

IOWA DEPARTMENT OF TRANSPORTATION

To Office Bridges and Structures

Date July 8, 2005

Attention All Employees

Ref No. 521.1

From Gary Novey

Office Bridges and Structures

Subject: Method's Memo No. 129 (Reinforcing designation on plans)

Based on discussions with the reinforcing industry it has been brought to our attention that the reinforcing industry has converted all of their reinforcing bar designations to soft metric bars. All bridge projects whether metric or US customary are being provided with the soft metric reinforcing bars. Therefore until the specifications and standards can be updated to address this issue the following note and table shall be placed on the US customary bridge plans:

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5a1 is 5/8 inch diameter bar). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

English Size	Bar Designation
3	10
4	13
5	16
6	19
7	22
8	25
9	29
10	32
11	36

In addition because of concern with the hard and soft metric bar sizes, the following note and updated conversion table for metric projects shall be provided on the plans:

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH "HARD METRIC SIZE". THESE "HARD METRIC SIZE" BARS ARE NOT AVAILABLE. CURRENTLY THE INDUSTRY IS FURNISHING REINFORCING BARS WITH A "SOFT METRIC BAR DESIGNATION". ALL "HARD METRIC SIZE" REBARS SHALL BE CONVERTED TO REBAR

WITH THE NOTED “SOFT METRIC BAR DESIGNATION”. THE SPACING OR PATTERN OF BAR PLACEMENT SHALL BE AS SHOWN IN THESE PLANS, AND NO CHANGES IN THE SPACING OR THE PATTERN WILL BE ALLOWED WITH THE SUBSTITUTION.

THE “SOFT METRIC BAR DESIGNATION” IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

ALL REINFORCING BARS SHOWN ON THE PRESTRESSED BEAM DETAIL SHEETS ARE LABELLED WITH BAR NOTATIONS CONSISTENT WITH THE “SOFT METRIC BAR DESIGNATION” SHOWN IN THE TABLE BELOW AND NO CONVERSION FROM HARD METRIC SIZE IS REQUIRED.

Hard Metric Size	Soft Metric Bar Designation
*	10
10	13
15	16
20	19
*	22
25	25
*	29
30	32
35	36

*NO EQUIVALENT “HARD METRIC SIZE”

This update shall be made to all bridge plans that have not yet been turned into the Office of Bridges and Structures.

GAN/dgb/bj