



129,000 Pound Evaluation of SH-46spur M.P. 0.00 to M.P 0.17 (Case #201902SH46)

Executive Summary

Idaho Milk Transport submitted a request for 129,000 pound trucking approval on SH-46 between milepost (MP) 0.00 at the intersection with I84 at exit 155 and MP 0.17 at the intersection with I84 at exit 155, for transportation of milk. Currently 436 trips are made annually at 105,500 pounds but if approved will reduce the number to 365. The requested section of SH-46 is 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. ITD Bridge Section confirms the one bridge on the route will safely support 129,000 pound vehicles. District 4 analysis shows this section of road in good condition. The Office of Highway Safety analysis shows this section of SH46 doesn't have a Non-Interstate High Accident Intersection Locations (HAL) and doesn't have a HAL Cluster. Department of Motor Vehicles, Highway Safety, Bridge Asset Management and District 4 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 SH-46 from milepost 0.00 to milepost 0.17 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 bridge pertaining to this request and has determined it 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 this bridge, see the Bridge Data chart below.

ITD District 4 Evaluation

This segment has been evaluated and the District recommends proceeding with requested route.

Evaluation ending point extended to M.P. 1.181 to eastern terminus of the route.

District Four has evaluated the roadway characteristics, pavement condition, and traffic volumes on SH-46 Spur M.P. 0.00 to 1.181 in response to the request to make this segment a 129,000-pound trucking route to service Idaho Milk Transport. 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 on the west side of Wendell connecting SH-46 to Exit 155 on I-84. 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 |
|---------------------|-----------------------|--------------------------------|----------|--------------|
| SH46 SP 0.00-0.150 | 2 – 1 each direction | No | Yes | No |
| | 12' | | 4' - 6' | - |
| SH46 SP 0.150-1.181 | 2 – 1 each direction* | No | Yes | No |
| | 12' | - | 1' - 2' | - |

* 4 through lanes – 2 each direction MP 1.081 to 1.181 near intersection with SH-46.

Pavement Condition

The road is asphalt pavement and is in good condition; it is not considered deficient in cracking, rutting or ride. SH46 Spur was rehabilitated and repaved in 2014.

Spring breakup limits do not pertain to this section at this time.

Table 2. 2016 TAMS Visual Survey Data

| Route | Milepost | Pavement Type | Deficient | Condition State | Cracking Index | Roughness Index | Rut Average |
|-------|---------------|---------------|-----------|-----------------|----------------|-----------------|-------------|
| SH46S | 0.000 – 0.150 | Flexible | No | Good | 5.00 | 3.36 | 0.08 |
| SH46S | 0.150 – 1.181 | Flexible | No | Good | 5.00 | 3.36 | 0.08 |

Traffic Volumes

The speed limit of the highway varies between 25 and 45 mph. There is one stop lights in this segment, at the intersection with SH-46 at the east end of the route. The traffic volumes are provided below.

Table 3. 2016 Traffic Volumes

| MILEPOSTS | AADT | CAADT | % TRUCKS |
|-------------------------------|------|-------|----------|
| SH-46 SPUR 0.000-0.150 | 3260 | 240 | 7.3 |
| SH-46 SPUR 0.150-1.181 | 2320 | 280 | 12 |

Truck Ramps

This section of roadway is relatively flat. There are no passing lanes.

Port of Entry (POE)

The POE does not maintain any facilities in this section, but has a roving port location north of Wendell about two miles from this route.

Highway Safety Evaluation

This SH 46 segment has no Non-Interstate High Accident Intersection Locations (HALs) and has no HAL Clusters. 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 0 crashes on SH 46 between MP 0.0 and MP 0.17.

Additional Data:

Bridge Data:

Route Number: SH 46
Department: Bridge Asset Management
Date: 11/6/2019

| | | |
|--------------|------------------|------------------------|
| Route | From: | Wendell, ID |
| | Milepost: | 0.00 Wendell, ID |
| | To: | ID |
| | Milepost: | 0.17 |

| Highway Number | Milepost Marker | Bridge Key | 121 Rating ^a (lbs) |
|----------------|-----------------|------------|-------------------------------|
| 46 | 0.04 | 14410 | 256,000 |

^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).