



**CITY OF NEWPORT BEACH**  
**COMMUNITY DEVELOPMENT DEPARTMENT**  
**BUILDING DIVISION**

100 Civic Center Drive, Newport Beach, CA 92660  
[www.newportbeachca.gov](http://www.newportbeachca.gov) | (949) 644-3200

**HYDROLOGY AND HYDRAULICS**  
**REVIEW CHECKLIST**

Project Address:

Plan Check No.:

Date of Report:

Report Prepared By:

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1<sup>st</sup> Review:                       2<sup>nd</sup> Review:                       3<sup>rd</sup> Review:

- Make the following corrections to the report.
- Return this correction sheet and check prints with corrected report.
- Submit a response sheet indicating how each correction was resolved.
- Public streets and alleys subject to review by Public Works.

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**Prior to approval of the report, attend to the following:**

**TITLE PAGE**

- Name of project
- Site address (or addresses) OR Tentative Tract Map No.
- Owner/developer name
- Owner/developer address & telephone number
- Consulting/engineering firm
- Consulting/engineering firm address & phone number
- Date report was prepared/revised
- Signature and stamp of registered civil engineer who prepared the report.

## **HYDROLOGY REVIEW**

- A. Provide hydrologic plan and profile with:
- Legend
  - All easements
  - Scale 1"-20' or 1"-40'
  - Show storm drain stationing on plan and profile (if applicable)
  - Show proposed improvements with solid lines and exiting improvements with dashed lines
  - Show 100 year storm elevation on retention basin
  - Provide inlet capacities
  - Show Hydrology Plan Q and Tc for pre- and post-development at each node
- B. Provide calculations for each node to verify the subarea, length of travel, nodes and cfs
- C. Provide pre-development and proposed 25-year and 100-year storm peak flow and Tc (show on Hydrology plan)
- D. Post development run-off shall not exceed the pre-development run-off (CalGreen)

## **HYDRAULIC COMPUTATIONS**

- Provide storm drain capacity computations
- For pressure flow, provide water tight joints and verify that no water exits out of inlets
- Provide curb inlet and catch basin computations
- Provide capacity computations for concrete swales
- Provide pipe size calculations based on Q from hydrologic computations
- Minimum factor of safety of 2 for inlet sizing
- For grated inlets provide a 50% clogging factor
- Concrete coating inside of reinforced concrete pipes shall be a minimum of 1.5 inches over the reinforcing when velocity exceeds 20 fps
- Pipes on slopes greater than 4:1 shall be anchored at 10 foot vertical intervals
- For 12 inch or greater diameter HDPE pipe, maximum blend is 11 ¼ degrees
- Provide detail for HDPE to RCP connection (if applicable)

## **ADDITIONAL CORRECTIONS**