



129,000 Pound Evaluation of US-93 M.P. 244.33 to M.P 350.82 (Case #201708US93)

Executive Summary

Arlo G. Lott Trucking, Inc. submitted a request for 129,000 pound trucking approval on US-93 between milepost (MP) 244.33 at the intersection with SH-75 and MP 350.82 at the Montana Border for transportation of Molybdenum. Currently 1000 trips are made annually at 105,500 pounds. The requested section of US- 93 has a split designation, milepost 244.33 to 263.85 and milepost 304.7 to 350.82 are designated as red routes and as such all trucks must adhere to the 6.5-foot off-track and 115 foot overall vehicle length criteria. Additionally from milepost 263.85 to 304.7 of US-93 is designated as a blue route and as such all trucks must adhere to the 5.5-foot off-track and 95 foot overall vehicle length criteria. ITD Bridge Section confirms the twenty-nine 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 US-93 has one Non-Interstate High Accident Intersection Location (HAL) and has four 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 US-93 from milepost 244.33 to 263.85 and from milepost 304.7 to 350.82 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. The requested section of US-93 from milepost 263.85 to 304.7 is designated as a blue route and as such all trucks must adhere to the 5.5-foot off-track and 95 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 **twenty-nine 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 US-93 M.P. 244.33-350.82 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
244.33	300.00	2 – 1 each direction 12'	Hills	None	None	1 - 2	No
300.00	343.60	2 – 1 each direction 12'		None	None	2 - 3	No
343.60	350.82	2 – 1 each direction 12'		None	None	4 - 5	

* City of Challis has a TWLTL that is 14' wide M.P. 245.9-246.7.

City of Salmon has a TWLTL that is 14' wide M.P. 303.7-305.2.

***Passing lanes have been added on US93 Ascending:**

M.P. 343.6-344.2

M.P. 345.5-346.05

M.P. 346.6-346.8

M.P. 347.8-350.82

Pavement Condition

The requested section of highway is asphalt and is in generally good condition and is not considered deficient in cracking rutting or ride. US93 MP 280.821-305.242 received an overlay in 2015, and MP 244.33-350.82 received a seal coat in 2016. US93 MP 337.00 - 350.82 received an overlay in 2019. 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)
244.325-250.500	Flexible	No	Good	4.00	3.72	0.13
250.500-256.464	Flexible	No	Good	4.00	3.70	0.13
256.464-256.683	Flexible	No	Good	4.90	3.44	0.11
256.683-257.196	Flexible	No	Good	4.90	3.35	0.12
257.196-263.000	Flexible	No	Good	3.50	3.59	0.13
263.000-268.660	Flexible	No	Good	3.50	3.40	0.14
268.660-269.639	Flexible	No	Good	4.40	3.39	0.16
269.639-273.896	Flexible	No	Good	5.00	4.03	0.09
273.896-278.000	Flexible	No	Good	5.00	4.24	0.08
278.000-285.900	Flexible	No	Good	5.00	4.18	
285.900-292.500	Flexible	No	Good	5.00	4.19	
292.500-299.000	Flexible	No	Good	5.00	4.21	0.10
299.000-304.300	Flexible	No	Good	5.00	4.34	0.23
304.300-304.675	Flexible	No	Good	4.20	3.62	0.29
304.675-305.213	Flexible	Yes	Good	5.00	2.92	0.41
305.213-310.000	Flexible	No	Good	3.60	3.15	0.21
310.000-315.592	Flexible	No	Good	3.80	3.96	0.14
315.592-316.000	Flexible	No	Good	4.40	3.72	0.14
316.000-326.000	Flexible	No	Good	4.50	3.74	0.21
326.000-343.629	Flexible	No	Good	4.50	3.23	0.08

Traffic Volumes

The speed limit of the highway varies between 25 and 60 mph. There are 2 stop lights in this segment located in the city of Salmon. The traffic volumes are provided below.

Table 3. 2016 Traffic Volumes

Mileposts	AADT	CAADT	% TRUCKS
244.325-246.444	2100	140	14
246.444-246.598	3700	150	7
246.598-246.992	2100	150	7
246.992-299.452	980	150	9
299.452-304.262	2600	210	8
304.262-305.081	5790	160	9
305.081-305.369	8000	120	8
305.369-306.364	2920	120	8
306.364-326.346	1320	160	8
326.346-350.819	650	190	11

Truck Ramps

No runaway truck ramps exist.

Port of Entry (POE)

The POE does maintain one rover site on this section of highway US-93 (MP 308.80).

Highway Safety Evaluation

This US 93 segment has one Non-Interstate High Accident Intersection Location (HAL) and has four HAL Clusters. The locations are shown in the table below with their statewide ranking.

Analyses of the 5-year accident data (2011-2015) shows there were a total of 317 crashes involving 412 units (8 fatalities and 181 Injuries) on US 93 between MP 244.325 and MP 350.819 of which only 10 crashes involved tractor-trailer combinations. Of the crashes involving tractor trailers, the most prevalent contributing circumstance was speed too fast for conditions. Two 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.

Table of HAL Segments US 93:

Route	Statewide Rank	Milepost Range	Length (miles)	County
US 93	740	305.215	Intersection	Lemhi
US 93	101	321.987-322.487	0.5	Lemhi
US 93	185	310.903-311.403	0.5	Lemhi
US 93	286.5	307.804-308.304	0.5	Lemhi
US 93	444	271.819-273.319	1.5	Lemhi

Additional Data:**Bridge Data:**

Route Number: US 93
Department: Bridge Asset Management
Date: 9/15/2019

Route	From:	SH 75 Junction
	Milepost:	244.33
	To:	Montana State Line
	Milepost:	350.82

Highway Number	Milepost Marker	Bridge Key	121 Rating ^a (lbs)
93	244.51	17830	348,200
93	244.84	17835	240,000
93	246.74	17840	246,000
93	251.39	17846	276,000
93	254.77	17850	378,000
93	254.87	17855	330,000

93	254.96	17860	378,000
93	256.79	17866	312,000
93	263.84	17870	154,200
93	268.39	17876	688,000
93	281.91	17880	234,000
93	305.24	17885	170,000
93	309.03	17890	166,000
93	309.75	17895	220,000
93	310.26	17900	238,000
93	315.56	17905	200,000
93	319.01	17910	220,000
93	320.93	17915	270,000
93	324.36	17920	364,000
93	326.27	17925	235,800
93	327.26	17930	232,000
93	333.73	17935	OK EJ
93	336.88	17940	344,000
93	341.35	33340	464,000
93	341.40	33345	282,000
93	342.29	33350	596,000
93	342.37	33355	OK EJ
93	345.63	33360	OK EJ
93	346.23	17946	OK EJ

^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).