



CENTERLINE

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DESIGN MEMORANDUM

TO: Growth Management
FROM: Lawrence M. Kostaneski, PE
DATE: September 8, 2006

RE: 0066: Lazy P-6 Phase 5: Shelby Ave. / Stumer Road Extension

CC: Lazy P-6 Land Co., Inc.

Message: Please reference previously approved construction plans: DEV 03-656

Phase 5 is the area south of Sandra Lane, W ½ NW ¼ NW ¼ 19-1-8. The project consists of utilities (DEV 03-656), drainage and surfacing.

1. Water and sewer mains are extensions of previous phases. The distribution model for this 80 acre area were approved with the previous phases. Based on information provided by the city, the water system is on the Palo Verde reservoir, elev. 3546. Class 150 PVC water main is proposed throughout this phase.
2. Contributing area for Shelby is the west MDR property. 9 acres produces Q_{10} of 36 cfs and Q_{100} of 50 cfs. Storm water systems for Shelby includes Type E inlets, two of which are in the sag vertical curve. These discharge into the existing 60" pipe built in a previous phase. The model for the 60" anticipated contribution from other sources. The lots adjoining Stumer generally drain away from the road into existing conveyances. Inlets will be required east of this phase.
3. Surfacing section is as identified in a geo-tech report submitted with and built in previous phases.

Please call with questions. Thanks.

END

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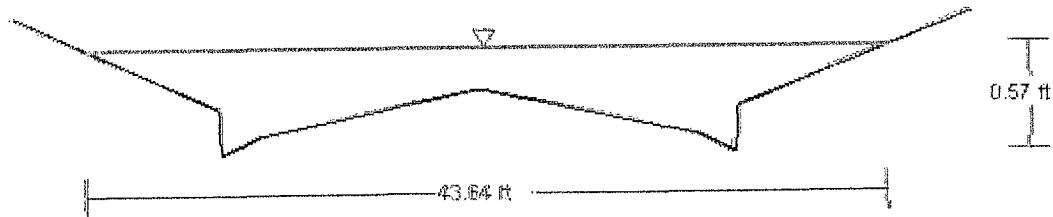
0066 Ph 5 Shelby Ave
Cross Section for 0066 Ph 5 Shelby Ave

Project Description

Flow Element: Irregular Section
Friction Method: Manning Formula
Solve For: Normal Depth

Section Data

Roughness Coefficient:	0.015	
Channel Slope:	0.00750	ft/ft
Normal Depth:	0.57	ft
Elevation Range:	99.25 to 100.00 ft	
Discharge:	50.00	ft ³ /s



W 10
H 1

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Rating Curve for 0066 Ph 5 Shelby Ave

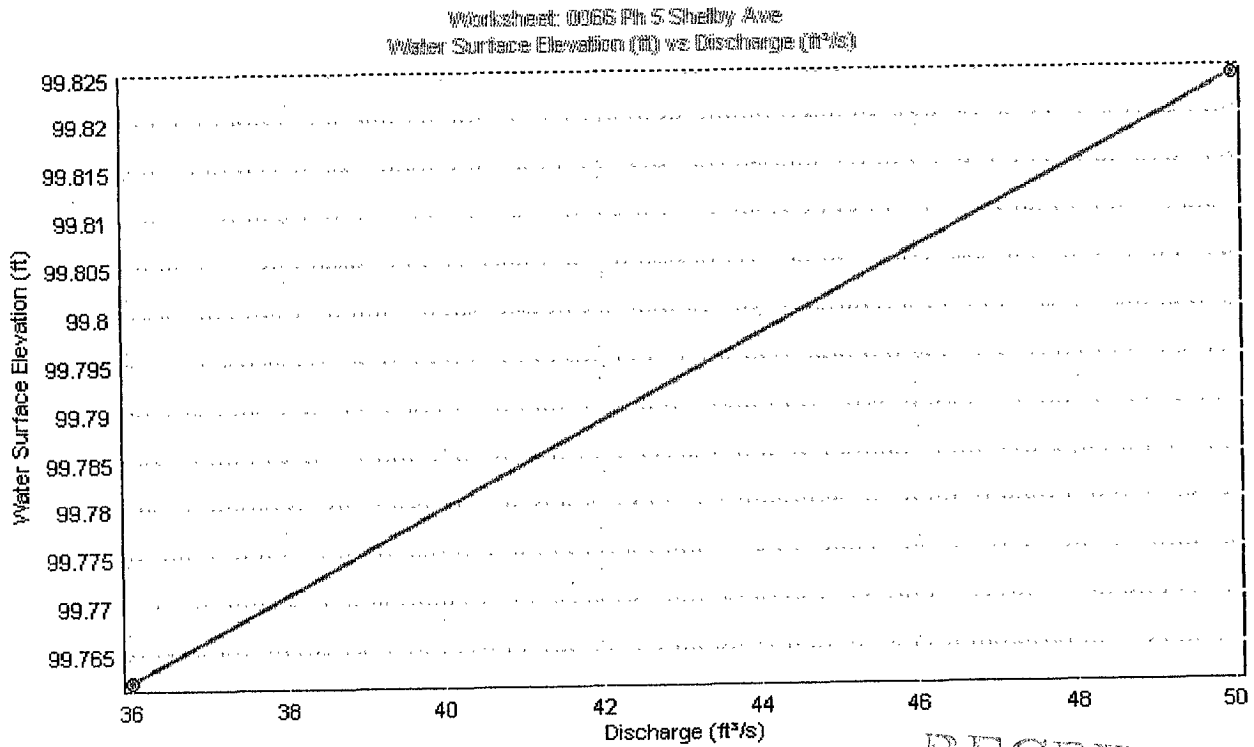
Project Description

Flow Element: Irregular Section
 Friction Method: Manning Formula
 Solve For: Normal Depth

Input Data

Roughness Coefficient: 0.015
 Discharge: 50.00 ft³/s

Attribute	Minimum	Maximum	Increment
Discharge (ft ³ /s)	36.00	50.00	14.00



TC 99.25

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Line No.	Line ID	DnStrm Line No.	Flow Rate (cfs)	Line Length (ft)	Line Size (in)	Line Slope (%)	Vel Ave (ft/s)	Invert Up (ft)	Invert Dn (ft)	HGL Dn (ft)	Grnd/Rim Elev Up (ft)	HGL Up (ft)
1	To Ex 60 RCP	Outfall	40.00	30.00	24	6.67	12.81	3289.00	3287.00	3288.95	3293.00	3290.95
2	Shelby 6+15	1	15.00	30.00	18	1.67	8.49	3289.50	3289.00	3293.76	3293.00	3294.37
3	Shelby from 5+00	1	10.00	105.00	18	1.43	5.66	3290.50	3289.00	3293.76	3293.60	3294.71

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