Stabilization Requirements

Across the state we continue to see various interpretations of the specifications regarding the timelines for stabilization of finished or inactive areas on our projects. The following is the relevant language from Special Provision 15-PS0360:

Immediately initiate temporary stabilization on areas that have been disturbed after construction activities have permanently ceased on that portion of the project site. Immediately initiate temporary stabilization measures on areas that have been disturbed after construction activities have temporarily ceased on that portion of the project site if construction activities will not resume for a period exceeding 14 calendar days.

Temporary stabilization may include temporary seeding, geotextiles, mulches or other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb the area.

The intention of this specification is to ensure that we minimize the length of time that finished or inactive areas of our project are left unstabilized and subject to increased rates of erosion. Minimizing this duration benefits KDOT and Contractor both. Prompt stabilization reduces the need to install and maintain temporary sediment controls, allows the Contractor to focus on finishing the project rather than repairing erosion damage, and reduces risks associated with rainfall events.

To the extent practicable, we want our grading work to proceed from start to finish without any extended periods of inactivity. In this scenario, once the work has been completed to finish grade, including the replacement of topsoil, the specification requires stabilization work to be initiated immediately. On the other hand, if the work is not finished but will be idle for longer than 14 days the specification again requires that stabilization be initiated immediately. In some cases the Contractor will be required to perform this stabilization at no cost to KDOT.

“Immediately” in this context could be replaced by “right away.” The EPA’s general permit includes similar language where “immediately” is defined to mean “as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased.” KDOT considers stabilization to be initiated once the physical work placing or installing the stabilization BMP has begun on the project site.

Areas requiring stabilization should be documented during SWPPP site inspections. Corrective actions are necessary when a required BMP (i.e. stabilization) has not been implemented according to the SWPPP. If areas have not been finished but are inactive they may require temporary stabilization. In this context, an area could be as small as the area disturbed for a pipe installation or as large a 17-acre grading spread. The stabilization needs should be defined according to the operational schedule of the project in a manner that minimizes the amount of exposed soil.
Biotic Soil Amendments

Highway construction often results in large cut slopes or other areas where the finished topsoil is not conducive to the support of vegetation. Traditional methods of improving these poor soils include top dressing with “black dirt” or with compost to improve the organic content of the soil. This method, while effective, requires transporting and manipulating large quantities of material and can be cost-prohibitive.

An alternative method is the application of biotic soil amendments to the soil. These products, applied with standard hydromulching equipment, can improve the ability of the in situ soil to support stabilizing vegetation. Recently, on the South Lawrence Trafficway Project, one of these products was applied to approximately 3 acres of a primarily shale slope.

The surface was prepped by “cat-tracking” before application of ProGanics Biotic Soil Media at 4,000 pounds / acre. Seed and fertilizer was combined with the ProGanics and placed in one step. In addition to KDOT’s temporary seed mixture, crown vetch was seeded to provide the permanent cover. Once the seeding and ProGanics layer was complete, the areas were provided temporary erosion protection with the application of Flexterra, a high performance hydraulic mulch product at 4,000 pounds/acre. The hydromulcher was only able to access this slope from the bottom so proper placement required use of the hose attachment to spray the Flexterra from the top. The area has also been irrigated as needed to support the establishment of vegetation.

The temporary grasses were quick to germinate and grow. As crown vetch is slow to establish, the area will continue to be monitored and evaluated to determine the long-term effectiveness of this method. In the short term, it does appear that this type of product does improve the fertility of the soil and is a feasible means of establishing vegetation in poor soils.
Training Update

Make sure you review your EIT and EMT certifications and sign up for the appropriate classes to maintain the necessary certifications. Registration is now open for the September courses on the K-State CIT program website. Registration for all other classes will open on September 10.

The Kansas Contractors Association is also sponsoring classes. These classes have been scheduled for November 11-12, February 10-11, and March 8-9. For information regarding enrollment contact Wanda Tidball at the KCA.

Any of these classes may be cancelled if the enrollment minimums are not met. Signing up early helps make sure that classes are scheduled to meet the demand.

2015 Specification Update

The 2015 specifications are in effect for all projects beginning with the July, 2015 letting. While there were not a lot of notable changes to the temporary erosion control and stormwater pollution control specifications, the organization of the material is different from the 2007 provisions. The stormwater provisions are now found primarily in two sections. Section 901 includes the stormwater management items and general program requirements while the individual BMP items have been moved into their own Section 902.

Stormwater Update Online

This issue and all past issues of this quarterly bulletin are available online at KDOT’s Stormwater website: http://www.ksdot.org/burconsmain/Connections/swppp.asp

Contact Jason Van Nice (jasonv@ksdot.org) with questions, comments or suggestions for future content.