

ROAD RESOLUTIONS ADOPTED BY THE 1913 CONGRESS

CONCLUSIONS ARRIVED AT BY THE VARIOUS SUB-SECTIONS—THE NINE ROAD QUESTIONS AND FINDINGS RELATING TO EACH—A SUMMARY OF THE WORK OF THE THIRD INTERNATIONAL ROAD CONGRESS.

THE resolutions adopted as a result of the careful study relating to the nine questions before the International Road Congress are given below.

The Congress included two sections, each of which were further divided into two sub-sections. The first section's investigation pertained to construction and maintenance. Sub-section A dealt with the roads outside of larger towns and cities, while Sub-section B had before it the consideration of roads in cities and large towns. The second section, on traffic and administration, consisted of Sub-section C, dealing with traffic and vehicles, and Sub-section D, on administration, finance and statistics. The discussions of each section were distinct from those of any other, and each had its own executive committee. In a number of instances, however, two sub-sections sat together.

First Question.—Planning of Streets and Roads.—This was dealt with by Sub-sections A and B combined. When the discussions were summarized the following resolutions were adopted:—

1. As a general principle, it is better that new main roads be constructed to pass outside rather than through towns, and that, where an existing main road passing through a town is unsatisfactory for through traffic, it is often better in preference to widening an existing narrow main road through the centre of a town, new roads should be planned according to the principles of the science of town planning.

2. Gradients on new roads should be as easy as possible, having regard to the physical character of the country through which they pass, and they should be easier where there are curves, trams, or a preponderance of heavy traffic.

3. The radii of curves in roads used by fast traffic should, where practicable, provide the best possible and an unobstructed view, and that where this is not possible, the curve being of too short a radius, means should be provided whereby the approach thereto is in some way clearly indicated.

4. Except where it is possible to provide special reserved spaces, tram tracks are best placed in the centre of the roads, and that where so placed it is desirable to provide space on either side for two tracks for vehicles.

5. The main traffic roads should be so designed that spaces are provided for tram tracks, fast and slow traffic, and standing vehicles; and in such a way that they can proceed without unduly intermixing. In fixing building lines along what may ultimately become main roads, regard should be paid to ultimate requirements. Adequate space should be provided between the buildings, and powers for enforcing this should be held by all authorities who decide the widths of roads.

6. That the planning of main road communication outside towns should be at once undertaken; it is a matter of national importance in regard to which some initiative should rest with a Central State Authority, and the action of Local Authorities should to some extent be regulated or supervised by Central State Authorities.

Second Question.—Types of Surfacing to be Adopted on Bridges, Viaducts, etc.—Sub-sections A and B sat conjointly concerning this question also, and the following are the resolutions which were passed:—

1. The choice of road surfacing for bridges depends on the nature and intensity of the traffic, the local conditions, such as permissible first cost, kinds of material readily available, and climate. For light bridges the choice is largely influenced by the weight of the surfacing. Public safety and convenience should be first regarded rather than questions of comparative cost.

2. On short bridges in town or country, it is desirable that the surfacing should be the same as that on the adjoining streets or roads.

3. In forming the roadway on bridges, special care should be taken to secure proper drainage, and to prevent the harmful percolation of water. With longitudinal gradients of at least 1 in 50, the cross section of the surface may be made nearly flat and the dead load thus reduced.

4. As a general rule, the surfacing of a bridge should be waterproof, capable of resistance to wear, durable, and of a weight appropriate to the structure of the bridge; it should also be as smooth as possible without being slippery.

5. Plank surfacing on bridges is light, and its first cost is low. Its cost of maintenance is, however, excessive, except where the traffic is light. Its extreme liability to damage by fire is a serious disadvantage. It should not be adopted, except in remote districts in which there is an abundance of cheap timber, and where a more desirable form of surfacing is not easily obtainable. Single plank floors are only suitable for very light traffic. For moderate or heavy traffic, two layers of planking, the lower of which is creosoted or otherwise protected from rapid decay, should be used.

6. Macadam, or ordinary broken stone surfacing, on timber planking, is not always satisfactory on account of its great weight and its permeability. Macadam is, however, quite satisfactory for massive bridges in rural districts, if the substructure has a proper damp course.

7. Macadam, bound with tar, or other waterproof and elastic material, is useful and economical for the surfacing of rural bridges with moderate traffic, when the spans are short or the structure is massive.

8. Wood paving block, 3 to 5 inches thick, is an ideal surfacing for bridges in most cases. It is light and durable and can be laid on concrete, or, when weight must be minimized, on a timber sub-floor, which should be creosoted. Special care should be taken in the selection, treatment and laying of wood blocks for bridge paving, to avoid troubles due to expansion and contraction of the blocks or of the metal structure.

9. Asphalt, in various forms, is an excellent surfacing material for bridges with easy gradients,