

Drainage Report Checklist



Project Name:

The purpose of this checklist is to assist the applicant's Engineer with developing a drainage report that supports the intent of the Weld County Code using commonly accepted engineering practices and methodologies.

Is the project in the **MS4**? Yes No If yes, the following requirements [in blue](#) apply. See Chapter 8, Article IX of the Weld County Code.

Report Content

- Weld County Case Number
- Certificate of Compliance signed and stamped by a Colorado Licensed PE
- Description/Scope of Work
- Location (County Roads, S-T-R)
- Nearby water features and ownership
- Total acres vs. developed acres
- Hydrological soil types/maps
- FEMA Flood Zones
- Urbanizing or non-urbanizing
- Methodologies used for report & analysis (full spectrum is not accepted)
- [Base Design Standard used for permanent control measure design in the MS4](#)
- Discussion of offsite drainage routing
- Conclusion statement indicating that the design will adequately protect public health, safety, and general welfare and have no adverse impacts on public rights-of-way or offsite properties

Hydrology and Hydraulic Analysis

- Design Storm / Rainfall Information (NOAA Atlas or Local Data)
- Release Rate calculations
- Post construction site imperviousness
- Hydrologic calculations (historic & developed basins)
- Hydraulic calculations for proposed drainage improvements (swales, culverts, riprap, pond, outlet, spillway, WQCV outlet, etc.)
- Detention/WQCV calculations

Comments:

Construction Drawings

- Stamped by PE
- Engineering scale & north arrow
- Property lines, rights-of-way, and easements
- 1' Contours & elevations (existing & proposed)
- Pre- and post-development drainage basins
- Arrows depicting flow direction
- Time of concentration critical path
- Drainage design points
- Improvements labeled
- Permanent control measure and associated drainage features labeled 'No Build/No Storage', include design volume
- Cross sections for open channels, profiles for pipes
- Elevations for inverts, flow lines, top of grates, orifice(s), etc.
- Pipe specs (size, material, length, slope)
- Outlet and spillway details

Maintenance Plan

- Frequency of onsite inspections
- Repairs, if needed
- Cleaning of sediment and debris
- Vegetation maintenance
- Manufacturer maintenance specifications, if applicable

Other Required Documents (If Applicable)

- Variance Request and documentation– explain hardship, applicable code section, and proposed mitigation. [Variances will not be granted for the Base Design Standard requirement in the MS4.](#)