



Livingston County Drain Commissioners Office

Soil Erosion and Sedimentation Control (SESC) Division

Under the Provisions of Part 91 of Act 451 as Amended, and the Livingston County SESC Ordinance

2300 E. Grand River Ave., Suite 105, Howell, MI 48843

Phone: 517-546-0040 www.livgov.com/drain

SOIL EROSION AND SEDIMENTATION CONTROL PLAN REVIEW

Project Name:

Review #: PSCREV20__ - _____

Reviewed by: _____

Review Date:

General 1	Seal of a licensed engineer (State of Michigan License).
General 2	North arrow.
General 3	Location map, showing the location of the project and all adjacent water bodies and courses.
General 4	Sheet index.
General 5	Legend.
General 6	Legal description of entire project.
General 7	Construction sequence and monthly bar schedule. An updated bar schedule will need to be submitted once construction begins.
General 8	Project name.
General 9	Owner/s name.
General 10	Job #.
General 11	Amount of area to be disturbed.
General 12	Drainage tributary map.
General 13	If this permit is for a subdivision, condominium development, apartment complex or similar project, the permit is valid for the mass earth movement and installation of roads, drains and utilities only. The permit is NOT for individual buildings/units. It is required that temporary stabilization of the entire site be completed and approval from the Livingston County Drain Commissioner's Office must be obtained prior to the issuance of permits for individual units. This note is required to be on the plans for any project of this type.
General 14	If this permit is for a subdivision, condominium development, apartment complex or similar project, a File Reference map sheet is required. The sheet should be an 8.5" x 11" map of the site depicting lots, roads, wetlands, lakes, ponds, county drains, etc., and needs to include a 500' delineation of all waters, waterways, wetlands, county drains, and storm water basins.
Soil Survey	Soil Boring data indicating soil types or information provided from the Livingston County Soil Survey.
Overall Site & Grading Plan 1	Per EGLE, the distance to any and all lakes, streams, ponds, wetlands, storm water basins or County Drains.
Overall Site & Grading Plan 2	Predominant land features: critical areas, swales, lakes, streams, ponds, wetlands, storm water basins, county drains, steep slopes, buildings, roads, property lines, etc.
Overall Site & Grading Plan 3	Slope contours on and off the site.
Overall Site & Grading Plan 4	The location of the silt fence (or approved alternative such as Silt Shield, etc.) is required to be clearly indicated on the plans. It is required that all commercial projects constructed in Livingston County shall install 36" silt fence or the approved alternative. (Please note: The 36" silt fence requirement shall be stated / depicted at each location on the plans.)
Overall Site & Grading Plan 5	Limits of grading for the entire project.

Overall Site & Grading Plan 6	A maintenance schedule should be designed to reflect the preventable maintenance practices of soil erosion and sedimentation control during the course of the project by the Responsible Person. The permanent and temporary soil erosion controls should include items like silt fence, straw bales, tracking mat, etc. depicted on the plans.
Staging Areas	All staging areas must be depicted on the plans, along with all appropriate erosion controls, e.g. tracking mats and silt filters.
Soil Stockpile Areas	The location of all soil stockpile storage areas should be shown on the same plans that depict all soil erosion controls. All topsoil or soil storage areas are required to be temporarily stabilized and shall be seeded and mulched, or matted with straw, immediately after the stripping process is completed, to prevent wind and water erosion.
Slopes and Ditches 1	Onsite ditches shall be of the flat bottom type, minimum width of 2 feet with a minimum of 3-foot horizontal to 1-foot vertical side slopes (3:1).
Slopes and Ditches 2	Side slopes in excess of 3-foot horizontal to 1-foot vertical shall not be used except with a mechanical device such as a retaining wall or terracing
Slopes and Ditches 3	Ditches / swales with grades 3% and greater will need stone flow checks to prevent scouring of the ditch bottoms. Depending on drainage area, soil types, and ditch length, they may also be required for ditch slopes between 1% and 3%. They may be used as a temporary measure and removed once sufficient stabilization has been established. These shall be depicted on plans by the engineer, including a construction detail. Indicate flow checks on all slopes 3% and greater or where otherwise required.
Detention/Retention, Sedimentation Basins 1	Inlets into detention basins must not discharge at the same location as the outlet structure.
Detention/Retention, Sedimentation Basins 2	The detention basin standpipe structure must have a detail showing the number and size of orifice elevations, type and quantity of choke stone, and include a 2-foot sump.
Detention/Retention, Sedimentation Basins 3	The detention basin standpipe structure shall show staggering of the holes (orifices) at first flush, bank-full and 100-year storm elevations. This will provide for more effective filtration.
Detention/Retention, Sedimentation Basins 4	A note should be placed on the plans stating that prior to the completion of the project the stone around the standpipe structure shall be refreshed with clean stone.
Detention/Retention, Sedimentation Basins 5	For public systems, unless specifically waived by the Drain Commissioner, all detention / retention basins with slopes less than 5-foot horizontal to 1-foot vertical side slopes (5:1) shall have a 4-foot cyclone fence with a 12-foot access gate at the outer portion of the berm, to allow for maintenance work to be done inside of the fence. The gate shall be accessible from the nearest road.
Detention/Retention, Sedimentation Basins 6	Detention / retention and sedimentation basins shall be excavated, top soiled, seeded, mulched and tacked prior to the start of massive earth disruption. This note is required to be on the plans.
Detention/Retention, Sedimentation Basins 7	To minimize long-term erosion potential, inlets into detention / retention basins must be located within two feet of the bottom floor (or for wet basins, the low water elevation) of the basin.
Detention/Retention, Sedimentation Basins 8	The plan should identify the forebay spillway location.
Detention/Retention, Sedimentation Basins 9	The plan should identify the emergency spillway location and it must be constructed of rip-rap, placed over keyed in geo-fabric blanket.
Catch Basin/Open Pipe Inlet Protection 1	Sedimentation protection for catch-basin inlets (Silt-sacks are the preferred choice in the winter months because they are less likely to be disturbed by the process of snow plowing.)

Catch Basin/Open Pipe Inlet Protection 2	Open-pipe inlet protection must be provided with straw bales, stone or geo-fabric.
Outlet Protection 1	It is necessary to include the pipe size and pipe slope to determine the proper amount and size of rip-rap. This information must be depicted on the plans at each outlet location.
Outlet Protection 2	All storm drains 15 inches in diameter or larger shall have animal guards installed to prevent entrance to the system.
Outlet Protection 3	All rip-rap must be placed over keyed in geo-fabric and detailed as such on the plans.
Outlet Protection 4	Storm drain outlets that do not empty into the retention / detention basin shall have a temporary 5' x 10' x 3' sump installed at the termination of the storm sewer. Upon completion of the stabilization work, the sump area shall be filled and rip rapped over keyed in filter fabric. Silt traps shall be inspected after each rain event.
Outlet Protection 5	For larger pipe outlets or situations where topography dictates steep-sloping outlet pipes, splash blocks should be installed at storm water outlets and depicted as such on the plans.
Tracking onto public roadway	Site access is to be limited to the tracking mat area(s) constructed of 1"x3" crushed stone to restrict tracking of material onto the public roadway. All commercial construction sites require a minimum 50 feet of tracking mat shown at each access point. The location needs to be shown on the plans.
Seeding, Fertilizer and Mulch Bare Ground Minimum Requirements 1	Top-Soil - 3 inches in depth.
Seeding, Fertilizer and Mulch Bare Ground Minimum Requirements 2	Grass Seed - 210 lbs. per acre.
Seeding, Fertilizer and Mulch Bare Ground Minimum Requirements 3	Fertilizer - 150 lbs. per acre.
Seeding, Fertilizer and Mulch Bare Ground Minimum Requirements 4	Straw Mulch - 3" in depth, 1.5 to 2 tons per acre (All mulching must have a tie down, such as tackifier, net binding, etc.)
Seeding, Fertilizer and Mulch Bare Ground Minimum Requirements 5	Hydro-Seeding - Hydro-seeding is not acceptable for slopes exceeding 1%. On slopes over 1%, stabilization shall be done with seed and straw mulch with a tackifier, or straw blankets pegged in place.
Storm Sewer Calculations	Storm sewer drainage calculations must be on the plans or accompanied as an attachment.
Drainage Easements	All on-site and off-site drainage easements shall be clearly shown on plans. If easements are proposed to be dedicated to the Livingston County Drain Commissioner for perpetual maintenance, the easement forms will need to be submitted.
Details Required 1	Details for rip-rap, and / or geo-fabric.
Details Required 2	Details for 36" silt fence, straw bales, diversion berms, etc.
Details Required 3	Details for storm structure inlet protection.
Details Required 4	Detail of the detention / retention basin depicting the bottom slope percentage, forebay berm & spillway location, emergency spillway location, and ultimate outlets from project.

Details Required 5	Detail of the forebay berm.
Details Required 6	Detail of the forebay spillway
Details Required 7	Detail of the emergency spillway.
Details Required 8	Detail of the animal guards.
Details Required 9	Detail of the stabilization blankets, mulch, fertilizer and seeding. (Specify type, size and installation procedures.)
Details Required 10	Detail of the tracking mat.
Details Required 11	Detail of any required check dams.
Details Required 12	Detail of ditch if any on the plans.