



Delaware Department of Transportation
REQUEST FOR PROPOSALS



RFP Number: **1857**

ROAD RATING SERVICES

Submission Due Date/Time: **Thursday, November 16, 2017 at 2:00 P.M. Local Time**

Three (3) year Term with two (2) possible one-year extensions

Agreement Type: Project Specific

Up to one (1) agreement may be awarded from this solicitation.

The resulting agreement will be State funded.

The anticipated method of payment is cost per unit of work.

29 Del.C. §6981, §6982(b)

PROJECT INFORMATION

This Request for Proposal (RFP) issued by the Delaware Department of Transportation is for the purpose of acquiring Proposals from interested firms to collect pavement ratings for each segment of roadway in Delaware that is state-maintained including state-maintained suburban streets.

PROJECT DESCRIPTION

The data collected will be used by Pavement Management to prioritize the paving list that is presented for the bond bill and assist in projecting the Department's funding needs for current and future paving projects.

Description of Work:

- The consultant shall conduct field surveys on all pavement segments (approximately 25,056 segments) of state-maintained roads (approximately 4,459 miles) and suburban streets (approximately 1,422 miles) to identify:
 1. Type of pavement
 2. Severity of distress in pavement
 3. Extent of distress in pavement
- The Department reserves the right to modify, add, delete, or change surface distresses in Pavement Management System rating system at any time. The consultant will be responsible for collecting any new data.
- A description of the distress types is included in Appendix A. This is not inclusive of all distresses you may observe in the field. The consultant will be responsible for contacting the project manager to categorize any distresses observed in the field that are not in Appendix A.

- The consultant shall provide vehicles, safety equipment, and any required maintenance of traffic to perform the field surveys. The consultant shall provide their own equipment to record and input data collected through field surveys. The consultant will provide data in the most up-to-date version of Access, XLS, or Oracle 12c data import file. Images shall be in JPG format. The data shall be compatible with the department's Pavement Management System (Agile Assets).
- The Department will provide the rating method.
- The consultant shall provide all services needed to complete assigned work to meet the satisfaction of the Department.
- The Department will provide reviews and direction as required.
- The consultant shall provide to the Department any changes in road inventory such as "from-thru" descriptions, surface type changes, mile point changes, etc., that arise while performing field surveys.
- The consultant shall provide training for all personnel who perform the field surveys.
- The Department may request analysis of indices, formulas, and decision trees contained in the software and recommendations for improvement.
- All state-maintained roadway ratings shall be completed by August 31 of every other calendar year.
- All state-maintained suburban street ratings shall be completed by December 31 of every other calendar year.
- All NHS roadway ratings shall be completed for HPMS by August 31 on off years.
- The Department will include the collection of Videolog and/or International Roughness Index (IRI) data. Interested Firms should detail their ability to capture associated data.
- The Consultant will be required to provide QA/QC to ensure data is reliable. The QA/QC plan should be submitted to the Department prior to collection data. This will be the responsibility of the consultant.
- The Consultant will be required to conduct a pilot study on sample segments to ensure proper procedures are being followed.

QUESTIONS

Questions are to be submitted to DOT.Profservices@state.de.us. In order to ensure a timely response, questions must be submitted according to the procurement schedule before the Proposal due date. The Department's response to questions, along with this RFP and related information, are posted on the State of Delaware Bid Solicitation Directory Website: <http://www.bids.delaware.gov/>.

PROCUREMENT SCHEDULE

Action Item	Date	Time
Deadline for Questions to ensure response:	Ten (10) business days prior to the proposal due date	2:00 P.M. Local Time
Final Response to Questions posted by:	Five (5) business days prior to the proposal due date	2:00 P.M. Local Time
Proposals Due by:*	Thursday, November 16, 2017	2:00 P.M. Local Time

NOTE: Only asterisk (*) marked date changes will be communicated (via posted Addendums).

PROPOSAL REQUIREMENTS

Interested firms must submit the material required herein or they may not be considered for the project:

1. Proposals must be received prior to the Submission due date and time indicated above.

Facsimile and E-mail responses to this RFP are not acceptable. No response hand-delivered or otherwise will be accepted after the above date and time. It is the responsibility of the submitter to ensure the Proposal is received on time. DeIDOT's time is considered the official time for determining the cut-off for accepting submissions. To be considered for this agreement, firms must submit the Proposal as set forth herein. Any variation, including additions, may negatively impact the scoring.

Proposals are to be delivered to:

Contract Administration – RFP 1857
Delaware Department of Transportation
800 Bay Road
Dover, DE 19901

Should the office be closed at the time responses are due (such as an unexpected event or inclement weather) the submission due date shall be the following business day, at the time originally scheduled.

2. **Specific Type Firm Solicited:**

There is no pre-registration requirement in order to submit an expression of interest on this project. The selected firm(s) may be required to register upon selection.

3. **Submit one (1) original and five (5) hard copies** of the Proposal. Receipt of insufficient copies or non-compliance with providing the requested information in the desired format, may negatively impact the scoring.
4. **Submit two (2) pdf format electronic copies** (e.g. CD, flash drive) of the Proposal; one original and one a redacted copy. The original must be a .pdf file of the original signed proposal as submitted and should be clearly marked “Original”. The redacted copy must be a .pdf file of the original signed proposal with any proprietary or confidential information redacted, and this copy should be clearly marked as “Redacted”. Electronic copies are to be submitted with the printed Proposal. The electronic redacted copy is required even if the submission contains no proprietary or confidential information.

Firms should review Delaware's Freedom of Information Regulations here; <http://regulations.delaware.gov/AdminCode/title8/1400.shtml#> to determine what information may be considered proprietary or confidential and may be redacted from their Proposal.

5. **Joint venture** submissions will not be considered.
6. **DelDOT reserves the right to reject** any and all submissions. Submissions become property of the Department and shall be retained electronically for a minimum period of three (3) years from the date of receipt. DelDOT reserves the right to any and all ideas included in this response without incurring any obligations to the responding firms or committing to procurement of the proposed services.
7. **Required Certification Forms.** All firms responding to the RFP must complete and return the submission forms located in 'Appendix B' of this document.

EXPRESSION OF INTEREST REQUIREMENTS

The letter portion of the Expression of Interest shall indicate the firms desire to perform services and indicate the specific tasks or areas of expertise, which will be subcontracted, and to whom. Interested firms must submit the material required herein or they will not be considered for the project.

1. Please submit the firm's mailing address, phone number, and an e-mail address for the firm's point of contact person on page one (1) of the Letter of Interest. Future contacts by DelDOT will be done via e-mail, whenever possible.
2. The Expression of Interest submission should be tabbed and collated in the following order:

A. Table of Contents

Table of Contents (1 per set) - Limited to one (1) page on one (1) sheet of paper

B. Letter of Interest

Letter of Interest (1 per set) - Limited to four (4) pages on two (2) sheets of paper

Indicate the following:

- (1) An understanding of the anticipated assignments, services required, and approach to providing the services required
- (2) Identify who the proposed project manager will be and what office location they will be working from.
- (3) Describe your proposed data collection methodology
- (4) The location, size, and description of the firm
- (5) Availability of personnel for immediate placement
- (6) Sub-consultant usage if anticipated. Indicate the percentage of work estimated to be performed by the sub vs. the prime. Also, indicate if the prime firm has previously worked with the proposed sub and give a brief example of the previous relationship(s).
- (7) The Prime/Lead firm must indicate the present workload either as a Prime Firm or a Sub-

Consultant with the Delaware Department of Transportation by Location, Agreement No. (to include Supplementals), Total Dollar Upset Limit, total paid-to-date, and the amount still available for use on the project(s). Also, include the estimated date of completion. If possible, include the estimated fees for any Delaware DOT projects for which your firm has been selected and does not have an executed agreement in place.

- (8) Provide a listing of contracts with DelDOT for the past five (5) years. Clearly indicate if your firm has not been short listed for a DelDOT project within the past five (5) years.

C. Project Organization Chart

Project Organization Chart (1 per set) - Limited to one (1) side of one sheet of paper.

D. Company Information

Submit the following packet of information titled “Company Information” to include:

- (1) Name of entity and address.
- (2) Address of office where work will be performed.
- (3) Resumes for up to 6 key persons (6-single sided sheets of paper for resumes – 1 resume on each sheet). Indicate if the individual is a full-time member of your firm, part-time, on-call, etc. Indicate where key personnel are currently assigned & the length of the assignment. Clearly identify who will be the Project Manager.
- (4) List 5 projects that your firm has participated in within the last 3 years that are similar to the requirements in the Project Description portion of this Request for Qualifications. Include project name & location, nature of responsibility, contracting agency & address on one-single sided sheet of paper maximum for each project.
- (5) Additional information you would like to submit is limited to 1-single sided sheet of paper.

E. References

Provide a list of References who have personal knowledge of the prime firm’s and the sub-consultant’s previous performance. Provide three (3) client references each for both the prime and the sub-consultant(s). The references must include verified addresses and telephone numbers, contact persons, and a brief description of services that have been provided similar to those described by Delaware DOT for this project.

- (1) References shall be shown on separate sheets (limited to one (1) single-sided sheet; one sheet for the prime and one sheet for each sub proposed). These shall not be included in the four page Letter of Interest.

No promotional materials or brochures are to be included as part of the submission.

RATING CRITERIA

#	Criteria Description:	Weight
1.	Key Staff and Project Team qualifications	20%
2.	Firm's experience pertaining to Road Rating	15%
3.	Technical Approach	15%
4.	Firm's resources and capability to accomplish proposed work on schedule	25%
5.	Project understanding, approach, services required	25%
TOTAL :		100%

OVERVIEW OF SELECTION PROCESS – PROJECT SPECIFIC

- This is a project specific agreement. There is no guarantee of actual agreement value.
- This is a single phase solicitation process with the availability for discussions with three (3) of the most highly qualified firms. Based upon the listed criteria and evaluation of each firm's submitted proposal, the Selection Committee may decide if a small sample task and/or discussions will be held with the most highly qualified consultants. If discussions are held, they will serve to clarify the technical approach, qualifications, and capabilities provided in response to the RFP, after which the committee will determine the ranking of the candidate firms.
- Selection Committee members will individually score each firm's submitted proposal which determines individual ranking. The Department's ranking is the combined ranking of all Committee members. Awarded firms, in order of ranking, will have the opportunity to negotiate an agreement with the Department. If the Department cannot reach agreement with the highest ranked firm(s), the Department terminates negotiations and begins negotiations with the next highest ranked firm, and so on until an agreement is reached. The Department notifies via email the awarded firm(s) of the opportunity to enter into an agreement with the Department. This notification also includes information on the next steps for the agreement process.
- After the ranking process has been completed, applicable price information will be requested from the successful candidate firm(s), such as; salary rates for various classifications of personnel; and an indirect cost derivation for the most current accounting period.
- Payroll burden and overhead will be computed on direct salary costs only (not including overtime) at the consultant's audited rate, as per Federal Acquisition Regulations Part 31, and Department policies. Computer and CADD costs are not allowable as a direct cost to this project. Rate determination and applicability is subject to audit by the Department. Additionally, candidates should be prepared for the Department to work with your current accounting firm to provide information and backup documentation. Full and immediate cooperation is required to avoid delays in execution of an agreement. Failure to cooperate may result in breaking off of negotiations and moving to the next ranked firm.

- Selection Committee membership appointments are confidential. The Department's Professional Services Procurement Manual may be viewed [here](#).

MISCELLANEOUS

The Department is not liable for any cost incurred by the consultant in the preparation or presentation of the Proposal.

Any individual, business, organization, corporation, consortium, partnership, joint venture, or any other entity including subconsultants currently debarred or suspended is ineligible to participate as a candidate for this process. Any entity ineligible to conduct business in the State of Delaware for any reason is ineligible to respond to the RFP.

The Department of Transportation will affirmatively insure individuals and businesses will not be discriminated against on the grounds of race, creed, color, sex, or national origin in consideration for an award. Minority business enterprises will be afforded full opportunity to submit bids/proposals in response to this invitation.

Department of Transportation
State of Delaware
By: Jennifer Cohan
Secretary
Dover, DE

Appendix A – Distress Types

The following reference materials provide a description of the distress types referred to in this agreement under “Project Description”

- DelDOT Pavement Data Dictionary

DeIDOT Pavement Data Dictionary

Version 2.1

Prepared by: [REDACTED] and [REDACTED]
 Last Updated: March 2, 2017

Background

This pavement data dictionary defines the distress types, severity levels, and methods of measurement for automated road rating data collection for the Delaware Department of Transportation (DeIDOT). Pavement condition data is input into DeIDOT's pavement management system, which allows for calculation of Overall Pavement Condition (OPC) index values and subsequent treatment selection. OPC assignment to pavement sections allows DeIDOT to review current conditions, project future conditions, and plan maintenance and rehabilitation activities across its network.

Pavement distresses are considered for four pavement types, namely asphalt concrete (AC), Portland cement concrete (PCC), composite pavement (AC over PCC, or APC), and surface treated (ST). Table 1 summarizes applicable distresses by pavement type, while Table 2 shows Highway Performance Monitoring System (HPMS) distresses and attributes. With few exceptions, lengths of lane exclusions related to bridges, construction, lane deviations, or railroads will be reported for each route.

Table 1: Distresses by Pavement Type

Distress	AC	APC	PCC	ST
Bleeding				X
Block Cracking	X	X		X
Crown / Cross-Slope				X
Edge Cracking				X
Fatigue Cracking	X	X		X
International Roughness Index (IRI)*	X	X	X	X
Joint Deterioration / Spalling			X	
Joint Reflective Cracking		X		
Joint Seal Damage			X	
Map Cracking / Alkali-Silica Reactivity (ASR)			X	
Non-Wheel Path Longitudinal Cracking	X	X		X
Patch Deterioration / Potholes	X	X	X	X
Raveling	X	X		X
Rutting*	X	X		X
Slab Cracking			X	
Transverse Cracking	X			X

*Distresses not shown in imagery but factor into OPC determination.

It is worth noting that while imagery is not included for several distresses in this data dictionary, ride (as measured by the International Roughness Index, or IRI), roughness and crown, and rutting are important pavement characteristics that factor into the determination of OPC.

Table 2: Distresses and Attributes by Pavement Type for HPMS Sections

Distress / Attribute	AC	PCC	Definition	Measure
Crack Length	[x]		Length of transverse crack per mile	Ft
Crack Percentage	[x]	[x]	Fatigue area for AC and crack slabs for PCC	Percent
Curvature	[x]	[x]	Central angle	Degrees
Curve Class	[x]	[x]	HPMS curve class	A, B, C, D, E, F
Faulting		[x]	Average fault height, right wheel path	In
Grade	[x]	[x]	Slope	Percent Grade
Grade Class	[x]	[x]	HPMS grade class	A, B, C, D, E, F
International Roughness Index (IRI)	[x]	[x]	Road roughness index, each wheel path	In/Mi
Radius	[x]	[x]	Curve Radius	Ft
Rutting	[x]		Average rut depth, each wheel path	In

The data dictionary presents examples of high-resolution imagery for pavement distresses at each severity level. Data capture relies on use of the automated Laser Crack Measurement System (LCMS). LCMS data capture is augmented by human rating when appropriate. Automated distress capture modules are expected for edge cracking, joint seal damage, and raveling in the future but are not incorporated into collection protocols at this time.

In using the LCMS system to characterize and quantify pavement distress, colored image overlays are shown next to raw imagery. In general, crack width defines severity level, with finer cracks representing lower severity cracks. A legend for the distress overlays produced by the LCMS is shown in Figure 1. The distress overlay features in this image are:

1. AASHTO zone dividers, with zones defined as follows:
 Zone 1: Lane area between the inside wheel path and the lane edge or centerline (variable width).
 Zone 2: Lane area encompassing the inside wheel path (39-inch width)
 Zone 3: Lane area between the left and right wheel paths (variable width).
 Zone 4: Lane area encompassing the outside wheel path (39-inch width).
 Zone 5: Area between the outside wheel path and the lane edge or shoulder (variable width).
2. Hairline cracks
3. Low-severity cracks
4. Medium-severity cracks
5. High-severity cracks
6. Pothole
7. Edge of pavement or drop-off
8. Curb
9. Lane marking

Images shown in Figure 2 to Figure 4 represent other common image overlays seen throughout the data dictionary. Cracks that extend beyond a single AASHTO zone are boxed, as shown in Figure 2. When cracks are sealed, they will appear as shown in Figure 3. Joint detection on PCC pavements is represented as shown in Figure 4.

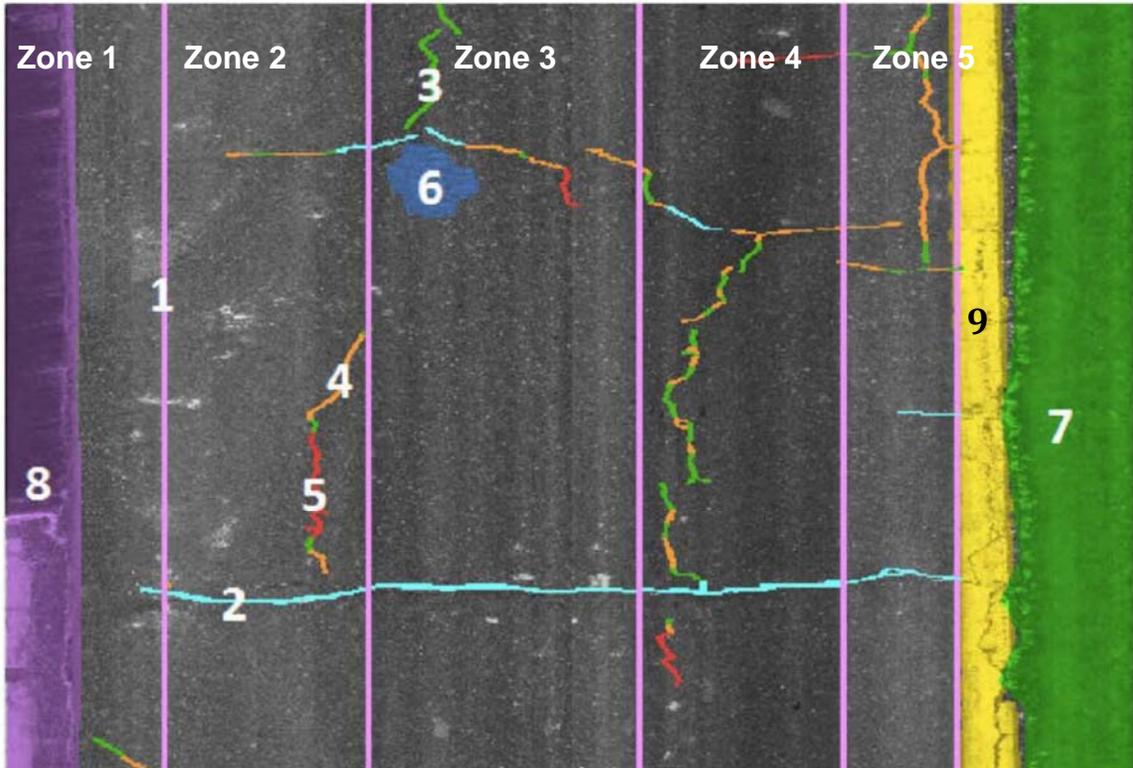


Figure 1: LCMS Distress Overlay on AC Pavement

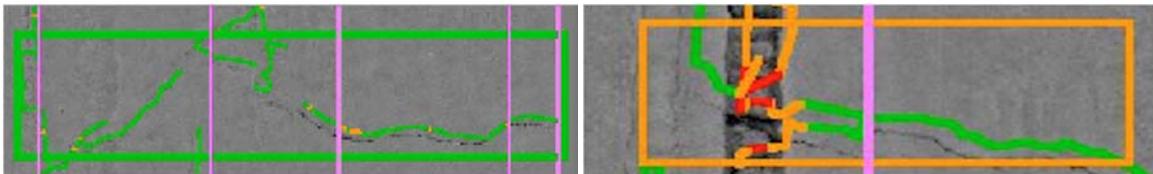


Figure 2: Low Severity (left) and High Severity (right) Transverse Cracking

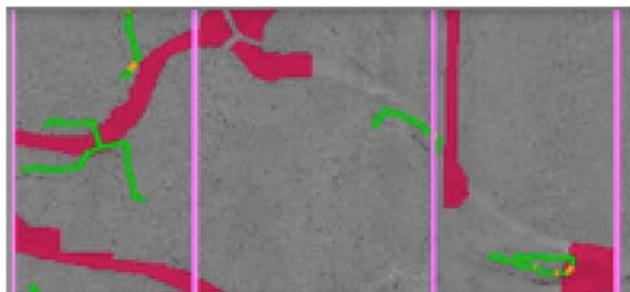


Figure 3: Sealed Cracking Shown in Pink

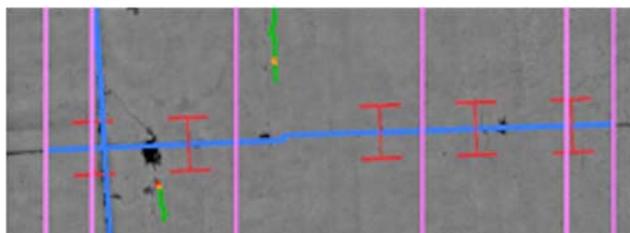


Figure 2: Joint Detection on PCC Pavements

Bleeding

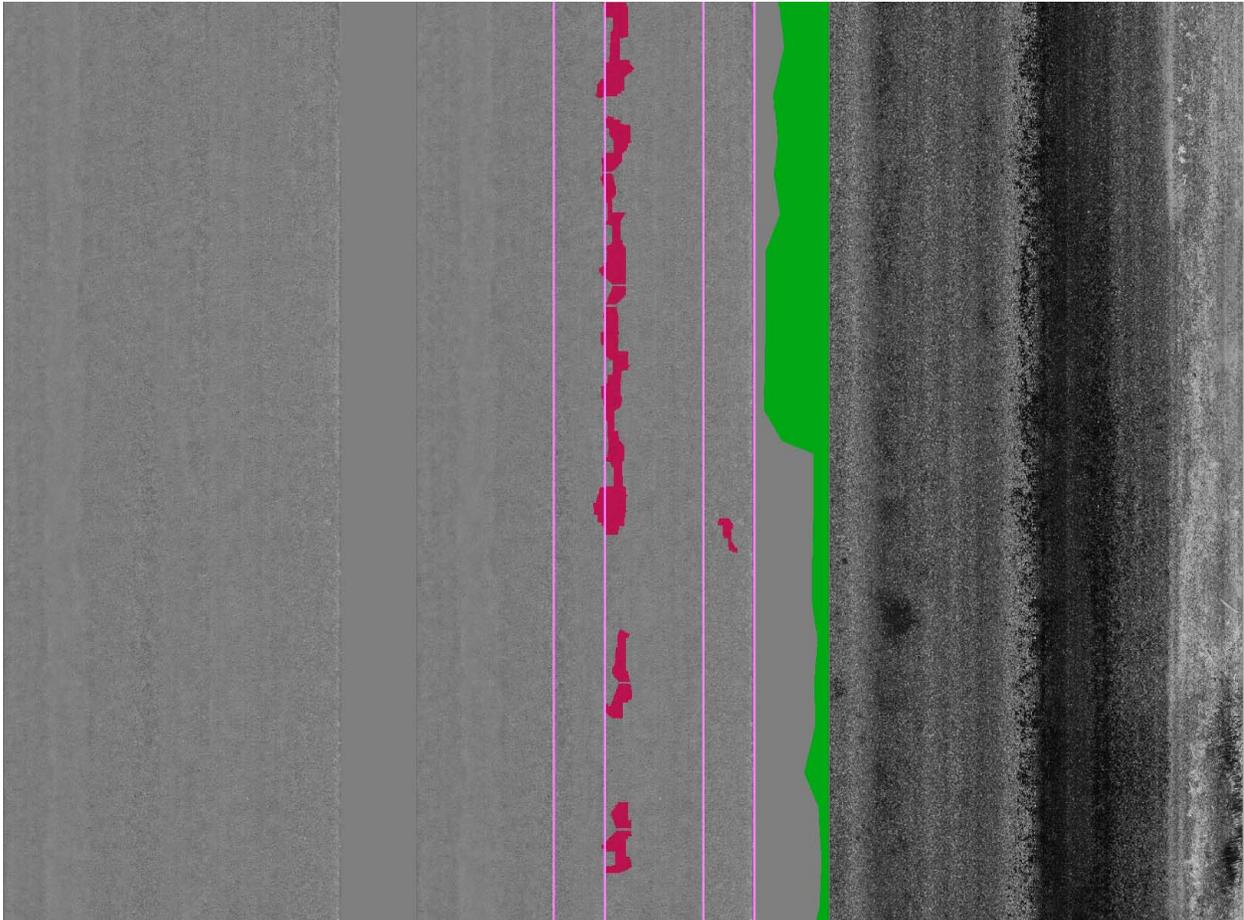
Method of Measurement: Manual
Pavement Type: ST

Unit of Measure: Sq Ft
Severity Levels: Yes

Definition: A film of bituminous material on the pavement surface that creates a shiny, glasslike, or reflective surface.

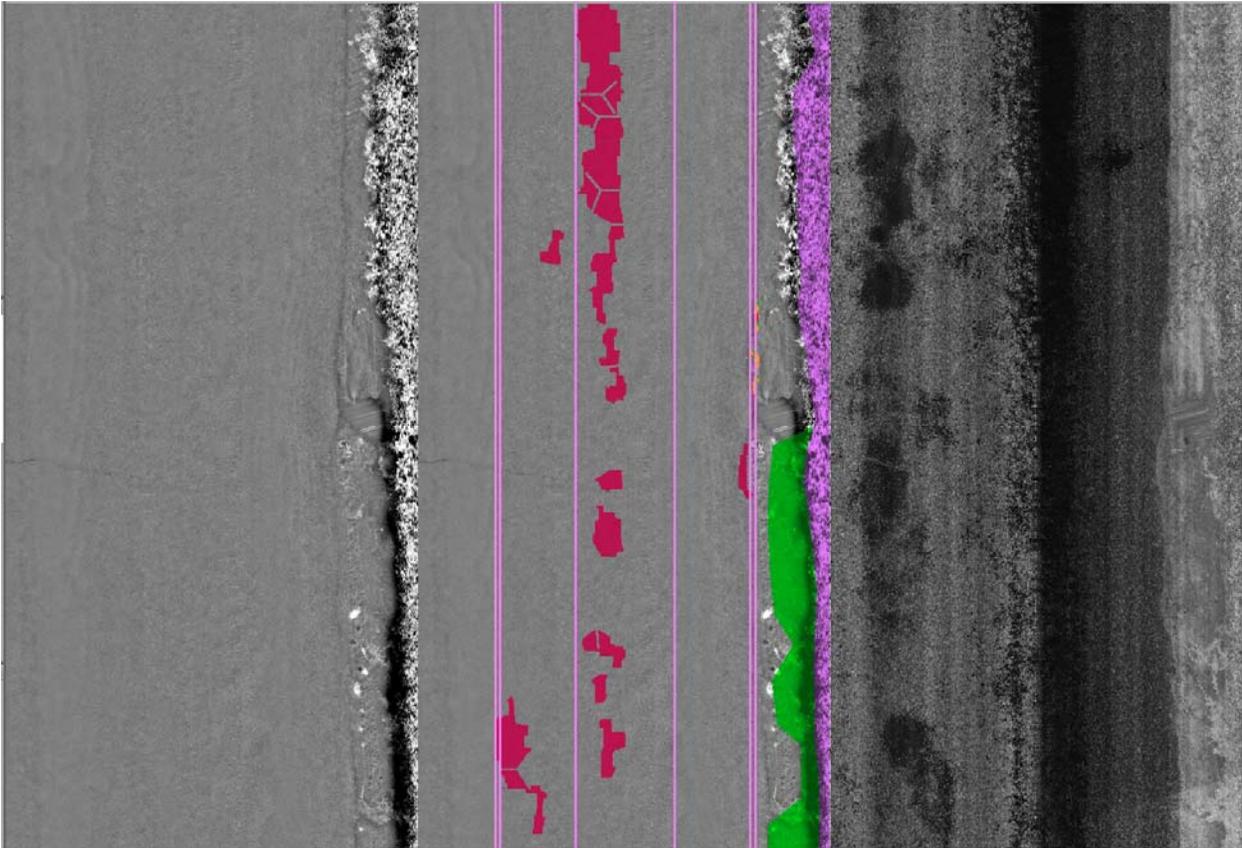
Bleeding (Low Severity)

Pavement area discolored by excess asphalt cement.



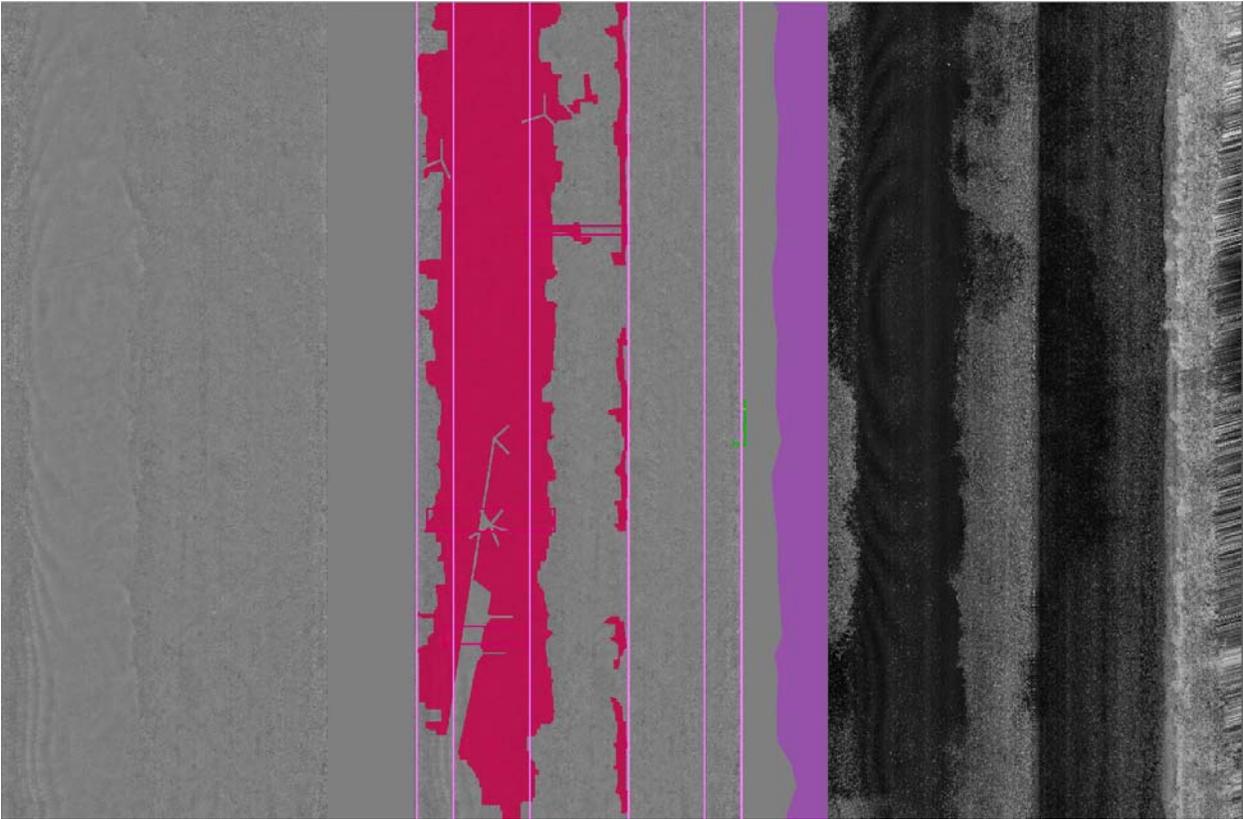
Bleeding (Medium Severity)

Pavement area begins to lose surface texture due to excessive asphalt binder at the surface.



Bleeding (High Severity)

Excessive asphalt cement at the pavement surface conceals aggregates under a shiny surface.



Block Cracking

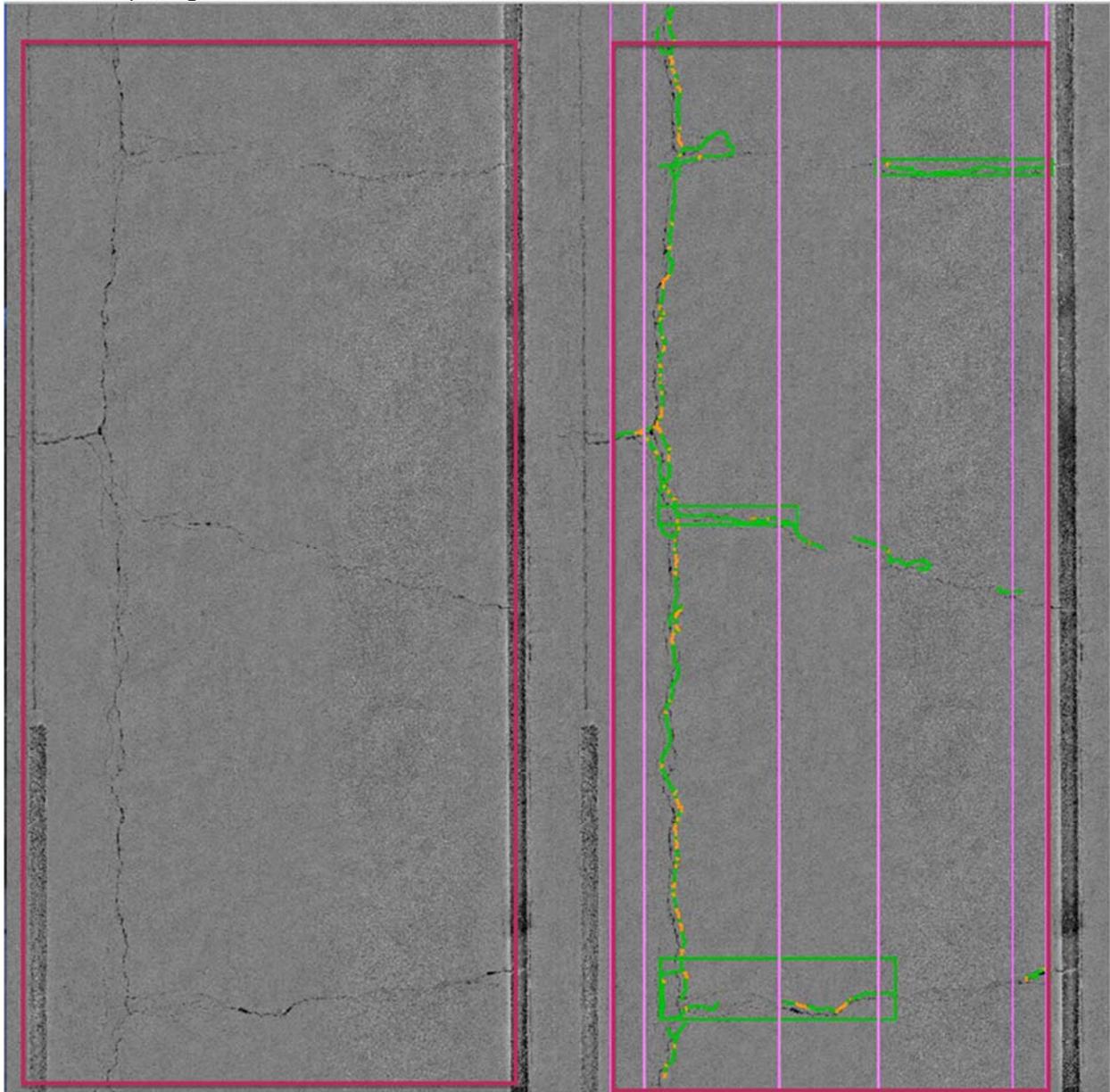
Method of Measurement: LCMS
Pavement Type: AC, APC, ST

Unit of Measure: Sq Ft
Severity Levels: Yes

Definition: Interconnected cracks that divide the pavement into approximately rectangular pieces. Blocks may range in size from approximately 1 sq ft to 100 sq ft. Crack width defines block cracking severity levels. Block cracking is shown in the red boxes in the following images.

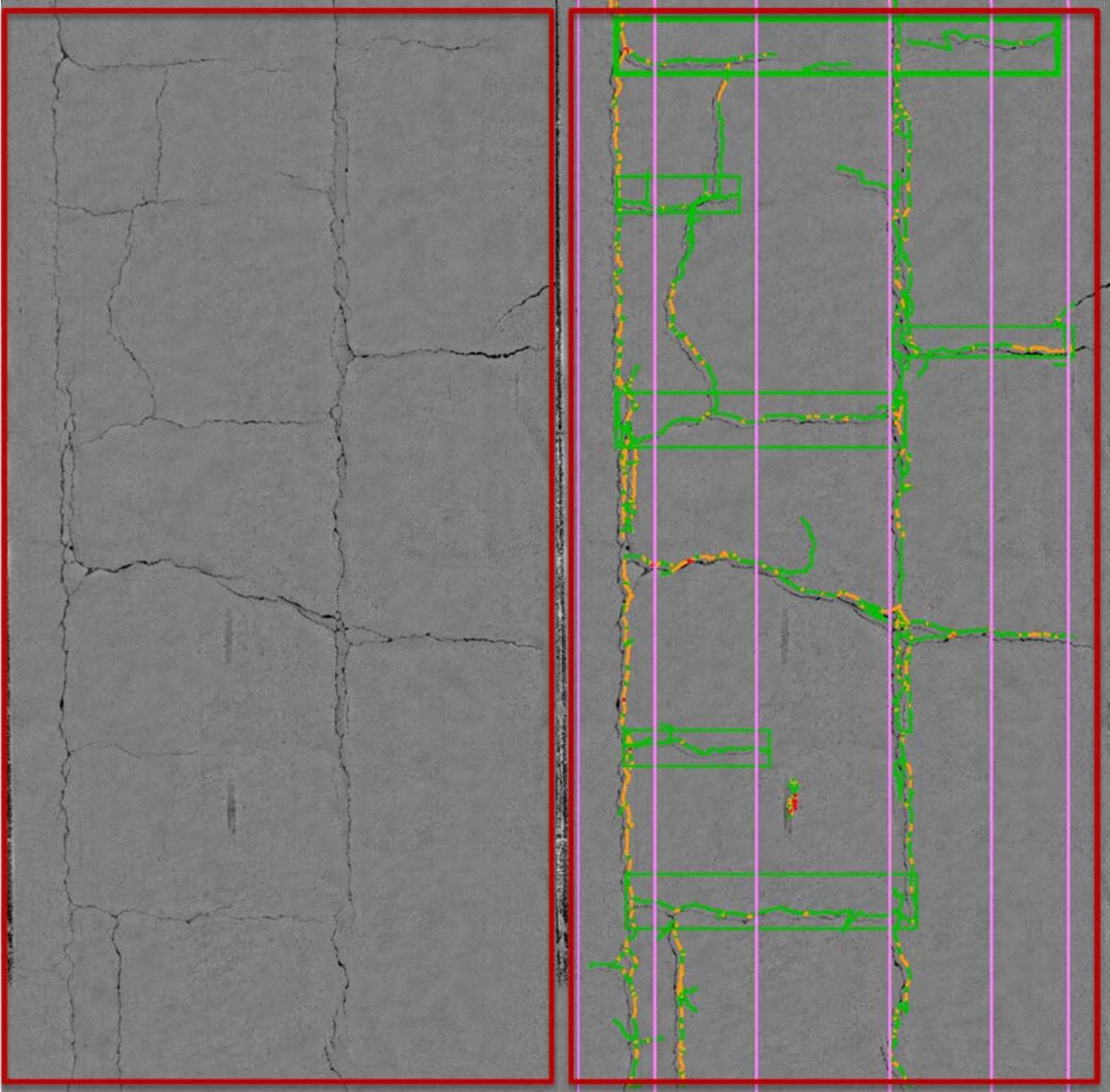
Block Cracking (Low Severity)

Cracks comprising the blocks are less than 1/4-inch wide.



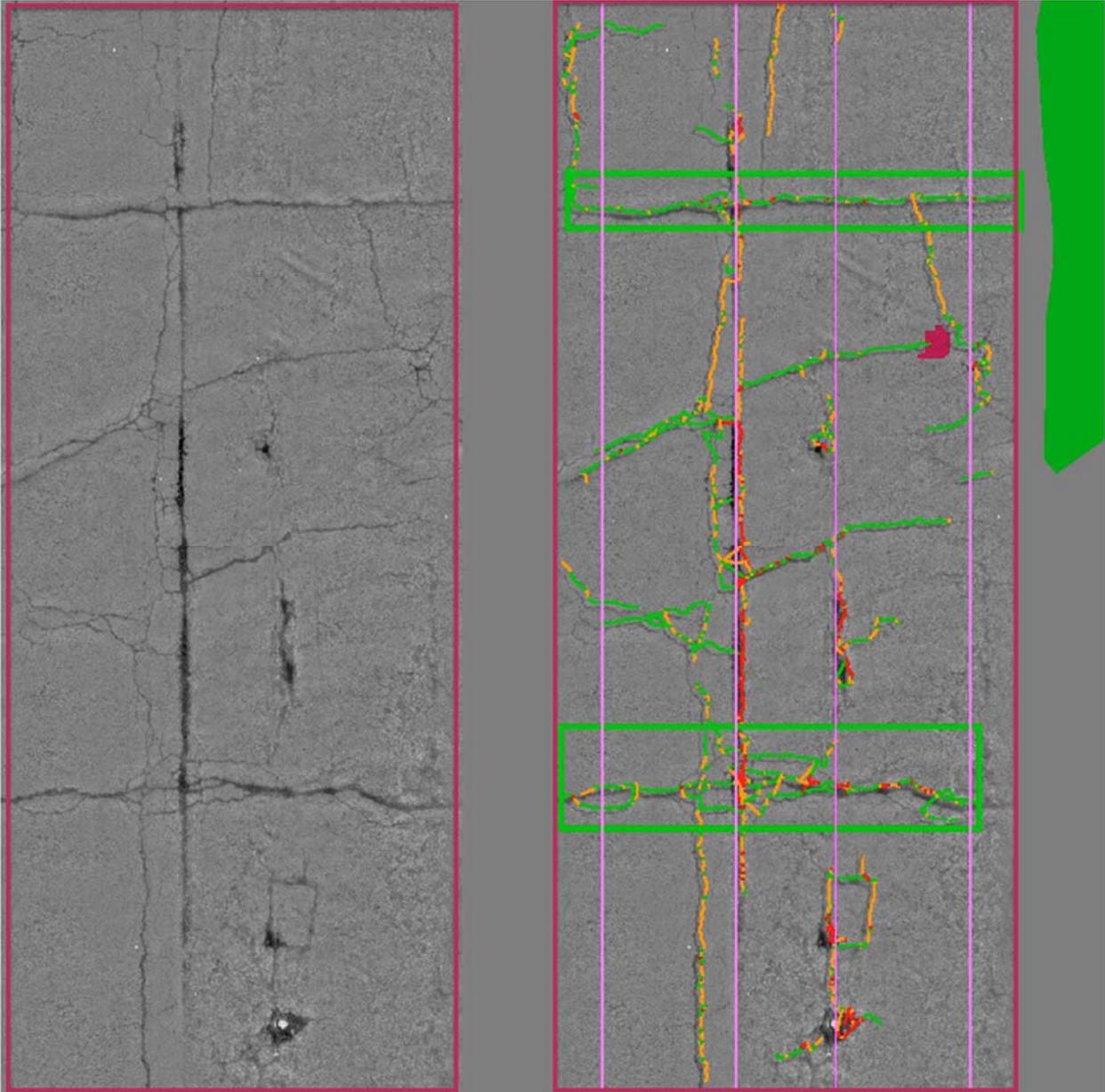
Block Cracking (Medium Severity)

Cracks comprising the blocks are greater than 1/4-inch wide and less than 3/4-inch wide. Spalling less than 3 inches wide may be present at the medium-severity level.



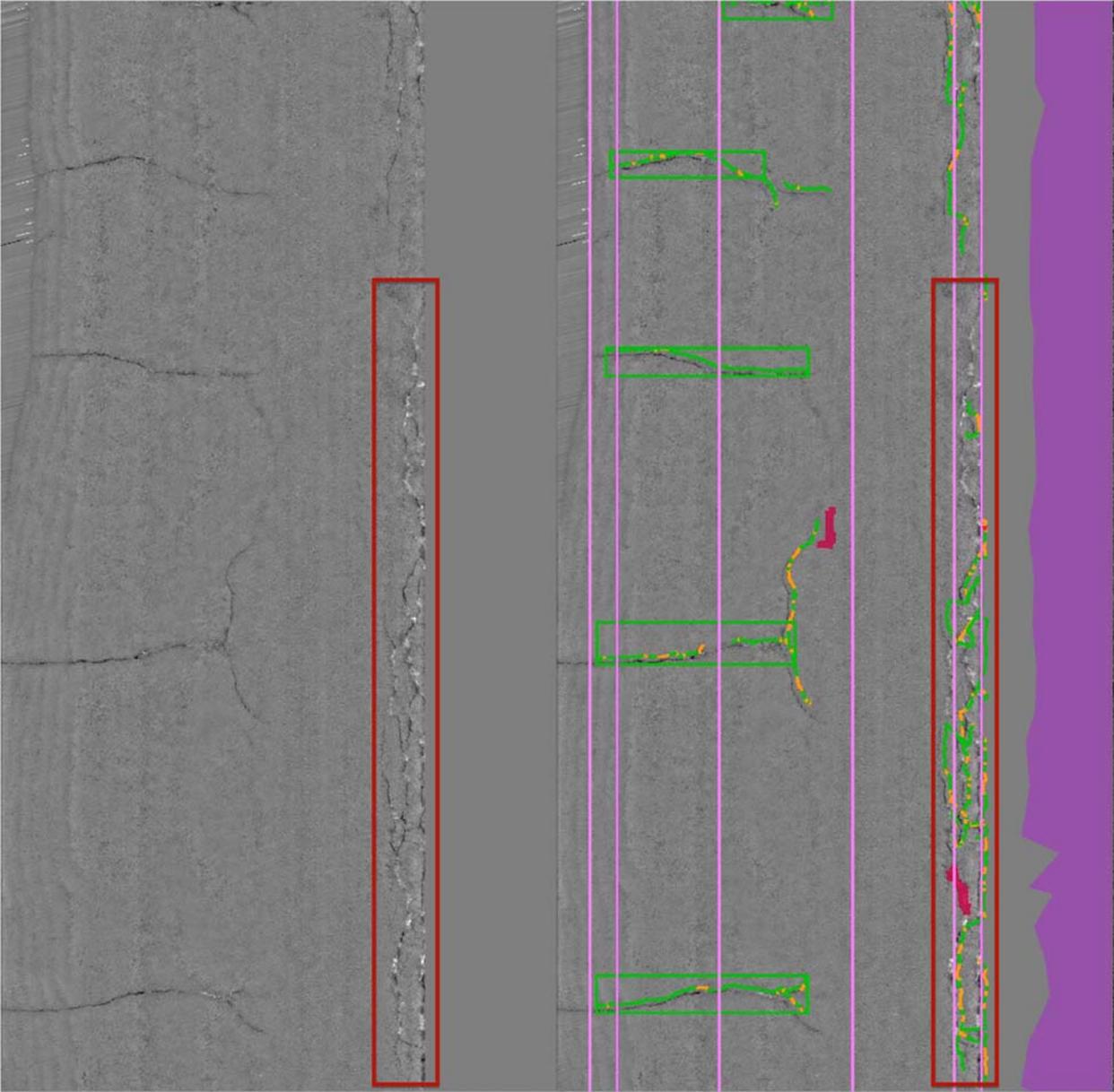
Block Cracking (High Severity)

Cracks comprising the blocks are greater than 3/4-inch wide. Spalling greater than 3 inches wide may be present at the high-severity level, and there may be a significant loss of material.



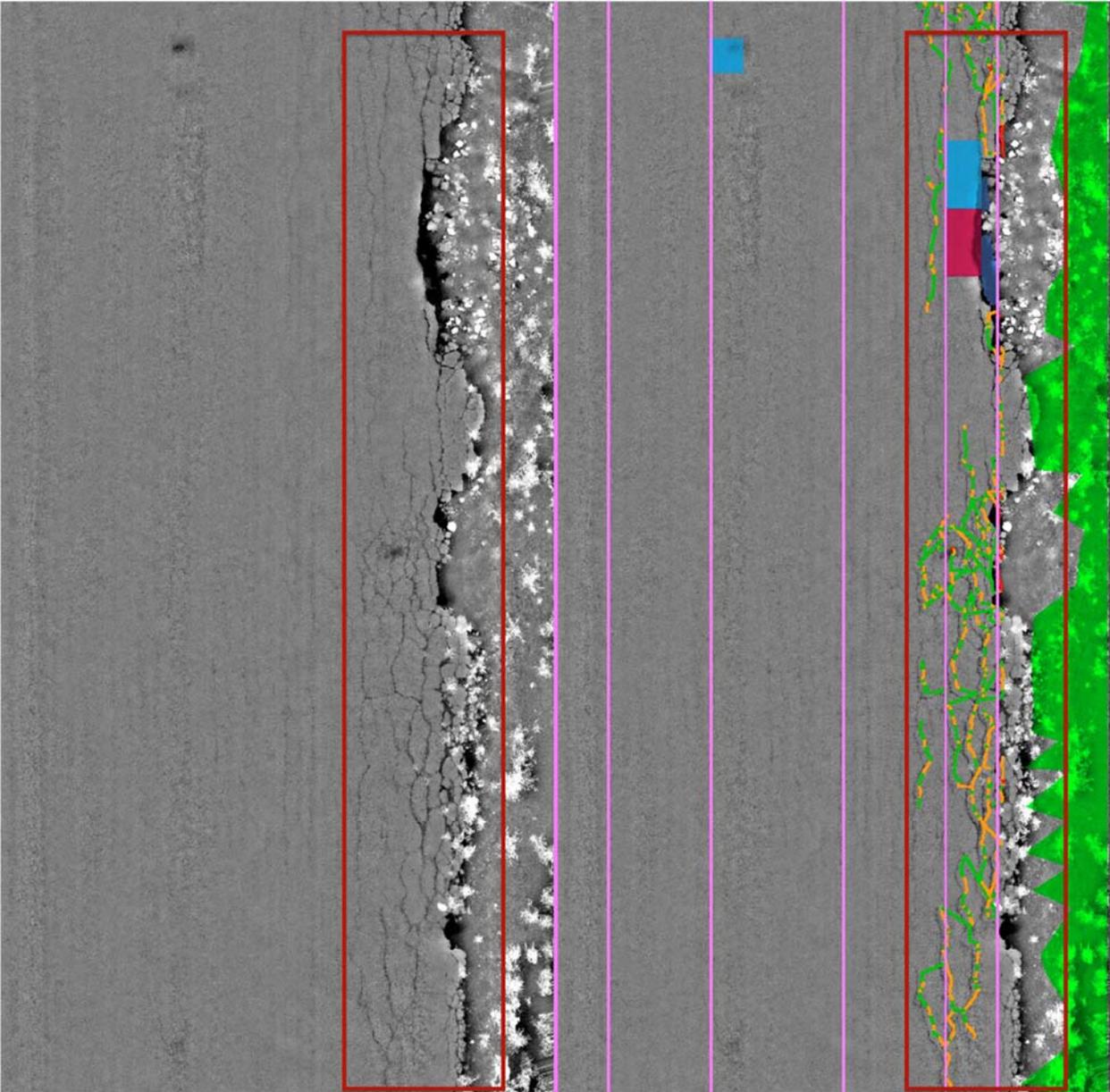
Edge Cracking (Medium Severity)

A crack pattern clearly develops and includes cracks with widths exceeding 1/4-inch. Spalling along cracks is possible and pavement pieces may have broken off the edge of the roadway.



Edge Cracking (High Severity)

An interconnected crack pattern with severe spalling is possible at the high-severity level. Crack widths may exceed 3/4-inch. Significant material loss is possible.



Fatigue (Alligator) Cracking

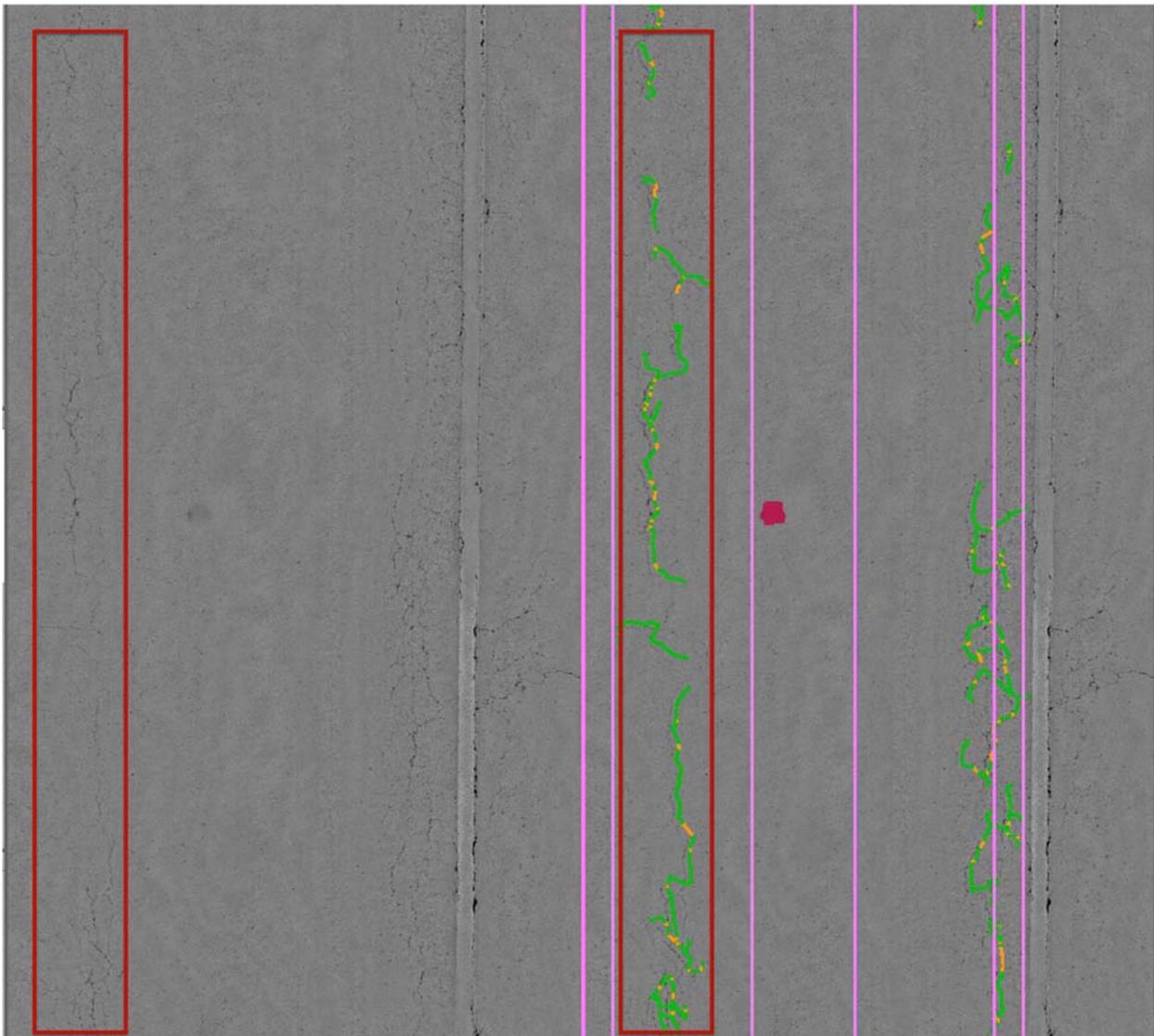
Method of Measurement: LCMS
Pavement Type: AC, APC, ST

Unit of Measure: Sq Ft
Severity Levels: Yes

Definition: A series of interconnecting cracks caused by repeated traffic loading, resulting in many small pieces resembling chicken wire or alligator skin. Cracks originating in the wheel path and migrating beyond the wheel path are considered fatigue cracks. Fatigue cracking is identified in the red boxes in the following images.

Fatigue Cracking (Low Severity)

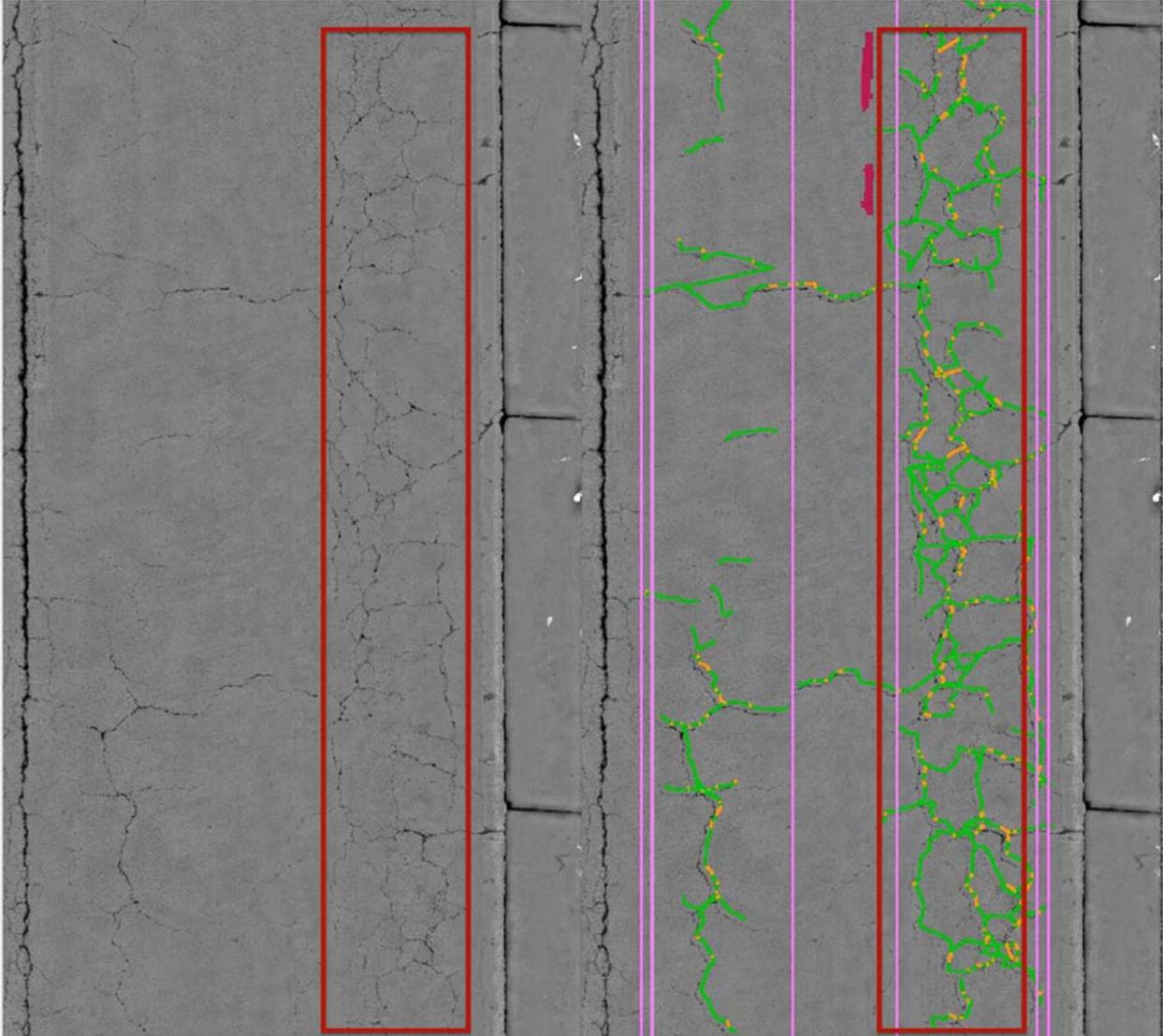
Unsealed fine parallel cracks with no associated cracks or few secondary cracks, including longitudinal cracking within the wheel path.



Fatigue Cracking (Medium Severity)

Definition

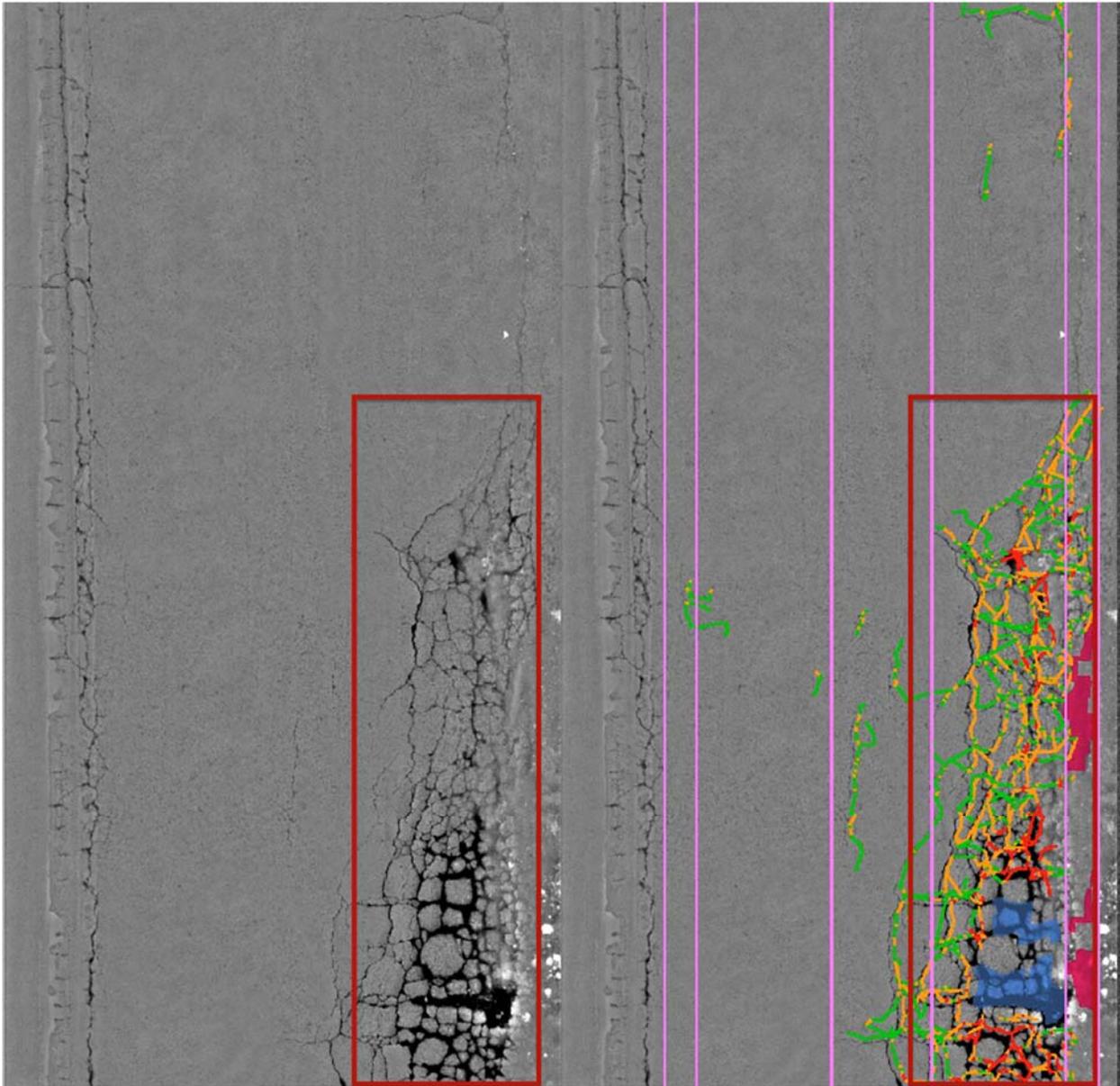
At the medium-severity level, fatigue cracks begin to form a connected pattern, with individual pavement pieces generally having dimensions exceeding 12 inches in length.



Fatigue Cracking (High Severity)

Definition

High-severity fatigue cracking shows a full-developed crack pattern, with dimensions of pieces typically 12 inches or less in length. Significant spalling or distortion may be evident, along with potholes and loss of material.



Joint Deterioration (Spalling)

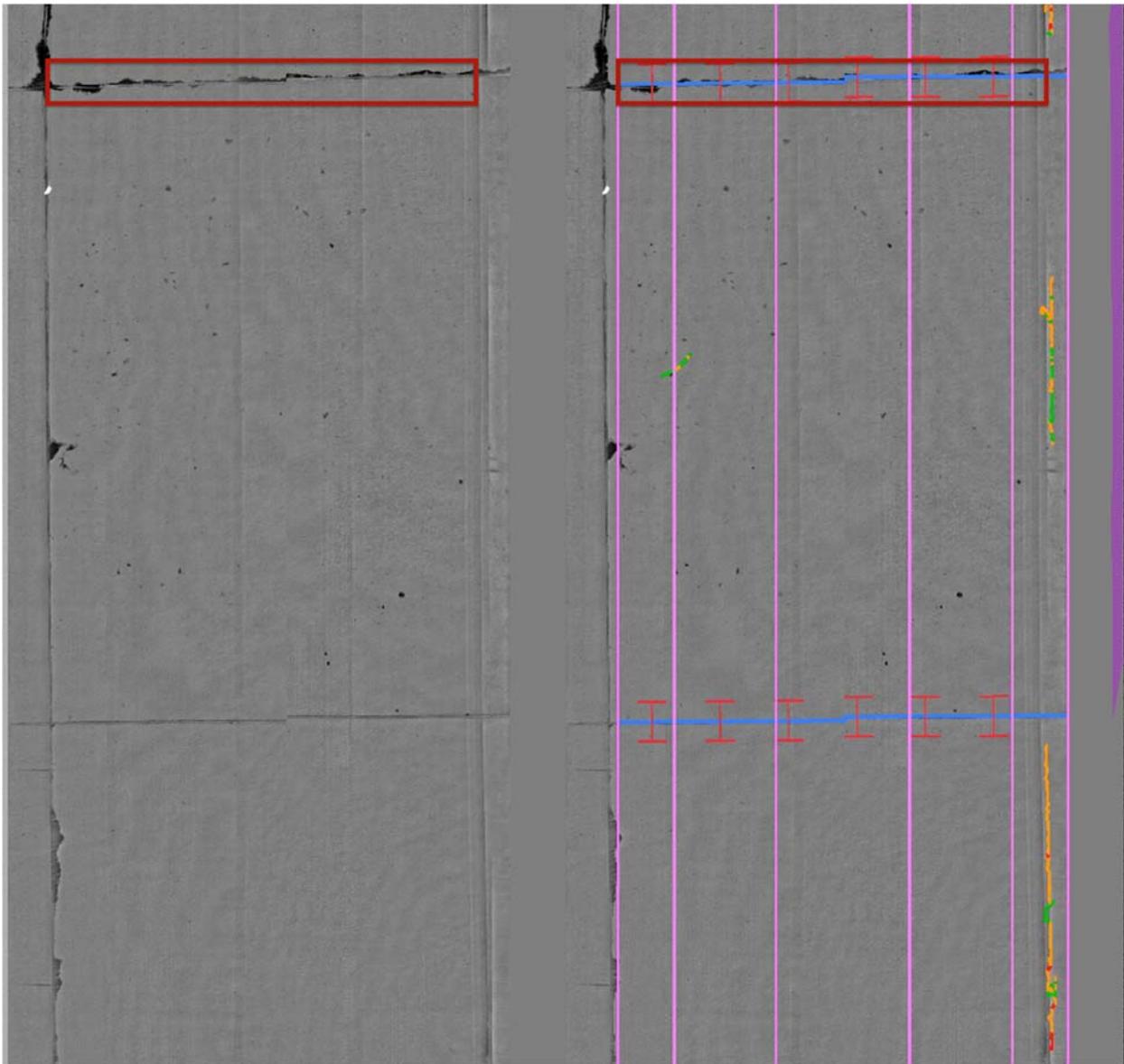
Method of Measurement: Manual
Pavement Type: PCC

Unit of Measure: Count
Severity Levels: Yes

Definition: The breakdown of a slab adjacent to the joint edge anywhere along the length of the joint. The spall usually does not extend vertically through the slab, but intersects the joint at an angle.

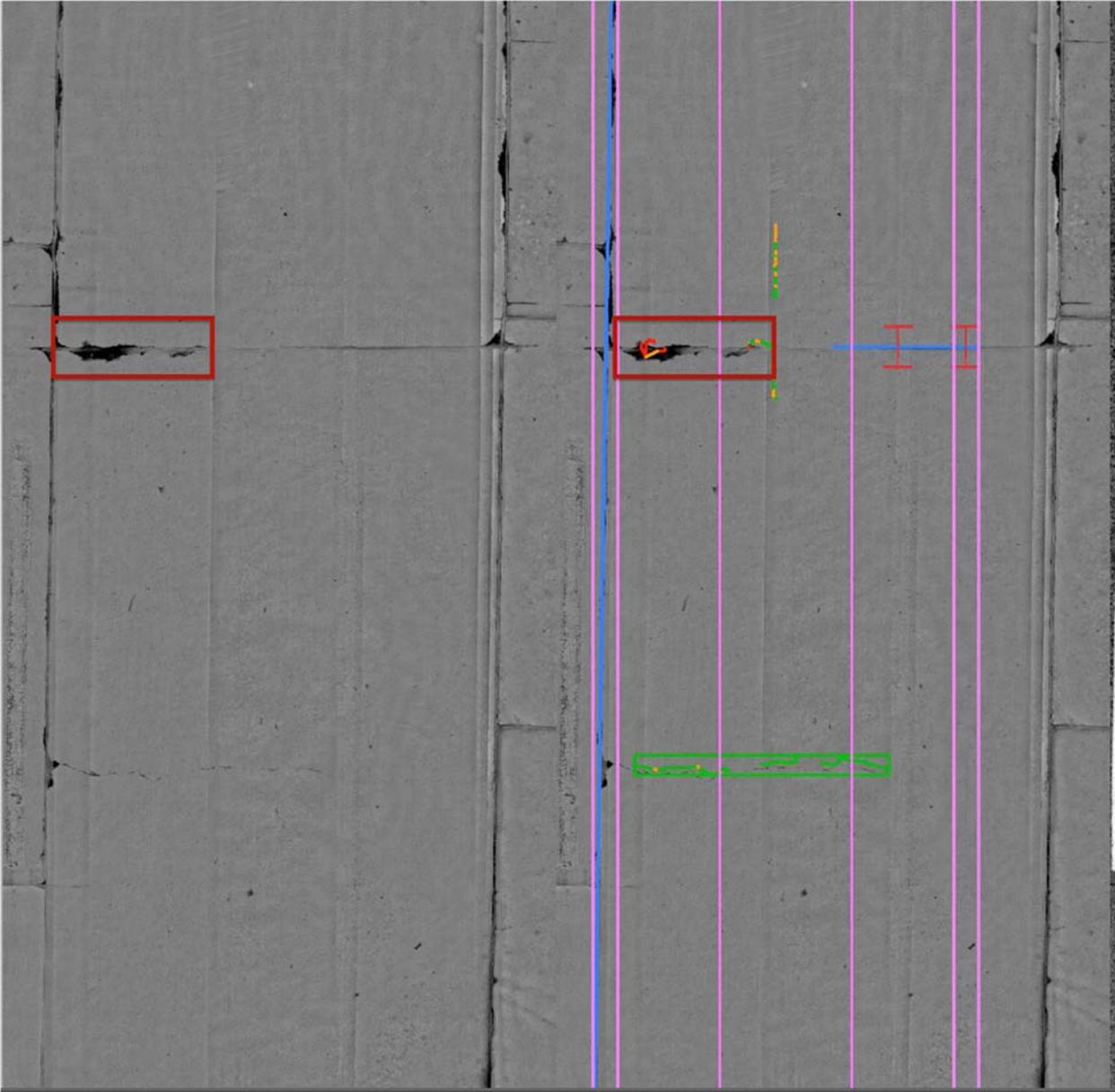
Joint Deterioration (Low Severity)

Low-severity joint deterioration is characterized by spalls less than 3 inches wide with no significant loss of material. Single cracks in the corner of the slab will be counted toward cracking.



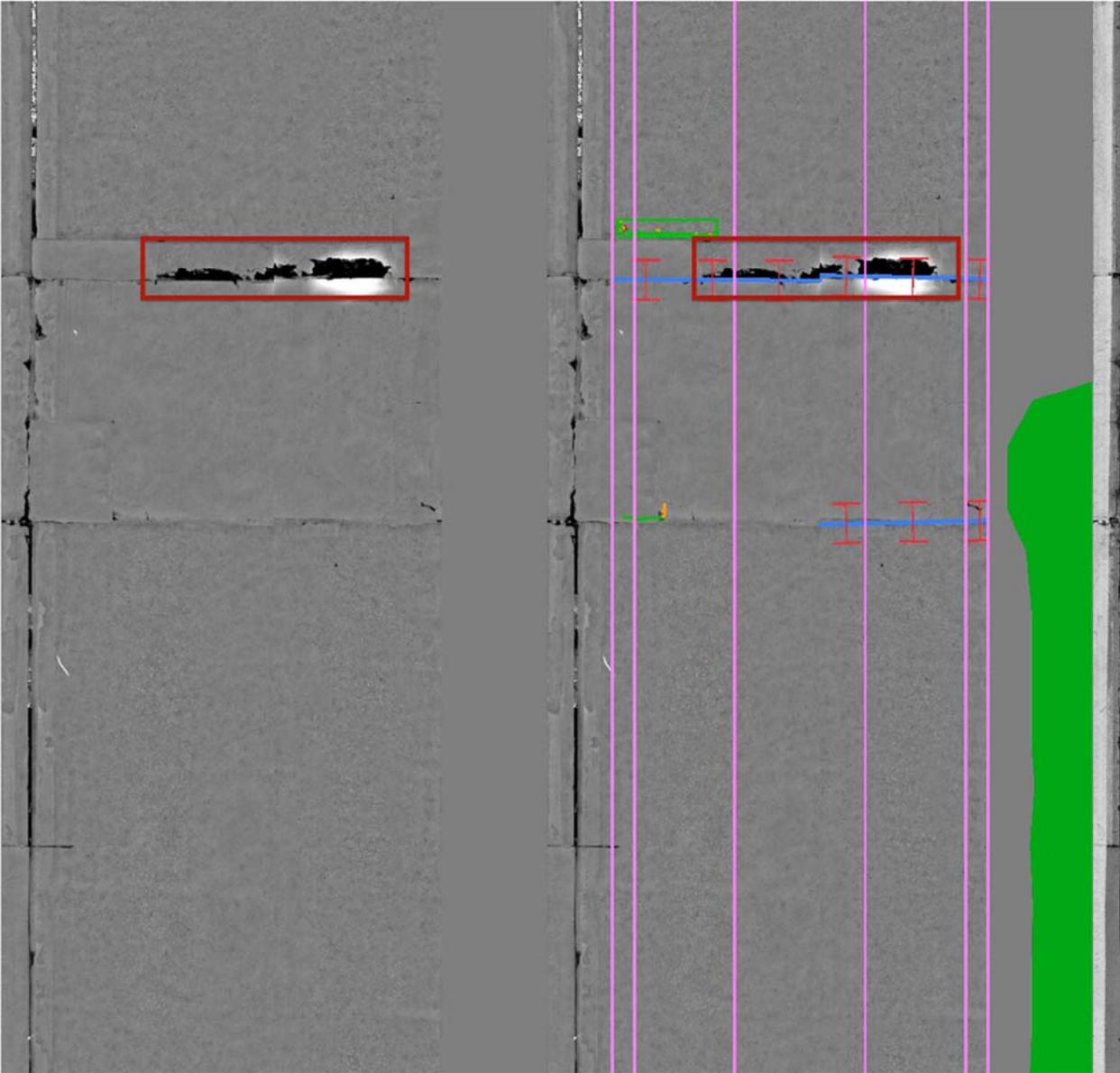
Joint Deterioration (Medium Severity)

Spalls 3 to 6 inches wide with a loss of material are evident in medium-severity joint spalling.



Joint Deterioration (High Severity)

High-severity joint spalls exceed 6 inches wide and show a significant loss of material.



Joint Reflective Cracking

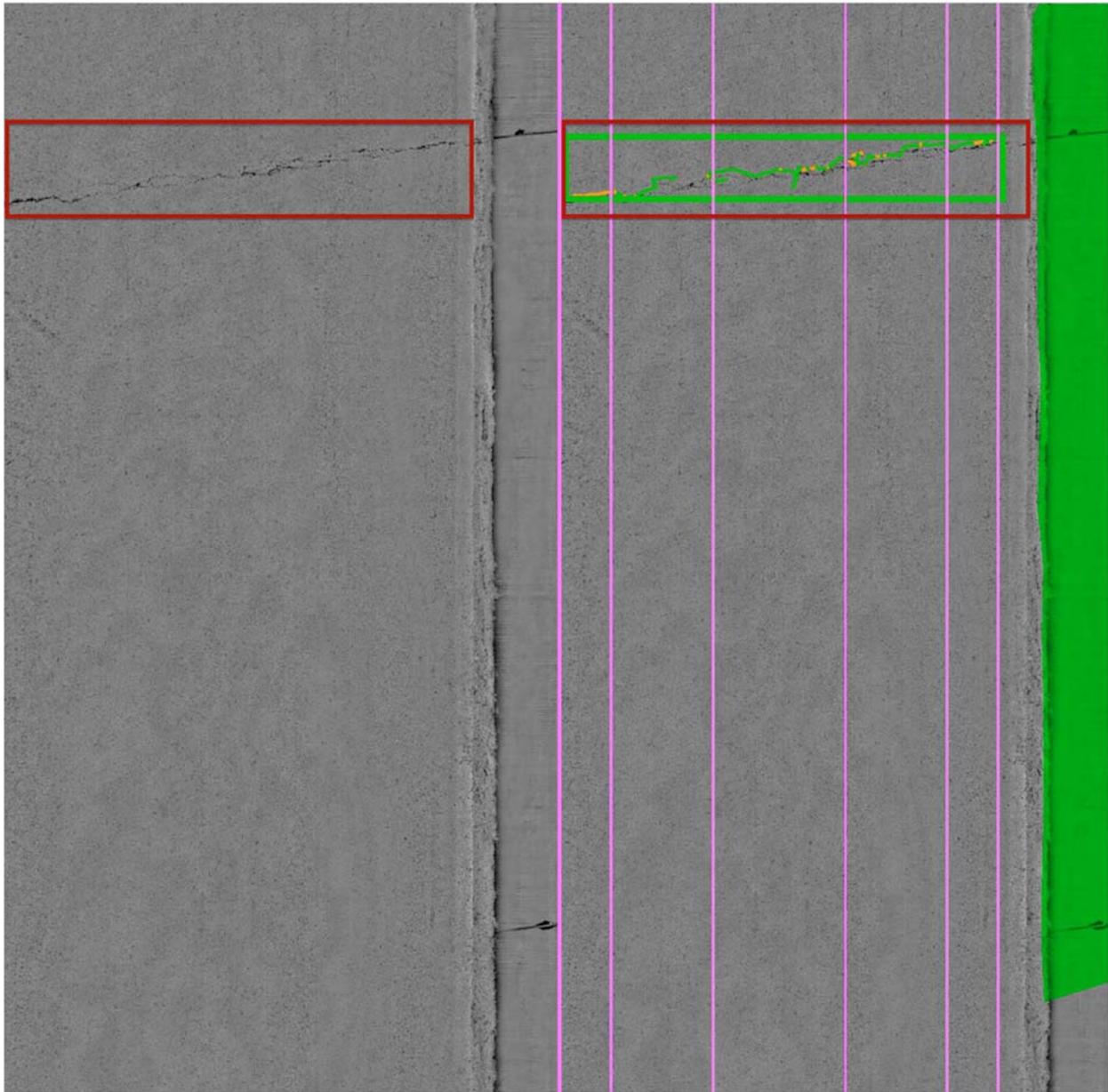
Method of Measurement: LCMS
Pavement Type: APC

Unit of Measure: Ft, Count
Severity Levels: Yes

Definition: Joint reflective cracking occurs only on composite pavements. Only cracks at least 3 feet in length are counted.

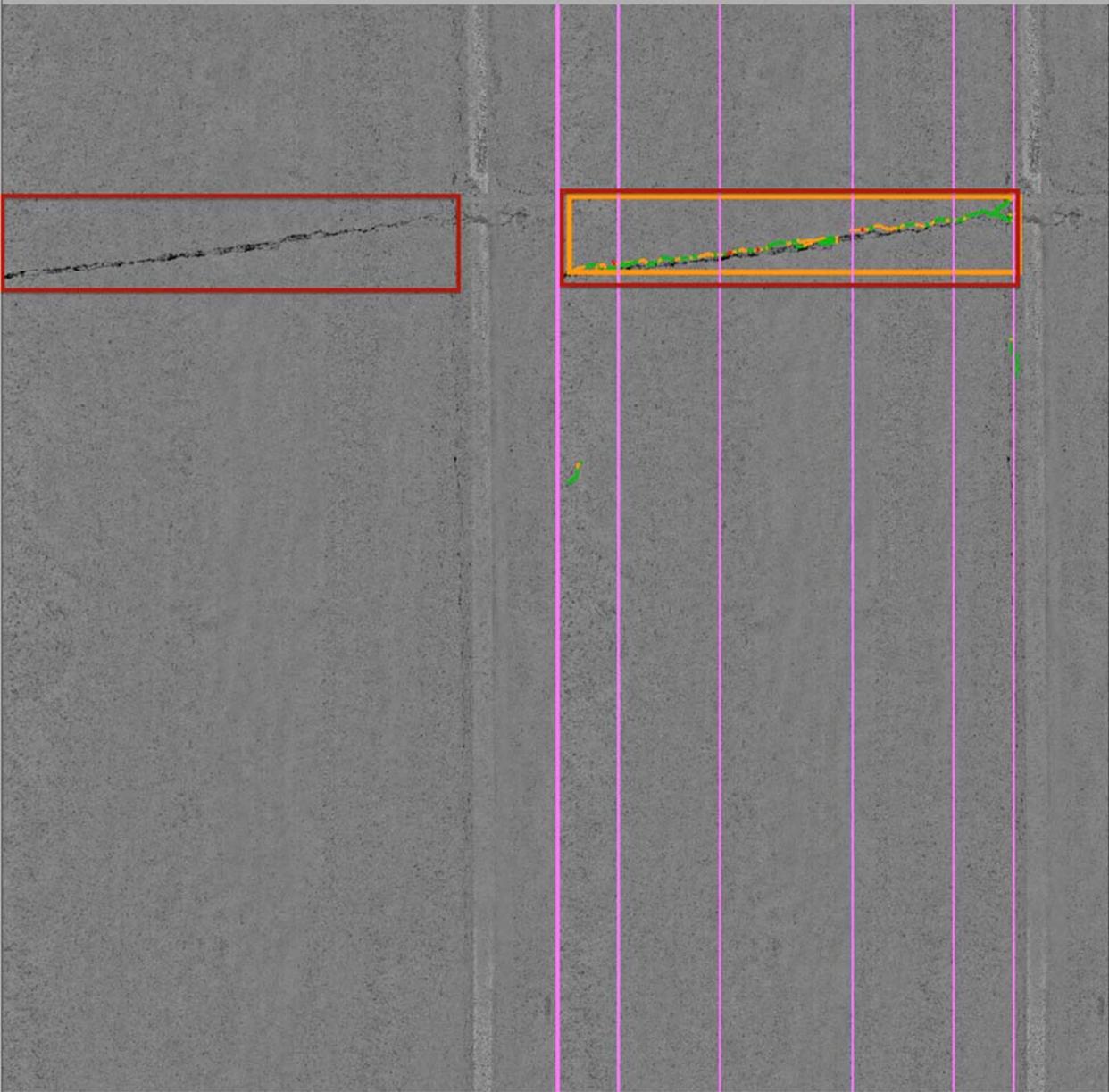
Joint Reflective Cracking (Low Severity)

Cracks with widths less than 1/4-inch or sealed cracks in good condition characterize low-severity reflective cracking.



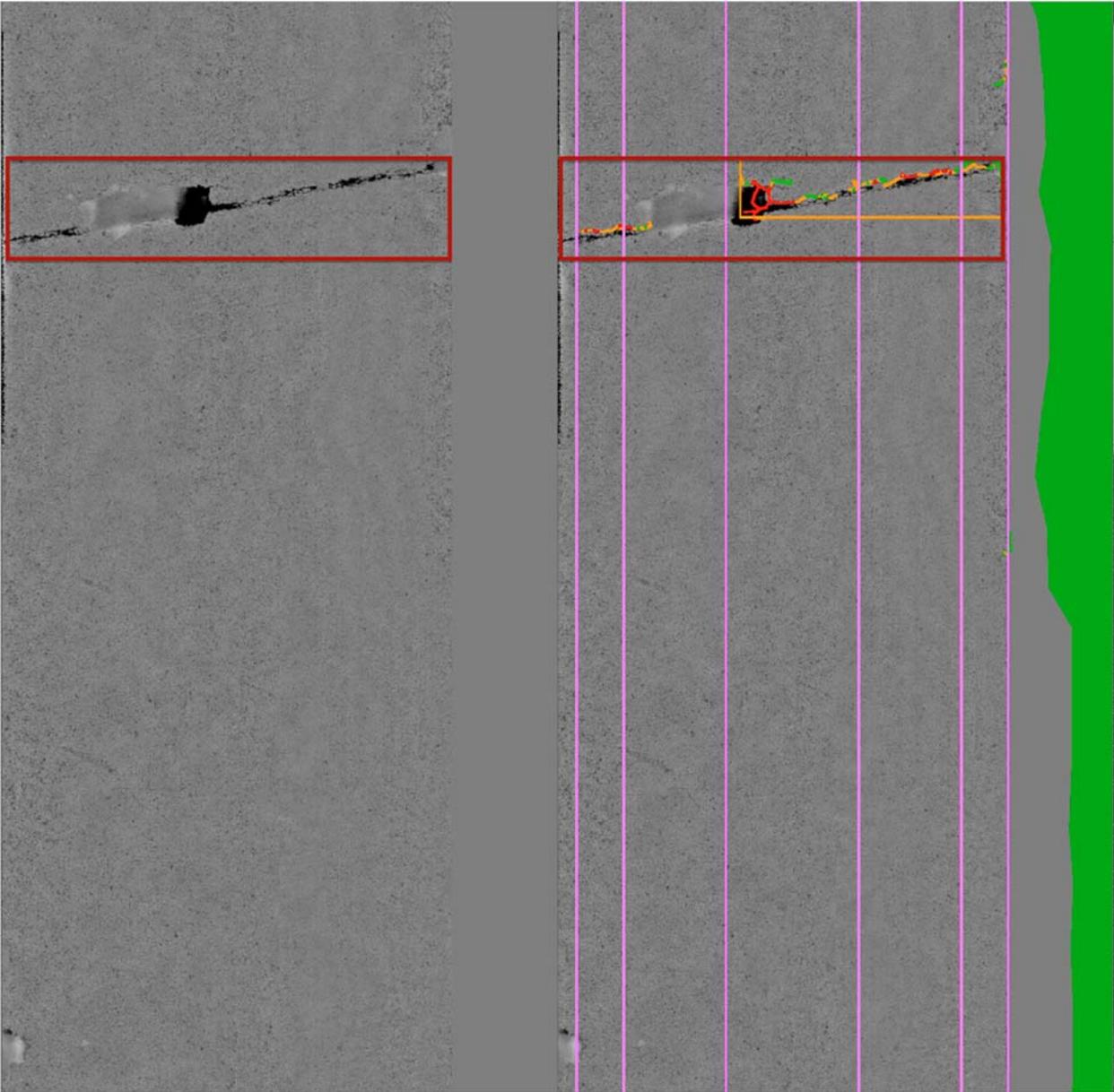
Joint Reflective Cracking (Medium Severity)

Medium-severity reflective cracking is characterized by cracks with widths between 1/4-inch and 3/4-inch and with spalls 3 inches or less in width.



Joint Reflective Cracking (High Severity)

High-severity reflective cracking is characterized by cracks with widths exceeding 3/4-inch or spalls exceeding 3 inches wide with a significant loss of material.



Joint Seal Damage

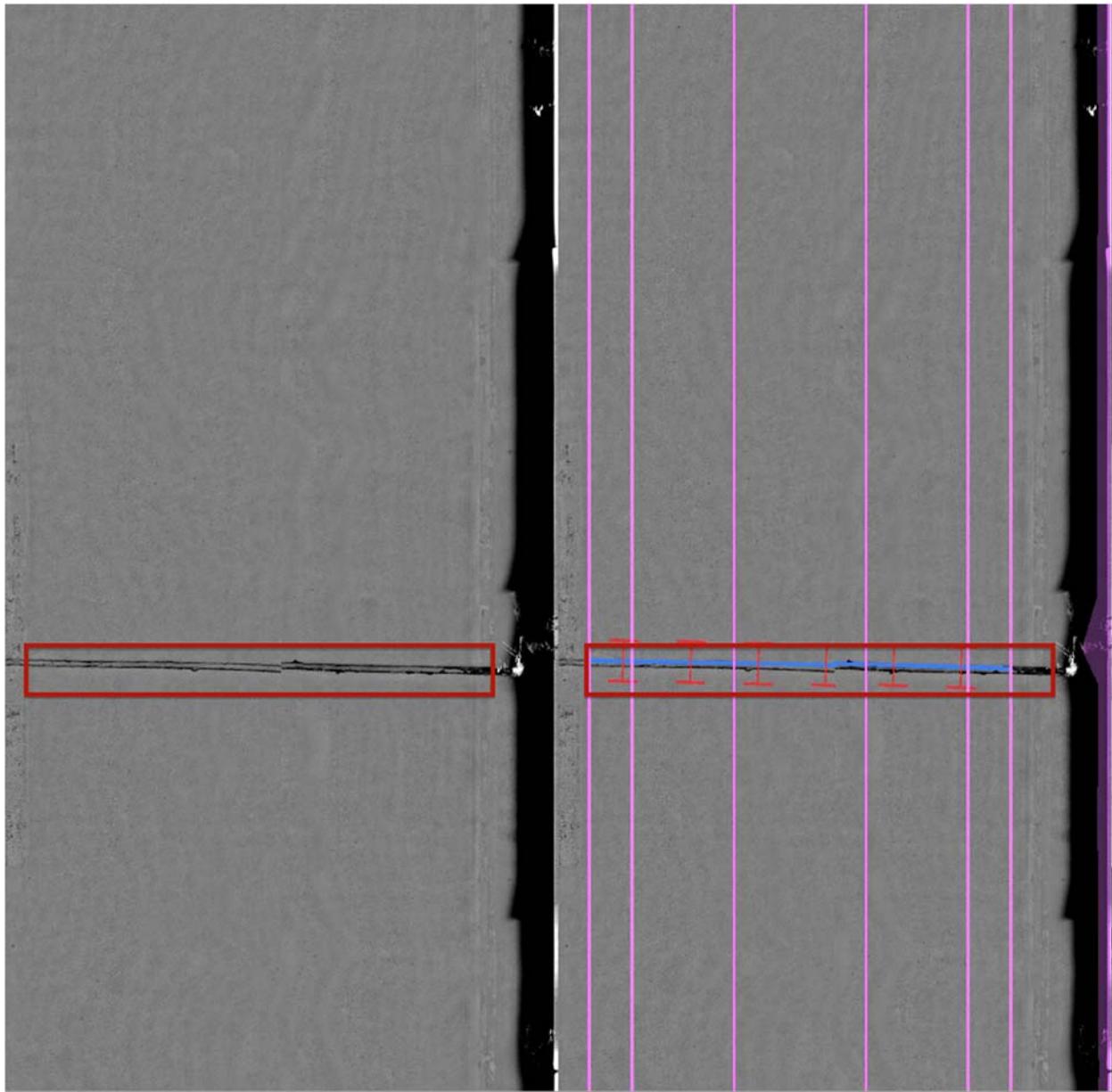
Method of Measurement: Manual
Pavement Type: PCC

Unit of Measure: Joint Count
Severity Levels: Yes

Definition: Conditions that enable incompressible materials to accumulate in joints and allow water infiltration indicate joint seal damage. Joint seal damage types include joint sealant stripping or extrusion; weed growth; hardening of the filler (oxidation); bond loss; and lack or absence of sealant in the joint.

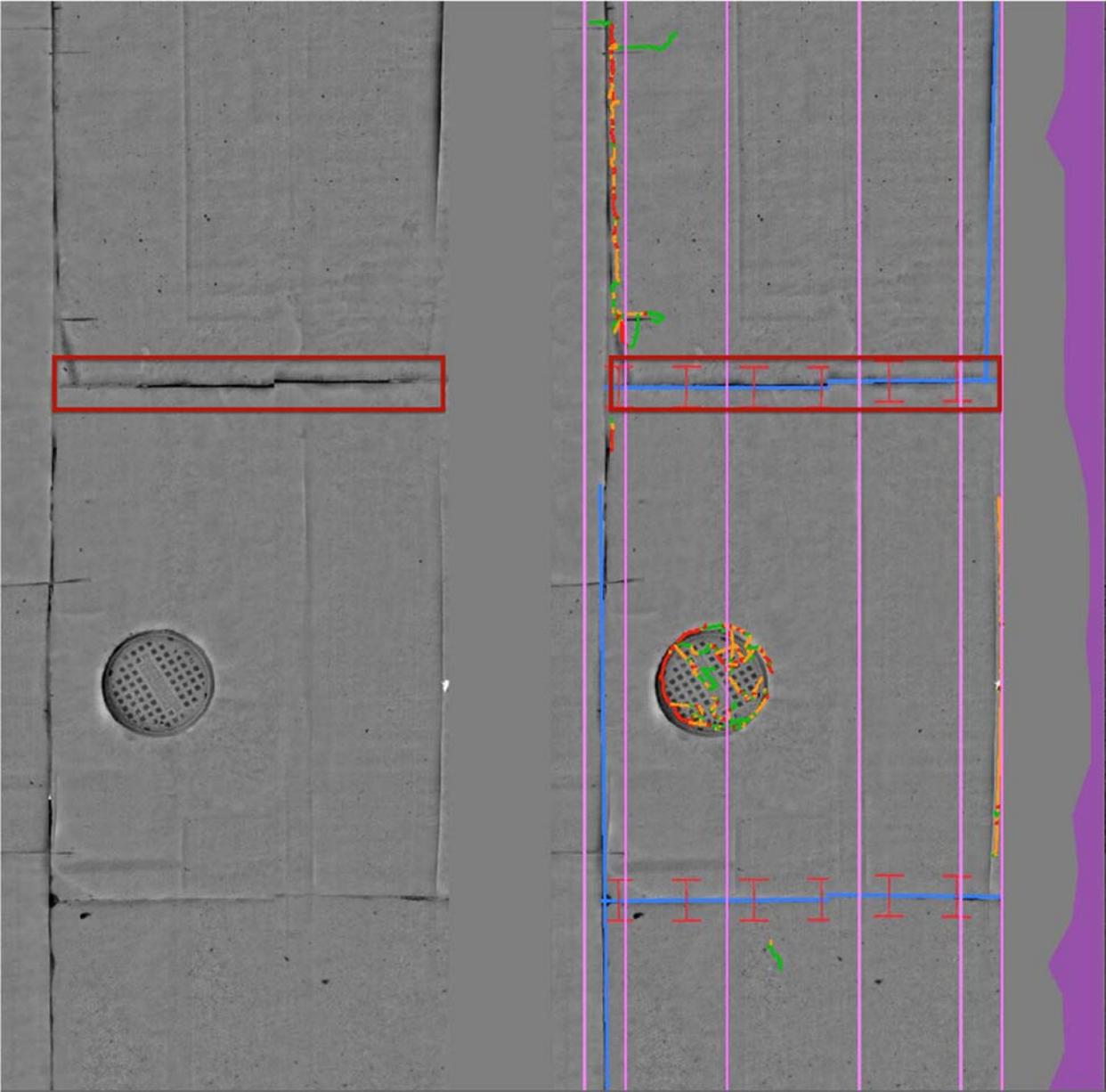
Joint Seal Damage (Low Severity)

Joints exhibiting less than 10% loss of sealant are characterized as low-severity joint seal damage.



Joint Seal Damage (High Severity)

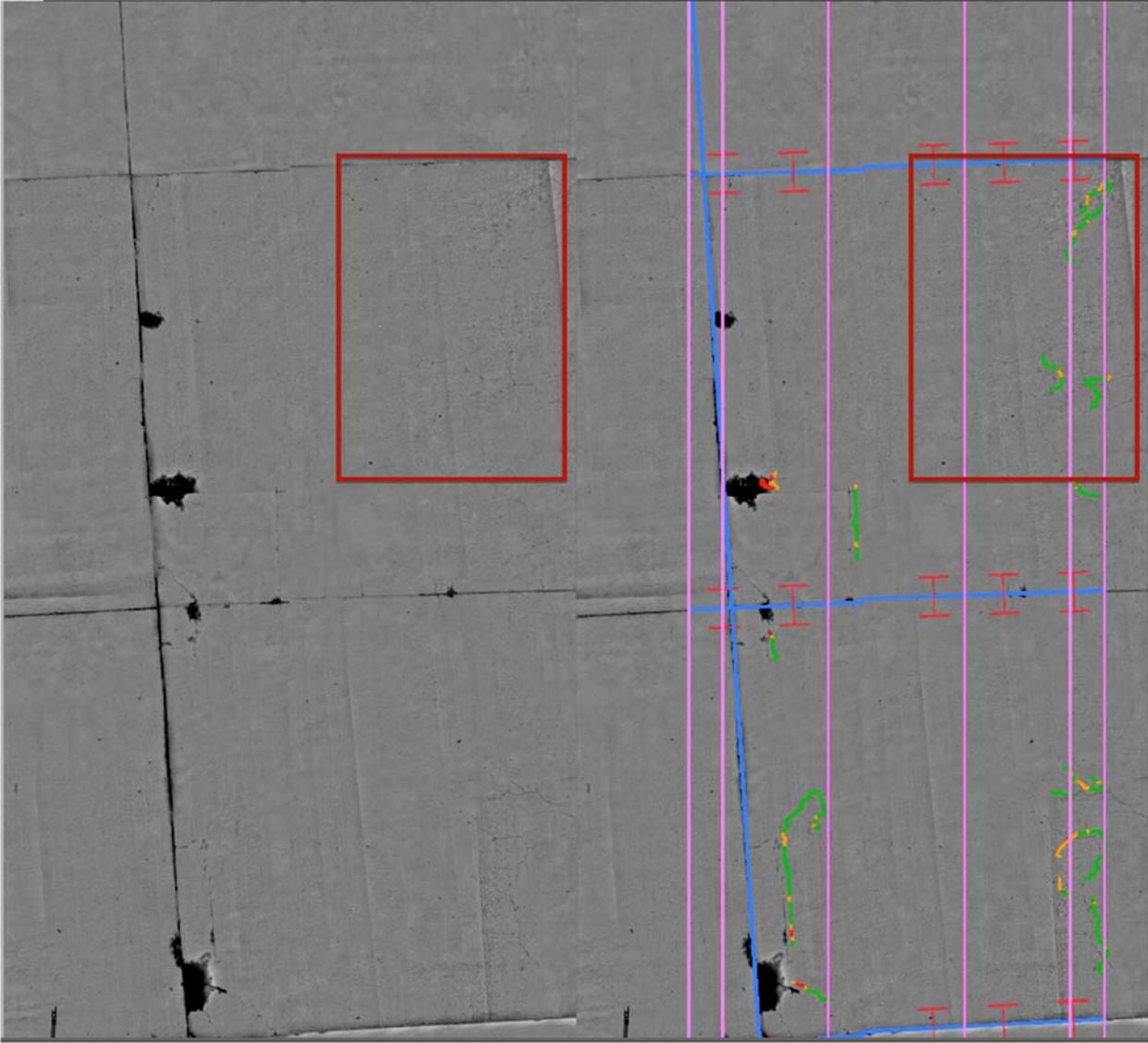
Joints exhibiting more than 10% loss of sealant are characterized as high-severity joint seal damage.



Map Cracking

Method of Measurement: Manual
Pavement Type: PCC
Unit of Measure: Count
Severity Levels: No

Definition: Map cracking refers to a network of shallow, fine, or hairline cracks that extend only through the upper surface of the concrete. Map cracking is caused by concrete over-finishing and may lead to surface scaling, which is the breakdown of the slab surface to a depth of approximately 0.25 to 0.5 inches. Map cracking may also be referred to as Alkali-Silica Reactivity (ASR).



Non-Wheel Path Longitudinal Cracking

Method of Measurement:

LCMS

Unit of Measure:

Ft

Pavement Type:

AC, APC, ST

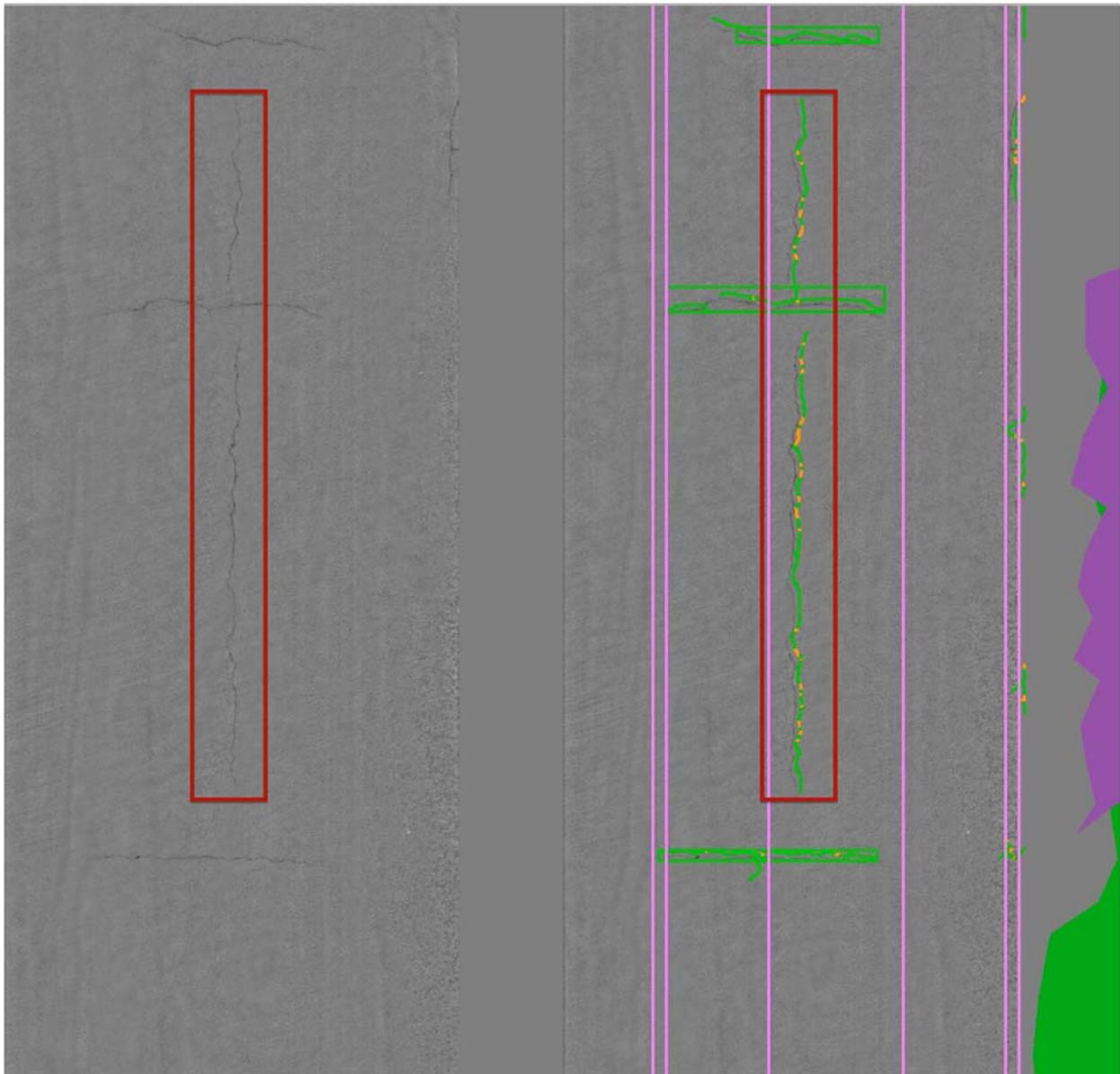
Severity Levels:

Yes

Definition: Cracks oriented parallel to the pavement centerline that exist beyond the wheel path.

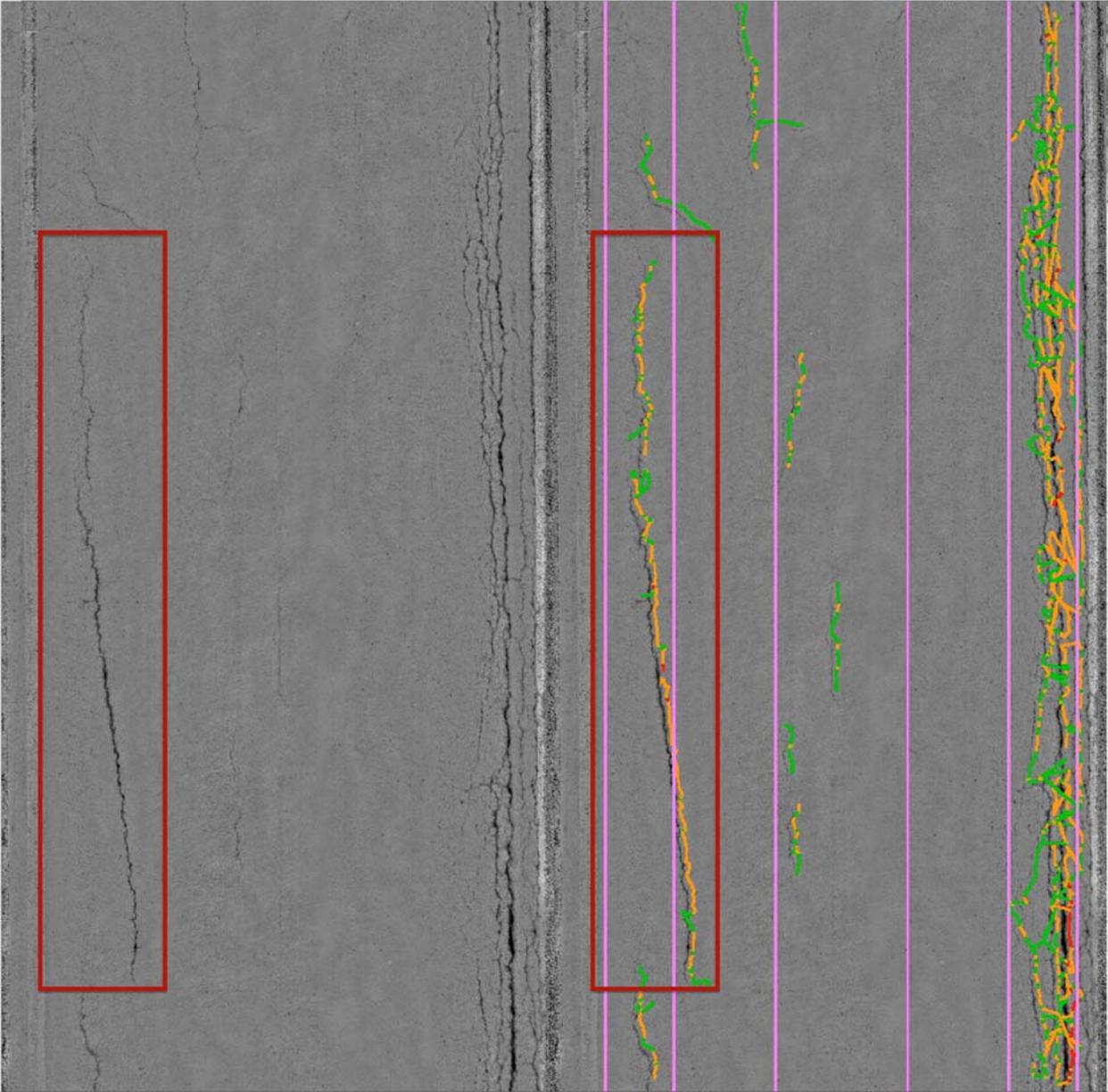
Non-Wheel Path Longitudinal Cracking (Low Severity)

Low-severity non-wheel path longitudinal cracking is characterized by cracks with widths less than ¼-inch or sealed cracks in good condition.



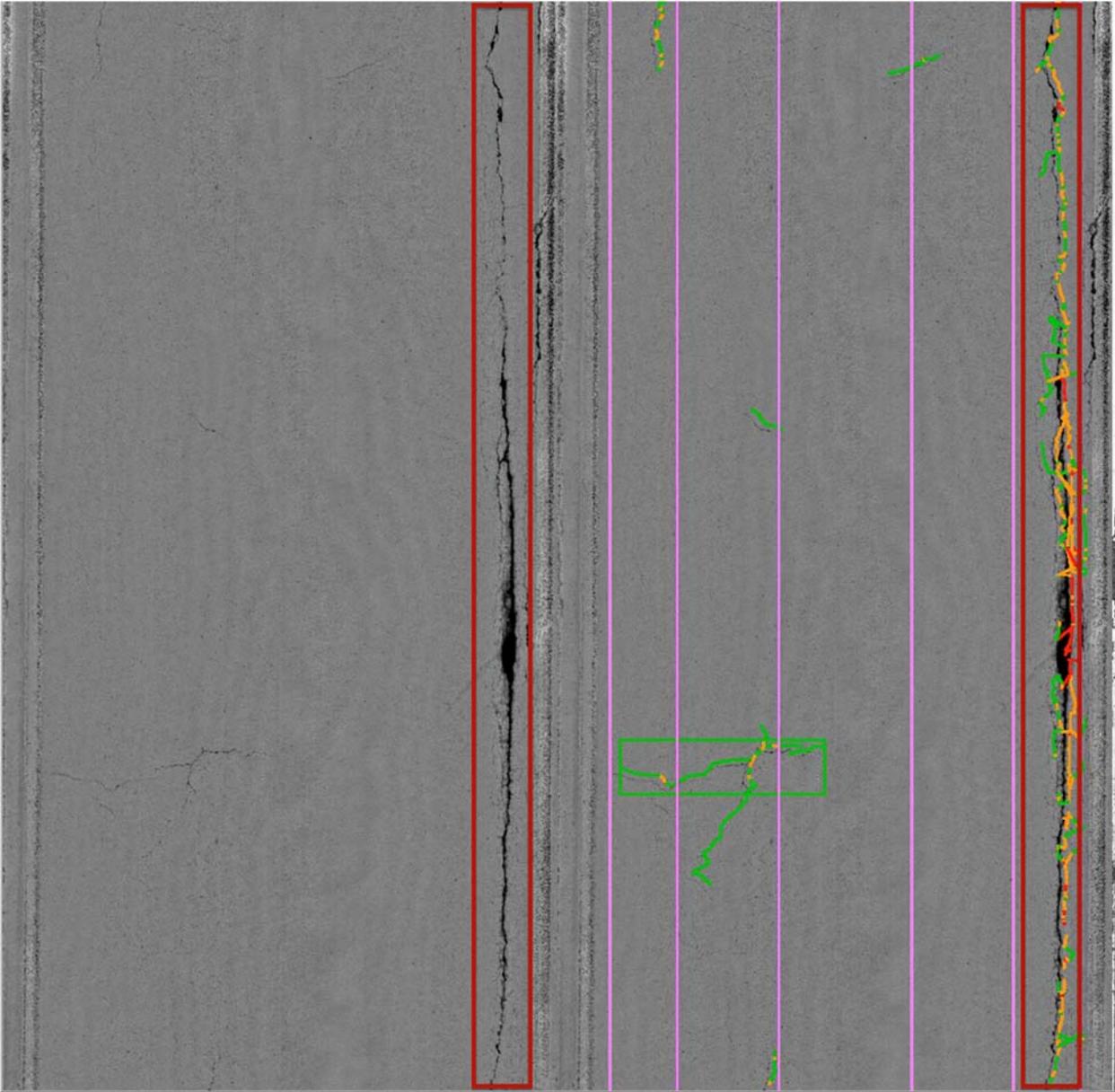
Non-Wheel Path Longitudinal Cracking (Medium Severity)

Medium-severity non-wheel path longitudinal cracking is characterized by cracks with widths between 1/4-inch and 3/4-inch and with spalls 3 inches or less in width.



Non-Wheel Path Longitudinal Cracking (High Severity)

High-severity non-wheel path longitudinal cracking is characterized by cracks with widths exceeding 3/4-inch or spalls exceeding 3 inches wide with a significant loss of material.



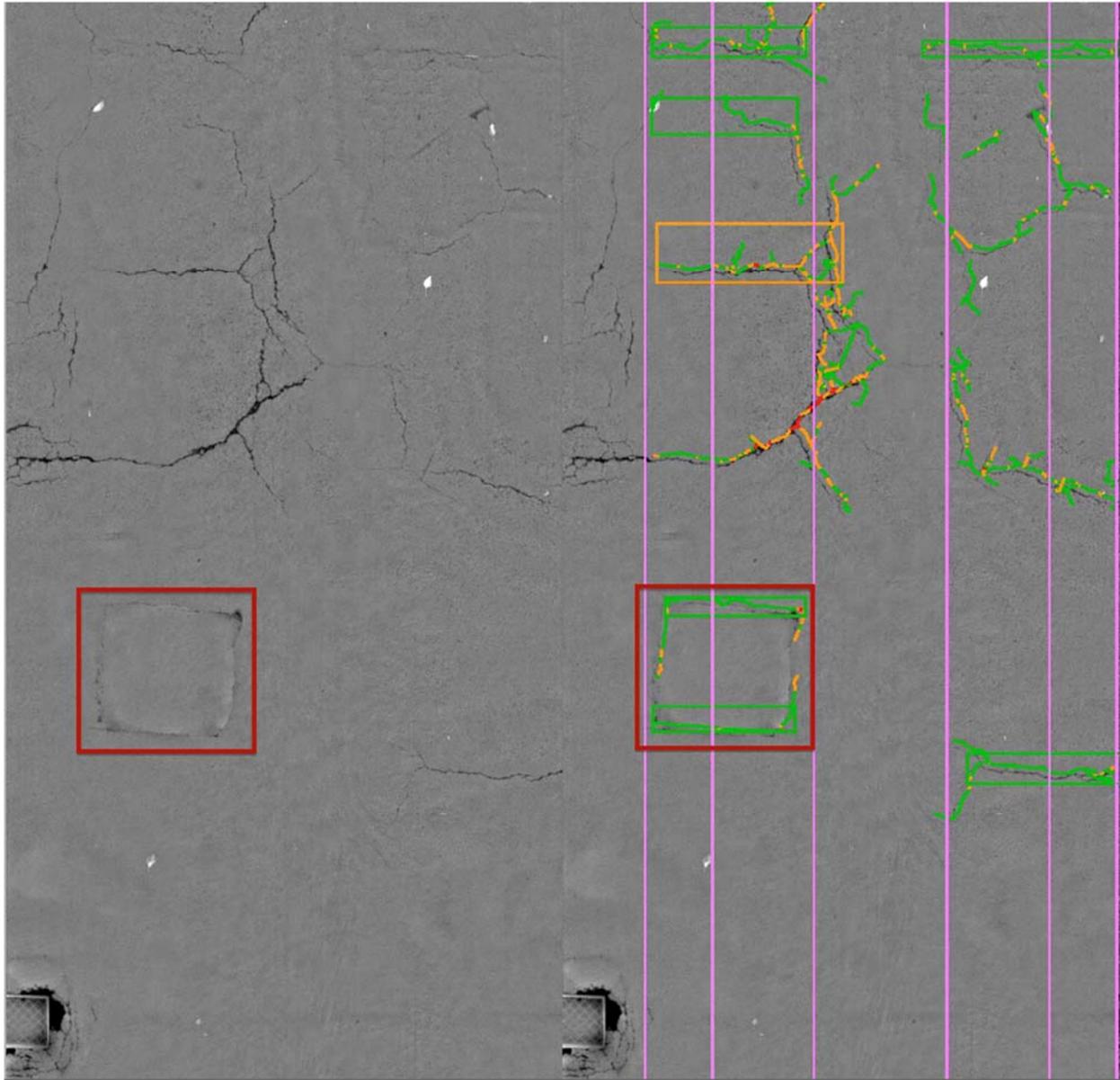
Patching

Method of Measurement: Manual **Unit of Measure:** Sq Ft
Pavement Type: AC, APC, PCC, ST **Severity Levels:** Yes

Definition: A patch is an area of pavement that has been replaced by a filler material. A patch is considered a defect no matter its condition. All patches are rated at least at a low-severity level. Distresses within the patch are not rated independently. Patches are shown in red boxes in the following images. For PCC pavements, any full-width patch is considered a slab and not a patch.

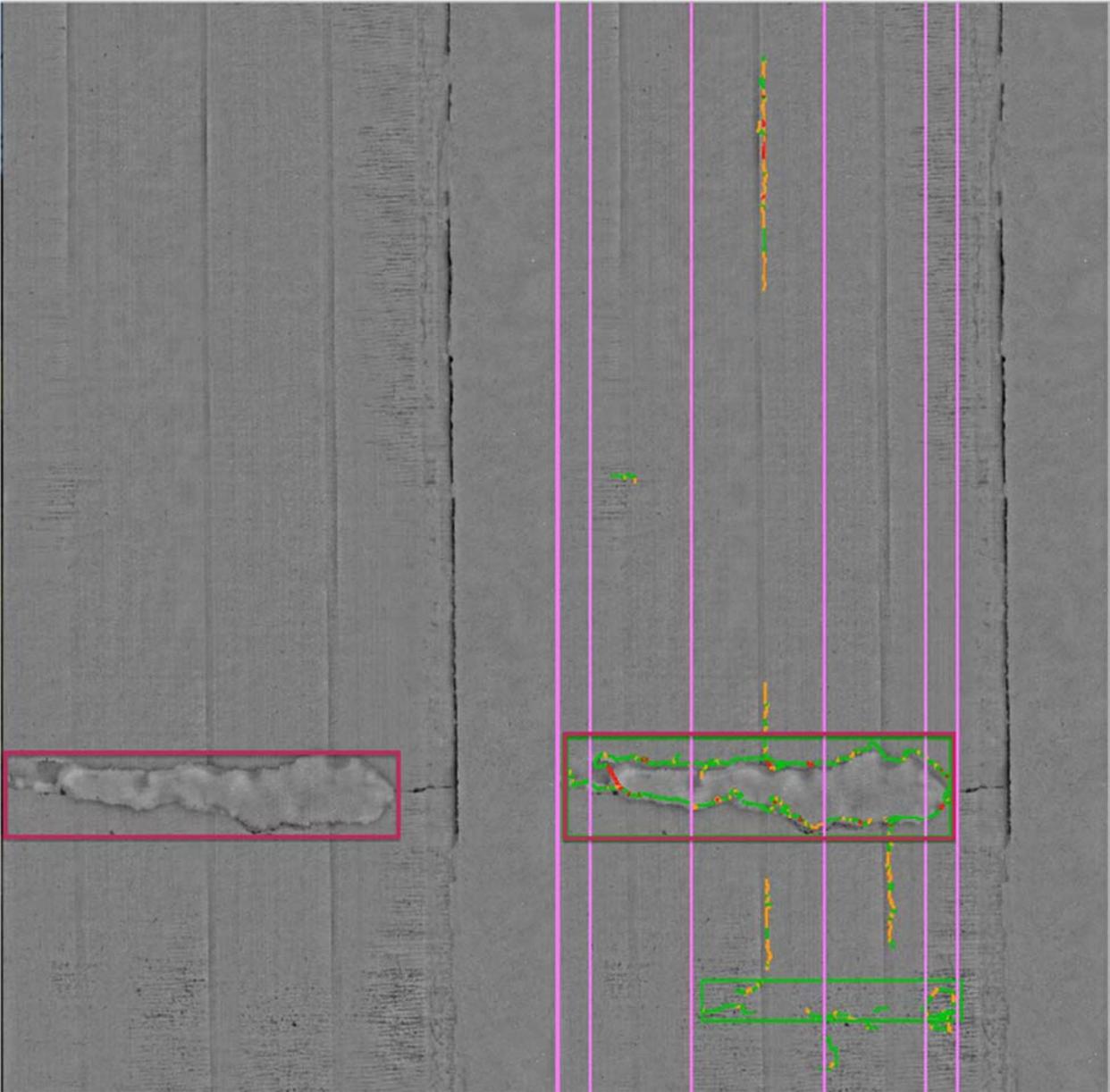
Patching – AC (Low Severity)

Patches show few defects and are usually smooth and new with uniform boundaries.



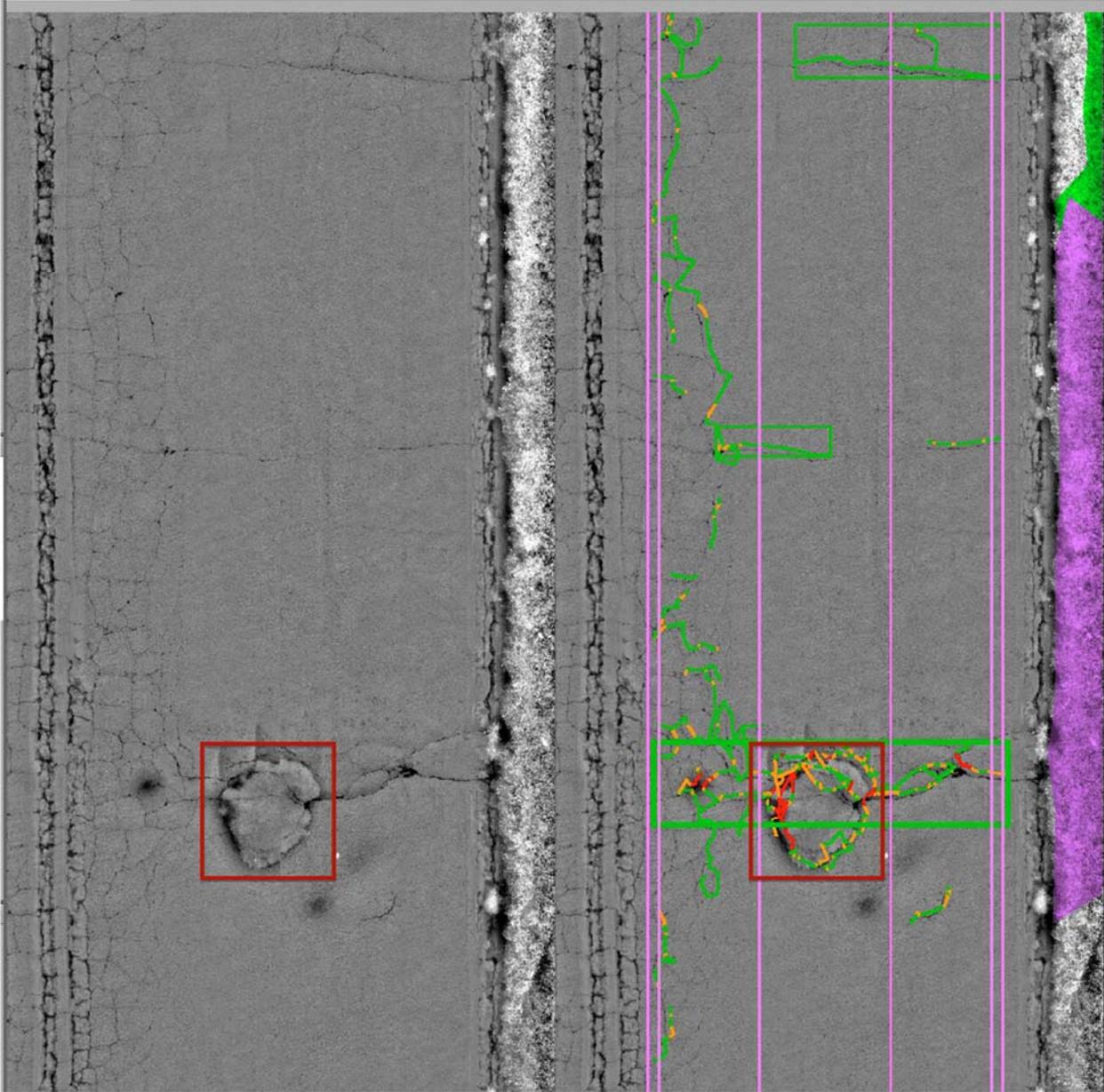
Patching – PCC (Low Severity)

Patches show few defects and are usually smooth and new with uniform boundaries.



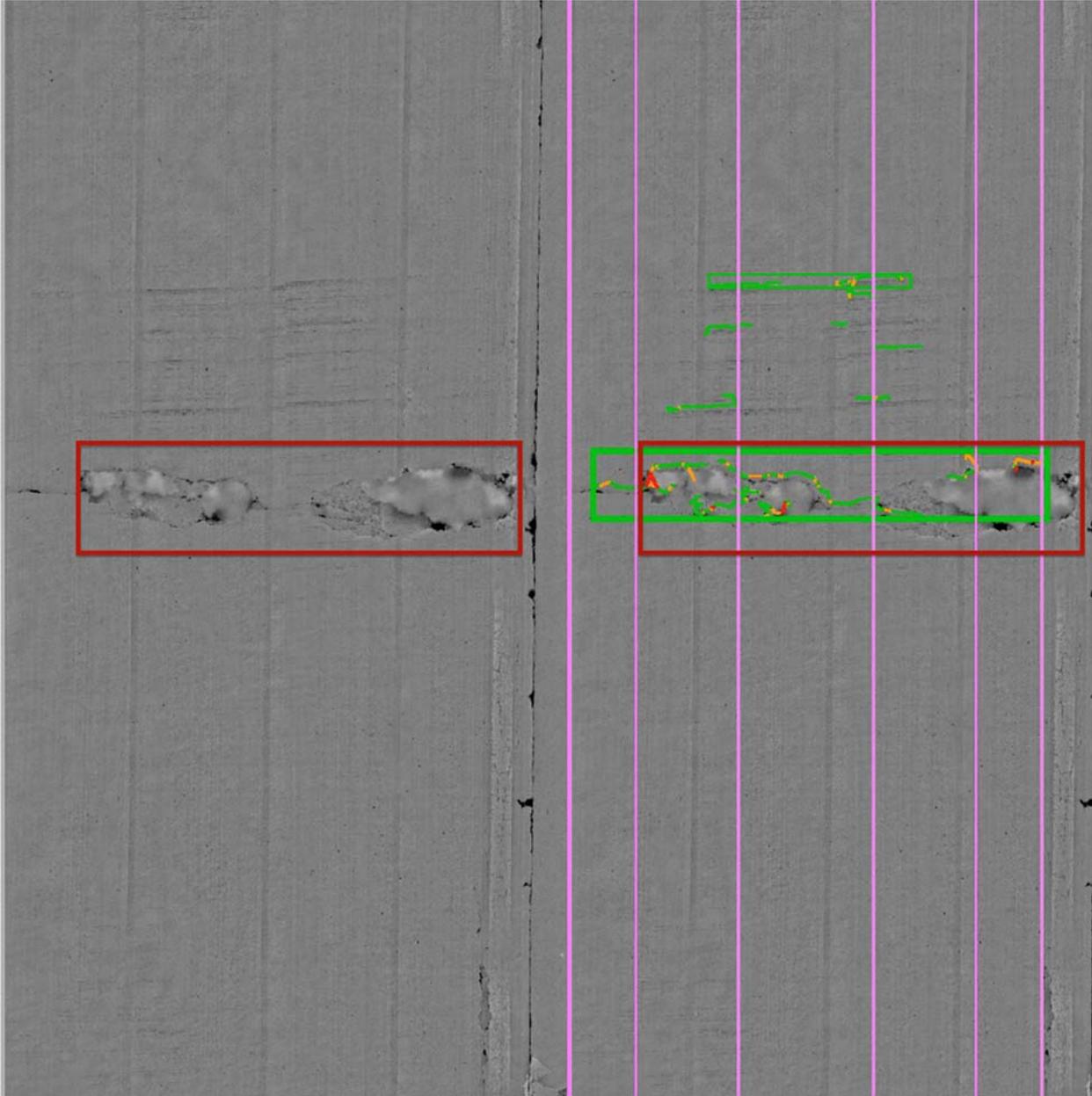
Patching – AC (Medium Severity)

Patches display medium severity defects and may have jagged edges with some distress or cracks present.



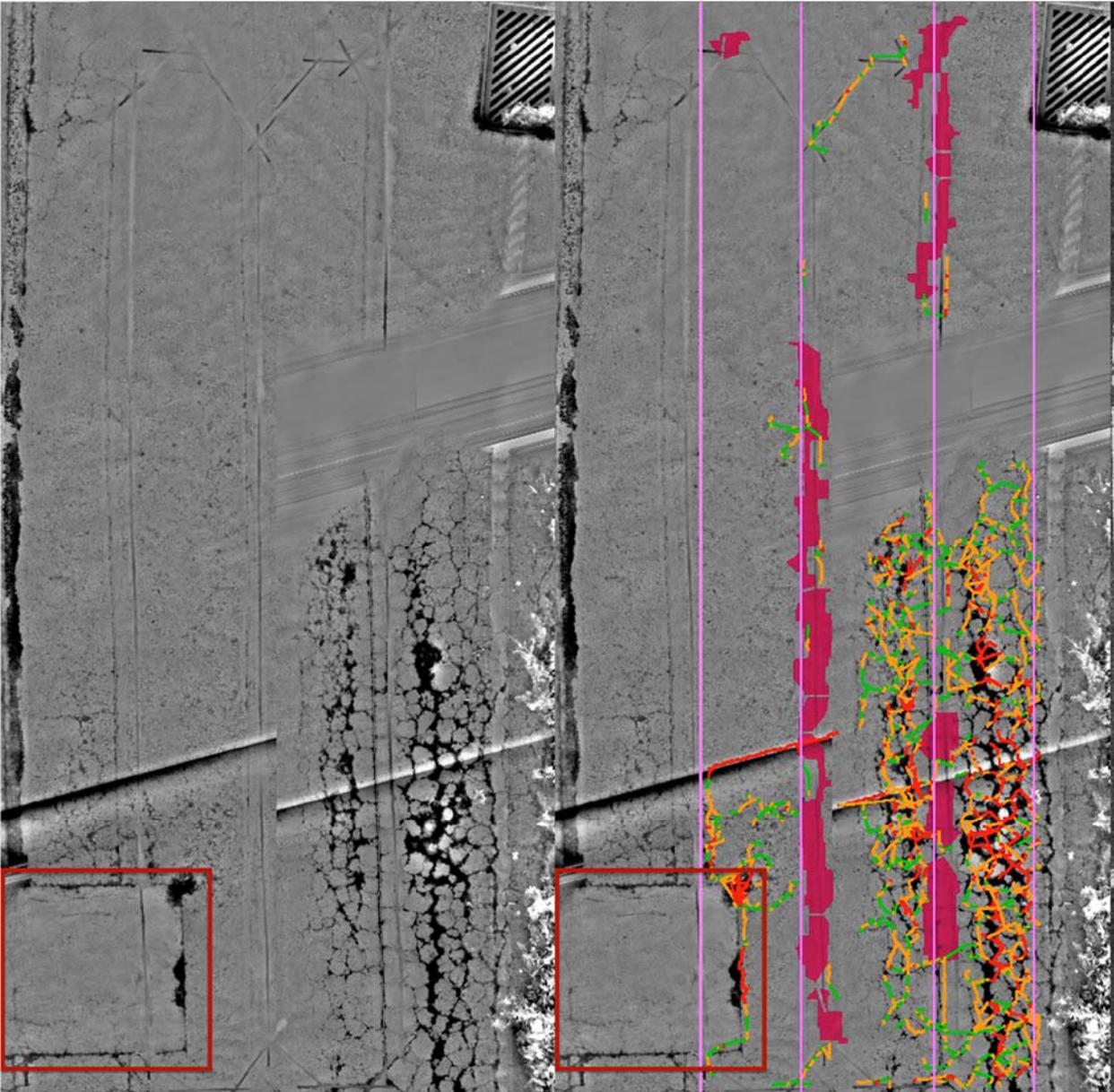
Patching – PCC (Medium Severity)

Patches display medium severity defects and may have jagged edges with some distress or cracks present. Any AC patch found with no defects or low severity defects will be considered a medium severity PCC patch.



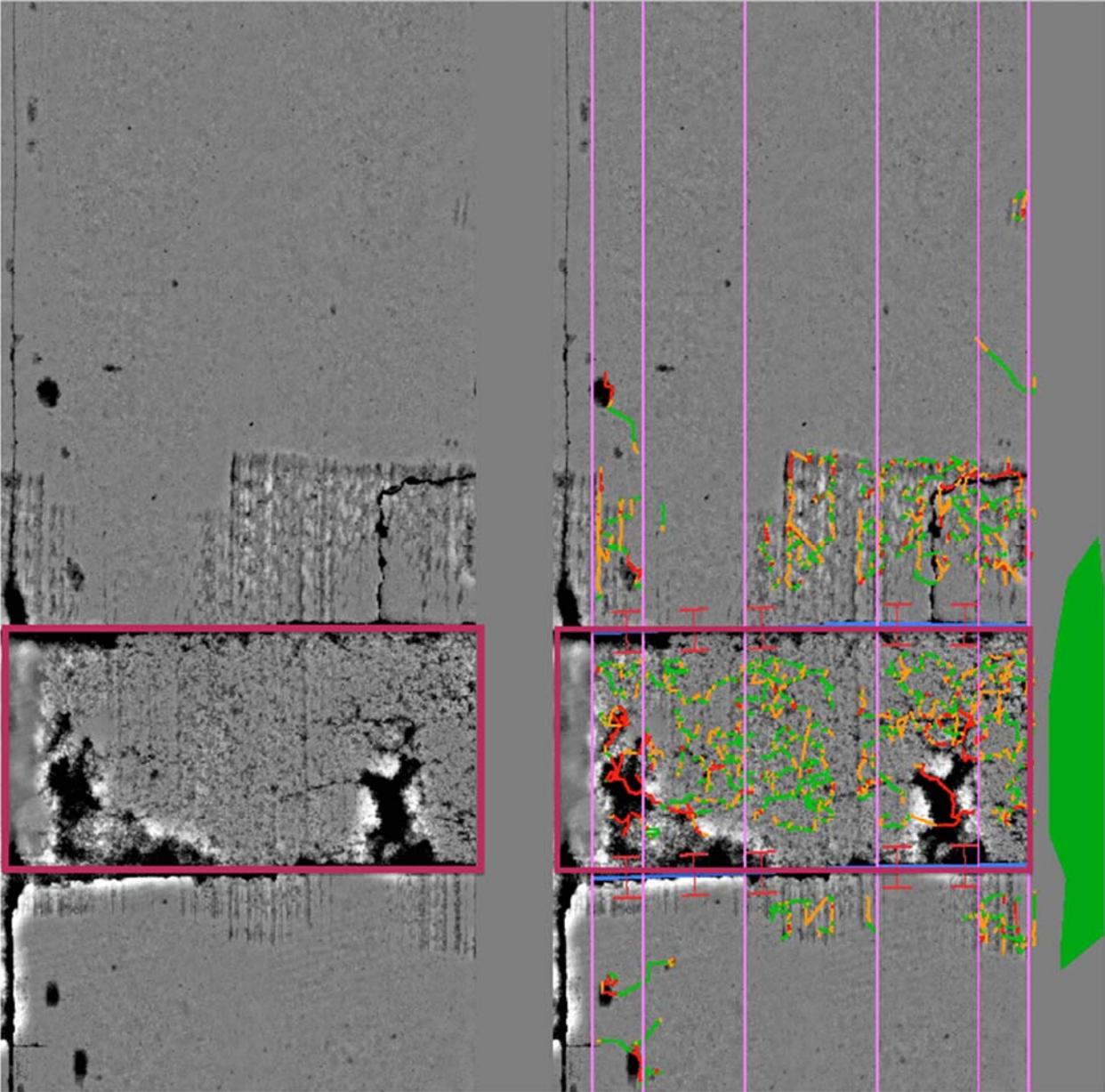
Patching – AC (High Severity)

Patches show high severity defects with gaps, potholes, broken pieces, or additional patches. Any pothole is considered high severity patch deterioration.



Patching – PCC (High Severity)

Patches show high severity defects with gaps, potholes, broken pieces, or additional patches. Any AC patch found with medium or high severity distress is considered a high severity PCC patch.



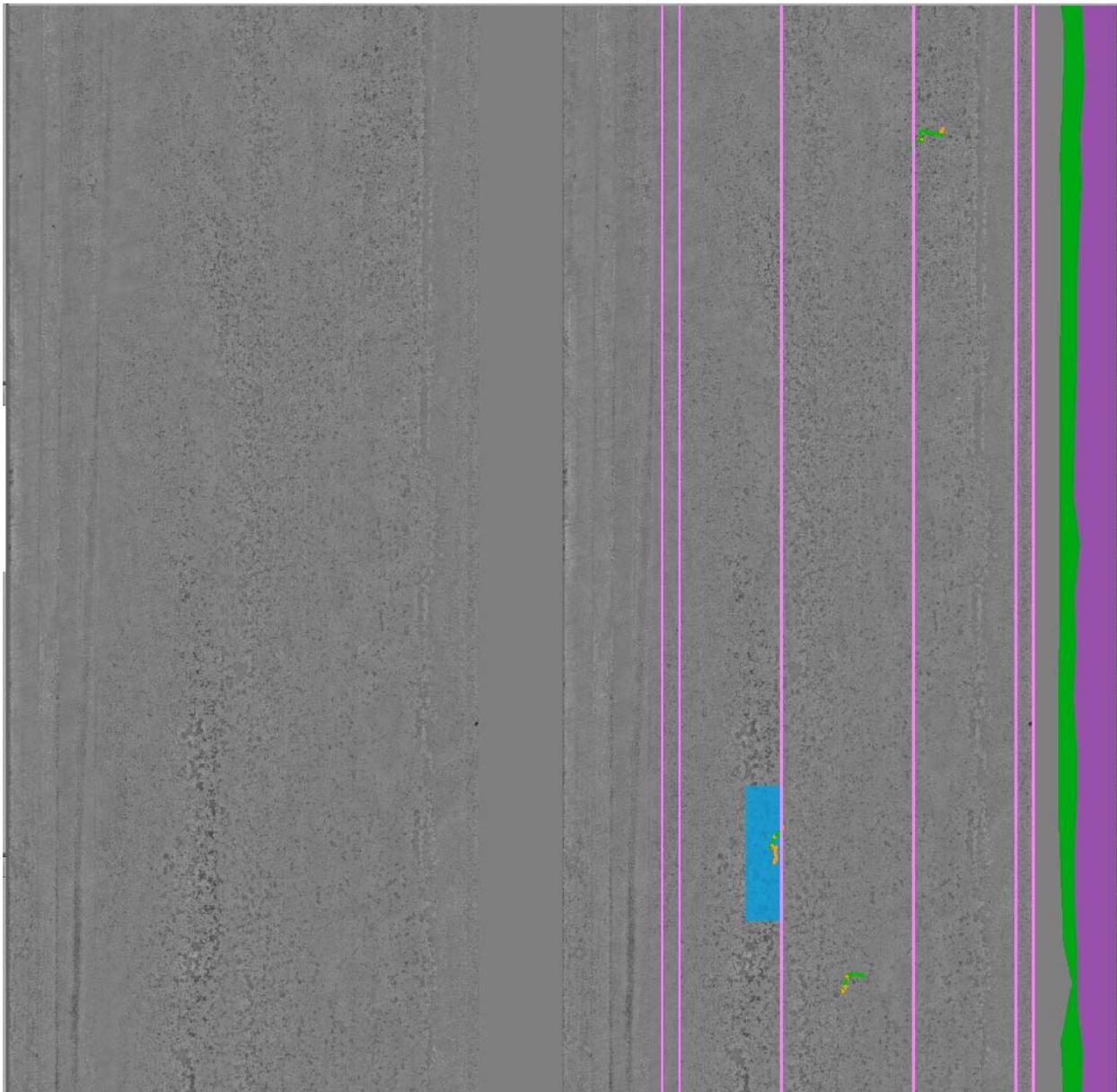
Raveling

Method of Measurement:	Manual	Unit of Measure:	Sq Ft
Pavement Type:	AC, APC, ST	Severity Levels:	Yes

Definition: Raveling is the dislodging of coarse aggregates from the pavement surface due to a loss of adhesion between the asphalt binder and aggregates.

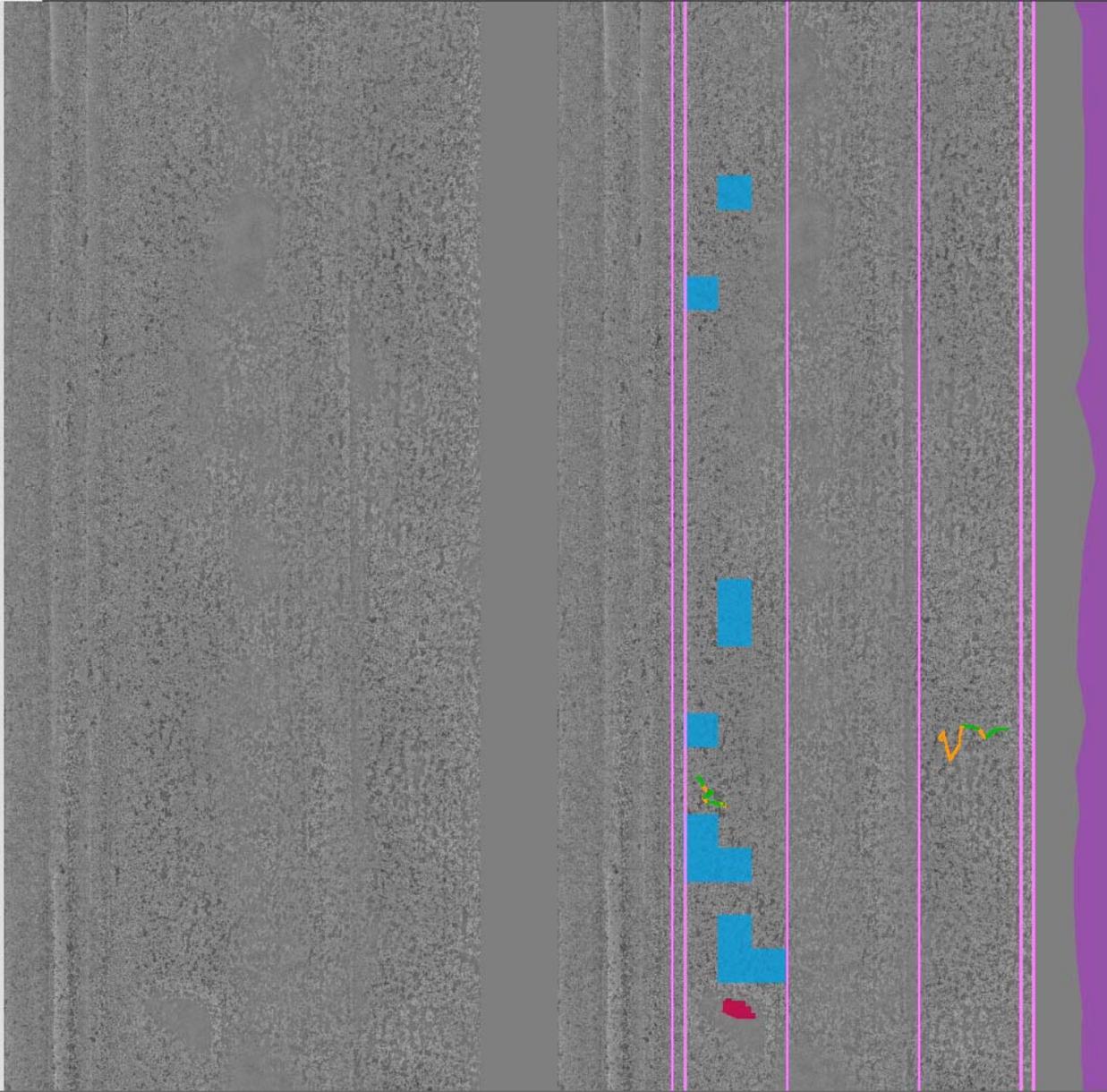
Raveling (Low Severity)

Aggregates begin to wear away on the surface at the low-severity level.



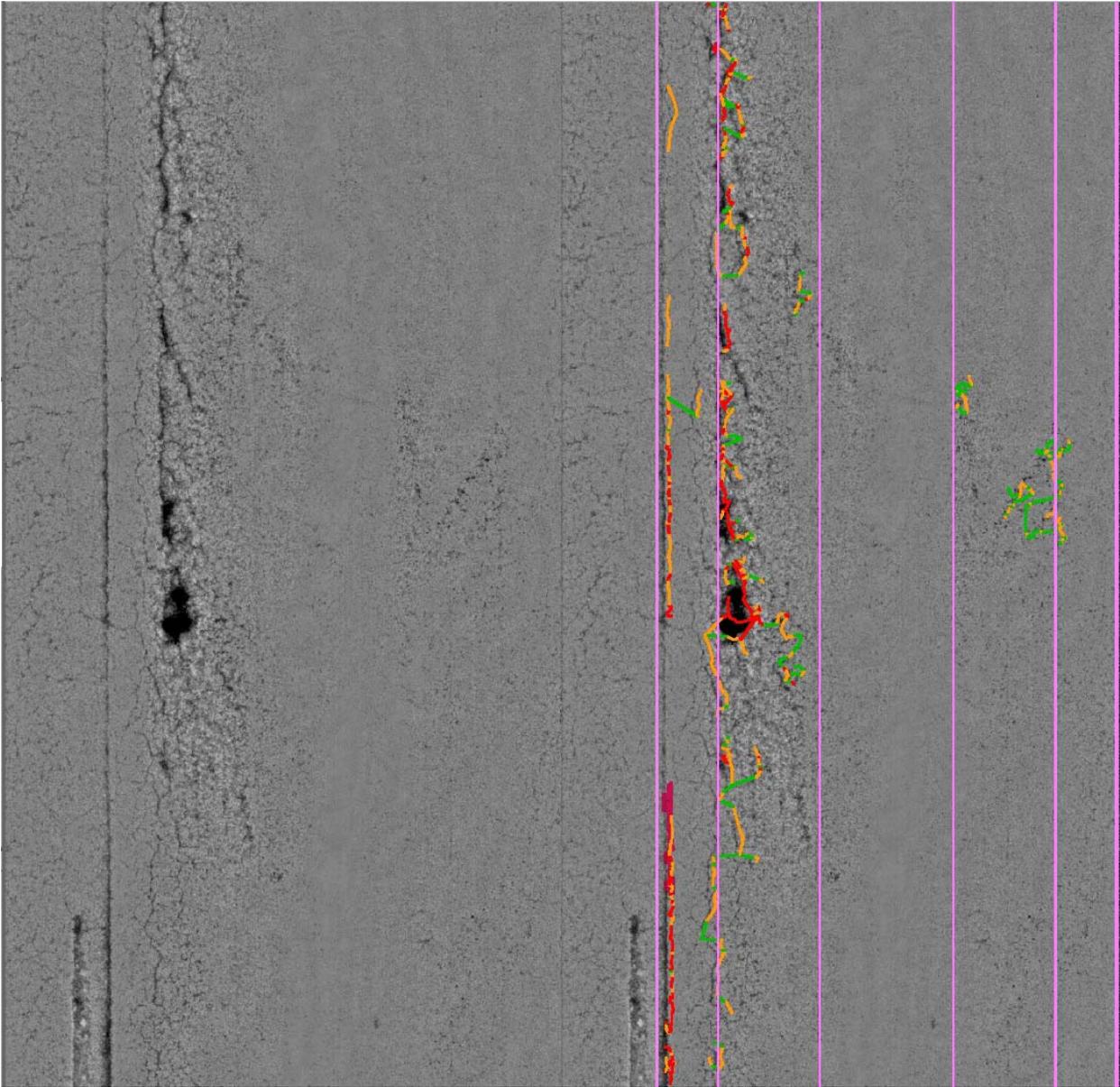
Raveling (Medium Severity)

Loss of aggregates is more pronounced at the medium-severity level.



Raveling (High Severity)

High-severity raveling shows a significant loss of aggregates.



Slab Cracking

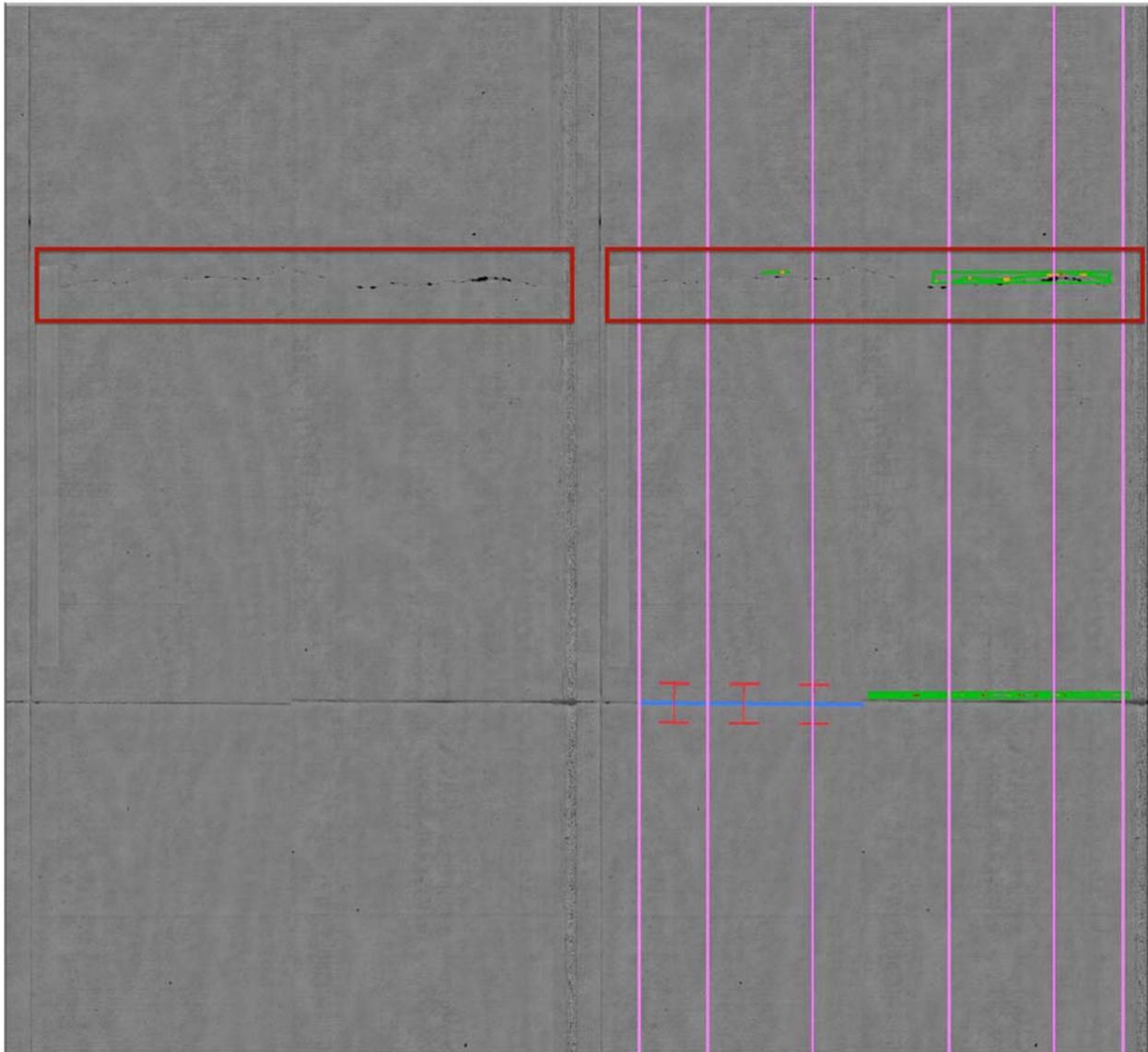
Method of Measurement: Manual
Pavement Type: PCC

Unit of Measure: Slab Count
Severity Levels: Yes

Definition: Slab cracking encompasses both transverse and longitudinal cracking on PCC slabs. The highest severity crack defines the severity level of the slab. If a slab is broken into three or more pieces, the severity level is increased.

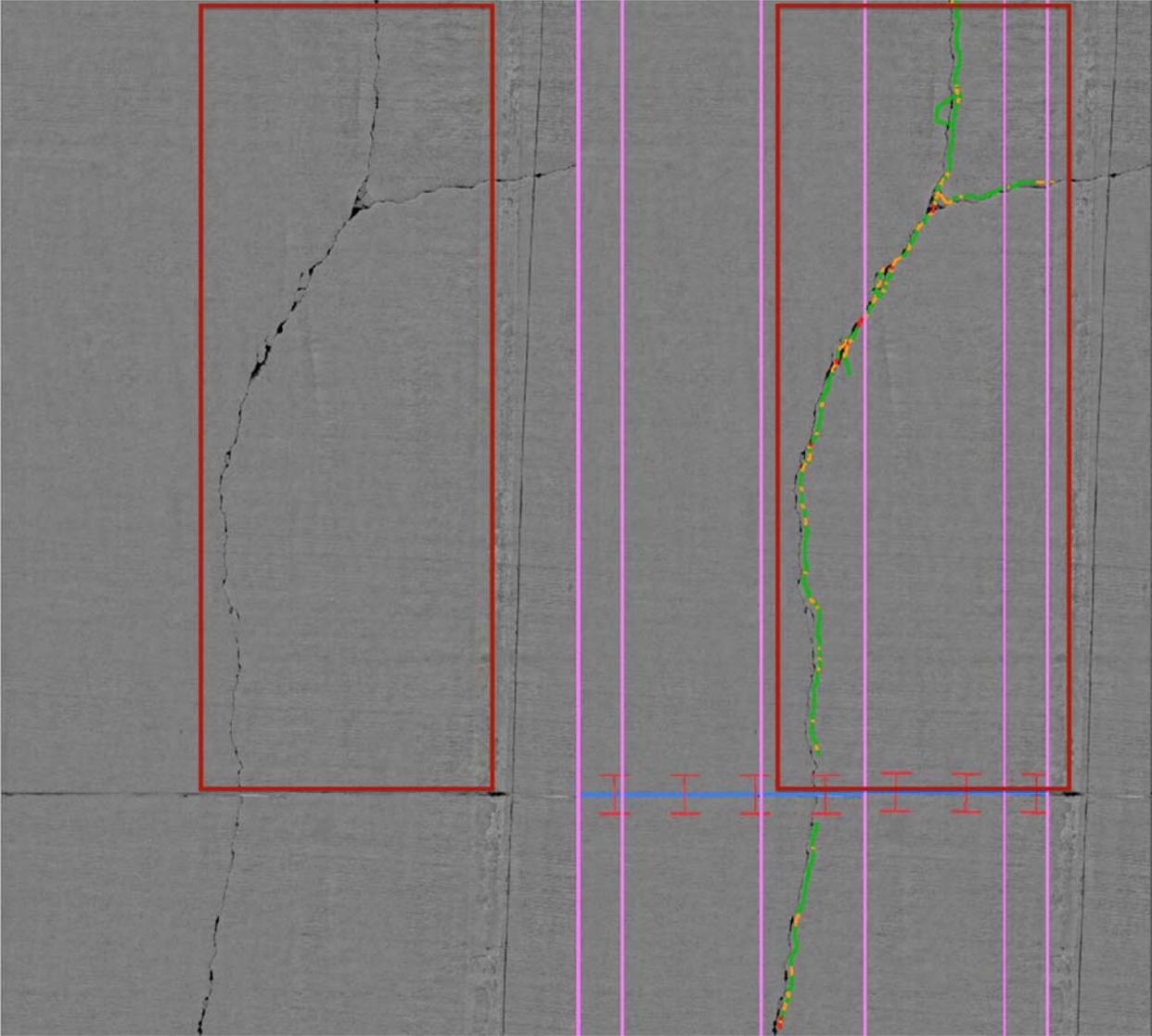
Slab Cracking (Low Severity)

Cracks with widths less than 1/4-inch or sealed cracks in good condition characterize low-severity slab cracking. If the cracks create three or more pieces, the severity level is increased by one severity level.



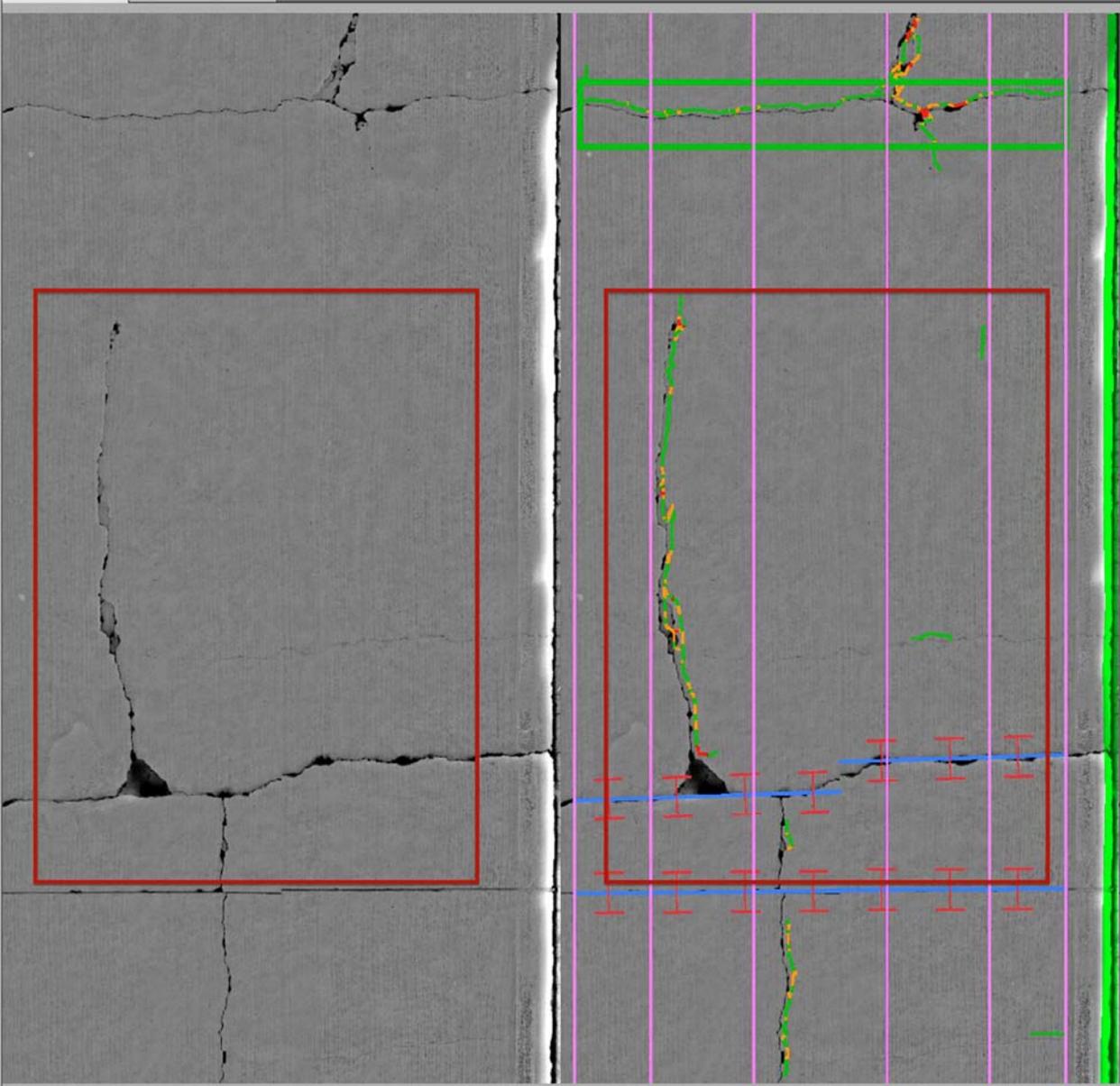
Slab Cracking (Medium Severity)

Cracks with widths between 1/4-inch and 3/4-inch or spalling less than 3 inches wide characterizes medium-severity slab cracking. If the cracks create three or more pieces, the severity level is increased by one severity level.



Slab Cracking (High Severity)

High-severity slab cracking exhibits cracks with widths exceeding 3/4-inch or spalling exceeding 3 inches wide.



Transverse Cracking

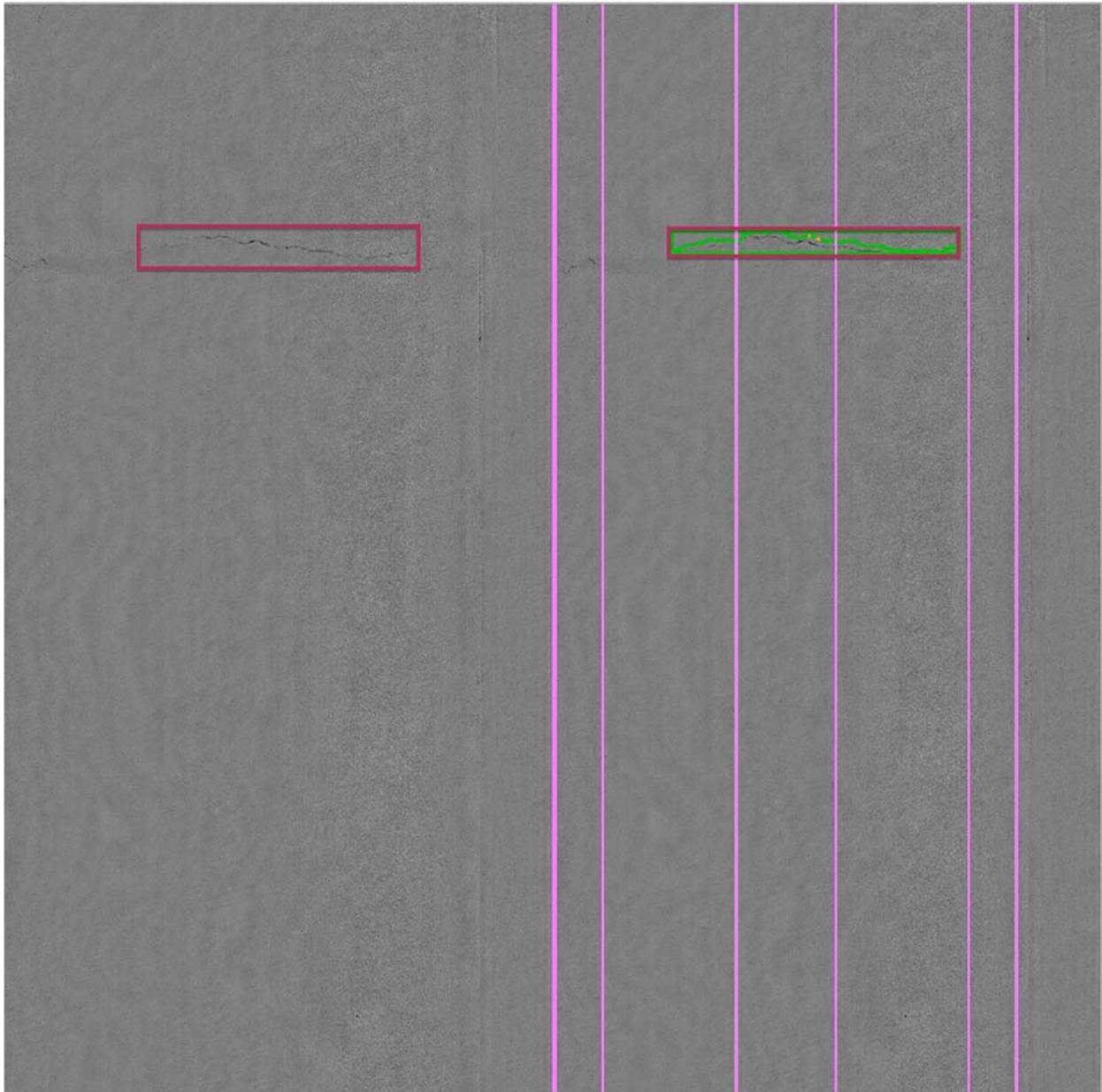
Method of Measurement: LCMS
Pavement Type: AC, ST

Unit of Measure: Ft, Count
Severity Levels: Yes

Definition: Cracks oriented perpendicular to the pavement centerline that exist beyond the wheel path. Only cracks at least 3 feet in length are counted. Transverse cracks are shown in the red boxes in the following images.

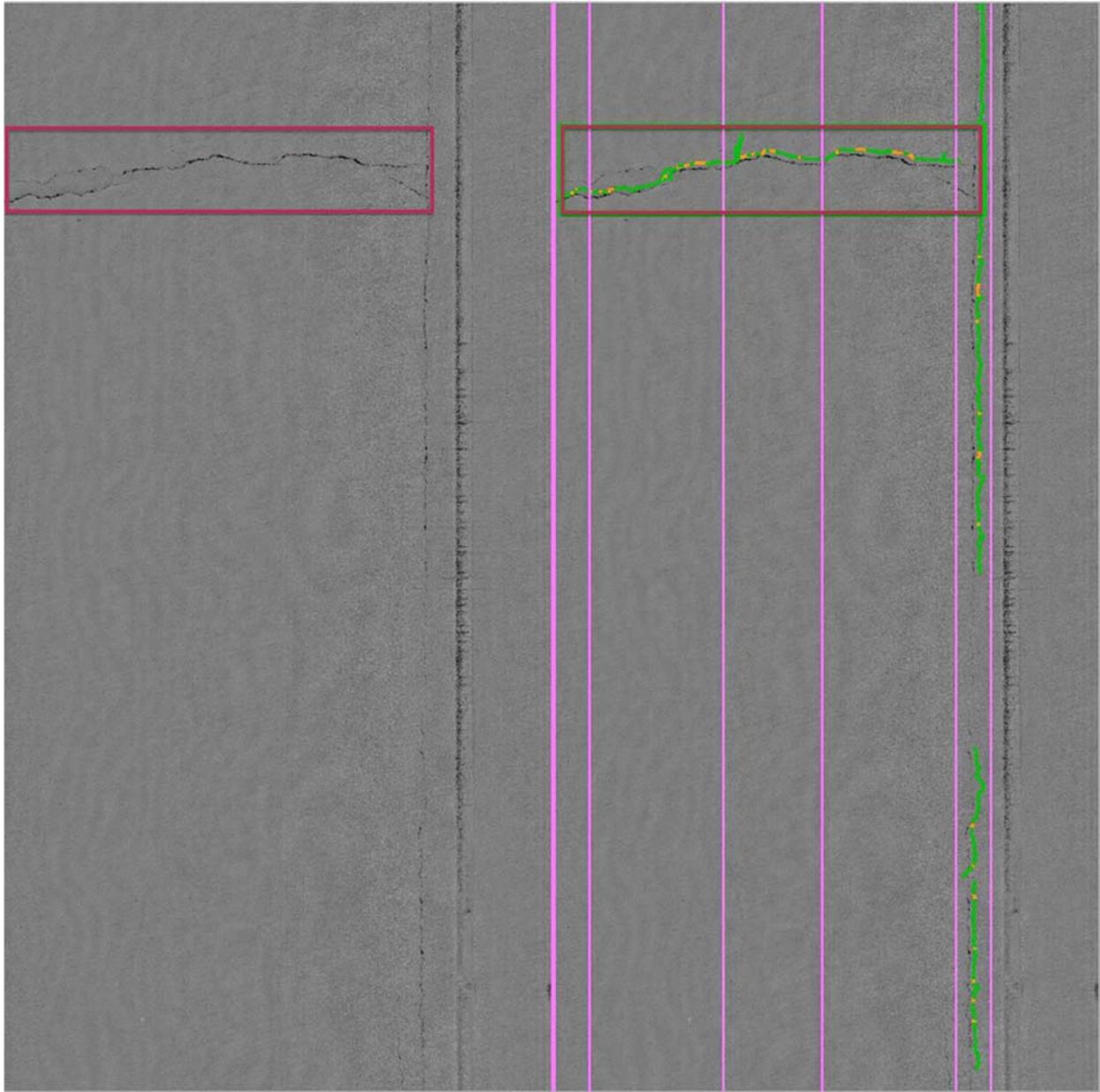
Transverse Cracking (Low Severity)

Low-severity transverse cracking is characterized by cracks with widths less than 1/4-inch or sealed cracks in good condition.



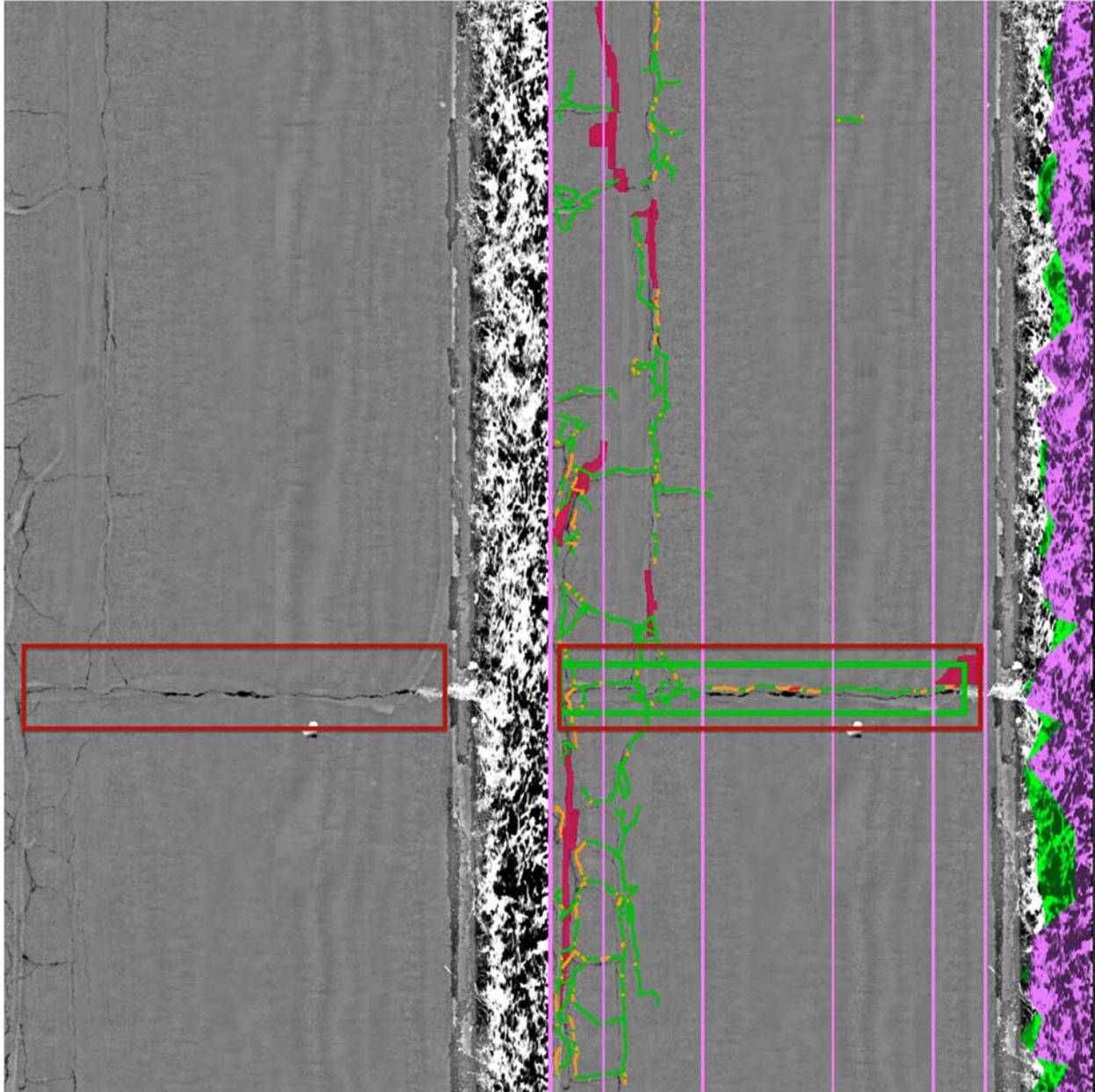
Transverse Cracking (Medium Severity)

Medium-severity transverse cracking is characterized by cracks with widths between $\frac{1}{4}$ -inch and $\frac{3}{4}$ -inch and with spalls 3 inches or less in width.



Transverse Cracking (High Severity)

High-severity transverse cracking is characterized by cracks with widths exceeding $\frac{3}{4}$ -inch or spalls exceeding 3 inches wide with a significant loss of material.



Appendix B - REQUIRED FORMS

The following completed forms are required to be returned with each proposal:

- Certification of Eligibility
- Certificate Of Non-Collusion

CERTIFICATION OF ELIGIBILITY

Delaware Department of Transportation

Request for Proposal 1857 – ROAD RATING SERVICES

We have read Request for Proposal number 1857 and fully understand the intent of the RFP as stated, certify that we have adequate personnel and knowledge to fulfill the requirements thereof, and agree to furnish such services in accordance with the contract documents as indicated should we be awarded the contract.

_____ hereby certifies that it is not included on the United States Comptroller General’s Consolidated List of Persons or Firms Currently Debarred for Violations of Various Public Contracts Incorporating Labor Standard Provisions.

_____ Signature of the Bidder or Offeror’s Authorized Official

_____ Name and Title of the Bidder or Offeror’s Authorized Official

_____ Date

Sworn and subscribed before me this _____ day of _____, 20__

Notary Public

My commission expires: _____ / _____ / 20____
Month Day Year

CERTIFICATE OF NON-COLLUSION

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

- 1) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting to such prices, with any other bidder or with any competitor;
- 2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
- 3) No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

_____ Signature of the Bidder or Offeror's Authorized Official

_____ Name and Title of the Bidder or Offeror's Authorized Official

_____ Date

Sworn and subscribed before me this _____ day of _____, 20__

Notary Public

My commission expires: _____ / _____ / 20____
Month Day Year