VALLECITOS WATER DISTRICT
A PUBLIC AGENCY
201 Vallecitos de Oro • San Marcos, California • 92069-1453 Telephone (760) 744-0460

April 18, 2013

W.O. 128437

Mr. Gerald Gilbert
Shapouri & Associates
5650 El Camino Real, Suite 130
Carlsbad, CA 92008

Re: Orchard Hills
APNs 218-220-17 & 218-220-10
Tentative Tract No. 5570

Dear Mr. Gilbert,

Please find attached map and flow results of the fire flow analysis for the proposed Orchard Hills project in San Marcos, CA. The fire flow requirement for this development is 1,500 gpm per the San Marcos Fire Department's form.

In order to meet the fire flow requirements for this project, a new 10" diameter public waterline must be installed within the proposed streets with a connection to the existing 12" waterline in Richland Road.

If you have any questions regarding the analysis, please contact me.

Sincerely,

Carlos Fimbres
Capital Facilities Coordinator
Vallecitos Water District

X:\Hydraulic Analysis letters\Orchard Hills.doc

EPS Results - J-167 (Junction)

Time (hours)	Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	935.22	49.4	114.22	0.00

EPS Results - J-167 (Junction)

Time (hours)	Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	908.52	37.9	87.52	1,500.00

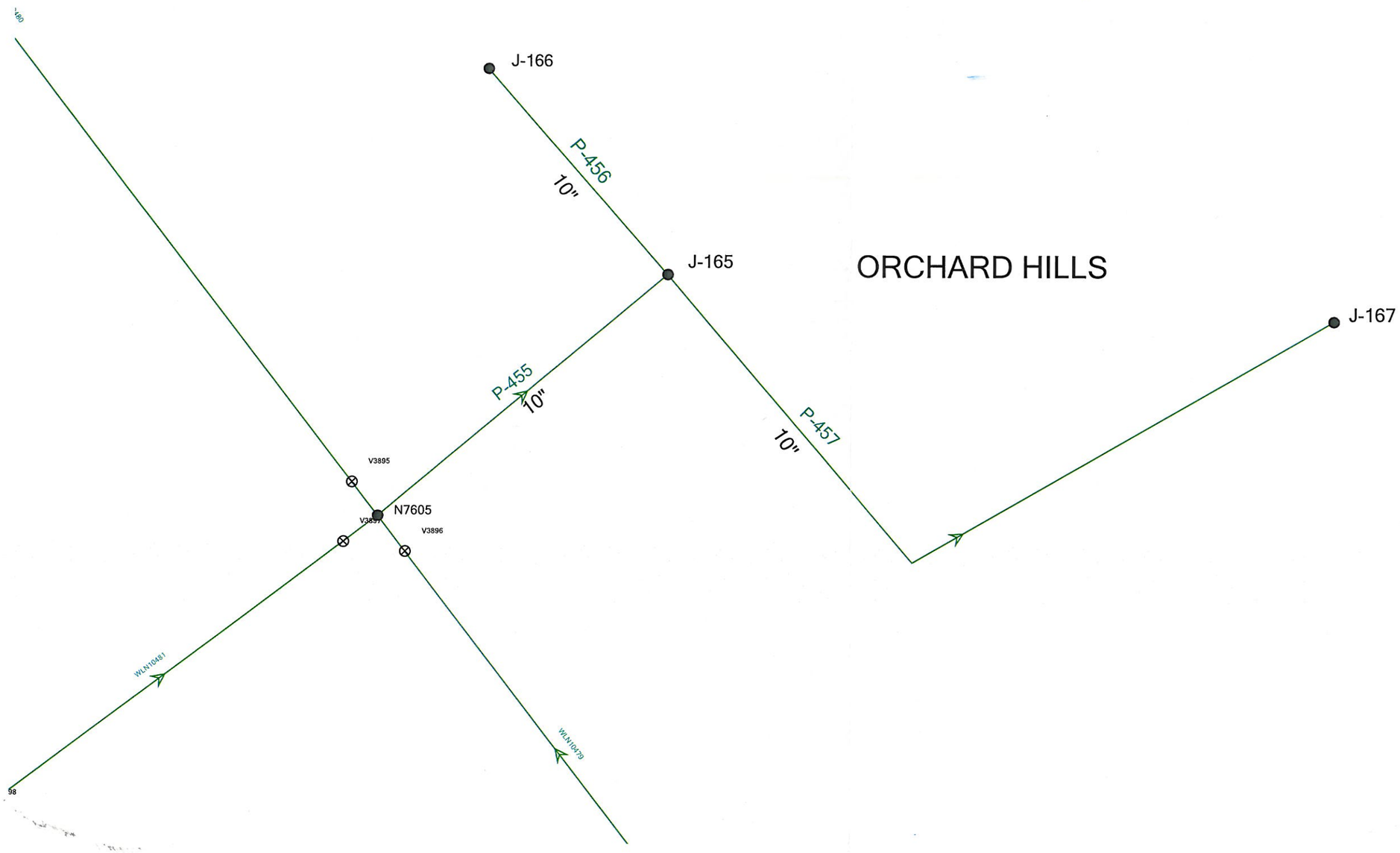
EPS Results - J-166 (Junction)

Time (hours)	Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	935.22	42.9	99.22	0.00

EPS Results - J-166 (Junction)

Time (hours)	Hydraulic Grade (ft)	Pressure (psi)	Pressure Head (ft)	Demand (gpm)
0.00	912.54	33.1	76.54	1,500.00

Scenario: FF 1500 J-167



Current Model Dec2011.wtg
4/16/2013

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT 06795 USA +1-203-755-1666

Bentley WaterGEMS V8i (SELECTseries 3)
[08.11.03.19]
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