

The History of Iowa's Bridge Design, Legal and Permit Loads

April 11, 2025

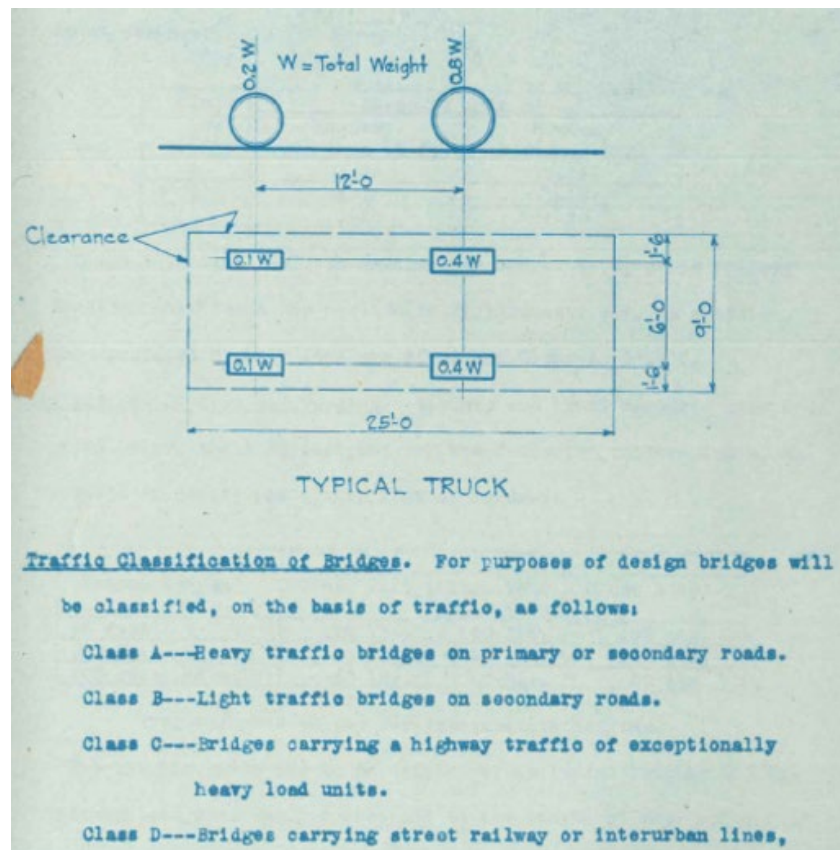
Compiled by Eric Souhrada, Field Engineer Specialist, Bridges and Structures Bureau

The required bridge design, legal and permit loads in the state of Iowa have changed dramatically over the last twenty-five years, making it difficult to maintain a clear understanding of each of the individual requirements and how they are applied to the state's bridges.

The following information documents the origination of Iowa's bridge design, legal and permit load requirements and the revisions and updates that have occurred over the years.

1920's-30's – Evolution of the H20 Truck (Design Load)

In the 1920's, the state of Iowa based their 1925 *Standard Specifications for Highway Bridges, Culverts, and Incidental Structures* on the US Bureau of Public Roads *Truck Data for Determination of Widths of Curbs on Bridges* that was published in June of 1922.



US Bureau of Public Roads *Truck Data for Determination of Widths of Curbs on Bridges* (June 1922)

Bridges were categorized into one of four classes based on traffic, and designed for either a single 10-ton, 15 ton, or 20-ton truck or two 15- or 20-ton trucks based on the roadway width as shown in the table below.

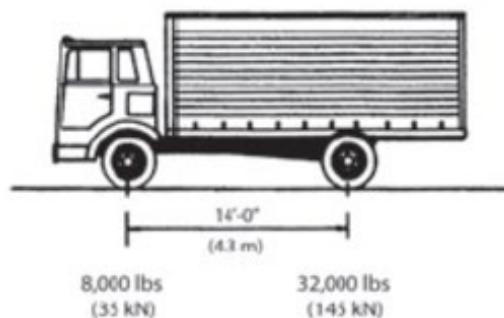
17. SPECIFIED LIVE LOADS.—The live loads to be used in the design of the classes of bridges specified in Par. 15, Div. V, shall be as follows:

Class of Bridge	Live Load	
	Roadway width less than 18 feet.	Roadway width 18 feet or more.
A		2-15
B	1-15	1-15
C	1-10	1-15
D	1-20	2-20

Iowa's 1925 Standard Specifications for Highway Bridges, Culverts, and Incidental Structures.

In the mid-1920's organizations such as AREA (now AREMA), AASHO (now AASHTO) , ASCE, and AISC began working together to establish more uniform standards. Based on this collaboration, AASHO published the first edition of *Standard Specifications for Highway Bridges and Incidental Structures* in 1931.

This specification based the design on “truck trains” of what was now called H20 for heavier traffic and H15 or H10 for lighter traffic.

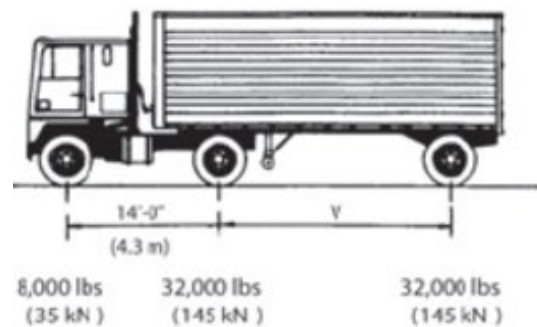


H20 Truck

1940's – HS20 Truck (Design Load)

In 1941, the third edition of *Standard Specifications for Highway Bridges and Incidental Structure* eliminated the traffic classifications and use of truck trains. Instead, a third axle of 32k was added to the H20 truck to produce the HS20 design truck, and designs were either based on a single truck per lane or a lane loading.

The fourth edition in 1944 modified the HS20 to have variable axle spacings, adjusted the lane loads for continuous spans, and renamed it HS20-44.



HS20-44 Truck

1956 – Interstate Vehicle Weights (Legal Load)

The Federal Aid Highway Act of 1956 established the following maximum vehicle weights:

- Gross Vehicle Weight – 73,280 lbs.
- Single Axle – 18,000 lbs.
- Tandem Axle – 32,000 lbs.
- Vehicle Width – 96 inches.

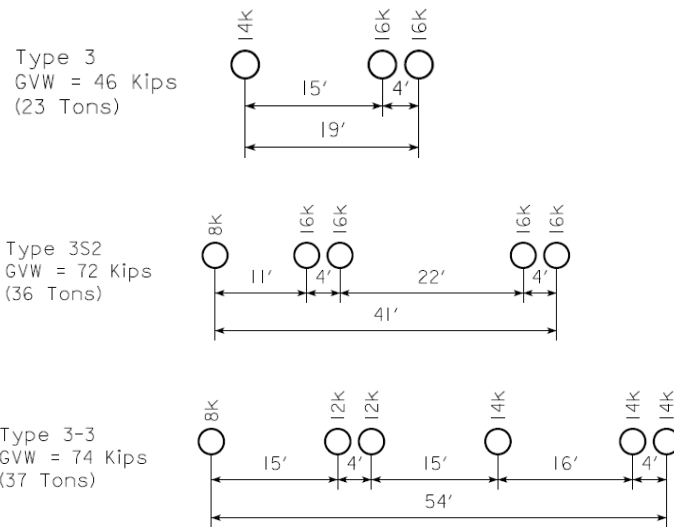
A grandfather clause was added that allowed State limits to remain if they were implemented prior to July 1, 1956.

1970 – FHWA Interstate Legal Trucks (Legal Load)

FHWA recommended the states rate bridges for trucks with the axle configurations of the Type 3, 3S2 and 3-3 truck configurations. Following the introduction of the National Bridge Inspection Standards (NBIS) in 1970, FHWA developed vehicle configurations for the three legal load trucks in the 1970 1st Edition of the AASHTO Manual for Maintenance Inspection of Bridges. Commentary in the 1st Edition AASHTO manual stated that the spacing and weights that were chosen for the vehicle types, were selected from actual maximum legal loads conforming closely with regulations required by a major number of States.

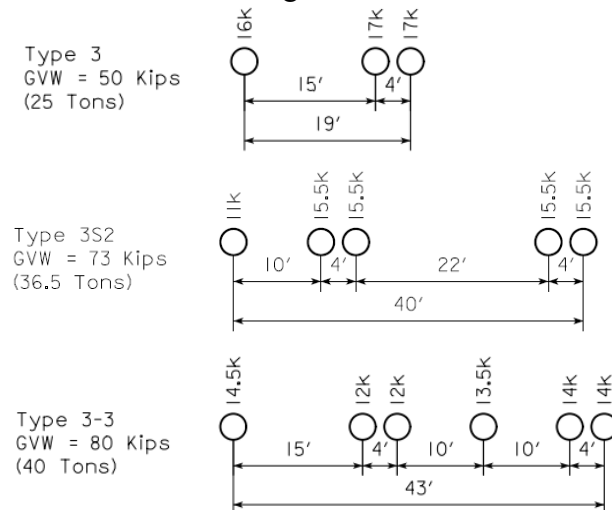
The manual further stated that minor adjustments of axle weights and spacings shown for the vehicle configurations will be necessary in some cases to make them conform with the allowable maximum weights and lengths as they vary from state to state.

The AASHO 1970 1st Edition of Manual for Maintenance Inspection of Bridges provided the following interstate legal truck configurations:



1970's – Initial Iowa DOT Legal Trucks (Legal Load)

The Iowa DOT developed their own legal truck configurations in the 1970's for load rating, which differed from the recommended FHWA legal trucks.



Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.

1974 - Interstate Vehicle Weight Increase (Legal Load)

The Federal Aid Highway Amendment of 1974 increased the maximum vehicle weights established in the Federal Aid Highway Act in 1956 with the following:

Gross Vehicle Weight – 73,280 lbs. increased to 80,000 lbs.

Single Axle – 18,000 lbs. increased to 20,000 lbs.

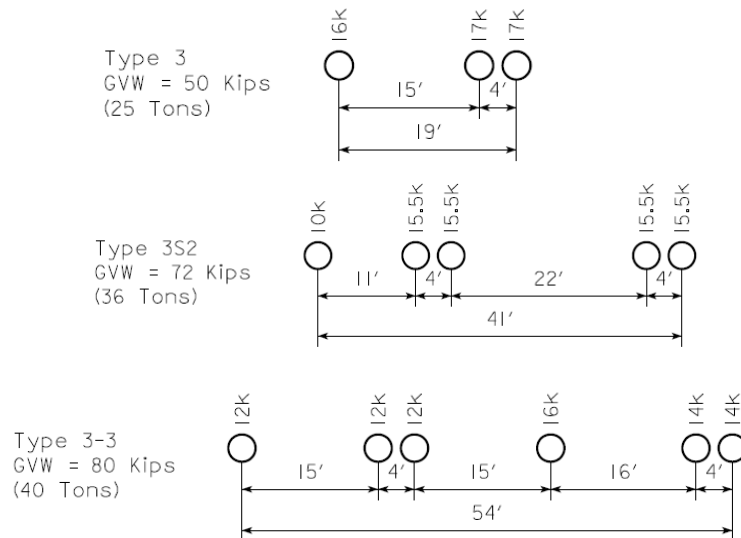
Tandem Axle – 32,000 lbs. increased to 34,000 lbs.

The Federal Aid Highway Amendment of 1974 also adopted the Federal Bridge Formula.

1978 – FHWA Interstate Legal Trucks (Legal Load)

In 1978, the 3rd Edition of the AASHTO Manual for Maintenance Inspection of Bridges increased the federal weight limits for interstate vehicles with different axle and gross weights. The change in the axle and gross weights of the three legal truck load configurations was generated by the increase in maximum vehicle weights introduced with the Federal Aid Highway Amendment of 1974.

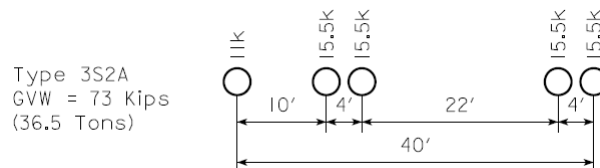
The 3rd Edition of the Manual for Bridge Evaluation (MBE), Chapter 6, Figure 6B.7.2-1 has these same truck configurations today.



(Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.)

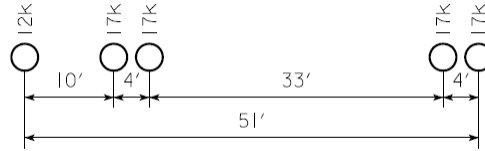
1980 – Iowa DOT Legal Trucks (Legal Load)

The initial 1970's Iowa DOT 3S2 legal truck was a five axle 73k 40'-0" legal truck and was revised to an 80k 51'-0" legal truck with the 1980 revisions to the Iowa legal load trucks. The 73k vehicle was renamed 3S2A and the 80k vehicle was named the 3S2B.



1970 ORIGINAL 3S2 LEGAL TRUCK RENAMED TO 3S2A

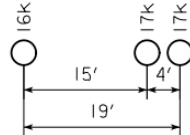
Type 3S2B
GVW = 80 Kips
(40 Tons)



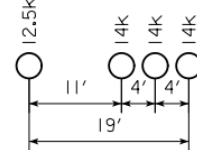
1980 REVISED 3S2B LEGAL TRUCK

The Iowa DOT adopted the following legal truck load configurations for load rating and posting bridges as part of legislation passed in 1980 by the Iowa State Legislature, House File 747.

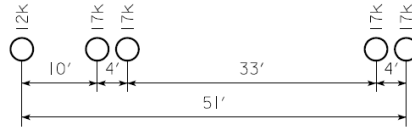
Type 3
GVW = 50 Kips
(25 Tons)



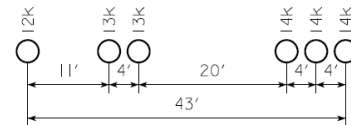
Type 4
GVW = 54.5 Kips
(27.25 Tons)



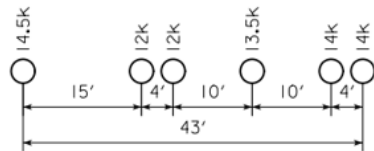
Type 3S2B
GVW = 80 Kips
(40 Tons)



Type 3S3
GVW = 80 Kips
(40 Tons)



Type 3-3
GVW = 80 Kips
(40 Tons)



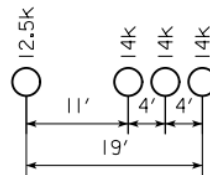
Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.

1981 – Iowa DOT Legal Trucks (Legal Load)

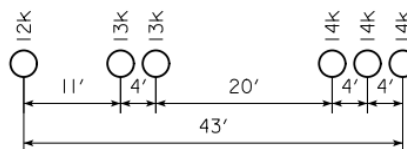
The revision of the bridge rating and posting criteria dated December 11, 1980, reference No. 530.5, provided the five legal truck configurations utilized for load rating bridges.

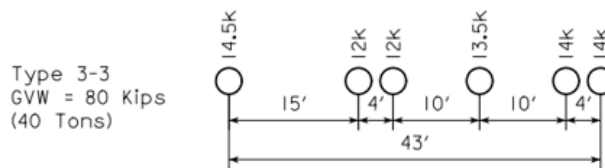
The vehicle weight law (S.F. 159), which became effective July 1, 1981, the Iowa DOT selected three legal truck configurations and recommended posting load limits for the straight truck based on The Type 4 vehicle, and posting load limits for the semi-trailer combination and truck plus full trailer be based on the Type 3S3 and Type 3-3 vehicles, respectively.

Type 4
GVW = 54.5 Kips
(27.25 Tons)



Type 3S3A
GVW = 80 Kips
(40 Tons)





(Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.)

1982 – Oversized Vehicles (Permit Load)

In April of 1982, Section 321E.8, subsection 2, Code 1981 was amended to allow vehicles with indivisible loads with an overall width not to exceed 85 feet. These vehicles were restricted to trip distances not to exceed 50 highway and street miles in total aggregate. The vehicle and load could not exceed the height prescribed in Section 321.456 of 14'-6", and the total gross weight as prescribed in Section 321.463 of 80,000 lbs. or less.

1987 – Oversized Vehicle Permit (Permit Load)

The 1987 code section 321E.8, subsection 2, implemented the all-systems permit for Oversized (OS) vehicles. 1987 code section 321E.28 was amended to create the annual permit type. Before this amendment, only single trip permits were issued.

1990 – 12.5 % Overload (Legal Load)

In the early 1990's, the governor of Iowa used an Emergency Proclamation allowing haulers to have gross weights of 90,000 pounds on any axle configuration during the fall harvest season.

1993 – National Bridge Inventory (NBI) (General Load Rating)

The Federal Highway Administration (FHWA) adopted the Load Factor (LFR) method as the standard for computing load ratings reported to the National Bridge Inventory (NBI), reference to the November 5, 1993, Iowa Department of Transportation Memorandum subject Bridge Load Rating for the National Bridge Inventory.

The memorandum allowed the states to utilize either Load Factor Rating (LFR), Allowable Stress Rating (ASR) or Load and Resistance Factor Rating (LRFR) to establish load limits for purposes of load posting, and load ratings for all bridges that require updating in conformity with the AAHSTO Manual shall be based on the Load Factor Rating (LFR) method.

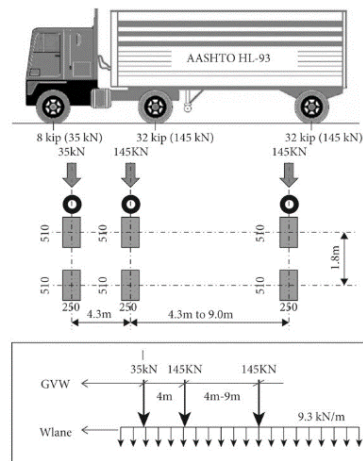
1993 – Operating and Inventory rating (Design Load)

FHWA advised the states that the inventory and operating ratings reported to the National Bridge Inventory (NBI) for all bridges constructed, replaced or rehabilitated after January 1, 1994, shall be based on the Load Factor Rating (LFR) method and for all existing bridges by 1995.

Reference to the Iowa DOT Memorandum dated November 5, 1993, subject Bridge Load Rating for the National Bridge Inventory.

1994 – HL-93 Truck (Design Load)

The HL-93 truck was adopted in 1994, which was essentially the same truck configuration as the HS20, with the lane load considered in combination rather than separately. When rating bridges, Iowa utilizes the maximum of HS20 or the lane load for Allowable Stress Rating (ASR) and Load Factor Rating (LFR), and HL-93 for Load and Resistance Factor Rating (LRFR).



1995 – Implements of Husbandry (IOH) (Legal Load)

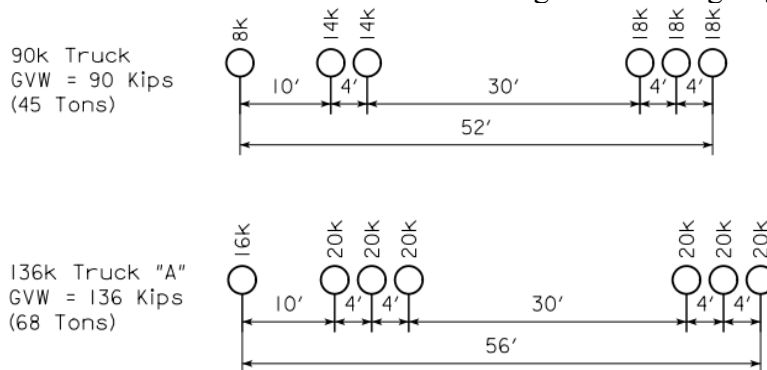
(No vehicle load rating configuration)

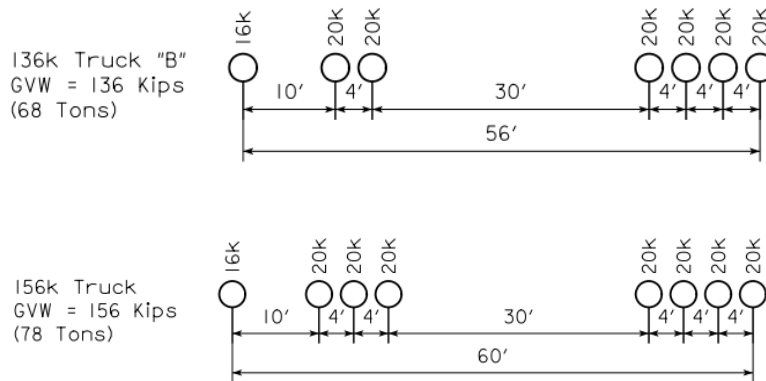
Iowa Code Chapter 321.471 required (IOH) to obey bridge postings, whereas the previous legislation contained an exemption for IOH obeying bridge postings. There is no vehicle load rating diagram for IOH at this time.

1997 – Annual Permit Loads (Permit Load)

The 1997 code section 321E.9A, subsection, implemented the 156k max gross weight for annual permit loads (axle weights limited to 20,000 pounds). This is an Overweight (OW) annual permit type. To obtain an Overweight (OW) permit, the cargo must be indivisible.

The 136k Truck "A" and 136k Truck "B" were implemented along with the 90k Truck as annual permit loads to accommodate the different truck figurations weighing less than the 156k Truck.





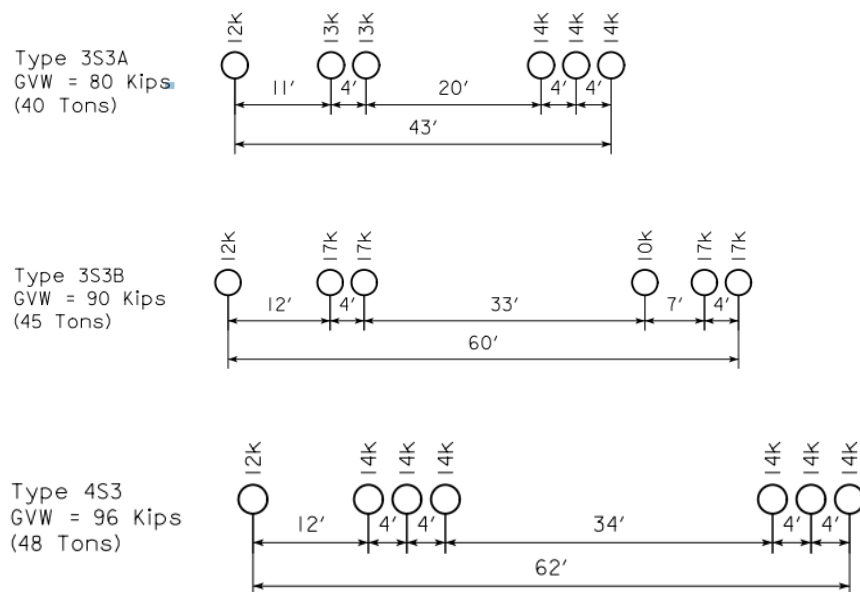
(Note: These vehicles may not be the current Iowa Permit Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.)

1999 – 3S3B and 4S3 Trucks (Legal Load)

The 1997 coded section 321.463 was amended to include the Maximum Gross Weight Table for Interstate Highways (later renamed in 2005 to Maximum Gross Weight Table for Primary Highways) and the Non-interstate Highways Maximum Gross Weight Table (later renamed in 2005 to Non-Primary Highways Maximum Gross Weight Table).

The Iowa state legislature introduced two new legal trucks in 1999 with Iowa code section 321.463, section 5, paragraph c, where the original 3S3 six axle 80k legal truck was renamed the 3S3A and the new six axle 90k legal truck was named the 3S3B. The second legal truck introduced was the seven axle 96k 4S3 legal truck.

The axle limits had to comply with the bridge formula represented in the Non-Interstate Highways Maximum Gross Weight Table Livestock or Construction Vehicle. These trucks were allowed on non-interstate routes, or state routes, without a permit. These vehicles were not allowed on secondary routes.



(Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.)

1999 – Self-propelled Cranes (Permit Load)

(No truck load rating configuration)

Self-propelled cranes are allowed to have a single trip permit with a gross axle weight of 24k, as per Iowa Code Chapter 321E.8. There is no truck load rating diagram because each vehicle is unique.

2000 – Implements of Husbandry (IOH) (Legal Load)

(No vehicle load rating configuration)

Fenceline feeders, grain carts and tank wagons are allowed to have 28k per axle during specific times of the year and 24k per axle the remainder of the year. The gross weight of these implements is limited to 96k on roadways and 80k when crossing a bridge.

The towing vehicle weight is not included in the gross weight. Iowa Code Chapter 321.463, section 2, paragraph 4. The 24k and 28k axle load restrictions were implemented to preserve paved roadways. Bridges could be crossed if the gross weight of the towed implement was 80,000 pounds or less.

2000 – 12% Overload (Legal Load)

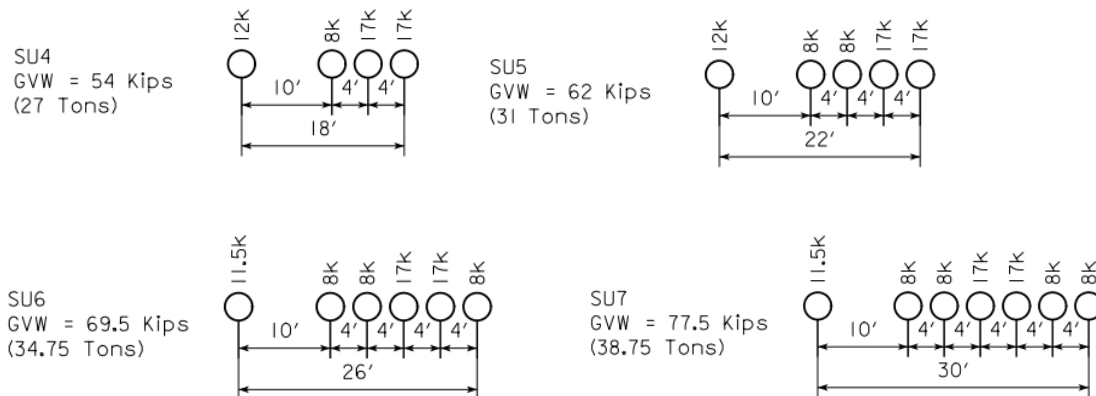
In the early 2000's, the Emergency Proclamation from the 1990's, was updated to restrict the gross weight to 12% over legal limits not to exceed 20,000 pounds per axle. It also required these loads to obey bridge posting limits.

2005 – Gross Legal Weight Tables (Legal Load)

The gross legal weight tables in the Iowa code chapter 321.463 had their names changed from Interstate and Non-Interstate to Primary and Non-Primary Maximum Gross Weight Tables. The state bridges are rated using the Primary Load Tables and the local bridges are rated using the Secondary Load Tables. The code change only affected the state bridges.

2005 – Special Haul Vehicles (SHV) (Legal Load)

AASHTO added the SHV to the load rating requirement for all bridges and were included in the Manual for Bridge Evaluation (MBE) in chapter 6 as SU4, SU5, SU6 and SU7 truck configurations.



(Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.)

Due to the addition of SHV's, a parametric study was performed. The following guidance was determined:

1. Bridges that were already posted did not need to be rerated for SHV's. A specific statement was to be added the Load Rating Report, and the bridge should be rated for SHV's the next time a rerating is required.
2. Bridges with a HS20 Operating Rating ≥ 45 tons did not need to be rerated for SHV's. A specific statement was to be added the Load Rating Report, and the bridge should be rated for SHV's the next time a rerating is required.
3. Bridges with a HS20 operating rating < 45 tons and not already posted need to be rated.

SHV's within the suggested timeframe:

- a. Group 1 – single span beam type bridges and multi-span PPCB's by 12/31/2016.
- b. Group 2 – multi-span bridges and single span special bridges by 12/31/2020.

2005 – Tracked Implements of Husbandry (TIOH) (Legal Load)

(No vehicle load rating configuration)

The Iowa code chapter 321.463, section 6, paragraph e, was added with a table for tracked implements of husbandry instead of wheels. No specific vehicle load rating configuration determined for tracked IOH at this time.

2006 – Bridge Load Rating (General Load Rating)

FHWA Policy Memorandum on Bridge Load Ratings for the National Bridge Inventory (NBI), dated October 30, 2006, reiterated the 1993 DOT Memorandum that all bridges constructed, replaced rehabilitated since January 1, 1994, are to be load rated using Load Factor Rating (LFR).

FHWA's policy for bridges designed using HL-93 loading with Load and Resistance Factor Design (LRFD) method prior to October 1, 2010 shall be rated using Load and Resistance Factor Rating whenever re-rating is required.

2007 – Load and Resistance Factor Rating (LRFR) (General Load Rating)

The FHWA required the use of Load and Resistance Factor Rating (LRFR) for bridges starting October 1, 2007, when they mandated that all new bridges be designed using Load and Resistance Factor Design (LRFD) specifications, which incorporated LRFR for load rating existing bridges, making LRFR the preferred method for assessing bridge load capacity.

2010 – Structure Inventory Inspection Management System (SIIMS) (Bridge Data)

SIIMS contained a Bridge Load Rating form for each bridge, where a Load Rating Table was required to be completed. The Load Rating Table only included a single special haul vehicle labeled SU7, where the controlling special haul vehicle rating was entered.

2013 – Special Haul Vehicles (Legal Load)

The FHWA required the rating of the state's bridges for Special Haul Vehicles (SHV) in a FHWA Memorandum on November 15, 2013, subject Load Rating of Specialized Hauling Vehicles. The states were required to rate for the SU4, SU5, SU6 and SU7 vehicles with the timelines of December 31, 2017 for bridges with the shortest span less than 200 feet, and a timeline of December 31, 2022 for the remaining bridges.

2015 – Permit Trucks with 46K Tandem Axles (Legal Load)

(No truck load rating configuration)

Two sets of tandem axles on a permitted non-divisible load are allowed to have 46k gross weight. One of the tandem axles has to be on the tractor and the other on the trailer as per Iowa code chapter 321E.26.

2015 – FAST Act and Emergency Vehicles (EV) (Legal Load)

The FAST act (Fixing America's Surface Transportation) requires all bridges in the state to be rated for Emergency Vehicles (EV). If a state exempted EV from load limits, all bridges in the state were to be rated for EV. Iowa provided guidance to LPA for evaluating EV in a memo sent in 2023.



(Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.)

2016 – Emergency Vehicles (Legal Load)

FHWA sent out a memo requiring the rating of bridges on the Interstate System and within reasonable access to the interstate in the FHWA Memorandum dated November 3, 2016, subject Load Rating for the FAST Act's Emergency Vehicles.

The memo also required the rating of Emergency Vehicles (EV) outside the Interstate System if they were not restricted by law. An emergency vehicle was defined as a vehicle transporting personnel and equipment to support the suppression of fires and mitigation of other hazardous situations.

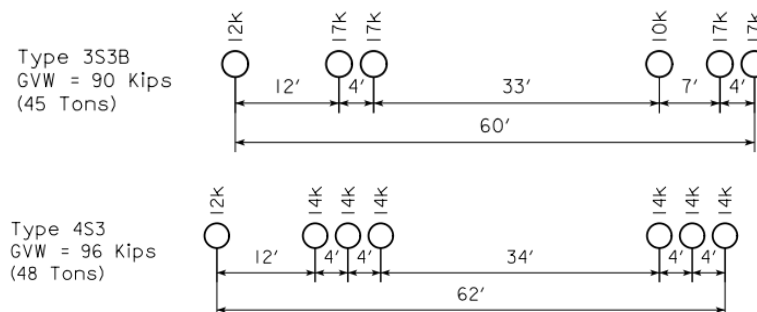
2018 – Operating, Inventory and Sufficiency Ratings (Design Load)

FHWA no longer utilized the Operating, Inventory or Sufficiency ratings to determine the allocation of federal funds to the states. The 1994 and 2010 rerating requirements for the Operating and Inventory ratings in Instructional Memorandum. 7.020 no longer apply to the allocation of funding to the local agencies.

The Operating rating refers to the maximum permissible load a bridge can carry during isolated events, whereas the Inventory rating represents the safe load a bridge can carry continuously for an indefinite period of time.

2018 – 3S3B and 4S3 Trucks (Legal Load)

In 2018, legislation was passed as part of House File 2502, allowing construction vehicles (3S3B and 4S3 trucks) to utilize secondary bridges for construction purposes. This legislation required all local bridges to be rated for these trucks, and the ratings for these trucks produced posting values above the 28,40,40 legal truck postings on the R12-5 signs.



(Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.)

2018 – R12-5 Legal Truck Posting (Bridge Posting)

The Instructional Memorandum committee added language to I.M. 7.020 in Load Rating (23 CFR 650.313,k) under Posting, that recommended that local agencies post their bridges not to exceed the 28,28,40 legal truck ratings on the R12-5 posting signs.

Postings the R12-5 signs according to the allowable loads for the 3S3B and 4S3 trucks, indicated that the Type 4, 3-3 and 3S3 trucks could exceed the 28,40,40 legal loads only created confusion for the truck drivers and was misleading in that the posting indicated that they could go above 28,40,40 for the Type 4, 3-3 and 3S3 trucks.



R12-5

2019 – Implements of Husbandry (IOH) (Legal Load)

(No vehicle load rating configuration)

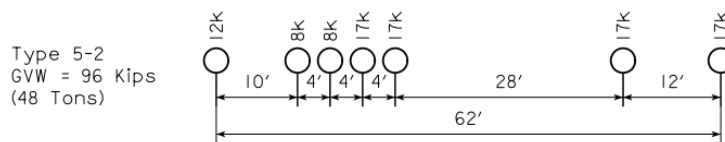
Iowa code chapter 321.463, section 4, paragraph a, allows self-propelled fertilizer applicators to have 25k per axle, but are still required to obey bridge postings. The vehicle load rating diagram for this implement is to be determined based on research still being conducted.

2019 – Raw Forest Products (Permit Load)

Iowa code chapter 321E.26 implemented a raw forest products permit allowing divisible loads of timber to apply for a permit with axle weights up to 20k or two tandem axle groups with 46k each. Iowa code chapter 321E.26.

2020 – 5-2 Truck (Legal Load)

The 5-2 Legal Truck was added to the load rating table as a required rating vehicle, based on the load table in the Iowa code allowing 96k on 7 axles (4S3) truck. The 5-2 truck encompasses a 5-axle dump truck towing a 2-axle pup.

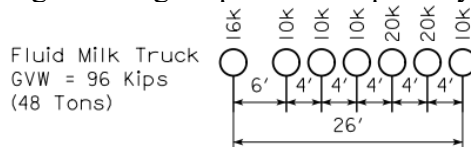


(Note: This vehicle may not be the current Iowa Legal Truck configuration. Reference to the Appendix on page 20 for the current vehicle configurations.)

All bridges that utilized the Iowa State parametric study where bridges with an Operating rating of 45 tons or more did not have to be rated for the Special Haul Vehicles. The 5-2 truck is not enveloped in this parametric study.

2021 – Fluid Milk Truck (Permit Load)

Iowa Code 321E.29B established an annual permit allowing vehicles transporting fluid milk products to have a gross weight up to 96k on primary roads.



(Note: This vehicle may not be the current Iowa Permit Truck configuration. Reference to the Appendix on page 20 for the current vehicle configurations.)

2022 – 12% All Systems Permit (Permit Load)

To try to eliminate the need for the annual Emergency Proclamation allowing for a 12% overload during the harvest season, the Iowa code chapter 321.463, was amended to allow an annual all systems permit for overweight trucks hauling divisible and non-divisible loads with weights not to exceed the gross weight tables by 12%.

LPA's are required to identify routes and bridges that cannot carry the All Systems loads, where the Iowa DOT Motor Carrier Services will maintain a map of these routes and bridges.

There is no singular configuration for the All-systems permit. Iowa's three legal loads, the straight trucks, truck + semi-trailer, and truck + full trailer are increased by 12%. Single axles are still limited to 20k.

However, unlike the harvest proclamations, 321E.8 (2) does not specify only the gross weight table in Iowa Code 321.463 (6) (b). Due to this, the all-systems can be 12% over table (c) as well for a maximum of 107.5 k.

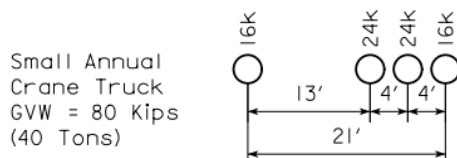
2022 – Bridge Load Rating Table Update (Legal Load)

The Load Rating Table in SIIMS was revised to provide entries for all the Special Haul Vehicles load ratings. Previously the SU4, SU5, SU6 and SU7 load ratings were provided in the

comments on the Bridge Load Rating Report because there was only one entry for the controlling load rating in the previous Load Rating Table, labeled as the SU7 truck. The SNBI requires the rating factors for these trucks to be included in the annual FHWA submittal of inspection data.

2022 – Cranes on Primary Routes (Permit Load)

Iowa code 321E.8 implemented an annual permit for cranes up to 80k gross weight and up to 24k per axle travelling on primary roads.



(Note: This vehicle may not be the current Iowa Permit Truck configuration. Reference to the Appendix on page 20 for the current vehicle configurations.)

2023 – Emergency Vehicles (EV) (Legal Load)

The Iowa DOT provided guidance to the Local Public Agencies for evaluating EV's in a 2023 memo that required all LPA's to identify the EV's in their county by December of 2024. There has not been a timeline established for rating the Emergency Vehicles (EV).



(Note: These vehicles may not be the current Iowa Legal Truck configurations. Reference to the Appendix on page 20 for the current vehicle configurations.)

2023 – Hydro Excavators (Legal Load)

(No vehicle load rating configuration)

Iowa code 321.453, allows an exemption for all axles and gross weight limits for hydro-excavators when traveling on an non-interstate route, but they have to obey all bridge postings. The required load rating diagram configuration has not been determined for this vehicle.

2024 – Specifications for the National Bridge Inventory (SNBI) Load Rating Table (Bridge Data)

The SNBI Load Rating Table utilizes rating factors rather than tonnages. The controlling rating factor is listed at the bottom of the table under Item B.L.R.07. When the controlling rating factor is less than one, the bridge is required to be posted.

2024 – American Association of State Highway and Transportation Officials Software for Bridge Rating (AASHTOWare BrR) (General Load Rating)

AASHTOWare BrR is a load rating software program owned by AAHSTO. Starting July 2024, the DOT purchased an Agency Sponsored Consultant License for 50 licenses to distribute amongst consultants and county engineers load rating bridges in Iowa. Fall 2024, the licenses were distributed; and in December 2024, initial training on using the software was provided. The software is not mandatory to use but encouraged by the DOT.

The purpose of the software is to assist load raters with permitting, rating for new legislation, and provide tools for rating structures such as corrugated metal pipes (CMP's) and rating new bridges in LRFR. BrR can do batch analysis to make rating new trucks easier and is capable of doing many different bridge types.

BrR will be implemented when the standard bridge templates are completed and more in-depth training is provided (culverts, trusses, timber structures, etc.), but basic prestress, steel, and slab bridges and CMP's can begin being modeled. Long-term, the goal is to have a statewide permitting system which BrR will be needed to implement.

2025 – 12% All Systems Permit Implementation (Permit Load)

The Local Public Agencies (LPA) are required to have all paved Farm-to-Market routes rated for the 12% overload by July 1, 2025. Non-paved Farm-to-Market routes should be marked as restricted if they have not been rated for the 12% overload.

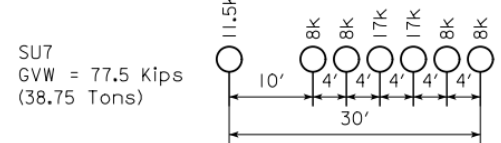
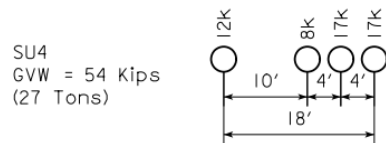
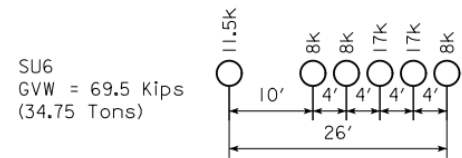
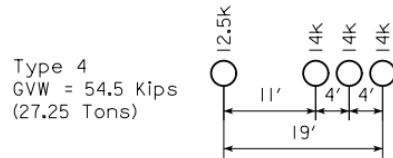
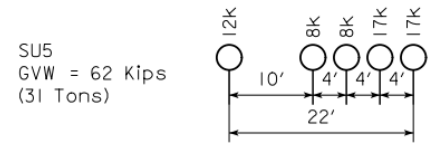
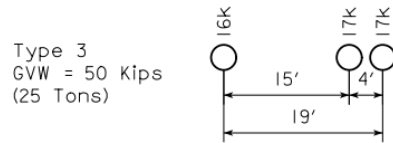
2028 – Annual Permits (Permit Load)

FHWA will require all bridges to be coded for SNBI Item B.LR.08 Routine Permit Loads by March of 2028, indicating whether the bridge carries routine permit loads, or whether the routine permit loads are restricted using codes A,B,C and N. The Iowa DOT recommends a code (N) for all gravel roads.

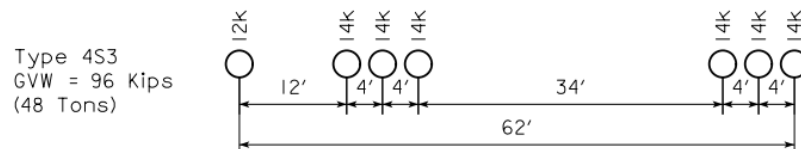
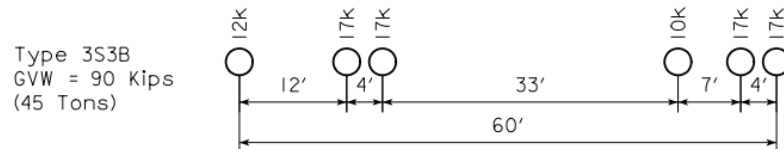
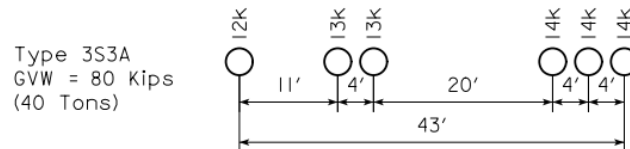
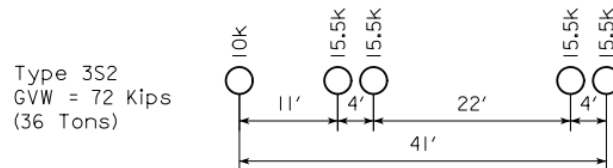
Iowa Legal Loads



Straight Truck



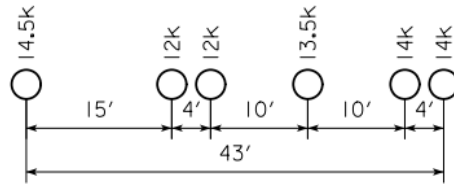
Truck + Semi Trailer



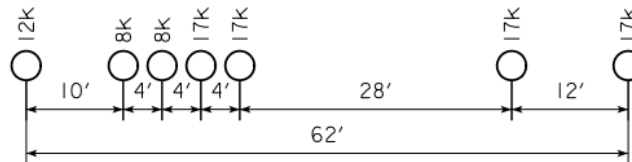


Truck + Full Trailer

Type 3-3
GVW = 80 Kips
(40 Tons)

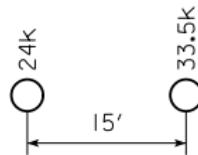


Type 5-2
GVW = 96 Kips
(48 Tons)

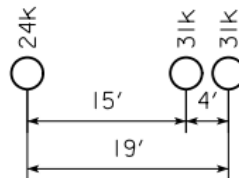


Emergency Vehicles

EV2
GVW = 57.5 Kips
(28.75 Tons)

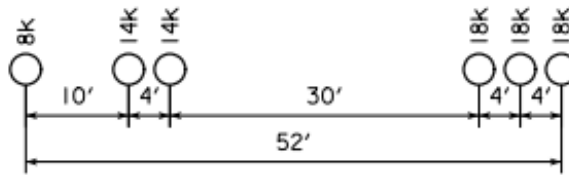


EV3
GVW = 86 Kips
(43 Tons)

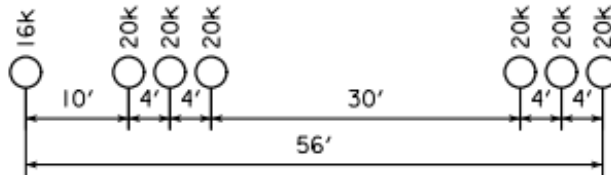


Annual Permit Trucks

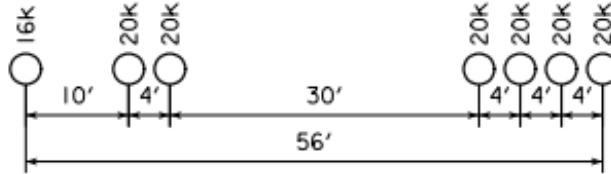
90k Truck
GVW = 90 Kips
(45 Tons)



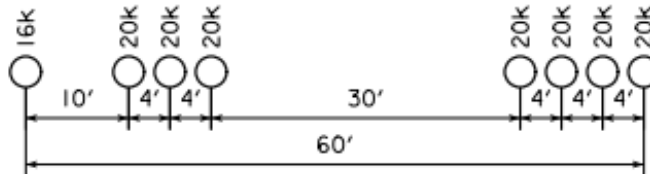
136k Truck "A"
GVW = 136 Kips
(68 Tons)



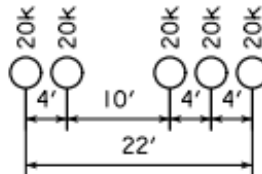
136k Truck "B"
GVW = 136 Kips
(68 Tons)



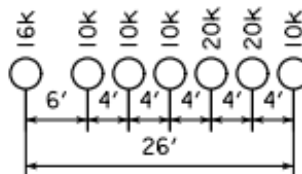
156k Truck
GVW = 156 Kips
(78 Tons)



Quint Axle
Crane Truck
GVW = 100 Kips
(50 Tons)



Fluid Milk Truck
GVW = 96 Kips
(48 Tons)



Small Annual
Crane Truck
GVW = 80 Kips
(40 Tons)

