

March 20, 2023

Arnold Lee
 Lehrer Cumming
 Vice President Project Management
 900 Third Avenue 6th Floor
 New York, NY 10022

Re: Reventon Farms
6055 Rolling Road South, Scottsville, Virginia
Traffic Assessment

Dear Mr. Lee:

Kimley-Horn and Associates, Inc. has performed a traffic assessment for the proposed Reventon Farms RV/camping resort generally located at 6055 Rolling Road South in Scottsville, Virginia. Currently, the 700-acre site proposed for development is vacant. The proposed development consists of a 250 camp-site RV/camping resort. A conceptual site plan is provided in **Attachment A**. Access to the site will be provided via one full access driveway along Rolling Road South approximately 3,400 feet north of Route 761/Briery Creek Road.

TRIP GENERATION

A trip generation analysis was conducted using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition. The analysis utilized ITE Land Use Code (LUC) 416 (Campground/Recreational Vehicle Park). As **Table 1** indicates, the proposed RV/Camping resort will result in 43 AM peak hour trips 47 PM peak hour trips. Detailed trip generation calculations are included in **Attachment B**.

Table 1: Trip Generation Summary				
AM Peak Hour (PM Peak Hour)				
Land Use (ITE Code)	Scale	Total Trips	Entering Trips	Exiting Trips
<i>Proposed</i>				
Campground/Recreational Vehicle Park (416)	250 camp-sites	43(47)	15(31)	28(16)
Total		43(47)	15(31)	28(16)

EXISTING ROADWAY CONDITIONS

Rolling Road South is a two-lane major collector, undivided, roadway in the vicinity of the project site. The Virginia Department of Transportation (VDOT) daily traffic estimates for Rolling Road South indicate that the peak hour traffic on Rolling Road South is 167 vehicles per hour (vph) in the vicinity of the project site. According to the Highway Capacity Manual (HCM), the maximum per-lane capacity for this type of roadway is approximately 1,300 vphpl. Therefore, it is estimated that the roadway is operating at ±6% of its capacity under existing conditions and ±8% of its capacity with the addition of the site traffic.

TURN LANE WARRANTS

Turn lane warrant analyses were prepared for the proposed project driveway along Rolling Road South in accordance with VDOT's Road Design Manual. The analysis determined that neither left-turn nor right-turn lanes are warranted based on the anticipated trip generation of the proposed site. Relevant sections from the Road Design Manual are included in **Attachment C**.

If you have any questions regarding this analysis, please feel free to contact me.

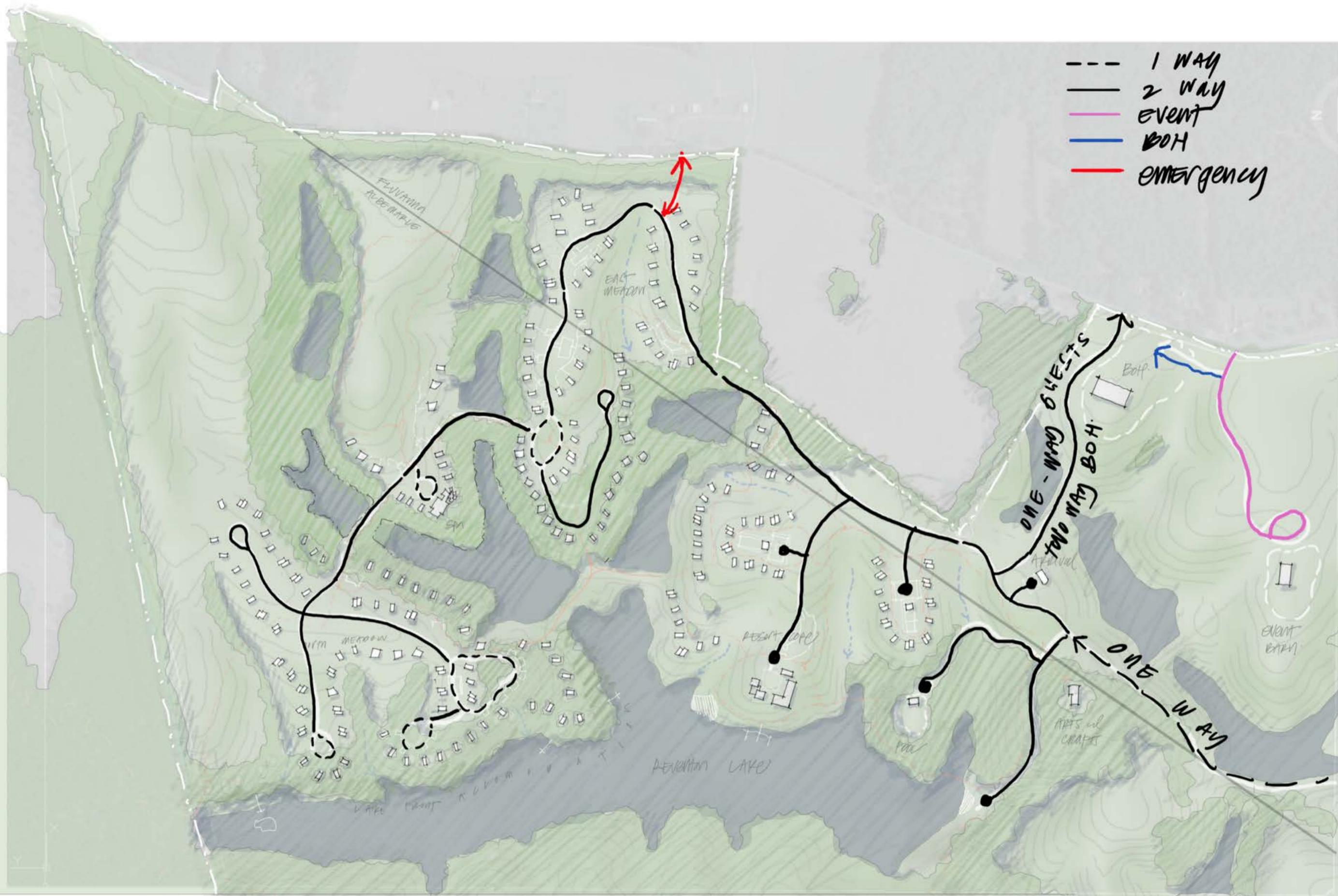
Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Omar Kanaan, P.E.
Attachments

Attachment A
Conceptual Site Plan



REVENTON
 MASTER PLAN UPDATE
 3.12.23 EDSA

VEHICULAR:

Attachment B
Trip Generation Calculations

Campground/Recreational Vehicle Park (416)

Vehicle Trip Ends vs: Occupied Campsites

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 6

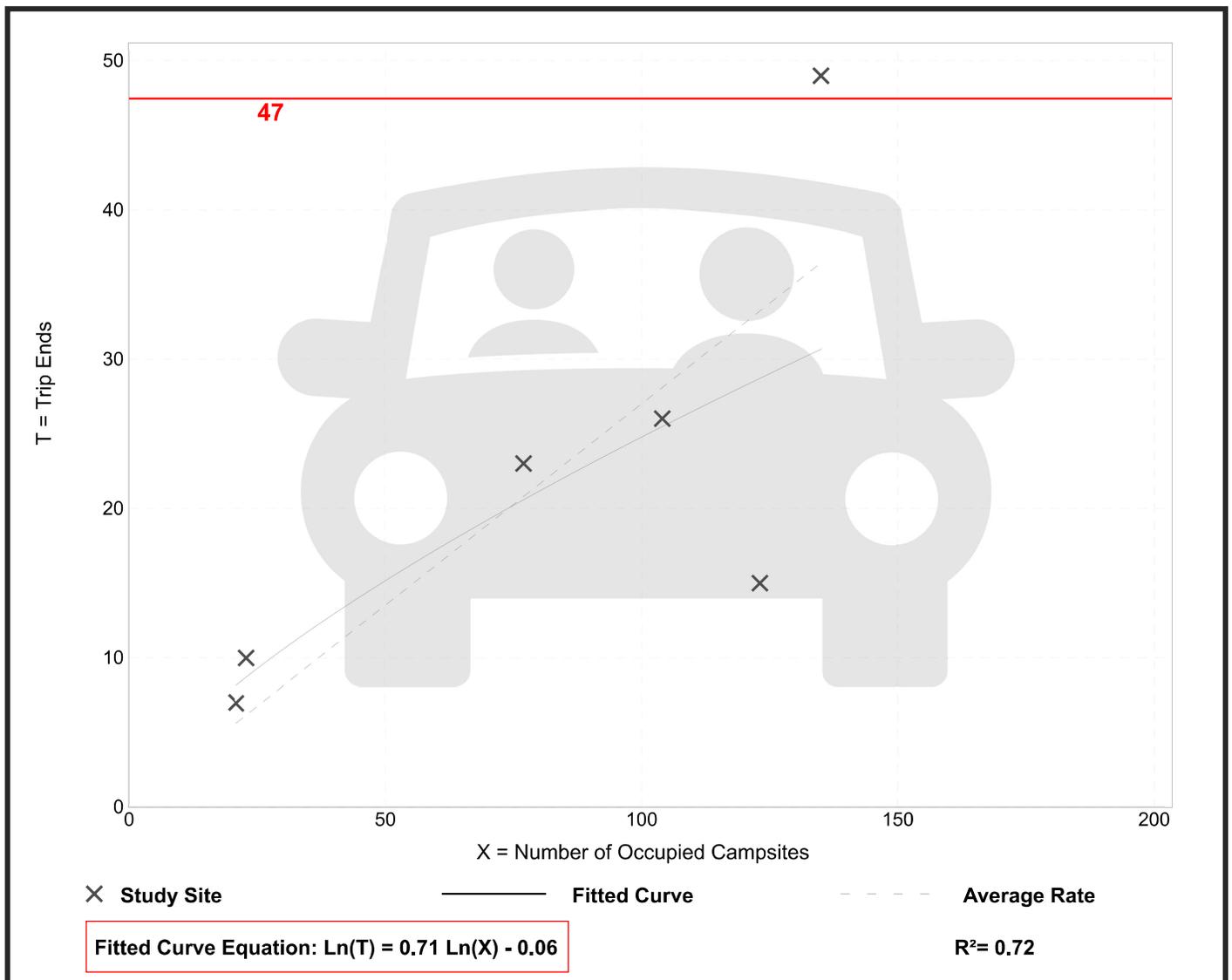
Avg. Num. of Occupied Campsites: 81

Directional Distribution: 65% entering, 35% exiting

Vehicle Trip Generation per Occupied Campsite

Average Rate	Range of Rates	Standard Deviation
0.27	0.12 - 0.43	0.11

Data Plot and Equation



Campground/Recreational Vehicle Park (416)

Vehicle Trip Ends vs: Occupied Campsites

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.**

Setting/Location: General Urban/Suburban

Number of Studies: 4

Avg. Num. of Occupied Campsites: 57

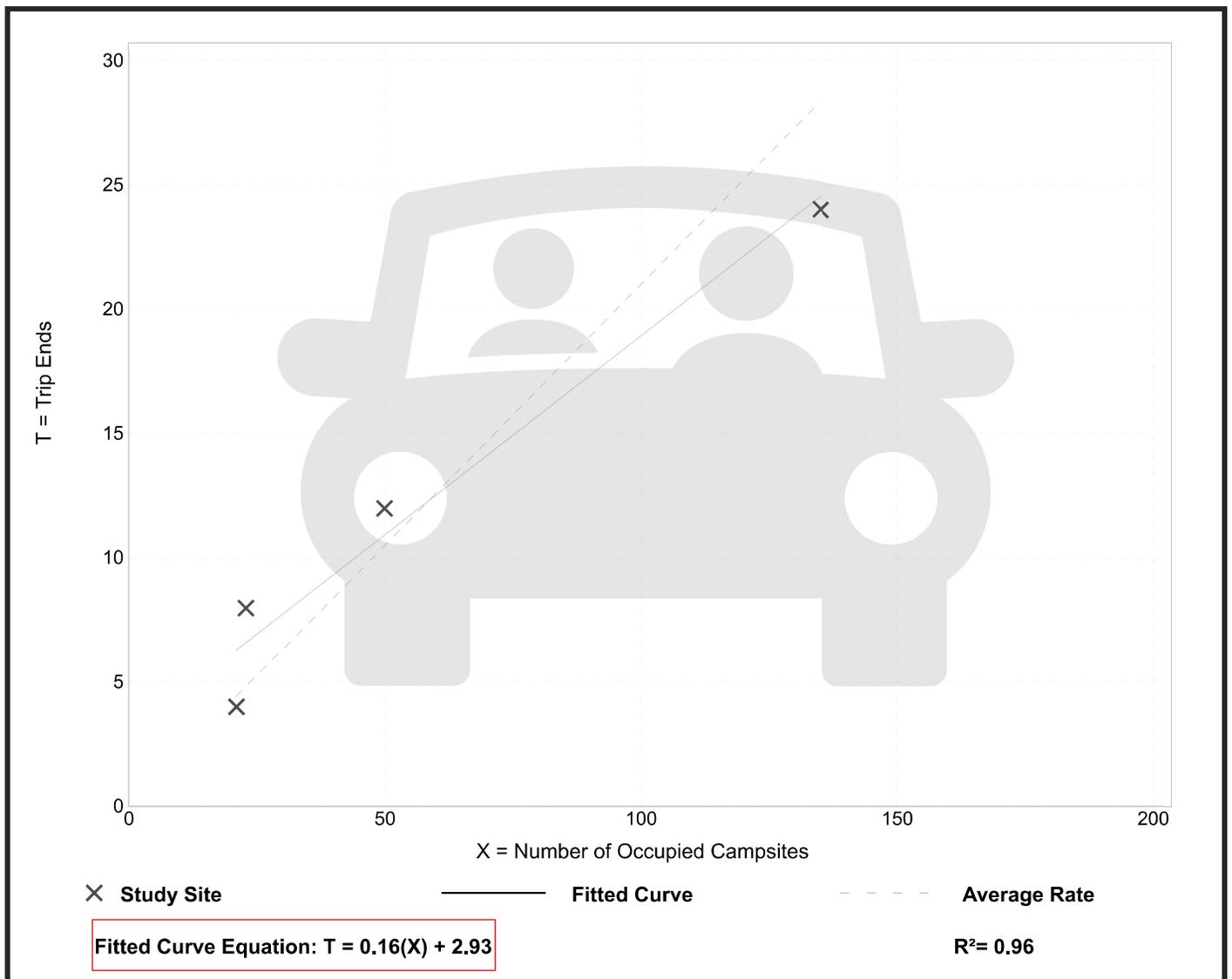
Directional Distribution: 36% entering, 64% exiting

Vehicle Trip Generation per Occupied Campsite

Average Rate	Range of Rates	Standard Deviation
0.21	0.18 - 0.35	0.06

Data Plot and Equation

Caution – Small Sample Size



Attachment C
Road Design Manual Sections

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAY

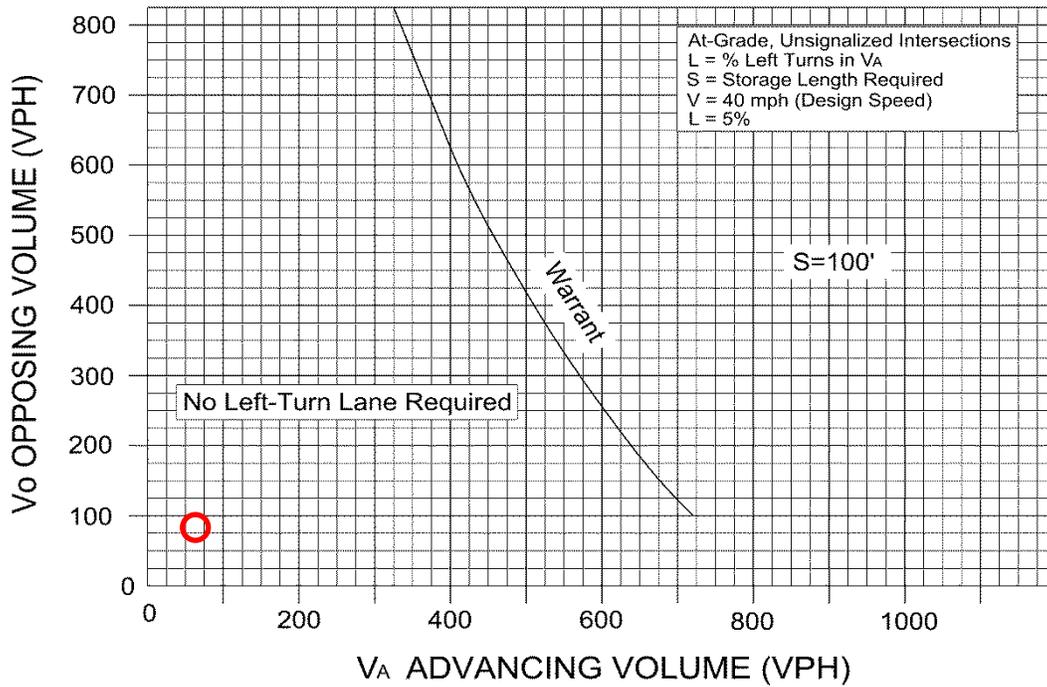


FIGURE 3-4 WARRANT FOR LEFT TURN STORAGE LANES ON TWO LANE HIGHWAY

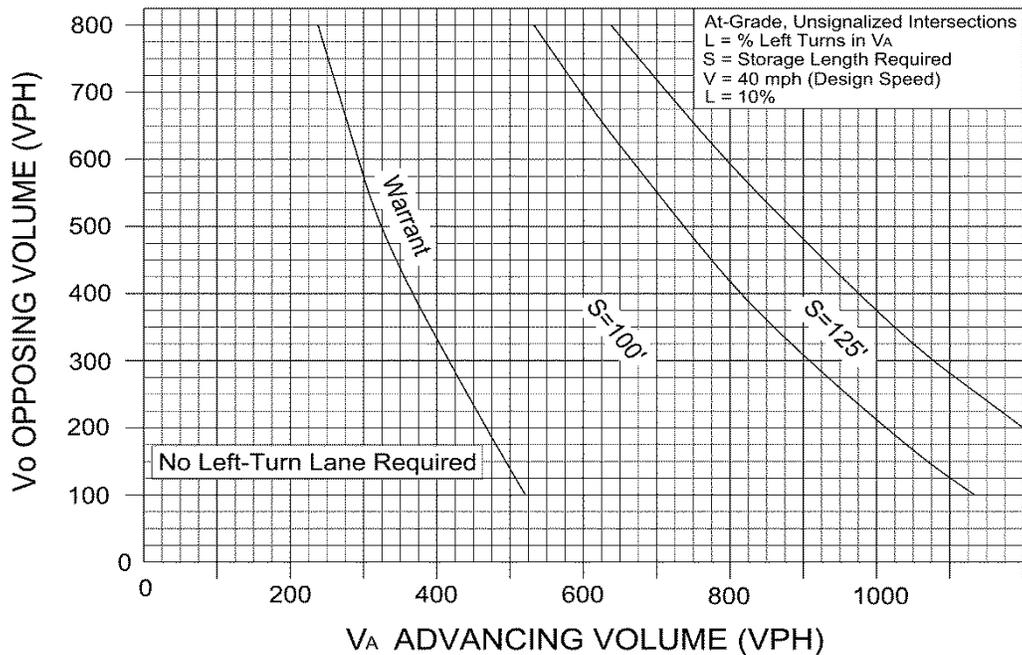


FIGURE 3-5 WARRANT FOR LEFT TURN STORAGE LANES ON TWO LANE HIGHWAY

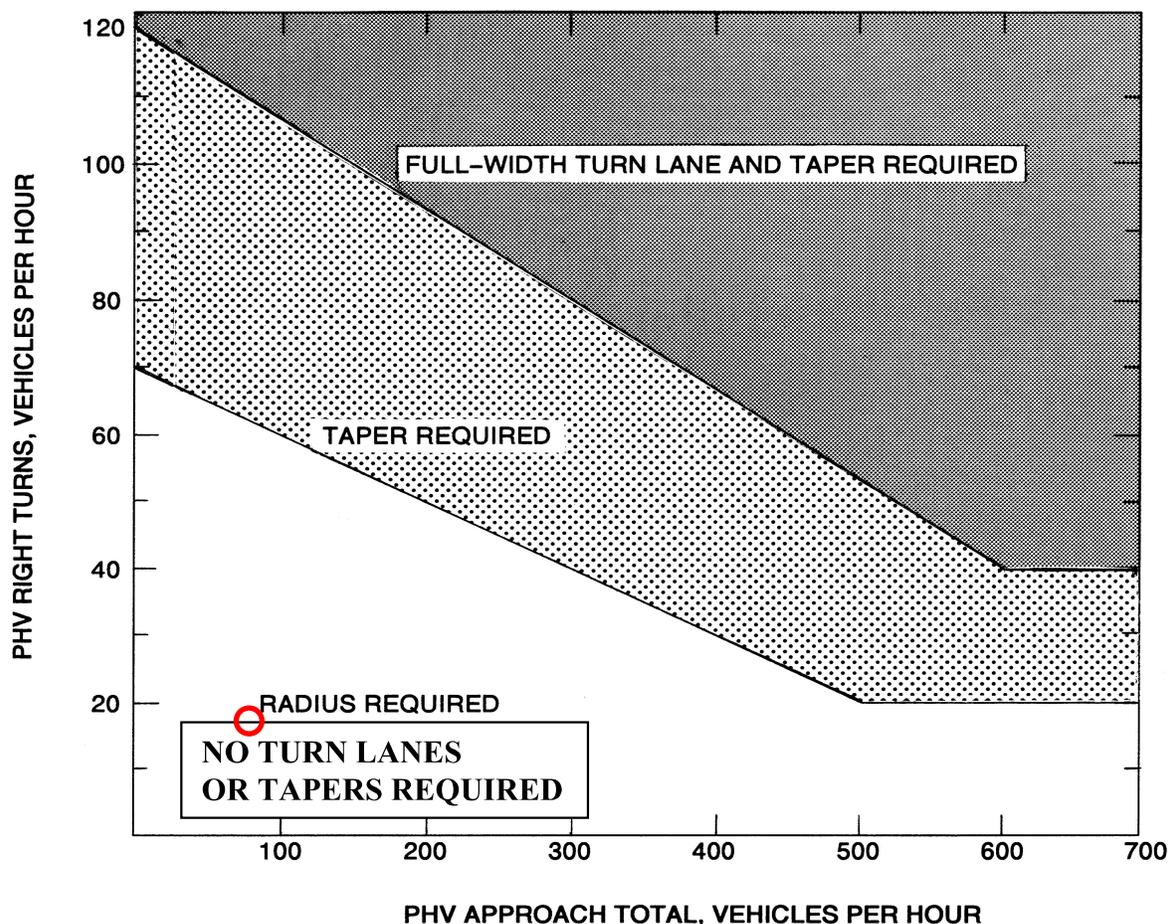


FIGURE 3-26 WARRANTS FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)

Appropriate Radius required at all Intersections and Entrances (Commercial or Private).

LEGEND

PHV - Peak Hour Volume (also Design Hourly Volume equivalent)

Adjustment for Right Turns

For posted speeds at or under 45 mph, PHV right turns > 40, and PHV total < 300.

Adjusted right turns = PHV Right Turns - 20

If PHV is not known use formula: $PHV = ADT \times K \times D$

K = the percent of AADT occurring in the peak hour

D = the percent of traffic in the peak direction of flow

Note: An average of 11% for K x D will suffice.

When right turn facilities are warranted, see [Figure 3-1](#) for design criteria.*

* Rev. 1/15