129,000 Pound Evaluation of SH-52
SH-52 MP 14.4 to MP 28.4
(Case #201710SH-52)

Executive Summary

Arlo G. Lott Trucking, Inc. submitted a request for 129,000 pound trucking approval on SH-52 between SH-72 at milepost (MP) 14.4 and Emmett at MP 28.4. The requestor will transport lumber from Emmett to US-95 near Fruitland. This section of SH-52 is designated a "red route" requiring all trucks to adhere to 6.5-foot off-track and 115-foot overall vehicle length criteria. ITD Bridge Section evaluated the six bridges on requested section of highway and confirms all are capable of supporting 129,000 pound vehicles. District 3 evaluation describes the route as asphalt pavement in good condition with no deficient sections. The Office of Highway Safety analysis shows this section of SH-52 has no Non-Interstate High Accident Intersection Locations (HAL) and has no HAL clusters. Divison of Motor Vehicles, Bridge Asset Management, Highway Safety and District 3 and all recommend proceeding with this request.

Detailed Analysis

Department of Motor Vehicles (DMV) Review

All Idaho Transportation Department routes are currently categorized by their ability to handle various extra-length vehicle combinations and their off-tracking allowances. The categories used when considering allowing vehicle combinations to carry increased axle weights above 105,500 pounds and up to 129,000 pounds are:

- Blue routes at 95 foot overall vehicle length and a 5.50-foot off-track
- Red routes at 115 foot overall vehicle length and a 6.50-foot off-track.

Off-tracking is the turning radius of the vehicle combination, which assists in keeping them safely in their lane of travel. Off-tracking occurs because the rear wheels of trailer trucks do not pivot, and therefore will not follow the same path as the front wheels. The greater the distance between the front wheels and the rear wheels of the vehicle, the greater the amount of off-track. The DMV confirms that the requested route falls under one of the above categories and meets all length and off-tracking requirements for that route. **More specifically, the requested section of SH-52 from milepost 14.4 to 28.4 is designated as a red route and as such all trucks must adhere to the 6.5-foot off-track and 115 foot overall vehicle length criteria.**

Bridge Section Review

Bridges on all publicly owned routes in Idaho, with the exception of those meeting specific criteria, are inspected every two years at a minimum to ensure they can safely accommodate vehicles. A variety of inspections may be performed including routine inspections, in-depth inspections, underwater inspections, and complex bridge inspections. All are done to track the current condition of a bridge and make repairs if needed.

When determining the truck-carrying capacity of a bridge, consideration is given to the types of vehicles that routinely use the bridge and the condition of the bridge. Load limits may be placed on a bridge if, through engineering analysis, it is determined the bridge cannot carry legal truck loads.

ITD Bridge Asset Management has reviewed the **six** bridges pertaining to this request and has determined they will safely support the 129,000-pound truck load, provided the truck's axle configuration conforms to legal requirements. To review load rating data for each of the bridges, see the Bridge Data chart below.

District 3 Evaluation

This segment has been evaluated and the District recommends the following.

District Three has evaluated the roadway characteristics, pavement condition, and traffic volumes on SH-52 between MP 14.4 – MP 28.4 in response to the request to make this segment a 129,000-pound trucking route and recommends proceeding with the request.

Roadway Characteristics

This roadway is a rural connector running through mostly agricultural lands. There are some minor hills and several corners with reduced speed recommendations posted. The roadway geometry is outlined in the table below.

Table 1. SH-52 Roadway Geometry

Mileposts	Lane Width (ft)	Right Paved Shoulder Width (ft)	Parking Width (ft)
14.419 - 18.041	12.00	2	0
18.041 - 26.000	12.00	2	0
26.000 - 30.422	12.00	6	0

Pavement Condition

The road is asphalt pavement and is in good condition. There are no deficient sections.

Table 2. 2016 TAMS Visual Survey Data

Mileposts	Pavement Type	Deficient	Condition	Cracking Index	Roughness Index
14.419 - 18.041	Flexible	No	Good	4.50	3.46
18.041 - 26.000	Flexible	No	Good	4.50	3.64
26.000 - 30.422	Flexible	No	Good	5.00	3.53

Traffic Volumes

The speed limit on this section of highway is 55 miles per hour, and there are no stop lights. The traffic volumes are provided below with mostly agricultural traffic.

Table 3. 2016 Traffic Volumes

Mileposts	AADT	CAADT	% Trucks
14.419 - 18.041	2071	239	12%
18.041 - 26.000	2111	225	11%
26.000 - 30.422	4409	385	9%

AADT – Annual Average Daily Traffic
CAADT – Commercial Annual Average Daily Traffic

Truck Ramps

No runaway truck ramps exist.

Port of Entry (POE)

The POE has one rover site on this section of highway.

Highway Safety Evaluation

This SH-52 section has no Non-Interstate High Accident Intersection Locations (HAL) and has no HAL clusters.

Analyses of the 5-year accident data (2012-2016) shows there were a total of 88 crashes involving 122 units (0 fatalities and 50 Injuries) on SH-52 between MP 14.419 and MP 28.772 of which four crashes involved a tractor-trailer combination. Of the crashes involving tractor trailers, the most prevalent contributing circumstance were failure to yield, following too close, improper vvertaking, and speed too fast for conditions. Two visible injuries and no fatalities resulted from the crashes with tractor trailers. Implementation of 129,000 pound trucking is projected to reduce truck traffic on this route.

Additional Data:

Bridge Data:

Route Number: SH 52
Department: Bridge Asset Management
Date: 12/27/2017

Route		
	From:	near Emmett, ID
	Milepost:	28.40
	To:	Hamilton Corner, ID
	Milepost:	14.40

Highway Number	Milepost Marker	Bridge Key	121 Rating[a] (lbs)
52	27.11	14635	240,000
52	24.80	14630	270,000
52	22.06	14625	300,000
52	16.38	14620	OK EJ
52	15.53	14615	312,000
52	14.75	14610	426,000

[a]: The bridge is adequate if it has a rating value greater than 121,000 pounds or is designated as "OK EJ" (okay by engineering judgment).