



# 129,000 Pound Evaluation of SH-75 M.P. 219.5 to M.P 244.33 (Case #201709SH75)

## Executive Summary

Arlo G. Lott Trucking, Inc. submitted a request for 129,000 pound trucking approval on SH-75 between milepost (MP) 219.5 and MP 244.33 at the Intersection with US-93 for transportation of Molybdenum. Currently 1000 trips are made annually at 105,500 pounds. The requested section of SH-75 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. ITD Bridge Section confirms the eight bridges on the route will safely support 129,000 pound vehicles. District 6 analysis shows this section of road in good condition. The Office of Highway Safety analysis shows this section of SH-75 has no Non-Interstate High Accident Intersection Location (HAL) and has no HAL Clusters. Department of Motor Vehicles, Highway Safety, Bridge Asset Management and District 6 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 routes falls under one of the above categories and meets all length and off-tracking requirements for that route. **More specifically, the requested section of SH75 from milepost 219.5 to 244.33 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 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 **eight 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.

### ITD District 6 Evaluation

This segment has been evaluated and the District recommends proceeding.

District 6 has evaluated the roadway characteristics, pavement condition, and traffic volumes on SH-75 Mp 219.5-244.33 in response to the request to make this segment a 129,000-pound trucking route. The District has found no concerns with this action and recommends proceeding. Details of the evaluation are provided below.

### Roadway Characteristics

This roadway is a major rural collector with the roadway geometry outlined below.

*Table 1. US-93 Roadway Geometry*

Mileposts		Lanes	Terrain	Left Turn Lane Type	Right Turn Lane Type	Right Paved Shoulder Width (ft)	Parking
219.5	244.33	2 – 1 each direction 12'		None	None	2-3	No

### Pavement Condition

The road is asphalt pavement and is in good condition; it is not considered deficient in cracking, rutting or ride. SH75 M.P. 217-227 received an overlay in 2011, M.P. 226.6-227.4 was rebuilt and 2 bridges in this section replaced in 2013, and the whole road received a microsurface in 2017. Spring breakup limits do not pertain to this section at this time.

*Table 2. 2016 TAMS Visual Survey Data*

Mileposts	Pavement Type	Deficient	Condition	Cracking Index	Roughness Index	Rut Average (in)
217.122 - 226.64	Flexible	No	Good	4.00	3.18	0.11
226.624-227.178	Flexible	No	Good	5.00	3.18	0.11
227.178-227.406	Flexible	No	Good	5.00	2.56	0.17
227.406-236.000	Flexible	No	Good	3.50	3.48	0.12
236.000-244.325	Flexible	No	Good	3.50	3.50	0.14

### Traffic Volumes

The speed limit of the highway varies between 25 and 60 mph. The traffic volumes are provided below.

*Table 3. 2016 Traffic Volumes*

Mileposts	AADT	CAADT	% TRUCKS
219.5 – 244.33	650	100	13

### Truck Ramps

No runaway truck ramps exist.

**Port of Entry (POE)**

The POE doesn't maintain a site on this section of highway SH-75

**Highway Safety Evaluation**

This SH 75 segment has no Non-Interstate High Accident Intersection Locations (HALs) and has one HAL Cluster. The location is shown in the table below with their statewide ranking.

Analyses of the 5-year accident data (2014-2018) shows there were a total of 27 crashes involving 34 units (1 fatality and 16 Injuries) on SH 75 between MP 219.5 and MP 244.325 of which only 1 crash involved a tractor-trailer combination. The one tractor trailer crash was a fatal crash resulting in one fatality with contributing circumstances of drug impaired and failed to maintain lane. Implementation of 129,000 pound trucking is projected to reduce truck traffic on this route.

Table of HAL Segments SH-75:

Route	Statewide Rank	Milepost Range	Length (miles)	County
SH 75	113	219.399-221.399	2	Custer

**Additional Data:****Bridge Data:**

**Route Number:** SH 75  
**Department:** Bridge Asset Management  
**Date:** 1/4/2018

<b>Route</b>	<b>From:</b>	US 93 Junction
	<b>Milepost:</b>	244.33
	<b>To:</b>	near Clayton, ID
	<b>Milepost:</b>	219.50

Highway Number	Milepost Marker	Bridge Key	121 Rating <sup>a</sup> (lbs)
75	244.31	17825	424,000
75	244.20	17820	270,000
75	238.72	17815	188,000
75	234.45	17810	374,000
75	232.45	17805	344,000
75	226.97	17801	258,000
75	226.84	17796	250,000
75	220.57	17791	258,000

<sup>a</sup>: 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).