



129,000 Pound Evaluation of I-84BL

MP 61.797 to MP 58.665

MP 58.670 to MP 57.640

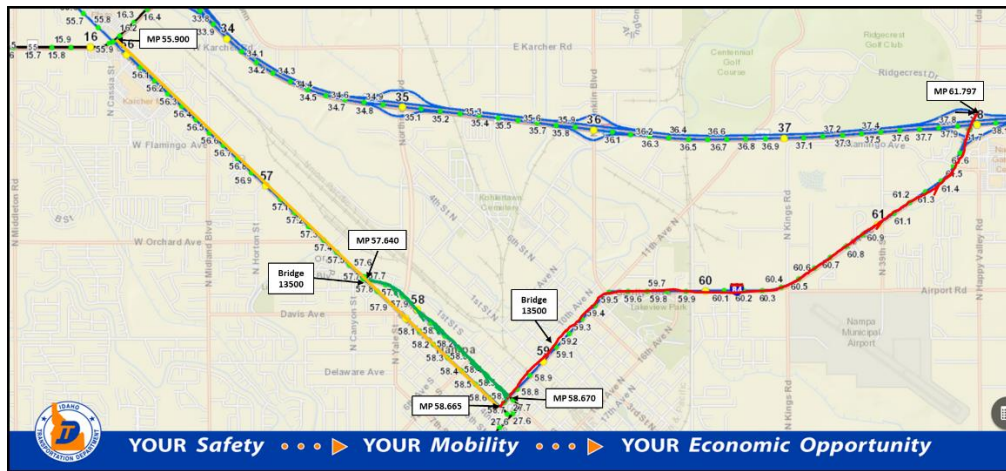
MP 58.665 to MP 55.900

(Case #202003184BL)

Executive Summary

Idaho Milk Transport is requesting a 129,000 pound route approval for Interstate 84 Business Loop (I-84BL) in Nampa, ID between mile post MP 61.797 to MP 58.665 and MP 58.670 to MP 57.640 and MP 58.665 to MP 55.900 (Map 1) for transportation of raw milk from regional dairies to the Darigold Caldwell Plant. This request reduces annual truck trips from 431 to 365, a 15% reduction from trips conducted by 105,500 pound trucks. This route connects SH-55, SH-45 and I-84 which are presently approved 129K routes. Approval of this section will continue to connect the southern agricultural areas with the Interstate system and processing plants. District 3, and ITD Staff all recommend proceeding with this request.

MAP 1. I-84BL



This section of I-84BL is relatively flat with minimal curvature and 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 two (2) bridges on the route will safely support 129,000 pound vehicles. The requested section of highway is asphalt and is in fair to good condition. The Commercial Average Annual Daily Traffic (CAADT) constitutes approximately 4%-7% of the Average Annual Daily Traffic (AADT). The I-84BL segment from SH-45 to I-84 at Garrity Boulevard has two (2) Non-Interstate High Accident Intersection Locations (HAL) and one (1) HAL Clusters in the top 100 sites. The I-84BL segment of Nampa-Caldwell Boulevard from SH-45 to Karcher Boulevard has one (1) Non-Interstate High Accident Intersection Locations (HAL) and one (1) HAL Clusters in the top 100 sites.

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. DMV confirms that the requested route falls under one of the above categories and meets all length and off-tracking requirements for that route. **Specifically, the requested section of I-84BL 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 two (2) 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 (Table 1).

Table 1. I-84BL, Bridge Data

Route	FROM:	SH-55 / Karcher Ave Jct
	MILEPOST:	55.900
	TO:	I-84 / I-84BL Jct
	MILEPOST:	61.659

Highway Number	Milepost Marker	Bridge Key	121 Rating* (lbs)
I-84B	59.17	13500	290,000
I-84B	57.68	13805	334,000

*The bridge is adequate if it has a rating value greater than 121,000 pounds or is designated as "OK EJ" (okay by engineering judgement).

ITD District 3 Evaluation

This segment has been evaluated and the District recommends approval of this request.

In response to the application to add I-84BL (Nampa Caldwell Blvd, 11th Ave North and Garrity Blvd) to the list of approved 129,000-pound trucking routes. District 3 has evaluated the roadway characteristics, pavement condition, and traffic volumes on I-84BL. This route connects SH-55, SH-45 and I-84 which are

presently approved 129K routes. Approval of this section will continue to connect the southern agricultural areas with the Interstate and processing plants.

Roadway Characteristics

These roadways are urban principle routes through mostly commercial areas. The roadway is mostly flat, the only grades are the interstate overpass and a railroad underpass. The roadways are mostly four (4) lanes divided by left turn bays and signalized intersections (Table 2).

Table 2. I-84BL, Roadway Geometry

MILE POST	THROUGH LANES	TWO-WAY LEFT TURN LANE (TWLTL)	SHOULDER	PARKING LANE
55.943 – 57.633	4 - 2 Each Direction	Yes	Curbed	No
	12'	Continuous Left Center Lane		
57.633 – 57.935	6 - 3 Each Direction	None	Curbed	No
	12'	-	-	-
57.935 – 58.665	6 - 3 Each Direction	Yes	Curbed/Sidewalk	Yes
	12'	Left Turn at Intersection	-	Parallel
58.665 – 58.818	4 – 2 Each Direction	Yes	Curbed/Sidewalk	No
	12'	Left Turn at Intersection	-	
58.818 – 58.970	4 – 2 Each Direction	Yes	Curbed/Sidewalk	No
	12'	Left Turn at Intersection	-	
58.970 – 61.797	4 – 2 Each Direction	Yes	Curbed/Sidewalk	No
	12'	Continuous Left Center Lane	-	-

Pavement Condition

The requested section of highway is asphalt and is in fair to good condition. The report shows several sections with poor or very poor rating (Table 3). The report does not reflect pavement rehab projects completed between MP 58.000 and 60.100 after 2015.

Table 3. I-84BL, TAMS Visual Survey Data

MILE POST	PAVEMENT TYPE	DEFICIENT (YES/NO)	CONDITION STATE	CRACKING INDEX	ROUGHNESS INDEX	RUT AVERAGE (IN)
55.943 – 57.633	Flexible	No	Good	4.70	3.32	0.00
57.633 – 57.935	Flexible	No	Fair	3.80	3.00	0.00
57.935 – 58.665	Flexible	Yes	Poor	2.20	2.72	0.00
58.665 – 58.818	Flexible	Yes	Very Poor	2.20	1.57	0.00
58.818 – 58.970	Rigid	Yes	Very Poor	3.80	1.63	0.00
58.970 – 59.356	Flexible	Yes	Poor	2.20	2.23	0.00
59.356 – 59.846	Flexible	Yes	Poor	2.20	2.37	0.00
59.846 – 60.166	Flexible	Yes	Poor	2.20	2.06	0.00
60.166 – 61.578	Flexible	No	Good	4.30	3.18	0.00
61.578 – 61.797	Flexible	Yes	Poor	5.00	2.42	0.00

Traffic Volumes

The speed limit of the route varies between 35 and 45 mph. There are traffic signals at most intersections in this segment. The traffic volumes are in (Table 4). The route is made up of commuter, commercial and agricultural traffic.

Table 4. I-84BL, Traffic Volume

MILE POST	AADT	CAADT	% TRUCKS
MP 55.943 - 57.633	25547	1859	7
MP 57.633 – 57.935	15470	691	4
MP 57.935 – 58.665	11500	600	5
MP 58.665 – 58.818	18559	899	5
MP 58.818 – 58.970	22000	1100	5
MP 58.970 – 59.356	22477	1005	4
MP 59.356 – 59.846	18159	820	5
MP 59.846 – 60.166	24900	790	3
MP 60.166 – 61.578	25648	892	3
MP 61.578 – 61.797	22438	942	4

Truck Ramps

No runaway truck ramps exist.

Port of Entry (POE)

The POE does not maintain any rover sites on this section of highway.

Safety Review

Crash Data

The route passes two (2) churches, two (2) parks, two (2) schools and one (1) hospital. There are three (3) unprotected crosswalks and one (1) 4-way stop and eighteen (18) signaled traffic control intersections along this route. The I-84BL segment from SH-45 to I-84 at Garrity Boulevard has two Non-Interstate High Accident Intersection Locations (HAL) and one HAL Clusters in the top 100 sites. The I-84BL segment of Nampa-Caldwell Boulevard from SH-45 to Karcher Boulevard has one (1) Non-Interstate High Accident Intersection Locations (HAL) and one HAL Clusters in the top 100 sites (Table 5).

Analyses of the 5-year accident data (2014-2018) shows there were a total of 1,208 crashes involving 2,557 (0 fatalities and 711 Injuries) on I-84BL between I-84BL at Garrity Boulevard and SH 45 (MP 58.75-61.6) and SH-45 and Karcher Blvd (MP 55.9 to 58.67) and of which only 21 crashes involved a tractor-trailer combination. Ten (10) injuries resulted from the crashes. Implementation of 129,000 pound trucking is projected to reduce truck traffic on this route.

Table 5. I-84BL, HAL Segments in Nampa (Garrity Blvd & 11th Ave)

ROUTE	STATEWIDE RANK	MILE POST	LENGTH (MILES)	COUNTY
11 th S Ave	42	2 nd South St	Intersection	Canyon
Garrity Blvd	88	Stamm Ln	Intersection	Canyon
I-84 BL	90	61.395-61.659	0.264	Canyon
11 th S Ave	42	2 nd South St	Intersection	Canyon
I-84BL	69	55.9 – 56.312	0.412	Canyon

Table 6. I-84BL, Climate Data

PRECIPITATION	ANNUAL AVERAGE
Rainfall	10.7"
Snowfall	9.2"
Days w/ Precipitation	80.1
Days w/ Sun	207

There are no recorded road closures due to weather conditions.

END EVALUATION