



129,000 Pound Evaluation of SH-37

M.P. 37.48 to M.P 68.71

(Case #201703SH37)

Executive Summary

White Pine Farms submitted a request for 129,000 pound trucking approval on SH-37 between mile post (MP) 37.48 and MP 68.71 for transportation of agricultural products. The request projects up to 60 trips annually which is a 15-25% reduction from current operations. This section of SH-37 is coded a “Red Route,” where vehicles with 115-foot overall length and 6.5-foot off-track are authorized. ITD Bridge Section confirms the four bridges on the route will safely support 129,000 pound vehicles. District 5 evaluation describes the route as asphalt pavement in good to fair condition with no deficient sections. A seal coat for the entire section is planned for 2021. The Office of Highway Safety analysis shows this segment of SH-37 has no Non-Interstate High Accident Locations (HAL) and no HAL clusters. Of the 23 crashes in this segment from 2011-2015, none involved a tractor-trailer combination. Division of Motor Vehicles, Materials Section, Highway Safety and Bridge Asset Management 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-37 from MP 37.48 to MP 68.71 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 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 **four** bridges pertaining to this request and 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 5 Evaluation

This segment has been evaluated and the District recommends proceeding.

District Five has evaluated the roadway characteristics, pavement condition, and traffic volumes on SH-37 between MP 37.48 – MP 68.71 in response to the request to make this segment a 129,000-pound trucking route to service White Pine Farms. The District has found no concerns with this action and recommends proceeding. Details of the evaluation are provided below.

Roadway Characteristics

This section of road is a rural major collector from MP 37.48 – MP 68.71. The roadway geometry is outlined in the table below.

Table 1. SH-37 Roadway Geometry

| MILEPOSTS | THROUGH LANES | TWO-WAY LEFT TURN LANE (TWLTL) | SHOULDER | PARKING LANE |
|-----------------|----------------------|--------------------------------|----------|--------------|
| 37.483 – 39.718 | 2 – 1 each direction | No | Yes | No |
| | 12' | - | 2' - 3' | - |
| 39.718 – 45.000 | 2 – 1 each direction | No | Yes | No |
| | 12' | - | 2' - 3' | - |
| 45.000 – 50.440 | 2 – 1 each direction | No | Yes | No |
| | 12' | - | 2' - 3' | - |
| 50.440 – 55.440 | 2 – 1 each direction | No | Yes | No |
| | 12' | - | 2' - 3' | - |
| 55.440 – 59.800 | 2 – 1 each direction | No * | Yes | No * |
| | 12' | - | 2' - 3' | - |
| 59.800 – 64.134 | 2 – 1 each direction | No | Yes | No |
| | 12' | - | 2' - 3' | - |
| 64.134 – 68.714 | 2 – 1 each direction | No | Yes | No |
| | 12' | - | 2' - 3' | - |

* City of Rockland has a TWLTL that is 14' wide with a 12' parking lane.

Pavement Condition

The road is asphalt pavement and is in good to fair condition; it is not considered deficient in cracking, rutting or ride. MP 55.440 – MP 64.134 received an overlay in 2011 and MP 38.714 - MP 55.440 received a seal coat that same year. MP 37.483 – MP 55.440 received a seal coat in 2014.

A seal coat for the entire section is planned for 2021. Spring breakup limits do not pertain to this section at this time.

Table 2. 2016 TAMS Visual Survey Data

| MILEPOSTS | PAVEMENT TYPE | DEFICIENT (YES/NO) | CONDITION STATE | CRACKING INDEX | ROUGHNESS INDEX | RUT AVERAGE (IN) |
|------------------------|---------------|--------------------|-----------------|----------------|-----------------|------------------|
| 37.483 – 39.718 | Flexible | No | Fair | 2.8 | 2.59 | 0.07 |
| 39.718 – 45.000 | Flexible | No | Fair | 2.8 | 2.54 | 0.08 |
| 45.000 – 50.440 | Flexible | No | Good | 5 | 3.44 | 0.08 |
| 50.440 – 55.440 | Flexible | No | Fair | 2.4 | 2.77 | 0.07 |
| 55.440 – 59.800 | Flexible | No | Good | 4.8 | 3.44 | 0.06 |
| 59.800 – 64.134 | Flexible | No | Good | 4.4 | 3.62 | 0.06 |
| 64.134 – 68.714 | Flexible | No | Fair | 3.1 | 2.75 | 0.06 |

Traffic Volumes

The speed limit of the highway varies between 35 and 60 mph. There are no stop lights in this segment. The traffic volumes are provided below. The route is made up of mostly of agricultural traffic.

Table 3. 2016 Traffic Volumes

| MILEPOSTS | AADT | CAADT | % TRUCKS |
|------------------------|------|-------|----------|
| 37.483 – 39.718 | 81 | 20 | 25 |
| 39.718 – 45.000 | 136 | 20 | 15 |
| 45.000 – 50.440 | 229 | 27 | 12 |
| 50.440 – 55.440 | 326 | 37 | 11 |
| 55.440 – 59.800 | 649 | 55 | 8 |
| 59.800 – 64.134 | 611 | 50 | 8 |
| 64.134 – 68.714 | 678 | 49 | 7 |

Truck Ramps

No runaway truck ramps exist however; the highway does have varying grades with limited passing opportunities.

Port of Entry (POE)

The POE does maintain one rover sites on this section of highway at the end of the highway (MP 37.48). No POE's exist on I-86 to the North.

Office of Highway Safety Evaluation

This SH-37 segment has no Non-Interstate High Accident Intersection Location (HAL) and has no HAL Clusters.

Analyses of the 5-year accident data (2011-2015) shows there were a total of 23 crashes involving 28 units (3 fatalities and 20 Injuries) on SH-37 between MP 37.483 and MP 68.714 of which none of the crashes involved a tractor-trailer combination. Implementation of 129,000 pound trucking is projected to have no effect on truck traffic on this route.

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

Route Number: SH 37
Department: Bridge Asset Management
Date: 7/3/2017

| | | |
|--------------|------------------|---------------|
| Route | From: | near Roy, ID |
| | Milepost: | 37.48 |
| | To: | I-86 Junction |
| | Milepost: | 68.71 |

| Highway Number | Milepost Marker | Bridge Key | 121 Rating^a (lbs) |
|---------------------------|----------------------------|-----------------------|---|
| 37 | 40.29 | 14115 | OK EJ |
| 37 | 42.86 | 14121 | 346,000 |
| 37 | 51.97 | 14126 | 378,000 |
| 37 | 57.55 | 14136 | 558,000 |

^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).