



# 2026 Virginia Report Card Program

## Purpose

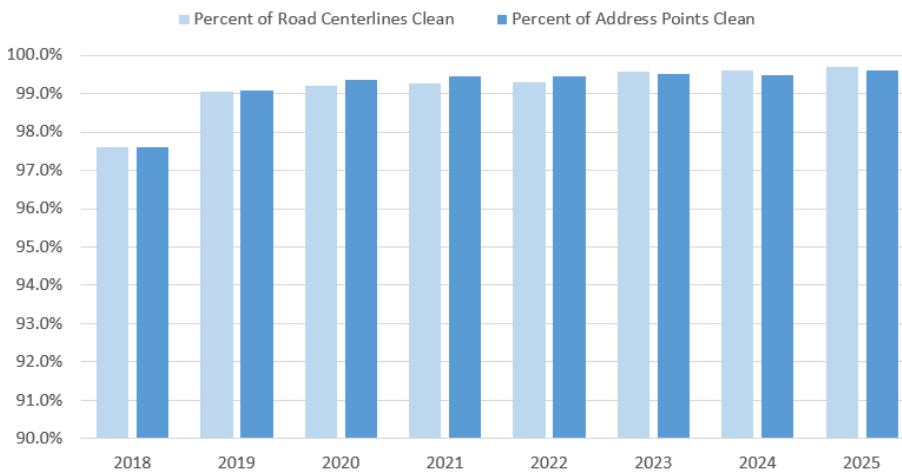
Virginia’s 9-1-1 and Geospatial Services (NGS) Bureau of the Virginia Department of Emergency Management (VDEM) will complete two report card cycles in 2026 for Virginia localities as part of the Virginia Geographic Information Network (VGIN) data call for the Virginia Base Mapping Program (VBMP) (<https://vgin.vdem.virginia.gov/pages/base-mapping>).

The report cards show critical issues that are known to cause problems with geocoding addresses to GIS databases and flag other instances where addresses and roads may be anomalies. Anomalies and other checked but correct features may be reported as exceptions and excluded from further checks. Civic Address Layers Analysis Report Card results measure the integrity of data used in the Virginia Base Mapping Program Virginia road centerline and address point layers, improve data quality for geocoding and network dataset uses, and help sustain Next Generation 9-1-1 quality standards.

GIS 9-1-1 Synchronization Report Card results measure the alignment of GIS addresses and roads to 9-1-1 MSAG and ALI records. Different from work *before* NG9-1-1 deployment, Virginia localities must *sustain* current data quality and high match rates between GIS and 9-1-1 databases.

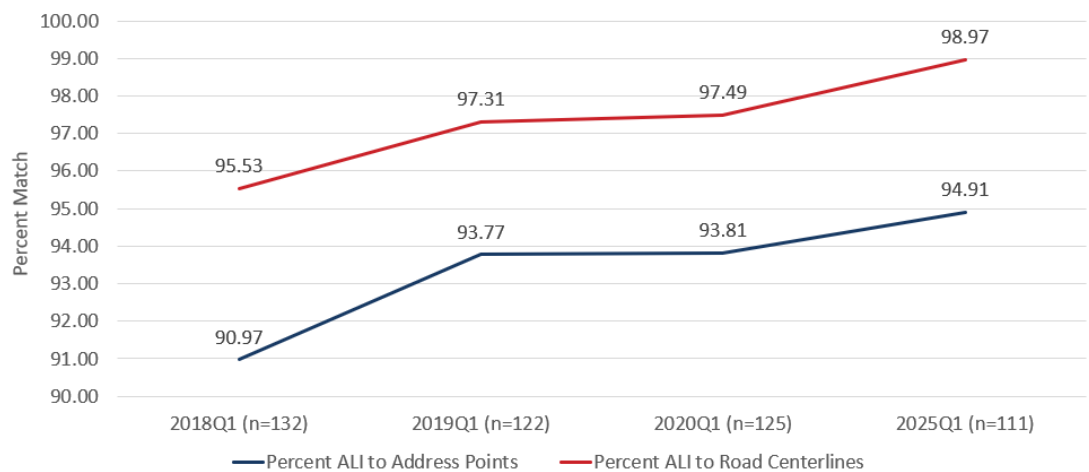
The 2025 Q1 and Q3 results continue to show high data quality for the more than **676,000** GIS road centerlines and **3.8** million GIS address points. At least **99.7%** of road centerlines and **99.6%** of address points submitted to VGIN are free of critical issues.

Virginia Base Map Report Card Program Data Quality Report



The 2025 Q1 GIS 9-1-1 Synchronization report card was the first run against data from the Next Generation Core Service Provider in Virginia and the first after several years of transition. The results show that Virginia met and continues to maintain the high degree of synchronization between GIS and MSAG and ALI datasets required for the transition phase of Next Generation 9-1-1.

Virginia ALI to GIS Data Metrics



This document outlines data call and report card plans for 2026, highlights report card points of emphasis for 2026, discusses future report card plans beyond 2026, and provides user guides for reading your Civic Address Layers Analysis and GIS 9-1-1 Synchronization Analysis results.

### Data Call and Report Card Schedule

The "Civic Address Layers Analysis" of GIS address point and road centerline attributes and geometry will run in Q1 and Q3 for all localities. The "GIS 911 Synchronization Analysis" of the GIS address point and road centerline layers against the 9-1-1 ALI and MSAG databases will run in Q1 for all localities.

- January 2026: Locality GIS Data Call and 9-1-1 ALI and MSAG requests from 9-1-1 provider
- January 2026 – June 2026: 2026Q1 GIS 911 Synchronization and Civic Address Layers analyses and report card delivery
- July 2026: Locality GIS Data Call
- July 2026 – September 2026: 2026Q3 Civic Address Layers analysis and report card delivery

### Report Card Points of Emphasis

NGS continues to provide support in answering questions that we have with previous report cards and NG9-1-1 compliance as Virginia works to maintain and improve GIS data quality and synchronization with 9-1-1 databases.

There is no consistent "fix" to resolving the different types of issues that arise. Resolution often requires coordination between locality public safety, PSAP, GIS, and addressing personnel. Issues are most commonly resolved by one or all of the following:

- Adding records to a 9-1-1 MSAG through 9-1-1 Net or GIS layer
- Entering change requests or discrepancy reports in 9-1-1 Net to removing records from a 9-1-1 MSAG or ALI database or remove records from a GIS layer
- Changing attribution of a record in a 9-1-1 MSAG or ALI database record in 9-1-1 Net or GIS layer
- Updating the geometry of features in a GIS layer
- Report "exceptions" to VGIN using the process on the [Virginia NG9-1-1 GIS Resources page](#)
- Introducing or changing extract, transform, and load (ETL) procedures to send appropriate GIS data in an appropriate format

### Future Report Card Plans

The report card program will continue with each VGIN data call to support the many uses of GIS road centerlines and address points in local and state government, including the state-wide layers of the Virginia Base Mapping Program. The focus of the Virginia report cards will add new metrics and measures that improve the quality of the datasets for all users and uses. If you have thoughts and ideas about what our report cards could measure and assess in the future, please let us know! During 2026 VGIN plans to release a new public version of the tools that will work natively in supported GIS software without the use of additional extensions.

### Contact

Email [NG911GIS@vdem.virginia.gov](mailto:NG911GIS@vdem.virginia.gov) for more information about the 2026 Virginia report card program and tools.

## Reading Your Civic Address Layers Analysis Results

This section documents what the Civic Address Layers report card checks to help you use the results.

Date VGIN received the data.

Name of the locality contributing the GIS data, usually in response to a VGIN bi-annual data call.

Number of features in the GIS data VGIN received.

**Bold** checks identify issues that impact geospatial call routing and geocoding.

Data checks and the number of times each modeled rule was not met.

Link to download the results in geodatabase format.

Links to documentation explaining the items in the report cards.

GIS Data Report Cards: Civic Layers Analysis

*Locality:* Jurisdiction name  
*GIS Data Received:* Month / Day / Year  
*Road Centerlines:* 3000  
*Address Points:* 15000

**CIVIC ADDRESS LAYER CHECKS**

Bolded Check Numbers Indicate Critical Items for Correction

**Road Centerline**

Check	Data Inconsistency Description	Count
<i>Attributes</i>		
1	Road Centerline ID Not Unique and Persistent	No ID
2	<b>Road Centerline Has Duplicate Address Ranges For Attributes &lt;&gt; 0</b>	0
3	Road Centerline Numerical Address Ranges Begin Or End With 0	0
4	Road Centerline Has From Left Value Greater Than To Left Value	0
5	Road Centerline Has From Right Value Greater Than To Right Value	0
6	<b>Road Centerline Has Left Side Overlapping Address Range</b>	0
7	<b>Road Centerline Has Right Side Overlapping Address Range</b>	0
8	Road Centerline Has Odd/Even Right Side Address Parity	0
9	Road Centerline Has Odd/Even Left Side Address Parity	0
10	<b>Road Centerline Has Street Name Attributes &lt;&gt; Virginia, USPS, &amp; NENA standard</b>	0
<i>Geometry</i>		
11	Road Centerline Has Invalid Geometry	0
12	Road Centerline Has Multipart Features	0
13	Road Centerline Has Duplicate Geometry	0
14	Road Centerline Not Segmented And Snapped At Road Intersections	0
15	Road Centerline Has Dangles Within 30 Feet of Another Centerline	0
16	Road Centerline Not Connected To Other Centerlines In Road Network	0
17	Road Centerline Segment Incorrect Direction Based on Address Ranges and Point	0

**Address Point**

Check	Data Inconsistency Description	Count
18	<b>Site Address Point Is Duplicate, Has No Street Name, Or No Address Number</b>	0
19	<b>Site Address Point Does Not Geocode to Road Centerline Street Name and Address Range</b>	0
20	<b>Site Address Point Street Name And Road Centerline Street Name Mismatch</b>	0
21	Site Address Point Does Not Match Street Side Based on Left and Right Address Ranges	0

**DOWNLOAD REPORT CARD GIS DATA PACKAGE**  
[URL to download report card results and GIS files](#)

**REPORT CARD RESOURCES**  
[Report Card Overview](#)  
[VITA GIS Data Report Card Tools for NG9-1-1 Preparation User Guide](#) – See Page 29-35

The results of these analyses are a snapshot in time and are valid for the data used in them. Your GIS data may have been updated since the locality data submittal. This may impact your scores.

The [Virginia NG9-1-1 GIS Resources page](#) at the VGIN Clearinghouse contains additional information on these reports. “Critical issues” appear in bold and are known to impact geocoding. You can use the exceptions process on the [Virginia NG9-1-1 GIS Resources page](#) to report what you have checked and know to be correct in the GIS data. This will lower the inconsistencies reported in your next analysis.

## Reading Your GIS 911 Synchronization Analysis Results

This section documents what the GIS 911 Synchronization report card checks to help you use the results.

Name of the locality contributing the GIS data, usually in response to a VGIN bi-annual data call.

**vgin** Virginia Geographic Information Network  
GIS Data Report Cards: GIS 911 Synchronization Analysis

Locality: Jurisdiction Name  
GIS Data Received: Month / Day / Year  
MSAG & ALI Received: Month / Day / Year  
Road Centerlines: 3000  
Address Points: 15000  
PROVIDER ALI CHECKS  
Bolted Provider ALI Checks Indicate Critical Items.

**Preliminary ALI Checks**

Check	Count	% Total
ALI Records Total	3000	100
ALI Records - Usable	2940	98.00
ALI Records - Unusable	60	2.00
ALI Unmatched to MS	0	0
ALI Matched to MSAG	0	0

The first two **bold** checks give the percent match, where the highest percentage is desired.

**Usable Provider ALI to GIS Data**

Check	Count	% Usable ALI
ALI Matched To Address Point	5708	97.075
ALI Matched To RCL - Unmatched Address Points	172	2.925
ALI Matched To RCL - Total	5880	100
ALI Matched To Address Point - Street Name Mismatch	0	0
ALI Matched To RCL - Street Name Mismatch	0	0

**Usable Provider ALI Unmatched to GIS Data**

Check	Count	% Usable ALI
ALI Unmatched to GIS Data	0	0
ALI Unmatched to AP	0	0
ALI Unmatched to RCL	0	0
ALI Unmatched AP top 10 Addresses	0	0

**PROVIDER MSAG CHECKS**  
Bolted Provider MSAG Checks Indicate Critical Items

**MSAG Table**

Check	Count	% Total
MSAG Records Total	410	100
MSAG Street, Community, ESN, High, Low, or OEB Fields Have <Null> or "" Values	0	0

**RCL to MSAG**

Comments	Edit Action needed	Count	% Total RCL
MSAG Matched	No Action: RCL MSAG And Provider MSAG Identical	0	0
MSAG Matched	No Action: RCL Segments In Center of Chain	0	0
MSAG Matched	Check MSAG: Centerline MSAG HIGH <-> Provider MSAG HIGH	0	0
MSAG Matched	Check MSAG: Centerline MSAG LOW <-> Provider MSAG LOW	0	0
MSAG Matched	Check MSAG: Centerline MSAG LOW AND HIGH <-> Provider MSAG LOW AND HIGH	0	0
MSAG Mismatch	No Action: RCL Segments In Center of Chain	0	0
MSAG Mismatch	Check MSAG: MSAG or RCL Missing Information	0	0

**MSAG to RCL**

Check	Count	% Total
MSAG Unmatched To RCL	0	0

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9-1-1 & Geospatial Services Bureau | Virginia Department of Emergency Management | www.vaemergency.gov | November 2020

Other **bold** checks focus on mismatched records and unmatched records.

Links to documentation explaining the items in the report cards.

The results of these analyses are a snapshot in time and are valid for the data used in them. Your GIS data may have been updated since the locality data submittal. The greater the time between the GIS data submittal and the ALI and MSAG data, the more likely it is that your GIS and 9-1-1 databases will be less synchronized with recent changes. The [Virginia NG9-1-1 GIS Resources page](#) at the VGIN Clearinghouse contains additional information on these reports.

Before NG9-1-1 deployment, this analysis used MSAG and ALI data from Verizon, Brightspeed/CenturyLink, and other legacy 9-1-1 providers. As part of your NG9-1-1 deployment, your MSAG and ALI databases migrated to AT&T. Now and moving forward, this report measures the degree to which your GIS roads and addresses are synchronized with information maintained in 9-1-1 Net. If there is an issue with the MSAG or ALI, your locality or 9-1-1 Center can directly resolve the issues through Intrado's 9-1-1 Net application. More information is available here: [MSAG & ALI Maintenance After Next Generation 9-1-1 Go-Live with 9-1-1 Net](#).