CLAIMS

1. A vehicle position management system comprising:

an information providing part which provides a vehicle with support information helpful for driving the vehicle;

a right granting part which grants an information acquisition right, which is a right to receive provision of the support information, to the vehicle;

a marker database which stores marker position information indicating a laying position of a magnetic marker, as being linked to marker identification information, the marker identification information identifying the magnetic marker laid in a road; and

a vehicle position identifying part which identifies a position of the vehicle by using the marker position information stored in the marker database, wherein

the right granting part, when upload information including the marker identification information which identifies the magnetic marker detected is acquired from a vehicle side detecting the magnetic marker, grants the information acquisition right to the vehicle associated with the upload information and deletes the information acquisition right when the information providing part provides the vehicle to which the information acquisition right has been granted with the support information, and

the vehicle position identifying part identifies the position of the vehicle associated with the upload information with reference to the laying position indicated by the marker position information to which the marker identification information included in the upload information is linked, among the marker position information stored in the marker database.

2. The vehicle position management system in any one of claims 1, 8 and 9, wherein the marker identification

information is identification information of a wireless tag annexed to the magnetic marker.

3. The vehicle position management system in any one of claims 1, 2, 8 and 9, wherein the support information includes the marker position information indicating the laying position of the magnetic marker.

4. The vehicle position management system in any one of claims 1 to 3, 8 and 9, wherein the vehicle includes a selection operating part for selectively setting information to be included in the upload information, in addition to the marker identification information, and

the information providing part varies a configuration of the support information to be provided to the vehicle side in accordance with a type and a combination of information included in the upload information acquired from the vehicle side.

5. The vehicle position management system in any one of claims 1 to 4, 8 and 9, comprising a map generating part which generates a vehicle map in which the position of the vehicle is associated on a map.

6. A vehicle position management method for managing a position of a vehicle, comprising:

granting, when upload information including marker identification information which identifies a magnetic marker detected is acquired from a vehicle side capable of detecting the magnetic marker laid in a road, an information acquisition right, which is a right to receive support information helpful for driving the vehicle,

deleting the information acquisition right when the vehicle

to which the information acquisition right has been granted is provided with the support information, and

identifying and managing the position of the vehicle associated with the upload information based on a laying position of the magnetic marker identified by the marker identification information included in the upload information.

7. The vehicle position management method in claim 6 or 10, wherein, on the vehicle side, a type and a combination of information to be included in the upload information can be selectively set, and

a configuration of the support information to be provided to the vehicle side is varied in accordance with the type and the combination of information included in the upload information.

8. The vehicle position management system in claim 1, comprising a provision destination management area where identification information of the vehicle of a provision destination of the support information is recorded, wherein

the right granting part grants the information acquisition right, which is the right to receive the support information, to the vehicle associated with the identification information by recording the identification information in the provision destination management area, and deletes the information acquisition right when the support information has been provided by deleting the identification information of the vehicle of the provision destination of the support information from the provision destination management area.

9. The vehicle position management system in claim 1 or 8, wherein

the right granting part, when the upload information is

acquired, records a flag value corresponding to a type of transmission information transmitted as included in the upload information in association with the identification information of the vehicle in the provision destination management area, and

the information providing part provides the support information in accordance with the flag value stored in association with the identification information in the provision destination management area when providing the support information to the vehicle associated with the identification information.

10. The vehicle position management method in claim 6, wherein the information acquisition right is granted, by storing the identification information to a provision destination management area where the identification information of the vehicle of a provision destination of the support information is recorded, to the vehicle, and deleted by deleting the identification information recorded in the provision destination management area.