

Design Memorandum

TO: All Design Section Staff
 FROM: Amy Leland
 DATE: September 13, 2024
 SUBJECT: New State Legal Truck
 NUMBER: 2024-05

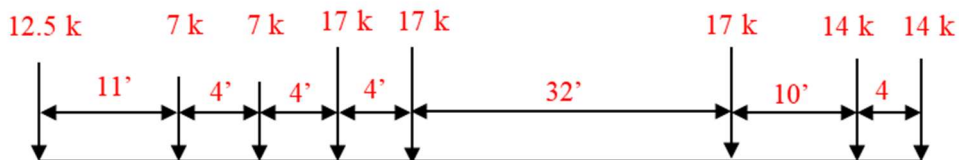
This design memorandum provides revisions to the Bridge Design Manual M 23-50.23 and shall be considered active after the date of this memorandum. This memorandum addresses the need to load rate State legal trucks per new NBI reporting requirements.

Bridge Design Manual Revisions

Section 13.1 General is revised as follows:

Section 13.1.5.B shall be amended with the following truck configuration:

WA-105 (LFR & LRFR Methods)



Section 13.2 Special Rating Criteria is revised as follows:

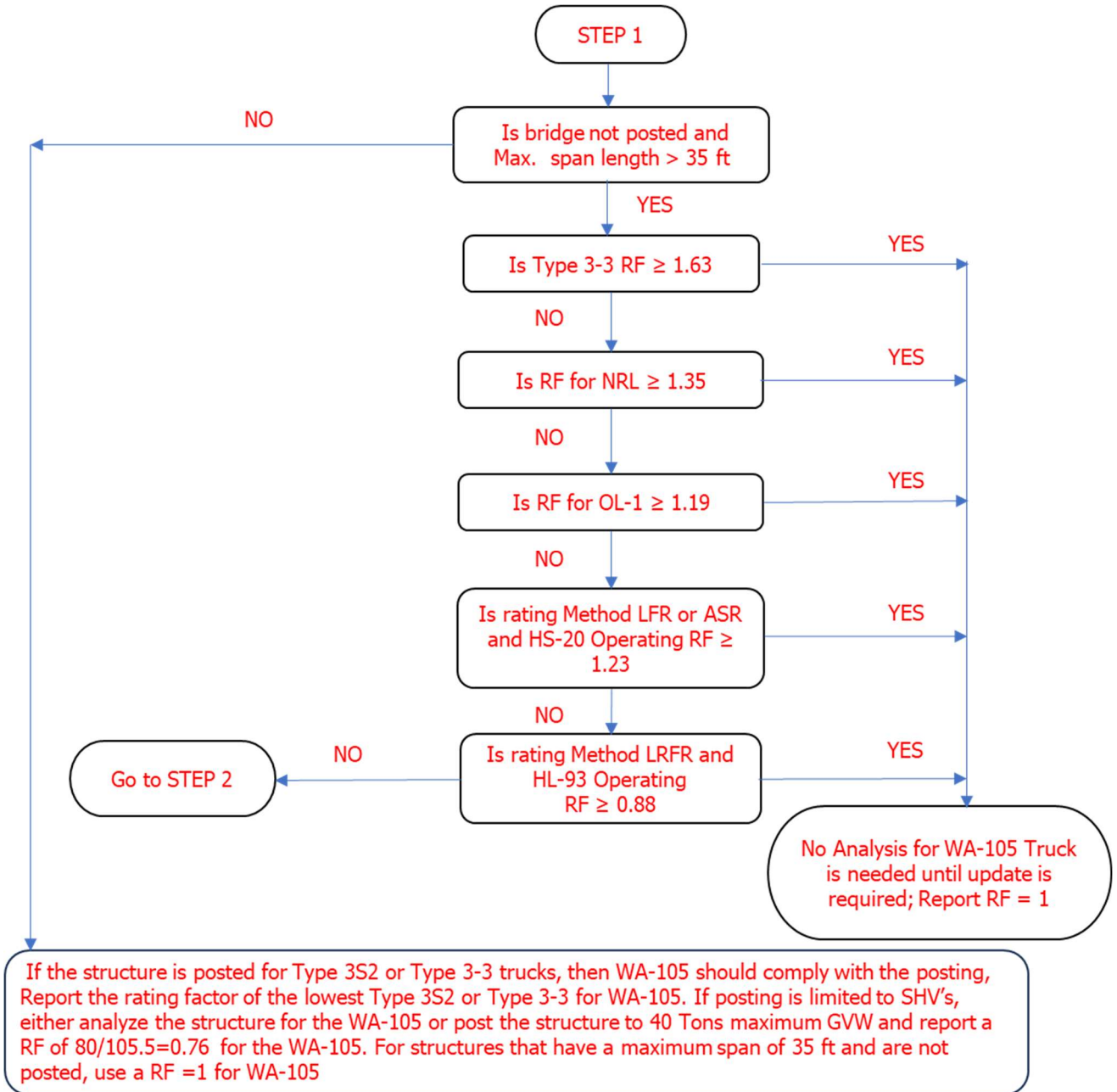
Add new Section 13.2.20 as follows:

13.2.20 WA-105 Legal Truck

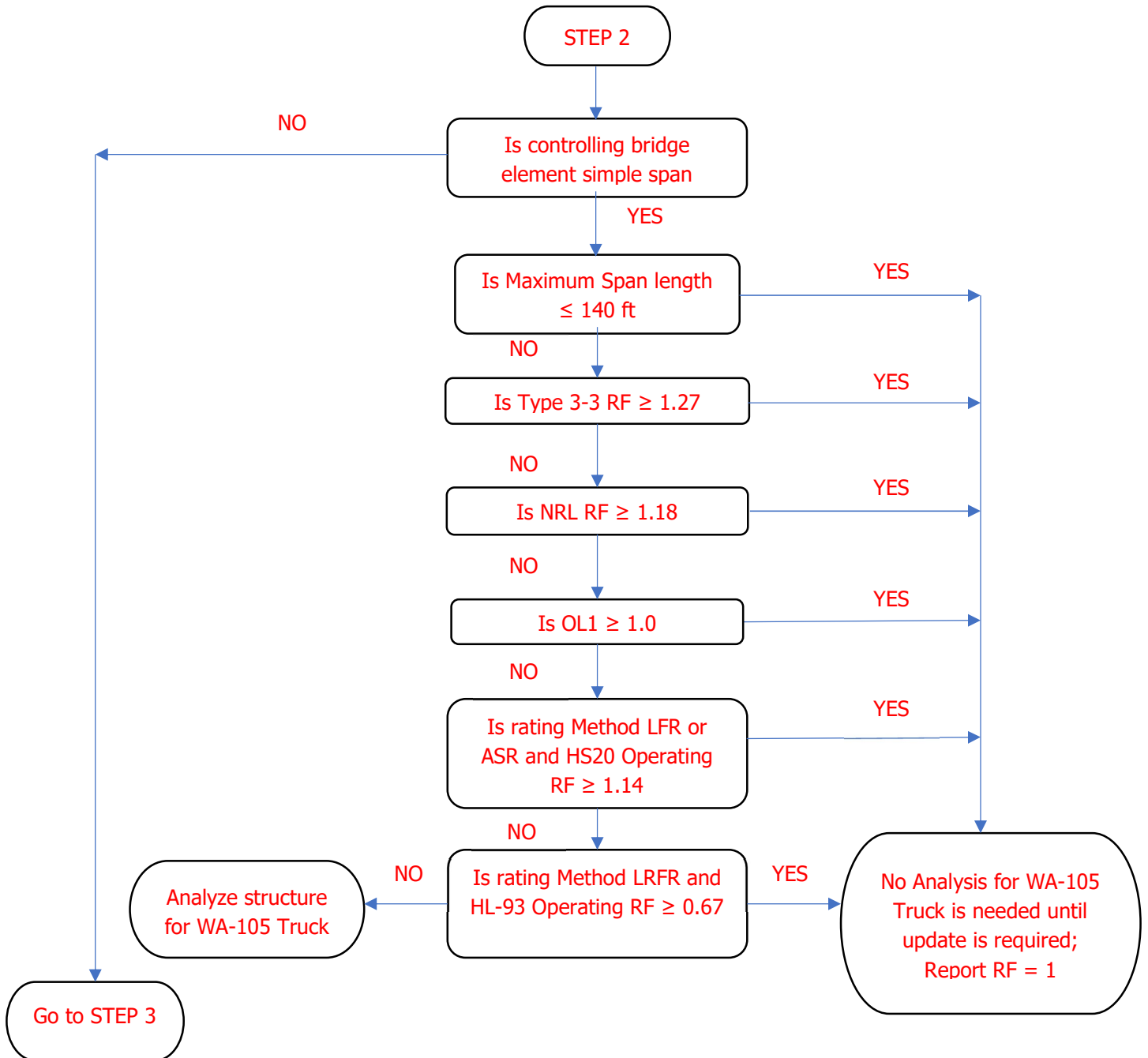
New load ratings and updates to ratings of existing structures shall include the WA-105 truck configuration. Structures which have been load rated shall follow steps 1 through 3 in the flow charts below to address the new NBI reporting requirement.



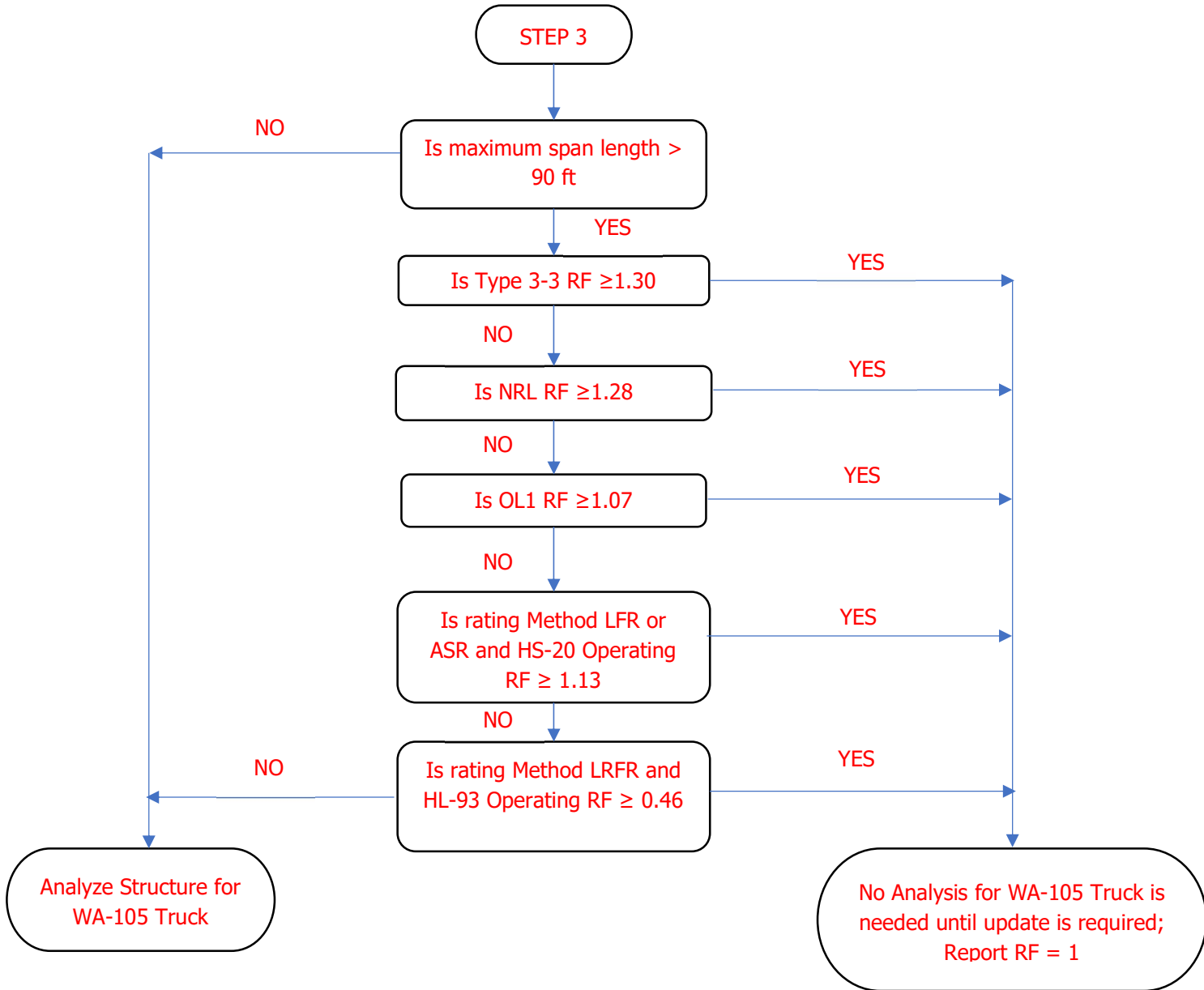
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Section 13.6 Appendices is revised as follows:

Appendix 13.6-A1 shall be revised with the following:

Delete "LGL-105" truck from the summary sheet and replace with "WA-105".

Appendix 13.6-A2 shall be revised with the following:

Delete "LGL-105" truck from the summary sheet and replace with "WA-105".

Background

FHWA has a new requirement to collect and report rating factors for all legal trucks in the State to the NBI starting in 2026. Legal load limits in the State can have a maximum gross vehicle weight up to 105,500 lbs. which aren't enveloped by the typical AASHTO legal trucks. A new truck configuration was developed based on weigh-in motion data to represent these vehicles for WSDOT compliance with the new NBI requirement.

Contact Information

If you have any questions regarding this policy memorandum, please contact:

Amy Leland (amy.leland@wsdot.wa.gov) at (360) 705-7181

Mohamad Al-Salman (mohamad.al-salman@wsdot.wa.gov) at (360) 570-2567.