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AIC – Initial Findings
1701 Mountain Industrial Boulevard – Stone Mountain, GA
Summary of Observations (as of June 18, 2025)

Primary Issue

- A 72" corrugated metal pipe (CMP) has separated from the structure at the storm drain basin near entrance.
- This separation is located near the curb inlet and has led to underground soil loss and subsidence.

Contributing Factors

1. Pipe Deterioration:
    - The bottom of the 72" CMP is rusted and deteriorated, likely due to age and prolonged exposure to moisture.
2. Silt Accumulation:
    - The retention pond is over capacity with silt, reducing its ability to manage stormwater effectively.
3. Flood Gate Failure:
    - The emergency flood gate is broken and stuck shut, causing the underground system to act as an overflow during heavy rain.
4. Hydraulic Overload:
    - During storms, water follows the path of least resistance, exacerbating erosion and structural failure.

Additional Findings

- The retention pond outlet leads to a vertical drop within 30' of the collapsed CMP.
- An existing structure drops approximately 20' into an underground transmission vault, which sits atop an older vault (pre-dating Dekalb County records).
- This system continues another 20' down into a stone and cement aqueduct, suggesting a historic or legacy drainage system.

Resolution

1. Install Cofferdam due to heavy downpours and upcoming periods of rainfall, during this installation we had multiple affected utilities re-located out of the affected work area. These utilities included phone and fiberoptic. (Complete)
2. Replace existing piping as needed, possibly all of piping under entrance and connect to upstream catch basin and curb inlet. (Complete)
3. Bridge entire affected area with erosion matting after being properly shored and all areas exposed as applicable. (Complete)
4. Install No. 57 stone to establish a settlement base. (Complete)
5. Continue installing temporary piping through cofferdam and re-connecting drainage system to retention pond. (Complete)
6. Backfill and compact in 12" lifts with suitable soils including clean red clay in the dam area. (Complete)
7. Open existing flood gate to allow maximum flow during heavy rainfall. (Complete)
8. Investigate the cause of underground failures in depth. (Complete)
9. Re-bridge areas as they are sinking and stabilize the affected area to minimize additional erosion. (Complete)
10. Create an erosion and maintenance plan for long term duration of project. (In-Progress)

Inspection of vertical outlet and downstream outlet

1. Completed inspection June 16, 2025, of vertical outlet and downstream outlet.
2. As captured images show the two vaults were not joined or sealed together, the upper-level vault was set over atop of the existing structure and there is a 12" gap from the exterior point to the interior point of the structures that will need to be sealed and caulked.
3. The outlet pipe of the retention pond penetrates the vault that we will be sealing and caulking as well. By doing so this will convey the water to the interior portion to the lower-level system.
4. Before we entered the lower-level system, the images show that the upstream portion of the legacy drainage system had been condemned and caved in. We believe this occurred when the retention pond was created and the surrounding land parcels were re-developed. The means in which they capped, bridged and sealed the upstream portion of this vault has failed.
5. We will be entering the lower-level basin and forming and casting a permanent concrete cap or plug that shall be 12" thick re-enforced with rebar to stop any further erosion or soils entering this system. Our inspection of this structure to the horizontal downstream appears to be in good condition given its age. We will conduct another inspection with the robotic camera later this week to determine where it terminates and the impact on the termination area.

We have ordered the new catch basin and are working with our supplier to expedite manufacturing this structure. We are expecting this structure to be completed and delivered within two weeks.

Our current goal is to have the road re-opened with sidewalk, curb and gutter poured back no later than the second week in July, if we do not encounter any unforeseeable hazards. We will then start the rehabilitation of the retention pond.

Tuesday 6/10/2025 – 9:00am

Tuesday 6/10/2025 – Afternoon after rainstorm

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Wednesday – 6/11/2025 - Cofferdam Installation

Wednesday – 6/11/2025

Wednesday – 6/11/2025 – Removal of collapsed structure, street, and 72” CMP & Installing containment fencing.

Wednesday – 6/11/2025 – First inspection of remaining 72” CMP. Stabilized area so crews could safely enter.

Wednesday – 6/11/2025 – 1':2' egress slope created for entry.

Wednesday – 6/11/2025 – Downstream riser to existing aqueduct system.

Thursday – 6/12/2025 – Morning – Found road separated after rainstorms throughout the night it has eroded away and must be removed.

Thursday – 6/12/2025 – Installation of new 60" CMP under entire entrance to stop any more erosion below roadway and connected to immediate upstream basin.

Friday – 6/13/2025 – Installation of bridging matting and connection to retention pond. Removed cofferdam.

Friday – 6/13/2025 – Replacing retention pond dam and bedding in new 60” CMP.

Friday – 6/13/2025 – Image of progress on Friday.

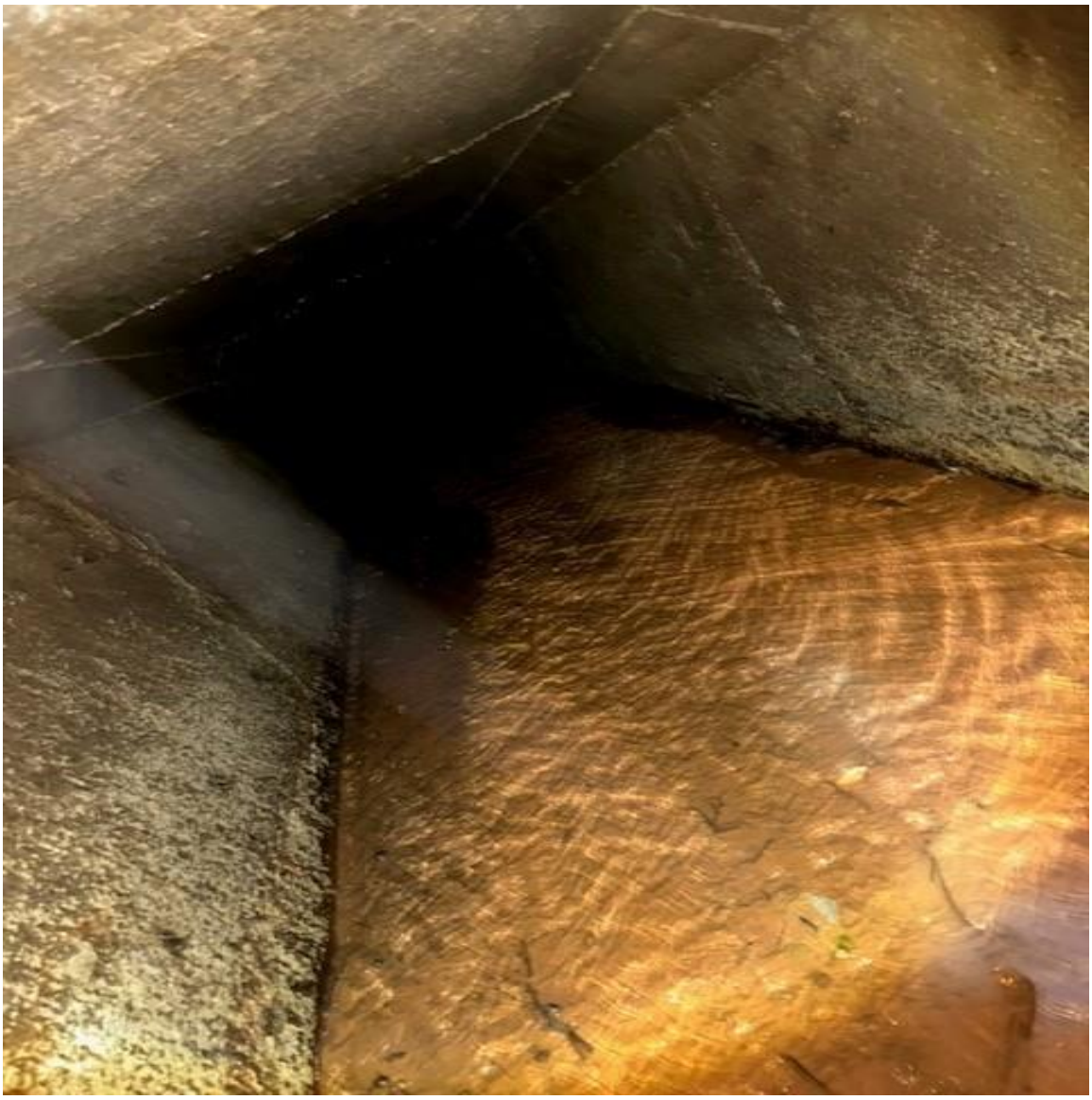
Friday – 6/13/2025 – Continuation of work progress.

Friday - 6/13/2025 – First time entering sub-level basin.

Monday – 6/16/2025 – Safety check for confined space entry.

Monday – 6/16/2025 – Inlet side of lower-level vault was not properly capped or plugged.

Monday – 6/16/2025 – Downstream outlet of lower-level vault. Upon this inspection the system was found to be in good working condition.



Tuesday – 6/17/2025 – Erosion Control

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