CITY OF MCDONOUGH

2017 STORM WATER/GIS DEPARTMENT

TOM FLEMING

SUPERVISOR

305 RACETRACK RD.

MCDONOUGH GA. 30253

678-787-8828

CITY OF MCDONOUGH

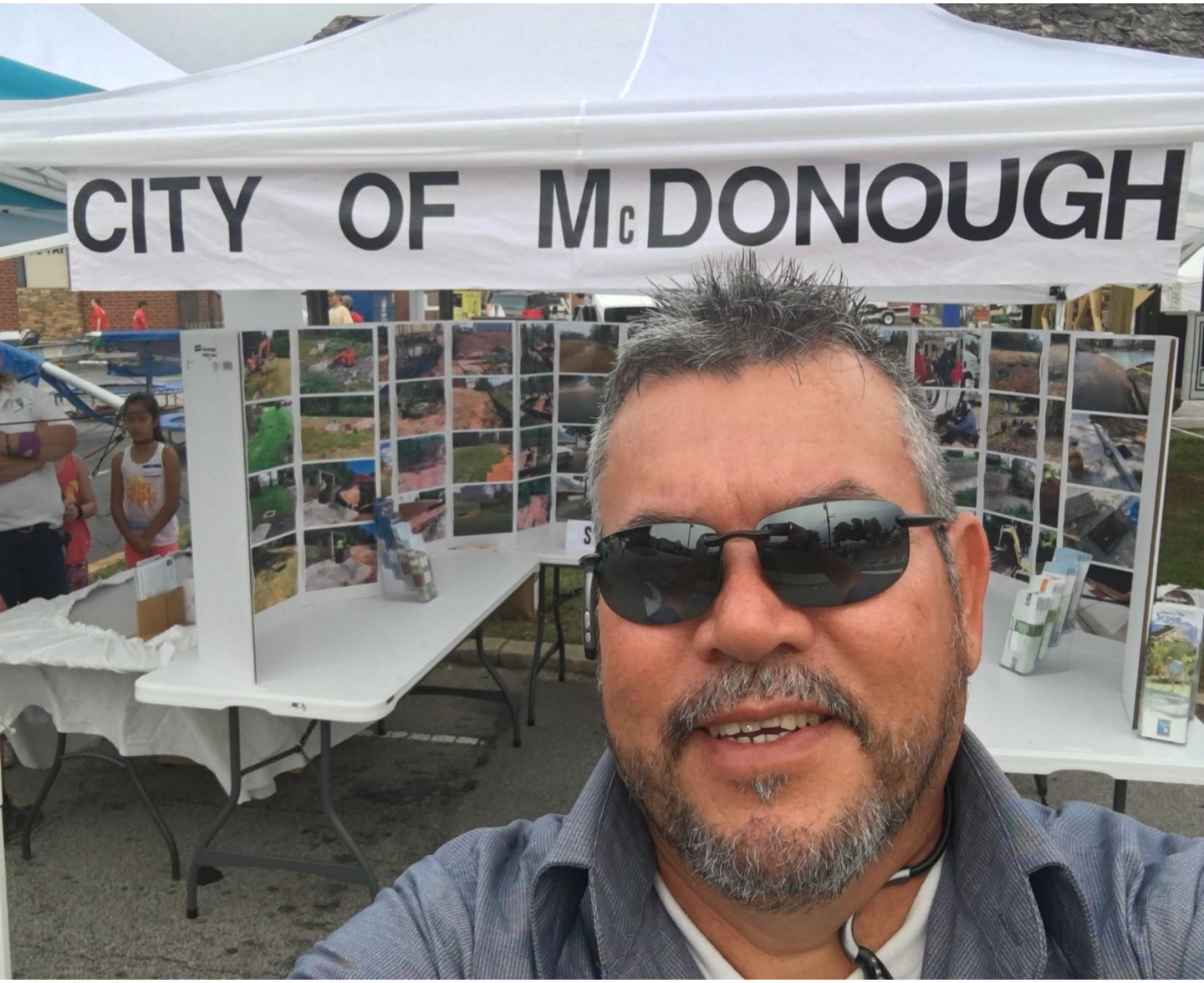
Department Overview

The storm water department is responsible for addressing questions and resolving problems related to the flow of rain water within the City of McDonough. Conveyances such as open ditches, pipes, and curbs to include inlets and outlets, fall under our responsibility. Additionally, detention and retention ponds are addressed by this department. In this regard, home owner associations and the city work together to insure that these structures are functioning as designed. We work closely with other state and federal agencies to implement the “MS4” program current in place in the state of Georgia. Within the Storm Water Department there is a G.I.S (Geographical Information System) section that locates and records points of special interest which can be used to create specialty maps. Points of special interest include things such as water valves, water meters, fire hydrants, catch basins, storm water outfalls, junction boxes, sewer manholes, serviceable sewer cleanouts, city limits, etc.

STORM WATER/GIS CREW AND RESPONSIBILITIES

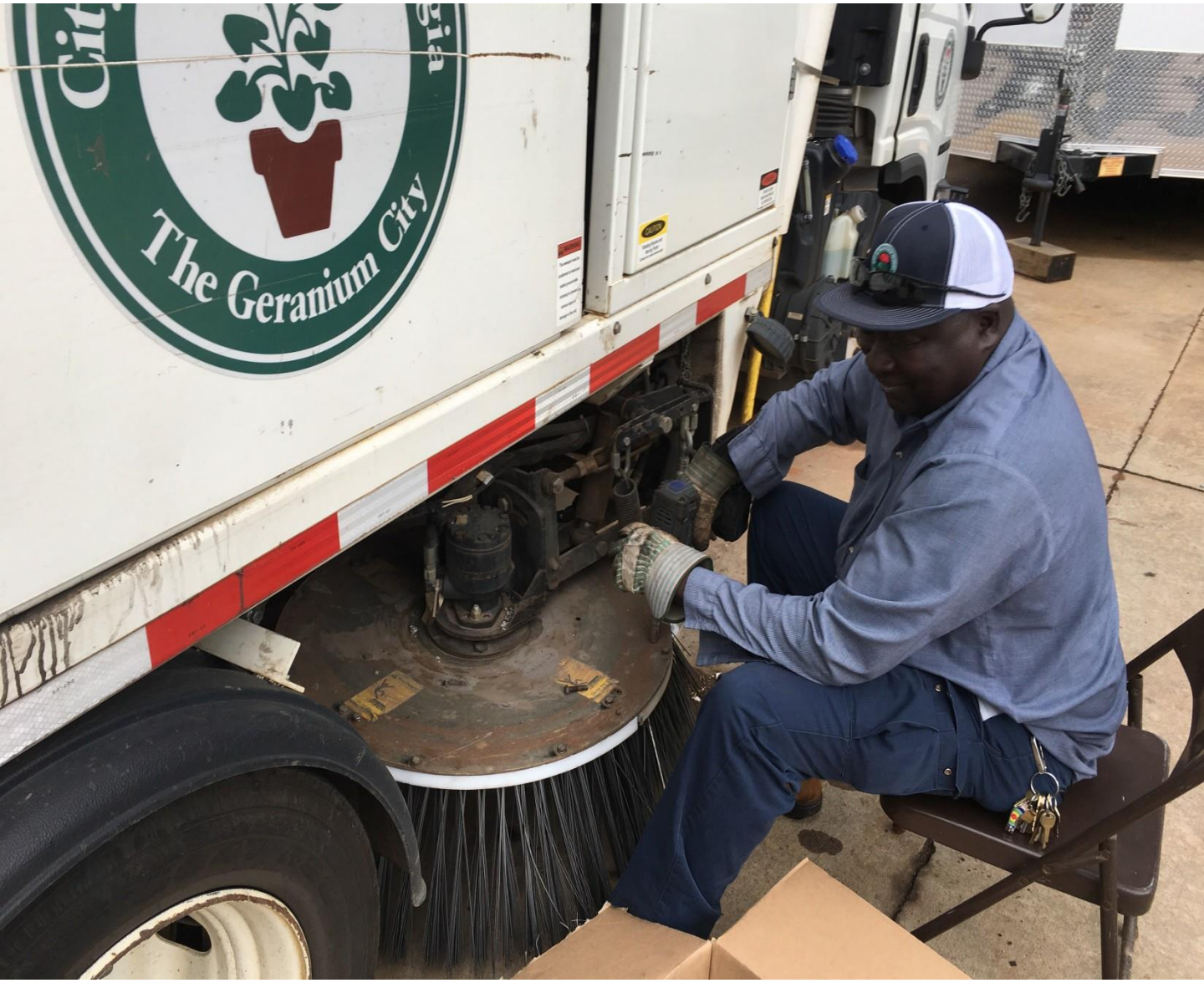
Tom Fleming (Supervisor)- In consultation with the Public Works Director, prioritizes the sites to be repaired or maintained and considers new undertakings that will benefit and meet the goals of the Storm Water Department.

STORM WATER/GIS CREW AND RESPONSIBILITIES



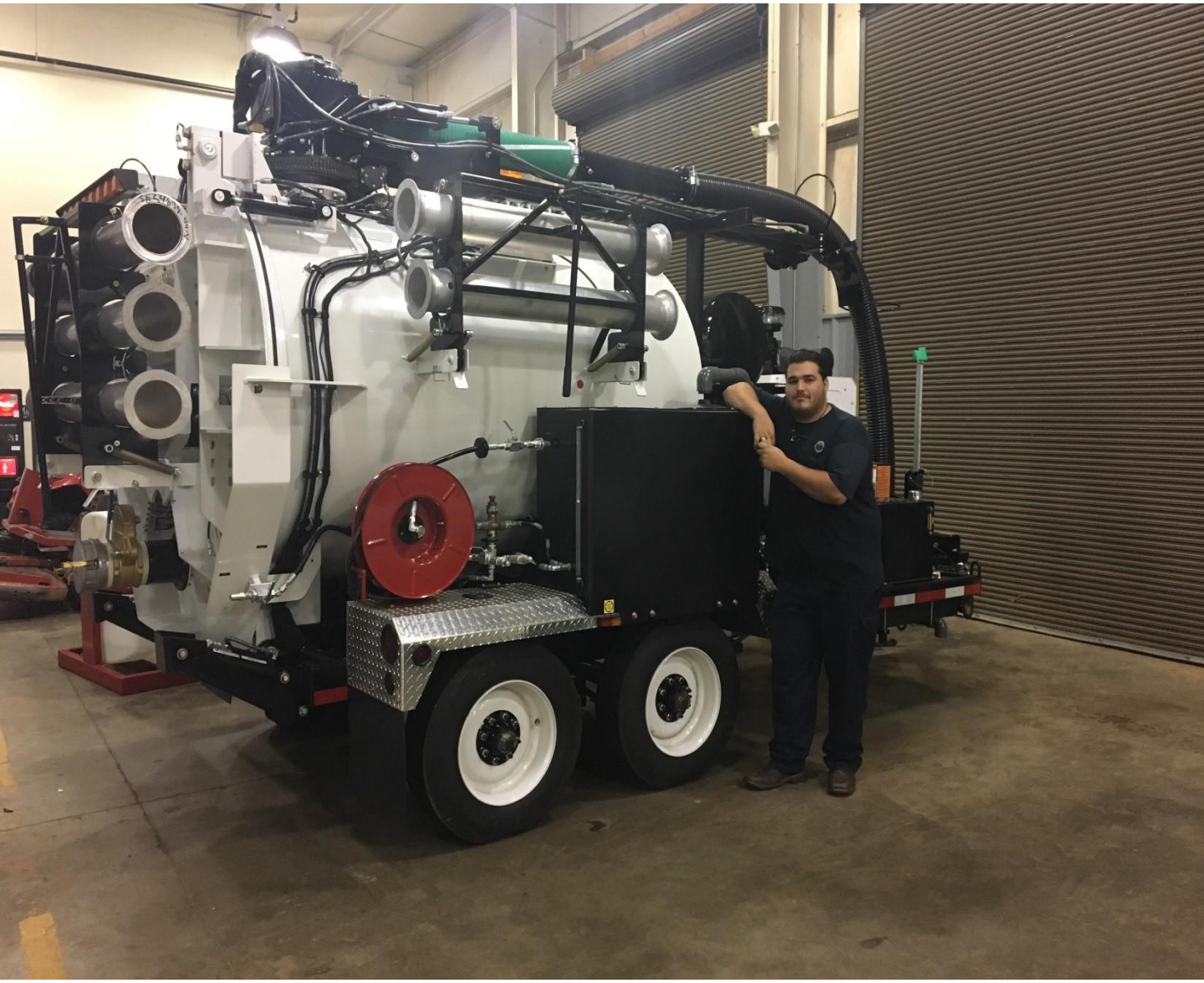
Cesar A. Sanchez (Storm Water Field Crew/GIS Data Collector)- Works directly with the supervisor in solving storm water issues. Inspects and makes recommendations concerning problem areas. On a routine basis visits sites of concern to insure clogs and trapped debris is removed. Is also responsible for the data collection necessary for the GIS program as well as dealing and communicating directly with the programmers and analysts.

STORM WATER/GIS CREW AND RESPONSIBILITIES



Sammie Thomas (Sweeper Truck Operator)- Operates the sweeper truck to rid the streets of leaves, trash and debris, which if left alone would clog the inlets to the drainage system thus creating flooding, as well as hindering the aesthetics of the city.

STORM WATER/GIS CREW AND RESPONSIBILITIES



Steven Graves (Storm Water Crew Worker)-Operates the Vac-Truck to clean the catch basins of sediment, silt and other kind of debris that will clog the Storm Water System. He also operates the sprayer truck to prevent any kind of vegetation from growing in the ponds and prevent them from working properly.

CITY OF MCDONOUGH

-In A Nut Shell-

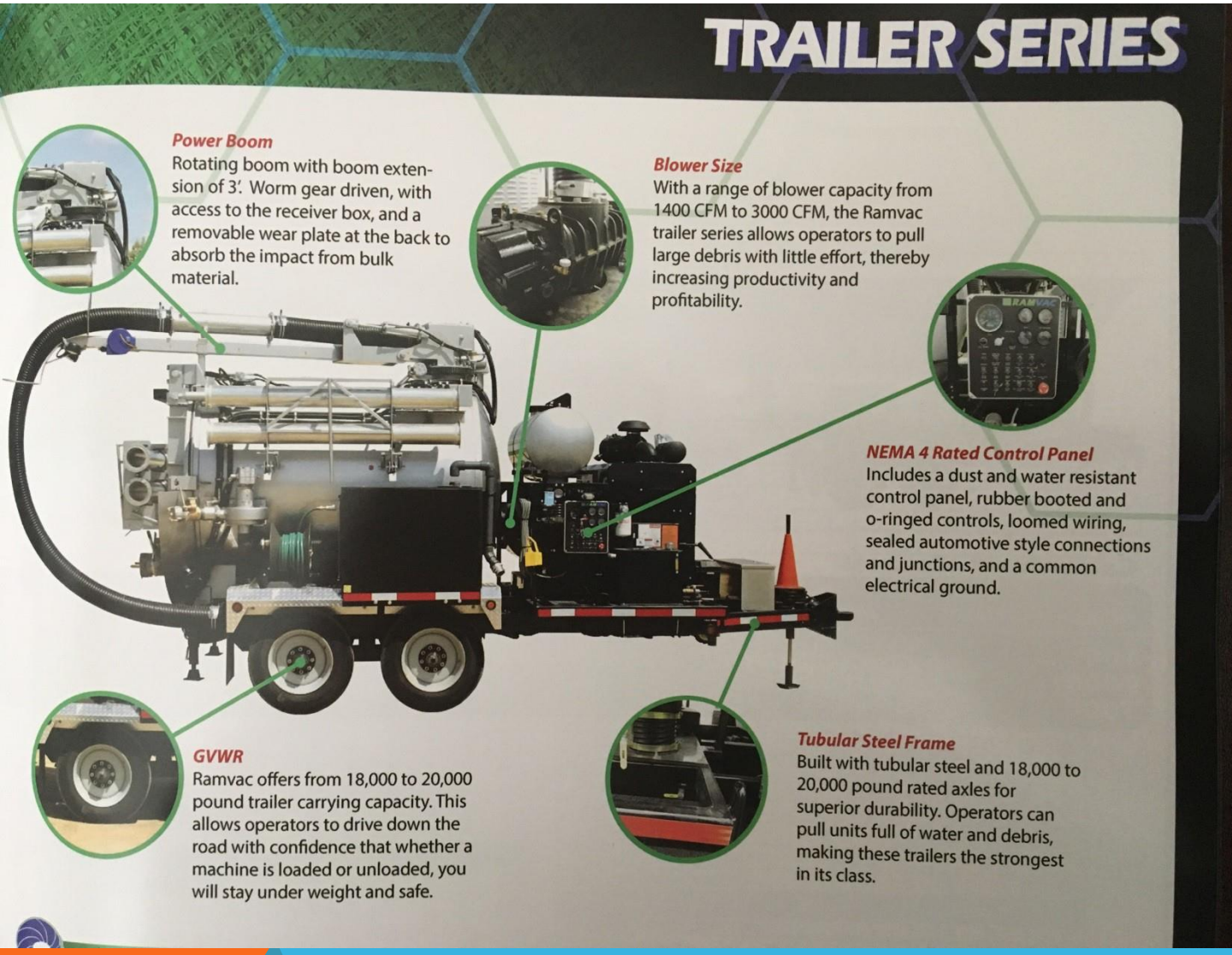
-The Storm Water Department deals with water and the effect it has on its surroundings. Likewise, how the surroundings affect its flow.

-From the time water droplets hit the ground, to the moment they make their way to the oceans, evaporate, or just soak into the soil, tremendous consequences can occur. Mankind must deal with these consequences.

-Erosion, flooding, pollution, and destruction beyond all measure can take place. Every situation is unique and must be dealt with to the best of our ability by applying tried and proven methods of correction and prevention.

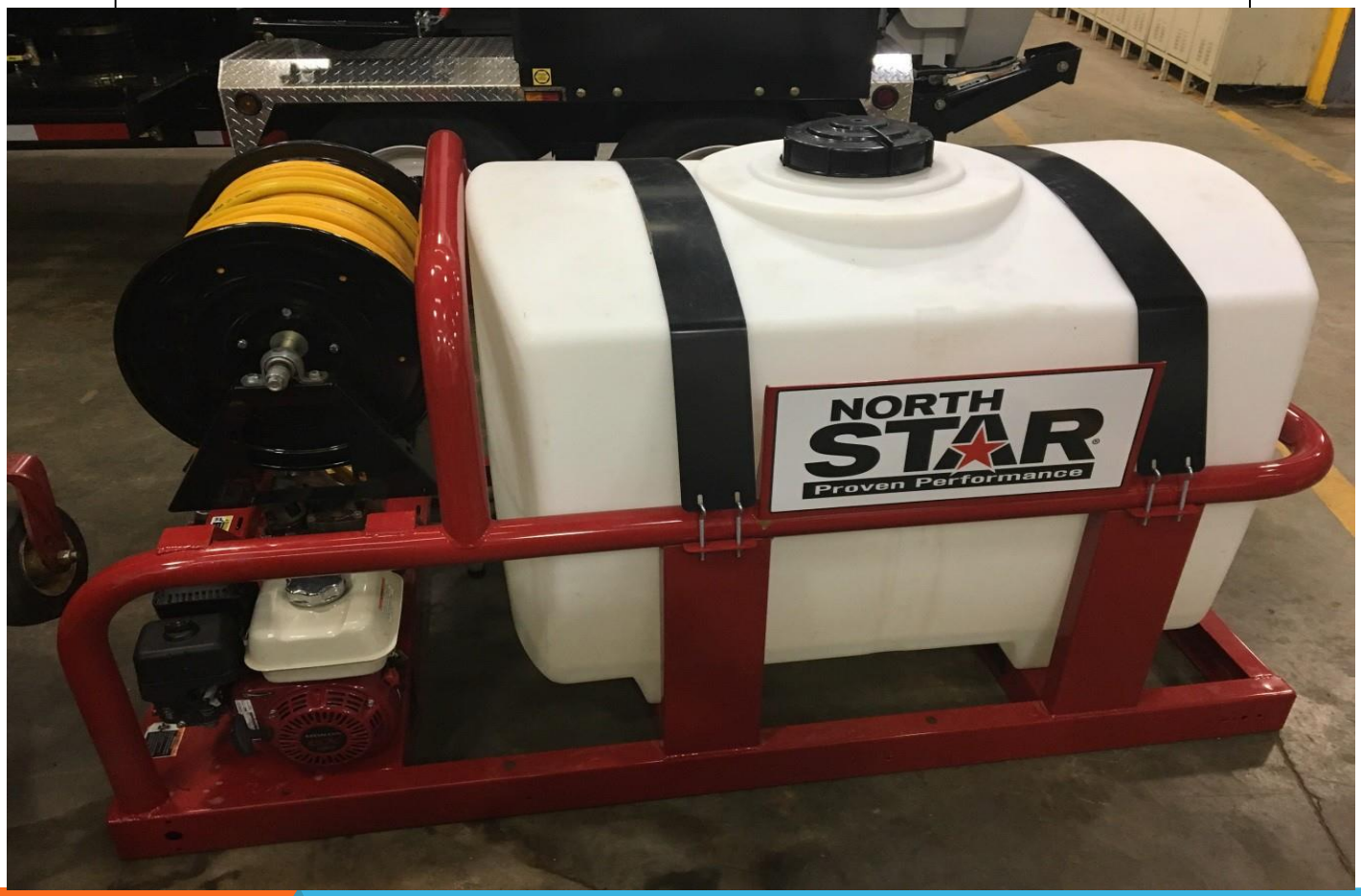
RAMVAC BY SEWER EQUIPMENT

THIS VAC WILL BE UTILIZED TO CLEAN STORM WATER DRAIN SYSTEMS TROUGH OUT THE CITY OF MCDONOUGH. IT WILL ALSO ASSIST IN DIGGING OUT DIRT FROM METER BOXES, MAIN BREAKS, SEWER MAINS AND MUCH MORE. THIS UNIT COMES EQUIPPED WITH POWER BOOM, BLOWER SIZE, NEMA 4 RATED CONTROL PANEL, TUBULAR STEEL FRAME, GVWR AND MUCH MORE. THIS UNIT IS A VERY IMPORTANT PART OF THE STORM WATER DEPARTMENT.

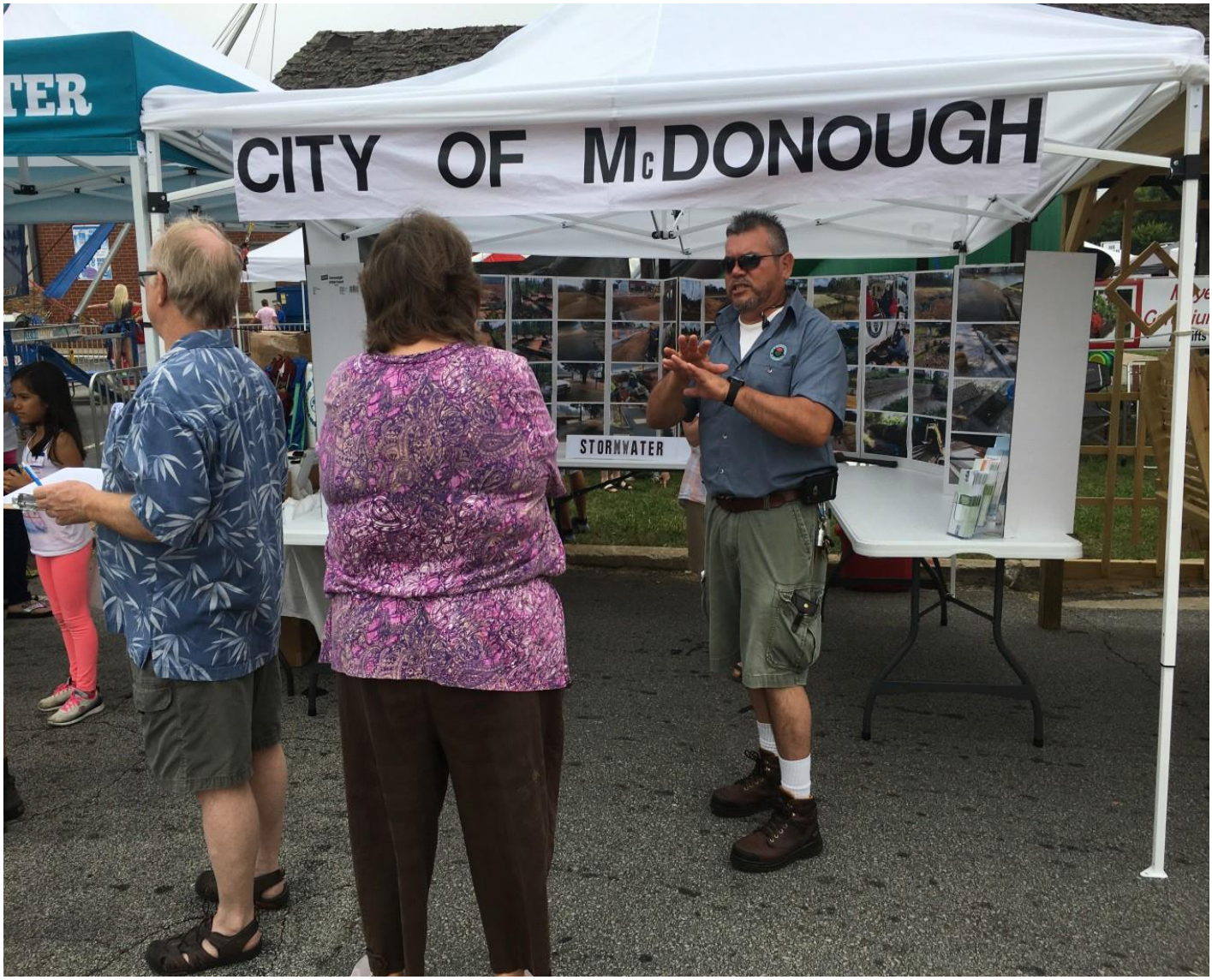


SPRAYER

THIS SPRAYER COMES WITH A 200 GALLON WATER TANK , A HONDA GX 160 ENGINE, A 200 FT. ¾' HOSE RATED AT 600 PSI TO DELIVER THE MOST POWER WHEN IT COMES TO SPRAYING. IT SITS ON A METAL FRAME TO SUPPORT ALL THE WEIGHT. AFTER WE CLEAR THE RETAINING AND DETENTION PONDS FROM TREES AND VEGETATION , WE COME IN AND SPRAY THE PONDS TO PREVENT THEM FROM GETTING OVERGROWN AGAIN. OUR SPRAY PROGRAM HAS A SCHEDULE OF EVERY QUARTER YEAR TO COME BACK AND RE-SPRAY. WE USE A CHEMICAL THAT WILL KILL THE VEGETATION AND KEEP THE PONDS WORKING AT THEIR BEST.



2017 GERANIUM FESTIVAL

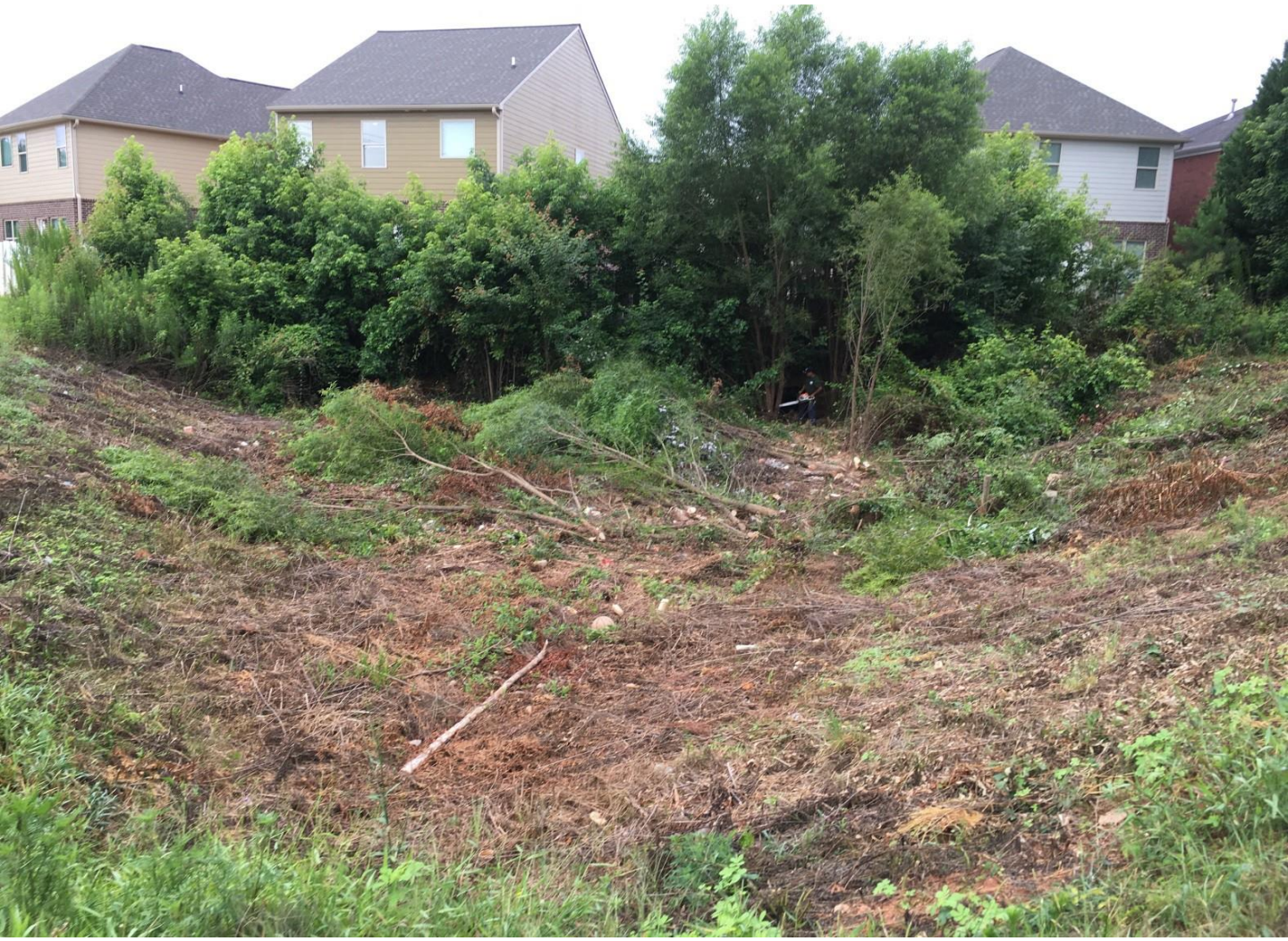


City of McDonough

Detention pond restoration and modification @ North Valley Subdivision. Hwy 42 n. This is a project were The City of McDonough and the Home Owners Association worked closely together to assure that this pond got the care it deserved. In the next 4 pictures you will see how our outstanding crew cleared the pond from trees and vegetation that had grown in it. We will keep up with the pond and include it to our spray program to assure we don't let it get overgrown again and prevent it from working properly.

4 picture

DETENTION POND RESTORATION AND MODIFICATION



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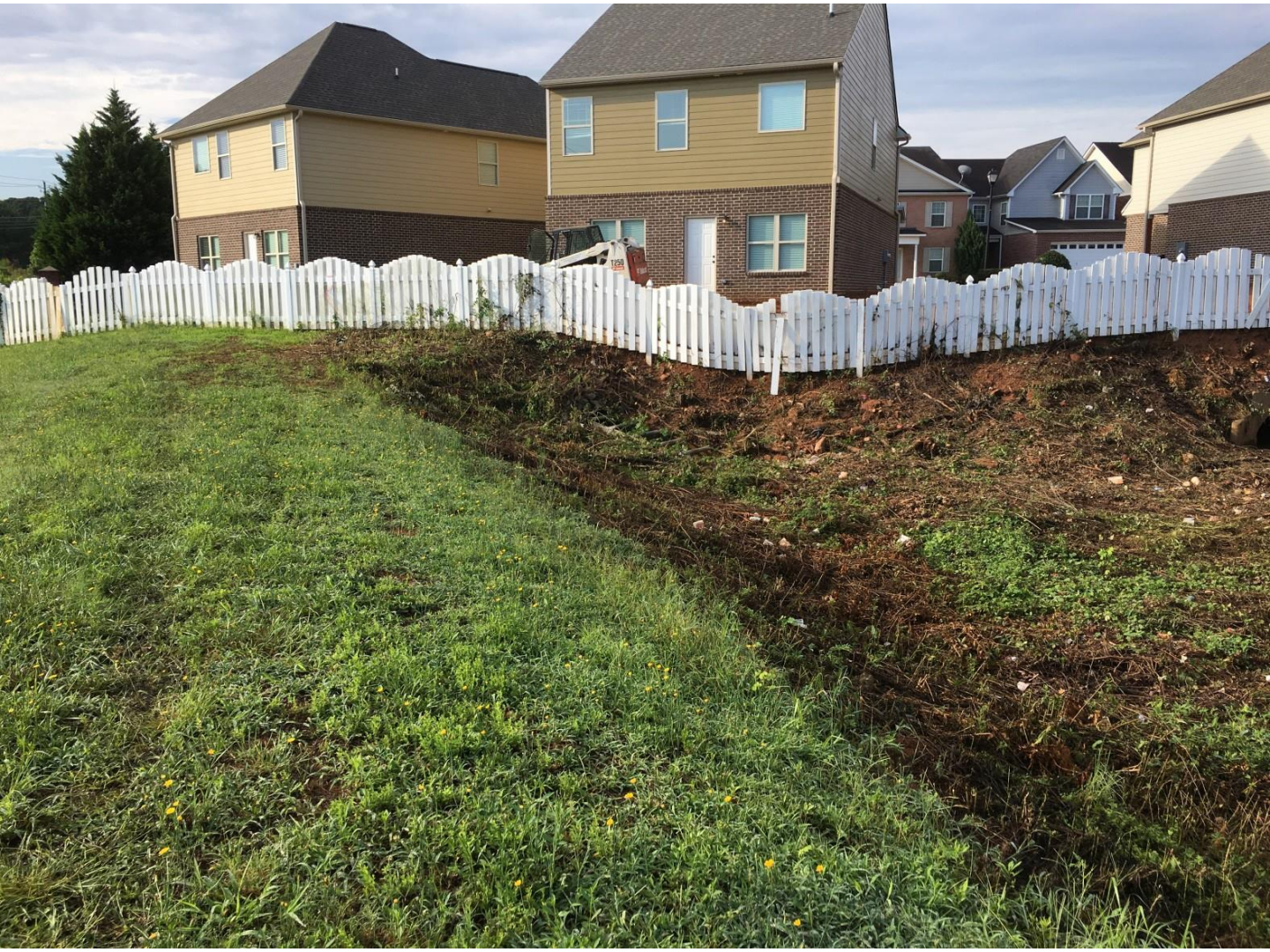

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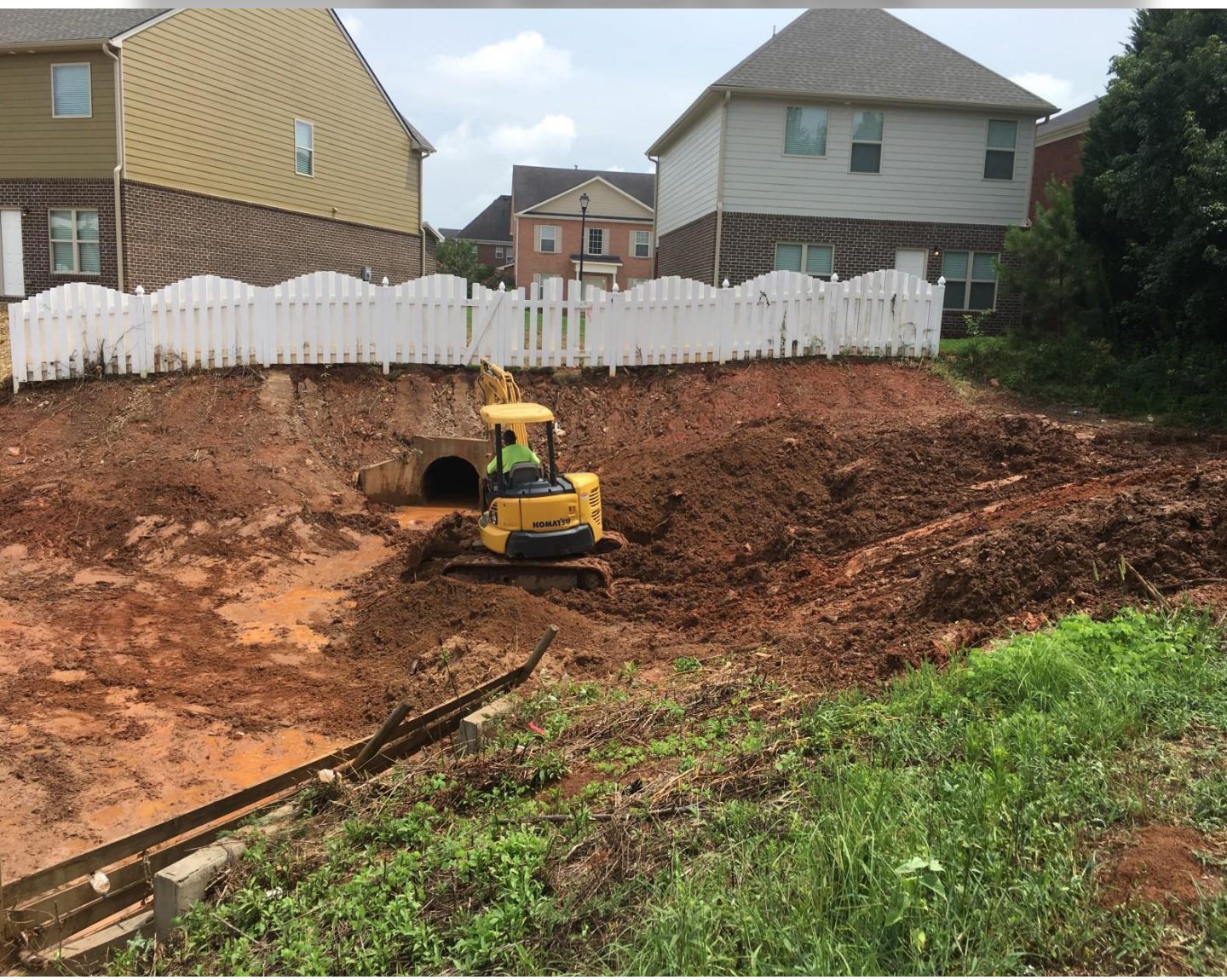


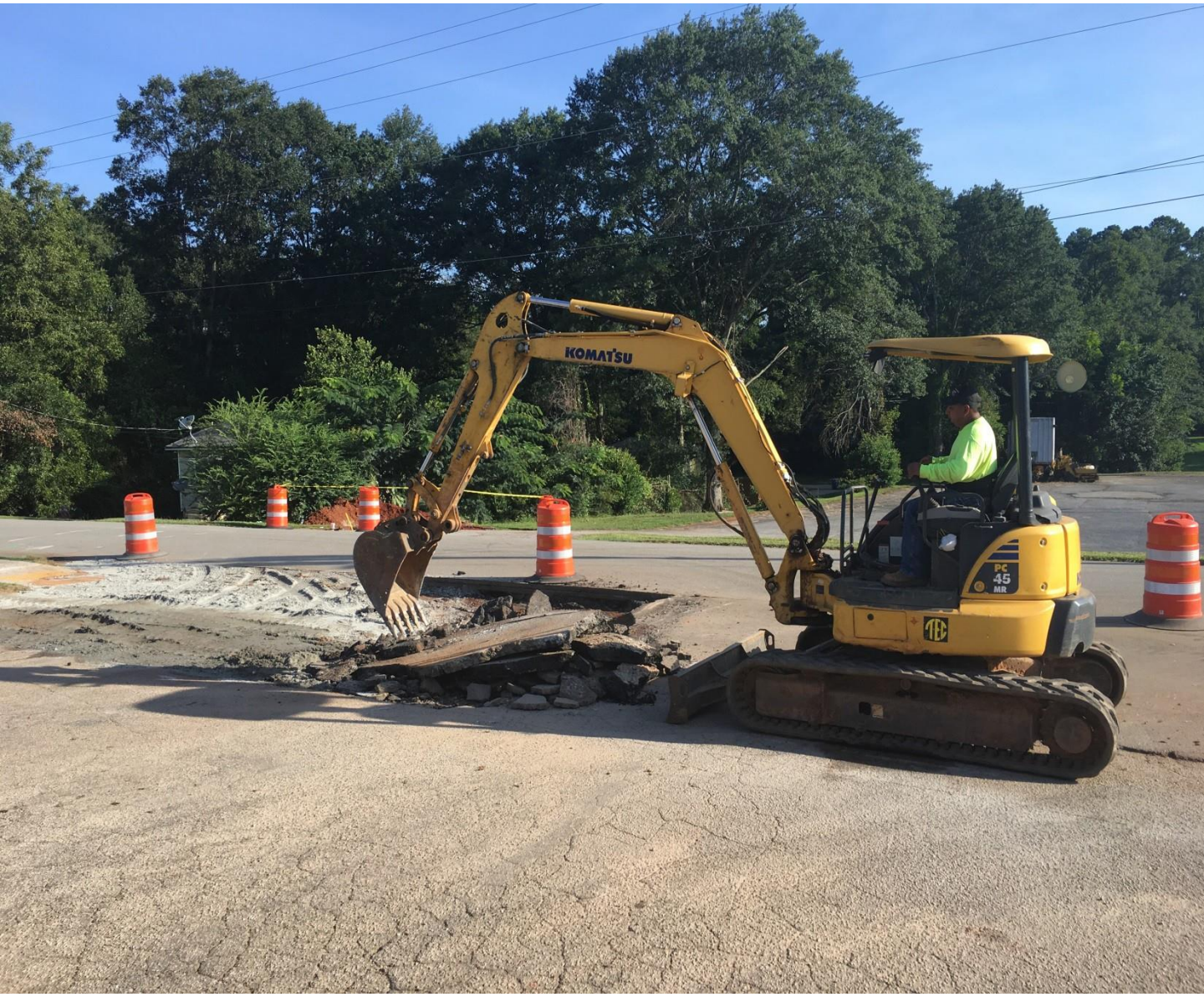
DETENTION POND RESTORATION AND MODIFICATION

City of McDonough

Hood Street Drainage project has been in the making for quite some time and is now in the process of being accomplished. We thank all the residents of McDonough for their patience and understanding.

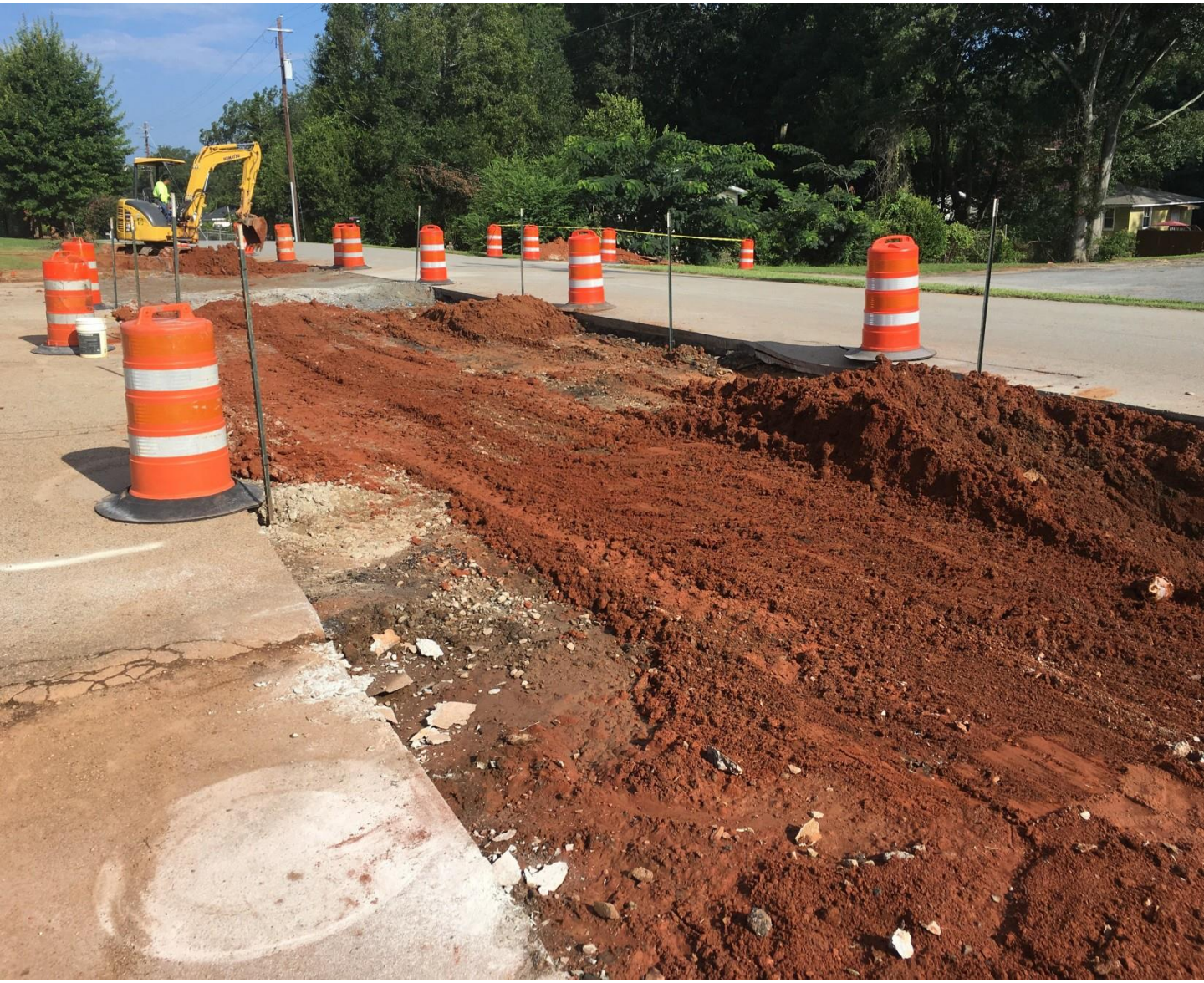
4 Pictures

HOOD STREET DRAINAGE



City of McDonough, Georgia
The Geranium City

HOOD STREET DRAINAGE



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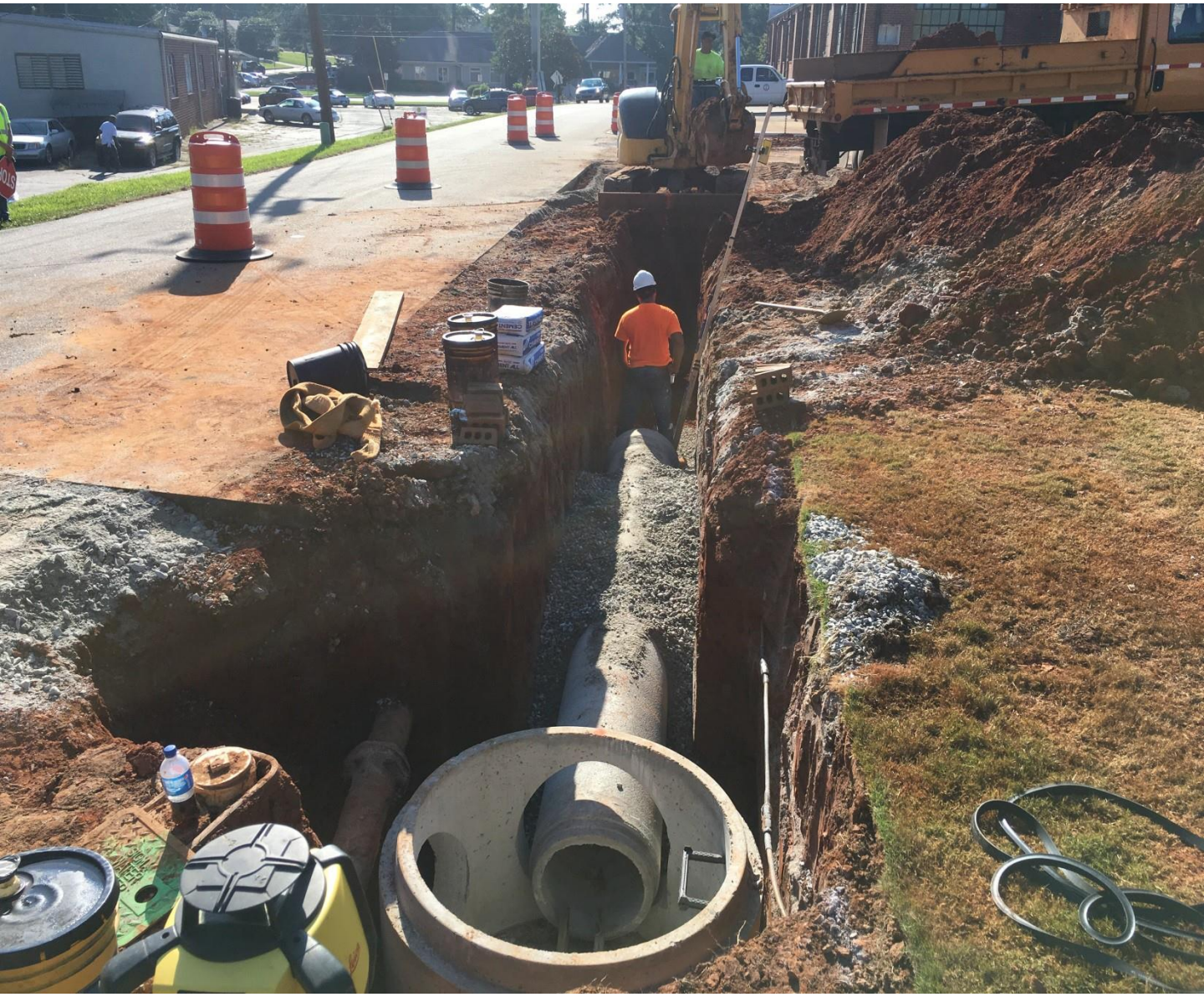


HOOD STREET DRAINAGE

City of McDonough

Modification and installation of a catch basin @ North Valley Subdivision, Hwy 42 n. This modification was necessary because it was installed in the path of were the driveway was to be poured. It was a double wing catch basin when installed but we had to modify it by putting in double grates and a single catch basin. This modification will allow the same amount of water to be collected as if there was a double wing catch basin. The picture will show you the double grates and the single catch basin on the next page.

1 picture

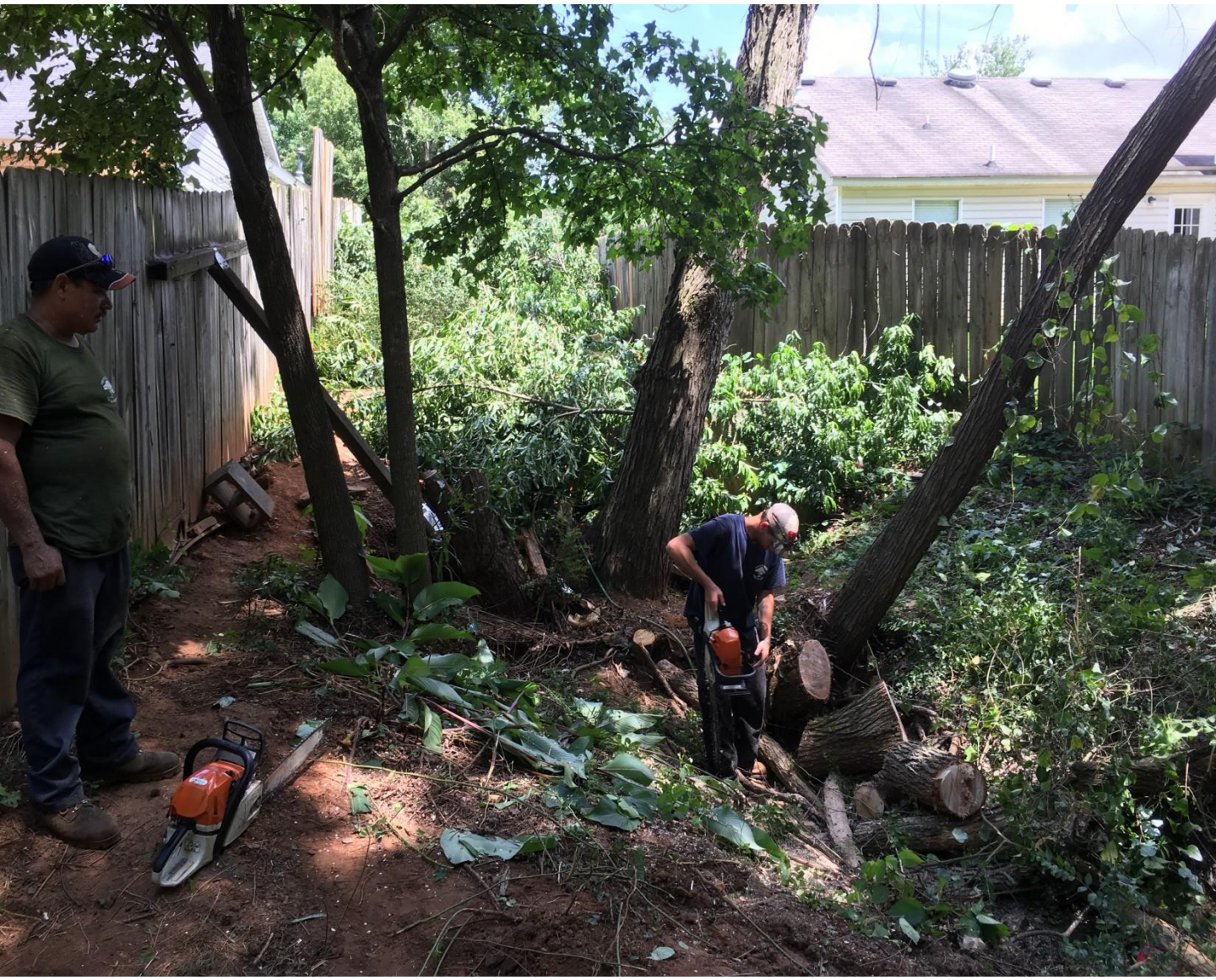
MODIFICATION AND INSTALLATION OF A CATCH BASIN

City of McDonough

Clearing trees and debris from ditches is very important to the flow of water when there is a heavy downpour. When there is a significant amount of debris and trees in ditches, it will stop the flow of water from reaching its destination and create a blockage resulting in standing water in the roads and properties. In the next two pages you will see the problematic situations caused by trees and debris on one of our ditches that was recently cleaned out.

2 pictures

CLEARING OF TREES AND DEBRIS FROM DRAINAGE DITCH



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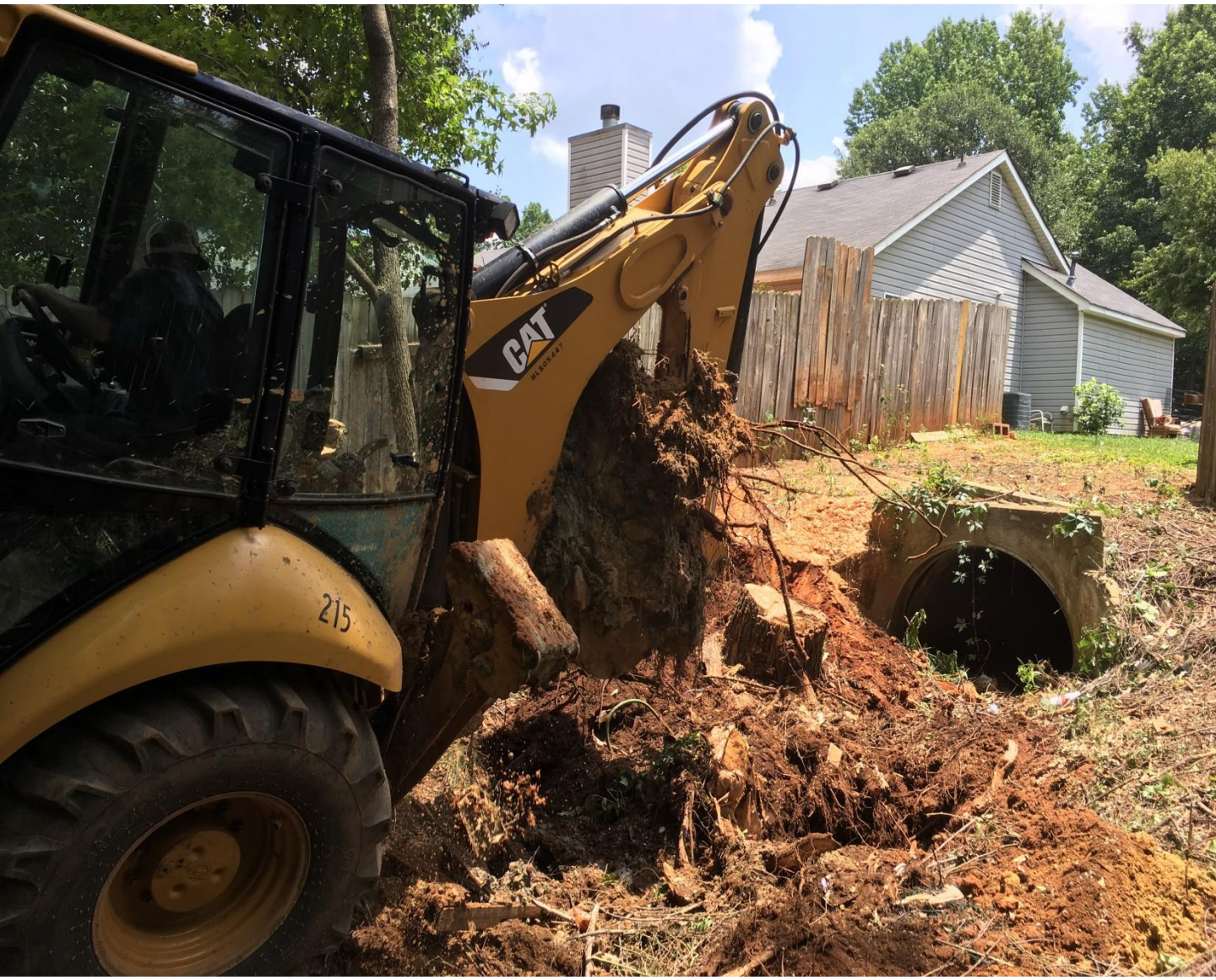


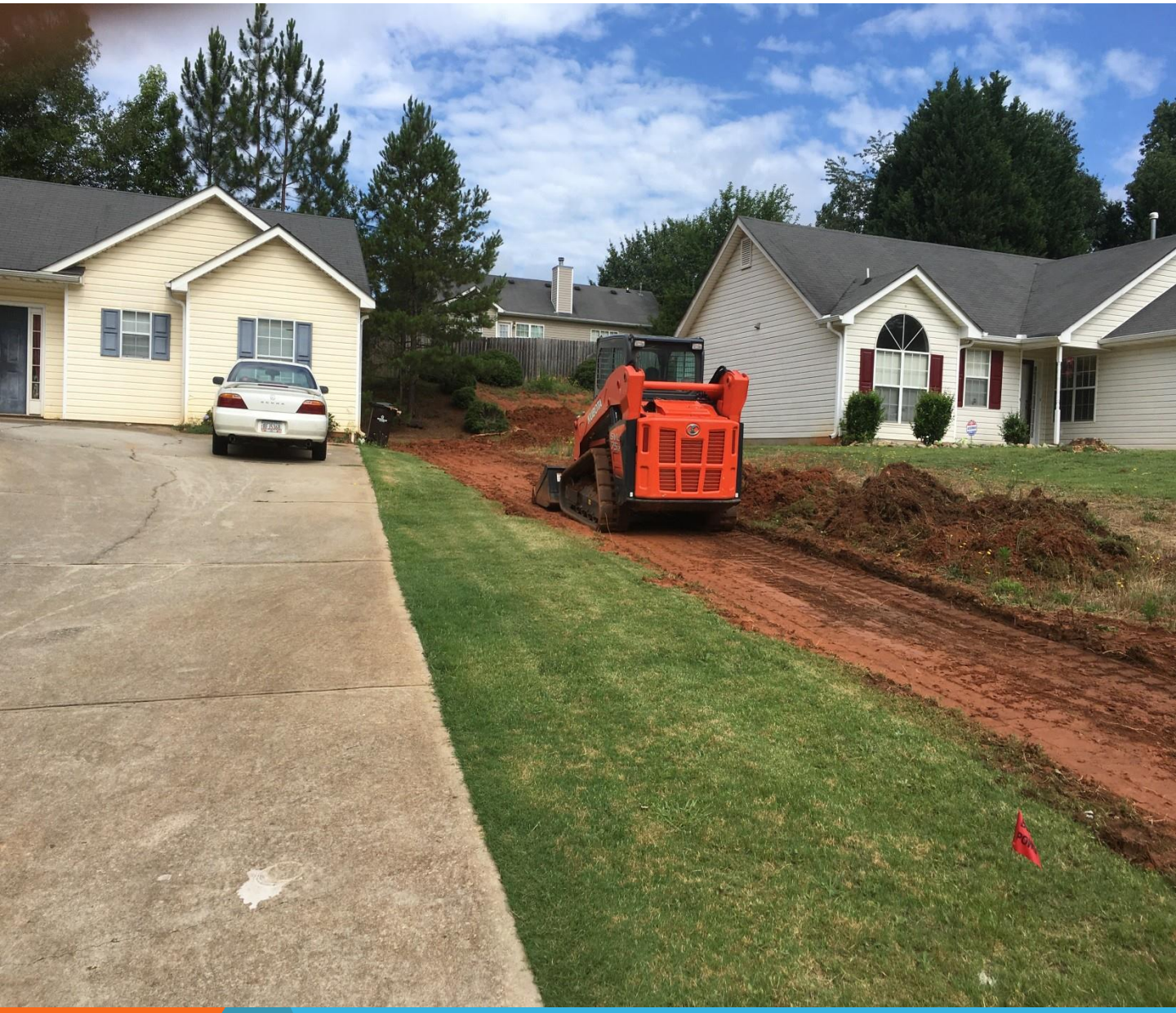
City of McDonough

Cutting a swell @ Monarch Dr. (Huntington Ridge Subdivision). The importance of cutting a swell is to divert water from going into the house. On the back side of this residence is a slope bringing water straight down and getting in the house. Our crew cut the swell starting at the back of house to the road diverting the water to the road and into the catch basin. This swell was finished and sodded to slow down the flow of water and for erosion control as well.

Next page will show you the beginning of the swell.

1 picture

CUTTING A SWELL TO HANDLE SURFACE DRAINAGE

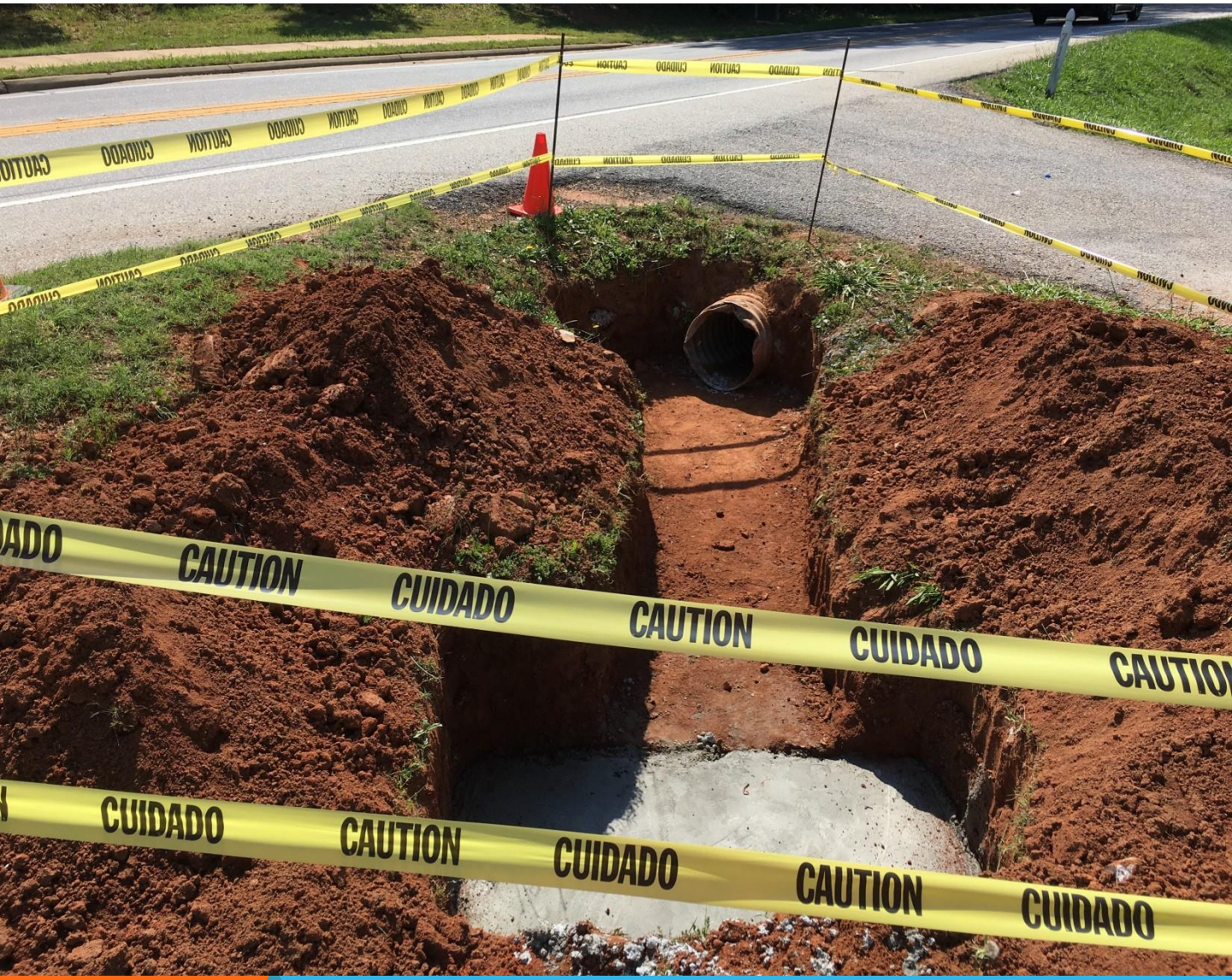


City of McDonough

Drainage modification on hwy. 42n. This modification was designed to catch water that was accumulating on hwy. 42 n. On these next two pictures you will see the pipe and grate that was installed to resolve this issue. It was also seeded to prevent erosion control and topped with stone to re-enforce the driveway and extend it as well.

2 pictures

DRAINAGE MODIFICATION ON HWY. 42 N.



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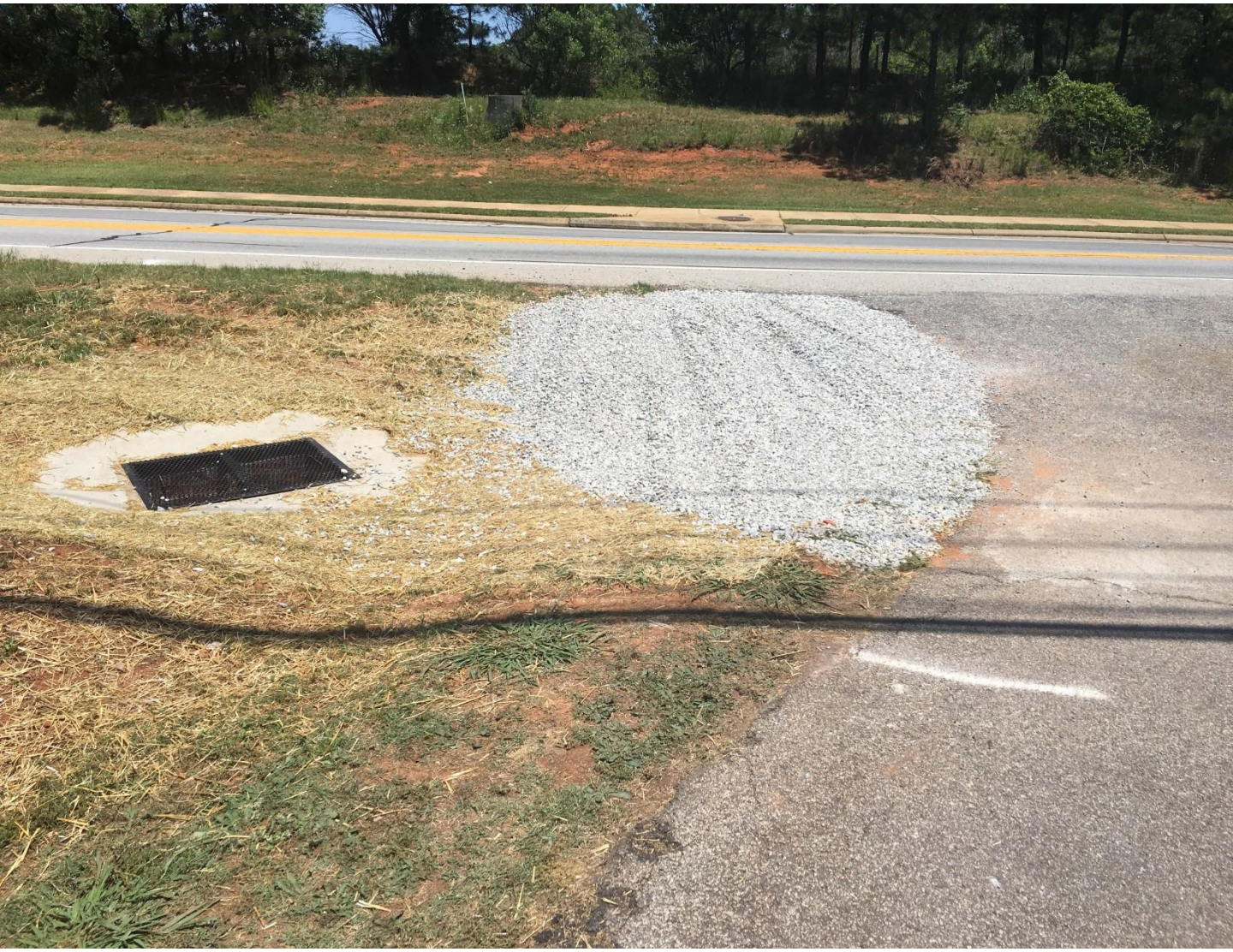
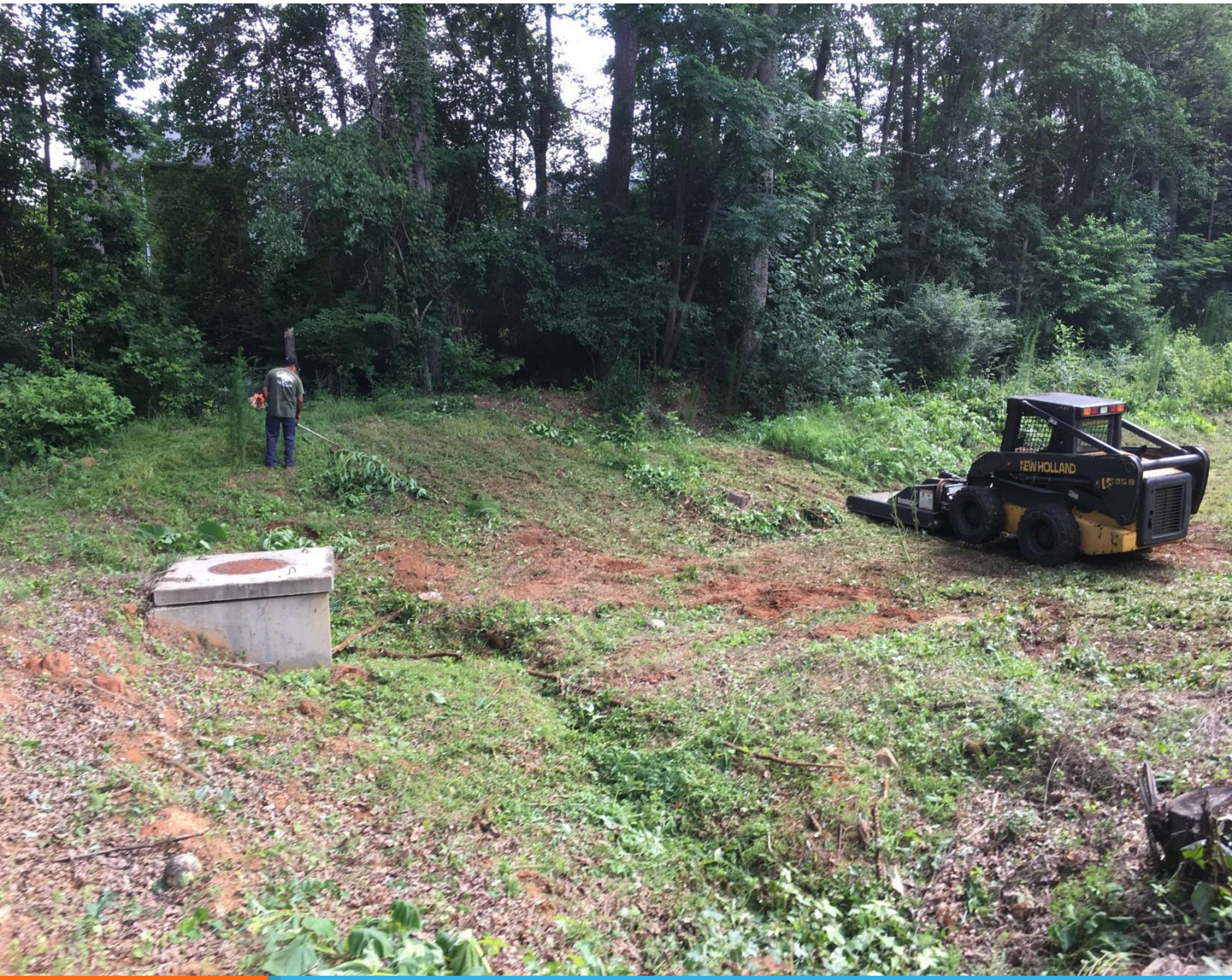


City of McDonough

Clearing brush from within detention pond. This is the crew clearing the pond of trees and debris. After the pond has been cleaned, the crew will come in and spray chemical to prevent the growth of vegetation which prevents the pond from functioning properly. The next page will show you the crew in action.

CLEARING BRUSH FROM WITHIN DETENTION POND



City of McDonough

Ground Stabilization with Sod. It is very important to tackle storm water problems from the up stream position and work your way to the down stream position. In these three pictures you will see how we stabilized the higher elevation of the property with sod and worked our way downwards. The sod is one of the most important resources for erosion control.

3 pictures

GROUND STABILIZATION WITH SOD

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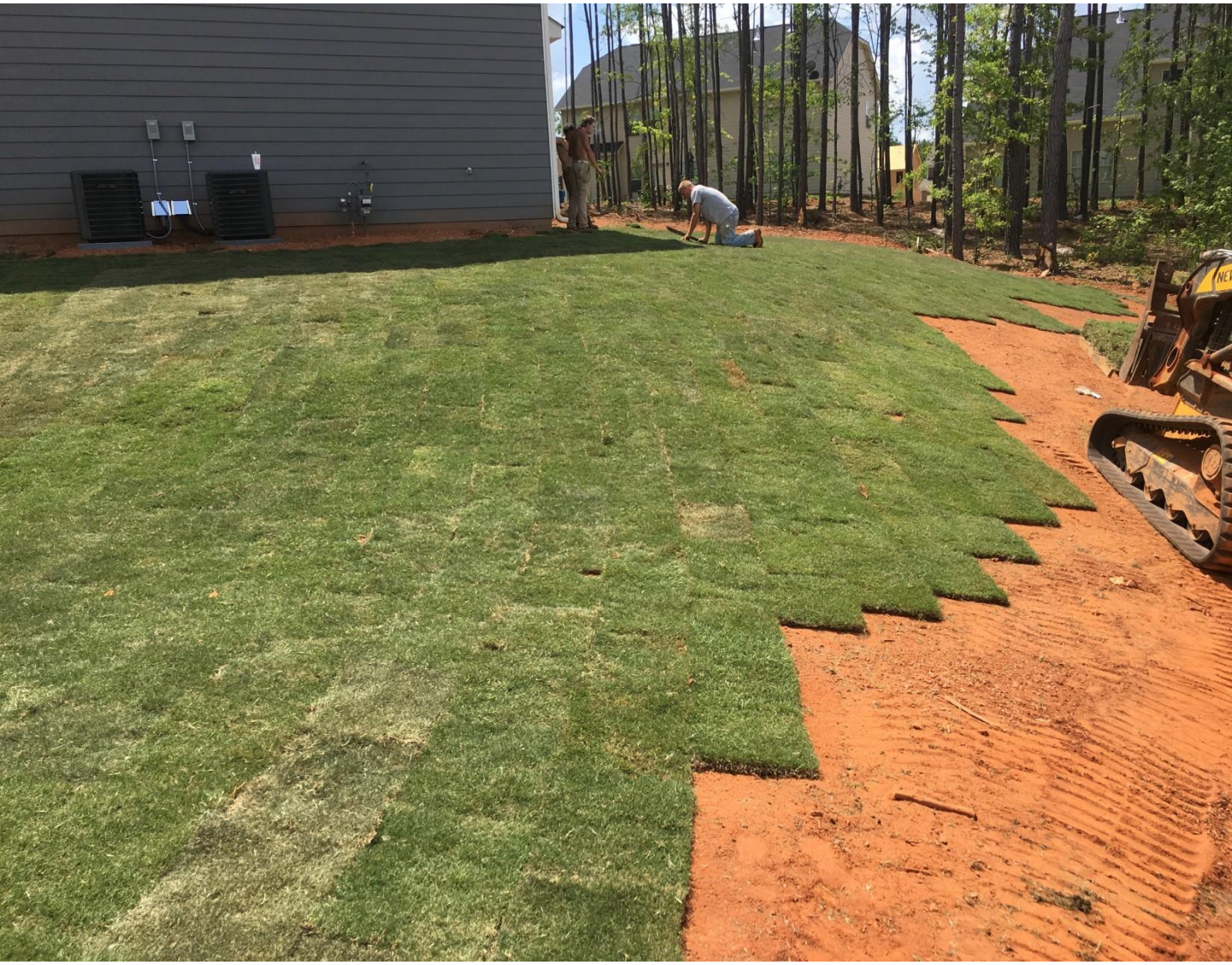
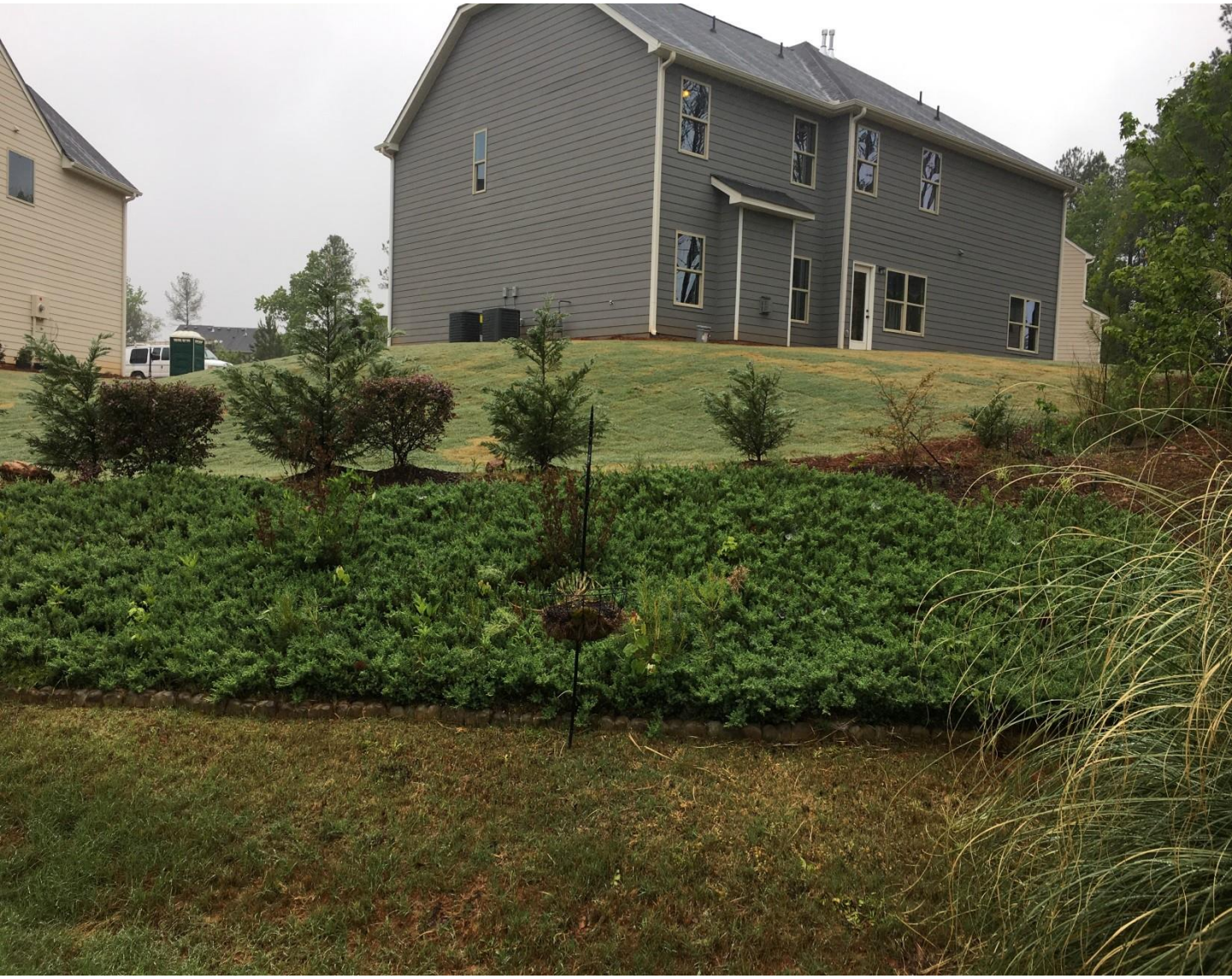


GROUND STABILIZATION WITH SOD

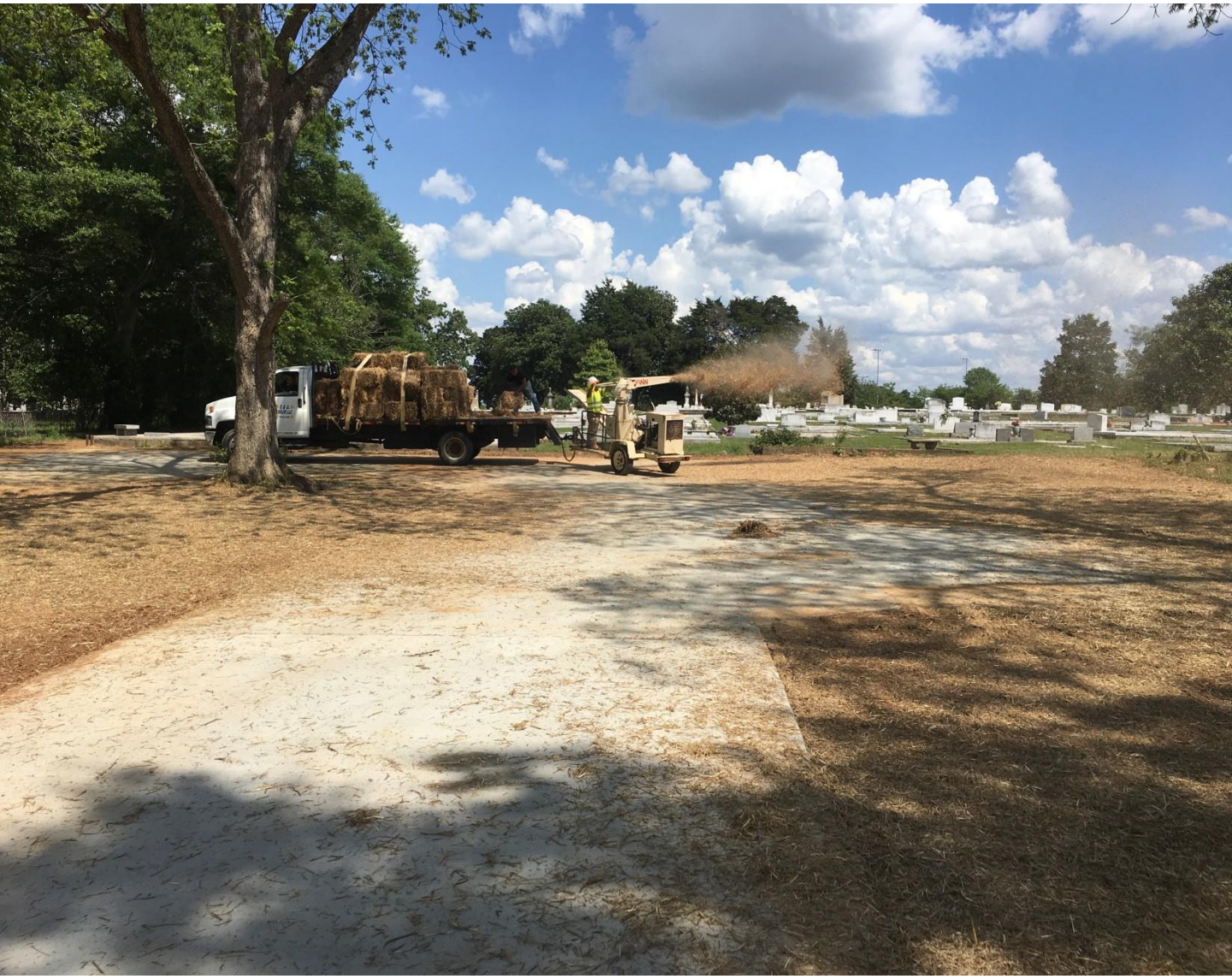


City of McDonough

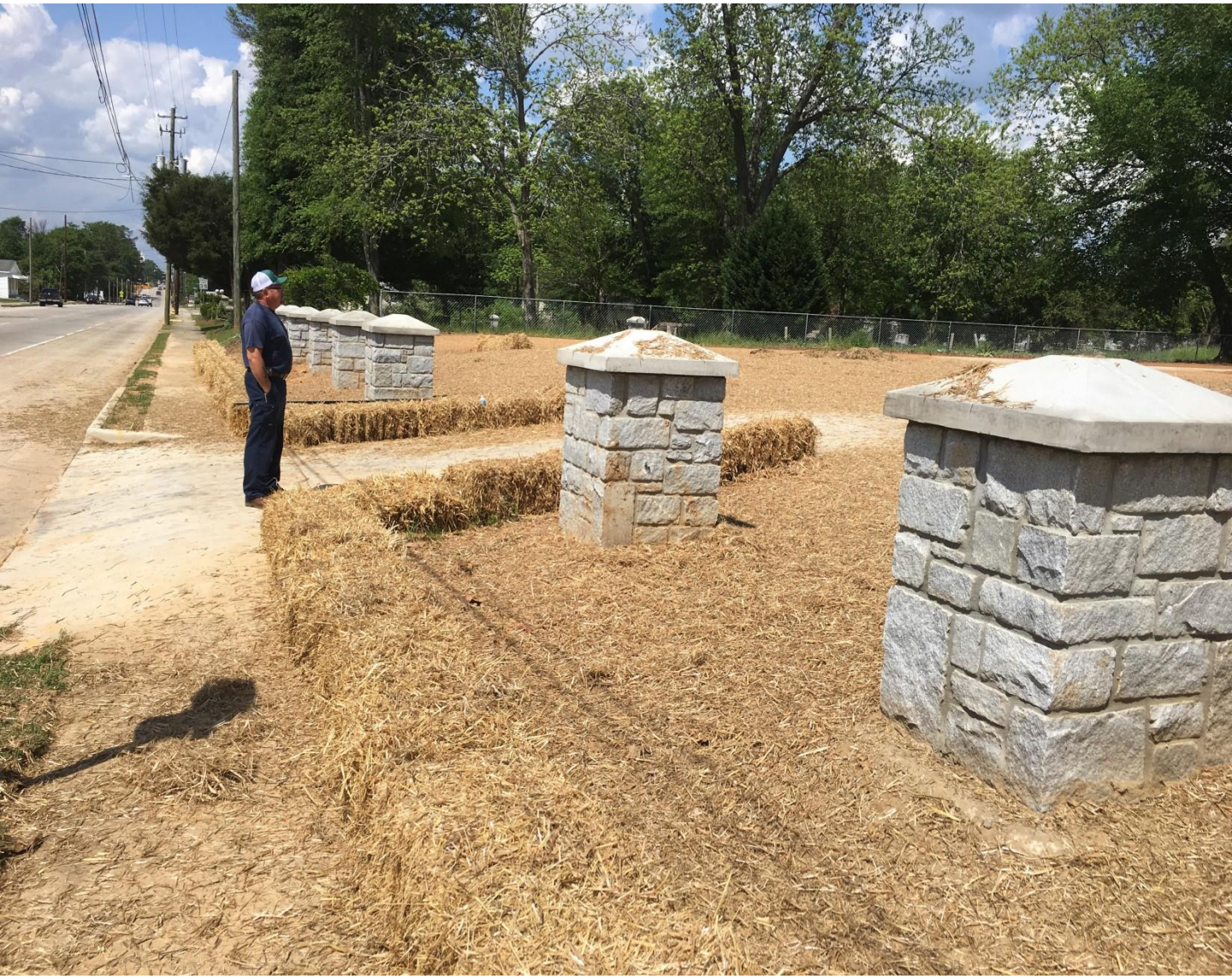
Completion and Stabilization of Cemetery Expansion. Our crew graded a new section of the cemetery on Macon St. After grading, we had the crew seed and straw the graded area to prevent erosion of the soil. We also added new concrete steps and trees to decorate the entrance. This was a special project and it has been completed with pride. The next four pictures will show you the process of the project.

4 pictures

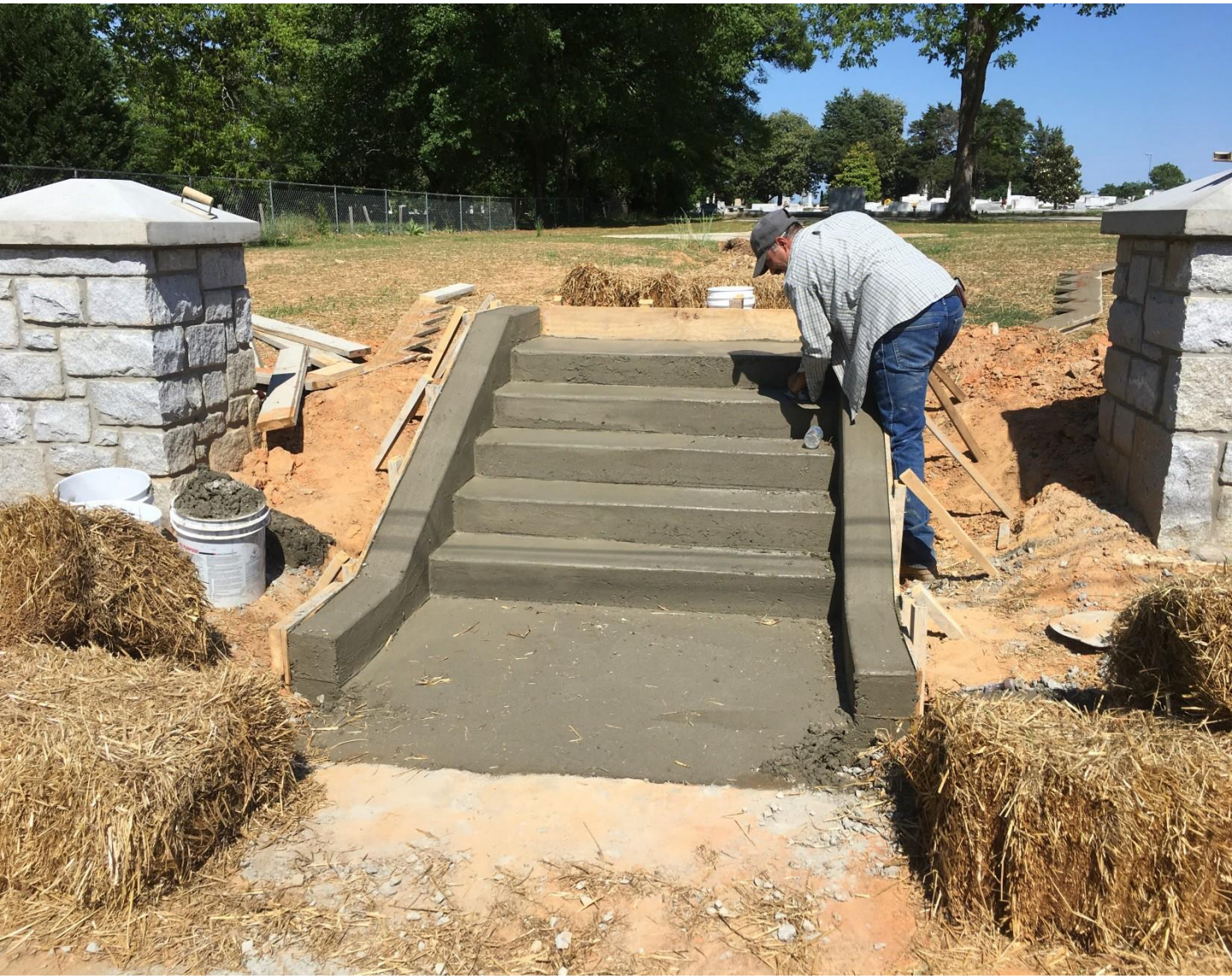
COMPLETION AND STABILIZATION OF CEMETERY EXPANSION



COMPLETION AND STABILIZATION OF CEMETERY EXPANSION



COMPLETION AND STABILIZATION OF CEMETERY EXPANSION



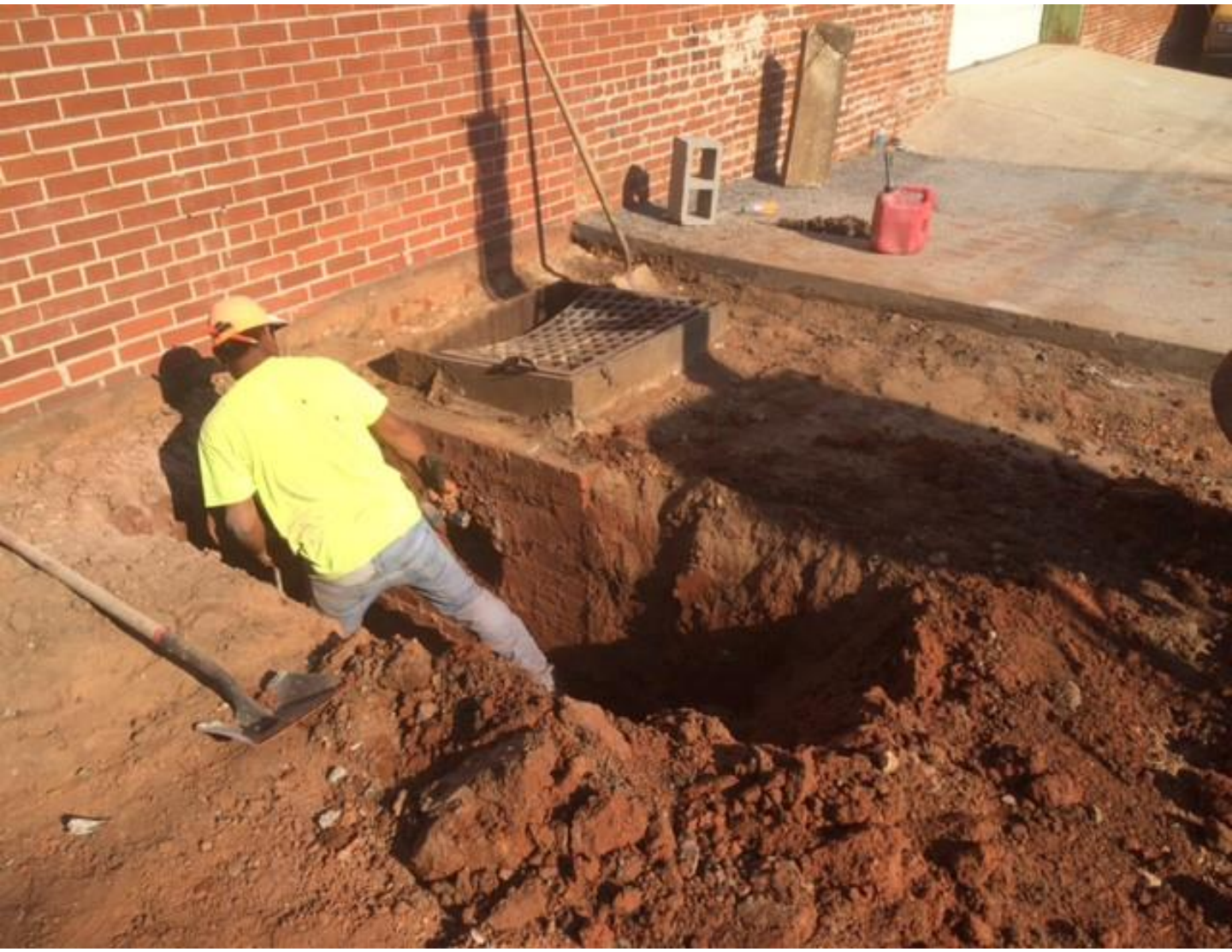
COMPLETION AND STABILIZATION OF CEMETERY EXPANSION

City of McDonough

Ice Street Drainage Modification. Here are some pictures of Ice Street getting a new drainage system that will prevent it from getting flooded. Our crew had to install a new pipe and grate to collect water and direct it to our storm water system. Notice how we had to cut the road and we had to call a locate to show us were the utilities are. The next three pictures will show you the process to modify a drainage system.

3 pictures

ICE STREET DRAINAGE MODIFICATION



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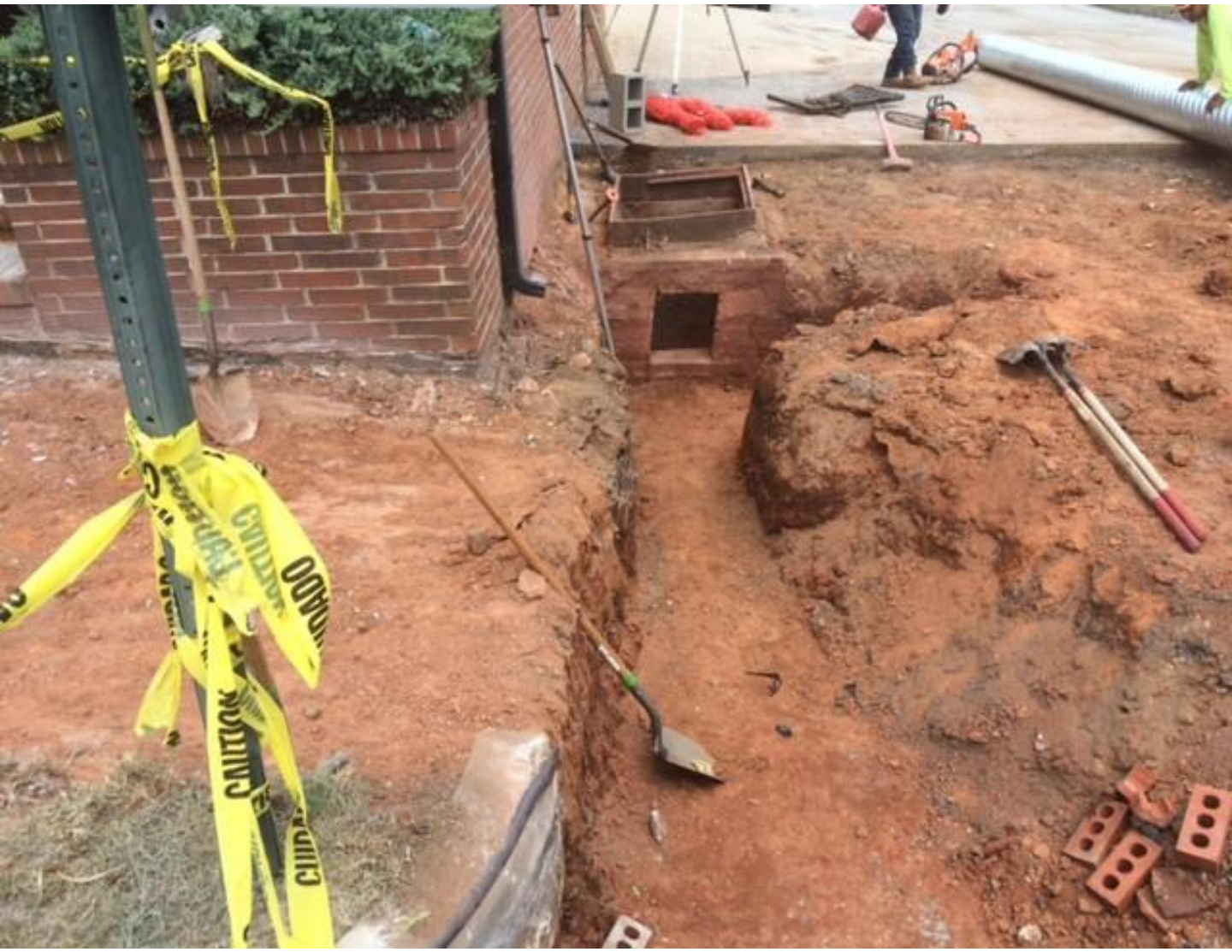

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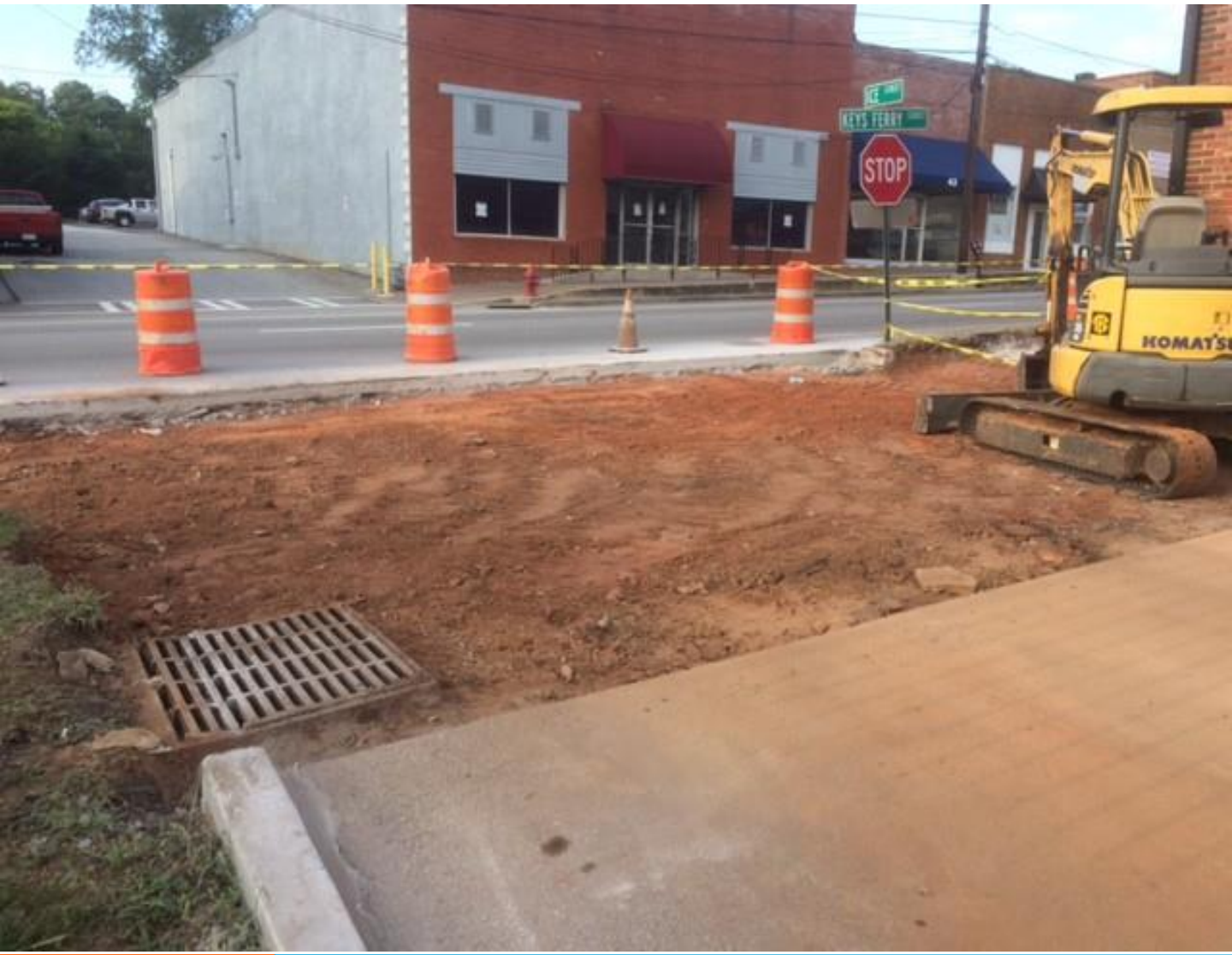
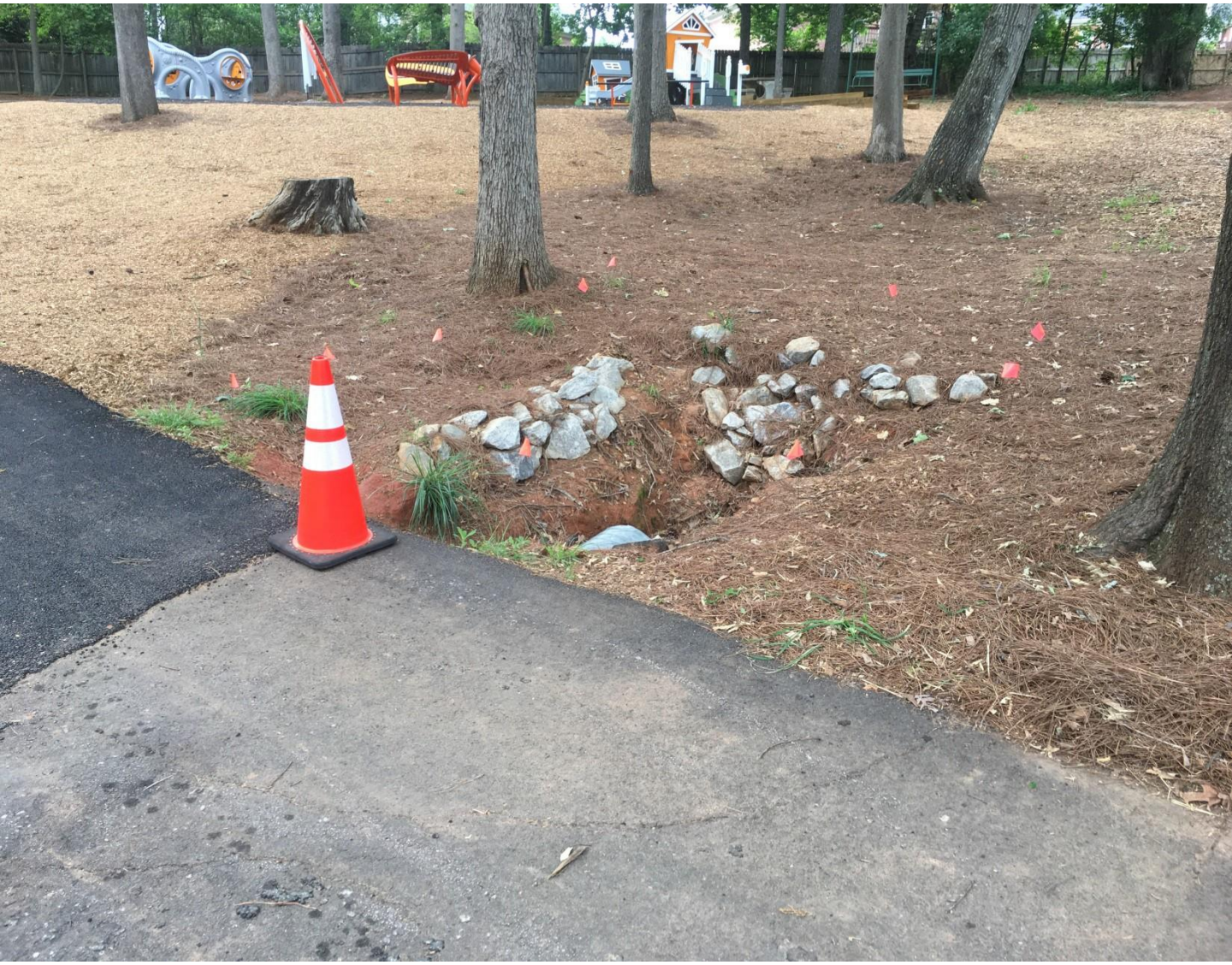


City of McDonough

Hope park catch basin installation. This project was designed to catch the water running from above. Before we started with this project, the water would run from the subdivision above into the park and wash away all the mulch and pine straw that was placed to decorate the park. We were able to create a swell and divert the running water to catch basin. Here are some pictures of this project.

4 pictures

HOPE PARK CATCH BASIN INSTALLATION



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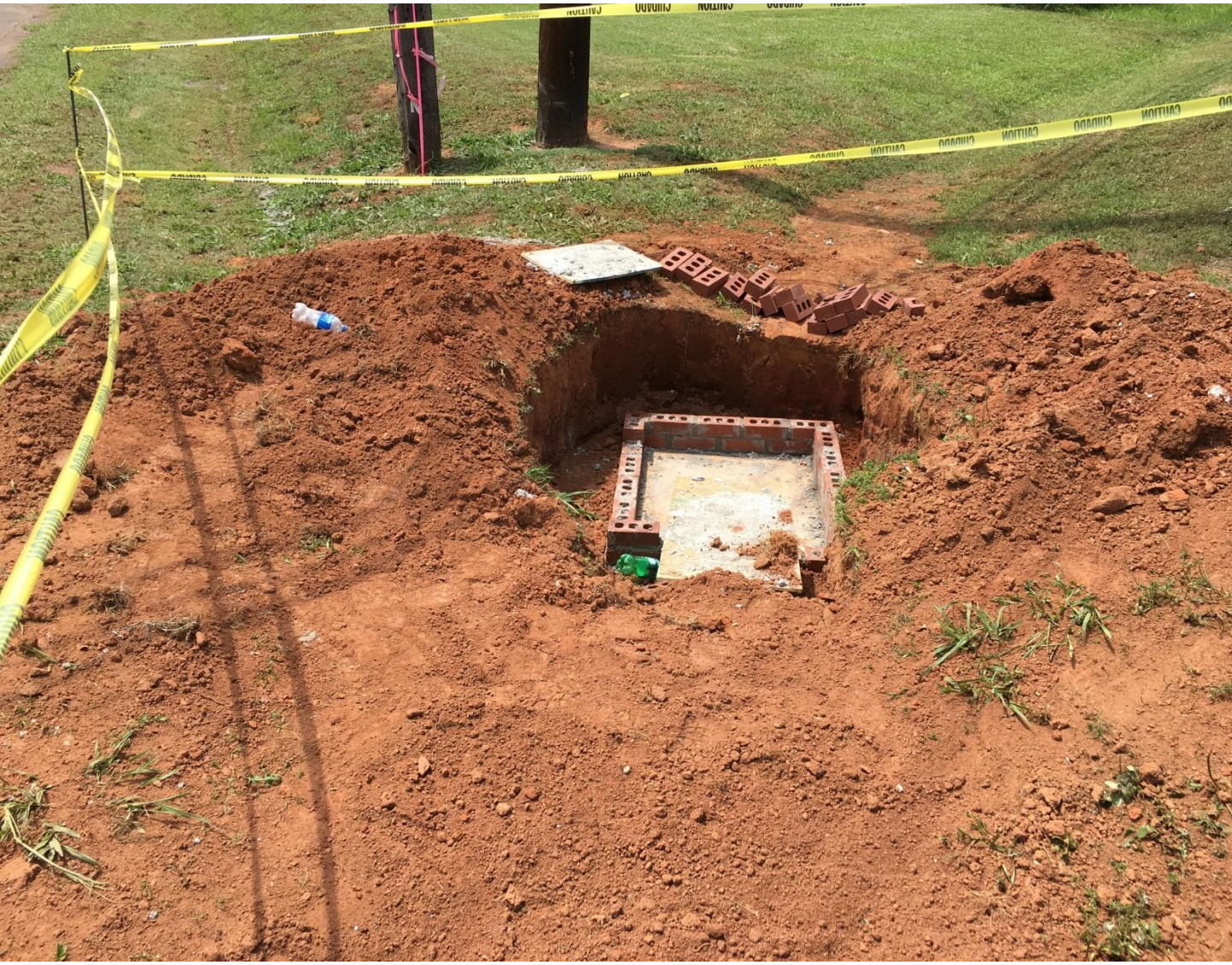

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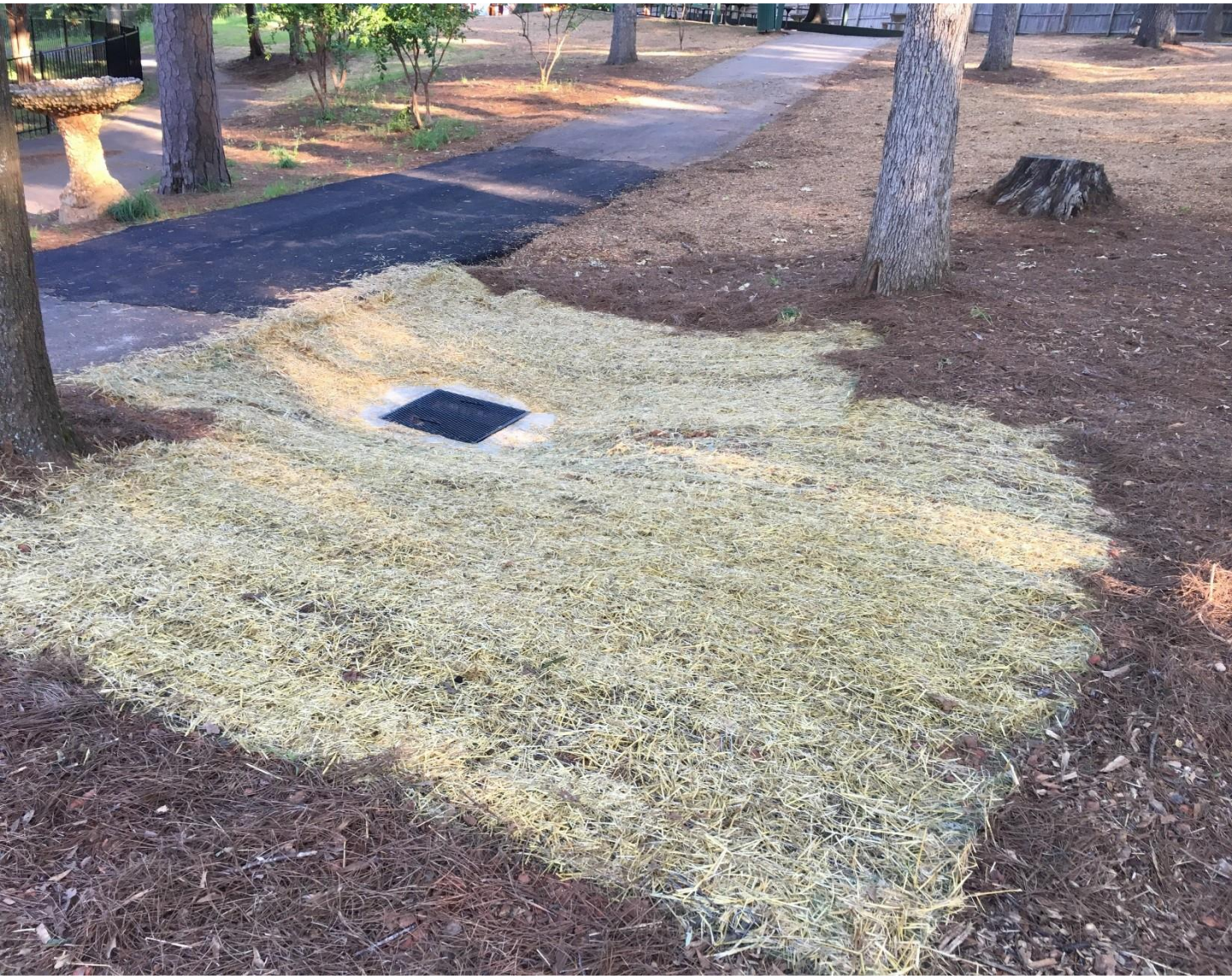
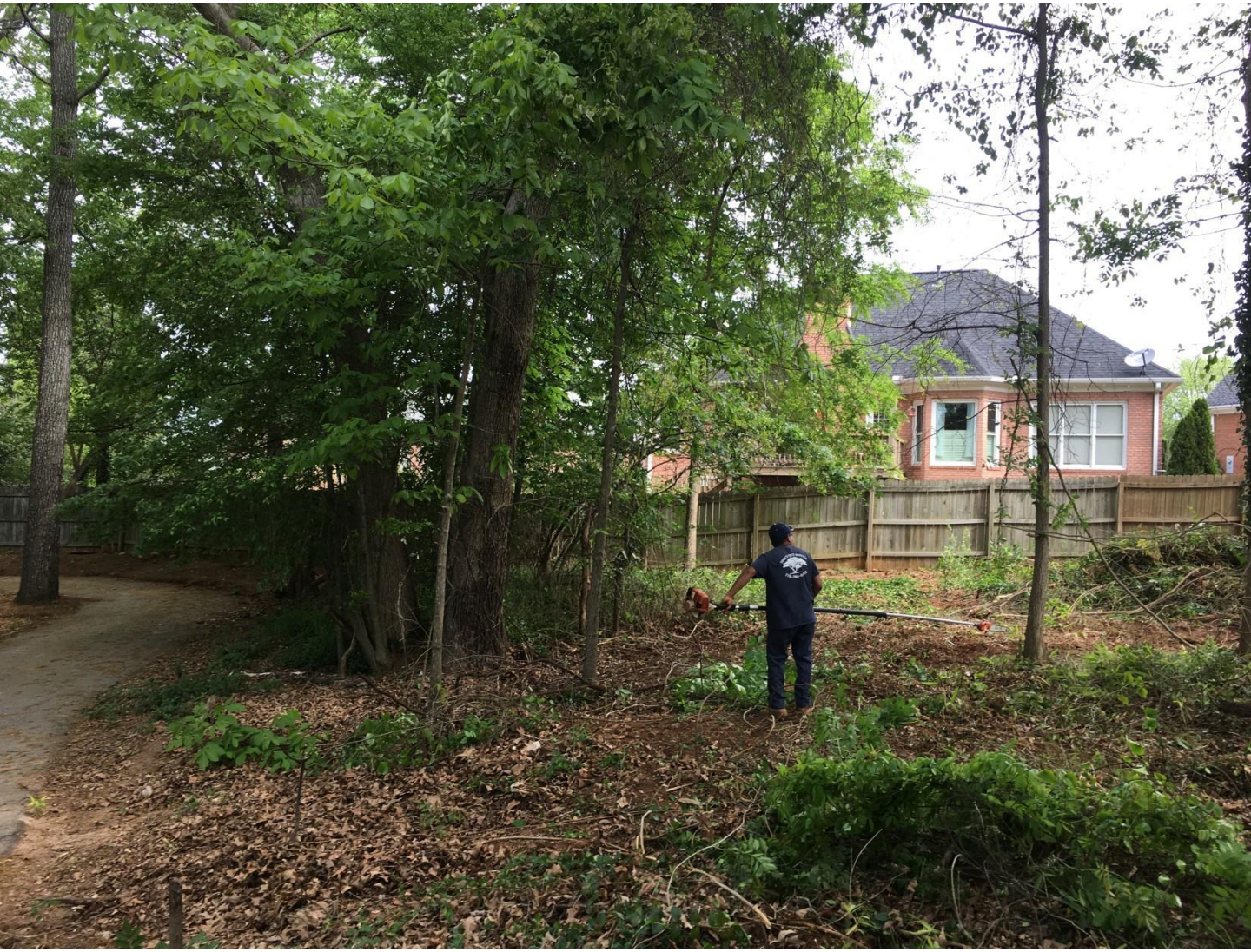


City of McDonough

Hope park upper drainage basin Storm Water Redirection. This project was designed to re-direct storm water from going into the park and causing erosion. This project and the grate installation at the park work in conjunction with one another. The next five pictures will give you a better understanding of how the project will help direct storm water to the swell and ultimately into the creek.

5 pictures

HOPE PARK UPPER DRAINAGE BASIN STORM WATER REDIRECTION



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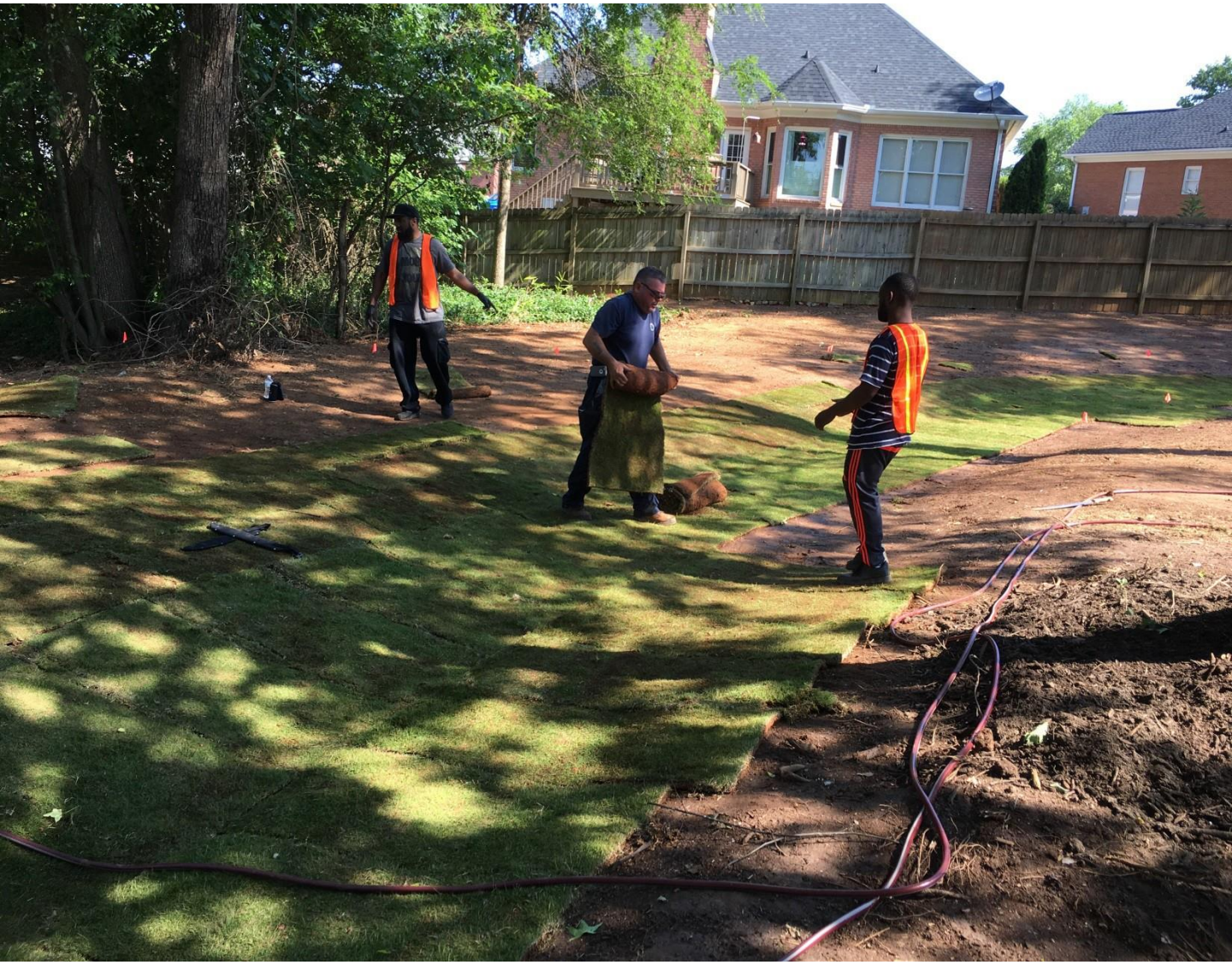

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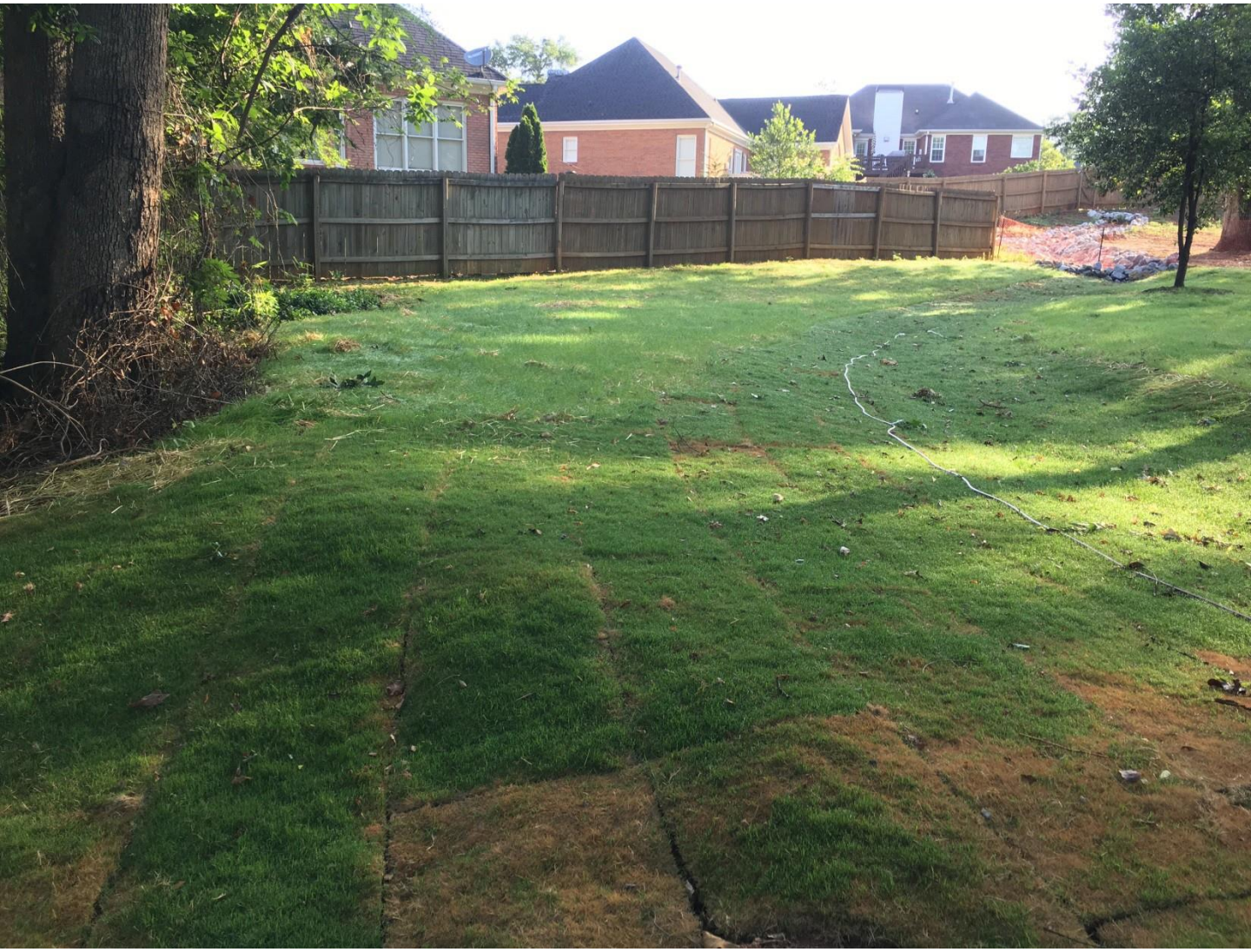

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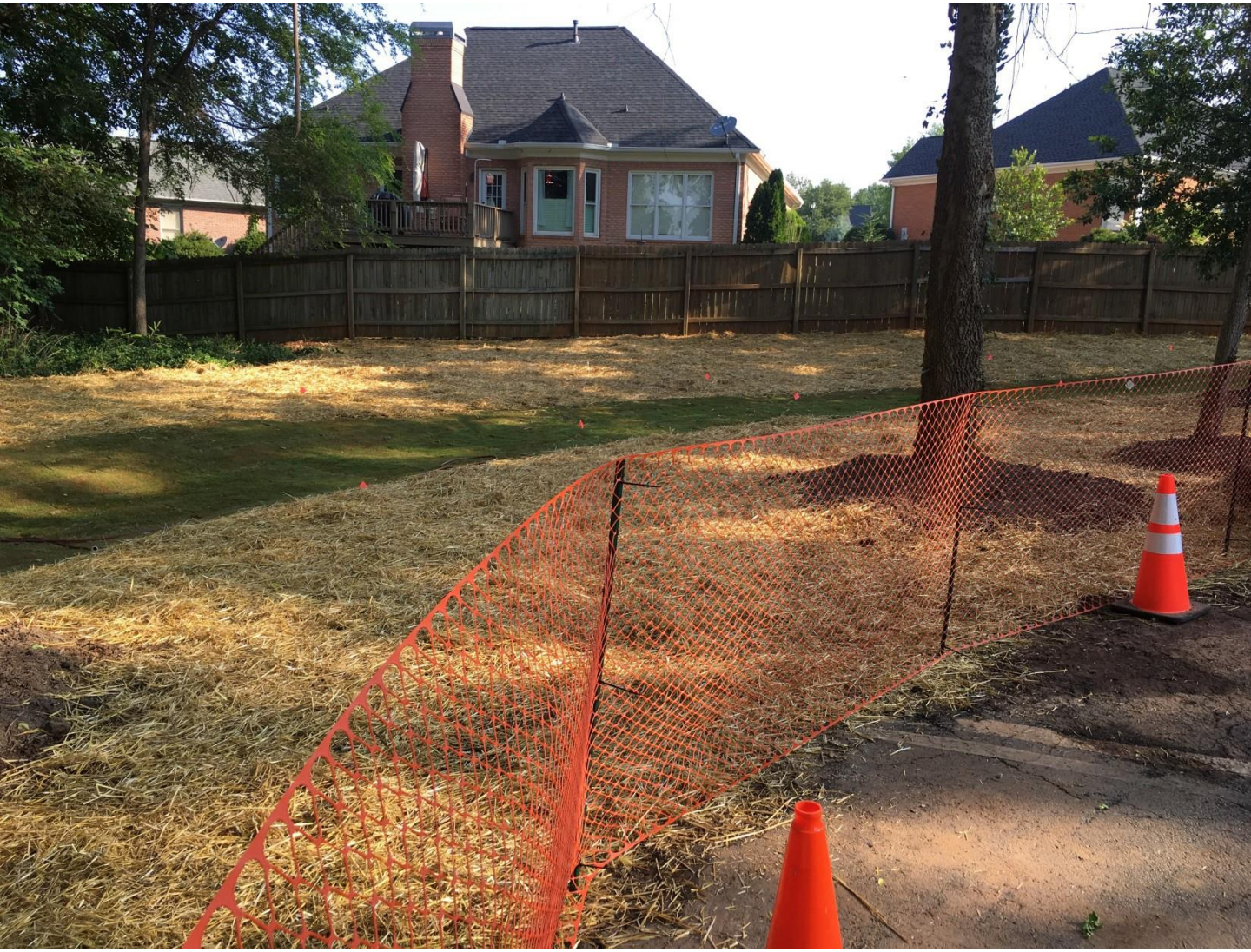

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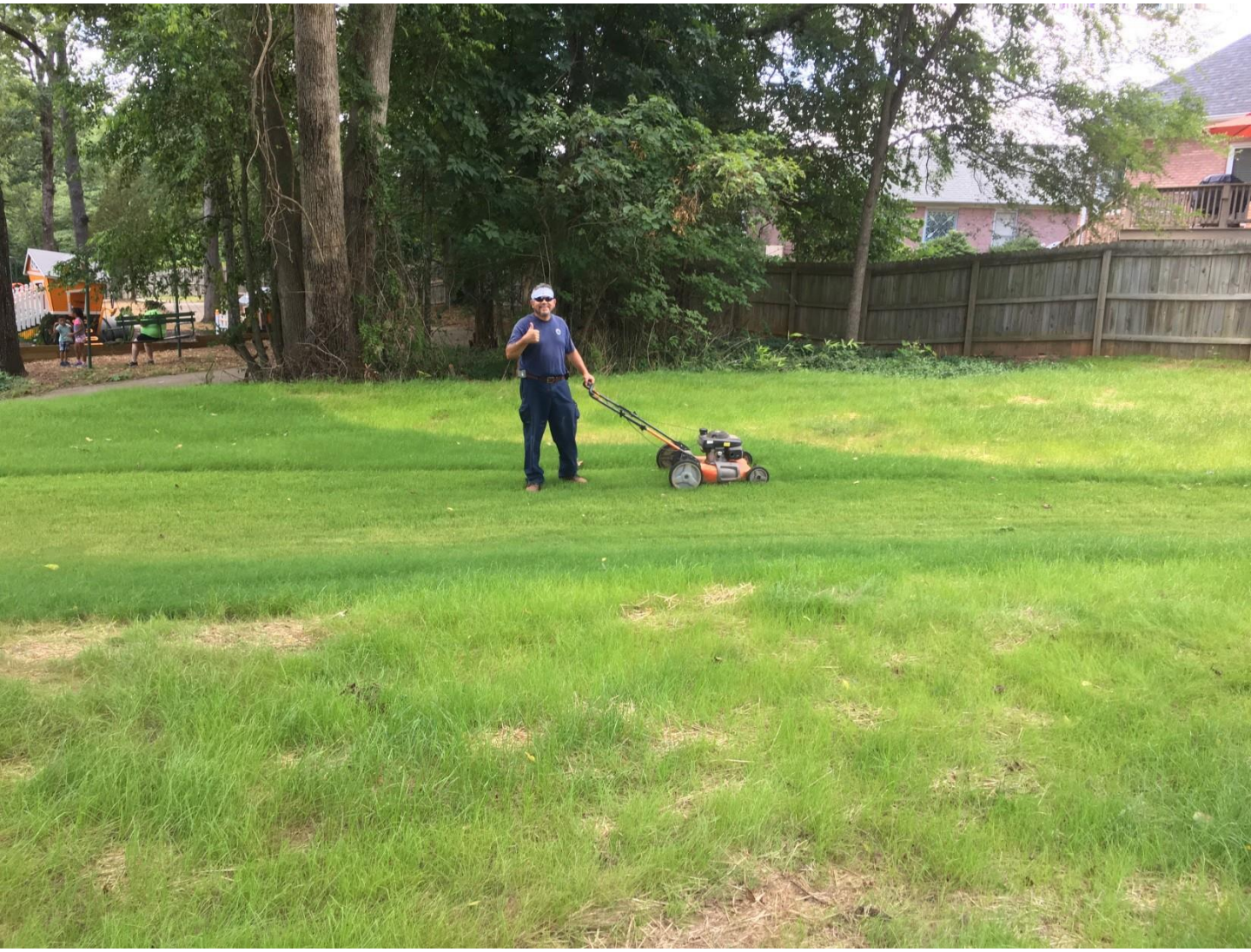
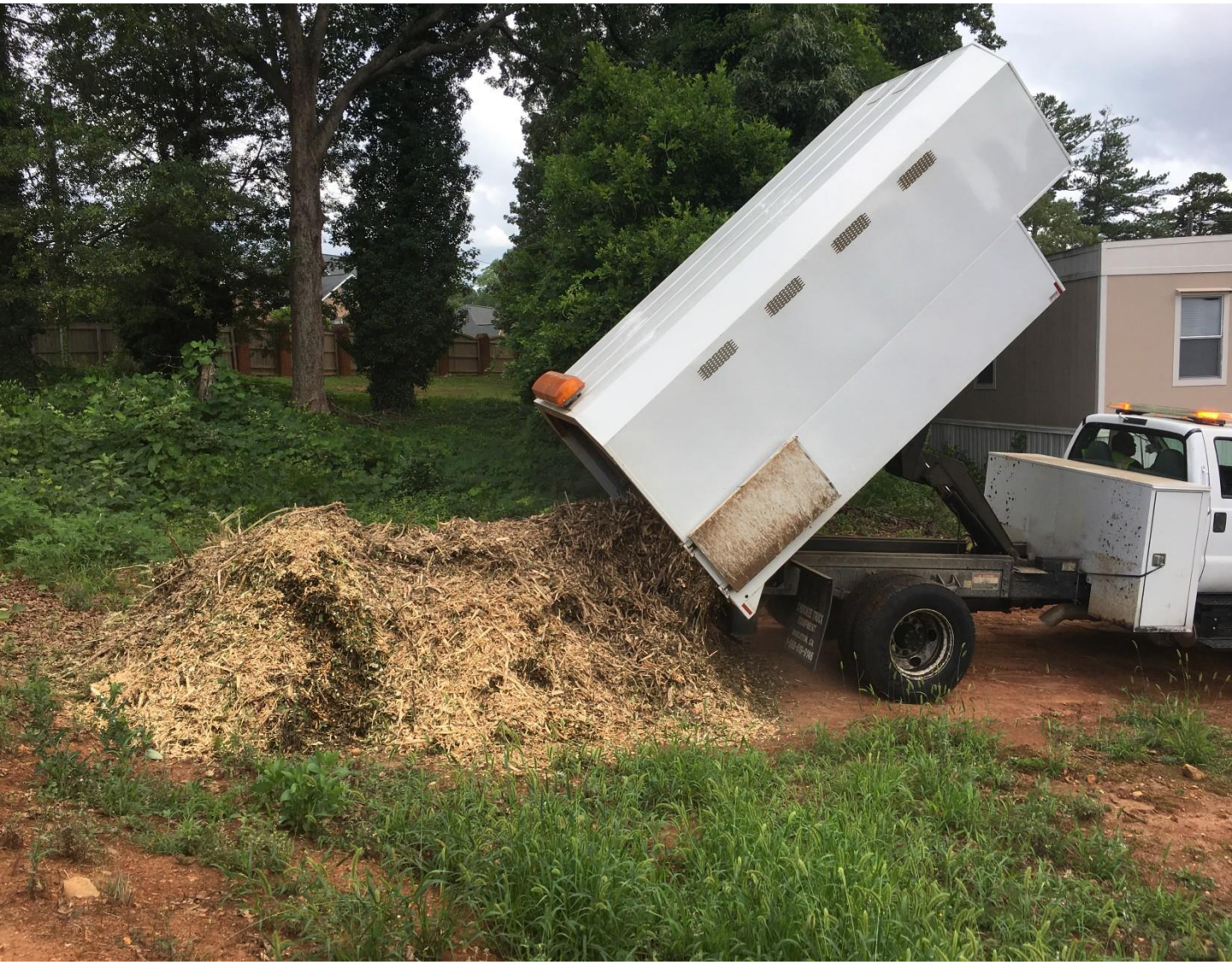


City if McDonough

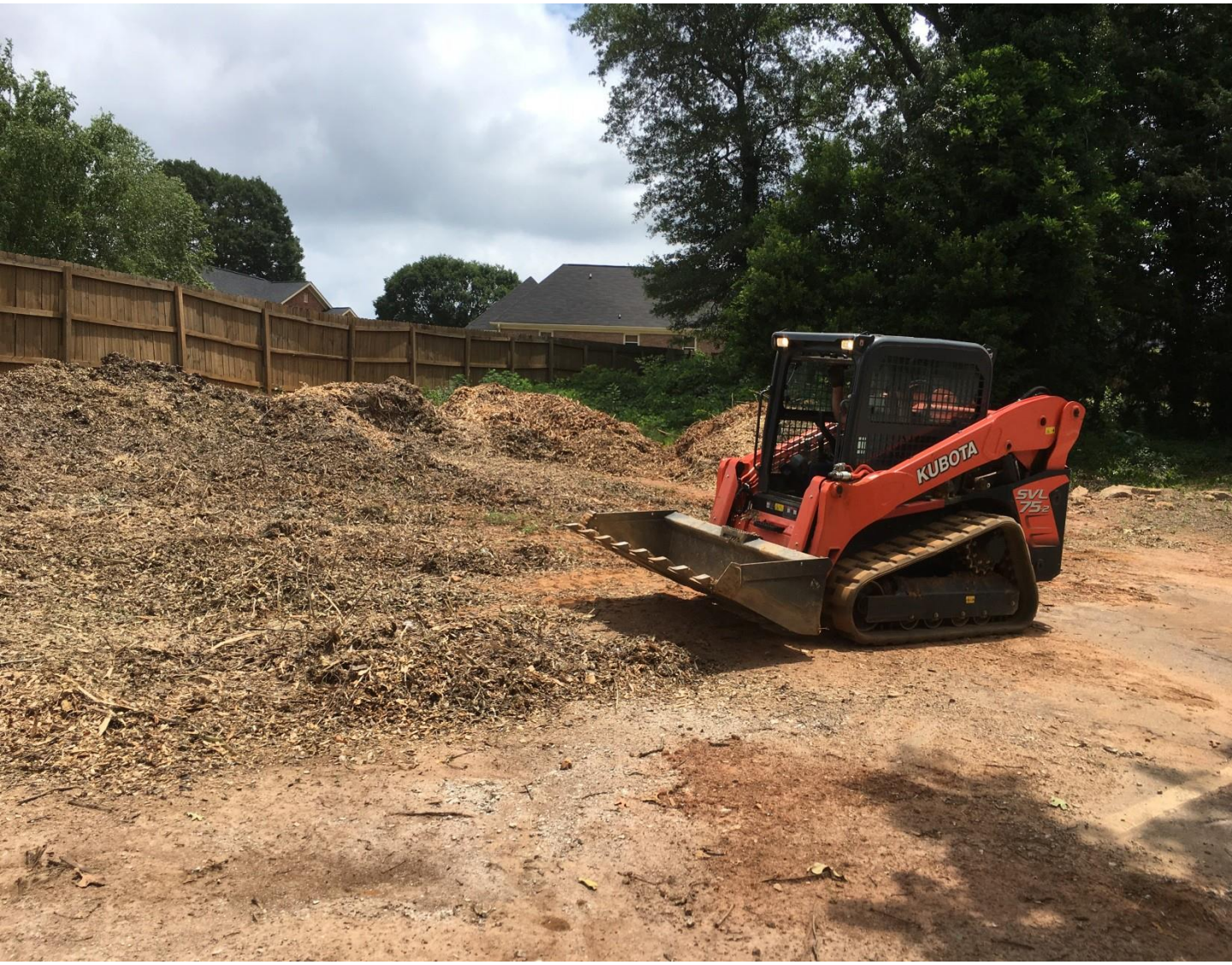
Ground stabilization with wood mulch. After we finished the project, we came back and put down wood mulch to stabilize the ground and keep it from eroding. It is very important to stabilize the ground with some kind of erosion control. In this case we decided to go with wood mulch.
These next three pictures will show you how we stabilized the ground.

3 pictures

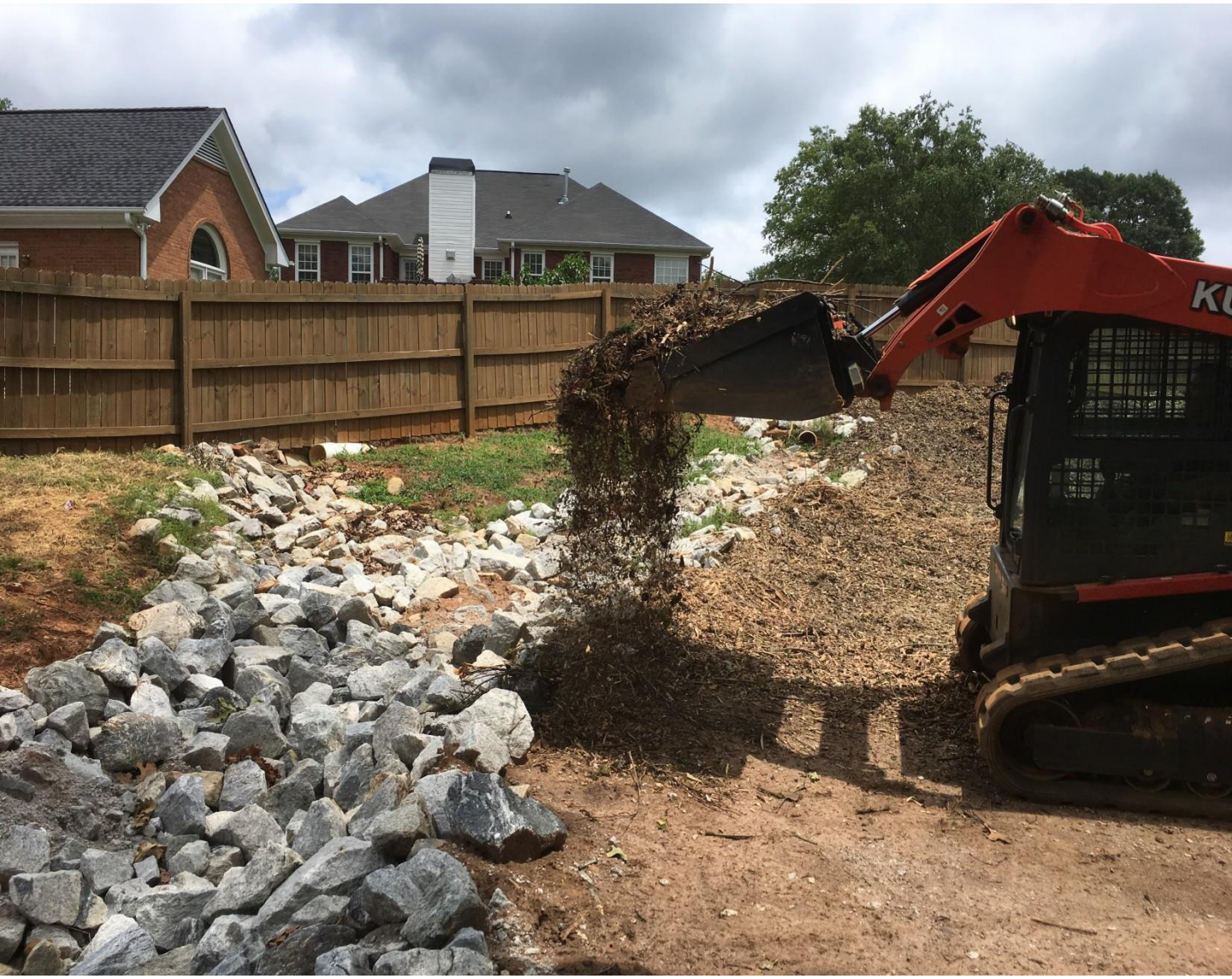
GROUND STABILIZATION WITH WOOD MULCH



GROUND STABILIZATION WITH WOOD MULCH



GROUND STABILIZATION WITH WOOD MULCH

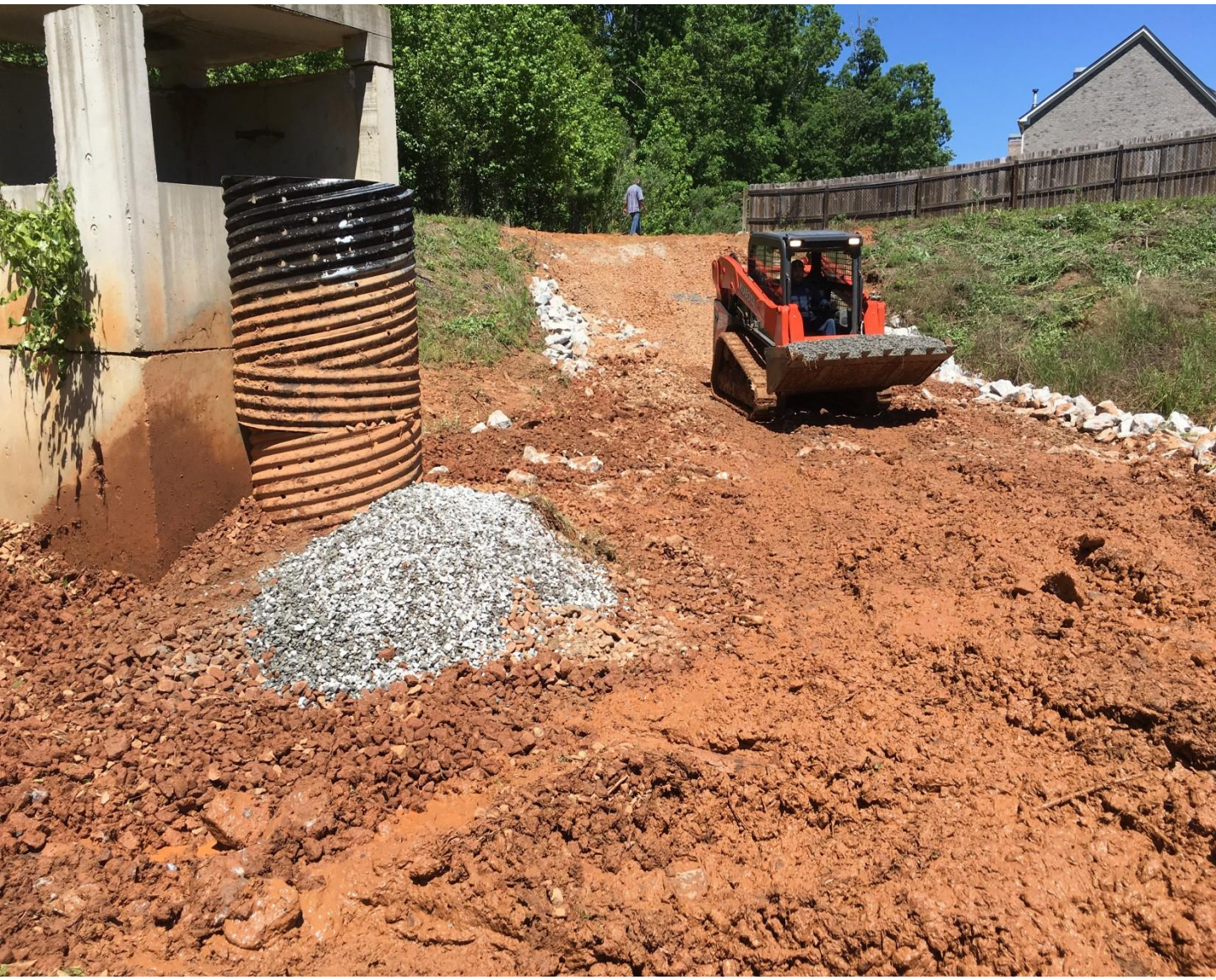


City of McDonough

Detention Pond Outlet Control Structure Modification. This project required modification to prevent the silt and sediment from leaving the pond and contaminating the streams and creeks. We had to remove all the stone that was serving as a filter and replace it with finer stone and more quantity as well. We also had to replace the retro fit pipe and seal the cracks around it. Another modification was in the outlet control pipe, we had to choke it to reduce the flow of water going thru it. The next four pictured will show how our process was executed and finished.

4 pictures

DETENTION POND OUTLET CONTROL STRUCTURE MODIFICATION



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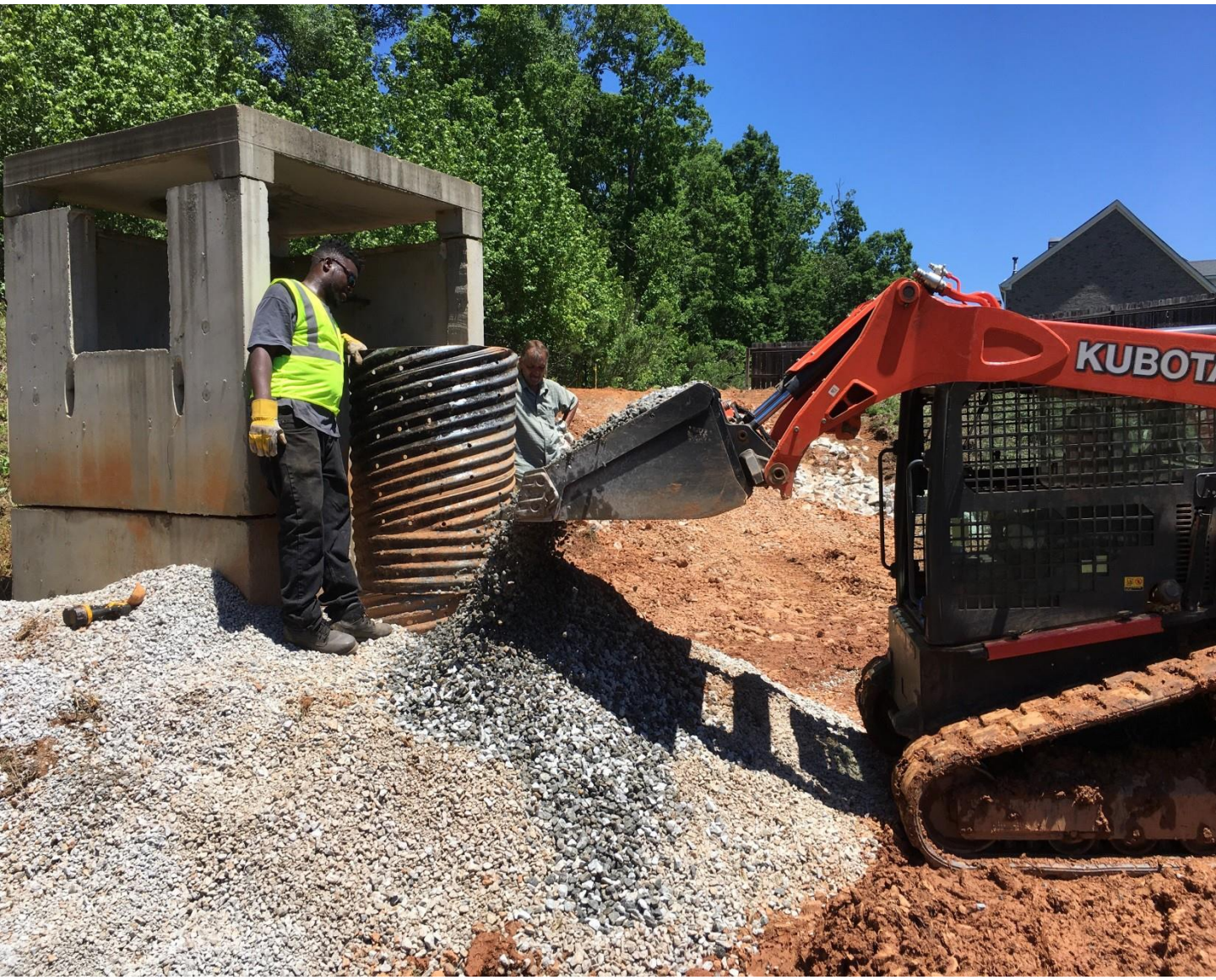

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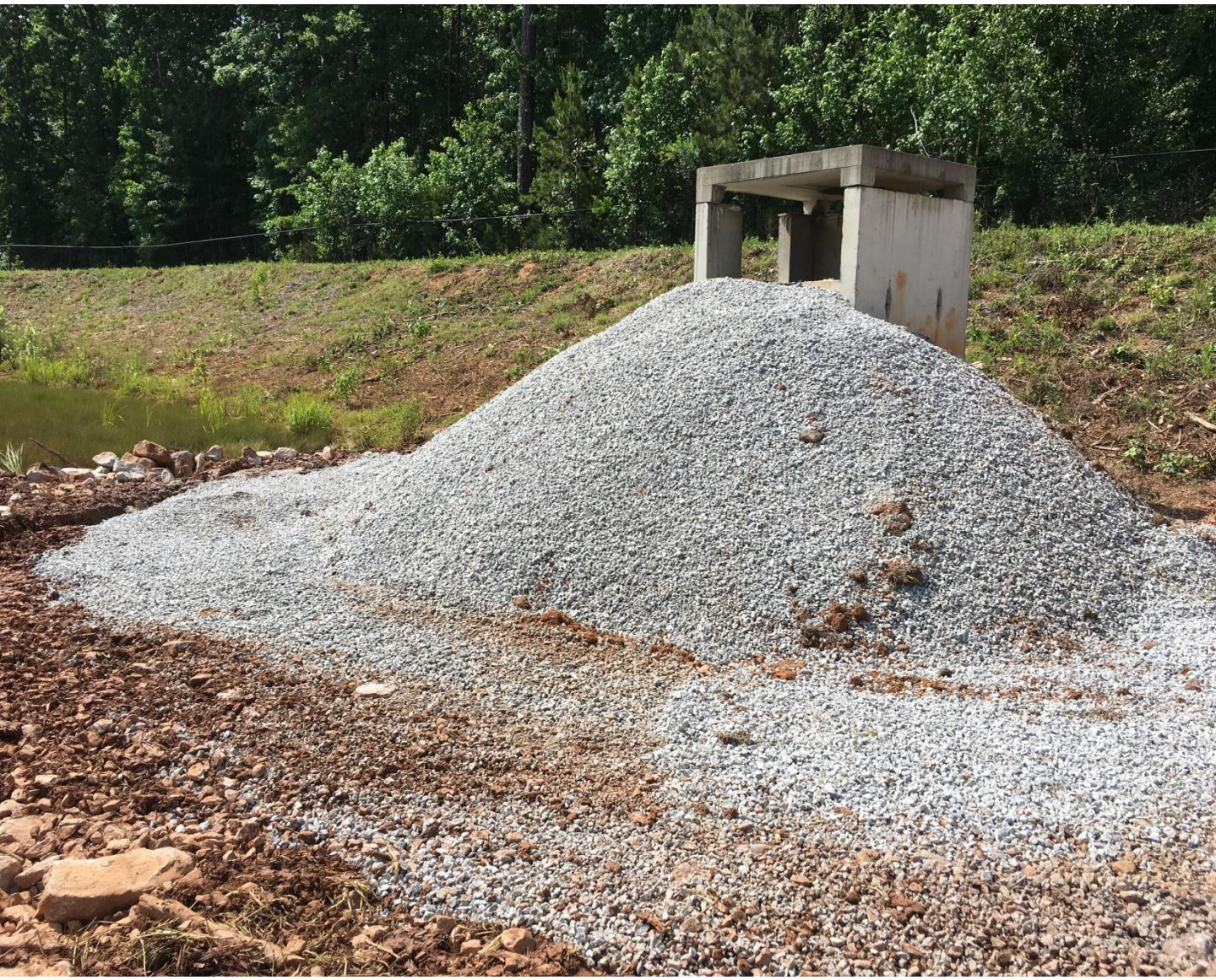
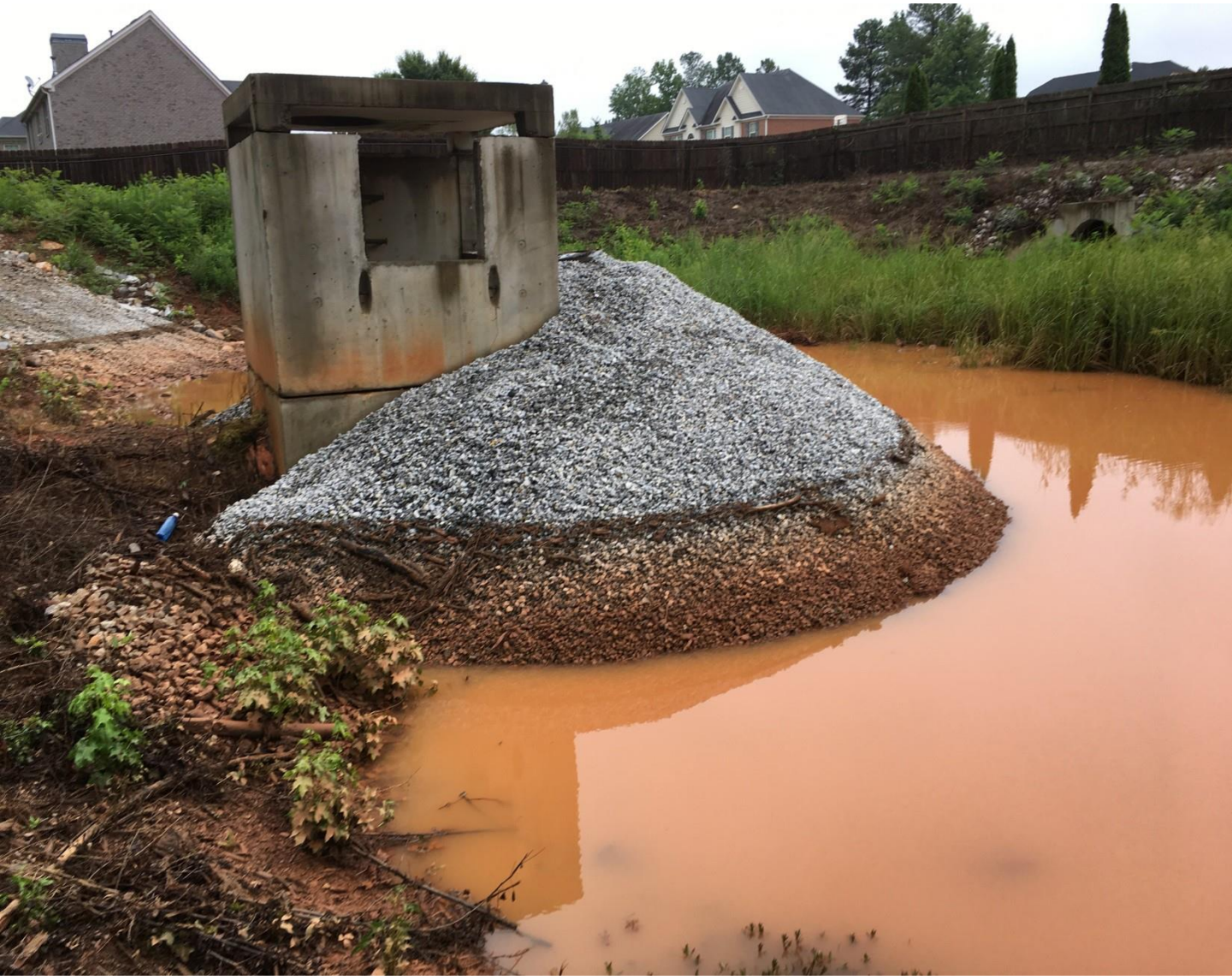


DETENTION POND OUTLET CONTROL STRUCTURE MODIFICATION



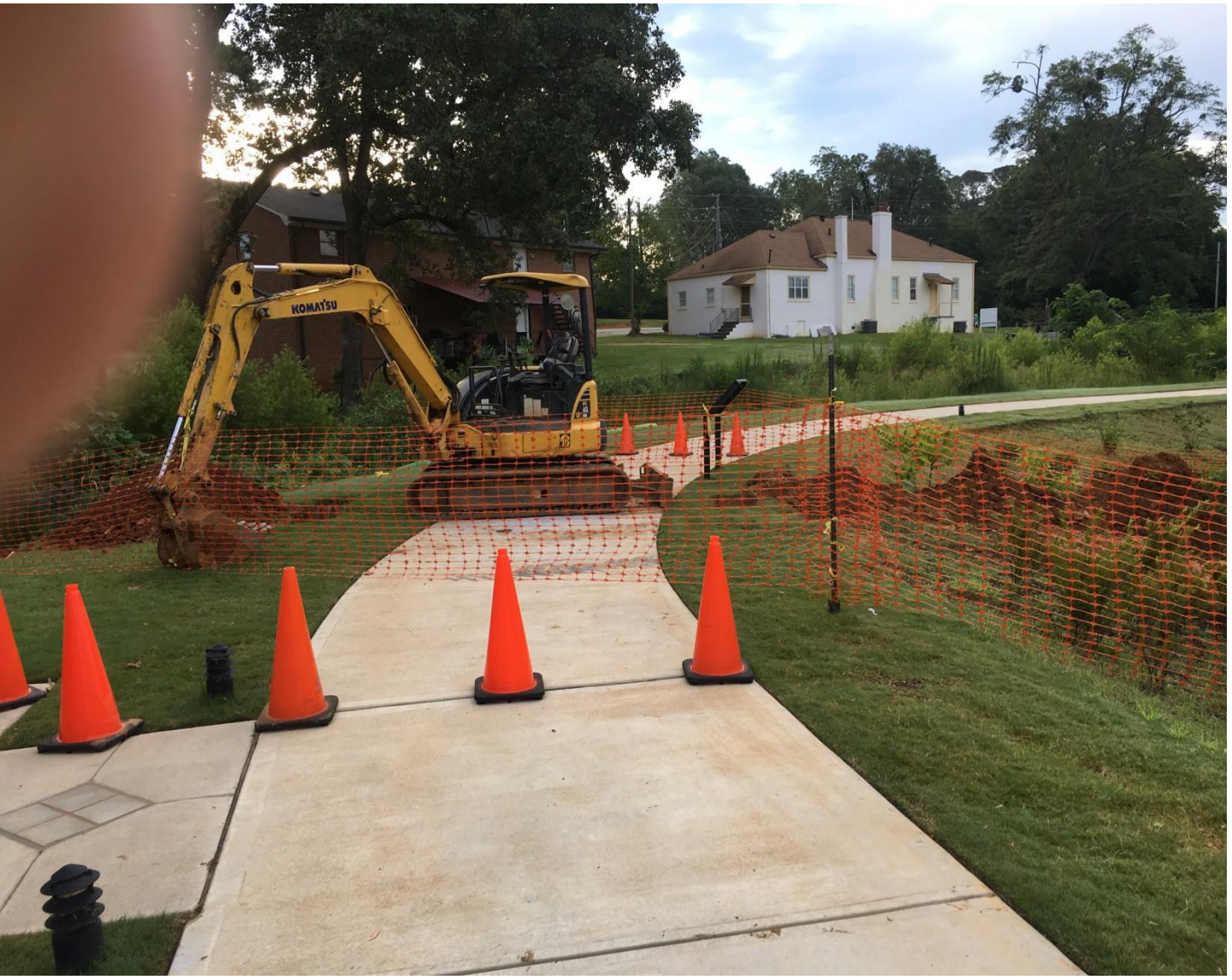
City of McDonough

Veterans Park Pond Dam Repair (Due to Beavers). With this project we had to repair the drainage system because of some beavers digging around the output pipe and causing water to run on the side of pipe instead of in the pipe like it was design to do. The process of repairing this system was slow to make sure it was done properly and not have this issue anymore.

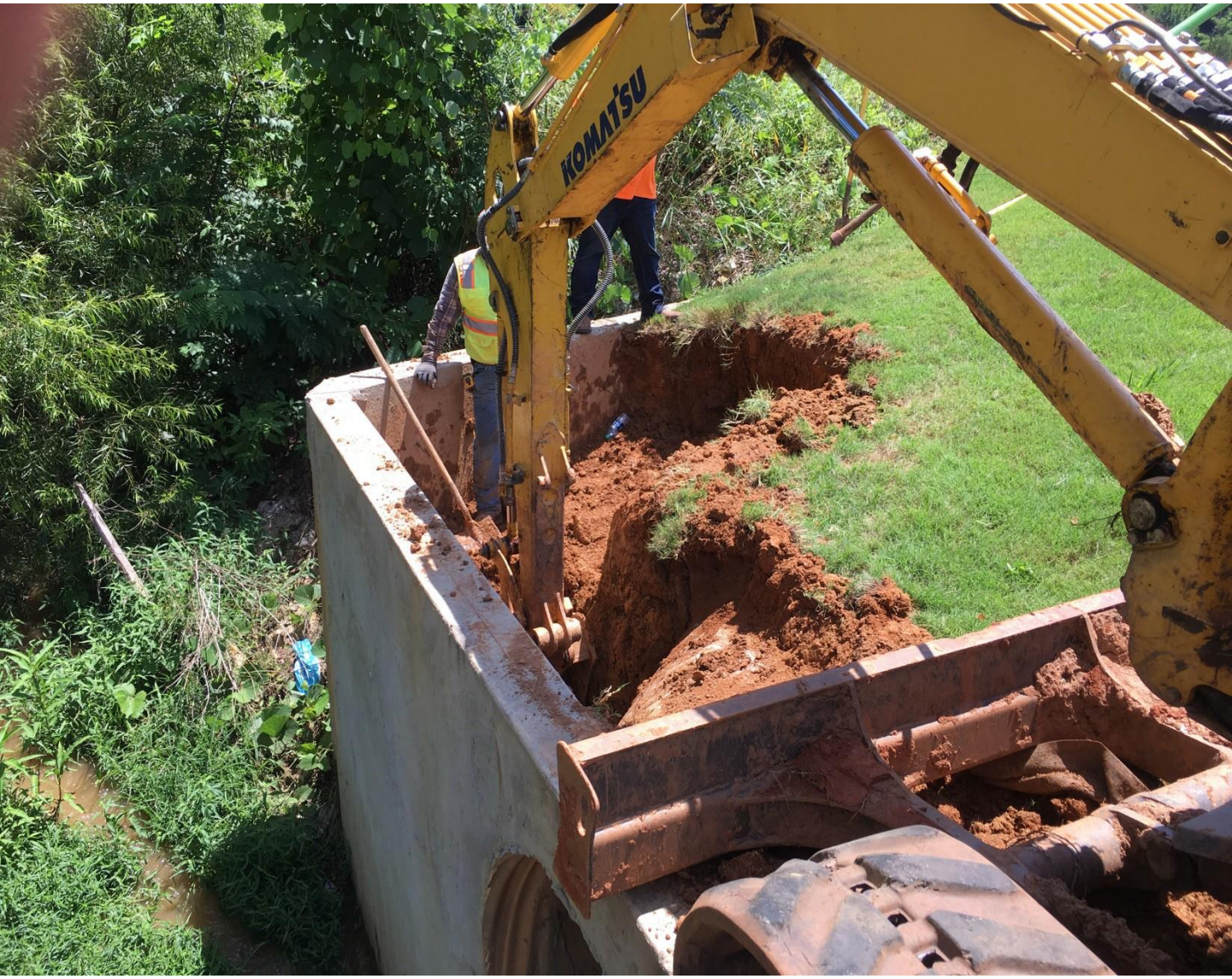
These four pictures will show you how we were able to repair this issue with concrete collars. We also topped it off with sod to prevent erosion.

4 pictures

VETERANS PARK POND DAM REPAIR (DUE TO BEAVERS)



VETERANS PARK POND DAM REPAIR (DUE TO BEAVERS)



VETERANS PARK POND DAM REPAIR (DUE TO BEAVERS)

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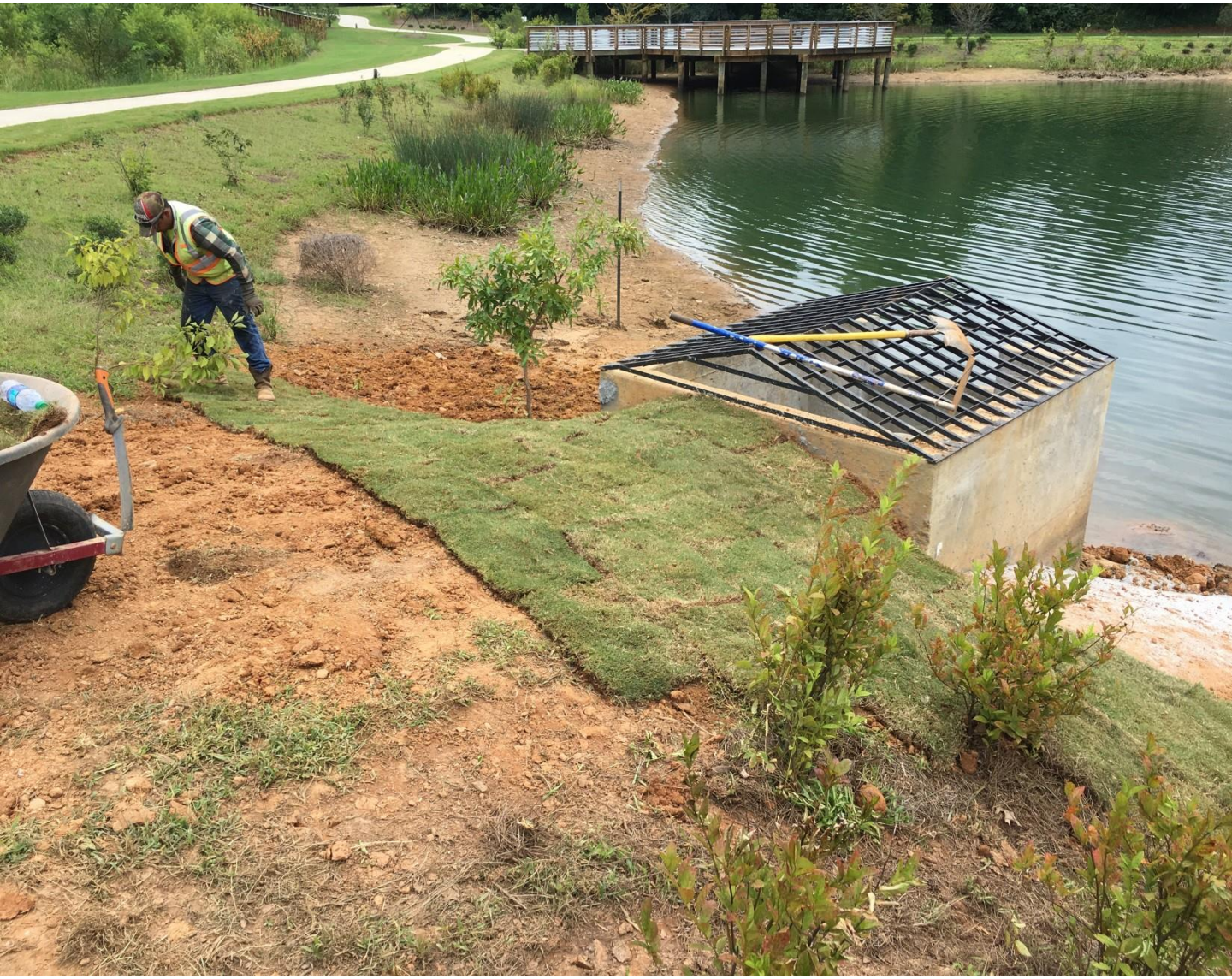
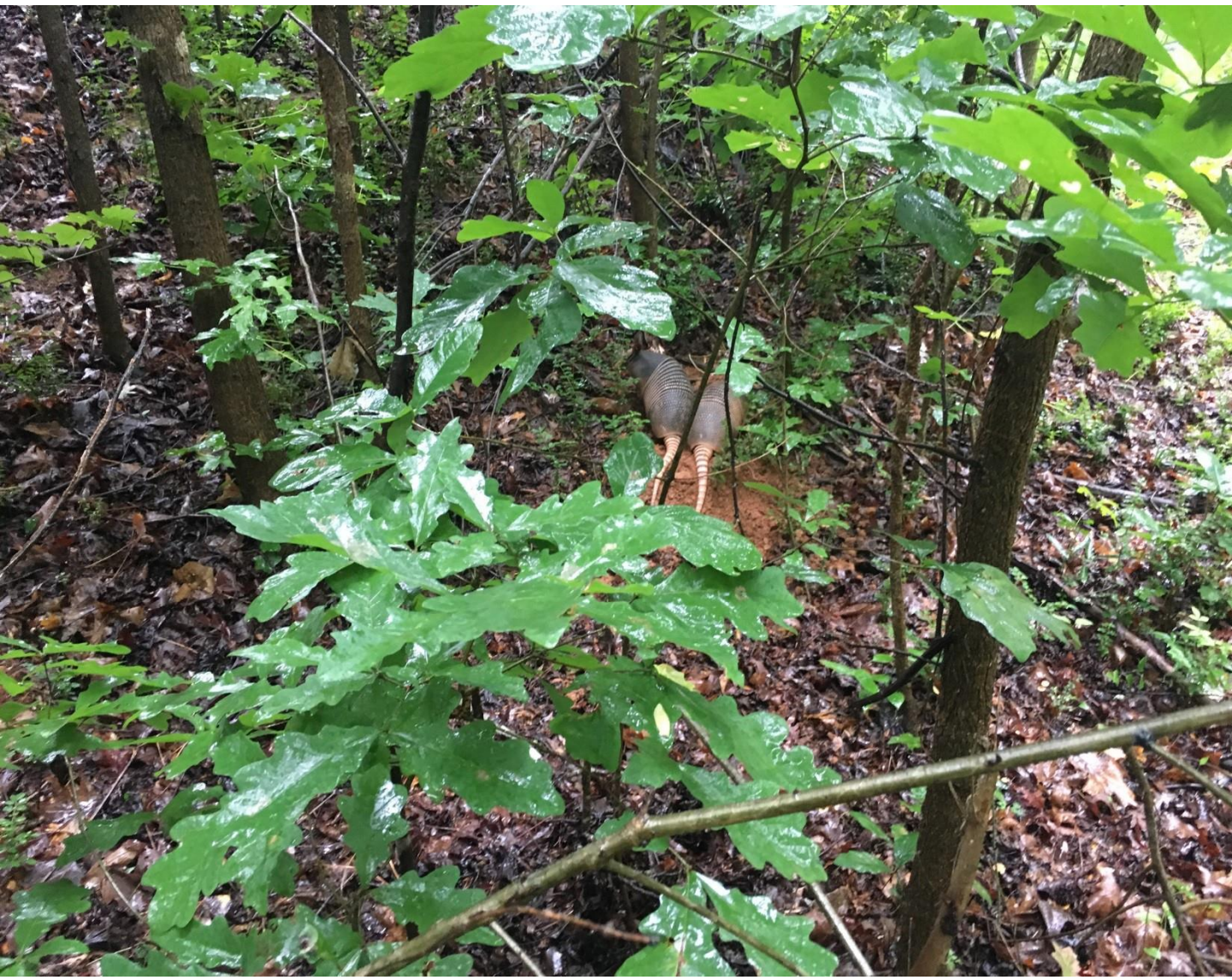


THE END



Thank you for your interest. We hope this brochure has been helpful and educational to you. Please don't hesitate to contact our office for any question or problems concerning storm water issues.

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