**Background**

SAP road, verge (footpath), median (K&C and infill) and kerb and channel assets will be initially created based on data held in the Brisbane Road Asset Management System (BRAMS).

The ‘Road’ equipment in SAP will be an entire street from start to end regardless of how many suburbs it crosses and be based on the BRAMS RLINK network.

‘Median’ equipment in SAP is similar to ‘Road’

‘Footpath’ equipment in SAP is similar to ‘Road’ except related to the VLINK network and for each street two footpath equipment’s will be created, one for the odd side and one for the even side. Standard terminology for footpath in BRAMS is verge, these terms may be used interchangeably in this document.

‘Kerb and channel’ equipment the same as Footpath except based on the KLINK network.

Attributes for the SAP equipment will be managed as linear referenced characteristics.

Example SAP hierarchies (indicative only)

BCC\……\INFRASTRUCTURE\ROADS

\GEROGE STREET 451265

\ANN STREET 875465

BCC\……\INFRASTRUCTURE\MEDIAN

\GEROGE STREET 231265

\ANN STREET 565465

BCC\……\INFRASTRUCTURE\FOOTPATH

\GEROGE STREET ODD 545421

\GEROGE STREET EVEN 963541

\ANN STREET ODD 9875421

\ANN STREET EVEN 7845121

BCC\……\INFRASTRUCTURE\KERB

\GEROGE STREET ODD 753215

\GEROGE STREET EVEN 965874

\ANN STREET ODD 123548

\ANN STREET EVEN 951547

**Equipment Views**

The scope for this body of work is to create a number of database views (or materialised views) to support the extraction of BRAMS data to enable the initial SAP load for road, footpath, K&C and median equipment’s.

Road equipment view.

XBCC\_EQUIP\_RDCO ,view based on the road network. An entry represents an entire street from start to end, inclusive of all suburbs that make up the street.

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Comment |
| STREET\_PRIMARY\_ID | Long integer up to 10 characters | This will be considered the linkage between BRAMS and SAP for road assets. Must be the same ID that the BRAMS SAP interface will use. |
| STREET\_NAME | Char(150) | Street name for the road corridor |
| LENGTH | Integer | BRAMS spatial length of the road corridor |
| GIS\_SHAPE | Geometry | Network geometry for the road corridor |

Median equipment view.

XBCC\_EQUIP\_MED ,view based on the road network. An entry represents an entire street from start to end, inclusive of all suburbs that make up the street. Individual medians will be managed a SAP linear characterises along the median equipment, this data will be sourced from the equipment attribute views specified below.

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Comment |
| MEDIAN\_PRIMARY\_ID | Long integer up to 10 characters | This will be considered the linkage between BRAMS and SAP for road assets. Must be the same ID that the BRAMS SAP interface will use. |
| STREET\_NAME | Char(150) | Street name for the road corridor |
| LENGTH | Integer | BRAMS spatial length of the road corridor |
| GIS\_SHAPE | Geometry | Network geometry for the road corridor |

KERB equipment view.

XBCC\_EQUIP\_KCOR ,view based on the Kerb network. An entry represents an entire street side from start to end, inclusive of all suburbs that make up the street for a particular side (odd/even).

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Comment |
| KERB\_PRIMARY\_ID | Long integer up to 10 characters | This will be considered the linkage between BRAMS and SAP for road assets. Must be the same ID that the BRAMS SAP interface will use. |
| SIDE | Char(1) | O or E |
| STREET\_NAME | Char(150) | Street name for the road corridor |
| LENGTH | Integer | BRAMS spatial length of the road corridor |
| GIS\_SHAPE | Geometry | Network geometry for the road corridor |

Footpath (Verge) equipment view.

XBCC\_EQUIP\_VECO ,view based on the Verge network. An entry represents an entire street side from start to end, inclusive of all suburbs that make up the street for a particular side (odd/even).

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Comment |
| VERGE\_PRIMARY\_ID | Long integer up to 10 characters | This will be considered the linkage between BRAMS and SAP for road assets. Must be the same ID that the BRAMS SAP interface will use. |
| SIDE | Char(1) | O or E |
| STREET\_NAME | Char(150) | Street name for the road corridor |
| LENGTH | Integer | BRAMS spatial length of the road corridor |
| GIS\_SHAPE | Geometry | Network geometry for the road corridor |

The individual STREET\_PRIMARY\_ID, MEDIAN\_PRIMARY\_ID , KERB\_PRIMARY\_ID and VERGE\_PRIMARY\_ID must be unique across all four views

**Equipment attribute views or SAP characteristics views**

A method compiled to produce a table that contains BRAMS asset data along with start and end chainages relevant to the correct network (street not street suburb), the ‘parent’ asset number (from above views) and the asset number. This method must also work for GROUPS such as OPWD.

The method variables will be BRAMS ASSET TYPE, NETWORK NAME and XSP’s to use. The output view will be named <BRAMS ASSET>\_<NETWORK NAME> and contain the following information

* All the BRAMS attributes for that particular asset
* The Start and End chainages relative to the entire street (not street suburb)
* The <NETWORK>\_PRIMARY\_ID to relate back to the SAP equipment.
* Spatial geometry representing the asset (clip network centreline)
  + Note: a spatial geometry of null, as a result, indicates that the route may have issues.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| View Name | BRAMS Asset | Network | XSP | Comments |
| ASOW\_ROAD | ASOW | RDCO | XCS, XCE1, XCO1 | This will produce Asset Owner information for road equipment |
| ASOW\_KERB | ASOW | KCOR | XKE, XKO | This will produce Asset Owner information for kerb equipment |
| ASOW\_VERGE | ASOW | VECO | XVO1, XVO2, XVO3, XVO4, XVE1, XVE2, XVE3, XVE4 | This will produce Asset Owner information for verge equipment |
| ASOW\_ROAD | ASOW | MED | XRM, XCM, XMKE, XMKO, XRKE, XRKO | This will produce Asset Owner information for median equipment |
| KERB\_ROAD | KERB | RDCO | XRM, XCM | This will produce Kerb information for median equipment |
| PAVE\_VERGE | PAVE | VECO | XVO1, XVO2, XVO3, XVO4, XVE1, XVE2, XVE3, XVE4 | This will produce constructed path information for footpath equipment |
| PLAY\_ROAD | PLAY | RDCO | XCS, XCE1, XCO1 | This will produce road surface information for road equipment |

This method will then be used by BCC subject matter experts to create the required views to support the SAP initial load.

A procedure well be created, XBCC\_EQUIP\_ATTR\_VIEWS, that will read from an input table, XBCC\_EAV\_INPUT, and create tables based on the data. An exception will be thrown if the Network or the network SDO views do not exist. Networks are defined by their 4 Character Exor Code, with the exception of Median Equipment, that is handled by the fictitious network of ‘MED’.

Some examples that can be used in XBCC\_EAV\_INPUT are:



**Suburb Boundary View**

For each of the equipment views a second view is to be created to supply the location of suburb boundary changes along each SAP equipment.

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Comment |
| <NETWORK>\_PRIMARY\_ID | Long integer up to 10 characters | This will be considered the linkage between BRAMS and SAP for road assets. Must be the same ID that the BRAMS SAP interface will use. |
| SUBURB NAME | CHAR(100) | Name of suburb |
| START\_CH | Integer | Relative to the equipment |
| END\_CH | Integer | Relative to the equipment |
| GIS\_SHAPE | Geometry | Network geometry for the street suburb |
| STREET\_NAME | Char() | May not be required by SAP but useful to have |

The names of these views will be:

* XBCC\_SUBURB\_EQUIP\_RDCO
* XBCC\_SUBURB\_EQUIP\_MED
* XBCC\_SUBURB\_EQUIP\_VECO
* XBCC\_SUBURB\_EQUIP\_KCOR

**Ward and Region boundary views**

In BRAMS terminology Wards and Regions are managed as Assets. Using the ‘Equipment attribute views or SAP characteristics views Ward and Region data can be produced. *This is information for the BaSE project team only no action required from Bentley.*