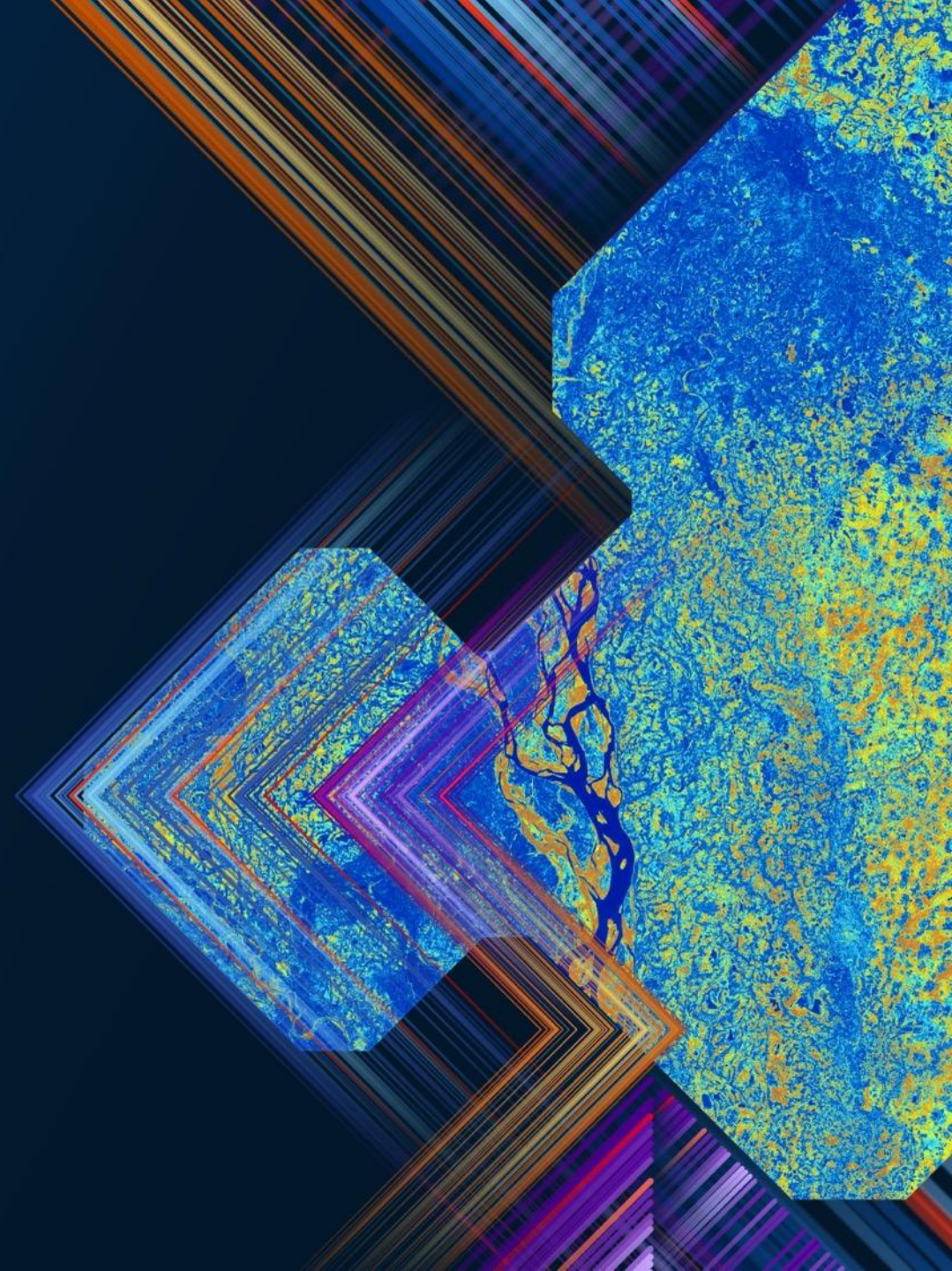


Road Sign Audit

André Cloete



SOUTHERN AFRICA ESRI USER CONFERENCE 2025



Overview



- Tender: Consulting Engineer for Road Sign Audit in George Municipality's Urban Edge.
- Objective: Audit every road sign to ensure compliance, safety, and maintenance.
- Key Requirements:
 - Comprehensive evaluation of each sign.
 - Field data collection by **trained** workers.
 - Focus on accuracy, verification, and documentation.



Previous Audit Information

[illegible]

Fieldwork Form

- Survey123
- Positional Accuracy
 - Tender Requirements 5m threshold

Road Signage Audit

Input Status *

Location *

Add point on map as accurate as possible for location of Road Sign

33°57'S 22°28'E ± 55,0 m

Position accuracy does not meet threshold of 5 m

Dormehls Drift

Road Specifics

Alexander Forbes, 123 Meade Street, George, Garden Route, Western Cape, 6529, ZAF

Previous Audit Information

Road Sign Types

1st Level Type *

2nd Level Type *

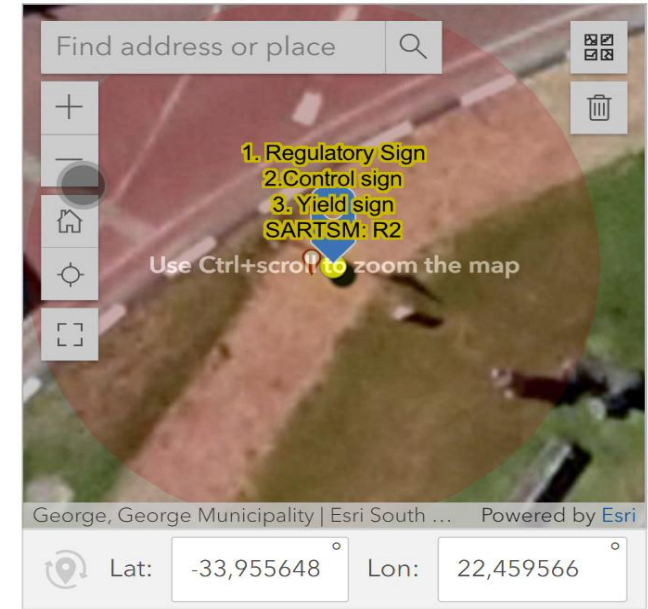
Fieldwork Form

- Survey123

- Fieldworkers deployed to capture data on-site
- Captured Data Points
- Road Sign Type (per SARTSM Code)
 - Photos with Watermarks (for authenticity and timestamping)
 - Road Sign Condition (e.g., Good, Fair, Poor, Bad)
 - Post Condition
 - Verification of Manufacturer Information

Location*

Add point on map as accurate as possible for location of Road Sign



Road Specifics

Previous Audit Information

Road Sign Types

1st Level Type*

regulatory_sign

Regulatory Sign

2nd Level Type*

Data Tracking and Visualization

- Road Sign Audit Portal
 - Dashboard
 - Data Export
 - Excel, Geodatabase, GeoJSON
 - View / Edit
 - Street View
 - Double Verification



Road Sign Audit

Select a date
No date selected

Road Speed
No category selected

1st Level Type
No category selected

2nd Level Type
No category selected

3rd level Type
No category selected

SARTSM Code
No category selected

ID
None



Total Audits
1,526

Search...

York Street, Pacaltsdorp, Garden Route, Western Cape, 6529, ZAF

- ID: 1144
7/7/2025, 8:32 AM
- 1. Regulatory Sign
 - 2. Reservation Parking sign
 - 3. Bus stop reservation sign
- 60 km/h

R325

9/23/2025, 2:30 PM

40 Montagu Street, Blanco, Garden Route, Western Cape, 6529, ZAF

- ID: 1813
7/22/2025, 1:46 PM
- 1. Warning Sign
 - 2. Symbolic sign
 - 3. Traffic signal ahead sign
- 60 km/h

W301

9/23/2025, 12:36 PM

36 Union Street, George, Garden Route, Western Cape, 6529, ZAF

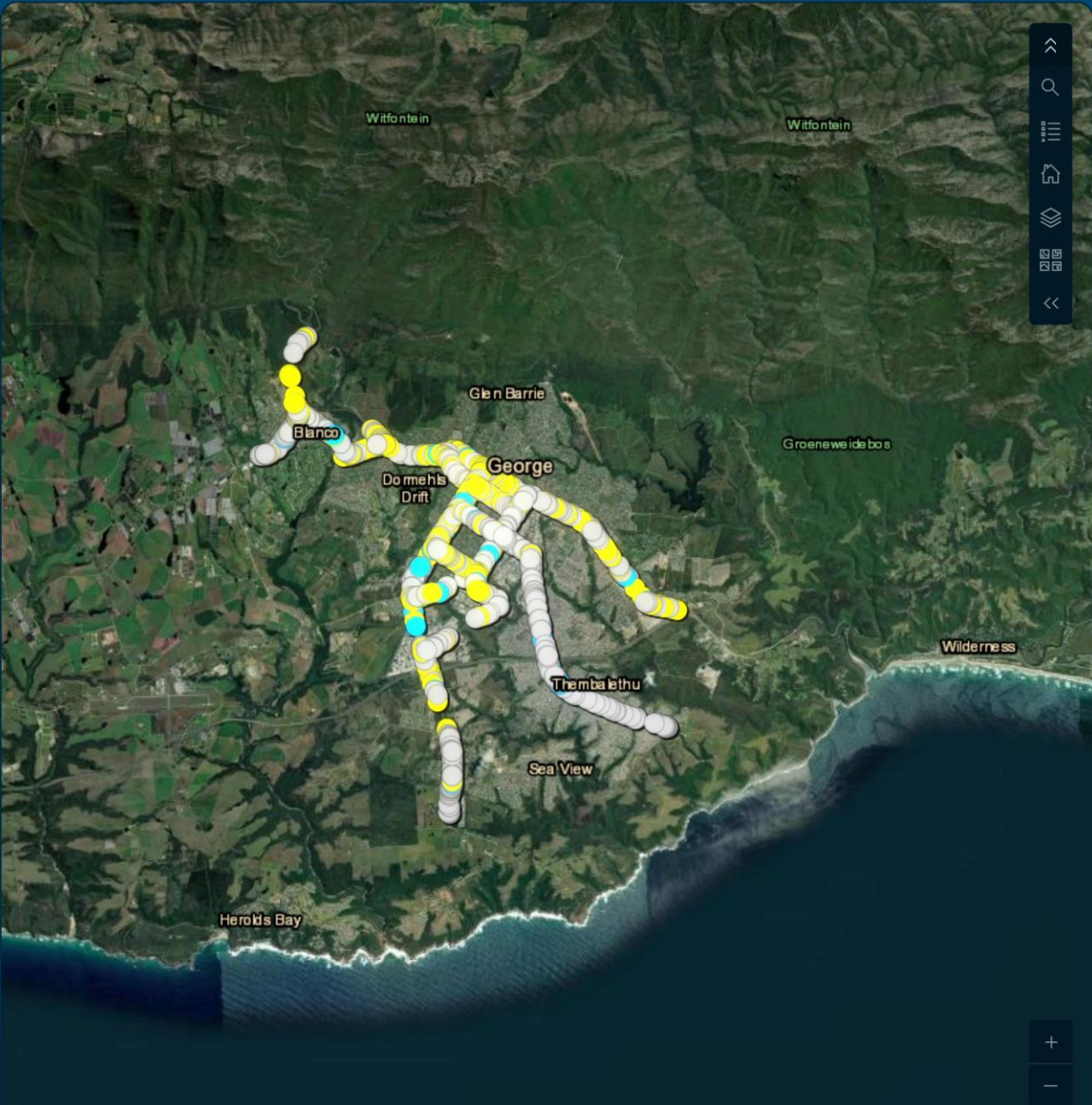
- ID: 1446
7/10/2025, 3:07 PM
- 1. Regulatory Sign
 - 2. Reservation Parking sign
 - 3. Bus stop reservation sign
- 60 km/h

R325

9/23/2025, 12:32 PM

Knysna Road, George, Garden Route, Western Cape, 6529, ZAF

- ID: 838
7/1/2025, 8:22 AM
- 1. Guidance sign
 - 2. Route Marker sign



1 of 1526

ID: 284

Road Sign Types

Edit Submission	View
1st Level Type	Regulatory Sign
2nd Level Type	Control sign
3rd Level Type	Yield sign
SARTSM Code	R2
Sign Shape	Triangle
Road Speed (km/h)	60

Sign Board

Height (mm)	750
Width (mm)	750
Diameter (mm)	
Sign board material	Chromadek

Sign Post/Support

Full Height of post (mm)	2710
Height above ground (mm)	1960
Diameter (mm)	60
Sign board material	Steel

Manufacturer Information

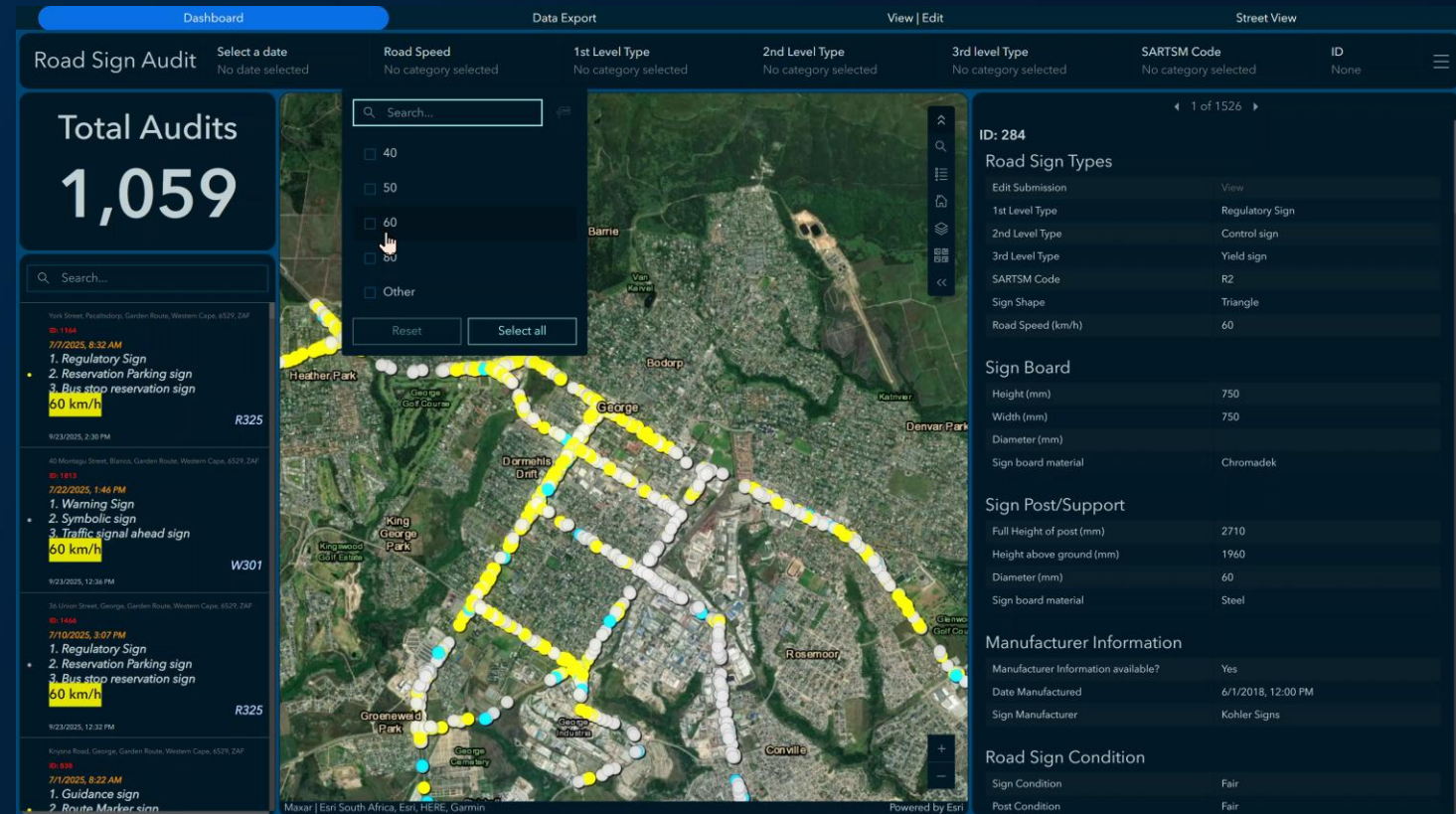
Manufacturer Information available?	Yes
Date Manufactured	6/1/2018, 12:00 PM
Sign Manufacturer	Kohler Signs

Road Sign Condition

Sign Condition	Fair
Post Condition	Fair

Data Tracking and Visualization

- Road Sign Audit Portal
- Total Number of Signs Audited
- Dynamic Filters
 - Date
 - Road Speed
 - SARTSM Classification
 - Road Sign ID



Road Speed (km/h)	Date Manufactured	Sign Manufacturer	Sign Condition	Post Condition	1st Level Type	2nd Level Type	3rd Level Type	SARTSM Code	Sign Shape	
60	6/1/2018, 12:00 PM	Kohler Signs	Fair	Fair	Regulatory Sign	control_sign	yield_sign	R2	Triangle	
60	3/1/2006, 12:00 PM	Philock	Fair	Good	Regulatory Sign	control_sign	yield_to_pedestrians_sign	R2.1		
60	7/1/2024, 12:00 PM	Otto signs	Good	Good	Warning Sign	symbolic_sign	traffic_signal_ahead_sign	W301		750
60	12/1/2021, 12:00 PM	Otto signs	Fair	Good	Warning Sign	symbolic_sign	pedestrian_crossing_sign	W306	Triangle	750
60			Good	Good	Guidance sign	local_direction_sign	street_name	GL1	Rectangle	150
60			Fair	Good	Guidance sign	local_direction_sign	street_name	GL1	Rectangle	200
60	6/1/2014, 12:00 PM	Kohler	Fair	Good	Regulatory Sign	reservation_parking_sign	bus_stop_reservation_sign	R325	Rectangle	920
60	10/1/2003, 12:00 PM	Cape otto	Fair	Fair	Regulatory Sign	reservation_parking_sign	limited_parking_reservati...	R306-P	Rectangle	780
60	10/1/2003, 12:00 PM	Cape otto	Good	Good	Regulatory Sign	reservation_parking_sign	limited_parking_reservati...	R306-P	Rectangle	780
60	8/1/2023, 12:00 PM	Otto signs	Good	Fair	Regulatory Sign	control_sign	stop_sign	R1	Octagon	600
60	2/1/2020, 12:00 PM	Kohler signs	Good	Good	Guidance sign	direction_sign	stack_type_composite_dir...	GD1/GD2	Rectangle	600
60			Poor	Good	Guidance sign	tourism_sign	guest_house	GFS C1-5	Rectangle	400
60			Good	Good	Guidance sign	local_direction_sign	street_name	GL1	Rectangle	150
60	11/1/2022, 12:00 PM	Kohler signs	Good	Good	Regulatory Sign	reservation_parking_sign	bus_stop_reservation_sign	R325	Rectangle	900
60	11/1/2022, 12:00 PM	Kohler Signs	Good	Good	Regulatory Sign	reservation_parking_sign	bus_stop_reservation_sign	R325	Rectangle	900
60			Fair	Good	Regulatory Sign	reservation_parking_sign	limited_parking_reservati...	R306-P	Rectangle	650
60	12/1/2016, 12:00 PM	Kohler signs	Poor	Good	Regulatory Sign	command_sign	proceed_left_only_sign	R105	Circle	600
60	8/1/2016, 12:00 PM	Kohler signs	Poor	Good	Regulatory Sign	control_sign	yield_sign	R2	Triangle	750
60	11/1/2022, 12:00 PM	Kohler Signs	Good	Good	Regulatory Sign	reservation_parking_sign	bus_stop_reservation_sign	R325	Rectangle	900
60	8/1/2022, 12:00 PM	Otto signs	Good	Good	Regulatory Sign	reservation_parking_sign	limited_parking_reservati...	R306-P	Rectangle	450
60	9/1/2019, 12:00 PM	Kholer signs	Poor	Good	Regulatory Sign	control_sign	yield_sign	R2	Triangle	750
60	6/1/2023, 12:00 PM	Kohler signs	Good	Good	Regulatory Sign	reservation_parking_sign	bus_stop_reservation_sign	R325	Rectangle	900

All data (1526)

🔍 Set filter

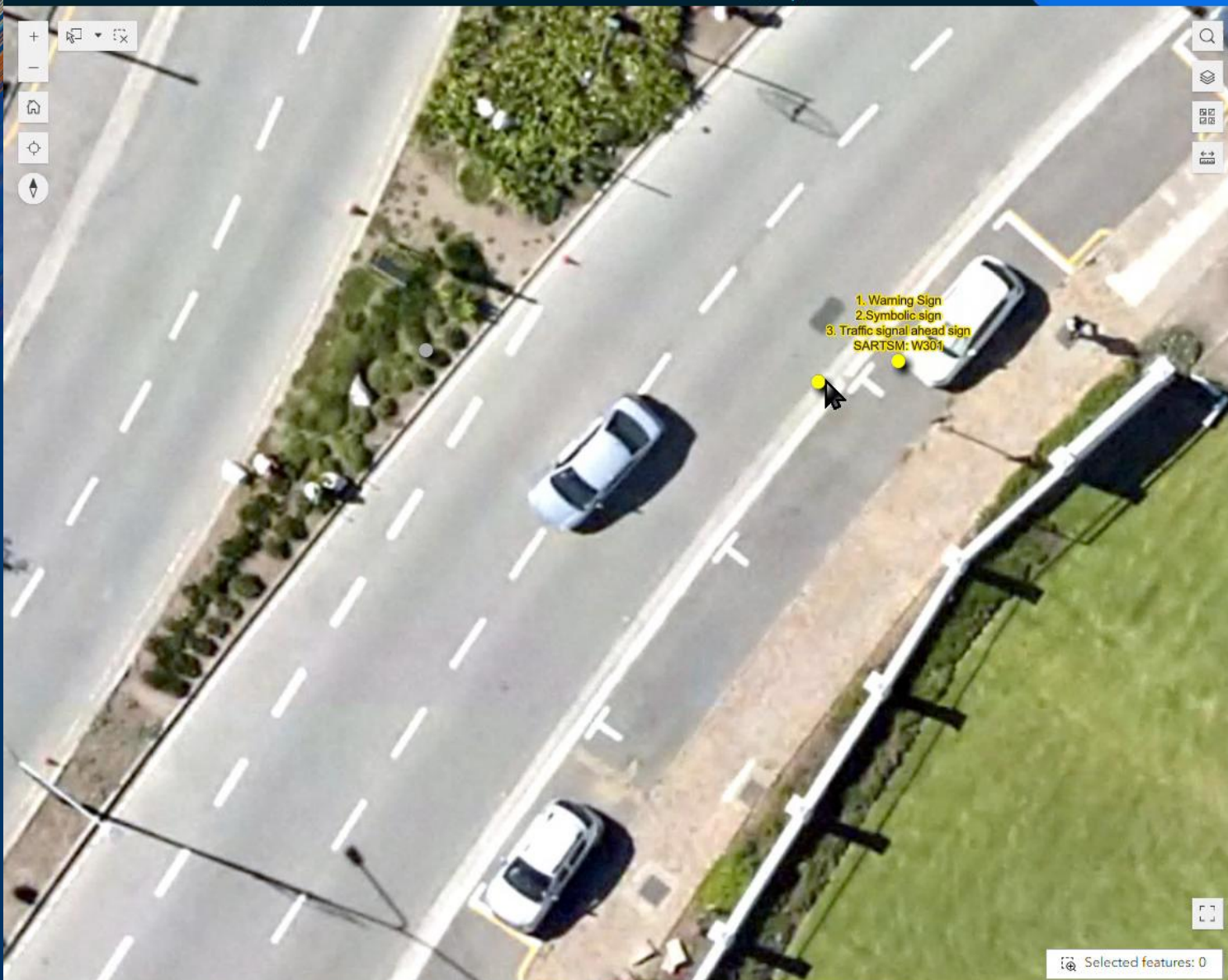
Σ Statistics

📄 Export

Export to JSON

Export to CSV

Export to GeoJSON



Selected features: 0

View Survey

Edit Survey

Edit Raw Data

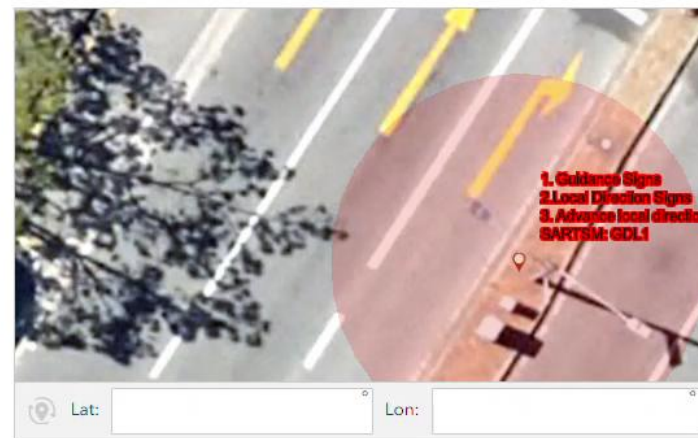
① Viewing is not possible because the globalId parameter was not provided.

Input Status

Please select-

Location*

Add point on map as accurate as possible for location of Road Sign



Lat:

Lon:

Road Sign Types ▾

1st Level Type*

Please select-

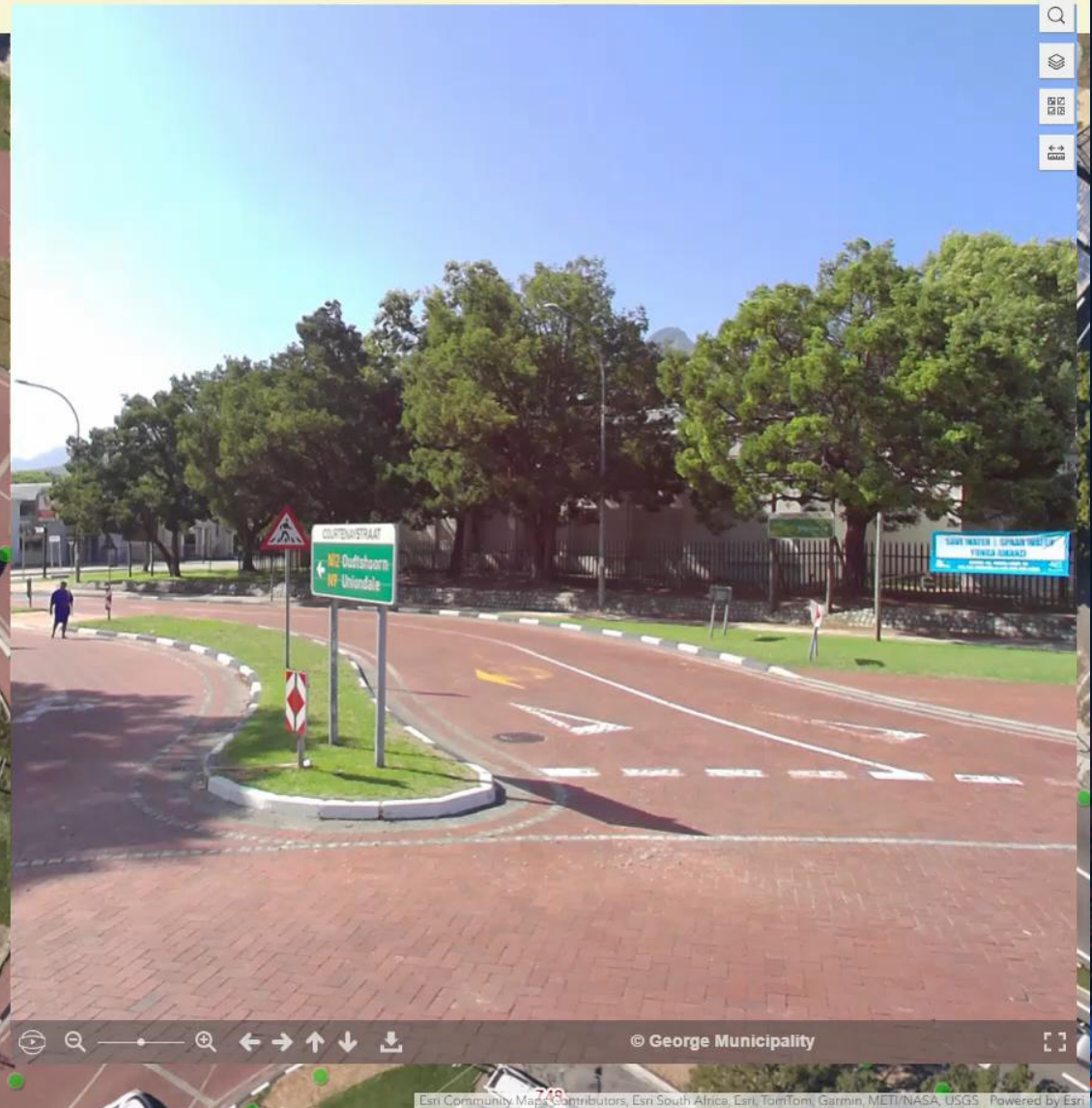
General Photo*

Please take a photo of the sign (Max 5)

Drop image here or select image



Search Address, Property Number or SG Code



Reporting and Archiving

- Automated PDF Generation: One report per audited sign
- Report Contents:
 - Sign Details (Type, Condition, Photos).
 - Verification Summary (Manufacturer Info).
 - Recommendations (e.g., Repair/Replace).

Facility Name: York Street, George, Garden Route, Western Cape, 6529, ZAF

Field / Description	Value
Identification Number	1093
Name of suburb	GEORGE
Function of Road Sign 1st Level	Regulatory Sign
Function of Road Sign 2nd Level	Prohibition sign
Function of Road Sign 3rd Level	Speed limit sign
RTA/SADC-RTSM Code	R201
Sign Shape	Circle
Speed Limit	60 km/h
Latitude	-33.97973
Longitude	22.441219
Sign Board	
Material	Steel
Height (mm)	900
Width (mm)	900
Diameter (mm)	
Sign Post/Support	
Material	Steel
Full Height of post (mm)	2,550
Height below sign board (mm)	1,740
Diameter (mm)*	60
Manufacturer Information	
Date Manufactured	2006/04/03
Sign Manufacturer	Philock Sign Industries
Road Sign Condition	
Sign Condition	Fair
Post Condition	Fair
Additional Comments	Sign has some scretchers and post not straiigth

General Photos



Sign Condition



Post Condition



Manufacturer Information



Key Outcomes and Benefits

- Digital form eliminates paper use
- Built-in validation, verification, and automation in Survey123
- Simple and user-friendly for field capture
- Photos provide essential audit evidence
- Enabled quick identification of signs requiring replacement
- Reusable form for future audit processes



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2025**