

**Janet Danker**

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**From:** Mitchell Robinson <Robinson@irwd.com>  
**Sent:** Thursday, May 07, 2015 9:19 AM  
**To:** Janet Danker  
**Subject:** RE: Fwd: LSA Environmental Review - IRWD

Hi Janet,

See below for the estimated design capacities for the 12" domestic water line and 8" VCP sewer line.

**12-inch Domestic Water Line**

Demand	Velocity Criteria (ft/s)	Approximate flow (gpm)
Min	1	353
Average	5	1763
Peak	8	2820
Fire Flow	15	5288

\*Volumetric flow equation used to calculate flows

**8-inch Sewer Line**

Diameter	d/D Criteria	Approximate Dry Flow (gpm)
8	0.5	772

\*Manning's Equation used to calculate flows

Best Regards,

Mitch Robinson, E.I.T.  
Assistant Engineer, Planning  
Irvine Ranch Water District  
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>>> "Janet Danker" <[Janet.Danker@lsa-assoc.com](mailto:Janet.Danker@lsa-assoc.com)> 4/30/2015 9:39 AM >>>

Hi Mitchell,

Per our phone conversation this morning, I wanted to follow up with you regarding my specific questions.

We are looking for the design capacity and approximate existing flow rate for the following two lines in Commercentre Drive:

- 1) Existing 12-inch PVC domestic water line in Commercentre Drive.
- 2) Existing 9-inch VCP sanitary sewer line in Commercentre Drive.

I have attached a figure showing the location of the project site. I understand per our conversation that the calculations you can provide us will be approximations and that it is still recommended that the developer contact IRWD to review the need for an addendum/letter report to the SAMP.

If you could get back to us by the end of this week that would be very helpful.

Thank you for your time!

**Janet Danker**

LSA Associates, Inc.  
949-553-0666

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**From:** Mitchell Robinson [<mailto:Robinson@irwd.com>]  
**Sent:** Thursday, March 26, 2015 4:13 PM  
**To:** Janet Danker  
**Cc:** Eric Akiyoshi; Mike Hoolihan; Kelly Lew  
**Subject:** Re: Fwd: LSA Environmental Review - IRWD

Hi Janet,

Please see attached for the Questionnaire and Sewer and Potable Atlas pages. Let me know if you have any questions.

Best Regards,

[Mitch Robinson, E.I.T.](#)

[Assistant Engineer, Planning](#)

[Irvine Ranch Water District](#)

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>>> "Janet Danker" <[Janet.Danker@lsa-assoc.com](mailto:Janet.Danker@lsa-assoc.com)> 3/17/2015 1:47 PM >>>

Dear Ms. Lew,

This email has been sent to you as part of an environmental review process being conducted pursuant to the California Environmental Quality Act (CEQA). The City of Lake Forest has determined that preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) is necessary to adequately analyze the environmental effects of the Encanto Residential project.

Please find attached a letter including information about the project and a questionnaire regarding the Irvine Ranch Water Districts ability to provide services to the project.

It would be helpful to the analysis for LSA to receive a response by Friday, **March 27, 2015**. Please let me know if you have any questions or need more information to complete the questionnaire.

Thank you in advance for your time and assistance.

**Janet Danker**

Assistant Environmental Planner

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