

Integrated Transport Information System

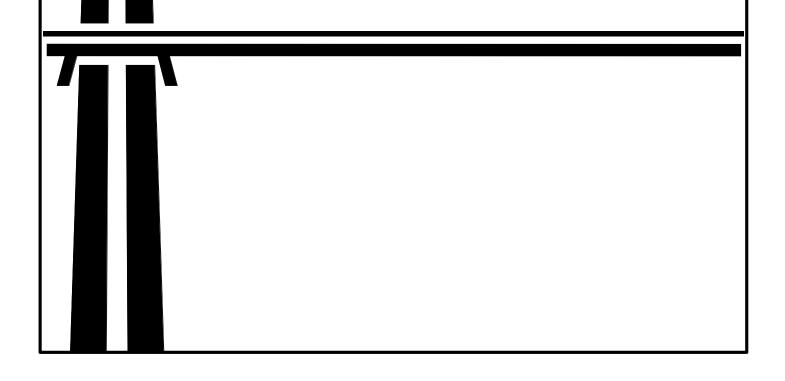
REQUEST FOR TENDER (RFT): SANRAL HO 1005/68120/2025/01 NRA 2025/0364

APPOINTMENT OF A SERVICE PROVIDER FOR THE PROPERTY ADMINISTRATION SERVICES FOR A PERIOD OF FIVE (5) YEARS

APPENDIX C

ITIS 5.1 - User Manual

- November 2024 -



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Glossary & Terms

Shows all details regarding the dates and layers of construction done on the road As Built

Breadcrumb A breadcrumb or breadcrumb trail is the part of the navigation that shows you where you

Breadcrumb trails are often found near the top of Web pages and define both the

current location within the site hierarchy as well as primary pages above the current page

CC **Contracts Committee** CEO Chief Executive Officer CFO **Chief Financial Officer** CSE **Corporate Services**

Dashboard A user interface that organizes and presents information in a way that is easy to read

DM **Division Manager**

EΧ Executive

FM Finance Manager

Integrated Transportation Information System ITIS

Modules Different data systems within ITIS

A type of window that appears on top of (over) the browser window of a Web site that a Pop Up

user has visited

PM **Project Manager**

Regional Finance Manager **RFM**

RM Regional Manager

Routine Road Maintenance RRM

SANRAL South African National Roads Agency Limited

SCM Supply Chain Manager **SPM** Stand-in Project Manager

A request for information from a database which matches a set of criteria Queries

Welcome

This Manual helps users to use the ITIS 5.1 application and details where and how new functionality can be accessed. Some features are still not available in ITIS 5.1. These can be found by opening the ITIS 4.5 module.

Digitised Registration process

To gain access to ITIS 5.1

- i. Log into Citrix
- ii. You will see two icons:
 - ITIS Portal Production (ITIS 5.1)
 - ITIS Portal QA (ITIS 5.1 Quality Assurance System)
- iii. Click on ITIS > ITIS Portal Production

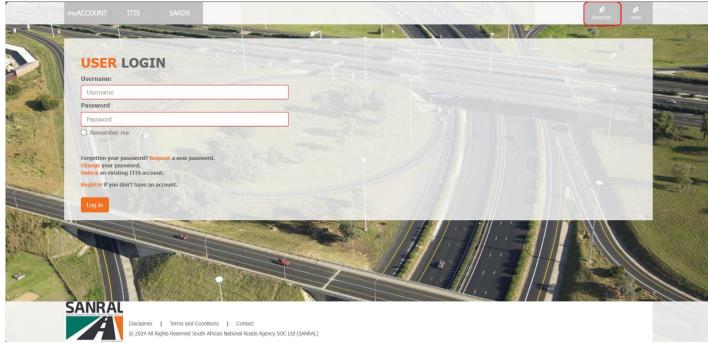


FIGURE 1: ITIS 5.1 REGISTER

- iv. Once the ITIS 5.1 landing page has loaded (Figure 1: ITIS 5.1)
- v. Click on Register

In the ITIS system, when a new user registers, they are required to specify the projects they wish to have access to as part of their application process. This includes selecting a Project, a User Type, and a User Sub Type. These choices are critical as they define the specific permissions and roles that the user will have within the system once their request is approved.

For instance, a **Contracts Engineer** will be granted access to the **Contract Admin permission**, enabling them to perform tasks in both the **ITIS Desktop application** and the **Road Routine Maintenance (RRM) application**. Similarly, a **Bridge Inspector** will receive the **Structure Module role**, which provides access to the Desktop Structures system. These roles are tailored to ensure users only access the tools and information necessary for their duties.

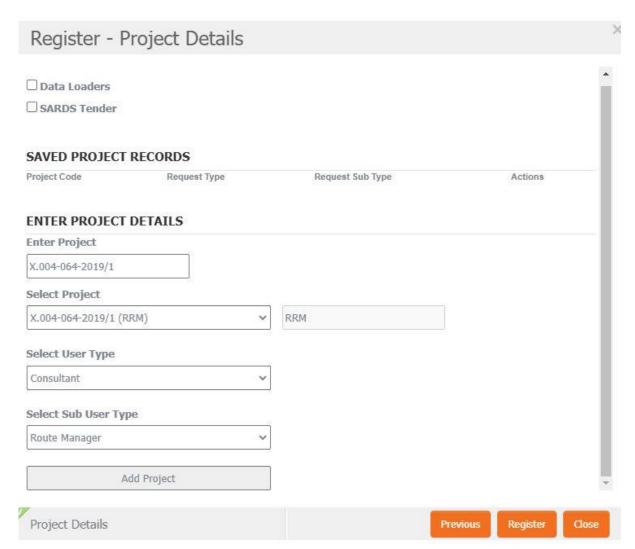


FIGURE 2: DIGITISED FORM

Approval Process for User Project Requests

After registration, user access requests linked to specific projects are sent to the relevant **Project Manager** for review. The approval process is streamlined through the **Projects** \rightarrow **Project User Approval** section in ITIS, which is accessible to Project Managers.

This section displays a comprehensive list of all user requests associated with projects managed by the Project Manager. Each record in the list includes details of the user, the project, and the selected roles, enabling the Project Manager to make informed decisions. The Project Manager is empowered to either **Approve** or **Decline** requests directly from this interface.

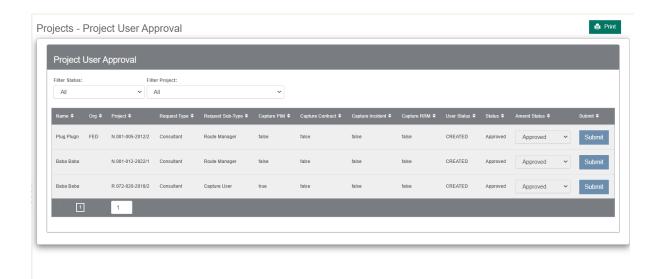


FIGURE 3: USER APPROVAL

Approval Outcomes:

1. Approved Requests:

- o If the user's profile has already been created in ITIS, the requested permissions and roles are immediately assigned upon approval.
- o If the profile is yet to be created, the permissions will be automatically applied once the user request is finalized through the **User Request Approval** section.
- This ensures a seamless integration of user access rights into the system.

2. **Declined Requests**:

 Declined requests are removed from the pending list and will not be processed further unless resubmitted.

Login

To gain access to ITIS 5.1

- vi. Log into Citrix
- vii. You will see two icons:
 - ITIS Production (ITIS 5.1)
 - ITIS QA (ITIS 5.1 Quality Assurance System)
- viii. Click on ITIS > ITIS Production



FIGURE 3: ITIS 5.1 LOGIN

- ix. Once the ITIS 5.1 landing page has loaded (Figure 1: ITIS 5.1) enter your SANRAL network user name and password
- x. Click on Login

Once logged in, the ITIS 5.1 user interface will be presented. Figure 2 shows the interface with the three main sections highlighted in red (main menu, content list and content area). Please note that your module list might differ as it is dependent on your security permissions. Should you not find a required module, please send a request to ITIS support to assign you the relevant permission.

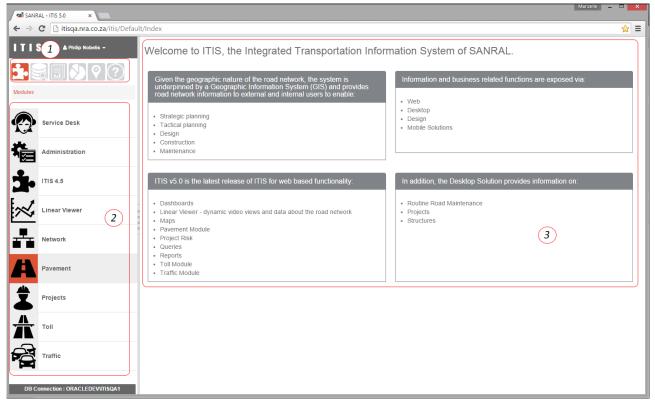


FIGURE 4: OVERVIEW

1. Main Navigation Menu: This is the main menu navigation bar with the following options:



- 2. Content List: Content is listed here depending on the module or content type chosen on the main navigation menu. Clicking on content can load new content into the content area or can load a list (of new content). Should a new content list be loaded a breadcrumb path will be shown above (red text under the navigation bar). Clicking on any part of the bread crumb path navigates you back to the relevant location.
- **3. Content Area:** The relevant content is loaded within this space. It depends on what was selected in the content list. Each of the main menu items will be discussed in detail below.

Queries

Use the queries page to run a data query.

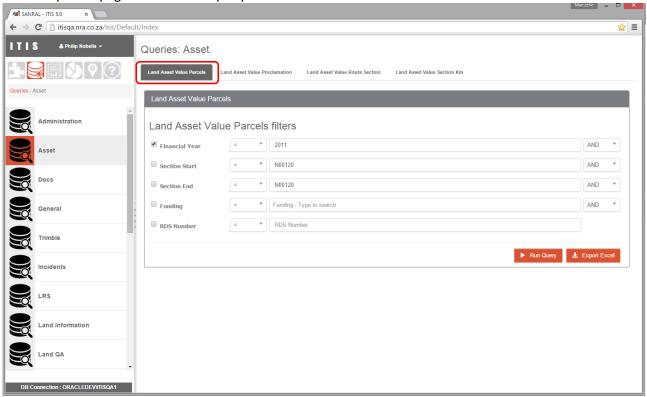


FIGURE 5: QUERIES

1.1. Run a Query

- i. Click on Queries (Figure 2: No 1 Main Menu)
- ii. Click on the system you wish to run a query on, like Asset (Figure 2: No 2 Content List)
- iii. Select the Asset query you wish to run, like Land Asset Value Parcels (Figure 3: Queries)
- iv. Capture required parameters
- v. Click on Run Query

NOTE: The information available on the queries window will depend on your permissions.

*If you get a Pop-up notification when running a query for the first time, please refer to Section 14 – Troubleshooting.

Reports

The reports tab gives you access to a multitude of reports grouped by system and category. The sections below show you how to find and execute reports.

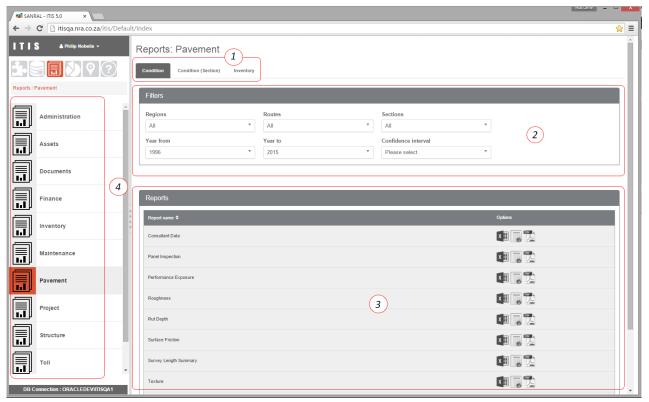


FIGURE 6: REPORTS

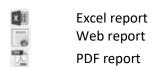
1.2. Run a Report

- i. Click on Reports (Figure 2: No 1 Main Menu)
- ii. Click on the system you wish to run a query on, like Pavement (Figure 4: No 4)
- iii. Select the report grouping like Condition (Figure 4: No 1 Report Groupings)
- iv. Capture required parameters (Figure 4: No 2 Report Filters)
- v. Click on a report type next to the report to run the report (Figure 4: No 3 Reports)

NOTE: The information available on the reports window will depend on your permissions.

1.3. Report Types

A report can be run and exported in the following formats:



NOTE: The report types available depend on the report itself.

*If you get a Pop-up notification when running a report for the first time, please refer to Section 14 – Troubleshooting.

Dashboards

Use the dashboard page to view available dashboards.

Dashboards provide at-a-glance views of key performance indicators relevant to a particular business process. The term dashboard originates from the automobile dashboard where drivers monitor the major functions at a glance via the instrument cluster. Dashboards indicate the state of a business process - letting the user know something is wrong or something is right. There are four key elements to a good dashboard. It is:

- Simple, communicates easily;
- Uncluttered;
- Supports organized business with meaningful and useful data, and
- Visual



FIGURE 7: OVERVIEW DASHBOARD

To access the Dashboards:

- i. Click on Dashboards (Figure 5: No 4)
- ii. Click on the dashboard you want to view (Figure 5: No 5)

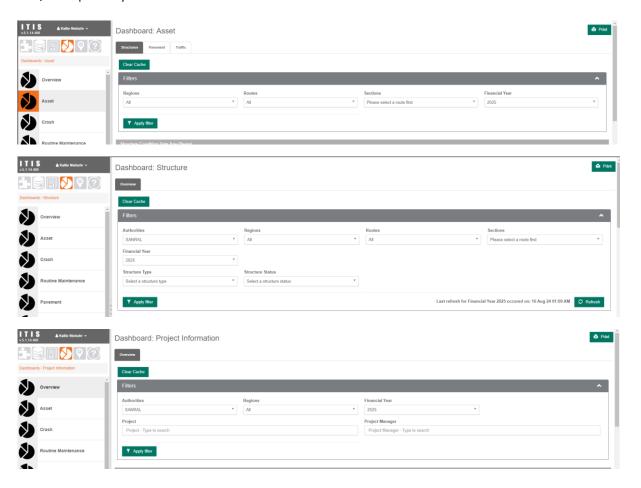
1.4. Available Dashboards

Currently the following dashboards are available:

- Overview
- Asset
- Crash
- Routine Maintenance
- Pavement
- Project Information
- Project Detail
- Project Risk
- Structure
- Traffic

1.5. Filters

The information on a dashboard can be filtered by Authorities/Route/Sections you are associated with, and/or a specific year. Each Dashboard has different filters.



- i. Select the relevant filter items from the dropdowns
- ii. Click on Apply T Apply filter to update the data on the dashboard

1.6. Crash Dashboard

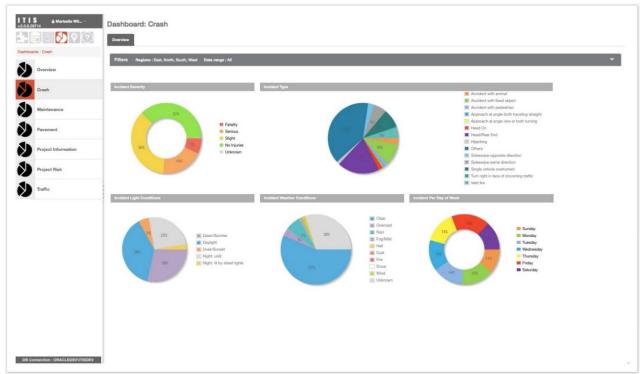


FIGURE 8: CRASH DASHBOARD

The following information is available on the **Overview** tab:

- Incident Severity
- Incident Type
- Incident Light Conditions
- Incident Weather Conditions
- Incident per Day of Week

NOTE: Information on this dashboard is cached and the cached data refreshes every 4 hours.

1.7. Project Risk Dashboard

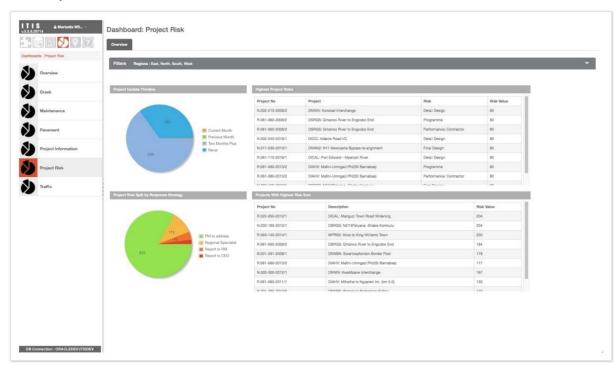


FIGURE 9: PROJECT RISK DASHBOARD

The following information is available on the **Overview** tab:

- Project Update Timeline
- Highest Project Risks
- Project Risk Split by Response Strategy
- Projects with Highest Risk Sum

NOTE: Information on this dashboard cannot be filtered according to a timeframe. Information on this dashboard is cached and the cached data refreshes every 4 hours.

1.8. Pavement



FIGURE 10: PAVEMENT DASHBOARD

The following information is available on the Overview tab:

- Pavement Overall Condition (OCI)
- Pavement Age Base Layers (Years)
- Pavement Age Surface Layers (Years)
- Pavement Roughness (Left Wheelpath IRI m/km)
- Pavement Rut Depth (Left Wheelpath Rut mm)
- Pavement Macrotexture Depth (Left Wheelpath MPD mm)
- Pavement Base Type
- Pavement Surface Type
- Pavement Condition Date Age (Years)

1.9. Traffic



FIGURE 11: TRAFFIC DASHBOARD

The following information is available on the **Overview** tab:

- Average Daily Traffic
- Average Daily Truck Traffic
- Traffic Composition
- Vehicle Kilometers Traveled
- Average Vehicle Speed

1.10. Project Information



FIGURE 12: PROJECT INFO DASHBOARD

The following information is available on the <u>Overview</u> Tab:

- SMME Number
- SMME Expenditure

- SMME Expenditure per Project Type
- No of Job Opportunities
- Full-time Equivalent Jobs
- No of Job Opportunities per project Type
- Trainees
- Trainees / Project Type

Maps

1.11. Introduction

ITIS Maps simplifies the process of finding, connecting to, and displaying spatial data published through Web services. It enables smooth browsing through intuitive navigation controls and technical advances such as asynchronous communication, which ensures that panning and zooming are not interrupted by waiting for servers to respond. The client's utility is enhanced by additional tools such as measuring area and distance, controlling the appearance of individual map layers, and saving and recalling the current map context.

1.12. Getting started with Maps.

Log on to http://itisprod.nra.co.za/itis and click on the Maps icon (). ITIS Maps will open in a new tab. You will begin on the home page:



SANRAL

This portal gives an overview of SANRAL data in a general scope, for uses not served by the more specialized portals

Structures

This portat is a collection of data focused on SANRAL, structures, with overviews of structure positions and maintenance status, checks to confirm the integrity of structures data, and general data on properties and routes to give context.

Pavement

This portal is a collection of data focused on SANRALmaintained pavement, with information on pavement age and time since resurfacing, physical conditions, visual conditions, and general data on properties and routes to give context.







Click on the log in button (circled above) and provide your SANRAL login credentials. You will then be returned to the home page. Scrolling down will show the different maps available to you. Find the one most appropriate for you (or for general uses, use the SANRAL map), then click on the "Launch" button as shown below:

SANRAL

This portal gives an overview of SANRAL data in a general scope, for uses not served by the more specialized portais.

Structures

This portal is a collection of data focused on SANRAL structures, with overviews of structure positions and maintenance status, checks to confirm the integrity of structures data, and general data on properties and routes to give context.

Pavement

This portal is a collection of data focused on SANRAL-maintained pavement, with information on pavement age and time since resurfacing, physical conditions, visual conditions, and general data on properties and routes to give context.











Launch =

Land

This portal is a collection of data focused on land affecting and affected by the road network, including information on past land asset valuations, land acquisitions, cadastral data, property ownership data. SANRAL leases, quarries and borrowpits, the gazetted road reserve, SANRAL's jurisdiction and properties with potential for development of advertising infrastructure.

Inventory

This portal is a collection of data focusing on details relating to SANRAL's general road infrastructure. This includes information on infrastructure location, lane counts and directions, road shoulder materials and type, signage and checks to verify the condition of the inventory data.

Community

This portal is a collection of data focusing on details relating to Community Projects







Launch.»



Launch.»

1.13. Maps Interface

Maps contains the following user interface elements:

Steering Panel (Side Bar)

Toolbar

Map Window

Search result Panel

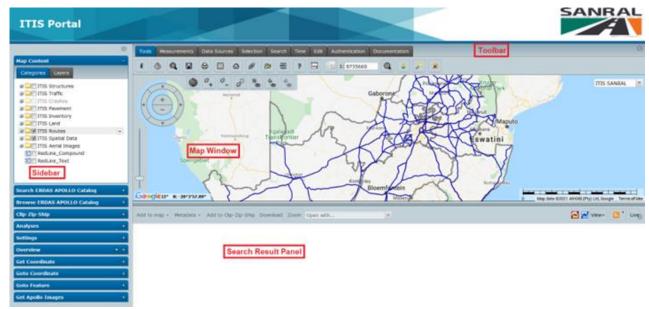


FIGURE 24: MAPS INTERFACE

1.13.1. Sidebar

With tools grouped on the sidebar you can do the following:

- Manage Map Content
- Browse Apollo Catalog
- Get Coordinates
- Goto Coordinates
- Goto Features
- Get Apollo Images
- Find chainage km at any point on a road (LRS Tool)

1.13.2. Toolbar

The toolbar consists of the following tabs where special options and functions are grouped:

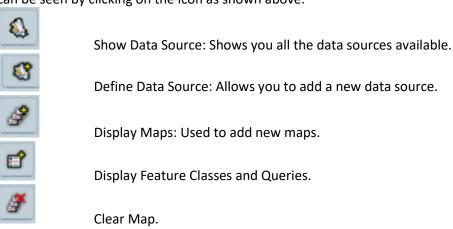


FIGURE 26: TOOLBAR



FIGURE 27: DATA SOURCES

The data source allows you to access data from various Service Sources. Data is stored in service sources which can be seen by clicking on the icon as shown above.



Tools

FIGURE 28: TOOLS

Location: When this icon is clicked it will take you to your position at the time of use. This feature uses the location mechanism of the Web browser in which the Geospatial Portal is run. Location depends on the algorithms used by your specific Web browser and applied device settings, particularly on mobile devices where the location can be based on GPS and/or Wi-Fi & mobile network. Note that the site needs to be granted location access to use this function, by default you should get a prompt from your browser asking for this.

Feature Info: Clicking this icon, then clicking once on a point, will show attributes for all underlying features.

Overview Window: This icon creates an overview window in the bottom right-hand corner of the map window for reference purposes. (This Feature is replaced by the Overview window found on the sidebar)

Data Window: Shows a menu displaying feature classes and attribute values for selected data sources

Scale Bands Configuration: The scale at which certain features must appear can be configured here. The portal is setup in such a way that when one is at a scale above 10000000 the map feature will not display and therefore will be greyed out. For optimum use ensure that you are always at a scale below 1000000.

User Maps: This icon opens a menu where the current map session can be saved to a file, or a saved file can be loaded to restore a session.

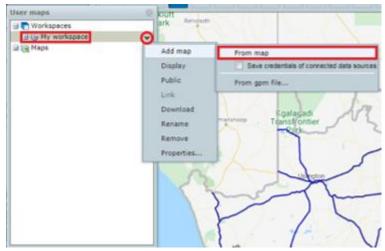


FIGURE 29 SAVING A MAP

The workspace will then be saved as **My workspace**. To download the saved map, click on the drop down of **My workspace** and then **download**. The map will be saved as a **gpw**. File in the file directory of your choice.

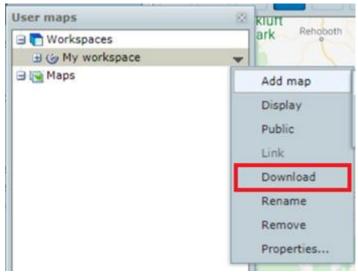


FIGURE 30 DOWNLOAD MAP

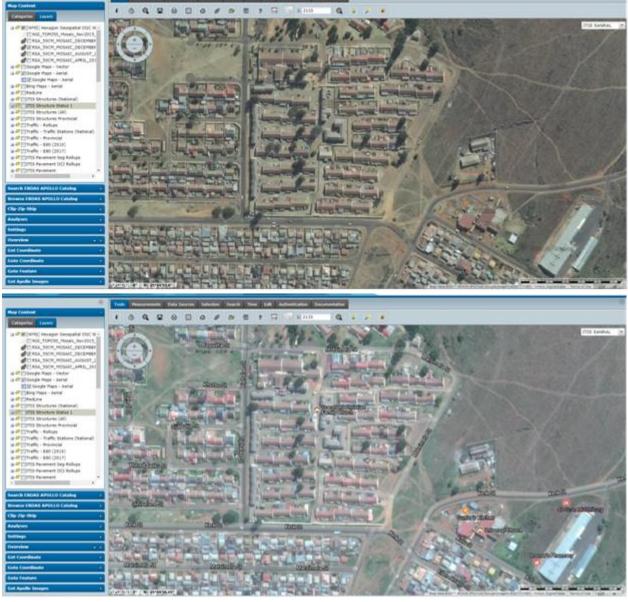
To load a saved map: click on the load icon , click on the dropdown of Workspace, Add and then click on the from **gpw file**. Browse to the gpw file and click on open.

- WMC: Tool exports all the data currently in the map window to allows importing that data to webmaps.
- Print Map: Prints an image of the current map, which can be saved.
- Notification History Window: When using the portal and an unknown error is observed it can be useful to see in the log files of the portal the description of the error. Support may ask for these details.
- Drag and drop shape files in the window which will open if you click on this icon to view on the map. It is important that when shapefile is dragged and dropped that the *shp*, *dbf*, *prj* and *shx* files must all be imported.
- Set Map Scale: Allows you to define and set the scale you want the web map to be at.
- About: The version of webmap software. The map-specific user guide can also be found here.
- Google Street View on selected Location: After clicking this and then a road will open the Google Steetview at that point.
- Shutter Tool: Compare Top two raster Layer.

To compare two raster layers using the Shutter Tool make sure the two raster files you are going to use are on top in the Layers Tab under the Map content.

Follow steps of moving raster datasets to the top as described under the Swipe Tool When all the raster datasets you wish to use are on top.

Click on the Shutter tool Icon to start comparing the two raster images:
You will see the Map window will interchangeably flash/shutter the two images on the map window.



Click the Shutter Tool Icon to end the process.

1.13.3. Selection



FIGURE 35: SELECTION

This tool gives you the ability to select features by its coordinates, , by drawing a line over numerous features, , selecting all features within the drawn polygon, , selecting features within a block drawn, , copy selected features, , and clearing selection, .

N.B When using the Selection Tool to copy features make sure that all the other Layers are off (Unticked from the Layers Tap) except the layer you want to copy features from.

Edit

The edit function on the toolbar is explained in the dedicated maps manual under Redlining.

<u>Time</u>

In the **Map Content** there is an **ITIS Crashes** Category which contains a *fatal crashes layer*. When this layer is on, the timeline of all crashes can be observed.

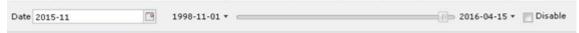


FIGURE 36: TIME TOOLBAR

A specific date can be selected by clicking on the calendar icon, , or by dragging the timeline button by clicking, holding and dragging motion.

Measurements

Measurements can also be done in the map window.



FIGURE 37: MEASUREMENTS

Show Coordinates: By clicking on this icon and then clicking once on the map the coordinates for that point will be shown in meters.

Measure Distance: This tool can be used to measure linear distances. Click the icon, and then on the **Map window** click the linear feature of interest when you get to the end point of the feature double click anywhere to complete the measurement and the distance of that feature will display on the line you just measured.

Measure Area: This tool measures the length of a polygon feature, Click the icon, and then on the **Map window** click the Polygon feature of interest when you get to the end Polygon of the feature double click anywhere to complete the measurement the distance and area of the polygon will display alongside and inside the polygon respectively.



Clear Measure: By clicking on this icon your measurements will clear from the Map Window.

Show/Hide measurements: Toggles the visibility of labels with the values for the measured objects.

Search

0



FIGURE 38: GOOGLE SEARCH

The search functionality sources information from Google Maps database and therefore allows a user to search for addresses or landmarks, such as "Pretoria", "SANRAL Head Office" or "Gariep Dam".

To search for any specific location, one can type the name in the search command and execute by clicking

Authentication

enter.

You must be an authorized ITIS user to use the capabilities of the web map.

Logged user: naudes Edit profile Log out

Edit profile

When clicked allows user to change their password and email address.

Log out

When clicked allows user to log out

<u>Documentation</u>

The **Manual button** will redirect you to the dedicated Maps User manual in Confluence.

1.13.4. Map Window

The Map Window displays all spatial data. It consists of the following elements:

Map Window: Displays all the layers that make up the map.





FIGURE 39: MAP WINDOW

<u>Navigator</u>: Lets you navigate on the map and change the map scale. Navigator is displayed in the upper-left corner of the map window. The arrows control the movement of the map and the +: Zoom In and -: Zoom Out icons.



FIGURE 40: NAVIGATOR

<u>Coordinates:</u> Shows the coordinates of the site indicated by the cursor. The coordinates are displayed in the lower-left corner.



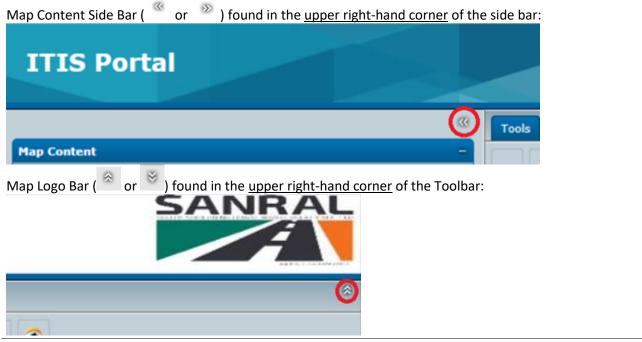
FIGURE 41: COORDINATES

<u>Scale Bar:</u> Lets you estimate distances on the map. The scale bar is displayed in the lower-right corner of map window.



1.13.5. Optimizing Display

The Map Window can be enlarged by hiding the **Map Content Sidebar** and **Map Logo Bar** by clicking on the following buttons:



1.14. Navigating the 2D Map

You can use one of the following methods to navigate the map in 2D mode:

Pan around with a mouse: To move the map, hover over the map window. Click and hold the left mouse button to move the map. Release the mouse button to finish and to set a new view.

Use the *Navigator*: Hover over the Navigator (Figure 15) and click the Navigator buttons to move the map in four directions (N, E, S, W)

Click Previous map View and Next map view to return to a previous view or go to the next.

Double click anywhere on map, when mouse cursor is in the arrow state, to pan to that area.

1.14.1. Changing the Scale

You can change the scale of the map in several ways, as follows:

Use Zoom in or Zoom out on the Navigator toolbar:



Use the *Navigator Slider*. To zoom in move the slider up. To move out, move the slider down (Hover mouse on left side below Navigator to display the Slider)

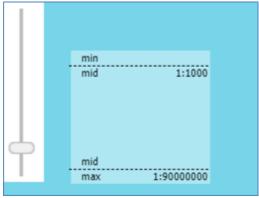


FIGURE 44: NAVIGATOR SLIDER

Use Zoom by Rectangle to draw a rectangle on the map. The map fits to the drawn shape Use the mouse wheel button. Roll the wheel up to zoom in, roll the wheel down to zoom out.

To restore the default map view click Fit All

1.15. Learning More About Maps

ITIS Maps has a dedicated manual which can help you to discover the extent of what the site has to offer, and to help solve common problems you might encounter. The manual is a searchable PDF file with an interactive table of contents.

This manual is accessible on far-right side of the toolbar, under the documentation tab:

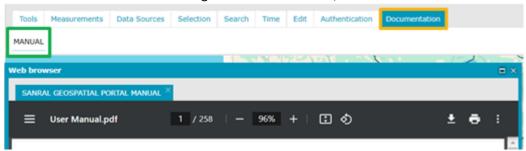
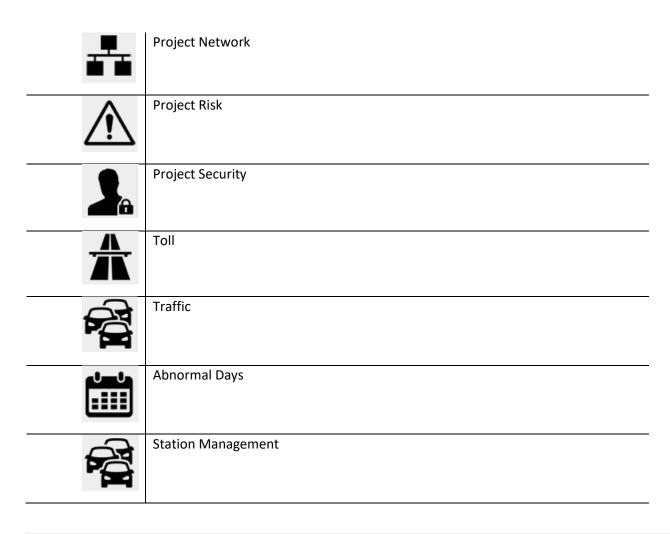


FIGURE 45: ACCESSING DEDICATED MAPS MANUAL.

Modules

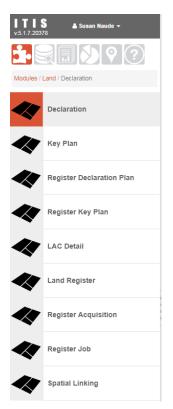
When you log into ITIS your default landing page are Modules with an overview of the ITIS system. Modules represent systems within ITIS. When you click on a module it loads on the current page or if required in a new tab. It is important to note that ITIS is listed as a module. Clicking on it will open a new browser tab into which the 4.5 version will be loaded, and you will automatically be logged in. ITIS 5.1 Modules are listed below:

	Administration
	Security Role Templates
	Authority Management
	Role Management
檀	Organization
*	ITIS 4.5
\approx	Linear Viewer
A	Pavement
	Projects
	Lab Management
1	Project Authority
Å	Project Geometry
ث	Project Memorandum



NOTE: The modules you see on your interface depend on your permissions. If you do not see a module you require then please send an email to itisissues@nra.co.za requesting access.

Each of the above modules is discussed in detail with the "Land Modules" as an example.



1.16. Land Modules

1.16.1. Cadastral Key Plan

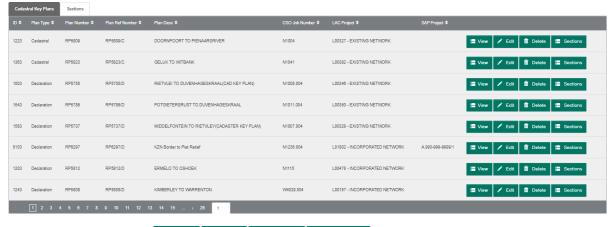
Click on the Cadastral Key Plan icon under the land modules.



1. A record can be searched for or added. Click on to any of the following attributes: Plan type and/or Plan number.

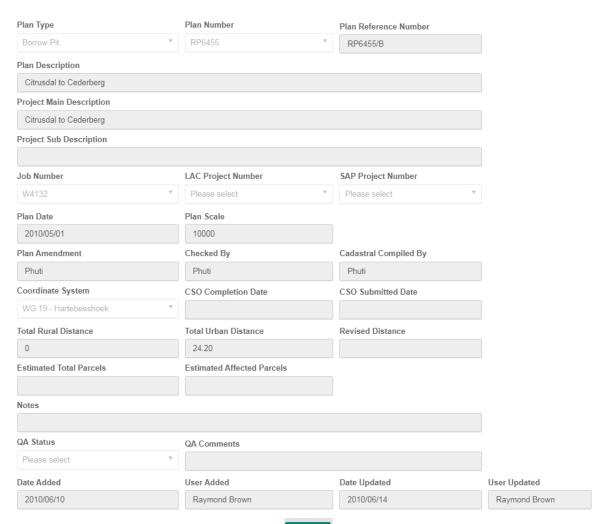


2. Under the Search button the relevant details will appear.



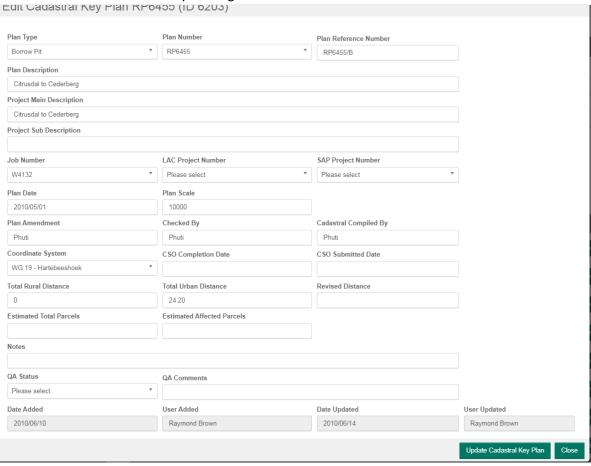
- Click on the button to view all the data related to the specific record.
- 3. When you click on the view button a new window will open where all the feature info and related data can be viewed.

View Cadastral Key Plan RP6455 (ID 6203)



4. You can edit the record by clicking on the





- And then click on button when you have edited the data.

Delete button to view the full details of the record. 5. You can delete the record by clicking on the Ensure it is the right record you wish to delete: Delete Cadastral Key Plan RP6299 (ID 6207) Cannot delete this Cadastral Key Plan as it has sections attached, please remove all sections first before deleting the record... Plan Type Plan Number Plan Reference Number RP6299/B Plan Description Bloemhof to Wolmeranstad Project Main Description Bloemhof to Wolmeranstad **Project Sub Description** Job Number LAC Project Number SAP Project Number N1322 Please select Please select Plan Scale 2010/02/01 7500 Cadastral Compiled By Plan Amendment Checked By Phuti Phuti Phuti Coordinate System CSO Completion Date CSO Submitted Date Total Rural Distance Total Urban Distance Revised Distance 15.95 0 **Estimated Total Parcels Estimated Affected Parcels** Notes QA Status QA Comments Please select Date Added User Added Date Updated User Updated 2010/06/10 2010/06/17 Raymond Brown Raymond Brown Sections 6. Click on to view section details. Cadastral Key Plan Section Detail - Cadastral Key Plan ID 6203: RP6455 - RP6455/B - W4132 - Citrusdal to Co + Add Cadastral Key Plan Section Click on to add a new cadastral key plan section. Remove All Click on to remove all sections

to edit the key plan section and once all the fields have been edited click on

to remove a single section only

Remove

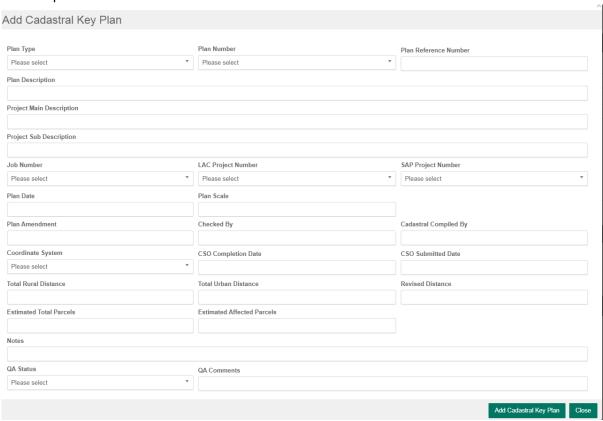
Update Cadastral Key Plan Section

Click on

Click on

-Click on if you wish to quit editing, the edit modal will close

- 7. On button click, all the particulars for the new cadastral key plan that have to be completed pop up. Plan type and Plan number are compulsory.
 - Complete the form on the tab.



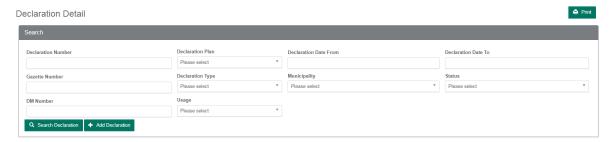
- Once completed click on _____ again to save the new record.
- Click on to close the form.

1.16.2. <u>Declaration</u>

1. Click on the declaration icon under the land modules.



2. A record can be searched for or added. Click on any of the following attributes: Declaration number, Declaration Plan, Declaration Type, Gazette Number, Declaration status and/or Declaration usage.

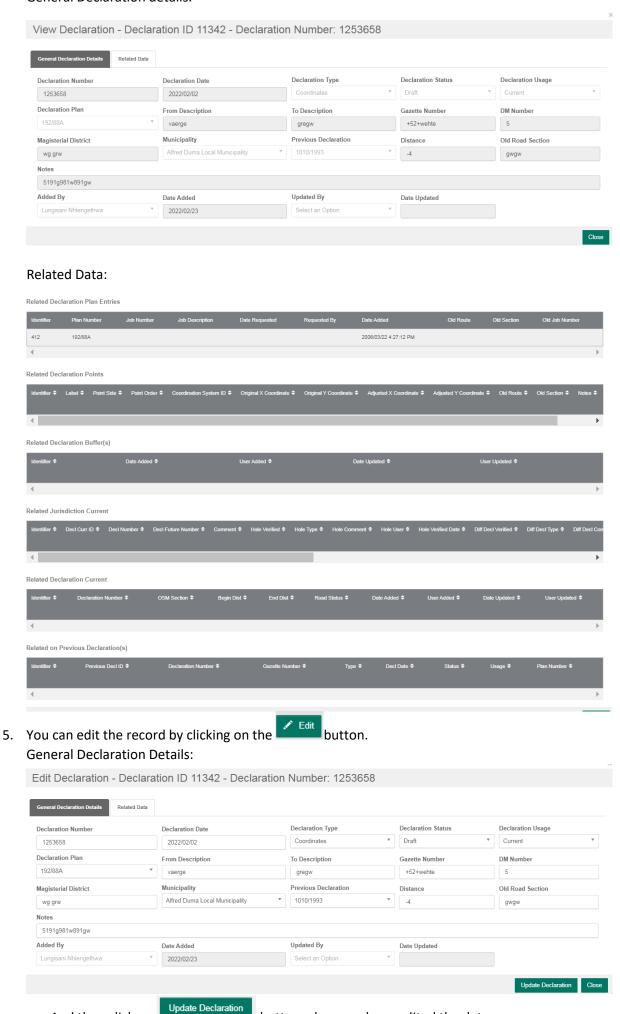


3. Under the Search button the relevant details will appear.



- There are 3 buttons There are 3 buttons next to a record. Click on the button to view all the data related to the specific record.
- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. There are 2 tabs under view:

General Declaration details:

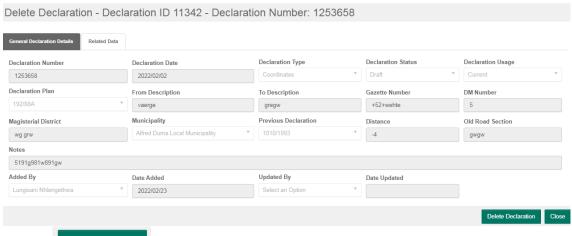


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button when you have edited the data.

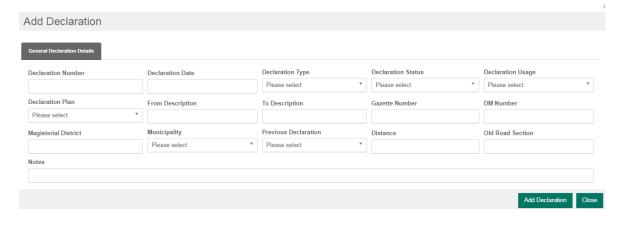
And then click on

- Ensure it is the right record you wish to delete:



- Click on to completely delete the record.
- 7. On button

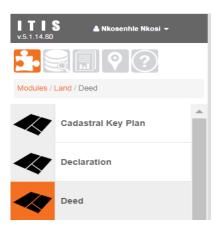
 click, all the particulars for the new cadastral key plan that have to be completed pop up. Declaration number, Declaration Plan, Declaration Type, Gazette Number, Declaration status and Declaration usage.
 - Complete the form on the tab.



- Once completed click on again to save the new record.
- Click on to close the form.

1.16.3. <u>Deed</u>

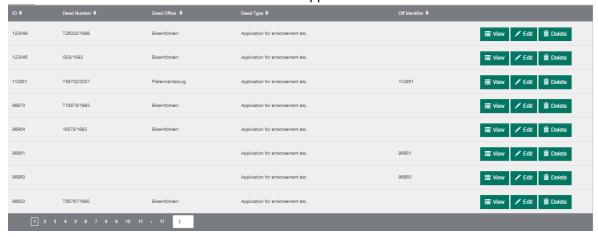
1. Click on Deed icon under the land modules.



2. A record can be searched for or added. Click on of the following attributes:



3. Under the Search button the relevant details will appear.

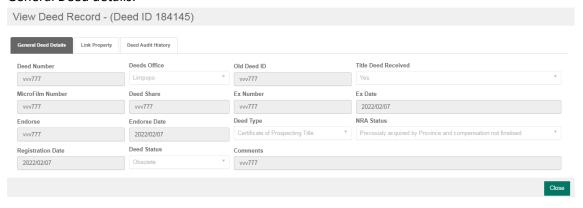


- There are 3 buttons Edit Delete next to a record. Click on the button to view all the data related to the specific record.
- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. There are 3 tabs under view:

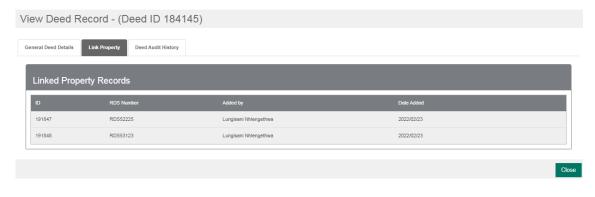
■ View



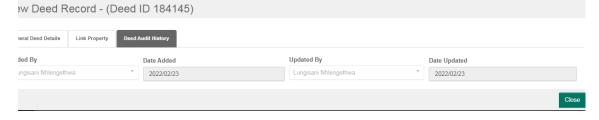
General Deed details:



Link Property:

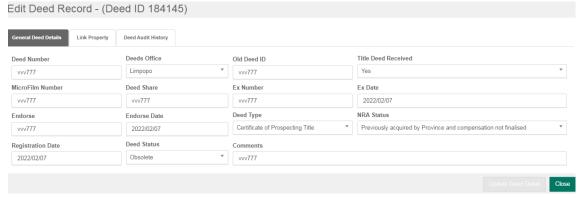


Deed Audit History:



5. You can edit the record by clicking on the button.

General Dees Details:

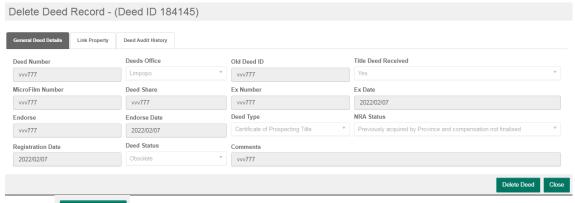


Link Property:

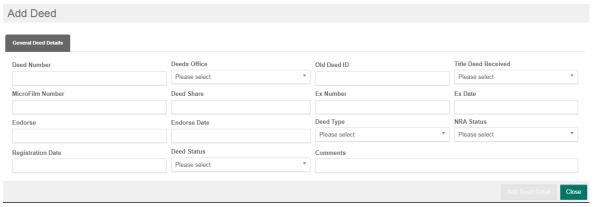


Under Linked Property records:

- Click on to add a new link property.
- Click on Delete to delete a record.
- And then click on button when you have edited the data.
- 6. You can delete the record by clicking on the button to view the full details of the record
 - Ensure it is the right record you wish to delete:



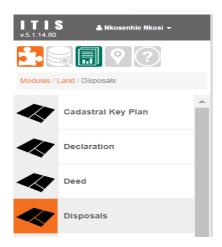
- Click on _____ to completely delete the record.
- 7. On button click, all the particulars for the new Deed that have to be completed pop up. Deed Number is compulsory.
 - Complete the form on the tab.



- Once completed click on Add Deed Detail again to save the new record.
- Click on close the form.

1.16.4. Disposals

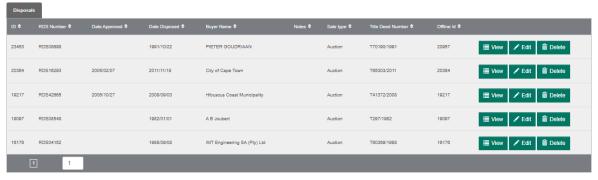
1. Click on Disposal module under the Land modules.



A record can be searched for or added. Click on of the following attributes: Property and/or Status.



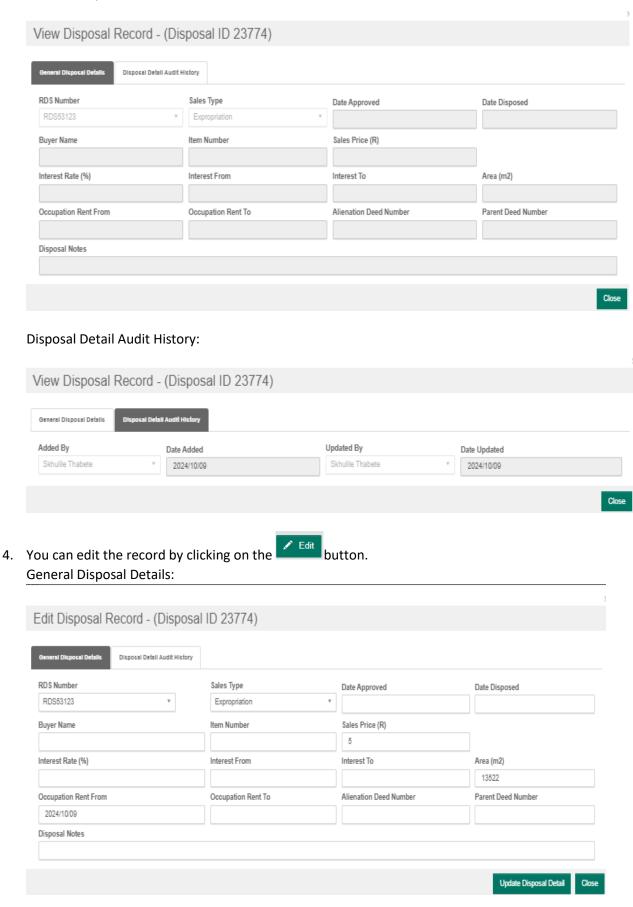
2. Under the Search button the relevant account details will appear.



- There are 3 buttons I View Ledit Delete next to a record. Click on the button to view all the data related to the specific record.
- 3. When you click on the view button a new window will open where all the feature info and related data can be viewed. There are 2 tabs under view:



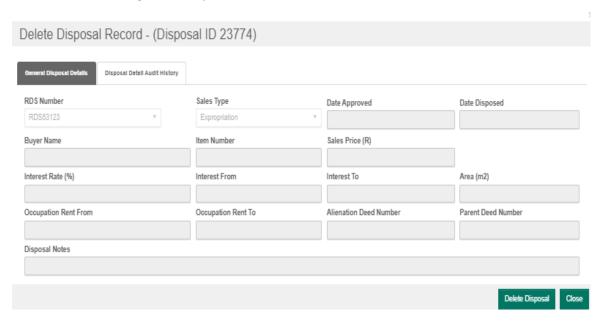
General Disposal details:



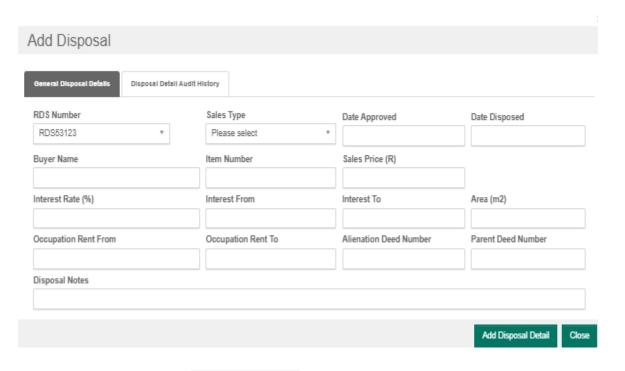
- And then click on ______ button when you have edited the data.



- Ensure it is the right record you wish to delete:



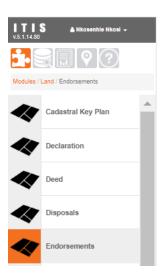
- Click on _____ to completely delete the record.
- 6. On button Add Disposal click, all the particulars for the new disposal that have to be completed pop up. Property is compulsory.
 - Complete the form on the tab.



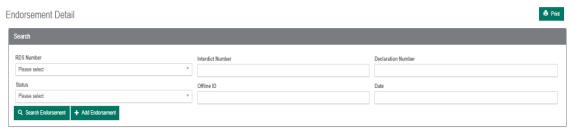
- Once completed click on again to save the new record.
- Click on to close the form.

1.16.5. Endorsement

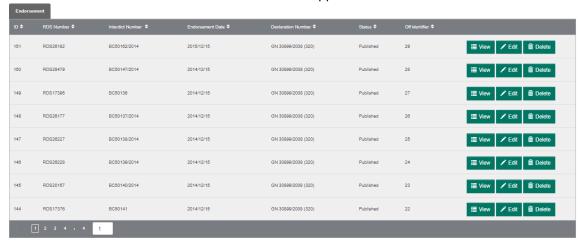
1. Click on Endorsements module under the Land modules.



2. A record can be searched for or added. Click on ______ to search for records according to any of the following attributes: Property and/or Status

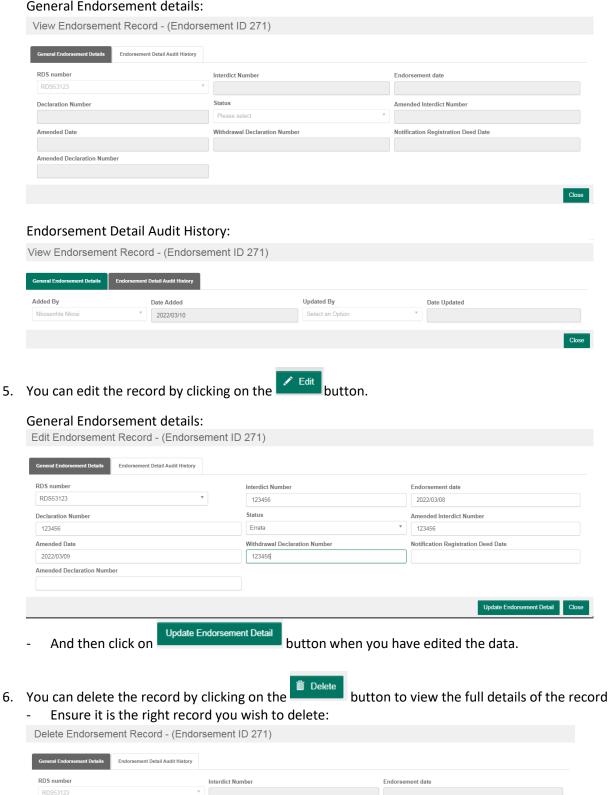


3. - Under the Search button the relevant details will appear.

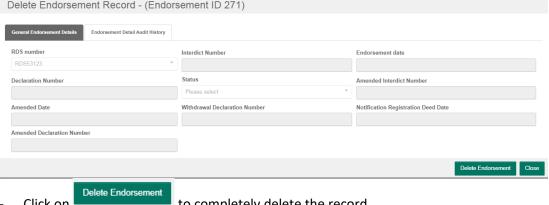


- There are 3 buttons Wiew Fedit Delete next to a record. Click on the button to view all the data related to the specific record.
- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. There are 2 tabs under view:

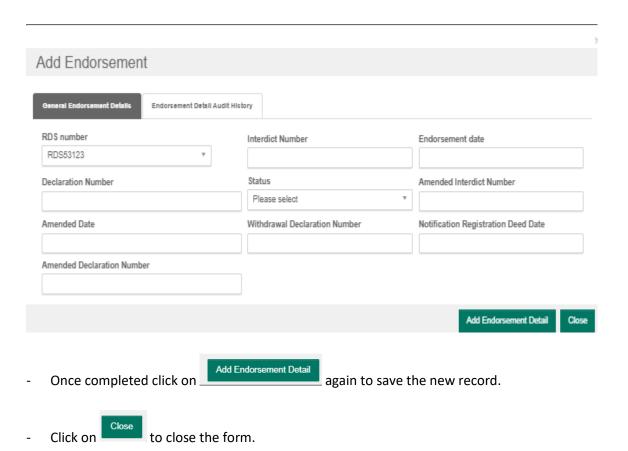




6. You can delete the record by clicking on the

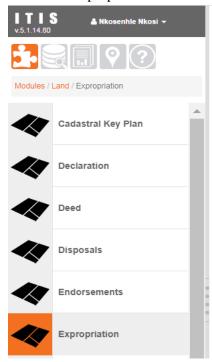


- to completely delete the record. Click on
- + Add Endorsement 7. On button click, all the particulars for the new Endorsement that have to be completed pop up. RDS number is compulsory.
 - Complete the form on the tab.



1.16.6. Expropriation

1. Click on Expropriation module under the Land modules.



2. A record can be searched for or added. Click on following attribute: Property.

to search for records according to the



Q Search Expro

3. Under the Search button the relevant details will appear.

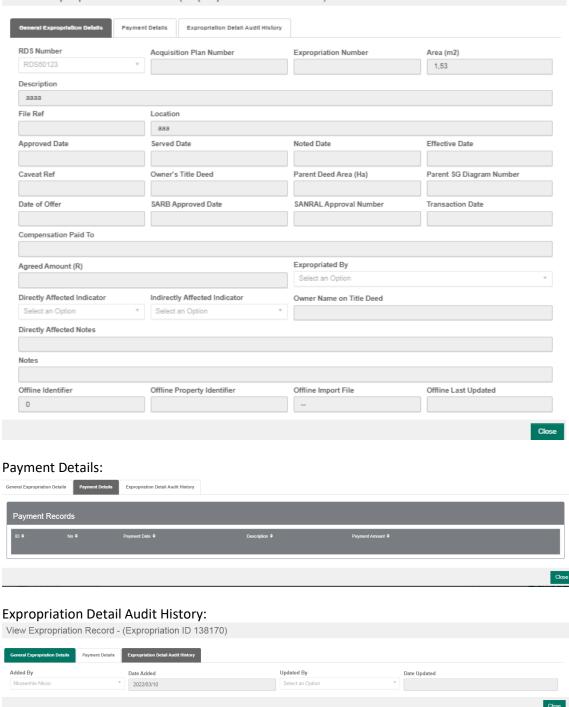


- There are 3 buttons Edit Delete next to a record. Click on the view all the data related to the specific record.
- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. There are 3 tabs under view:



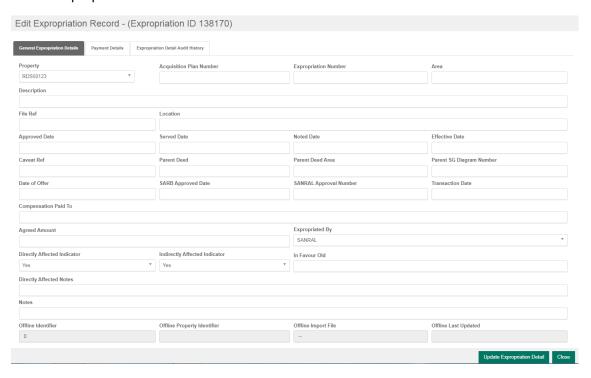
General Expropriation details:

View Expropriation Record - (Expropriation ID 155469)



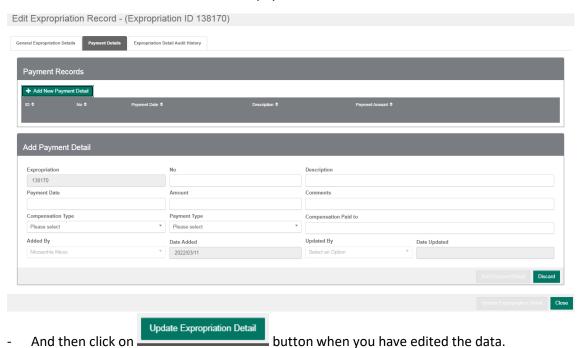
5. You can edit the record by clicking on the

General Expropriation details:

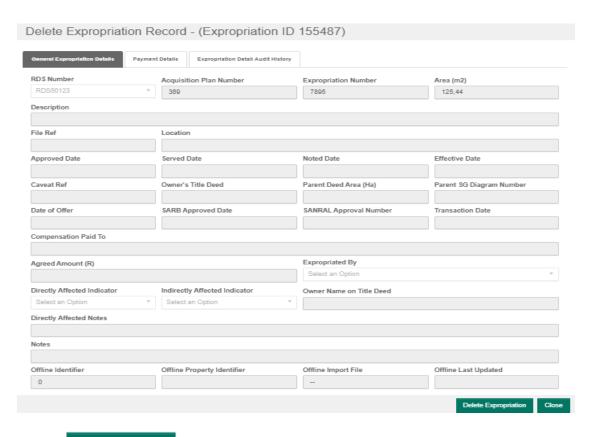


Payment Details:

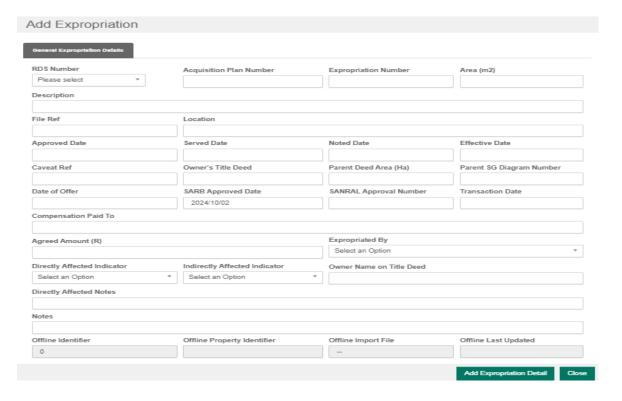
- Click on to add payment detail.



- 6. You can delete the record by clicking on the button to view the full details of the record
 - Ensure it is the right record you wish to delete:



- Click on Delete Expropriation to completely delete the record.
- 7. On button click, all the particulars for the new expropriation that have to be completed pop up. Property is compulsory.
 - Complete the form on the tab.

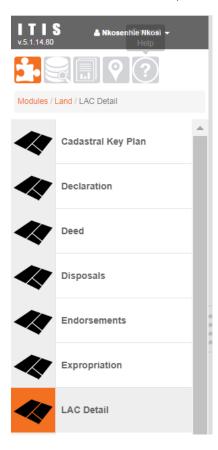


- Once completed click on again to save the new record.

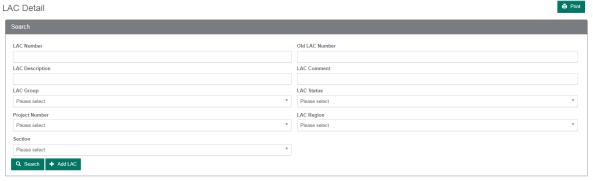
- Click on to close the form.

1.16.7. LAC Detail

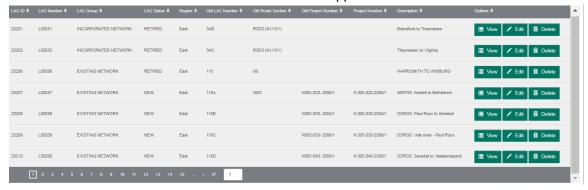
1. Under the Land module, click on LAC Detail.



2. A record can be searched for or added. Click on following attribute: LAC Group, LAC Status, Project Number, LAC Region and/or Section.



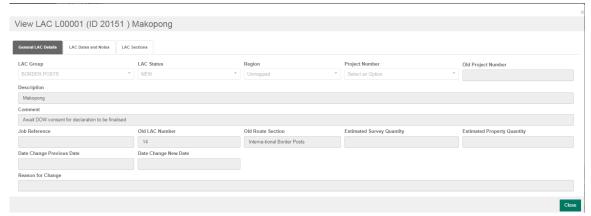
3. Under the Search button the relevant LAC details will appear.



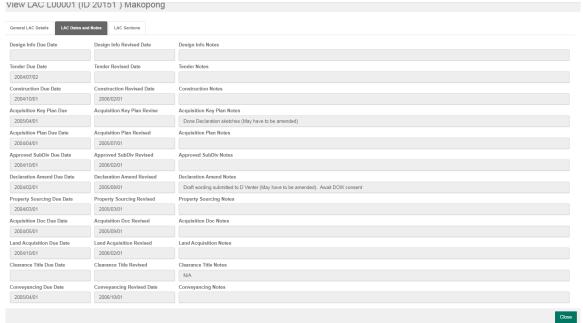
There are three buttons – button to view all the data related to the specific LAC.

4. When you click on the view button a new window will open where all the feature info and related data can be viewed. General LAC Details, LAC Details and Notes, and LAC Sections can be viewed by clicking on one of the tabs.

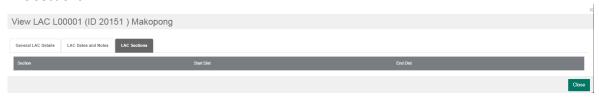
General LAC Details:



LAC Details and Notes:



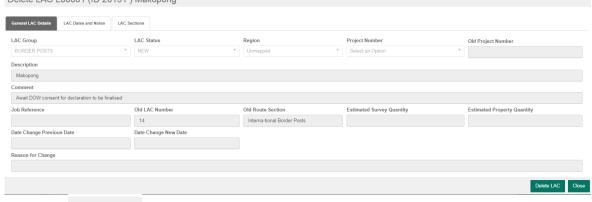
LAC Sections:



- 5. You can edit the record by clicking on the button.
 - You can then update each tab individually by clicking on it



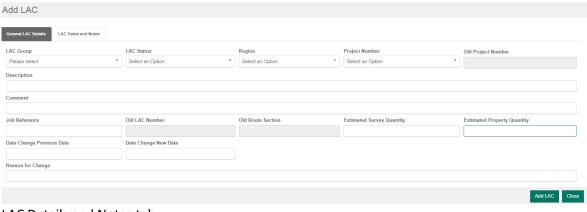
General LAC Details: Edit LAC L00001 (ID 20151) Makopong Old Project Number ▼ Unmapped ▼ Select an Option BORDER POSTS Await DOW consent for declaration to be finalised Old LAC Number Estimated Property Quantity 14 Date Change Previous Date Date Change New Date Reason for Change LAC Dates and Notes: Edit LAC L00001 (ID 20151) Makopong General LAC Details LAC Dates and Notes LAC Sections Design Info Due Date Design Info Revised Date Design Info Notes Tender Due Date Tender Revised Date Tender Notes 2004/07/02 Construction Due Date Construction Revised Date 2004/10/01 2006/02/01 Construction Notes Acquisition Key Plan Due Acquisition Key Plan Revise Acquisition Key Plan Notes Acquisition Plan Notes Approved SubDiv Revised 2006/02/01 Approved SubDiv Due Date Approved SubDiv Notes 2004/10/01 Declaration Amend Revised 2005/08/01 Draft wording submitted to D Venter (May have to be amended). Await DOW consen 2004/02/01 Property Sourcing Notes Land Acquisition Notes Clearance Title Due Date Clearance Title Revised Clearance Title Notes Conveyancing Due Date Convey..... 2006/10/01 Conveyancing Revised Date Conveyancing Notes LAC Sections: Edit LAC L00001 (ID 20151) Makopong General LAC Details LAC Dates and Notes LAC Sections Update LAC And then clicking on button when you have edited the data. n Delete 6. You can delete the record by clicking on the button to view the full details of the record : Delete LAC L00001 (ID 20151) Makopong



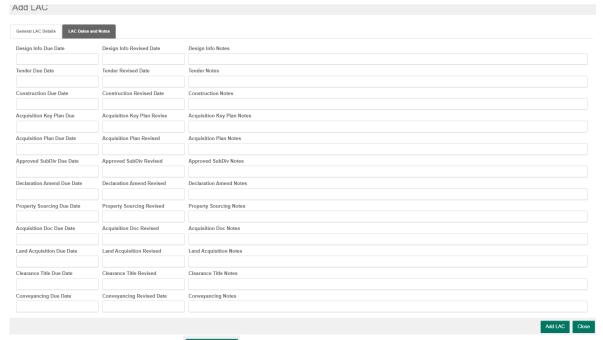
Delete LAC Click on to completely remove the record.

- 7. On button Add LAC click, all the particulars for the new LAC that have to be completed pop up.
 - Complete the form on each tab. LAC Group is compulsory.

General LAC Details tab:



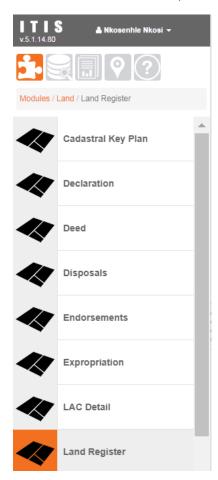
LAC Details and Notes tab:



- Once completed click on Add LAC again to save the new record.
- Click on to close the form.

1.16.8. Land Register

1. Under the Land module, click on Land Register.



2. A record can be searched for or added. Click on the following attribute:



3. Under the Search button the relevant record will appear.

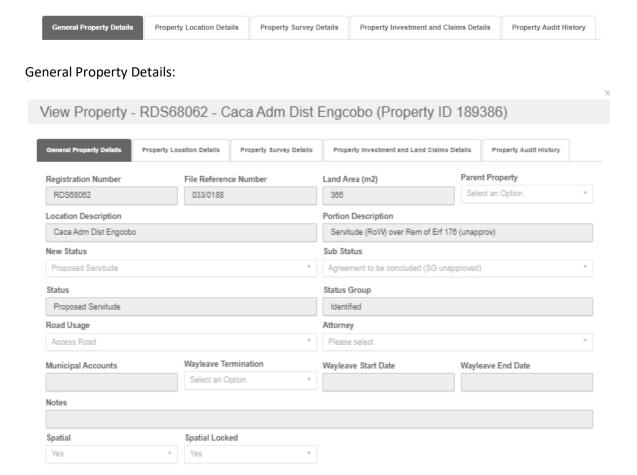


There are six buttons to— For the specific record.

There are six buttons to— For the specific record.

There are six button to view all the data related to the specific record.

4. When you click on the view button a new window will open where all the feature info and related data can be viewed. You can click on any of these tabs to view related data:



General Property Details Notes

- Property ID This number is generated by the system.
- Registration Number RDS number, a unique number assigned to every Sanral property.
- File Reference Number The number of the case file of the property.
- Location Description (Mandatory) The name of the township, agricultural holding or farm with its number and registration division or administrative district. The descriptions, as allocated to the properties by the Surveyor General, who falls under the control of the Department of Land Affairs, are used, i.e. "Bartlett Agricultural Holdings Ext 1 IR"
- Portion Description (Mandatory) The allocation of descriptions to all land parcels in the Republic of South Africa are the responsibility of the Surveyor General, who falls under the control of the Department of Land Affairs, and the descriptions are allocated during the survey process of the land.

Properties are described as follows in the register –

Land situated in a township : Erf

Land situated in an agricultural holding: Holding, Plot or Lot

Portion of a farm : Ptn

If the entire farm is owned (i.e. there is no subdivisions) the words "The farm" would be in the Portion Description field. If the property has been subdivided and the subdivision has been registered, the remaining portion of the parent property would be described as "Rem of farm". "Portion" and

"Remainder" are abbreviated as "Ptn" and "Rem". Example: Erf 234. (In the case of properties in Cape Town the name of the suburb follows the erf number, i.e. Erf 23456 at Claremont). Ptn1 of Erf 23.

Holding 34. (In Limpopo, Mpumalanga, North West and Gauteng an agricultural holding is referred to as a "Holding", in the Free State as a "Plot" and in the Cape Provinces as a "Lot".)
Ptn 34(ptn of Ptn3).

Rem of Erf 45

Servitudes, Real Rights, Mineral Rights, and any other rights, in favour of SANRAL, are also recorded in the land register and a Register Number is allocated to the entry as if it is a land record.

The description of the right will precede the Portion Description i.e. -

Servitude (electricity) over ...

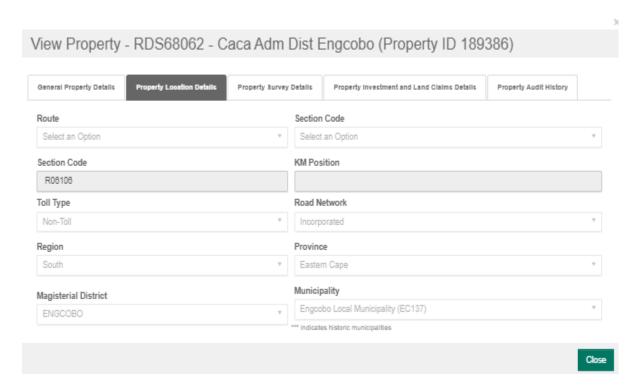
Mineral Rights over ...

Real Rights over ...

Land Area – The current extent of the property. It is always indicated in hectares and captured to
indicate four decimal places. For general information note that –

10 hectares = 10.0000 1 hectare = 1.0000 1000 square metres = 0.1000 100 square metres = 0.0100 10 square metres = 0.0010 1 square metre = 0.0001

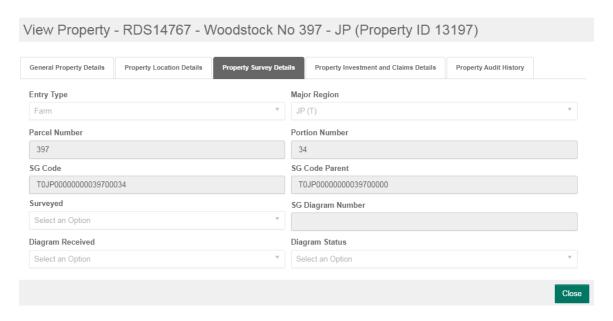
- Parent Property In the event of the new record being created due to the subdivision of a property owned by SANRAL the register number (RDS Number) of the Parent Property is captured in this field.
- Notes This is a free text field and any relevant information pertaining to the property can be recorded here.
- Status The status of the property is selected from the drop-down menu.
- Usage (Mandatory) The various purposes for which the land is used are captured in a table and the usage type is selected from the drop-down menu.
- New Status
- Wayleave Termination
- Wayleave Start Date The date on which the wayleave becomes effective. Wayleaves are entered into the land owners where the land is only required for a specific (short) period or where it is the intention to register a servitude to regulate the future use of the land.
- Wayleave End Date The date on which the wayleave is due to expire in terms of the Agreement.
- Attorney All the attorneys which have been included on the panel to undertake conveyancing work
 on behalf of SANRAL have been recorded in a lookup table. The attorney is selected from the dropdown menu. The user can type in the first character of the attorney's name when in the table
 whereafter the system will select the first entry starting with that character.
- Municipal Accounts
- Spatial ITIS will display whether the land register date has been linked to the spatial data.
- Spatial Locked



Property Location Details Notes

- Section Code (Mandatory) This field is a combination of the number allocated to the national road as well as the section within the route. The code must consist of at least 6 characters, i.e. the road (4) and the section (2) (example N00216) and further indicators such as "X" and "Y" can be added immediately thereafter.
- KM Position The system will record the kilometre distance where the property is situated on the national route.
- Toll Type
- Road Network (Mandatory) The road network is selected from the drop-down menu.
- Region All the SANRAL regions have been recorded in a lookup table and the properties are for management and reporting purposes linked to one of the four regions in which they are situated. The region is selected from the drop-down menu.
- Province All the provinces have been recorded in a look-up table and the properties are for management and reporting purposes linked to the province in which they are situated. New provinces or renamed provinces, not available in the drop-down menu, is captured as "Unknown".
- Magisterial District The magisterial district is selected from the drop-down menu.
- Municipality The name of the municipality which has jurisdiction over the area in which the property is situated is selected from the drop-down menu.

Property Survey Details:



Property Survey Details Notes

- Entry Type The information that is recorded in this field are used in the electronic compilation of the 21-digit code. The various land classifications, i.e. Farm, Erf, Agricultural Holding etc, are captured in a table and the entry type is selected from the drop-down menu.
- Minor Region The Minor Region represent the 5th to 10th characters of the 21-digit code. The Minor Region represents the township name or agricultural holding name, and is selected from the dropdown menu.
- Parcel Number The Parcel Number represent the 9th to 16th characters of the 21-digit code. The
 Parcel Number is –

Rural area - Farm number
Agricultural Holding - Holding number
Township - Erf number

17th to 21st char

- Portion Number This represents the 17th to 21st characters of the 21-digit code.
- SG Code (Mandatory) This is a unique 21 number code which has been allocated to each and every surveyed property by the Surveyor General. The code is structured as follows:

1 st character	- - -	T F N C	 former Transvaal province and consist of properties situated in Limpopo, North West, Gauteng and Mpumalanga. Free State Natal (now KwaZulu/Natal) former Cape Province and consist of properties situated in
		ŭ	Northern Cape, Western Cape and Eastern Cape
2 nd character		-	0
3 rd and 4 th char		-	Registration Division for Transvaal and Natal, or code allocated to Administrative District in three Cape Provinces and the Free State
5 th to 8 th char		-	0000 for farms or code allocated for Townships or Agricultural Holdings
9 th to 16 th char		-	Farm number or Erf/Holding number

farm portion or portion of Erf/Holding number

The SG code for a residential property is compiled through the utilization of the Minor Region number of the Township which has been allocated by the Surveyor General (N0ET0264 for Port Edward) with the parcel and portion details of the property.

The code for Ptn 1 of Erf 957 Port Edward is - N0ET02640000095700001.

When erven in the Cape Provinces are subdivided new erf numbers are allocated to the subdivisions instead of referring to the subdivision as a portion of the parent erf. Code C0390010 has been allocated by the Surveyor General for Sedgefield and the SG code for Erf 1991 (ptn of Erf 1692) will be –

C03900100000199100000

- SG Code Parent If only a portion of a property is acquired or expropriated, and the land is still unsurveyed, the unique number that has been allocated to the parent property by die SG is recorded in both the SG Code and SG Code Parent fields.
 - When a SG code has been generated for a property, the same code will be allocated for the property and the parent property.
 - The last five characters of the parent property is adjusted to reflect the parent portion number. In the case of the subdivision of an erf in the Cape Provinces, the erf number is replaced with the parent erf number. E.g. the code will change from C03900100000199100000 to C03900100000169200000
- Surveyed This is to indicate whether the property has been surveyed or not.
- SG Diagram Number In order that land can be registered in the deeds registry office it must be surveyed and a survey diagram or general plan framed. A number is allocated, by the Surveyor General, to the survey diagram (or general plan). The number commences in some instances with an alphabetical character which is followed by a consecutive number, a backward slash, and the year in which it was approved. The year will be captured as four characters notwithstanding the fact that the diagram might only indicate the last two characters.

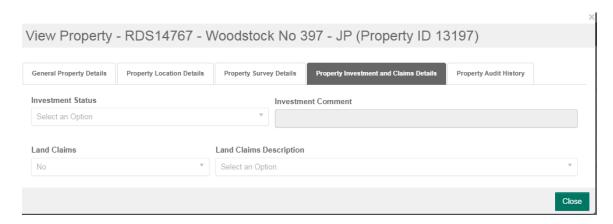
Example : 467/2000 : A2134/1978

If a property forms part of an approved township and a survey diagram has not been framed for the property, the relevant general plan number is captured in this field.

In the event of a general plan number being captured, instead of a survey diagram, this is revealed by "GP" after plan number.

- Diagram Received This indicates whether the survey diagram has been received or not.
- Diagram Status This field is to indicate whether the diagram has been approved by the Surveyor General or not, as well as the future status or movement of the diagram.

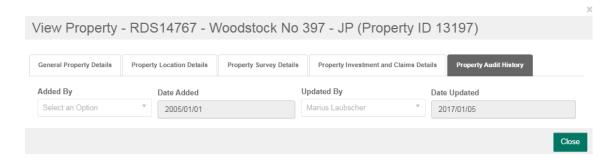
Property Investment and Claims Details:



Property Investment and Claims Details Notes

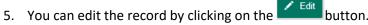
- Investment Status This field will only be populated if the property has been identified as a possible Investment Property.
- Investment Comment Any additional comments relevant to the investment status of the property.
- Land Claims Selected from the drop-down menu whether a land claim has been recorded and published against the property.
- Land Claims Descriptions Details of the Government Gazette under which the land claim on the property was published.

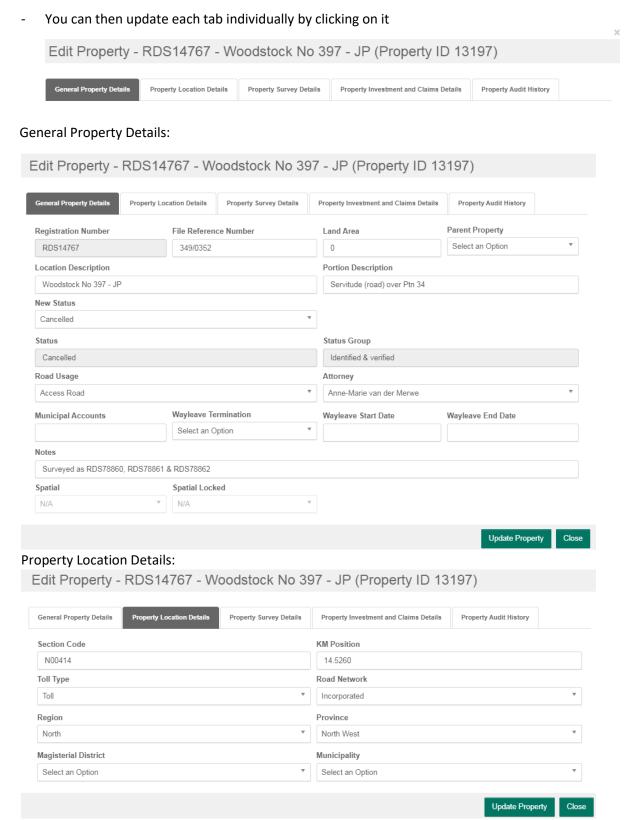
Property Audit History:



Property Audit History Notes

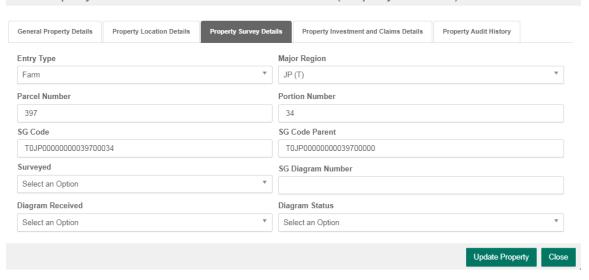
- Added by
- Date Added
- Updated by
- Date Updated





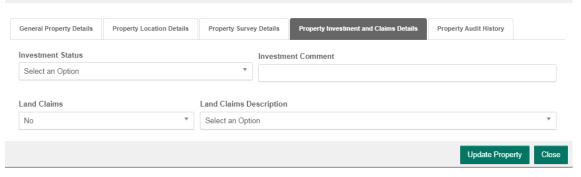
Property Survey Details:

Edit Property - RDS14767 - Woodstock No 397 - JP (Property ID 13197)



Property Investment and Claims Details:

Edit Property - RDS14767 - Woodstock No 397 - JP (Property ID 13197)



- And then clicking on button when you have edited the data.
- 6. You can view property related details by clicking on
 - These are the tabs under related,

each tab has relevant data.

Deed and Disposal Details | Expropriation Details | Lease Details | Municipal Details | Geometry, Servitues and Investment Property Details | History , and

Deed and Disposal Details:



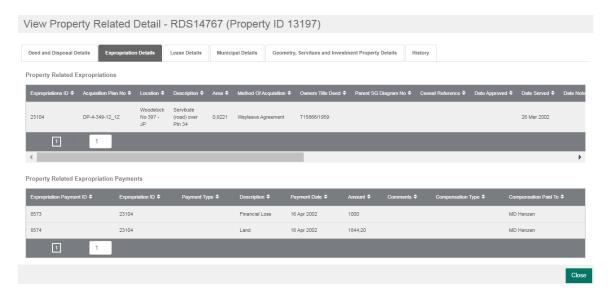
Related Deeds Notes

- Deeds ID
- Deeds Number The number allocated by the Deeds Registry Office, to the title deed under which the property is registered in the name of SANRAL.
- Deeds Office The name of the Deeds Registry Office which has jurisdiction over the area in which the property is situated and which is responsible for the registration process.
- Title Deeds Received This indicates whether the original title deed has been received and filed in safe custody.
- Registration Date The date on which the property was registered in the Deeds Registry Office.
- Status The current status of the title deed.
- Comments Any relevant information pertaining to the registration of the property.

Property Related Disposals Notes

- Disposals ID
- Date Approved The date on which the sale transaction has been approved.
- Item Number When the sale transaction has been approved by the Board of Directors and recorded in the minutes, the item number under which it has been recorded is inserted here.
- Sale Type Selected from the drop-down menu.
- Purchaser Name The name of the purchaser of the property.
- Sale Price The sale price, excluding VAT, for which the property has been disposed of.
- Date Disposed the date on which the property was registered into the name of the purchaser in the Deeds Registry Office.
- Purchaser Title Deed Number The number allocated, by the Deeds Registry Office, to the deed of transfer for the transfer of the property into the name of the purchaser.
- Area the extent of the property that has been sold.

Expropriation Details:



Expropriation Details Notes

- Expropriation ID
- Acquisition Plan No This is the number as it appears in the index box on the acquisition plan.
- Location The location of the property, as at date of expropriation or acquisition.
- Description The description of the property, as at date of expropriation or acquisition. If only a portion of the property is expropriated or acquired the words "ptn of" is inserted in front of the property description.

Example: ptn of Erf 123

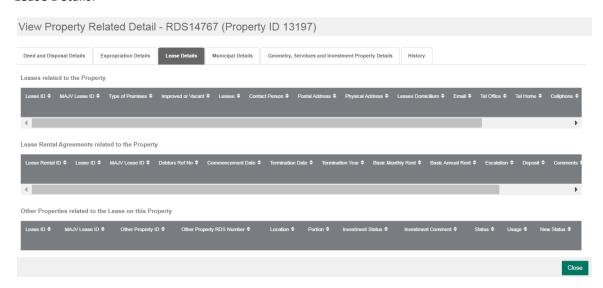
Area - The approximate extent of the property to be expropriated or acquired is captured in this field.
 The extent of the land is always captured in hectares and is always captured to indicate four decimal places.

Example: 3.6759

- Method of Acquisition The method of acquisition is selected from the drop-down menu.
- Owners Title Deed The title deed number under which the current land owner holds the land.
- Parent SG Diagram No The survey diagram number of the parent property under which the property is currently recorded in the Surveyor General's office.
- Caveat Reference When the expropriation is submitted to the Deeds Registry for noting against the
 owner's title deed, a caveat number (EX number) is allocated to the expropriation and the number is
 recorded in this field.
- Date Approved The date on which authority was granted by the Minister of Transport to effect payment of compensation.
- Date Served Only completed if the acquisition process is by means of expropriation. The date on which the Notice of Expropriation was physically served on the owner of the property, posted to him by registered post, or published in the Government Gazette. From this date, dominium (ownership) in the property vest with SANRAL.
- Date Noted The date on which the expropriation was noted in the Deeds Registry Office.
- Expropriation Payment ID
- Expropriation ID
- Payment Type The payment type is selected from the drop-down menu.
- Description The description of the payment.
- Payment Date The date on which payment was made.
- Amount The amount paid in respect of each payment type.

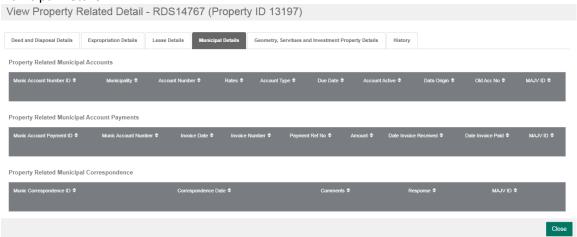
- Comments This is a free text field and any relevant information pertaining to the payment can be recorded here.
- Compensation Type The payment type is selected from the drop-down menu.
- Compensation Paid To

Lease Details:



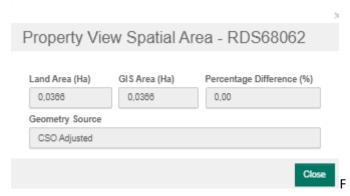
- Lease Rental ID
- Lease ID
- MAJV Lease ID
- Debtors Ref No
- Commencement Date The date on which the lease commences, as stipulated in the deed of lease.
- Termination Date
- Termination Year
- Basic Monthly Rent
- Basic Annual Rent
- Escalation If the rental is subject to escalation on the anniversary date of the lease, the percentage at which the rental will increase is recorded here.
- Deposit
- Comments

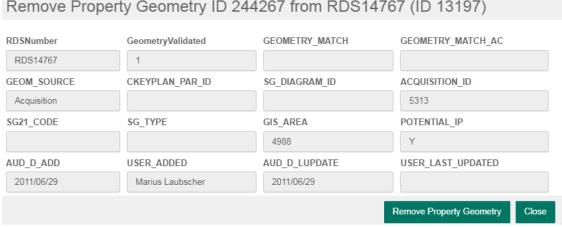
Municipal Details:



Geometry, Servitude and Investment Property Details: View Property Related Detail - RDS14767 (Property ID 13197) Deed and Disposal Details Expropriation Details Lease Details Municipal Details Geometry, Servitues and Investment Property Details History Property Geometry Source RDS14767 Land Servitudes History: d and Disposal Details Expropriation Details Lease Details Municipal Details Geometry, Servitues and Investment Property Details History perty History RDS14767 17/01/10 01:06 AM RDS14767 349/0352 concluded (No SG RDS14767 Agreemer concluded (No SG RDS14767

7. Click on the button to view property spatial area details





- Click on button Remove Property Geometry completely remove the record.
- 9. Click on button to view spatial lock details

 Edit Spatial Lock Details on RDS14767 (ID 13197)

 Spatially Locked

 Not Applicable

 Update Close

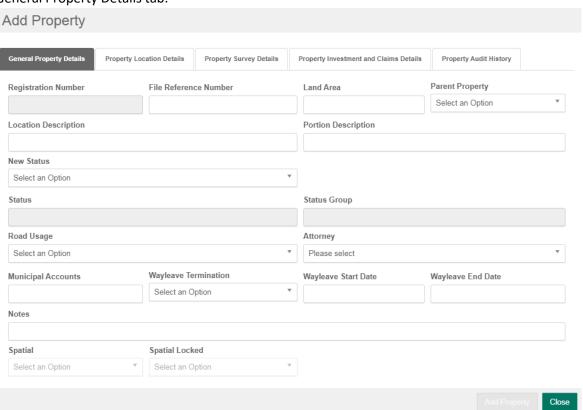
to update the spatial lock.

- 10. On button click, all the particulars for the new property that have to be completed popup.
 - Complete the form on each tab

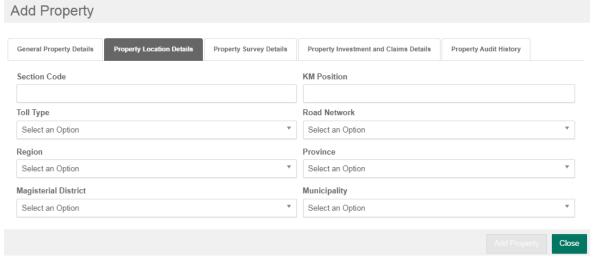
Click on button

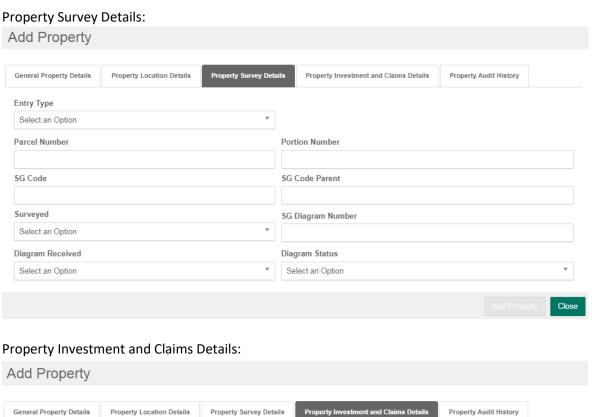


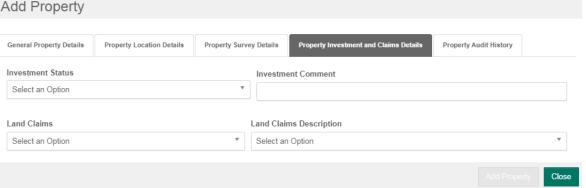
General Property Details tab:



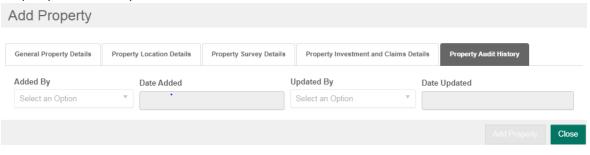
Property Location Details tab:







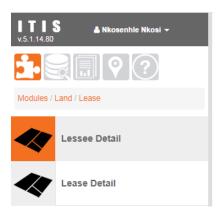
Property Audit History:



- Add Property Once completed click on again to save the new record.
- Click on to close the form.

1.16.9. <u>Lessee Detail</u>

1. Under the Land module, click on Lease and under the lease tab click on Lessee Details.



2. A disposal can be searched or added. Click on any of the following attributes:



3. Under the Search button the relevant Lessee details will appear.



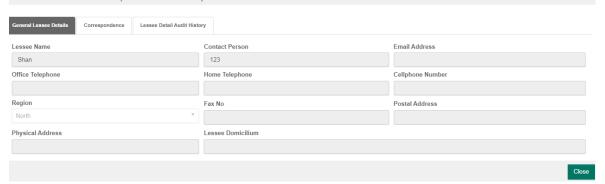
There are 2 buttons — Q View Fedit a record. Click on the button to view all the data related to the specific record.

4. When you click on the view button a new window will open where all the feature info and related data can be viewed. You can click on any of these tabs to view related data:



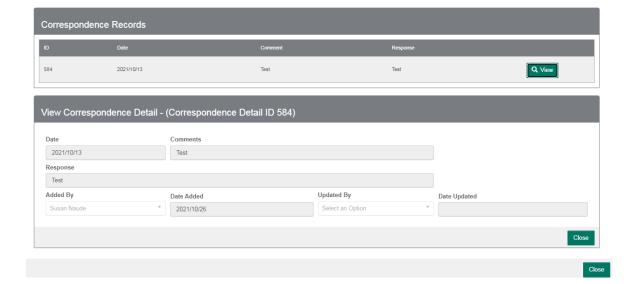
General Lessee Details:

View Lessee Record - (Lessee ID 2363)

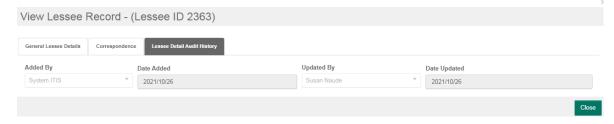


Correspondence:

View Lessee Record - (Lessee ID 2363)



Lessee Detail Audit History:



- 5. You can edit the record by clicking on the button.
- You can then update each tab individually by clicking on it

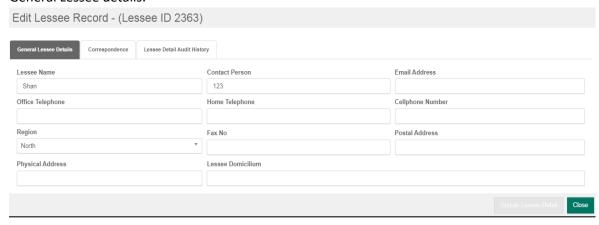
Edit Lessee Record - (Lessee ID 2363)

General Lessee Details

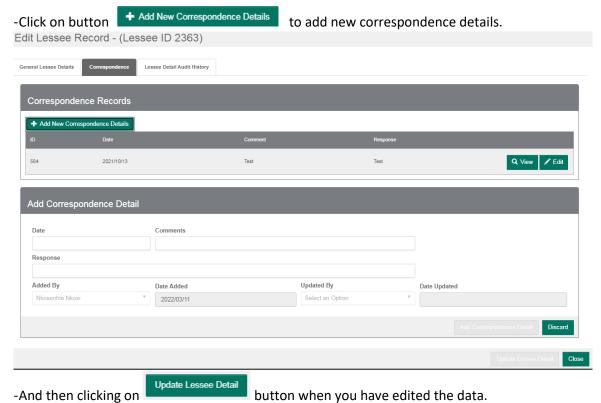
Correspondence

Lessee Detail Audit History

General Lessee details:

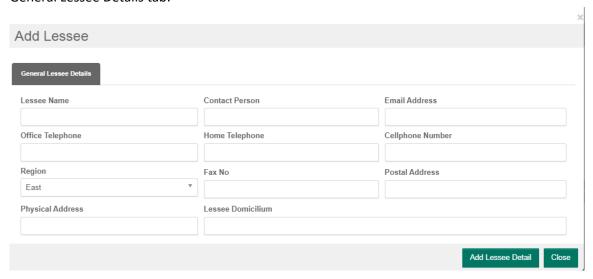


Correspondence:



- 6. On button click, all the particulars for the new lessee details that have to be completed pop up.
- Complete the form on the tab. Region and Lessee Name are compulsory.

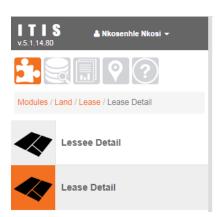
General Lessee Details tab:



- Once completed click on Add Lessee Detail again to save the new record.
- Click on to close the form.

1.16.10. Lease Detail

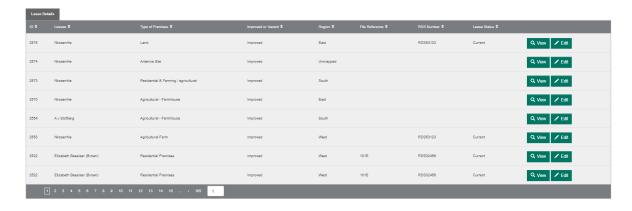
1. Under the Land module, click on Lease and under the lease tab click on Lease Details.



2. A disposal can be searched or added. Click on according to any of the following attributes:



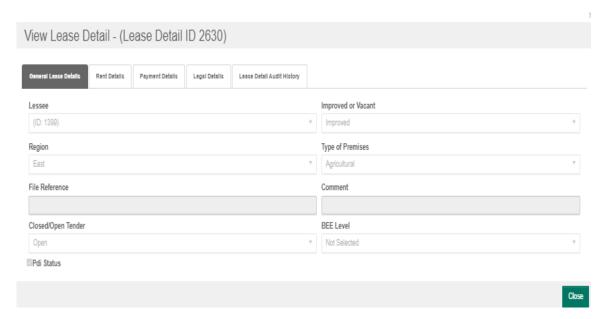
3. Under the Search button the relevant lease details will appear.



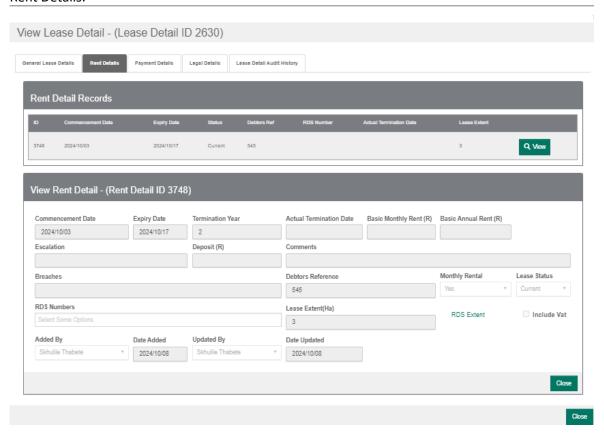
- There are 2 buttons Q View F Edit a record. Click on the related to the specific record.
- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. You can click on any of these tabs to view related data:



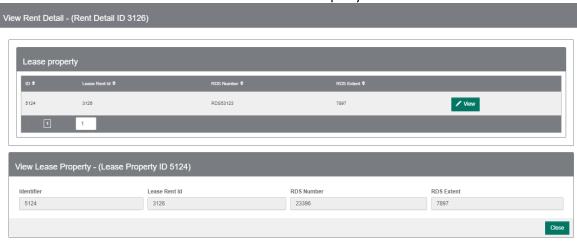
General Lease details:



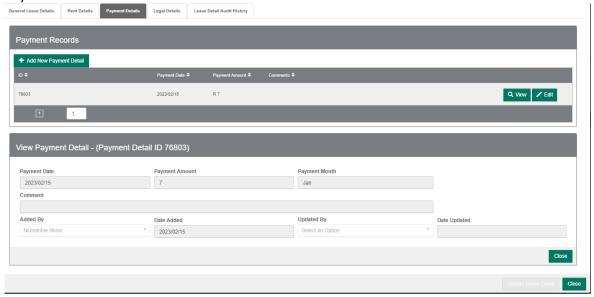
Rent Details:



- Click on RDS Extent to view the Lease Property table:



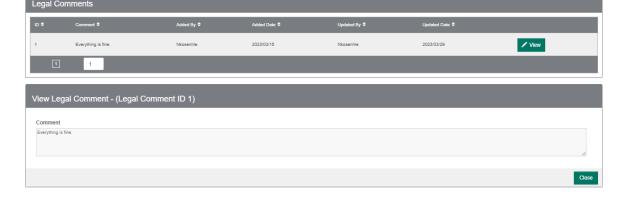
Payment Details:



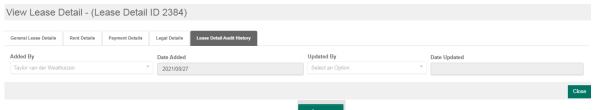
Legal Details:



- Click to view legal comments:



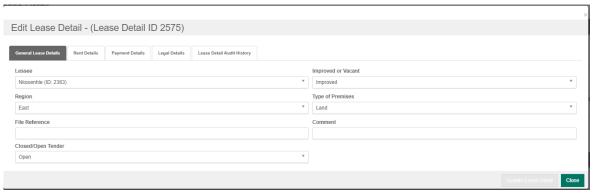
Lease Detail Audit History:



- 5. You can edit the record by clicking on the button.
- You can then update each tab individually by clicking on it

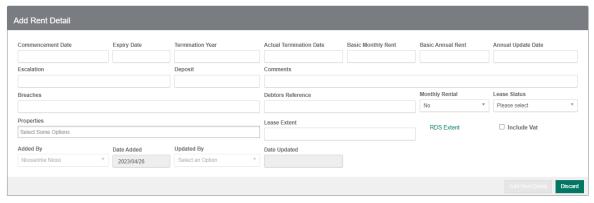


General Lease Details:



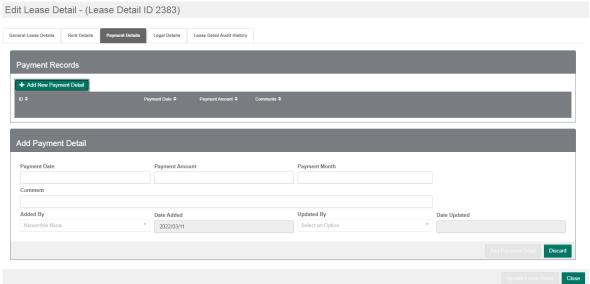
Rent Details:

- Click on button + Add New Rent Details to add new rent details.



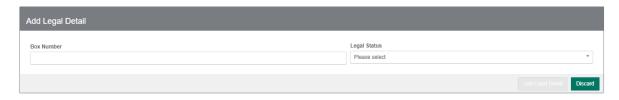
Payment details:

- Click on button + Add New Payment Detail to add new payment details.



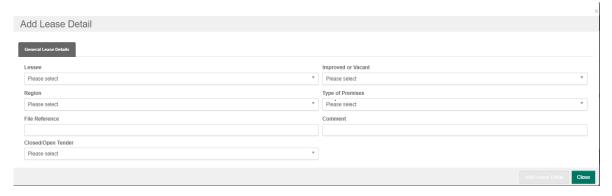
Legal Details:

- Click on button + Add New Legal Information to add new legal details.



- And then click on Update Lease Detail button when you have edited the data.
 - 6. On button decided pop up. Add Lease Details click, all the particulars for the new lease details that have to be completed pop up.
- Complete the form on the tab. Lessee, region and type of premises are compulsory.

General Lease Details tab:



- Once completed click on Add Lease Detail again to save the new record.
- Click on to close the form.

1.16.11. N Munic Correspondence

1. Under the Land module, click on N Munic and under the lease tab click on N Munic Correspondence.



2. A correspondence can be searched or added. Click on according to any of the following attributes: Property.



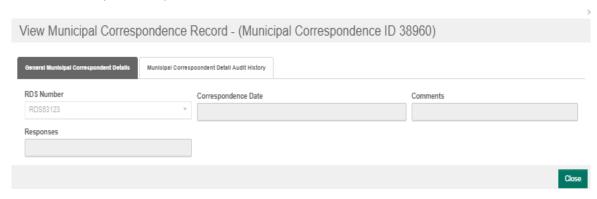
3. Under the Search button the relevant lease details will appear.



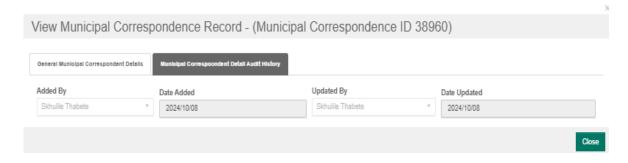
- There are 3 buttons Q View Fedit Delete a record. Click on the data related to the specific record.
 - 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. You can click on any of these tabs to view related data:



General Municipal Correspondent Details:



Municipal Correspondent Detail Audit History:



- 5. You can edit the record by clicking on the button.
- You can then update each tab individually by clicking on it

Edit Municipal Correspondence Record - (Municipal Correspondence ID 39099)

Municipal Correspoondent Detail Audit History

General Municipal Correspondent Details:

General Municipal Correspondent Details

Edit Municipal Correspondence Record - (Municipal Correspondence ID 38960)

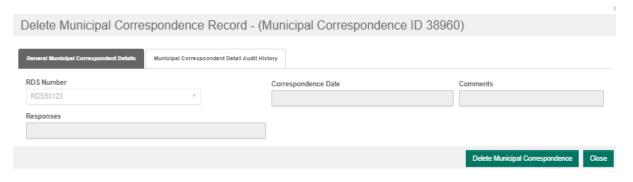
RDS Number

RDS Number

Responses

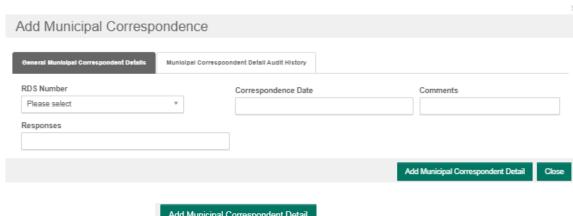
Update Municipal Correspondence Detail Close

- And then click on Update Municipal Correspondence Detail button when you have edited the data.
- 6. You can delete the record by clicking on the button to view the full details of the record and click on Click on to completely remove the record.



- 7. On button click, all the particulars for the new correspondence that have to be completed pop up.
- Complete the form on the tab.

General Municipal Correspondent Details tab:



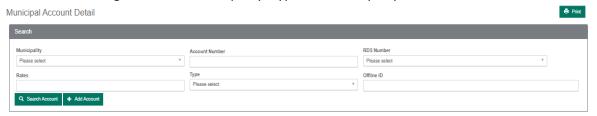
- Once completed click on Add Municipal Correspondent Detail again to save the new record.
- Click on to close the form.

1.16.12. N Munic account

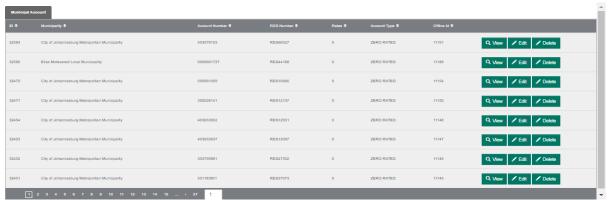
1. Under the Land module, click on N Munic and under the lease tab click on N Munic Account.



2. An account can be searched or added. Click on of the following attributes: Municipality, Type and/or Property.



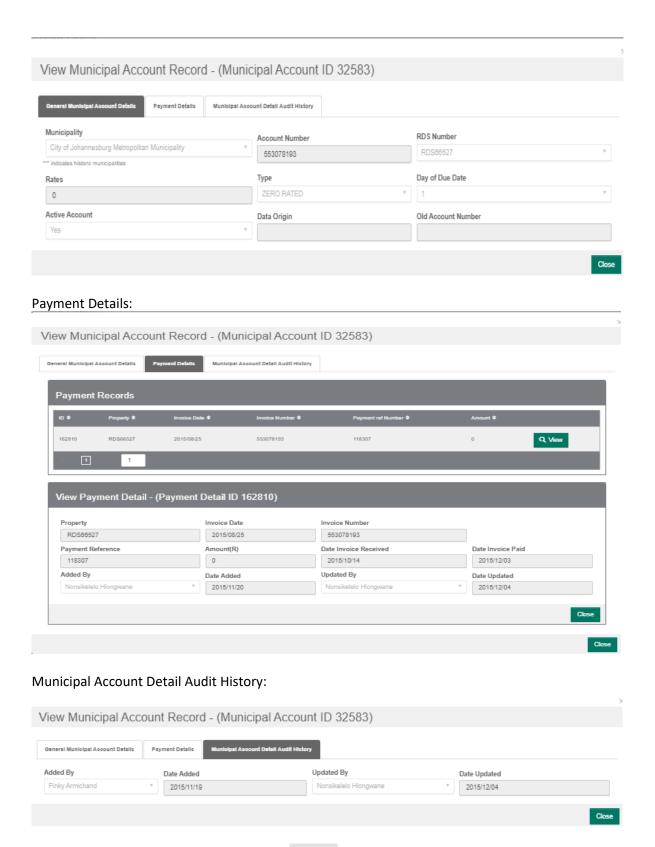
3. Under the Search button the relevant account details will appear.



- There are 3 buttons View Fedit Delete a record. Click on the data related to the specific record.
- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. You can click on any of these tabs to view related data:



General Municipal Account Details:

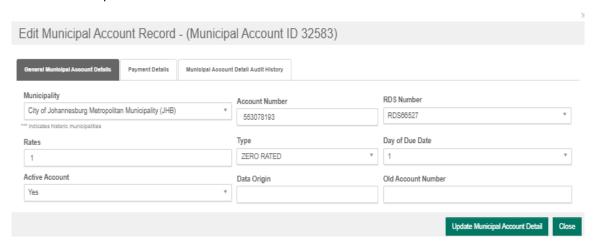


- 5. You can edit the record by clicking on the button
- You can then update each tab individually by clicking on it

 Edit Municipal Account Record (Municipal Account ID 32835)

 General Municipal Account Details Payment Details Municipal Account Detail Audit History

General Municipal account Details:

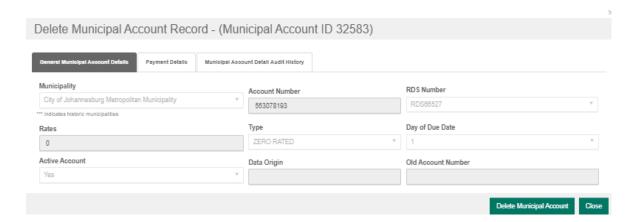


Payment Details:

+ Add New Payment Detail to add new payment details. Edit Municipal Account Record - (Municipal Account ID 32835) General Municipal Account Details Municipal Account Detail Audit History Payment Records Invoice Number \$ Invoice Date \$ Payment ref Number \$ Add Payment Detail Invoice Date Invoice Number Property RDS53123 Payment Reference Date Invoice Received Date Invoice Paid Amount Added By Updated By Date Added Date Updated 2022/03/11 Select an Option

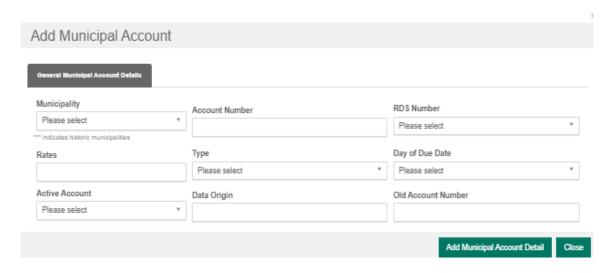
- And then click on Update Municipal Account Detail button when you have edited the data.

6. You can delete the record by clicking on the button to view the full details of the record and click on Delete Municipal Account to completely remove the record.



- 7. On button click, all the particulars for the new account that have to be completed popup.
- Complete the form on the tab. Municipality, Type and Property are compulsory.

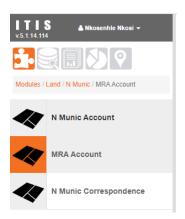
General Municipal Account Details tab:



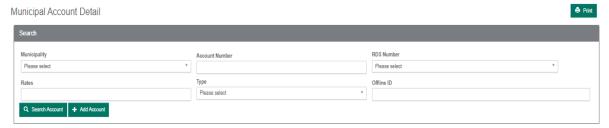
- Once completed click on Add Municipal Account Detail again to save the new record.
- Click on to close the form.

1.16.13. MRA

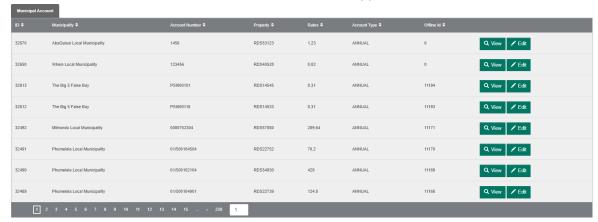
1. Under the Land module, click on N Munic and under the lease tab click on N Munic Account.



2. An account can be searched or added. Click on of the following attributes: Municipality, Type and/or Property.

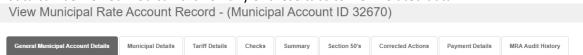


3. Under the Search button the relevant account details will appear.

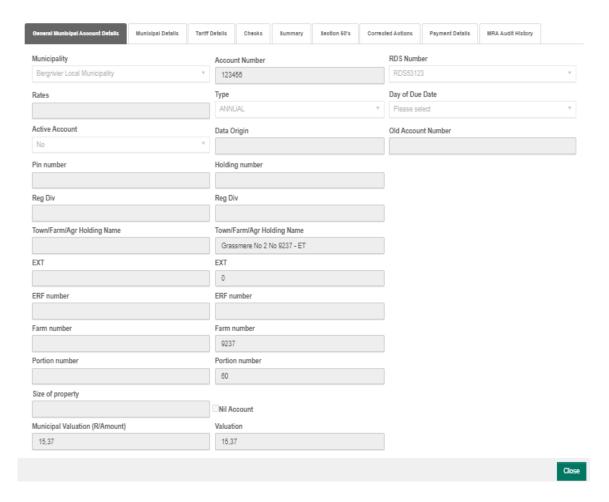


- There are 2 buttons – a record. Click on the related to the specific record.

4. When you click on the view button a new window will open where all the feature info and related data can be viewed. You can click on any of these tabs to view related data:

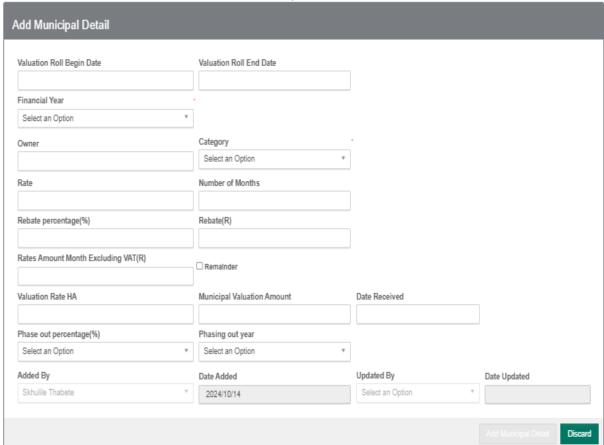


General Municipal Account Details:



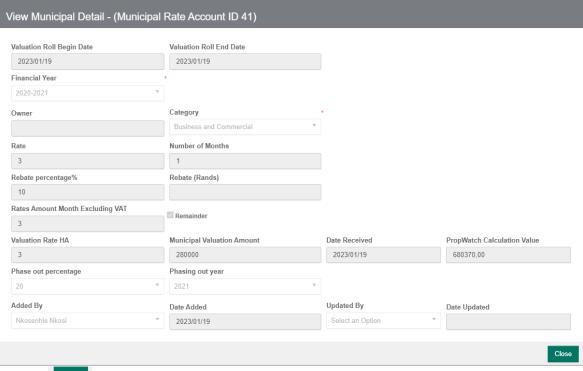
Municipal Details:

- Click on + Add New Municipal Detail to a new municipal record

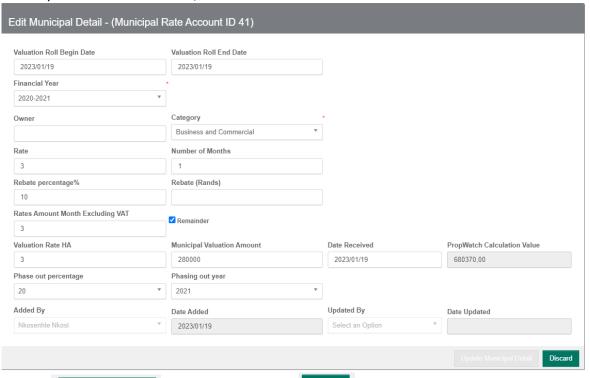


- Insert data into fields. The fields marked with red asterisks are required.
- Click on Add Municipal Detail to save the new record.

- Click on to view a record.



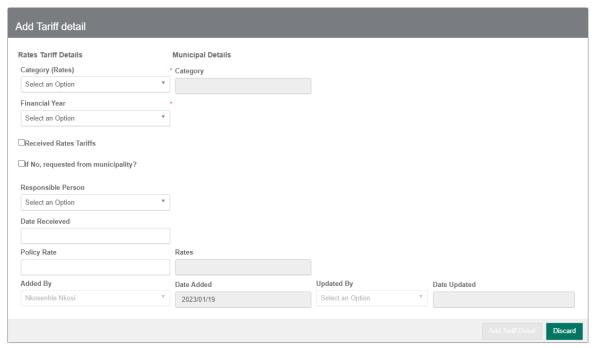
- Click on close the modal.
- Should you wish to edit a record, clink on



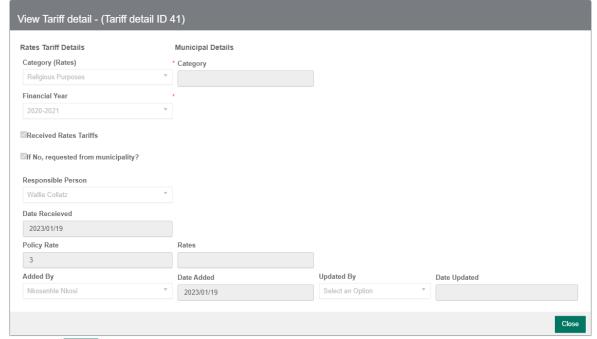
- Click on Update Municipal Detail to save the changes or to close the modal.

Tariff Details:

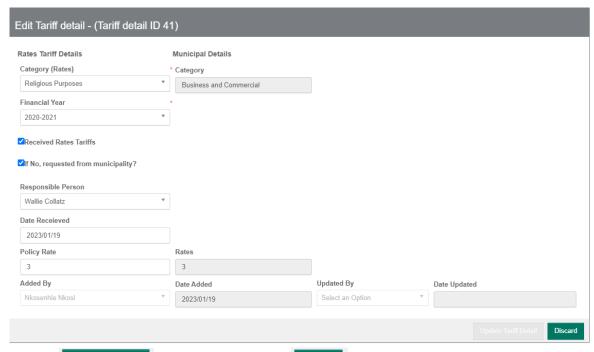
- Click on + Add New Tariff Detail to a new tariff record



- Insert data into fields. The fields marked with red asterisks are required.
- Click on to save the new record.
- Click on to view a record.



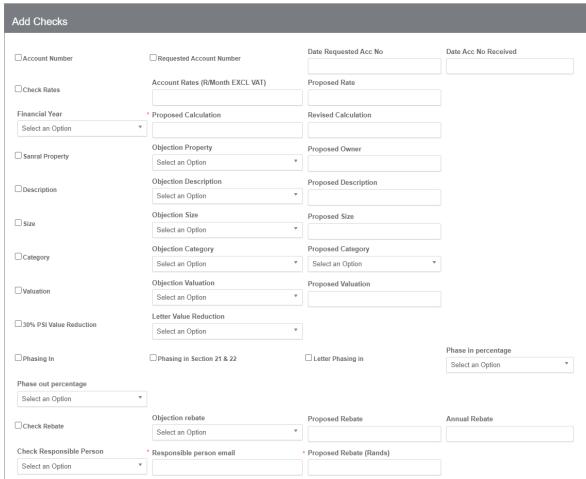
- Click on close the modal.
- Should you wish to edit a record, clink on

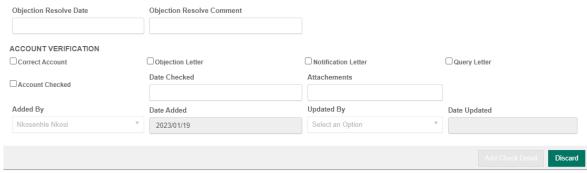


- Click on Update Tariff Detail to save the changes or to close the modal.

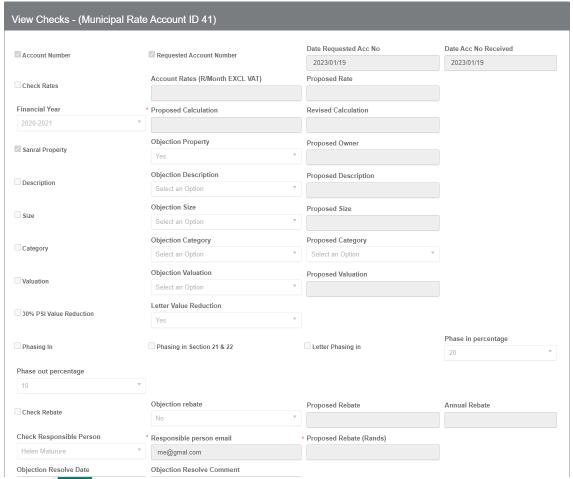
Checks:

- Click on + Add New Check Detail to a new checks record

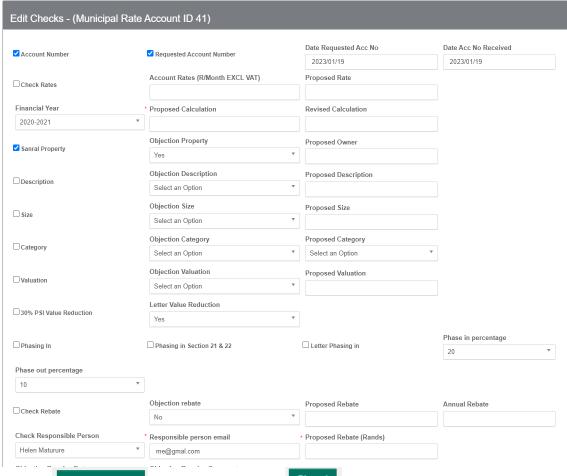




- Insert data into fields. The fields marked with red asterisks are required.
- Click on Add Check Detail to save the new record.
- Click on to view a record.



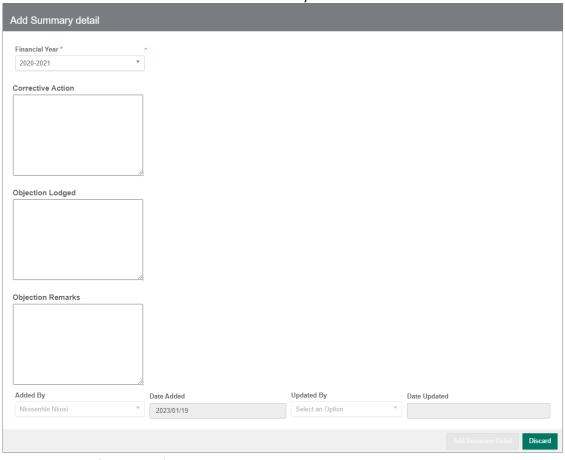
- Click on close the modal.
- Should you wish to edit a record, clink on



- Click on to save the changes or to close the modal.

Summary:

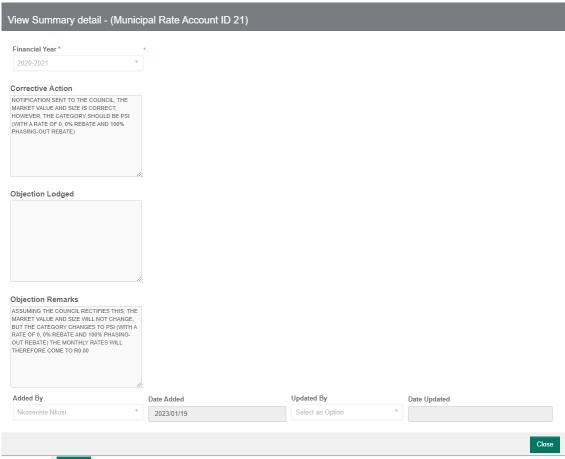
- Click on to a new summary record



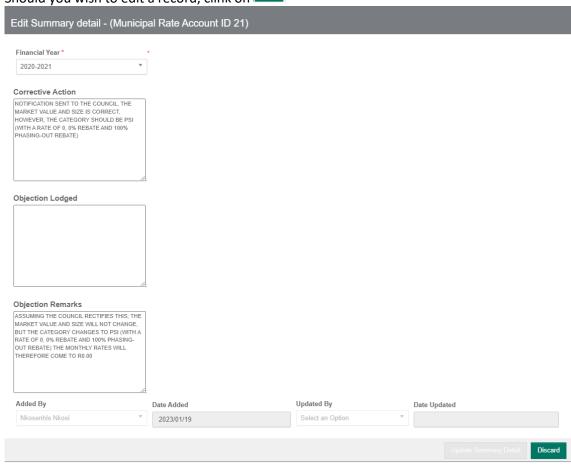
- Insert data into fields. The fields marked with red asterisks are required.

- Click on Add Summary Detail to save the new record.

- Click on view a record.



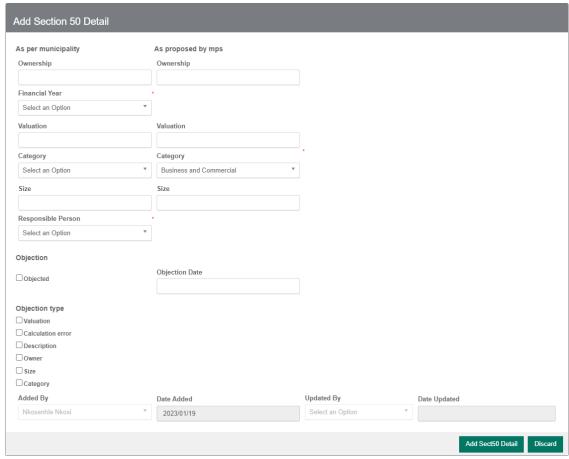
- Click on Close to close the modal.
- Should you wish to edit a record, clink on



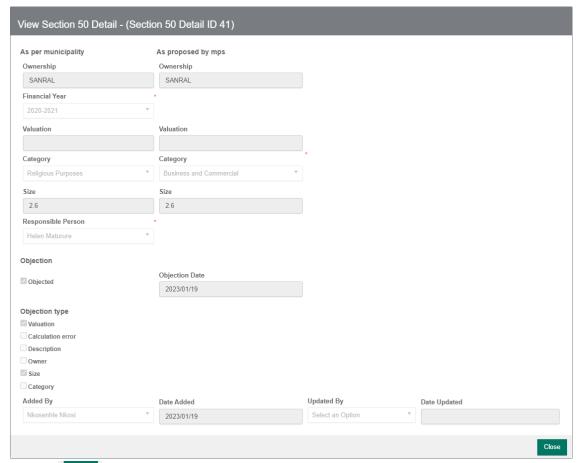
- Click on to save the changes or to close the modal.

Section 50s:

- Click on + Add New Section 50 Detail to a new section 50 record

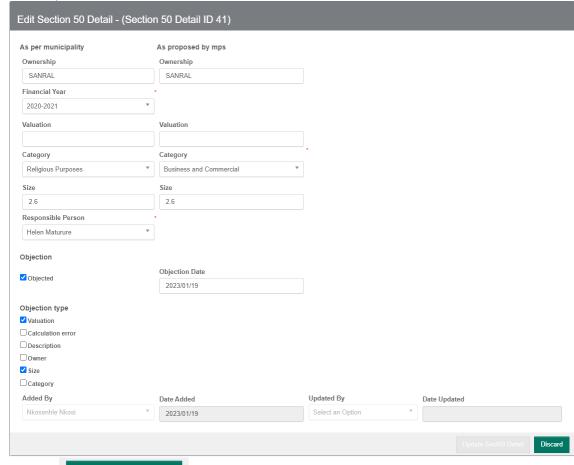


- Insert data into fields. The fields marked with red asterisks are required.
- Click on to save the new record.
- Click on to view a record.



- Click on Close the modal.

- Should you wish to edit a record, clink on

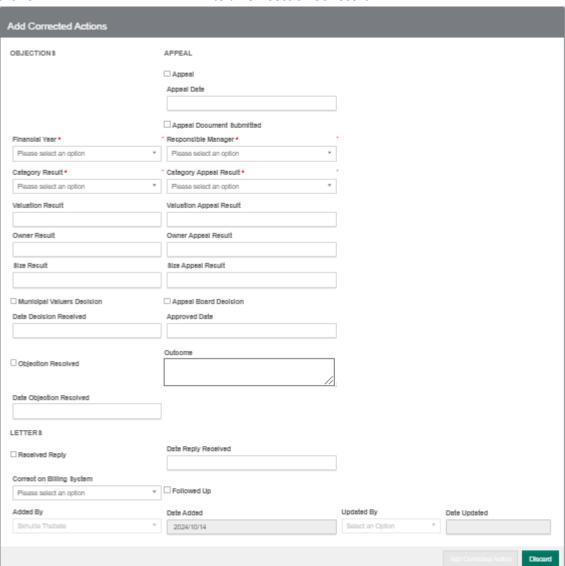


- Click on Corrected Actions:

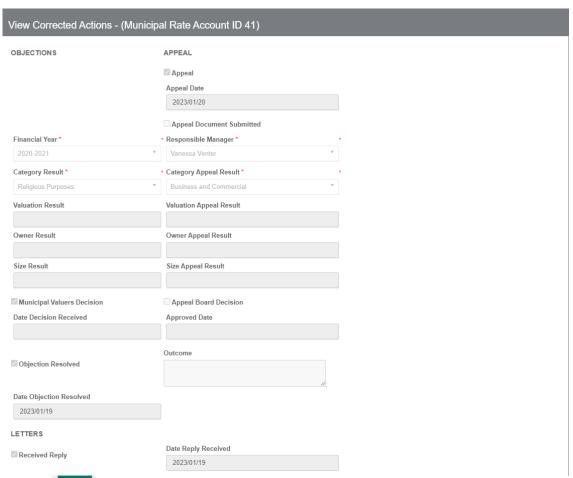
Update Sect50 Detail to save the changes or to close the modal.

+ Add New Corrected Action

Click on to a new section 50 record

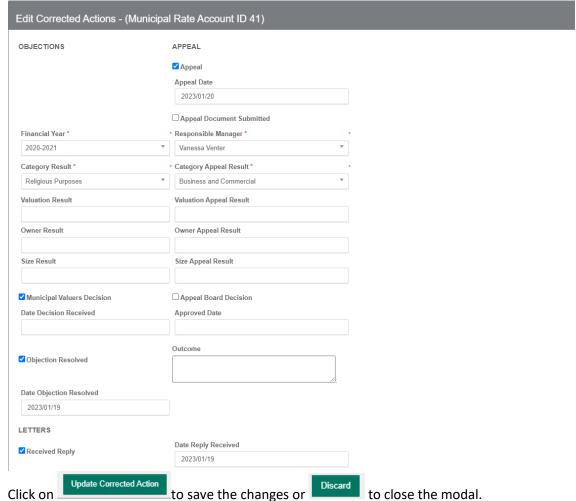


- Insert data into fields. The fields marked with red asterisks are required.
- Click on to save the new record.
- Click on to view a record.



- Click on close the modal.

Should you wish to edit a record, clink on



Payment Details: neral Municipal Account Details Municipal Details a'03 nottoes Corrected Actions Payment Records + Add New Payment Detail Add Payment Detail Invoice Number Property Invoice Date RDS14545 Payment Reference Date Invoice Received Date Invoice Paid Amount Statement Balance BF Amount Adjustment Amount Rates Amount Refuse Amount Sewerage Amount Water Amount Electricity Amount Sundry Amount Interest Amount Closing Balance Amount Payments Not Reflected Amount Not Paid Date Payment Due Amount Date Added By Updated By Date Added Date Updated Skhulile Thabete 2024/10/14 Select an Option

- + Add New Payment Detail Click on to add new payment details. Add Payment Detail Click on to save the new payment details or to close the modal. to view a record.
- Should you wish to edit a record, clink on

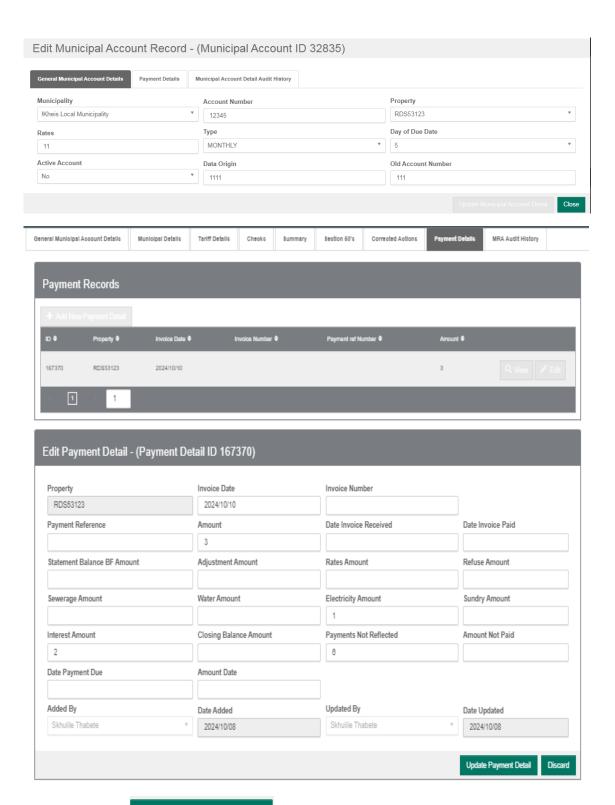
Click on

- 5. You can edit the record by clicking on the
- You can then update each tab individually by clicking on it

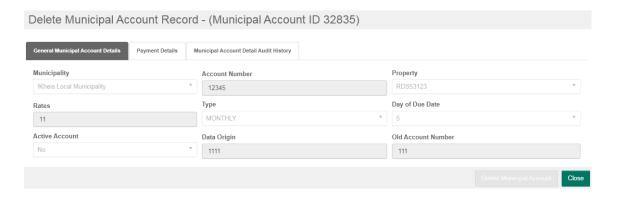
Edit Municipal Account Record - (Municipal Account ID 32835)

General Municipal Account Details Payment Details Municipal Account Detail Audit History

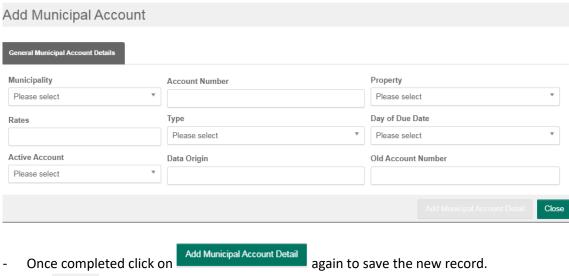
General Municipal account Details:



- And then click on Update Municipal Account Detail button when you have edited the data.
 - 6. You can delete the record by clicking on the button to view the full details of the record and click on Delete Municipal Account to completely remove the record.



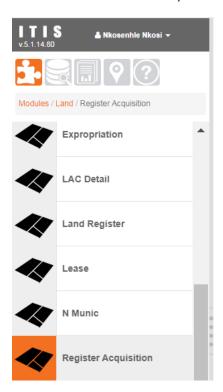
- + Add Account 7. On button click, all the particulars for the new account that have to be completed pop up.
- Complete the form on the tab. Municipality, Type and Property are compulsory. General Municipal Account Details tab:



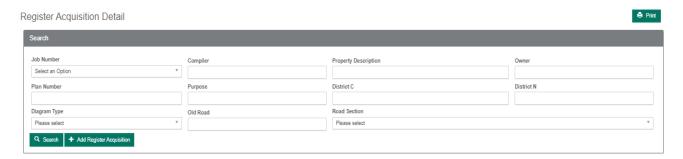
to close the form. Click on

1.16.14. Register Acquisition

1. Under the Land module, click on N Munic and under the lease tab click on N Munic Account.



2. A record can be searched for or added. Click on the following attributes:



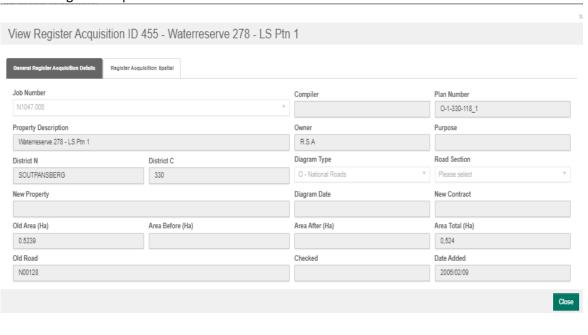
3. Under the Search button the relevant account details will appear.



- There are 3 buttons There are 3 buttons There are 3 button to view all the data related to the specific record.
- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. You can click on any of these tabs to view related data:



General Register Acquisition Details:



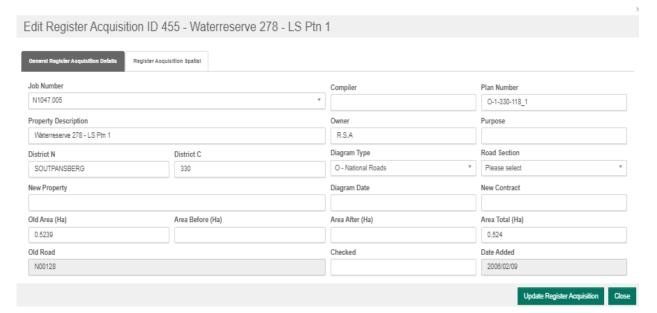
Register Acquisition Spatial:



- 5. You can edit the record by clicking on the button.
- You can then update each tab individually by clicking on it



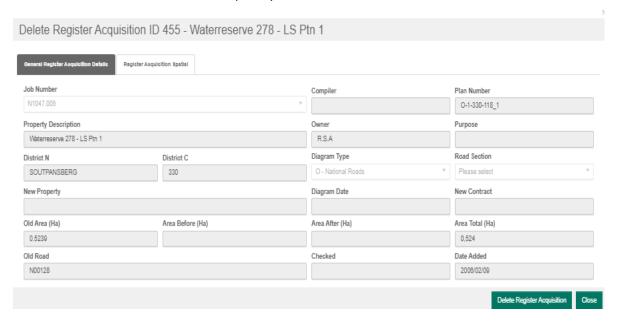
General Register Acquisition Details:



Register Acquisition Spatial:

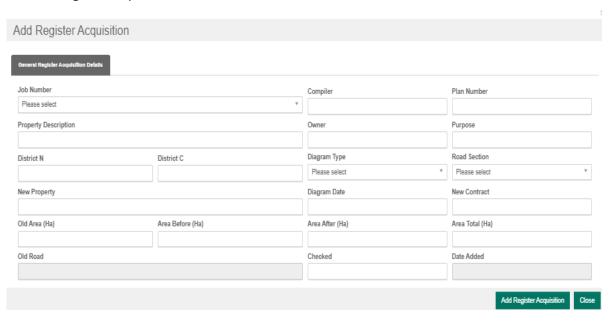


- And then click on Update Register Acquisition button when you have edited the data.
- 6. You can delete the record by clicking on the button to view the full details of the record and click on Delete Register Acquisition to completely remove the record.



- 7. On button click, all the particulars for the new register acquisition that have to be completed pop up.
 - Complete the form on the tab.

General Register Acquisition Details tab:



Add Register Acquisition

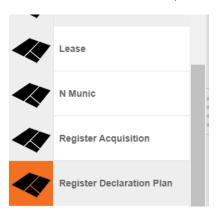
- Once completed click on

again to save the new record.

- Click on to close the form.

1.16.15. Register Declaration plan

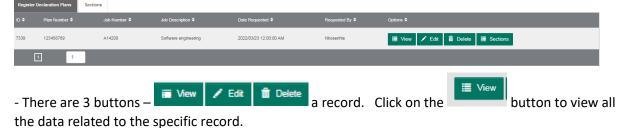
1. Under the Land module, click on Register Declaration plan



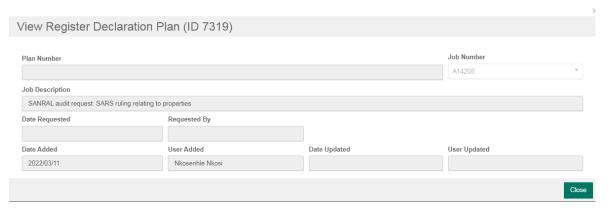
2. A record can be searched for or added. Click on the following attributes:



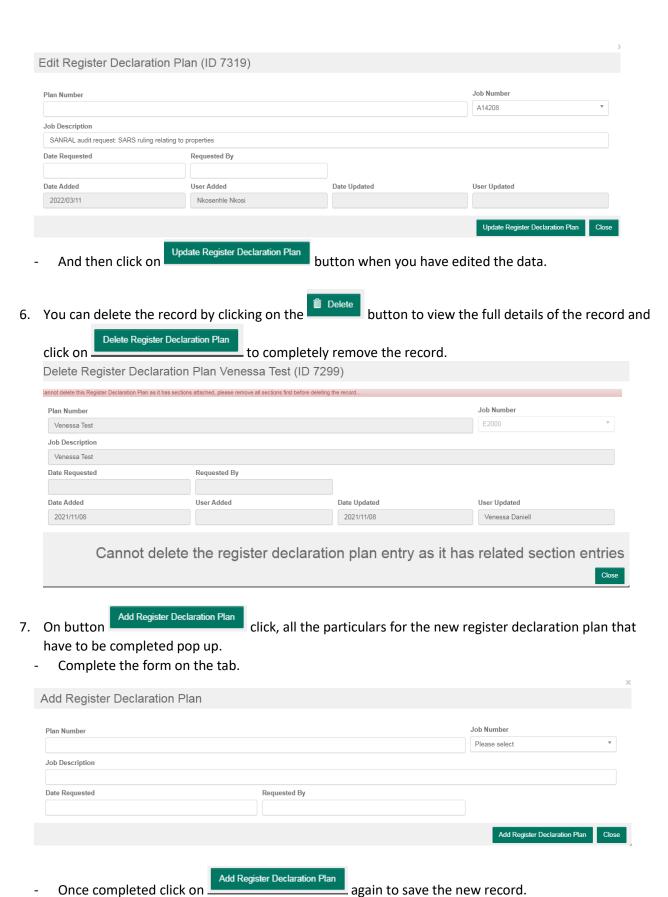
3. Under the Search button the relevant account details will appear.



4. When you click on the view button a new window will open where all the feature info and related data can be viewed.



5. You can edit the record by clicking on the button.



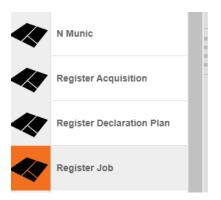
to close the form.

Click on

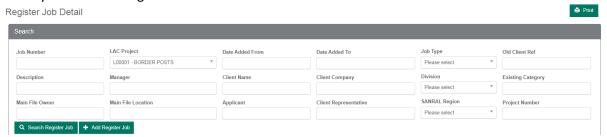
1.16.16. Register Job

Before adding a new 'Cadastral Key Plan' or 'Declaration Plan', the Job must exist in the system. A Job is associated with a LAC project; therefore, the relevant LAC Project must exist before registering a Job. The Job must be registered by the LIS JOB REGISTER Role.

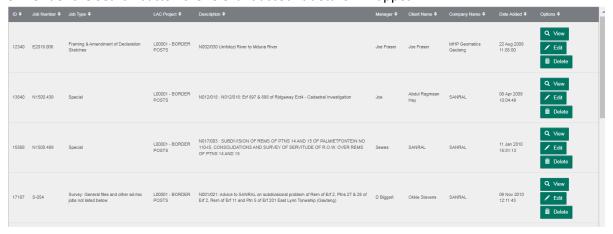
1. Under the Land module, click on Register Job.



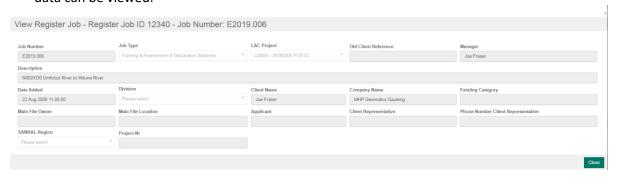
2. A record can be searched for or added. Click on any of the following attributes:



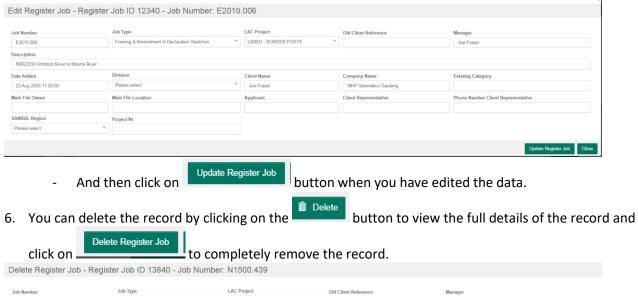
3. Under the Search button the relevant account details will appear.



- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed.



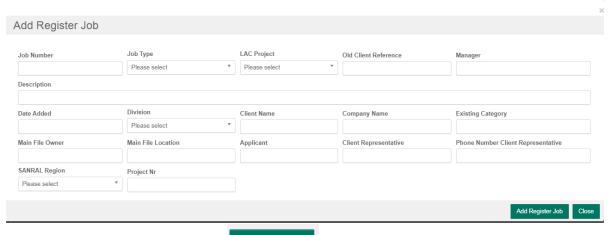
5. You can edit the record by clicking on the button.





7. On button Add Register Job click, all the particulars for the new job that have to be completed pop up.

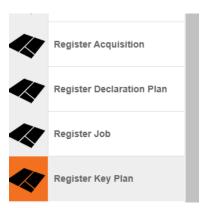
- Complete the form on the tab.



- Once completed click on _____ again to save the new record.
- Click on to close the form.

1.16.17. Register Key plan

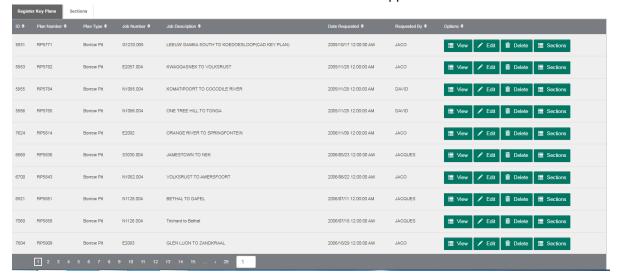
1. Under the Land module, click on Register Key plan.



2. A record can be searched for or added. Click on the following attributes:



3. Under the Search button the relevant account details will appear.



There are 4 buttons view all the data related to the specific record.

■ View

🖍 Edit

4. When you click on the view button a new window will open where all the feature info and related data can be viewed.

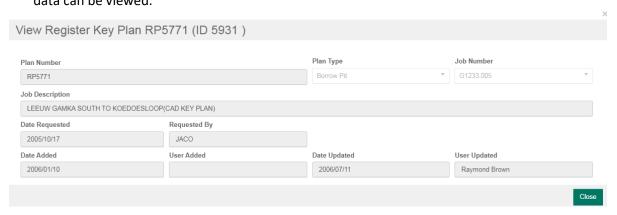
■ Sections

I View

button to

a record. Click on the

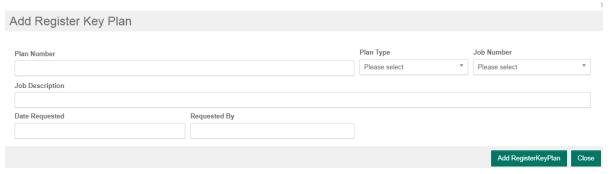
Delete



5. You can edit the record by clicking on the Edit Register Key Plan RP5771 (ID 5931) Plan Type Job Number Plan Number RP5771 Borrow Pit G1233.005 Job Description LEEUW GAMKA SOUTH TO KOEDOESLOOP(CAD KEY PLAN) Date Requested Requested By 2005/10/17 JACO Date Added User Added User Updated Date Updated 2006/01/10 2006/07/11 Raymond Brown Update RegisterKeyPlar Update RegisterKeyPlan And then click on button when you have edited the data. button to view the full details of the record and 6. You can delete the record by clicking on the Delete RegisterKeyPlan click on to completely remove the record. + Add Register Key Plan Section ■ Sections + Add Register Key Plan

8. On button click, all the particulars for the new register key plan that have to be completed pop up.

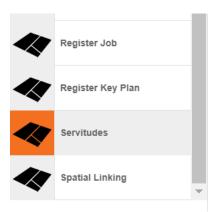
Complete the form on the tab.



- Once completed click on Add RegisterKeyPlan again to save the new record.
- Click on to close the form.

1.16.18. <u>Servitude</u>

1. Under the Land module, click on Servitudes.



2. An account can be searched or added. Click on any of the following attributes:



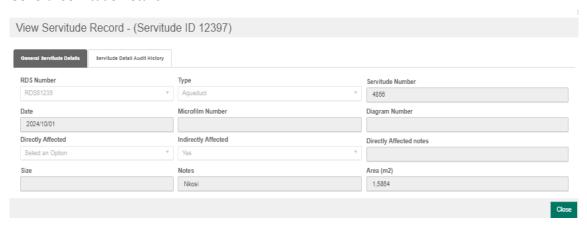
3. Under the Search button the relevant account details will appear.



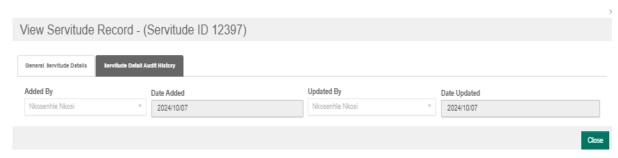
- There are 3 buttons View Fdit Delete a record. Click on the data related to the specific record.
- 4. When you click on the view button a new window will open where all the feature info and related data can be viewed. You can click on any of these tabs to view related data:



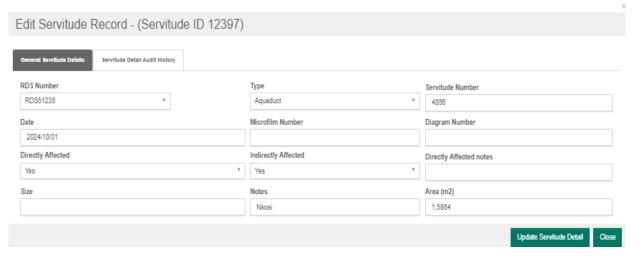
General Servitude Details:



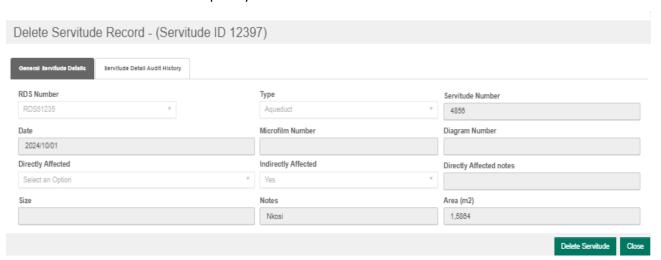
Servitude Detail Audit History:



- 5. You can edit the record by clicking on the Ledit button.
- You can then update each tab individually by clicking on it General Servitude tab:

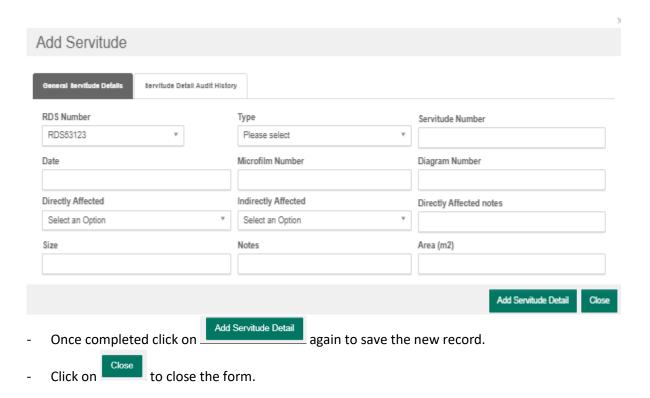


- The Servitude Detail Audit History is automatically updated.
- And then click on button when you have edited the data.
 - 6. You can delete the record by clicking on the button to view the full details of the record and click on to completely remove the record.



- 7. On button de Add Servitude click, all the particulars for the new servitude that have to be completed popup.
- Complete the form on the tab. Property is compulsory.

General Municipal Account Details tab:



1. Monthly Transaction Types

1.1 Monthly IP Disposals Transactions



1.2 Monthly Land Acquisition Transactions



1.3 Monthly New Wayleaves



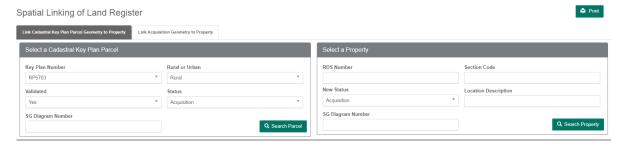
1.16.20. Spatial Linking

For detailed explanation on Spatial Linking view notes on such in the section(s) below.

1. Under Land Modules, click on Spatial Linking.



- 2. Under Spatial Linking of Land Register, there are two tabs:
 - 2.1 Link Cadastral Key Plan Parcel Geometry to Property:



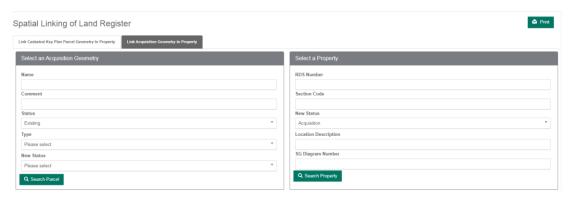
Select a Cadastral Key Plan Parcel with the following fields: Key Plan Number, Validated, SG Diagram
 Number, Rural or Urban, Status and click on button



Select a Property with the following fields: RDS Number, Section Code, New Status, Location
 Description, SG Diagram Number and click on button



2.2 Link Acquisition Geometry to Property

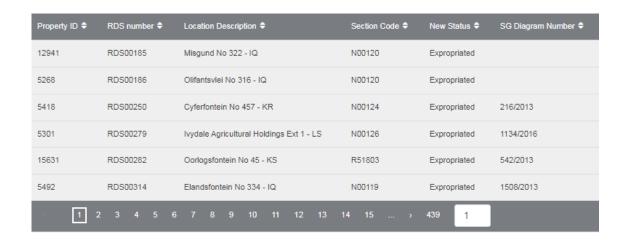


Select an Acquisition Geometry with the following fields: Name, Comment, Status, Type, New Status and click on button to search for parcels



Select a Property with the fields: RDS Number, Section Code, New Status, Location Description, SG
 Diagram Number and click on button

Q Search Property
to search for properties.



1.17. Administration

Use the Administration Module to manage & add Authorities

1.18. Authority Management

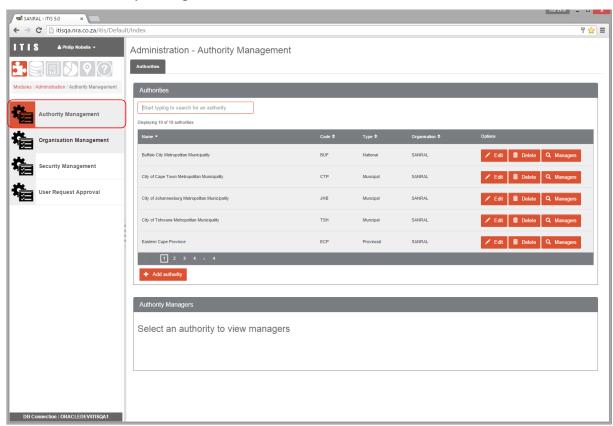


FIGURE 13: AUTHORITY MANAGEMENT

Use Authority Management to view and add authorities and managers

1.18.1. Add Authority

- Click on Add Authority + Add authority
- Add Authority Name
- Add Code
- Select Type
- Search and select organization

- Click on add authority Add authority

1.18.2. Add Authority Managers

- Select an Authority
- Click on Managers
- Click on Add Manager + Add manager
- Select a role Template
- Search for and select a Manager
- Click on Add authority manager

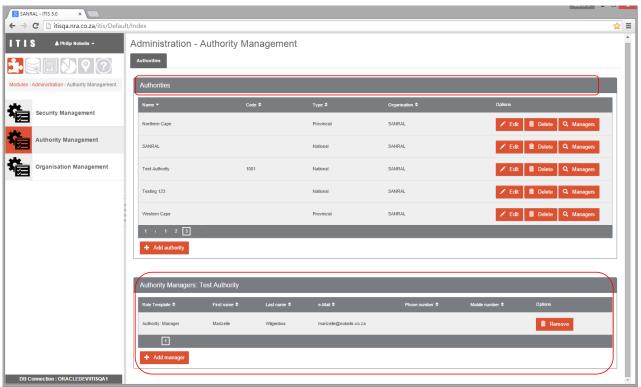


FIGURE 14: AUTHORITY MANAGER ADDED

Linear Viewer 5

Navigate to Modules / Linear Viewer as seen below:

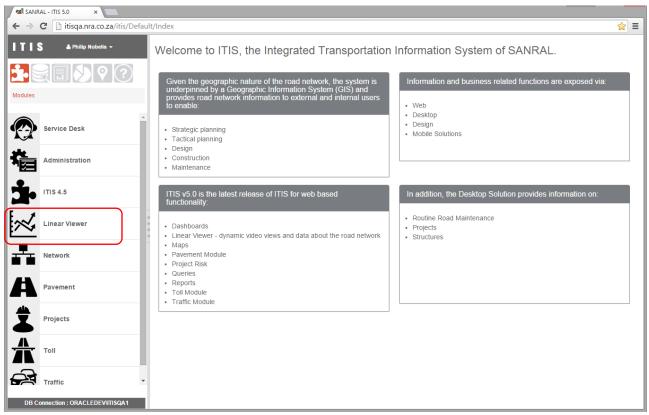


FIGURE 15: LINEAR VIEWER

- Select a Workspace
- Select a Road ID
- Click on Start Linear Viewer

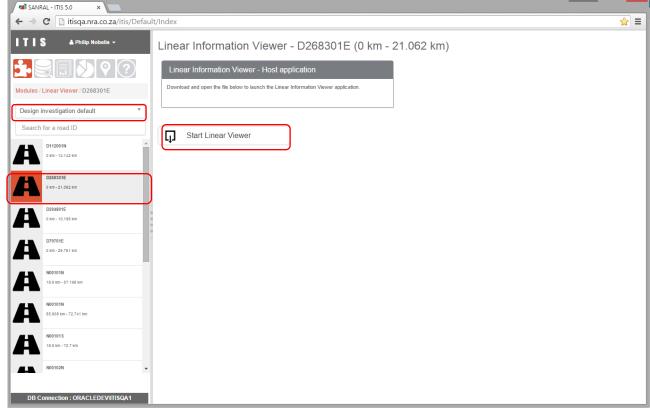


FIGURE 16: LINEAR VIEWER START

Once you have clicked on *Start Linear Viewer* a file will be downloaded and you need to click on the LIV file to launch Linear Viewer:

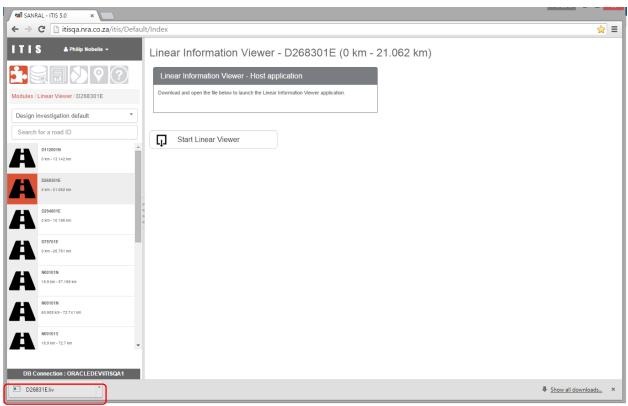


FIGURE 17: LINEAR VIEWER LAUNCH FILE

Note: Linear Viewer will not start automatically and will only launch once you click on the LIV file as shown in *Figure 28*

When clicking on Linear Viewer from within ITIS 5.1 you should be logged into the viewer automatically with the Workspace and Road selected previously. If not logged into ITIS 5.1 then you will need to log into the Linear Viewer with your SANRAL network username and password:



FIGURE 18: LINEAR VIEWER LOG IN

1.19. Working with Linear Viewer

Once you have logged in select a workspace and section to activate all functions:



FIGURE 19: WORKING WITH LINEAR VIEWER

Data View Options will be highlighted in Orange when selected and will be Grey if deselected

1.20. Video

If you have downloaded the video you will be able to view it from here. Use the Video Controls on the left to choose how you want to view it:

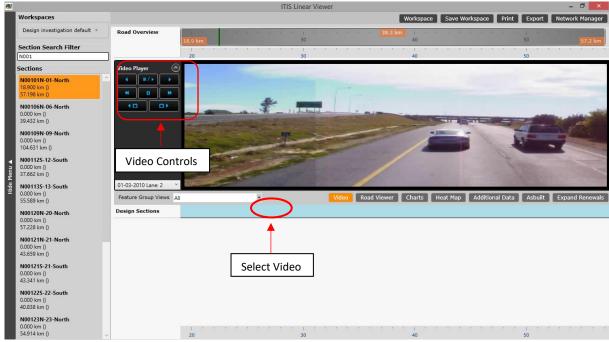


FIGURE 20: LINEAR VIEWER - VIDEO

1.21. Road Viewer & Charts

Activate the Road Viewer & Charts buttons to view more detailed information on lanes.

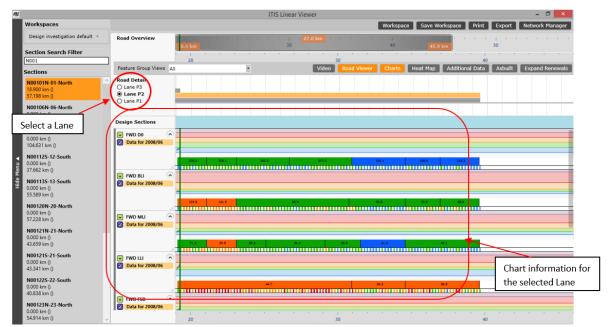


FIGURE 21: LINEAR VIEWER - ROAD VIEWER & CHARTS

1.22. Additional Data

To view additional information activate Additional Data. This will be displayed on the Right Hand Side.

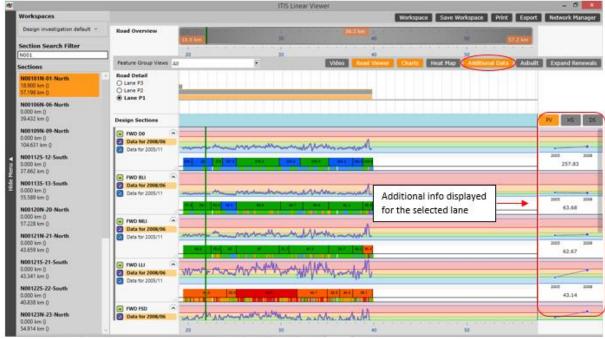


FIGURE 22: LINEAR VIEWER - ADDITIONAL DATA

1.23. As Built

To view the construction layers Activate As Built.

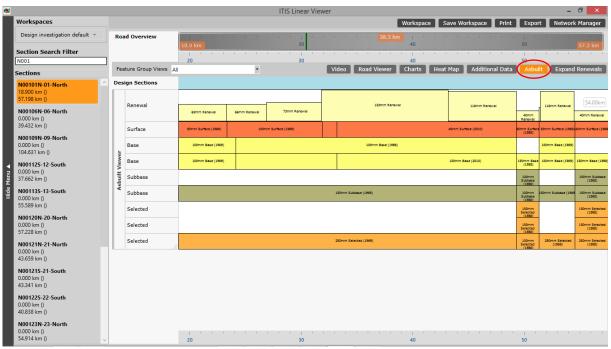


FIGURE 23: LINEAR VIEWER - AS BUILT

1.24. Workspace

Click on Workspace to see more features:

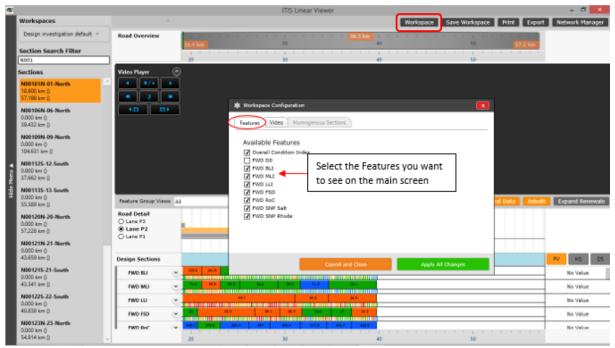


FIGURE 24: LINEAR VIEWER - WORKSPACE

Features that are not selected will not be displayed on the main screen:

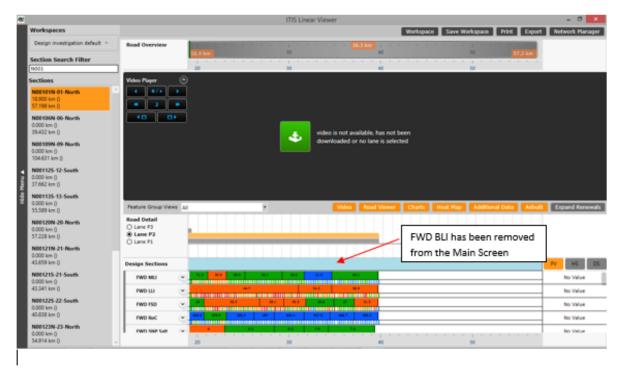


FIGURE 25: LINEAR VIEWER - WORKSPACE 2

Click on the Print button in the top right corner:



FIGURE 26: LINEAR VIEWER - PRINT

The Settings screen will display and you can make your preferred changes:

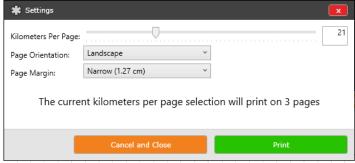


FIGURE 27: LINEAR VIEWER - PRINT SETTINGS

Once you have made your selections you can click on the *Print* button

1.25. Export

To Export the data displayed on the main screen to an Excel Spread sheet click on the *Export* button in the top right corner:



FIGURE 28: LINEAR VIEWER - EXPORT

The Settings screen will display and you can make your preferred changes:

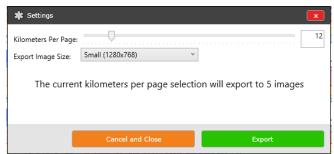


FIGURE 29: LINEAR VIEWER - EXPORT SETTINGS

Once you have made your changes you can click on the *Export* button

Pavement

1.26. Create User Workspace Segments

Navigate to the Linear Viewer Module

- Select the "Design investigation default" workspace and search for the road section on which you
 would like to create new workspace segments.
- On the selected section, ensure the "Road View" is selected under the Road Detail section. Open the Liv File.
- On the road view by right clicking on the Design Section blue bar, you can split the current segments
 into separate segments. You can also click and drag the created vertical line in order to specify where
 one segment should start and another should end.
- Once you are happy with your design segments, you must click the "Save Workspace" button in the top right-hand corner.



FIGURE 30: CREATE WORKSPACE SEGMENTS

1.27. Create Design Segments

- I. In the Main navigation menu click on Modules (Figure 2: No 1 Main Menu)
- II. In the Sub navigation menu click on Pavement (Figure 2: No 2 Sub Menu)
- III. Select Pavement Management

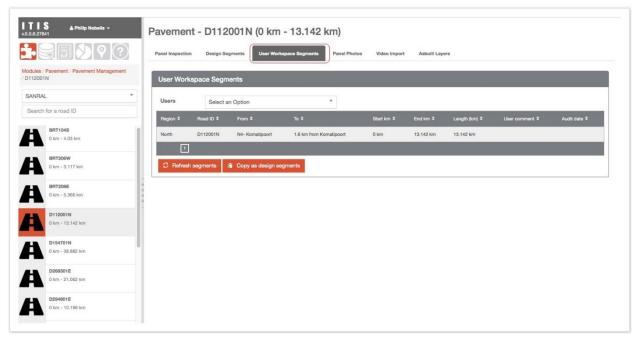
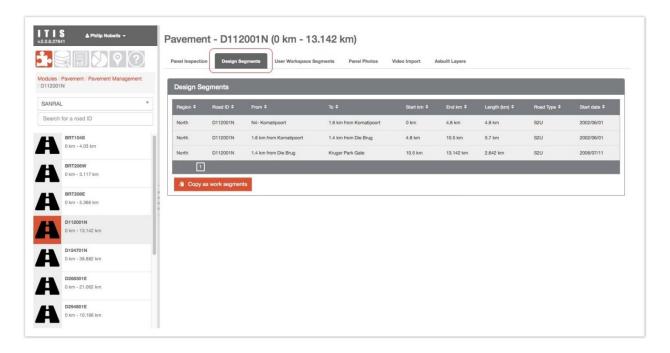


FIGURE 31: CREATE DESIGN SEGMENTS

- Search for the road section on which the user workspace segments was created and select it.
- Click on the "User Workspace Segment" tab to view the currently created workspace segments. If you were already on this page, you could click the "Refresh segments" button to reload any possible new segments that might have been created in the meantime.
- Above the grid is a dropdown filter to display the workspace segments designed by different people.
- A single user can only have a single set of workspace segments on a road section on any given time.



Design segments are versioned, but there can only be one current version that represents the segmentation as it is currently. The current segments can be viewed under the "Design Segments" tab on the Pavement Module. Should you wish to update the current design segments, you can do so via the "User Workspace Segments" tab by selected the relevant user's workspace segments and clicking on the "Copy as design segments" button. This will version the current design segments for a specific date/time range and copying over / turn the selected user workspace segments into the new "current" design segments.

1.28. Creating Work Segments for a specific Year

From the "Design Segments" tab under the Pavement module, you can copy the current design segments to be used as work segments for a specific year by clicking on the "Copy as work segments" button. The same design segments can be used for multiple years until the road changes and the segmentation needs to be updated. These work segments can be reviewed as part of the annual Panel Rating process. The work segments can be viewed under the "Panel Inspection" tab on the Pavement module.

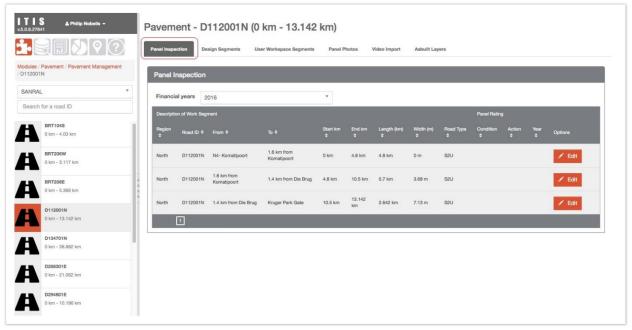


FIGURE 32: PANEL INSPECTION

The work segments can be filtered per year using the "Work years" dropdown on the "Panel Inspection tab". There can only be one set of work segments per year, so every time design segments are copied for a copied for a specific year, the previous segments for that year will be overwritten.

1.29. Performing a Panel Rating

Panel ratings can be performed from the "Panel inspection" tab on the Pavement module. You can click on the "Edit" button next to a specific work segment and complete the form that pops up in the modal window.

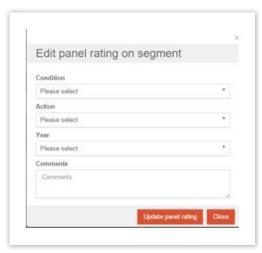


FIGURE 33: ADD PANEL RATING

Projects

To open the Projects Module:

- I. In the Main navigation menu click on Modules (Figure 2: No 1 Main Menu)
- II. In the Sub navigation menu click on Projects (Figure 2: No 2 Sub Menu)

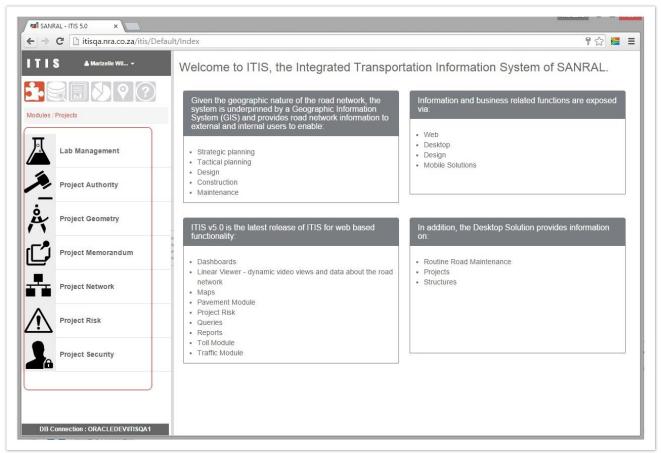


FIGURE 34: PROJECTS SUB MODULES

Projects Sub Module are explained in more detail below.

1.30. Lab Management

Use Lab Management to create a new Laboratory or view & Edit an existing Lab

- i. Click on Modules
- ii. Select Projects
- iii. Click on Lab Management

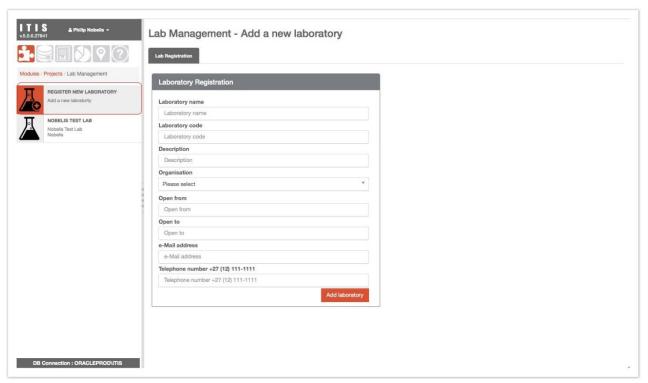


FIGURE 35: LAB MANAGEMENT

1.30.1. Edit Lab

- Select a Lab from the list
- Update the information on the different tabs and click on Update Laboratory

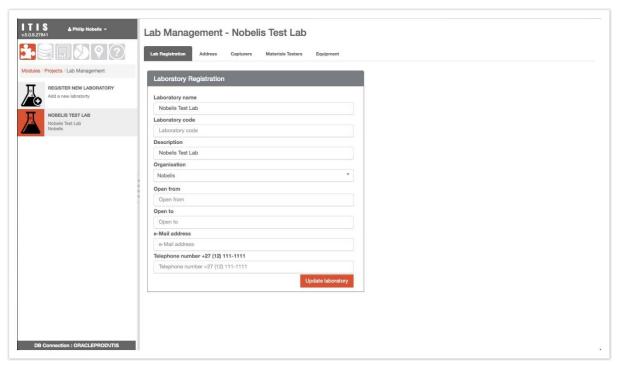


FIGURE 36: EDIT LABS

1.31. Project Authority

Use the Project Authority Module to set up and manage your project.

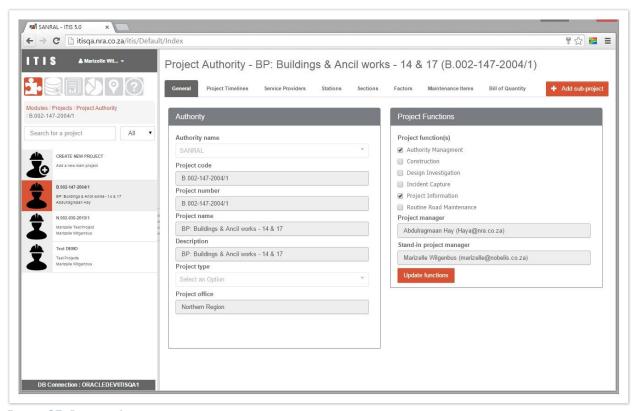


FIGURE 37: PROJECT AUTHORITY

To access Project Authority:

- iv. Click on Modules
- v. Select Projects
- vi. Click on Project Authority
- vii. Search Search and click on your project
- viii. Once clicked you will see the above screenshot (Figure 45: Project Authority)

In the project tree you will see two different project types:



Main/Master project

Sub project

In the example above you have one main/master project with three sub projects.

Project Authority consists of the following tabs:

- General
- Project Timelines
- Service Providers
- Sections
- Factors
- Maintenance Items
- Bill of Quantity

1.31.1. General

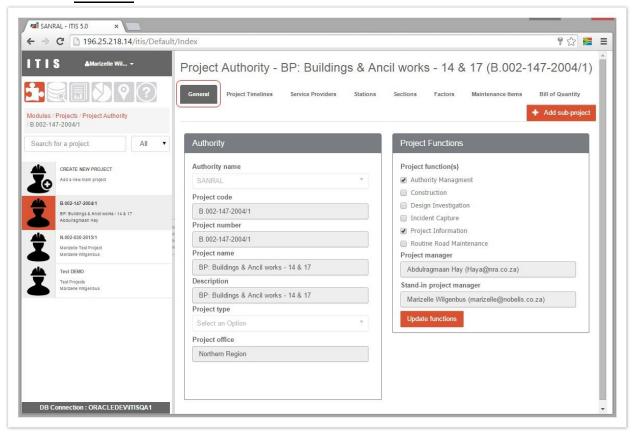


FIGURE 38: PROJECT AUTHORITY - GENERAL

The following information can be viewed, captured or edited on the General tab:

- Authority Name The name of the authority this project belongs to
- Project Code The project code/number
- Project Number The project code/number
- Project Name The name of the project
- **Description** A short description of the project
- Project Type The type of project
- Project Office The office/region this project belongs to
- **Project Functions** Selects the applicable functions for this project

NOTE: Project Functions will activate tabs and/or modules for the selected project. Example: For the Maintenance Items tab to be active this project must be marked as a Routine Road Maintenance project.

- **Project Manager** The name of the project manager
- Stand-in Manager The name of the stand-in manager

NOTE: Some of the fields cannot be updated as this information is obtained from SAP. If the information is incorrect then please update the info in SAP. Changes made in SAP can take up to 24 hours to appear in ITIS.

1.31.2. Project Timelines

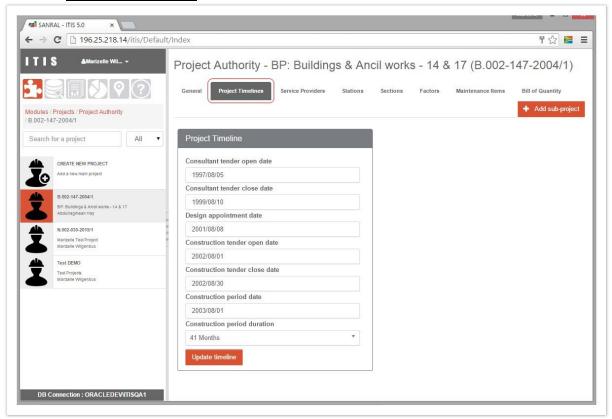


FIGURE 39: PROJECT AUTHORITY - PROJECT TIMELINES

The following information can be viewed, captured or edited on the Project Timelines tab:

- Consultant tender open date
- Consultant tender closing date
- Design appointment date
- Construction tender open date
- Construction tender closing date
- Construction period date
- Construction period duration
- Base date
- Project start date
- Project end date
- Retention payment date

1.31.3. <u>Service Providers</u>

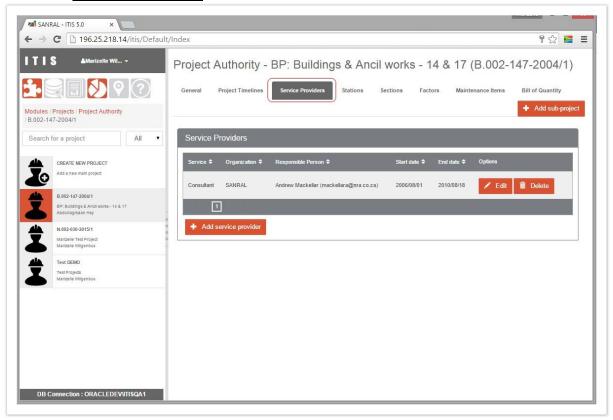


FIGURE 40: PROJECT AUTHORITY - SERVICE PROVIDERS

The following service providers can be added:

- Consultant
- Main Contractor
- Add a service provider
- i. Click on Add service provider + Add service provider
- ii. Capture the following information
 - Organization name
 - Service
 - Start date
 - End date
 - Responsible person
- iii. Click on Add service provider
 - Edit a service provider
- i. Click on Edit Lett next to the service provider
- ii. Make the changes
- iii. Click on Update service provider

Delete a service provider

- i. Click on Delete next to the service provider
- ii. Click on Remove service provider

1.31.4. Sections

Use this tab to capture the route(s)/section(s) applicable to the selected project. These sections are used in systems like RRM and changes made to the sections could affect the capture of data on the ITIS Desktop software.

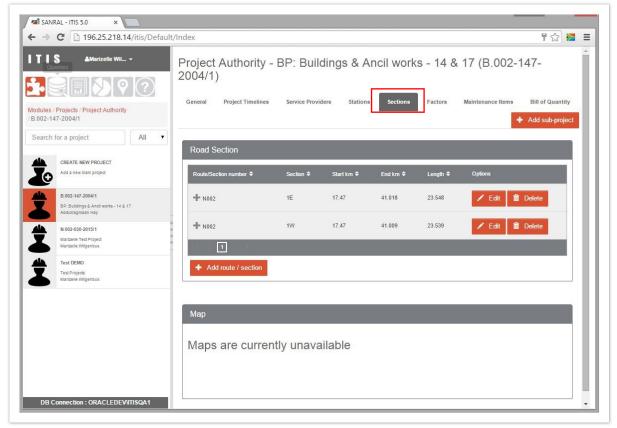


FIGURE 41: PROJECT AUTHORITY - SECTIONS

Add a route/section

- i. Click on Add route/section + Add route / section
- ii. Start typing the road ID and select the correct road ID from the dropdown
- iii. Capture the start and end km
- iv. Click on Add route/section

Edit a route/section

- i. Click on Edit next to the route/section
- ii. Make the required changes
- iii. Click on Update route/section

Delete a route/section

- i. Click on Delete next to the route/section
- ii. Click on Remove route/section

1.31.5. Factors

Use this tab to capture the applicable factors for the selected project. These factors are used for Contract Price Adjustment (CPA) calculations. Changing these factors will affect existing and future payment certificates calculations.

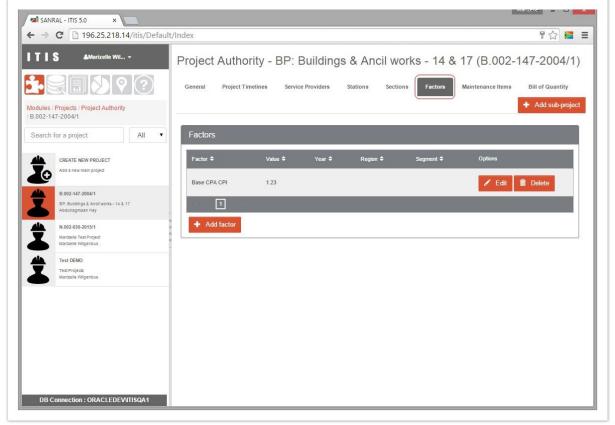


FIGURE 42: PROJECT AUTHORITY - FACTORS

The following factors can be captured on this tab:

- CPI
- Base CPA Coefficient A-D, X
- Base and published Fuel, Plant, Material and Labour

> Add a factor

- i. Click on Add factor + Add factor
- ii. Select the factor from the dropdown
- iii. Capture either the value or select applicable option from the dropdown
- iv. Click on Add factor

> Edit a factor

- i. Click on Edit I next to the factor
- ii. Make the required changes
- iii. Click on Update factor

Delete a factor

- i. Click on Delete next to the factor
- ii. Click on Remove factor

1.31.6. Maintenance Items

Use the maintenance items tab to manage the activity items -and associated rates on a project. Currently the maintenance items listed are only for RRM. Activities for other systems might be added in the future. Changing the activities, rates and quantities could affect existing and future payment certificate calculations.

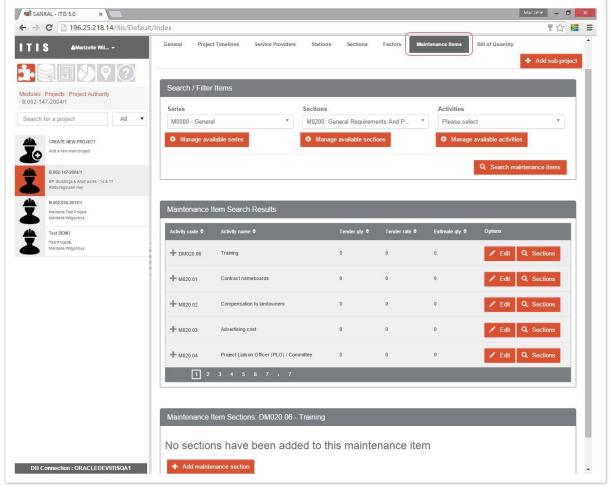


FIGURE 43: PROJECT AUTHORITY - MAINTENANCE ITEMS

Linking activities to a project

- i. Click on Manage available activities Amanage available series
- ii. Select the Series and Section from the dropdown

NOTE: If the series dropdown is blank or has missing items then click on Manage available series and select the missing item(s).

- iii. Check all the activities that must be linked
- iv. Click on Add/remove activities

Removing activities from a project

- i. Click on Manage available activities Manage available activities
- ii. Select the Series and Section from the dropdown
- iii. Uncheck the activity(s) that must be removed
- iv. Click on Add/remove activities

Capture an activity rate

i. Select the series from the dropdown

NOTE: If the series dropdown is blank or has missing items then click on Manage available series and select the missing item(s).

ii. Select the section from the dropdown

NOTE: If the series dropdown is blank or has missing items then click on Manage available series and select the missing item(s).

- iii. Click on Search maintenance items
- iv. The results will be shown in the maintenance item search results box

NOTE: If you cannot find the activity in the search results then please ensure that the item is linked to the project. See Linking activities to a project.

- v. Click on Edit Click on Edit next to the activity
- vi. Capture the tender QTY and rate
- vii. Click on update maintenance item

Update an activity rate

- i. Select the series from the dropdown
- ii. Select the section from the dropdown
- iii. Click on Search maintenance items Q Search maintenance items
- iv. The results will be shown in the maintenance item search results box
- v. Click on Edit Ledit next to the activity
- vi. Update the tender QTY and/or rate
- vii. Click on update maintenance item

Linking an activity to a route/section

By default, an activity can be used on all routes and sections linked to a project. This can be restricted if the item is only applicable to a specific route/section:

- i. Select the series from the dropdown
- ii. Select the section from the dropdown
- iii. Click on Search maintenance items
- iv. The results will be shown in the maintenance item search results box
- v. Click on Sections Q Sections next to the activity
- vi. The results will be shown in the maintenance item sections results box
- vii. Click on add maintenance section + Add maintenance section
- viii. Select the road ID from the dropdown

NOTE: If you cannot find the road ID in the dropdown then please ensure that the route/section is linked to the project. See Add route/section.

- ix. Capture the start and end km
- x. Click on Add maintenance section

NOTE: An activity can be linked to more than one route/section. Simply add the second route/section as explained above.

Update the maintenance section start or end km

- i. Select the series from the dropdown
- ii. Select the section from the dropdown
- iii. Click on Search maintenance items
- iv. The results will be shown in the maintenance item search results box
- v. Click on Sections Q Sections next to the activity
- vi. The results will be shown in the maintenance item sections results box
- vii. Click on Edit Ledi next to the route/section
- viii. Update the start and/or end km
- ix. Click on Update maintenance section

Remove the maintenance section

- i. Select the series from the dropdown
- ii. Select the section from the dropdown
- iii. Click on Search maintenance items
- iv. The results will be shown in the maintenance item search results box
- v. Click on Sections Q Sections next to the activity
- vi. The results will be shown in the maintenance item sections results box
- vii. Click on Delete next to the route/section
- viii. Click on Remove maintenance section

Only the SANRAL Project Manager or Stand-in Project Manager has permission to populate the Project Authority tabs:

- General auto populated from SAP
- Project Timelines
- Service Providers
- Sections
- Factors
- Maintenance Items The SANRAL Project/Stand-In Manager can add and edit the maintenance items once the contract has been agreed

1.32. Project Geometry

- I. Click on Modules
- II. Select Projects
- III. Click on Project Geometry
- IV. Search for and select a Project

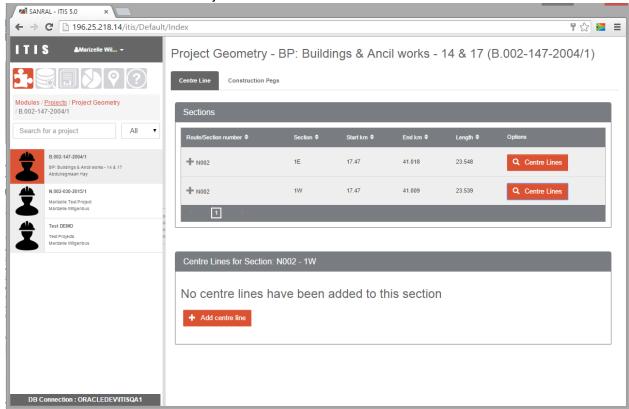


FIGURE 44: PROJECT GEOMETRY

- Select a Section and click on Centre Lines
- If Centre Lines have been loaded-they will be displayed at the bottom. If no Centre Lines have been loaded you can click on the Add Centre Lines Button + Add centre line

1.32.1. Add Centre Line

When you click on the Add Centre Line button the following screen will open up:

Add centre line to section	
Туре	
Please select	₩
Construction start date	
2009-08-12	
Construction end date	
2012-07-12	
Survey date	
Survey date	
Process date	
Process date	
☐ Is active	
Upload a centre line file	
Choose File No file chosen	
Add centre line	Close

FIGURE 45: PROJECT GEOMETRY - ADD CENTRE LINE

- Select a Type from the Dropdown box
- Add the Survey Date
- Add the Process Date
- Select the *Is Active box* if applicable
- Click on the Choose File Choose File button the select your file for upload
- Click on Add Centre Line Add centre line

The Centre Line will now be displayed in the Centre Lines Section:

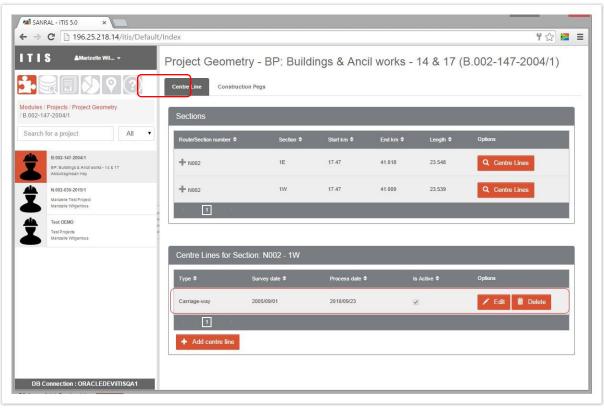


FIGURE 46: PROJECT GEOMETRY - VIEW CENTRE LINE

1.32.2. Edit a Centre Line

- Select the relevant Section and Centre Line and click on the Edit button
- Make the relevant changes
- Upload your file
- Click on Update Centre Line Update centre line

1.32.3. Delete a Centre Line

- Select the relevant Section and Centre Line
- Click on the Delete Button Delete
- Click on the Remove Centre Line button

1.32.4. HELP



FIGURE 47: CENTRE LINE HELP

If you click on *Add Centre Line* and get the above message, go back to Project Authority - Timelines (13.2.2) and add Project Timelines. Once added you can add a Centre Line

1.33. Project Memorandum

Use this module to create and manage project memorandums. Users are able to create, approve, recommend and reject memorandums based on the roles they belong to.



FIGURE 48: PROJECT MEMORANDUM

To access Project Memorandum:

- i. Click on Modules
- ii. Click on Projects
- iii. Select Project Memorandum
- iv. Once clicked you will see the above screenshot (Figure 103: Project Memorandum)

1.33.1. Memo statuses

In Progress This memo is in progress

Not Approved This memo has not been rejected **Approved** This memo has been approved

1.33.2. Create a new Memo

Only the PM and SPM can create a new memo for a project. When creating a new memo, the PM will only be able to select a project that has been assigned to him or her in SAP.

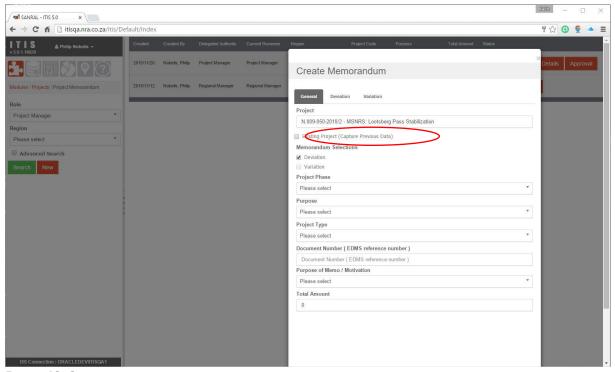


FIGURE 49: CREATE NEW MEMO

- i. Click on New New
- ii. In the pop-up window capture the project number and select the project from the dropdown
- iii. If this is a memo for an existing project then select the Existing Project tick box (as circled above *Figure 104*). This will require to capture previous approved memo information required for validations.
- iv. Select whether this is a deviation, variation or normal memo
 - Deviation Any Procurement not done on a competitive basis including extension to term contract, and changing scope of existing contract
 - Variation Any over expenditure calculated on Tendered Price + CPA + Contingencies + VAT above 15% or R15m for non-engineering contracts and above 20% or R20m for engineering contracts, whichever is the lowest, must be reported to treasury
- v. Select the project phase, purpose and project type from the dropdowns
- vi. Add the Document number, motivation & total
- vii. Click on Create Create

1.33.3. Edit memo info

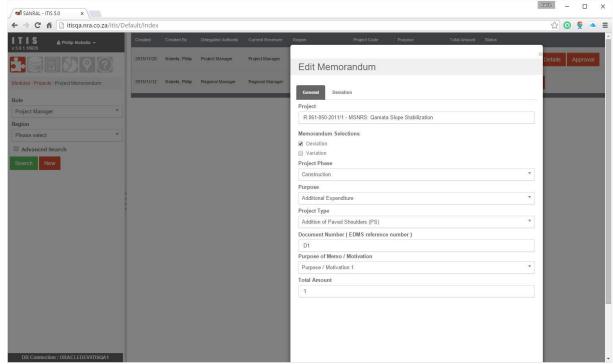


FIGURE 50: EDIT MEMO

- i. The following info will automatically be captured:
 - Created By
 - Delegated Authority
 - Current Reviewer
 - Region
 - Project Code
 - Status

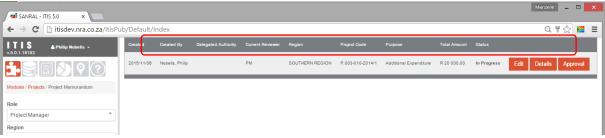


FIGURE 51: RECORDED INFO

- I. Click on Edit
- II. Add or change the relevant information
- III. Click on Update so save the memo info
- IV. Or Close to Cancel

1.33.4. Request Approval

Now that your memo has been created it must be approved by the correct authority, based on the signed delegations. For more information about the delegations please refer to the following documents:

- DOCS_NRA# Delegation of Power by the SANRAL Board of Directors to the SANRAL Chief Executive Officer
- DOCS_NRA# Delegation of Power by the Chief Executive Officer
- i. Click on Approval Approval
- ii. In the popup window capture the following:
 - Actions Select Assign

- **Assign** Select the authority from the dropdown that must approve the memo. This will define the workflow process that must be used to approve the memo.
- **Division Manager** Select the correct Division Manager from the dropdown
- Comment Capture a comment if required
- iii. Click on Apply Apply. This will forward the memo to the next person in the approval process.

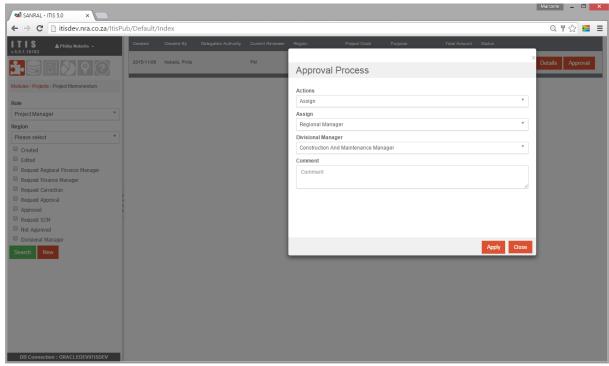


FIGURE 52: REQUEST APPROVAL

At any point during the workflow process you can perform one or more of the following actions:

- Memo Correction The memo is sent back to the PM for corrections.
- Recommend Memo The memo is recommended by reviewers
- **Escalate** The memo is being escalated to a higher authority for approval
- Not Approved The memo has been rejected. The memo is closed
- Approve The memo has been approved. The memo is closed

1.33.5. Recommend Memo

The following roles must recommend a memo before it can be approved:

- SPM
- RFM
- FM
- DM
- RM, only if the memo is marked to be approved by CFO, CSE, EX, CEO or CC
- CFO
- EX
- CSE

NOTE: SPM, RFM, FM & DM can never approve a memo. They can only recommend, send a memo back for correction or reject a memo

- i. Click on Approval
- ii. Capture the following:
 - Action Recommend
 - Comment Capture a comment if required
- iii. Click on Apply Apply. This will forward the memo to the next person in the approval process.

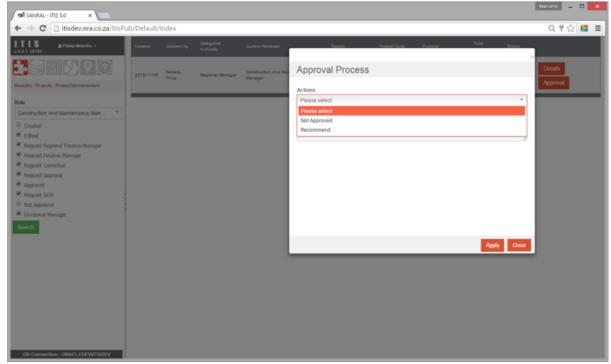


FIGURE 53: RECOMMEND MEMO

NOTE: For more information on roles please refer to Glossary &Terms (Page 6)

1.33.6. Memo Correction

At any point during the workflow process a memo can be sent back to the PM for corrections. Sending it back for corrections will restart the approval process and all the users involved must recommend the memo again.

- i. Click on Approval
- ii. Capture the following:
 - Action Request Correction
 - **Comment** Capture a comment
- iii. Click on Apply Apply. This will send the memo back to the PM to make the required corrections.

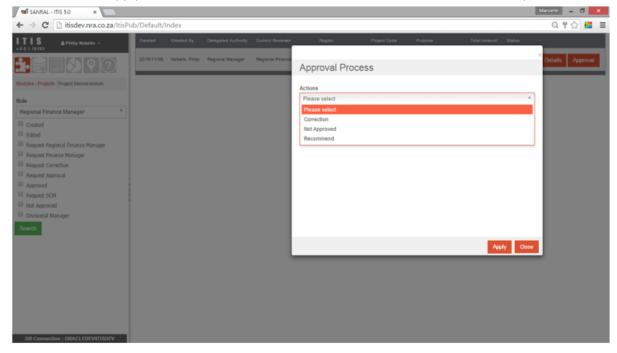


FIGURE 54: MEMO CORRECTION

1.33.7. Escalate Memo

The authority that was selected to approve the memo, on request approval, can escalate the memo. Example: The memo was marked to be approved by the RM, the RM can now escalate the memo to be approved by the EX.

- i. Click on Approval
- ii. Capture the following:
 - Action Escalate
 - Assign Select the new approve authority
 - Comment Capture a comment
- iii. Click on Apply Apply. This will forward the memo to the next person in the approval process.

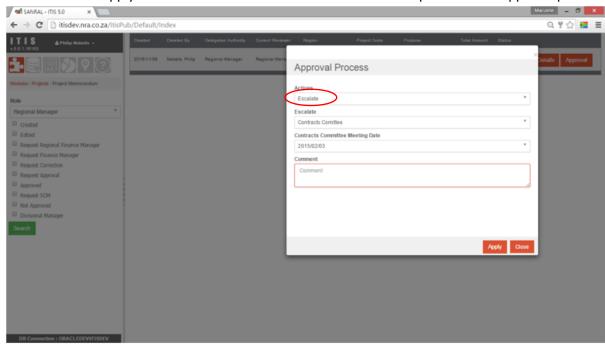


FIGURE 55: ESCALATE MEMO

1.33.8. Approve Memo

Users in the following roles can approve a memo:

- RM
- CFO
- CSE
- EX
- CEO
- CC
- i. Click on Approval
- ii. Capture the following:
 - Action Approve
 - Item number Item memo number (The person approving the memo adds the memo number)
 - Comment Capture a comment if required
- iii. Click on Apply Apply. This will close the memo as approved.

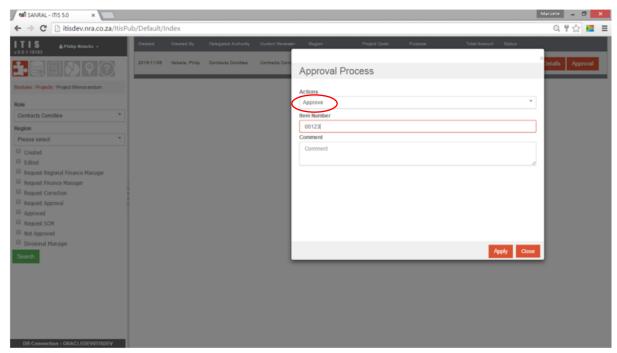


FIGURE 56: MEMO APPROVE

Once a memo is approved it is closed.

1.33.9. Not Approved

Any user in the approval process can reject a memo for a valid reason.

- i. Click on Approval
- ii. Capture the following:
 - Action Not approved
 - **Comment** Capture a comment
- iii. Click on Apply Apply. This will close the memo as not approved.

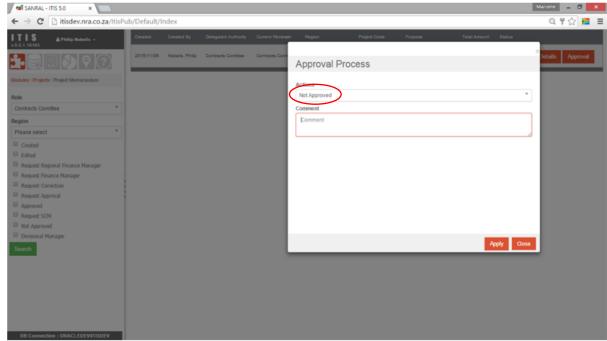
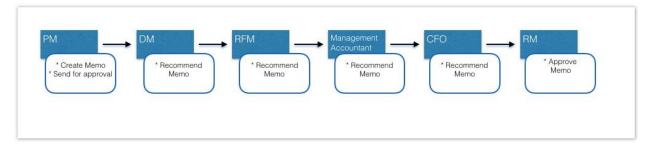


FIGURE 57: MEMO NOT APPROVED

1.33.10. Approval Workflows

Based on the authority selected in the request approval window, one of the following workflows will be used:

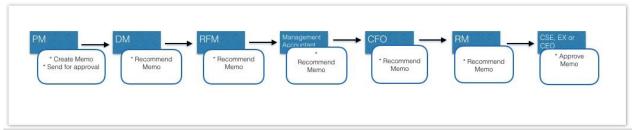
Memo sent to RM for approval



NOTE: At any point during the above workflow a memo can be cancelled or sent back to the PM for correction. Sending the memo back for correction will restart the above workflow.

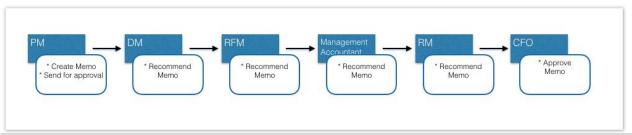
1.33.11.

Memo sent to CSE, EX or CEO for approval



NOTE: At any point during the above workflow a memo can be cancelled or sent back to the PM for correction. Sending the memo back for correction will restart the above workflow.

I. Memo sent to CFO for approval



NOTE: At any point during the above workflow a memo can be cancelled or sent back to the PM for correction. Sending the memo back for correction will restart the above workflow.

Memo sent to CC for approval



NOTE: At any point during the above workflow a memo can be cancelled or sent back to the PM for correction. Sending the memo back for correction will restart the above workflow.

1.34. Project Network

To access Project Network:

- I. Click on Modules
- II. Select Projects
- III. Click on Project Network
- IV. Search for Search for a project and click on your project
- V. Once clicked you will see the below screenshot (Figure 113: Project Network)

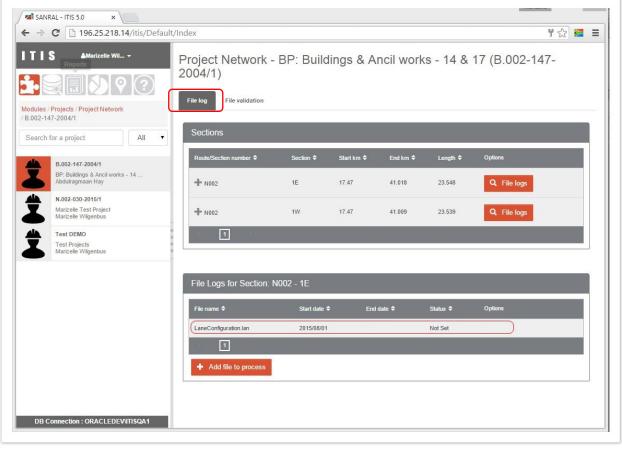


FIGURE 58: PROJECT NETWORK - VIEW FILE LOGS

I. Select a Route / Section and click on File Logs Q File logs to view or add a file

1.34.1. Add a File to Process

To add a file for processing click on the Add File to Process button in the File Logs section

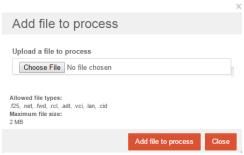


FIGURE 59: PROJECT NETWORK - ADD FILE

- Click on Choose file to select the relevant file
- Click on Add File to Process Add file to process

1.34.2. HELP

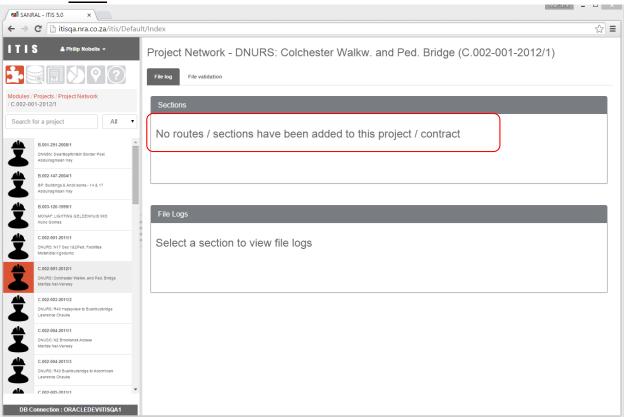


FIGURE 60: PROJECT NETWORK HELP

If you are unable to view or add files and get the above screen go back to Project Authority – Sections (13.2.4) and add the relevant sections, then return to Project Network and continue adding files.

1.35. Project Risk

Use this module to manage and report project risks, implement risk adjusted project programming and risk-adjusted cost estimation.

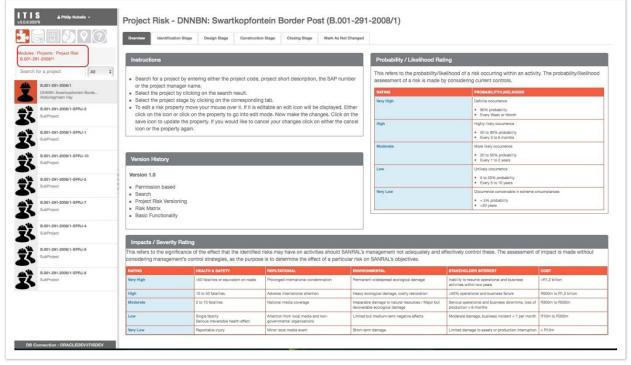


FIGURE 61: PROJECT RISK

To access Project Risk:

i. Click on Modules

- ii. Select Projects
- iii. Click on Project Risk
- iv. Once clicked you will see the above screenshot (*Figure 116*: Project Risk) with a general overview of rating scales used, and a project list on the left

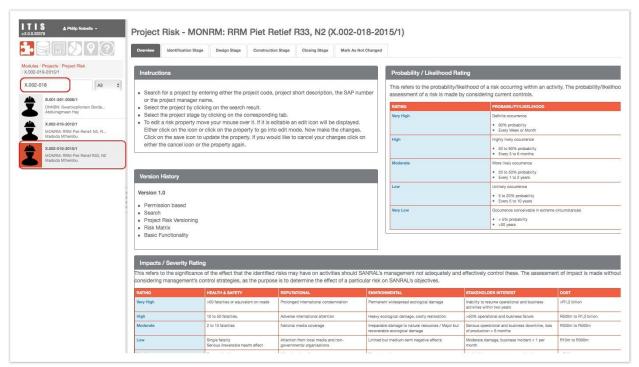


FIGURE 62: PROJECT RISK SEARCH

Figure 117: You can now search for your projects by typing your name, project number, project descriptors etc, in the search field and the list will be dynamically adjusted as you type. Please note you will only be able to update risks on projects - if you are the Project Manager or Stand-in Manager in SAP. If you need access to a project, then SAP first needs to be updated – please note that synching between SAP and ITIS only occurs at midnight, thus SAP changes will only reflect the next day in ITIS.

NOTE: WHEN ATTEMPTING TO OPEN A PROJECT FOR WHICH YOU ARE NOT THE PROJECT/STAND-IN MANAGER YOU WILL EITHER SEE THE MESSAGE "NO RISKS HAVE BEEN CAPTURED FOR THIS PROJECT", OR A VIEW ONLY PAGE OF THE RISK MATRIX.

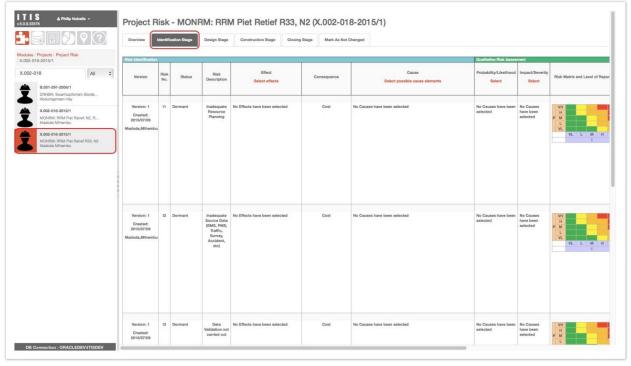


FIGURE 63: PROJECT RISK STAGES

Figure 118: If you select a project for which you are the Project or Stand-in Manager, then the Project Risk form will open showing the various project stages: Identification, Design, Construction and Closing.

1.35.1. Capturing of Project Risks in ITIS Project Risk Module

All project risks (threats and opportunities) must be identified. It is expected that the risk ratings given will be based on professional judgement and by consensus (to remove aberrant results). The project risk must be one that ultimately affects SANRAL – in terms of both tangible and intangible exposure. To guide the Project Manager and ensure consistency across all projects in SANRAL, all known project risks have been identified and incorporated into the ITIS Project Risk Module as predefined look-up lists. If the Project Manager is of the opinion that additional items are required on any predefined look-up list, then please e-mail itisissues@nra.co.za with your request.

To capture risk in the ITIS Project Risk module you will need to capture the relevant info on the different tabs namely **Identification Stage**, **Design Stage**, **Construction Stage**, **Closing Stage** & **Mark as Not Changed**



- 1) Step 1: Click on the relevant project stage Identification/Design/Construction/Closing tab at top
- 2) <u>Step 2:</u> Review available risks under the project stage, by looking at risk description column. Should the risk exist on a project then the Project Manager must indicate this by changing the Status column of the risk from "Dormant" to "Active". The following risk statuses are available:
 - a. **Dormant** The risk has <u>NOT</u> emerged. This is also the default status of all risks in the ITIS Project Risk Module;
 - Active The risk has emerged on the project and its full extent needs to be defined by completing all the relevant risk fields;
 - c. **Closed** A risk previously identified as "Active" is no longer a risk to the project i.e. work has progressed beyond the point where the risk could have occurred, or if occurred was successfully mitigated. Risks that have remained "Dormant" during the project do not need to be "Closed".
 - I. Click on the Status Column
 - II. The following screen will appear

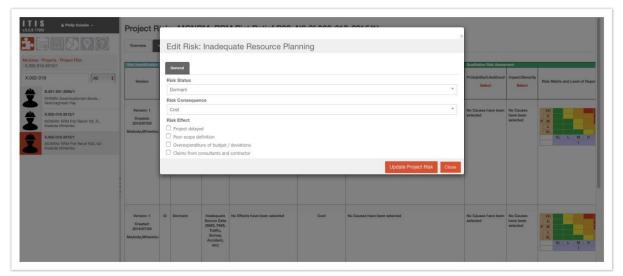


FIGURE 64: CAPTURE RISK

- iv. Select the Risk Status by clicking on the dropdown box
- v. Select the Risk Consequence
- vi. Select the relevant Risk Effect

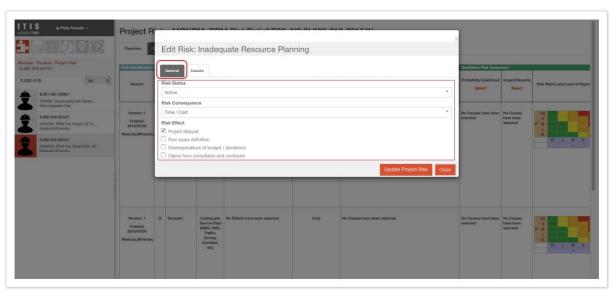


FIGURE 65: RISK DETAILS CAPTURED

Info: Please note there are 2 tabs when changing the status: General & Causes. Make sure you are on the correct tab

- 3) Step 3: Move to then next column, namely Causes, etc and complete the relevant info
 - I. Click on the Cause Column
 - II. The following screen will appear

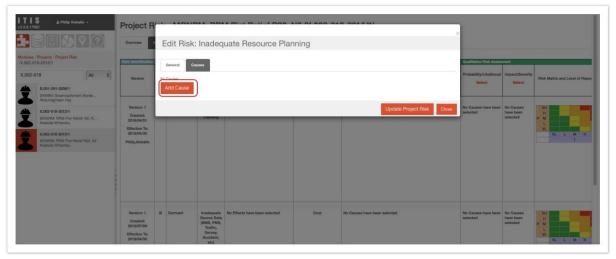


FIGURE 66: PROJECT RISK - CAUSE

- iv. Click on Add Cause
- v. Select the Cause Type from the dropdown

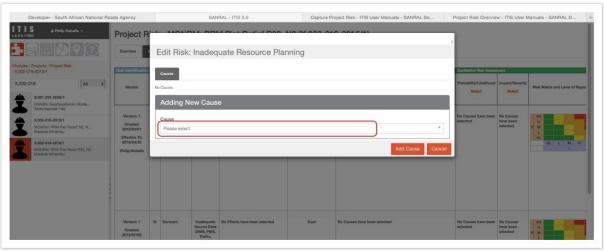


FIGURE 67: SELECT CAUSE

Once the cause type is selected you will be required to add additional info as seen below:

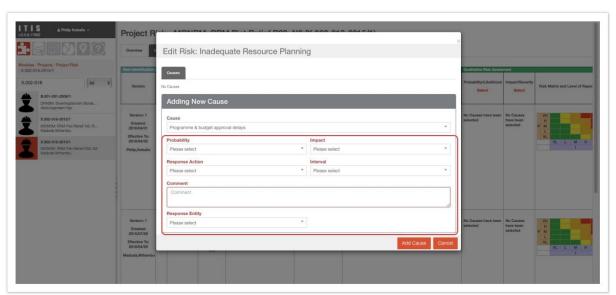


FIGURE 68: CAUSE: ADDITIONAL INFO

Complete the required fields and click on *Add Cause*

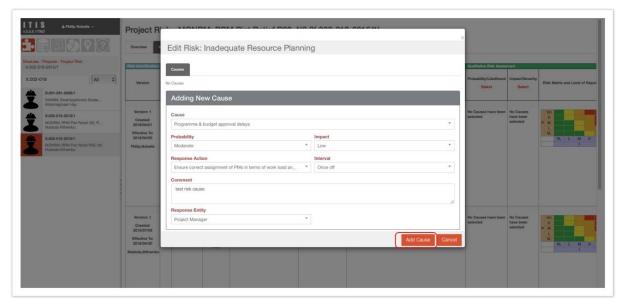


FIGURE 69: CAUSE INFO COMPLETE

Click on *Update Project Risk*

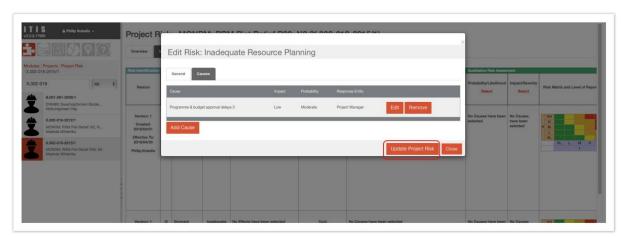


FIGURE 70: UPDATE

See the changes displayed

Please see below descriptions for assistance:

- a. Effect the result of risk event on SANRAL;
- b. Consequences impact of a risk event on Time / Cost / Quality / Safety;
- c. Cause the source of the risk event;
- d. Probability/Likelihood This refers to the probability/likelihood of a risk occurring within an activity. The probability/likelihood assessment of a risk is made by considering current controls and using the rating scale below.



FIGURE 71: PROBABILITY / LIKELIHOOD

e. Impact/Severity - This refers to the significance of the effect that the identified risks may have on activities should SANRAL's management not adequately and effectively control them. The assessment of impact is made <u>without considering</u> management control strategies, as the purpose is to determine the effect of a particular risk on SANRAL's objectives.



FIGURE 72: IMPACT / SEVERITY

- f. Risk Matrix and Level of Reporting This is automatically populated based on Probability and Impact rating.
- g. Response Strategy This is automatically populated based on Probability and Impact rating.
- h. Response Actions/Treatment/Mitigation Active strategy targeted at reducing the consequences of risk.
- i. Response Entity/Owner Indicate the person from the look-up list that is in the best position to address the risk.
- j. Interval or Milestone Check Indicate the frequency at which risk progress should be checked. For most risks the default is monthly.
- k. Comments PM can add any additional comments.

1.35.2. Mark Risk as Not Changed

To confirm that the monthly review of projects risk was performed, and that no risk changes occurred, the PM can use the "Mark Risk As Not Changed" option.

This function is used to confirm if there are no changes required for the month on the risks

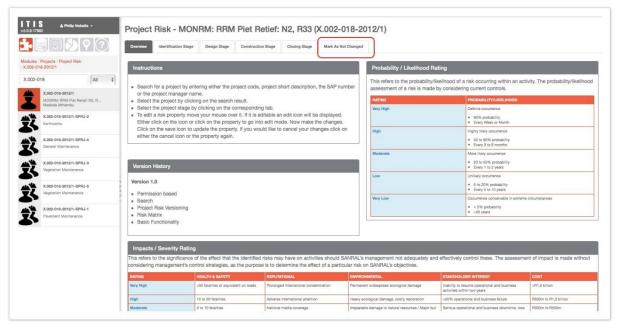


FIGURE 73: MARK AS NOT CHANGED

- Click on the Mark as Not Changed tab
- Add a reason

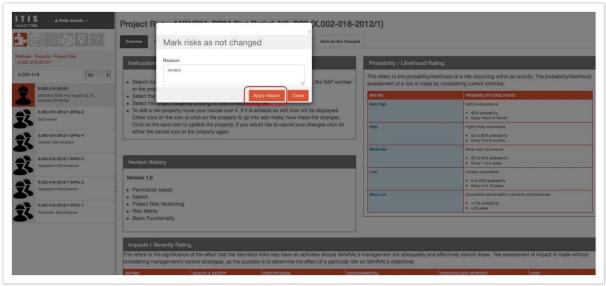


FIGURE 74: ADD REASON

• Click on Apply Reason

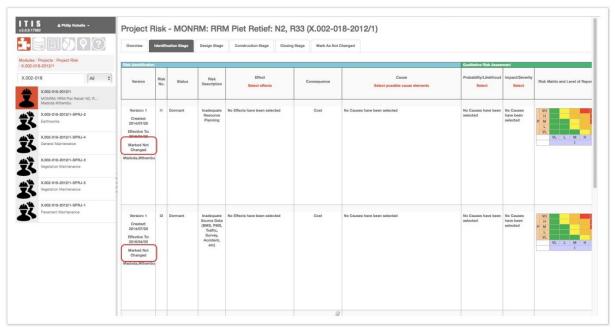


FIGURE 75: RISK UPDATED

The change will be displayed in the version column as seen below

1.35.3. Project Risk Reports

Various reports will be made available overtime under the ITIS Project Risk Module as data related issues are resolved. These reports will be either classified as reports or dashboards.

These reports are accessible under Modules > Reports > Project > Summaries

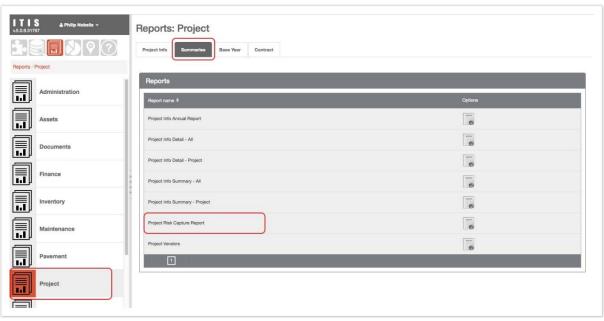


FIGURE 76: PROJECT RISK REPORT

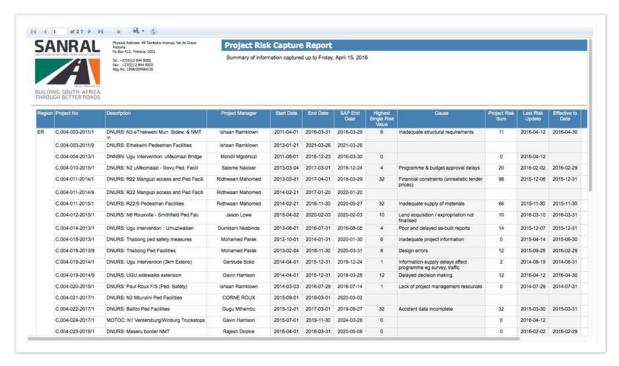


FIGURE 77: PROJECT RISK REPORT - VIEW

Project Risk Capture Report

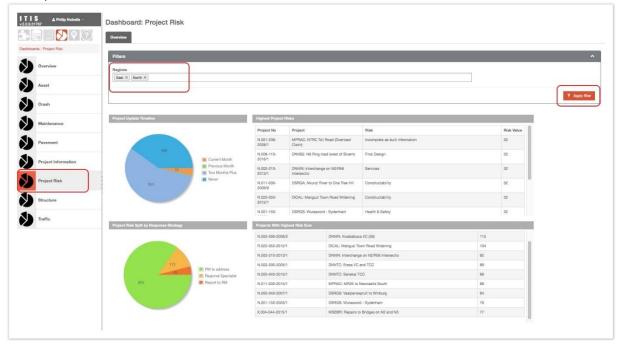
The project risk capture report indicates:

- 1. Start/End Date These are the dates supplied for the ITIS Project Information module by the PM.
- 2. SAP End Date This is the end date from SAP W "Contractor Payments".
 - a. Projects with no dates are shown as blank for these the PM or Stand in PM needs to login to SAP and correct dates and re-schedule. Please note that your SAP project end date needs to be set to the end of the maintenance period, typically 12 months.
 - b. For projects that are complete, but still appear on the list due to a SAP END date set way into the future, PM or Stand-in PM needs to login to SAP and correct dates on Consultant Design Payments and Contractor Payments and re- schedule. This will result in project not appearing in Project Risk Report.
- 3. Highest Single Risk column, indicates the risk score for the highest risk identified as active and rated by the PM on the project.
- 4. Project Risk Sum column, indicates the sum of all the risks identified as active and rated by the PM on the project.
- 5. The Risks Captured column, shows how many risks out of a potential 27 are active on the project, and how many of these were rated in ITIS by the PM. For example, 2 of 3 implies that 3 risks (out of potential 27) are identified as active on the project by the PM, and of these 2 have been rated by the PM. If correctly completed one should always see 3 of 3, 7 of 7, 11 of 11, etc. A rating of 0 of 0 indicates no active risks exist on a project according to PM.
- 6. Please note that if your name appears against a project as PM, you or the Stand-in manager need to login to SAP and correct the PM assignment at Project Level (1st line) and 1st Level WBS (2nd line) in other words (2 places) for the project to disappear against your name.
- 7. Projects with empty spaces everywhere indicate no capture work has been done in the ITIS Risk Module.

1.35.4. Project Risk Dasboard

To access Project Risk Dashboards:

- 1. To select the Project Risk Dashboard, please select the Dashboard Button as indicated under *ITIS* heading, then select *Project Risk*.
- 2. Risks can be filtered per region for now by deactivating regions and refreshing data.
- 3. Please note that the Dashboard section will be continuously updated/enhanced as data is being captured



1.36. Project Security

Use this Sub Module to assign and manage security

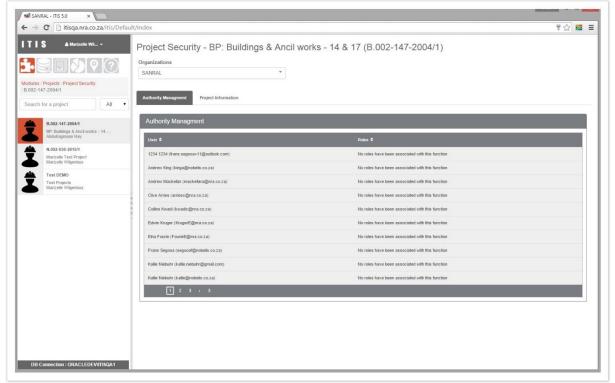


FIGURE 78: PROJECT SECURITY

- i. Click on Modules
- ii. Click on Security
- iii. Search and click on your project

iv. Once clicked you will see the above screenshot which is dependent on the project function e.g Authority Management

Toll

Use this module to manage Toll.

To open the Toll Module:

- I. In the Main navigation menu click on Modules (Figure 2: No 1 Main Menu)
- II. In the Sub navigation menu click on Toll (Figure 2: No 2 Sub Menu)

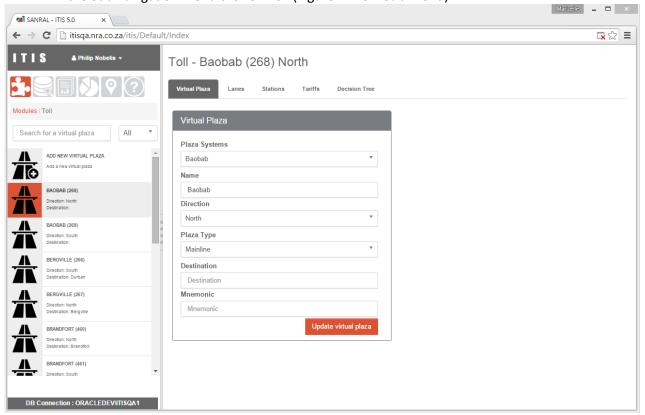


FIGURE 79: TOLL MODULE

In the Plaza tree you will see two different icons:



Add a new Plaza

Click on the Add Button

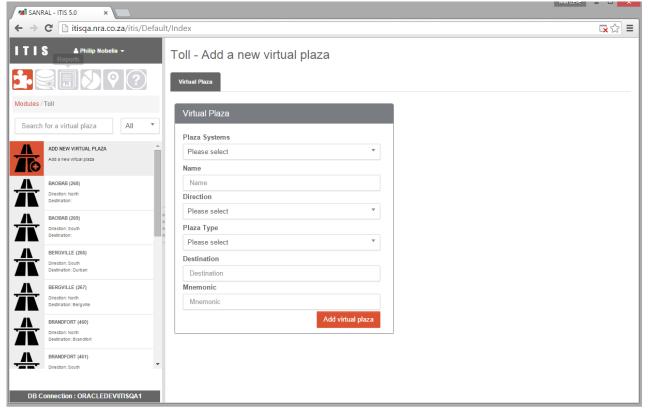


FIGURE 80: ADD NEW VIRTUAL PLAZA

- Select the Plaza system
- Add the name
- Select the Direction
- Select the Plaza Type
- Add the destination
- Add mnemonic
- Save

Once the plaza has been saved 4 additional tabs will become available and you can enter additional information:

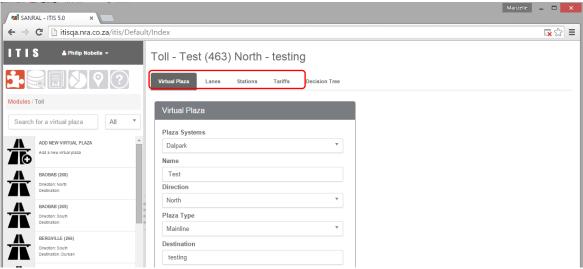


FIGURE 81: NEW VIRTUAL PLAZA - ADDITIONAL TABS

> Edit a Plaza

- Search for a Virtual Plaza Search for a virtual plaza
- Click on the relevant Plaza
- Select the relevant tab
- Add or update the information and click on the Update button Update virtual plaza

Traffic

Use this module to manage Traffic.

To open the Traffic Module:

- I. In the Main navigation menu click on Modules (Figure 2: No 1 Main Menu)
- II. In the Sub navigation menu click on Traffic (Figure 2: No 2 Sub Menu)

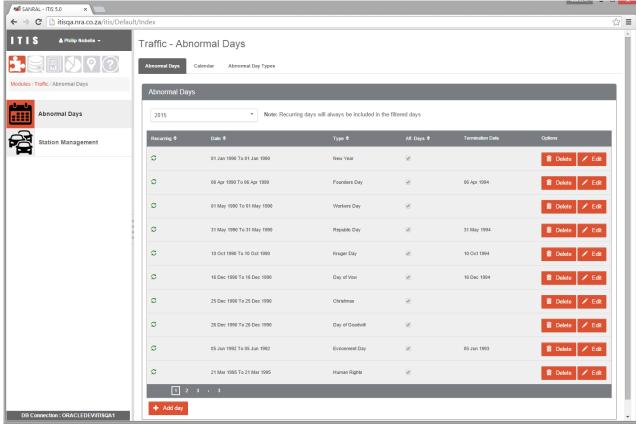


FIGURE 82: TRAFFIC MODULE

1.37. Abnormal Days

Use Abnormal Days for annual traffic monitor calculations / traffic statistic calculations

1.37.1. Add Abnormal Days

Add an Abnormal Day

Click on the Add Button + Add day

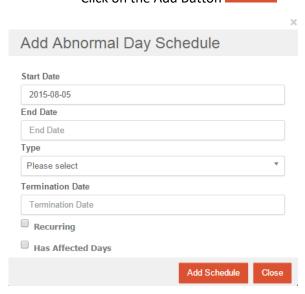


FIGURE 83: ADD ABNORMAL DAY

- Select the end date
- Select the Type
- Select the Termination Date
- If applicable, select the Recurring & Has Affected Days options
- Click on Add Schedule Add Schedule

Delete Abnormal Days

- Search for the applicable Abnormal Day in the list
- Click on the Delete button

1.37.2. Calendar

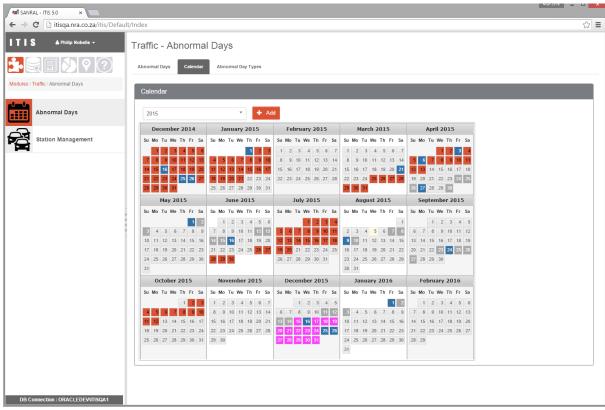


FIGURE 84: ABNORMAL DAYS CALENDAR

All Abnormal Day schedules will be displayed on the Calendar (As seen above)

You can click on an entry to open the edit screen and make the relevant changes or delete the schedule

1.37.3. Abnormal Day Types

Use Abnormal Day Types to select when creating a new schedule

- Add an Abnormal Day Type
 - Click on the Add Button + Add type
 - Add a description
 - Select a ForeColor
 - Select a BackColor
 - Click on Add Type Add Type

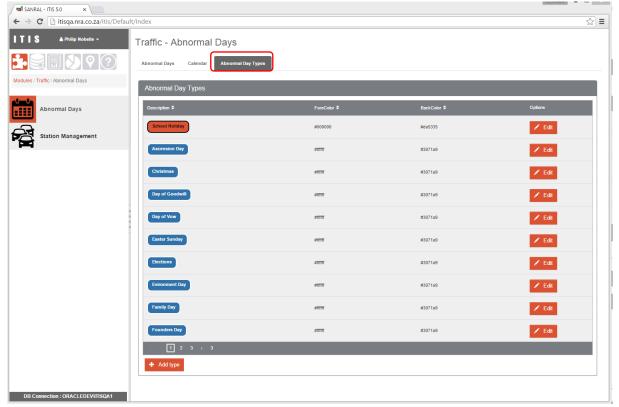


FIGURE 85: ABNORMAL DAY TYPES

1.38. Virtual Location Counter

In the VLC tree you will see two different icons:



Add new V.L.C



Existing V.L.C

Add New VLC

- Click on the Add button

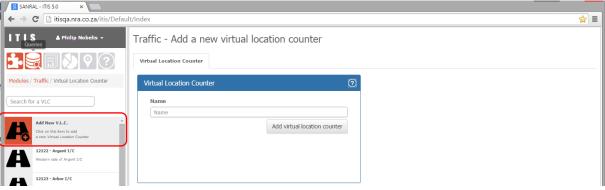


FIGURE 86: ADD VLC

- Add the VLC Name and click on Add Virtual Location Counter

1.39. Station Management

Use Station Management for the management of traffic station information

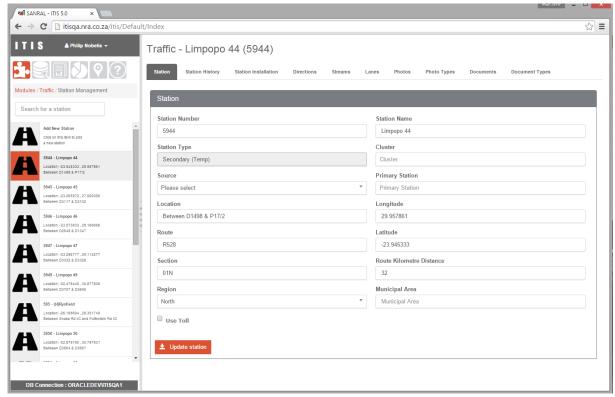


FIGURE 87: STATION MANAGEMENT

Add New Station

Click on Add New Station:

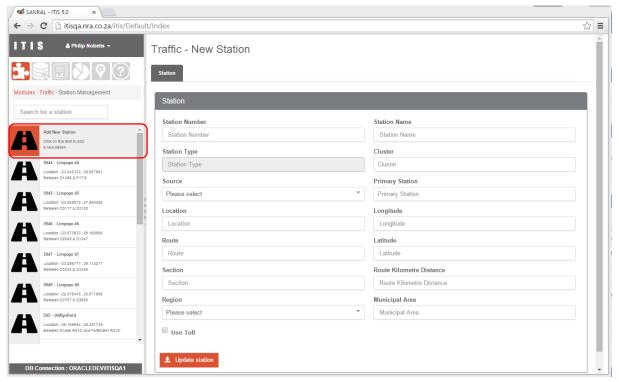


FIGURE 88: ADD STATION

- Add the Station Number
- Select the Source
- Add the location
- Add the route
- Add the section
- Select the region
- Add the station name
- Add the Longitude & Latitude

- Add the route kilometre distance
- Add the Municipal area
- Select the *Use Toll* option if applicable
- Click on Add Station

Once the station is added additional tabs will become visible and you can add more information:

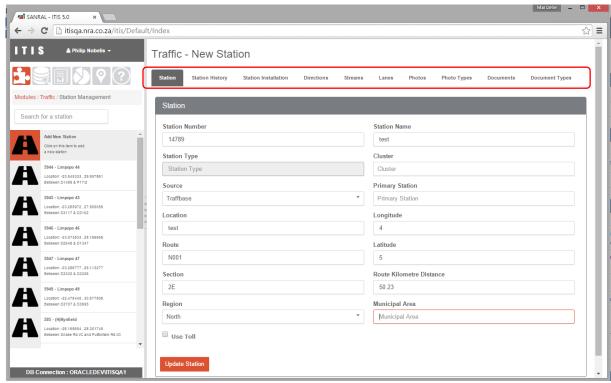


FIGURE 89: ADD STATION - ADDITIONAL

Troubleshooting

When running Reports or Queries for the first time you may get a Pop Up notification as shown below:

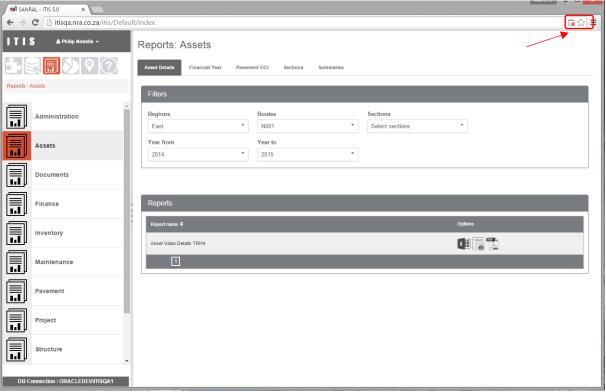


FIGURE 90: POP UP BLOCKED

• Click on the icon and select the "Always allow pop-ups from itis.nra.co.za" and click on Done as shown below



FIGURE 91: POP UP SAVE

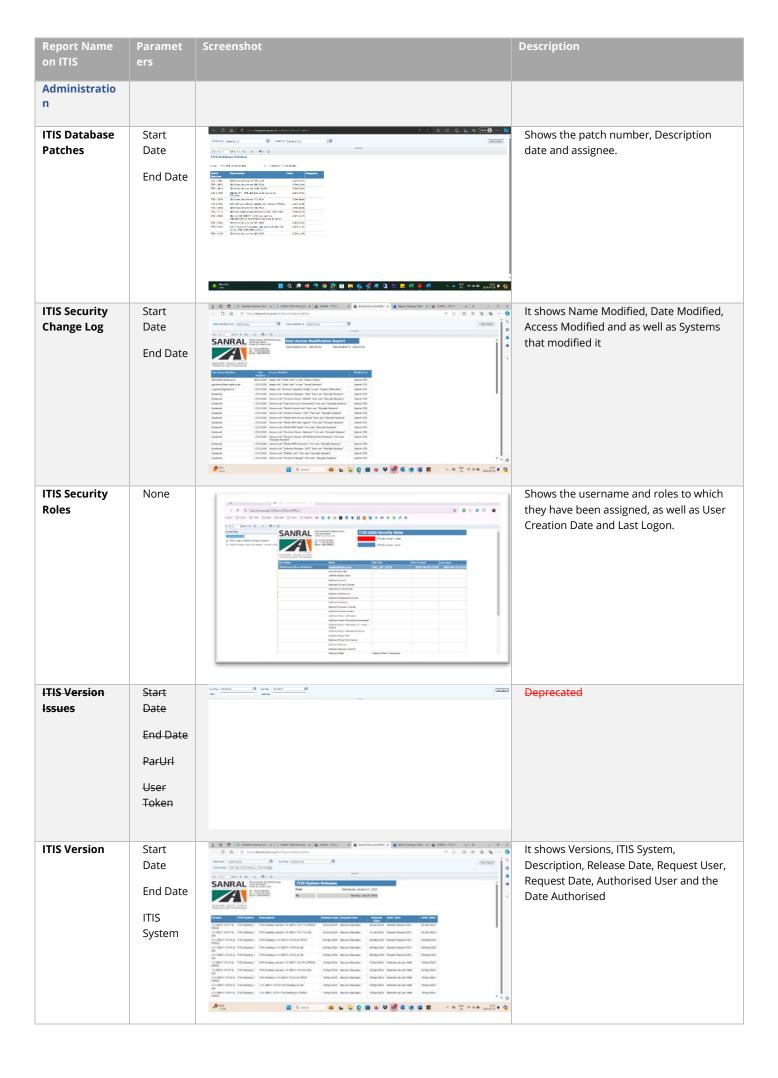
• Click on Run Query or Report again

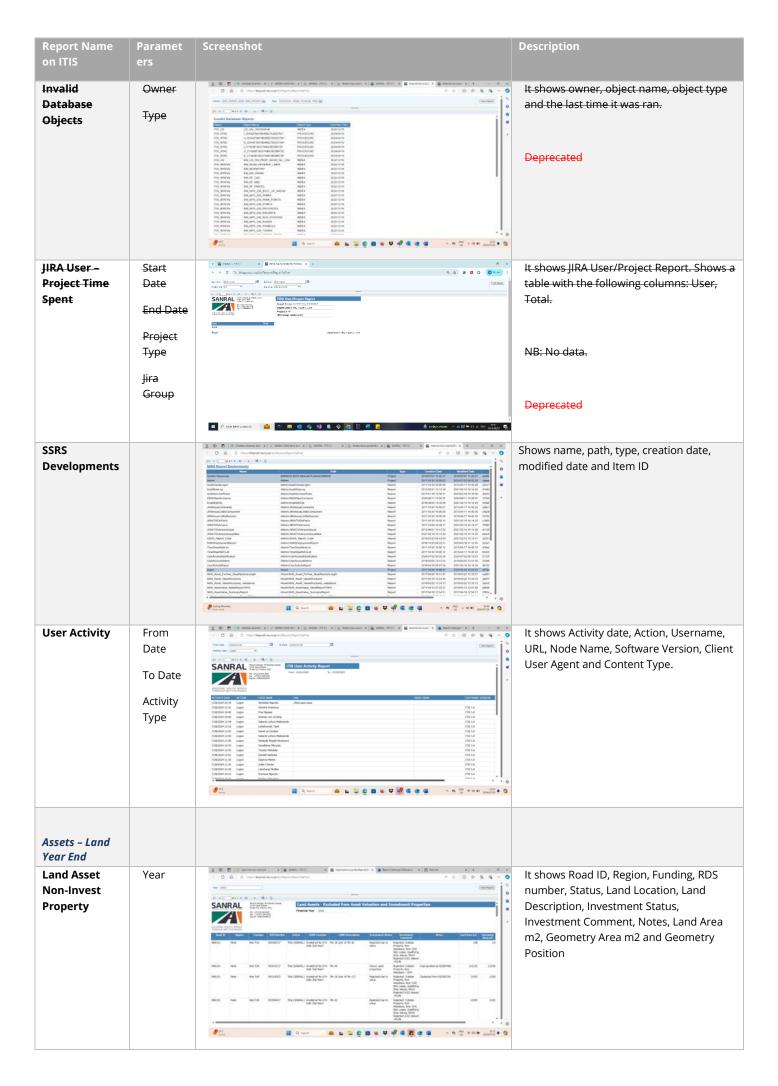
16. ITIS 5.1 Appendix – Report Catalogue

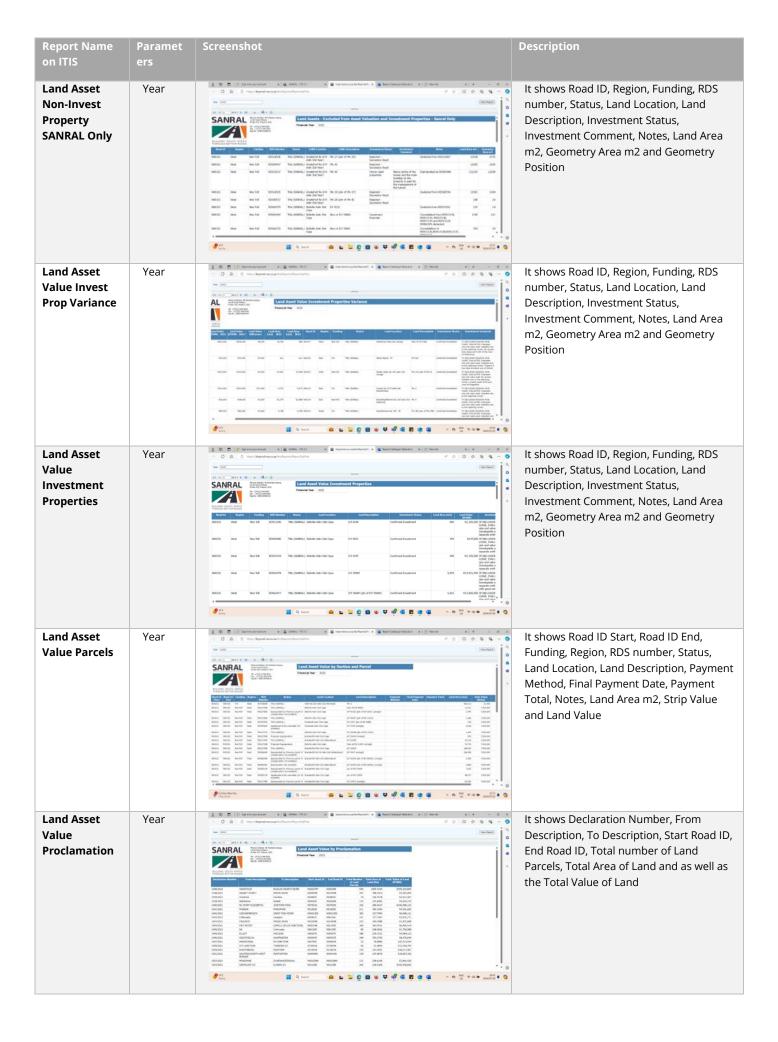
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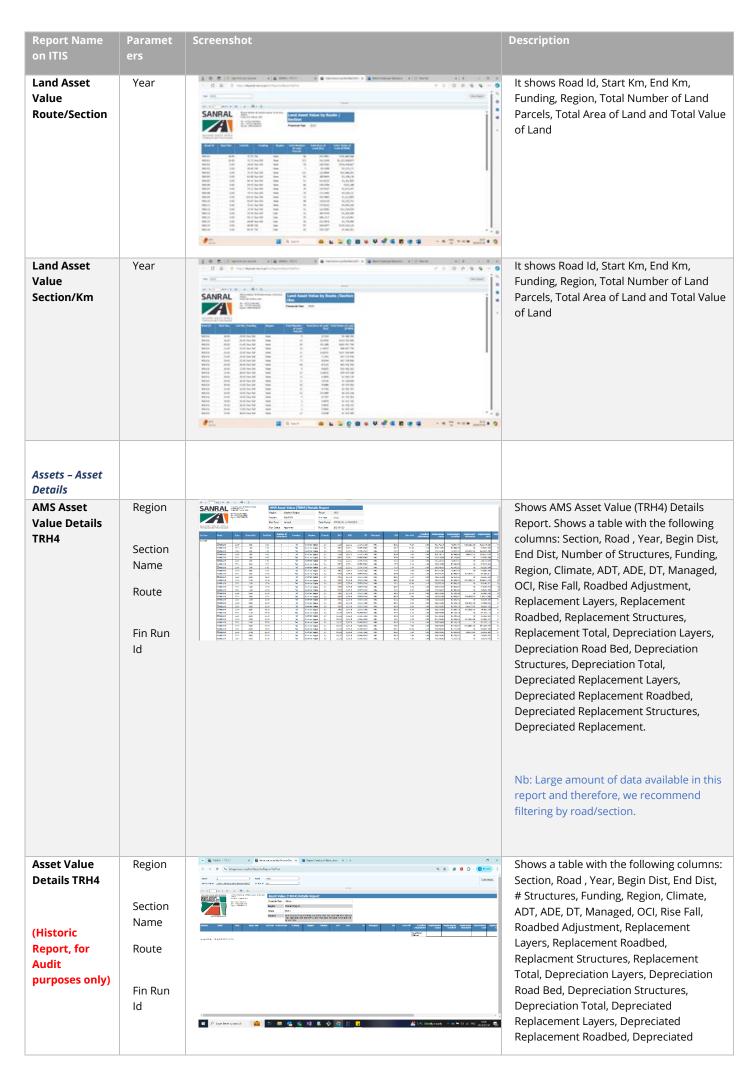
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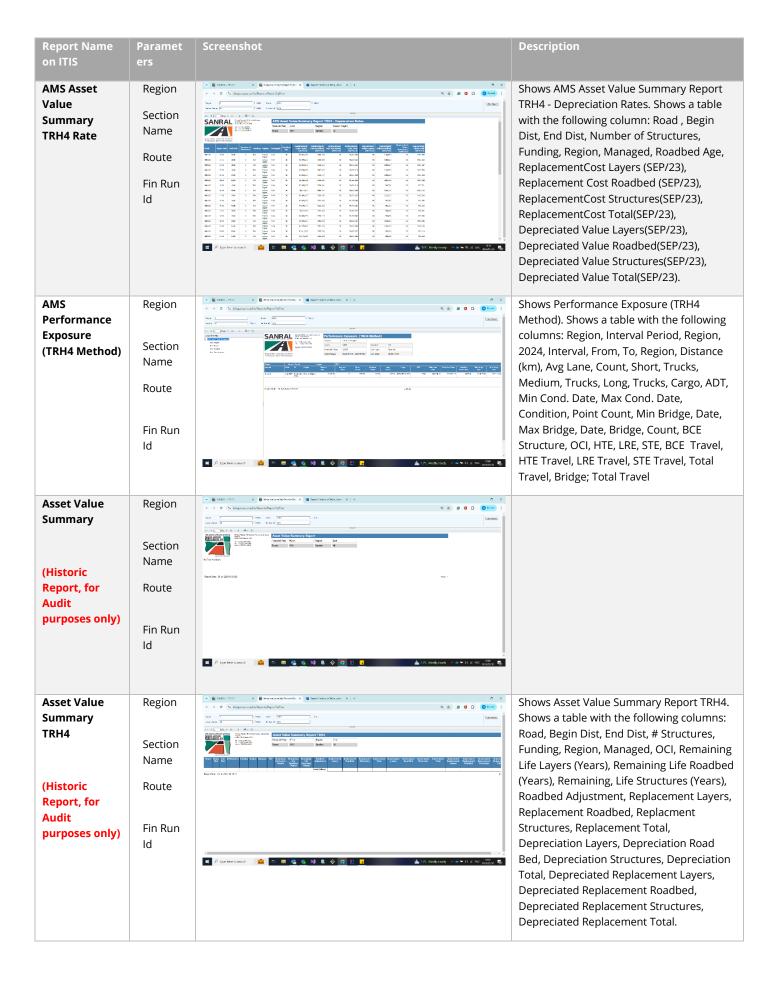


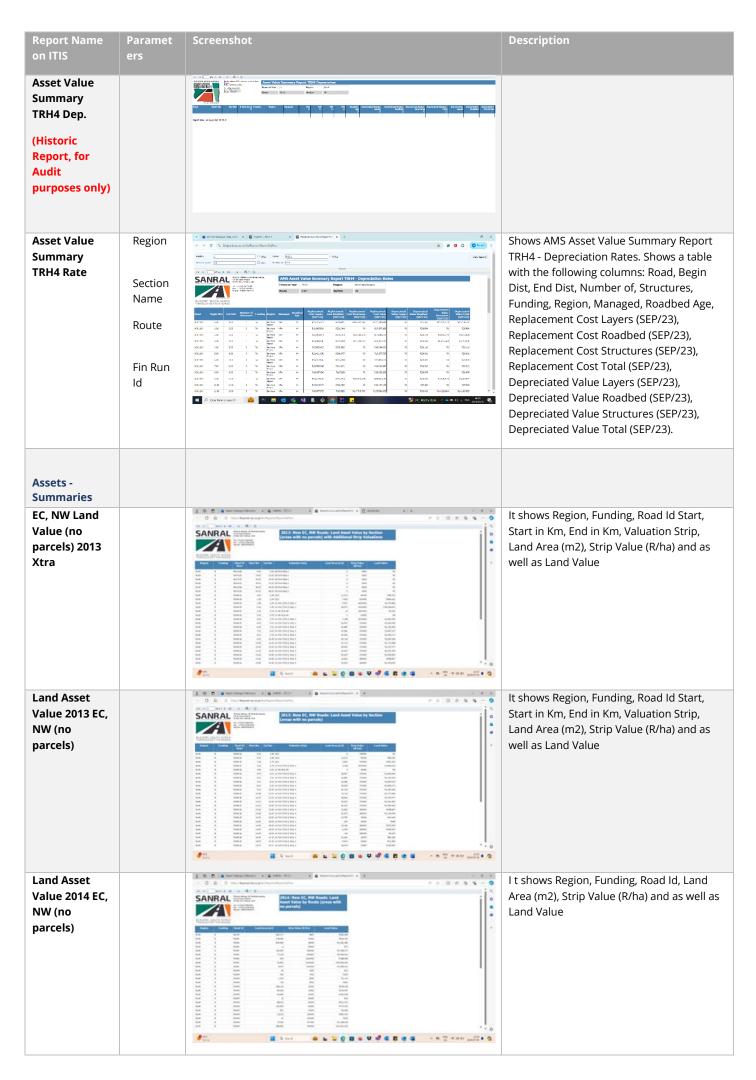




Report Name on ITIS	Paramet ers	Screenshot	Description
			Replacement Structures, Depreciated Replacement Total.
			Nb: Large amount of data available in this report and therefore, we recommend filtering by road/section.
Assets – Financial Year			
AMS Asset Road Section Length		D September D D September D D September D D September D D D D D D D D D	It shows Road, Start, End, Distance in Km and also where if Begin
AMS Asset Structure List			It shows Road ID, Field in Km, Structure, E-Code, Depreciated Replacement Cost, Replacement Cost, Age, Length in m, Width in m, Highest Pier in m, Year Built, OCI and VKT
Asset Road Section Length	Fin Run ID		It displays Road, Start, End, Distance (Km), Begin and End
Asset Structure List (Historic Report, for Audit purposes only)	Fin Run ID	The state of the s	It shows Road ID, Field Km, Structure, E-code, Depreciated Replacement, Replacement cost, age, length, width, highest pier, year build, OCI and VKT

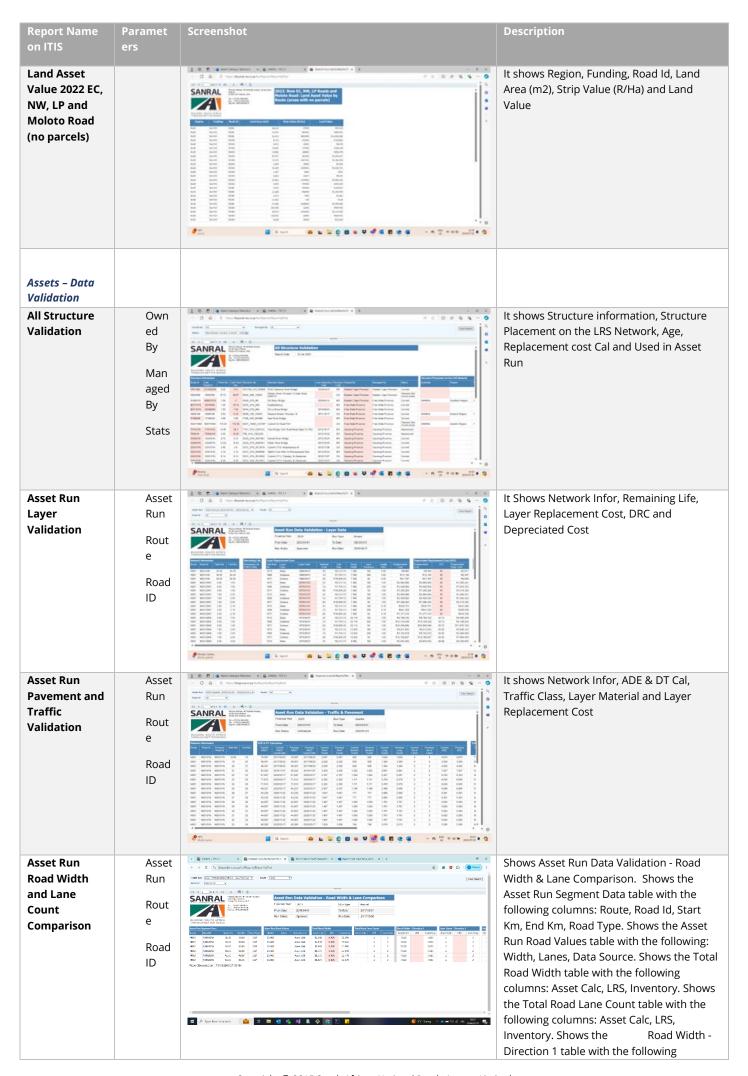
Report Name on ITIS	Paramet ers	Screenshot	Description
Assets - Pavement OCI			
AMS Pavement OCI		SANRAL SANRAL	Road Id, Year, Condition Year, Segment Begin in Km, Segment End, IRIi, RUTi, OCI, SSIi, TEXTi, Left IRI, Left RUT and Left MPD
Assets - Sections			
AMS Asset Value Summary TRH4	Region Route Section Name Fin Run ID	SANSAL	Shows the AMS Asset Value Summary Report TRH4, and Road, Begin Dist, End Dist, No of Structures, Funding, Region, Managed, OCI, Remaining Life Layers(Years), Remaining Life Roadbed (Years), Remaining Life Structures (Years), Roadbed Adjustment, Replacement Layers, Replacement Roadbed, Replacement Structures, Replacement Total, Depreciation Layers, Depreciation Road Bed, Depreciation Structures, Depreciation Total, Depreciated Replacement Layers, Depreciated Replacement Structures, Depreciated Replacement Structures, Depreciated Replacement Structures, Depreciated Replacement Total
AMS Asset Value Summary TRH4 Dep	Region Route Section Name Fin Run ID	Column C	Road, Comparing, Road, (JUN/23), Begin Dist, End Dist, No of Structures (JUN/23), No of Structures (SEP/23), Funding, Region, Managed, Road OCI, (JUN/23), Road OCI (SEP/23) Structure OCI (JUN/23) Structure OCI (SEP/23) Roadbed Age (JUN/23) Roadbed Age (SEP/23) Depreciated Replac. Layers (JUN/23) Depreciated Replac. Layers (SEP/23) Depreciated Replac. Roadbed (JUN/23) Depreciated Replac. Structures (JUN/23) Depreciated Replac. Structures (JUN/23) Depreciated Replac. Structures (SEP/23) Depreciated Replace. Total (JUN/23) Depreciated Replace. Total (JUN/23) Depreciation Layers Depreciation Roadbed Depreciation Structures Depreciation Total



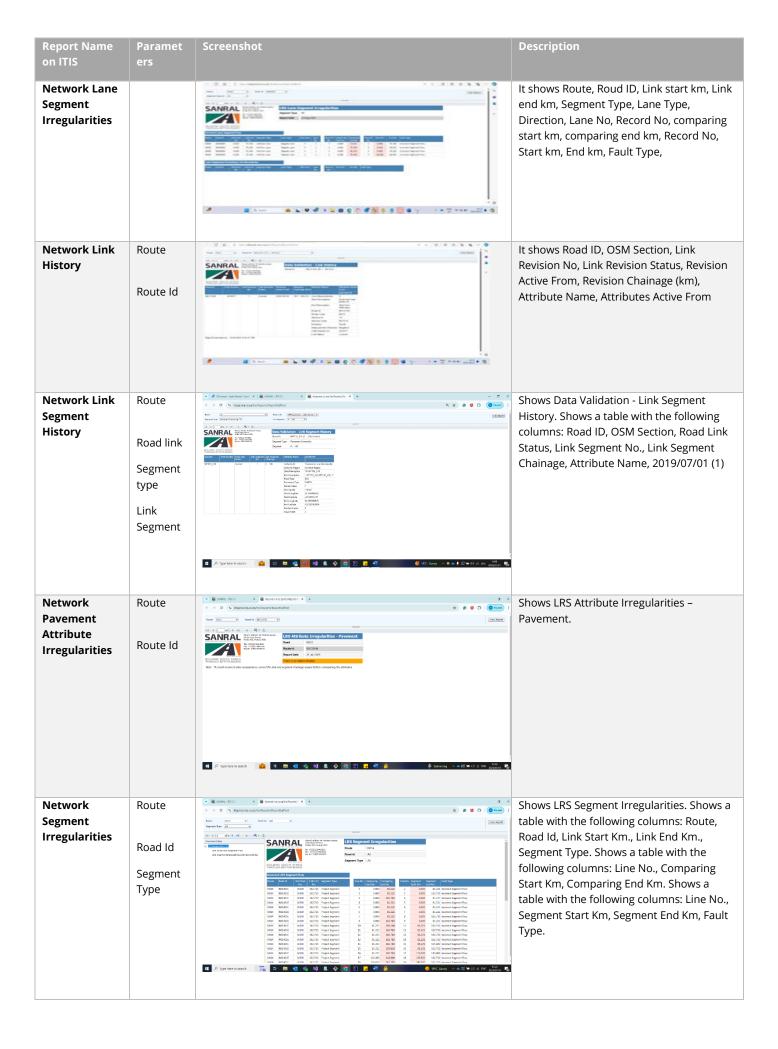






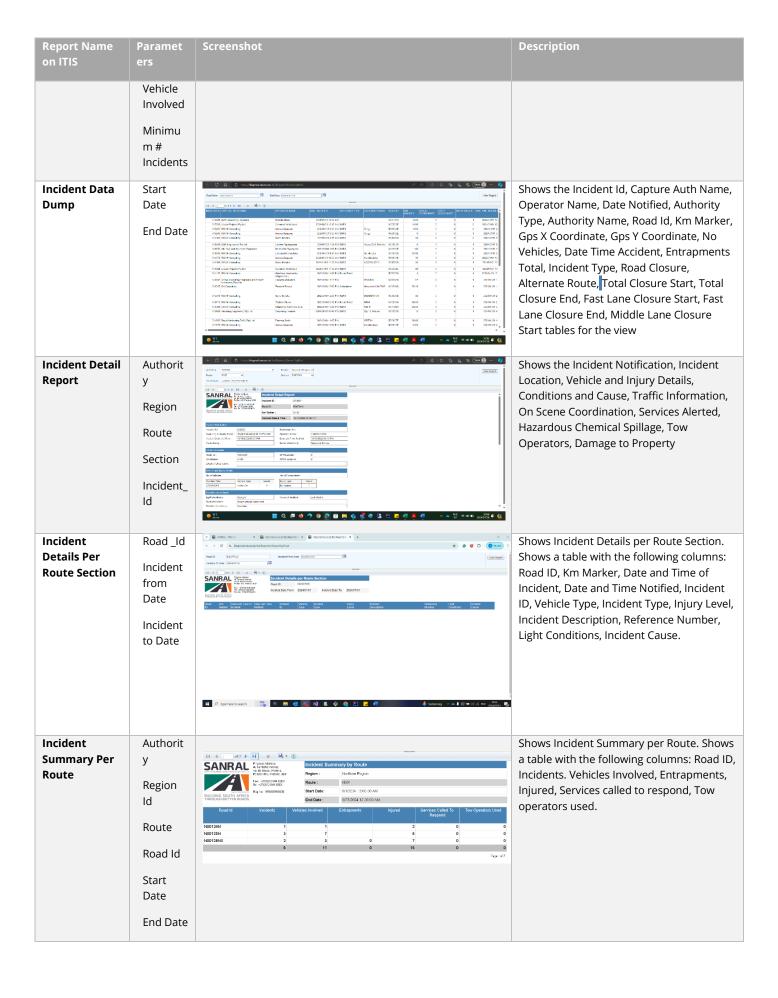


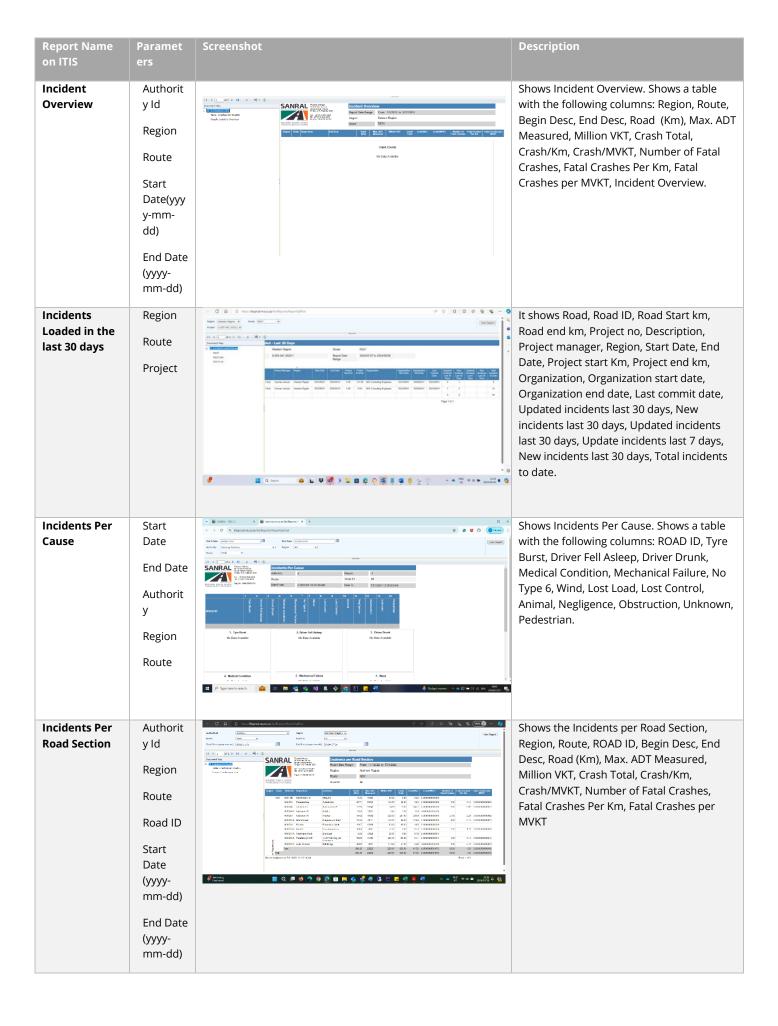
Report Name on ITIS	Paramet ers	Screenshot	Description
			columns: Asset Calc, LRS, Inventory. Shows the Lane Count - Direction 1 table with the following columns: Asset Calc, LRS, Inventory. Shows the Slow Shoulder - Direction 1 table with the following columns: Asset Calc, LRS, Inventory. Shows the Fast Shoulder - Direction 1 table with the following columns: Asset Calc, LRS, Inventory. Shows the Road Width - Direction 2 table with the following columns: Asset Calc, LRS, Inventory. Shows the Lane Count - Direction 2 table with the following columns: Asset Calc, LRS, Inventory. Shows the Slow Shoulder - Direction 2 table with the following columns: Asset Calc, LRS, Inventory. Shows the Fast Shoulder - Direction 2 table with the following columns: Asset Calc, LRS, Inventory. Shows the Fast Shoulder - Direction 2 table with the following columns: Asset Calc, LRS, Inventory.
Asset Run Roadbed Validation	Asset Run Rout e Road ID	De Company Compa	Shows Asset Run Data Validation - Roadbed Data.
Asset Run Structure Validation	Asset Run	SARRAL	It shows Road ID, Field in Km, Structure, E-Code, Depreciated Replacement Cost, Replacement Cost, Age, Length in m, Width in m, Highest Pier in m, Year Built, OCI and VKT
Network ADT Calculation Irregularities	Start Date End Date Proje ct Type Jira Grou p	Tbc.	

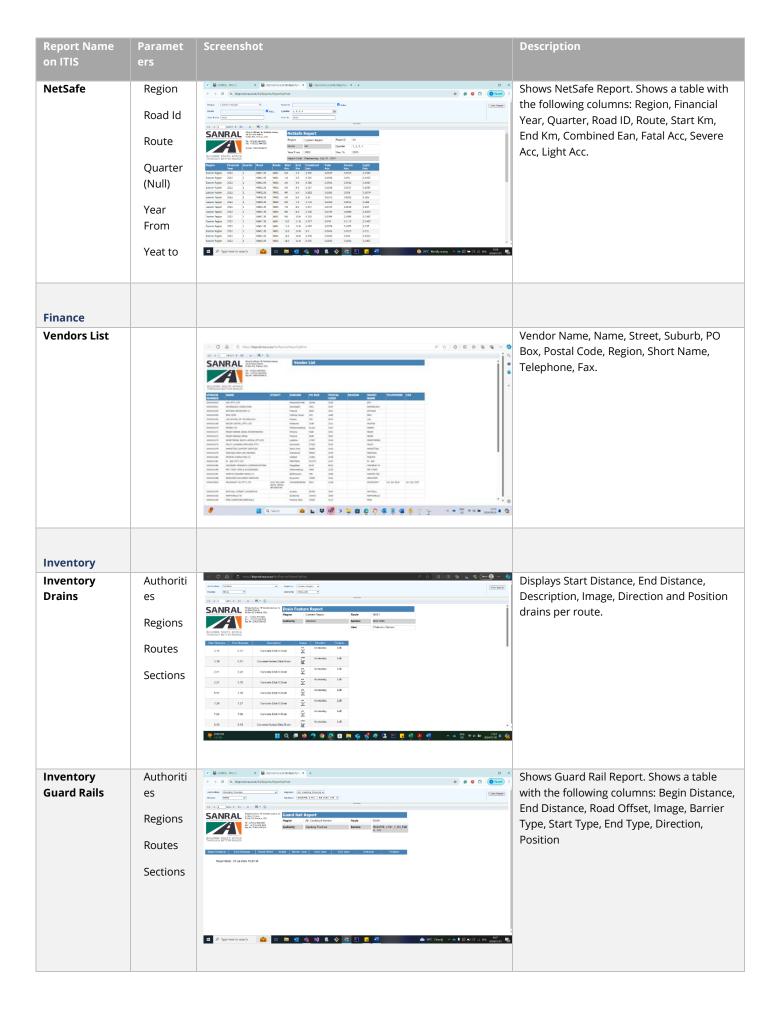


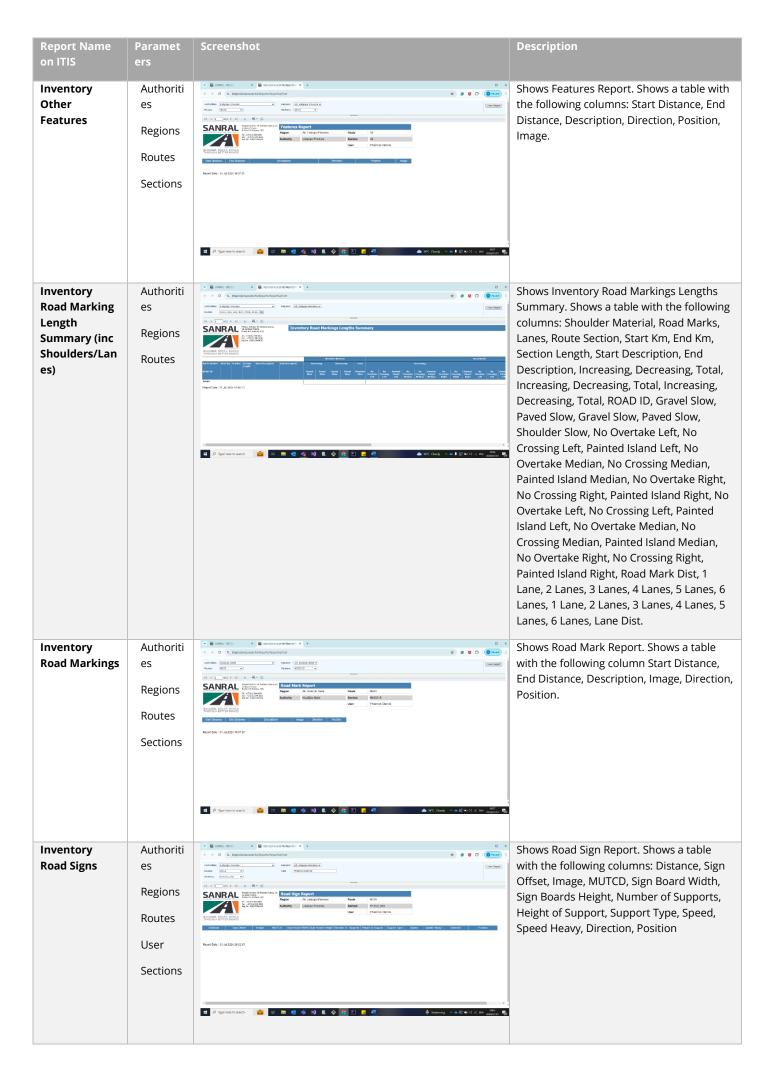


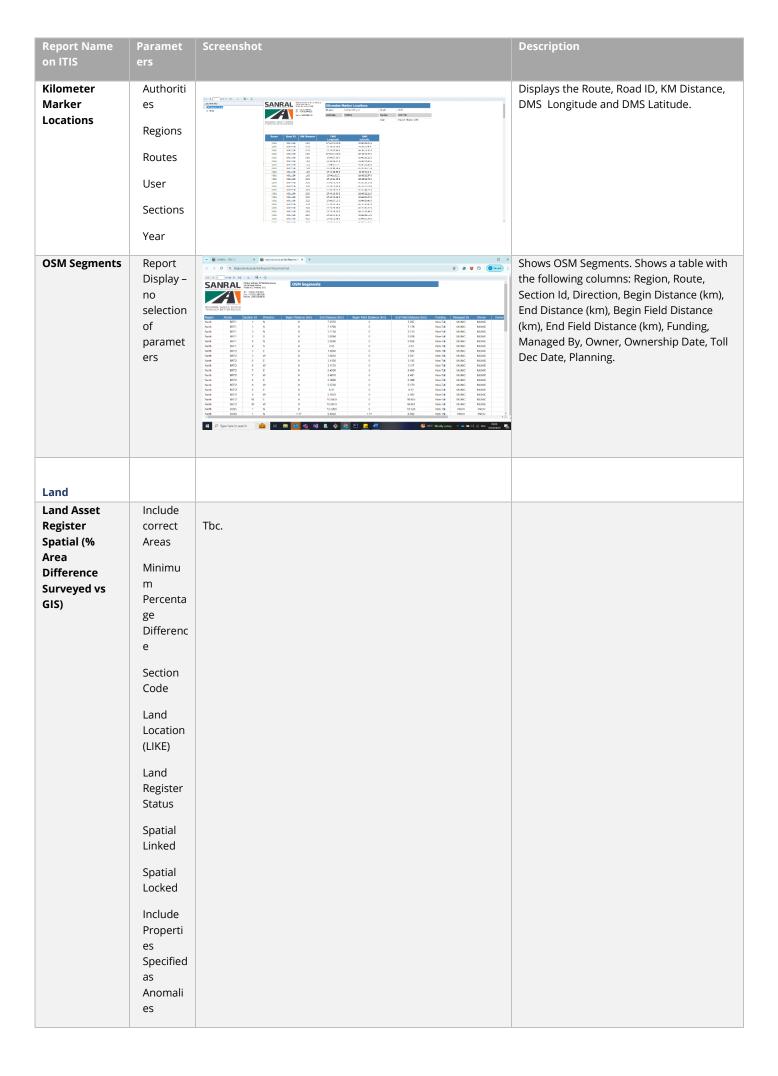
Report Name on ITIS	Paramet ers	Screenshot	Description
		None available	_
Community Developments			
Developments			
Documents Project	Date		Deprecated
Drawings	Date		Deprecated
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	Min.		
	Fatalities		
	Min. Vehicle		
	Count		
	Min.		
	Total		
	Crashes		
Hazardous	Authorit		It shows Route, Road Id, Start Km, End Km,
Locations	у		Total Crashes, Fatal Crashes, Fatal Injury,
	Region	SANRAL INTERIOR	Vehicles Involved and Total Entrapments
	Route	10 10 10 10 10 10 10 10	
	Road Id		
	From Date		
	To Date		
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	m Fatal Crashes		
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	Fatalities		
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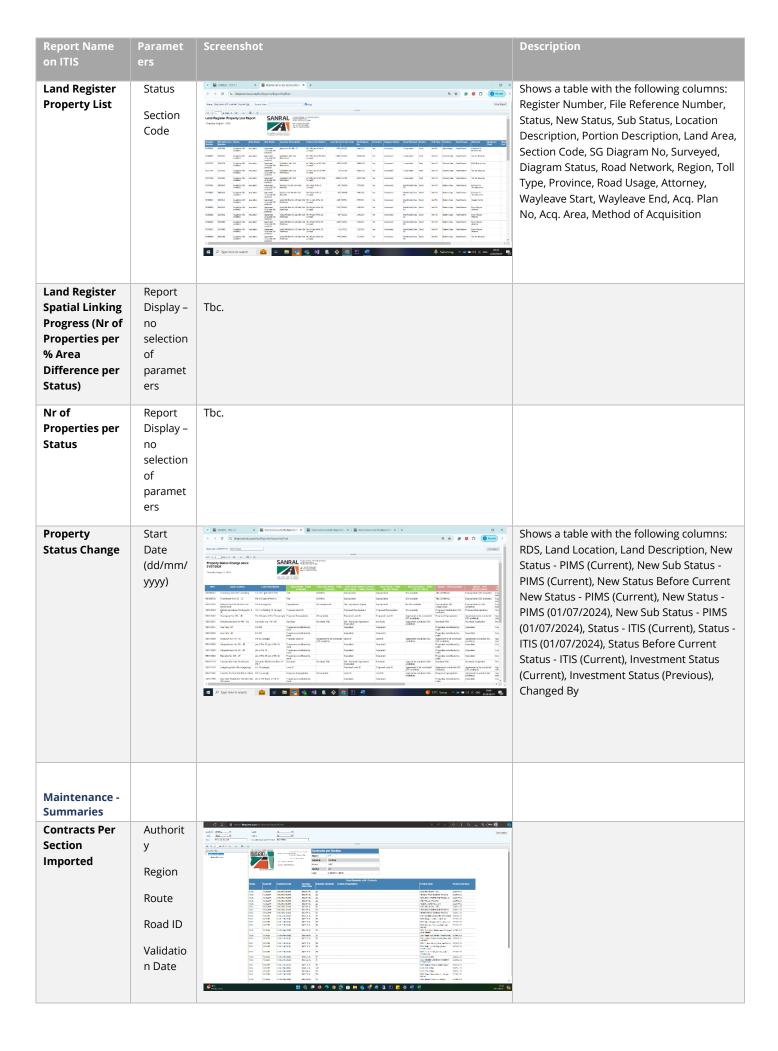


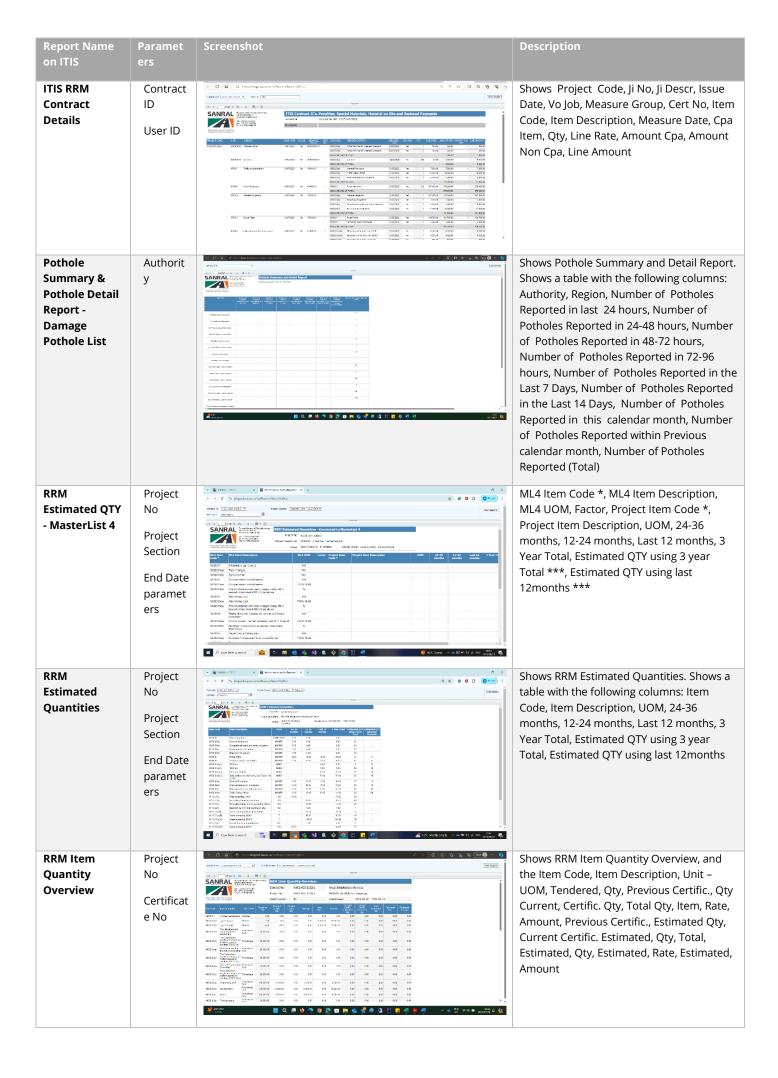


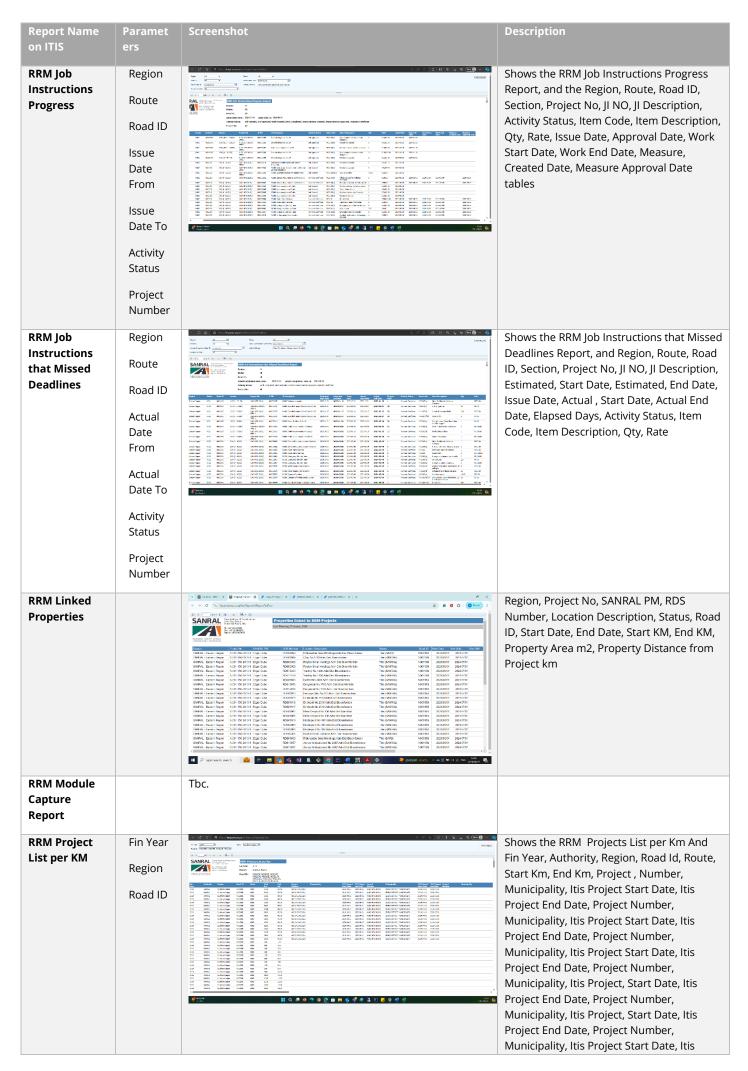


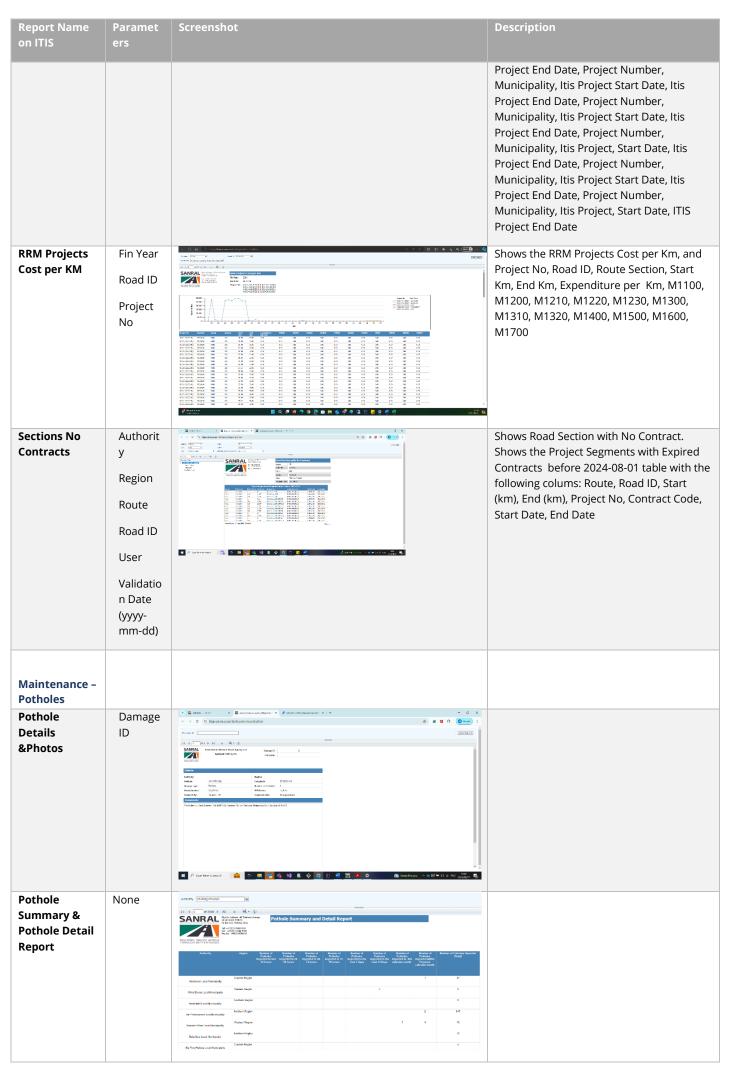


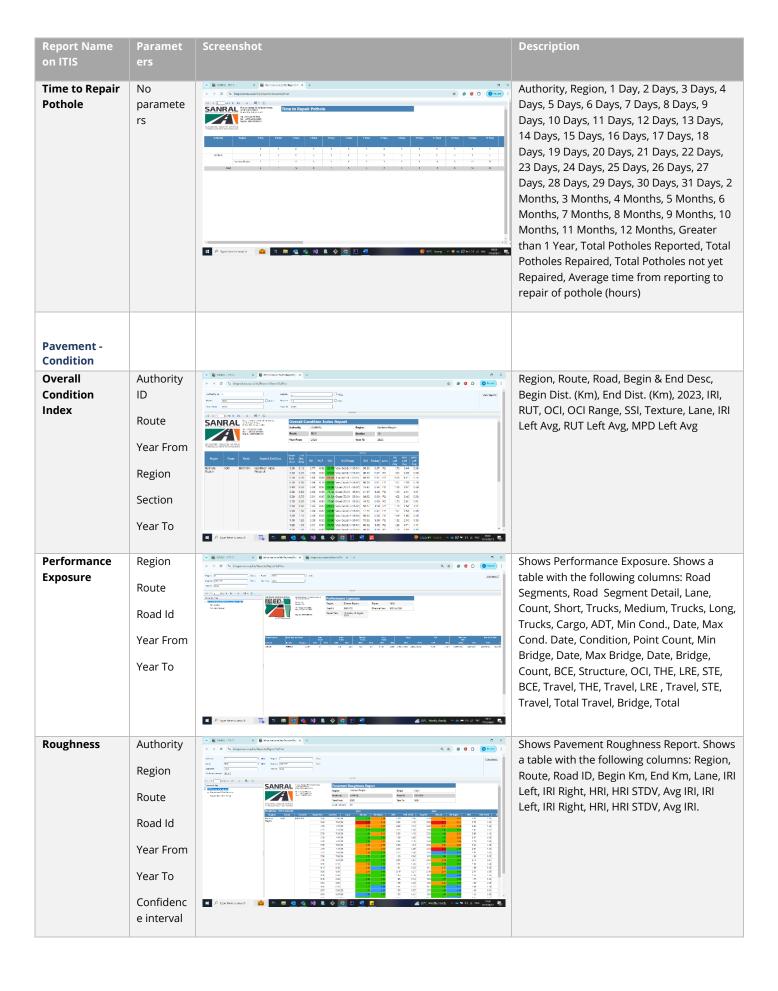




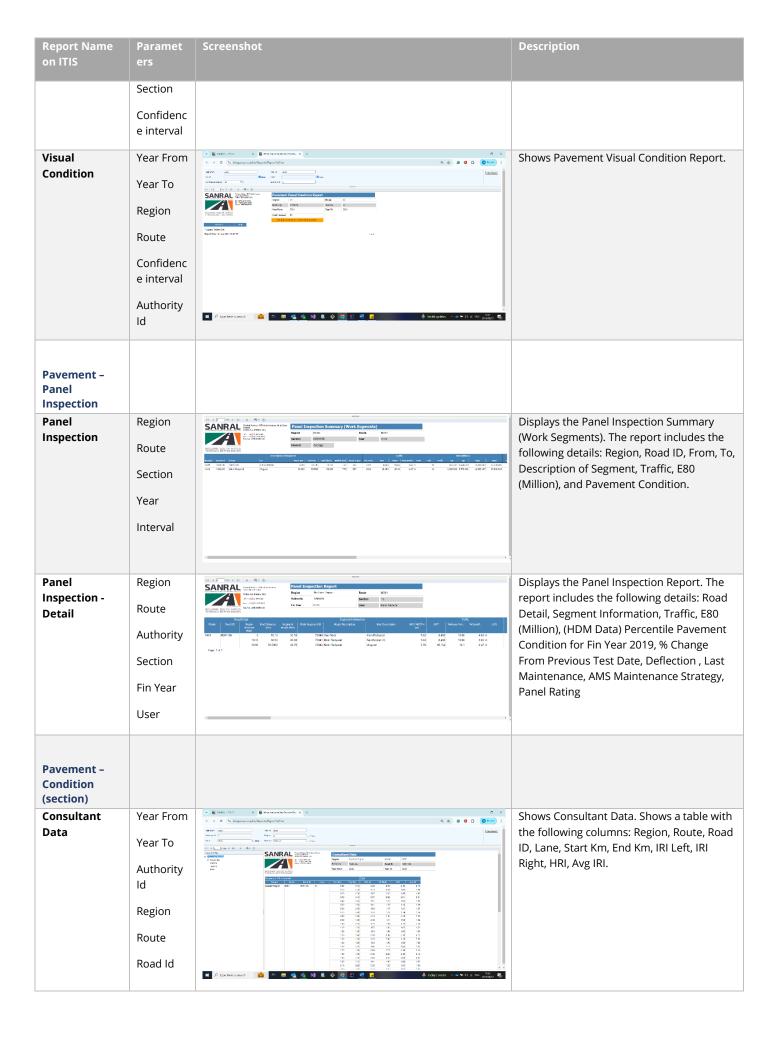


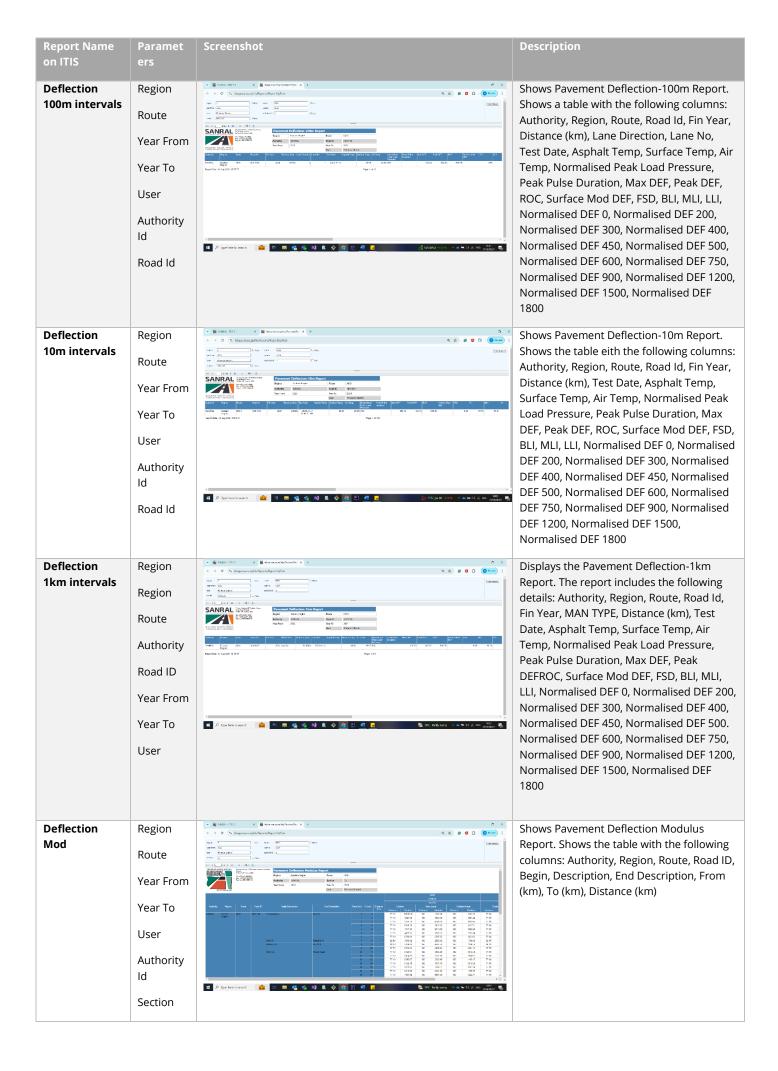


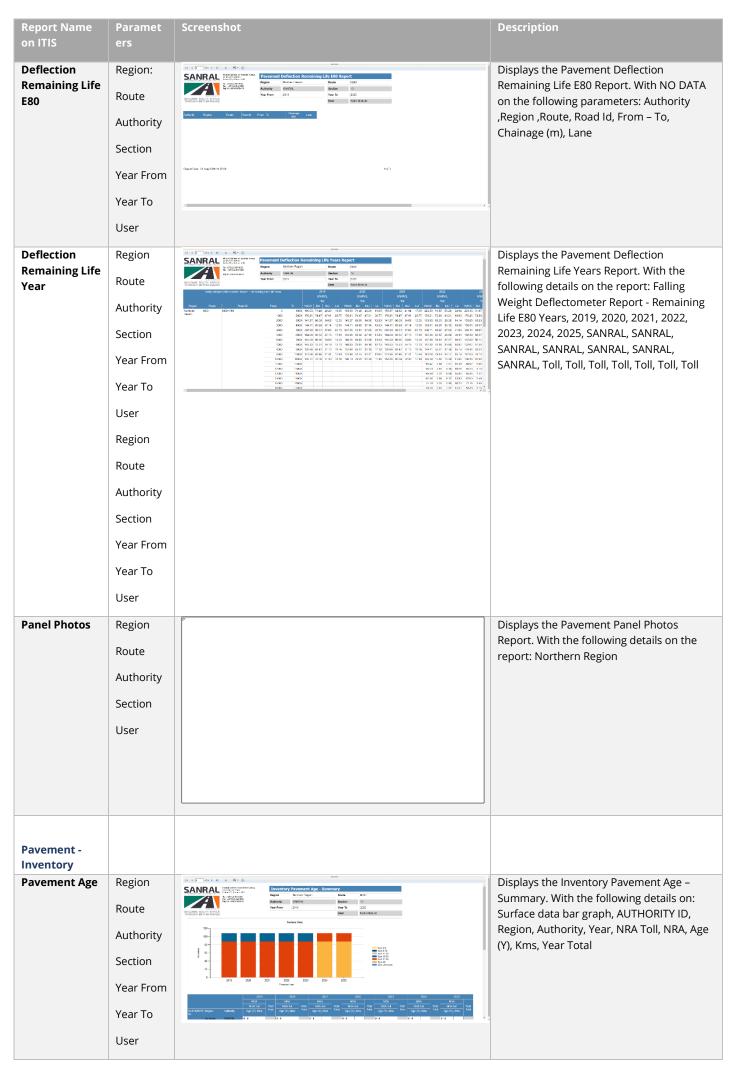


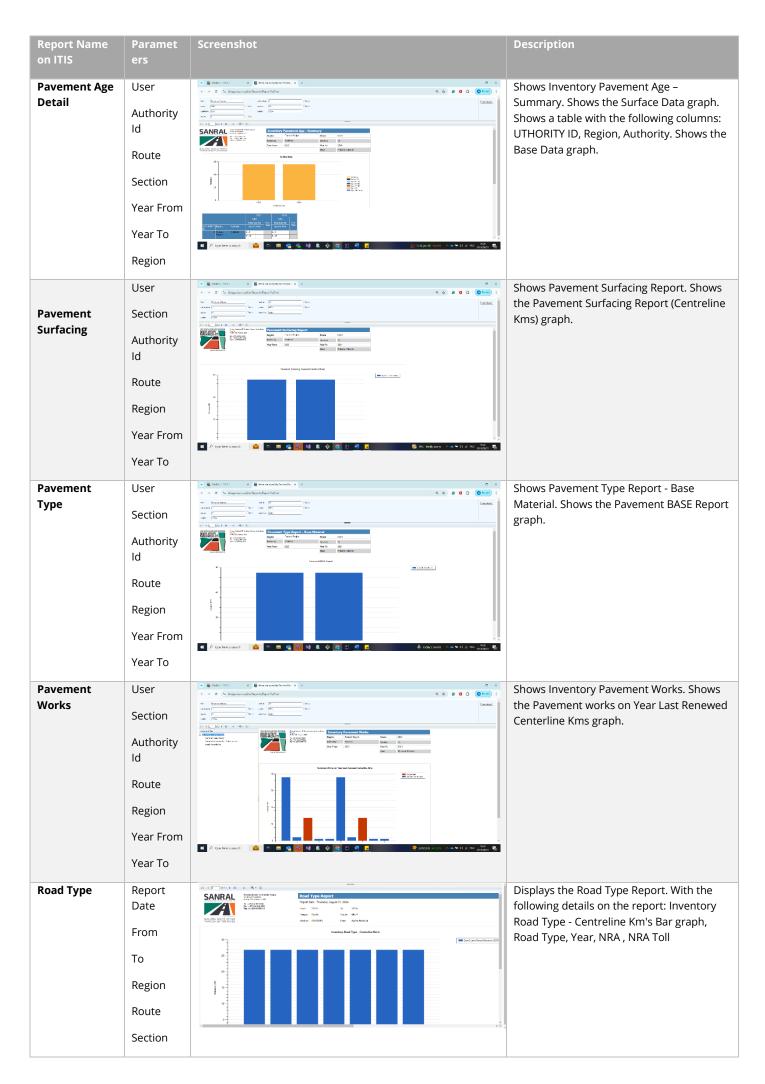


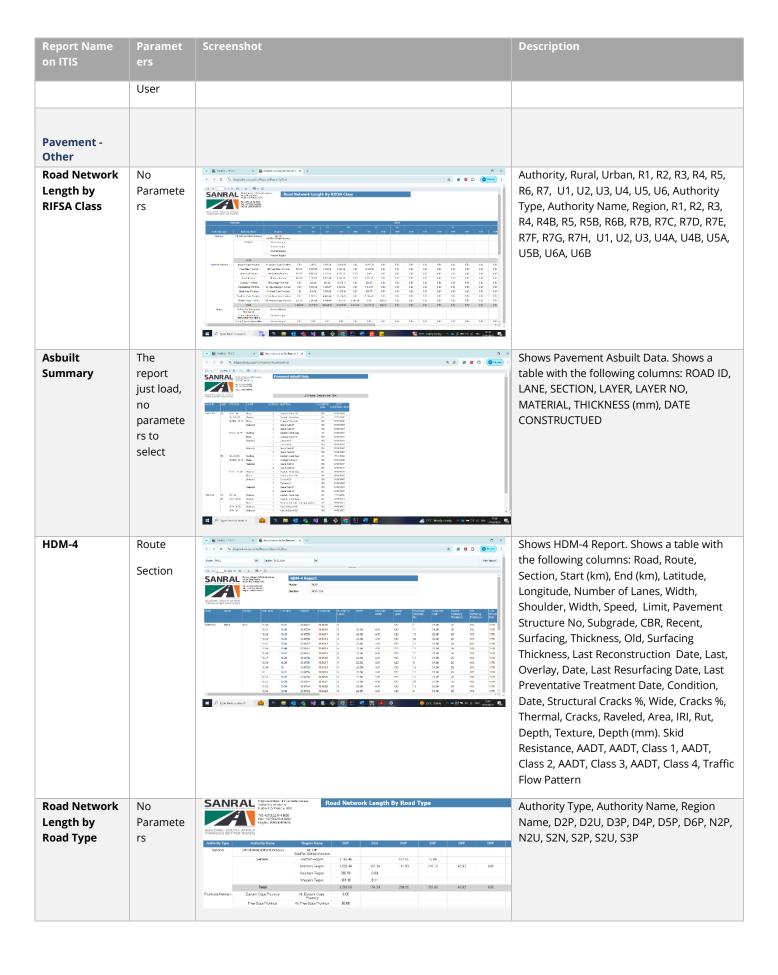


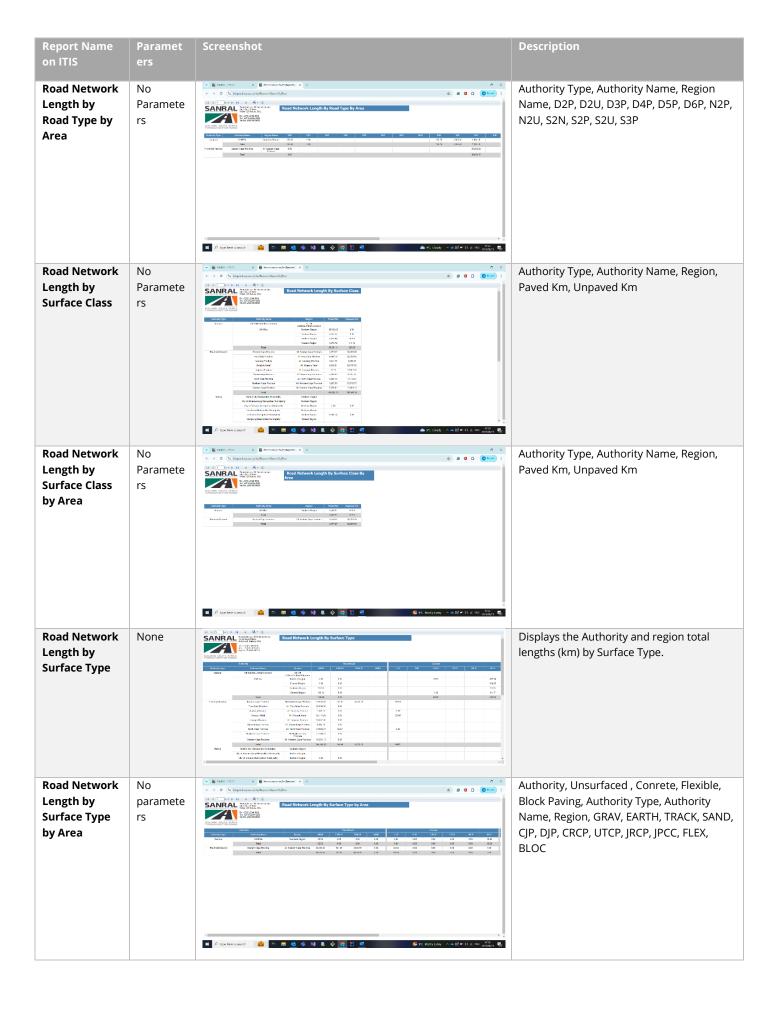


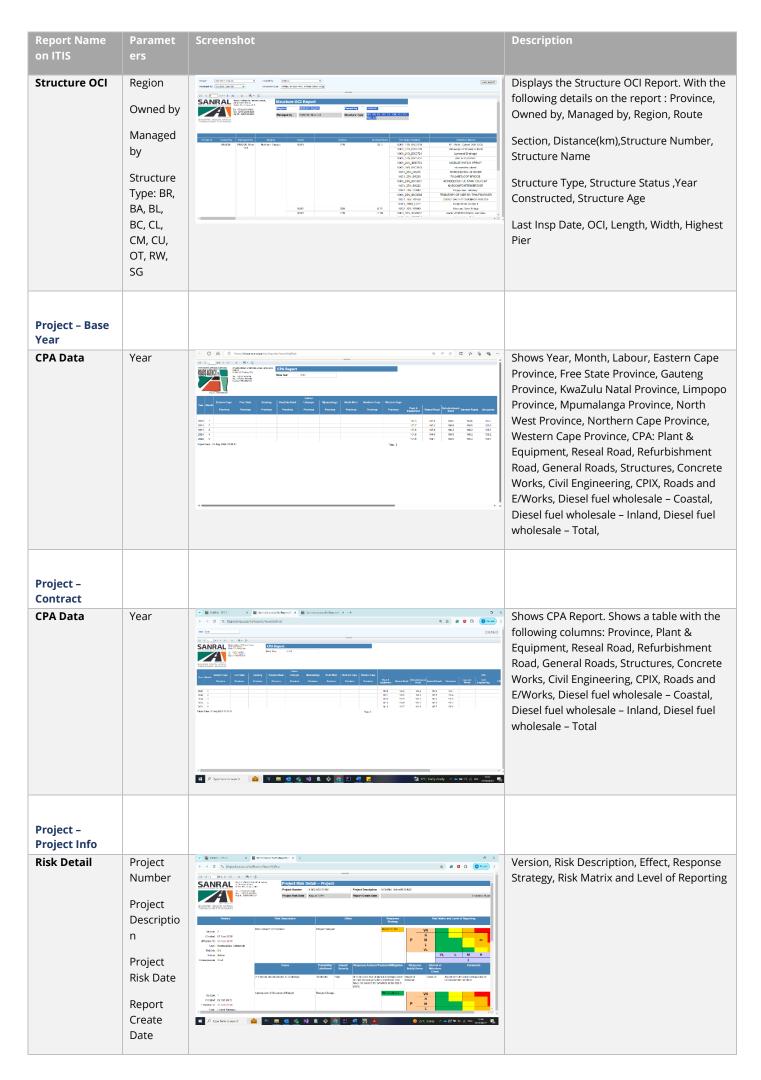


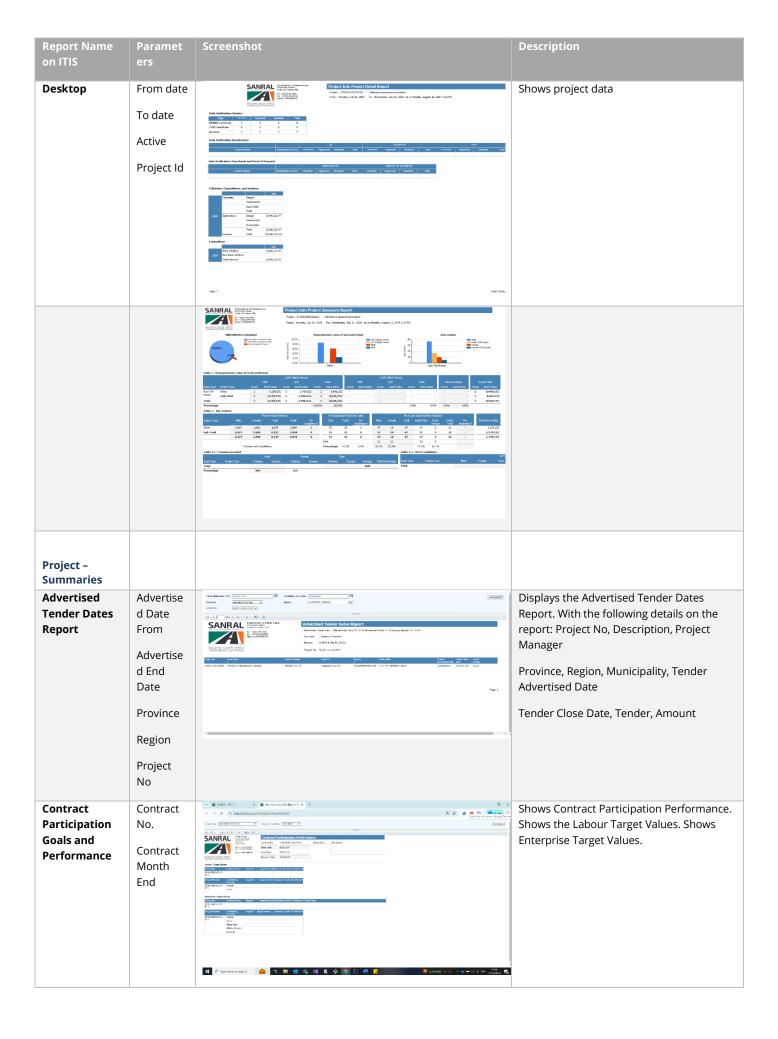


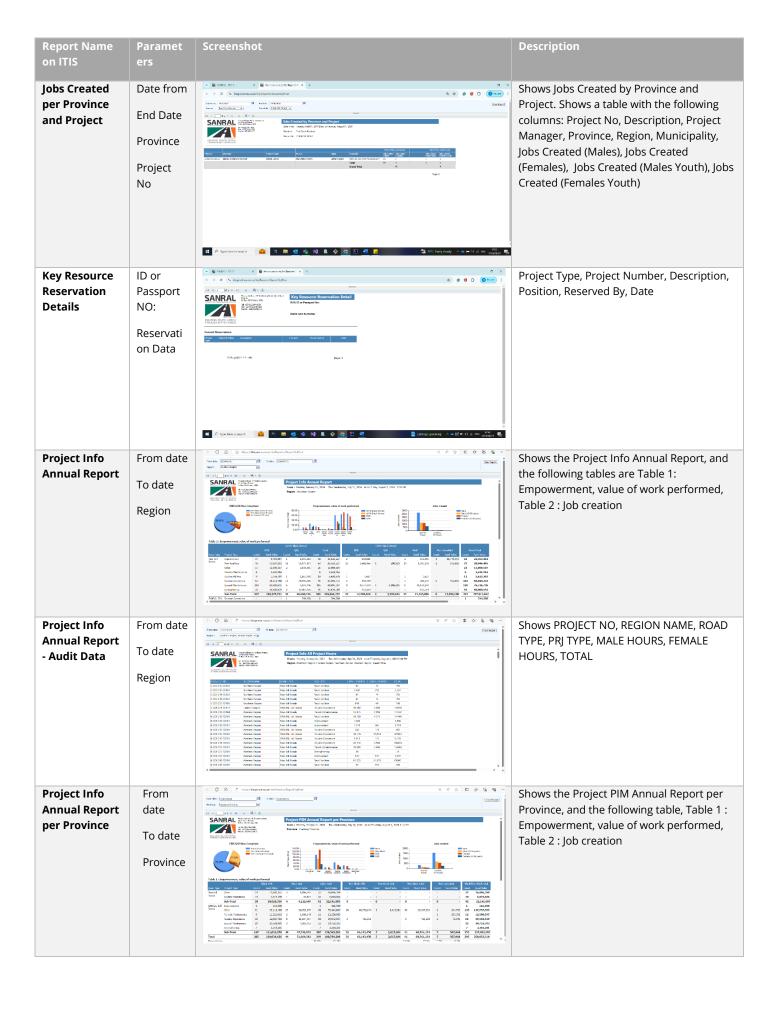


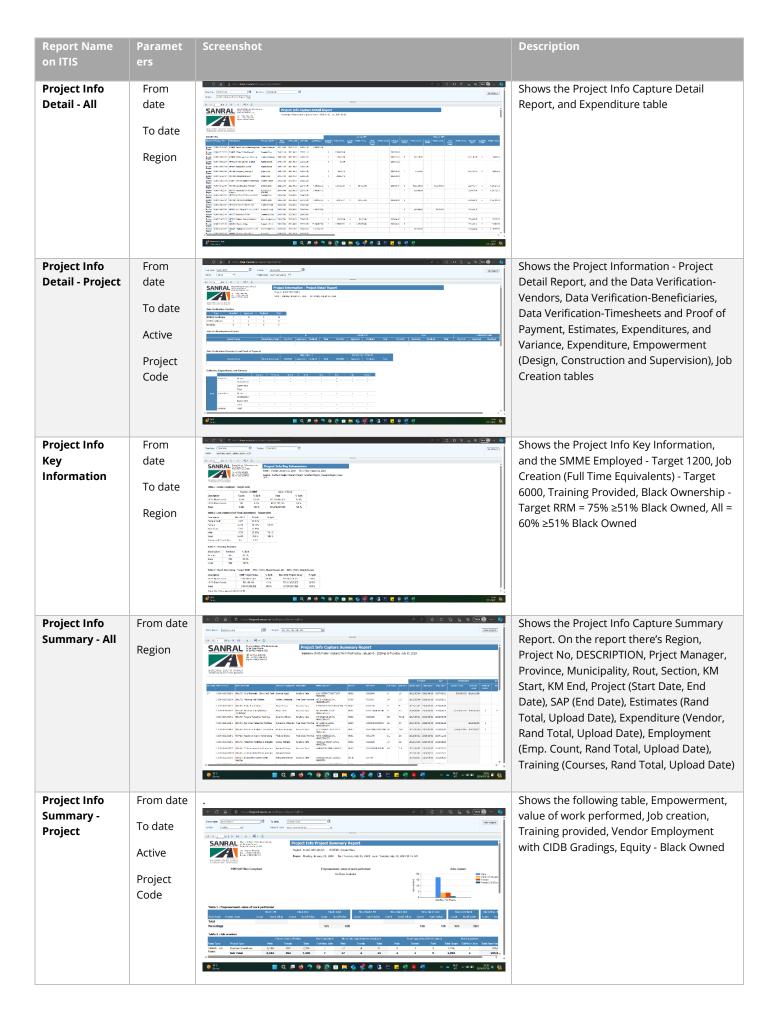


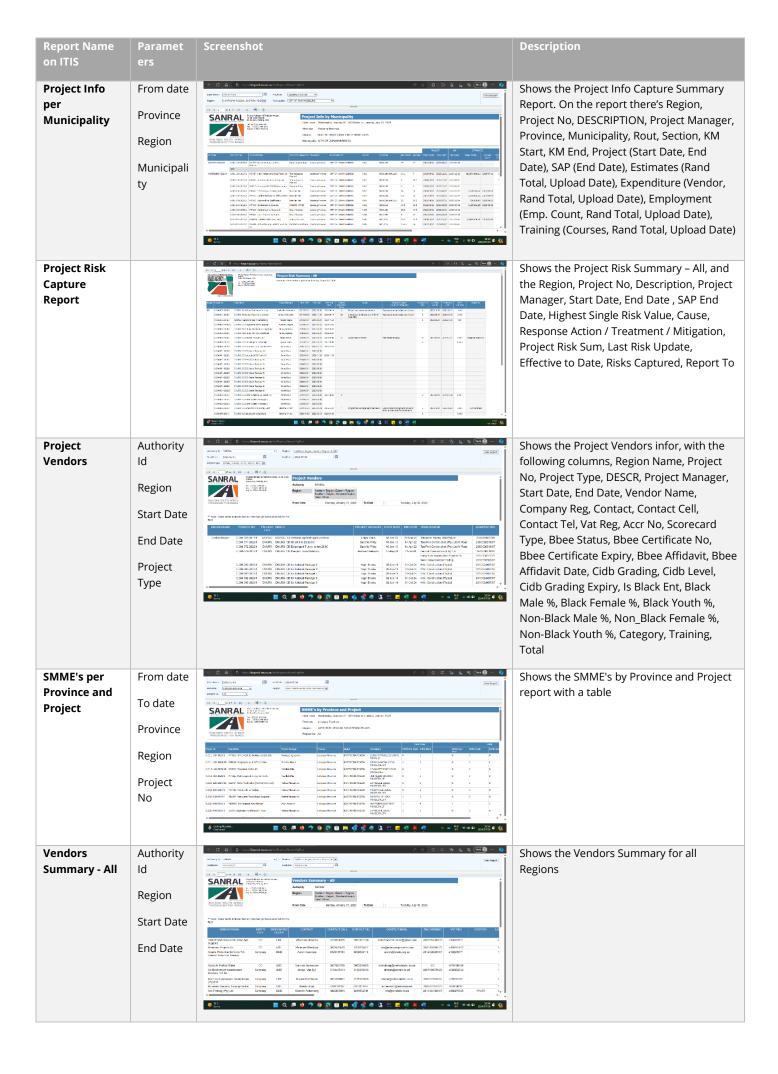


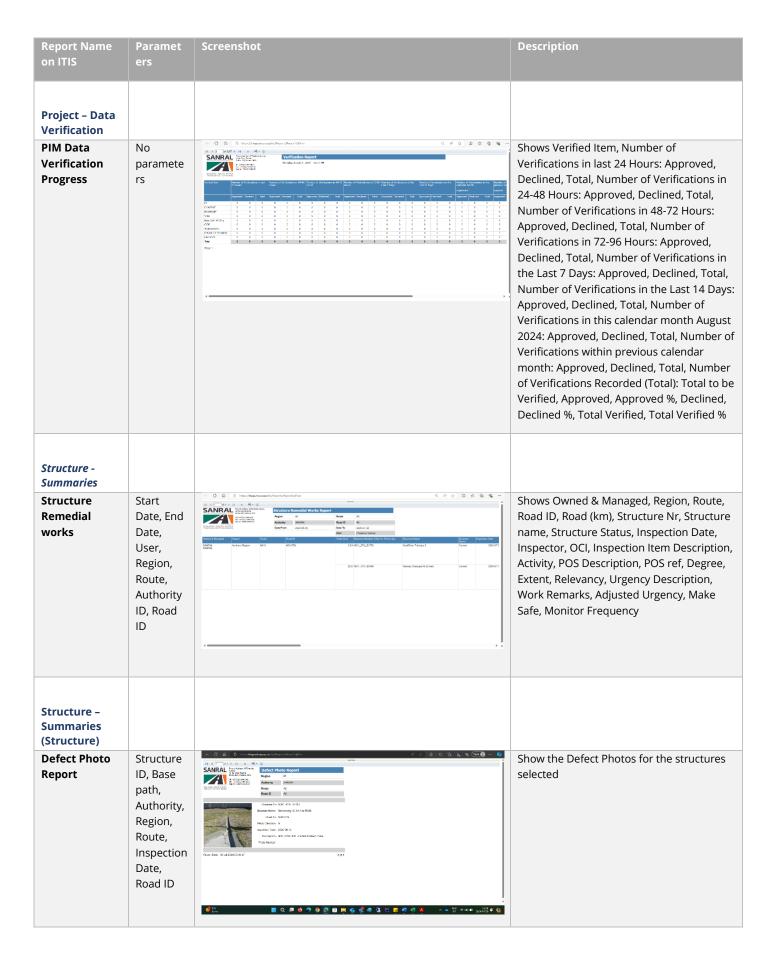


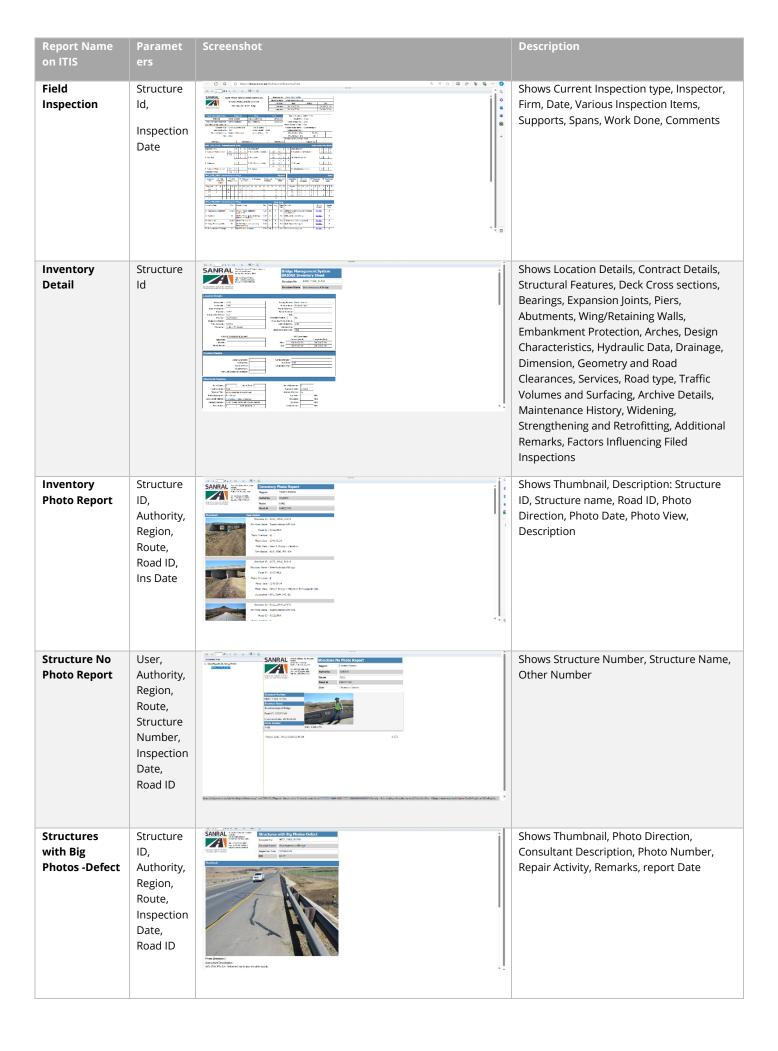


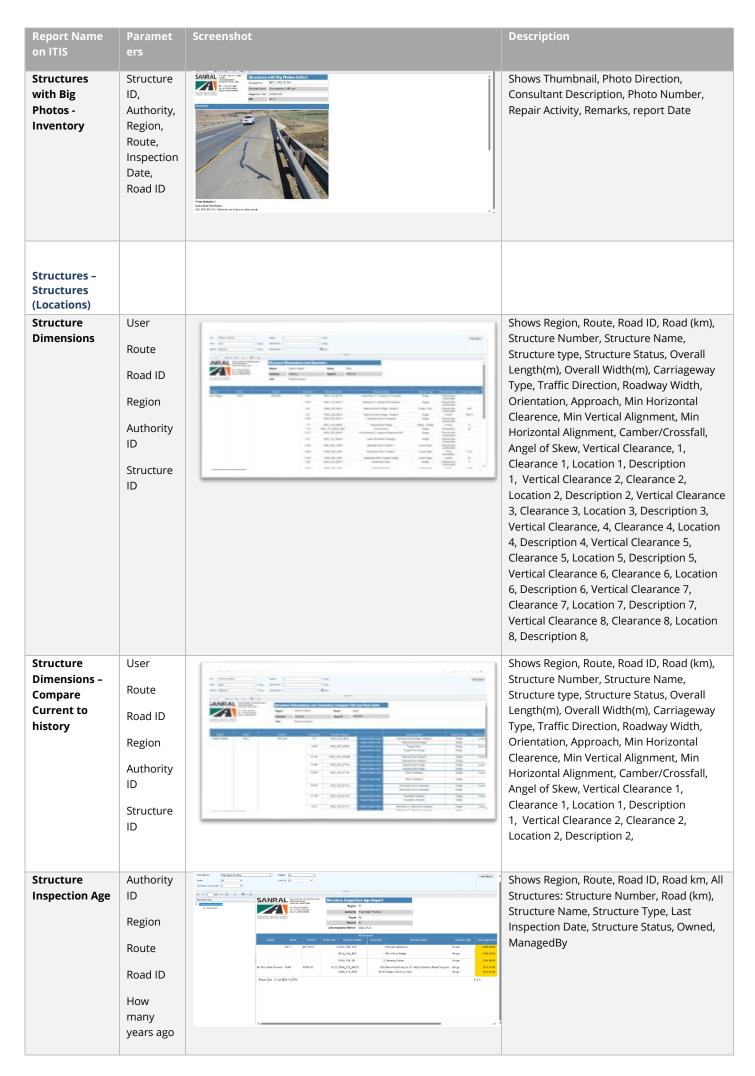


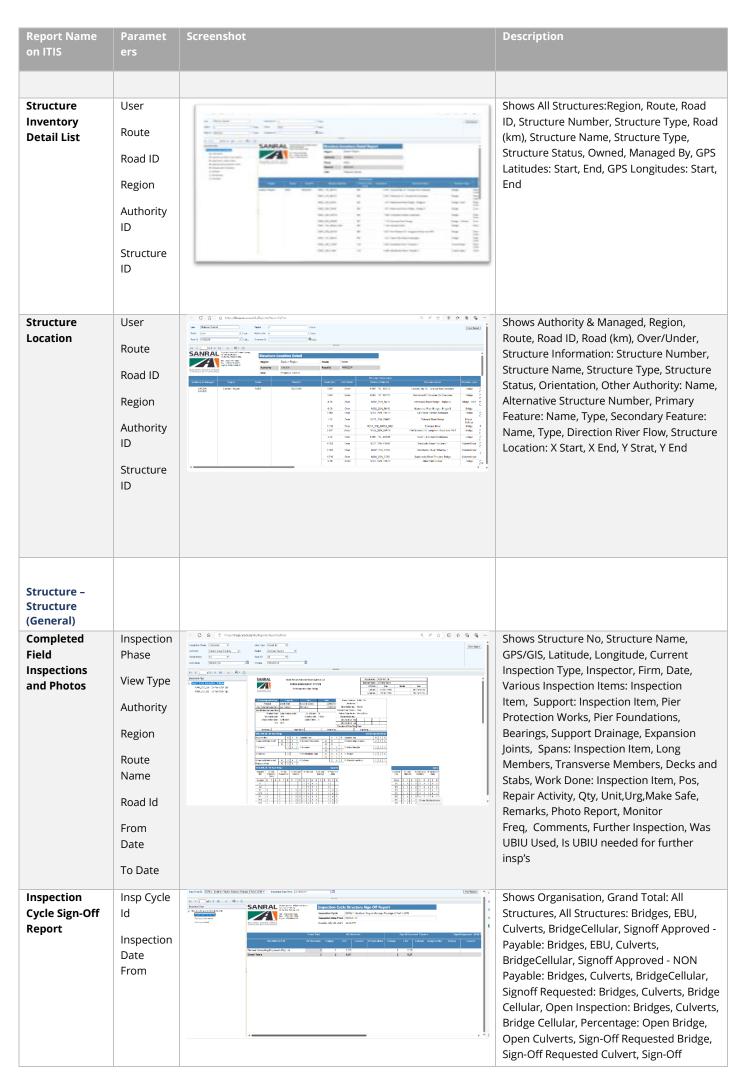


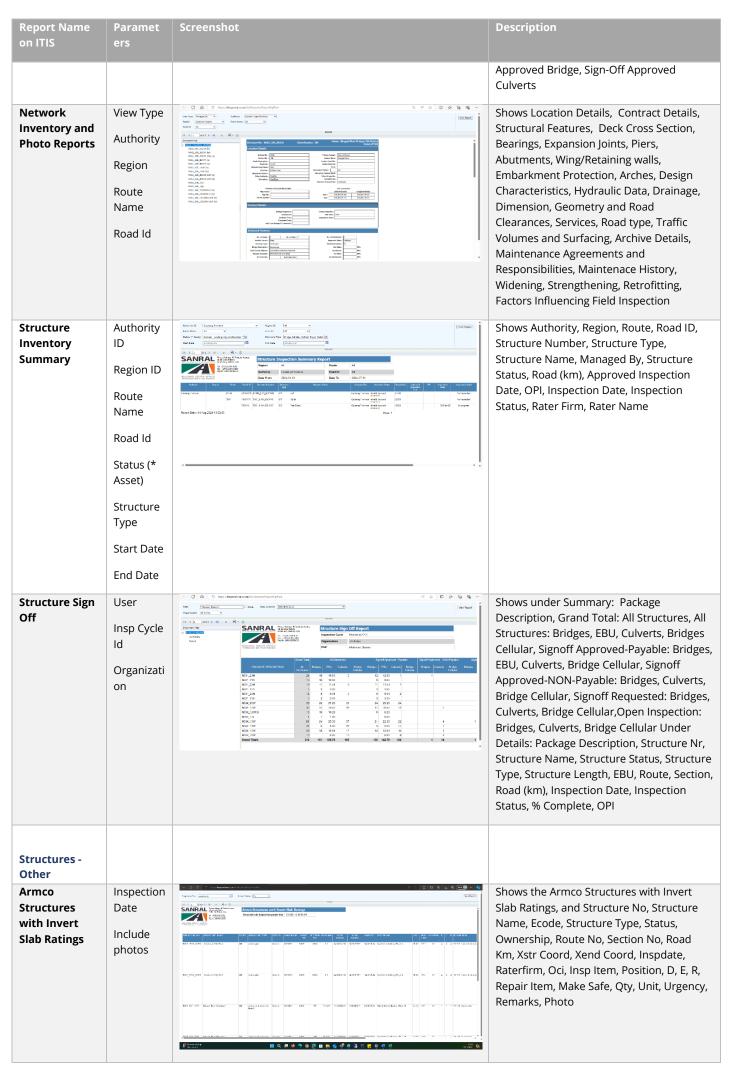


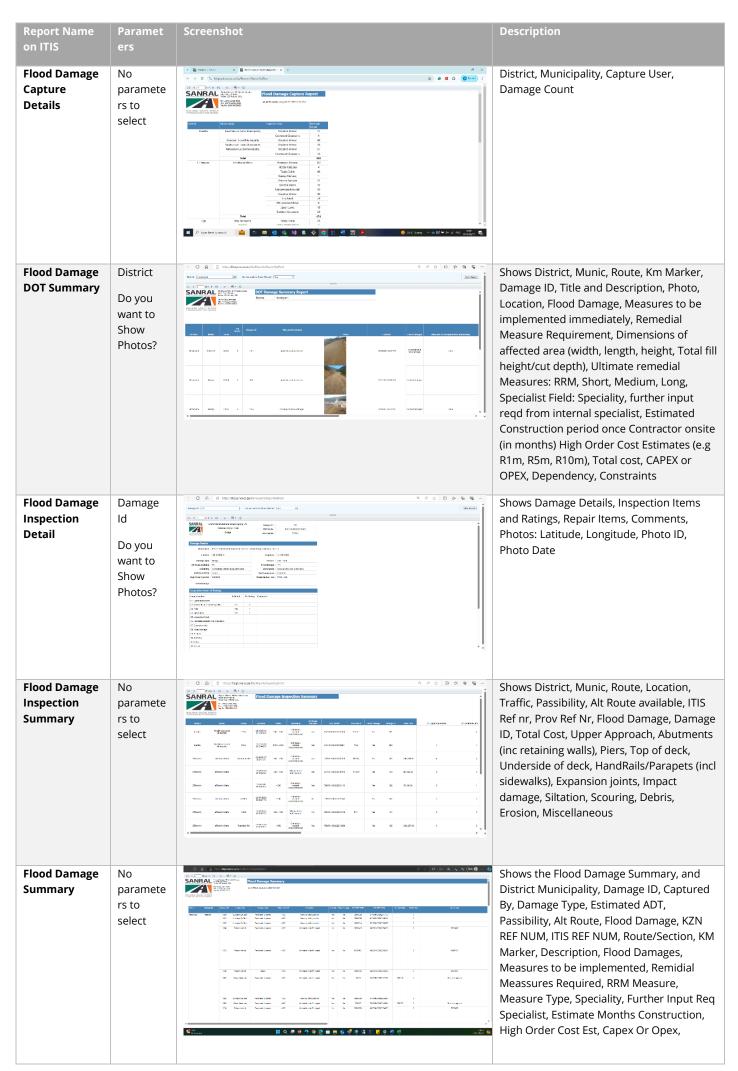


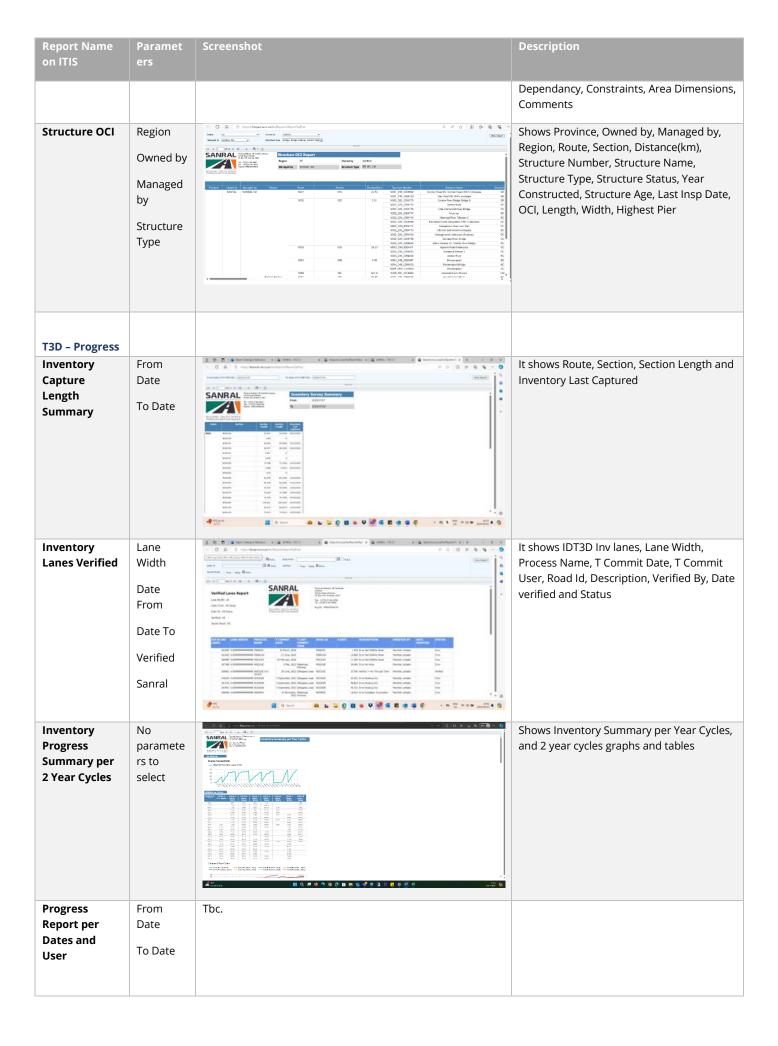


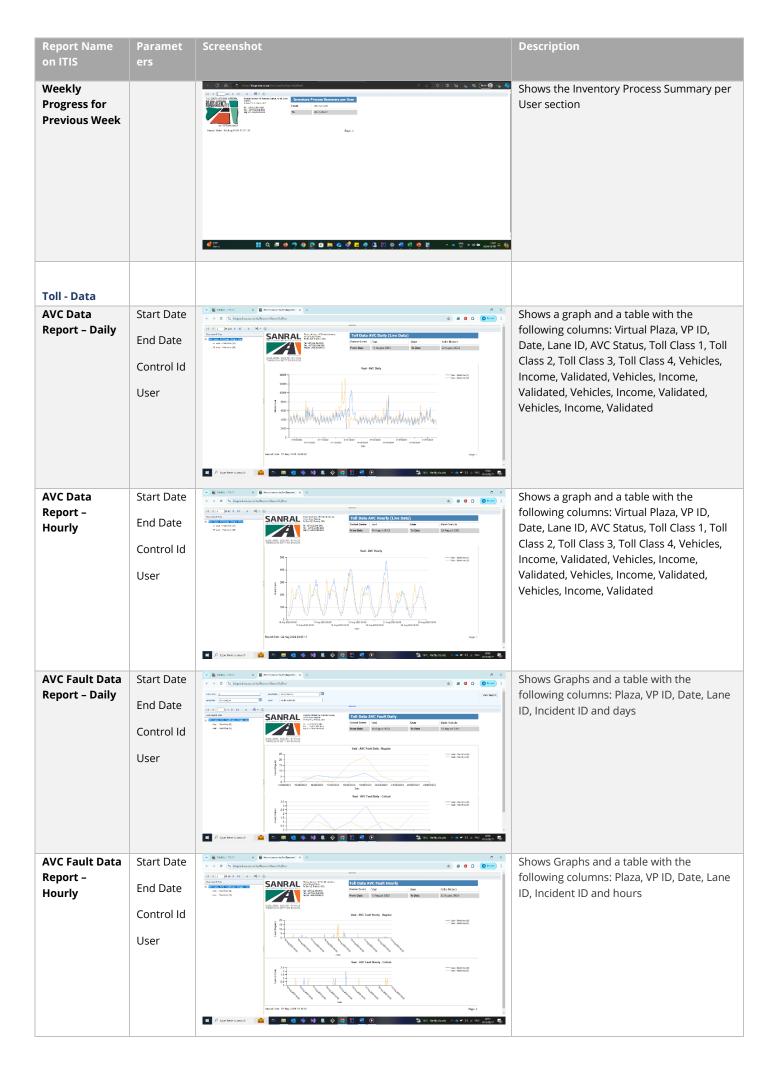


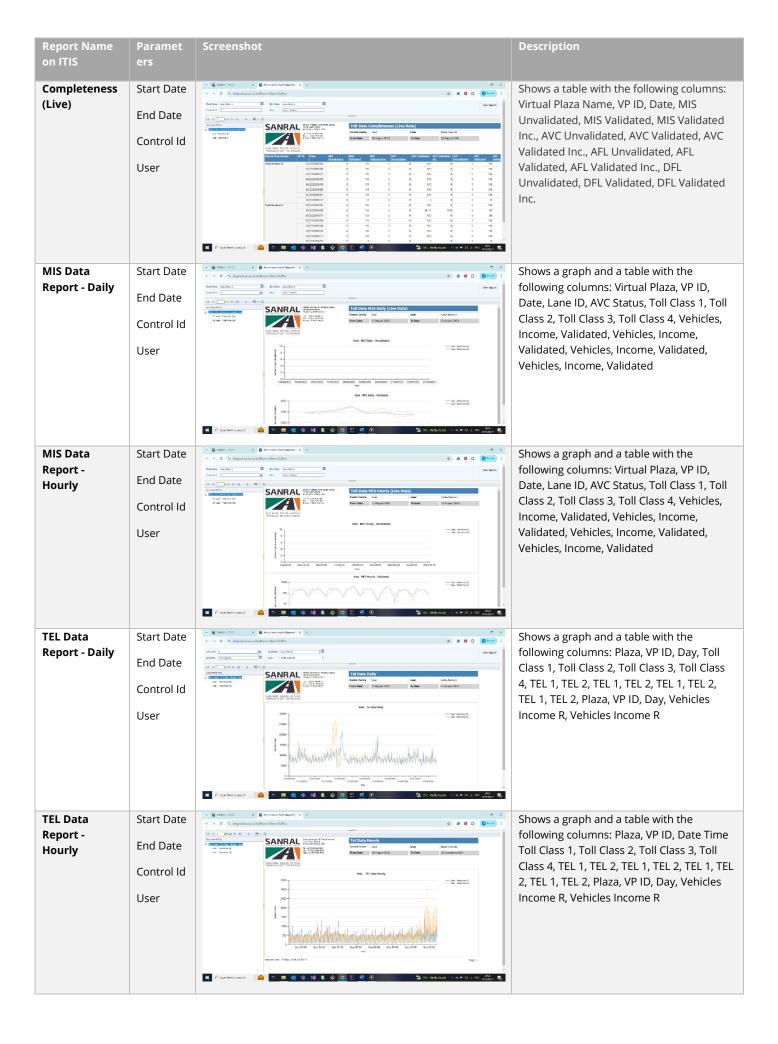


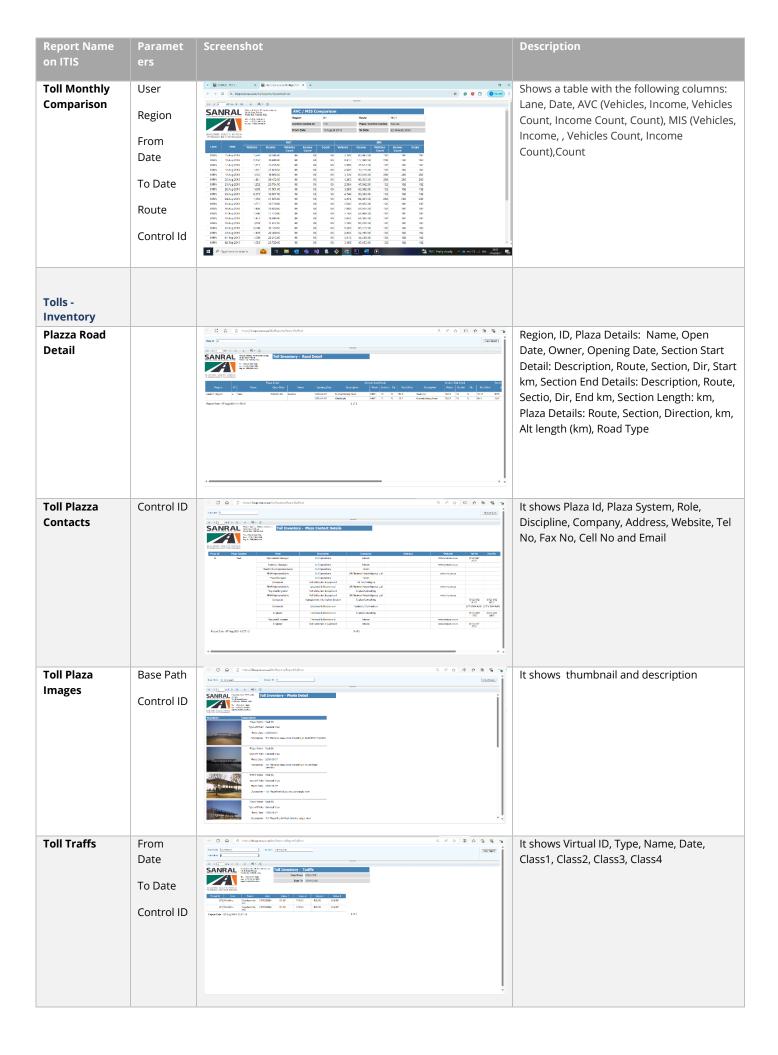


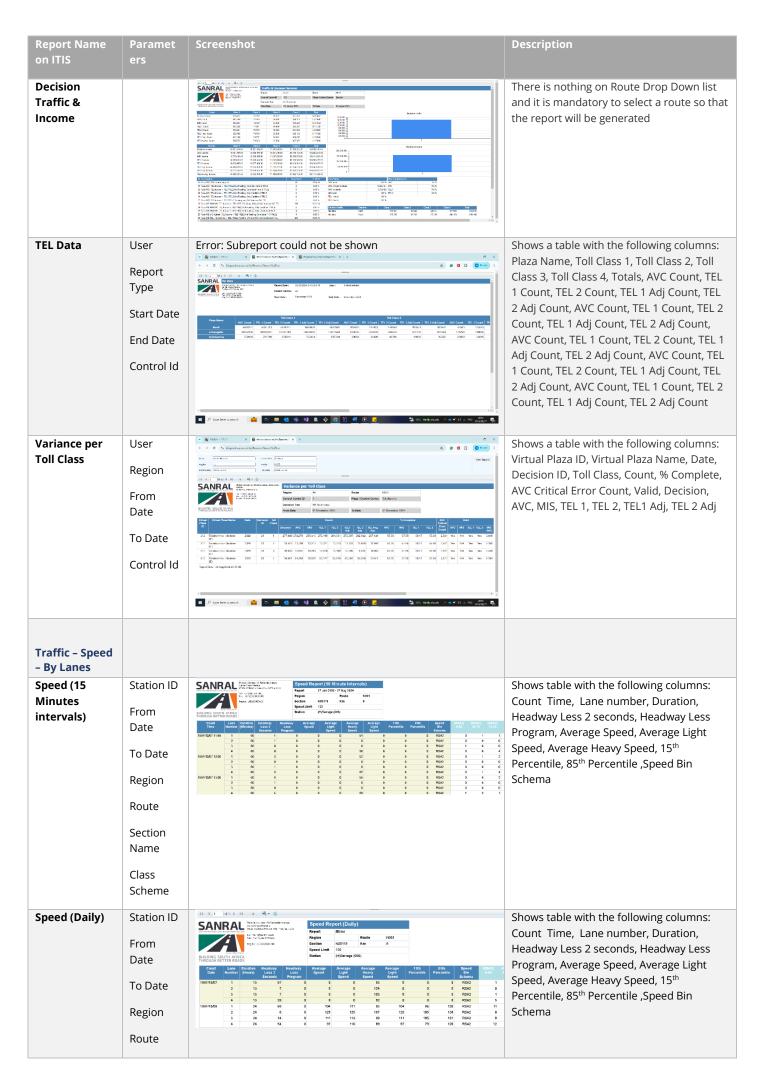


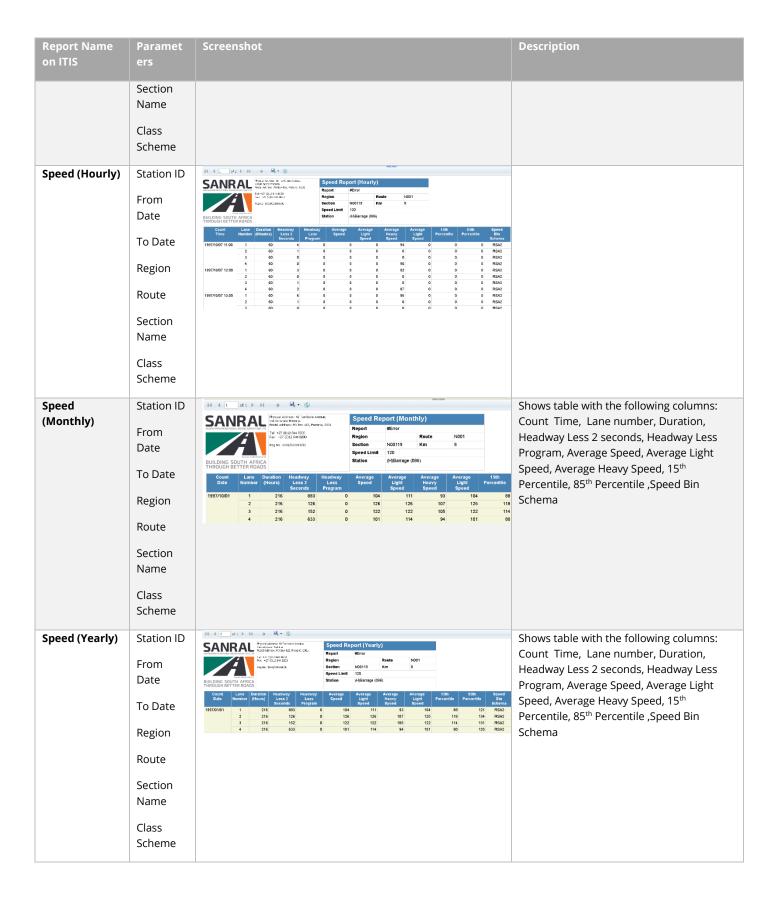


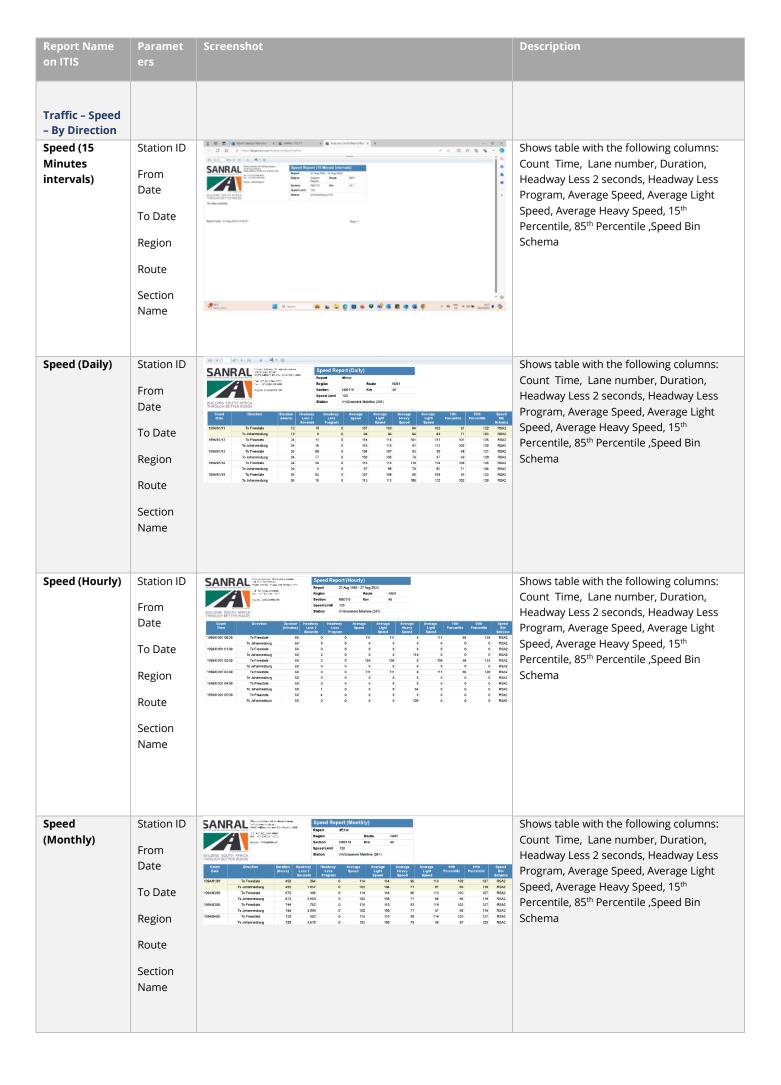


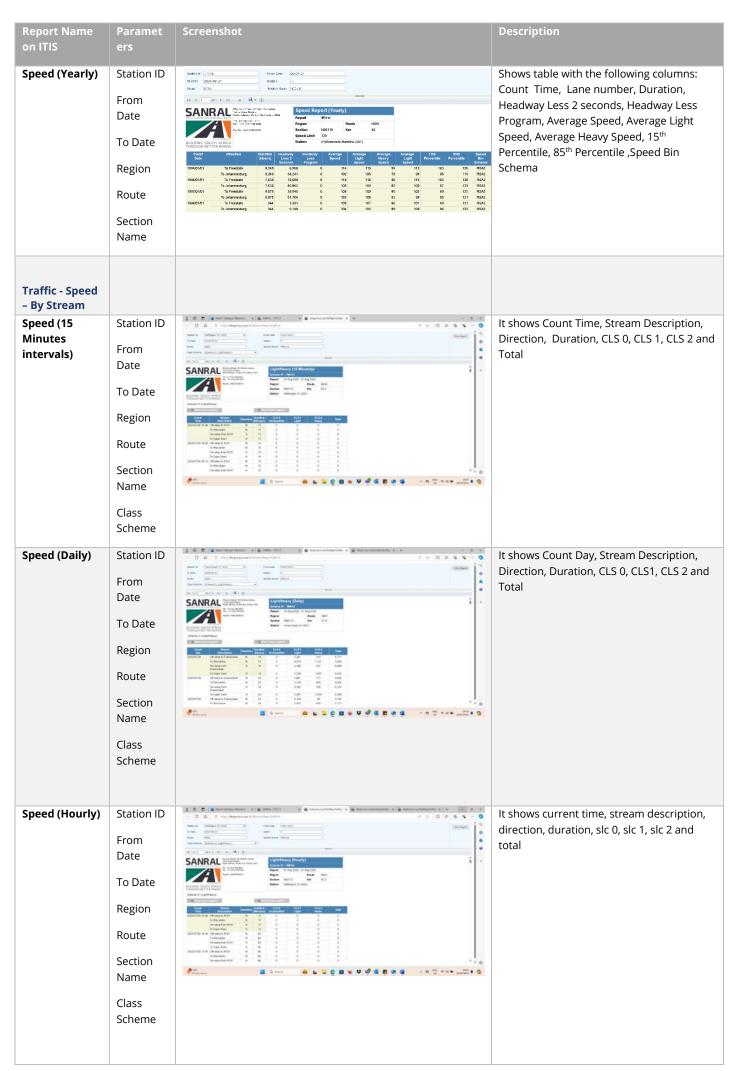


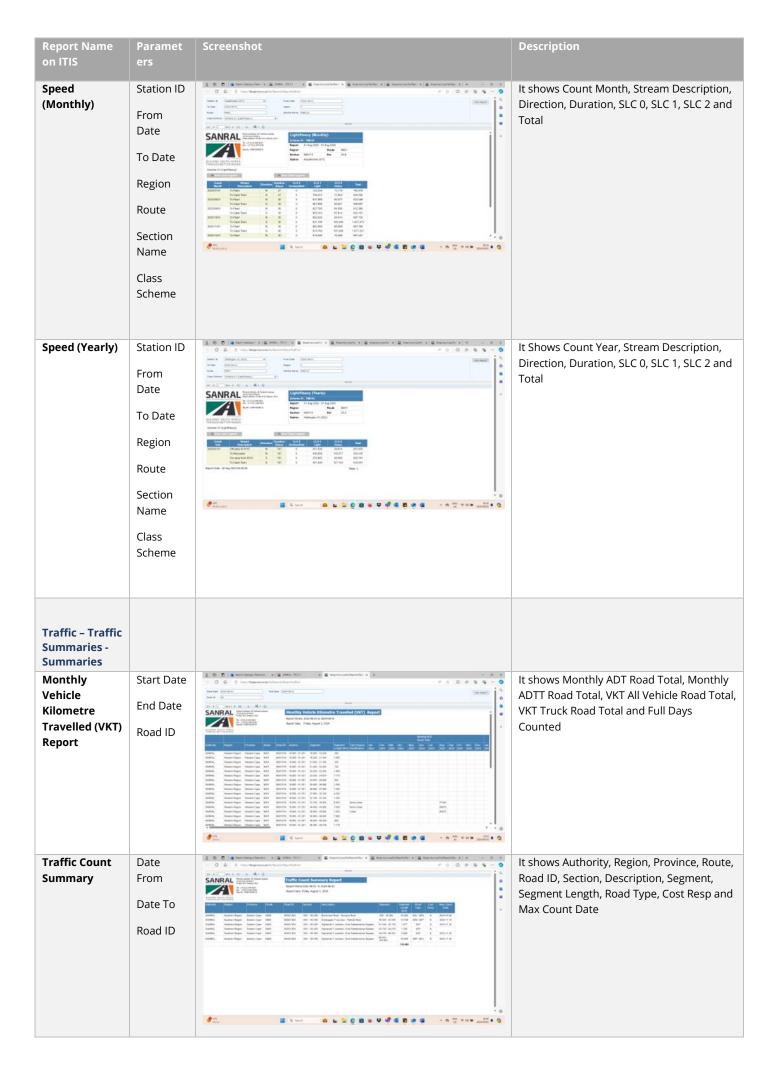


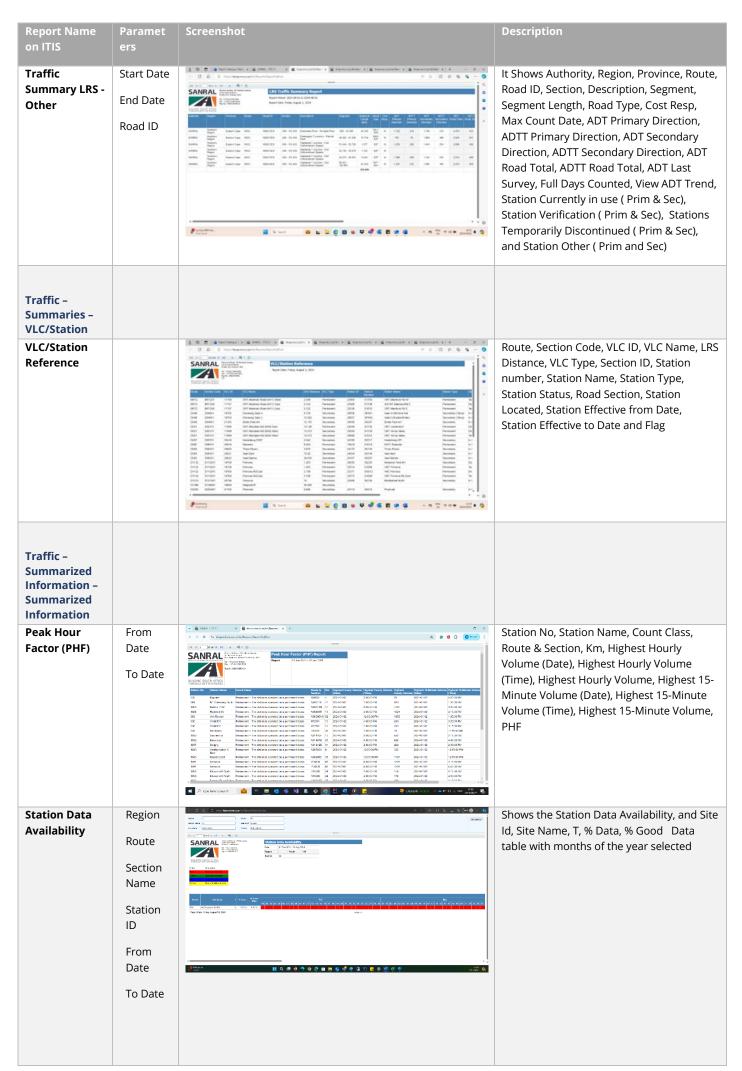


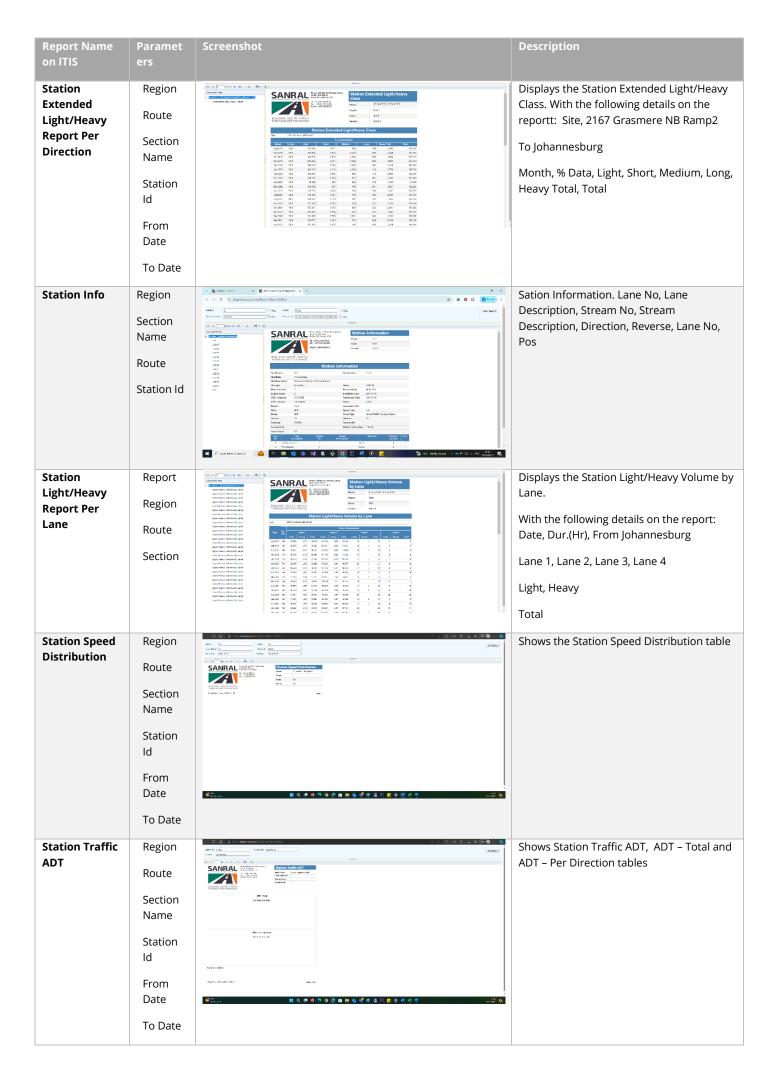


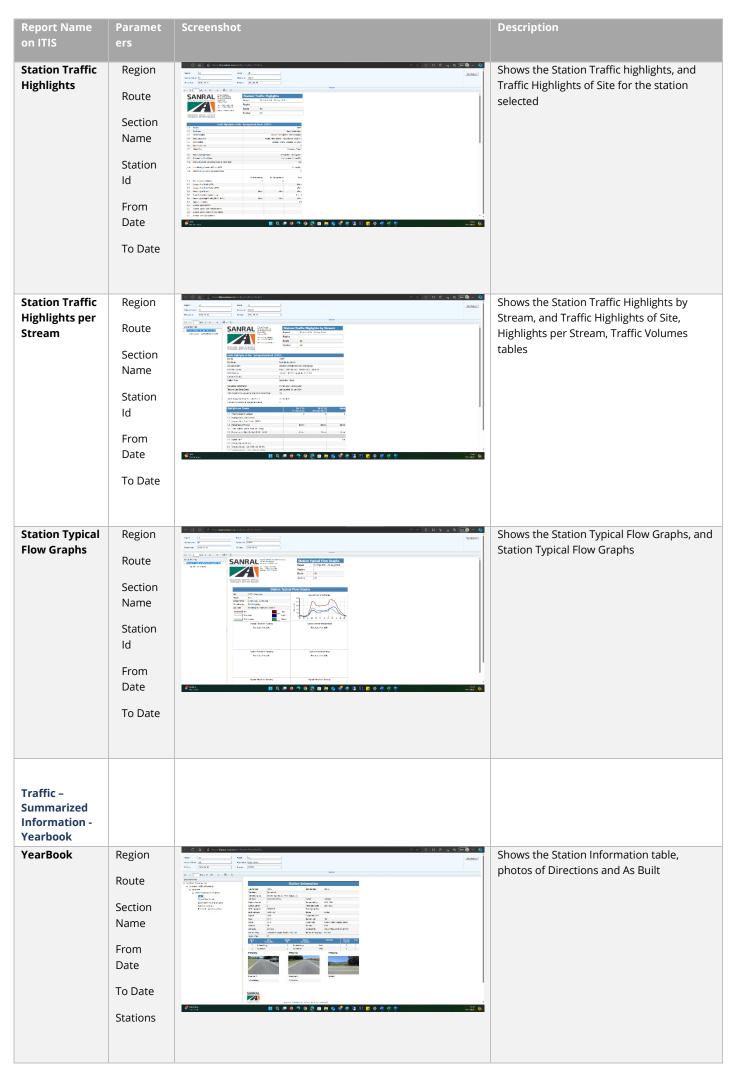


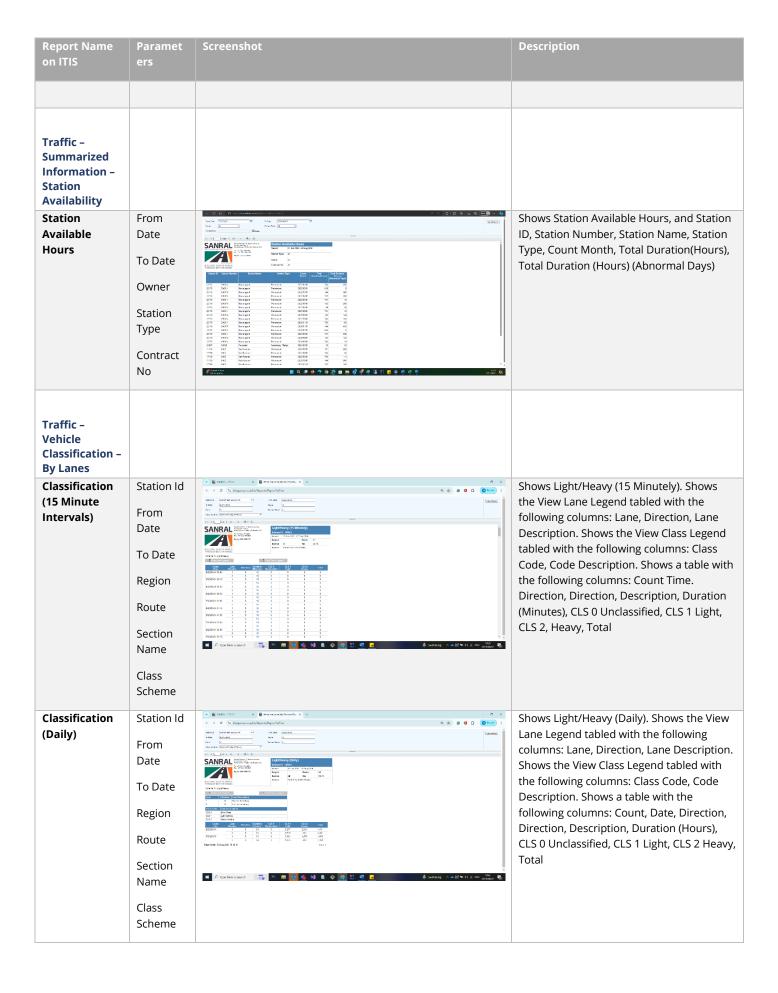


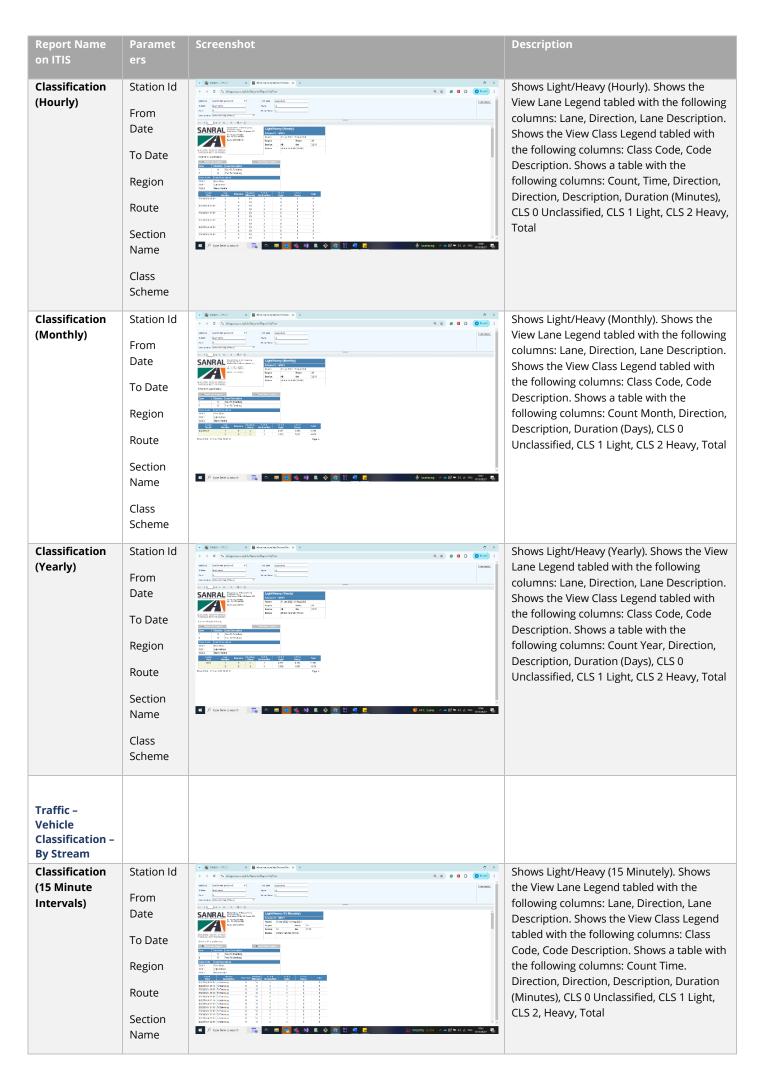


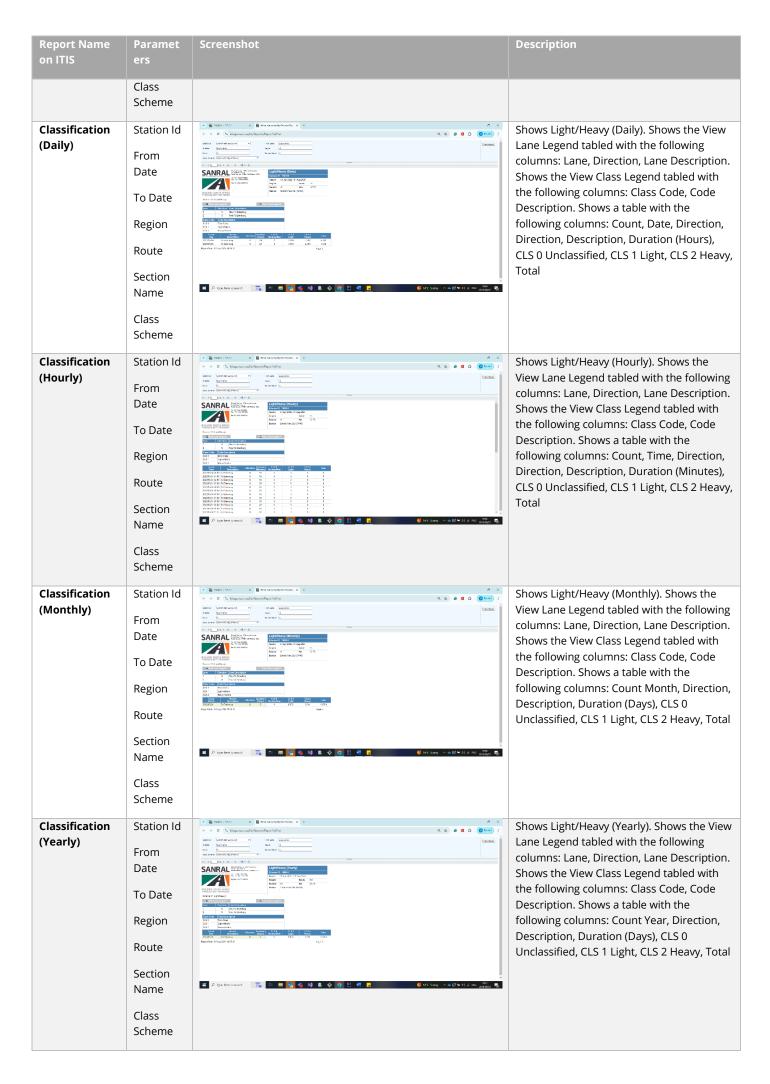


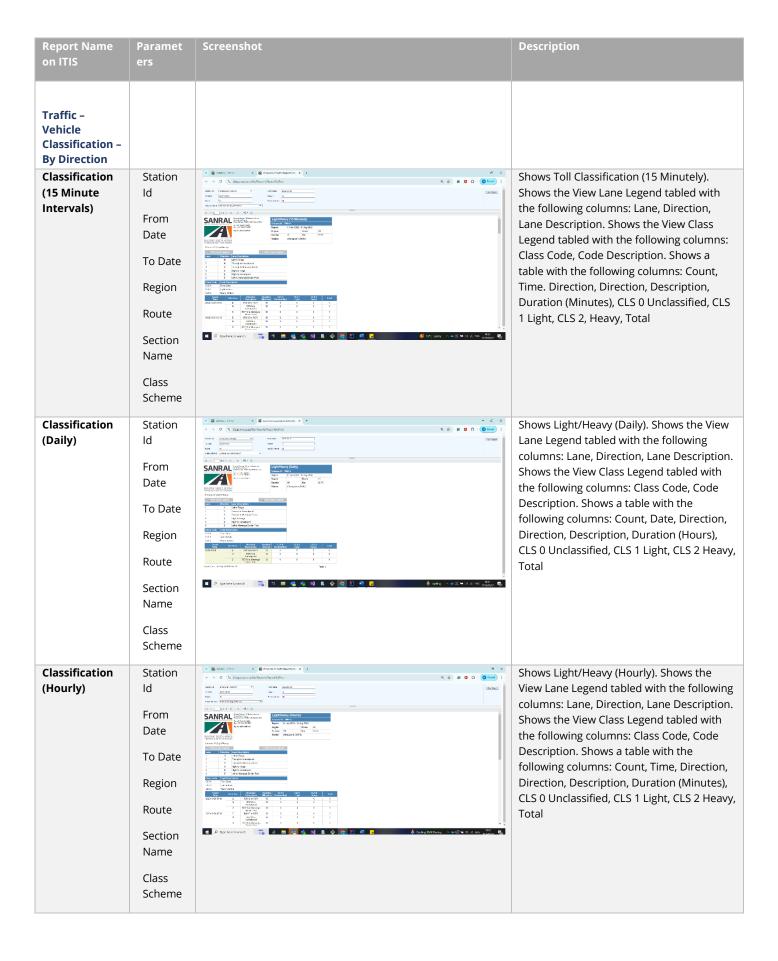


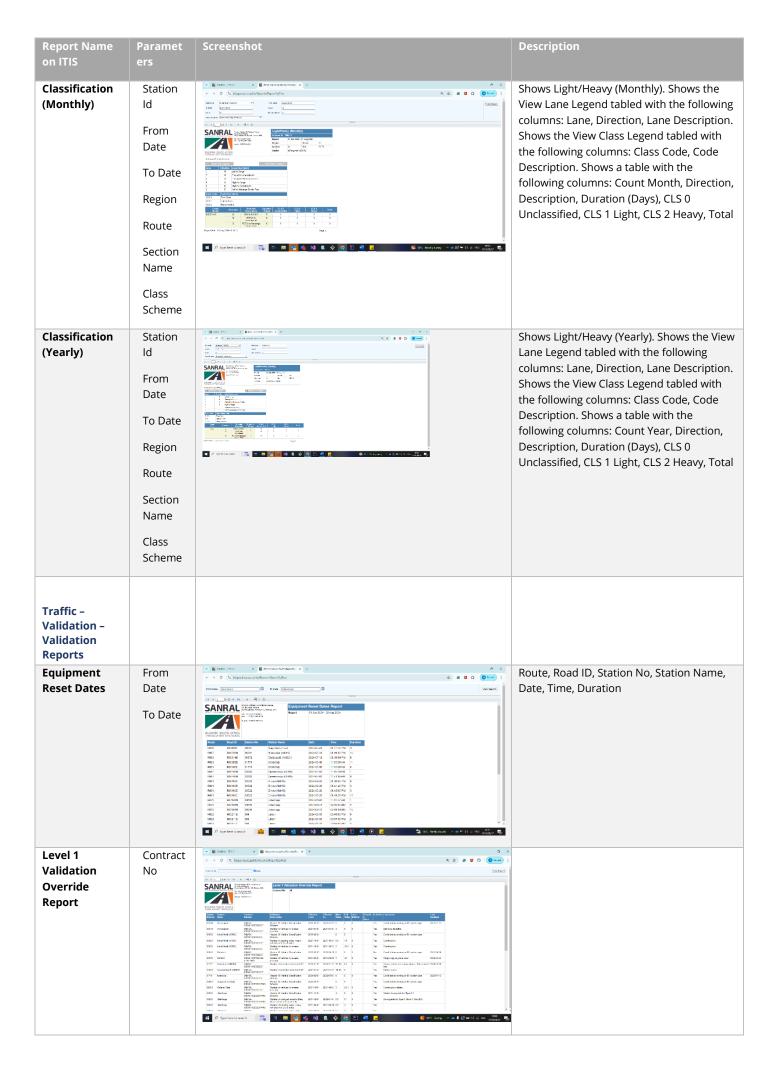








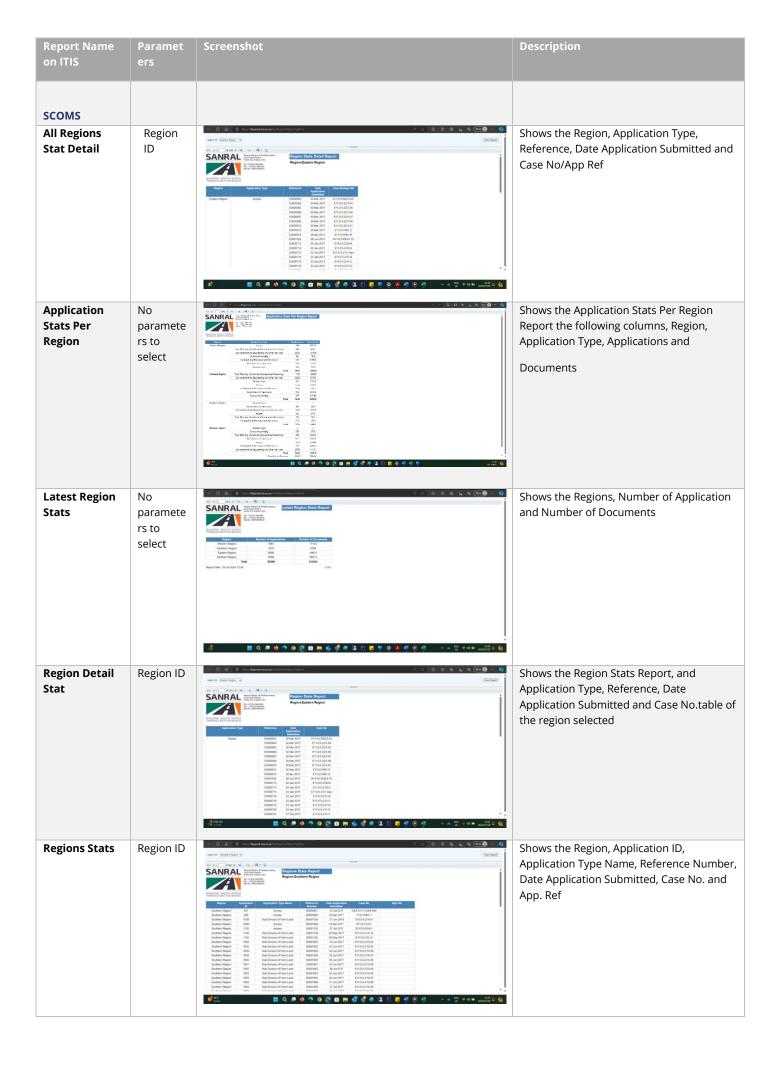


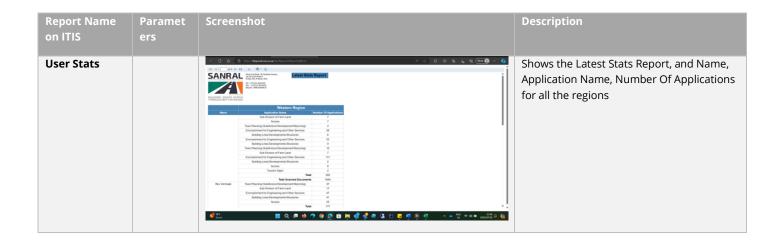


Report Name on ITIS	Paramet ers	Screenshot	Description
QF Report	From Date To Date	← → ♂ © Stagerrace metro/leconny/leco	following tables Route, Road ID, Station No, Station Name, Lane No, Min Date, Max Date, Failure Reason, Sensor Type Description
Mobile Only - Traffic			
Station Traffic ADT	From Date		These are mobile only reports
	To Date Station ID		
Station Traffic ADTT	From Date		These are mobile only reports
	To Date		
	Station ID		
Traffic E80 (Million)	Authorit y id		These are mobile only reports
	Region		
	Route Road id		
	Fin Year		
Mobile Only – Pavement			
FWD Remaining Life	Authority id		These are mobile only reports
E80 Years	Region		
	Route		
	Road id		
	Year From		
Fuiatio -	Year To		Those are makile and warrants
Friction	Authority id		These are mobile only reports
	Region		
	Route		
	Road id		
	Year from		

Report Name on ITIS	Paramet ers	Screenshot	Description
	Year To		
Maintenance	Authority		These are mobile only reports
	id		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Region		
	Route		
	Road id		
	Fin Year		
OCI Ranges - Percentages	Authority id		These are mobile only reports
per Year	Region		
	Route		
	Road id		
	Year from		
	Year To		
Overall Condition Index	Authority id		These are mobile only reports
index	Region		
	Route		
	Road id		
	Year from		
	Year To		
Roughness	Authority id		These are mobile only reports
	Region		
	Route		
	Road id		
	Year from		
	Year To		
Rut Depth	Authority id		These are mobile only reports
	Region		
	Route		
	Road id		
	Year from		
	Year To		
Texture	Authority id		These are mobile only reports
	Region		
	Route		
	Road id		

Report Name on ITIS	Paramet ers	Screenshot	Description
	Year from		
	Year To		
Mobile Only – Structure			
Defect Photo Report	Structure ID		These are mobile only reports
	Base Path		
	authority		
	region		
	route		
	Road Id		
	Insp Date		
Field Inspection	Structure ID		These are mobile only reports
	Inspection Date		
Inventory Detail	Structure ID		
Inventory Photo Report	Structure ID		These are mobile only reports
	Base Path		
	Authority		
	Region		
	Route		
	Road Id		
	Insp Date		
Mobile Only - Incidents			
Incidents Detail	Incident Id		
Incidents	Region		These are mobile only reports
	Section		
	Route		
	From Date		
	To Date		

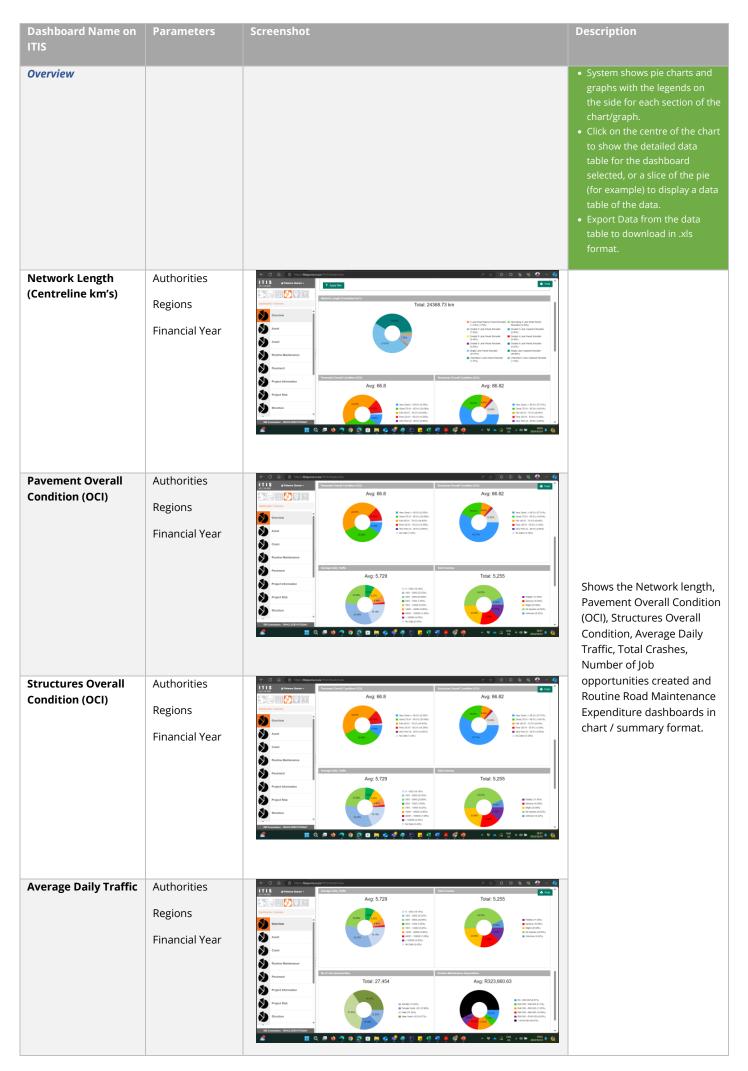


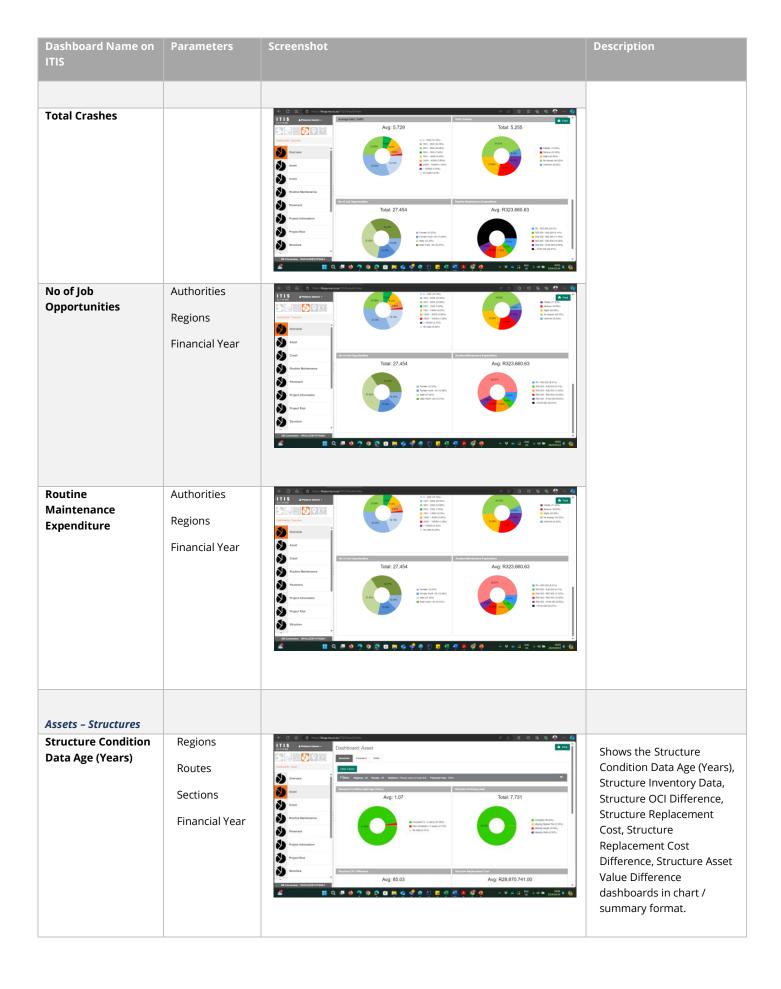


17. ITIS 5.1 Appendix – Dashboard Catalogue

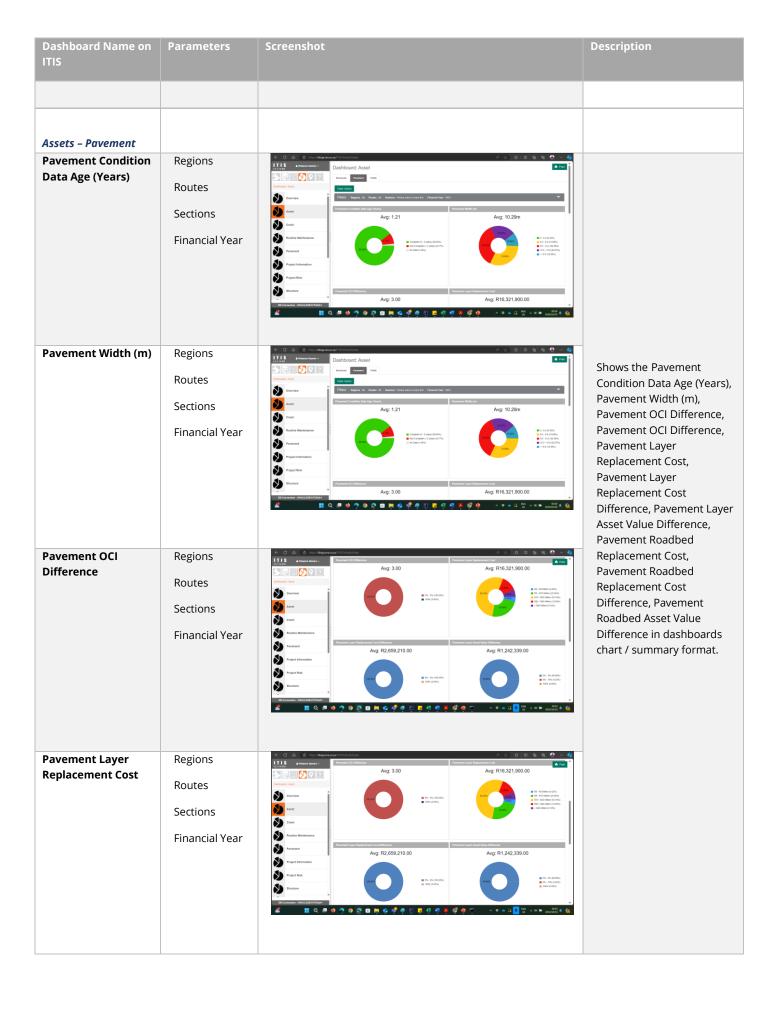
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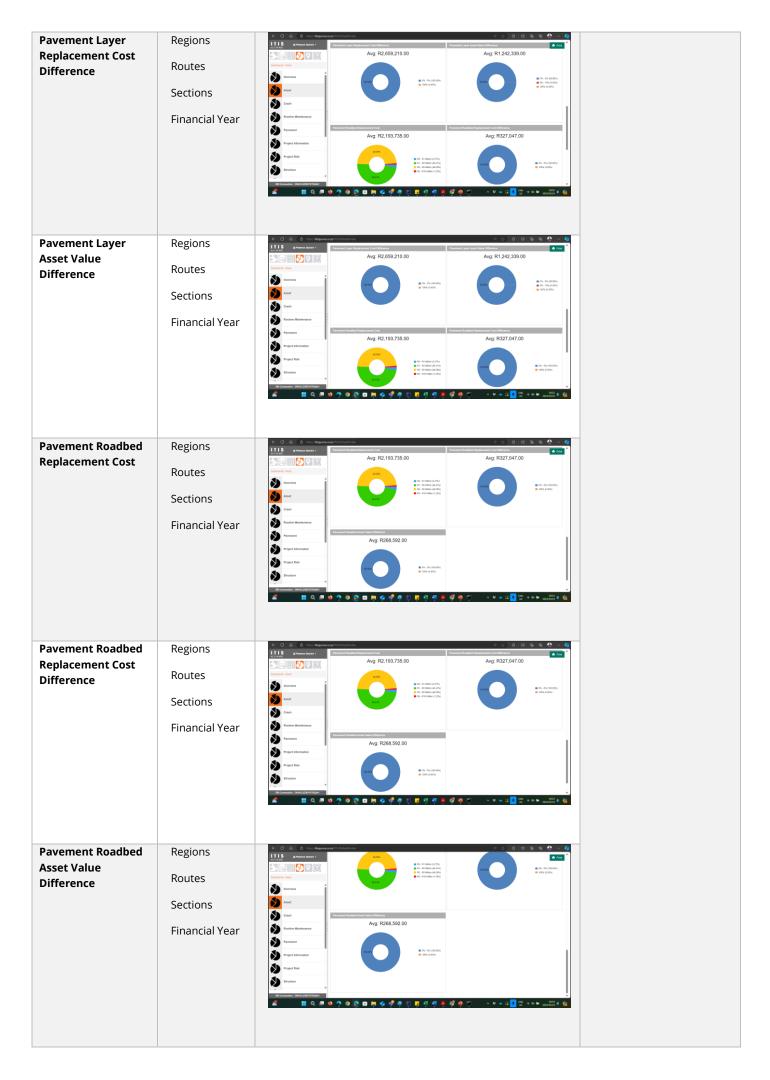
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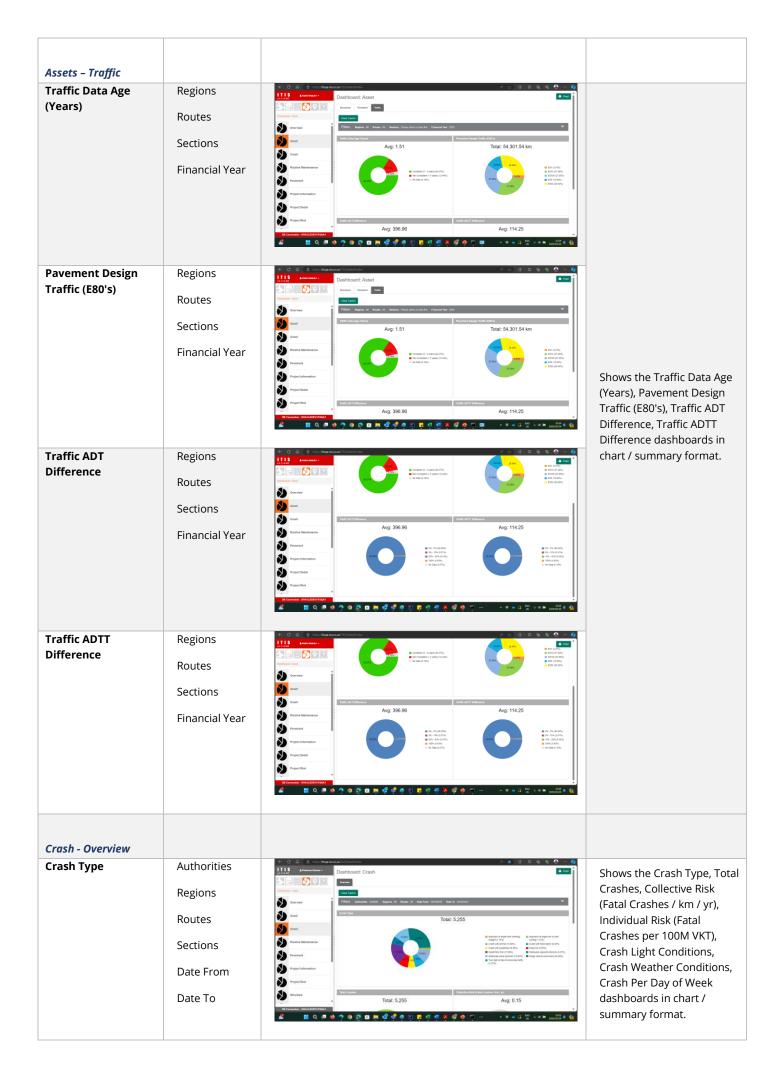


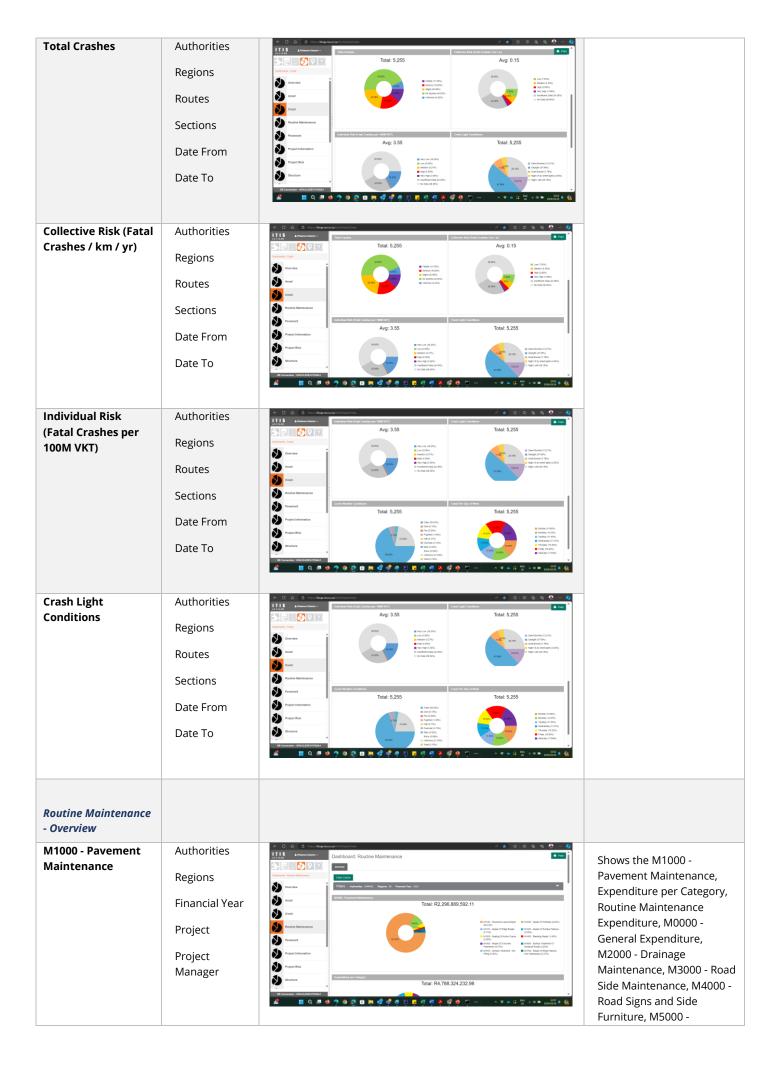


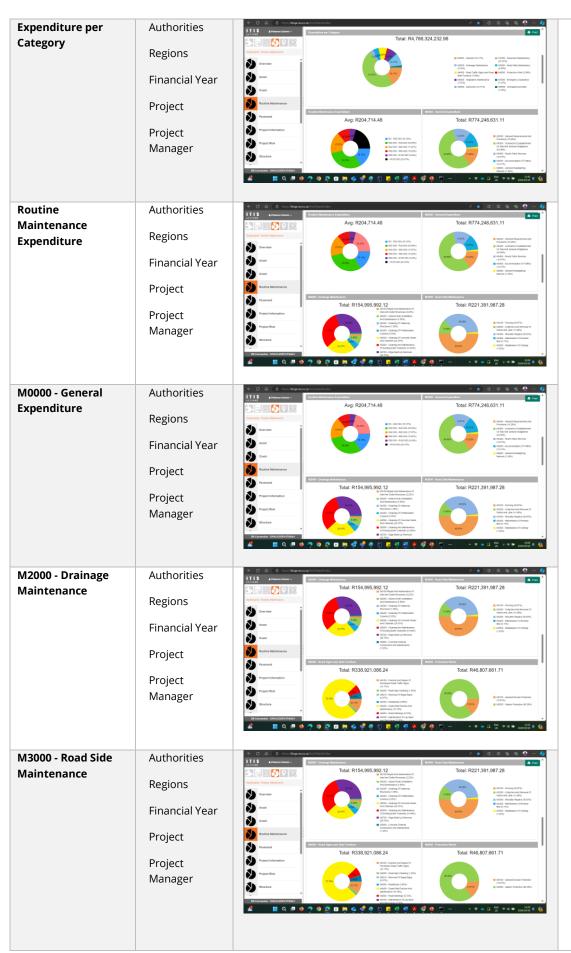




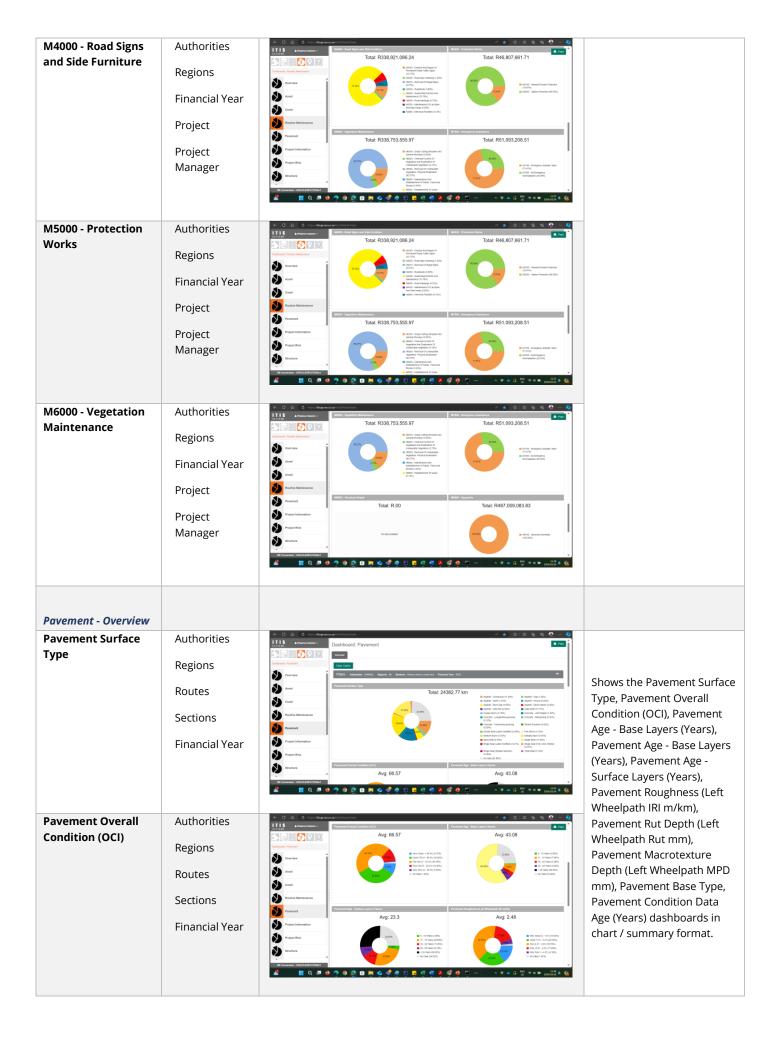




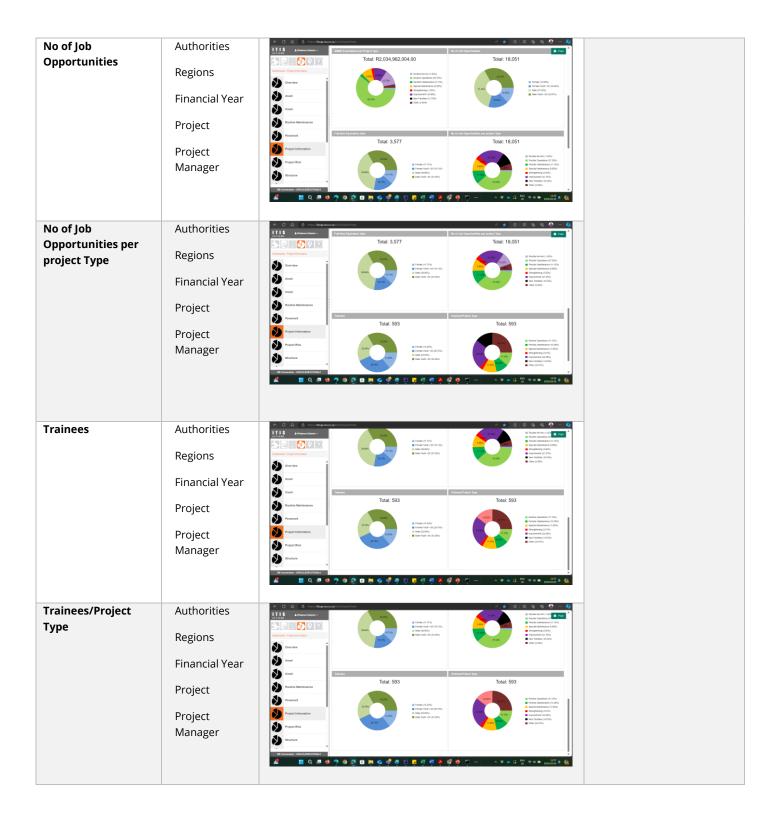


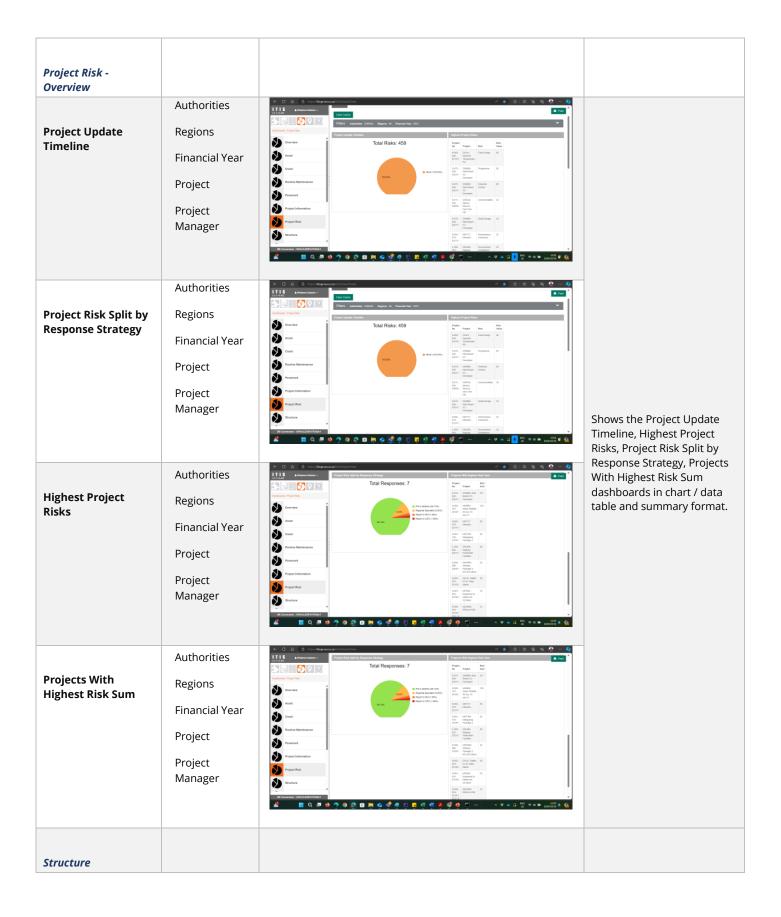


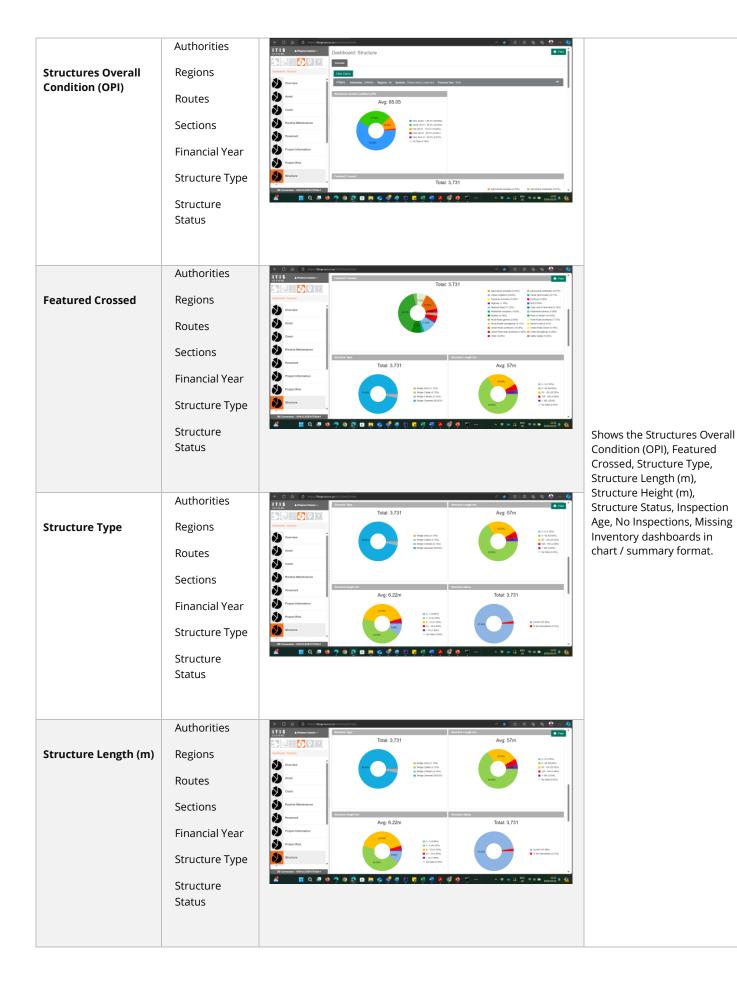
Protection Works, M6000 -Vegetation Maintenance, M7000 - Emergency Assistance, M8000 -Structure Repair, M9000 -Dayworks, M9999: Unmapped dashboards in chart / summary format.



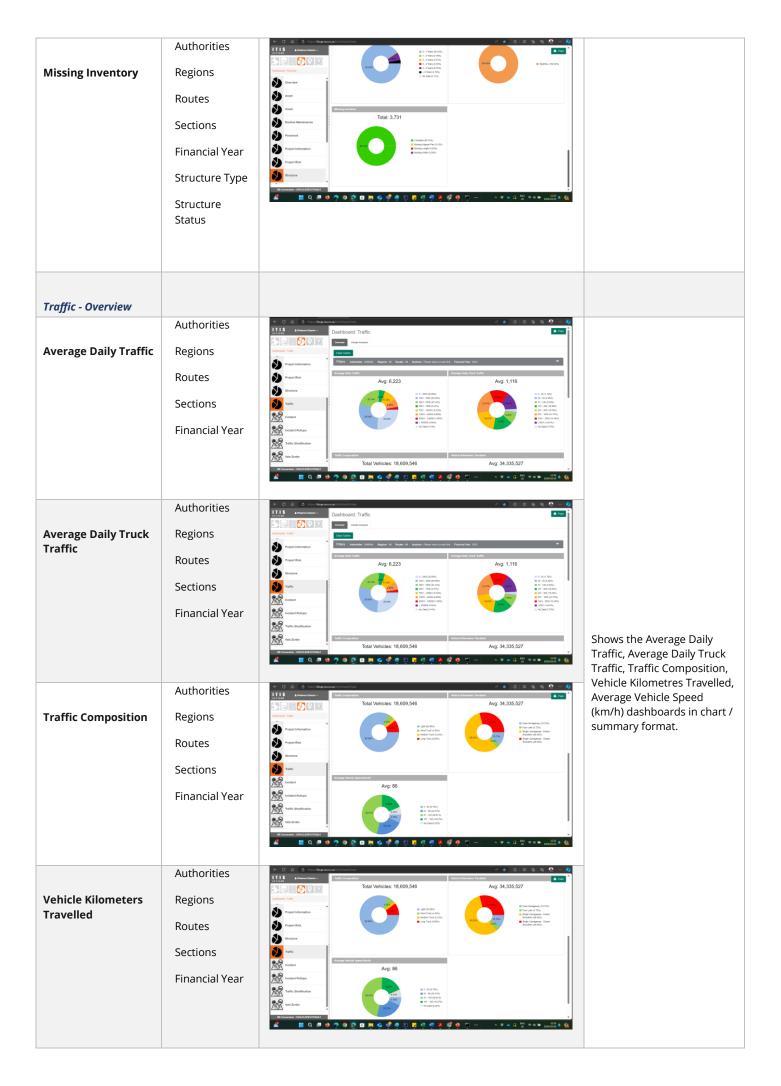


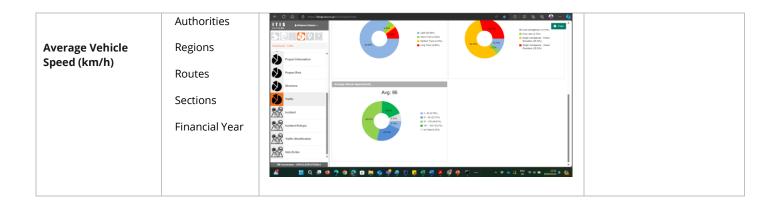


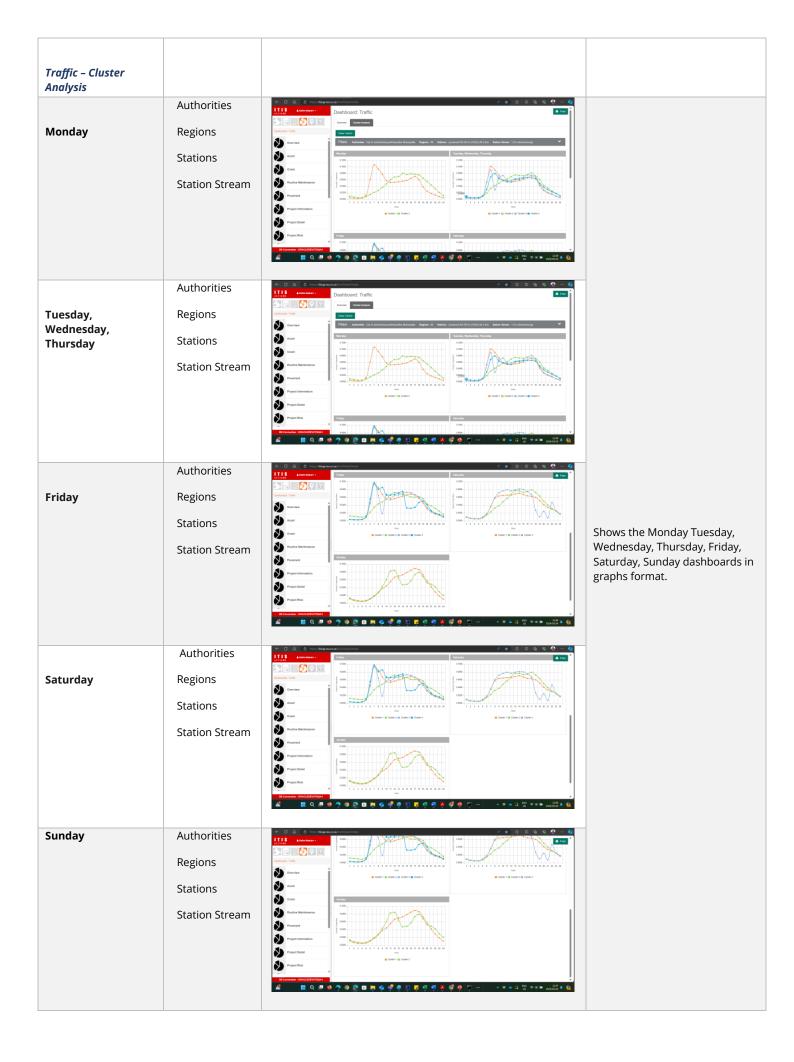




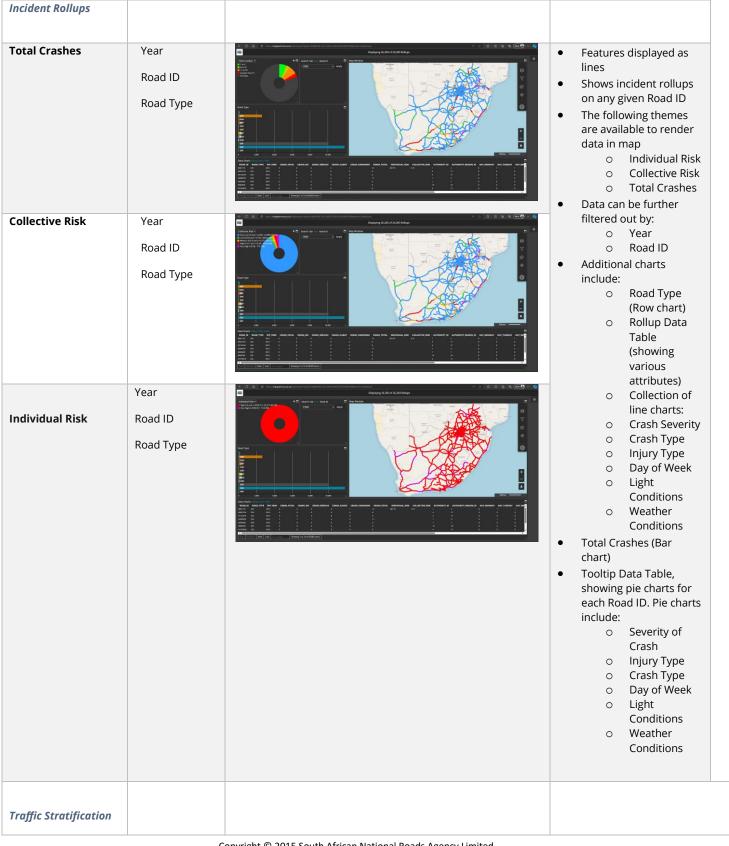


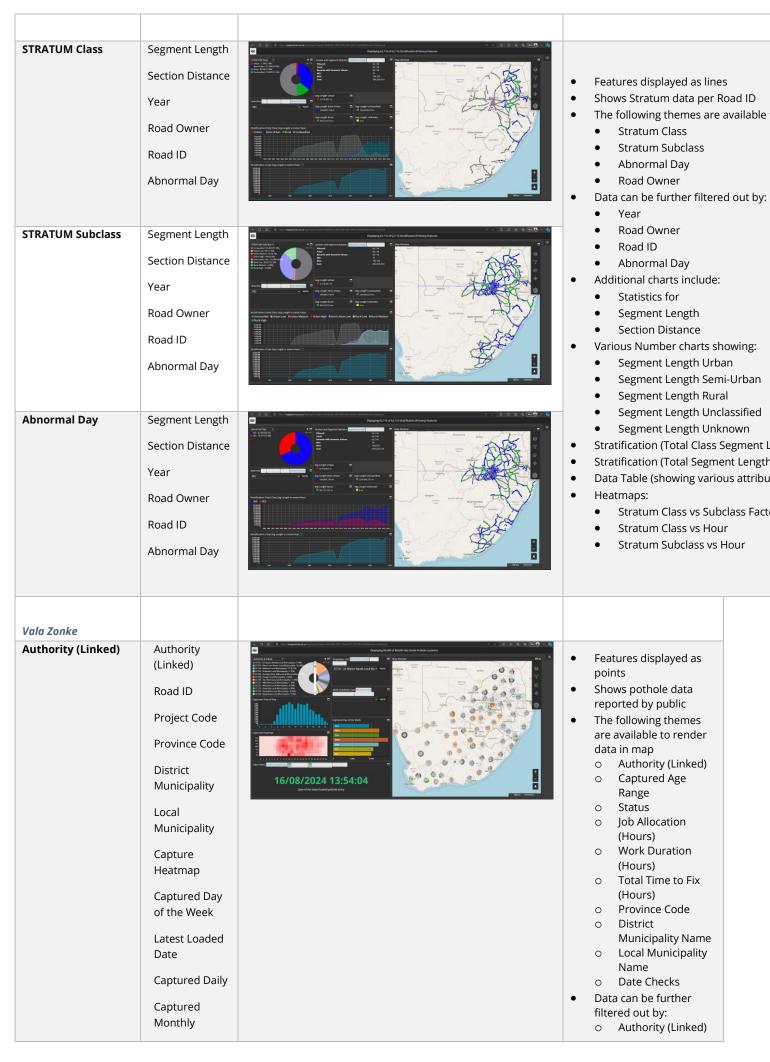


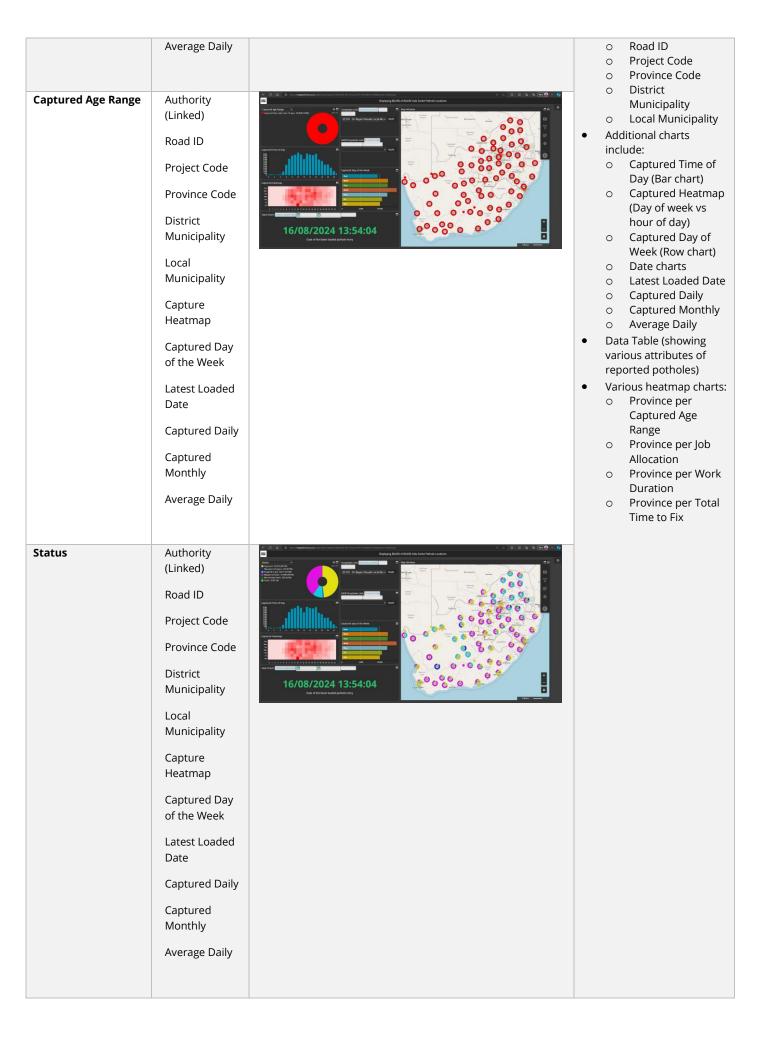




Shows pie charts, graphs and maps of road data. Incident Road ID (for example) and the system displays the roads on the map that is associated with what **Incident Type** Year Road ID Operator Features displayed as points Name Shows incidents that Days of Week happened at any given **Accident Year** point. Temporal The following themes are Heatmap available to render data in map Time of Day 0 Incident Type **Number of Vehicles** Year Number of Vehicles 0 Road ID Injury Level 0 Operator Name Number of Fatal Injuries Days of Week Data can be further filtered **Accident Year** out by: Temporal 0 Year Heatmap **Operator Name** 0 Time of Day Road ID 0 **Injury Level** Year Additional charts include: Road ID Day of Week (Row Operator chart) Name Accident Date Year Days of Week (Date line chart) Accident Year Temporal Heatmap **Temporal** (Day of week and time Heatmap of day) Time of Day Time of day (Bar chart) **Number of Fatal** Year Number of Vehicles Injuries (Bar chart) Road ID Fatal Injuries (Bar Operator chart) Name Data Table (showing Days of Week various attributes) Accident Year Temporal Heatmap Time of Day







Job Allocation (Hours)

Authority (Linked)

Road ID

Project Code

Province Code

District Municipality

Local Municipality

Capture Heatmap

Captured Day of the Week

Latest Loaded Date

Captured Daily

Captured Monthly

Average Daily



Work Duration (Hours)

Authority (Linked)

Road ID

Project Code

Province Code

District Municipality

Local Municipality

Capture Heatmap

Captured Day of the Week

Latest Loaded Date

Captured Daily

Captured Monthly

Average Daily



Total Time to Fix (Hours)

Authority (Linked)

Road ID

Project Code

Province Code

District Municipality

Local Municipality

Capture Heatmap

Captured Day of the Week

Latest Loaded Date

Captured Daily

Captured Monthly

Average Daily



Province Code

Authority (Linked)

Road ID

Project Code

Province Code

District Municipality

Local Municipality

Capture Heatmap

Captured Day of the Week

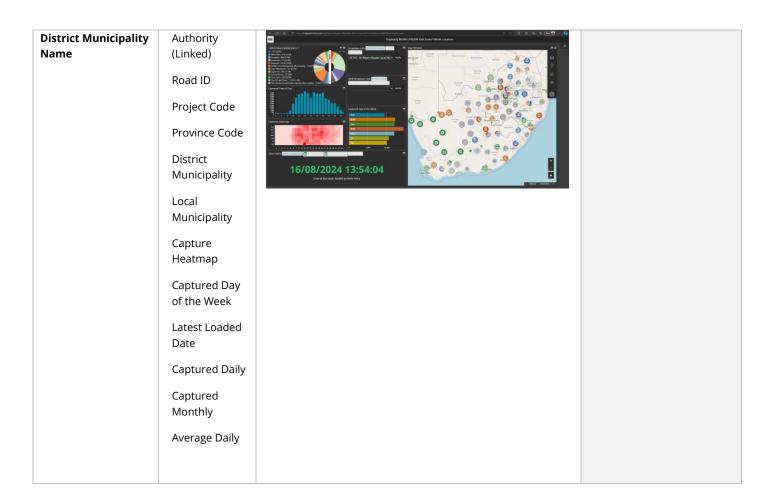
Latest Loaded Date

Captured Daily

Captured Monthly

Average Daily





Authority (Linked) **Local Municipality** Name Road ID Project Code Province Code District 16/08/2024 13:54:04 Municipality Local Municipality Capture Heatmap Captured Day of the Week Latest Loaded Date **Captured Daily** Captured Monthly Average Daily **Data Checks** Authority (Linked) Road ID Project Code Province Code District Municipality Local Municipality Capture Heatmap Captured Day of the Week

Signed:	Date:
	Position.

Latest Loaded

Captured Daily

Average Daily

Captured Monthly

Date