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| **INSTRUCTIONS**   |  |  |  | | --- | --- | --- | | **COL #** | **ITEM** | **DESCRIPTION** | | 1. | End of Pipe ID | Inlet, manhole or junction number of symbol | | 2. | Station | Roadway station or end of pipe location | | 3. | Drainage area, A | Contributing drainage area at inlet or manhole | | 4. | Runoff coefficient, C | Representative runoff coefficient of drainage area | | 5. | CA | Intermediate runoff calculation | | 6. | ∑CA | Summation of CAs to this point | | 7. | Pipe travel time, T | Pipe length (col. 11)/Mean Velocity (col. 14) | | 8. | Total travel time | Travel time to inlet (col. 8) + pipe travel time (col. 7) | | 9. | Rainfall intensity, I | Compute based on total travel time (col. 8) | | 10. | Flow, Q | Rational discharge = CA (col. 6) x I (col. 9) | | 11. | Pipe Length, L | Place pipe entries between inlets, manholes, or junctions | | 12. | Pipe Slope, So | Slope of pipe in ft/ft | | 13. | Pipe diameter, D | Determine from nomograph or other means (n=0.012) | | 14. | Mean pipe velocity, V | Determine from nomograph or other means | | 15. | Full pipe flow | Determine from nomograph or other means | | 16. | Capacity (%) | Design capacity = Flow (col. 10)/Full pipe flow (col. 15); If design flow produces pressure flow, resize pipe. | |