

ADA TITLE II PUBLIC RIGHT OF WAY SELF EVALUATION

prepared for

City of Roswell
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Ms. Elizabeth Shin



ADA TITLE II PUBLIC RIGHT OF WAY SELF EVALUATION
OF
CITY OF ROSWELL
ROSWELL, GEORGIA 30075

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1. PURPOSE AND SCOPE

1.1 Overview of the City of Roswell

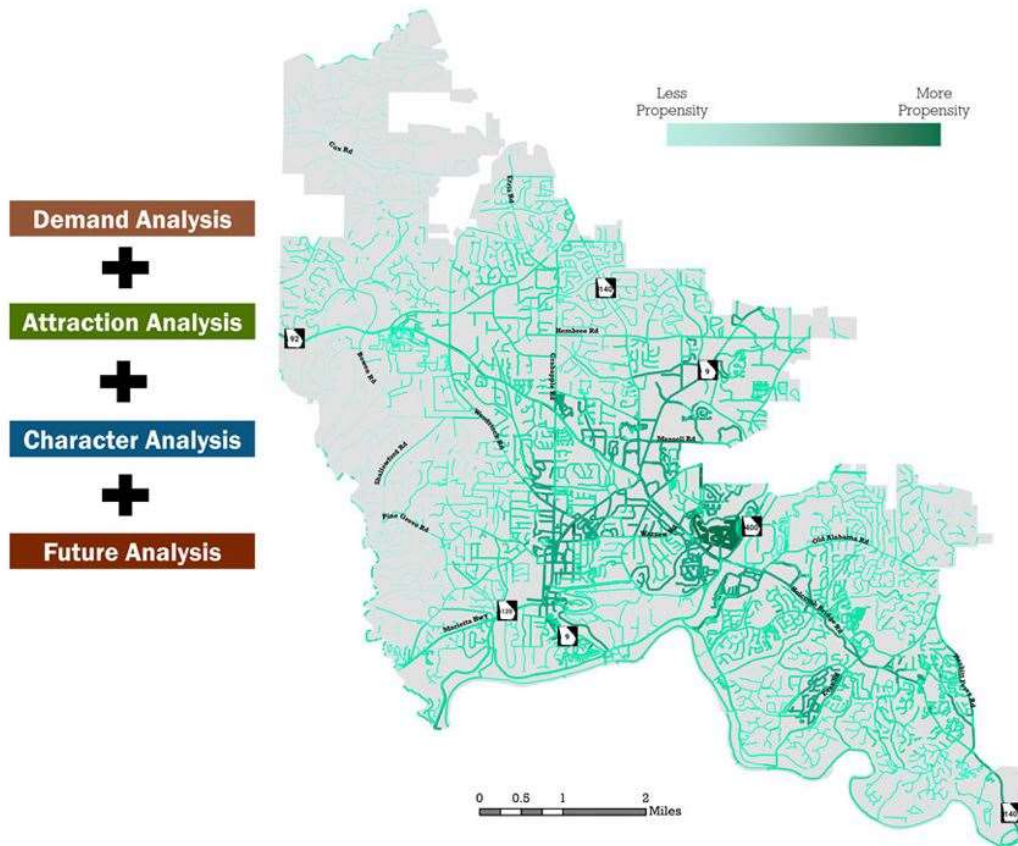
The City of Roswell, GA is located in northern Fulton County. A suburb of Atlanta, the city has a population of 94,884 (est, 2020 Census), making it the state of Georgia’s ninth largest city.

The City of Roswell provides high quality services to the community with a dedication to the public interest, including oversight of all public parks and facilities.

The mission statement of the City of Roswell is “to provide our citizens with an exceptional quality of life”.

It is the policy of the City of Roswell to provide equal access to all City sponsored services, programs, and activities for citizens, visitors, and employees with disabilities. The City of Roswell will work to assure the advancement of legal rights and the promotion of maximum opportunities, accommodations, and accessibility which fosters dignity and self determination. (www.roswellgov.com/residents/ada-information)

In 2019, The City of Roswell finalized a Bicycle and Pedestrian Master Plan. As part of the plan, “the community advised on many topics including overall goals and vision for the future bicycle and pedestrian system, locations that they would like to walk and bike to, locations of safety concerns and issues, as well as feedback on draft project recommendations”. (Roswell Bicycle & Pedestrian Master Plan, Dec 2019)



(Roswell Bicycle & Pedestrian Master Plan, Dec 2019)

1.2 Public Right of Way Self Evaluation

This Self-Evaluation is used to document the access barriers to the City's programs, services and activities related to the public right of way (PROW). The documented access barriers identify existing conditions that deviate from current state and federal standards for new construction. For each barrier, this Self-Evaluation outlines the code deviations and requirements from the Public Right of Way Accessibility Guidelines (PROWAG) and the accessibility standards in the Georgia Department of Transportation (GDOT) guidelines for pedestrian infrastructure facilities in the PROW where the City has either sole or shared responsibility/authority over streets, roads and walkways. Once identified, the intent is to then provide a plan for providing curb ramps or mitigating barriers in pedestrian sidewalks, giving priority to pedestrian routes serving public entities, including State and local government offices and facilities, transportation, places of public accommodation, and employers, followed by walkways serving other areas. Additionally, a propensity analysis was conducted by the City of Roswell as part of the 2019 Bicycle and Pedestrian Master Plan and will be used to prioritize locations. At the direction of city staff, approximately 2,900 curb ramps and 225 miles of sidewalk were assessed for ADA compliance.

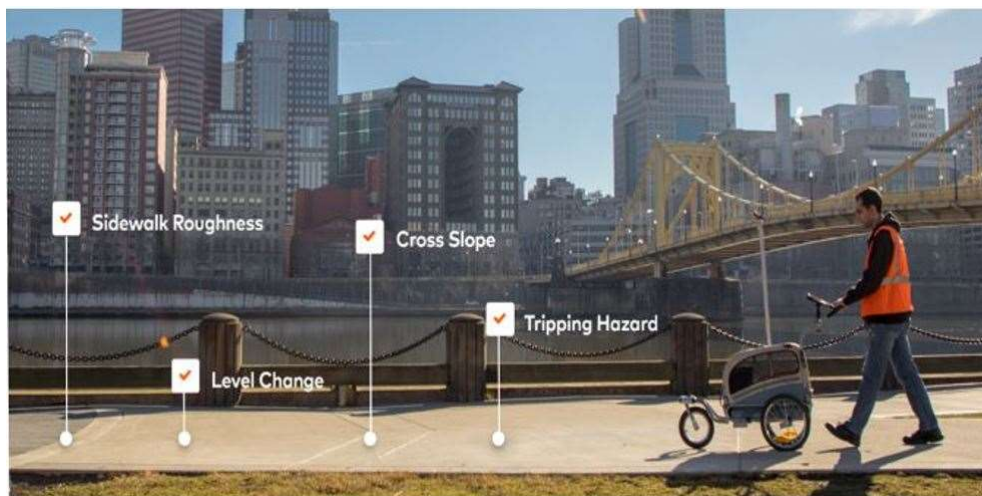
1.3 Methodology

SIDEWALKS

Sidewalk data was collected using pathVu's "pathMet" sidewalk profiler, which was developed for sidewalk ADA assessments.

pathMet is a manually propelled, multi-sensor, stroller-type profiling tool. It uses GPS and high-resolution cameras, lasers, and sensors to measure ADA compliance of sidewalks including cross slope, running slope, surface roughness, and level changes.

Deviations from the required ADA standards and other applicable guidelines pertaining to PROW are identified using detailed information on slopes and surface variations. A comprehensive data set has been provided to the City for inclusion into the City's existing GIS system.



CURB RAMPS

Curb ramps were assessed using pathVU's "curbMet" assessment tool. Data collected included: running slope, cross slope, width and length dimensions, flare information, the presence of detectable warning, damage, obstructions, as well as several other attributes. The internal data collection checklist is based on ADA and Georgia Department of Transportation (GDOT) requirements as well as the Public Right of Way Accessibility Guidelines (PROWAG) recommendations. A comprehensive data set has been provided to the City for inclusion into the City's existing GIS system.



1.4 Basis for Order of Magnitude Costs

Order of magnitude estimates are based on costs developed by construction resources such as *R.S. Means* and *Marshall & Swift*, Bureau Veritas's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions. Typically, barrier removal allowances are based upon the removal of the specific element being evaluated (for example, parking stall, curb ramp, sidewalk section). Engineering, including land surveys and plans for renovation of areas requiring barrier removal, could result in significantly different material quantities and subsequent higher project costs. Additional measures, such as road closures, police details, and utility conflicts may also result in increased costs. Bureau Veritas has no control over the final scope of work, pricing methods, and costs associated with a contractor constructing the project. The opinion of estimated costs within this report cannot guarantee that the costs will accurately reflect the actual bids for construction.

2. ACCESSIBILITY

2.1 Overview

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of the programs, services, and activities on the basis of disability. Regardless of their age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG), and applicable state and local accessibility regulations to the maximum extent possible for providing programmatic access. Field assessments of pedestrian infrastructure within the public right of way (PROW) were conducted in accordance with current accessibility regulations per Title II of the ADA. Furthermore, mitigation recommendations were also developed based on the Access Board’s revised draft guidelines for Accessible Public Rights-of-Way (PROWAG) and Georgia Department of Transportation Guidelines (GDOT). The survey of City PROW facilities fulfills one of the primary requirements for the City of Roswell’s complete ADA Transition Plan.

2.2 Sidewalk Accessibility Summary

The data collected on this assessment was in continuous block runs of sidewalks. The data was captured into 10-foot run sections, as to not degrade an entire block for one 10 or 20 linear foot issue. Each 10-foot run segment provides an aggregated score of the roughness and the extreme vertical rise, slope, or gap.

The overall score follows ASTM E3208, producing a RAI (Route Accessibility Index). The RAI scores are from 0 to 6 and are a weighted scale of vertical level changes, the smoothness of the surface, running and cross slopes. A score of 0 to 1 is great to good, any score higher than 1 is not fully compliant.

The data provided in this report is based on the 10-foot run sections. The GIS data provided to the City is capable of being viewed in both ‘block-level’ runs and 10-foot run sections.

Based on the onsite review, Bureau Veritas found that barriers to accessibility exist within the city sidewalks. The observed elements were analyzed using the Access Board’s revised draft guidelines for Accessible Public Rights-of-Way (PROWAG) and Georgia Department of Transportation Guidelines (GDOT). The barriers are summarized in Section 2.3.

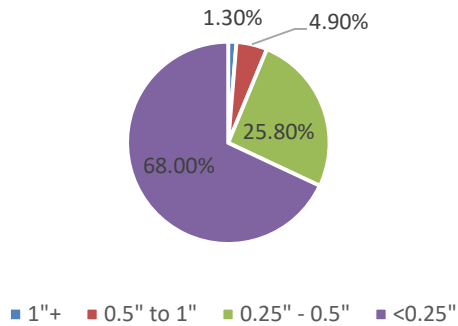
CITY OF ROSWELL, GA – SIDEWALK ACCESSIBILITY SUMMARY

Metric	1st Priority	10' Seg	2nd Priority	10'Seg	3rd Priority	10' Seg	Compliant	10'Seg
Vertical Changes	1" Plus	1,490	0.5" to 1"	5,692	0.25" to 0.5"	29,986	<0.25"	79,073
Running Slope	N/A		> 8.3%	22,052	5%-8.3%	35,703	< 5%	58,457
Cross Slope	> 6.0%	19,340	4.0% to 6.0%	24,111	2.09% to 4.0%	44,533	< 2.08%	28,240
Roughness	> 100	2,493	75 to 100	4,296	50 to 75	29,095	< 50	80,331
*RAI	> 5	85	3 to 5	372	1 to 3	17,277	< 1	98,478



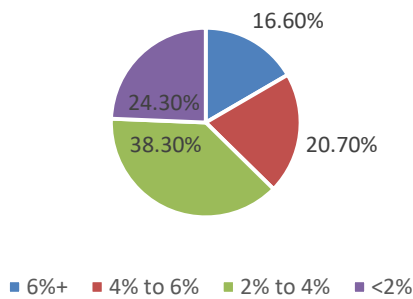
SUMMARY OF KEY METRICS - SIDEWALKS

Abrupt Vertical Level Changes



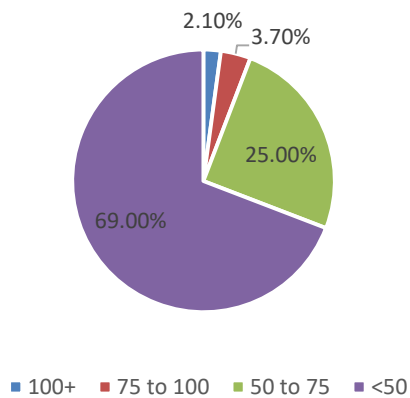
1"+	1.3%
0.5" to 1"	4.9%
0.25"-0.5"	25.8%
<0.25"	68.0%

Sidewalk Cross Slope



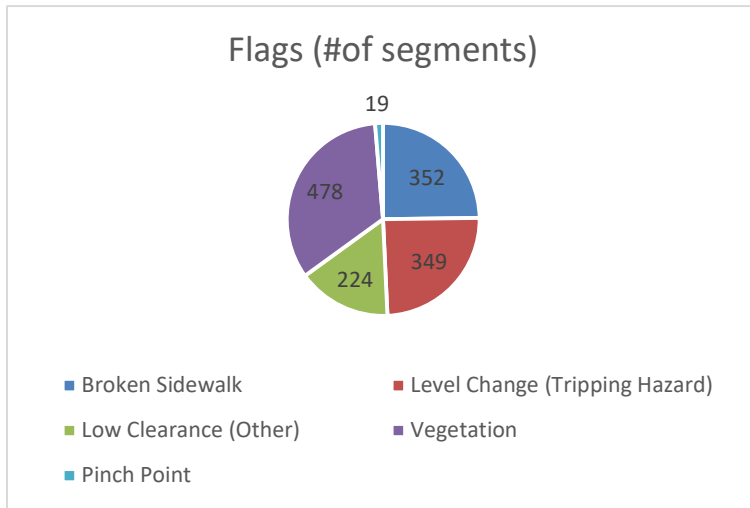
6%+	16.6%
4% to 6%	20.7%
2% to 4%	38.3%
<2%	24.3%

Sidewalk Roughness

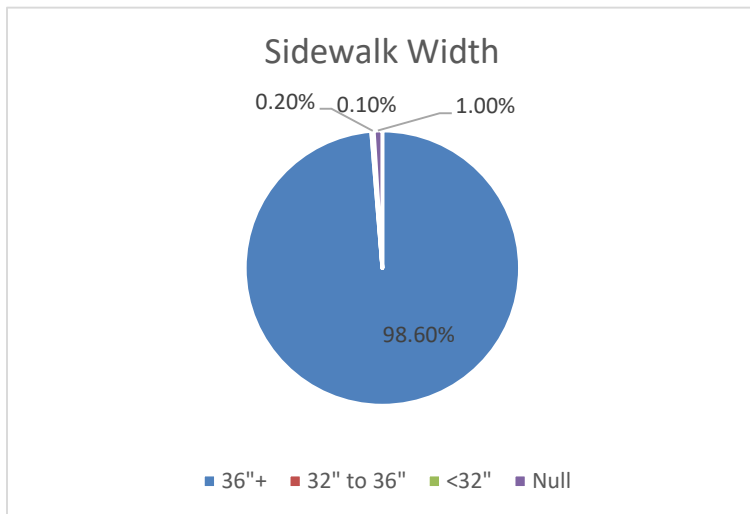


100+	2.1%
75 to 100	3.7%
50 to 75	25.0%
<50	69.0%

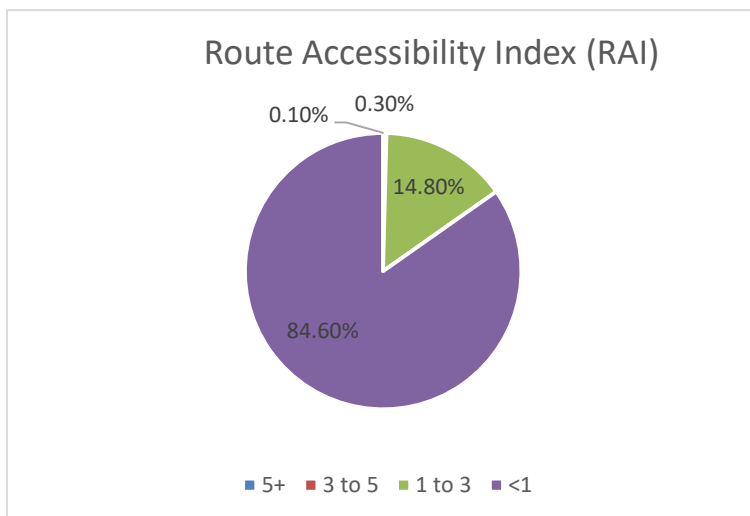
SUMMARY OF ADDITIONAL METRICS - SIDEWALKS



Flags	
Broken Sidewalk	352
Level Change	349
Low Clearance	224
Vegetation	478
Pinch Point	19



Width	
36"+	98.60%
32" to 36"	0.10%
<32"	0.20%

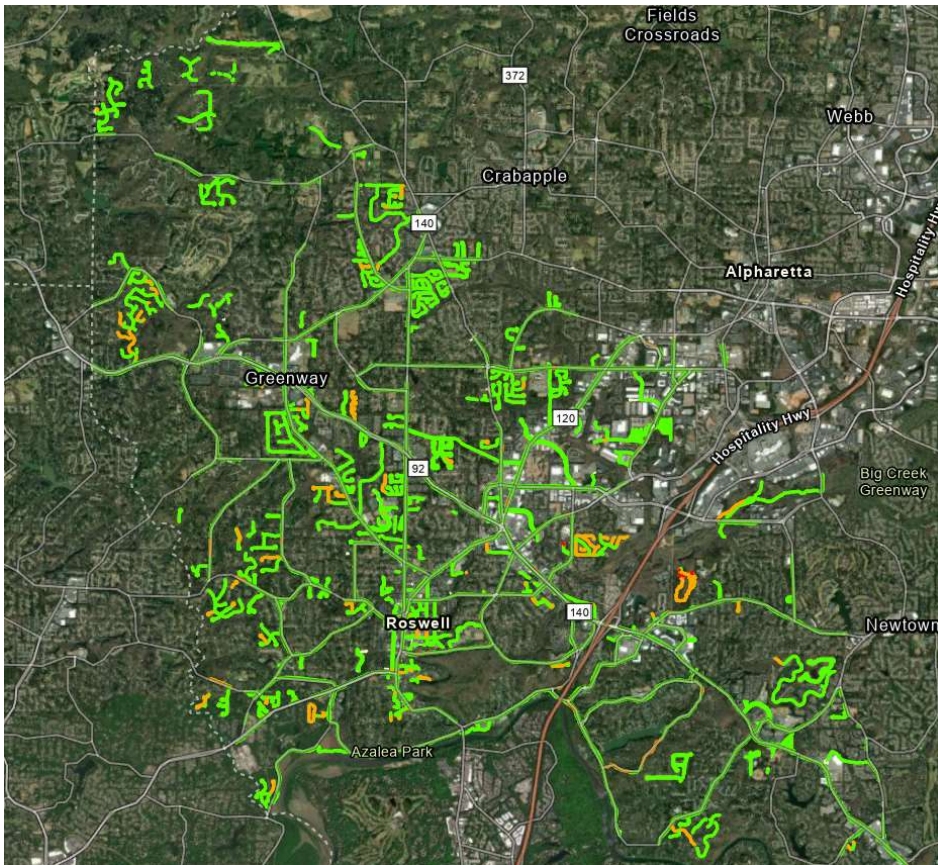


RAI	
5+	0.1%
3 to 5	0.3%
1 to 3	14.8%
<1	84.6%

The purpose of the Route Accessibility Index (RAI) is to provide a weighted usability average to each segment sidewalk. The RAI can be adjusted based on City of Roswell's needs. The current weights are set at 65% level changes, 15% roughness, 15% cross slope, and 5% running slopes.

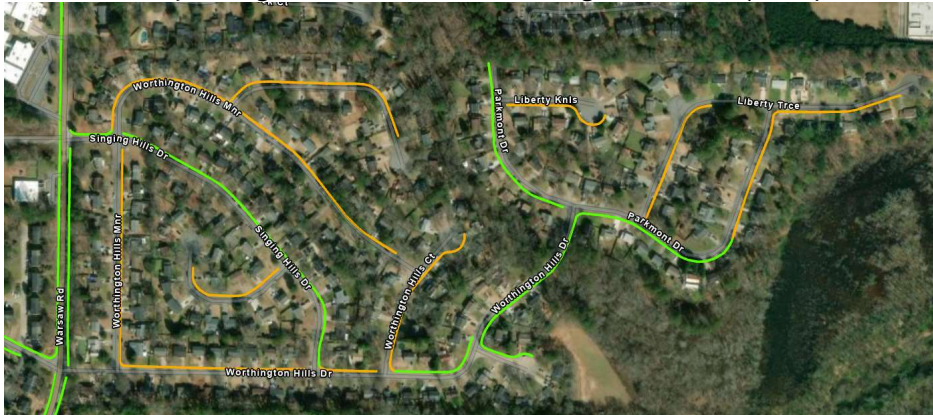


Run-based analysis, Segment RAI Green <1, 1<=Orange<2, Red>=2 (excerpt of full data set provided to the City)



LOCAL ROUTE ACCESSIBILITY INDEX (RAI)

Run-based analysis, Segment RAI Green <1, 1<=Orange<2, Red>=2 (excerpt of full data set provided to the City)



2.3 Sidewalk Barrier Summary

The following table summarizes the sidewalk barriers that were identified.

CITY OF ROSWELL– TITLE II ACCESSIBILITY SIDEWALK BARRIER SUMMARY

Metric	Priority	Remediation Method	Cost per section	# of 10' sections	Remediation Cost
Vertical Rise	1st Priority	Grinding	\$115.00	1,490	\$171,350.00
	2nd Priority	Grinding	\$115.00	5,692	\$654,580.00
	3rd Priority	Grinding	\$115.00	29,986	\$3,448,390.00
	Total Cost				\$4,274,320.00
**Running Slope	1st Priority	N/A	\$0.00	0	\$0.00
Update Standards	2nd Priority	N/A	\$0.00	0	\$0.00
	3rd Priority	N/A	\$0.00	0	\$0.00
	Total Cost				\$0.00
Cross slope (\$25/s.f.) (50 s.f. / section)	1st Priority	Remove replace	\$1,250.00	19,340	\$24,175,000.00
	2nd Priority	Remove replace	\$1,250.00	24,111	\$30,138,750.00
	3rd Priority	Remove replace	\$1,250.00	44,533	\$55,666,250.00
	Total Cost				\$109,980,000.00
*Roughness	1st Priority	Spot repair	\$110.00	2,493	\$274,230.00
	2nd Priority	Spot repair	\$0.00	4,296	\$0.00
	3rd Priority	Spot repair	\$0.00	29,095	\$0.00
	Total Cost				\$274,230.00
Totals	1st Priority				\$24,620,580.00
	2nd Priority				\$30,793,330.00
	3rd priority				\$59,114,640.00
	Total Cost				\$114,528,550.00

*Roughness, money allocated for this type barrier is for spot repair. It is assumed that most will be corrected during the cross slope remediation.

** Running Slope is currently an issue with ADA. Running Slope issues have been addressed in the 2021 IBC and the US Access Board is in final ruling process to adapt Public Right of Way Accessibility Guidelines. (PROWAG). It is expected that the final ruling will come in the second quarter of 2023. Both of these rules allow for the sidewalk running slope to match the running slope of the adjacent street. No costs were associated with the running slope barriers as they should come into compliance with the upcoming changes.



2.4 Curb Ramp Accessibility Summary

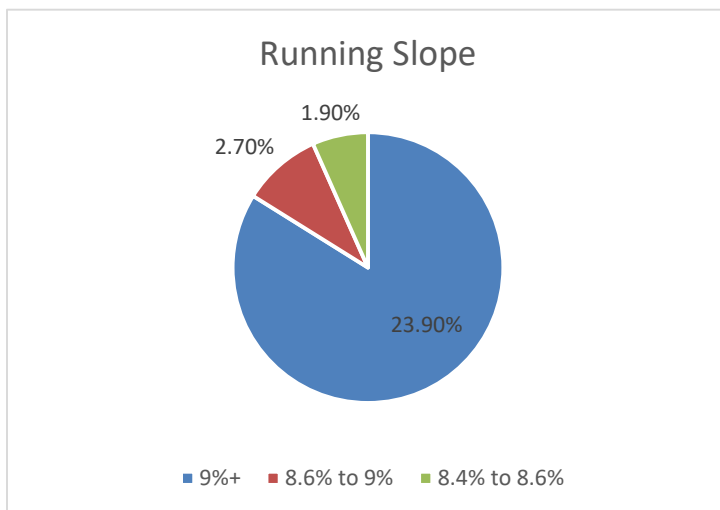
Based on the onsite review, Bureau Veritas found that barriers to accessibility exist within the city’s curb ramp inventory. The observed elements were analyzed using the Access Board’s revised draft guidelines for Accessible Public Rights-of-Way (PROWAG) and Georgia Department of Transportation Guidelines (GDOT). The barriers are summarized in Section 2.4. The curb ramp “score” is a weighted calculation of the various measured attributes including slopes, width, obstructions, and the presence of detectible warning. It is intended only to provide a general usability rating (0 being missing / poor, and 5 being fully or nearly fully compliant), and can be adjusted based on the City of Roswell’s needs.

CITY OF ROSWELL, GA – CURB RAMP ACCESSIBILITY SUMMARY

Metric	1st Priority	Ramps	2nd Priority	Ramps	3rd Priority	Ramps
Running Slope	> 9%	698	8.6% - 9%	79	8.4% - 8.6%	55
Cross Slope	> 6.0%	640	4% - 6%	442	2% - 4%	725
Width	< 32"	257	32" – 36"	130	36"+	2211*
Landing Slope	> 6.0%	294	4% - 6%	302	2% - 4%	639
Score	0 – 1.5	230	1.5 - 3	1003	3-5	1680

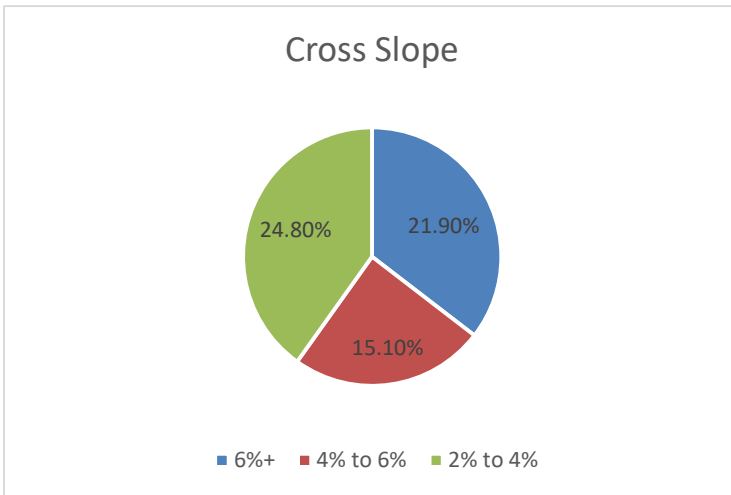
*Curb ramp widths greater than 36" may be compliant, depending on sidewalk widths and other factors.

SUMMARY OF KEY METRICS – CURB RAMPS



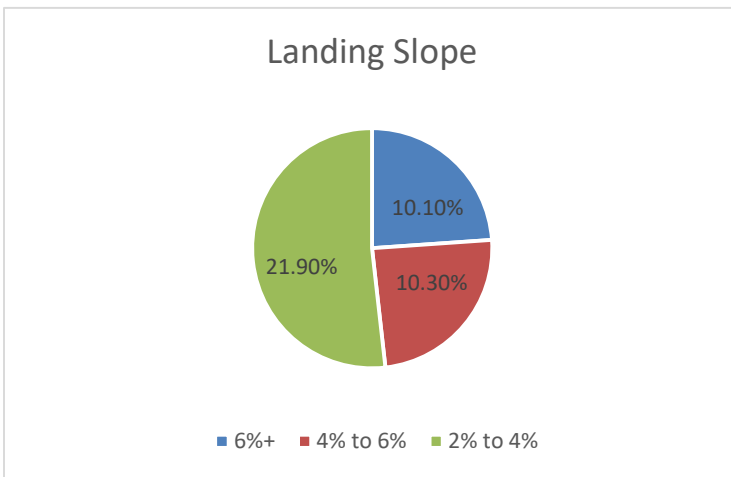
Running Slope %	Percentage
9%+	23.90%
8.6% to 9%	2.70%
8.4% to 8.6%	1.90%

*Remaining % with compliant running slope



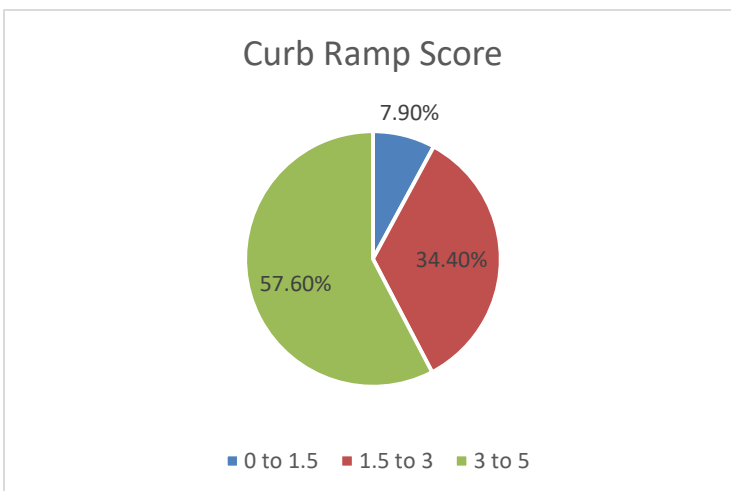
Cross Slope %	
6%+	21.90%
4% to 6%	15.10%
2% to 4%	24.80%

**Remaining % with compliant cross slope*



Landing Slope	
6%+	10.10%
4% to 6%	10.30%
2% to 4%	21.90%

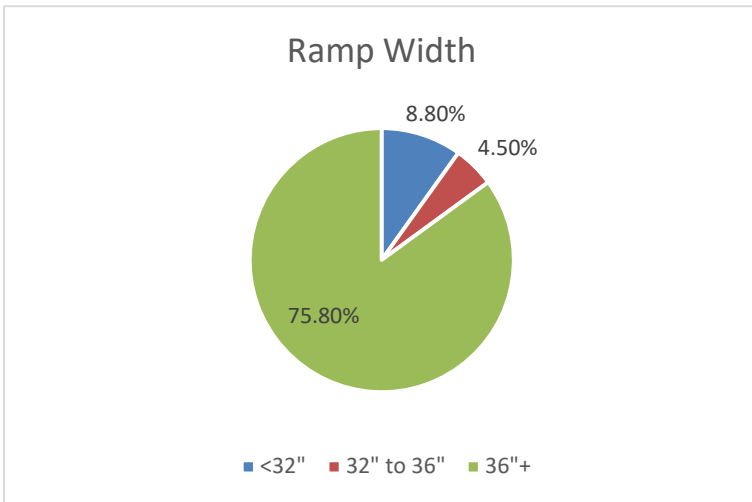
**Remaining % with compliant landing slope*



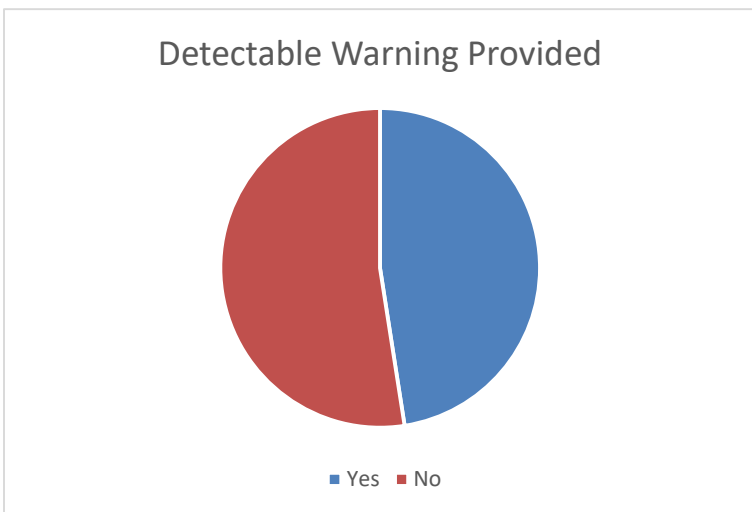
Score	
0 to 1.5	7.90%
1.5 to 3	34.40%
3 to 5	57.60%

The curb ramp score is a weighted calculation of the various measured attributes including slopes, width, obstructions, and the presence of detectible warning. Missing curb ramps are given a score of 0.

SUMMARY OF ADDITIONAL METRICS – CURB RAMPS



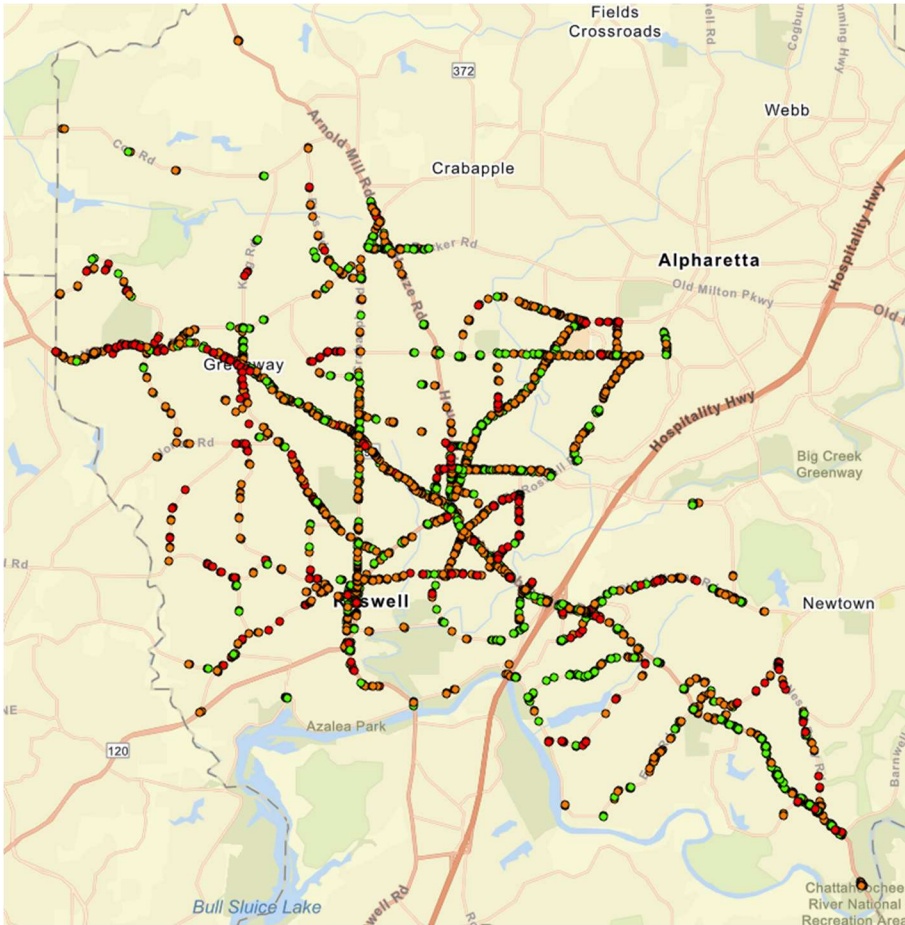
Width	
<32"	8.80%
32" to 36"	4.50%
36"+	75.80%



Detectable Warning	
Yes	47.40%
No	52.30%

2.5 Curb Ramp Barrier Summary

Score-Based Curb Ramp Analysis (excerpt of full data set provided to the City)



CITY OF ROSWELL- TITLE II ACCESSIBILITY CURB RAMP BARRIER SUMMARY

Metric	Priority	Remediation Method	Cost per Ramp	# of Ramps	Remediation Cost
Curb Ramp Score	1st Priority (missing)	Install New	\$2,350.00	299	\$702,650.00
	1st Priority (0-1.5)	Replacement	\$2,350.00	230	\$540,500.00
	2nd Priority (1.5-3)	Replacement	\$2,350.00	1,003	\$2,357,050.00
	3rd Priority (3.1-5)	Replacement	\$2,350.00	1,680*	\$0
	Total Cost				\$3,600,200.00

*Curb ramps with a score of 3 to 5 are compliant or nearly compliant. Replacement costs are not shown, and the ramps are recommended for future lifecycle replacement.

3. PUBLIC RIGHT-OF-WAY PRIORITIZATION

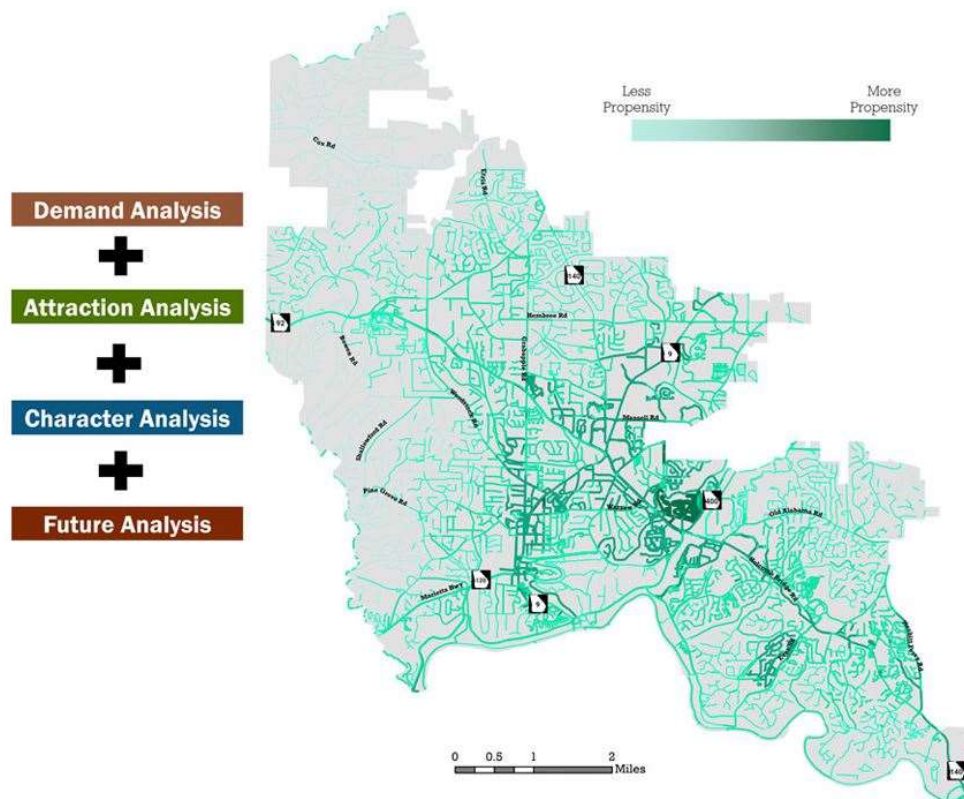
The City of Roswell currently employs a range of approaches in removing obstacles on sidewalks and at street corners, including:

- responding to public complaints
- proactively identifying and eliminating the barrier
- ensuring the correct design and build-out in new construction

The draft priority schedule for removing barriers in the City’s public right-of-way was developed using guidelines identified in Title II of the ADA. In addition to the priorities shown in the previous summaries (based on severity), prioritization criteria for removal of barriers in the right-of-way should also include the following:

- Locations of citizen complaint or request (ADA title II program access),
- Locations serving government offices and public facilities,
- Locations serving transportation,
- Locations serving commercial districts and employers; and
- Locations coordinated with the 2019 Bicycle and Pedestrian Plan (propensity analysis).

Based on the above, and in conjunction with the Roswell Bicycle & Pedestrian Master Plan, the City of Roswell has identified several priority areas surrounding frequently accessed public buildings and schools. Sidewalk and curb ramp barriers have been identified within these areas and a budgetary cost to remove them has been established.



4. CERTIFICATION

Bureau Veritas has completed a Title II Accessibility Assessment of the City of Roswell, GA's public sidewalks and curb ramps, evaluated in late 2022 and early 2023.

The assessment was performed at the client's request using methods and procedures consistent with good commercial and customary practice for assessing compliance with the Title II provisions of the Americans with Disabilities Act (ADA) and applicable state and local requirements.

This report has been prepared for and is exclusively for the use and benefit of the client identified on the cover page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and Bureau Veritas.

This report, or any of the information contained therein, is not for the use or benefit of, nor may it be relied upon by any other person or entity, for any purpose without the advance written consent of Bureau Veritas. Any reuse or distribution without such consent shall be at the client's or recipient's sole risk, without liability to Bureau Veritas.

The opinions Bureau Veritas expresses in this report were formed utilizing the degree of skill and care ordinarily exercised by an architect or engineer in the same community under similar circumstances. Bureau Veritas assumes no responsibility or liability for the accuracy of information contained in this report which has been obtained from the client or the client's representatives, from other interested parties, or from the public domain. The conclusions presented represent Bureau Veritas's professional judgment based on information obtained during the course of this assignment. The conclusions presented are based on the data provided, observations made, and conditions that existed specifically on the date of the assessment.

Bureau Veritas certifies that Bureau Veritas has no undisclosed interest in the subject property, Bureau Veritas's relationship with the client is at arm's-length, and that Bureau Veritas's employment and compensation are not contingent upon the findings or order of magnitude estimated costs to remove barriers.

If you have any questions regarding this report, please contact Program Manager Michael Cunniff at Michael.Cunniff@bureauveritas.com or at (800) 766-0660, x7296214.

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