

Construction Stormwater Site Inspection Case Study #1: Project Closeout and Ongoing Maintenance Issues

Project Description:

One block cul-de-sac, single family development plat

Inspection Type/Construction Phase:

- ESC (Post-Construction)
- Permanent BMP/Facility (Post Construction)

Inspector's Field Observations:

After completion of plat construction, temporary ESC BMPs were not removed and the storm tract was not maintained. Ongoing issues with storm system are present due to lack of maintenance. City ESC inspector had to remove a silt sock clogging a Vortech unit.

Summary of Requested Corrective Actions:

Sent multiple (even certified) requests to contractor. Completed a full inspection of site and send list of deficiencies to contractor.

Contractor Response:

Ignored all correspondence except for certified letter, to which he responded that he had a lawyer working on handing the storm tract off to the homeowners. He had no intention of fixing or maintaining the system he built.

Inspector Follow-up and Enforcement Actions:

Not resolved. There now is an HOA trying to form. They are not happy about the condition of their new system, likely due to no final inspection and no enforced maintenance of storm system while contractor was developing plat.



Case Study Credit: Tami Tonder, City of Olympia



Construction Stormwater Site Inspection Case Study #2: Stabilization Issues and Poorly Maintained ESC BMPs

Project Description:

Inspected a commercial building project that had multiple areas of soil exposed, slopes not stabilized, several portions of their silt fence damaged or removed. I explained to the contractor and CESCL why several areas of their site were not meeting requirements and some ways or BMPs they could deploy in order to bring them into compliance.

Inspection Type/Construction Phase:

- ESC (During Construction)

Inspector's Field Observations:

The silt fence was damaged and or removed in several areas. It was obvious that a large portion of the soils on-site had been left exposed for greater than a week. The large slopes present on-site had not been stabilized even though they had met final grade for several weeks.

Summary of Requested Corrective Actions:

Repair the silt fence and reinstall in areas where it had been removed. Suggested final stabilization of soils that had reached final grade and BMPs for areas not receiving work for greater than two days. Suggested final stabilization of the large sloped areas.

Contractor Response:

The contractor and CESCL were confused as to why these requirements were being placed on them. In their opinion no soil leaving the site or no obvious signs of erosion meant the site was stabilized. I explained to them that "stabilization" means successfully deploying a BMP.

Inspector Follow-up and Enforcement Actions:

A follow-up inspection was conducted two weeks later. Several items from the previous inspection were addressed but some areas of the site still remained open and new issues were present.

Case Study Credit:

Jared Crews, City of Tumwater

Construction Stormwater Site Inspection Case Study #3: Insufficient Erosion and Sediment Control BMPs

(Note: This case study is from Texas. Although the permit requirements are different, the issues encountered are very similar to Washington.)

Project Description:

This project took place in an existing subdivision in the city of Beaumont, Texas (Phase I municipal stormwater permittee) where home construction had stalled following the 2008 economic recession. In 2017, the contractor purchased the remaining undeveloped lots in the first phase. The contractor applied and received permits for three single-family residences including permits for grading, which requires a Stormwater Pollution Prevention Plan (SWPPP) and brief narrative of the erosion and sediment control (ESC) to be deployed on the project sites. The contractor elected to utilize existing vegetation on site for ESC.

Inspection Type/Construction Phase:

- ESC (During Construction)

Inspector's Field Observations:

The inspector received complaints of mud and illicit discharge in the public right of way immediately following a heavy rain event. Upon preliminary inspection, it was discovered that the vegetative buffer that the contractor elected to use was no longer present and significant quantities of mud were covering the roads and entering the City's stormwater system. In addition, the contractor had continued work with equipment to relocate construction supplies onto the right of way, tracking out more heavy clay soils throughout the entire subdivision. Catch basins in the subdivision contained as much as 6 inches of heavy clay soils at the bottom.



Summary of Requested Corrective Actions:

Stop Work Orders were issued on all three projects and the contractor was ordered to immediately begin work to clean and remove the sediment on the roadway. The contractor was also required to clean out and remove sediments throughout the subdivision's stormwater lines and catch basins. It was requested that the contractor should add silt fence to the project limits.

Contractor Response:

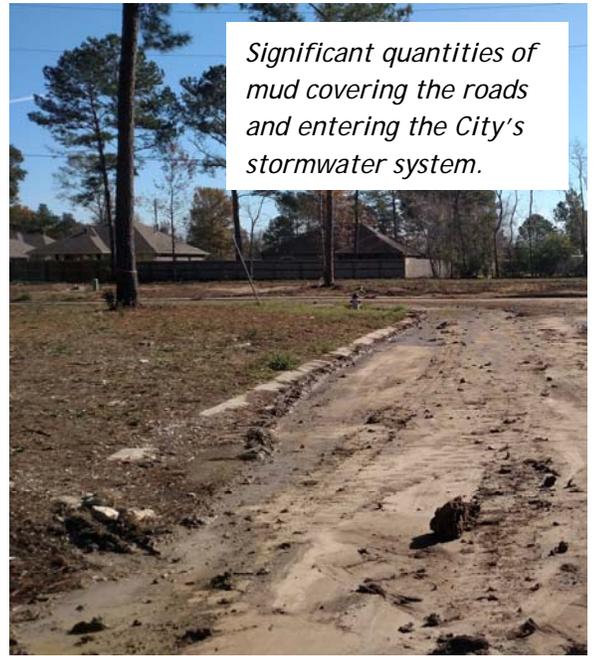
The contractor immediately began work on clean-up and removal. At first this task was performed manually with hand tools, push brooms, etc. Later, the contractor deployed sweepers and heavy equipment to remove the soils from the roadway. The contractor added silt fence to the project perimeter.

Inspector Follow-up and Enforcement Actions:

The contractor was cited for violations to the City's MS4 which were in turn reported to the regional office for the Texas Commission on Environmental Quality. Upon re-inspection the contractor failed to jet and vactor the lines and catch basins. Because of this the contractor was ordered to replace all impacted components to the storm system.

Case Study Credit:

Carlos Aviles (formerly an inspector for the City of Beaumont, now an inspector for the City of Lacey)



Significant quantities of mud covering the roads and entering the City's stormwater system.



Sediment removal from roadway using heavy equipment.

