

# 129,000 Pound Evaluation of US-30 <br> US-30 MP 21.53 to MP 27.94 

(Case \#201712US30)

## Executive Summary

Arlo G. Lott Trucking, Inc. submitted a request for 129,000 pound trucking approval on US-30 between US-95 at milepost (MP) 21.53 and SH-72 at MP 27.94. The requestor will transport lumber from Emmett to US-95 near Fruitland. This section of US-30 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 three 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 US-30 has one NonInterstate High Accident Intersection Location (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 US-30 from milepost 21.53 to $\mathbf{2 7 . 9 4}$ is designated as a red route and as such all trucks must adhere to the $\mathbf{6 . 5}$-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 three 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 US-30 between MP 21.53 - MP 27.94 and recommends proceeding with this request.

## Roadway Characteristics

This roadway is a rural connectors running through mostly agricultural lands, but does transit through New Plymouth. There are some minor hills and no passing lanes; there are several long straight sections with good visibility for passing. The roadway geometry is outlined in the table below.

Table 1. US-30 Roadway Geometry

| Mileposts | Lane <br> Width (ft) | Left Turn <br> Lane Type | Right Turn <br> Lane Type | Right Paved <br> Shoulder Width (ft) | Parking Width <br> (ft) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $21.53-25.90$ | 12.00 | A single left <br> turning <br> bay/lane | A single right <br> turning <br> bay/lane | 1 | 0 |
| $25.90-26.86$ | 12.00 | None | None | 0 | Diagonal <br> Roadside <br> parking in New <br> Plymouth |
| $26.86-27.94$ | 12.00 | None | None | 0 | 0 |

## Pavement Condition

The road is asphalt pavement and is rated good with no deficient sections. Spring breakup limits do not pertain to these sections at this time.

Table 2. 2016 TAMS Visual Survey Data

| Mileposts | Pavement Type | Deficient | Condition | Cracking <br> Index | Roughness <br> Index |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $21.53-25.90$ | Flexible | No | Good | 4.50 | 3.53 |
| $25.90-26.86$ | Flexible | No | Good | 4.50 | 3.13 |
| $26.86-27.94$ | Flexible | No | Good | 4.50 | 3.60 |

## Traffic Volumes

The speed limit on the section of highway varies between 25 and 55 mph with a 45 mph section at the intersection with US-95 and 25 mph and 35 mph sections in New Plymouth. There are no stop lights on this segment. The traffic volumes are provided below. The route is made up mostly of commuter and agricultural traffic.

Table 3. 2016 Traffic Volumes

| Mileposts | AADT | CAADT | \% Trucks |
| :---: | :---: | :---: | :---: |
| $21.53-25.90$ | 3816 | 339 | $9 \%$ |
| $25.90-26.86$ | 3704 | 212 | $6 \%$ |
| $26.86-27.94$ | 3093 | 193 | $6 \%$ |

AADT - Annual Average Daily Traffic
CAADT - Commercial Annual Average Daily Traffic

## Truck Ramps

No runaway truck ramps exist. The highway does have varying grades with limited passing opportunities.

## Port of Entry (POE)

The POE does not maintain any rover sites on these sections of highway.

## Highway Safety Evaluation

This US-30 segment has one Non-Interstate High Accident Intersection Location (HALs) and has no HAL Clusters. The location is shown in the table below with its statewide ranking.

Analyses of the 5-year accident data (2012-2016) shows there were a total of 56 crashes involving 94 units ( 2 fatalities and 35 Injuries) on US-30 between MP 21.53 and MP 27.94 of which only 2 crashes involved tractor-trailer combinations. Of the crashes involving tractor trailers, the single contributing circumstance assigned was failure to yield. One serious injury and no fatalities resulted from this crash. Implementation of 129,000 pound trucking is projected to reduce truck traffic on this route.

Table of HAL Segments US 30:

| Route | Statewide Rank | Milepost Range | Type | County |
| :--- | :---: | :--- | :--- | :--- |
| US 30 | 70 | 27.910 | Intersection | Payette |



## Additional Data:

## Bridge Data:

Route Number:

| Department: | US 30 |  |
| :--- | :--- | :--- |
| Date: |  | Bridge Asset Management |
|  | From: | SH 72 Junction |
| ग | Milepost: | 27.94 |
| 咠 | To: | US 95 Junction |
|  | Milepost: | 21.53 |

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| Highway <br> Number | Milepost <br> Marker | Bridge <br> Key | Rating $^{\mathrm{a}}$ <br> (Ibs) |
| :---: | :---: | :---: | :---: |
| 30 | 26.22 | 13470 | 207,800 |
| 30 | 25.84 | 13465 | 162,000 |
| 30 | 22.54 | 13460 | 206,000 |

${ }^{\text {a }}$ : 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).


