

## CHAPTER 8 DESIGN REQUIREMENTS

Submittal of all maps and/or plans shall contain the following information before being submitted to the Planning Department for review of any drainage related issues, including sizing of required drainage easements, pipe installations, relocating drainageways, on-site drainage systems.

1. Name of development
2. Date map prepared or revised
3. Scale of drawing in feet per inch
4. Name, address, and telephone # of surveyor or engineer preparing map
5. Vicinity map drawn to scale of 1" = 2000'
6. Registration and seal of surveyor or engineer
7. North arrow
8. Existing and proposed property lines
9. Existing and proposed easements or rights-of-way, nature of easement
10. Water courses, ponds, lakes, and streams
11. Wetlands
12. Location of floodways and floodway fringe from Flood Hazard Boundary Maps
13. Existing and proposed buildings
14. Existing and proposed utilities
15. Stormwater network, including swales, culverts, inlet and outlet structures
16. Drainage basin delineation map, drawn to scale of 1" = 400' and a contour interval not exceeding 5 feet and preferably 2 feet. Separate map is acceptable if entire basin cannot be shown on preliminary/site plan
17. Complete drainage calculations for Rational Method, including all assumptions, runoff coefficients, design storm, rainfall intensity, IDF charts used  
- OR -  
Complete drainage calculations for SCS Method, including all assumptions, curve numbers, soil types, design storm
18. When performing drainage calculations for sizing drainage easements, the point of interest should be taken at the upper portion of the lot or immediately downstream of a road to determine the width of easement through the lot.
19. For long runs of drainage channel, calculations shall be made every two lots (200' - 300') to determine if the width of easement changes along the course.
20. When drainage exits the roadside ditch from a public road, an easement shall be provided, even if the flow is less than 5 cfs.
21. Piped systems shall be designed for the peak flow from a 10 year, 24 hour storm.
22. Open Channel systems shall be designed for the peak flow from a 100 year, 24 hour storm.

The following is a sample submittal for an easement width determination.

SAMPLE DRAINAGE SUBMITTAL  
(Some items in the above list are deleted due to the size of the example map)

## SAMPLE DRAINAGE SUBMITTAL

ESMT#	DR. AREA*	C**	I	Q(CFS)	ESMT. REQ'D
1	0.68	0.4	8.0	2.17	NONE REQ'D
2	5.75	0.4	8.0	18.40	60'
3	2.16	0.4	8.0	6.91	30'
4	13.22	0.4	8.0	42.30	60'

\* REFER TO ATTACHED MAP

\*\* INCLUDES FUTURE DEVELOPMENT OF OFF-SITE PROPERTY



