

# Roadway Inventory Data Configuration

Roadway Inventory is for storing various roadway characteristics and their locations, such as Functional Class, Number of Lanes, Lane Width, Shoulder Width, etc. Out of the box, the table is named **PMS\_ROADWAY\_INVENTORY**, and the corresponding window is located under **Pavement Analyst > Asset Inventory > Roadway Inventory > Roadway Inventory Data** menu.

**PMS\_ROADWAY\_INVENTORY** is a strictly Location-referenced data table i.e., the data is identified strictly by a location in the LRS network (route with "from" and "to" point boundaries).

Out of the box, PMS\_ROADWAY\_INVENTORY table has these 4 columns:

COLUMN_NAME	DATA_TYPE	DATA_LENGTH	NULLABLE	COMMENTS
LOC_IDENT	NUMBER	22	N	Location # used in SETUP_LOC_IDENT table to store the record's location in the LRS. This is a system column.
DISTRICT_ID	NUMBER	22	Y	District of the segment. A list from the Admin Unit.
FUNCTIONAL_CLASSES_ID	NUMBER	22	Y	Functional Class
WC_ID	NUMBER	22	Y	Pavement type
NHS_TYPE_ID	NUMBER	22	Y	NHS Type
SHOULDER_WIDTH	NUMBER	22	Y	Shoulder Width
MAINTENANCE_JURISDICTION_ID	NUMBER	22	Y	Maintenance Jurisdiction. A list from the Admin Unit.
STATE_OWNER_ID	NUMBER	22	Y	State-wide owner
PER_LANE_WIDTH	NUMBER	22	Y	Per lane width
NUMBER_OF_LANES	NUMBER	22	Y	Number of lanes.
DATE_UPDATE	DATE	7	Y	Last update date of the record
USER_UPDATE	VARCHAR2	400	Y	Last update user of the record
COMMENT_STR	VARCHAR2	4000	Y	Comment of the record

## Table and Window Configuration

The configuration of this dataset starts by expanding the PMS\_ROADWAY\_INVENTORY table structure to include customer-specific roadway inventory data elements (i.e., columns), such as Functional Class, Pavement Type, Access Control Type, Lane Width, etc.

Most of the time, there are two types of data that are added to the table:

- "List of Values", or "Drop-down Column", or "Lookup Values", such as Functional Class or Pavement Type. This is also known as "T-List" column in AgileAssets system.
- A simple value (either Numeric or String), such as Lane Width or Description.

To create the first type of columns, follow the instruction detailed in "Create and Import Lookup Values" Chapter in "AgileAssets System Foundation Configuration Guide" and add them into the PMS\_ROADWAY\_INVENTORY table.

To create the second type of columns, follow the instruction detailed in "Add Columns to a Table" section in "AgileAssets System Foundation Configuration Guide" and add them into the PMS\_ROADWAY\_INVENTORY table.

**Note:** Take these following aspects into consideration when designing the table structure:



- Whether the data is actually needed in PMS.
- Whether the data will be available through an interface or import.
- How the data is presented in the source data. You want to match the columns as closely as possible to the source data to reduce the efforts when setting up the import routine, but also make sure data meets the system requirement after being imported.
- What type of data will be available when importing from an external data source.

After all the columns have been added to the table, the next step is to add those columns to the window. A window does not automatically display all the columns of a table. It only displays columns that are configured as part of the window.

To display the columns that are newly added to the PMS\_ROADWAY\_INVENTORY table, follow the instruction detailed in "Add Columns to a Data Window" section in "AgileAssets System Foundation Configuration Guide".

At this point, the system will have an empty PMS\_ROADWAY\_INVENTORY table and the window will display an empty dataset.

## Import Data

The next step of configuring Roadway Inventory data is to create an import routine (named “Import Configuration” in AgileAssets system), and load the data into the table. An “Import Configuration” includes (1) Specify data source; (2) Specify rules of import (e.g., how existing data is imported); and (3) Column mapping and data conversion.

Out of the box, a standard import using csv file has been configured that matches the PMS\_RAODWAY\_INVENTORY configuration. It uses a csv file with the following specification:

Column Header	Data Type	Description
ROUTE_NAME	String	Route Identifier in the LRS network
LANE_DIR	Number	1 for Ascending (Cardinal or Primary) direction. 2 for Descending (Non-cardinal or Reverse or Non-Primary) direction. 0 for both directions.
LANE_ID	Number	0 for all lanes. Otherwise the specific lane number (1,2,3, etc.)
OFFSET_FROM	Number	Start Measure of the location
OFFSET_TO	Number	End Measure of the location
DISTRICT	String	District of the segment – corresponding to records in System > Settings > Organizational Structure > Administrative Units window.
JURISIDCTION	String	Maintenance Jurisdiction of the segment – corresponding to records in System > Settings > Organizational Structure > Administrative Units window
FUNCTIONAL_CLASS	String	Functional Class – corresponding to records in Pavement Analyst > Setup > Inventory Setup > Functional Class window
NHS	String	NHS Type - corresponding to records in Pavement Analyst > Setup > Inventory Setup > NHS Type window
PAVEMENT_TYPE	String	Pavement Type - corresponding to records in Pavement Analyst > Setup > Inventory Setup > Pavement Type window
SHOULDER_WIDTH	Number	Shoulder width
PER_LANE_WIDTH	Number	Lane width (per lane)
NUMBER_OF_LANES	Number	Total number of lanes.

If there is client-specific configuration to PMS\_ROADWAY\_INVENTORY table to track additional roadway inventory data, the template can be expanded to include those fields. In addition, the following objects need to be updated to reflect those changes to ensure all the steps in the import are running correctly:

- PMS\_ROADWAY\_INVENTORY table and window
- Import configuration into the PMS\_ROADWAY\_INVENTORY table

Preferably, if additional import is needed, the import configuration should be setup in a way so that the next time when data needs to be updated, it will simply read the new data source and run the same import configuration. Occasionally, the initial data load and on-going data import use different data sources, and therefore separate import configurations have to be created.

To update an Import Configuration or update the existing one, follow the instruction detailed in “Load Data into Tables” Chapter in “AgileAssets System Foundation Configuration Guide”.

After running the import, the system will have a populated PMS\_ROADWAY\_INVENTORY table and the window will display the corresponding data.