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MEMORANDUM

Ref: 1753

Subject: Traffic Assessment
238 White Oaks Road
Laconia, New Hampshire

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Principal
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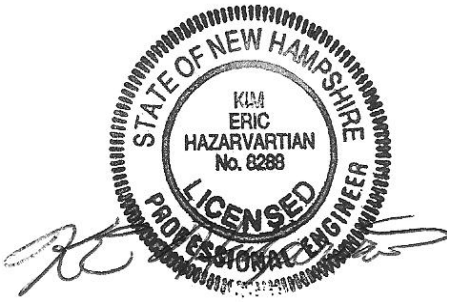
Date: January 9, 2026



INTRODUCTION

TEPP LLC has prepared this traffic-assessment memorandum regarding a proposed campground redevelopment at 238 White Oaks Road in the City of Laconia, New Hampshire. The project will:

- remove the existing single-family-detached dwelling unit
- remove the existing driveway intersecting the west site of White Oaks Road
- provide a campground with 128 campsites
- provide two driveways intersecting the west side of White Oaks Road

TEPP LLC anticipates that:

- available sight-distances for the White Oaks Road/proposed driveway intersections will be adequate
- the project will have no significant impact on area traffic operations
- the project will not create undue traffic congestion or unduly impair pedestrian safety

SIGHT DISTANCES AT PROPOSED DRIVEWAY

TEPP LLC conducted sight-distance analysis of the White Oaks Road/proposed driveway intersections.

The American Association of State Highway and Transportation Officials (AASHTO) has established authoritative policy for sight distances at unsignalized intersections in terms of:

- stopping-sight distance (SSD)
- intersection-sight distance (ISD)[1]

SSD:[2]

- provides for safety
- enables a driver, on the major road, to perceive and react accordingly to a vehicle entering the major road from a minor road
- is conservative because it encompasses a wide range of brake-reaction times and deceleration rates

ISD:[3]

- is ordinarily greater than fundamental SSD
- may enhance traffic operations
- is not required for safety

Table 1 shows that:

Table 1. Sight-distance summary.

Intersection and View	Available Sight Distance (feet or ft)[a]	Speeds (miles per hour or mph)		
		Limit	SSD[b]	ISD[c]
White Oaks Road/Proposed North Driveway Intersection				
White Oaks Road to/from North	at least 500	35	50+	45+
White Oaks Road to/from South	at least 500	35	50+	45+
White Oaks Road/Proposed North Driveway Intersection				
White Oaks Road to/from North	at least 500	35	50+	45+
White Oaks Road to/from South	at least 500	35	50+	45+

[a] Provided by Benchmark, LLC.

[b] SSD design speed that available sight distance provides. AASHTO, pages 3-2 to 3-6.

[c] ISD design speed that available sight distance provides. AASHTO, pages 9-35 to 9-59.

[1] AASHTO, *A Policy on Geometric Design of Highways and Streets*, 7th Edition (Washington, DC, 2018), pages 9-35 to 9-36.

[2] AASHTO, pages 3-2 to 3-6.

[3] AASHTO, pages 9-35 to 9-59.

- White Oaks Road has a speed limit of 35 mph
- the intersections have at least 500 ft of available sight distance

Table 1 shows that available sight distances provide:

- all-season-sight distance of at least 400 ft
- design SSD for White Oaks Road approach speeds of at least 50 mph
- design ISD for White Oaks Road approach speeds of at least 45 mph

TRIP GENERATION

The Institute of Transportation Engineers (ITE) publishes trip-generation information in the authoritative *Trip Generation Manual*.[4] This information is based on empirical data for a variety of land uses including:

- land use 210, single-family-detached housing, based on dwelling units[5]
- land use 416, campground/recreational vehicle park, based on campsites[6]

Land use 416, campground/recreational vehicle park, includes information for weekdays. For weekends, TEPP LLC used trip-generation rates per campsite obtained at Cold Brook Campground in the Town of Webster, New Hampshire.[7]

Table 2 shows calculated vehicle-trips for the following:

- existing single-family-detached housing, one dwelling unit
- proposed campground, 128 campsites

Differences in vehicle-trips due to the project (total of in and out) are:

- weekday daily, 124
- weekday AM-street-peak hour, 8
- weekday PM-street-peak hour, 11
- Saturday daily, 111
- Saturday site-peak hour, 13
- Sunday daily, 68

[4] ITE, *Trip Generation Manual*, 12th Edition (Washington DC, August 2025).

[5] ITE, *Trip Generation Manual*, Volume 3, pages 230 to 248.

[6] ITE, *Trip Generation Manual*, Volume 4, pages 33 to 58.

[7] TEPP LLC, memorandum regarding Traffic Assessment, Cold Brook Campground, Webster, New Hampshire, September 9, 2008.

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Table 2. Calculated trip generation.

	Vehicle-Trips								
	Existing Residential[a]			Proposed Campground[b]			Difference		
Time Period	Total	In	Out	Total	In	Out	Total	In	Out
Weekday									
Daily	9	5	4	133	67	66	124	62	62
AM-Street-Peak Hour	1	0	1	9	2	7	8	2	6
PM-Street-Peak Hour	1	1	0	12	6	6	11	5	6
Saturday									
Daily	9	5	4	120	---	---	111	---	---
Site-Peak Hour	1	1	0	14	---	---	13	---	---
Sunday									
Daily	8	4	4	76	---	---	68	---	---
Site-Peak Hour	1	0	1	11	---	---	10	---	---

[a] Based on ITE, *Trip Generation Manual*, land use 210, single-family-detached housing, one dwelling unit.

[b] For weekdays, based on ITE, *Trip Generation Manual*, land use 416, campground/recreational vehicle park, 128 campsites. For weekends, based on trip-generation rates per campsite obtained at Cold Brook Campground in the Town of Webster, New Hampshire.

- Sunday site-peak hour, 10

POTENTIAL TRAFFIC IMPACTS

ITE suggests that land developments generating at least 100 peak-hour vehicle trips, in the busier direction, are candidates for consideration of traffic impact analysis.[8] Tabulated peak-hour trip generation of the proposed project is well below this national ITE level.

Tabulated differences in peak-hour trip generation due to the project are:

- eight to 13 vehicle-trips
- split by direction (in or out)
- further split by orientation (north, south, east, or west)

Tabulated peak-hour trip generation approximates the following average increases per direction on White Oaks Road north or south of the project site:

- two to four vehicle-trips
- about one vehicle-trip per 18 to 30 minutes

On these bases, TEPP LLC anticipates no significant area traffic impact due to the project.

CONCLUSION

TEPP LLC anticipates that:

- available sight-distances for the White Oaks Road/proposed driveway intersections will be adequate
- the project will have no significant impact on area traffic operations
- the project will not create undue traffic congestion or unduly impair pedestrian safety

[8] ITE, *Manual of Transportation Engineering Studies* (Prentice Hall: Englewood Cliffs, New Jersey, 2000), page 144.