



Refer to City of Boulder Design and Construction Standards, Sections 7.2 to 7.4 for requirements pertaining to the elements in these checklists. Blue elements, are only required in Final Drainage Report and Stormwater Plan submittals.

1. Drainage Report			
Required Element		Included	N/A
Cover Page			
A	Site name, site address, submittal and revision dates as applicable, site owner, and preparing Engineer information provided	<input type="checkbox"/>	<input type="checkbox"/>
B	Certification Statement	<input type="checkbox"/>	<input type="checkbox"/>
1 Site Description			
<u>A Site Location Description</u>			
	i County, city, township, range, section, and ¼ section	<input type="checkbox"/>	<input type="checkbox"/>
	ii Site vicinity and legal boundaries map	<input type="checkbox"/>	<input type="checkbox"/>
	iii Adjacent developments and associated land use	<input type="checkbox"/>	<input type="checkbox"/>
	iv Roadways located within or adjacent to the site	<input type="checkbox"/>	<input type="checkbox"/>
<u>B Property Description</u>			
	i Site area and proposed area of disturbance in acres	<input type="checkbox"/>	<input type="checkbox"/>
	ii Existing and proposed site use	<input type="checkbox"/>	<input type="checkbox"/>
	iii Land surface	<input type="checkbox"/>	<input type="checkbox"/>
	iv Easements within or adjacent to the site	<input type="checkbox"/>	<input type="checkbox"/>
<u>C Drainage Description</u>			
	i Major and minor drainageways	<input type="checkbox"/>	<input type="checkbox"/>
	ii Natural drainage features	<input type="checkbox"/>	<input type="checkbox"/>
	iii Irrigation ditches	<input type="checkbox"/>	<input type="checkbox"/>
	iv Regulatory floodplain extents	<input type="checkbox"/>	<input type="checkbox"/>
	v Known drainage issues	<input type="checkbox"/>	<input type="checkbox"/>
	vi Hydrologic soil group map and description	<input type="checkbox"/>	<input type="checkbox"/>
	vii Geotechnical and groundwater site investigation results	<input type="checkbox"/>	<input type="checkbox"/>
	viii Preliminary Infiltration Feasibility Screening results and map	<input type="checkbox"/>	<input type="checkbox"/>
2 Drainage Basin Description			
<u>A Major Drainage Basin</u>			
	i General description of major drainage basin characteristics and flow patterns	<input type="checkbox"/>	<input type="checkbox"/>
	ii Flow conveyance from site to receiving major drainageway	<input type="checkbox"/>	<input type="checkbox"/>
	iii Reference and description of applicable planning studies for the major drainageway	<input type="checkbox"/>	<input type="checkbox"/>
	iv Impact of site development on upstream and downstream properties	<input type="checkbox"/>	<input type="checkbox"/>
	v Impact of site development on downstream natural and constructed conveyances	<input type="checkbox"/>	<input type="checkbox"/>
<u>B Site Drainage Basin/s</u>			
	i Existing and proposed basin and sub-basin characteristics for the site	<input type="checkbox"/>	<input type="checkbox"/>
	ii Acceptance and conveyance of off-site stormwater	<input type="checkbox"/>	<input type="checkbox"/>
	iii Overview of all existing and proposed stormwater facilities and rationale	<input type="checkbox"/>	<input type="checkbox"/>

1. Drainage Report (Cont.)			Included	N/A
Required Element				
3 Drainage Design Criteria				
<u>A Regulation Applicability</u>				
i	Detention requirements		<input type="checkbox"/>	<input type="checkbox"/>
ii	Construction stormwater management requirements		<input type="checkbox"/>	<input type="checkbox"/>
iii	Post-construction stormwater quality requirements		<input type="checkbox"/>	<input type="checkbox"/>
iv	Stream, Wetland, and Waterbody Protection Requirements		<input type="checkbox"/>	<input type="checkbox"/>
v	Other applicable criteria and permits		<input type="checkbox"/>	<input type="checkbox"/>
<u>B Site Planning and Constraints</u>				
i	Description of previous drainage studies or master plans		<input type="checkbox"/>	<input type="checkbox"/>
ii	Description of site constraints caused by structures, utilities, etc.		<input type="checkbox"/>	<input type="checkbox"/>
iii	Description of LID techniques utilized for stormwater management		<input type="checkbox"/>	<input type="checkbox"/>
<u>C Hydrologic and Hydraulic Criteria</u>				
i	Design storm/s		<input type="checkbox"/>	<input type="checkbox"/>
ii	Runoff calculation methods		<input type="checkbox"/>	<input type="checkbox"/>
iii	Detention storage and discharge calculation method		<input type="checkbox"/>	<input type="checkbox"/>
iv	Velocity and capacity calculation method/s for inlets and conveyances		<input type="checkbox"/>	<input type="checkbox"/>
v	Water surface profile and hydraulic grade line (HGL) calculation methods		<input type="checkbox"/>	<input type="checkbox"/>
<u>D Post-Construction Stormwater Quality Criteria</u>				
i	Selected treatment approach and design standards		<input type="checkbox"/>	<input type="checkbox"/>
4 Stream, Wetland, and Waterbody Impacts				
A	Description of floodplain impacts		<input type="checkbox"/>	<input type="checkbox"/>
B	Required modification studies		<input type="checkbox"/>	<input type="checkbox"/>
C	Applicable permits obtained		<input type="checkbox"/>	<input type="checkbox"/>
5 Stormwater Conveyance Design				
A	Description of proposed conveyance system		<input type="checkbox"/>	<input type="checkbox"/>
B	Conveyance path to major drainageway and capacity evaluation		<input type="checkbox"/>	<input type="checkbox"/>
C	Storm sewer, culvert, and inlet design		<input type="checkbox"/>	<input type="checkbox"/>
D	Open channel design		<input type="checkbox"/>	<input type="checkbox"/>
E	Outfall design		<input type="checkbox"/>	<input type="checkbox"/>
F	Street drainage		<input type="checkbox"/>	<input type="checkbox"/>
G	Easement requirements		<input type="checkbox"/>	<input type="checkbox"/>
H	Maintenance requirements		<input type="checkbox"/>	<input type="checkbox"/>
6 Detention and Post-Construction Stormwater Quality Design				
A	Description of each proposed facility		<input type="checkbox"/>	<input type="checkbox"/>
B	Description of design compliance with detention and water quality requirements		<input type="checkbox"/>	<input type="checkbox"/>
C	Inlet design		<input type="checkbox"/>	<input type="checkbox"/>
D	Basin and outlet design		<input type="checkbox"/>	<input type="checkbox"/>
E	Description of vegetation coverage and planting plan		<input type="checkbox"/>	<input type="checkbox"/>
F	Description of filter media selection and underdrain configuration		<input type="checkbox"/>	<input type="checkbox"/>
G	Easement requirements		<input type="checkbox"/>	<input type="checkbox"/>
H	Description of maintenance requirements		<input type="checkbox"/>	<input type="checkbox"/>

1. Drainage Report (Cont.)			
Required Element		Included	N/A
7 Conclusions			
A	Drainage plan effectiveness	<input type="checkbox"/>	<input type="checkbox"/>
B	Compliance with requirements	<input type="checkbox"/>	<input type="checkbox"/>
C	Exclusions and variances	<input type="checkbox"/>	<input type="checkbox"/>
8 References			
A	Standards, criteria, guidance documents, master plans, and technical reports used	<input type="checkbox"/>	<input type="checkbox"/>
9 Appendices			
A	Post Construction Water Quality Design Form	<input type="checkbox"/>	<input type="checkbox"/>
B	Low Impact Development Checklist	<input type="checkbox"/>	<input type="checkbox"/>
C	Inspection and Maintenance Guide	<input type="checkbox"/>	<input type="checkbox"/>
D	Hydrologic calculations	<input type="checkbox"/>	<input type="checkbox"/>
E	Hydraulic calculations	<input type="checkbox"/>	<input type="checkbox"/>
F	Stormwater conveyance calculations	<input type="checkbox"/>	<input type="checkbox"/>
G	Detention and permanent water quality calculations	<input type="checkbox"/>	<input type="checkbox"/>
H	Critical references information copied to create standalone document	<input type="checkbox"/>	<input type="checkbox"/>

2. Stormwater Plan			
Required Element		Included	N/A
1 Overall Drainage Plan			
A	Title block, legend, north arrow, and scale	<input type="checkbox"/>	<input type="checkbox"/>
B	Existing topographic contours	<input type="checkbox"/>	<input type="checkbox"/>
C	Property boundary	<input type="checkbox"/>	<input type="checkbox"/>
D	Major drainage basin boundaries with area, design point, and existing flow rate labels	<input type="checkbox"/>	<input type="checkbox"/>
E	Drainage flow arrows depicting flow patterns to, from, and within the site	<input type="checkbox"/>	<input type="checkbox"/>
F	Existing stormwater detention and water quality facility boundaries	<input type="checkbox"/>	<input type="checkbox"/>
G	Easement boundaries	<input type="checkbox"/>	<input type="checkbox"/>
H	Existing waterways (streams, lakes/ponds, wetlands, and irrigation facilities)	<input type="checkbox"/>	<input type="checkbox"/>
I	Land cover (vegetation and impervious surfaces)	<input type="checkbox"/>	<input type="checkbox"/>
J	Key map depicting extents of detailed drainage plan sheets	<input type="checkbox"/>	<input type="checkbox"/>
2 Detailed Drainage Plan/s			
A	Title block, legend, north arrow, and scale (scale range of 1" = 20' to 1" = 100')	<input type="checkbox"/>	<input type="checkbox"/>
B	Existing (screened) and proposed (solid) topographic contours (2' max interval)	<input type="checkbox"/>	<input type="checkbox"/>
C	Location and elevation of all waterways, regulated buffer areas, and 100-year floodplain	<input type="checkbox"/>	<input type="checkbox"/>
D	Property, right-of-way, and easement boundaries	<input type="checkbox"/>	<input type="checkbox"/>
E	Drainage basin/sub-basin boundaries with area, design point, and flow/release rate labels	<input type="checkbox"/>	<input type="checkbox"/>
F	Proposed outfall points and conveyance facilities to major drainageway with design point and flow/release rate labels	<input type="checkbox"/>	<input type="checkbox"/>
G	Existing and proposed structure boundaries	<input type="checkbox"/>	<input type="checkbox"/>
H	Existing and proposed stormwater conveyance facilities with size, slope, and material designation (storm sewers, culverts, open channels, inlets, and discharge points)	<input type="checkbox"/>	<input type="checkbox"/>
I	Existing and proposed stormwater detention and water quality facilities with drainage area, surface area, side slope/wall, and component labels	<input type="checkbox"/>	<input type="checkbox"/>

2. Stormwater Construction Plans and Drawings

Required Element		Included	N/A
1 Stormwater Conveyance Construction Drawings			
A	Plan drawing/s depicting all proposed storm sewer and open channel conveyances	<input type="checkbox"/>	<input type="checkbox"/>
B	Profile drawing/s depicting all proposed storm sewer and open channel conveyances	<input type="checkbox"/>	<input type="checkbox"/>
2 Detention and Post-Construction Stormwater Quality Construction Drawings			
<u>A</u>	<u>Plan drawing/s depicting each proposed detention and post-construction stormwater quality facility</u>	<input type="checkbox"/>	<input type="checkbox"/>
	i Inlet and outlet structure locations and energy dissipation measures, including emergency spillways	<input type="checkbox"/>	<input type="checkbox"/>
	ii Proposed contours for treatment surface area and side slopes/walls	<input type="checkbox"/>	<input type="checkbox"/>
	iii Facility components (e.g. pretreatment, micropool, underdrain, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
	iv Vegetative cover	<input type="checkbox"/>	<input type="checkbox"/>
<u>B</u>	<u>Profile and/or cross-sectional drawing/s depicting each proposed detention and post-construction stormwater quality facility</u>	<input type="checkbox"/>	<input type="checkbox"/>
	i Inlet and outlet structure inverts	<input type="checkbox"/>	<input type="checkbox"/>
	ii Treatment area and side slope/wall surface elevations	<input type="checkbox"/>	<input type="checkbox"/>
	iii Filter media components and depths	<input type="checkbox"/>	<input type="checkbox"/>
	iv Facility component elevations (e.g. pretreatment, micropool, underdrain, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
<u>C</u>	<u>Detail drawing/s depicting each unique detention and post-construction stormwater quality facility component</u>	<input type="checkbox"/>	<input type="checkbox"/>
	i Pretreatment	<input type="checkbox"/>	<input type="checkbox"/>
	ii Outlet structure	<input type="checkbox"/>	<input type="checkbox"/>
	iii Underdrain	<input type="checkbox"/>	<input type="checkbox"/>
	iv Other unique components	<input type="checkbox"/>	<input type="checkbox"/>