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 <u>any</u> 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.

8-02

SAMPLE DRAINAGE SUBMITTAL

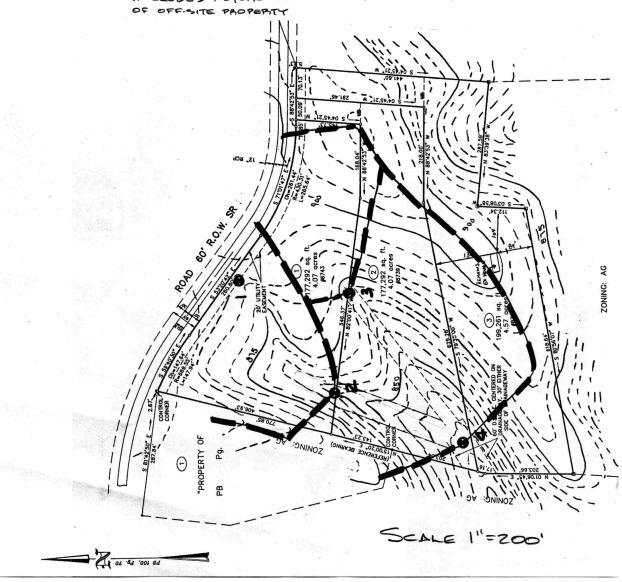
(Some items in the above list are deleted due to the size of the example map)

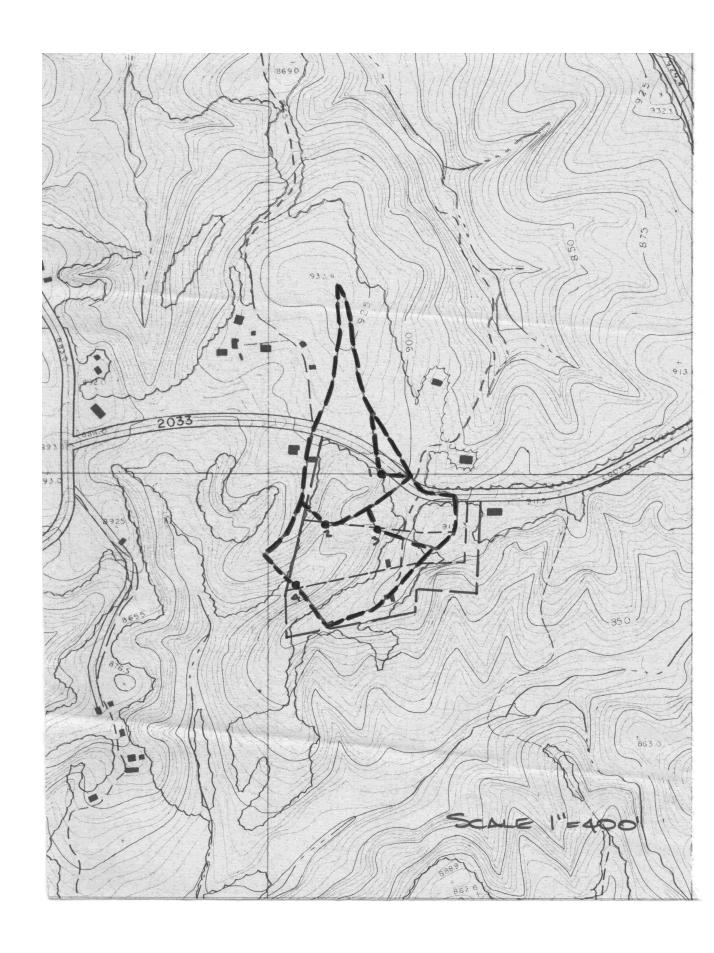
SAMPLE DRAINAGE SUBMITTAL

| | ale. | | | | |
|-------|----------|-----|-----|--------|------------|
| ESMT# | DR. AREA | C** | I | Q(CPS) | ESMT. REDD |
| . 1 | 0.68 | 0.4 | 8.0 | 2.17 | NONE REQ'D |
| 7 | 5.75 | 0.4 | 8.0 | 18.40 | 60' |
| 3 | 2.16 | 0.4 | 8.0 | 6.91 | 301 |
| 4 | 13.22 | 0.4 | 8.0 | 42.30 | 60' |

* REFER TO ATTACHED

** INCLUDES FUTURE DEVELOPMENT





8-02