4	17	115	189	147	154	131	121	125	89	114	102	158	119	112	103	71	53	52	38	22	2,053
14	7	7	3	4	17	115	189	147	154	131	121	125	89	114	102	158	119	112	103	71	53	52	38	22	2,053
15	5	4	3	7	20	105	165	174	147	109	129	110	103	114	133	132	128	125	121	70	79	60	60	21	2,124
16	13	7	7	5	19	88	155	152	151	120	122	121	113	131	127	143	158	171	173	150	80	80	66	32	2,395
17	16	11	10	7	15	45	91	102	134	118	120	143	130	121	126	126	148	118	94	63	76	47	44	35	1,960
18	14	8	14	6	6	13	26	31	65	53	86	84	84	97	101	155	137	121	108	69	92	51	24	25	1,470
19	15	5	4	4	24	114	166	152	122	129	118	96	121	113	114	108	108	75	137	75	52	58	32	23	1,990
20	10	1	4	8	21	118	198	162	147	130	92	129	86	115	107	92	110	108	106	74	54	53	29	7	1,961
21	10	2	3	2	20	127	181	166	148	150	121	133	79	121	91	123	129	137	85	73	54	39	35	17	2,046
22	6	5	4	6	22	110	186	145	144	157	144	133	114	113	123	170	132	146	116	99	69	69	55	22	2,269
23	7	3	1	9	13	75	166	164	133	123	120	130	139	130	143	194	156	142	137	117	99	70	65	45	2,363
24	17	7	8	7	6	43	58	70	131	141	165	150	148	160	133	190	166	135	91	91	64	46	48	44	2,119
25	18	5	8	5	7	21	22	34	58	83	62	107	96	111	124	109	117	121	104	95	79	56	23	18	1,485
26	8	5	1	4	21	121	192	141	141	143	106	144	79	116	95	99	134	134	108	57	53	34	32	13	1,991
27	5	3	7	2	29	118	195	132	147	150	127	114	85	103	126	97	131	135	107	81	54	47	34	7	2,036
28	7	3	3	1	22	125	172	145	169	117	154	98	70	128	103	126	116	123	100	96	60	40	32	21	2,032
29	10	4	6	5	12	110	170	136	147	122	109	104	123	132	119	136	160	144	117	84	65	61	40	15	2,131
30	11	7	7	0	13	99	132	141	149	156	130	139	121	109	122	150	179	171	129	98	54	56	35	23	2,231
31	13	10	2	1	11	29	46	64	95	128	121	126	129	120	126	164	141	130	98	85	74	56	32	40	1,941
Three-Year Average	13	6	5	4	17	88	136	129	132	128	122	120	111	124	122	139	140	131	114	92	69	54	41	26	2,060

MAXIMUM MONTH HOURLY TRAFFIC VOLUME BY DAY - WESTBOUND

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	TOTAL
1	10	8	3	3	2	6	32	77	101	133	145	155	141	145	123	141	208	209	221	134	91	74	54	33	2,267
2	16	2	6	6	4	7	34	70	80	134	132	158	131	170	165	189	189	206	190	151	114	102	112	71	2,457
3	28	33	5	4	5	17	44	65	78	117	104	110	123	124	95	127	145	115	144	126	127	112	111	77	2,013
4	23	10	3	4	2	3	12	48	65	116	126	93	114	91	94	97	104	122	97	89	61	78	99	77	1,648
5	13	7	5	6	6	3	8	55	107	137	192	217	178	162	192	143	164	166	154	111	115	75	73	31	2,351
6	4	0	5	4	3	15	35	82	99	116	123	140	125	123	116	128	164	188	157	139	90	69	52	27	2,004
7	3	1	6	1	9	13	38	70	89	133	114	128	135	122	117	159	167	196	200	124	88	73	48	29	2,043
8	6	4	0	7	5	18	33	60	102	123	133	130	143	131	131	182	155	200	134	134	93	79	78	27	2,184
9	13	5	5	5	4	19	45	62	92	131	172	153	156	145	160	165	171	195	177	128	114	83	117	57	2,374
10	37	14	3	2	8	16	28	62	92	148	154	143	169	170	137	179	173	160	148	98	87	75	84	56	2,242
11	16	3	2	7	2	5	22	42	50	109	147	135	103	134	101	99	135	113	88	96	64	76	49	25	1,653
12	5	3	5	2	4	12	35	77	99	123	124	115	132	104	120	158	162	230	181	135	90	65	60	28	2,044
13	8	3	1	3	4	15	43	66	86	132	114	115	132	143	129	151	149	211	198	129	80	64	61	38	2,058
14	2	5	2	4	5	17	37	67	96	105	139	105	132	143	129	146	148	193	183	121	80	74	46	47	2,080
15	12	2	5	4	1	16	31	75	99	131	133	144	138	113	129	146	148	184	160	95	89	100	84	59	2,226
16	7	5	3	1	2	16	42	67	101	138	122	159	165	172	135	149	170	174	136	136	92	93	78	43	2,147
17	35	8	1	6	7	15	21	52	109	134	138	132	128	131	142	148	187	174	136	76	63	51	64	21	1,576
18	25	4	5	3	2	11	9	39	93	89	134	140	120	120	94	125	100	90	98	76	63	51	64	21	1,576
19	6	3	3	4	6	15	34	63	100	105	131	120	116	106	113	156	168	194	196	117	66	54	42	26	1,944
20	6	1	2	4	3	10	42	56	87	96	126	113	131	127	117	131	166	226	175	101	85	63	49	20	1,637
21	6	2	4	2	7	10	22	68	100	105	124	100	143	129	112	140	175	194	181	107	98	79	52	26	1,988
22	6	2	5	4	4	16	31	63	88	105	110	125	126	131	138	165	167	202	195	114	74	65	54	40	2,050
23	10	5	2	2	5	16	29	50	104	107	135	125	170	140	152	194	173	213	174	116	100	70	92	61	2,245
24	13	7	3	4	5	8	34	57	91	159	121	145	134	140	152	177	144	145	163	143	85	84	59	44	2,117
25	11	9	4	4	2	8	16	34	61	104	118	142	142	107	129	98	113	107	101	81	81	77	34	23	1,606
26	1	0	3	3	3	19	34	56	92	103	138	147	120	112	154	145	131	193	182	109	72	64	34	29	1,944
27	6	3	3	7	8	20	31	44	95	99	110	130	120	122	124	138	151	213	192	115	103	85	54	32	2,005
28	6	3	2	2	4	8	34	53	94	123	108	116	128	119	132	123	162	193	182	109	94	58	45	30	1,928
29	8	1	3	3	3	9	31	51	84	122	95	103	129	130	130	169	159	190	183	124	86	105	71	35	2,014
30	7	3	4	4	8	19	27	62	96	121	121	186	180	156	150	187	190	201	138	121	78	63	76	37	2,235
31	13	6	2	2	2	12	28	41	133	166	140	132	107	142	137	141	143	135	94	96	96	74	61	38	1,941
Three-Year Average	12	5	3	4	5	14	30	59	93	121	130	135	135	132	137	145	159	180	164	115	89	75	66	39	2,044

Select by County: **Framont** | Select by City No Cities Available | Select by Road: **All Roads**

ATR Monthly Averages

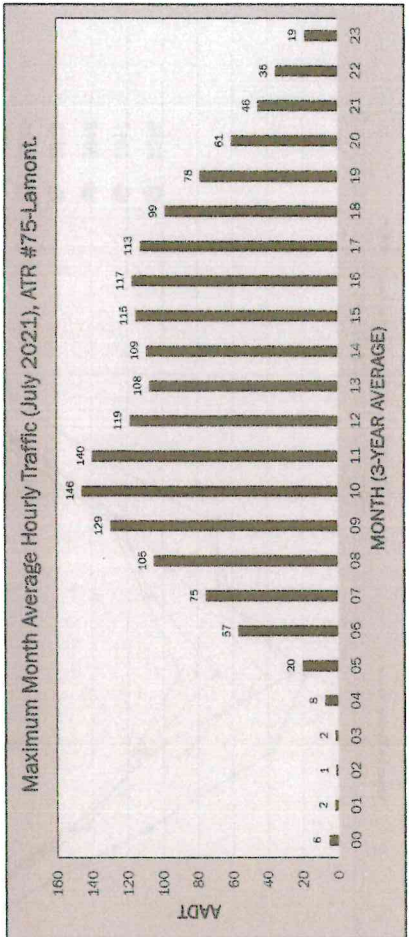
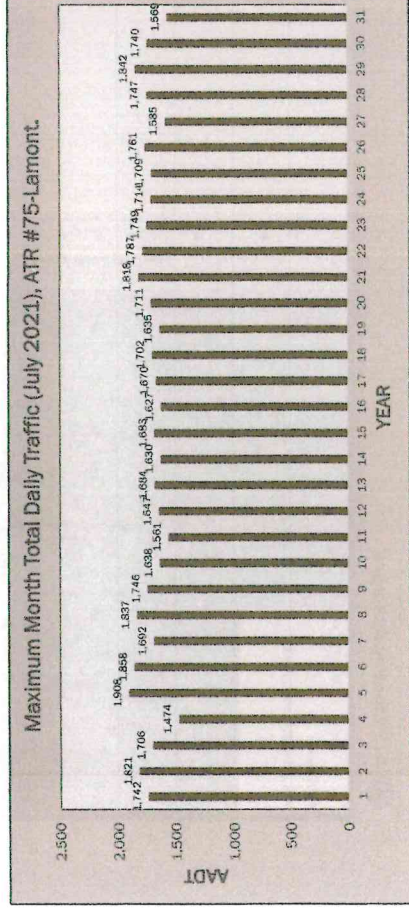


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Client: 3000 North Partners
Project: Alpunglo
Project No. 01-21-0043
DESIGNED: _____
CHECKED: _____
DATE: _____
EUC
BEC
10/20/2021

MAXIMUM MONTH HOURLY TRAFFIC VOLUME BY DAY - BOTH DIRECTIONS

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	TOTAL
1	6	5	1	6	9	24	67	74	115	141	151	159	89	119	113	96	109	109	86	89	56	57	27	24	1,742	
2	6	1	1	5	9	21	65	84	96	136	163	143	135	96	131	122	116	120	107	86	62	49	50	27	1,821	
3	8	4	5	2	13	19	45	58	114	147	149	155	123	101	84	110	127	88	90	70	66	38	49	30	1,706	
4	7	3	0	0	8	15	23	0	85	124	120	114	114	91	99	102	87	115	103	59	55	43	38	19	1,474	
5	10	4	0	0	7	21	42	83	85	132	155	186	147	142	129	148	140	143	89	71	81	33	40	20	1,905	
6	5	4	3	2	3	25	76	82	118	138	145	124	124	114	121	95	132	122	124	93	62	46	16	16	1,858	
7	9	2	0	1	6	28	70	89	124	143	151	134	102	106	117	83	86	112	99	91	49	38	38	14	1,992	
8	8	0	1	3	5	23	83	81	124	139	157	118	114	96	121	124	127	122	103	98	78	54	39	19	1,937	
9	8	3	4	1	7	21	49	76	102	147	162	122	118	106	101	121	120	100	116	103	49	46	45	19	1,746	
10	6	2	1	1	6	17	49	79	104	94	142	141	112	102	114	115	129	116	92	64	65	32	35	20	1,938	
11	10	5	0	0	10	37	61	71	99	107	144	144	113	119	116	115	109	135	74	89	52	42	28	12	1,551	
12	7	0	2	2	6	23	61	71	89	137	142	137	111	84	107	112	106	102	95	87	45	55	36	20	1,847	
13	2	0	2	0	10	32	71	101	87	125	135	138	119	112	104	107	127	101	88	68	64	48	23	20	1,844	
14	3	2	0	1	5	24	64	72	105	144	136	146	108	104	87	113	93	106	92	82	63	30	34	11	1,630	
15	4	1	0	0	18	69	69	79	120	132	128	133	115	92	105	117	106	114	96	90	67	55	26	16	1,683	
16	3	2	1	1	9	18	39	72	87	131	136	139	105	112	123	127	109	92	100	53	64	44	44	16	1,527	
17	6	0	2	6	6	11	48	64	93	124	157	143	121	77	107	123	116	100	128	72	50	47	50	17	1,670	
18	12	4	2	4	8	14	28	40	79	110	150	141	133	152	108	144	133	108	114	78	61	29	36	16	1,702	
19	3	2	4	2	10	26	70	86	125	116	134	144	103	75	103	97	98	137	94	60	67	43	24	12	1,635	
20	3	1	0	2	4	2	69	88	128	125	148	121	109	98	94	103	116	130	111	67	68	47	31	17	1,711	
21	3	2	0	4	9	26	73	96	140	152	159	118	127	94	111	117	120	107	96	72	68	46	31	47	1,818	
22	4	1	1	0	6	23	70	73	119	141	181	122	112	90	112	121	103	113	110	100	47	73	43	22	1,787	
23	8	3	1	0	4	16	57	77	90	110	130	168	132	120	122	112	142	133	102	74	71	36	33	14	1,749	
24	4	3	4	1	7	11	37	69	101	142	160	145	142	114	122	131	136	104	124	76	55	42	31	20	1,714	
25	6	2	0	1	6	14	30	48	74	96	136	145	132	114	122	105	123	113	93	76	56	38	13	20	1,709	
26	4	1	2	2	10	25	67	89	116	145	151	155	117	108	119	105	123	113	81	76	54	38	23	15	1,585	
27	5	2	1	1	7	16	76	84	112	121	140	108	106	117	86	97	116	101	81	76	59	55	28	15	1,747	
28	5	1	1	1	10	23	66	84	94	125	154	168	106	125	107	120	104	110	81	95	69	55	24	18	1,642	
29	2	0	3	4	8	30	63	79	136	141	159	118	115	106	112	130	128	120	120	80	71	60	24	18	1,642	
30	5	1	2	2	9	14	63	79	122	132	152	144	138	116	108	111	142	118	81	74	50	46	26	5	1,740	
31	2	5	0	0	6	8	41	64	89	122	137	125	140	112	75	131	120	107	77	65	45	38	32	26	5	1,589
Three-Year Average	8	2	1	2	8	20	146	129	105	146	140	140	119	108	109	115	117	113	99	78	61	46	35	19	1,709	



MAXIMUM MONTH HOURLY TRAFFIC VOLUME BY DAY - SOUTHEAST BOUND

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	TOTAL
1	5	2	0	0	1	1	17	40	40	62	81	94	41	50	53	41	48	39	32	29	22	34	17	16	846
2	3	0	0	3	4	12	33	47	44	79	90	73	67	56	53	65	56	49	52	56	24	23	18	8	915
3	2	3	2	1	5	12	16	29	52	70	77	76	59	47	51	50	47	47	50	37	32	17	12	13	807
4	5	1	0	0	7	8	11	20	43	59	62	62	57	44	48	40	42	60	55	29	28	19	17	5	722
5	6	1	0	0	4	8	22	38	49	72	78	86	77	56	61	71	73	66	47	34	40	15	17	12	943
6	3	1	3	0	0	11	43	44	60	72	102	84	69	56	56	48	72	59	68	41	30	27	28	9	988
7	8	1	0	0	3	16	35	43	81	66	83	84	64	61	60	40	37	41	48	40	17	18	16	8	898
8	6	0	0	2	2	9	47	47	71	78	76	65	66	49	74	46	62	58	58	40	37	23	18	12	946
9	6	2	2	0	2	12	24	47	62	77	88	60	70	60	42	61	56	52	58	52	23	14	14	6	891
10	2	2	0	0	2	12	22	42	53	56	94	76	63	48	48	43	54	53	38	37	32	15	10	9	811
11	6	4	0	0	5	2	14	34	39	56	54	59	52	58	48	50	57	62	36	44	24	23	16	8	751
12	2	0	0	1	2	9	34	34	52	83	71	73	61	61	62	52	57	54	46	33	16	24	18	10	839
13	2	0	0	2	0	5	14	41	56	45	63	69	67	47	46	57	70	47	31	29	34	26	7	15	852
14	0	0	0	0	1	14	31	49	56	86	75	72	59	46	47	47	42	45	34	29	32	13	18	4	800
15	3	0	0	0	3	12	46	31	61	71	71	77	61	53	39	55	54	55	43	30	27	34	10	12	848
16	1	1	0	0	3	7	24	41	53	63	64	64	59	71	58	59	51	37	37	41	29	20	16	7	868
17	3	0	1	2	3	7	26	40	50	69	84	74	63	39	56	50	60	40	71	35	22	21	24	9	849
18	6	3	0	2	3	9	7	19	31	61	69	69	57	82	51	63	66	46	61	42	31	9	20	6	813
19	3	1	3	0	3	14	45	45	63	62	70	79	61	44	50	35	42	64	42	25	33	20	12	9	825
20	2	1	1	1	5	16	36	48	66	65	87	84	66	50	54	70	58	61	60	34	26	20	19	12	942
21	3	1	0	1	2	12	42	45	80	81	86	66	71	51	53	66	67	46	32	22	38	21	17	4	907
22	2	1	1	0	3	11	40	43	57	76	99	65	68	43	59	67	40	49	61	41	19	31	16	12	866
23	5	3	0	0	3	12	34	45	51	68	78	82	64	63	59	68	64	60	55	25	32	14	10	11	906
24	3	0	1	1	3	7	17	41	57	72	68	98	80	63	49	47	42	54	50	26	25	20	15	10	899
25	5	0	0	1	3	7	13	20	43	59	75	72	61	54	59	63	66	56	68	36	41	28	20	8	858
26	2	1	1	0	4	12	37	40	59	80	78	92	71	59	60	52	74	53	54	32	23	15	18	10	927
27	3	2	1	0	3	8	38	40	58	83	87	62	53	67	50	51	64	46	37	38	24	15	13	10	853
28	3	1	1	0	5	12	38	49	42	76	90	102	73	64	53	56	56	50	34	33	37	33	14	9	831
29	2	0	1	3	1	16	32	43	65	78	92	69	64	50	48	66	70	70	58	41	24	22	11	6	940
30	3	1	0	2	5	8	34	48	71	73	87	82	77	51	63	50	76	68	35	36	32	16	10	4	932
31	2	1	0	2	1	4	13	31	43	63	64	61	67	58	29	65	58	61	50	35	26	13	20	9	776
Three-Year Average	3	1	1	1	3	11	30	40	50	71	80	76	64	54	53	55	58	53	48	36	28	21	16	9	867

DAY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	TOTAL
1	1	3	1	5	8	7	27	34	53	60	70	65	58	69	60	55	61	70	54	60	34	23	10	8	866
2	3	1	1	2	5	9	32	37	52	57	63	70	68	40	78	57	60	71	55	30	38	26	32	19	906
3	6	1	3	1	8	7	29	29	62	77	72	79	64	54	43	60	80	42	40	33	34	21	37	17	869
4	2	2	0	0	1	7	12	30	42	65	58	52	57	47	51	62	45	55	48	30	27	24	21	14	752
5	4	3	0	0	3	13	20	45	36	60	77	90	70	86	68	77	67	77	42	37	41	18	23	8	985
6	2	4	3	0	2	3	33	38	58	67	43	67	55	58	63	47	60	63	56	52	32	28	18	7	870
7	1	1	0	1	3	12	35	46	43	77	68	50	38	45	47	43	49	71	53	51	32	20	22	6	824
8	2	0	1	1	3	14	36	34	53	61	81	53	48	47	47	78	65	64	45	58	41	31	21	7	861
9	2	2	2	0	4	9	25	29	40	70	74	62	48	46	59	60	64	48	56	51	28	32	31	13	865
10	4	0	1	1	4	5	27	37	51	38	48	65	49	54	66	72	75	63	54	27	33	17	25	11	827
11	4	1	0	0	5	8	23	30	32	43	53	85	61	61	68	65	52	73	38	45	28	19	12	4	810
12	5	0	2	1	4	14	27	37	47	54	71	64	50	39	45	60	49	48	49	54	29	31	18	10	808
13	0	0	0	0	5	18	30	45	42	62	66	59	52	65	58	50	57	54	57	39	30	22	16	5	832
14	3	2	0	1	4	10	33	23	49	58	61	74	50	58	40	70	51	61	58	53	31	17	16	7	830
15	1	1	1	0	1	6	23	48	59	61	57	56	54	39	66	58	52	59	53	60	40	21	16	4	835
16	2	1	1	1	6	11	15	31	34	68	72	75	46	41	65	68	58	55	63	12	35	24	28	9	821
17	3	0	1	4	5	4	22	24	43	55	73	69	58	38	51	73	56	60	57	37	28	26	26	8	821
18	6	1	2	2	3	5	21	21	48	49	81	72	76	70	57	81	67	62	53	36	30	20	16	10	869
19	0	1	1	2	7	12	25	41	62	54	64	65	42	31	53	62	56	73	52	35	34	23	12	3	810
20	1	0	0	1	5	8	33	40	62	60	61	37	43	48	40	33	56	69	51	33	42	27	12	5	768
21	0	1	0	3	7	14	31	51	60	71	73	52	56	43	58	51	53	61	64	50	30	25	14	43	911
22	2	0	0	0	3	12	30	30	62	63	82	67	44	47	53	54	63	64	49	59	28	42	27	10	881
23	3	0	1	0	3	4	23	32	39	42	52	67	54	71	61	59	78	73	47	49	39	22	23	3	843
24	1	3	3	0	4	4	20	28	44	70	72	70	52	57	73	65	67	39	48	47	30	22	16	10	845
25	1	2	0	0	3	7	17	28	31	37	61	73	81	60	63	68	70	48	56	40	34	30	29	12	851
26	2	0	1	2	6	13	30	49	57	65	73	63	46	49	59	53	49	60	39	44	33	18	20	3	834
27	2	0	0	0	4	8	38	44	54	38	53	46	53	50	36	46	52	55	44	40	30	23	10	5	732
28	2	0	0	1	5	11	28	35	52	49	64	66	33	61	54	64	48	60	47	62	32	22	14	6	816
29	0	0	2	1	7	14	31	36	71	63	67	49	51	56	64	64	57	58	62	39	47	38	13	12	802
30	2	0	2	0	4	6	29	31	51	59	65	62	61	65	45	61	66	50	46	38	18	30	16	1	808
31	0	4	0	0	5	4	28	33	46	59	73	64	73	54	46	66	62	46	27	30	19	25	12	17	783
Three-Year Average	2	1	1	1	4	6	27	35	50	58	66	64	55	53	56	61	60	60	50	43	32	25	20	10	843

2021 Existing Conditions PM Peak

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
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Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	5	3	6	341	257	5
Future Vol, veh/h	5	3	6	341	257	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	5	3	7	371	279	5

Major/Minor	Minor2	Major1	Major2
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Conflicting Flow All	667	282	284	0	-	0
Stage 1	282	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.45	6.25	4.15	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.245	-	-	-
Pot Cap-1 Maneuver	419	750	1261	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	416	750	1261	-	-	-
Mov Cap-2 Maneuver	416	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	681	-	-	-	-	-

Approach	EB	NB	SB
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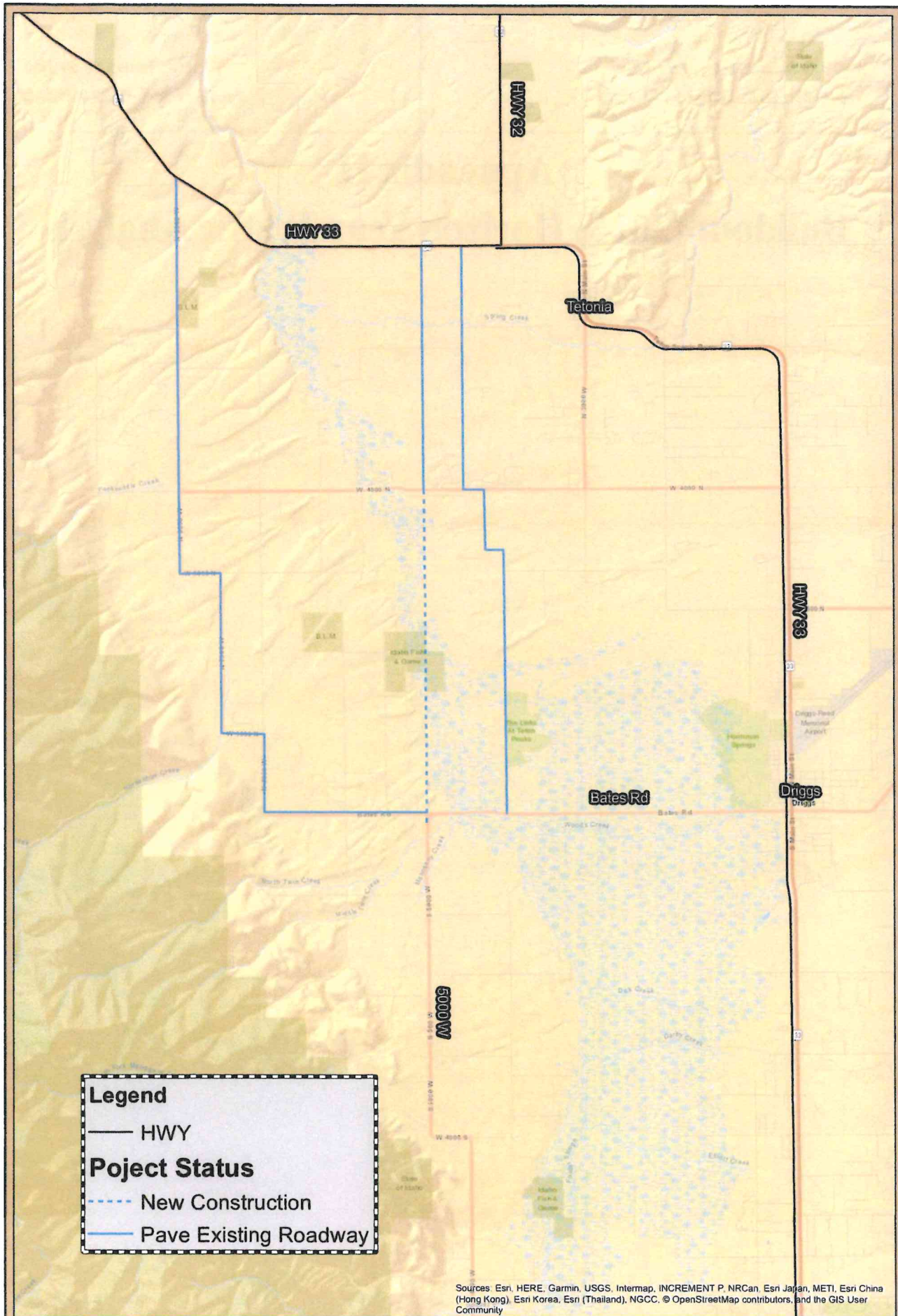
HCM Control Delay, s	12.3	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
-----------------------	-----	-----	-------	-----	-----

Capacity (veh/h)	1261	-	499	-	-
HCM Lane V/C Ratio	0.005	-	0.017	-	-
HCM Control Delay (s)	7.9	0	12.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Appendix G

Future Transportation System Mapping



Legend

— HWY

Project Status

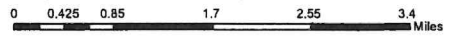
- - - - New Construction

— Pave Existing Roadway

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



Figure 4-5: Proposed West Valley HWY 33 Connector Routes



FORSGREN
Associates, Inc.

Information displayed on map is for Planning Purposes only. The data is approximate in terms of extent and location and has been sourced from local and state government agencies. Please contact Forsgren Associates Inc. with questions. 208.326.9201

Appendix H

Buildout (2025) Horizon Year Traffic Analysis

2027 Background

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑	
Traffic Vol, veh/h	7	4	8	449	338	7
Future Vol, veh/h	7	4	8	449	338	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	8	4	9	488	367	8

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	877	371	375	0	- 0
Stage 1	371	-	-	-	- -
Stage 2	506	-	-	-	- -
Critical Hdwy	6.45	6.25	4.15	-	- -
Critical Hdwy Stg 1	5.45	-	-	-	- -
Critical Hdwy Stg 2	5.45	-	-	-	- -
Follow-up Hdwy	3.545	3.345	2.245	-	- -
Pot Cap-1 Maneuver	315	668	1167	-	- -
Stage 1	691	-	-	-	- -
Stage 2	599	-	-	-	- -
Platoon blocked, %				-	- -
Mov Cap-1 Maneuver	312	668	1167	-	- -
Mov Cap-2 Maneuver	312	-	-	-	- -
Stage 1	683	-	-	-	- -
Stage 2	599	-	-	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1167	-	387	-	-
HCM Lane V/C Ratio	0.007	-	0.031	-	-
HCM Control Delay (s)	8.1	0	14.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

2027 Background Traffic plus Site Traffic

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	1	4	8	1	10	8	449	23	12	338	7
Future Vol, veh/h	7	1	4	8	1	10	8	449	23	12	338	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	1	4	9	1	11	9	488	25	13	367	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	922	928	371	919	920	501	375	0	0	513	0	0
Stage 1	397	397	-	519	519	-	-	-	-	-	-	-
Stage 2	525	531	-	400	401	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
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	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	248	265	668	249	268	564	1167	-	-	1037	-	-
Stage 1	623	598	-	534	528	-	-	-	-	-	-	-
Stage 2	530	521	-	620	596	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	238	258	668	242	261	564	1167	-	-	1037	-	-
Mov Cap-2 Maneuver	238	258	-	242	261	-	-	-	-	-	-	-
Stage 1	616	588	-	528	522	-	-	-	-	-	-	-
Stage 2	513	515	-	605	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.3	16	0.1	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1167	-	-	306	348	1037	-
HCM Lane V/C Ratio	0.007	-	-	0.043	0.059	0.013	-
HCM Control Delay (s)	8.1	0	-	17.3	16	8.5	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-

Appendix I

2047 Horizon Year Traffic Analysis

2047 Background

Intersection

Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		T	↑	T	
Traffic Vol, veh/h	16	10	20	1119	843	16
Future Vol, veh/h	16	10	20	1119	843	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	17	11	22	1216	916	17

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	2185	925	933	0	0
Stage 1	925	-	-	-	-
Stage 2	1260	-	-	-	-
Critical Hdwy	6.45	6.25	4.15	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.245	-	-
Pot Cap-1 Maneuver	49	322	721	-	-
Stage 1	381	-	-	-	-
Stage 2	263	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	47	322	721	-	-
Mov Cap-2 Maneuver	161	-	-	-	-
Stage 1	369	-	-	-	-
Stage 2	263	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.1	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	721	-	199	-	-
HCM Lane V/C Ratio	0.03	-	0.142	-	-
HCM Control Delay (s)	10.1	-	26.1	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

2047 Background plus Site Traffic

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗			↗		↘	↖	↘	↘	↖	↗
Traffic Vol, veh/h	16	1	10	8	1	10	20	1119	23	12	843	16
Future Vol, veh/h	16	1	10	8	1	10	20	1119	23	12	843	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	0	0	-	-
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	17	1	11	9	1	11	22	1216	25	13	916	17

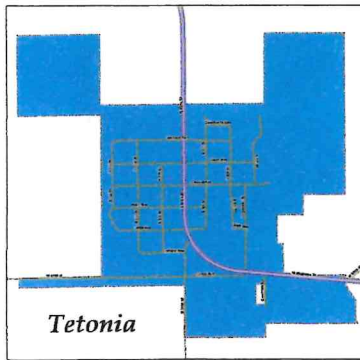
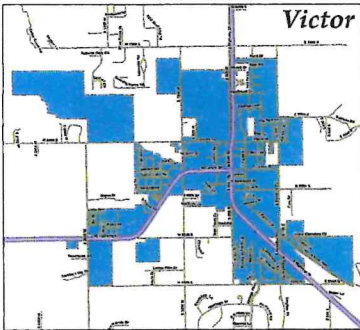
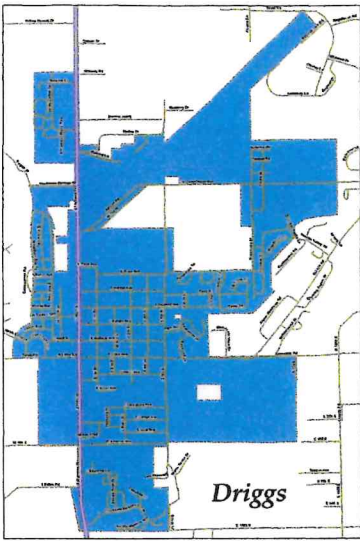
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2230	2236	925	2217	2219	1216	933	0	0	1241	0	0
Stage 1	951	951	-	1260	1260	-	-	-	-	-	-	-
Stage 2	1279	1285	-	957	959	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	30	42	322	31	43	218	721	-	-	551	-	-
Stage 1	308	334	-	206	239	-	-	-	-	-	-	-
Stage 2	201	232	-	306	331	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	27	40	322	28	41	218	721	-	-	551	-	-
Mov Cap-2 Maneuver	27	40	-	28	41	-	-	-	-	-	-	-
Stage 1	298	326	-	200	232	-	-	-	-	-	-	-
Stage 2	184	225	-	288	323	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.6	29.8	0.2	0.2
HCM LOS	C	D		

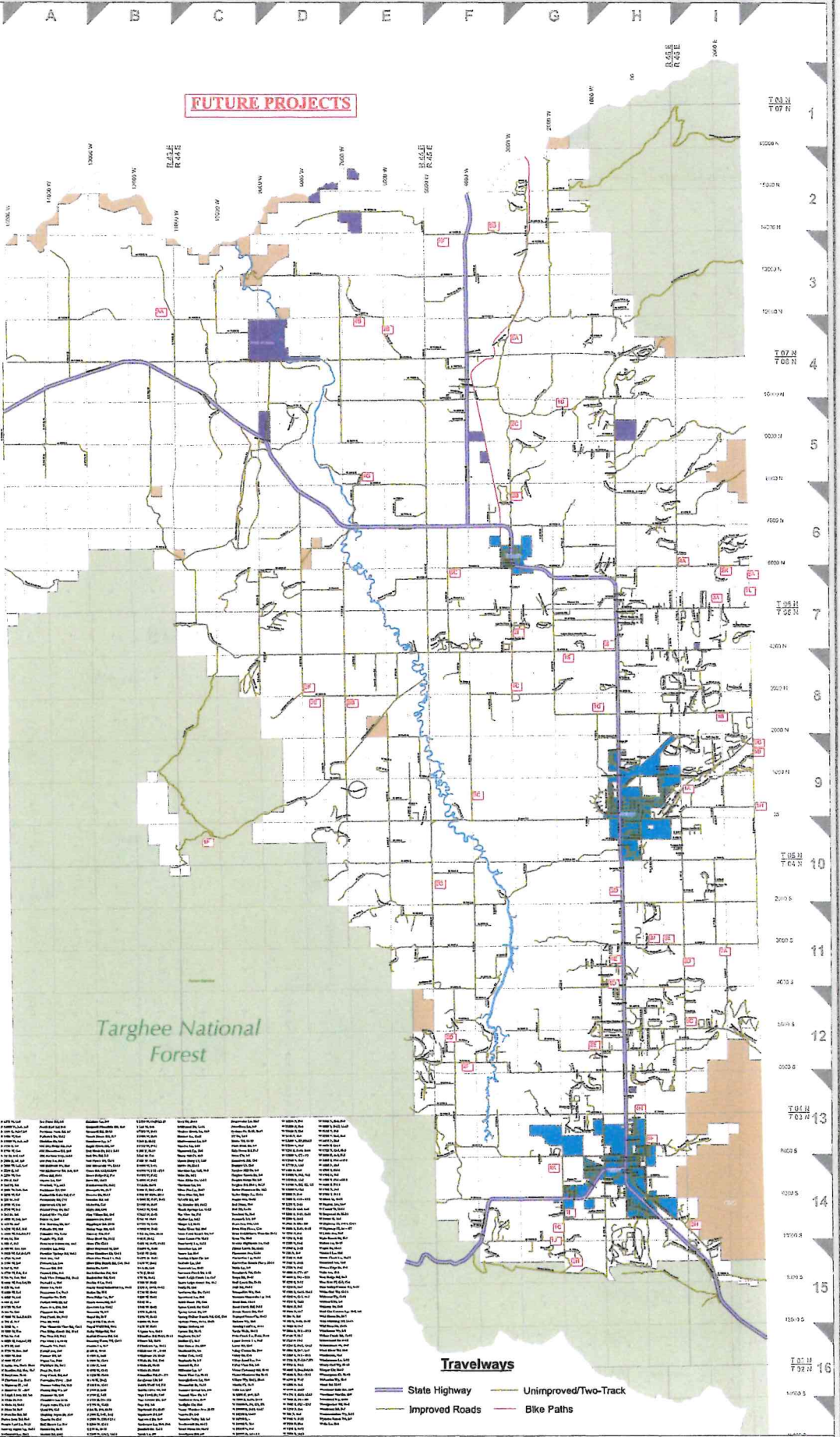
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	721	-	-	196	157	551	-	-
HCM Lane V/C Ratio	0.03	-	-	0.061	0.076	0.024	-	-
HCM Control Delay (s)	10.1	-	-	24.6	29.8	11.7	-	-
HCM Lane LOS	B	-	-	C	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0.1	-	-

Appendix J

Teton County Transportation Planning Study – Proposed Improvements



FUTURE PROJECTS



Road Index

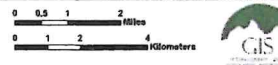
Highway	Route	From	To	Notes
1	1	...	...	...
2	2	...	...	...
3	3	...	...	...
4	4	...	...	...
5	5	...	...	...
6	6	...	...	...
7	7	...	...	...
8	8	...	...	...
9	9	...	...	...
10	10	...	...	...
11	11	...	...	...
12	12	...	...	...
13	13	...	...	...
14	14	...	...	...
15	15	...	...	...
16	16	...	...	...

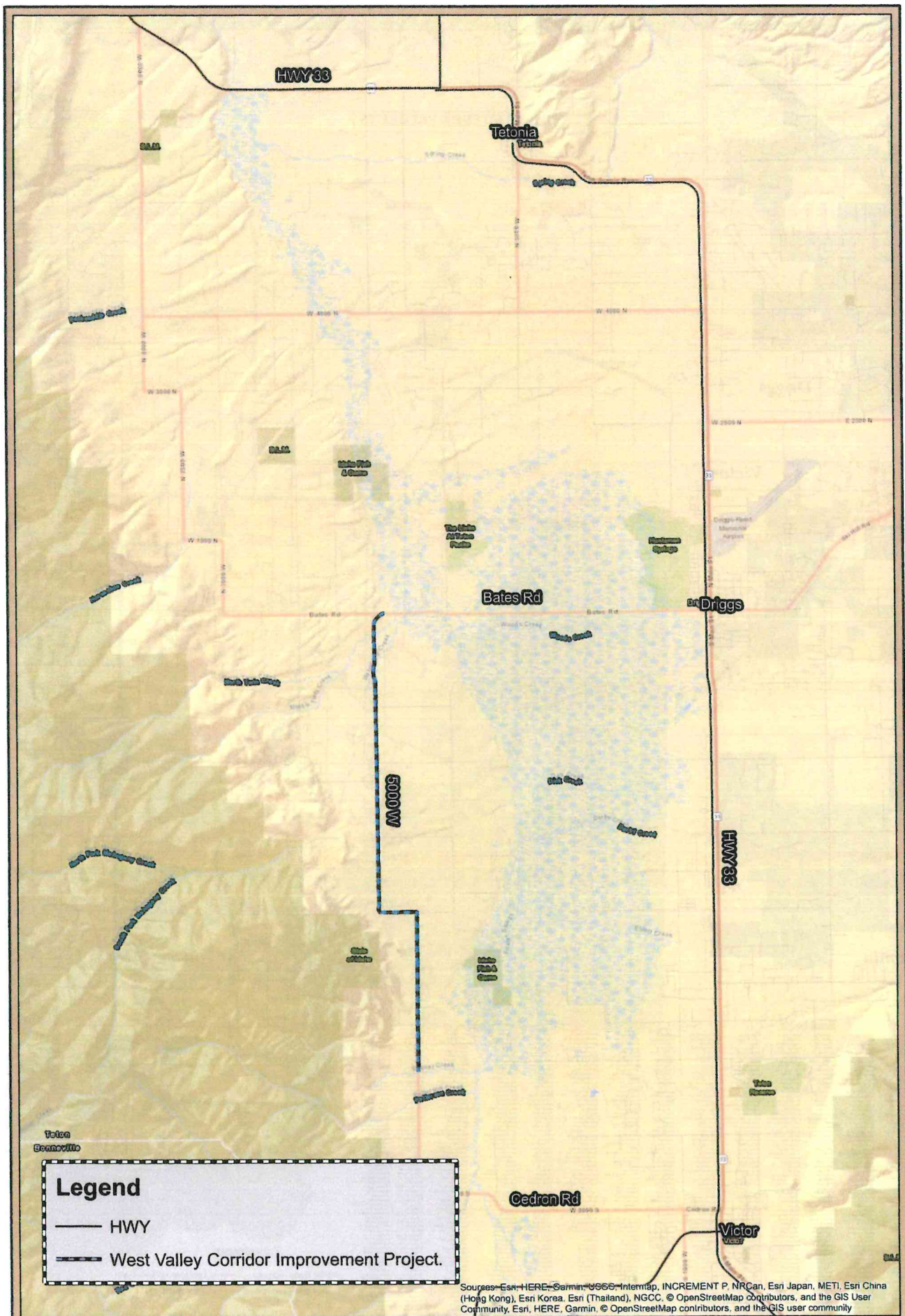
Travelways

- State Highway
- Unimproved/Two-Track
- Improved Roads
- Bike Paths



TETON COUNTY, IDAHO TRANSPORTATION MAP





Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Figure 12-1: West Valley Corridor CIP

0 0.45 0.9 1.8 2.7 3.6 Miles



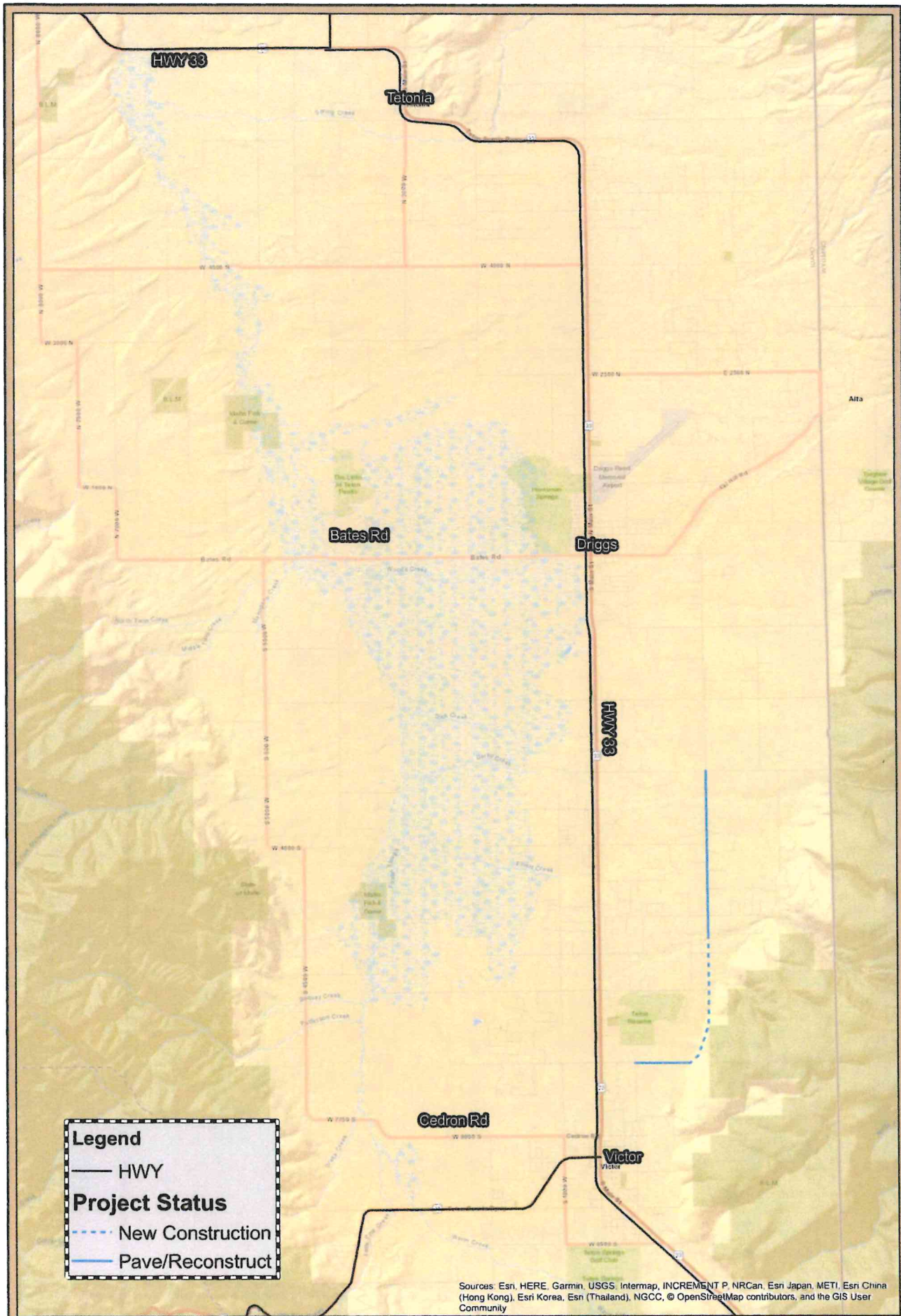
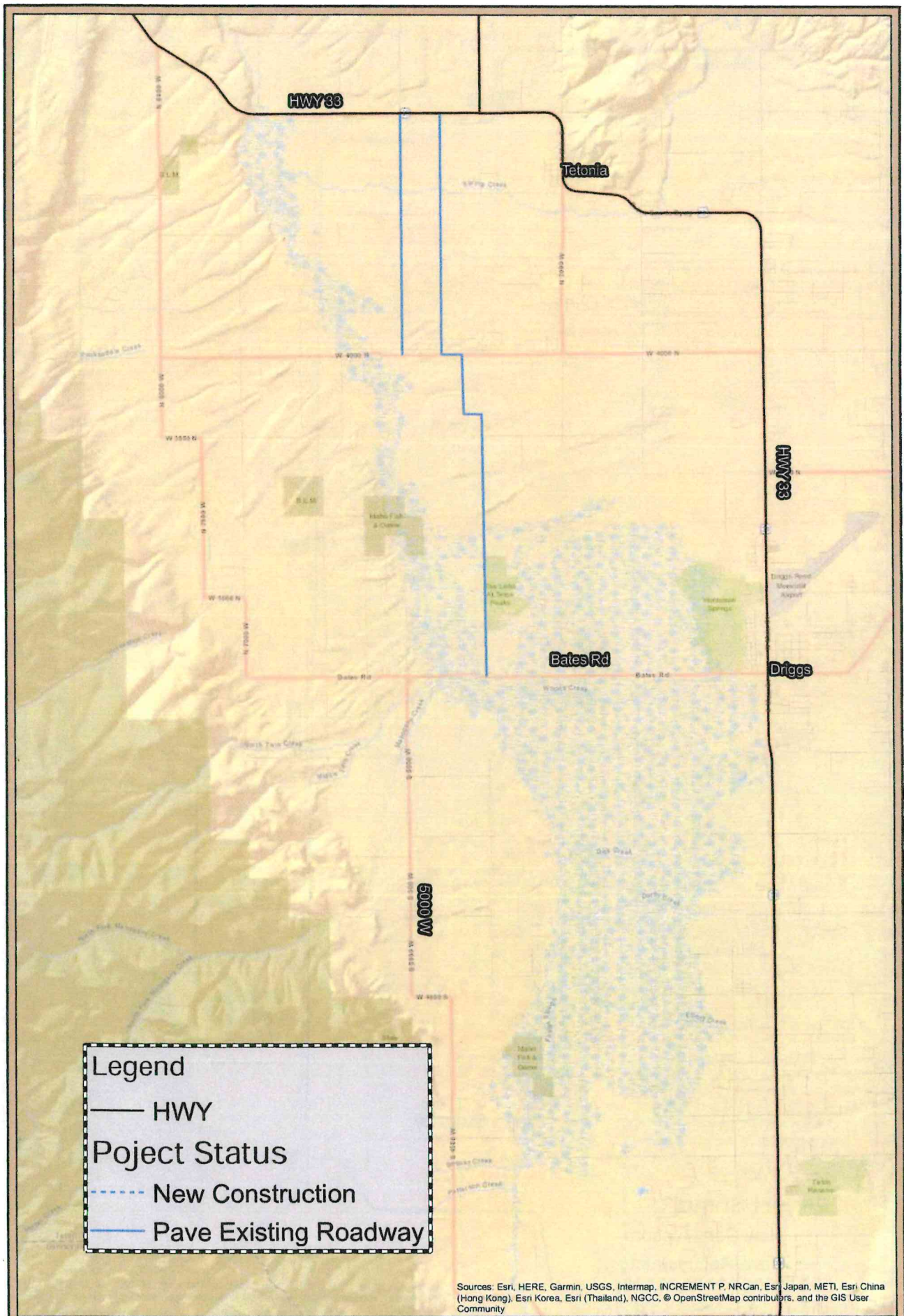


Figure 12-2: East Valley Corridor CIP

0 0.475 0.95 1.9 2.85 3.8 Miles

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Associates, Inc.
 Information as displayed on map is for Planning Purposes only. The data is approximate in terms of content and location and has been sourced from local and state government agencies. Please contact Forsgren Associates Inc. with questions and 307.337.9301



Legend

- HWY
- Project Status
- - - New Construction
- Pave Existing Roadway

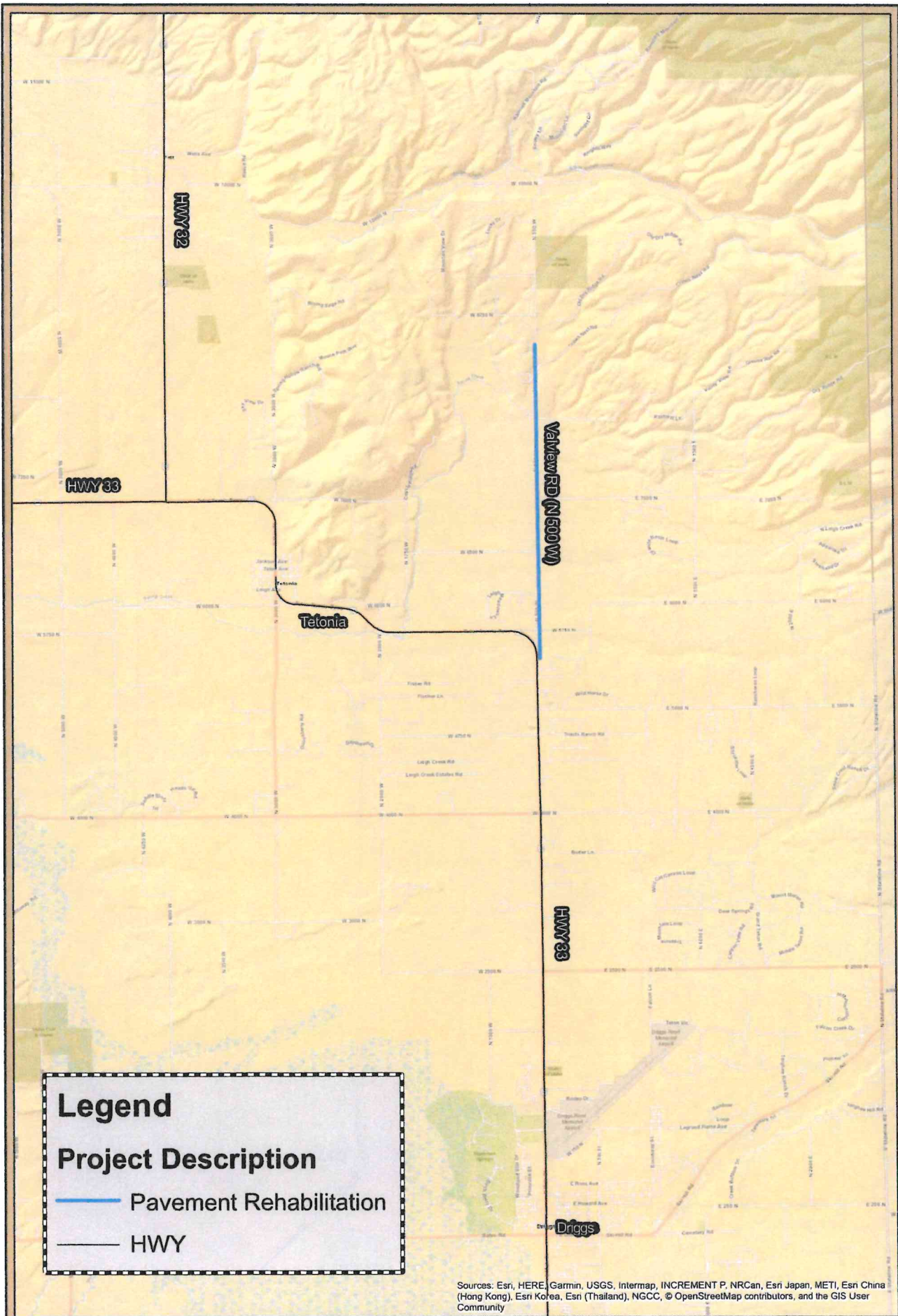
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



Figure 11-3: Proposed West Valley HWY 33 Connector Routes

0 0.425 0.85 1.7 2.55 3.4 Miles

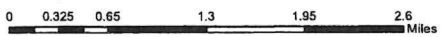
FORSGREN
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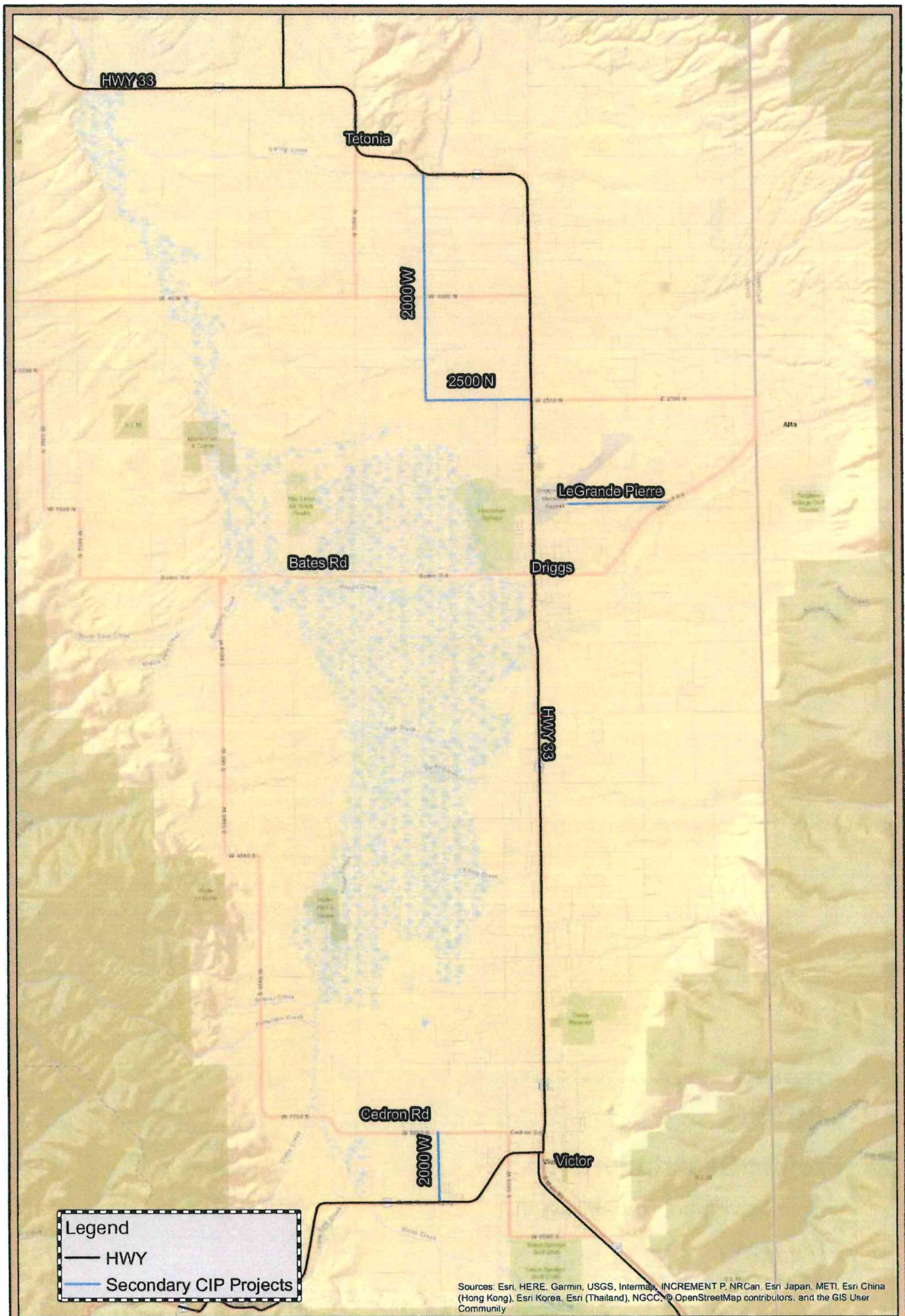


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



Figure 12-4: Valview Road CIP





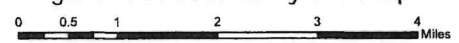
Legend

- HWY
- Secondary CIP Projects

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, OpenStreetMap contributors, and the GIS User Community



Figure 11-5: Secondary CIP Map



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Appendix K

Turn Lane Warrant Analyses

Client: **3000 West Partners** DESIGNED BY: BEC
 Project: **Alpenglo** CHECKED BY: BEC
 Project No.: **01-21-0043** DATE: 12/2/2021

Description: Westbound on Alpenglo and Left Turn onto Highway 33 **Horizon Years: 2021, 2027, 2047**

ITD Traffic Manual, Section 3B.04 White Lane Line Pavement Markings and Warrants
 Warrants for left-turn lanes on uncontrolled highways can be found in "NCHRP Report 745 – Left-Turn Accommodations at Unsignalized Intersections."

NCHRP Report 745 - Left-Turn Accommodations at Unsignalized Intersections

Before installing a left-turn lane (or any other roadway improvement), it is necessary to consider the characteristics of the location where it would be installed. These characteristics guide the practitioner's decisions about whether to install the lane and what specific design criteria need to be emphasized to optimize the operation of the lane at that location.

The basic geometry of the intersection needed for use with the warrants is the number of lanes on the major roadway and the number of approaches to the intersection. The number of approaches and the development type (rural or urban/ suburban) are included in the warrants because the crash prediction methodology used to develop the warrants varied by these features. Rural crash prediction equations vary by number of lanes on the major roadway, so the warrants for rural highways also vary by number of lanes.

Technical warrants are an important element of the decision-making process; however, other factors should also be considered when deciding whether to install a left-turn lane, including:
 • Sight distance relative to the position of the driver and



DESIGN CRITERIA (Input the following based on observation, historical data, and/or results of a site specific study)

1 Jurisdiction	ITD	Horizon or Planning Year	2021	2027	2047
2 Subdivision or Development Name	Alpenglo	Development Type	Rural	Rural	Rural
3 Name of Major Roadway	US Hwy. 33	No. of lanes on the major	Two	Two	Two
4 Name of Minor Roadway/Approach	Alpenglo Road	Number of Legs	Four	Four	Four
5 Peak Hour	PM	Peak-hr, left-turn lane vol	0	12	12
6 Posted Speed Limit (MPH)	55	Major Roadway Peak-hr vol	341	449	1119

(vehicles per hour)
(veh/hour/lane).

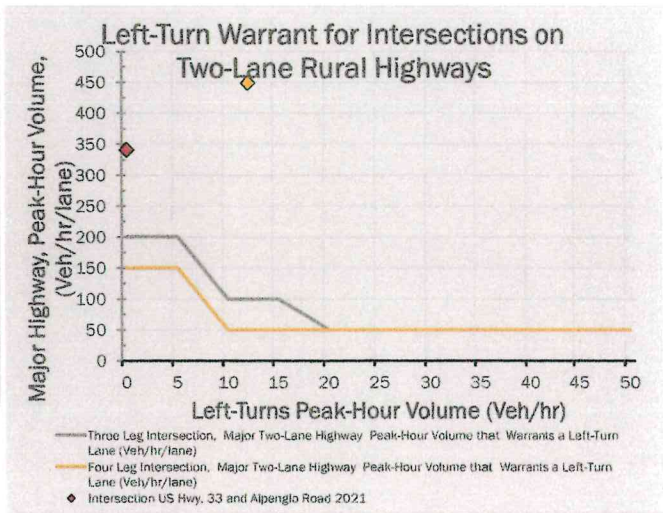
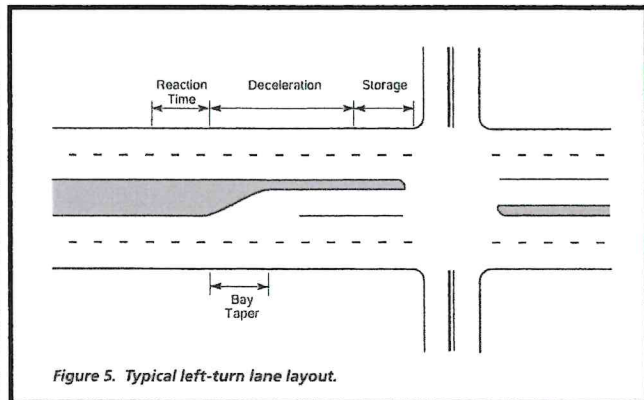
Analysis - Table and graph reproduced from NCHRP Report 745 (Axes on the graph are reversed from source)

Intersection: **Westbound on Alpenglo and Left Turn onto Highway 33** **Horizon Years: 2021, 2027, 2047**

1. Consult chart below and evaluate the type of intersection and the left-turn, peak-hour volume

Left Turn Peak Hour Volume (Veh/hr)	Three Leg Intersection, Major Two-Lane Highway Peak-Hour Volume that Warrants a Left-Turn Lane (Veh/hr/lane)	Four Leg Intersection, Major Two-Lane Highway Peak-Hour Volume that Warrants a Left-Turn Lane (Veh/hr/lane)	Three Leg Intersection, Major Four-Lane Highway Peak-Hour Volume that Warrants a Left-Turn Lane (Veh/hr/lane)	Four Leg Intersection, Major Four-Lane Highway Peak-Hour Volume that Warrants a Left-Turn Lane (Veh/hr/lane)	Three Leg Intersection, Major Four-Lane Highway Peak-Hour Volume that Warrants a Left-Turn Lane (Veh/hr/lane)	Four Leg Intersection, Major Four-Lane Highway Peak-Hour Volume that Warrants a Left-Turn Lane (Veh/hr/lane)
5	200	150	75	50	450	50
10	100	50	75	25	300	50
15	100	50	50	25	250	50
20	50	<50	50	25	200	50
25	50	<50	50	<25	200	50
30	50	<50	50	<25	150	50
35	50	<50	50	<25	150	50
40	50	<50	50	<25	150	50
45	50	<50	50	<25	150	<50
50	50	<50	50	<25	100	<50

2. Check the plotted point(s) on the chart below against the anticipated intersection of major-road volume and peak-hour left-turn volume in the volume advancing.



LEFT-TURN WARRANTED YES

Client: **3000 West Partners**
 Project: **Alpenglo**
 Project No.: **01-21-0043**

DESIGNED: BEC
 CHECKED: BEC
 DATE: 12/2/2021

Description: **Westbound on Alpenglo and Left Turn onto Highway 33**

Horizon Years: **2021, 2027, 2047**

ITD Traffic Manual, Section 38.04 White Lane Line Pavement Markings and Warrants
 A right-turn lane warrant is shown in Figure 3B-1 that can be used for uncontrolled highways intersecting with public roads or approaches. Right-turn lanes can be further analyzed using the economic analysis procedure for right-turn deceleration lanes described in the article "Operational and Safety Effects of Right-Turn Deceleration Lanes on Urban and Suburban Arterials" that was published in the "Transportation Research Record, Volume 2023." The methodology can be used



DESIGN CRITERIA (Input the following based on observation, historical data, and/or results of a site specific study)

1	Jurisdiction	ITD	Horizon or Planning Year	2021	2027	2047
2	Subdivision or Development Name	Alpenglo	Development Type	Rural	Rural	Rural
3	Name of Major Roadway	US Hwy. 33	No. of lanes on the major	Two	Two	Two
4	Name of Minor Roadway/Approach	Alpenglo Road	Number of legs	Four	Four	Four
5	Peak Hour	PM	Major roadway volume	341	449	1119
6	Posted Speed Limit (MPH)	55	Right-Turn, Peak Hour Vol	0	23	23

(veh/hour/lane).
(veh/hour).

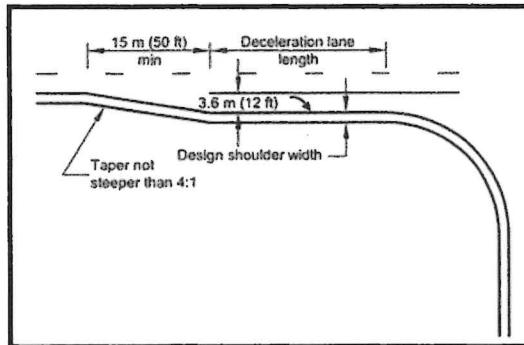
Analysis - Table and graph reproduced from NCHRP Report 745 (Axes on the graph are reversed from source)

Intersection: **Westbound on Alpenglo and Left Turn onto Highway 33**

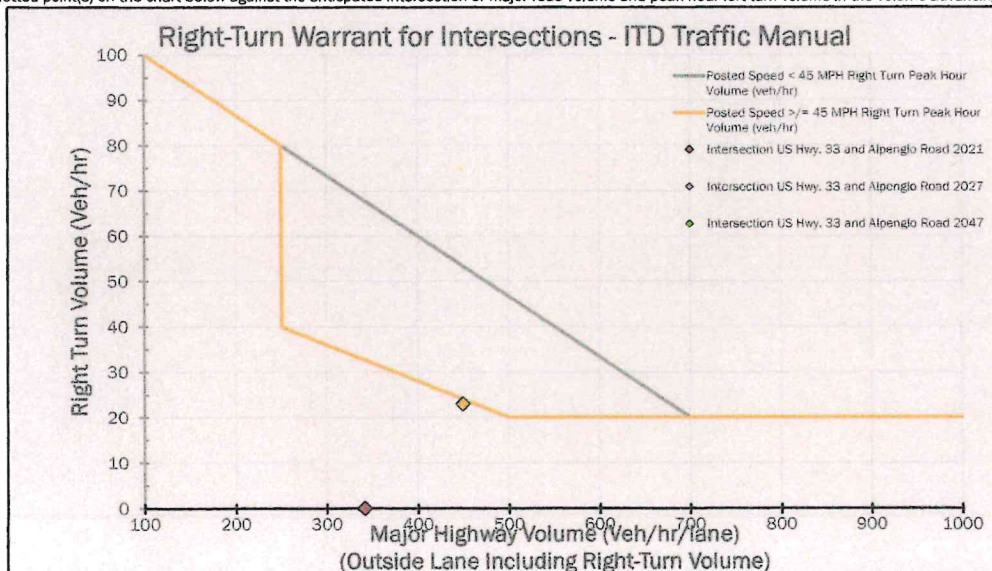
Horizon Years: **2021, 2027, 2047**

1 Consult chart below and evaluate the type of intersection and the left-turn, peak-hour volume

Posted Speed < 45 MPH Highway Volume Outside Lane Only Including R-T Volume (Veh/hr/lane)	Posted Speed < 45 MPH Right Turn Peak Hour Volume (veh/hr)	Posted Speed >= 45 MPH Right Turn Peak Hour Volume (veh/hr)
0	100	100
100	100	100
200	87	87
300	73	35
400	60	25
500	47	20
600	33	<20
700	20	<20
800	<20	<20
900	<20	<20
1000	<20	<20



2 Check the plotted point(s) on the chart below against the anticipated intersection of major-road volume and peak-hour left-turn volume in the volume advancing.



RIGHT-TURN WARRANTED YES

