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ASSESSMENT OF NEW MEXICO'S FEE STRUCTURE FOR OVERSIZE AND OVERWEIGHT VEHICLES COMPARED TO PRACTICES IN OTHER WESTERN STATES

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16. Abstract

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The research team surveyed Departments of Transportation, Motor Vehicle Divisions, and Offices of Public Safety in the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, Texas, Utah, and Wyoming. In addition, state laws and regulations related to OS/OW vehicles were reviewed. However, the research team did not attempt to determine or quantify direct impacts of OS/OW vehicles on pavements, bridges, and traffic.

Comparison of OS/OW permit structures in the state of New Mexico against the rest of the Western States reveals significant differences in fees, fines, and weight limits. The research team recommends an overhaul of the current permit structure to accommodate the demand for higher maximum permitted weights and to collect sufficient funds to rebuild and maintain the impacted transportation infrastructure. The comparison shows a clear disparity in the fees charged by New Mexico and other western states. In fact, New Mexico charges the lowest fees among neighboring states. A scientific study is needed to quantify the costs associated to the operation of OS/OW vehicles and to develop a revenue-neutral fee structure that can generate sufficient funds to mitigate the impact to transportation infrastructure.

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PREFACE

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DISCLAIMER

This report presents the results of research conducted by the authors and does not necessarily reflect the views of the New Mexico Department of Transportation. This report does not constitute a standard or specification.

Abstract:

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TABLE OF CONTENTS

Introduction	1
EXECUTIVE SUMARY	3
Comparison of oversize/overweight vehicle permit fees and Fines	4
Comparison of oversize/overweight vehicle legal and permitTED weight	Limits7
Summary of OS/OW permit Policies in the US western states	11
ARIZONA	11
CALIFORNIA	15
COLORADO	21
IDAHO	24
MONTANA	26
NEVADA	29
NEW MEXICO	31
NORTH DAKOTA	37
OKLAHOMA	41
OREGON	44
TEXAS	48
UTAH	53
WYOMING	56
Enforcement technologies	60
Conclusions	65
References	67
Appendix 1	71
Arizona	71
California	76
Colorado	80
Idaho	81
Montana	82
Nevada	83
New Mexico	84
North Dakota	88
Oklahoma	93
Oregon	95
Texas	108
Utah	109
Wyoming	111

Appendix 2. Task 1 Survey	119
Communication and survey questions for state DOTs	119
Communication and survey questions for rigging companies	120

LIST OF TABLES

Table 1. Permit comparison table.	3
Table 2. Legal size and weight limits in Arizona.	12
Table 3. Permitted size and weight limits in Arizona.	12
Table 4. Summary of OS/OW vehicle permits available in Arizona	.13
Table 5. Legal size and weight limits in California.	
Table 6. California single permit types, limits, and costs	17
Table 7. California annual permit types, limits, and costs	
Table 8. California repetitive and variance permits, limits, and costs	
Table 9. Number of escort vehicles required for oversize vehicles in California	
Table 10. Legal size and weight limits in Colorado.	
Table 11. Summary of OS/OW vehicle permits available in Colorado	23
Table 12. Legal size and weight limits in Idaho.	24
Table 13. Summary of OS/OW vehicle permits available in Idaho	
Table 14. Legal size and weight limits in Montana	
Table 15. Permitted size and weight limits in Montana	
Table 16. Excess weight permit fees per mile in Montana	
Table 17. Excess weight permit fees for term permits in Montana.	
Table 18. Summary of OS/OW vehicle permits available in Montana.	
Table 19. Legal size and weight limits in Nevada.	
Table 20. Summary of OS/OW vehicle permits available in Nevada	
Table 21. Legal size and weight limits in New Mexico.	
Table 22. Permitted size and weight limits in New Mexico.	
Table 23. Summary of OS/OW vehicle permits available in New Mexico	
Table 24. Legal size and weight limits in North Dakota.	
Table 25. Permitted size and weight limits in North Dakota	
Table 26. Summary of OS/OW vehicle permits available in North Dakota	
Table 27. Legal size and weight limits in Oklahoma	
Table 28. Permitted size and weight limits in Oklahoma.	
Table 29. Summary of OS/OW vehicle permits available in Oklahoma	
Table 30. Legal size and weight limits in Oregon.	
Table 31. Permitted size and weight limits in Oregon.	
Table 32. Summary of OS/OW vehicle permits available in Oregon	
Table 33. Legal size and weight limits in Texas	
Table 35. Number of escort vehicles required for oversize vehicles in Texas.	
Table 36. Summary of OS/OW vehicle permits available in Texas.	
Table 37. General Single Trip Permit Fees in Texas	
Table 38. Oversize overweight factors (OF) in Texas.	
Table 39. Super heavy single-trip permit fee costs in Texas.	
Table 40. Legal size and weight limits in Utah.	
Table 41. Permitted size and weight limits in Utah.	
Table 42. Summary of OS/OW vehicle permits available in Utah	
Table 43. Legal size and weight limits in Wyoming.	
Table 44. Permitted size and weight limits in Wyoming.	
Table 45. Summary of OS/OW vehicle permits available in Wyoming	
Table 46. Number of Current Participating Weigh Stations by State	
Table 47. Class E permit fees in Arizona.	
Table 48. Allowable axle weigh increase in Arizona.	73

	tate trip permit cost in Arizona	
Table 50. The cost	of a single-trip permit for motor vehicles in Arizona.	74
	OW violation in Arizona	
Table 52. Complet	e legal weights as a function of the number of axles and the distance be	tween
the extreme axles	within an axle group	76
Table 53. Overwei	ght fines in the State of California.	77
Table 54. Purple as	nd bonus purple weight limits	78
Table 55. Green ar	nd bonus green weight limits.	79
Table 56. Overwei	gh fines for unpermitted loads.	80
	ght fines for permitted loads	
	erweight fines	
Table 59. Overwei	ght fines in Montana.	82
Table 60. Overwei	ght fines in Nevada.	83
Table 61. Trip tax	in New Mexico	84
Table 62. Overwei	ght fines in New Mexico	86
Table 63. Permitte	d axle weight in North Dakota.	90
Table 64. Permitte	d axle weights for self-propelled units in North Dakota	91
	ght fines in North Dakota	
	r lbs. OW on any axle or GVW	
Table 67.Oregon s	tate and county administrative fee for OS/OW permits	96
	ax fee for vehicle with GVW less than 80,000 lbs	
	ax fee for vehicle with GVW greater than 80,000 lbs	
Table 70. Oregon s	state Permit Weight Table 1	99
Table 71. Oregon s	state Permit Weight Table 2	100
Table 72. Oregon s	state Permit Weight Table 3	101
Table 73. Oregon s	state Permit Weight Table 4	103
	state Permit Weight Table 5	
Table 75. Overwei	ght fines in Texas	108
Table 76. The cost	for super load (GVW greater than 125,000 lbs.) in Utah	109
	r OW overage in Utah	
Table 78. Permitte	d axle weight in Wyoming	113
Table 79. Permitte	d axle weight in Wyoming.	114
Table 80. Permitte	d axle weight in Wyoming.	115
Table 81. Permitte	d axle weight in Wyoming.	116
Table 82. Permitte	d axle weight in Wyoming.	117
Table 83. Overwei	ght fines in Wyoming.	117

LIST OF FIGURES

Figure 1. Comparison of number of OS/OW permit types in the US western states	4
Figure 2. Comparison of maximum single-trip permit flat fee for OS/OW vehicles in the	he US
western states.	5
Figure 3. Comparison of multiple/annual fee for OS/OW permit fees for the western state	tes6
Figure 4. Revenue generated from OS/OW permits in US western states	6
Figure 5. Comparison of fine ranges for OS/OW vehicles in the US western states	7
Figure 6. Maximum legal axle weight.	8
Figure 7. Allowable permitted weight.	9
Figure 8. Maximum allowable permit weights per axle group in kips	22
Figure 9 NM Allowable weight Bridge map.	35
Figure 10. Loading Chart in New Mexico.	36
Figure 11. Permitted axle weight calculation example in Arizona.	73
Figure 12 NM Allowable Lengths .	84
Figure 13 NM Allowable Width, Height, Overhangs	85

INTRODUCTION

The demand for ground freight transportation has escalated over the past several years. The trucking industry faces an increased demand for transporting oversize and overweight (OS/OW) loads on state and federal highways. There is a large degree of variation in permit fees, permit types, and fines across the western states. These differences are in part due to the relative impacts of OS/OW loads on each state's transportation infrastructure. This study reviews and reports the different permit and fee structures in the western states and compares them with the current permitting practices in the state of New Mexico.

The OS/OW loads can impact different parts of a state transportation agency such as operational costs (e.g. staff for permit processing, engineering reviews, etc.), infrastructure damage, and traffic and structural safety concerns. The revenues collected based on existing permit fees and fines may not fully balance these costs and mitigate these concerns. In New Mexico, the growing demand for OS/OW permits and the requests to increase allowable weights on permitted loads makes permitting for OS/OW vehicles a critical issue. For instance, the number of OS/OW trucks using New Mexico State transportation has increased significantly in the state's oil-rich areas due to a recent boost in oil price.

In general, OS/OW permitting and regulations are strictly the responsibility of individual states, allowing them to accommodate the demand for larger loads from the trucking industry. As a result, OS/OW carriers usually face particular rules and policies in every state they cross [1][2]. As a general rule, states should model their permitting and fines structure to collect sufficient revenues to offset the cost of damage inflicted by OS/OW traffic. When the revenues collected from fees and fines are insufficient, coupled with overweight vehicles that operate illegally above maximum permitted weights, the economic burden for maintenance and repair of roads and bridges is transferred to the public. State transportation agencies face the challenge of quantifying the damage to their state's infrastructure and developing effective permitting policies to maintain the existing highways at acceptable service levels [3]. Several methods have been reported and published to quantify damage to bridges and pavements, and the associated costs for different truck weights and configurations [4].

Bridge deterioration due to OS/OW tucks is a growing concern in the United States. Loads that exceed a bridge's design load can both compromise the safety and accelerate the deterioration of the bridge structure. Because of the higher stress imposed to the structure, the service life of the bridge will be significantly reduced, and in some cases it may cause fatigue failure [3]. The effect of overweight vehicle loads may be aggravated in existing bridges because of the presence of other forms of deterioration such as corrosion [5]. Several scientific approaches were used by other states to assess the damage and associated cost of OW vehicles. In general, these approaches are based on either data processing of bridge rating information in bridge inventory databases [6][7] or estimating consumed bridge fatigue-life due to exceeded loads [4][8]. After the reduced-life or consumed-life due to exceeding weighs for distributed bridges is determined, a cost analysis can be performed by considering both bridge replacement cost and annual bridge fatigue damage [8].

Every year, overweight vehicles cause millions of dollars in damage to state highways. In the absence of a damage-based permit fee structure, these damages go uncompensated forcing the state to find additional sources of funding to cover the bill. In Arizona, it has been estimated that overweight vehicles impose somewhere between \$12 million and \$53 million in uncompensated damage per year [9]. In the case of pavement structures, tire loads, axle loads and axle configuration play a more significant role than gross vehicle weight [10][11]. Because of the higher axle loads, unexpected increases in heavy-vehicle traffic volume are considered to be the primary cause of premature pavement failures. Quantifying pavement deterioration and the associated maintenance and reconstruction costs is difficult because the magnitude of

the damage depends on the specific pavement structure. Changes in layer thicknesses and/or material properties can alter the mechanical response of the pavement and its susceptibility to failure under region/site specific climatic conditions [12]. Overweight vehicle impact assessment must combine local designs, materials, and weather information with vehicle specific load configurations.

EXECUTIVE SUMARY

Oversize and overweight (OS/OW) freight permitting policies vary widely across the US western states. On one end of the spectrum are states, such as Texas and Arizona, with permits tailored to different industry impacts. The size and weight limits reflect these industries' impacts, and the permit fees are in some cases correlated to the value of their cargo or the sector they serve. This rigid permitting structure is often tested by individuals seeking to win a competitive advantage by introducing vehicles and loads that are not compliant with available permits. On the other end, states such as Idaho handle excess weight in more economic terms. Instead of setting hard limits, Idaho makes it more expensive to seek permits for loads or load configurations that deviate from industry standards. Most transporters would opt for using conventional loads once the additional permit costs are factored into their cost/benefit analysis, and the extra revenue collected from those who decide otherwise can be used to offset the additional damage caused by their loads. In all cases, states monitor the capacity of their infrastructure to ensure that all permitted loads can be safely moved across roadways and bridges.

The additional costs related to route and weight analysis, escort vehicle certifications, law enforcement traffic control, compliance monitoring, and enforcement also exhibit significant variability across western states. This section offers a comparison of the OS/OW permit policies in New Mexico and other western states. To understand how different states approach permitting fees, information collected from individual states is compared in terms of: (1) permit types; (2) fees; and (3) weight limits. The selected parameters allow for a simple comparison but do not necessarily capture the underlying analyses that may have been used to determine the permit fees and structures in each state. Table 1 summarizes the key components of OS/OW permitting at different western states.

Table 1. Permit comparison table.

States	Multi- trip	Annual	Additional charge	Federal	Escort	Police Esco	
	Permit	Permits	Bridge		Vehicle	Fee (\$))
				Formula	Certificatio	Per	Per
				Used	n cost (\$)	hour	Mile
New	Yes	Yes	+\$0.025/ton/mile*	No	None	None	Non
Mexico							e
Arizona	Yes	None	None	Yes	245.0	61.4	0.45
California	None	Yes	None	Modifie	None	None	
				d			
Colorado	Yes	Yes	+\$10/axle	Yes	231.0	76.65	0.65
Idaho	None	Yes	+\$/mile	Yes	None	None	
Montana	Yes	None	+\$/mile	Yes	None		
Nevada	Yes	Yes	None	Yes	95.00		
North	Yes	Yes	+\$0.05/ton/mile	Yes	None	60.0	0.6
Dakota							
Oklahoma	Yes	Yes	+\$10/1000lbs.	Yes	180.0		
Oregon	None	Yes	+\$0.21 weight	Yes	95.0	None	
			tax/mile+RUAF(\$0				
			.085/mile/axle)				
Texas	Yes	Yes	+\$/mile	Yes	None		
Utah	Yes	Yes	None	Yes	231.00		
Wyoming	Yes	Yes	+\$0.03/mile/ft and \$0.06/mile/ton	Yes	None	None	_

^{*} Only for single trip permits.

The number of permit types can indicate the complexity in the permitting structure at each state. Figure 1 shows the number of permit types used by Western States. While the number of permit types for most states ranges between 5 and 12, California and Texas use significantly more types of permits at 69 and 28 permit types respectively. New Mexico issues 22 OS/OW permit types.

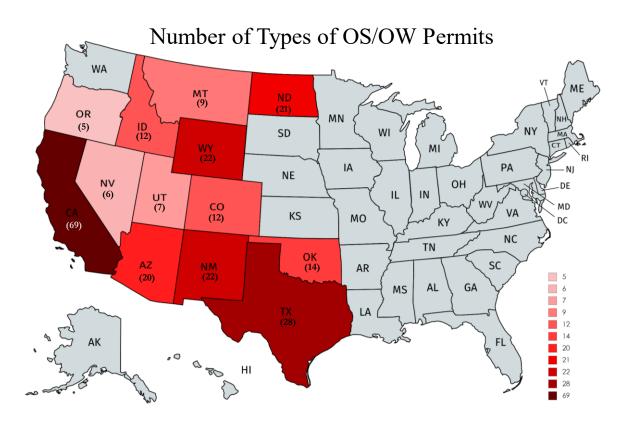


Figure 1. Comparison of number of OS/OW permit types in the US western states.

COMPARISON OF OVERSIZE/OVERWEIGHT VEHICLE PERMIT FEES AND FINES

There are five different categories for single-trip permit fees [3]:

- 1. Flat fee
- 2. Weight based fee
- 3. Weight-distance based fee
- 4. Distance based fee
- 5. Axle based fee

It is difficult to group all single-trip permit types in a single graph because in some cases additional charges are billed based on distance and weight (see Table 1 for additional charges). However, the research team extracted meaningful and simplified values for minimum and maximum flat or base fees used for single-trip permits, see Figure 2. Those states that use weight, weight-distance, distance, and axle-based fees are pointed out in the bar chart. The average minimum and maximum flat fees for a single-trip permit are \$15.65 and \$247

respectively. The minimum and maximum flat fees in the state of New Mexico is \$25.00 and \$35.00 respectively. In New Mexico, an additional weight-distance surcharge is charged for OW permits. Single-trip permits in Texas, Colorado, Oklahoma, and Utah are substantially more expensive than in other western states.

Single-trip permit fees are computed by several methods that vary from state to state. Therefore, it is hard to compare them in a unified and consistent way. A better means of comparison would be to compare the fees by creating statistically meaningful scenarios for truck-types, weights, axle combinations, and distances traveled. However, these comparisons were outside of the scope of this project.

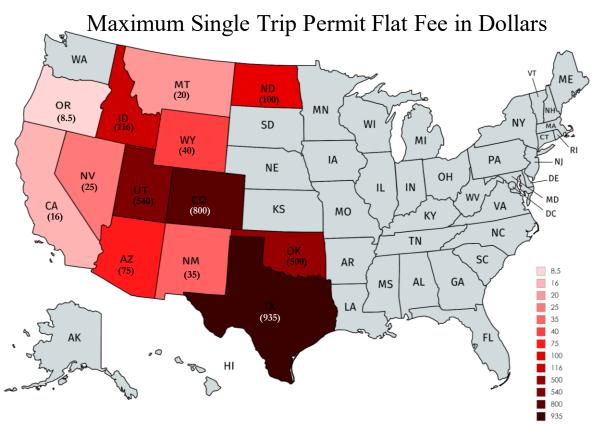


Figure 2. Comparison of maximum single-trip permit flat fee for OS/OW vehicles in the US western states.

Figure 3 compares multi-trip and/or annual permit flat fees for OS/OW vehicles. The figure presents average minimum and average maximum fees charged across the permit types in this category. The average minimum and maximum flat fees are \$87.50 and \$1,024 respectively. The multiple-trip permit flat fee in the state of New Mexico is \$250. Again, Texas and Montana charge substantially higher annual permit flat fees. Figure 2 and Figure 3 show that the states surrounding New Mexico (OK, TX, CO, UT, and AZ) charge higher permit flat fees than New Mexico.

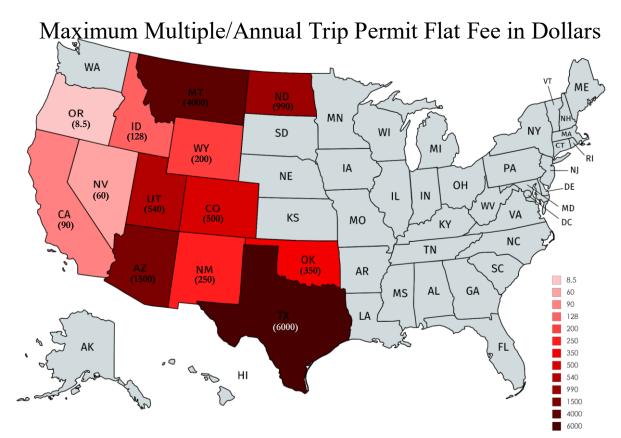


Figure 3. Comparison of multiple/annual fee for OS/OW permit fees for the western states.

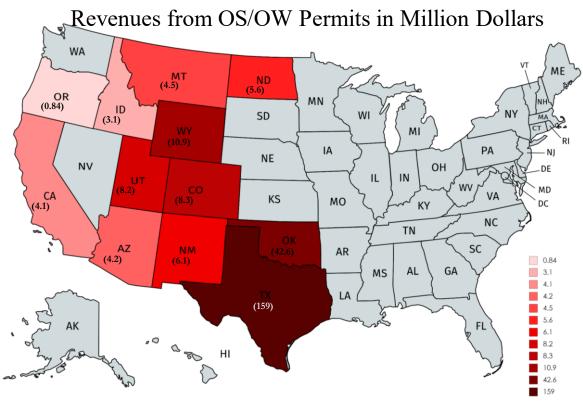


Figure 4. Revenue generated from OS/OW permits in US western states.

Figure 4 shows the revenue generated from OS/OW permits in the western states. Texas, and Oklahoma generate substantially more revenue than other western states. Since the information is not normalized by the number of permits or OW/OS vehicles, it cannot be concluded that the higher amount of revenue in one state provides sufficient funds for maintaining that state's infrastructure at an acceptable service level. In other words, the damage caused by OS/OW vehicles to each state's infrastructure has to be evaluated to assess the necessary funds to maintain bridges and pavements.

Fines are a significant part of OS/OW vehicle traffic regulation. They can encourage operators to secure appropriate permits and help ensure that permitted vehicles comply with the terms established in their permits. Figure 5 shows fines associated to 10,001 lbs. over permitted GVW and charged to vehicle operators in the western states. To be effective, fines need be proportional to fees in order to discourage OS/OW vehicle violations. The proportionality is rather evident when comparing Figure 2, Figure 3 with Figure 5.

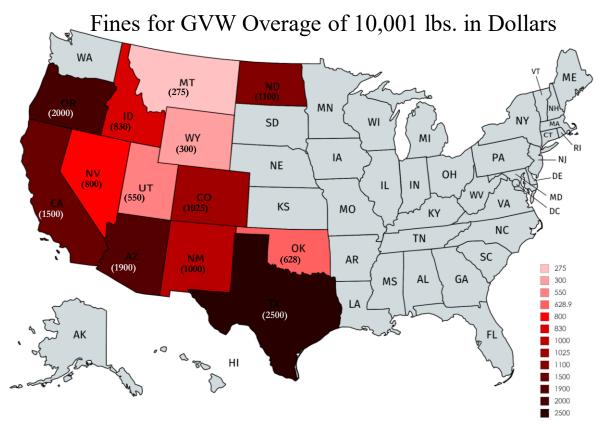
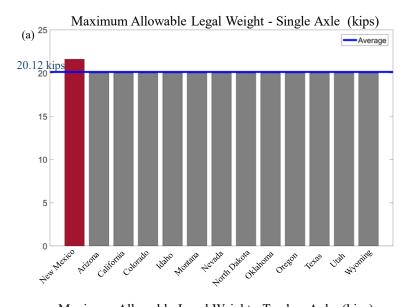
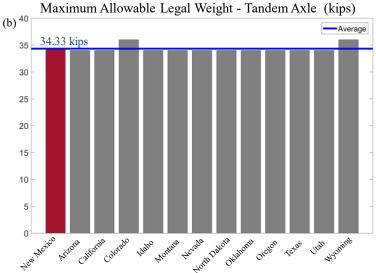


Figure 5. Comparison of fine ranges for OS/OW vehicles in the US western states.

COMPARISON OF OVERSIZE/OVERWEIGHT VEHICLE LEGAL AND PERMITTED WEIGHT LIMITS

The legal and permitted weight limits for gross vehicle weight (GVW), and axle combinations are summarized in Figure 6 and Figure 7. Most of the states use the federal formula for legal weight calculations, so legal weights are very similar across western states. However, the maximum permitted loads vary considerably. New Mexico allows some of the lowest permitted Single, Tandem, and Tridem axle weights.





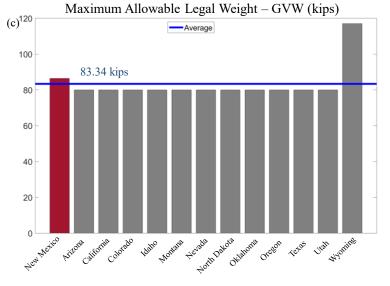
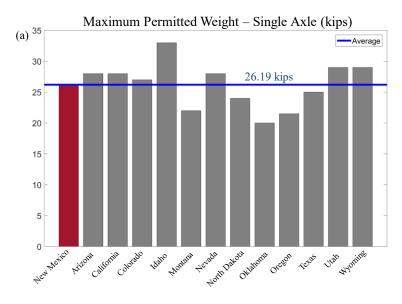
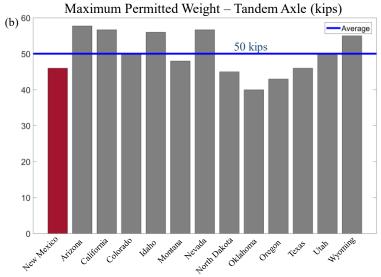


Figure 6. Maximum legal axle weight.





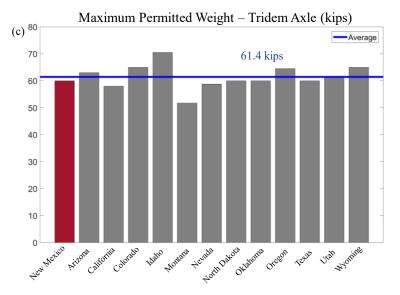


Figure 7. Allowable permitted weight.

New Mexico charges some of the lowest permit fees and associated fines. Since the damage to transportation infrastructure is directly proportional to the load and axle configuration, it is unlikely that the state of New Mexico is recovering sufficient funds to maintain the state network of bridges and pavements impacted by OW traffic. The associated cost of damage to transportation infrastructure must be quantified to create a permitting fee structure that can ensure safe and reliable transportation of goods throughout the state. Failure to collect sufficient revenue to maintain roadways and bridges would lead to progressive deterioration and ultimately impact the ability of OS/OW users and the public to move safely across the state. Determining the appropriate fees required to maintain a revenue-neutral income from OS/OW fees requires a comprehensive study to evaluate the damage to bridges and pavements caused by OS/OW vehicles in New Mexico. Therefore, it would be irresponsible for the research team to make any recommendations regarding permit fees based solely on the comparison with other western states.

SUMMARY OF OS/OW PERMIT POLICIES IN THE US WESTERN STATES

ARIZONA

Arizona has class A-E, G, H, and envelope permits for OS/OW commercial vehicles. The state uses the bridge formula weights defined by the Federal Highways Administration (FHWA) to calculate legal axle weights. Table 2 shows the legal size and weight limits under which no OS/OW permits are required.

Table 3 shows the maximum permitted size and weight limits allowed for movement of vehicles under a valid OS/OW general permit. Arizona uses a specific formula to determine permitted axle weights for overweight vehicles [13]. In the formula, the permitted axle and group weights depend on the spacing between each axle, the axle width, number of tires per axle, and tire width. The values calculated based on the formula are allowed to be increased with specified percentage for wider axles [14] (see Appendix 1).

The class A, class C, and envelope OS/OW permits are the most commonly issued in Arizona. The class A permits can be used as a single-trip or multi-trip permit for vehicles with non-reducible and "specified" load combinations. The permitted gross vehicle weight (GVW) for class A permits ranges from 80,000 to 250,000 lbs. Permitted size limits for class A are: 14 ft. in width, 16 ft. in height, and a length of less than 120 ft. The envelope permit's OW and OS limitations are the same as those of the class A permit. The main difference, however, is that the actual load in an envelope permit does not need to be specified if it is within permitted load limits. Envelope permits can be issued for a period of 30 days or 1 year. All envelope permitees must have an Arizona business address. The class C permit is a single-trip permit for vehicles with GVW exceeding 250,000 lbs. or exceeding the size limits established for a class A permit. Class C permits require an engineering analysis which incurs an additional fee charged by the Arizona Department of Transportation (ADOT) (see the explanation under Table 4).

Out of state based interstate carriers entering Arizona are required to provide evidence of a valid Arizona registration or International Registration Plan (IRP) credential or a fuel tax license (see Appendix 1). Table 4 summarizes key information about all of the different OS/OW permit types issued in Arizona. The table makes it easy to compare permit costs as well as the permitted size and weight limits. Permit types in bold are of particular interest to NMDOT, and are presented in more detail [15].

According to the Arizona Statutes [16][17], a vehicle carrying a load heavier/larger than permitted can be penalized. The fine depends on the actual excess weight over GVW and/or axle weight. For example, a 1001-1,250 lbs. weight overage will be fined \$100. This charge is \$1,400+\$100 per 1,000 lbs. overage for weight exceeding 5,001 lbs. (see Table 51 in Appendix 1 for detailed information).

Escort vehicles are required by ADOT under certain circumstances. The ADOT determines whether one or more escort vehicles must accompany an OS/OW vehicle by considering: (1) roadway conditions; (2) overall dimensions; (3) need for frequent stops; (4) concern for public safety; and (5) time of transport [14]. According to the Arizona Trucking Association (ATA), the only fee charged to certify a vehicle is associated to a course that the driver must satisfactorily be able to drive an escort vehicle. The registration cost of this class is \$245. In cases where the state deems law enforcement traffic control to be needed, Arizona can provide escorts for OS/OW vehicles at a rate of \$61.40 per hour/per trooper plus \$0.45 per mile/per vehicle.

According to ADOT, the amount of revenue generated in Arizona for fiscal year 2018 from all OS/OW permit types was \$4.2 million. Revenues go into the Highway User Revenue Fund to be used for road and highway maintenance.

Table 2. Legal size and weight limits in Arizona.

Vehicle/Axle Type	Legal Limit
Width	
All vehicles	8 ft. 6 in.
If the maximum width of the route is further restricted	8 ft.
Height	
All vehicles	14 ft.
If the maximum height of the route is further restricted	13 ft. 6 in.
Length	
Straight trucks	40 ft.
Truck tractor-semitrailer combination and truck tractor-semitrailer-	57 ft. 6 in. semitrailer
forklift combination in interstate system	
Truck tractor-semitrailer combination and truck tractor-semitrailer-	53 ft. semitrailer; or 65 ft.
forklift combination in other highways	overall combination
	if more than 53 ft.
Truck tractor - semitrailer - full trailer combination	28 ft. 6 in. per trailer
Vehicle transporter combination	75 ft.
Front overhang	3 ft.
Rear overhang	6 ft.
Weight	
Gross vehicle weight (GVW)	80,000 lbs.
Single axle	20,000 lbs.
Tandem axle ¹	34,000 lbs.
Steering axle	20,000 lbs.
Tridem and more axle	Federal bridge formula

¹This value is for a minimum spacing of 4 ft. between axles within the group

Table 3. Permitted size and weight limits in Arizona.

Size and Weight Considerations ¹	Permitted Limit
Width	
Maximum width permitted	14 ft.
Height	
Maximum height permitted on holidays	16 ft.
Length	
Maximum length permitted on holidays	120 ft.
Weight ²	
Single axle	28,000 lbs.
Tandem axle	57,750 lbs.
Tridem axle ³	63,000 lbs.
Quadrem axle	68,250 lbs.
Quint axle	73,500 lbs.
Six or more axles	TBD

¹ The permitted size and weights listed are for state routes in Arizona, the limitations may change for local routs. For example, in Phoenix the permitted size limits are different.

² GVW and axle weights greater than these values require engineering analysis in permit Class C.

³ On special routes identified in the Arizona code, the maximum tridem axle group weights cannot exceed 60,000 lbs. Greater axle weights require an engineering analysis in permit Class C.

Table 4. Summary of OS/OW vehicle permits available in Arizona.

Permitte			Permitted Size Limits (ft.)			Permitted Weight limits (lbs.) ¹						Annual	Cost (\$)
Permit Type Height Width Length				GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >			
Class A	Single, four-day Multiple 30-day	<16	<14	<120	<80,000	28,000	57,750	63,000	68,250	73,500	TBD	N	15 30
Class A	Single, four-day Multiple, 30-day	<16	<14	<120	>80,000 <250,000	28,000	57,750	63,000	68,250	73,500	TBD	N	75 75
Class B		14.66	12.5	80	80,000	28,000	57,750	63,000	68,250	73,500	TBD	Y	360
	Single OS	>16	>14	>120	<250,000								15
Class C ²	Single OW	<16	<14	<120	>250,000	28,000	57,750	63,000	68,250	73,500	TBD	N	75
	Single OS/OW	>16	>14	>120	>250,000								75
Class D ³		<16	<14	<120	250,000	28,000	57,750	63,000	68,250	73,500		Y	600
	Single or 30- day,	<16	<14	<95	<111,000	00 28,000	57,750	63,000	00 68,250	73,500	TBD	N	75
C1 E4	Annual	<16	<14	<95	<111,000							Y	360
Class E ⁴	Annual	<16	<14	<95	<123,500							Y	360
	Single or 30-day	<16	<14	<95	<129,000							N	75
	Annual	<16	<14	<95	<129,000							Y	600
Class G ⁵	Single, four-day Multiple, 30-day Annual	>8.5 <10	<14	<120	80,000	28,000	57,750	63,000	68,250	73,500	TBD	N N Y	30 360
Class H ⁶		>8.5 <10	<14	<40	80,000	28,000	57,750	63,000	68,250	73,500	TBD	Y	45
	30-day OS	<16	<14	<120	80,000							N	150
Envelope ⁷	30-day OS/OW	<16	<14	<120	<250,000	28,000	57,750	63,000	68,250	73,500	TBD	N	500
Puvelohe	Annual OS	<16	<14	<120	80,000	20,000	3/,/30	05,000	00,230	/3,300	UU IBD	Y	750
	Annual OS/OW	<16	<14	<120	<250,000							Y	1500

¹Arizona uses a specific formula (see Appendix 1) to determine permitted axle weights for OW vehicles. The values in this table are based on 4 ft. axle spacing, 8 tires per axle configuration or four 14-inch wide tires, and axle width of 10 ft.

² In addition to Class C permit fee, an engineering analysis fee will be charged by ADOT. This charge is \$15 for OS vehicle with width or height less than 18 ft., \$25 for OS with width or height more than 18 ft., \$75 per 50-mile increment for OW vehicles and analysis done by non-ADOT and reviewed by ADOT, and \$125 per 50-mile increment when analysis is done by ADOT. There is contradictory information about Class C permits in the Arizona DOT website. Based on communication with the Arizona DOT, the Class C Permit fee is \$30 for loads no greater than 18 feet in height and width and 80,000 pounds. Loads over 80,000 pounds are \$90. Loads greater than 18 feet in height and width, but not over 80,000 pounds, are \$40. Loads greater than 18 feet in height and width and 80,000 pounds are \$100.

³ This permit is for self-propelled mobile crane or drilling rig units. Proof of GVW is mandatory.

⁴ This permit is for Reducible Multiple Trailer (longer combination vehicles (LCVs)).

⁵ This permit is for Specified Vehicle or Combination with Reducible Load and Over Legal Width.

⁶ This permit is for specified water- craft load registered with Arizona Game & Fish or U.S. Coast Guard. ⁷ This permit is for vehicles with "non-specific" and non-reducible loads.

CALIFORNIA

The State of California issues four main types of permits: single trip, annual, repetitive and variance permits. However, there are multiple sub permits within the categories of single trip, annual, and repetitive permits. Legal weight limits presented in Table 5 summarize the upper and lower limits of axle weights, a complete list of legal weights is provided in the appendix section in Table 52. Weight limits established by the state for axle groups depend on the distance between axles. As the distance increases the legal weight increases as well. The reported limits in Tables 6, 7, and 8 correspond to axle configurations defined by NMDOT, and are provided only to allow for a simple comparison. When the axles separation exceeds a certain distance, they are considered single axles, and the maximum legal weight for the group is calculated by multiplying the legal limit for a single axle by the total number of axles. Single-trip OS/OW permits are processed online via the STARS2 Permitting System; all other permits need to be faxed to Caltrans Permit Issuance Branch. Table 6 summarizes key information about single-trip permits issued in California. Table 7 presents annual permits types, and Table 8 presents repetitive and variance permits.

Table 54 and Table 55 of the appendix present the complete weight limits for all permitted axle configurations. The variance permit application is required for vehicles exceeding the maximum size and weight limits established by the state and it is the equivalent to New Mexico's super load permit. Caltrans reviews variance permit applications to determine if the loads can be safely moved across or within the state. The Caltrans Structure Maintenance and Investigations Division is responsible for conducting a load-specific structure review when the variance permit application exceeds purple load limits. If approved, the variance permit requires a law enforcement escort. Size and speed limits that trigger a California Highway Police escort requirement are summarized in Table 9.

There are no escort vehicle certification requirements in the State of California. However, private escort vehicles used to accompany an OW or OS load must meet several equipment requirements established by the state. There are 110 data collection weight in motion (WIM) sites in operation across the state of California. Caltrans WIM systems provide GVW (gross vehicle weight), individual axle weights, vehicle speed, overall length, axle spacing, and vehicle classification. Data collected can be used to assess weight violations. All the sensors used in the WIM systems are either bending plates (rigid pavements) or piezo sensors (flexible pavements). The WIM systems used in California are not portable. Concerns regarding accuracy and short service life under high heavy truck volumes forced Caltrans to avoid the use of portable systems [18].

OS/OW fines in the state are assessed incrementally depending on the actual excess weight per axle group. Fines for violating any of the terms specified in an OS/OW permit incur a \$500 penalty. The additional overload fine can range from as little as \$20 for loads exceeding axial limits by up to 1,000 lbs. to \$0.20/lb. for loads exceeding 10,000 lbs. [19]. A complete list of fines is presented in the appendix section in Table 53.

In 2017, the state collected \$4,100,000 in OS/OW permits. According to the Chief of Commercial Vehicle Operations, all the revenue generated is allocated to the State Highway Account.

Table 5. Legal size and weight limits in California.

Vehicle/Axle Type	Legal Limit
Width ¹	
General rule	8.5 ft.
Height ²	
General rule	14 ft.
Length ³	
Single unit general rule	40 ft.
Vehicle combination general rule	65 ft.
Weight	
Gross vehicle weight	80,000 lbs.
Single axle ⁴	20,000 lbs.
Tandem	34,000 lbs.
Tandem (> 10 ft. spacing between the extremes)	40,000 lbs.
Tridem ⁵	42,500 lbs.
Tridem (> 32 ft. spacing between the extremes)	60,000 lbs.
Quadrem ⁵	53,500 lbs.
Quadrem (> 57 ft. spacing between the extremes)	80,000 lbs.
Quint ⁵	56,000 lbs.
Quint (> 51 ft. spacing between the extremes)	80,000 lbs.
Six ⁵	59,500 lbs.
Six (> 45 ft. spacing between the extremes)	80,000 lbs.
> 2-axle groups	Varies

¹ see exceptions in the California Vehicle Code Division 15, Chapter 2. ² see exceptions in the California Vehicle Code Division 15, Chapter 3.

³ see exceptions in the California Vehicle Code Division 15, Chapter 4. ⁴ minimum spacing of 8.5 ft. between outer axles.

⁵ assuming 4 ft. spacing within an axle group.

Table 6. California single permit types, limits, and costs [20][21][22].

D AT	Permitte	ed Size Li		iniorma single p		itted Weig			<u> </u>		C (f)
Permit Type	Height	Width	Length	GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >	Cost (\$)
Batch Plants	3 in. VC	14		Purple	28,000	56,700	58,800	60,900			16
Boats	3 in. VC	15	L	Purple	28,000	56,700	58,800	60,900			16
Concrete Panels - Horizontal	L	12	L	L	L	L	L	L			16
Concrete Panels - Inclined	3 in. VC	12	L	L	L	L	L	L			16
Concrete Panels - Vertical	3 in. VC	L	L	L	L	L	L	L			16
Concrete Piles	L	L		Formula B							16
Concrete Pipe	3 in. VC	14	L	Purple	28,000	56,700	58,800	60,900			16
Concrete Pump	L	10	L	Green or un- bonussed Purple	28,000	56,700	58,800	60,900			16
Concrete Utility Boxes	3 in. VC	14	L	Purple	28,000	56,700	58,800	60,900			16
Concrete Vaults	3 in. VC	14	L	Purple	28,000	56,700	58,800	60,900			16
Equipment	3 in. VC	14	135	Purple	28,000	56,700	58,800	60,900			16
Conveyors	3 in. VC	14	135	Purple	28,000	56,700	58,800	60,900			16
Cranes	L	13	80	Purple	28,000	56,700	58,800	60,900			16
Drill Rigs	3 in. VC	14	L	Purple	28,000	56,700	58,800	60,900			16
Farm Tractors	3 in. VC	14	L	Purple	28,000	56,700	58,800	60,900			16
Fixed Load Vehicle	3 in. VC	14	HVI	Purple	28,000	56,700	58,800	60,900			16
Fixed Width	3 in. VC	14.5	HVI	Purple	28,000	56,700	58,800	60,900			16
Laminated Wood Beams	L	L	135	Purple	28,000	56,700	58,800	60,900			16
Lettuce Coolers	3 in. VC	14	HVI	Purple	28,000	56,700	58,800	60,900			16
Log Loaders	3 in. VC	10	L	Purple	28,000	56,700	58,800	60,900			16
MRI Mobile Units	L	14	85	Purple	28,000	56,700	58,800	60,900			16
Manufactured Homes	3 in. VC	14	105	6,000 lbs. per axle							16
Military Tanks	3 in. VC	14	135	Purple	28,000	56,700	58,800	60,900			16
Military Vehicles - Oversize Tactical	3 in. VC	14	L	Purple	28,000	56,700	58,800	60,900			16
Radioactive Waste	L	L	135	Purple	28,000	56,700	58,800	60,900			16
Reeled Tubing	3 in. VC	14	L	Purple	28,000	56,700	58,800	60,900			16
Scrapers	3 in. VC	14.5	135	Purple	28,000	56,700	58,800	60,900			16

Stackers	3 in. VC	14	135	Purple	28,000	56,700	58,800	60,900		16
Steel Beams			135							16
Steel Plate - Horizontal	L	12	L	L	L	L	L	L		16
Steel Plate - Inclined	3 in. VC	12	L	L	L	L	L	L		16
Steel Plate - Vertical	3 in. VC	L	L	L	L	L	L	L		16
Steel Poles			135							16
Swimming Pools	14.5	14	L	L	L	L	L	L		16
Trees	L	12	L	L	L	L	L	L		16
Tires (oversize)	3 in. VC									16
Tow Truck - 2-axle	3 in. VC	14	135	22,500 lbs. on drive axle	22,500					16
Tow Truck - 3-axle	3 in. VC	14	135	Purple	28,000	56,700	58,800			16
Trailer Coach	L	12	L	6,000 lbs. per axle						16
Trusses - Horizontal	L	12	L	L	L	L	L	L		16
Trusses - Inclined	3 in. VC	12	L	L	L	L	L	L		16
Trusses - Vertical	3 in. VC	L	L	L	L	L	L	L		16
Wall Sections - Horizontal	L	12	L	L	L	L	L	L		16
Wall Sections – Horizontal	3 in. VC	12	L	L	L	L	L	L		16
Wall Sections - Horizontal	3 in. VC	L	L	L	L	L	L	L		16

L: legal limits
VC: vertical clearance

1 California calculates the maximum permitted axle group weight based on the distance between the first and last axle in the group. Reported limits assume separation distances of: 14ft. for Tandem, 16 ft. for Tridem, and 18 ft. for Quad axles.

Table 7. California annual permit types, limits, and costs [20][21][22].

Dameit Tema		ed Size Li		a annuai perini	Permitted Weight limits (lbs.) ¹								
Permit Type	Height	Width	Length	GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >	Cost (\$)		
10 ft. Wide Manufactured Home ²	14	10	105.	6,000 lbs./axle							90		
10 ft. Wide Manufactured Home ¹	14	12	105.	6,000 lbs./axle							90		
Park Trailer Coach ¹	14	12	L	6,000 lbs./axle							90		
Statewide Extra Legal ²	14	12	L	L	L	L	L	L			90		
Local Extra Legal ³	14	12	L	L	L	L	L	L			90		
Local Extra Legal 8/12 Wheel Semi ³	14	12	L	Green	24,000	49,140	50,960	52,780			90		
Local Extra Legal 16 Wheel Semi ³	14	12	L	Bonused Green	30,000	52,000	63,700	65,975			90		
Fixed Width Semi	14	12	L	Green	24,000	49,140	50,960	52,780			90		
Unladen Multi-Vehicle Statewide	14	10	85	L	L	L	L	L			90		
Unladen Multi-Vehicle Local ³	14	11	110	L	L	L	L	L			90		
Truck Cranes 10ft. Wide Green ³	14	10	80	Green	24,000	49,140	50,960	52,780			90		
Truck Cranes > 10ft. Wide Green ³	14	11.3	80	Green	24,000	49,140	50,960	52,780			90		
Truck Cranes Green ³	14	11.3	80	Green	24,000	49,140	50,960	52,780			90		
Truck Cranes 10ft. Wide Purple ⁴	14	10	80	Purple	28,000	56,700	58,800	60,900			90		
Truck Cranes > 10ft. Wide Purple ⁴	14	11.3	80	Purple	28,000	56,700	58,800	60,900			90		
Truck Cranes Purple ⁴	14	11.3	80	Purple	28,000	56,700	58,800	60,900			90		
Fixed Load Green ³	L	10	L	Green	24,000	49,140	50,960	52,780			90		
Fixed Load Purple ⁴	L	10	L	Purple	28,000	56,700	58,800	60,900			90		
Tow Truck 2-axle ³	L	L	L	22,500 single - Green	22,500	49,140					90		
Tow Truck 3-axle ³	L	L	L	Green	24,000	49,140	50,960				90		

L: Legal limit

¹ California calculates the maximum permitted axle group weight based on the distance between the first and last axle in the group. Reported limits assume separation distances of: 14ft. for Tandem, 16 ft. for Tridem, and 18 ft. for Quad axles.

² Limited range

³ 100-mile radius

⁴ 75-mile radius

Table 8. California repetitive and variance permits, limits, and costs [20][21][22].

D	Permitted Size Limits (ft.)				Permitted Weight limits (lbs.) ¹									
Permit Type	Height	Width	Length	GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >	Cost (\$)			
Two-vehicle Combination Only ¹	L	12	L	Bonus Green	30,000	52,000	63,700	65,975			90			
Any Vehicle Combination ¹	3 in. VC	14	135	Bonus Purple	35000	60,000	73,500	76,125			90			
For Pipe ¹	3 in. VC	14	135	First 10 loads Purple; remaining Green	28,000	56,700	58,800	60,900			90			
Variance Permit	> 17	> 15	> 135	> Purple over 13 axles							Varies ²			

VC: Vertical Clearance from the lowest structure along the permitted route

Table 9. Number of escort vehicles required for oversize vehicles in California.

Route Class	Width	Length	Height	Speed						
Yellow	> 16'0"	*	*							
Green	> 15'0"	*	*	California Highway						
Blue	> 15'0"	> 135'0"	> 17'0"	Police Escort may be required						
Brown	> 15'0"	> 135'0"	> 17'0"	104						
Red Operational Restriction										

^{*} California Highway Police escorts are required anytime opposing lanes are used

L: Legal limit

¹ Range: from A to B to C and return

² There is a \$16 flat fee + \$50/hr for over-size analysis by the permit office + \$50/hr engineering analysis for overweigh. Additional charges are billed by the California Highway Police whenever trooper escorts are required.

COLORADO

The Colorado Revised Statutes Title "Vehicles and Traffic" governs the State issued OS/OW permits. Any vehicle or load exceeding the legal limits established in Table 10 for size and/or weight are required to secure a permit. Bridges in the state are catalogued according to allowable weight capacity into orange, yellow, and white categories. Figure 8 shows the axle and axle-group weight limits for each category. OS/OW permits are available for purchase online through the Colorado Oversize Overweight Permitting and Routing (COOPR) website. Fines issued for excess weight violations depend on the actual excess weight. Unpermitted loads exceeding legal weight by up to 3,000 lbs. are issued a \$35 fine. The penalties for unpermitted overweight loads increase with the excess weight. For instance, a 15,000 lbs. excess weight violation can cost \$2,454. In cases where a valid permit accompanies the vehicle, but the load exceeds the permitted weight, the state issues fines that can range between \$97 (1 to 2,500 lbs. in excess) and over \$550 (7,501 to 10,000 lbs.) The fine for permitted loads exceeding 10,000 lbs. is \$550 + \$441 for every 1,000 lbs. of weight over 10,000 lbs., Table 56 and Table 57 in the appendix section show all the overweight fines [23].

According to the Motor Carrier Safety Department in Colorado, OS/OW loads that require a police escort must use off-duty police officers. Fees associated to the police escort include an hourly fee of \$76.65 in addition to \$0.65/mile. Both time and mileage start accruing the moment that the officer leaves his residence and stop once the officer returns home. In cases where only private escort vehicles are required, these vehicles and their drivers must be certified by state-approved agencies. Typical costs associated to the certification of vehicles and drivers range from \$231 to \$322 [24].

According to Colorado DOT, the state collected about \$8.3 million in 2018 from OS/OW permits. A portion of the \$8.3 (approx. \$1.2 million) is a surcharge that goes to Bridge Enterprise. These funds come from a surcharge on all single trip permits.

Table 10. Legal size and weight limits in Colorado [25].

Vehicle/Axle Type	Legal Limit
Width	
General rule	8.5 ft.
Height	
General rule	14.5 ft.
Length	
Single unit	45 ft.
Semitrailer	57.3 ft.
Vehicle combination	28.5 ft. per unit
Weight	
Gross vehicle weight	80,000 lbs.
Gross vehicle weight*	85,000 lbs.
Single axle	20,000 lbs.
Tandem	36,000 lbs.
Tandem ¹	40,000 lbs.
> 2-axle groups ²	Varies

¹ Colorado non-interstate highways

² As determined by the Federal Bridge Formula

		Dista	nce (d) l	Betw eer	Axle G	roups			
8	' < d < 1	0'	10	$0' \le d \le 1$	2'		d ≥ 12'		Axle Groups
Orange	Yellow	White	Orange	Yellow	White	Orange	Yellow	White	
22	25	27	22	25	27	22	25	27	Single Axle O
36	39	43	39	43	47	42	46	50	Tandem Axle
49	53	58	53	58	63	55	60	65	Triple Axle
52	57	62	57	62	68	60	66	72	Four or more Axle

Figure 8. Maximum allowable permit weights per axle group in kips [Colorado Bridge Weight Limit Map, 2017].

Table 11. Summary of OS/OW vehicle permits available in Colorado [26][23].

D '4 T	Permitte	d Size Li	mits (ft.)	•	Perm	itted Weigl	ht limits (l		,, ,		Annual	C - + (f)**
Permit Type	Height	Width	Length	GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >	Annual	Cost (\$)**
Single Trip OS ¹	R	R	R	L	L	L	L	L	L	L	N	30
Single Trip OS-OW ^{1,2}	R	R	R	200,000	27,000	50,000	65,000	72,000			N	30+10/axl
Single Trip OW ^{1,2}	L	L	L	200,000	27,000	50,000	65,000	72,000			N	30
Single Trip (Quad-axle)	L	L	L	110,000	27,000	50,000	65,000	72,000			N	30+10/axl.
Single Trip (2/3-axle)	L	L	L	97,000	27,000	50,000	65,000	72,000			N	30+10/axl.
Special ³	R	R	R	500,000	27,000	50,000	65,000	72,000			N	250
Super Load ⁴	R	R	R	> 500,000	27,000	50,000	65,000	72,000			N	800
Annual (OS-OW) ¹	16	17	130	200,000	27,000	50,000	65,000	72,000			Y	400
Annual OW (Quad-axle)	L	L	L	110,000	27,000	50,000	65,000	72,000			Y	500
Annual OW (2/3-axle)	L	L	L	97,000	27,000	50,000	65,000	72,000			Y	500
Annual Over Size	16	17	130	L	L	L	L	L	L	L	Y	250
Company Fleet Permit ⁵											Y	3,000

^{*} Colorado uses a rating system for infrastructure that catalogues bridges into orange, yellow and white, see Figure 7. The axle weights reported correspond to the white category.

^{**} The reported costs were obtained by calling the Colorado DOT Permit Office.

R: Maximum height, width, and length are determined based on a route analysis.

¹ Non-divisible loads only.

² Maximum axle and axle-group weights depend on the bridge categories along the route. Permitted axle weight limits are posted for each bridge in the Colorado Bridge Weight Limit map following the color categories presented in Figure 8.

³ Requires a minimum of 1 escort vehicle in the front and 1 escort vehicle in the back. Additional escort vehicles and/or State Patrol escorts may be required.

⁴ Route and bridge study is required to determine the weight and size limits. The studies are included in the permit cost.

⁵ Special discount for 10 annual permits. Size and weight limits governed by the type of annual permit. Additional vehicles (>10) can be added at \$300/ea.

IDAHO

OS/OW permits in the state are issued by the Division of Motor Vehicles at the Idaho Transportation Department to any vehicle or load exceeding the legal size and weight limits described in Table 12. Actual weight limits in Idaho are determined for the specific load an axle configuration, similar to the procedure in California. Table 13 compiles all relevant information to the OS/OW permits available in the state. Whenever a vehicle exceeds legal weight limits, the permit cost includes a mileage-based highway use fee. This fee depends on the excess weight and the way the weight is distributed per axle. *The highway use fee starts at* \$0.04 per mile and can be as high as \$45.54 per mile [27].

Fines issued to vehicles that exceed permitted weights vary depending on the excess weight. Fines can range from \$5 for vehicles that exceed weight limits by up to 1,000 lbs. to \$2,500 + \$0.30/lb. for loads exceeding 20,000 lbs. [28], (see Table 58).

An escort is needed when the vehicle is operating on a 2-lane highway if the vehicle is over 12 ft. high, if the vehicle is over 100 ft. long, or if the vehicle is over 14 ft. wide. On interstate highways, escorts are required if the vehicle is over 15 ft. wide, over 115 ft. long, or over 16 ft. high. Idaho does not charge for escort vehicle certifications [24].

According to Idaho DOT, the amount of revenue generated in this state for the fiscal year 2018 from all OS/OW permit types was \$3.1 million. Revenues are collected into the Highway Distribution Account. This fund then distributed according to legislative mandate for use on road projects/maintenance according to the needs of the jurisdiction receiving the funds.

Table 12. Legal size and weight limits in Idaho [24].

Vehicle/Axle Type	Legal Limit
Width	
General rule	8.5 ft.
Height	
General rule	14 ft.
Length	
Single unit	45 ft.
Semitrailer	53 ft.
Double trailer	68 ft.
Dromedary tractor stinger steered	75 ft.
Auto or boat transporter stinger steered	75 ft.
Saddlemount combinations (national network)	97 ft.
Truck tractor w/ stinger steered pole trailer or log dolly	75 ft.
Weight	
Gross vehicle weight	80,000 lbs.
Gross vehicle weight (non-interstate highways) ¹	Varies
Single axle	20,000 lbs.
Tandem	34,000 lbs.
Tridem	48,000 lbs.
Quad	58,000 lbs.
Quint	68,000 lbs.

¹ Idaho uses a spread sheet to estimate the legal GVW based on the actual axle loads and axle spacing.

Table 13. Summary of OS/OW vehicle permits available in Idaho [24].

D '4 T	Permitte	d Size Li	mits (ft.)			Perm	itted Weigl	ht limits (l	bs.)	_		Annual	Cost (\$)*
Permit Type	Height	Width	Length	GVW	in. width	Single	Tandem	Tridem	Quadrem	Quint	Six >	Annual	Cost (\$)*
Single Trip OS	R	R	R	L		L	L	L	L	L	L	N	28
Round Trip OS	R	R	R	L		L	L	L	L	L	L	N	33
Single Trip OS/OW ¹	R	R	R	R		R	R	R	R	R	R	N	71+\$/mile
Round Trip OS/OW ¹	R	R	R	R		R	R	R	R	R	R	N	81+\$/mile
Single Trip VL	>15	>16	>110	L		L	L	L	L	L	L	N	71
Round Trip VL ²	>15	>16	>110.	L		L	L	L	L	L	L	N	81
Single Trip OW-VL ¹	>15	>16	>110	R		R	R	R	R	R	R	N	103+\$/mile
Round Trip OW-VL ^{1,2}	>15	>16	>110	R		R	R	R	R	R	R	N	116+\$/mile
Annual OS	15	16	110	L		L	L	L	L	L	L	Y	43
Annual OW ³	L	L	L	129,000		L	L	L	L	L	L	Y	43+\$/mile
Annual OW-extra length ^{3,4}	L	L	>65	R		R	R	R	R	R	R	Y	53+\$/mile
Annual OS/OW ³	15	16	110	R		R	R	R	R	R	R	Y	128+\$/mile

^{*} The reported costs were obtained by calling the Idaho DMV Overlegal Permit Office.

VL: Very Large.

L: Legal limit

R: Route Analysis required. The Bridge Department analyzes overweight requests that exceed established bridge ratings at no cost but limits the number of times analysis is done (three times). If an applicant desires to submit another request, s/he must submit a load analysis from a private engineering firm.

¹ Non-divisible loads.

 ² Second trip within 7 days from the first trip.
 ³ Mileage must be reported quarterly.
 ⁴ Divisible loads.

MONTANA

Montana assesses a weight fee for any vehicle operating in the state. The fee accompanies yearly licensing and registration fees and can vary from \$7/yr for vehicles rated by the manufacturer under ½ ton to \$750/yr for vehicles operating at the legal GVW limit of 80,000 lbs. Exceeding the legal GVW results in an additional \$100 plus \$46/ton above 80,000 lbs. [29]. The state also requires transporters of loads that exceed the legal size and weight limits to acquire an OS/OW permit. A temporary fuel or licensing permit may also be required for vehicles not registered in Montana. Table 14 summarizes the State's limits for legal size and weight and Table 15 presents the permitted limits. Any load over. 10,000 lbs. more than the axle weight limit requires a route and weight analysis from the Montana Department of Transportation.

Fines for OS/OW infractions range from \$30 for loads in excess of up to 2,000 lbs. to \$2,000 for vehicles in excess of 25,000 lbs. No vehicle certification is needed for escort cars in Montana [23].

According to MDOT, in 2018, Montana collected \$4,497,203 in OS/OW related fees. Revenue generated by OS/OW permits is recorded in the highway state special revenue non-restricted account. This account historically has been utilized largely for the Maintenance Division's pavement preservation, in addition to multiple small planning-related programs, which cannot be paid from the highway state special revenue restricted account.

Table 14. Legal size and weight limits in Montana.

Vehicle/Axle Type	Legal Limit
Width	
General rule	8.5 ft.
Height	
General rule	14 ft.
Length	
Single unit	55 ft.
Semitrailer	53 ft.
Vehicle combination (doubles)	28.6 ft. per unit
Combined trailer length	61 ft.
Auto transporter	75 ft.
Overall length for all other combinations	75 ft.
Weight ¹	
Gross vehicle weight	80,000 lbs.
Single axle	20,000 lbs.
Tandem	34,000 lbs.
> 2-axle groups	Varies

¹ Axles over 11,000 lbs. must have dual tires

Table 15. Permitted size and weight limits in Montana.

Size and Weight Considerations	Permitted Limit					
Width						
Non-reducible loads	15 ft.					
Small baled hay	9.5 ft.					
Large hay bales (round or square)	12 ft.					
All other reducible loads	9 ft.					
Height						
Maximum height permitted	14.5 ft.					
Large hay bales (round or square)	15 ft.					
Length						
Single power unit (non-reducible)	120 ft.					

Single semitrailer	57 ft.
Truck-Trailer (all highways)	95 ft.
Non-divisible Loads (all highways)	120 ft.
Rocky Mountain doubles (combined trailer length)	81 ft.
Hay on double trailers	88 ft.
Combination doubles	100 ft.

Table 16. Excess weight permit fees per mile in Montana [29].

Total Excess Axle Weight (lbs.)	Cost per mile (\$/mile)
5,000	0.14
10,000	0.28
15,000	0.42
20,000	0.56
25,000	0.70
30,000	0.84
35,000	0.98
40,000	1.12
45,000	1.26
50,000	1.40
55,000	1.54
60,000	1.68
65,000	1.82
70,000	1.96
75,000	2.10
80,000	2.24
85,000	2.38
90,000	2.52
95,000	2.66
100,000	2.80
Over 100,000	2.80+3.50/5,000lbs.

OW fees are assessed in increments of 25 miles.

Table 17. Excess weight permit fees for term permits in Montana [29].

Total Excess Axle Weight (lbs.)	Cost (\$)
≤5,000 GVW (<5,000/single-axle)	200
≤10,000 GVW (<5,000/single-axle)	500
≤15,000 GVW (<5,000/single-axle)	750
\leq 20,000 GVW ($<$ 5,000/single-axle,	
<15,000/tandem-axle)	1,000
≤25,000 GVW (weight analysis)	1,500
≤30,000 GVW (weight analysis)	2,000
≤35,000 GVW (weight analysis)	3,000
≤40,000 GVW (weight analysis)	4,000

Table 18. Summary of OS/OW vehicle permits available in Montana *.

Downit Tyma	Permitted Size Limits (ft.)			Permitted Weight limits (lbs.)							A	C = = + (\$)
Permit Type	Height	Width	Length	GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >	Annual	Cost (\$)
Single Trip Oversize	17	18	150	L	L	L	L	L	L	L	N	10
Single Trip Triples				L	L	L	L	L	L	L	N	20
Single Trip Excess Weight	L	L	L	R	R	R	R	R	R	R	N	Table 16
Term Over Dimensional	14.6/16	15	95	L	L	L	L	L	L	L	Y	75
Term Over Dimensional ¹	L	L	100	L	L	L	L	L	L	L	Y	125
Term Over Dimensional ²	L	L	120	L	L	L	L	L	L	L	Y	125
Term Triples ¹			110	L	L	L	L	L	L	L	Y	200
Super loads 32J	>17	>18	>150	R	R	R	R	R	R	R	N	Varies
Term Excess Weight	L	L	L	R	R	R	R	R	R	R	Y	Table 17

^{*} The reported information was obtained by calling the Montana DOT Motor Carrier Services Division Permitting Office "unpublished data".

L: Legal limit
R: Based on route analysis

1 Interstate only
2 Non-divisible load

NEVADA

In Nevada, any vehicle or load exceeding the legal limits established in Table 19 for size and/or weight are required to secure an OS/OW permit. Available permits and limits are reported in Table 20. Nevada uses the same overweight categories as California. Infrastructure in the state is cataloged based on weight capacity and grouped into purple and green routes. Permits are available for purchase online through the Nevada Department of Transportation.

Fines for excess weight infractions are assessed incrementally depending on the actual excess weight and can range from \$10 (up to 1,500 lbs. excess) to \$0.08 per excess lb. (over 10,000 lbs.). Fines can be doubled during spring weight restrictions, February through April on designated routes [30]. Permittees may be required to furnish escort vehicles and coordinate traffic control with the appropriate law enforcement agencies whenever requesting a permit for a load wider than 17 ft. on a two or three lane highway, or wider than 19 ft. on a four or more lane highway, or when transporting loads higher than 16ft [31]. While Nevada does not require escort vehicle certifications, the flagger (escort vehicle operator) needs to be certified. The cost of the class to become a certified flagger is \$95.00 [32].

Table 19. Legal size and weight limits in Nevada [31].

Vehicle/Axle Type	Legal Limit
Width	
General rule	8.5 ft.
Height	
General rule	14 ft.
Length	
Saddle mount vehicle transporter	95 ft.
Semitrailer	53 ft.
Vehicle combination	70 ft.
Weight	
Gross vehicle weight	80,000 lbs.
Single axle	20,000 lbs.
Single axle licensed garbage or refuse hauler ¹	22,000 lbs.
Tandem	34,000 lbs.
Tandem axle licensed garbage or refuse hauler ¹	40,000 lbs.

¹ Non-interstate highways only

Table 20. Summary of OS/OW vehicle permits available in Nevada [31].

D '4 T	Permitte	d Size Li	mits (ft.)	•	Permitted Weight limits (lbs.)*							C ((f))
Permit Type	Height Width Length			GVW	SVW Single Tandem Tridem Quadrem				Quint	Six >	Annual	Cost (\$)
Single Trip Mobile Home ¹	L	16	L	L	L	L	L	L	L	L	N	25
Single Trip OS	>14	>8.5	>70	L	L	L	L	L	L	L	N	25
Single Trip OW	L	L	L	Purple	28,000	56,700	58,800	60,900			N	25
Single Trip Farm Equip.	15	8.5	110	L	L	L	L	L	L	L	N	0
Multi Trip OS/OW	15	14	110	Purple	28,000	56,700	58,800	60,900			Y	60
Annual Farm Equipment	14	8.5	70	L	L	L	L	L	L	L	Y	0

^{*} Based on purple weight chart limits. Reported limits assume separation distances of: 14ft. for Tandem, 16 ft. for Tridem, and 18 ft. for Quad axles. L: Legal limits

NEW MEXICO

There are two main types of OS/OW permits in New Mexico: (1) single-trip permits and (2) multiple-trip permits. All other permits are categorized within one of these two generic permit types. Table 21 shows the legal size and weight limits under which no OS/OW permits are required [23]. Table 22 shows the maximum permitted size and weight limits allowed for movement of vehicles under a valid OS/OW general permit (see Appendix 1).

In the state of New Mexico, overweight criteria are based on the route each vehicle may take. A bridge map developed by NMDOT is used to determine the maximum allowable weight and axle-load configuration on each route. Figure 9 shows the map with different colors. In general, three different routes are identified with blue, green, white and red colors. Red routes are the most restricted (see Appendix 1 for more information). Permitted axle weights depend on: (1) axle configuration and (2) route. Allowable axle weights are shown in the load chart in Figure 10.

Single-trip permits are issued for a one-way movement of OS/OW vehicles. The single-trip special permit is normally valid for three days unless otherwise specified on the permit. Multiple-trip permits are issued for a particular vehicle and a specific load to move more than once and return. The permit is valid for a year or expiration of insurance, whichever is first. A single-trip permit incurs a flat \$25 fee plus \$0.025/mile/ton (2000 lbs.) for GVW exceeding 86,400 lbs. All of the multiple-trip OS/OW permit fees incur a flat fee of \$250 except for the OW liquid load permit which has a flat fee of \$120. Additional fees are issued to drivers of commercial vehicles that do not possess a valid Tax Identification Permit (see Appendix 1). Table 23 summarizes key information about all of the different OS/OW permits issued in New Mexico. While New Mexico has different regulations for 22 types of permits, there is little differentiation in the fee structures by type of permit such that there are only four fee amounts across the list of permits.

According to the New Mexico Statutes, a vehicle carrying a load heavier/larger than permitted is subject to penalties. The actual fine depends on the excess weight (both GVW and axle weights). For example, loads 1 to 3,000 lbs. over the permitted weight are fined \$50 plus court cost. The fine increases to \$1000 for excess weight over 10,000 lbs. (see Appendix 1 for detailed information).

The state requires State Police escorts for some oversize trucks, but it does not currently charge for police traffic control escorts; however, individual cities and counties may have charges of their own. For instance, the City of Santa Fe requires police escorts for loads exceeding 20 ft. in width traveling more than 5 miles and charges \$300.00/day.

According to NMDOT, in 2017 revenue generated from all types of OS/OW permits was \$6,097,254.

Table 21. Legal size and weight limits in New Mexico.

Vehicle/Axle Type	Legal Limit
Width	
All vehicles	8 ft. 6 in.
Height	
All vehicles	14 ft.
Length	
Straight trucks	40 ft.
Truck tractor-semitrailer combination	57 ft. 6 in.
Doubles	28 ft. 6 in. per trailer, 65 ft.
	overall
Autotransporter	73 ft.
Vehicle transporter combination	75 ft.
Front overhang	3 ft.

Rear overhang	7 ft.
Weight	
Gross vehicle weight (GVW)	86,400 lbs.
Single axle	21,600 lbs.
Tandem axle ¹	34,320 lbs.
Steering axle	12,000 lbs.
Tridem and more axle	Federal bridge formula

Table 22. Permitted size and weight limits in New Mexico.

Size and Weight Considerations ¹	Permitted Limit
Width	
Maximum width permitted	12 ft.
Height	
Maximum height permitted	14 ft. 6 in.
Length	
Maximum length permitted on holidays	90 ft.
Weight ²	
Single axle	26,000 lbs.
Tandem axle	46,000 lbs.
Tridem axle ³	60,000 lbs.
Quadrem axle ³	70,000 lbs.
GVW^4	170,000 lbs.
Six or more axles	TBD

¹The permitted size and weights listed can change depending on routes.

²GVW greater than 250,000 is considered as super load and requires engineering g analysis.

³ On special routes identified in NMDOT, the maximum axle group weights will change. The values provided here is based on 4 ft. axle spacing and on white color routes defined by NMDOT.

⁴ The loads with GVW less than 170,000 lbs. are analyzed and routed with the automated permitting

system.

Table 23. Summary of OS/OW vehicle permits available in New Mexico.

		Permitte	Permitted Size Limits (ft.) ¹ Permitted Weight limits (lbs.)									Annual	Cost (\$) ²
Permit Type		Height	Width	Length	GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >		(+)
	Manufactured Home	14.5	12	90	<86,400	Map ²	Мар	Мар	Мар	Мар	TBD		25 +0.025/ton/mile
	Government OS/OW	14.5	12	90	Мар	Мар	Мар	Мар	Мар	Мар	TBD		Free
	OS Hay Load	14.5	12	90	<86,400	Мар	Мар	Мар	Мар	Мар	TBD		25 +0.025/ton/mile
	OS Load	14.5	12	90	<86,400	Мар	Мар	Map	Мар	Мар	TBD		25 +0.025/ton/mile
Single	OS/OW Load	14.5	12	90	Мар	Мар	Мар	Мар	Мар	Мар	TBD	N T	25 +0.025/ton/mile
Trip	OS/OW Wrecker	14.5	12	90	Мар	Мар	Мар	Мар	Мар	Мар	TBD	N	25 +0.025/ton/mile
	OW Liquid Load	14.5	12	90	Мар	Мар	Мар	Мар	Мар	Мар	TBD		35 +0.025/ton/mile
	OW Load	14.5	12	90	Мар	Мар	Мар	Map	Мар	Мар	TBD		25 +0.025/ton/mile
	Self-Propelled	14.5	12	90	Мар	Мар	Мар	Мар	Мар	Мар	TBD		25 +0.025/ton/mile
	Super Load	14.5	12	90	Мар	Мар	Мар	Мар	Мар	Мар	TBD		25 +0.025/ton/mile
	Government OS/OW	14.5	12	90	<140,000	Мар	Мар	Мар	Мар	Мар	TBD		Free
	Cross Commodity	14.5	12	90	Мар	Мар	Мар	Map	Мар	Мар	TBD		250
	OS Hay Load	14.5	12	90	<86,400	Мар	Мар	Map	Мар	Мар	TBD		250
	OS Load OS/OW Boom	14.5	12	90	<86,400	Мар	Мар	Мар	Мар	Мар	TBD		250
Multiple	Truck	14.5	12	90	Мар	Мар	Мар	Мар	Мар	Мар	TBD	37	250
•	OS/OW Load	14.5	12	90	<140,000	Мар	Мар	Мар	Мар	Мар	TBD	Y	250
	OS/OW Oilfield Load	14.5	12	90	<140,000	Мар	Мар	Map	Мар	Мар	TBD		250
	OW Agricultural	14.5	12	90	<140,000	Мар	Мар	Мар	Мар	Мар	TBD		250
	OW Liquid Load	14.5	12	90	<140,000	Мар	Мар	Мар	Мар	Мар	TBD		120
	OW Load	14.5	12	90	<140,000	Мар	Мар	Map	Мар	Мар	TBD		`250

Wrecker	14.5	12	90	<140,000	Мар	Мар	Мар	Map	Мар	TBD	250
Self-Propelled ⁴	14.5	12	90	<90,000	Мар	Мар	Мар	Мар	Мар	TBD	250

¹ Height of 15'6" needs a route survey; 18' needs utility surveys and needs to be cleared from municipal and local authorities.

² Tax per mile will be added based on GVW. The tax per mile for out of state vehicles with GVW greater than 72,000lbs. is \$0.16/mile.

³NMDOT provided a map along with a figure that includes axle configuration and permitted weights. In the map three colors, blue, green and white are used to identify the routes.

⁴ New Mexico allows 15% increase in permitted axle weights for this permit.

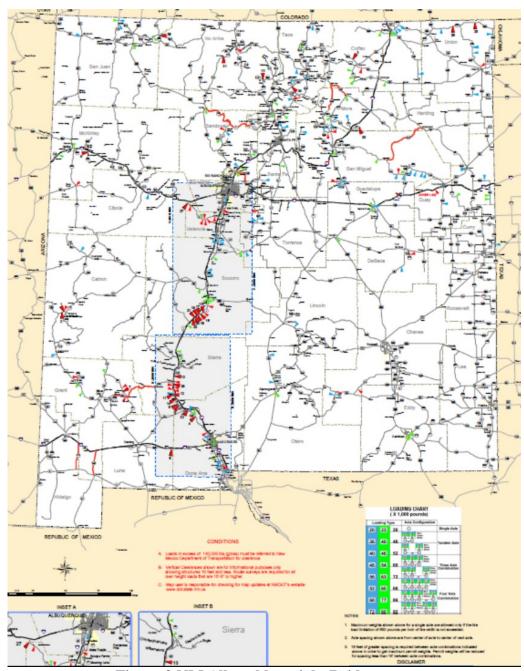


Figure 9 NM Allowable weight Bridge map.

LOADING CHART **NMDOT BRIDGE MANAGEMENT SECTION** Axle Configuration Loading Type Single Axle 23 20 26 40 36 46 Tandem Axle 40 46 52 **WEIGHT X** 48 54 60 Three Axle Combination 20 Blue 23 Gree 26 Whit 1000 LBS 56 63 52 60 70 Four Axle Combination 73 68 83 72 80 92 O 4' O CHART O 4' O White 20/20/20 20/20/20 White White Adjacent group spacing is from last tire in first group to first tire in second group. Maximum allowable weights for other axle groups w/ White Loading and maximum group spacing. For maximum White Loading the adjacent grouping of axles must have a spacing of 14" or greater. 5 axle - 74,000 # 3. Bridge conditions may require additional weight restrictions. 4. Legal weight only bridges plotted in red. Figure 10. Loading Chart in New Mexico.

NORTH DAKOTA

In North Dakota, there are three general OS/OW permit types including (1) single trip; (2) multiple trips (seasonal); and (3) annual permits [33] [34]. North Dakota uses bridge formula weights defined by the Federal Highway Administration (FHWA) to calculate legal axle weights. Table 24 shows the legal size and weight limits under which no OS/OW permits are required. In North Dakota, each permit type includes subcategories with their own size and weight limits. Table 25 shows the maximum permitted size and weight limits allowed for movement of vehicles with a valid OS/OW permit. The permitted axle and group weights depend on the spacing between each axle, the axle width, number of tires per axle, and tire width (see Appendix 1). Additional restrictions may apply for some routes in this state.

In general, the state groups OS/OW vehicles according to the industries they serve, i.e., oil and gas and agriculture. The permitted axle weights in this state are allowed to be increased for these industries. For example, North Dakota uses a separate policy guideline for rigging units. In this guideline, the permitted axle weights are increased for rigging service equipment (see Appendix 1). The OS/OW permit fees in North Dakota include (1) permit flat fees; (2) routing fees (when necessary); (3) engineering analysis fees; and (4) excess weight mileage fees of \$0.05/ton/mile for GVW greater than 200,000 lbs. In this state vehicles with GVW greater than 150,000 lbs. are considered "super loads." Several different maps are provided by the state to route OS/OW loads based on their dimensions and GVW. Out of state carriers entering North Dakota are required to pay a \$20 registration fee. Table 26 summarizes key information about the different OS/OW permits issued in North Dakota.

OS/OW citations are respectively \$20 for size violations and \$100 for weight violations. OW fines may be assessed for excess axle weight, or excess GVW, and OS fines for exterior bridge and interior bridge length violations. Fines are not compounded; whichever violation produces the greater fine is issued. Drivers may not shift a load to avoid an over-axle citation [23]. The OW fine in North Dakota ranges between \$20 for up to 1000 lbs. in excess weight to \$6,000 for up to 30,000 lbs. in excess weight (see Appendix 1). An additional charge of \$200 for every 1,000 lbs. over 30,000 lbs. will be added. According to the North Dakota State Patrol (NDHP) policies, loads over 200,000 lbs. GVW or exceeding 18 ft. in width are required to be accompanied by an official escort during transit unless exempted by the Highway Patrol Regional Commander(s). The NDHP escort charges \$50/hr. and \$0.50/mi. per trooper. Overlength vehicles are required to have official escorts or approved pilot cars.

According to a study conducted by the Wisconsin DOT [1], the revenue generated in North Dakota in the 2009 fiscal year from all OS/OW permit fees was \$5.6 million. ND Executive Budget Recommendations and the ND Legislature determine the level of spending from the Highway Fund to be used for maintenance of ND highways [1].

Table 24. Legal size and weight limits in North Dakota.

Vehicle/Axle Type	Legal Limit
Width	
All vehicles	8 ft. 6 in.
Height	
All vehicles	14 ft.
Length	
Single unit	50 ft.
Double, Triple or more combinations (on state highways)	75 ft.
Double, Triple or more combinations (four-lane divided highways	95-110 ft.
and those highways designated by the NDDOT).	
Semitrailer	53 ft.
Weight	

Gross vehicle weight ¹	80,000 lbs.
Single axle ²	20,000 lbs.
Tandem axle	34,000 lbs.
Tridem	48,000 lbs.
Tridem and more axle	Federal bridge formula

¹the legal GVW on state routs is 105,000 lbs. Natural gas vehicle may exceed the weight limit up to 2,000 pounds or a maximum GVW of 82,000 pounds.

Table 25. Permitted size and weight limits in North Dakota.

Size and Weight Considerations	Permitted Limit
Width	_
Maximum width permitted	14 ft.
Height	
Maximum height permitted on holidays	16 ft.
Length	
Maximum length permitted on holidays	120 ft.
Weight	
Single axle	24,000 lbs.
Tandem axle	45,000 lbs.
Tridem axle	60,000 lbs.
Quadrem axle ¹	68,000 lbs.
GVW^2	200,000 lbs.
Six or more axles	TBD

¹For all axle groupings of four axles or more, no axle shall exceed 19,000 pounds per axle.
²For all axle groupings, on a group of five axles, the gross weight shall not exceed 85,000 pounds; and on a group of six axles, the gross weight shall not exceed 102,000 pounds. GVW for self-propelled equipment mounted on truck-type chassis (excludes workover service rigs) is limited to 96,800 lbs. for 4 axle unit, 106,800 lbs. for 5 axle unit, and 114,800 lbs. for 6 or more axle units. Vehicles with GVW over 150,000 lbs. require super load permit.

² The weight per in. of tire width shall not exceed 550 lbs.

Table 26. Summary of OS/OW vehicle permits available in North Dakota.

-	• •	Permitt		imits (ft.)		<i>5/ 5 / / /</i>		d Weight li	mits (lbs.)	<u> </u>		Annual	Cost (\$)
Peri	nit Type	Height	Width	Length	GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >		
	OS/OW	<16	<14	<120	<150,000	24,000	45,000	60,000	68,000	TBD	TBD		20+10(routing)
	150k-190k	<16	<14	<120	<190,000 >150,001	24,000	45,000	60,000	68,000	TBD	TBD		30-60 +10(routing)
	>190k ¹	<16	<14	<120	>190,000	24,000	45,000	60,000	68,000	TBD	TBD		70+10(routing)
	129,000 lbs. Primary network	<14	<8.5	<100	<129,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		20+10(routing)
Single	Interstate Permit ²	<14	<8.5	legal	<105,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		10+15(routing)
Trip	Mobile Home Permit	<18	<18	< 200	<150,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula	N	20+15(routing) +ton/mile
	Self- propelled	<16	<14	<120	<150,000	24,000	45,000	60,000	68,000	TBD	TBD		25
	Rigging service	<16	<14	<120	>150,000	31,200 ³	52,000	62,400	70,720	TBD	TBD		100+15(routing) 0.05/ton/mile
	LCV ⁴	<14	<8.5	<75	<131,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		20+10(routing)
	Bridge Length Permit ⁵	<14	<8.5	<75	<80,000	19,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		30
	Over width	<16	<14.5	<legal< td=""><td>80,000</td><td>20,000</td><td>34,000</td><td>48,000</td><td>Bridge formula</td><td>Bridge formula</td><td>Bridge formula</td><td></td><td>150</td></legal<>	80,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		150
	Over width ⁶	<16	<14.5	< legal	80,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		20
	OS	<14	<14.5	<120	80,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		150
Annual	129,000 lbs. Primary network	<14	< 8.5	<100	<129,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula	Y	700
	Rigging service	<16	<14	<120	<150,000	31,200 <mark>4</mark>	52,000	62,400	70,720	TBD	TBD		990
	Interstate Permit	<14	<8.5	legal	<105,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		300
	Bridge Length Permit	<14	<8.5	<75	<80,000	19,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula		150
Multiple	131,000 lbs. Primary	<14	< 8.5	<100	<131,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula	N	100

network(30-day) 10% Harvest Permit and winter time (30-day) ⁷	<14	<8.5	<75	<105,000	22,000	37,400	52,800	62,150	85,800	88,000	N	50
Custom Combine (non-res.) ⁸	<14.5	<16	<120	<80,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula	N	15(fuel permit)
Custom Combine (res.) (annual)	<14.5	<16	<120	<80,000	20,000	34,000	48,000	Bridge formula	Bridge formula	Bridge formula	Y	25

¹A ton/mile fee of \$.05 per ton per mile is assessed upon the portion of gross vehicle weight exceeding 200,000 pounds. Engineering fee when additional analysis is required – \$25 for each application submitted. Service/routing fee of \$10 for each single trip permit may apply. service/routing fee of each single trip permit for rigging units is \$15.

²This permit is for hauling a devisable load.

³These values are for axles with four tires.

⁴for LCVs 30-, 60-, or 90-day permits are available. The fee for each 30-day is \$100.

⁵This permit is for single unit straight truck.

⁶ This permit is for noncommercial fish house trailer.

⁷ The harvest permit is valid between July 15 - November 30. The winter permit is valid between December 1

⁻ March 7. These permits allow a vehicle 10% more weight when hauling a harvested product. A harvest/winter combination permit can be purchased for \$250. The combined permit is valid from July 15 through March 7. And during harvest season, July 15 through November 30.

⁸The custom combine permit is valid from June 1 through December 31st of each calendar year.

OKLAHOMA

Oklahoma issues single-trip, monthly, annual and special movement permits for OS/OW vehicles. The state uses the bridge formula weights defined by FHWA to calculate legal axle weights. Table 27 shows the legal size and weight limits under which no OS/OW permits are required. Table 28 shows permitted size and weight limits allowed for movement of vehicles under a valid OS/OW general permit [35][36]. The permitted axle weights are shown in OL-1 standards provided by the Oklahoma Department of Transportation (ODOT) [35]. The OL-1 standard includes permitted axle group weight schematics and GVW. Permitted axle group weights depend on axle spacing and group configurations. The maximum GVW shown in the standard is 209,000 lbs.

The single-trip permit includes multiple subcategories: (1) general; (2) modular homes; (3) house; (4) special purpose equipment (e.g. well service equipment and cranes); and (5) western regional permit (WASHTO). Monthly permits are multi-trip permits for pieces of equipment that are motorized and require frequent movements. The annual permit category includes (1) round baled hay; (2) soil conservation equipment; (4) tree length logs; (5) longer combination vehicles (LCVs); (6) special purpose equipment; (6) annual envelope permits; and (7) annual special OW. Special permits include (1) special movement permit (manufactured items exceeding 16 ft. but not exceeding 20 ft. in width); (2) annual LCVs, and (3) annual special combination vehicle (SCV) permits. The maximum permitted dimensions are 16 ft. in width and 21 ft. in height (on certain routes). Table 29 summarizes key information about all the different OS/OW permit types issued in Oklahoma. The table makes it easy to compare permit costs as well as the permitted size and weight limits.

Violation of any of the terms of a special permit other than weight is fined at \$218.90. Excess weight violations incur a \$100 fine in addition to a surcharge based on the actual excess weight (e.g. the additional fine can be as much as \$628.9, see Table 65 in Appendix 1) [23]. Vehicle escort requirements in Oklahoma are based on load dimensions. For example, vehicles with loads of 12 ft. or more but not more than 14 ft. in width are required to be accompanied by a front escort vehicle on two-lane highways and on super two-lane highways, and by a rear escort on multi-lane highways. The fee to certify an escort vehicle for the state of Oklahoma is \$180.00 and the certification process goes through Oklahoma State University [37].

According to the Oklahoma Public Records Department, the state collected \$42.6 million from OS/OW permits during the 2017 fiscal year. The state allocates 12.82% of the revenues generated by OS/OW permits to the Oklahoma Department of Transportation (ODOT). In Oklahoma, there are statutory constraints on how the revenues must be allocated.

Table 27. Legal size and weight limits in Oklahoma.

Vehicle/Axle Type	Legal Limit					
Width						
All vehicles	8 ft. 6 in.					
Height						
All vehicles	13 ft. 6 in.					
Length						
Single unit	45 ft.					
Semitrailer	59 ft. 6 in.					
Doubles	53 ft. (with special permit)					
Autotransporter	75 ft.					
Weight						
Gross vehicle weight	80,000 lbs.					
Single axle	20,000 lbs.					
Tandem axle	34,000 lbs.					

Table 28. Permitted size and weight limits in Oklahoma.

Size and Weight Considerations	Permitted Limit
Width	
Maximum width permitted	16 ft.
Height	
Maximum height permitted ¹	21 ft.
Length	
Maximum length	Not specified
Weight ²	
Steering axle	15,000 lbs.
Tandem axle	40,000 lbs.
Tridem axle	60,000 lbs.
Quadrem axle	65,000 lbs.
Quint axle	75,000 lbs.
Six or more axles	TBD

¹On special routs ²The valued are based on axle distance of 4 ft. and 3 in. in each axle group.

Table 29. Summary of OS/OW vehicle permits available in Oklahoma.

		Permitte		mits (ft.)	ary or OS	,		Annual	Cost (\$)				
Pe	ermit Type	Height	Widt h	Length	GVW	Single	Tandem	Tridem	Quadrem	Quint	Six >		
	OS ¹ or OW	>13.5	>8.5	>legal	>80,000	20,000	40,000	60,000	65,000	75,000	OL		40+10 per 1000 lbs. excess of legal
Single Trip	OS/OW	>13.5	>8.5	>legal	>80,000	20,000	40,000	60,000	65,000	75,000	1[38] Drawin	N	80+10 per 1000 lbs. excess of legal
	30-day ²	>13.5	>8.5	>legal	<80,000	20,000	40,000	60,000	65,000	75,000	g		40
	Special drive away	>13.5	>8.5	>legal	<80,000	20,000	40,000	60,000	65,000	75,000			15
Annual	Round-baled hay Tree length logs Soil conservation OW Special Machinery OS Special Machinery Envelope ³ Special ⁵	>13.5	>8.5	>legal	>80,000	20,000	40,000	60,000	65,000	75,000	OL 1 Drawing	Y	25 25 25 60 10 500 ⁴ or 4000 100 or 350
	Manufactured items	>13.5	>16 <20	>legal	<80,000	20,000	34,000	42,000	Bridge formula	Bridge Formula	OL 1		500
Special	LCV	13.5	8.5	legal	>80,000 <90,000	20,000	40,000	60,000	65,000	75,000	Drawing	N	20
	SCV	13.5	8.5	legal	<90,000	20,000	40,000	60,000	65,000	75,000			240

¹ For houses and portable buildings the permitted width can go up to 16 ft.

²One can purchase up to 12 months at one time and the cost will be 12x40=\$480.

³ This permit is for OS/OW, windmill blades, electric utility vehicle, and portable building.

⁴ \$500 is cost of Envelope permit for portable building (Must be issued to a specific Manufacturer). \$25 will be charged for replacement.

⁵ The special permit for OW allows 5% increase in GVW limits and 8% increase for axle weight limits (\$350 fees). It also allows for 15% increase in GVW for utility or refuse collection vehicle (\$100 fee). Wrecker or two vehicle fee for this permit is \$100.

OREGON

Oregon issues three types of OS/OW permits including single-trip permits, continuous-operation variance permits (COVPs), and continuous trip permits (CTPs). Legal weights and size limits in the state are listed in Table 30. Vehicles with GVW over 26,000 lbs. and less than 80,000 lbs. have to pay weight tax per mile according to Table 67-67 in Appendix 1 [39][40].

Table 31 shows the maximum permitted size and weight limits allowed for movement of vehicles under a valid OS/OW general permit. The permitted axle and group weights depend on the spacing between each axle and can be determined using different formulas for divisible and non-divisible loads (see Appendix 1).

The single-trip permit is valid for 10-days. This permit authorizes movements of non-divisible loads that do not exceed14 ft. in width, 15 ft. in height and 120 ft. in length. For all single-trip permits, the GVW is limited to the permitted axle load combination given in Appendix 1. There is a self-issue permitting system in Oregon. The GVW for self-issue OW single-trip permit is limited to 200,000 lbs. [41]. OS/OW permit fees can be a combination: of (1) state administrative fees; (2) county administrative fees; (3) weight tax fee, and (4) road use assessment fees (RUAF) [42][43]. Table 32 summarizes key information about all the different OS/OW permit types issued in Oregon.

According to the Oregon Statutes, fines for violation of weight limits are based on the actual excess weight. [43] Fines can range from \$100 for less than 1000 lbs. excess weight to \$600 plus \$0.30/lb. of excess weight after 10,000 lbs.

Although the state of Oregon does not require certification for escort vehicles, it does require for the drivers to be certified [32]. The cost of training for a driver to become a certified as a flagger is \$95.00.

According to ODOT, the amount of revenue generated in Oregon from the 2017 fiscal year for all OS/OW permit types was \$837,000. Revenues from these permits go into the Oregon Highway Fund which is constitutionally dedicated to road projects.

Table 30. Legal size and weight limits in Oregon.

Vehicle/Axle Type	Legal Limit
Width	
All vehicles	8 ft. 6 in.
Height	
All vehicles	14 ft.
Length	
Trailer	53 ft.
Doubles	61 ft.
Autotransporter	65 ft.
Rear overhang	5 ft.
Front overhang	4 ft.
Weight ¹	
Gross vehicle weight	80,000 lbs.
Single axle	20,000 lbs.
Tandem axle	34,000 lbs.
Tridem axle	42,000 lbs.
Steering axle ²	12,000 lbs.

¹Weight cannot exceed 600 lbs. per in. of tire width.

²This value is for 10 in. wide tire.

Table 31. Permitted size and weight limits in Oregon.

Size and Weight Considerations	Permitted Limit
Width ¹	
Maximum width permitted	14 ft.
Height	
Maximum height	15 ft.
Length	
Heavy haul combinations	120 ft.
Mobile home	110 ft.
Truck/semitrailer	105 ft.
Solo vehicle	50 ft.
Self-propelled	55 ft.
Towing a dolly, pickup truck, passenger or trailer	75 ft.
Weight	
Single axle	21,500 lbs.
Tandem axle	43,000 lbs.
Tridem axle	Max. 64,500 lbs. ²
Trunnion axle	Max. 86,000 lbs. ²
GVW^3	200,000 lbs.

¹This value is for self-issue permit and depends on highway. Holiday and Travel Restrictions may apply [41].

²Depends on wheelbase. Wheelbase is measured from center of the first axle to the center of the last axle of the combination. The axle limit weight depends also on devisable or non-devisable load conditions (see Appendix 1).

³This is GVW limit for self-issue permit.

Table 32. Summary of OS/OW vehicle permits available in Oregon.

Permit Type		Permi	tted Size I (ft.)	Limits	Permitted Weight limits (lbs.)								Cost (\$)
		Height Width Length		GVW Single Tandem		Tandem	Tridem Quadrem		Quint Six >				
	Legal weight ¹	<14	<14	<120	<80,000 >26,000	20,500	40,000	60,000	80,000	80,000			0.2 weight tax/mile
Single trip	Extended weight ²	<14	<14	<120	>80,000 <105,000	21,500	43,000	64,500	86,000	107,000	TBD	N	8.5+0.21 weight tax/mile
Single trip	Heavy Haul Weight ³	<14	<14	<120	>98,00	21,500	43,000	64,500	86,000	107,000		14	8.5+0.21 weight tax/mile+RUAF(0.085/mile/axle)
	Super load ⁴	>17	`>16	>120	>105,000	24,000	48,0005	72,000	96,000	120,000	TBD		8.5+0.21 weight tax/mile+RUAF(0.085/mile/axle)
COVP ⁶		<14	<14	<120	<98,000	21,500	43,000	64,500	86,000	107,000	TBD	Y	8.5+0.21 weight tax/mile
CTP ⁷		<14	<14	<120	<98,000	21,500	43,000	64,500	86,000	107,000	TBD	Y	8.5+0.21 weight tax/mile

¹ No permit required, however the weight tax/mile should be paid. Table 70 in Appendix shows the legal weight for different axle combination that does not require permit. Table 68 and Table 69 show the weight tax/mile fee associated with each weight. The \$0.2 given in the table is the maximum value for vehicles with GVW 80,000 lbs.

² This permit is for non-devisable loads. See Table 71 for permitted axle weight for this type of permit.

³ This permit authorizes movement of non-devisable load and requires Road Use Assessment Fees (RUAF) fees. RUAF is \$0.085 for equivalent single axle load per mile. An equivalent single-axle load means the relationship between actual or requested weight and an 18,000 lbs. single-axle load. Table 72 shows permitted axle weights for truck tractor and semitrailer for this permit. Table 73 shows permitted axle weight limits when this permit is issued for self-propelled truck and lowbed semitrailer. Axle weights more than permitted ones requires RUAF as well.

⁴ Table 74 in Appendix 1 shows the permitted axle weights for supper load. Supper load permit requires special analysis by the Over-Dimension Permit Unit. Route restriction may apply.

⁵Up to 52,800 lbs. may be allowed when the combination has 10 ft. wide axles with 4 tires per axle. Up to 60,000 lbs. may be allowed when the combination has 10 ft. wide axles with 8 tires per axle.

⁶COVP is an annual permit for vehicles with GVW less than 98,000 lbs. The permitted axle weights are given in Table 72.

⁷CTP permits are only available from Over-Dimension Permit Unit. This permit is issued for 2 durations: 1. a year and 2.30-days. Triple trailers, vehicles with leaky load, grass seed straw overheight can obtain annually permit.

TEXAS

With 28 different OS/OW permit types, the Texans' permitting system is the most complex in the western states. Broadly speaking, the state groups OS/OW vehicles according to the industries they serve, i.e., oil and gas, agriculture, housing, utilities, and commercial freight. In each category, Texas offers single-trip permits as well as multi-trip permits valid for up to a year. The fees for several of the Texas permits are calculated by adding a base permit fee plus a highway maintenance fee.

Table 34 shows the maximum size and weight limits allowed for movement of vehicles under a valid OS/OW general permit. Note that, certain permit types allow for deviations from these limits, e.g., Ready-mixed Concrete Truck Permits allow for higher weight limits in single and tandem axles but lower gross vehicle weights. For non-divisible vehicles exceeding the maximum permitted axle or axle group weights, or 254,300 lbs. total gross vehicle weight, or between 200,001 lbs. and 254,300 lbs. with less than 95 ft. of axle spacing, the state can still issue a Super Heavy Single-Trip Permit. OS/OW permits are processed online via the TxPROS Permitting System and are issued by the Texas Department of Motor Vehicles (TxDMV).

The Texas Department of Public Safety (TDPS) is in charge of issuing fines for OS/OW vehicle violations [44]. In addition to OS/OW vehicles driving without a permit, the most common infractions include permitted vehicles that violate road restrictions or distances, vehicles that exceed the weight and/or size limits specified by their permit, and operation of vehicles across county lines without appropriate permits. In Texas, these violations are considered misdemeanors and are punishable by fines of up to \$10,000. Permitted oversize vehicles are required to be accompanied by private escorts when the size exceeds certain thresholds. Table 35 presents the number of escort vehicles required for most oversize permits. TxDMV may also require law enforcement escorts under special circumstances.

In 2017, the state collected \$159,089,485.00 in OS/OW permits. This amount is more than revenue generated by all other western states combined. Texas allocates 64% of the revenue generated from these permits to the State Highway Fund. The State Constitution provides guidance on how these funds are distributed and used.

Table 33. Legal size and weight limits in Texas.

Vehicle/Axle Type	Legal Limit
Width	
Passenger vehicle	8 ft.
All other	8 ft. 6 in.
Height	
All vehicles	14 ft.
Length	
Single motor vehicle	45 ft.
Truck-tractor	Unlimited
Semitrailer, of two-vehicle combination	59 ft.
Two-vehicle combination, other than a truck-tractor combination	65 ft.
Three-Vehicle combination other than truck-tractor combination	65 ft.
Each trailer or semitrailer of a twin-trailer combination	28.5 ft.
Stinger-steered auto/boat or traditional auto/boat transporter (truck-tractor)	Unlimited
Truck towing a trailer transporting boats	65 ft.
Front overhang	3 ft.
Rear overhang	4 ft.
Weight	
Gross vehicle weight	80,000 lbs.
Single axle	20,000 lbs.

Tandem axle*	34,000 lbs.
Tridem axle*	42,000 lbs.
Ouadrem axle *	50,000 lbs.

^{*} minimum spacing of 40 in. between axles within the group

Table 34. Permitted size and weight limits in Texas.

Size and Weight Considerations	Permitted Limit*
Width	
Maximum width permitted on holidays	14 ft. ¹
Maximum width permitted on controlled access highways (Interstate Highway System)	16 ft. ¹
Maximum width permitted without a route inspection certification by applicant on file	20 ft.
Height	
Maximum height permitted on holidays	16 ft.
Maximum height permitted without a route inspection certification by applicant on file	18 ft. 11 in.
Length	
Maximum length permitted on holidays	110 ft.
Truck or single vehicle	75 ft.
Front overhang	25 ft.
Rear overhang	30 ft.
Maximum length permitted without a route inspection certification by applicant on file	125 ft.
Weight	
Single axle	25,000 lbs.
Tandem axle	46,000 lbs.
Tridem axle	60,000 lbs.
Quadrem axle	70,000 lbs.
Quint axle	81,400 lbs.
Six or more axles ²	TBD
¹ Except for manufactured housing permits!	

¹Except for manufactured housing permits!

Table 35. Number of escort vehicles required for oversize vehicles in Texas.

Size Considerations	Number of Escorts
Width	
14 ft. to 16ft.	1
> 16 ft.	2
Height	
> 17 ft.	1 (height pole equipped)
> 18 ft.	3 (1 height pole
	equipped)
Length	
110 ft. to 125 ft.	1
> 125 ft.	2
> 20 ft. front overhang	1
> 20 ft. rear overhang	1

Table 36 summarizes key information about all the different OS/OW permit types issued in Texas. The table makes it easy to compare permit costs as well as the permitted size and weight limits. Permit types in bold are of interest to NMDOT and are presented in more detail.

² Determined based on an engineering study of the equipment and dimensions

^{*} Special permits may exceed the allowances presented in this table, see Table 36 for details

Table 36. Summary of OS/OW vehicle permits available in Texas.

D :	Permitte	d Size Li	imits (ft.) Permitted Weight limits (lbs.)						A1	G (f)*			
Permit Type	Height	Width	Length	GVW	in. width	Single	Tandem	Tridem	Quadrem	Quint	Six >	Annual	Cost (\$)*
General single-trip ¹	> 18.9	> 20	> 125	254,300		25,000	46,000	60,000	70,000	81,400	TBD	N	470
Manufactured Housing	18.9	20		80,000		20,000	34,000	42,000	50,000			N	40
Portable Building	14	Tabl. 34	80	80,000		20,000	34,000	42,000	50,000			N	15
House Move ²	> 18.9	> 20	Tabl. 34	254,300		25,000	46,000	60,000	70,000	81,400	TBD	N	470
Manufactured Housing ³	Tabl. 34	Tabl. 34	Tabl. 34	80,000		20,000	34,000	42,000	50,000			Y	1,500
Mobile Crane	Tabl. 33	10	Tabl. 33	120,000	650	25,000	46,000	60,000	70,000	81,400	TBD	Y	100
Utility Pole	Tabl. 33	Tabl. 33	75	80,000		20,000	34,000	42,000	50,000			Y	120
Ready-Mixed Concrete	Tabl. 33	Tabl. 33	Tabl. 33	69000		25,300	50,600					Y	1,000
Timber Permit ⁴	Tabl. 33	Tabl. 33	Tabl. 33	84,000			44,000					Y	900
Self-Propelled ⁵	Tabl. 33	Tabl. 33	Tabl. 33		650	45,000						N	470
Hay ⁶	Tabl. 33	12	Tabl. 33	80,000		20,000	34,000	42,000	50,000			Y	10
Husbandry	16	16	110	254,300		25,000	46,000	60,000	70,000	81,400	TBD	Y	270
Fluid Milk	Tabl. 33	Tabl. 33	Tabl. 33	90,000		20,000	36,500	42,500				Y	1,200
Water Well	14.5	16	110	254,300		25,000	46,000	60,000	70,000	81,400	TBD	Y	680
Intermodal Ship. Cont. ⁷	Tabl. 33	Tabl. 33	Tabl. 33	100,000		15,000	37,000	49,200				Y	6,000
30/60/90 Day	14	13	110	80,000		20,000	34,000	42,000	50,000			N	240
Company Spc. Envelope	14	12	110	120,000								Y	4,000
Vehicle Spec. Envelope	14	12	110	120,000								Y	4,000
Annual Length	Tabl. 33	8.5	110	80,000		20,000	34,000	42,000	50,000			Y	960
N. Texas Intermodal ⁸	Tabl. 33	Tabl. 33	Tabl. 33	93,000		13,000	37,000	49,200				Y	1,000
Emergency Relief	Tabl. 33	Tabl. 33	Tabl. 33	160,000		21,500	43,000	53,000				N	0
Quarterly Hubometer	14.5	12	95		950	30,000						N	per mile
Rig-Up Truck	Tabl. 33		Tabl. 33		850	25,000						Y	52
Over Axle/Gross ⁹	Tabl. 33	Tabl. 33	Tabl. 33	267,015		27,500	50,600	66,000	77,000	89,540	,	Y	1,095
Well Servicing Unit	Tabl. 33	Tabl. 33	Tabl. 33	80,000	650	20,000	34,000	42,000	50,000			Y	52/axle
Fracking Trailer	Tabl. 33	Tabl. 33	Tabl. 33	80,000		20,000	34,000	42,000	50,000			Y	104/axle
Crane and Well Serv.					950	30,000						N	per mile
Super Heavy ¹⁰				>254,300		> 25,000	> 46,000	> 60,000	> 70,000	>81,400	TBD	N	935

- * Maximum cost
- ¹ Vehicles exceeding a width of 20 ft., or a height of 18.9 ft., or a length of 125 ft. are required to have a Route Inspection
 - Certification (RIC) on file prior to issuance of the permit.
- ² TxDMV analyzes the load dimensions, the destination and origin, and provides a proposed route.
- ³ The permit is meant for transport from a manufacturing facility to a storage location no farther than 20 miles away
- ⁴ Operation of vehicles under this permit is restricted to county roads and state-maintained roadways.
- ⁵ All wheels must have a minimum rim diameter of 25 in., the center-to-center axle spacing cannot be less than 12 ft.
- ⁶ For travel on all state-maintained highways in Texas
- ⁷ 30-mile radius from available ports; axle configuration restrictions apply.
- ⁸ County and road restrictions apply.
- ⁹ Excludes Interstate Highways; total cost depends on the number of counties the vehicle will operate on
- ¹⁰ Requires a Bridge Analysis by TxDOT (\$500) or a no-bridges crossed route (\$100)
- 1. General Single-Trip Permit: issued for the operation of non-divisible vehicles exceeding the legal size and weight limits. The permit is valid for loads up to 254,300 pounds. Vehicles exceeding a width of 20 ft., or a height of 18 ft. 11 in., or a length of 125 ft. are required to have a Route Inspection Certification (RIC) on file prior to issuance of the permit. Single-trip permits may only be used for a one-way trip, scheduled in the time window specified on the permit, from a specific origin and to a specific destination. This permit has a flat fee in addition to a Highway Maintenance (HM) surcharge that depends on the gross vehicle weight, see Table 37. If the vehicle exceeds the State Legal Size Limits but not the State Legal Weight Limits, there is no HM surcharge.

Cost: Table 37

Table 37. General Single Trip Permit Fees in Texas.

Gross Vehicle Weight (lbs.)	HM Fee (\$)	Permit Fee (\$)	Total Fee (\$)
80,001 - 120,000	150	60	210
120,001 - 160,000	225	60	285
160,001 - 200,000	300	60	360
200,001 – 254,300*!	375	60	435

^{*} must have at least 95ft. of total axle spacing

2. <u>Well Servicing Unit Annual Permit</u>: issued for the operation of oil well servicing units that do not exceed legal weight and size limits and are registered in the state. Vehicles operating under this permit may not exceed 650 lbs. per in. width in the front axle. The permit also allows vehicles to operate at night.

3. <u>Fracking Trailer Annual Permit</u>: issued for vehicles consisting of a truck-tractor and a tank semitrailer designed for liquid fracking products, liquid oil-well waste products or from oil-wells not connected to a pipeline. The semitrailer cannot exceed the state legal size and weight limits.

3. <u>Crane and Well Servicing Unit Single-Trip Mileage Permit</u>: issued for self-propelled and trailer mounted cranes and well-servicing units that exceed the legal Texas size and weight limits. These permits may only be used on the time window specified on the permit (up to 7-days), from a specific origin and to a specific destination. Vehicles operating under this permit may return to the location of origin (or other location) as long as the entire trip mileage is charged on the permit. The maximum weight on a single or in any axle within an axle group

^{\$35} additional supervision fee for loads exceeding 200,000 lbs.

cannot exceed 30,000 lbs. or 850 lbs. per in. of tire width for non-steerable units, and 950 lbs. per in. of tire width for steerable units.

The cost for this permit is assessed based on the actual size and weight in excess of the state legal limits, the total number of miles traveled, and an indirect cost share. The indirect cost share is assessed yearly. The overweight/oversize factors are summarized in Table 38.

Cost: 0.6(OF)(miles)+IDC

Table 38. Oversize overweight factors (OF) in Texas.

Size or Weight Considerations	OF
Width	
Each ft. above legal width	\$0.06/ft.
Height	
Each ft. above legal height	\$0.04/ft.
Weight	
20,000 to 25,000 lbs. on a single axle or any axle within an axle group	\$0.45/kip.
25,000 to 30,000 lbs. on a single axle or any axle within an axle group	\$0.55/kip.

4. <u>Super Heavy Single-Trip Permit</u>: is issued to non-divisible vehicles exceeding a GVW of 254,300 lbs., or with a GVW between 200,001 lbs. and 254,300 lbs. with less than 95 ft. of axle spacing, or the maximum permit weights on any axle or axle group. Super heavy single-trip permits may only be used for a one-way trip, scheduled in the time window specified on the permit, from a specific origin and to a specific destination. This permit has a flat fee of \$60 in addition to a highway maintenance fee of \$375, and the applicable vehicle supervision fees presented in Table 39.

Cost: Table 39

Table 39. Super heavy single-trip permit fee costs in Texas.

Vehicle Supervision Type	Fee (\$)	Flat (\$)	HM (\$)	Total (\$)
Bridge analysis	500	60	375	935
Additional identical permits within 30 days	35	60	375	470
No bridges crossed route	100	60	375	535

UTAH

Utah issues three types of OS/OW permits including single-trip, semi-annual (180 days), and annual permits. Legal weights and sizes in Utah are listed in Table 40 [45][46][47]. While no OS/OW permits are required for vehicles meeting the legal limits, the state requires valid registration for these vehicles. Table 41 shows permitted size and weight limits allowed for movement of vehicles having a valid OS/OW permit. The permitted axle and group weights depend on the spacing between each axle and can be determined using a modified version of the federal bridge formula (see Appendix 1).

The Single trip permits can be issued for three different load and size combinations including OS, OS/OW, and super loads. This permit authorizes movements of non-divisible loads that do not exceed 14.5 ft. in width, 14 ft. in height, and 105 ft. in length. For OS permits, the GVW is limited to the legal limit. The GVW for OS/OW single-trip permits is limited to 125,000 lbs. Vehicles with GVW greater than 125,000 are required to obtain a special super load single-trip permit. Table 42 summarizes key information about all the different OS/OW permit types issued in Utah.

According to the State of Utah Code [48], a motor carrier that fails to or neglects to comply with OS/OW rules and regulations is subject to a civil penalty of not less than \$500 and no more than \$2,000 for each offense. Effective from 09/22/2017, the OS/OW fines in Utah include \$50 flat fee plus the fine per mile charges shown in Table 77 [49].

According to the US Pilot Car [24], the fee for an escort car certification in Utah can range from \$231.00 to \$322.00. The cost depends on the date and location of a given class. The amount of revenue generated from OS/OW permits in Utah was \$8.2 million in 2009 [1]. The generated OS/OW funds in the State of Utah are distributed to a Transportation Fund. Then the Utah Department of Transportation distributes 30% of the revenue to its counties as part of their B & C Road funds and keeps the remaining in the Transportation Fund [1].

Table 40. Legal size and weight limits in Utah.

Vehicle/Axle Type	Legal Limit
Width	
All vehicles	8 ft. 6 in.
Height	
All vehicles	14 ft.
Length	
Single unit	45 ft.
Doubles	61 ft.
Autotransporter	65 ft.
Stinger steered	75 ft.
Saddle mount	97 ft.
Overall length of any combination of any other vehicles	65 ft.
Rear overhang	6 ft.
Front overhang	3 ft.
Weight ¹	
Gross vehicle weight	80,000 lbs.
Single axle	20,000 lbs.
Tandem axle	34,000 lbs.
Tridem axle	42,000 lbs.
Steering axle	20,000 lbs.

¹Must comply with federal bridge formula

Table 41. Permitted size and weight limits in Utah.

Size and Weight Considerations	Permitted Limit
Width	
Maximum width permitted	14 ft. 6 in.
Height	
Maximum height	14 ft.
Length	
Maximum length	105 ft.
Weight	
Single wheel	10,500 lbs.
Single axle	29,000 lbs.
Tandem axle	50,000 lbs.
Tridem axle	61,750 lbs.
Trunnion axle	60,000 lbs.
GVW^1	125,000 lbs.

¹Vehicles with GVW greater than 125,000 lbs. can still obtain single trip permit if axle weights and GVW comply with permitted weights determined by a bridge formula (see Appendix 1).

Table 42. Summary of OS/OW vehicle permits available in Utah.

Permitted Size Limits (ft.)				Permitted Weight limits (lbs.) ¹							Annual	Cost (\$)											
Permit	Type	Height	Width	Length	GVW	GVW Single ² Tandem Tridem Quadrem Quint Six				Six >													
	OS/OW	<14	<14.5	<105	<125,000				Puidaa	Bridge	Bridge		60										
Single trip ³	os	>14	>14.5	>105	<80,000	29,000	50,000	61,750	Bridge Formula	Formula	Formula	N	30										
	Super load	>14	`>14.5	>105	>125,000								80-540										
	OS	<14	<14.5	<105	<80,000								75										
Semi-	80,001- 84,000 lbs.	<14	<14.5	<105	<125,000				Dei de e	Duide e	D: 1		180										
Annual (180 Days)	84,001- 112,000 lbs.	<14	<14.5	<105	<125,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	50,000	61,750	Bridge Formula	Bridge Formula	Bridge Formula	N	320
	112,001- 125,000	<14	<14.5	<105	<125,000								420										
	OS	<14	<14.5	<105	<80,000								90										
Annual (365	80,001- 84,000 lbs.	<14	<14.5	<105	<125,000				Puidas	Puidaa	Puidas		240										
Days) ⁴	84,001- 112,000 lbs.	<14	<14.5	<105	<125,000	29,000 50,000	61,750	Bridge Formula	Bridge Formula	Bridge Bridge Formula Formula	Y	480											
	112,001- 125,000	<14	<14.5	<105	<125,000								540										

¹ In Utah the permitted weight for group of axles can be determined using a modified federal bridge formula (see appendix 1). This value is allowed to ne increased based on axle width and the number of tires. For example, 10 feet wide axles are allowed 15% more weight than 8 feet wide axles.

² No wheel on steering axles and castering axles shall exceed 600 pounds per inch of tire width. Tire loading on vehicles requiring an oversize or overweight permit shall not exceed 500 pounds per inch.

³ Utah recognizes two classes of loads — divisible and non–divisible. For devisable load GVW can be up to 129,000 lbs.

WYOMING

Wyoming issues ten OS/OW permits including classes A-F, W, off-load, emergency relief, and prior-operation permits [50][51]. Legal weights and sizes in the state are listed in Table 43. While no OS/OW permits are required for vehicles meeting the legal limits, the state requires registration for these vehicles. Table 44 shows the maximum permitted size and weight limits allowed for movement of vehicles under a valid OS/OW general permit. The permitted axle and group weights depend on the axle group configuration. Wyoming is one of the few states that allows an increase in legal GVW from 80,000 lbs. to 117,000 lbs.

Class A, class C, and class D permits are the most common permit types issued in Wyoming. The class C permits authorize the movement of non-divisible loads that do not exceed 18 ft. in width, 17 ft. in height, 120 ft. in length, and GVW of 160,000 lbs. Loads exceeding class C limits can only be approved by the Wyoming Overweight Loads Office and require a class A (super load equivalent) permit. Class D permits are multi-trip permits for unloaded vehicles or meeting non-divisible legal load requirements that do not exceed 12 ft. in width, 15 ft. in height, 75 ft. single unit length. Class D permits are approved for specific vehicles, routes, and time periods. Table 45 summarizes key information about all of the different OS/OW permit types issued in Wyoming. The table makes it easy to compare permit costs as well as the permitted size and weight limits. Permit types in bold are of particular interest to NMDOT, and are presented in more detail.

According to Wyoming statutes [50], a vehicle carrying a load greater than the permitted weight and size can be penalized. An OS fine is \$120 during daylight time and \$220 during the night. The OW fines depend on the actual excess weight (GVW and axle weights) and can range from \$25 for an excess of up to 2000 lbs. to \$1000 for excess weight greater than 20,000 lbs. An additional \$200 per 1000 lbs. over 20,000 is added for OW violations exceeding 20,000 lbs. The revenue generated in the state of Wyoming from OS/OW vehicle permits was \$10.9 million in 2009 [1]. The State's Constitution requires all permit fees to be used for the construction, maintenance, and traffic supervision of Wyoming's highways, roads, and streets.

The state of Wyoming requires escort vehicles for special OS/OW loads [52]. However, the state does not require a certification for escort vehicles. All OS vehicles 15 ft. wide or wider, or 110 ft. long or longer, or 17 ft tall or taller are required to be accompanied by escort vehicles. Any OW vehicle flagged with special restrictions imposed by the Wyoming Bridge Department shall be accompanied by a rear escort on all highways. Based on the information provided by Wyoming Highway Patrol, the state is still deciding if they want to institute law enforcement escorts or not (see Appendix 1).

Table 43. Legal size and weight limits in Wyoming.

Vehicle/Axle Type	Legal Limit
Width	
All vehicles	8 ft. 6 in.
Height	
All vehicles	14 ft.
Length	
Single unit	60 ft.
Semitrailer	60 ft.
Doubles	81 ft. (semitrailer 48 ft. and
	trailer 40 ft. maximum.
No more than 3 saddlemount combinations	97 ft. 6 in.
Overall length of any combination of any other vehicles	85 ft.
Rear overhang	4 ft.
Weight ¹	

Gross vehicle weight ²	117,000 lbs.
Single axle	20,000 lbs.
Tandem axle	36,000 lbs.
Tridem axle	42,000 lbs.
Steering axle	20,000 lbs.

¹Must comply with federal bridge formula

Table 44. Permitted size and weight limits in Wyoming.

Size and Weight Considerations	Permitted Limit
Width	
Maximum width permitted	18 ft.
Height	
Maximum height permitted on holidays	17 ft.
Length	
Maximum length permitted on holidays	120 ft.
Weight ¹	
Single steering axle	25,000 lbs.
Single axle	29,000 lbs.
Tandem axle	55,000 lbs.
Tridem axle	65,000 lbs.
Quadrem axle	74,000 lbs.
Six or more axles	TBD
GVW^2	160,000

¹There are 10,000 lbs. and 8,000 lbs. per wheel limitations per regular and solid tires respectively. ²Vehicles with GVW larger than 160,000 lbs. require authorization from Highway Patrol OW loads office.

²This limitation applies to interstate, for primary and secondary highways this limitation is 80,000 lbs. Also this value depends on number of axle per truck and the axle distance. The maximum value of 117 lbs. is for a vehicle with 9 axle and 81 ft. distance between the extremes of any group of 2 or more consecutive.

Table 45. Summary of OS/OW vehicle permits available in Wyoming.

Permit Type		Permitted Size Limits (ft.)			Permitted Weight limits (lbs.) ¹					Annual	Cost (\$)		
		Height	Width	Length	GVW	Single ²	Tandem	Tridem	Quadrem	Quint	Six >		
Class A(super	OS	>17	>18	>120	>160,000 <250,000	25,000	55,000	65,000	74,000	85,000	90,000	N	25+0.03/mile/ft*
load) ³	ow				<230,000								40<0.06/mile/ton**
Class B	OS OW	<17	<18	<120	160,000	25,000	55,000	65,000	74,000	85,000	90,000	N	25+0.03/mile/ft* 40<0.06/mile/ton**
Class C ⁴	OS OW	<17	<18	<120	160,000	25,000	55,000	65,000	74,000	85,000	90,000	N	25+0.03/mile/ft* 40<0.06/mile/ton**
Class D ⁵	OS OW	<15	<12	<120	160,000	25,000	55,000	65,000	74,000	85,000	90,000	N	50 40<0.06/mile/ton**
Class E ⁶	Single tip OS recreational OS 90-day OW 90-day	<17	<18	<120	117,000	20,000	36,000	42,000	50,000	58,000	66,000	N	15 250 50 40<0.06/mile/ton**
Class F ⁷	Single trip OS recreational OS 90-day OW 90-day	<14	<8.5	Legal length	122,000	22,000	39,600	46,200	55,000	63,800	72,600	N	50 250 50 40<0.06/mile/ton**
Class W ⁸		<14	<8.5	Legal length	>117,000	20,000	36,000	42,000	50,000	58,000	66,000	N	40<0.06/mile/ton**
Off-load ⁹	OS OW	<17	<18	<120	160,000	25,000	55,000	65,000	74,000	85,000	90,000	N	25+0.03/mile/ft* 40<0.06/mile/ton**
Emergency re	elief ¹⁰	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Prior- operation ¹¹	OS OW	>17	>18	>120	>160,000	25,000	55,000	65,000	74,000	85,000	90,000	N	25+0.03/mile/ft* 40<0.06/mile/ton**

¹ In Wyoming the permitted weight for group of axles can be increased based on group configuration and distance of the axles in that configuration. For example, if Tridem group configuration includes single axle and a Tandem with 8 ft. spacing, the 65,000 lbs. limit can be increased to 70,000 lbs.

² The single axle permitted weight for a steering axle is 25,000 lbs., while the permitted weight is 29,000 lbs. for a single axle in a group.

³ Vehicles with GVW greater than 250,000 lbs. require engineering analysis. The additional engineering analysis fee includes amounts spent analyzing routs, as well as the cost of sending personnel to accompany load movements.

⁴ This permit is self-issuing single trip permit.

⁵ This permit is extended period multiple trip permit. This permit is for a specific vehicle and load, routs, and time period.

- ⁶ This permit is a OS permit for extended period. The Class E permit can be issued for only less than 90 days. This permit is for hauling forest products, baled hay or corn stalks, or combine headers.
- ⁷ This permit is an OW permit for extended period up to 90 days. The Class F permit is for hauling of forest products, sugar beets, gravel, livestock, and agricultural products. This permit is acceptable only on primary and secondary highways. 10% increase in the legal axle weight is allowed for this permit.
- ⁸ This permit is for multi-piece loads exceeding 117,000 lbs. The combination loads of each axle group has to meet the legal weight limitations. There is a \$100 application fee for this permit. This permit is only for interstate highways.
- ⁹This permit is for vehicles or loads exceeding statutory size and/or weight limits that cannot be safely reduced at the location where the violation was discovered.
- ¹⁰ This permit is OS/OW permit that can be issued when the Governor the director determines that greater weight or size will relieve an economic hardship or benefit the general welfare of Wyoming or another state.
- ¹¹ This permit is for unauthorized, non-permitted OS/OW violations for exceeding permit limits.
- * Additional 3 cents per mile for each foot or fraction thereof exceeding 15 ft. width, 15 ft. height, and 75 ft. length for OS permits.
- **Additional 6 cents per mile for each ton (2000 lbs.) or fraction thereof exceeding the statutory limits.

ENFORCEMENT TECHNOLOGIES

An oversize/overweight vehicle enforcement program is necessary to ensure adherence to statutory requirements and OS/OW permits. The enforcement program may include education, monitoring and punitive actions. This review focuses on the most common strategies and technologies used for monitoring and enforcement as identified from publications by FHWA and by the Texas Transportation Institute (TTI). Eight states responded to the survey questions on this topic (Arizona, California, Idaho, Montana, New Mexico, Oregon, Texas, and Utah.)

Traditional Enforcement Technologies

Static truck weigh stations. The standard enforcement of weight regulations for freight vehicles is placement of static truck weigh stations at permanent locations on the roadway network, particularly near ports of entry [53]. All states responding to emails in this study indicated that they used static truck weigh stations for enforcement. The stations are placed along borders and on interior highways.

Portable weight/wheel load scales. Another traditional enforcement technology is the portable wheel load scales for weighing truck axles [53]. Law enforcement officers may patrol the state's highways and use portable scales to weigh trucks or they may use the scales at temporary checkpoints. All states responding to emails in this study indicated that they use portable scales for enforcement. California indicated the portable scales are used for enforcement in locations where static scales are not available. Idaho specified that eleven two-man roving teams provide weight enforcement using Haenni scales. Oregon uses Haenni portable wheel load scales as well as Intercomp portable scales. Texas indicated each Commercial Vehicle patrol vehicle is equipped with four Haenni portable wheel scales. Arizona, Montana, and Utah confirmed generally that their states use this technology for weight enforcement. According to TTI, portable scales are generally highly accurate (+/- 1%), costing \$3,300 - \$13,500 for most vendor systems.

Virtual Weigh-In-Motion (WIM) Technologies

WIM systems aim at measuring the dynamic forces induced by a moving vehicle to estimate their corresponding static tire loads. WIM systems have evolved during the last seven decades from unusable into research quality data [54]. While early systems were severely limited by contemporary sensing, signal conditioning, and data acquisition technologies, modern WIM systems have taken advantage of a revolution in signal processing, sensing and data storage [55]. WIM systems consist of sensors installed in the roadway and the supporting roadside electronics needed to store, process, analyze, and transmit the data.

WIM systems can be used to determine a vehicle's gross weight, speed, axle weight, and axle spacing. The most common sensor technologies available include piezoelectric sensors (polymeric, ceramic, and quartz-based), bending plates, and load cells. Sensors are embedded in the pavement surface during installation and their accuracy is affected by pavement roughness and stiffness, and vehicle suspension and speed. Furthermore, environmental conditions such as temperature and moisture can also influence the sensor accuracy [55].

Bending plate and load cell sensors are only suitable for rigid pavements, whereas piezoelectric sensors are commonly used in flexible pavements [56]. Piezo-polymer and piezo-ceramic sensors

are known to suffer from temperature sensitivity and require auto-calibration and temperature compensation [57]. A recent feasibility study conducted in Arizona recommended the use of piezo-quartz sensors which are relatively insensitive to temperature changes. However, it warned that this type of sensors may still yield unreliable results when the pavement itself exhibited significant changes in properties as a function of temperature [56].

Information collected and analyzed by WIM systems is an essential component of electronic screening. Electronic screening allows commercial vehicles to pass a check point at regular speeds without stopping. The WIM system is used to check the vehicle's weight while an automatic vehicle identification (AVI) system is used to pull information related to the vehicle credentials including registration and permitted weight. Data from the WIM and AVI systems can be used to identify unpermitted overweight vehicles [58].

According to TTI, installation of virtual WIM stations is intrusive because permanent WIM sensors are required which, in turn, requires digging up pavement. TTI indicates that virtual WIM systems generally cost \$20,000 - \$55,000, though one vendor charged as much as \$135,000. The systems they tested were either highly or moderately reliable [53].

Weigh-In-Motion (WIM) system, preselection, mobile screening and virtual weigh stations.

Mobile Screening. According to FHWA, "In a typical mobile screening environment, an officer at the roadside with a laptop computer receives individual axle weights and gross vehicle weights that are wirelessly transmitted from the WIM device on the mainline to the mobile officer's laptop. The officer physically monitors the real-time WIM data on the laptop and visually identifies the trucks that are overweight according to the data received. The potentially overweight trucks are then intercepted for inspection after traveling past the WIM site." [59]

Virtual Weigh Station. A virtual weigh station is an enhancement of the simple mobile screening, because the roadside enforcement facility is monitored from another location, typically employing a camera to identify potential violators. Enforcement units are dispatched to intercept and weigh potential violators [59].

Mobile screening and virtual weigh stations are considered beneficial to both law enforcement and to freight companies that abide by legal weight limits. For law enforcement, these approaches allow officers to identify more violators and reduce the time spent weighing non-violators. For law-abiding freight companies, these approaches allow for more efficient freight movement [59].

In this study, five states (Arizona, Idaho, Montana, New Mexico, and Oregon) reported that they used mobile screening and/or virtual weigh stations. California indicated they do not have any virtual weigh stations systems in operation at this time. Arizona currently operates six virtual weigh stations at rest areas and plans to add 12 mobile screening sites in the next year. Idaho employs a range of WIM, Automatic Vehicle Identification, virtual weight station, and Smart roadside technologies to enforce size/weight requirements as well as to monitor hazardous material/waste transportation.

WIM system, preselection, fixed site-based mainline weight screening.

According to FHWA, the fixed site-based mainline weight screening system will "Automatically weigh vehicles on mainline highway as they approach weigh/inspection station. Provide real-time weight verification concurrent with safety and credentials verification for bypass eligibility. Potential weight violators signaled in for weighing on a static scale." [59]

All eight states that responded to this study reported use of this technology. Arizona uses this approach at five ports of entry, where mainline WIM sorting systems and variable message boards

are used to direct overweight trucks into the port. Caltrans implements mainline preselection through the Prepass and Drivewyze systems. Idaho indicated they use this technology at fixed ports of entry. Montana indicated that three of the busiest sites use the technology coupled with infra-red heat detection for brakes, tires, and hubs associated with PrePass. Oregon specified they use International Road Dynamics hydraulic load cell technology and Intercomp strip sensors at their WIM sites. Oregon has 21 WIM sites used to presort mainline traffic, including overheight detection. Texas indicated they have one mainline WIM associated with PrePass. Utah indicated they use the technology at some larger facilities for sorting and pre-selection.

WIM system, preselection, ramp sorting.

Where the mainline weight screening weighs trucks as they drive on the highway, the ramp sorting WIM system weighs trucks as the drive on the weigh station ramp and signals potential violators for weighing on a static scale [59].

Seven states in this study used ramp sorting WIM systems. Arizona indicated they use this technology at two ports of entry and seven rapid enforcement lanes at the Nogales International Port of Entry. California uses ramp sorting at multiple sites to accelerate inspection of trucks through weigh stations with high volumes. Idaho indicated the ramp sorting WIM is used by ports of entry fixed locations. Oregon has two sites that identify and sort traffic on the entrance ramp using WIM and LPR. Texas indicated they have ramp sorting WIM at border facilities and at three facilities outside of the border. The WIMs off the border are tied to ALRP/USDOT readers and over-height detectors. Utah indicated they use ramp sorting at a couple busy facilities and are currently implementing it in additional locations.

Dedicated short-range communications (DSRC), Norpass/Prepass/Drivewyze.

When approaching a DSRC-equipped weigh station, a truck with a DSRC transponder is identified through communication between the in-cab transponder and the Automatic Vehicle Identification (AVI) reader. The system checks the truck's weight, safety, and clearance status. The system will send a signal to the truck – green light means bypass the weigh station; red light means stop for inspection. The vendors are beginning to deliver the weigh station bypass communications through smartphones and tablets, as well as integrated into fleet mobility technologies [59][53].

Researchers reviewed the websites for the three major DSRC systems to determine use by state and confirmed the numbers from state surveys. All of the states in this study used at least one of the three systems. Most states used two of the systems. (See Table 46) Oregon indicated that Norpass and PrePass transponders can be used in that state. Oregon is also working with Drivewyze for a vehicle identification system.

Table 46. Number of Current Participating Weigh Stations by State [60][61][62].

State	PrePass	Norpass	Drivewyze
Arizona	8		7
California	35		34
Colorado	19		17
Idaho		5	7
Montana	10		1
Nevada			10
New Mexico	5		32
North Dakota			30
Oklahoma	10		12
Oregon	X	20	X
Texas	5		21
Utah	6		6
Wyoming	7		

Camera, optical character recognition (OCR), USDOT number or license plate reader (LPR)

These technologies read USDOT or license plate numbers and automate screening based on the numbers [59]. The eight responding states indicated that they use these technologies. Arizona indicated they are used at the virtual weigh station sites as well as two ramp screening locations. Caltrans indicated OCR is currently used at two locations. Idaho employs LPRs at three fixed locations now; two additional sites will be installed within a year. Montana and Texas have each incorporated these technologies at three locations. Oregon uses LPR technology at two virtual weigh stations to identify vehicles and at two other weigh stations to identify and sort traffic on the scale entrance ramp. Utah uses LPR/OCR technology at larger facilities for pre-sorting. Utah also has a portable LPR/OCR unit that the Highway Patrol uses for random enforcement activities.

Bridge collision avoidance technologies

TTI wrote that bridge collision avoidance technologies use over-height detectors connected to warning signs for vehicles approaching low-clearance bridges. A low-tech solution to this problem is to hand a sign over the roadway with dangling slats that make noise against the roof of an over-height vehicle. The high-tech solution uses radar-based detection systems to alert and divert over-height trucks[53].

Only two states indicated they use bridge collision avoidance technologies. Oregon has one site that uses infrared overheight detectors to warn oncoming traffic of an overheight vehicle. Triggering the infrared beam illuminates a warning sign. Texas indicated that they are currently installing three bridge collision systems [53].

Remote measurement of axle weights (onboard weight scales)

TTI identified a self-enforcement technology whereby vehicles monitor their own weight and communicate the data to enforcement entities. To weigh the vehicle, load gauges are attached to vehicle axles. The gauges measure each axle load. The weight data is communicated to a master unit in the truck cabin, which sends the data to enforcement agencies [53].

No states in this study reported using this technology.

Vehicle telematics/Permits with tracking codes

Enforcement agencies cope with the challenge of keeping overweight and oversize vehicles on specified routes to prevent negative interactions with infrastructure. TTI discussed two technologies that can be used to keep these trucks on their assigned routes: vehicle telematics and permits with tracking codes. TTI explained: "Telematics is a combination of global positioning system navigation, telecommunication, and informatics systems that can monitor the location, movements, and status of a [commercial motor vehicle]." TTI indicated that the technology is currently used primarily by trucking companies to track vehicle fleets, but it could be used to ensure overweight/oversize vehicles remain on assigned routes [53].

State agencies can also play a more active role in monitoring oversize and overweight truck movement by supplying tracking devices when permits are issued. No states in this study reported using vehicle telematics. Montana and Texas indicated they employ the permit with tracking code technologies.

CONCLUSIONS

This research project provides a comparative assessment of oversize/overweight (OS/OW) vehicle permits and fees in New Mexico and other western states. Current permitting practices, fee structures, fines, legal and permitted maximum weights and dimension limits, escort requirements and charges, compliance assessment practices, and available information on revenue generation and allocation are reviewed.

Permit types, fees and allowable weights in the State of New Mexico are compared with the other western states. It is observed that the permit structure in New Mexico is amongst the least complicated in the western states. Flat fees are compared for single-trip permits and annual/multiple-trip permits. The average minimum and maximum flat fees for a single-trip permit are \$15.65 and \$247 respectively. The typical flat fee for a single trip permit in the state of New Mexico is \$25.00 plus a weight-distance surcharge. Single-trip permits in Texas, Colorado, Utah, and North Dakota are substantially more expensive than other western states. The average minimum and maximum flat fees for annual/multiple permits are \$87.5 and \$1,024 respectively. The multiple/annual permit flat fee in the state of New Mexico is \$250.00, which is less than the average of the maximum value. Texas, Montana, and Arizona charge substantially higher multiple/annual permit flat fees. It is also observed that the states surrounding New Mexico (OK, TX, CO, UT, and AZ) charge higher permit flat fees.

Among all the western states, Texas and Oklahoma collected the highest revenue from OS/OW permits. However, the revenue information was not normalized by the number of permits or number of OS/OW vehicles, so it cannot be concluded that the higher revenues in one state provide sufficient funds to maintain that state's infrastructure at an appropriate level of service. Similarly, the lower revenues collected in other states may just reflect low OS/OW traffic volumes. In other words, the damage caused by OS/OW vehicles to each state's infrastructure needs to be evaluated to assess the funds required to maintain bridges and pavements at acceptable service levels. Revenues generated in Texas exceed the combined revenues of all other western states.

Fines are a significant part of OS/OW vehicle traffic regulation to ensure that trucks comply with the permitting rules established by the state they are crossing. A comparison of fines associated with a violation of 10,001 lbs. overage in GVW showed that the fines are proportional to permit fees in most western states.

New Mexico charges some of the lowest permit flat fees and it is unlikely that the state is recovering sufficient funds to maintain the state network of bridges and pavements impacted by overweight traffic. However, determining the appropriate fees required to maintain a revenue-neutral income from OS/OW was outside of the scope of this comparative analysis. The determination of permit fees requires a comprehensive study to evaluate the damage to bridges and pavements caused by OS/OW vehicles in New Mexico. Therefore, it would be irresponsible for the research team to make any recommendations regarding a permit fees based solely on the comparison with other western states.

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APPENDIX 1

ARIZONA

Permits

Class A

Class A is a multiple (30-day) or single (4-day) permit. This permit can be OS, OW, or OS/OW special permit for specified and non-reducible load. The size limitations for height, length and width are 16 ft., 120 ft., and 14 ft. respectively. The GVW weight for this permit shall not exceed 250,000 lbs. The axle weight restriction also shall be met (see the next section). Costs of this permit are as follows:

OS single permit cost: \$15 flat fee OS multiple permit cost: \$30 flat fee OW single permit cost: \$75 flat fee OW multiple permit cost: \$75 flat fee

Class B

Class B permit is an annual OS special permit for a specified non-reducible vehicle and load combination that exceeds the legal size limitations (see Arizona section). Legal GVW is limited to 80,000 lbs. and the axle weight has to meet the permitted axle weight (see the next section). The height, length, and weight limitations are 14 ft.-8 in., 12 ft.-6 in., and legal length limitation.

Cost \$360 flat fee

Class C

Class C is a single trip OS, OW, or OS/OW special permit according to the following criteria for a specified non-reducible vehicle that exceeds permitted weight and size limitations (e.g. GVW greater than 250,000 lbs.). In addition to Class C permit fee, an engineering analysis fee will be charged by ADOT. This charge is \$15 for OS vehicle with width or height less than 18 ft., \$25 for OS with width or height more than 18 ft., \$75 per 50-mile increment for OW vehicles and analysis done by non-ADOT and reviewed by ADOT, and \$125 per 50-mile increment for OW vehicles and analysis done by ADOT. Costs of permit for Class C are as follows:

OS permit cost: \$15 flat fee OW permit cost: \$75 flat fee OS/OW permit cost: \$75 flat fee

Class D

Class D is an annual OS or OW special permit for a specified non-reducible self-propelled mobile crane, drilling rig, or similar specialty equipment meeting the dimensional and weight requirements of Class A.

Cost \$600 flat fee

Class E

Class E oversize or overweight special permit for transporting reducible loads using an LCV that comprises of a truck or truck tractor and one or more trailers. The maximum GVW for LCV-triple is 123,500 lbs. (only on I-15 this value can be increased to 129,000 lbs.). The length limitation for this permit is 95 ft. The cost for this permit depends on GVW and duration of the permit as follows:

Table 47. Class E permit fees in Arizona [13][14].

GVW (lbs.)	Cost (\$)
80,000-111,000-single or 30-day	75
80,000-111,000-annual	360
121,000 for 9 axles; or 123,500 for 10 axles-annual	360
111,001-129,000- single or 30-day	75
111,001-129,000- annual	600

Class G

Class G is an annual, 30-day, or single trip OS (overwidth) special permit for a specified vehicle with a reducible load that exceeds only the legal width threshold. The width cannot exceed 10 ft. The cost of this permit is as follows:

Single permit cost: \$15 flat fee

Multiple or 30-day permit cost: \$30 flat fee

Annual permit cost: \$360 flat fee

Class H

Class H is an OS (overwidth) special annual permit for multiple trips of a specified vehicle and watercraft load combination that registered with Game and Fish or U.S. Coast Guard and exceeds the legal width threshold. The width shall not exceed 10 ft.

Cost \$45

Envelope

Envelope permit is an annual or 30-day OS permit, or an annual or 30-day OS/OW permit for a non-specific and non-reducible vehicle or load that does not exceed the maximum permitted weight for OW axle group weight distribution as provided in the next section. This permit cannot be issued for mobile homes.

OS 30-day permit cost: \$150 flat fee OS/OW 30-day permit cost: \$500 flat fee OS annual permit cost: \$750 flat fee OS/OW annual permit cost: \$1500 flat fee

Permitted weights

The permitted weight for different axle combinations in Arizona depends on axle spacing, number and width of tires per axle, and width of each axle. The permitted weight can be determined using a formula defined in Arizona code as:

Weight (lbs)=1.5x700(L+40)

where L is the distance between the center of the front axle and the center of the rear of given group in ft. The weight calculated using this equation is allowed to be increased based on axle width and number of tires per axle or width of tiers in each axle. The allowable increase in percentage is listed in Table 48.

Table 48. Allowable axle weigh increase in Arizona.

		Θ									
		Axle width (ft.)									
	8	8.25	8.5	8.75	9	9.25	9.5	9.75	10		
Four tires per axle or two 14-inch wide tires.	0%	1.875%	3.75%	5.625%	7.5%	9.375%	11.25%	13.125%	15%		
Eight tires per axle or four 14-inch wide tires.	15%	16.25%	17.5%	18.75%	20%	21.25%	22.5%	23.75%	25%		

Permitted weight is limited to 28,000 lbs for single axle alone.

The following is an example given in the Arizona code [13][14] to calculate permitted axle weights with different configurations.

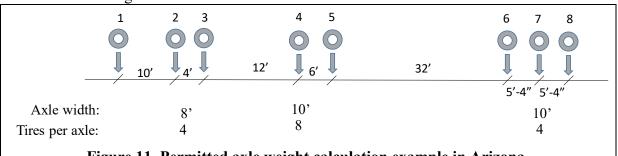


Figure 11. Permitted axle weight calculation example in Arizona.

(Axle 1) a single axle alone and the permitted load W is 28,000 lbs.

(Axle 2+3); L=4'; W=1.5x700(4+40)x(1+0)=46,200 lbs

(Axle 1) + (Axle 2+3); L=14'; W=1.5x700(14+40)x(1+0)=56,700 lbs

(Axle 4+5); L=6'; W=1.5x700(6+40)x(1+0.25)=60,375 lbs

(Axle 2+3+4); L=16'; W=(2/3)x1.5x700(16+40)x(1+0)+(1/3)x1.5x700(16+40)x(1+0.25)=63,700 lbs

(Axle 3+4+5); L=18'; W=(1/3)x1.5x700(18+40)x(1+0)+(2/3)x1.5x700(18+40)x(1+0.25)=71,050 lbs

(Axle 3+4); L=12'; W=(1/2)x1.5x700(12+40)x(1+0)+(1/2)x1.5x700(12+40)x(1+0.25)=61,425 lbs

(Axle 6+7+8); L=10' 8"; W=1.5x700(10.66+40)x(1+0.15)=61,180 lbs

Registration

Vehicles traveling to or through Arizona are required to carry proper documentation, including: an Arizona registration, an International Registration Plan (IRP), and a fuel tax license. Otherwise the operator required to procure a permit. A single trip permit may last up to 4 days and its cost depends on the total miles traveled as defined in Table 49

Table 49. Out of state trip permit cost in Arizona.

		Distance (miles)											
Axles	1 to 50	51 to	101 to	151 to	201 to	251 to	301 to	351 to	401 to				
		100	150	200	250	300	350	400	450				

1 or 2	\$2.00	\$4.00	\$6.00	\$8.00	\$10.00	\$12.00	\$14.00	\$16.00	\$18.00
3	\$3.00	\$6.00	\$9.00	\$12.00	\$15.00	\$18.00	\$21.00	\$24.00	\$27.00
4	\$4.00	\$8.00	\$12.00	\$16.00	\$20.00	\$24.00	\$28.00	\$32.00	\$36.00
5	\$5.00	\$10.00	\$15.00	\$20.00	\$25.00	\$30.00	\$35.00	\$40.00	\$45.00
6	\$6.00	\$12.00	\$18.00	\$24.00	\$30.00	\$36.00	\$42.00	\$48.00	\$54.00
Over 6	\$7.00	\$14.00	\$21.00	\$24.00	\$35.00	\$42.00	\$49.00	\$56.00	\$63.00

The cost of a single-trip permit for motor vehicles depends on the type of the vehicle and traveling distance in Arizona. Table 49 shows single-trip registration fees for commercial motor vehicles. It seems that this is a reiteration fee and does apply to all vehicles [15].

Table 50. The cost of a single-trip permit for motor vehicles in Arizona.

Туре	Traveling distance (mile)	GVW (lbs.)	Cost (\$)
Motor vehicles	0-50	>12,000	12
Motor vehicles	>50	>12,000	48
diesel vehicle	0-50	>26,000	16
diesel vehicle	>50	>26,000	65

Instead of purchasing single-trip permits each time entering Arizona for carriers that travel through Arizona multiple times there are registration permits that can be issued and can be used for 30, 60, or 90 days. The fee for these permits are determined by the declared GVW of the vehicle, the year of the vehicle and depending on which of the three permits are being issued. The vehicle under the permit needs to be registered in another state, it can't exceed the GVW declared, and the vehicle also needs to be a diesel.

A 30, 90, and 180-day use fuel registration permit can also be issued for diesel vehicles such as road tractors, truck tractors, truck or passenger-carrying vehicles with a GVW greater than 26,000 lbs. having more than two axles. The registration permit fee is based on length of the period requested.

30 days: \$13090 days: \$390180 days: \$780

Fine

According to the Arizona Statutes 28-1101 [16][17] a vehicle carrying a load heavier than permitted can be penalized as follows:

Table 51. Fine for OW violation in Arizona.

Weight (Pounds)	Fine (\$)
1,001-1,250	100.00
1,251-1,500	200.00
1,501-2,000	300.00

2,001-2,500	400.00
2,501-3,000	500.00
3,001-3,500	840.00
3,501-4,000	980.00
4,001-4,500	1,120.00
4,501-4,750	1,260.00
4,751-5,000	1,400.00
5,001 and over	1,400.00 + 100 per
	1000lb Overweight

Violations of both permitted GVW and axle weight will result in a fine for the vehicle driver. If the violation is related to axle weight, the officer can allow the driver to move the loads to meet the permit requirements.

The civil penalty, fee, and fine will be deposited to the Arizona highway user revenue fund.

Fees Charged to Certify Escort Vehicles.

According to the Arizona Trucking Association (ATA), the only fee charged to certify a vehicle is associated to a course that the driver must satisfy to be able to drive an escort vehicle. The registration cost of the class is \$245.00. There are discounted prices available for ATA members.

Arizona can provide police escorts for OS/OW vehicles at a rate of \$61.40 per hour/per trooper in addition to \$0.45 per mile/per vehicle. The charge is made portal to portal, meaning the trooper's time and mileage starts when he leaves his own residence, and ends when he gets back home. This information was provided via email by Secondary/Off Duty Employment Coordinator in the Arizona Department of Public Safety.

CALIFORNIA

Table 52. Complete legal weights as a function of the number of axles and the distance between the extreme axles within an axle group.

between the ex	xtreme axle	s within	an axle	group.	
Distance in feet between the extremes of	2 axles	3 axles	4 axles	5 axles	6 axles
any group of 2 or more consecutive axles	(lbs.)	(lbs.)	(lbs.)	(lbs.)	(lbs.)
4	34,000	34,000	34,000	34,000	34,000
5	34,000	34,000	34,000	34,000	34,000
6	34,000	34,000	34,000	34,000	34,000
7	34,000	34,000	34,000	34,000	34,000
8	34,000	34,000	34,000	34,000	34,000
9	39,000	42,500	42,500	42,500	42,500
10	40,000	43,500	43,500	43,500	43,500
11	40,000	44,000	44,000	44,000	44,000
12	40,000	45,000	50,000	50,000	50,000
13	40,000	45,500	50,500	50,500	50,500
14				-	
	40,000	46,500	51,500	51,500	51,500
15	40,000	47,000	52,000	52,000	52,000
16	40,000	48,000	52,500	52,500	52,500
17	40,000	48,500	53,500	53,500	53,500
18	40,000	49,500	54,000	54,000	54,000
19	40,000	50,000	54,500	54,500	54,500
20	40,000	51,000	55,500	55,500	55,500
21	40,000	51,500	56,000	56,000	56,000
22	40,000	52,500	56,500	56,500	56,500
23	40,000	53,000	57,500	57,500	57,500
24	40,000	54,000	58,000	58,000	58,000
25	40,000	54,500	58,500	58,500	58,500
26	40,000	55,500	59,500	59,500	59,500
27	40,000	56,000	60,000	60,000	60,000
28	40,000	57,000	60,500	60,500	60,500
29	40,000	57,500	61,500	61,500	61,500
30	40,000	58,500	62,000	62,000	62,000
31	40,000	59,000	62,500	62,500	62,500
32	40,000	60,000	63,500	63,500	63,500
33	40,000	60,000	64,000	64,000	64,000
34	40,000	60,000	64,500	64,500	64,500
35	40,000	60,000	65,500	65,500	65,500
36	40,000	60,000	66,000	66,000	66,000
37	40,000	60,000	66,500	66,500	66,500
38	40,000	60,000	67,500	67,500	67,500
39	40,000	60,000	68,000	68,000	68,000
40	40,000	60,000	68,500	70,000	70,000
41	40,000	60,000	69,500	72,000	72,000
42	40,000	60,000	70,000	73,280	73,280
43	40,000	60,000	70,500	73,280	73,280
44	40,000	60,000	71,500	73,280	73,280
45	40,000	60,000	72,000	76,000	80,000
46	40,000	60,000	72,500	76,500	80,000
47	40,000	60,000	73,500	77,500	80,000
48	40,000	60,000	74,000	78,000	80,000
49	40,000	60,000	74,500	78,500	80,000
50	40,000	60,000	75,500	79,000	80,000
51	40,000	60,000	76,000	80,000	80,000
52	40,000	60,000	76,500	80,000	80,000

53	40,000	60,000	77,500	80,000	80,000
54	40,000	60,000	78,000	80,000	80,000
55	40,000	60,000	78,500	80,000	80,000
56	40,000	60,000	79,500	80,000	80,000
57	40,000	60,000	80,000	80,000	80,000
58	40,000	60,000	80,000	80,000	80,000
59	40,000	60,000	80,000	80,000	80,000
60	40,000	60,000	80,000	80,000	80,000

Table 53. Overweight fines in the State of California [19].

8		
Pounds of excess weight	Fine (\$)	
0-1,000	20	=
1,001–1,500	30	
1,501-2,000	40	
2,001–2,500	55	
2,501-3,000	85	
3,001–3,500	105	
3,501–4,000	125	
4,001–4,500	145	
4,501-5,000	175	
5,001-6,000	0.04/lb.	
6,001-7,000	0.06/lb.	
7,001–8,000	0.08/lb.	
8,001–10,000	0.15/lb.	
10,001 and over	0.20/lb.	

Table 54. Purple and bonus purple weight limits.

PURPLE AND BONUS OVERLOADS*

MAXIMUM PERMIT WEIGHT ON TANDEM AXLES = 60,000 POUNDS

Example: 8' - 0" Distance Between First and Last Axle in Feet

 50,400
 4 tires, 8' - 0" Wide
 Purple Load = 1.5 x 700 (L + 40)

 57,960
 8 tires, 8' - 0" Wide
 Purple Load (+ 15%) = 1.15 x 1.5 x 700 (L + 40)

 63,000
 8 tires, 10' - 0" Wide
 Purple Load (+ 25%) = 1.25 x 1.5 x 700 (L + 40)

IN.	0	1	2	3	4	5	6	7	8	9	10	11
FT.												
	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000
2	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000	32,000
	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
	28,000	28,000	28,000	28,000	28,000	28,000	45,675	45,763	45,850	45,938	46,025	46,113
3	32,200	32,200	32,200	32,200	32,200	32,200	52,526	52,627	52,728	52,828	52,929	53,029
	35,000	35,000	35,000	35,000	35,000	35,000	57,094	57,203	57,313	57,422	57,531	57,641
	46,200	46,288	46,375	46,463	46,550	46,638	46,725	46,813	46,900	46,988	47,075	47,163
4	53,130	53,231	53,331	53,432	53,533	53,633	53,734	53,834	53,935	54,036	54,136	54,237
	57,750	57,859	57,969	58,078	58,188	58,297	58,406	58,516	58,625	58,734	58,844	58,953
	47,250	47,338	47,425	47,513	47,600	47,688	47,775	47,863	47,950	48,038	48,125	48,213
5	54,338	54,438	54,539	54,639	54,740	54,841	54,941	55,042	55,143	55,243	55,344	55,444
	59,063	59,172	59,281	59,391	59,500	59,609	59,719	59,828	59,938	60,047	60,156	60,266
	48,300	48,388	48,475	48,563	48,650	48,738	48,825	48,913	49,000	49,088	49,175	49,263
6	55,545	55,646	55,746	55,847	55,948	56,048	56,149	56,249	56,350	56,451	56,551	56,652
	60,375	60,484	60,594	60,703	60,813	60,922	61,031	61,141	61,250	61,359	61,469	61,578
_	49,350	49,438	49,525	49,613	49,700	49,788	49,875	49,963	50,050	50,138	50,225	50,313
7	56,753	56,853	56,954	57,054	57,155	57,256	57,356	57,457	57,558	57,658	57,759	57,859
	61,688	61,797	61,906	62,016	62,125	62,234	62,344	62,453	62,563	62,672	62,781	62,891
	50,400	50,488	50,575	50,663	50,750	50,838	50,925	51,013	51,100	51,188	51,275	51,363
8	57,960	58,061	58,161	58,262	58,363	58,463	58,564	58,664	58,765	58,866	58,966	59,067
	63,000	63,109	63,219	63,328	63,438	63,547	63,656	63,766	63,875	63,984	64,094	64,203
	51,450	51,538	51,625	51,713	51,800	51,888	51,975	52,063	52,150	52,238	52,325	52,413
9	59,168	59,268	59,369	59,469	59,570	59,671	59,771	59,872	59,973	60,073	60,174	60,274
	64,313	64,422	64,531	64,641	64,750	64,859	64,969	65,078	65,188	65,297	65,406	65,516
	52,500	52,588	52,675	52,763	52,850	52,938	53,025	53,113	53,200	53,288	53,375	53,463
10	60,375	60,476	60,576	60,677	60,778	60,878	60,979	61,079	61,180	61,281	61,381	61,482
	65,625	65,734	65,844	65,953	66,063	66,172	66,281	66,391	66,500	66,609	66,719	66,828
	53,550	53,638	53,725	53,813	53,900	53,988	54,075	54,163	54,250	54,338	54,425	54,513
11	61,583	61,683	61,784	61,884	61,985	62,086	62,186	62,287	62,388	62,488	62,589	62,689
	66,938	67,047	67,156	67,266	67,375	67,484	67,594	67,703	67,813	67,922	68,031	68,141
40	54,600	54,688	54,775	54,863	54,950	55,038	55,125	55,213	55,300	55,388	55,475	55,563
12	62,790	62,891	62,991	63,092	63,193	63,293	63,394	63,494	63,595	63,696	63,796	63,897
	68,250	68,359	68,469	68,578	68,688	68,797	68,906	69,016	69,125	69,234	69,344	69,453
40	55,650	55,738	55,825	55,913	56,000	56,088	56,175	56,263	56,350	56,438	56,525	56,613
13	63,998	64,098	64,199	64,299	64,400	64,501	64,601	64,702	64,803	64,903	65,004	65,104
	69,563	69,672 56,788	69,781 56,875	69,891 56,963	70,000 57,050	70,109 57,138	70,219 57,225	70,328 57,313	70,438 57,400	70,547 57,488	70,656 57,575	70,766 57,663
14	56,700 65,205	65,306	65,406	65,507	65,608	65,708	65,809	65,909	66,010	66,111	66,211	66,312
14	70,875	70,984	71,094	71,203	71,313	71,422	71,531	71,641	71,750	71,859	71,969	72,078
	57,750	57,838	57,925	58,013	58,100	58,188	58,275	58,363	58,450	58,538	58,625	58,713
15	66,413	66,513	66,614	66,714	66,815	66,916	67,016	67,117	67,218	67,318	67,419	67,519
13	72,188	72,297	72,406	72,516	72,625	72,734	72,844	72,953	73,063	73,172	73,281	73,391
	58,800	58,888	58,975	59,063	59,150	59,238	59,325	59,413	59,500	59,588	59,675	59,763
16	67,620	67,721	67,821	67,922	68,023	68,123	68,224	68,324	68,425	68,526	68,626	68,727
10	73,500	73,609	73,719	73,828	73,938	74,047	74,156	74,266	74,375	74,484	74,594	74,703
	59,850	59,938	60,025	60,113	60,200	60,288	60,375	60,463	60,550	60,638	60,725	60,813
17	68,828	68,928	69,029	69,129	69,230	69,331	69,431	69,532	69,633	69,733	69,834	69,934
''	74,813	74,922	75,031	75,141	75,250	75,359	75,469	75,578	75,688	75,797	75,906	76,016
	60,900	1,022	10,001	10,111	10,200	70,000	10,100	10,010	10,000	10,101	10,000	10,010
18	70,035											
	76,125											
	10,120		L					L				

 $^{^{\}star}$ A set of tandem axles with spacing between axles of less than 3' - 6" is considered as a single axle.

Table 55. Green and bonus green weight limits.

GREEN AND BONUS OVERLOADS* MAXIMUM PERMIT WEIGHT ON TANDEM AXLES = 52,000 POUNDS

Example: 8' - 0" Distance Between First and Last Axle in Feet

43,680	4 tires, 8' - 0" Wide	Green Load = 1.3 x 700 (L + 40)
50,232	8 tires, 8' - 0" Wide	Green Load (+ 15%) = 1.15 x 1.3 x 700 (L + 40)
54,600	8 tires, 10' - 0" Wide	Green Load (+ 25%) = 1.25 x 1.3 x 700 (L + 40)

FT. 2			1										
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^{*} A set of tandem axles with spacing between axles of less than 3' - 6" is considered as a single axle.

COLORADO

Table 56. Overweigh fines for unpermitted loads [24].

Excess Weight (lbs.)	Penalty (\$)	Surcharge (\$)
1-1,000	20.00	15.00
1,001-3,000	25.00	15.00
3,001-5,000	25.00 + 0.03/lb.	49.00
5,001-7,000	25.00 + 0.05/lb.	109.00
7,001-10,000	25.00 + 0.07/lb.	385.00
10,001-15,000	25.00 + 0.10/lb.	1,893.00
15,001-19,750	25.00 + 0.15/lb.	2,439.00
19,750 and over	25.00 + 0.25/lb.	492.00 + 28.00 per 250 lb. over

Table 57. Overweight fines for permitted loads [24]

Excess Weight (lbs.)	Penalty (\$)	Surcharge (\$)
1-2,500	50.00	47.00
2,501-5,000	100.00	97.00
5,001-7,500	200.00	193.00
7,501-10,000	400.00	385.00
10,000 and over	400.00 + 297.00 per	150.00 + 144.00 per
	1,000lbs	1,000lbs

IDAHO

Table 58. Idaho overweight fines [28].

Excess Weight (lbs.)	Penalty (\$)
1-1,000	5.00
1,001-2,000	15.00
2,001-4,000	25.00
4,001-15,000	25.00 + 0.1341/lb. over 4,000 lbs.
15,001-20,000	1,500.00 + 0.20/lb. over 15,000 lbs.
20,001 and over	2,500.00 + 0.30/1b. over 20,000 lbs.

MONTANA

Table 59. Overweight fines in Montana [29].

Excess weight (Pounds)	Fee (\$)
< 2,000	30.00
2,000 - 4,000	75.00
4,001 - 6,000	125.00
6,001 - 8,000	175.00
8,001 – 10,000	250.00
10,001 - 12,000	275.00
12,001 - 14,000	300.00
14,001 – 16,000	400.00
16,001 – 18,000	500.00
18,001 - 20,000	600.00
20,001 – 25,000	1,000.00
> 25,000	2,000.00

NEVADA

Table 60. Overweight fines in Nevada [31].

Excess weight (Pounds)	Fee (\$)
< 1,500	10.00
1,501 - 2,500	0.01/lb.
2,501 – 5,000	0.02/lb.
5,001 – 7,500	0.04/lb.
7,501 – 10,000	0.06/lb.
> 10,001	0.08/lb.

NEW MEXICO

Permits

TRIP TAX

In addition to permitting fees, in New Mexico if a driver of a commercial vehicle does not possess a valid Tax Identification Permit, it requires to pay a trip tax. The tax is based on miles and the total GVW. The tax per mile is:

Table 61. Trip tax in New Mexico.

GVW (lbs.)	Tax Per Mile (\$)
12,001 to 26,000	0.07
26,001 to 54,000	0.12
54,001 to 72,000	0.15
72,001 and above	0.16

Permitted size and weights

According to the NMDOT website [63], the allowable vehicle sizes are presented in Figure 12 and 6.

SIZE Single Unit Forty Feet (40') EXCLUDING FRONT & REAR BUMPER

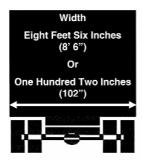


EXCLUDING FRONT & REAR BUMPER



EXCLUDING FRONT & REAR BUMPER

Figure 12 NM Allowable Lengths [63].







FRONT & REAR OVERHANG

Figure 13 NM Allowable Width, Height, Overhangs [63]

NMDOT's Bridge Bureau provides **technical support** to the Department's Permit Office – OS/OW Permitting Program. All permits are issued by the Permit Office. Using NMDOT's bridge inventory data, roadway data and roadway conditions obtained from the Districts, OS/OW vehicles are routed through the state's roadways by evaluating bridge load capacities and conditions, bridge heights, roadway widths, and construction width restrictions and other factors which may influence the requested route.

All loads exceeding the maximum allowed legal weights as allowed by New Mexico Traffic Laws. Loads are further classified by NMDOT into several categories:

- 1. **Permit Load** Greater than the legal load limit and less than 170,000 lbs. These loads are analyzed and routed with the automated permitting system (NMOPS) which contains NMDOT's OVLOAD program which performs a simplified beam analysis (2-dimensional) of all of the bridges on the route. These permits are issued automatically unless an issue with the route is flagged.
- 2. **Over Load** –170,000 lbs. or greater and less than 300,000 lbs. These loads are forwarded to the Bridge Bureau for final approval by a Data Analyst. These loads are analyzed within NMOPS. The bridge analysis and the route are reviewed and issued within 4 hours.
- 3. **Super Load I** –300,000 lbs. or greater and less than 500,000 lbs. These loads are forwarded to the Bridge Bureau for final approval by an Engineer. These loads are analyzed within NMOPS. The bridge analysis and the route are reviewed and issued within 14 days.

- 4. **Super Load II** –500,000 lbs. and greater. These loads are forwarded to the Bridge Bureau for final approval by an Engineer. These loads are analyzed with NMDOT's Bridge Rating program (BrR) which performs a complex analysis of the bridge and the load (3-dimensional). These loads may require additional time for the required analysis.
- 5. **Self-propelled Load** Overweight vehicles whose weight is a result of the vehicle itself (eg.- drill rigs and cranes). These loads are forwarded to the Bridge Bureau for final approval by a Data Analyst. These loads are analyzed within NMOPS. These loads usually have non-standard axles. groups and weights vary from 42,000 lbs. and greater. The permit is usually approved within 4 hours.

Loading Chart shown in Figure 10 lists maximum allowable weight per axle or more commonly by axle group. The chart is further divided by routes.

White Route – Routes with no bridges on route with Operating Load Rating less than HS 30.

Green Route – Routes with a bridge on route with operating load rating greater than HS 25 and less than HS 30.

Blue Route – Routes with a bridge on route with operating load rating greater than HS 20 and less than HS 25.

Red Route – Routes with a bridge on route with operating load rating less than HS 20 or any weight restricted structures. Most restrictive routes.

Registration

In New Mexico, all vehicles must have a valid registration document.

Fine

If a commercial vehicle is found carrying an OS/OW load without a permit, the vehicle will be detained until the proper permits are obtained.

When a vehicle is above the allowable size the court decides the fine. When the vehicle is over the allowable weight then the following fines are applied:

Table 62. Overweight fines in New Mexico

Weight (pounds)	Fines (\$)
1 - 3,000	50 + court costs
3,001 – 4,000	80 + court costs
4,001 - 5,000	150 + court costs
5,001 - 6,000	250 + court costs
6,001 - 7,000	400 + court costs
7,001 - 8,000	550 + court costs
8,001 – 9,000	700 + court costs

9,001 – 10,000	850 + court costs
Over 10,000	1000 + court costs

NORTH DAKOTA

Permits

According to ND motor carrier [33]:

The 129,000 Primary Network Permit allows a vehicle combination hauling a divisible load to exceed 105,500 pounds up to 129,000 pounds GVW. All axle weights must be legal. No single trailer may exceed 53'. Cargo carrying length may not exceed 100'. The permit for 1 day costs \$20 plus a \$10 routing fee. The 30-day permit costs \$100. The annual permit costs \$700.

An interstate OW permit is required for a vehicle with a divisible load of GVW exceeding 80,000 lbs. The GVW cannot exceed 105,500 pounds. The GVW and permitted gross axle weights are defined in the next section. Fee for a single one-way trip (not to exceed 3 days) interstate permit is \$10 plus a \$15 service/ routing fee. The fee for an annual interstate permit is \$300.

A single trip permit is required for the movement of an OS manufactured home in North Dakota. The permit is valid for three days at a cost of \$20, plus \$5 fee for each permit faxed, and \$15 service/routing fee for each single trip permit. There may be additional ton mileage fees depending on the weight of the home.

The fee for a single one-way trip (not to exceed three days) special mobile equipment (SME) permit is \$25 minimum but additional charges can be made for ton mile fees during spring thaw or if travel is on highways with load limits year round. SME can include a truck crane, concrete pump unit, etc... (excludes earthmoving equipment.)

A work-over service rig is a non-reducible self-propelled vehicle that exceeds ND legal vehicle size and weight limits. A single trip permit is required when traveling on the state highway system. The permit for a one-way trip is valid for three days or for multiple trips made within a 24 hour period. The permit fee is \$100.

The longer combination vehicle (LCV) permit allows a vehicle with a divisible load to exceed 105,500 lbs. but not to exceed 131,000 lbs. GVW. All axle weights must be legal. A LCV oneway single trip permit (up to 3 days) is \$20; a 30-day permit can also be purchased for \$100 for every 30 days.

The bridge length permit allows a single unit truck with an axle group consisting of 4 or more axles the same weight on the state system as is allowed on the interstate system. The single unit straight truck must meet the following requirements: 1. A single unit straight truck only; 2. Vehicle must have sufficient axles and bridge lengths for gross weight desired; 3. gross vehicle weight cannot exceed 80,000 pounds, and 4. no axle shall exceed 19,000 pounds. Bridge length single one-way trip (3 days) permit is \$30. The annual permit is \$150 and expires on December 31 each year.

A single trip overdimensional only permit is required for an overwidth load that exceeds North Dakota legal vehicle size limits up to 14'6 wide. A single trip permit is valid for one load movement up to three days.

A single trip building and/or trunnion permit is required for all non-reducible oversize and/or overweight load movements that exceed North Dakota legal vehicle size limits. A single trip permit is valid for one load movement up to three days.

Farm Product & Solid Waste permit is a seasonal permit that is valid between July 15 - November 30. This permit allows 10% more weight of product from the field to the first point of storage, and for the transport of solid waste. Gross vehicle weight (GVW) not to exceed 105,500 lbs. The fee is \$50 per 30-day period.

The Wintertime permit is another seasonal permit that is valid between December 1 - March 7. This permit allows 10% more weight for a divisible load, not to exceed a GVW of 105,500 pounds. (If spring load restrictions become effective prior to March 7, the 10% weight exemption permit is cancelled.) The fee is \$50 per 30-day period.

Combination Harvest/Winter (Durational) combines the previous two seasonal permits and is valid from July 15 through March 7. The permit fee is \$250.

An annual overlength permit can be purchased in lieu of a single trip permit. Legal length of a straight truck is 50'. Legal length of a trailer and/or load is 53'. A permit is required of these lengths are exceeded. All other dimensions (height and width) must be legal. All axle, bridge lengths, and gross weight must be legal. The fee for the annual overlength permit is \$150.

An annual overwidth permit can be purchased in lieu of a single trip permit when a vehicle/ load exceeds the legal width of 8'6". All other dimensions (length and height) must be legal. All axle weights, bridge lengths and gross weight must be legal. Axle/gross vehicle weight cannot exceed weight limits imposed on highways during spring thaw or when travel is on a highway with load limits year round. The permit excludes hauling of hay, straw, and manufactured homes. The permit is valid for a calendar year. The fee for the annual overwidth permit is \$150.

The seasonal permit authorizes the movement of any one of the following overwidth vehicles or loads: hay, grain cleaner, hay grinder, forage harvester, fertilizer spreader, and agricultural chemical applicator. This permit also allows movement of overwidth and overweight self-propelled fertilizer spreaders and self-propelled chemical applicators. A seasonal permit is valid from January 1 through December 31. The fee for the seasonal permit is \$50.

Permitted weights

The maximum permittable weight on a single axle(s) is 30,000 pounds on an implement of husbandry in tow by a North Dakota implement manufacturer. No tire shall exceed 550 pounds per inch of tire width.

Table 63. Permitted axle weight in North Dakota.

Tire Size	Single Axle 2 Tires	Single Axle 4 Tires	Tandem Axle 4 Tires	Tandem Axle 8 Tires	Triple Axle 12 Tires	Four Axles 16 Tires
8.2	9,840 #	19,680 #	19,680 #	39,360 #	54,120#	*68,000#
9	10,800 #	21,600 #	21,600 #	43,200 #	59,400#	*68,000#
10	12,000 #	*24,000 #	24,000 #	*45,000 #	*60,000 #	*68,000#
11	13,200 #	*24,000 #	26,400 #	*45,000 #	*60,000#	*68,000#
11.2 285m	13,440 #	*24,000 #	26,880 #	*45,000 #	*60,000#	*68,000#
11.6 295m	13,920 #	*24,000 #	27,840 #	*45,000 #	*60,000#	*68,000 #
12	14,400 #	*24,000 #	28,800 #	*45,000 #	*60,000#	*68,000 #
12.4 315m	14,880 #	*24,000 #	29,760 #	*45,000 #	*60,000#	*68,000 #
13	15,600 #	*24,000 #	31,200 #	*45,000 #	*60,000 #	*68,000 #
14	16,800 #	*24,000 #	33,600 #	*45,000 #	*60,000#	*68,000#
14.3 365m	17,160 #	*24,000 #	34,320 #	*45,000 #	*60,000#	*68,000 #
15	18,000 #	*24,000 #	36,000 #	*45,000 #	*60,000 #	*68,000#
15.1 385m	18,120 #	*24,000 #	36,240 #	*45,000 #	*60,000#	*68,000 #
16.5	19,800 #	*24,000 #	39,600 #	*45,000 #	*60,000#	*68,000 #
16.7	20.040.#	*24.000.#	40,000 #	*45.000.#	*00.000.#	*00.000.#
425m	20,040 #	*24,000 #	40,080 #	*45,000 #	*60,000 #	*68,000 #
17.5 18	21,000 # 21,600 #	*24,000 # *24,000 #	42,000 # 43,200 #	*45,000 # *45,000 #	*60,000 # *60,000 #	*68,000 # *68,000 #
20.5	*24,000 #	*24,000 #	*45,000 #	*45,000 #	*60,000 #	*68,000 #

^{*}Maximums include all tolerances

Table 64. Permitted axle weights for self-propelled units in North Dakota.

Tire Size	Single Axle 2 Tires	Single Axle 4 Tires	Tandem Axle 4 Tires	Tandem Axle 8 Tires	Triple Axle 6 Tires	Triple Axle 12 Tires	Four Axle 8 Tires	Four Axle 16 Tires
8.2	10,660#	21,320 #	21,320 #	42,640 #	27,060 #	54,120 #	36,080 #	*68,000#
9	11,700 #	23,400 #	23,400 #	46,800 #	29,700 #	59,400 #	39,600 #	*68,000#
10	13,000 #	26,000 #	26,000 #	*50,000 #	33,000 #	*60,000 #	44,000 #	*68,000#
11	14,300 #	28,600 #	28,600 #	*50,000 #	36,300 #	*60,000 #	48,400 #	*68,000#
11.2 285 m	14,560 #	29,120 #	29,120#	*50,000 #	36,960 #	*60,000#	49,280 #	*68,000#
11.6 295 m	15,080 #	*30,000 #	30,160 #	*50,000 #	38,280 #	*60,000#	51,040 #	*68,000#
12	15,600 #	*30,000 #	31,200 #	*50,000 #	39,600 #	*60,000 #	52,800 #	*68,000#
12.4 315 m	16,120#	*30,000 #	32,240 #	*50,000 #	40,920 #	*60,000#	54,560 #	*68,000#
13	16,900 #	*30,000 #	33,800 #	*50,000 #	42,900 #	*60,000 #	57,200 #	*68,000#
14	18,200 #	*30,000 #	36,400 #	*50,000 #	46,200 #	*60,000 #	61,600 #	*68,000#
14.3 365 m	18,590 #	*30,000 #	37,180 #	*50,000 #	47,190 #	*60,000#	62,920 #	*68,000#
15	19,500 #	*30,000 #	39,000 #	*50,000 #	49,500 #	*60,000 #	66,000 #	*68,000#
15.1 385 m	19,630 #	*30,000 #	39,260 #	*50,000 #	49,830 #	*60,000#	66,440 #	*68,000#
16.5	21,450 #	*30,000 #	42,900 #	*50,000 #	54,450 #	*60,000 #	*68,000#	*68,000#
16.7 425 m	21,710#	*30,000 #	43,420 #	*50,000 #	55,110 #	*60,000#	*68,000#	*68,000#
17.5 445 m	22,750 #	*30,000 #	45,500 #	*50,000 #	57,750 #	*60,000#	*68,000#	*68,000#
18	23,400 #	*30,000 #	*46,800#	*50,000 #	59,400 #	*60,000 #	*68,000 #	*68,000#
20.5	26,650#	*30,000 #	*46,800 #	*50,000 #	*60,000#	*60,000#	*68,000#	*68,000#

^{*}Maximums include all tolerances

Registration

Out-of-state vehicles not licensed in ND or not registered for 105,500 pounds GVW under IRP are required to buy a \$20, 72-hour trip permit.

Fine

OS and OW violation flat fine is \$20 and \$100 respectively. OW fines may be applied for over axle, gross, exterior bridge and interior bridge length violations. Drivers may not shift load to avoid an over-axle citation [23].

Extraordinary Road Use Fees:

Table 65. Overweight fines in North Dakota.

Weight (Pounds)	Fee (\$)
1 - 1,000	20.00
1,001 - 2,000	40.00
2,001 - 3,000	60.00
3,001 - 4,000	140.00
4,001 - 5,000	220.00
5,000 - 6,000	305.00
6,001 - 7,000	380.00
7,001 - 8,000	495.00
8,001 - 9,000	575.00

9,001 – 10,000	655.00
10,001 - 11,000	1,100.00
11,001 – 12,000	1,200.00
12,001 – 13,000	1,300.00
13,001 - 14,000	1,680.00
14,001 – 15,000	1,800.00
15,001 – 16,000	1,920.00
16,001 – 17,000	2,550.00
17,001 – 18,000	2,700.00
18,001 – 19,000	2,850.00
19,001 – 20,000	3,000.00
20,001 – 21,000	4,200.00
21,001 - 22,000	4,400.00
22,001 - 23,000	4,600.00
23,001 – 24,000	4,800.00
24,001 – 25,000	5,000.00
25,001 – 26,000	5,200.00
26,001 – 27,000	5,400.00
27,001 - 28,000	5,600.00
28,001 - 29,000	5,800.00
29,001 – 30,000	6,000.00
f \$200 for arrany 1 000 mayer	da imamanan arram 1

^{*}An additional charge of \$200 for every 1,000-pounds increase over 30,000 pounds consistent with the above formula.

OKLAHOMA

Permits

Single Trip

The single trip permit includes 1. General, 2. Modular homes, 3. House, 4. Special Purpose Equipment (e.g. well service equipment and cranes), and 5. Western Regional Permit (Washto). The special purpose equipment includes cranes, scrapers, well service equipment. Oklahoma honors the Western Regional Permit (Washto) but does not issue this permit. The permitted axle weight in this state is based on OL 1 standard drawing that is a file that can be accessed from [38].

OS single permit cost: \$40 flat fee

OW multiple permit cost: \$40 + \$10 per 1000 lbs. excess weight.

OS 30-day cost: \$40 flat fee.

Special drive away permit cost: \$15 flat fee

Annual

The Annual permit includes 1. Round Baled Hay, 2. Soil conservation equipment, 4. Tree length logs, Longer Combination Vehicles (LCVs), 6. Special purpose equipment, 6. Annual envelope permits, and 7. Annual special OW that allows an increase in permitted GVW and permitted axle weight limits. The special permit for OW allows 5% increase in GVW limits and 8% increase for axle weight limits. It also allows for 15% increase in permitted GVW for utility or refuse collection vehicle. Wrecker or two vehicle fee for this permit is \$100.

Annual Round-baled hay permit cost: \$25 flat fee

Tree length logs permit cost: \$25 flat fee

Soil conservation permit cost: \$25 flat fee

OW Special Machinery permit cost: \$60 flat fee

OS Special Machinery permit cost: \$10 flat fee

Envelope permit cost: \$500 flat fee for portable housing and \$4000 flat fee for OS/OW, windmill blades, and electric utility vehicles.

Special permit cost: \$100 for 15% increase in permitted GVW for utility or refuse collection vehicle. Wrecker or two vehicle fee for this permit is \$100 as well. \$350 is the cost of a special permit for OW allowing 5% increase in permitted GVW limits and 8% increase for permitted axle weight limits

Special

Special permit type includes 1. Special Movement Permit (Manufactured items exceeding 16 feet but not exceeding 20 feet in width), 2. Annual LCVs, and 3. Annual Special Combination Vehicle (SCV) permits. The maximum permitted dimensions are 16 ft. in width and 21 ft. in height (on certain routes). The LCV and SCV permitted GVW is 90,000 lbs. Costs of permit for a special permit are as follows:

OS Manufactured items permit cost: \$500 flat fee

LCV permit cost: \$20 flat fee SCV permit cost: \$240 flat fee

Permitted weights

The permitted weight for different axle combinations in Oklahoma depends on axle spacing, number and width of tires per axle, and width of an axle. The permitted weight can be determined using OL-1 Standard drawing from ODOT [38]. The maximum values for 4 ft. and 3 in. spacing for tandem, tridem, quadrem and quint are 40,000 lbs., 60,000 lbs., 65,000 lbs., and 75,000 lbs. respectively. The maximum GVW shown in this standard is 209,000 lbs. It is not clear how vehicles with different combination and weights over these values can get a permit from ODOT.

Fine

According to Oklahoma, a vehicle carrying a load heavier than permitted can be penalized as follows [23]:

Table 66. Fines for lbs. OW on any axle or GVW.

Overweight (pounds)	Fine (\$)
1 - 2,000	208.90
2,001 - 3,000	258.90
3,001 – 4,000	308.90
4,001 - 5,000	358.90
5,001 – 6,000	408.90
6,001 - 7,000	458.90
7,001 - 8,000	508.90
8,001 – 9,000	558.90
9,001 - 10,000	608.90
10,001 and over	628.90

Drivers cannot not shift loads to avoid an OW axle citation.

OREGON

Permits

Single trip

Single trip permit can be issued for OS, OS/OW, and vehicles with super load (Non–Divisible Loads). According to the Oregon government web pages [42][43] the fees that must be paid for the OS/OW single permit can be a combination of 1. State Administrative Fees (see Table 67). 2. County administrative Fees (see Table 67), 3. Weight Tax fee (see Table 68 and Table 69), and 4. Road Use Assessment Fees (RUAF). The RUAF is \$0.085 for equivalent single axle load per mile. An equivalent single-axle load means the relationship between actual or requested weight and an 18,000 lbs. single-axle load. The RUAF is required for vehicles with GVW greater than 96,000 lbs. It should be noted that although vehicles with GVW less than 80,000 does not require a permit, they still have to pay weight tax per mile based on Table 68. Table 70 and Table 71 give the permitted axle weights for Extended weight single trip permit.

Heavy Haul Weight single permit is required for vehicles with GVW greater than 96,000 lbs. Table 72 and Table 73 indicate permitted axle weight for this type of single trip permit. Table 72 is for truck tractor and semitrailer and Table 73 shows permitted axle weight limits when this permit is issued for self-propelled truck and lowbed semitrailer.

Super Load single trip permit is required for vehicles with dimensions exceeding 17 ft. in height, 16 ft. in width, 120 ft. in length or GVW greater than 105,000 lbs. Permitted axle weights are listed in Table 74. The tandem axle weighs of up to 52,800 lbs. may be allowed when the combination has 10 ft. wide axles with 4 tires per axle. This value can be increased up to 60,000 lbs. when the combination has 10 ft. wide axles with 8 tires per axle.

Table 67.Oregon state and county administrative fee for OS/OW permits [42].

OREGON DEPARTMENT OF TRANSPORTATION MOTOR CARRIER TRANSPORTATION DIVISION OVER-CHIEFS OF THE CARRIER TRANSPORTATION STATEMENT OF THE STATEMENT OF T

MCTD Administrative Fees for OD Permits (REVISED 07-2018)

Agency CTP Annual Permit COVP Annual Permit Single-Trip Permit Contact \$8.50 \$8.00 \$8.50 503-373-0000 State of Oregon \$8.00 \$8.50 541-523-6417 Baker County Benton County \$8.00 \$8.50 541-766-6821 \$8.00 \$8.50 503-742-4771 Clackamas County \$2.75 \$0.00 503-325-8631 Clatsop County Columbia County \$8.00 \$8.50 503-397-5090 Coos County \$8.00 \$8.50 541-396-7660 Crook County 541-447-4644 \$8.00 \$8.00 Curry County \$8.00 \$8.50 541-247-7097 Deschutes County \$8.00 \$8.00 541-388-6581 \$5.75 \$8.50 541-440-4481 Douglas County Gilliam County \$8.00 \$8.00 541-384-3998 Grant County \$8.00 \$0.00 541-575-0138 Harney County \$2.75 \$8.50 541-573-6356 Hood River County \$8.00 \$6.00 541-386-2616 Jackson County \$8.00 \$8.50 541-774-8184 Jefferson County \$8.00 \$8.50 541-475-4459 \$8.00 \$8.50 541-474-5480 Josephine County Klamath County \$2.75 \$0.00 541-883-4696 \$8.00 \$8.00 541-947-6048 Lake County Lane County \$8.00 \$8.50 541-682-6902 \$8.00 \$8.50 541-574-1202 Lincoln County 541-967-3919 \$8.00 \$8.50 Linn County Malhuer County \$8.00 \$8.50 541-473-5191 \$8.00 \$8.00 503-584-7710 Marion County Morrow County \$8.00 \$8.50 541-989-9500 Multnomah County \$8.00 \$8.00 503-988-3582 Polk County \$8.00 \$8.50 503-623-9287 Sherman County \$8.00 \$8.50 541-565-3271 Tillamook County \$8.00 \$7.00 503-842-3419 \$5.00 \$7.50 541-278-5512 Umatilla County Union County \$8.00 \$8.50 541-963-1016 Wallowa County \$2.75 \$8.50 541-426-3332 Wasco County \$8.00 \$8.50 541-508-2640 Washington County \$8.00 \$8.50 503-846-7623

Wheeler County

Yamhill County

City of Portland

\$8.00

\$8.00

\$8.00

\$0.00

\$8.00

541-763-2911

503-434-7370

503-823-7687

CTP Annual permits can only authorize use of state highways.

Continuous Operations Variance Permits (COVPs) are annual permits that can authorize state highways and one or more counties (or City of Portland).

CTP Annual Permit fee is reduced by \$1.00 if issued by a Third Party Agent.

Table 68. weight tax fee for vehicle with GVW less than 80,000 lbs. [42].

TABLE "A" FOR ALL TYPES OF FUEL (OVER 26,000 LBS)

	<u>LL A IO</u>		<u> </u>	L (OVLIV	20,000 LDO)
	COLUMN B	COLUMN C		COLUMN B	COLUMN C
COLUMN A	MILLS	DOLLARS PER MILE*	COLUMN A	MILLS	DOLLARS PER MILE *
WEIGHT	(1/10 OF 1 CENT)	DECIMAL	WEIGHT	(1/10 OF 1 CENT) DECIMAL
GROUP	PER MILE	FRACTION	GROUP	PER MILE	FRACTION
26,001 - 28,000	62.3	.0623	52,001 - 54,000	104.1	.1041
28,001 - 30,000	66.0	.0660	54,001 - 56,000	108.0	.1080
30,001 - 32,000	68.9	.0689	56,001 - 58,000	112.5	.1125
32,001 - 34,000	72.1	.0721	58,001 - 60,000	117.7	.1177
			60,001 - 62,000	123.7	.1237
34,001 - 36,000	74.9	.0749			
36,001 - 38,000	78.7	.0787	62,001 - 64,000	130.6	.1306
38,001 - 40,000	81.7	.0817	64,001 - 66,000	138.0	.1380
40,001 - 42,000	84.7	.0847	66,001 - 68,000	147.8	.1478
			68,001 - 70,000	158.3	.1583
42,001 - 44,000	87.8	.0878	70,001 - 72,000	168.7	.1687
44,001 - 46,000	90.7	.0907			
46,001 - 48,000	93.7	.0937	72,001 - 74,000	178.3	.1783
48,001 - 50,000	96.8	.0968	74,001 - 76,000	187.5	.1875
50,001 - 52,000	100.4	.1004	76,001 - 78,000	196.6	.1966
·			78,001 - 80,000	204.8	.2048
			80,001 AND OV	ER USI	E TABLE B

^{*}NOTE - Column C converts mills per mile to dollars per mile by moving the decimal point three places to the left.

Multiply the decimal fraction by the Oregon Taxable Miles for the amount of tax due for each weight.

	COLUMN A	COLUMN B	COLUMN C		
EXAMPLES:	32,000	68.9	.0689	1000 Miles X .0689	= \$ 68.90
	80.000	204.8	.2048	100 Miles X .2048	= 20.48

Table 69. weight tax fee for vehicle with GVW greater than 80,000 lbs. [42].

TABLE "B" AXLE - WEIGHT MILEAGE TAX RATES

	5 A	XLES	6 AX	LES	7 A	XLES	8 A	XLES	9 AXLE	S or more
COLUMN A	COLUMN B	COLUMN C *	COLUMN B	COLUMN C*	COLUMN B	COLUMN C*	COLUMN E	COLUMN C*	COLUMN	B COLUMN C*
DECLARED COMBINED		\$ PER MILE		\$ PER MILE						
WEIGHT GROUPS		DECIMAL		DECIMAL		DECIMAL		DECIMAL		DECIMAL
(POUNDS)	MILLS	FRACTION	MILLS	FRACTION	MILLS	FRACTION	MILLS	FRACTION	MILLS	FRACTION
80,000 AND UNDER	USE	TABLE A	USE 1	TABLE A	USE	TABLE A	USE	TABLE A	USE	TABLE A
80,001 to 82,000	211.5	.2115	193.4	.1934	180.8	.1808	171.8	.1718	162.0	.1620
82,001 to 84,000	218.3	.2183	196.6	.1966	183.8	.1838	174.0	.1740	164.2	.1642
84,001 to 86,000	224.9	.2249	201.1	.2011	186.8	.1868	176.2	.1762	166.5	.1665
86,001 to 88,000	232.5	.2325	205.4	.2054	189.7	.1897	179.3	.1793	168.7	.1687
88,001 to 90,000	241.5	.2415	210.7	.2107	192.8	.1928	182.2	.1822	171.8	.1718
90,001 to 92,000	252.0	.2520	216.8	.2168	195.6	.1956	185.2	.1852	174.8	.1748
92,001 to 94,000	263.3	.2633	222.7	.2227	198.7	.1987	188.2	.1882	177.1	.1771
94,001 to 96,000	275.3	.2753	229.5	.2295	202.5	.2025	191.3	.1913	179.9	.1799
96,001 to 98,000	288.1	.2881	237.8	.2378	207.0	.2070	194.4	.1944	183.0	.1830
98,001 to 100,000			246.7	.2467	211.5	.2115	198.0	.1980	186.0	.1860
100,001 to 102,000					216.0	.2160	202.5	.2025	189.1	.1891
102,001 to 104,000					220.5	.2205	207.0	.2070	192.8	.1928
104,001 to 105,500					226.4	.2264	211.5	.2115	196.6	.1966

^{*}NOTE - Column C converts mills per mile to dollars per mile by moving the decimal point three places to the left. Multiply the Oregon Taxable Miles by the decimal fraction for the amount of tax due for each weight.

	COLUMN A	NO. OF AXLES	COLUMN B	COLUMN C	TAX	
EXAMPLES:	96,000	5	275.3	.2753	1000 Miles X .2753	= \$ 275.53
					100 Miles X .2753	= 27.53
	96,000	6	229.5	.2295	1000 Miles X .2295	= \$ 229.50
					100 Miles X 2295	= 22.95

Continuous Operation Variance Permits (COVPs)

This permit is an annual permit that authorizes movements of non-devisable loads that do not exceed permitted limits of 14' in width, 14' in height, 120' in length, or GVW of 96,000 lbs. Permitted weight combination limits given in Table 72 also have to be met. Cost of this permit is a combination of 1. State Administrative Fees (see Table 67). 2. County administrative Fees (see Table 67), 3. Weight Tax fee (see Table 68 and Table 69).

Continuous Trip Permits (CTPs)

This permit is only available from Over-Dimension Permit Unit. This permit is issued for 2 durations: 1. a year and 2.30-days. Triple trailers, vehicles with leaky load, grass seed straw overheight can obtain annually permit. Cost of this permit seems to be a combination of 1. State Administrative Fees (see Table 67). 2. County administrative Fees (see Table 67), 3. Weight Tax fee (see Table 68 and Table 69).

Permitted weights

Tables 1-5 (Table 70-72) of OS/OW section of Oregon Statutes provide details information about permitted axle weights for different OS/OW permits. Each table uses a particular equation to calculate the permitted weights. Details of this equations are provided in the Self-Issue Permit Program (SIPP) in Oregon [41]. It is noteworthy that the maximum GVW allowed for vehicles to be able to use SIPP is 200,000 lbs. Indeed, this value is not the maximum allowable GVW in the state. Vehicles with GVW greater than 200,000 lbs. have to directly apply for super load permit and submit their documents to Over-Dimension Permit Unit.

Table 70. Oregon state Permit Weight Table 1 [42].

OREGON DEPARTMENT OF TRANSPORTATION MOTOR CARRIER TRANSPORTATION DIVISION OVER-DIMENSION PERMIT UNIT 3930 FAIRVIEW INDUSTRIAL DRIVE SE SALEM OR 97302-1186

Permit Weight Table 1

(REVISED 01-2018)

The following exemptions apply to the table of weights shown below:

Exemption 1: Two consecutive tandem axles may weigh up to 34,000 pounds each if:								
Minimum Axle Spacing Required Interstate Highways Non-Interstate Highways								
30 feet or more	Permit Required	No Permit Required						
36 feet or more	No Permit Required	No Permit Required						

Exemption 2: A group of four axles consisting of a set of tandem axles and two axles spaced nine feet or more apart may have a loaded weight of more than 65,500 pounds and up to 70,000 pounds if:

 Minimum Axle Spacing Required
 Interstate Highways
 Non-Interstate Highways

 35 feet or more
 Permit Required
 No Permit Required

Minimum axle spacing is the distance between the first and last axle of any group shown above.

Exemption 3: An additional 550 pounds above the weights shown below is allowed for fully functional idle reduction systems.

Exemption 4: An additional 2000 pounds above the weights shown below is allowed for a vehicle that uses natural gas as its fuel source.

Wheelbase			Number	of Axles			Wheelbase			Number	of Axles		
In Feet	2	3	4	5	6	7 Or More	In Feet ▼	2	3	4	5	6	7 Or More
4	34,000	34,000	34,000	34,000	34,000	34,000	31	40,000	59,000	62,500	67,500	72,500	78,000
5	34,000	34,000	34,000	34,000	34,000	34,000	32	40,000	60,000	63,500	68,000	73,000	78,500
6	34,000	34,000	34,000	34,000	34,000	34,000	33	40,000	60,000	64,000	68,500	74,000	79,000
7	34,000	34,000	34,000	34,000	34,000	34,000	34	40,000	60,000	64,500	69,000	74,500	80,000
8 & less	34,000	34,000	34,000	34,000	34,000	34,000	35	40,000	60,000	65,500	70,000	75,000	80,000
Over 8	38,000	42,000	42,000	42,000	42,000	42,000	36	40,000	60,000	66,000	70,500	75,500	80,000
9	39,000	42,500	42,500	42,500	42,500	42,500	37	40,000	60,000	66,500	71,000	76,000	80,000
10	40,000	43,500	43,500	43,500	43,500	43,500	38	40,000	60,000	67,500	71,500	77,000	80,000
11	40,000	44,000	44,000	44,000	44,000	44,000	39	40,000	60,000	68,000	72,500	77,500	80,000
12	40,000	45,000	50,000	50,000	50,000	50,000	40	40,000	60,000	68,500	73,000	78,000	80,000
13	40,000	45,500	50,500	50,500	50,500	50,500	41	40,000	60,000	69,500	73,500	78,500	80,000
14	40,000	46,500	51,500	51,500	51,500	51,500	42	40,000	60,000	70,000	74,000	79,000	80,000
15	40,000	47,000	52,000	52,000	52,000	52,000	43	40,000	60,000	70,500	75,000	80,000	80,000
16	40,000	48,000	52,500	58,000	58,000	58,000	44	40,000	60,000	71,500	75,500	80,000	80,000
17	40,000	48,500	53,500	58,500	58,500	58,500	45	40,000	60,000	72,000	76,000	80,000	80,000
18	40,000	49,500	54,000	59,000	59,000	59,000	46	40,000	60,000	72,500	76,500	80,000	80,000
19	40,000	50,000	54,500	60,000	60,000	60,000	47	40,000	60,000	73,500	77,500	80,000	80,000
20	40,000	51,000	55,500	60,500	66,000	66,000	48	40,000	60,000	74,000	78,000	80,000	80,000
21	40,000	51,500	56,000	61,000	66,500	66,500	49	40,000	60,000	74,500	78,500	80,000	80,000
22	40,000	52,500	56,500	61,500	67,000	67,000	50	40,000	60,000	75,500	79,000	80,000	80,000
23	40,000	53,000	57,500	62,500	68,000	68,000	51	40,000	60,000	76,000	80,000	80,000	80,000
24	40,000	54,000	58,000	63,000	68,500	74,000	52	40,000	60,000	76,500	80,000	80,000	80,000
25	40,000	54,500	58,500	63,500	69,000	74,500	53	40,000	60,000	77,500	80,000	80,000	80,000
26	40,000	55,500	59,500	64,000	69,500	75,000	54	40,000	60,000	78,000	80,000	80,000	80,000
27	40,000	56,000	60,000	65,000	70,000	75,500	55	40,000	60,000	78,500	80,000	80,000	80,000
28	40,000	57,000	60,500	65,500	71,000	76,500	56	40,000	60,000	79,500	80,000	80,000	80,000
29	40,000	57,500	61,500	66,000	71,500	77,000	57 or	40,000	60,000	80,000	80,000	80,000	80,000
30	40,000	58,500	62,000	66,500	72,000	77,500	more						

The loaded weight of any group of axles, vehicle, or combination of vehicles shall not exceed that specified in the table of weights shown above or any of the following:

- The manufacturer's side wall tire rating but not to exceed 600 pounds per inch of tire width.
- · 600 pounds per inch of tire width.
- 20,000 pounds on any one axle, including any one axle of a group of axles.
- 34,000 pounds on any tandem axle.
- . The sum of the permittable axle, tandem axle, or group of axle weights shown above, whichever is less.

Note exemptions 1 - 4 above.

Distance measured to the nearest foot; when exactly 1/2 foot or more, round up to the next larger number.

735-8110 (1-18) STK# 300557

Table 71. Oregon state Permit Weight Table 2 [42].

OREGON DEPARTMENT OF TRANSPORTATION MOTOR CARRIER TRANSPORTATION DIVISION OVER-DIMENSION PERMIT UNIT 3930 FAIRPIUR WIDUSTRIAL DRIVE SE SALEM OR 97302-1166

Permit Weight Table 2

(REVISED 01-2018)

See Weight Table 1, if using less than five axles or 47 feet wheelbase.

Wheelbase In Feet		Number	of Axles	
▼	5	6	7	8 or More
47	77500	81000	81000	81000
48	78000	82000	82000	82000
49	78500	83000	83000	83000
50	79000	84000	84000	84000
51	80000	84500	85000	85000
52	80500	85000	86000	86000
53	81000	86000	87000	87000
54	81500	86500	88000	91000
55	82500	87000	89000	92000
56	83000	87500	90000	93000
57	83500	88000	91000	94000
58	84000	89000	92000	95000
59	85000	89500	93000	96000
60	85500	90000	94000	97000
61	86000	90500	95000	98000
62	87000	91000	96000	99000
63	87500	92000	97000	100000
64	88000	92500	97500	101000
65	88500	93000	98000	102000
66	89000	93500	98500	103000
67	90000	94000	99000	104000
68	90000	95000	99500	105000
69	90000	95500	100000	105500
70	90000	96000	101000	105500
71	90000	96500	101500	105500
72	90000	96500	102000	105500
73	90000	96500	102500	105500
74	90000	96500	103000	105500
75	90000	96500	104000	105500
76	90000	96500	104500	105500
77	90000	96500	105000	105500
78	90000	96500	105500	105500

Exemptions:

- An additional 550 pounds above the weights shown above is allowed for fully functional idle reduction systems.
- An addional 2000 pounds above the weights shown above is allowed for a vehicle that uses natural gas as its
 fuel source.

Distance measured to the nearest foot. When exactly 1/2 foot or more, round up to the next larger number.

FORM 735-8111 (1-18) STK # 300558

Table 72. Oregon state Permit Weight Table 3[42].



OREGON DEPARTMENT OF TRANSPORTATION MOTOR CARRIER TRANSPORTATION DIVISION OVER-DIMENSION PERMIT UNIT 3930 FAIRVIEW INDUSTRIAL DRIVE SE SALEM OREGON 97302-1166

Permit Weight Table 3 REVISED 01-2018

WHEEL BASE	2 Axles	3 Axles	4 Axles	5 Axles	6 Axles	7 Axles	8 Axles	9 Axles	10 Axles	11 Axles
4	43,000	Panes	Patres		Pones	, runes	Police	Panes	74.165	
5	43.000									
6	43,000									
7	43.000									
8	43,000									
		N O'C"								
VER 0 (DI	UT LESS THA 43,000	48.000								
9					The loade	ed weight o	f a group of	axles, vehi	cles, or con	nbinatio
	43,000	49,000			of vehicle.	s shall not	exceed that	specified in	n this permi	it weiaht
10	43,000	50,000				ny of the fo				
11	43,000	51,000			table of al	ny or the lo	llowing.			
12	43,000	52,000								
13	43,000	53,000			7	he manufa	cturer's side	e wall tire ra	atina hut no	of to
14	43,000	54,000								
15	43,000	55,000			ϵ	xceed 600	pounds per	r inch of tire	e wiatn;	
16	43,000	56,000			2	1.500 poul	nds per sing	ile axle:		
17	43,000	57,000					nds per tand			
18	43,000	58,000								
19	43,000	64,500	70,800		7	he weight	shown on th	ne permit; a	nd	
20	43,000	64,500	72,000		7	he sum of	the permitte	able axle. ta	andem axle	or arou
21	43,000	64,500	73,200						unio	, J. g. ou
22	43,000	64,500	74,400	1			whichever	,		
23	43,000	64,500	75,600			or except a	s described	in OAR 73	4-082-0010) (2), OF
24	43,000	64,500	76,800	1)) and (11).			
25	43,000	64,500	78,000	-	C	10.030 (10	, and (11).			
26	43,000	64,500	79,200							
27	43,000	64,500	80.400							
28	43,000	64,500	81,600							
29	43,000	64,500	82,800							
	43,000	64,500	84,000	1						
30										
31	43,000	64,500	85,200							
32	43,000	64,500	86,000	86,400						
33	43,000	64,500	86,000	87,600						
34	43,000	64,500	86,000	88,800						
35	43,000	64,500	86,000	90,000						
36	43,000	64,500	86,000	91,200						
37	43,000	64,500	86,000	92,400						
38	43,000	64,500	86,000	93,600						
39	43,000	64,500	86,000	94,800						
40	43,000	64,500	86,000	96,000						
41	43,000	64,500	86,000	97,200						
42	43,000	64,500	86,000	98,400						
43	43,000	64,500	86,000	99,600						
44	43,000	64,500	86,000	100,800						
45	43,000	64,500	86,000	102,000						
46	43,000	64.500	86,000	103,200						
46	43,000	64,500	86,000	103,200	-					
48	43,000	64,500	86,000	105,600						
49	43,000	64,500	86,000	106,800	100.000	1				
50	43,000	64,500	86,000	107,500	108,000		Formulas ap	oplied:		
51	43,000	64,500	86,000	107,500	109,200					
52	43,000	64,500	86,000	107,500	110,400		4 000 #	Abo wheelt -	an in fact at	40)
53	43,000	64,500	86,000	107,500	111,600			(the wheelba		s 40) whe
54	43,000	64,500	86,000	107,500	112,800		wheelbase i	is 18 feet or le	SS.	
55	43,000	64,500	86,000	107,500	114,000			(the wheelba		40) who
56	43,000	64,500	86,000	107,500	115,200					40) Wrier
57	43,000	64,500	86,000	107,500	116,400		wheelbase i	is more than 1	8 feet.	
58	43,000	64,500	86,000	107,500	117,600					
59	43,000	64,500	86,000	107,500	118,800					
60	43,000	64,500	86,000	107,500	120,000					
61	43,000	64,500	86,000	107,500	121,200					
62	43,000	64,500	86,000	107,500	122,400	1				
63	43,000	64,500	86,000	107,500	123,600					
64	43,000	64,500	86,000	107,500	124,800					
65	43,000	64,500	86,000	107,500	126,000					
66	43,000	64,500	86,000	107,500	127,200					
67	43,000	64,500	86,000	107,500	128,400	100 000				
68	43,000	64,500	86,000	107,500	129,000	129,600				
69	43,000	64,500	86,000	107,500	129,000	130,800				
70	43,000	64,500	86,000	107,500	129,000	132,000				
71	43,000	64,500	86,000	107,500	129,000	133,200				
	43,000	64,500	86,000	107,500	129,000	134,400				
72					400.000	105 000				
73	43,000	64,500	86,000	107,500	129,000	135,600				
		64,500 64,500 64,500	86,000 86,000 86,000	107,500 107,500 107,500	129,000 129,000 129,000	136,800 136,800 138,000				

WHEEL BASE	2 Axles	3 Axles	4 Axles	5 Axles	6 Axles	7 Axles	8 Axles	9 Axles	10 Axles	11 Axles or more
76	43,000	64.500	86,000	107,500	129,000	139,200	Axies	Axies	Axies	or more
77	43,000	64,500	86,000	107,500	129,000	140,400				
78	43,000	64,500	86,000	107,500	129,000	141,600				
79	43,000	64,500	86,000	107,500	129,000	142,800				
80	43,000	64,500	86,000	107,500	129,000	144,000				
81	43,000	64,500	86,000	107,500	129,000	145,200				
82	43,000	64,500	86,000	107,500	129,000	146,400				
83	43,000	64,500	86,000	107,500	129,000	147,600				
84	43,000	64,500	86,000	107,500	129,000	148,800				
85	43,000	64,500	86,000	107,500	129,000	150,000				
86	43,000	64,500	86.000	107,500	129,000	150,500	151,200			
87	43,000	64,500	86,000	107,500	129,000	150,500	152,400			
88	43,000	64,500	86,000	107,500	129,000	150,500	153,600			
89	43,000	64,500	86,000	107,500	129,000	150,500	154,800			
90	43,000	64,500	86,000	107,500	129,000	150,500	156,000			
91	43,000	64,500	86,000	107,500	129,000	150,500	157,200			
92	43,000	64,500	86,000	107,500	129,000	150,500	158,400			
93	43,000	64,500	86,000	107,500	129,000	150,500	159,600			
94	1		86,000	107,500	129,000	150,500	160,800			
95	43,000	64,500 64,500	86,000	107,500	129,000	150,500	162,000			
96	43,000	64,500	86,000	107,500	129,000	150,500	163,200			
96	43,000	64,500	86,000	107,500	129,000	150,500	164,400			
98	43,000			107,500	129,000	150,500				
98	43,000	64,500	86,000 86,000	107,500			165,600			
100	43,000	64,500 64,500	86,000	107,500	129,000 129,000	150,500 150,500	166,800			
101	43,000	64,500	86,000	107,500	129,000	150,500	168,000 169,200			
101	43,000 43,000	64,500	86,000	107,500	129,000	150,500	170,400			
102	43,000	64,500	86,000	107,500	129,000	150,500	171,600			
104			86,000	107,500	129,000	150,500	171,000	172 900		
104	43,000	64,500 64,500	86,000	107,500	129,000	150,500	172,000	172,800 174,000		
106	43,000	64,500	86,000	107,500	129,000	150,500	172,000	174,000		
107	43,000		86,000		129,000	150,500	172,000			
108	43,000	64,500 64,500		107,500				176,400		
109	43,000	64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	177,600 178,800		
110	43,000			107,500	129,000	150,500				
111	43,000	64,500	86,000 86,000				172,000 172,000	180,000		
112	43,000	64,500		107,500 107,500	129,000 129,000	150,500 150,500		181,200		
113	43,000	64,500	86,000 86,000	,			172,000 172,000	182,400 183,600		
	43,000	64,500 64,500	86,000	107,500	129,000 129,000	150,500 150,500	172,000	184,800		
114	43,000	64,500	86,000	107,500 107,500	129,000	150,500	172,000	186,000	-	
116	43,000									
117	43,000	64,500	86,000 86,000	107,500	129,000	150,500	172,000 172,000	187,200		
118	43,000	64,500		107,500 107,500	129,000 129,000	150,500 150,500		188,400		
119	43,000	64,500	86,000 86,000				172,000 172,000	189,600		
	43,000	64,500		107,500	129,000	150,500		190,800		
120	43,000	64,500	86,000	107,500	129,000	150,500	172,000	192,000		
121	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,200	104 400	
122	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	194,400	
123	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	195,600	
124	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	196,800	
125	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	198,000	
126	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	199,200	
127	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	200,400	
128	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	201,600	
129	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	202,800	
130	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	204,000	
131	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	205,200	
132	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	206,400	
133	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	207,600	
134	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	208,800	
135	43,000	64,500	86,000	107,500 107,500	129,000	150,500	172,000	193,500	210,000	
136	43,000	64,500	86,000		129,000	150,500	172,000	193,500	211,200	
137	43,000	64,500	86,000	107,500	129,000	150,500 150,500	172,000	193,500	212,400	
138	43,000	64,500	86,000	107,500	129,000	,	172,000	193,500	213,600	
139	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	214,800	240.00
140	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	216,00
141	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	217,20
142	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	218,40
143	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	219,60
144	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	220,80
145	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	222,00
146	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	223,20
147	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	224,40
148	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	225,60
149	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	215,000 215,000	226,800 228,000

Distance measured to the nearest foot; when exactly 1/2 foot or more, round up to the next larger number.

PERMIT WEIGHT TABLE 3 – PAGE 2

Table 73. Oregon state Permit Weight Table 4[42].



OREGON DEPARTMENT OF TRANSPORTATION MOTOR CARRIER TRANSPORTATION DIVISION OVER-DIMENSION PERMIT UNIT 3930 FAIRVIEW INDUSTRIAL DRIVE SE SALEM OREGON 97302-1166

Permit Weight Table 4 REVISED 01-2018

WHEEL BASE	2 Axles	3 Axles	4 Axles	5 Axles	6 Axles	7 Axles	8 Axles	9 Axles	10 Axles	11 Axies	12 Axles	13 Axles	14 Axles	15 Axles or more
4	43,000	- Anies	Paries	PARIES	PARIES	PARIES	Paries	Police	Pales	Policy	Paries	Paries	Pines	or more
5	43,000													
6 7	43,000 43,000													
8	43,000													
OVER 8'	(BUT LESS	THAN 8'6")												
	43,000	57,600					The loa	aded wei	ight of a	group o	f axles,	vehicles	, or com	bination
9	43,000	58,800	05.000										s permit	
10	43,000 43,000	64,500 64,500	65,000 68,200					r any of						
12	43,000	64,500	70,400					,						
13	43,000	64,500	72,600					The m	anufacti	ırer'e eir	de wall ti	re ratino	but not	to
14	43,000	64,500 64,500	74,800 77,000								er inch o			10
16	43,000 43,000	64,500	79,200								gle axle,		ıcı,	
17	43,000	64,500	81,400											
18	43,000	64,500	83,600								dem axi			
19	43,000	64,500	85,800	00.000							the perm			
20	43,000 43,000	64,500 64,500	86,000 86,000	88,000 90,200									m axle,	or
22	43,000	64,500	86,000	92,400							ichever i			
23	43,000	64,500	86,000	94,600								₹ 734-08	32-0010	(2),
24	43,000	64,500	86,000	96,800				ORS 8	318.030	(10) and	1 (11).			
25 26	43,000 43,000	64,500 64,500	86,000 86,000	99,000 101,200										
27	43,000	64,500	86,000	103,400										
28	43,000	64,500	86,000	105,600										
29	43,000	64,500	86,000	107,500	107,800									
30 31	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	110,000 113,600									
32	43,000	64,500	86,000	107,500	115,200									
33	43,000	64,500	86,000	107,500	116,800									
34	43,000	64,500	86,000	107,500	118,400									
35 36	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	120,000 121,600									
37	43,000	64,500	86,000	107,500	123,200									
38	43,000	64,500	86,000	107,500	124,800									
39	43,000	64,500	86,000	107,500	126,400									
40	43,000	64,500 64,500	86,000 86,000	107,500 107,500	128,000	120.000								
42	43,000 43,000	64,500	86,000	107,500	129,000 129,000	129,600 131,200								
43	43,000	64,500	86,000	107,500	129,000	132,800								
44	43,000	64,500	86,000	107,500	129,000	134,400								
45 46	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	136,000 137,600								
47	43,000	64,500	86,000	107,500	129,000	139,200								
48	43,000	64,500	86,000	107,500	129,000	140,800								
49	43,000	64,500	86,000	107,500	129,000	142,400								
50 51	43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	144,000 145,600								
51	43,000 43,000	64,500	86,000	107,500	129,000	145,600								
53	43,000	64,500	86,000	107,500	129,000	148,800								
54	43,000	64,500	86,000	107,500	129,000	150,400	400							
55 56	43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000	150,500 150,500	152,000 153,600							
56	43,000 43,000	64,500	86,000	107,500	129,000	150,500	155,200			For weight	ghts beyor	nd 15 axle	es and 150) feet of
58	43,000	64,500	86,000	107,500	129,000	150,500	156,800			wheelba	ase, apply	the follow	ing formul	la:
59	43,000	64,500	86,000	107,500	129,000	150,500	158,400							
60	43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	160,000			1,600 tir	mes (the v	vheelbase	in feet plu	us 40)
62	43,000 43,000	64,500	86,000	107,500	129,000	150,500	161,600 163,200						an 30 feet	
63	43,000	64,500	86,000	107,500	129,000	150,500	164,800							
64	43,000	64,500	86,000	107,500	129,000	150,500	166,400							
65 66	43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	168,000 169,600							
67	43,000 43,000	64,500	86,000	107,500	129,000	150,500	171,200							
68	43,000	64,500	86,000	107,500	129,000	150,500	172,000	172,800						
69	43,000	64,500	86,000	107,500	129,000	150,500	172,000	174,400						
70	43,000	64,500	86,000	107,500	129,000	150,500	172,000	176,000						
71 72	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	177,600 179,200						
73	43,000	64,500	86,000	107,500	129,000	150,500	172,000	180,800						
74	43,000	64,500	86,000	107,500	129,000	150,500	172,000	182,400						
75	43,000	64,500	86,000	107,500	129,000	150,500	172,000	184,000	mumb			EODIL	E 8445 11 12	OWNER CORE
Distance r	measured t	to the neare	st foot; wh	en exactly 1	1/2 foot or n	nore, round	up to the	next larger	number.			FORM 73	5-8113 (1-18)) STK# 300560

103

WHEEL	2 Axles	3 Axles	4 Axles	5 Axles	6 Axles	7 Axles	8 Axles	9 Axles	10 Axles	11 Axles	12 Axles	13 Axles	14 Axles	15 Axles or more
76	43,000	64,500	86,000	107,500	129,000	150,500	172,000	185,600	Axies	Axies	Axies	Axies	Axies	or more
77	43,000	64,500	86,000	107,500	129,000	150,500	172,000	187,200						
78	43,000	64,500	86,000	107,500	129,000	150,500	172,000	188,800						
79	43,000	64,500	86,000	107,500	129,000	150,500	172,000	190,400						
80	43,000	64,500	86,000	107,500	129,000	150,500	172,000	192,000	102 600					
82	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	193,600 195,200					
83	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	196,800					
84	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	198,400					
85	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	200,000					
86	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	201,600					
87 88	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	203,200					
89	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	206,400					
90	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	208,000					
91	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	209,600					
92	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	211,200					
93	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	212,800					
94 95	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	214,400 215,000	216,000				
96	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	217,600				
97	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	219,200				
98	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	220,800				
99	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	222,400				
100	43,000	64,500	86,000 86,000	107,500	129,000	150,500	172,000 172,000	193,500 193,500	215,000	224,000				
101	43,000 43,000	64,500 64,500	86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000	193,500	215,000 215,000	225,600 227,200				
103	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	228,800				
104	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	230,400				
105	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	232,000				
106	43,000	64,500	86,000	107,500	129,000	150,500	172,000 172,000	193,500	215,000	233,600				
107	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000	193,500 193,500	215,000 215,000	235,200 236,500	236,800			
109	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236.500	238,400			
110	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	240,000			
111	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	241,600			
112	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	243,200			
113	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	215,000 215,000	236,500 236,500	244,800 246,400			
115	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	248,000			
116	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	249,600			
117	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	251,200			
118	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	252,800			
119	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	215,000 215,000	236,500 236,500	254,400 256,000			
121	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	257,600			
122	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	259,200		
123	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	260,800		
124	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	262,400		
125 126	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	215,000 215,000	236,500 236,500	258,000 258,000	264,000 265,600		
127	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	267,200		
128	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	268,800		
129	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	270,400		
130	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	272,000		
131	43,000 43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	215,000 215,000	236,500 236,500	258,000 258,000	273,600 275,200		
133	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	276,800		
134	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	278,400		
135	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	280,000	
136	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	281,600	
137	43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	215,000	236,500	258,000	279,500	283,200	
139	43,000 43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000 215,000	236,500 236,500	258,000 258,000	279,500 279,500	284,800 286,400	
140	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	288,000	
141	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	289,600	
142	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	291,200	
143	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	292,800	
144	43,000	64,500 64,500	86,000 86,000	107,500 107,500	129,000 129,000	150,500 150,500	172,000 172,000	193,500 193,500	215,000	236,500	258,000	279,500 279,500	294,400 296,000	
146	43,000 43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000 215,000	236,500 236,500	258,000 258,000	279,500	296,000	
147	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	299,200	
148	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	300,800	
149	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500	215,000	236,500	258,000	279,500	301,000	302,400
150	43,000	64,500	86,000	107,500	129,000	150,500	172,000	193,500 next larger	215,000	236,500	258,000	279,500	301,000 EIGHT TABLE	304,000

Distance measured to the nearest foot; when exactly 1/2 foot or more, round up to the next larger number.

PERMIT WEIGHT TABLE 4 - PAGE 2

Table 74. Oregon state Permit Weight Table 5[42].



OREGON DEPARTMENT OF TRANSPORTATION MOTOR CARRIER TRANSPORTATION DIVISION OVER-DIMENSION PERMIT UNIT 3930 FAIRVIEW INDUSTRIAL DRIVE SE SALEM OREGON 97302-1166

Permit Weight Table 5 (REVISED 01-2018)

WHEEL	2 Axles	3 Axles	4 Axles	5 Axles	6 Axles	7 Axies	8 Axies	9 Axles	10 Axles	11 Axles	12 Axles	or mor
4	48,000	Anics	PARIOS	Acres	PARTY	Anes	Auto	ALICO	Axies	Paries	-	Of Illion
5	48,000											
6	48,000											
7	48,000											
8	48,000											
		THAN 8'6")										
	48,000	57,600				The lea	de de contado					
9	48,000	58.800					ded weigh					
10	48.000	65,000				of vehic	les shall n	ot excee	d that spe	cified in the	his permit	t weigh
11	48,000	68,200				table or	any of the	following	7.			
12	48,000	70,400				table of				100		
13	48.000	72,000	72,600				Subject to	o special	routing a	nd analys	is by the	
14	48,000	72,000	74,800	1			Departme	ent of Tra	ansportation	on, single	trip perm	nits ma
15	48.000	72,000	77,000							s of vehic		
16	48,000	72,000	79,200									
17	48,000	72,000	81,400							four or n		
18	48,000	72,000	83,600				tandem a	axles, pr	ovided the	e weight a	loes not e	exceed
19	48,000	72,000	85,800				Constitution of the last of th	NAME OF TAXABLE PARTY.				
20	48,000	72,000	88,000				me man	uracturer	S Side Wa	all tire ratir	ig or	
21	48,000	72,000	90,200				600 pour	ds per in	ch of tire	width, wh	ichever is	s less:
22	48,000	72,000	92,400									
23	48,000	72,000	94,600				24,000 p	ounds pe	er single a	xie;		
24	48,000	72,000	96,000	96,800			48,000 p	ounds ne	r tandem	axle:		
25	48,000	72,000	96,000	99,000			1000				,	
26	48,000	72,000	96,000	101,200						ermit; and		
27	48,000	72,000	96,000	103,400			The sum	of the pe	rmittable	axle, tand	lem axle.	or
28	48,000	72,000	96,000	105,600			group ax	e weight	whicheve	er is less		
29	48,000	72,000	96,000	107,800							200 0040	(0)
30	48,000	72,000	96,000	110,000						DAR 734-0	082-0010	(2),
31	48,000	72,000	96,000	113,600			ORS 818	.030 (10	and (11)			
32	48,000	72,000	96,000	115,200								
33	48,000	72,000	96,000	116,800		0						
34	48,000	72,000	96,000	118,400								
35	48,000	72,000	96,000	120,000								
36	48,000	72,000	96,000	120,000	121,600							
37	48,000	72,000	96,000	120,000	123,200							
38	48,000	72,000	96,000	120,000	124,800							
39	48,000	72,000	96,000	120,000	126,400		87 TI					
40	48,000	72,000	96,000	120,000	128,000		014					
41	48,000	72,000	96,000	120,000	129,600	- 6	-	-	O on on		A ALIV	ma.
42	48,000	72,000	96,000	120,000	131,200))O :	00		00	00
43	48,000	72,000	96,000	120,000	132,800							
44	48,000	72,000	96,000	120,000	134,400			EXAMPLE	(AS STATE	D ABOVE)		
45	48,000	72,000	96,000	120,000	136,000							
46	48,000	72,000	96,000	120,000	137,600							
47	48,000	72,000	96,000	120,000	139,200							
48	48,000	72,000	96,000	120,000	140,800							
49	48,000	72,000	96,000	120,000	142,400							
50	48,000	72,000	96,000	120,000	144,000	445 000						
51	48,000	72,000	96,000	120,000	144,000	145,600						
52	48,000	72,000	96,000	120,000	144,000	147,200			For weigh	its beyond 1	5 axles and	d 150 fee
53	48,000	72,000	96,000	120,000	144,000	148,800				ase, apply t		
54	48,000	72,000 72,000	96,000 96,000	120,000	144,000	150,400 152,000			31 11110010	ass, upply t	Tomorring	y .orman
	48,000											
56	48,000	72,000	96,000	120,000	144,000	153,600			1,600 time	es (the whee	elbase in fe	et plus
57	48,000	72,000	96,000	120,000	144,000	155,200				wheelbase		
58	48,000	72,000 72,000	96,000 96,000	120,000	144,000	156,800 158,400			, w		o more trie	00 100
60	48,000	72,000	96,000	120,000	144,000	160,000						
61	48,000				144,000							
62	48,000	72,000	96,000	120,000		161,600						
63	48,000	72,000	96,000	120,000	144,000	163,200						
	48,000	72,000	96,000	120,000	144,000	164,800						
	48,000	72,000 72,000	96,000 96,000	120,000	144,000	166,400 168,000						
64	48,000	72,000	96,000	120,000	144,000	168,000	169,600					
64 65		72,000	96,000	120,000			171,200					
64 65 66	48,000			120,000	144,000	168,000 168,000						
64 65 66 67	48,000 48,000		06 000		144,000		172,800 174,400					
64 65 66 67 68	48,000 48,000 48,000	72,000	96,000		144 000							
64 65 66 67 68 69	48,000 48,000 48,000 48,000	72,000 72,000	96,000	120,000	144,000	168,000						
64 65 66 67 68 69 70	48,000 48,000 48,000 48,000 48,000	72,000 72,000 72,000	96,000 96,000	120,000 120,000	144,000	168,000	176,000					
64 65 66 67 68 69 70 71	48,000 48,000 48,000 48,000 48,000	72,000 72,000 72,000 72,000	96,000 96,000 96,000	120,000 120,000 120,000	144,000 144,000	168,000 168,000	176,000 177,600					
64 65 66 67 68 69 70 71	48,000 48,000 48,000 48,000 48,000 48,000	72,000 72,000 72,000 72,000 72,000	96,000 96,000 96,000	120,000 120,000 120,000 120,000	144,000 144,000 144,000	168,000 168,000	176,000 177,600 179,200					
64 65 66 67 68 69 70 71	48,000 48,000 48,000 48,000 48,000	72,000 72,000 72,000 72,000	96,000 96,000 96,000	120,000 120,000 120,000	144,000 144,000	168,000 168,000	176,000 177,600					

Distance measured to the nearest foot; when exactly 1/2 foot or more, round up to the next larger number.

FORM 735-8114 (1-18) STK# 300561

BASE	2 Axles	3 Axles	4 Axles	5 Axles	6 Axles	7 Axles	8 Axles	9 Axles	10 Axles	11 Axles	12 Axles	13 Axles or more
76	48,000	72,000	96,000	120,000	144,000	168,000	185,600					
77	48,000	72,000	96,000	120,000	144,000	168,000	187,200					
78	48,000	72,000	96,000	120,000	144,000	168,000	188,800					
79	48,000	72,000	96,000	120,000	144,000	168,000	190,400					
80	48,000	72,000	96,000	120,000	144,000	168,000	192,000					
81	48,000	72,000	96,000	120,000	144,000	168,000	192,000	193,600				
82	48,000	72,000	96,000	120,000	144,000	168,000	192,000	195,200				
83	48,000	72,000	96,000	120,000	144,000	168,000	192,000	196,800				
84	48,000	72,000	96,000	120,000	144,000	168,000	192,000	198,400				
85	48,000	72,000	96,000	120,000	144,000	168,000	192,000	200,000				
86	48,000	72,000	96,000	120,000	144,000	168,000	192,000	201,600				
87	48,000	72,000	96,000	120,000	144,000	168,000	192,000	203,200				
88	48,000	72,000	96,000	120,000	144,000	168,000	192,000	204,800				
89	48,000	72,000	96,000	120,000	144,000	168,000	192,000	206,400				
90	48,000	72,000	96,000	120,000	144,000	168,000	192,000	208,000				
91	48,000	72,000	96,000	120,000	144,000	168,000	192,000	209,600				
92	48,000	72,000	96,000	120,000	144,000	168,000	192,000	211,200				
93	48,000	72,000	96,000	120,000	144,000	168,000	192,000	212,800				
94	48,000	72,000	96,000	120,000	144,000	168,000	192,000	214,400				
95	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000				
96	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	217,600			
97	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	219,200			
98	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	220,800			
99	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	222,400			
100	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	224,000			
101	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	225,600			
102	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	227,200			
103	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	228,800			
104	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	230,400			
	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	232,000			
106	48,000	72,000	96,000	120,000	144,000	168,000	192,000 192,000	216,000 216,000	233,600			
107	48,000	72,000	96,000	120,000	144,000	168,000			235,200			
109	48,000	72,000	96,000	120,000	144,000	168,000	192,000 192,000	216,000	236,800			
110	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	238,400			
111	48,000	72,000	96,000	120,000	144,000	168,000 168,000	192,000	216,000	240,000	241 600		
112	48,000	72,000 72,000	96,000 96,000	120,000 120,000	144,000 144,000	168,000	192,000	216,000 216,000	240,000 240,000	241,600 243,200		
113	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	244,800		
114	48,000	72,000	96,000		144,000	168,000	192,000	216,000	240,000	246,400		
115	48,000 48,000	72,000	96,000	120,000 120,000	144,000	168,000	192,000	216,000	240,000	248,000		
116		72,000	96,000	120,000	144,000	168,000	192,000		240,000	249,600		
117	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000 216,000	240,000	251,200		
118	48,000 48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	252,800		
119	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	254,400		
120	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	256,000		
121	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	257,600		
122	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	259,200		
123	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	260,800		
124	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	262,400		
125	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000		
126	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	265,600	
127	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	267,200	
128	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	268,800	
129	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	270,400	
130	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	272,000	
131	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	273,600	
132	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	275,200	
133	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	276,800	
134	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	278,400	
135	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	280,000	
136	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	281,600	
137	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	283,200	
138	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	284,800	
139	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	286,400	
140	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	
141	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	289,60
142	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	291,20
143	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	292,80
144	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	294,40
145	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	296,00
146	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	297,60
147	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	299,20
148	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	300,80
149	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	302,40
	48,000	72,000	96,000	120,000	144,000	168,000	192,000	216,000	240,000	264,000	288,000	304,000

Registration

Vehicles that paid a fuel tax can get waiver for weight tax charges when they apply for OW permits.

Fine According to *section 818.430 of* Oregon Statutes, the state penalties for violation of weight requirements[43]. Fines are based on the excess weight. The fines for schedule I are as follows:

Excess weight (lbs.)	Flat Fine (\$)	Cents per each lb.
		excess weight
Less than 1000	100	0
1001-2000	150	0
2001-3000	200	0
3001-5000	300	0
5001-7500	0	15
7001-1000	0	16
10001-12500	0	20
Greater 12501	0	24

The fines for schedule II are:

Excess weight (lbs.)	Flat Fine (\$)	Cents per each lb.
		excess weight
100-5000	200	10
5001-10000	350	15
Greater than 10001	600	30

The fines for schedule III are:

Excess weight (lbs.)	Flat Fine (\$)	Cents per each lb.
		excess weight
100-5000	200	15
5001-10000	350	20
Greater than 10001	500	30

TEXAS

Table 75. Overweight fines in Texas

Weight (pounds)	Fines (\$)
< 2,500	100 to 500
2,501 - 5,000	500 to 1000
5,001 – 10,000	1,000 to 2,500
10,001 - 20,000	2,500 to 5,000
20,001 - 40,000	5,000 to 7,000
> 40,000	7,000 to 10,000

UTAH

Permits

Single trip

Single trip permit can be issued for OS, OS/OW, and vehicles with super load (Non–Divisible Loads Exceeding 125,000 GVW). Costs of this permit for OS and OS/OW are as follows:

OS permit cost (GVW<80,000 lbs.): \$30 flat fee

OS/OW permit cost (GVW between 80,000 and 125,000 lbs.): \$60 flat fee

The cost for super load (GVW greater than 125,000 lbs.) are listed in Table 76.

Table 76. The cost for super load (GVW greater than 125,000 lbs.) in Utah.

								_		()		. 8-									
Pounds	50 N	/liles	100	Miles	150	0 Miles	Miles	250	Miles	Miles	350	Miles	400	Miles	450	Miles	Miles			650	Miles
150,000	\$	80	\$	80	\$	130	\$ 170	\$	210	\$ 250	\$	290	\$	340	\$	380	\$ 420	\$ 460	\$ 500	\$	540
175,000	\$	80	\$	110	\$	170	\$ 230	\$	290	\$ 340	\$	400	\$	460	\$	510	\$ 540				
200,000	\$	80	\$	140	\$	220	\$ 290	\$	360	\$ 430	\$	500	\$	540							
225,000	\$	90	\$	170	\$	260	\$ 350	\$	440	\$ 520	\$	540									
250,000	\$	100	\$	200	\$	310	\$ 410	\$	510	\$ 540											
275,000	\$	120	\$	230	\$	350	\$ 470	\$	540												
300,000	\$	130	\$	260	\$	400	\$ 530														
325,000	\$	150	\$	290	\$	440	\$ 540														
350,000	\$	160	\$	320	\$	490															
375,000	\$	180	\$	350	\$	530															
400,000	\$	190	\$	380	\$	540															
425,000	\$	210	\$	410																	
450,000	\$	220	\$	420																	
475,000	\$	240	\$	490																	
500,000	\$	250	\$	500																	
525,000	\$	270	\$	530																	
550,000	\$	280	\$	540																	
575,000	\$	300																			
600,000	5	310																			
625,000	\$	330																			
650,000	\$	340																			
675,000	5	360																			
700,000	\$	370																			
725,000	S	390																			
750,000	\$	400																			
775,000	\$	420																			
800,000	S	430																			
825,000	\$	450																			
850,000	\$	460																			
875,000	S	480																			
900,000	\$	490																			
925,000	S	510																			
950,000	S	520																			
950000+	S	540																			
	-	- 10																			

Semi-Annual (180 Days)

This permit authorizes movements of non-devisable loads that do not exceed permitted limits of 14.5' in width, 14' in height, 105' in length, or GVW of 125,000 lbs. Permitted weight combination limits also have to be met (see the next section). Costs of this permit are as follows:

OS permit cost (GVW<80,000 lbs.): \$75 flat fee

OS/OW permit cost (GVW between 80,001 and 84,000 lbs.): \$180 flat fee

OS/OW permit cost (GVW between 84,001 and 112,000 lbs.): \$320 flat fee

OS/OW permit cost (GVW between 112,001 and 125,000 lbs.): \$420 flat fee

For devisable loads, the maximum GVW is 129,000 lbs.

Annual (365 Days)

This permit authorizes movements of non-devisable loads that do not exceed permitted limits of 14.5' in width, 14' in height, 105' in length, or GVW of 125,000 lbs. Permitted weight combination limits also have to be met (see the next section). Costs of this permit are as follows:

OS permit cost (GVW<80,000 lbs.): \$90 flat fee

OS/OW permit cost (GVW between 80,001 and 84,000 lbs.): \$240 flat fee

OS/OW permit cost (GVW between 84,001 and 112,000 lbs.): \$480 flat fee

OS/OW permit cost (GVW between 112,001 and 125,000 lbs.): \$540 flat fee

For devisable loads, the maximum GVW is 129,000 lbs.

Permitted weights

The permitted weight for different axle combinations in Utah depends on axle spacing and configurations. Axle, bridge, and gross weight allowances in Utah will be calculated based on the non-divisible bridge formula $\sim 1.47 \times 500 \, (LN/(N-1) + 12N + 36)$. In this equation, N is the number of axles in a group and L is the space between the axle in each group. This value for 9 feet wide axles is allowed to be increased by 7.5%. For 10 feet wide axles this value is allowed to be increased by 15%. In addition, for axles equipped with eight tires, 10% weight can be added to the weight authorized for an 8 ft .wide axle group with four tires [45].

Registration

The applicant of a OS/OW permit has to hold registration according to Utah law.

Fine

According to Utah codes [48], a motor carrier that violates any provision of the Constitution of this state, statute, or any rule or order of the department, including the OS/OW rules and regulations, is subject to a civil penalty of not less than \$500 nor more than \$2,000 for each offense. Effective from 09/22/2017, the OS/OW fines in Utah include \$50 flat fee plus the fine per mile charges shown in Table 77 [49].

Table 77. Fines for OW overage in Utah.

Overage (lbs.)	Axle fine (Cents per each lb.	GVW fine (Cents per each
	OW)	lb. OW)
1-2000	0	0
2001-5000	4	5
5001-8000	5	5
8001-12000	6	5
12001-16000	7	5
16001-20000	9	5
20001-25000	11	5
25001 or more	13	5

WYOMING

Permits

Class A

Class A or super loads permit authorizes separate movements of non-devisable loads and sizes exceeding the limitations of Class B or C. This permit has to be approved only by an overweight loads office. A minimum of 24-hour issuing time is required for width greater than 18 ft. Vehicles with GVW greater than 250,000 lbs. require engineering analysis. The additional engineering analysis fee includes amounts spent analyzing routes, as well as the cost of sending personnel to accompany load movements. Costs of this permit are as follows:

OS permit cost: \$25+ 0.03 /mile/ft. or fraction in excess of (15 ft. width, 15 ft. height, and 75 ft. length)

OW permit cost: \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Class B

Class B permit authorizes separate movements of non-devisable loads that do not exceed permitted limits of 18' in width, 17' in height, 120' in length, or GVW of 160,000 lbs. Permitted weight combination limits also have to be met. Costs of this permit are as follows:

OS permit cost: \$25+ 0.03 /mile/ft. or fraction in excess of (15 ft. width, 15 ft. height, and 75 ft. length)

OW permit cost: \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Class C

Class C is a self-issuing permit that authorizes separate movements of non-devisable loads that do not exceed permitted limits of 18' in width, 17' in height, 120' in length, or GVW of 160,000 lbs. Permitted weight combination limits also have to be met. Costs of this permit are as follows:

OS permit cost: \$25+ 0.03 /mile/ft. or fraction in excess of (15 ft. width, 15 ft. height, and 75 ft. length)

OW permit cost: \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Class D

Class D is an extended period permit that authorizes multiple movements of vehicles with size limits of 12 ft. in width, 15 ft. in height, and 120 ft. in length. The GVW cannot exceed 160,000 lbs. This permit is for a specific vehicle and load, routs, and time period. Costs of this permit are as follows:

OS permit cost: \$25+ 0.03 /mile/ft. or fraction in excess of (15 ft. width, 15 ft. height, and 75 ft. length)

OW permit cost: \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Class E

Class E OS special permit for hauling of forest products, blade hay or corn stalks, or combine headers. The duration of this permit is limited to 90 days. The GVW and weight combination are limited to legal weight limitations (e.g. GVW must be less than 117,000). The size limits, however, are 18 ft. in width, 17 ft. in height, and 120 ft. in length. Costs of this permit are as follows:

Single tip permit cost: \$15 flat fee

OS recreational permit cost: \$ 250 flat fee

OS 90-day permit cost: \$ 50 flat fee

OW 90-day permit cost: \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Class F

Class F OW special permit for an extended period; up to 90 days. The Class F permit is for hauling of forest products, sugar beets, gravel, livestock, and agricultural products. This permit is acceptable only on primary and secondary highways. A 10% increase in the legal axle weight combination and 5000 lbs. An increase for legal GVW is allowed (GVW is limited to 122,000 lbs.). Costs of this permit are as follows:

Single tip permit cost: \$15 flat fee

OS recreational permit cost: \$ 250 flat fee

OS 90-day permit cost: \$ 50 flat fee

<u>OW 90-day permit cost:</u> \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Class W

Class W permit is for Multi-piece load in Excess of 117,000 lbs. and legal size limits. This permit is exclusive of interstate highways, meeting the axles and federal bridge formula limitations.

Permit cost: \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Off-load

This permit is for vehicles exceeding statutory size and/or weight limits that cannot be safely reduced at the location of the violation. Costs of this permit are as follows:

OS permit cost: \$25+ 0.03 /mile/ft. or fraction in excess of (15 ft. width, 15 ft. height, and 75 ft. length)

OW permit cost: \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Emergency relief

This permit is OS/OW permit that can be issued when the Governor the director determines that greater weight or size will relieve an economic hardship or benefit the general welfare of Wyoming or another state.

Prior-operation

This permit is for unauthorized, non-permitted OS/OW violations for exceeding permit limits.

OS permit cost: \$25+ 0.03 /mile/ft. or fraction in excess of (15 ft. width, 15 ft. height, and 75 ft. length)

OW permit cost: \$.06/mile per ton or fraction in excess of statutory weights. Minimum fee \$40.

Permitted weights

The permitted weight for different axle combinations in Wyoming depends on axle spacing and configurations. The following tables direct copied and imported from [51].

Table 78. Permitted axle weight in Wyoming.

MAXIMUM ALLOWABLE TABLE

AXLE CONFIGURATION (NUMBER OF AXLES)	MAXIMUM WEIGHTS
0	25,000
00	55,000
000	65,000
0000	74,000
00000	85,000
000000	90,000
3 AXLES	
0 8' 00	70,000
O 9' OO	71,000
0 10' 00	72,000
0 11' 00	73,500
0 12' 00	75,000
0 13' 00	77,500
0 14' 00	80,000
4 AXLES SINGLE/TRIPLE COMBINATION (Not to exceed 25,000 on Single Axle or 65,000 on Triple O 8' OOO	Axle) 81,000
0 9' 000	81,500
0 10 000	82,000
0 11' 000	84,000
0 12' 000	86,000
0 13' 000	88,000
0 14' 000	90,000

Table 79. Permitted axle weight in Wyoming.

TANDEM/TANDEM COMBINATION	
(Not to exceed 55,000 on either Ta	ndem Axle)
00 8' 00	84,000
00 9' 00	88,000
00 10' 00	92,000
00 11' 00	96,000
00 12' 00	100,000
00 13' 00	104,000
00 14' 00	106,000
00 15' 00	108,000
00 16' 00	110,000
TANDEM/SINGLE/SINGLE COMBINA	a noncomparison and the contraction contraction contraction and the analysis of the contraction of the contraction and the con
00 8' 0 9' 0	83,000
55,000 14,000 14,000	
00 8' 0 9' 0	90,000
50,000 20,000 20,000	
00 8' 0 9' 0	92,000
42,000 25,000 25,000	
00 8' 0 12' 0	95,000
55,000 20,000 20,000	
00 10' 0 9' 0	89,000
55,000 17,000 17,000	
00 10' 0 9' 0	94,000
50,000 22,000 22,000	
00 10' 0 9' 0	96,000
46,000 25,000 25,000	
00 10' 0 10' 0	97,000
55,000 21,000 21,000	
00 12' 0 9' 0	100,000
50,000 25,000 25,000	
00 12' 0 9' 0	100,000
55,000 22,500 22,500	
00 14' 0 9' 0	105,000
55,000 25,000 25,000	

Table 80. Permitted axle weight in Wyoming.

	ΥI	

TRIPLE/TANDEM COMBINATION
(Not to exceed 65,000 on Triple or 55,000 on Tandem)

(140t ti	o exceed 05,000 on Triple of 55,000 on Tandemy	
000	8' 00	90,000
000	9' 00	92,000
000	10' 00	94,000
000	11' 00	97,000
000	12' 00	100,000
000	13' 00	102,500
000	14' 00	105,000
000	15' 00	108,000
000	16' 00	111,000
000	17' 00	115,500
000	18' 00	120,000

SINGLE/QUAD COMBINATION

(Not to exceed 25,000 on Single Axle or 74,000 on Quad Axle)

0	8' 0000	86,000
0	9' 0000	87,000
0	10' 0000	88,000
0	11' 0000	89,500
0	12' 0000	91,000
0	13' 0000	93,500
0	14' 0000	96,000
0	15′ 0000	97,500
0	16' 0000	99,000

6 AXLES

TANDEM/TANDEM/TANDEM COMBINATION

(Not to exceed 55,000 on any Tandem Axle)

00 8' 00 8' 00	102,000
00 9' 00 9' 00	106,500
00 10' 00 10' 00	111,000
00 11' 00 11' 00	117,000
00 12' 00 12' 00	123,000
00 13' 00 13' 00	129,000
00 14' 00 14' 00	135,000
00 15' 00 15' 00	145,500
00 16' 00 16' 00	156,000
00 17' 00 17' 00	160,500
00 18' 00 18' 00	165,000

Table 81. Permitted axle weight in Wyoming.

TRIPLE/TRIPLE COMBINATION	
(Not to exceed 65,000 on either Triple Axle)	
000 8' 000	96,000
000 9' 000	100,000
000 10' 000	104,000
000 11' 000	107,000
000 12' 000	110,000
000 13' 000	113,000
000 14' 000	116,000
000 15' 000	120,000
000 16' 000	124,000
000 17' 000	127,000
000 18' 000	130,000
QUAD/TANDEM COMBINATION	
(Not to exceed 74,000 on Quad Axle or 55,000 on Tandem Axle	e)
0000 8' 00	88,000
0000 9' 00	90,000
0000 10' 00	98,000
0000 11' 00	101,000
0000 12' 00	103,000
0000 13' 00	106,000
0000 14' 00	110,000
0000 15' 00	114,000
0000 16' 00	119,000
0000 17′ 00	126,000
0000 18' 00	129,000
SINGLE/5 Axle Combination	
(Not to exceed 25,000 on Single Axle or 85,000 on 5 Axles)	
0 8' 00000	92,000
0 9' 00000	93,500
0 10' 00000	95,000
0 11' 00000	96,000
0 12' 00000	97,000
0 13' 0000	98,000
0 14' 00000	99,000
0 15′ 00000	100,000
0 16' 00000	101,000
0 17' 00000	101,500
0 18' 00000	102,000

Table 82. Permitted axle weight in Wyoming.

	IGLE							-					
B16595	ot to	1591900	eed	25,	000	on a	any S	sing	le A	xle)			enis kalles stanles a nikolominia Grimenia.
0	9'	0	550									50,000	
0	9'	0	9'	0	a treto estredi						PT-10-4g .mountershippenda commission beautiful and the commission of the commission	75,000	n en harrier a konno, la accessamente a anton
0	9'	0	9'	0	9'	0			g 161	Mi.		100,000	
0	9'	0	9'	0	9'	0	9'	0			22,500 per axle	112,500	
0	9'	0	9'	0	9'	0	9'	0	9'	0	22,500 per axle	135,000	
0	10'	0	10'	0	10'	0	10'	0			25,000 per axle	125,000	
0	10'	0	10'	0	10'	0	10'	0	10'	0	25,000 per axle	150,000	
QU	AD/	TRII	PLE (ON	/BIN	ΙΑΤ	ON						
(no	t to	exc	eed	74,0	000	on a	Qua	ad A	Axle	or 6	5,000 on a Triple Axle)		
OC	00	8'	OC	00								97,000	
OC	00	9'	00	00								100,000	
OC	00	10	0	00								104,000	
OC	00	1:	1' O	00								107,000	
OC	00	1	2' (000)							111,000	
OC	00	1	13'	000	0							115,000	
OC	00		14'	00	0							121,000	
OC	00		15'	OC	00							127,000	
OC	00		16'	00	00							135,000	
OC	00		17'	0	00		Kercycoldes on	PICAGAIN	desumma			139,000	
(Fi	e Ax	de (Grou	p n	ot to	ex	ceed	85	,000	pou	ınds or Tandem Axle not	to exceed 55,00	00 pounds)
00	000)	13'	00	0							112,000	
OC	000)	14'	0	0							114,000	
OC	000)	15'	C	00						A TOP OF THE RESERVE OF THE PERSON OF THE PE	116,000	
OC	000)	16'	(00							118,000	

Registration

Vehicles can obtain registration for a 96-hours permit from Wyoming DOT to make a single trip into, within or out of Wyoming for a fee of \$20 for each single unit or \$40 for each legal combination of units including only one power unit.

Fine According to Wyoming statutes [50] the OW fines are:

Table 83. Overweight fines in Wyoming.

Excess Weight (Pounds)	Fine (\$)
0-2,000,	25.00
2,001 – 4,000	75.00
4,001 - 6,000	125.00
6,001 - 8,000	150.00

8,001 – 10,000	200.00
10,001 - 12,000	300.00
12,001 - 14,000	400.00
14,001 – 16,000	500.00
16,001 – 18,000	600.00
18,001 - 20,000	700.00
20,001 and over	1,000.00

Extra loads exceeding 20,000 lbs. will have an additional two hundred dollars (\$200.00) for each one thousand (1,000) pounds.

According to the Wyoming Statutes [50] a vehicle carrying a load heavier/larger than permitted can be penalized. OS fine is \$120 in daytime and \$220 nighttime.

APPENDIX 2. TASK 1 SURVEY

COMMUNICATION AND SURVEY QUESTIONS FOR STATE DOTS

When contacting the different states, a phone call was made first to introduce the research and what it consisted of. All phone calls followed a similar prompt, the following is an example of a phone call that was made.

Hello, my name is Fernando Alvidrez and I am currently working on a research project with New Mexico State University and New Mexico Department of Transportation regarding the different types of Overweight and Oversize permits that other States have. I was wondering if you could answer a few questions.

- 1. How many different types of Overweight and Oversize permits does [state] have?
- 2. What are the fees of the permits?
- 3. Does [state] require any escort vehicle certification needed to drive an escort vehicle?
- 4. Does [state] require any police escort? If so how much is it?
- 5. How much revenue does [state] generate with the Overweight and Oversize permits?
- 6. Where is the revenue allocated?
- 7. Does [state] have any Super Load or well servicing units permits
- 8. Is there a website where [state] has all this information?
- 9. Is there an email to where I can contact you?

After the phone call was made there was a follow up email that was sent to the states that provided an email. The following is the email prompt that was used when contacting the different states after contacting them via telephone.

Dear [contact name],

My name is Fernando Alvidrez, and I am research assistant working in the Civil Engineering Department at New Mexico State University. We are currently working on a project for the New Mexico Department of Transportation related to overweight/oversize permits in the Western States.

Your contact information was listed by [organization s/he belong e.g. ADOT] as the primary liaison for overweigh and oversize permits. I am writing to request information related to these permits in [state]. I would really appreciate it if you would help me by answering the following questions:

- 1. Are the oversize/overweight fee schedules published at [link to the website containing fee information] current? If not, could please provide electronic documentation on the current fee schedule.
- 2. What was the number of single-trip overweight/oversize permits issued in [state] in 2017.
- 3. What was the number of annual or monthly overweight/oversize permits issued in [state] in 2017.

- 4. What was the revenue generated through all overweight/oversize permits issued in 2017?
- 5. Does [state] charge additional fees for the certification or inspection of escort vehicles?
- 6. Does [state] charge additional fees for police escorts?
- 7. What fraction of the revenues generated by overweight/oversize permits are allocated to [state department of transportation]?
- 8. Are there statutory or regulatory constraints on how these revenues allocated to [state department of transportation] must be spent?
- 9. Do revenues from fines for violation of overweight/oversize truck laws go to the same place as fee revenues? If not, please explain legal requirements governing the use of the fine revenues.
- 10. What compliance systems does [state] use to verify overweight/oversize limits?
- 11. Are there specific fees in [state] for vehicles carrying coil tubing and well servicing units?
- 12. Does Texas have any Super load permit and if so, how much does it cost and how much weight is allowed under this permit?
- 13. Does Texas have a permit specifically for self-propelled fracking vehicles? If so how much weight is allowed under this permit, and how much does this permit cost?

COMMUNICATION AND SURVEY QUESTIONS FOR RIGGING COMPANIES

- 1. In what states do your company have experience with overweight permits?
- 2. What is the maximum permitted weight in 3, 4, 5, 6, 7, and 8 axle groups?
- 3. What was the cost of the single trip permit? What was the cost of the multiple/annual trip permit?
- 4. Was there an additional per mile or per ton fee?

- 5. What are the states that have a particular "coil tubing and well servicing unit" permit type?
- 6. What is a single permit cost for the following coil/tubing truck configuration in the following states

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- 1. Texas
- 2. North Dakota
- 3. Wyoming
- 4. Oklahoma
- 5. Montana
- 6. Arizona
- 7. Utah
- 8. Colorado