



**ALABAMA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION BUREAU**

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Kay Ivey
Governor

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Transportation Director

January 27, 2022

Construction Information Memorandum No. 1 - 2022

TO: Region Engineers

ATTN: Area Operations, Construction, Materials, and Local Transportation Engineers

FROM: Kyle M. Leverette, PE ^{KML}
State Construction Engineer

RE: Legal Load Limits, Weighmaster, Weight Tickets, and Non-Payment

The purpose of this CIM is to ensure that construction personnel are familiar with the terms and the process of calculating the load limits of vehicles traversing the project and hauling materials to and from the project. For the purpose of this document, the following definitions apply:

Interstate. Interstate or on-interstate refers to interstate mainline lanes, shoulders, ramps, and collector-distributor roads. No enforcement tolerance is allowed on-interstate.

Off-Interstate. Off-Interstate refers to state, county, and city routes. A 10% enforcement tolerance¹ is allowed off-interstate.

Legal Load Limit. Legal load limit refers to the load limit calculated according to the applicable federal (interstate) or state (off-interstate) law.

Off-Interstate Maximum Allowable Weight. Maximum allowable weight refers to the legal load limit calculated by state law *off-interstate* (state, county, and city routes) plus the 10% enforcement tolerance also allowed by state law.

1) Materials Hauled beyond Project Limits (see Subarticle 105.12(b) of SP 18-0313)

The Contractor must comply with legal load limits when hauling materials on public roads beyond or outside the limits of the project. The most restrictive limit along the haul route would govern the tonnage that can be legally hauled. For example, if the haul route includes State and Interstate routes, the Interstate load limits would govern. Bridges with a posted load limit would also be a governing factor. Construction personnel must be familiar with the haul route to ensure the gross weight shown on weight tickets does not exceed the legal load limit (Interstate) or maximum allowable weight (off-Interstate).

2) Materials Hauled within Project Limits (see Subarticle 105.12(b) of SP 18-0313)

The Contractor must regulate all loads when hauling materials within the project limits such that base and pavement layers and other structures are not damaged. Legal load limits will apply; however, under special conditions, these limits may be waived by the Engineer in writing. An example would be vehicles hauling waste material or unclassified excavation and staying within the project limits without traversing a public road or crossing a new pavement structure. The Contractor shall be responsible for the cost of repairs if hauling operations cause damage to the base, pavement, or other structures along the route.

3) Materials not requiring a Weight Ticket (see Subarticle 105.12(b) of SP 18-0313)

There are numerous materials hauled to or from the project for which weight tickets are not required. Some materials are paid by CY (borrow material) and others are not measured for payment at all (RAP being hauled to a plant). In these cases, the specifications give the Project Manager authority to require truck tare weights and a volume-to-weight conversion factor for the material being hauled so that truck gross weights can be estimated. At any point during the hauling operation, the Project Manager also has the authority to direct that a loaded haul vehicle be weighed at a certified scale to ensure the accuracy of the conversion factor and loading operation and/or to determine if load limits are being exceeded. If a loaded haul truck is found to weigh in excess of the applicable legal load limit or max allowable weight, the excessive portion of the load will be non-payment as described in Paragraph #7 below. The Contractor should also be required to make changes to his operations to prevent further overloading of haul trucks.

4) Off-Interstate Legal Load Limits

The legal load limit for vehicles traversing off-Interstate routes is determined using the chart found in the [Code of Alabama Section 32-9-20](#). Although the chart in the Code shows axle spacing, the legal load limit depends only on the number of axles, not the axle spacing²; therefore, the legal load limit is the weight shown at the bottom of the chart in the column for the particular number of axles. State law allows a 10% enforcement tolerance; therefore, a 10% overage must be applied to the legal load limit to compute the maximum allowable weight that can be hauled. For example, if the chart shows a vehicle can legally haul 80,000 lbs, adding the 10% overage yields a maximum allowable weight of 88,000 lbs.

5) Interstate Legal Load Limits

The legal load limit for vehicles traversing Interstate routes is determined using the [Federal Bridge Formula \(23 U.S.C. 127\)](#). This limit is based on the number of axles and the distance between the front and rear axles; however, Federal law sets the maximum gross vehicle weight for any vehicle configuration at 80,000 lbs, even if the Federal Bridge Formula yields a higher weight. Please note that the 10% overage allowed for off-Interstate routes does not apply to Interstate routes.

6) Weighmasters and Weight Tickets (see Subarticle 109.01(h) of SP 18-0314)

The Weighmaster employed by the Contractor or material supplier is responsible for loading haul vehicles such that the legal load limit (Interstate) or maximum allowable weight (off-Interstate) is not exceeded based on the configuration of the haul vehicle and the haul route. Weighmasters must

be qualified annually through the Department of Agriculture and Industries. A copy of the Weighmaster's current certificate must be furnished to the Project Manager. A copy must also be conspicuously displayed in the vicinity of the weighing operation (typically in the scale house). For materials paid by weight, a weight ticket (hard copy or electronic) must accompany every load of material arriving at the jobsite. These weight tickets must be reviewed immediately upon receipt by construction personnel to ensure all information required by the specifications is included on the ticket.

7) Non-Payment for Non-Compliant Loads (see 105.12(b) of SP 18-0313 and CIM 5-2018)

Upon checking a furnished weight ticket or sending a loaded haul truck to a certified scale, if construction personnel find that the gross vehicle weight exceeds the legal load limit on an Interstate route, or the maximum allowable weight on an off-Interstate route, payment will be made only for the tonnage up to the legal load limit based on the most restrictive route.

Non-Payment Examples

- **Interstate:** In the sample calculation shown below, a tri-axle dump truck may legally weigh up to 57,500 lbs. If this vehicle arrives at the project site with a ticketed gross weight of 58,000 lbs, non-payment will apply to the overage of 500 lbs.
- **Off-Interstate:** When applying pay deductions on off-Interstate routes, non-payment applies to the portion of the load exceeding the legal load limit. In the example calculation shown below for a typical dump truck, the vehicle's maximum allowable weight is 82,500 lbs. If this vehicle arrives at the project site at a ticketed gross weight of 83,000 lbs, the maximum allowable weight has been exceeded by 500 lbs; however, non-payment will apply to an overage of 8,000 lbs, which is the amount the legal load limit of 75,000 lbs has been exceeded.

8) Example Calculations of Legal Load Limits and Maximum Allowable Weights

Typical Dump Truck: 23 feet between front and rear axle, 4 axles in contact with ground

- **Interstate Legal Load Limit = 57,500 lbs**
 - Derived from Federal Bridge Formula
- **Off-Interstate Maximum Allowable Weight = 82,500 lbs**
 - State chart shows legal load limit of 75,000 lbs at bottom of 4 axle column
 - 75,000 lbs + 10% tolerance = max allowable weight of 82,500 lbs

Typical Dump Trailer: 51 feet between front axle and back axle, 6 axles in contact with ground

- **Interstate Legal Load Limit = 80,000 lbs**
 - Although the Federal Bridge Formula indicates 84,500 lbs for this vehicle, the max gross vehicle weight is 80,000 lbs, regardless of the vehicle configuration
- **Off-Interstate Maximum Allowable Weight = 92,400 lbs**
 - State chart shows legal load limit of 84,000 lbs at bottom of 6 axle column
 - 84,000 lbs + 10% tolerance = max allowable weight of 92,400 lbs

Questions involving materials and situations not specifically addressed by this CIM will be reviewed by the Construction Bureau on a case-by-case basis.

Please ensure that your construction personnel are familiar with this CIM.

Previous CIM 8 – 85 is now inactive.

KML/JLB/jlb

Attachments and links:

- Code of Alabama Section 39-9-20 <https://law.justia.com/codes/alabama/2019/title-32/chapter-9/article-2/section-32-9-20/>
- Federal Bridge Formula (23 U.S.C. 127) https://ops.fhwa.dot.gov/freight/publications/brdg_frm_wghts/
- SP No. 18-0313 Section 105 Load Restrictions for Hauling
- SP No. 18-0314 Section 109 Weight Measurement
- CIM 5 – 2018 Non-Payment for Overweight Loads and Revisions to Section 105

pc: Mr. George Conner, PE Mr. Ed Austin, PE Mr. William Adams, PE
Mr. Scott George, PE Mr. Stacey Glass, PE Mr. Stan Biddick, PE
Mr. Brad Lindsey, PE Mr. Joe Lister, PE FHWA
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CIM File

¹ Excerpt from Code of Alabama 32-9-20(4)d

d. For purposes of enforcement of this subdivision, all weights less than or equal to the sum of the weight otherwise prescribed by this subdivision, plus an additional weight to be calculated by multiplying the weight prescribed by this subdivision by one-tenth (.10) that shall represent a scale or enforcement tolerance, shall be deemed to be in compliance with the requirements of this section, and shall not constitute violations thereof.

² Excerpt from Code of Alabama 32-9-20(4)e

e. Dump trucks, dump trailers, concrete mixing trucks, fuel oil, gasoline trucks, and trucks designated and constructed for special type work or use shall not be made to conform to the axle spacing requirements of paragraph (4)c of this section; provided, that the vehicle shall be limited to a weight of 20,000 pounds per axle plus scale tolerances; and, provided further, that the maximum gross weight of the vehicles shall not exceed the maximum weight allowed by this section for the appropriate number of axles, irrespective of the distance between axles, plus allowable scale tolerances. All axles shall be brake equipped. Trucks delivering asphalt plant mix which do not exceed the maximum allowable gross weight and operate within 50 miles of their home base shall not be required to conform to the requirements of paragraph (4)a of this section. Concrete mixing trucks which operate within 50 miles of their home base and do not exceed the maximum allowable gross weight shall not be required to conform to the requirements of paragraph (4)a of this section. It shall be a violation if the vehicles named under this subdivision travel upon bridges designated and posted by the Transportation Director as incapable of carrying the load.



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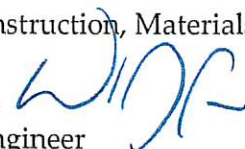
John R. Cooper
TRANSPORTATION DIRECTOR

June 22, 2018

Construction Information Memorandum No. 5 – 2018

TO: Region Engineers

ATTN: Area Operations, Construction, Materials, and Local Transportation Engineers

FROM: Winston J. Powe, P.E. 
State Construction Engineer

RE: Non-payment for Overweight Loads; revisions to Section 105

When a load of material exceeds the legal load limit, the current language of Subarticle 105.12(b) prohibits payment for the entire load.

Special Provision No. 18-0313 (copy attached) changes the payment in these instances. Full payment will now be made for the material up to the legal load limit, with non-payment applying only to the material exceeding the legal load limit. For example, if a haul vehicle can legally transport 80,000 lbs but arrives at the project site with a weight ticket showing 80,500 lbs, non-payment will apply only to the overage of 500 lbs. This change brings ALDOT more in line with the practices of other States in the Southeast US.

In the case of overweight haul vehicles delivering bituminous mixes, the total tonnage on the weight ticket should be applied to the spread rate check and paid under the normal pay item. Then, deduct the overweight tonnage at the contract unit price as a Line Item Adjustment using a new LIA Type titled "Overweight Load Adj". By paying for the full quantity and making deductions as a LIA, this will allow for all tonnage produced to match the QC/QA and test report tonnages.

This Special Provision will be effective beginning with the June 2018 letting. For simplification, the new LIA Adjustment type, which will be implemented into CAMMS in the next few weeks, may also be used on previously-let projects when deducting payment for an overweight load in its entirety under the current specification language.

WJP/JLB/jlb

Attachment (SP 18-0313)

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CIM File

ALABAMA DEPARTMENT OF TRANSPORTATION

DATE: April 18, 2018

Special Provision No. 18-0313

EFFECTIVE DATE: June 1, 2018

SUBJECT: Load Restrictions for Hauling.

Alabama Standard Specifications, 2018 Edition, SECTION 105 shall be modified as follows:

SECTION 105 CONTROL OF WORK

105.12 Oversize/Overweight Vehicle Permit and Load Restrictions.

(b) Load Restrictions.

The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the project. In the hauling of materials on city streets or county roads, it shall be the responsibility of the Contractor to regulate his loads so that damage does not occur, regardless of the legal or posted load limit. Maintenance of public roads shall be as outlined in Article 104.07. A special permit will not relieve the Contractor of liability for damage which may result from the moving of material or equipment.

Within the project limits, loads shall be so regulated that damage will not occur to base or pavement layers and structures, but in no case shall loads exceed the legal load limit unless permitted in writing by the Engineer under special conditions. No loads will be permitted on base, pavement or structures before the expiration of any required curing period. The Contractor shall be responsible for all damage by his hauling and other construction equipment within the project limits.

Gross weight {mass} tickets for loads delivered to the project will be verified by the Engineer that all loads incorporated in the project are within the legal load limit. Required information for verification will be secured at the time of delivery; however, verification of weights {masses} may be made at any time during the project.

On loads of materials not accompanied by a gross weight {mass} ticket, the Contractor shall furnish, upon request of the Engineer, the tare weight {mass} of any truck delivering such materials to the project. These truck tare weights {masses}, along with appropriate volumes and conversion factors, will be used by the Engineer in determining approximate quantities of materials which may be hauled to the project and remain within the legal load limit. If the Engineer feels that the legal load limit is being exceeded, he may order the Contractor to verify the weight {mass} of designated loads at an approved truck scale.

Payment will be made only for that portion of a load up to, and including, the legal load limit. No payment will be made for any portion of a load exceeding the legal load limit.

ALABAMA DEPARTMENT OF TRANSPORTATION

DATE: April 18, 2018

Special Provision No. 18-0314

EFFECTIVE DATE: June 1, 2018

SUBJECT: Weight {Mass} Measurements.

Alabama Standard Specifications, 2018 Edition, SECTION 109 shall be modified as follows:

SECTION 109 MEASUREMENT AND PAYMENT

109.01 Measurement of Quantities.

(h) Weight {Mass} Measurements.

1. General.

The term "ton" shall mean the short ton {metric ton} consisting of 2,000 pounds avoirdupois {1000 kg}.

Scales furnished by the Contractor shall meet all requirements currently adopted by Alabama Department of Agriculture pertaining to weighing or measuring devices.

Scales shall be tested and inspected by a service agent currently registered with the Alabama Department of Agriculture. The time between inspections shall not exceed six months. In addition, any time a plant is moved or substantially modified, the scales shall be inspected. The inspection report shall be uploaded to the Alabama Department of Agriculture's reporting website and a copy sent to the Area in which the scale is located. It is the Contractor's responsibility to ensure weighing devices are maintained in proper working condition during use. Devices that are found to be out of compliance will not be used until such time corrections are made to comply with regulations and they are recertified. The Engineer will reject them for use on the project until they are recertified. Weights {Masses} above the acceptable capacity of a set of scales will not be acceptable.

2. Weight {Mass} Measure for Pay Purposes.

If material is shipped by rail, the car weight {mass} may be accepted provided that only the actual weight {mass} of material is paid for and is certified by a car weight {mass} obtained from a certified scale after the unloading. However, car weights will not be accepted for steel reinforcement, structural steel or materials that are to pass through a mixing plant.

Trucks used to haul material being paid by weight shall be measured empty daily, with the driver in the truck, to establish a daily tare weight. Each truck shall also bear a plain legible identification number.

Commercial materials, except reinforcing steel and structural steel, which are measured by weight {mass} for pay purposes shall be measured by a qualified "Weighmaster*" using acceptable weight tickets. As a minimum, the weight ticket shall contain the following:

- 1) Name of the Contractor and material producer.
- 2) Project Number and County.
- 3) Truck number.
- 4) Contract item number and item name.
- 5) Date and time of loading.
- 6) Gross, tare, and net weights.
- 7) Weighmaster's signature. (May be electronically generated).

- 8) Any additional information as required of the Contractor or material producer for participation as a Qualified Source as given in the Department's "Materials, Sources and Devices with Special Acceptance Requirements" manual unless furnished on a separate applicable BMT Certificate of Compliance.

For measurement systems capable of measuring net weight directly from the measuring hopper, the gross and tare weights will not be required. In lieu of bulk weight, the Department will accept weights of materials normally sold in bagged form (i.e. fertilizers, cement, etc.).

It shall be the sole responsibility of the Contractor to ensure that a weight {mass} ticket is delivered to the project with each load. Weight tickets will not be accepted after the truck has left the project.

*Weighmasters must be qualified in accordance with the provisions of Section 8, Chapter 16, of the Code of Alabama, 1975, or in case of material purchased out of State complying with the appropriate State laws, rules and regulations for Weighmasters of the State involved. A copy of the "Weighmaster's Certificate" shall be furnished the Engineer and additionally a copy shall be displayed in a conspicuous place in the vicinity of the measuring operations.

3. Weight {Mass} Measurement for Proportioning, etc. of Materials.

Scales used for proportioning mixtures within mixing plants shall comply with the following unless otherwise noted:

a. Asphalt Mixing Plants.

Scales shall meet current compliance regulations according to Alabama Department of Agriculture requirements and be visible to the plant inspector on the mixing platform.

b. Concrete Mixing Plants or Units.

Scales shall meet current compliance regulations according to Alabama Department of Agriculture requirements. Separate scales shall be provided for bulk cement and for bulk fly ash, as provided in Article 815.11.

c. Base Course Mixing Plants.

Measuring equipment shall meet the requirements of Sub item b. above with separate bins for each size aggregate and separate bins and scales for additives (calcium chloride, cement, etc.).