APPENDIX K
Wastewater Master Plan Report

Moffett Park Specific Plan
Sunnyvale, CA

Wastewater Master Plan Report

October 2022

Prepared for:
City of Sunnyvale

Prepared by:

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1.0 INTRODUCTION

The Moffett Park Specific Plan (MPSP) provides guidance on the development of the Moffett Park area within the City of Sunnyvale (City) in Santa Clara County, California. The Moffett Park area is currently comprised of corporate headquarters, offices, and research and development facilities. The MPSP documents goals and objectives for future development of the area, including community and design guidelines, infrastructure improvements and development standards. The MPSP was previously adopted by the City in 2004, and was last revised in 2013. The MPSP is presently being updated because of recent changes to proposed district types (i.e. land uses).

The 2013 MPSP revision examined the existing wastewater system and determined the minimum wastewater system improvements that are required to convey peak dry weather flows (PDWF) and peak wet weather flows (PWWF) during the anticipated buildout conditions. The recent changes to the anticipated district types will affect the minimum wastewater system improvements.

BKF Engineers (BKF) has performed an analysis of the existing wastewater collection system and the most recent proposed district types. Our analysis includes calculating new PDWF and PWWF in the MPSP area based on the most recent proposed district types. We identify deficiencies in the existing system, and determine the minimum improvements within the MPSP that are required to convey the new PDWF and PWWF from the MPSP area. In addition, we identify additional system improvements that are required to convey new PDWF and PWWF from the MPSP and from future offsite improvements (cumulative impacts). The BKF effort included a review of assumptions, estimation of wastewater flow generation, and hydraulic modeling of the new PDWF and PWWF. This Wastewater Master Plan (WWMP) report has been prepared to document the BKF analysis and the recommended wastewater system improvements.

2.0 LAND USE

The MPSP provides a comprehensive, long-term plan that supports the development of the Moffett Park area. The plan includes a mix of land uses consistent with the City's goals and objectives for future development. The MPSP area is shown in Figure 1 below.

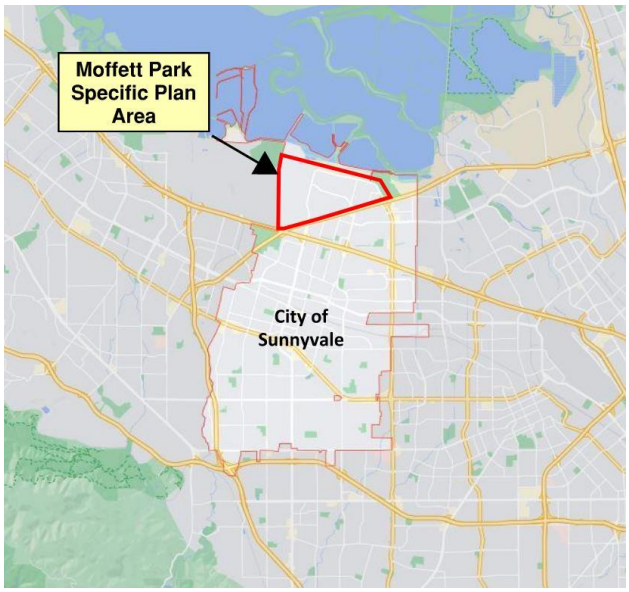


Figure 1 – Moffett Park Specific Plan (MPSP) Area

The total MPSP area is approximately 1,157 acres. The majority of this area is expected to be re-developed as part of the buildout of Moffett Park, with the following exceptions: public land parcels that include right-of-way and public roads, the Lockheed Martin campus and institutional parcels including public schools and emergency services are assumed to be fully-developed in the existing condition. That is, the parcels identified as exceptions are not expected to be re-developed as part of MPSP buildout conditions. With the fully-developed parcels excluded, the total Moffett Park area to be re-developed is approximately 783 acres.

The buildout of the MPSP discussed in this study reflect the newly proposed specific plan. The revised MPSP proposed district types include residential, office, research & development, and mixed-use land use. The proposed district types are shown in **Appendix A**. The proposed district types were compared to zoning classifications listed in the City of Sunnyvale Sanitary Sewer Systems Design Standards, last revised June 2015 (design standards) and were used as the basis for the wastewater flow estimates described in the Section 3.0.

3.0 WASTEWATER FLOW GENERATION

MPSP Onsite Flow Generation

Wastewater flows are estimated in the MPSP area for proposed district type based on wastewater flow factors specified in the design standards (**Appendix B**). Each proposed district type is assigned a comparable land use type that is consistent with the design standards. The wastewater flow factors are applied to each parcel based on the comparable land use types to calculate average dry weather flow (ADWF). **Table 1** shows the calculated wastewater flows in the MPSP area.

Peaking factors are applied to the ADWF to estimate peak dry weather flow (PDWF) and peak wet weather flow (PWWF). PWWF is typically used to evaluate the sewer infrastructure. However, the design standards specify that the dry weather peaking factor is to be determined by ADWF generated by each development parcel, ranging from a peaking factor of 2.0 for development parcels that generate over 600,000 gallons per day (gpd) and up to 3.5 for developments that generate under 8,000 gpd. The total PDWF for the buildout of the MPSP area is 11.73 million-gallons per day (MGD).

For PWWF, the design standards recommend an inflow allowance based on a 10-year storm event that is 65% of the ADWF. The peaking factor for PWWF is calculated using the following equation:

PWWF = ADWF x (PDWF Peaking Factor + 0.65)

This peaking factor is applied to the estimated ADWF to assess the performance of the existing system under a PWWF scenario. The total PWWF for the buildout of the MPSP area is 14.29 MGD.

Offsite Flow Generation

Flows from the City of Sunnyvale are collected by the City's wastewater collection system and conveyed to the sewer system throughout the MPSP area. As such, it is necessary to consider how the development of the City will impact flow into the MPSP area. Evaluation of the City's collection system outside of the MPSP area (offsite area) is not included. Therefore, boundary nodes have been designated and existing and future flows to these nodes were provided by others, as documented in **Table 2** below.

Table 2 – Offsite Flows to Boundary Nodes

Boundary Node ID	Existing PDWF (cfs)	Existing PWWF (cfs)	Buildout PDWF (cfs)	Buildout PWWF (cfs)
S529MNH0207XX	1.26	2.41	1.44	2.94
S549MNH0201XX	1.60	4.33	1.87	5.70
S550MNH0207XX	5.27	15.02	7.34	20.20
S550MNH0210XX	4.45	13.32	5.70	13.39
S575MNH0203XX	0.28	0.68	0.28	0.68
S615MNH0206XX	16.90	32.37	20.22	28.93
S674MNH0202XX	1.01	1.22	1.12	1.33

4.0 DESIGN CRITERIA

The following assumptions and Design Criteria are utilized in evaluating the MPSP's wastewater system. The criteria are consistent with those specified in the Design Criteria, and are established to ensure that the proposed wastewater collection system will provide adequate capacity to convey peak sewer flows to the wastewater pollution control plant (WPCP). The results of the system evaluation are evaluated against the recommended Design Criteria to identify system deficiencies and recommend improvements. The wastewater system Design Criteria recommended for this planning effort are as follows:

Table 3 – Wastewater Collection System Design Criteria

Minimum Pipe Diameter	8 inches
Maximum Flow Depth	For 10-inch diameters and smaller: Maximum d/D = 0.50
	For 12-inch diameters and larger: Maximum d/D = 0.75
Minimum Slope	For 8-inch diameters: Minimum slope = 0.005 feet/feet (0.5%)
	For 10-inch diameters and larger: Minimum slope = 0.004 feet/feet (0.4%)
	If the slope criteria above are not possible to meet, provided slope must result in a minimum velocity of 2.5 feet per second when the pipe is flowing half full.
Maximum Slope	0.14 feet/feet (14.0%)
Minimum Cover	5 feet below finished grade
Manhole Drop	Minimum pipe inlet-to-outlet invert elevation drop through manholes shall be: 0.10 foot for pipe sizes 8-inch and 10-inch
	For larger pipe where flow through the manhole does not change direction, and there are no other incoming pipes: No minimum drop
	For all other situations: Provide 0.2-foot minimum drop
Manhole Spacing	For 18-inch diameters and smaller: Maximum distance between manholes = 300 feet
	For diameters larger than 18-inch: Maximum distance between manholes = 400 feet

5.0 MODEL DEVELOPMENT

The wastewater collection system hydraulic model was developed for this study using Bentley SewerCAD modeling software. This software is a 1D sewer modeling software used for steady-state capacity analysis and sewer system planning using defined boundary conditions and sewer flow allocation. The modeled facilities were imported from City's GIS database, and include pipelines and manholes up to the point of connection to the existing City of Sunnyvale WPCP. This model was truncated to only include the system serving the MPSP area, with specified boundary nodes representing the points where flows from the offsite wastewater collection system enter the Moffett

Park system. These flows were provided by others. BKF used information from GIS records, as-builts, and block maps to input the physical model parameters such as pipe size, slope, invert and rim elevations, etc. The extent of the modeled Moffett Park system and boundary nodes from the existing offsite collection system are shown in **Figure 2**.

It should be noted that the received GIS database information indicated the presence of high-flow diversions within the system. Limitations to the SewerCAD modeling engine require that the flow distribution of modeled diversions be manually specified. These flow distributions were specified on a case-by-case basis, with the majority of diversions assumed to divert no flow based on modeled hydraulic grades.

6.0 EXISTING SYSTEM EVALUATION

The existing wastewater collection system is evaluated using the hydraulic model. In coordination with the City, the following steady-state scenarios were developed:

- **Proposed MPSP Evaluation** – This scenario includes the existing system in the MPSP area with existing offsite flows and proposed MPSP flows. The intent of this scenario is to identify system deficiencies resulting from the buildout of the MPSP.
- **Proposed MPSP Improvements** – This scenario includes the improved system in the MPSP area with existing offsite flows and proposed MPSP flows. The intent of this scenario is to identify the minimum improvements required to mitigate deficiencies resulting from the buildout of the MPSP.
- **Proposed Cumulative Impacts Evaluation** – This scenario includes the improved system in the MPSP area with future offsite flows and proposed MPSP flows. The intent of this scenario is to identify system deficiencies resulting from the future offsite development that is within City's service area, in addition to the MPSP.
- **Proposed Cumulative Impacts Improvements** – This scenario includes an enhanced system in the MPSP area with future offsite flows and proposed MPSP flows. The intent of this scenario is to identify additional improvements required to mitigate deficiencies resulting from the cumulative development of the City's service area, including all offsite developments and the MPSP area.

Under future flows from the buildout of the MPSP area, the model indicates that there are several pipelines which exceed d/D criteria under peak wet weather flows, as shown in **Figure 3**. The pipelines in the MPSP area were likely not sized to meet demands resulting from the revised development assumptions and deficient pipes have been identified as capacity deficient and recommended for improvement in the next section.

Under future flows from the buildout of the offsite area, the model indicates that there are several pipelines which exceed d/D criteria under peak wet weather flows, as shown in **Figure 4**. It should be noted that the received boundary flows indicate that the distribution of flows to each node change from existing to future as a result of proposed operational changes. As a result, the model indicates that deficiencies in some pipelines decrease in severity under future offsite flow conditions, and may require

smaller improvement sizing to meet design criteria under cumulative buildout conditions than under MPSP buildout conditions. Specifically, improvement sizing recommendations to address a deficiency in a portion of the existing 39-inch sewer trunk along East Caribbean Drive would decrease under cumulative buildout conditions compared to MPSP buildout conditions.

A summary of the depth and velocity results from the existing system evaluation under peak wet weather flow conditions can be found in **Table 4** below. This summary documents the impact to the existing sewer system resulting from wastewater flows generated by the proposed MPSP and cumulative buildout. Tables documenting the full output from the SewerCAD model can be found in **Appendix C**.

Table 4 – Existing System Evaluation Summary

Parameter	Maximum
Proposed MPSP Conditions Evaluation	
Depth-to-Diameter Ratio (d/D)	Surcharged[1]
Pipeline Velocities during PDWF (fps)	15.2
Pipeline Velocities during PWWF (fps)	20.8[2]
Proposed Cumulative Impacts Evaluation	
Depth-to-Diameter Ratio (d/D)	Surcharged[1]
Pipeline Velocities during PDWF (fps)	16.8
Pipeline Velocities during PWWF (fps)	22.7[2]

7.0 PROPOSED IMPROVEMENTS

As described in the previous section, the existing system is currently deficient under cumulative buildout conditions and is unable to meet the specified Design Criteria under PWWF conditions. In order to mitigate these deficiencies, several portions of the existing system are recommended for improvement. Key improvements are summarized below:

- The existing 12-inch and 18-inch gravity sewer trunk along Innovation Way, N Mathilda Avenue and W Caribbean Drive should be replaced with new gravity sewer ranging in size from 18-inch to 27-inch from State Route 237 to approximately 1,000 LF west of Borregas Avenue. The improvement is intended to mitigate deficiencies caused by the cumulative buildout of the MPSP and offsite areas. This improvement will provide adequate capacity for the pipeline to meet Design Criteria under the cumulative buildout PWWF conditions.

[1] In some locations, surcharging reaches or exceeds the manhole rim elevation.

[2] Maximum presented velocities are for unusually short and steep existing pipe segments. The vast majority of the system has low slopes and low velocities.

- The existing 24-inch gravity sewer trunk along Borregas Ave should be replaced with new gravity sewer ranging in size from 27-inch to 30-inch from State Route 237 to Carl Road. This improvement is intended to mitigate deficiencies caused by the cumulative buildout of the MPSP and offsite areas. This improvement will provide adequate capacity for the pipeline to meet Design Criteria under the cumulative buildout PWWF conditions.
- The existing 39-inch and 48-inch gravity sewer trunk along E Caribbean Drive should be replaced with new gravity sewer ranging in size from 42-inch to 54-inch from Twin Creeks to the WPCP. This improvement is intended to mitigate deficiencies caused by the cumulative buildout of the MPSP and offsite areas. This improvement will provide adequate capacity for the pipeline to meet Design Criteria under the cumulative buildout PWWF conditions. It should be noted that the buildout of the offsite system is expected to include diversion of flow through the existing Arques pump station as a means of alleviating flow in the Lawrence interceptor. The received boundary flow conditions indicate that the completion of this project will result in a decrease in PWWF to the sewer trunk along E Caribbean Drive under cumulative buildout conditions. As such, the recommended improvement size for several of the deficient pipelines decreases in the cumulative buildout scenario. This improvement should be coordinated with the Arques pump station diversion to determine ultimate sizing recommendations.

While the above improvements to primary sewer trunks address the majority of deficiencies, there are several additional targeted improvements that are recommended to mitigate any remaining capacity deficiencies, as well as recommendations for new manhole construction and adjusted pipeline slope as needed to meet the specified Design Criteria in the recommended improvements. All of the recommended improvements are documented in **Figure 5 and 6**.

A summary of the depth and velocity results with the proposed improvements can be found in the **Table 5** below. This summary documents the performance of the improved sewer system under MPSP buildout and cumulative buildout conditions. Tables documenting the full output from the SewerCAD model can be found in **Appendix C**.

Table 5 – Proposed Improvements Evaluation Summary

Parameter	Maximum
Proposed MPSP Conditions Evaluation	
Depth-to-Diameter Ratio (d/D)	0.73
Pipeline Velocities during PDWF (fps)	15.2
Pipeline Velocities during PWWF (fps)	20.8[2]

[2] Maximum presented velocities are for unusually short and steep existing pipe segments. The vast majority of the system has low slopes and low velocities.

Proposed Cumulative Impacts Evaluation	
Depth-to-Diameter Ratio (d/D)	0.75
Pipeline Velocities during PDWF (fps)	16.8
Pipeline Velocities during PWWF (fps)	22.7

8.0 COST ESTIMATES

Preliminary cost estimates for the improvements described in the previous section are presented in **Table 7**. As shown, mitigating deficiencies in the existing system caused by the buildout of the MPSP has an estimated total cost of $17.9 Million and an estimated total cost of $18.5 Million to mitigate deficiencies in the existing system caused by the cumulative buildout of the MPSP area and the offsite system. These costs were estimated using pipeline unit costs as shown in **Table 6**. These costs were developed from unit costs for comparable projects in surrounding areas, which were then escalated to reflect the most recent Engineering News Record Construction Cost Index (ENR CCI). The ENR CCI is an inflation index used to adjust prices from one time period to another. The cost estimates used in this report are based on the ENR CCI of 13,171 for August 2022. In addition, a factor of 30 percent has been factored into all unit costs to account for engineering, legal and administration costs, in addition to unexpected construction contingencies. Estimates of improvement costs provided represent Class 4 Order of Magnitude level costs as established by the American Association of Cost Engineers and represent an accuracy of +50% to -30%, and new cost estimates should be obtained during pre-design for proposed improvements to confirm budget amounts.

9.0 CONCLUSIONS

Based on the evaluation described in the previous sections, the existing wastewater system serving the Moffett Park area is currently undersized for buildout of the updated MPSP, as well as for the cumulative buildout of the MPSP area and offsite areas. In order to mitigate deficiencies observed during peak wet weather flows, it is recommended that the following approximate lengths of new sanitary sewer gravity main be constructed to meet the needs of the cumulative buildout of the MPSP area and offsite areas:

- 0.03 miles of new 10-inch main
- 0.39 miles of new 12-inch main
- 0.03 miles of new 15-inch main
- 0.34 miles of new 18-inch main
- 0.77 miles of new 21-inch main
- 0.27 miles of new 24-inch main
- 1.29 miles of new 27-inch main
- 0.07 miles of new 30-inch main
- 0.10 miles of new 42-inch main
- 0.37 miles of new 48-inch main

- 0.46 miles of new 54-inch main

These improvements are estimated to have a total cost of $18.5 Million.

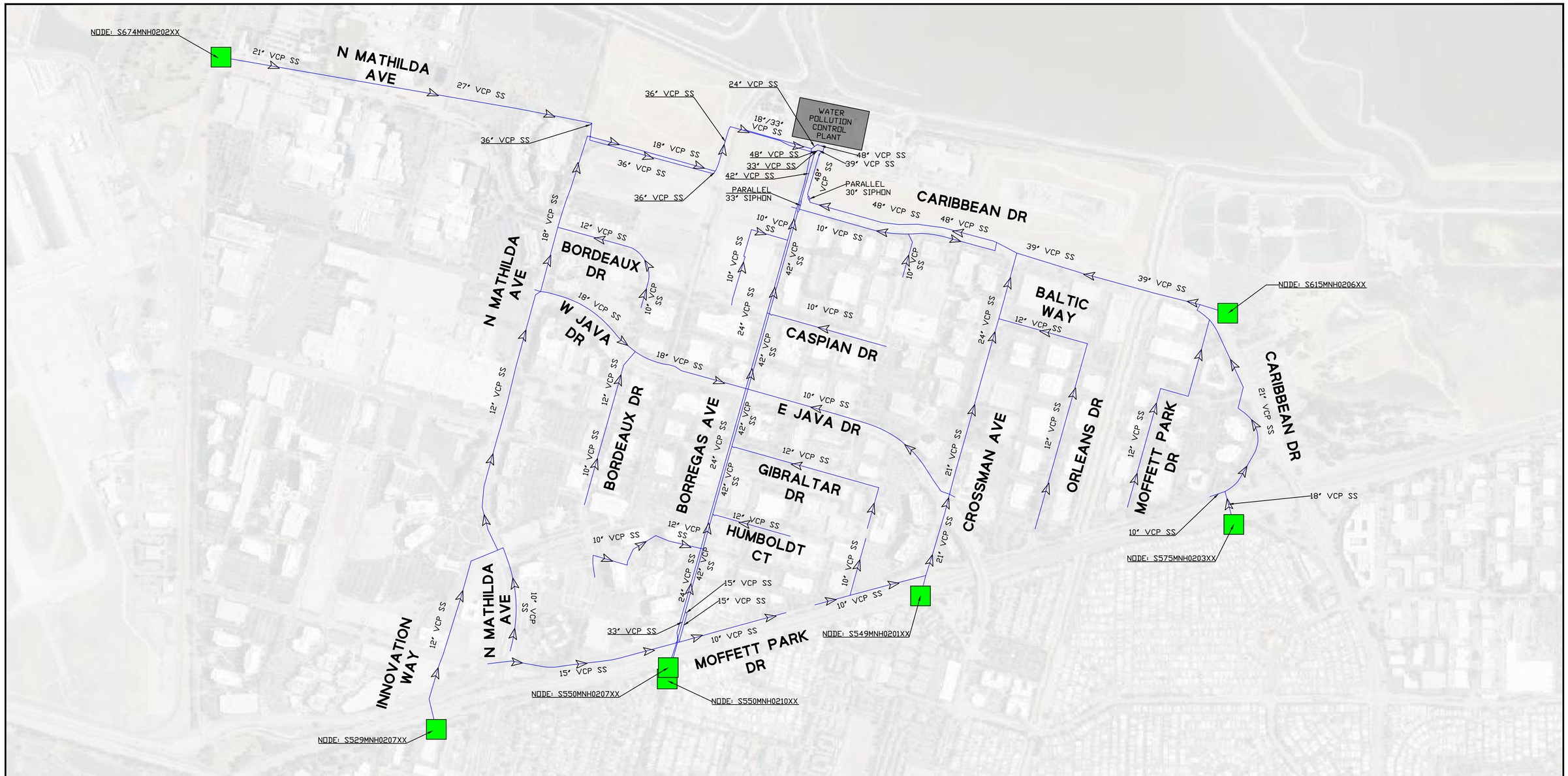
ATTACHMENTS

FIGURES

TABLES

APPENDICES

FIGURES



LEGEND

EXISTING WASTEWATER SYSTEM

BOUNDARY NODE FOR OFFSITE SYSTEM

GRAPHIC SCALE

500 0 250 500 1000 2000

(IN FEET)

1 inch = 500 ft.

FIGURE 2

EXISTING MODELED SYSTEM

MOFFETT PARK SPECIFIC PLAN
WASTEWATER MASTER PLAN
SEPTEMBER 2022

PREPARED BY

BKF ENGINEERS
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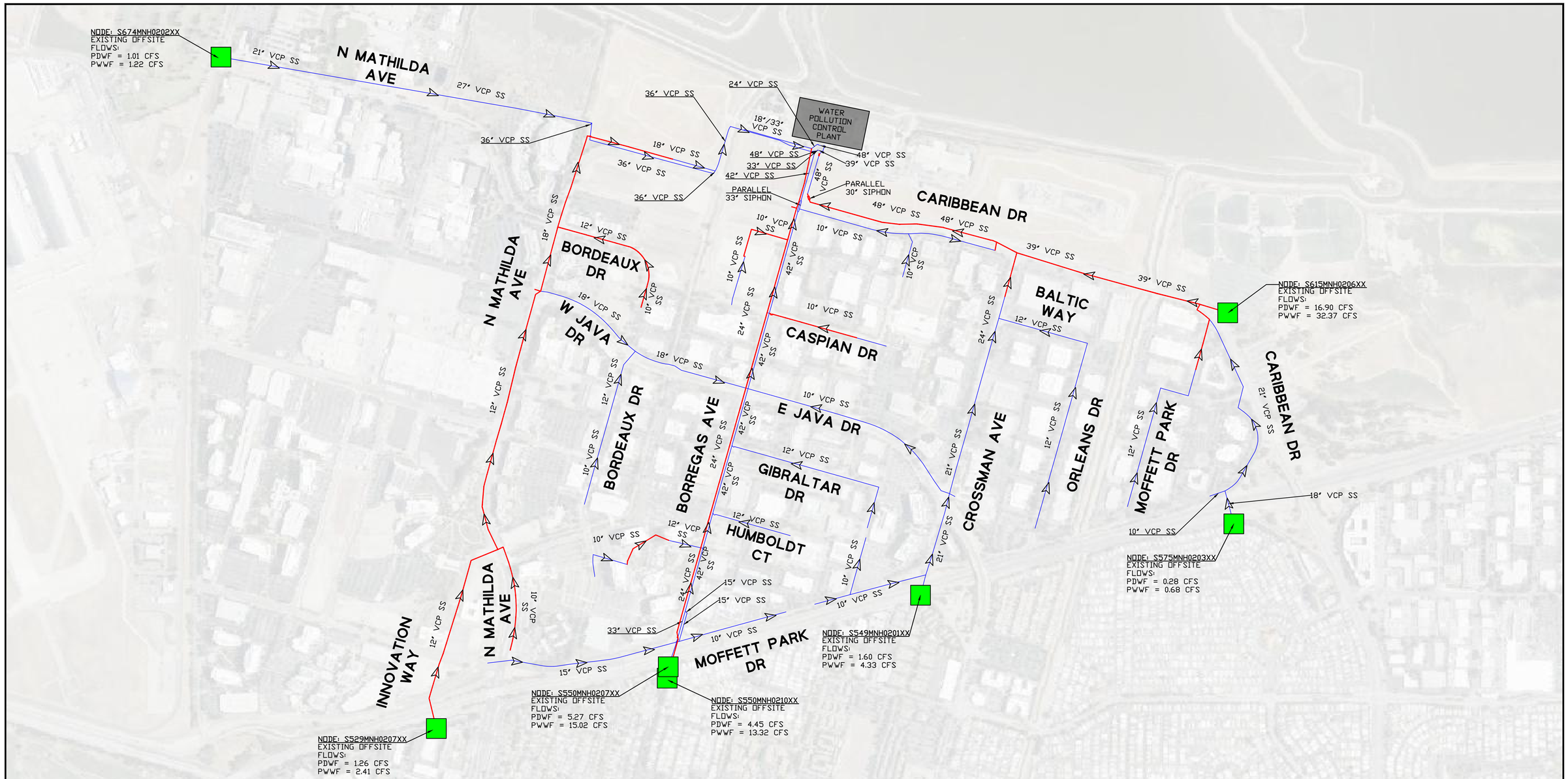
Figure 2_Existing Modeled System.dwg

Plot Sep 12, 2022 at 11:34am



LEGEND

EXISTING WASTEWATER SYSTEM

IDENTIFIED DEFICIENCIES (SEE CRITERIA DEFINITION)

BOUNDARY NODE FOR OFFSITE SYSTEM

DEFICIENCY CRITERIA

1. MAXIMUM ALLOWABLE d/D OF 0.50 FOR PIPELINES 10" OR SMALLER

2. MAXIMUM ALLOWABLE d/D OF 0.75 FOR PIPELINES 12" OR LARGER

GRAPHIC SCALE

500 0 250 500 1000 2000

(IN FEET)
1 inch = 500 ft.

FIGURE 3
MOFFETT PARK EXISTING SYSTEM EVALUATION - MPSP BUILDOUT

MOFFETT PARK SPECIFIC PLAN
WASTEWATER MASTER PLAN
SEPTEMBER 2022

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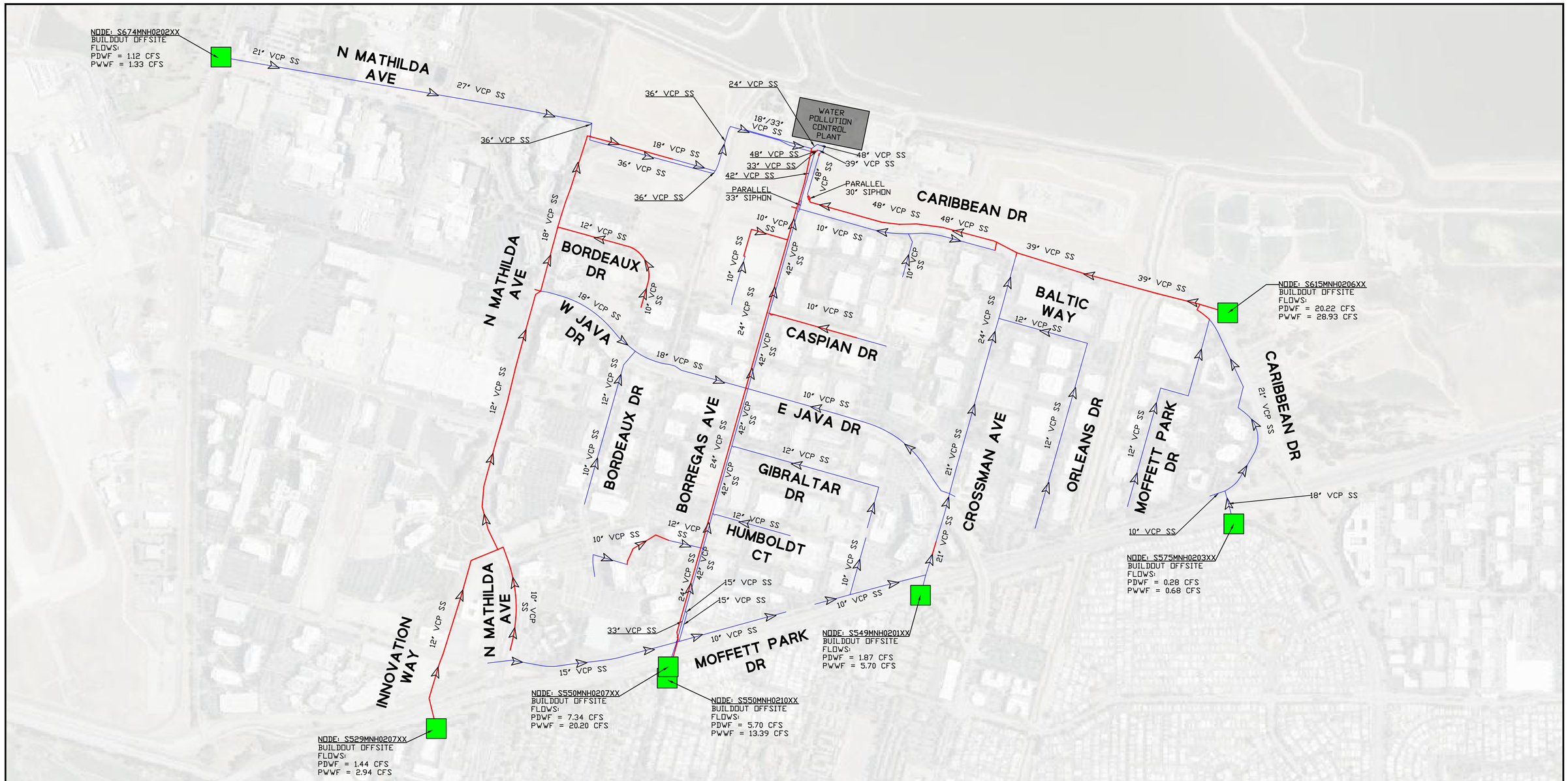

LEGEND

- EXISTING WASTEWATER SYSTEM
- IDENTIFIED DEFICIENCIES (SEE CRITERIA DEFINITION)
- BOUNDARY NODE FOR OFFSITE SYSTEM

DEFICIENCY CRITERIA

1. MAXIMUM ALLOWABLE d/D OF 0.50 FOR PIPELINES 10" OR SMALLER

2. MAXIMUM ALLOWABLE d/D OF 0.75 FOR PIPELINES 12" OR LARGER

GRAPHIC SCALE

500 0 250 500 1000 2000

(IN FEET)
1 inch = 500 ft.

FIGURE 4
MOFFETT PARK EXISTING SYSTEM EVALUATION - CUMULATIVE BUILDOUT

MOFFETT PARK SPECIFIC PLAN
WASTEWATER MASTER PLAN
SEPTEMBER 2022

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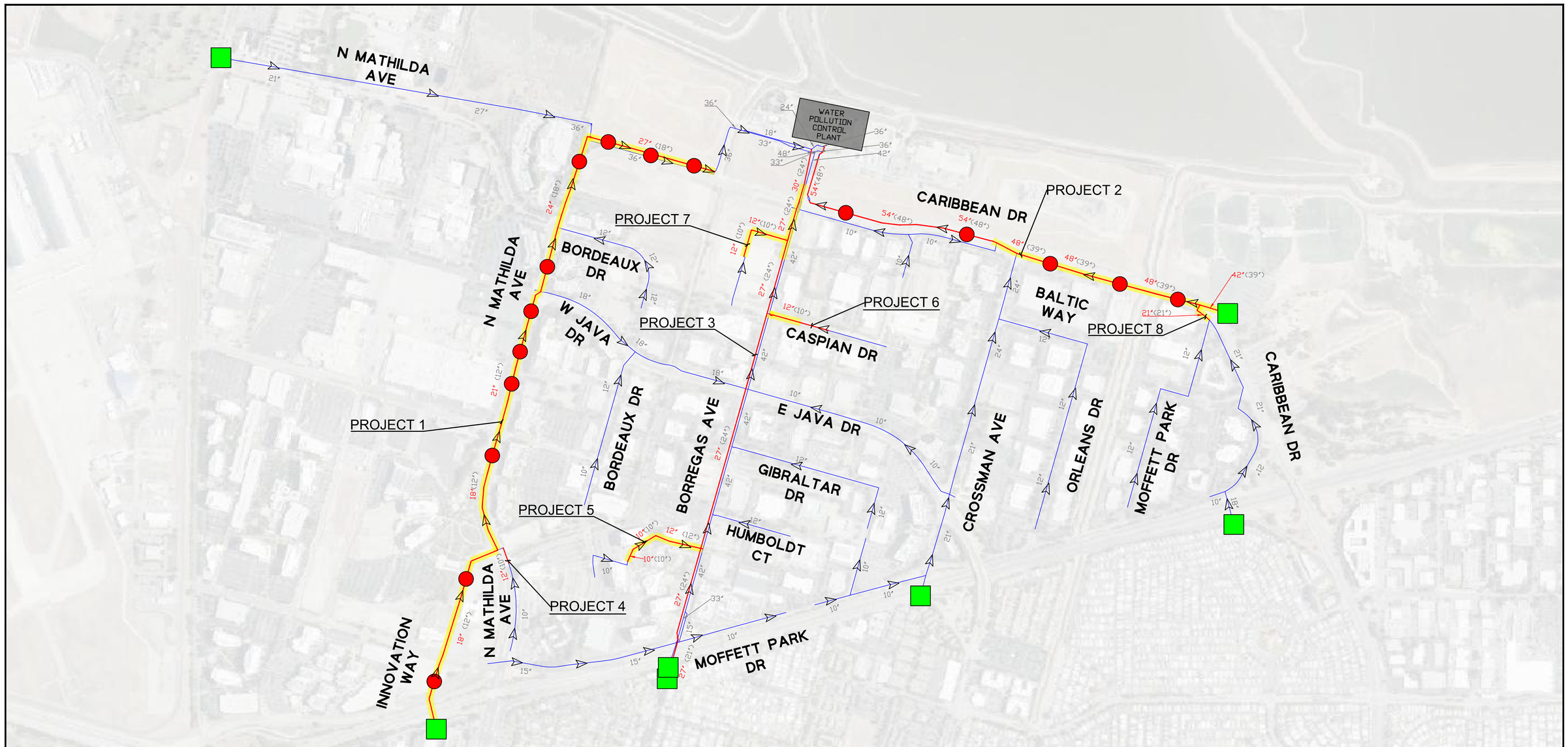

LEGEND

- EXISTING WASTEWATER SYSTEM
- PROPOSED PIPELINE REPLACMENTS
- PROPOSED SLOPE CHANGES (SEE NOTE 1)
- EXISTING BOUNDARY NODE FOR OFFSITE SYSTEM
- PROPOSED NEW MANHOLE (SEE NOTE 2)

12" EXISTING DIAMETER

12" PROPOSED DIAMETER

(12") EXISTING DIAMETER TO BE REPLACE

NOTES

1. IT IS RECOMMENDED THAT THE INVERTS OF REPLACED PIPELINES BE CONSTRUCTED TO MEET MINIMUM SLOPE CRITERIA, OR MINIMUM VELOCITY CRITERIA WHEN MINIMUM SLOPE CRITERIA CANNOT BE MET

2. IT IS RECOMMENDED THAT NEW MANHOLES BE INSTALLED WHERE REPLACED PIPELINE LENGTHS EXCEED MAXIMUM MANHOLE SPACING CRITERIA

GRAPHIC SCALE

500 0 250 500 1000 2000

(IN FEET)

1 inch = 500 ft.

FIGURE 5
MOFFETT PARK SPECIFIC PLAN - PROPOSED MPSP BUILDOUT IMPROVEMENTS

MOFFETT PARK SPECIFIC PLAN
WASTEWATER MASTER PLAN
SEPTEMBER 2022

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Plot Sep 12, 2022 at 11:37am

N MATHILDA AVE

WATER POLLUTION CONTROL PLANT

PROJECT 1

PROJECT 2

PROJECT 3

PROJECT 4

PROJECT 5

PROJECT 6

PROJECT 7

PROJECT 8

PROJECT 9

BORDEAUX DR

W JAVA DR

E JAVA DR

CASPIAN DR

BORREGAS AVE

GIBRALTAR DR

HUMBOLDT CT

CARIBBEAN DR

BALTIC WAY

CROSSMAN AVE

ORLEANS DR

MOFFETT PARK DR

INNOVATION WAY

LEGEND

- EXISTING WASTEWATER SYSTEM
- PROPOSED PIPELINE REPLACMENTS
- PROPOSED SLOPE CHANGES (SEE NOTE 1)
- EXISTING BOUNDARY NODE FOR OFFSITE SYSTEM
- PROPOSED NEW MANHOLE (SEE NOTE 2)

12" EXISTING DIAMETER

12" PROPOSED DIAMETER

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2. IT IS RECOMMENDED THAT NEW MANHOLES BE INSTALLED WHERE REPLACED PIPELINE LENGTHS EXCEED MAXIMUM MANHOLE SPACING CRITERIA

GRAPHIC SCALE

500 0 250 500 1000 2000

(IN FEET)

1 inch = 500 ft.

FIGURE 6

MOFFETT PARK SPECIFIC PLAN - PROPOSED CUMULATIVE BUILDOUT IMPROVEMENTS

MOFFETT PARK SPECIFIC PLAN
WASTEWATER MASTER PLAN
SEPTEMBER 2022

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TABLES

Moffett Park Specific Plan - Wastewater Master Plan
Table 1 - MPSP Future Wastewater Flow Estimates

MPSP District Type		Comparable Design Standards Land Use Type	Area	Wastewater Estimates						
				Wastewater Unit Factor	Average Dry Weather Flow		Peak Dry Weather Flow		Peak Wet Weather Flow	
			(acres)	(gpd/acre)	(gpd)	(cfs)	(gpd)	(cfs)	(gpd)	(cfs)
MP-AC	Activity Center	Commercial	82.1	2,300	188,775	0.29	604,526	0.94	727,229	1.13
MP-R	Residential	High Density Residential	132.9	3,500	465,290	0.72	1,455,829	2.25	1,758,268	2.72
MP-MU	Mixed Use	High Density Residential/Office	146.9	4,500	661,150	1.02	1,984,506	3.07	2,414,254	3.74
MP-O1	Office 1	Administration-Professional Office	230.7	1,950	449,952	0.70	1,257,162	1.95	1,549,631	2.40
MP-O2	Office 2	Administration-Professional Office	186.8	1,950	364,313	0.56	1,177,928	1.82	1,414,732	2.19
MP-E1	Mixed Employement 1 (Navy)	Industrial	44.1	1,500	66,167	0.10	181,958	0.28	224,966	0.35
MP-E2	Mixed Employement 2 (LHM)	(*Metered Data consistent with W&C report*)	143.4	-	317,670	0.49	805,889	1.25	1,012,374	1.57
MP-E3	Mixed Employement 3 (LHM)	(*Metered Data consistent with W&C report*)	142.4	-						
MP-E4	Mixed Employement 4	Industrial	5.1	1,500	7,600	0.01	26,600	0.04	31,540	0.05
MP-P	Public	Right-of-Way (*No Generation*)	27.0	-	-	-	-	-	-	-
MP-I	Institutional	Public Facility	15.8	1,700	26,796	0.04	85,790	0.13	103,207	0.16
Total			**1157.2**		**2,547,714**	**3.94**	**7,580,188**	**11.73**	**9,236,202**	**14.29**

Moffett Park Specific Plan - Wastewater Master Plan
Table 6 - Pipeline Unit Costs

Pipe Diameter (in)	Unit Cost ($/LF)
10	$336
12	$383
15	$479
18	$575
21	$671
24	$719
27	$765
30	$864
42	$1,180
48	$1,336
54	$1,492
Connection to Existing Manholes	$2,000
New Manholes	$13,500

Notes:

1. Unit Costs include a 30% cost contingency factor to account for Engineering, Legal and Administration costs, in addition to unexpected Construction Cost Contingencies.

2. Unit Costs shown are based on ENR-CCI cost index of 13,171 for August 2022.

Moffett Park Specific Plan - Wastewater Master Plan
Table 7 - Proposed Improvement Costs

Project Number	Project Type	Alignment	Upstream Node ID	Downstream Node ID	Length (LF)	Existing Diameter (in)	Proposed Diameter		Proposed Manholes	Manhole Re-Connections	Total Cost	
							MPSP Buildout (in)	Cumulative Buildout (in)			MPSP Buildout	Cumulative Buildout ($)
1	Primary Sewer Trunk Capacity Improvement	Innovation Wy	S529MNH0207XX	S569MNH0204XX	1,780	12	18		2	16	$1,082,500	
		N Mathilda Ave	S569MNH0204XX	S592MNH0215XX	1,610	12	18	21	1	14	$967,250	$1,121,810
		N Mathilda Ave	S592MNH0215XX	S610MNH0203XX	1,360	12	21		3	12	$977,060	
		N Mathilda Ave	S610MNH0203XX	S610MNH0205XX	60	12	21	24	0	2	$44,260	$47,140
		N Mathilda Ave	S610MNH0205XX	New	1,380	18	24		2	9	$1,037,220	
		N Mathilda Ave	New	S650MNH0207XX	200	18	24	27	0	1	$145,800	$155,000
		W Caribbean Dr	S650MNH0207XX	S651MNH0203XX	1,410	18	27		3	8	$1,135,150	
2	Primary Sewer Trunk Capacity Improvement	E Caribbean Dr	S615MNH0206XX	New	530	39	42		1	3	$644,900	
		E Caribbean Dr	New	New	1,340	39	48	42	2	4	$1,825,240	$1,616,200
		E Caribbean Dr	New	S628MNH0210XX	630	39	48		0	5	$851,680	
		E Caribbean Dr	S628MNH0210XX	S652MNH0212XX	2,430	48	54		2	22	$3,696,560	
3	Primary Sewer Trunk Capacity Improvement	Borregas Ave	S550MNH0210XX	S652MNH0209XX	5,210	24	27		0	36	$4,057,650	
		Borregas Ave	S652MNH0209XX	S652MNH0207XX	360	24	30		0	2	$315,040	
4	Targeted Capacity Improvement	N Mathilda Ave	S569MNH0206XX	S569MNH0205XX	170	10	12		0	2	$69,110	
5	Targeted Capacity Improvement	ROW w/o Borregas Ave	MH1_MofffetRealign	MH2_MoffetRealign	140	10	10		0	2	$51,040	
		ROW w/o Borregas Ave	MH2_MoffetRealign	MH4_MoffetRealign	410	10	12		0	4	$165,030	
		ROW w/o Borregas Ave	MH4_MoffetRealign	MH5_MoffetRealign	190	12	12		0	2	$76,770	
		ROW w/o Borregas Ave	MH5_MoffetRealign	S571MNH0211XX	170	12	12	15	0	2	$69,110	$85,430
6	Targeted Capacity Improvement	Caspian Dr	S612MNH0202XX	S611MNH0210XX	640	10	12		0	4	$253,120	
7	Targeted Capacity Improvement	ROW w/o Borregas Ave	S630MNH0211XX	S630MNH0203XX	660	10	12		0	6	$264,780	
8	Targeted Capacity Improvement	E Caribbean Dr	S615MNH0210XX	S615MNH0204XX	220	21	21		0	4	$155,620	
9	Targeted Capacity Improvement	Crossman Ave	S573MNH0212XX	S573MNH0203XX	860	21	-	21	0	8	-	$593,060
					21,760						**$17,884,890**	**$18,451,870**

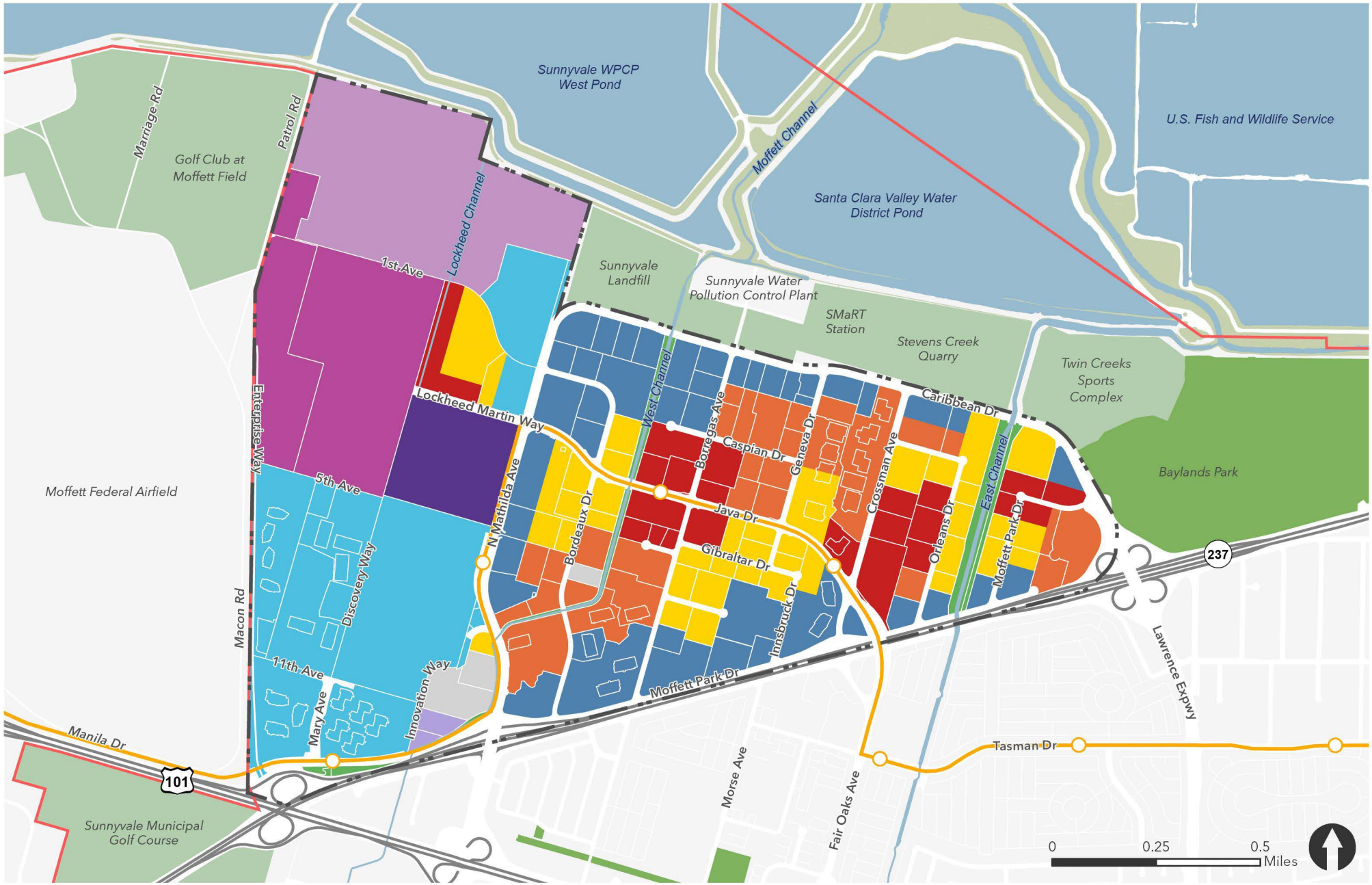
APPENDIX A

Intensity and Density Standards by Land Use District

Table XX: Intensity and Density Standards by Land Use District

District	Office/R+D Base FAR	Office/R+D Bonus FAR Maximum	Residential Density Minimum	Residential Density Maximum	Total FAR Maximum**
MP-AC	35%	75%	40 du/a (100%)	180 du/a (350%)	450%* 150% Office
MP-R	-	-	70 du/a (175%)	150 du/a (350%)	400%*
MP-MU	35%	100%	-	150 du/a (350%)	400% 200% Office
MP-O1	35%	100%	-	-	150%
MP-O2	35%	135%	-	-	200%
MP-E1(Navy)	35%	75%	(Maker Space Minimum: 35% FAR)		150%
MP-E2 (LHM Core)	35%	50%	-	-	100%
MP-E3 (North LHM)	35%	-	(Maker Space Minimum: 5% of floor area)		35%
MP-E4	35%	50%	-	-	100%
MP-P	-	-	-	-	-
MP-I	-	-	-	-	-

- Note: Maximum residential densities not inclusive of Assembly Bill 2345 density bonus.
- ***East Orleans** may exceed the Residential FAR Maximum and Maximum FAR by up to 1.0 FAR because of the increased height limits in the East Orleans neighborhood, MP-AC and MP-R projects only.
- ****Maximum FAR**. Maximum FAR is allowed non-res FAR, residential FAR, and Transfer of Development Rights



- Specific Plan Boundary
- City of Sunnyvale Limit
- VTA Light Rail
- Freeway
- Water/Channel
- MP-O1: Office 1
- MP-O2: Office 2
- MP-E1: Mixed Employment 1
- MP-E2: Mixed Employment 2
- MP-E3: Employment 3
- MP-E4: Mixed Employment 4
- MP-AC: Activity Center 1
- MP-MU: Mixed Use 1
- MP-R: Residential 1
- MP-P: Public 1
- MP-I: Institutional 1

Data Sources: City of Sunnyvale (2020); County of Santa Clara (2021); ESRI (2020); California Department of Fish and Wildlife (2021)

APPENDIX B

City of Sunnyvale Sanitary Sewer Systems Design Standards Wastewater Flow Factors

G. Wastewater flow factors for average daily flows:

Zoning Classification	Zoning Code	*gpd/unit*	*gpd/1000 sqft*	*gpd/acre*
Low Density Res.	R0	***170***	-	***1,100***
Low Density Res.	R1	***215***	-	***1,000***
Low-Med. Den. Res.	R1.5	***190***	-	***900***
Low-Med. Den. Res. PD	R1.7	***165***	-	***1,500***
Low-Med. Den. Res.	R2	***145***	-	***1,450***
Med. Den. Res.	R3	***135***	-	***2,900***
High Den. Res.	R4	***150***	-	***3,500***
High Den. Res./Office	R5	***100***	-	***4,500***
Res. Mobile Home	RMH	***160***	-	***1,400***
Commercial	C1, C2, C3, C4 & MPC	-	***245***	***2,300***
Downtown Specific Plan	DSP	-	-	***1,600***
Lakeside Specific Plan	LSP	-	-	-
Industrial	M3, MPI, MS	-	***115***	***1,500***
Moffett Park TOD	MPT	-	***170***	-
Admin-Prof. Office	O	-	***170***	***1,950***
Public Facility	PF	-	***245***	***1,700***
Split Zoning	SP	-	-	-

1. Dry weather peak flows for residential and non-residential developments shall be based on the ratio of the peak to average flow per the dry weather peaking factor shown below.

Average Dry Weather Flow	**Dry Weather Peaking Factor**
Less than 8,000 gpd	3.5
8,000 gpd to 15,000 gpd	3.25
15,000 gpd to 35,000 gpd	3.0
35,000 gpd to 80,000 gpd	2.75
80,000 gpd to 250,000 gpd	2.5
250,000 gpd to 600,000 gpd	2.2
Over 600,000 gpd	2.0

2. Wet weather flows for residential and non-residential developments shall include an infiltration and inflow allowance based on a 10-year storm event that is 65% of the average dry weather flow (ADWF). This allowance is added to the peak dry weather flow.

   Peak Wet Weather Flow (PWWF) = ADWF x (Dry Weather Peaking Factor + 0.65)

APPENDIX C

SewerCAD Model Output

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C1 - MPSP Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
00_S651MNH0211XX	10.76	-5.75	16.51	0.00	-5.75	0.00	0.00
MH1_MofffetRealign	16.70	4.40	12.30	0.00	4.94	0.54	0.18
MH2_MoffetRealign	16.10	4.22	11.88	0.03	4.88	0.66	0.21
MH3_MoffetRealign	14.95	3.78	11.17	0.18	4.12	0.34	0.39
MH4_MoffetRealign	15.30	3.39	11.91	0.03	3.67	0.28	0.41
MH5_MoffetRealign	13.40	2.42	10.98	0.00	2.69	0.27	0.41
S529MNH0207XX	28.30	13.00	15.30	2.41	25.74	12.74	2.41
S529MNH0208XX	24.30	12.83	11.47	0.02	24.30	11.47	2.42
S549MNH0201XX	14.40	1.51	12.89	4.33	2.32	0.81	4.33
S549MNH0203XX	12.22	3.79	8.43	0.00	3.88	0.09	0.03
S549MNH0217XX	12.22	4.67	7.55	0.03	4.76	0.09	0.03
S550MNH0201XX	16.49	1.59	14.90	0.20	3.71	2.12	15.46
S550MNH0202XX	17.27	10.07	7.20	0.00	11.34	1.27	15.02
S550MNH0203XX	18.30	6.40	11.90	0.00	11.22	4.82	13.32
S550MNH0204XX	18.40	6.66	11.74	0.00	11.66	5.00	13.32
S550MNH0205XX	18.25	4.60	13.65	0.00	4.88	0.28	0.14
S550MNH0207XX	20.00	11.04	8.96	15.02	12.69	1.65	15.02
S550MNH0210XX	20.80	9.39	11.41	13.32	14.73	5.34	13.32
S550MNH0217XX	14.80	6.42	8.38	0.00	6.55	0.13	0.06
S550MNH0218XX	15.45	5.46	9.99	0.00	5.60	0.14	0.06
S550MNH0220XX	16.40	5.18	11.22	0.00	9.84	4.66	13.32
S550MNH0221XX	17.32	3.65	13.67	0.11	3.89	0.24	0.24
S550MNH0222XX	13.90	7.31	6.59	0.06	7.44	0.13	0.06
S550MNH0223XX	17.92	10.62	7.30	0.00	12.24	1.62	15.02
S550MNH0225XX	16.80	1.60	15.20	0.00	3.70	2.10	15.46
S550MNH0226XX	17.72	4.31	13.41	0.00	4.48	0.17	0.14
S551MNH0203XX	21.50	7.70	13.80	0.00	7.84	0.14	0.08
S551MNH0204XX	22.25	6.62	15.63	0.00	6.75	0.13	0.08
S551MNH0205XX	20.20	5.66	14.54	0.00	5.80	0.14	0.08
S552MNH0201XX	20.19	9.20	10.99	0.01	20.19	10.99	2.60
S552MNH0202XX	21.70	10.23	11.47	0.05	21.45	11.22	2.59
S552MNH0203XX	25.50	11.68	13.82	0.09	23.53	11.85	2.55
S552MNH0204XX	25.40	12.00	13.40	0.03	24.35	12.35	2.46
S552MNH0206XX	24.00	9.32	14.68	0.00	9.32	0.00	0.00
S552MNH0207XX	23.40	8.90	14.50	0.08	9.03	0.13	0.08
S552MNH0208XX	22.00	13.92	8.08	0.00	18.15	4.23	0.00
S552MNH0209XX	20.00	11.22	8.78	0.30	18.14	6.92	0.30
S552MNH0211XX	23.18	11.06	12.12	0.00	22.39	11.33	2.55
S552MNH0212XX	23.40	11.37	12.03	0.00	22.96	11.59	2.55
S569MNH0204XX	19.04	8.13	10.91	0.77	19.04	10.91	3.37
S569MNH0205XX	18.20	7.10	11.10	0.05	18.01	10.91	0.38
S569MNH0206XX	18.40	8.50	9.90	0.03	18.05	9.55	0.33
S569MNH0209XX	14.50	4.18	10.32	0.00	14.50	10.32	3.82
S569MNH0210XX	15.30	4.73	10.57	0.00	15.30	10.57	3.82

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C1 - MPSP Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S569MNH0211XX	17.23	5.05	12.18	0.07	17.23	12.18	3.82
S569MNH0212XX	18.00	5.38	12.62	0.00	18.00	12.62	3.75
S570MNH0201XX	13.30	4.12	9.18	0.15	4.33	0.21	0.15
S570MNH0202XX	14.55	5.95	8.60	0.14	6.18	0.23	0.17
S570MNH0203XX	15.10	6.60	8.50	0.03	6.70	0.10	0.03
S570MNH0204XX	15.90	4.45	11.45	0.01	4.95	0.50	0.18
S571MNH0205XX	11.74	3.94	7.80	0.13	4.11	0.17	0.13
S571MNH0207XX	12.90	3.92	8.98	0.00	8.44	4.52	13.32
S571MNH0208XX	11.55	2.20	9.35	0.12	2.50	0.30	0.41
S571MNH0209XX	12.44	3.06	9.38	0.16	3.32	0.26	0.29
S571MNH0211XX	12.23	0.88	11.35	0.03	2.17	1.29	15.90
S571MNH0212XX	13.73	1.78	11.95	0.00	3.27	1.49	15.46
S571MNH0216XX	10.72	-0.20	10.92	0.00	1.05	1.25	16.31
S571MNH0219XX	12.08	2.66	9.42	0.00	7.05	4.39	13.32
S572MNH0201XX	10.22	2.83	7.39	0.00	2.91	0.08	0.03
S572MNH0202XX	9.10	4.43	4.67	0.18	4.63	0.20	0.18
S572MNH0203XX	12.40	6.40	6.00	0.00	6.40	0.00	0.00
S572MNH0204XX	13.30	5.50	7.80	0.00	5.50	0.00	0.00
S572MNH0206XX	8.40	3.81	4.59	0.00	4.01	0.20	0.18
S572MNH0207XX	11.15	6.29	4.86	0.00	6.29	0.00	0.00
S573MNH0201XX	10.00	-0.51	10.51	0.01	0.30	0.81	4.41
S573MNH0202XX	9.00	-0.07	9.07	0.01	1.16	1.23	4.37
S573MNH0203XX	10.10	-1.30	11.40	0.00	-0.30	1.00	4.70
S573MNH0204XX	9.62	1.43	8.19	0.00	1.54	0.11	0.06
S573MNH0210XX	7.38	3.07	4.31	0.10	3.23	0.16	0.10
S573MNH0211XX	6.93	2.72	4.21	0.08	2.94	0.22	0.19
S573MNH0212XX	9.97	0.70	9.27	0.00	1.53	0.83	4.36
S573MNH0213XX	8.25	-0.21	8.46	0.02	0.97	1.18	4.40
S573TEE1001XX	10.63	0.00	10.63	0.23	0.53	0.53	0.23
S574MNH0202XX	7.04	2.90	4.14	0.12	3.07	0.17	0.12
S575MNH0203XX	6.26	1.25	5.01	0.68	1.66	0.41	0.68
S575MNH0206XX	6.55	1.45	5.10	0.09	1.59	0.14	0.09
S586MNH0201XX	4.45	-0.83	5.28	0.00	-0.35	0.48	1.00
S586MNH0202XX	4.60	-0.27	4.87	0.00	0.20	0.47	1.00
S586MNH0204XX	5.70	0.32	5.38	0.00	0.87	0.55	1.00
S586MNH0205XX	6.40	0.72	5.68	0.23	1.20	0.48	1.00
S586MNH0209XX	3.61	-0.90	4.51	0.00	-0.56	0.34	0.43
S586TEE1003XX	6.44	0.00	6.44	0.00	0.36	0.36	1.00
S587MNH0201XX	4.25	-0.34	4.59	0.04	0.01	0.35	0.46
S587MNH0202XX	5.17	0.44	4.73	0.11	0.77	0.33	0.41
S587MNH0206XX	4.35	0.55	3.80	0.03	0.87	0.32	0.38
S587MNH0207XX	5.22	1.34	3.88	0.17	1.64	0.30	0.35
S587MNH0208XX	6.39	2.12	4.27	0.06	2.33	0.21	0.18
S588MNH0201XX	7.25	-3.02	10.27	0.39	-2.01	1.01	5.09

Moffett Park Specific Plan - Wastewater Master Plan
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Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S588MNH0202XX	8.80	-1.87	10.67	0.00	-0.83	1.04	4.70
S588MNH0203XX	6.14	1.22	4.92	0.00	1.50	0.28	0.30
S588MNH0204XX	5.98	1.97	4.01	0.12	2.25	0.28	0.30
S589MNH0202XX	8.90	1.46	7.44	0.08	1.73	0.27	0.24
S589MNH0203XX	9.15	2.35	6.80	0.14	2.56	0.21	0.16
S589MNH0204XX	9.25	3.24	6.01	0.04	3.32	0.08	0.02
S589MNH0205XX	9.82	1.85	7.97	0.01	2.01	0.16	0.06
S589MNH0206XX	8.10	2.20	5.90	0.00	2.45	0.25	0.27
S589MNH0207XX	7.50	1.30	6.20	0.09	1.59	0.29	0.36
S589MNH0208XX	8.00	0.77	7.23	0.00	1.06	0.29	0.36
S589MNH0211XX	7.40	3.10	4.30	0.10	3.35	0.25	0.27
S589MNH0214XX	9.60	2.54	7.06	0.03	2.67	0.13	0.05
S590MNH0201XX	8.90	0.59	8.31	0.03	0.82	0.23	0.27
S590MNH0202XX	8.60	0.13	8.47	0.01	4.08	3.95	13.56
S590MNH0203XX	8.80	0.52	8.28	0.05	4.58	4.06	13.55
S590MNH0204XX	9.90	1.39	8.51	0.18	5.61	4.22	13.50
S590MNH0213XX	7.90	-0.53	8.43	0.12	-0.15	0.38	0.57
S590MNH0215XX	8.94	-2.25	11.19	0.00	-0.69	1.56	16.31
S590MNH0216XX	8.63	-2.40	11.03	0.00	-1.04	1.36	16.88
S590MNH0217XX	8.06	-4.19	12.25	0.00	-2.27	1.92	19.74
S590MNH0218XX	7.60	-1.13	8.73	0.08	2.59	3.72	13.64
S590MNH0219XX	7.79	-1.91	9.70	0.00	-2.19	-0.28	2.58
S590MNH0220XX	8.02	0.38	7.64	0.09	0.71	0.33	0.45
S591MNH0201XX	10.60	1.39	9.21	0.17	1.81	0.42	0.57
S591MNH0202XX	10.90	2.12	8.78	0.04	2.49	0.37	0.40
S591MNH0203XX	12.10	3.20	8.90	0.21	3.49	0.29	0.36
S592MNH0212XX	14.00	3.93	10.07	0.00	14.00	10.07	3.82
S592MNH0214XX	13.19	3.03	10.16	0.14	13.19	10.16	3.96
S592MNH0215XX	12.80	2.88	9.92	0.45	12.80	9.92	4.41
S592MNH0216XX	12.92	2.63	10.29	0.00	12.92	10.29	4.41
S592MNH0217XX	12.10	2.46	9.64	0.00	12.10	9.64	4.41
S609MNH0206XX	11.33	1.56	9.77	0.19	11.33	9.77	4.60
S609MNH0207XX	10.00	1.12	8.88	0.00	10.00	8.88	4.60
S609MNH0208XX	10.31	0.97	9.34	0.00	10.31	9.34	4.60
S610MNH0203XX	10.60	0.00	10.60	0.00	4.47	4.47	4.60
S610MNH0204XX	9.00	3.00	6.00	1.83	3.51	0.51	1.83
S610MNH0205XX	9.91	-0.50	10.41	0.09	3.36	3.86	4.67
S610MNH0206XX	8.36	2.00	6.36	0.12	2.74	0.74	0.12
S610MNH0207XX	9.00	0.23	8.77	0.05	1.22	0.99	2.53
S610MNH0208XX	9.40	0.56	8.84	0.06	1.32	0.76	0.64
S610MNH0209XX	10.20	2.23	7.97	0.00	2.89	0.66	1.84
S610MNH0210XX	9.30	1.46	7.84	0.00	2.03	0.57	1.84
S611MNH0201XX	8.20	-0.08	8.28	0.00	0.74	0.82	2.53
S611MNH0202XX	8.20	-0.21	8.41	0.00	0.62	0.83	2.53

Moffett Park Specific Plan - Wastewater Master Plan
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Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S611MNH0203XX	9.20	-0.79	9.99	0.05	-0.18	0.61	2.58
S611MNH0205XX	6.40	-2.40	8.80	0.05	1.03	3.43	13.69
S611MNH0206XX	5.10	-3.69	8.79	0.00	-0.44	3.25	13.69
S611MNH0207XX	4.20	-4.91	9.11	0.00	-1.96	2.95	13.69
S611MNH0208XX	5.09	-4.19	9.28	0.00	-1.25	2.94	13.69
S611MNH0209XX	7.03	-4.52	11.55	0.07	-3.12	1.40	19.81
S611MNH0210XX	5.87	-5.91	11.78	0.00	-4.30	1.61	20.65
S611MNH0214XX	5.50	-2.40	7.90	0.08	-2.23	0.17	0.08
S612CLN1001XX	4.37	2.20	2.17	0.39	2.54	0.34	0.39
S612MNH0201XX	5.33	-1.98	7.31	0.09	-1.44	0.54	0.84
S612MNH0202XX	5.76	-1.08	6.84	0.22	-0.60	0.48	0.76
S612MNH0203XX	5.37	1.35	4.02	0.14	1.67	0.32	0.53
S613MNH0201XX	4.45	-4.82	9.27	0.14	-3.76	1.06	5.35
S613MNH0202XX	5.95	-3.92	9.87	0.12	-2.90	1.02	5.21
S613MNH0203XX	3.10	-5.35	8.45	0.03	-4.05	1.30	6.13
S613MNH0204XX	3.42	-3.37	6.79	0.00	-2.96	0.41	0.75
S613MNH0208XX	3.20	-5.72	8.92	0.19	-4.28	1.44	6.32
S613TEE1001XX	2.66	-5.82	8.48	0.00	-4.29	1.53	6.32
S614MNH0201XX	3.31	-3.31	6.62	0.00	-2.57	0.74	0.75
S614MNH0202XX	3.70	-1.82	5.52	0.19	-1.44	0.38	0.75
S614MNH0203XX	3.53	-1.07	4.60	0.10	-0.69	0.38	0.56
S614MNH0204XX	3.65	-0.22	3.87	0.05	0.12	0.34	0.43
S615MNH0201XX	5.25	-1.16	6.41	0.08	-0.67	0.49	1.08
S615MNH0202XX	4.85	-1.88	6.73	0.00	-1.12	0.76	1.08
S615MNH0203XX	5.00	-5.20	10.20	0.14	-1.20	4.00	1.64
S615MNH0204XX	4.88	-5.92	10.80	0.00	-1.42	4.50	34.01
S615MNH0206XX	2.00	-5.37	7.37	32.37	-0.94	4.43	32.37
S615MNH0207XX	2.20	-2.30	4.50	0.00	-1.11	1.19	0.43
S615MNH0208XX	2.70	-1.57	4.27	0.00	-1.06	0.51	0.43
S615MNH0210XX	4.80	-3.38	8.18	0.00	-1.15	2.23	1.50
S627MNH0201XX	3.60	-7.54	11.14	0.00	-3.52	4.02	34.01
S627MNH0202XX	10.90	-6.69	17.59	0.00	-2.22	4.47	34.01
S628MNH0201XX	3.70	-5.87	9.57	0.00	-5.19	0.68	0.23
S628MNH0205XX	5.25	-4.54	9.79	0.02	-4.33	0.21	0.23
S628MNH0206XX	3.43	-8.36	11.79	0.00	-4.87	3.49	40.33
S628MNH0207XX	2.88	-6.49	9.37	0.00	-4.58	1.91	6.32
S628MNH0209XX	4.02	-8.59	12.61	0.00	-5.45	3.14	40.56
S628MNH0210XX	4.30	-8.94	13.24	0.00	-5.57	3.37	40.56
S628MNH0211XX	4.40	-9.01	13.41	0.00	-5.60	3.41	40.56
S628MNH0212XX	3.70	-9.46	13.16	0.00	-5.97	3.49	40.56
S628MNH0213XX	5.10	-2.13	7.23	0.04	-1.93	0.20	0.21
S628TEE1001XX	5.18	-4.13	9.31	0.00	-3.93	0.20	0.21
S629MNH0201XX	3.99	-1.47	5.46	0.00	-1.22	0.25	0.16
S629MNH0202XX	4.50	-0.40	4.90	0.00	-0.23	0.17	0.16

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C1 - MPSP Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S629MNH0203XX	5.26	0.34	4.92	0.02	0.53	0.19	0.16
S629MNH0204XX	4.70	-10.71	15.41	0.00	-7.65	3.06	40.56
S629MNH0205XX	4.60	-10.69	15.29	0.00	-7.27	3.42	20.28
S629MNH0208XX	4.50	-3.93	8.43	0.05	-3.81	0.12	0.07
S629MNH0209XX	5.60	-2.57	8.17	0.02	-2.50	0.07	0.02
S629MNH0210XX	4.05	-1.49	5.54	0.00	-1.25	0.24	0.16
S629MNH0211XX	4.10	-10.04	14.14	0.00	-6.48	3.56	40.56
S629MNH0212XX	3.40	-9.87	13.27	0.00	-6.33	3.54	40.56
S629MNH0213XX	3.30	-9.71	13.01	0.00	-6.18	3.53	40.56
S629MNH0214XX	5.30	-10.73	16.03	0.00	-7.75	2.98	40.56
S629MNH0216XX	3.06	-8.99	12.05	0.00	-7.68	1.31	10.38
S629MNH0217XX	3.88	-9.31	13.19	0.00	-7.91	1.40	20.86
S629MNH0218XX	3.10	-9.10	12.20	0.02	-7.72	1.38	10.48
S629MNH0223XX	4.82	1.07	3.75	0.15	1.25	0.18	0.15
S629MNH0224XX	3.40	-10.67	14.07	0.00	-7.09	3.58	40.56
S630MNH0201XX	4.70	-4.55	9.25	0.04	-3.76	0.79	0.30
S630MNH0202XX	5.10	-7.43	12.53	0.00	-4.92	2.51	13.99
S630MNH0203XX	3.72	-7.37	11.09	0.00	-4.13	3.24	13.99
S630MNH0204XX	3.70	-5.21	8.91	0.00	-3.80	1.41	0.30
S630MNH0205XX	5.59	-6.17	11.76	0.00	-3.39	2.78	13.69
S630MNH0209XX	5.52	-7.31	12.83	0.11	-5.90	1.41	20.76
S630MNH0210XX	5.00	-7.94	12.94	0.00	-5.48	2.46	13.99
S630MNH0211XX	4.00	-3.70	7.70	0.05	-3.44	0.26	0.26
S630MNH0212XX	4.00	-3.63	7.63	0.03	-3.11	0.52	0.21
S630MNH0213XX	5.52	-2.87	8.39	0.09	-2.65	0.22	0.17
S630TEE1001XX	5.01	0.00	5.01	0.00	0.00	0.00	0.00
S631MNH0201XX	6.00	-3.10	9.10	0.25	1.58	4.68	5.26
S631MNH0202XX	6.48	-3.02	9.50	0.00	1.98	5.00	5.01
S631MNH0203XX	7.84	-1.94	9.78	0.00	2.36	4.30	4.67
S631MNH0206XX	7.38	1.34	6.04	0.15	2.73	1.39	0.27
S631MNH0207XX	7.30	0.73	6.57	0.00	2.71	1.98	0.27
S631MNH0208XX	5.20	-3.24	8.44	0.00	0.84	4.08	5.26
S631MNH0209XX	8.50	-0.57	9.07	0.03	2.66	3.23	0.34
S631MNH0210XX	8.22	0.09	8.13	0.04	2.69	2.60	0.31
S648MNH0201XX	9.50	0.08	9.42	0.00	0.90	0.82	2.78
S648MNH0202XX	10.20	0.40	9.80	0.00	1.22	0.82	2.78
S649MNH0201XX	7.90	-1.13	9.03	0.00	-0.31	0.82	2.78
S649MNH0204XX	7.90	-0.88	8.78	0.00	-0.06	0.82	2.78
S649MNH0205XX	7.90	-0.56	8.46	0.00	0.26	0.82	2.78
S649MNH0206XX	8.90	-0.24	9.14	0.00	0.58	0.82	2.78
S650MNH0201XX	8.10	-1.52	9.62	0.00	-0.71	0.81	2.78
S650MNH0202XX	7.00	-1.80	8.80	0.00	-1.24	0.56	2.78
S650MNH0203XX	3.87	-5.71	9.58	0.00	-4.82	0.89	2.78
S650MNH0204XX	3.45	-2.45	5.90	0.00	-1.93	0.52	2.78

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C1 - MPSP Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S650MNH0205XX	7.00	-2.38	9.38	0.00	-1.60	0.78	2.78
S650MNH0206XX	8.60	-3.89	12.49	0.01	-1.99	1.90	5.27
S650MNH0207XX	8.30	-3.67	11.97	0.00	-0.43	3.24	5.26
S650MNH0209XX	6.40	-4.65	11.05	0.00	-3.14	1.51	5.27
S650MNH0210XX	4.13	-5.96	10.09	0.09	-5.43	0.53	2.87
S650MNH0211XX	3.90	-6.67	10.57	0.03	-6.14	0.53	2.91
S650MNH0215XX	6.94	-0.65	7.59	0.00	-0.65	0.00	0.00
S650TEE1001XX	5.62	0.00	5.62	0.00	0.00	0.00	0.00
S651MNH0201XX	4.50	-5.41	9.91	0.00	-4.34	1.07	5.27
S651MNH0202XX	9.72	-9.58	19.30	0.04	-8.03	1.55	2.95
S651MNH0203XX	10.92	-9.61	20.53	0.00	-8.03	1.58	8.22
S651MNH0205XX	8.47	-10.03	18.50	0.00	-8.26	1.77	8.22
S651MNH0208XX	1.59	-10.16	11.75	0.00	-8.66	1.50	8.22
S651MNH0209XX	4.18	-6.03	10.21	0.00	-6.03	0.00	0.00
S651MNH0210XX	1.22	-10.27	11.49	0.00	-8.74	1.53	8.22
S651MNH0211XX	9.00	-9.77	18.77	0.00	-8.36	1.41	8.22
S652MNH0202XX	6.16	-14.10	20.26	0.00	-13.01	1.09	13.99
S652MNH0203XX	7.80	-11.45	19.25	0.00	-9.55	1.90	40.56
S652MNH0204XX	6.85	-11.54	18.39	0.00	-9.84	1.70	29.08
S652MNH0205XX	6.68	-10.90	17.58	0.00	-9.11	1.79	29.08
S652MNH0207XX	5.63	-10.15	15.78	0.00	-8.80	1.35	13.99
S652MNH0208XX	3.20	-10.55	13.75	0.00	-8.86	1.69	8.22
S652MNH0209XX	2.69	-8.69	11.38	0.00	-6.52	2.17	13.99
S652MNH0211XX	5.81	-14.90	20.71	0.00	-13.65	1.25	13.99
S652MNH0212XX	5.89	-14.90	20.79	0.00	-12.10	2.80	69.64
S652MNH0214XX	9.74	-14.10	23.84	0.00	-11.58	2.52	69.64
S652MNH0215XX	7.10	-11.08	18.18	0.00	-8.19	2.89	20.28
S652MNH0225XX	8.62	-11.36	19.98	0.00	-8.91	2.45	29.08
S673MNH0201XX	10.80	0.72	10.08	0.00	1.54	0.82	2.78
S673MNH0202XX	12.00	2.12	9.88	0.00	2.88	0.76	2.78
S674MNH0201XX	12.30	2.92	9.38	1.57	3.68	0.76	2.78
S674MNH0202XX	12.60	3.56	9.04	1.22	4.07	0.51	1.22

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C2 - MPSP Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4300	18	348	0.001	0.013	00_S651MNH0211XX	S651MNH0209XX	-5.75	-6.03	10.76	4.18	-5.75	-6.03	0.00	0.00	0.00	0.00	1.7	0.0
2991	10	138	0.001	0.013	MH1_MofffetRealign	MH2_MoffetRealign	4.40	4.22	16.70	16.10	4.94	4.93	0.54	0.71	0.75	0.18	1.5	1.2
3678	10	268	0.002	0.013	MH2_MoffetRealign	MH3_MoffetRealign	4.22	3.78	16.10	14.95	4.88	4.85	0.66	1.07	SURCHARGED	0.21	1.6	1.3
3017	10	143	0.003	0.013	MH3_MoffetRealign	MH4_MoffetRealign	3.78	3.42	14.95	15.30	4.12	3.94	0.34	0.52	0.52	0.39	2.0	1.8
3193	12	185	0.005	0.013	MH4_MoffetRealign	MH5_MoffetRealign	3.39	2.51	15.30	13.40	3.67	2.78	0.28	0.27	0.27	0.41	3.1	2.3
3130	12	169	0.006	0.013	MH5_MoffetRealign	S571MNH0211XX	2.42	1.48	13.40	12.23	2.69	2.31	0.27	0.83	0.55	0.41	3.4	2.5
4079	12	316	0.001	0.013	S529MNH0207XX	S529MNH0208XX	13.00	12.83	28.30	24.30	25.74	24.30	12.74	11.47	SURCHARGED	2.41	1.1	3.1
4388	12	361	0.002	0.013	S529MNH0208XX	S552MNH0204XX	12.83	12.00	24.30	25.40	26.17	24.50	13.34	12.50	SURCHARGED	2.42	2.2	3.1
3312	21	212	0.004	0.013	S549MNH0201XX	S573MNH0212XX	1.51	0.70	14.40	9.97	2.32	1.54	0.81	0.84	0.47	4.33	4.1	4.0
4504	10	392	0.002	0.013	S549MNH0203XX	S572MNH0201XX	3.79	2.83	12.22	10.22	3.88	2.91	0.09	0.08	0.10	0.03	2.0	0.9
4436	10	370	0.002	0.013	S549MNH0217XX	S549MNH0203XX	4.67	3.79	12.22	12.22	4.76	3.88	0.09	0.09	0.11	0.03	2.0	0.8
2359	42	10	-0.001	0.013	S550MNH0201XX	S550MNH0225XX	1.59	1.60	16.49	16.80	3.71	3.71	2.12	2.11	0.61	15.46	3.3	1.6
2606	33	48	0.165	0.013	S550MNH0202XX	S550MNH0201XX	10.07	2.09	17.27	16.49	11.34	3.73	1.27	1.64	0.53	15.02	36.2	20.8
4492	24	386	0.003	0.013	S550MNH0203XX	S550MNH0220XX	6.41	5.18	18.30	16.40	11.22	9.88	4.81	4.70	SURCHARGED	13.32	4.1	4.2
2736	24	78	0.003	0.013	S550MNH0204XX	S550MNH0203XX	6.66	6.40	18.40	18.30	11.66	11.39	5.00	4.99	SURCHARGED	13.32	4.2	4.2
2998	15	138	0.003	0.013	S550MNH0205XX	S550MNH0226XX	4.71	4.31	18.25	17.72	4.88	4.48	0.17	0.17	0.14	0.14	2.8	1.4
3438	33	240	0.002	0.013	S550MNH0207XX	S550MNH0223XX	11.04	10.62	20.00	17.92	12.69	12.25	1.65	1.63	0.60	15.02	3.7	4.0
4552	21	409	0.006	0.013	S550MNH0210XX	S550MNH0204XX	9.39	6.91	20.80	18.40	14.73	11.84	5.34	4.93	SURCHARGED	13.32	5.1	5.5
4535	10	400	0.002	0.013	S550MNH0217XX	S550MNH0218XX	6.42	5.46	14.80	15.45	6.55	5.60	0.13	0.14	0.16	0.06	2.0	1.1
4545	10	404	0.002	0.013	S550MNH0218XX	S550MNH0205XX	5.46	4.60	15.45	18.25	5.60	4.88	0.14	0.28	0.25	0.06	1.9	1.0
4511	24	394	0.003	0.013	S550MNH0220XX	S571MNH0207XX	5.18	3.92	16.40	12.90	9.84	8.48	4.66	4.56	SURCHARGED	13.32	4.1	4.2
2482	15	27	0.002	0.013	S550MNH0221XX	S550MNH0201XX	3.65	3.60	17.32	16.49	3.89	3.79	0.24	0.19	0.17	0.24	2.3	1.4
4091	10	318	0.003	0.013	S550MNH0222XX	S550MNH0217XX	7.31	6.42	13.90	14.80	7.44	6.55	0.13	0.13	0.16	0.06	2.1	1.1
3964	33	302	0.002	0.013	S550MNH0223XX	S550MNH0202XX	10.62	10.07	17.92	17.27	12.24	11.36	1.62	1.29	0.53	15.02	3.8	4.1
3824	42	287	0.001	0.013	S550MNH0225XX	S571MNH0212XX	2.00	1.78	16.80	13.73	3.70	3.28	1.70	1.50	0.46	15.46	2.9	3.0
3093	15	160	0.003	0.013	S550MNH0226XX	S550MNH0221XX	4.31	3.85	17.72	17.32	4.48	4.08	0.17	0.23	0.16	0.14	2.8	1.4
4622	15	463	0.002	0.013	S551MNH0203XX	S551MNH0204XX	7.70	6.62	21.50	22.25	7.84	6.75	0.14	0.13	0.11	0.08	2.5	1.1
4503	15	393	0.002	0.013	S551MNH0204XX	S551MNH0205XX	6.62	5.66	22.25	20.20	6.75	5.80	0.13	0.14	0.11	0.08	2.6	1.1
4595	15	448	0.002	0.013	S551MNH0205XX	S550MNH0205XX	5.66	4.60	20.20	18.25	5.80	4.88	0.14	0.28	0.17	0.08	2.6	1.1
4461	12	375	0.003	0.013	S552MNH0201XX	S569MNH0204XX	9.20	8.20	20.19	19.04	21.04	19.04	11.84	10.84	SURCHARGED	2.60	2.3	3.3
3431	12	239	0.004	0.013	S552MNH0202XX	S552MNH0201XX	10.23	9.30	21.70	20.19	21.45	20.19	11.22	10.89	SURCHARGED	2.59	2.8	3.3
2855	12	102	0.003	0.013	S552MNH0203XX	S552MNH0212XX	11.68	11.37	25.50	23.40	23.53	23.01	11.85	11.64	SURCHARGED	2.55	2.5	3.2
2860	12	105	0.003	0.013	S552MNH0204XX	S552MNH0203XX	12.00	11.68	25.40	25.50	24.35	23.85	12.35	12.17	SURCHARGED	2.46	2.5	3.1
3465	15	245	0.002	0.013	S552MNH0206XX	S552MNH0207XX	9.32	8.90	24.00	23.40	9.32	9.07	0.00	0.17	0.07	0.00	2.2	0.0
4587	15	432	0.003	0.013	S552MNH0207XX	S551MNH0203XX	8.90	7.70	23.40	21.50	9.03	7.84	0.13	0.14	0.11	0.08	2.8	1.1
4613	10	454	0.006	0.013	S552MNH0208XX	S552MNH0209XX	13.92	11.22	22.00	20.00	18.15	18.15	4.23	6.93	SURCHARGED	0.00	3.1	0.0
4601	10	444	0.006	0.013	S552MNH0209XX	S569MNH0206XX	11.22	8.56	20.00	18.40	18.14	18.06	6.92	9.50	SURCHARGED	0.30	3.1	0.6
3150	12	173	0.005	0.013	S552MNH0211XX	S552MNH0202XX	11.06	10.28	23.18	21.70	22.39	21.51	11.33	11.23	SURCHARGED	2.55	3.0	3.2
2850	12	102	0.003	0.013	S552MNH0212XX	S552MNH0211XX	11.37	11.06	23.40	23.18	22.96	22.44	11.59	11.38	SURCHARGED	2.55	2.5	3.2
3847	12	291	0.003	0.013	S569MNH0204XX	S569MNH0212XX	8.13	7.30	19.04	18.00	20.61	18.00	12.48	10.70	SURCHARGED	3.37	2.4	4.3
2671	12	60	0.008	0.013	S569MNH0205XX	S569MNH0212XX	7.10	6.60	18.20	18.00	18.01	18.00	10.91	11.40	SURCHARGED	0.38	4.2	0.5
3133	10	169	0.008	0.013	S569MNH0206XX	S569MNH0205XX	8.50	7.18	18.40	18.20	18.05	18.02	9.55	10.84	SURCHARGED	0.33	3.6	0.6
2927	12	124	0.002	0.013	S569MNH0209XX	S592MNH0212XX	4.18	3.93	14.50	14.00	15.43	14.00	11.25	10.07	SURCHARGED	3.82	2.0	4.9
3282	12	205	0.003	0.013	S569MNH0210XX	S569MNH0209XX	4.73	4.18	15.30	14.50	16.86	14.50	12.13	10.32	SURCHARGED	3.82	2.4	4.9
3423	12	237	0.001	0.013	S569MNH0211XX	S569MNH0210XX	5.05	4.73	17.23	15.30	18.02	15.30	12.97	10.57	SURCHARGED	3.82	1.7	4.9
3370	12	228	0.001	0.013	S569MNH0212XX	S569MNH0211XX	5.38	5.08	18.00	17.23	19.75	17.23	14.37	12.15	SURCHARGED	3.75	1.7	4.8
4409	10	365	0.003	0.013	S570MNH0201XX	S591MNH0203XX	4.12	3.20	13.30	12.10	4.33	3.63	0.21	0.43	0.38	0.15	2.0	1.4
4373	10	358	0.002	0.013	S570MNH0202XX	S570MNH0204XX	5.95	5.17	14.55	15.90	6.18	5.35	0.23	0.18	0.24	0.17	1.9	1.4
3356	10	225	0.002	0.013	S570MNH0203XX	S570MNH0202XX	6.60	6.05	15.10	14.55	6.70	6.41	0.10	0.36	0.27	0.03	2.0	0.9
2529	10	34	0.001	0.013	S570MNH0204XX	MH1_MofffetRealign	4.45	4.40	15.90	16.70	4.95	4.94	0.50	0.54	0.62	0.18	1.5	1.2
3652	12	265	0.003	0.013	S571MNH0205XX	S571MNH0209XX	3.94	3.06	11.74	12.44	4.11	3.37	0.17	0.31	0.24	0.13	2.6	1.5
4507	24	393	0.003	0.013	S571MNH0207XX	S571MNH0219XX	3.92	2.66	12.90	12.08	8.44	7.08	4.52	4.42	SURCHARGED	13.32	4.1	4.2
3833	12	297	0.003	0.013	S571MNH0208XX	S571MNH0216XX	2.20	1.22	11.55	10.72	2.50	1.49	0.30	0.27	0.29	0.41	2.6	2.0
3624	12	263	0.003	0.013	S571MNH0209XX	S571MNH0208XX	3.06	2.20	12.44	11.55	3.32	2.58	0.26	0.38	0.32	0.29	2.6	1.8
4408	42	365	0.003	0.013	S571MNH0211XX	S571MNH0216XX	0.88	-0.20	12.23	10.72	2.17	1.06	1.29	1.26	0.37	15.90	5.7	4.9

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C2 - MPSP Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4396	42	363	0.002	0.013	S571MNH0212XX	S571MNH0211XX	1.78	1.18	13.73	12.23	3.27	2.38	1.49	1.20	0.38	15.46	4.3	4.0
4670	42	582	0.004	0.013	S571MNH0216XX	S590MNH0215XX	-0.20	-2.25	10.72	8.94	1.05	-0.68	1.25	1.57	0.40	16.31	6.2	5.3
4513	24	394	0.003	0.013	S571MNH0219XX	S590MNH0204XX	2.66	1.39	12.08	9.90	7.05	5.68	4.39	4.29	SURCHARGED	13.32	4.1	4.2
4530	10	400	0.004	0.013	S572MNH0201XX	S573MNH0212XX	2.83	1.07	10.22	9.97	2.91	1.56	0.08	0.49	0.34	0.03	2.7	1.0
3237	12	198	0.003	0.013	S572MNH0202XX	S572MNH0206XX	4.43	3.81	9.10	8.40	4.63	4.01	0.20	0.20	0.20	0.18	2.5	1.6
2550	10	38	0.003	0.013	S572MNH0203XX	S572MNH0207XX	6.40	6.29	12.40	11.15	6.40	6.29	0.00	0.00	0.00	0.00	2.2	0.0
3912	10	298	0.003	0.013	S572MNH0204XX	S549MNH0203XX	5.50	4.62	13.30	12.22	5.50	4.62	0.00	0.00	0.00	0.00	2.2	0.0
3389	12	231	0.003	0.013	S572MNH0206XX	S589MNH0211XX	3.81	3.10	8.40	7.40	4.01	3.42	0.20	0.32	0.26	0.18	2.5	1.6
3628	10	263	0.003	0.013	S572MNH0207XX	S572MNH0204XX	6.29	5.50	11.15	13.30	6.29	5.50	0.00	0.00	0.00	0.00	2.2	0.0
3232	21	196	0.004	0.013	S573MNH0201XX	S573MNH0203XX	-0.51	-1.30	10.00	10.10	0.30	-0.29	0.81	1.01	0.52	4.41	4.2	4.1
3020	21	144	0.001	0.013	S573MNH0202XX	S573MNH0213XX	-0.07	-0.21	9.00	8.25	1.16	1.00	1.23	1.21	0.70	4.37	2.1	2.3
3490	21	247	0.002	0.013	S573MNH0203XX	S588MNH0202XX	-1.30	-1.87	10.10	8.80	-0.30	-0.82	1.00	1.05	0.59	4.70	3.2	3.3
2800	10	90	0.005	0.013	S573MNH0204XX	S573MNH0203XX	1.43	0.99	9.62	10.10	1.54	1.10	0.11	0.11	0.13	0.06	2.8	1.4
2977	12	135	0.003	0.013	S573MNH0210XX	S573MNH0211XX	3.07	2.72	7.38	6.93	3.23	2.94	0.16	0.22	0.19	0.10	2.3	1.3
3883	12	296	0.003	0.013	S573MNH0211XX	S588MNH0204XX	2.72	1.97	6.93	5.98	2.94	2.26	0.22	0.29	0.25	0.19	2.3	1.5
3298	21	209	0.004	0.013	S573MNH0212XX	S573MNH0202XX	0.70	-0.07	9.97	9.00	1.53	1.20	0.83	1.27	0.60	4.36	4.0	3.9
4015	21	308	0.001	0.013	S573MNH0213XX	S573MNH0201XX	-0.21	-0.51	8.25	10.00	0.97	0.42	1.18	0.93	0.61	4.40	2.1	2.3
2694	10	63	-0.003	0.013	S573TEE1001XX	S573MNH0203XX	0.00	0.20	10.63	10.10	0.53	0.41	0.53	0.21	0.45	0.23	2.3	0.4
4017	12	308	0.003	0.013	S574MNH0202XX	S587MNH0208XX	2.90	2.12	7.04	6.39	3.07	2.34	0.17	0.22	0.20	0.12	2.3	1.3
4279	18	345	0.002	0.013	S575MNH0203XX	S586MNH0205XX	1.25	0.72	6.26	6.40	1.66	1.23	0.41	0.51	0.31	0.68	2.3	1.7
3107	10	162	0.004	0.013	S575MNH0206XX	S586MNH0205XX	1.45	0.72	6.55	6.40	1.59	1.22	0.14	0.50	0.39	0.09	2.7	1.5
3340	21	218	0.002	0.013	S586MNH0201XX	S615MNH0201XX	-0.83	-1.16	4.45	5.25	-0.35	-0.63	0.48	0.53	0.29	1.00	2.6	1.9
4275	21	358	0.002	0.013	S586MNH0202XX	S586MNH0201XX	-0.27	-0.83	4.60	4.45	0.20	-0.33	0.47	0.50	0.28	1.00	2.6	1.9
4401	21	369	0.001	0.013	S586MNH0204XX	S586TEE1003XX	0.32	0.00	5.70	6.44	0.87	0.36	0.55	0.36	0.26	1.00	1.9	1.5
3705	21	276	0.001	0.013	S586MNH0205XX	S586MNH0204XX	0.72	0.32	6.40	5.70	1.20	0.87	0.48	0.55	0.30	1.00	2.5	1.9
3715	12	273	0.002	0.013	S586MNH0209XX	S615MNH0208XX	-0.90	-1.57	3.61	2.70	-0.56	-1.06	0.34	0.51	0.42	0.43	2.3	1.9
2515	21	31	0.009	0.013	S586TEE1003XX	S586MNH0202XX	0.00	-0.27	6.44	4.60	0.36	0.21	0.36	0.48	0.24	1.00	6.1	3.5
3891	12	296	0.002	0.013	S587MNH0201XX	S614MNH0203XX	-0.34	-1.07	4.25	3.53	0.01	-0.66	0.35	0.41	0.38	0.46	2.3	1.9
4035	12	310	0.003	0.013	S587MNH0202XX	S587MNH0201XX	0.44	-0.34	5.17	4.25	0.77	0.02	0.33	0.36	0.35	0.41	2.3	1.9
4127	12	323	0.002	0.013	S587MNH0206XX	S614MNH0204XX	0.55	-0.22	4.35	3.65	0.87	0.19	0.32	0.41	0.36	0.38	2.2	1.8
4081	12	316	0.002	0.013	S587MNH0207XX	S587MNH0206XX	1.34	0.55	5.22	4.35	1.64	0.88	0.30	0.33	0.31	0.35	2.3	1.8
3920	12	298	0.003	0.013	S587MNH0208XX	S587MNH0207XX	2.12	1.34	6.39	5.22	2.33	1.65	0.21	0.31	0.26	0.18	2.3	1.5
4617	24	455	0.002	0.013	S588MNH0201XX	S613MNH0202XX	-3.02	-3.92	7.25	5.95	-2.01	-2.86	1.01	1.06	0.52	5.09	3.2	3.2
4611	21	452	0.002	0.013	S588MNH0202XX	S588MNH0201XX	-1.87	-2.77	8.80	7.25	-0.83	-1.97	1.04	0.80	0.53	4.70	2.9	3.2
4024	12	309	0.003	0.013	S588MNH0203XX	S587MNH0202XX	1.22	0.44	6.14	5.17	1.50	0.78	0.28	0.34	0.31	0.30	2.3	1.7
3937	12	300	0.003	0.013	S588MNH0204XX	S588MNH0203XX	1.97	1.22	5.98	6.14	2.25	1.50	0.28	0.28	0.28	0.30	2.3	1.7
4489	10	385	0.002	0.013	S589MNH0202XX	S590MNH0201XX	1.46	0.59	8.90	8.90	1.73	0.94	0.27	0.35	0.37	0.24	1.9	1.6
3984	10	304	0.003	0.013	S589MNH0203XX	S589MNH0202XX	2.35	1.47	9.15	8.90	2.56	1.78	0.21	0.31	0.31	0.16	2.2	1.5
3992	10	305	0.003	0.013	S589MNH0204XX	S589MNH0203XX	3.24	2.35	9.25	9.15	3.32	2.59	0.08	0.24	0.19	0.02	2.2	0.9
4287	10	347	0.002	0.013	S589MNH0204XX	S589MNH0214XX	3.24	2.54	9.25	9.60	3.33	2.67	0.09	0.13	0.13	0.02	1.8	0.0
4194	10	331	0.001	0.013	S589MNH0205XX	S573MNH0204XX	1.85	1.43	9.82	9.62	2.01	1.55	0.16	0.12	0.17	0.06	1.4	0.9
3961	12	302	0.003	0.013	S589MNH0206XX	S589MNH0207XX	2.20	1.30	8.10	7.50	2.45	1.62	0.25	0.32	0.29	0.27	2.5	1.8
3159	12	176	0.003	0.013	S589MNH0207XX	S589MNH0208XX	1.30	0.77	7.50	8.00	1.59	1.06	0.29	0.29	0.29	0.36	2.5	1.9
2916	12	122	0.003	0.013	S589MNH0208XX	S590MNH0220XX	0.77	0.38	8.00	8.02	1.06	0.76	0.29	0.38	0.33	0.36	2.6	1.9
4027	12	309	0.003	0.013	S589MNH0211XX	S589MNH0206XX	3.10	2.20	7.40	8.10	3.35	2.46	0.25	0.26	0.26	0.27	2.5	1.7
4459	10	376	0.002	0.013	S589MNH0214XX	S589MNH0205XX	2.54	1.85	9.60	9.82	2.67	2.02	0.13	0.17	0.18	0.05	1.7	0.9
3472	10	245	0.012	0.013	S590MNH0201XX	S590MNH0217XX	0.59	-2.41	8.90	8.06	0.82	-2.17	0.23	0.24	0.28	0.27	4.4	3.0
4514	24	394	0.003	0.013	S590MNH0202XX	S590MNH0218XX	0.13	-1.13	8.60	7.60	4.08	2.67	3.95	3.80	SURCHARGED	13.56	4.1	4.3
2903	24	118	0.003	0.013	S590MNH0203XX	S590MNH0202XX	0.52	0.13	8.80	8.60	4.58	4.16	4.06	4.03	SURCHARGED	13.55	4.1	4.3
3676	24	267	0.003	0.013	S590MNH0204XX	S590MNH0203XX	1.39	0.52	9.90	8.80	5.61	4.66	4.22	4.14	SURCHARGED	13.50	4.1	4.3
4188	12	338	0.003	0.013	S590MNH0213XX	S590MNH0216XX	-0.53	-1.46	7.90	8.63	-0.15	-0.89	0.38	0.57	0.47	0.57	2.4	2.1
2954	42	130	0.002	0.013	S590MNH0215XX	S590MNH0216XX	-2.20	-2.40	8.94	8.63	-0.69	-1.03	1.51	1.37	0.41	16.31	4.1	3.9
4673	42	601	0.003	0.013	S590MNH0216XX	S590MNH0217XX	-2.40	-4.04	8.63	8.06	-1.04	-2.27	1.36	1.77	0.45	16.88	5.5	4.9
4480	42	380	0.001	0.013	S590MNH0217XX	S611MNH0209XX	-4.19	-4.52	8.06	7.03	-2.27	-3.09	1.92	1.43	0.48	19.74	3.1	3.3
3341	24	406	0.003	0.013	S590MNH0218XX	S611MNH0205XX	-1.13	-2.40	7.60	6.40	2.59	1.11	3.72	3.51	SURCHARGED	13.64	4.0	4.3

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C2 - MPSP Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
2463	18	23	0.010	0.013	S590MNH0219XX	S590MNH0217XX	-3.03	-3.25	7.79	8.06	-2.19	-2.17	0.84	1.08	0.64	2.58	5.9	4.9
3985	12	304	0.003	0.013	S590MNH0220XX	S590MNH0213XX	0.38	-0.53	8.02	7.90	0.71	-0.08	0.33	0.45	0.39	0.45	2.5	2.0
4426	12	368	0.002	0.013	S591MNH0201XX	S610MNH0208XX	1.39	0.66	10.60	9.40	1.81	1.39	0.42	0.73	0.58	0.57	2.0	1.9
4644	12	504	0.001	0.013	S591MNH0202XX	S591MNH0201XX	2.12	1.39	10.90	10.60	2.49	1.88	0.37	0.49	0.43	0.40	1.7	1.5
3388	10	231	0.004	0.013	S591MNH0203XX	S591MNH0202XX	3.20	2.29	12.10	10.90	3.49	2.55	0.29	0.26	0.33	0.36	2.5	2.1
4447	12	371	0.002	0.013	S592MNH0212XX	S592MNH0214XX	3.93	3.04	14.00	13.19	17.46	13.19	13.53	10.15	SURCHARGED	3.82	2.2	4.9
3056	12	154	0.001	0.013	S592MNH0214XX	S592MNH0215XX	3.03	2.88	13.19	12.80	14.70	12.80	11.67	9.92	SURCHARGED	3.96	1.4	5.0
2989	12	137	0.002	0.013	S592MNH0215XX	S592MNH0216XX	2.88	2.63	12.80	12.92	15.02	12.92	12.14	10.29	SURCHARGED	4.41	1.9	5.6
2818	12	94	0.002	0.013	S592MNH0216XX	S592MNH0217XX	2.63	2.46	12.92	12.10	13.53	12.10	10.90	9.64	SURCHARGED	4.41	1.9	5.6
4450	12	372	0.002	0.013	S592MNH0217XX	S609MNH0206XX	2.46	1.71	12.10	11.33	17.02	11.33	14.56	9.62	SURCHARGED	4.41	2.0	5.6
4053	12	313	0.001	0.013	S609MNH0206XX	S609MNH0207XX	1.56	1.12	11.33	10.00	15.22	10.00	13.66	8.88	SURCHARGED	4.60	1.7	5.9
2670	12	60	0.003	0.013	S609MNH0207XX	S609MNH0208XX	1.12	0.97	10.00	10.31	11.30	10.31	10.18	9.34	SURCHARGED	4.60	2.3	5.9
4491	12	386	0.003	0.013	S609MNH0208XX	S610MNH0203XX	0.97	0.00	10.31	10.60	11.54	5.11	10.57	5.11	SURCHARGED	4.60	2.3	5.9
2676	12	60	0.000	0.013	S610MNH0203XX	S610MNH0205XX	0.00	0.00	10.60	9.91	4.47	3.46	4.47	3.46	SURCHARGED	4.60	0.1	5.9
2698	18	63	0.032	0.013	S610MNH0204XX	S610MNH0205XX	3.00	1.00	9.00	9.91	3.51	3.51	0.51	2.51	SURCHARGED	1.83	10.6	6.7
4485	18	385	0.001	0.013	S610MNH0205XX	S610MNH0209XX	2.50	2.23	9.91	10.20	3.35	2.89	0.85	0.66	0.50	1.84	1.6	0.0
4640	18	494	0.003	0.013	S610MNH0205XX	S631MNH0203XX	-0.50	-1.94	9.91	7.84	3.36	2.38	3.86	4.32	SURCHARGED	4.67	3.2	2.7
3784	10	280	0.002	0.013	S610MNH0206XX	S631MNH0206XX	2.00	1.34	8.36	7.38	2.74	2.73	0.74	1.39	SURCHARGED	0.12	2.0	1.3
4392	18	366	0.001	0.013	S610MNH0207XX	S611MNH0201XX	0.23	-0.08	9.00	8.20	1.22	0.75	0.99	0.83	0.61	2.53	1.7	1.9
3172	12	180	0.002	0.013	S610MNH0208XX	S610MNH0207XX	0.56	0.23	9.40	9.00	1.32	1.27	0.76	1.04	0.90	0.64	1.9	1.9
4512	18	396	0.002	0.013	S610MNH0209XX	S610MNH0210XX	2.23	1.46	10.20	9.30	2.89	2.04	0.66	0.58	0.41	1.84	2.6	2.5
4479	18	381	0.003	0.013	S610MNH0210XX	S610MNH0207XX	1.46	0.23	9.30	9.00	2.03	1.30	0.57	1.07	0.55	1.84	3.4	3.0
2706	18	65	0.002	0.013	S611MNH0201XX	S611MNH0202XX	-0.08	-0.21	8.20	8.20	0.74	0.64	0.82	0.85	0.55	2.53	2.7	2.7
4253	18	344	0.002	0.013	S611MNH0202XX	S611MNH0203XX	-0.21	-0.79	8.20	9.20	0.62	-0.07	0.83	0.72	0.51	2.53	2.4	2.5
4556	18	411	0.005	0.013	S611MNH0203XX	S590MNH0219XX	-0.79	-3.03	9.20	7.79	-0.18	-2.18	0.61	0.85	0.49	2.58	4.4	3.9
4506	24	393	0.003	0.013	S611MNH0205XX	S611MNH0206XX	-2.40	-3.69	6.40	5.10	1.03	-0.41	3.43	3.28	SURCHARGED	13.69	4.1	4.4
3314	24	213	0.002	0.013	S611MNH0206XX	S611MNH0208XX	-3.69	-4.19	5.10	5.09	-0.44	-1.22	3.25	2.97	SURCHARGED	13.69	3.5	4.4
4484	24	383	0.003	0.013	S611MNH0207XX	S630MNH0205XX	-4.91	-6.17	4.20	5.59	-1.96	-3.36	2.95	2.81	SURCHARGED	13.69	4.1	4.4
3207	24	187	0.004	0.013	S611MNH0208XX	S611MNH0207XX	-4.19	-4.91	5.09	4.20	-1.25	-1.93	2.94	2.98	SURCHARGED	13.69	4.5	4.4
4558	42	412	0.003	0.013	S611MNH0209XX	S611MNH0210XX	-4.52	-5.91	7.03	5.87	-3.12	-4.29	1.40	1.62	0.43	19.81	6.1	5.5
2462	10	23	0.000	0.013	S611MNH0210XX	S611MNH0208XX	0.00	0.00	5.87	5.09	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0
4678	42	620	0.002	0.013	S611MNH0210XX	S630MNH0209XX	-5.91	-7.31	5.87	5.52	-4.30	-5.86	1.61	1.45	0.44	20.65	5.0	4.8
3491	10	248	0.002	0.013	S611MNH0214XX	S630MNH0213XX	-2.40	-2.87	5.50	5.52	-2.23	-2.60	0.17	0.27	0.26	0.08	1.8	1.1
4022	10	309	0.003	0.013	S612CLN1001XX	S612MNH0203XX	2.20	1.35	4.37	5.37	2.54	1.72	0.34	0.37	0.43	0.39	2.1	1.9
4169	10	339	0.003	0.013	S612MNH0201XX	S611MNH0210XX	-1.98	-2.88	5.33	5.87	-1.44	-2.47	0.54	0.41	0.57	0.84	2.1	2.3
3915	10	298	0.003	0.013	S612MNH0202XX	S612MNH0201XX	-1.08	-1.98	5.76	5.33	-0.60	-1.29	0.48	0.69	0.70	0.76	2.2	2.3
3864	10	294	0.008	0.013	S612MNH0203XX	S612MNH0202XX	1.35	-1.08	5.37	5.76	1.67	-0.47	0.32	0.61	0.56	0.53	3.7	3.1
3427	24	238	0.002	0.013	S613MNH0201XX	S613MNH0203XX	-4.82	-5.35	4.45	3.10	-3.76	-4.02	1.06	1.33	0.60	5.35	3.4	3.4
4608	24	450	0.002	0.013	S613MNH0202XX	S613MNH0201XX	-3.92	-4.82	5.95	4.45	-2.90	-3.73	1.02	1.09	0.53	5.21	3.2	3.2
3319	24	214	0.002	0.013	S613MNH0203XX	S613MNH0208XX	-5.35	-5.72	3.10	3.20	-4.05	-4.26	1.30	1.46	0.69	6.13	3.0	3.2
4047	12	312	0.003	0.013	S613MNH0204XX	S613MNH0203XX	-3.37	-4.44	3.42	3.10	-2.96	-3.98	0.41	0.46	0.44	0.75	2.7	2.4
2375	24	12	0.008	0.013	S613MNH0208XX	S613TEE1001XX	-5.72	-5.82	3.20	2.66	-4.28	-4.28	1.44	1.54	0.74	6.32	6.5	5.8
4584	24	427	0.002	0.013	S613TEE1001XX	S628MNH0207XX	-5.82	-6.49	2.66	2.88	-4.29	-4.58	1.53	1.91	0.86	6.32	2.9	3.1
4069	12	315	0.000	0.013	S614MNH0201XX	S613MNH0204XX	-3.31	-3.37	3.31	3.42	-2.57	-2.95	0.74	0.42	0.58	0.75	0.6	1.0
3983	12	304	0.005	0.013	S614MNH0202XX	S614MNH0201XX	-1.82	-3.31	3.70	3.31	-1.44	-2.57	0.38	0.74	0.56	0.75	3.2	2.8
3924	12	299	0.003	0.013	S614MNH0203XX	S614MNH0202XX	-1.07	-1.82	3.53	3.70	-0.69	-1.13	0.38	0.69	0.54	0.56	2.3	2.0
3840	12	290	0.002	0.013	S614MNH0204XX	S586MNH0209XX	-0.22	-0.90	3.65	3.61	0.12	-0.54	0.34	0.36	0.35	0.43	2.2	1.8
4627	21	471	0.002	0.013	S615MNH0201XX	S615MNH0202XX	-1.16	-1.88	5.25	4.85	-0.67	-1.12	0.49	0.76	0.36	1.08	2.6	1.9
3850	21	293	0.002	0.013	S615MNH0202XX	S615MNH0210XX	-1.88	-2.40	4.85	4.80	-1.12	-1.15	0.76	1.25	0.58	1.08	2.8	2.0
2690	21	62	0.000	0.013	S615MNH0203XX	S615MNH0204XX	-5.20	-5.20	5.00	4.88	-1.20	-1.21	4.00	3.99	SURCHARGED	1.64	0.1	0.7
4620	39	458	0.002	0.013	S615MNH0204XX	S627MNH0202XX	-5.92	-6.69	4.88	10.90	-1.42	-2.20	4.50	4.49	SURCHARGED	34.01	4.1	4.1
3857	39	294	0.002	0.013	S615MNH0206XX	S615MNH0204XX	-5.37	-5.92	2.00	4.88	-0.94	-1.40	4.43	4.52	SURCHARGED	32.37	4.3	3.9
3619	12	262	0.003	0.013	S615MNH0207XX	S615MNH0210XX	-2.30	-3.00	2.20	4.80	-1.11	-1.14	1.19	1.86	SURCHARGED	0.43	2.3	0.5
3671	12	267	0.003	0.013	S615MNH0208XX	S615MNH0207XX	-1.57	-2.30	2.70	2.20	-1.06	-1.11	0.51	1.19	0.85	0.43	2.4	1.9
3087	21	160	0.011	0.013	S615MNH0210XX	S615MNH0203XX	-3.38	-5.20	4.80	5.00	-1.15	-1.16	2.23	4.04	SURCHARGED	1.50	7.0	0.6

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C2 - MPSP Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4694	39	709	0.001	0.013	S627MNH0201XX	S628MNH0206XX	-7.54	-8.36	3.60	3.43	-3.52	-4.72	4.02	3.64	SURCHARGED	34.01	3.4	4.1
4697	39	757	0.001	0.013	S627MNH0202XX	S627MNH0201XX	-6.69	-7.54	10.90	3.60	-2.22	-3.50	4.47	4.04	SURCHARGED	34.01	3.3	4.1
2783	10	85	0.005	0.013	S628MNH0201XX	S628MNH0209XX	-5.87	-6.31	3.70	4.02	-5.19	-5.20	0.68	1.11	SURCHARGED	0.23	2.9	2.1
3029	10	146	0.006	0.013	S628MNH0205XX	S628MNH0201XX	-4.54	-5.46	5.25	3.70	-4.33	-5.19	0.21	0.27	0.29	0.23	3.2	2.2
3395	39	231	0.001	0.013	S628MNH0206XX	S628MNH0209XX	-8.36	-8.59	3.43	4.02	-4.87	-5.41	3.49	3.18	SURCHARGED	40.33	3.1	4.9
2537	24	36	0.006	0.013	S628MNH0207XX	S628MNH0206XX	-6.49	-6.71	2.88	3.43	-4.58	-4.61	1.91	2.10	SURCHARGED	6.32	5.7	5.2
2578	39	43	0.008	0.013	S628MNH0209XX	S628MNH0210XX	-8.59	-8.94	4.02	4.30	-5.45	-5.54	3.14	3.40	SURCHARGED	40.56	9.0	9.2
2479	48	27	0.003	0.013	S628MNH0210XX	S628MNH0211XX	-8.94	-9.01	4.30	4.40	-5.57	-5.59	3.37	3.42	0.85	40.56	5.9	6.0
4637	48	487	0.001	0.013	S628MNH0211XX	S628MNH0212XX	-9.01	-9.46	4.40	3.70	-5.60	-5.95	3.41	3.51	0.87	40.56	3.5	4.0
3683	48	268	0.001	0.013	S628MNH0212XX	S629MNH0213XX	-9.46	-9.71	3.70	3.30	-5.97	-6.16	3.49	3.55	0.88	40.56	3.5	4.0
4295	10	346	0.006	0.013	S628MNH0213XX	S628TEE1001XX	-2.13	-4.13	5.10	5.18	-1.93	-3.93	0.20	0.20	0.24	0.21	3.1	2.1
2442	10	21	0.006	0.013	S628TEE1001XX	S628MNH0205XX	-4.13	-4.25	5.18	5.25	-3.93	-4.05	0.20	0.20	0.24	0.21	3.1	2.1
2391	10	14	0.001	0.013	S629MNH0201XX	S629MNH0210XX	-1.47	-1.49	3.99	4.05	-1.22	-1.25	0.25	0.24	0.29	0.16	1.5	1.2
4496	10	389	0.004	0.013	S629MNH0201XX	S629MNH0209XX	-1.16	-2.57	3.99	5.60	-1.16	-2.50	0.00	0.07	0.04	0.00	2.4	0.0
2804	10	92	0.012	0.013	S629MNH0202XX	S629MNH0201XX	-0.40	-1.47	4.50	3.99	-0.23	-1.22	0.17	0.25	0.26	0.16	4.3	2.5
3203	10	187	0.004	0.013	S629MNH0203XX	S629MNH0202XX	0.34	-0.40	5.26	4.50	0.53	-0.21	0.19	0.19	0.23	0.16	2.5	1.7
2453	48	22	0.001	0.013	S629MNH0204XX	S629MNH0214XX	-10.71	-10.73	4.70	5.30	-7.65	-7.67	3.06	3.06	0.77	40.56	3.5	4.0
2582	30	49	0.000	0.013	S629MNH0205XX	S629MNH0204XX	-10.69	-10.71	4.60	4.70	-7.00	-7.12	3.69	3.59	SURCHARGED	20.28	1.7	0.0
2581	30	49	0.000	0.013	S629MNH0205XX	S629MNH0204XX	-10.69	-10.71	4.60	4.70	-7.27	-7.39	3.42	3.32	SURCHARGED	20.28	1.7	4.1
4384	10	360	0.006	0.013	S629MNH0208XX	S629MNH0218XX	-3.93	-6.00	4.50	3.10	-3.81	-5.88	0.12	0.12	0.14	0.07	3.1	1.5
4487	10	385	0.004	0.013	S629MNH0209XX	S629MNH0208XX	-2.57	-3.93	5.60	4.50	-2.50	-3.77	0.07	0.16	0.14	0.02	2.4	0.9
4431	10	371	0.002	0.013	S629MNH0210XX	S628MNH0213XX	-1.49	-2.13	4.05	5.10	-1.25	-1.85	0.24	0.28	0.31	0.16	1.7	1.3
4696	48	752	0.001	0.013	S629MNH0211XX	S629MNH0224XX	-10.04	-10.67	4.10	3.40	-6.48	-6.99	3.56	3.68	0.91	40.56	3.3	3.8
3155	48	175	0.001	0.013	S629MNH0212XX	S629MNH0211XX	-9.87	-10.04	3.40	4.10	-6.33	-6.45	3.54	3.59	0.89	40.56	3.6	4.0
3196	48	186	0.001	0.013	S629MNH0213XX	S629MNH0212XX	-9.71	-9.87	3.30	3.40	-6.18	-6.31	3.53	3.56	0.89	40.56	3.4	3.8
4538	48	402	0.001	0.013	S629MNH0214XX	S652MNH0215XX	-10.73	-11.08	5.30	7.10	-7.75	-8.17	2.98	2.91	0.74	40.56	3.4	3.8
2532	33	36	0.003	0.013	S629MNH0216XX	S629MNH0218XX	-8.99	-9.10	3.06	3.10	-7.52	-7.54	1.47	1.56	0.55	10.38	4.9	0.0
2924	33	127	0.003	0.013	S629MNH0216XX	S629MNH0217XX	-8.99	-9.31	3.06	3.88	-7.68	-7.80	1.31	1.51	0.51	10.38	4.5	4.2
4651	42	517	0.004	0.013	S629MNH0217XX	S652MNH0225XX	-9.31	-11.36	3.88	8.62	-7.91	-8.50	1.40	2.86	0.61	20.86	6.6	5.9
2796	33	91	0.002	0.013	S629MNH0218XX	S629MNH0217XX	-9.10	-9.31	3.10	3.88	-7.72	-7.80	1.38	1.51	0.53	10.48	4.3	4.1
3182	10	182	0.004	0.013	S629MNH0223XX	S629MNH0203XX	1.07	0.34	4.82	5.26	1.25	0.56	0.18	0.22	0.24	0.15	2.6	1.7
2454	48	22	0.001	0.013	S629MNH0224XX	S629MNH0205XX	-10.67	-10.69	3.40	4.60	-7.09	-7.11	3.58	3.58	0.90	40.56	3.5	4.0
3313	10	213	0.003	0.013	S630MNH0201XX	S630MNH0204XX	-4.55	-5.21	4.70	3.70	-3.76	-3.80	0.79	1.41	SURCHARGED	0.30	2.2	1.9
2978	24	135	0.004	0.013	S630MNH0202XX	S630MNH0210XX	-7.43	-7.94	5.10	5.00	-4.92	-5.44	2.51	2.50	SURCHARGED	13.99	4.4	4.5
3246	24	199	0.000	0.013	S630MNH0203XX	S630MNH0202XX	-7.37	-7.43	3.72	5.10	-4.13	-4.89	3.24	2.54	SURCHARGED	13.99	1.3	4.5
3129	10	169	0.004	0.013	S630MNH0204XX	S630MNH0203XX	-5.21	-5.87	3.70	3.72	-3.80	-3.83	1.41	2.04	SURCHARGED	0.30	2.5	0.5
3231	24	195	0.006	0.013	S630MNH0205XX	S630MNH0203XX	-6.17	-7.37	5.59	3.72	-3.39	-4.10	2.78	3.27	SURCHARGED	13.69	5.7	4.4
4604	42	444	0.004	0.013	S630MNH0209XX	S629MNH0216XX	-7.31	-8.92	5.52	3.06	-5.90	-7.52	1.41	1.40	0.40	20.76	6.3	5.7
3599	24	260	0.003	0.013	S630MNH0210XX	S652MNH0209XX	-7.94	-8.69	5.00	2.69	-5.48	-6.47	2.46	2.22	SURCHARGED	13.99	3.9	4.5
3795	10	282	0.003	0.013	S630MNH0211XX	S630MNH0201XX	-3.70	-4.55	4.00	4.70	-3.44	-3.67	0.26	0.88	0.68	0.26	2.2	1.8
2397	10	15	0.005	0.013	S630MNH0212XX	S630MNH0211XX	-3.63	-3.70	4.00	4.00	-3.11	-3.11	0.52	0.59	0.66	0.21	2.8	1.9
3608	10	261	0.003	0.013	S630MNH0213XX	S630MNH0212XX	-2.87	-3.63	5.52	4.00	-2.65	-3.06	0.22	0.57	0.47	0.17	2.2	1.6
2633	10	54	0.121	0.013	S630TEE1001XX	S630MNH0210XX	0.00	-6.54	5.01	5.00	0.00	-5.22	0.00	1.32	0.79	0.00	14.0	0.0
3807	18	284	0.000	0.013	S631MNH0201XX	S631MNH0208XX	-3.10	-3.24	6.00	5.20	1.58	0.87	4.68	4.11	SURCHARGED	5.26	1.3	3.0
2914	18	121	0.001	0.013	S631MNH0202XX	S631MNH0201XX	-3.02	-3.10	6.48	6.00	1.98	1.70	5.00	4.80	SURCHARGED	5.01	1.5	2.8
3171	18	179	0.006	0.013	S631MNH0203XX	S631MNH0202XX	-1.94	-3.02	7.84	6.48	2.36	2.01	4.30	5.03	SURCHARGED	4.67	4.6	2.7
3674	12	277	0.002	0.013	S631MNH0206XX	S631MNH0207XX	1.34	0.73	7.38	7.30	2.73	2.71	1.39	1.98	SURCHARGED	0.27	2.1	0.3
3831	12	293	0.002	0.013	S631MNH0207XX	S631MNH0210XX	0.73	0.09	7.30	8.22	2.71	2.70	1.98	2.61	SURCHARGED	0.27	2.1	0.3
4641	18	497	0.001	0.013	S631MNH0208XX	S650MNH0207XX	-3.24	-3.67	5.20	8.30	0.84	-0.41	4.08	3.26	SURCHARGED	5.26	1.8	3.0
3966	12	302	0.002	0.013	S631MNH0209XX	S631MNH0202XX	-0.57	-1.23	8.50	6.48	2.66	2.63	3.23	3.86	SURCHARGED	0.34	2.1	0.4
4007	12	307	0.002	0.013	S631MNH0210XX	S631MNH0209XX	0.09	-0.57	8.22	8.50	2.69	2.67	2.60	3.24	SURCHARGED	0.31	2.1	0.4
4108	27	320	0.001	0.013	S648MNH0201XX	S649MNH0206XX	0.08	-0.24	9.50	8.90	0.90	0.58	0.82	0.82	0.37	2.78	2.5	2.1
4107	27	320	0.001	0.013	S648MNH0202XX	S648MNH0201XX	0.40	0.08	10.20	9.50	1.22	0.90	0.82	0.82	0.37	2.78	2.5	2.1
4494	27	387	0.001	0.013	S649MNH0201XX	S650MNH0201XX	-1.13	-1.52	7.90	8.10	-0.31	-0.71	0.82	0.81	0.36	2.78	2.5	2.1
3534	27	253	0.001	0.013	S649MNH0204XX	S649MNH0201XX	-0.88	-1.13	7.90	7.90	-0.06	-0.31	0.82	0.82	0.37	2.78	2.5	2.1

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C2 - MPSP Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4116	27	321	0.001	0.013	S649MNH0205XX	S649MNH0204XX	-0.56	-0.88	7.90	7.90	0.26	-0.05	0.82	0.83	0.37	2.78	2.5	2.1
4104	27	320	0.001	0.013	S649MNH0206XX	S649MNH0205XX	-0.24	-0.56	8.90	7.90	0.58	0.26	0.82	0.82	0.37	2.78	2.5	2.1
3781	27	280	0.001	0.013	S650MNH0201XX	S650MNH0202XX	-1.52	-1.80	8.10	7.00	-0.71	-1.23	0.81	0.57	0.31	2.78	2.5	2.1
2421	27	18	0.032	0.013	S650MNH0202XX	S650MNH0205XX	-1.80	-2.38	7.00	7.00	-1.24	-1.59	0.56	0.79	0.30	2.78	14.0	7.3
4680	36	629	0.000	0.013	S650MNH0203XX	S650MNH0210XX	-5.71	-5.96	3.87	4.13	-4.82	-5.42	0.89	0.54	0.24	2.78	1.9	1.5
3146	36	173	0.019	0.013	S650MNH0204XX	S650MNH0203XX	-2.45	-5.71	3.45	3.87	-1.93	-4.81	0.52	0.90	0.24	2.78	13.0	5.8
2835	27	99	0.001	0.013	S650MNH0205XX	S650MNH0204XX	-2.38	-2.45	7.00	3.45	-1.60	-1.89	0.78	0.56	0.30	2.78	2.1	1.9
4597	18	448	0.002	0.013	S650MNH0206XX	S650MNH0209XX	-3.89	-4.65	8.60	6.40	-1.99	-3.12	1.90	1.53	SURCHARGED	5.27	2.5	3.0
2714	18	67	0.003	0.013	S650MNH0207XX	S650MNH0206XX	-3.67	-3.89	8.30	8.60	-0.43	-0.60	3.24	3.29	SURCHARGED	5.26	3.4	3.0
4618	18	455	0.002	0.013	S650MNH0209XX	S651MNH0201XX	-4.65	-5.41	6.40	4.50	-3.14	-4.32	1.51	1.09	0.87	5.27	2.4	3.0
2959	36	131	0.005	0.013	S650MNH0210XX	S650MNH0211XX	-5.96	-6.67	4.13	3.90	-5.43	-6.13	0.53	0.54	0.18	2.87	7.0	3.8
4661	36	538	0.005	0.013	S650MNH0211XX	S651MNH0202XX	-6.67	-9.58	3.90	9.72	-6.14	-7.99	0.53	1.59	0.35	2.91	6.9	3.8
2378	33	13	0.141	0.013	S650MNH0215XX	S650MNH0204XX	-0.65	-2.45	6.94	3.45	-0.65	-1.91	0.00	0.54	0.10	0.00	33.4	0.0
2362	18	11	0.062	0.013	S650TEE1001XX	S650MNH0215XX	0.00	-0.65	5.62	6.94	0.00	-0.65	0.00	0.00	0.00	0.00	14.8	0.0
4602	18	444	0.003	0.013	S651MNH0201XX	S651MNH0203XX	-5.41	-6.93	4.50	10.92	-4.34	-6.05	1.07	0.88	0.65	5.27	3.5	3.9
2505	36	30	0.001	0.013	S651MNH0202XX	S651MNH0203XX	-9.58	-9.61	9.72	10.92	-8.03	-8.03	1.55	1.58	0.52	2.95	3.0	2.1
4630	36	478	0.001	0.013	S651MNH0203XX	S651MNH0205XX	-9.61	-10.03	10.92	8.47	-8.03	-8.21	1.58	1.82	0.57	8.22	2.8	2.7
3014	36	143	0.001	0.013	S651MNH0205XX	S651MNH0211XX	-9.60	-9.77	8.47	9.00	-8.26	-8.36	1.34	1.41	0.46	8.22	3.3	3.0
2883	33	111	0.001	0.013	S651MNH0208XX	S651MNH0210XX	-10.16	-10.27	1.59	1.22	-8.66	-8.73	1.50	1.54	0.55	8.22	2.8	2.8
4375	18	358	0.001	0.013	S651MNH0209XX	S652MNH0207XX	-6.03	-6.44	4.18	5.63	-6.03	-6.44	0.00	0.00	0.00	0.00	2.0	0.0
3360	33	221	0.001	0.013	S651MNH0210XX	S652MNH0208XX	-10.27	-10.55	1.22	3.20	-8.74	-8.85	1.53	1.70	0.59	8.22	3.2	3.1
2350	18	8	0.012	0.013	S651MNH0211XX	00_S651MNH0211XX	-5.34	-5.44	9.00	10.76	-5.34	-5.44	0.00	0.00	0.00	0.00	6.6	0.0
4467	33	376	0.001	0.013	S651MNH0211XX	S651MNH0208XX	-9.77	-10.16	9.00	1.59	-8.36	-8.65	1.41	1.51	0.53	8.22	2.9	2.8
2713	48	72	0.011	0.013	S652MNH0202XX	S652MNH0211XX	-14.10	-14.90	6.16	5.81	-13.01	-13.57	1.09	1.33	0.30	13.99	12.0	7.5
2562	48	40	0.004	0.013	S652MNH0203XX	S652MNH0214XX	-11.45	-11.61	7.80	9.74	-9.55	-9.73	1.90	1.88	0.47	40.56	7.2	7.0
2637	39	55	0.004	0.013	S652MNH0204XX	S652MNH0214XX	-11.54	-11.78	6.85	9.74	-9.84	-10.09	1.70	1.69	0.52	29.08	6.6	6.7
2356	33	10	0.064	0.013	S652MNH0205XX	S652MNH0204XX	-10.90	-11.54	6.68	6.85	-9.11	-9.52	1.79	2.02	0.69	29.08	22.5	18.0
2716	24	68	0.020	0.013	S652MNH0207XX	S652MNH0202XX	-10.15	-11.50	5.63	6.16	-8.80	-10.54	1.35	0.96	0.58	13.99	10.2	9.8
2569	33	45	0.003	0.013	S652MNH0208XX	S652MNH0225XX	-10.55	-10.70	3.20	8.62	-8.86	-8.87	1.69	1.83	0.64	8.22	5.1	4.4
4198	24	362	0.002	0.013	S652MNH0209XX	S652MNH0207XX	-8.69	-9.50	2.69	5.63	-6.52	-8.15	2.17	1.35	0.88	13.99	3.4	4.5
4728	48	14	0.000	0.013	S652MNH0211XX	WPCP	-14.90	-14.90	5.81	0.00	-13.65	-13.81	1.25	1.09	0.29	13.99	0.1	1.1
2618	48	51	0.016	0.013	S652MNH0214XX	S652MNH0212XX	-14.10	-14.90	9.74	5.89	-11.58	-11.88	2.52	3.02	0.69	69.64	14.3	13.4
2459	48	24	0.015	0.013	S652MNH0215XX	S652MNH0203XX	-11.08	-11.45	7.10	7.80	-6.82	-6.82	4.26	4.63	SURCHARGED	20.28	14.1	0.0
2458	48	25	0.015	0.013	S652MNH0215XX	S652MNH0203XX	-11.08	-11.45	7.10	7.80	-8.19	-8.19	2.89	3.26	SURCHARGED	20.28	14.0	9.3
2443	33	21	0.010	0.013	S652MNH0225XX	S652MNH0205XX	-10.70	-10.90	8.62	6.68	-8.91	-8.72	1.79	2.18	0.72	29.08	8.8	9.0
4105	27	320	0.001	0.013	S673MNH0201XX	S648MNH0202XX	0.72	0.40	10.80	10.20	1.54	1.22	0.82	0.82	0.37	2.78	2.5	2.1
4531	21	400	0.002	0.013	S673MNH0202XX	S673MNH0201XX	2.12	1.32	12.00	10.80	2.88	1.92	0.76	0.60	0.39	2.78	3.0	2.8
4529	21	400	0.002	0.013	S674MNH0201XX	S673MNH0202XX	2.92	2.12	12.30	12.00	3.68	2.89	0.76	0.77	0.44	2.78	3.0	2.8
4439	21	370	0.002	0.013	S674MNH0202XX	S674MNH0201XX	3.56	2.92	12.60	12.30	4.07	3.71	0.51	0.79	0.37	1.22	2.7	2.1
4727	48	14	0.000	0.013	S652MNH0212XX	WPCP	-14.90	-14.90	5.89	0.00	-12.10	-12.38	2.80	2.52	0.67	69.64	0.1	5.5

Notes:
1. Half full velocity is determined per Manning's equation assuming no backwater conditions downstream.
2. Velocity as indicated by the model at the specified d/D.

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C3 - MPSP Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
00_S651MNH0211XX	10.76	-5.75	16.51	0.00	-5.75	0.00	0.00
MH1_MofffetRealign	16.70	4.40	12.30	0.00	4.62	0.22	0.18
MH2_MoffetRealign	16.10	3.99	12.11	0.03	4.21	0.22	0.21
MH3_MoffetRealign	14.95	2.98	11.97	0.18	3.28	0.30	0.39
MH4_MoffetRealign	15.30	2.55	12.75	0.03	2.86	0.31	0.41
MH5_MoffetRealign	13.40	1.99	11.41	0.00	2.36	0.37	0.41
S529MNH0207XX	28.30	13.00	15.30	2.41	13.69	0.69	2.41
S529MNH0208XX	24.30	12.13	12.17	0.02	12.82	0.69	2.42
S549MNH0201XX	14.40	1.51	12.89	4.33	2.32	0.81	4.33
S549MNH0203XX	12.22	3.79	8.43	0.00	3.88	0.09	0.03
S549MNH0217XX	12.22	4.67	7.55	0.03	4.76	0.09	0.03
S550MNH0201XX	16.49	1.59	14.90	0.20	3.71	2.12	15.46
S550MNH0202XX	17.27	10.07	7.20	0.00	11.34	1.27	15.02
S550MNH0203XX	18.30	6.40	11.90	0.00	7.88	1.48	13.32
S550MNH0204XX	18.40	6.66	11.74	0.00	8.16	1.50	13.32
S550MNH0205XX	18.25	4.60	13.65	0.00	4.88	0.28	0.14
S550MNH0207XX	20.00	11.04	8.96	15.02	12.69	1.65	15.02
S550MNH0210XX	20.80	9.39	11.41	13.32	10.66	1.27	13.32
S550MNH0217XX	14.80	6.42	8.38	0.00	6.55	0.13	0.06
S550MNH0218XX	15.45	5.46	9.99	0.00	5.60	0.14	0.06
S550MNH0220XX	16.40	5.18	11.22	0.00	6.65	1.47	13.32
S550MNH0221XX	17.32	3.65	13.67	0.11	3.89	0.24	0.24
S550MNH0222XX	13.90	7.31	6.59	0.06	7.44	0.13	0.06
S550MNH0223XX	17.92	10.62	7.30	0.00	12.24	1.62	15.02
S550MNH0225XX	16.80	1.60	15.20	0.00	3.70	2.10	15.46
S550MNH0226XX	17.72	4.31	13.41	0.00	4.48	0.17	0.14
S551MNH0203XX	21.50	7.70	13.80	0.00	7.84	0.14	0.08
S551MNH0204XX	22.25	6.62	15.63	0.00	6.75	0.13	0.08
S551MNH0205XX	20.20	5.66	14.54	0.00	5.80	0.14	0.08
S552MNH0201XX	20.19	9.14	11.05	0.01	9.83	0.69	2.60
S552MNH0202XX	21.70	9.80	11.90	0.05	10.52	0.72	2.59
S552MNH0203XX	25.50	10.84	14.66	0.09	11.56	0.72	2.55
S552MNH0204XX	25.40	11.13	14.27	0.03	11.90	0.77	2.46
S552MNH0206XX	24.00	9.32	14.68	0.00	9.32	0.00	0.00
S552MNH0207XX	23.40	8.90	14.50	0.08	9.03	0.13	0.08
S552MNH0208XX	22.00	13.92	8.08	0.00	13.92	0.00	0.00
S552MNH0209XX	20.00	11.22	8.78	0.30	11.46	0.24	0.30
S552MNH0211XX	23.18	10.28	12.90	0.00	10.99	0.71	2.55
S552MNH0212XX	23.40	10.56	12.84	0.00	11.28	0.72	2.55
S569MNH0204XX	19.04	7.50	11.54	0.77	8.43	0.93	3.37
S569MNH0205XX	18.20	7.10	11.10	0.05	7.35	0.25	0.38
S569MNH0206XX	18.40	8.50	9.90	0.03	8.74	0.24	0.33
S569MNH0209XX	14.50	4.11	10.39	0.00	5.17	1.06	3.82
S569MNH0210XX	15.30	4.50	10.80	0.00	5.56	1.06	3.82
S569MNH0211XX	17.23	4.95	12.28	0.07	6.01	1.06	3.82
S569MNH0212XX	18.00	5.70	12.30	0.00	6.60	0.90	3.75

Moffett Park Specific Plan - Wastewater Master Plan
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Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S570MNH0201XX	13.30	4.12	9.18	0.15	4.33	0.21	0.15
S570MNH0202XX	14.55	5.95	8.60	0.14	6.18	0.23	0.17
S570MNH0203XX	15.10	6.60	8.50	0.03	6.70	0.10	0.03
S570MNH0204XX	15.90	4.45	11.45	0.01	4.70	0.25	0.18
S571MNH0205XX	11.74	3.94	7.80	0.13	4.11	0.17	0.13
S571MNH0207XX	12.90	3.92	8.98	0.00	5.39	1.47	13.32
S571MNH0208XX	11.55	2.20	9.35	0.12	2.50	0.30	0.41
S571MNH0209XX	12.44	3.06	9.38	0.16	3.32	0.26	0.29
S571MNH0211XX	12.23	0.88	11.35	0.03	2.17	1.29	15.90
S571MNH0212XX	13.73	1.78	11.95	0.00	3.27	1.49	15.46
S571MNH0216XX	10.72	-0.20	10.92	0.00	1.05	1.25	16.31
S571MNH0219XX	12.08	2.66	9.42	0.00	4.12	1.46	13.32
S572MNH0201XX	10.22	2.83	7.39	0.00	2.91	0.08	0.03
S572MNH0202XX	9.10	4.43	4.67	0.18	4.63	0.20	0.18
S572MNH0203XX	12.40	6.40	6.00	0.00	6.40	0.00	0.00
S572MNH0204XX	13.30	5.50	7.80	0.00	5.50	0.00	0.00
S572MNH0206XX	8.40	3.81	4.59	0.00	4.01	0.20	0.18
S572MNH0207XX	11.15	6.29	4.86	0.00	6.29	0.00	0.00
S573MNH0201XX	10.00	-0.51	10.51	0.01	0.30	0.81	4.41
S573MNH0202XX	9.00	-0.07	9.07	0.01	1.16	1.23	4.37
S573MNH0203XX	10.10	-1.30	11.40	0.00	-0.30	1.00	4.70
S573MNH0204XX	9.62	1.43	8.19	0.00	1.54	0.11	0.06
S573MNH0210XX	7.38	3.07	4.31	0.10	3.23	0.16	0.10
S573MNH0211XX	6.93	2.72	4.21	0.08	2.94	0.22	0.19
S573MNH0212XX	9.97	0.70	9.27	0.00	1.53	0.83	4.36
S573MNH0213XX	8.25	-0.21	8.46	0.02	0.97	1.18	4.40
S573TEE1001XX	10.63	0.00	10.63	0.23	0.53	0.53	0.23
S574MNH0202XX	7.04	2.90	4.14	0.12	3.07	0.17	0.12
S575MNH0203XX	6.26	1.25	5.01	0.68	1.66	0.41	0.68
S575MNH0206XX	6.55	1.45	5.10	0.09	1.59	0.14	0.09
S586MNH0201XX	4.45	-0.83	5.28	0.00	-0.35	0.48	1.00
S586MNH0202XX	4.60	-0.27	4.87	0.00	0.20	0.47	1.00
S586MNH0204XX	5.70	0.32	5.38	0.00	0.87	0.55	1.00
S586MNH0205XX	6.40	0.72	5.68	0.23	1.20	0.48	1.00
S586MNH0209XX	3.61	-0.90	4.51	0.00	-0.56	0.34	0.43
S586TEE1003XX	6.44	0.00	6.44	0.00	0.36	0.36	1.00
S587MNH0201XX	4.25	-0.34	4.59	0.04	0.01	0.35	0.46
S587MNH0202XX	5.17	0.44	4.73	0.11	0.77	0.33	0.41
S587MNH0206XX	4.35	0.55	3.80	0.03	0.87	0.32	0.38
S587MNH0207XX	5.22	1.34	3.88	0.17	1.64	0.30	0.35
S587MNH0208XX	6.39	2.12	4.27	0.06	2.33	0.21	0.18
S588MNH0201XX	7.25	-3.02	10.27	0.39	-2.01	1.01	5.09
S588MNH0202XX	8.80	-1.87	10.67	0.00	-0.83	1.04	4.70
S588MNH0203XX	6.14	1.22	4.92	0.00	1.50	0.28	0.30
S588MNH0204XX	5.98	1.97	4.01	0.12	2.25	0.28	0.30
S589MNH0202XX	8.90	1.46	7.44	0.08	1.73	0.27	0.24

Moffett Park Specific Plan - Wastewater Master Plan
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Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S589MNH0203XX	9.15	2.35	6.80	0.14	2.56	0.21	0.16
S589MNH0204XX	9.25	3.24	6.01	0.04	3.32	0.08	0.02
S589MNH0205XX	9.82	1.85	7.97	0.01	2.01	0.16	0.06
S589MNH0206XX	8.10	2.20	5.90	0.00	2.45	0.25	0.27
S589MNH0207XX	7.50	1.30	6.20	0.09	1.59	0.29	0.36
S589MNH0208XX	8.00	0.77	7.23	0.00	1.06	0.29	0.36
S589MNH0211XX	7.40	3.10	4.30	0.10	3.35	0.25	0.27
S589MNH0214XX	9.60	2.54	7.06	0.03	2.67	0.13	0.05
S590MNH0201XX	8.90	0.59	8.31	0.03	0.82	0.23	0.27
S590MNH0202XX	8.60	0.13	8.47	0.01	1.62	1.49	13.56
S590MNH0203XX	8.80	0.52	8.28	0.05	2.00	1.48	13.55
S590MNH0204XX	9.90	1.39	8.51	0.18	2.86	1.47	13.50
S590MNH0213XX	7.90	-0.53	8.43	0.12	-0.15	0.38	0.57
S590MNH0215XX	8.94	-2.25	11.19	0.00	-0.69	1.56	16.31
S590MNH0216XX	8.63	-2.40	11.03	0.00	-1.04	1.36	16.88
S590MNH0217XX	8.06	-4.19	12.25	0.00	-2.37	1.82	17.90
S590MNH0218XX	7.60	-1.13	8.73	0.08	0.38	1.51	13.64
S590MNH0219XX	7.79	-1.91	9.70	0.00	-2.28	-0.37	0.74
S590MNH0220XX	8.02	0.38	7.64	0.09	0.71	0.33	0.45
S591MNH0201XX	10.60	1.39	9.21	0.17	1.81	0.42	0.57
S591MNH0202XX	10.90	2.12	8.78	0.04	2.49	0.37	0.40
S591MNH0203XX	12.10	3.20	8.90	0.21	3.49	0.29	0.36
S592MNH0212XX	14.00	3.87	10.13	0.00	4.93	1.06	3.82
S592MNH0214XX	13.19	3.17	10.02	0.14	4.22	1.05	3.96
S592MNH0215XX	12.80	2.88	9.92	0.45	3.80	0.92	4.41
S592MNH0216XX	12.92	2.52	10.40	0.00	3.44	0.92	4.41
S592MNH0217XX	12.10	2.27	9.83	0.00	3.19	0.92	4.41
S609MNH0206XX	11.33	1.30	10.03	0.19	2.24	0.94	4.60
S609MNH0207XX	10.00	0.47	9.53	0.00	1.43	0.96	4.60
S609MNH0208XX	10.31	0.32	9.99	0.00	1.26	0.94	4.60
S610MNH0203XX	10.60	-0.70	11.30	0.00	0.51	1.21	4.60
S610MNH0204XX	9.00	3.00	6.00	1.83	3.51	0.51	1.83
S610MNH0205XX	9.91	-1.05	10.96	0.09	0.02	1.07	6.51
S610MNH0206XX	8.36	2.00	6.36	0.12	2.19	0.19	0.12
S610MNH0207XX	9.00	0.23	8.77	0.05	0.71	0.48	0.69
S610MNH0208XX	9.40	0.56	8.84	0.06	1.02	0.46	0.64
S610MNH0209XX	10.20	2.23	7.97	0.00	2.25	0.02	0.00
S610MNH0210XX	9.30	1.46	7.84	0.00	1.48	0.02	0.00
S611MNH0201XX	8.20	-0.08	8.28	0.00	0.31	0.39	0.69
S611MNH0202XX	8.20	-0.21	8.41	0.00	0.20	0.41	0.69
S611MNH0203XX	9.20	-0.79	9.99	0.05	-0.47	0.32	0.74
S611MNH0205XX	6.40	-2.40	8.80	0.05	-0.92	1.48	13.69
S611MNH0206XX	5.10	-3.69	8.79	0.00	-1.88	1.81	13.69
S611MNH0207XX	4.20	-4.91	9.11	0.00	-3.43	1.48	13.69
S611MNH0208XX	5.09	-4.19	9.28	0.00	-2.79	1.40	13.69
S611MNH0209XX	7.03	-4.52	11.55	0.07	-3.19	1.33	17.97

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C3 - MPSP Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S611MNH0210XX	5.87	-5.91	11.78	0.00	-4.38	1.53	18.81
S611MNH0214XX	5.50	-2.40	7.90	0.08	-2.23	0.17	0.08
S612CLN1001XX	4.37	2.20	2.17	0.39	2.54	0.34	0.39
S612MNH0201XX	5.33	-1.98	7.31	0.09	-1.53	0.45	0.84
S612MNH0202XX	5.76	-1.08	6.84	0.22	-0.65	0.43	0.76
S612MNH0203XX	5.37	1.35	4.02	0.14	1.67	0.32	0.53
S613MNH0201XX	4.45	-4.82	9.27	0.14	-3.80	1.02	5.35
S613MNH0202XX	5.95	-3.92	9.87	0.12	-2.90	1.02	5.21
S613MNH0203XX	3.10	-5.35	8.45	0.03	-4.18	1.17	6.13
S613MNH0204XX	3.42	-3.37	6.79	0.00	-2.96	0.41	0.75
S613MNH0208XX	3.20	-5.72	8.92	0.19	-4.60	1.12	6.32
S613TEE1001XX	2.66	-5.82	8.48	0.00	-4.59	1.23	6.32
S614MNH0201XX	3.31	-3.31	6.62	0.00	-2.57	0.74	0.75
S614MNH0202XX	3.70	-1.82	5.52	0.19	-1.44	0.38	0.75
S614MNH0203XX	3.53	-1.07	4.60	0.10	-0.69	0.38	0.56
S614MNH0204XX	3.65	-0.22	3.87	0.05	0.12	0.34	0.43
S615MNH0201XX	5.25	-1.16	6.41	0.08	-0.67	0.49	1.08
S615MNH0202XX	4.85	-1.88	6.73	0.00	-1.40	0.48	1.08
S615MNH0203XX	5.00	-4.00	9.00	0.14	-3.11	0.89	1.64
S615MNH0204XX	4.88	-5.90	10.78	0.00	-3.29	2.61	34.01
S615MNH0206XX	2.00	-5.37	7.37	32.37	-2.82	2.55	32.37
S615MNH0207XX	2.20	-2.30	4.50	0.00	-1.97	0.33	0.43
S615MNH0208XX	2.70	-1.57	4.27	0.00	-1.24	0.33	0.43
S615MNH0210XX	4.80	-3.38	8.18	0.00	-2.92	0.46	1.50
S627MNH0201XX	3.60	-7.25	10.85	0.00	-4.76	2.49	34.01
S627MNH0202XX	10.90	-6.41	17.31	0.00	-3.91	2.50	34.01
S628MNH0201XX	3.70	-5.87	9.57	0.00	-5.65	0.22	0.23
S628MNH0205XX	5.25	-4.54	9.79	0.02	-4.33	0.21	0.23
S628MNH0206XX	3.43	-8.23	11.66	0.00	-5.67	2.56	40.33
S628MNH0207XX	2.88	-6.49	9.37	0.00	-5.54	0.95	6.32
S628MNH0209XX	4.02	-8.69	12.71	0.00	-6.12	2.57	40.56
S628MNH0210XX	4.30	-8.94	13.24	0.00	-6.13	2.81	40.56
S628MNH0211XX	4.40	-9.01	13.41	0.00	-6.15	2.86	40.56
S628MNH0212XX	3.70	-9.46	13.16	0.00	-6.53	2.93	40.56
S628MNH0213XX	5.10	-2.13	7.23	0.04	-1.93	0.20	0.21
S628TEE1001XX	5.18	-4.13	9.31	0.00	-3.93	0.20	0.21
S629MNH0201XX	3.99	-1.47	5.46	0.00	-1.22	0.25	0.16
S629MNH0202XX	4.50	-0.40	4.90	0.00	-0.23	0.17	0.16
S629MNH0203XX	5.26	0.34	4.92	0.02	0.53	0.19	0.16
S629MNH0204XX	4.70	-10.71	15.41	0.00	-8.04	2.67	40.56
S629MNH0205XX	4.60	-10.69	15.29	0.00	-7.71	2.98	20.28
S629MNH0208XX	4.50	-3.93	8.43	0.05	-3.81	0.12	0.07
S629MNH0209XX	5.60	-2.57	8.17	0.02	-2.50	0.07	0.02
S629MNH0210XX	4.05	-1.49	5.54	0.00	-1.25	0.24	0.16
S629MNH0211XX	4.10	-10.04	14.14	0.00	-7.01	3.03	40.56
S629MNH0212XX	3.40	-9.87	13.27	0.00	-6.88	2.99	40.56

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C3 - MPSP Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S629MNH0213XX	3.30	-9.71	13.01	0.00	-6.74	2.97	40.56
S629MNH0214XX	5.30	-10.73	16.03	0.00	-8.14	2.59	40.56
S629MNH0216XX	3.06	-8.99	12.05	0.00	-7.75	1.24	9.46
S629MNH0217XX	3.88	-9.31	13.19	0.00	-7.98	1.33	19.02
S629MNH0218XX	3.10	-9.10	12.20	0.02	-7.79	1.31	9.56
S629MNH0223XX	4.82	1.07	3.75	0.15	1.25	0.18	0.15
S629MNH0224XX	3.40	-10.67	14.07	0.00	-7.54	3.13	40.56
S630MNH0201XX	4.70	-4.72	9.42	0.04	-4.46	0.26	0.30
S630MNH0202XX	5.10	-7.43	12.53	0.00	-5.85	1.58	13.99
S630MNH0203XX	3.72	-6.89	10.61	0.00	-5.27	1.62	13.99
S630MNH0204XX	3.70	-5.36	9.06	0.00	-5.04	0.32	0.30
S630MNH0205XX	5.59	-6.17	11.76	0.00	-4.59	1.58	13.69
S630MNH0209XX	5.52	-7.31	12.83	0.11	-5.97	1.34	18.92
S630MNH0210XX	5.00	-7.99	12.99	0.00	-6.37	1.62	13.99
S630MNH0211XX	4.00	-3.70	7.70	0.05	-3.45	0.25	0.26
S630MNH0212XX	4.00	-3.63	7.63	0.03	-3.27	0.36	0.21
S630MNH0213XX	5.52	-2.87	8.39	0.09	-2.65	0.22	0.17
S630TEE1001XX	5.01	0.00	5.01	0.00	0.00	0.00	0.00
S631MNH0201XX	6.00	-3.21	9.21	0.25	-1.87	1.34	7.10
S631MNH0202XX	6.48	-3.02	9.50	0.00	-1.66	1.36	6.85
S631MNH0203XX	7.84	-2.35	10.19	0.00	-1.27	1.08	6.51
S631MNH0206XX	7.38	1.34	6.04	0.15	1.61	0.27	0.27
S631MNH0207XX	7.30	0.73	6.57	0.00	1.00	0.27	0.27
S631MNH0208XX	5.20	-3.67	8.87	0.00	-2.31	1.36	7.10
S631MNH0209XX	8.50	-0.57	9.07	0.03	-0.26	0.31	0.34
S631MNH0210XX	8.22	0.09	8.13	0.04	0.38	0.29	0.31
S648MNH0201XX	9.50	0.08	9.42	0.00	0.90	0.82	2.78
S648MNH0202XX	10.20	0.40	9.80	0.00	1.22	0.82	2.78
S649MNH0201XX	7.90	-1.13	9.03	0.00	-0.31	0.82	2.78
S649MNH0204XX	7.90	-0.88	8.78	0.00	-0.06	0.82	2.78
S649MNH0205XX	7.90	-0.56	8.46	0.00	0.26	0.82	2.78
S649MNH0206XX	8.90	-0.24	9.14	0.00	0.58	0.82	2.78
S650MNH0201XX	8.10	-1.52	9.62	0.00	-0.71	0.81	2.78
S650MNH0202XX	7.00	-1.80	8.80	0.00	-1.24	0.56	2.78
S650MNH0203XX	3.87	-5.71	9.58	0.00	-4.82	0.89	2.78
S650MNH0204XX	3.45	-2.45	5.90	0.00	-1.93	0.52	2.78
S650MNH0205XX	7.00	-2.38	9.38	0.00	-1.60	0.78	2.78
S650MNH0206XX	8.60	-4.77	13.37	0.01	-3.56	1.21	7.11
S650MNH0207XX	8.30	-4.46	12.76	0.00	-2.98	1.48	7.10
S650MNH0209XX	6.40	-5.49	11.89	0.00	-4.27	1.22	7.11
S650MNH0210XX	4.13	-5.96	10.09	0.09	-5.43	0.53	2.87
S650MNH0211XX	3.90	-6.67	10.57	0.03	-6.14	0.53	2.91
S650MNH0215XX	6.94	-0.65	7.59	0.00	-0.65	0.00	0.00
S650TEE1001XX	5.62	0.00	5.62	0.00	0.00	0.00	0.00
S651MNH0201XX	4.50	-6.22	10.72	0.00	-5.00	1.22	7.11
S651MNH0202XX	9.72	-9.58	19.30	0.04	-7.84	1.74	2.95

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C3 - MPSP Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S651MNH0203XX	10.92	-9.61	20.53	0.00	-7.85	1.76	10.06
S651MNH0205XX	8.47	-10.03	18.50	0.00	-8.10	1.93	10.06
S651MNH0208XX	1.59	-10.16	11.75	0.00	-8.57	1.59	10.06
S651MNH0209XX	4.18	-6.03	10.21	0.00	-6.03	0.00	0.00
S651MNH0210XX	1.22	-10.27	11.49	0.00	-8.68	1.59	10.06
S651MNH0211XX	9.00	-9.77	18.77	0.00	-8.22	1.55	10.06
S652MNH0202XX	6.16	-14.10	20.26	0.00	-13.01	1.09	13.99
S652MNH0203XX	7.80	-11.45	19.25	0.00	-9.62	1.83	40.56
S652MNH0204XX	6.85	-11.54	18.39	0.00	-9.84	1.70	29.08
S652MNH0205XX	6.68	-10.90	17.58	0.00	-9.11	1.79	29.08
S652MNH0207XX	5.63	-10.15	15.78	0.00	-8.80	1.35	13.99
S652MNH0208XX	3.20	-10.55	13.75	0.00	-8.86	1.69	10.06
S652MNH0209XX	2.69	-8.69	11.38	0.00	-7.12	1.57	13.99
S652MNH0211XX	5.81	-14.90	20.71	0.00	-13.65	1.25	13.99
S652MNH0212XX	5.89	-14.90	20.79	0.00	-12.21	2.69	69.64
S652MNH0214XX	9.74	-14.10	23.84	0.00	-11.67	2.43	69.64
S652MNH0215XX	7.10	-11.08	18.18	0.00	-8.70	2.38	20.28
S652MNH0225XX	8.62	-11.36	19.98	0.00	-8.91	2.45	29.08
S673MNH0201XX	10.80	0.72	10.08	0.00	1.54	0.82	2.78
S673MNH0202XX	12.00	2.12	9.88	0.00	2.88	0.76	2.78
S674MNH0201XX	12.30	2.92	9.38	1.57	3.68	0.76	2.78
S674MNH0202XX	12.60	3.56	9.04	1.22	4.07	0.51	1.22
NEW-4602	7.72	-6.58	14.30	0.00	-5.38	1.19	7.11
NEW-4618	5.46	-5.85	11.31	0.00	-4.63	1.22	7.11
NEW-4597	7.51	-5.13	12.64	0.00	-3.91	1.22	7.11
NEW-4641	7.06	-4.14	11.20	0.00	-2.73	1.41	7.10
NEW-4640	8.81	-1.74	10.55	0.00	-0.67	1.07	6.51
NEW-4491	10.47	-0.25	10.72	0.00	0.76	1.01	4.60
NEW-4053	10.63	0.86	9.77	0.00	1.80	0.94	4.60
NEW-4450	11.68	1.75	9.93	0.00	2.67	0.93	4.41
NEW-4447	13.55	3.48	10.07	0.00	4.57	1.09	3.82
NEW-4461	19.62	8.52	11.10	0.00	9.15	0.63	2.60
NEW-4388	24.86	11.62	13.24	0.00	12.33	0.71	2.42
NEW-4696	3.75	-10.36	14.11	0.00	-7.25	3.11	40.56
NEW-4637	4.05	-9.23	13.28	0.00	-6.34	2.89	40.56
NEW-4694	3.51	-7.64	11.15	0.00	-5.17	2.47	34.01
NEW-4697	7.25	-6.83	14.08	0.00	-4.34	2.49	34.01
NEW-4620	7.91	-6.16	14.07	0.00	-3.66	2.50	34.01

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C4 - MPSP Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4300	18	348	0.001	0.013	00_S651MNH0211XX	S651MNH0209XX	-5.75	-6.03	10.76	4.18	-5.75	-6.03	0.00	0.00	0.00	0.00	1.7	0.0
2991	10	138	0.003	0.013	MH1_MofffetRealign	MH2_MoffetRealign	4.40	3.99	16.70	16.10	4.62	4.45	0.22	0.46	0.41	0.18	2.2	1.6
3678	12	268	0.003	0.013	MH2_MoffetRealign	MH3_MoffetRealign	3.99	3.18	16.10	14.95	4.21	3.81	0.22	0.63	0.42	0.21	2.5	1.6
3017	12	143	0.003	0.013	MH3_MoffetRealign	MH4_MoffetRealign	2.98	2.55	14.95	15.30	3.28	3.10	0.30	0.55	0.43	0.39	2.5	1.9
3193	12	185	0.003	0.013	MH4_MoffetRealign	MH5_MoffetRealign	2.55	1.99	15.30	13.40	2.86	2.37	0.31	0.38	0.35	0.41	2.5	2.0
3130	12	169	0.003	0.013	MH5_MoffetRealign	S571MNH0211XX	1.99	1.48	13.40	12.23	2.36	2.31	0.37	0.83	0.60	0.41	2.5	2.0
4079	18	316	0.003	0.013	S529MNH0207XX	S529MNH0208XX	13.00	12.13	28.30	24.30	13.69	13.29	0.69	1.16	0.62	2.41	3.1	3.0
4388-1	18	179	0.003	0.013	NEW-4388	S552MNH0204XX	11.62	11.13	24.86	25.40	12.33	12.10	0.71	0.97	0.56	2.42	3.1	3.0
4388-2	18	183	0.003	0.013	S529MNH0208XX	NEW-4388	12.13	11.62	24.30	24.86	12.82	12.34	0.69	0.72	0.47	2.42	3.1	3.0
3312	21	212	0.004	0.013	S549MNH0201XX	S573MNH0212XX	1.51	0.70	14.40	9.97	2.32	1.54	0.81	0.84	0.47	4.33	4.1	4.0
4504	10	392	0.002	0.013	S549MNH0203XX	S572MNH0201XX	3.79	2.83	12.22	10.22	3.88	2.91	0.09	0.08	0.10	0.03	2.0	0.9
4436	10	370	0.002	0.013	S549MNH0217XX	S549MNH0203XX	4.67	3.79	12.22	12.22	4.76	3.88	0.09	0.09	0.11	0.03	2.0	0.8
2359	42	10	-0.001	0.013	S550MNH0201XX	S550MNH0225XX	1.59	1.60	16.49	16.80	3.71	3.71	2.12	2.11	0.61	15.46	3.3	1.6
2606	33	48	0.165	0.013	S550MNH0202XX	S550MNH0201XX	10.07	2.09	17.27	16.49	11.34	3.73	1.27	1.64	0.53	15.02	36.2	20.8
4492	27	386	0.003	0.013	S550MNH0203XX	S550MNH0220XX	6.41	5.18	18.30	16.40	7.88	6.67	1.47	1.49	0.66	13.32	4.4	4.8
2736	27	78	0.003	0.013	S550MNH0204XX	S550MNH0203XX	6.66	6.40	18.40	18.30	8.16	7.98	1.50	1.58	0.69	13.32	4.5	4.9
2998	15	138	0.003	0.013	S550MNH0205XX	S550MNH0226XX	4.71	4.31	18.25	17.72	4.88	4.48	0.17	0.17	0.14	0.14	2.8	1.4
3438	33	240	0.002	0.013	S550MNH0207XX	S550MNH0223XX	11.04	10.62	20.00	17.92	12.69	12.25	1.65	1.63	0.60	15.02	3.7	4.0
4552	27	409	0.006	0.013	S550MNH0210XX	S550MNH0204XX	9.39	6.91	20.80	18.40	10.66	8.26	1.27	1.35	0.58	13.32	6.1	6.2
4535	10	400	0.002	0.013	S550MNH0217XX	S550MNH0218XX	6.42	5.46	14.80	15.45	6.55	5.60	0.13	0.14	0.16	0.06	2.0	1.1
4545	10	404	0.002	0.013	S550MNH0218XX	S550MNH0205XX	5.46	4.60	15.45	18.25	5.60	4.88	0.14	0.28	0.25	0.06	1.9	1.0
4511	27	394	0.003	0.013	S550MNH0220XX	S571MNH0207XX	5.18	3.92	16.40	12.90	6.65	5.41	1.47	1.49	0.66	13.32	4.4	4.9
2482	15	27	0.002	0.013	S550MNH0221XX	S550MNH0201XX	3.65	3.60	17.32	16.49	3.89	3.79	0.24	0.19	0.17	0.24	2.3	1.4
4091	10	318	0.003	0.013	S550MNH0222XX	S550MNH0217XX	7.31	6.42	13.90	14.80	7.44	6.55	0.13	0.13	0.16	0.06	2.1	1.1
3964	33	302	0.002	0.013	S550MNH0223XX	S550MNH0202XX	10.62	10.07	17.92	17.27	12.24	11.36	1.62	1.29	0.53	15.02	3.8	4.1
3824	42	287	0.001	0.013	S550MNH0225XX	S571MNH0212XX	2.00	1.78	16.80	13.73	3.70	3.28	1.70	1.50	0.46	15.46	2.9	3.0
3093	15	160	0.003	0.013	S550MNH0226XX	S550MNH0221XX	4.31	3.85	17.72	17.32	4.48	4.08	0.17	0.23	0.16	0.14	2.8	1.4
4622	15	463	0.002	0.013	S551MNH0203XX	S551MNH0204XX	7.70	6.62	21.50	22.25	7.84	6.75	0.14	0.13	0.11	0.08	2.5	1.1
4503	15	393	0.002	0.013	S551MNH0204XX	S551MNH0205XX	6.62	5.66	22.25	20.20	6.75	5.80	0.13	0.14	0.11	0.08	2.6	1.1
4595	15	448	0.002	0.013	S551MNH0205XX	S550MNH0205XX	5.66	4.60	20.20	18.25	5.80	4.88	0.14	0.28	0.17	0.08	2.6	1.1
4461-1	18	188	0.005	0.013	NEW-4461	S569MNH0204XX	8.52	7.50	19.62	19.04	9.15	9.09	0.63	1.59	0.74	2.60	4.4	4.0
4461-2	18	187	0.003	0.013	S552MNH0201XX	NEW-4461	9.14	8.52	20.19	19.62	9.83	9.17	0.69	0.65	0.45	2.60	3.4	3.3
3431	18	239	0.003	0.013	S552MNH0202XX	S552MNH0201XX	9.80	9.14	21.70	20.19	10.52	9.95	0.72	0.81	0.51	2.59	3.1	3.1
2855	18	102	0.003	0.013	S552MNH0203XX	S552MNH0212XX	10.84	10.56	25.50	23.40	11.56	11.29	0.72	0.73	0.48	2.55	3.1	3.1
2860	18	105	0.003	0.013	S552MNH0204XX	S552MNH0203XX	11.13	10.84	25.40	25.50	11.90	11.79	0.77	0.95	0.58	2.46	3.1	3.0
3465	15	245	0.002	0.013	S552MNH0206XX	S552MNH0207XX	9.32	8.90	24.00	23.40	9.32	9.07	0.00	0.17	0.07	0.00	2.2	0.0
4587	15	432	0.003	0.013	S552MNH0207XX	S551MNH0203XX	8.90	7.70	23.40	21.50	9.03	7.84	0.13	0.14	0.11	0.08	2.8	1.1
4613	10	454	0.006	0.013	S552MNH0208XX	S552MNH0209XX	13.92	11.22	22.00	20.00	13.92	11.61	0.00	0.39	0.23	0.00	3.1	0.0
4601	10	444	0.006	0.013	S552MNH0209XX	S569MNH0206XX	11.22	8.56	20.00	18.40	11.46	8.85	0.24	0.29	0.32	0.30	3.1	2.4
3150	18	173	0.003	0.013	S552MNH0211XX	S552MNH0202XX	10.28	9.80	23.18	21.70	10.99	10.63	0.71	0.83	0.52	2.55	3.1	3.1
2850	18	102	0.003	0.013	S552MNH0212XX	S552MNH0211XX	10.56	10.28	23.40	23.18	11.28	11.00	0.72	0.72	0.48	2.55	3.1	3.1
3847	18	291	0.002	0.013	S569MNH0204XX	S569MNH0212XX	7.50	6.90	19.04	18.00	8.43	7.60	0.93	0.70	0.54	3.37	2.7	2.9
2671	12	60	0.008	0.013	S569MNH0205XX	S569MNH0212XX	7.10	6.60	18.20	18.00	7.35	6.83	0.25	0.23	0.24	0.38	4.2	2.8
3133	12	169	0.008	0.013	S569MNH0206XX	S569MNH0205XX	8.50	7.18	18.40	18.20	8.74	8.10	0.24	0.92	0.58	0.33	4.0	2.6
2927	18	124	0.002	0.013	S569MNH0209XX	S592MNH0212XX	4.11	3.87	14.50	14.00	5.17	4.95	1.06	1.08	0.71	3.82	2.6	2.9
3282	18	205	0.002	0.013	S569MNH0210XX	S569MNH0209XX	4.50	4.11	15.30	14.50	5.56	5.19	1.06	1.08	0.71	3.82	2.6	2.9
3423	18	237	0.002	0.013	S569MNH0211XX	S569MNH0210XX	4.95	4.50	17.23	15.30	6.01	5.59	1.06	1.09	0.72	3.82	2.6	2.9
3370	18	228	0.003	0.013	S569MNH0212XX	S569MNH0211XX	5.70	4.95	18.00	17.23	6.60	6.29	0.90	1.34	0.75	3.75	3.4	3.6
4409	10	365	0.003	0.013	S570MNH0201XX	S591MNH0203XX	4.12	3.20	13.30	12.10	4.33	3.63	0.21	0.43	0.38	0.15	2.0	1.4
4373	10	358	0.002	0.013	S570MNH0202XX	S570MNH0204XX	5.95	5.17	14.55	15.90	6.18	5.35	0.23	0.18	0.24	0.17	1.9	1.4
3356	10	225	0.002	0.013	S570MNH0203XX	S570MNH0202XX	6.60	6.05	15.10	14.55	6.70	6.41	0.10	0.36	0.27	0.03	2.0	0.9
2529	10	34	0.001	0.013	S570MNH0204XX	MH1_MofffetRealign	4.45	4.40	15.90	16.70	4.70	4.63	0.25	0.23	0.29	0.18	1.5	1.2
3652	12	265	0.003	0.013	S571MNH0205XX	S571MNH0209XX	3.94	3.06	11.74	12.44	4.11	3.37	0.17	0.31	0.24	0.13	2.6	1.5
4507	27	393	0.003	0.013	S571MNH0207XX	S571MNH0219XX	3.92	2.66	12.90	12.08	5.39	4.14	1.47	1.48	0.66	13.32	4.4	4.9
3833	12	297	0.003	0.013	S571MNH0208XX	S571MNH0216XX	2.20	1.22	11.55	10.72	2.50	1.49	0.30	0.27	0.29	0.41	2.6	2.0
3624	12	263	0.003	0.013	S571MNH0209XX	S571MNH0208XX	3.06	2.20	12.44	11.55	3.32	2.58	0.26	0.38	0.32	0.29	2.6	1.8
4408	42	365	0.003	0.013	S571MNH0211XX	S571MNH0216XX	0.88	-0.20	12.23	10.72	2.17	1.06	1.29	1.26	0.37	15.90	5.7	4.9
4396	42	363	0.002	0.013	S571MNH0212XX	S571MNH0211XX	1.78	1.18	13.73	12.23	3.27	2.38	1.49	1.20	0.38	15.46	4.3	4.0

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C4 - MPSP Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4670	42	582	0.004	0.013	S571MNH0216XX	S590MNH0215XX	-0.20	-2.25	10.72	8.94	1.05	-0.68	1.25	1.57	0.40	16.31	6.2	5.3
4513	27	394	0.003	0.013	S571MNH0219XX	S590MNH0204XX	2.66	1.39	12.08	9.90	4.12	2.92	1.46	1.53	0.66	13.32	4.4	4.9
4530	10	400	0.004	0.013	S572MNH0201XX	S573MNH0212XX	2.83	1.07	10.22	9.97	2.91	1.56	0.08	0.49	0.34	0.03	2.7	1.0
3237	12	198	0.003	0.013	S572MNH0202XX	S572MNH0206XX	4.43	3.81	9.10	8.40	4.63	4.01	0.20	0.20	0.20	0.18	2.5	1.6
2550	10	38	0.003	0.013	S572MNH0203XX	S572MNH0207XX	6.40	6.29	12.40	11.15	6.40	6.29	0.00	0.00	0.00	0.00	2.2	0.0
3912	10	298	0.003	0.013	S572MNH0204XX	S549MNH0203XX	5.50	4.62	13.30	12.22	5.50	4.62	0.00	0.00	0.00	0.00	2.2	0.0
3389	12	231	0.003	0.013	S572MNH0206XX	S589MNH0211XX	3.81	3.10	8.40	7.40	4.01	3.42	0.20	0.32	0.26	0.18	2.5	1.6
3628	10	263	0.003	0.013	S572MNH0207XX	S572MNH0204XX	6.29	5.50	11.15	13.30	6.29	5.50	0.00	0.00	0.00	0.00	2.2	0.0
3232	21	196	0.004	0.013	S573MNH0201XX	S573MNH0203XX	-0.51	-1.30	10.00	10.10	0.30	-0.29	0.81	1.01	0.52	4.41	4.2	4.1
3020	21	144	0.001	0.013	S573MNH0202XX	S573MNH0213XX	-0.07	-0.21	9.00	8.25	1.16	1.00	1.23	1.21	0.70	4.37	2.1	2.3
3490	21	247	0.002	0.013	S573MNH0203XX	S588MNH0202XX	-1.30	-1.87	10.10	8.80	-0.30	-0.82	1.00	1.05	0.59	4.70	3.2	3.3
2800	10	90	0.005	0.013	S573MNH0204XX	S573MNH0203XX	1.43	0.99	9.62	10.10	1.54	1.10	0.11	0.11	0.13	0.06	2.8	1.4
2977	12	135	0.003	0.013	S573MNH0210XX	S573MNH0211XX	3.07	2.72	7.38	6.93	3.23	2.94	0.16	0.22	0.19	0.10	2.3	1.3
3883	12	296	0.003	0.013	S573MNH0211XX	S588MNH0204XX	2.72	1.97	6.93	5.98	2.94	2.26	0.22	0.29	0.25	0.19	2.3	1.5
3298	21	209	0.004	0.013	S573MNH0212XX	S573MNH0202XX	0.70	-0.07	9.97	9.00	1.53	1.20	0.83	1.27	0.60	4.36	4.0	3.9
4015	21	308	0.001	0.013	S573MNH0213XX	S573MNH0201XX	-0.21	-0.51	8.25	10.00	0.97	0.42	1.18	0.93	0.61	4.40	2.1	2.3
2694	10	63	-0.003	0.013	S573TEE1001XX	S573MNH0203XX	0.00	0.20	10.63	10.10	0.53	0.41	0.53	0.21	0.45	0.23	2.3	0.4
4017	12	308	0.003	0.013	S574MNH0202XX	S587MNH0208XX	2.90	2.12	7.04	6.39	3.07	2.34	0.17	0.22	0.20	0.12	2.3	1.3
4279	18	345	0.002	0.013	S575MNH0203XX	S586MNH0205XX	1.25	0.72	6.26	6.40	1.66	1.23	0.41	0.51	0.31	0.68	2.3	1.7
3107	10	162	0.004	0.013	S575MNH0206XX	S586MNH0205XX	1.45	0.72	6.55	6.40	1.59	1.22	0.14	0.50	0.39	0.09	2.7	1.5
3340	21	218	0.002	0.013	S586MNH0201XX	S615MNH0201XX	-0.83	-1.16	4.45	5.25	-0.35	-0.63	0.48	0.53	0.29	1.00	2.6	1.9
4275	21	358	0.002	0.013	S586MNH0202XX	S586MNH0201XX	-0.27	-0.83	4.60	4.45	0.20	-0.33	0.47	0.50	0.28	1.00	2.6	1.9
4401	21	369	0.001	0.013	S586MNH0204XX	S586TEE1003XX	0.32	0.00	5.70	6.44	0.87	0.36	0.55	0.36	0.26	1.00	1.9	1.5
3705	21	276	0.001	0.013	S586MNH0205XX	S586MNH0204XX	0.72	0.32	6.40	5.70	1.20	0.87	0.48	0.55	0.30	1.00	2.5	1.9
3715	12	273	0.002	0.013	S586MNH0209XX	S615MNH0208XX	-0.90	-1.57	3.61	2.70	-0.56	-1.24	0.34	0.33	0.33	0.43	2.3	1.9
2515	21	31	0.009	0.013	S586TEE1003XX	S586MNH0202XX	0.00	-0.27	6.44	4.60	0.36	0.21	0.36	0.48	0.24	1.00	6.1	3.5
3891	12	296	0.002	0.013	S587MNH0201XX	S614MNH0203XX	-0.34	-1.07	4.25	3.53	0.01	-0.66	0.35	0.41	0.38	0.46	2.3	1.9
4035	12	310	0.003	0.013	S587MNH0202XX	S587MNH0201XX	0.44	-0.34	5.17	4.25	0.77	0.02	0.33	0.36	0.35	0.41	2.3	1.9
4127	12	323	0.002	0.013	S587MNH0206XX	S614MNH0204XX	0.55	-0.22	4.35	3.65	0.87	0.19	0.32	0.41	0.36	0.38	2.2	1.8
4081	12	316	0.002	0.013	S587MNH0207XX	S587MNH0206XX	1.34	0.55	5.22	4.35	1.64	0.88	0.30	0.33	0.31	0.35	2.3	1.8
3920	12	298	0.003	0.013	S587MNH0208XX	S587MNH0207XX	2.12	1.34	6.39	5.22	2.33	1.65	0.21	0.31	0.26	0.18	2.3	1.5
4617	24	455	0.002	0.013	S588MNH0201XX	S613MNH0202XX	-3.02	-3.92	7.25	5.95	-2.01	-2.86	1.01	1.06	0.52	5.09	3.2	3.2
4611	21	452	0.002	0.013	S588MNH0202XX	S588MNH0201XX	-1.87	-2.77	8.80	7.25	-0.83	-1.97	1.04	0.80	0.53	4.70	2.9	3.2
4024	12	309	0.003	0.013	S588MNH0203XX	S587MNH0202XX	1.22	0.44	6.14	5.17	1.50	0.78	0.28	0.34	0.31	0.30	2.3	1.7
3937	12	300	0.003	0.013	S588MNH0204XX	S588MNH0203XX	1.97	1.22	5.98	6.14	2.25	1.50	0.28	0.28	0.28	0.30	2.3	1.7
4489	10	385	0.002	0.013	S589MNH0202XX	S590MNH0201XX	1.46	0.59	8.90	8.90	1.73	0.94	0.27	0.35	0.37	0.24	1.9	1.6
3984	10	304	0.003	0.013	S589MNH0203XX	S589MNH0202XX	2.35	1.47	9.15	8.90	2.56	1.78	0.21	0.31	0.31	0.16	2.2	1.5
3992	10	305	0.003	0.013	S589MNH0204XX	S589MNH0203XX	3.24	2.35	9.25	9.15	3.32	2.59	0.08	0.24	0.19	0.02	2.2	0.9
4287	10	347	0.002	0.013	S589MNH0204XX	S589MNH0214XX	3.24	2.54	9.25	9.60	3.33	2.67	0.09	0.13	0.13	0.02	1.8	0.0
4194	10	331	0.001	0.013	S589MNH0205XX	S573MNH0204XX	1.85	1.43	9.82	9.62	2.01	1.55	0.16	0.12	0.17	0.06	1.4	0.9
3961	12	302	0.003	0.013	S589MNH0206XX	S589MNH0207XX	2.20	1.30	8.10	7.50	2.45	1.62	0.25	0.32	0.29	0.27	2.5	1.8
3159	12	176	0.003	0.013	S589MNH0207XX	S589MNH0208XX	1.30	0.77	7.50	8.00	1.59	1.06	0.29	0.29	0.29	0.36	2.5	1.9
2916	12	122	0.003	0.013	S589MNH0208XX	S590MNH0220XX	0.77	0.38	8.00	8.02	1.06	0.76	0.29	0.38	0.33	0.36	2.6	1.9
4027	12	309	0.003	0.013	S589MNH0211XX	S589MNH0206XX	3.10	2.20	7.40	8.10	3.35	2.46	0.25	0.26	0.26	0.27	2.5	1.7
4459	10	376	0.002	0.013	S589MNH0214XX	S589MNH0205XX	2.54	1.85	9.60	9.82	2.67	2.02	0.13	0.17	0.18	0.05	1.7	0.9
3472	10	245	0.012	0.013	S590MNH0201XX	S590MNH0217XX	0.59	-2.41	8.90	8.06	0.82	-2.22	0.23	0.19	0.25	0.27	4.4	3.0
4514	27	394	0.003	0.013	S590MNH0202XX	S590MNH0218XX	0.13	-1.13	8.60	7.60	1.62	0.43	1.49	1.56	0.68	13.56	4.4	4.9
2903	27	118	0.003	0.013	S590MNH0203XX	S590MNH0202XX	0.52	0.13	8.80	8.60	2.00	1.67	1.48	1.54	0.67	13.55	4.5	4.9
3676	27	267	0.003	0.013	S590MNH0204XX	S590MNH0203XX	1.39	0.52	9.90	8.80	2.86	2.05	1.47	1.53	0.67	13.50	4.4	4.9
4188	12	338	0.003	0.013	S590MNH0213XX	S590MNH0216XX	-0.53	-1.46	7.90	8.63	-0.15	-0.89	0.38	0.57	0.47	0.57	2.4	2.1
2954	42	130	0.002	0.013	S590MNH0215XX	S590MNH0216XX	-2.20	-2.40	8.94	8.63	-0.69	-1.03	1.51	1.37	0.41	16.31	4.1	3.9
4673	42	601	0.003	0.013	S590MNH0216XX	S590MNH0217XX	-2.40	-4.04	8.63	8.06	-1.04	-2.36	1.36	1.68	0.43	16.88	5.5	4.9
4480	42	380	0.001	0.013	S590MNH0217XX	S611MNH0209XX	-4.19	-4.52	8.06	7.03	-2.37	-3.16	1.82	1.36	0.45	17.90	3.1	3.2
3341	27	406	0.003	0.013	S590MNH0218XX	S611MNH0205XX	-1.13	-2.40	7.60	6.40	0.38	-0.86	1.51	1.54	0.68	13.64	4.4	4.8
2463	18	23	0.010	0.013	S590MNH0219XX	S590MNH0217XX	-3.03	-3.25	7.79	8.06	-2.28	-2.28	0.75	0.97	0.57	0.74	5.9	3.4
3985	12	304	0.003	0.013	S590MNH0220XX	S590MNH0213XX	0.38	-0.53	8.02	7.90	0.71	-0.08	0.33	0.45	0.39	0.45	2.5	2.0
4426	12	368	0.002	0.013	S591MNH0201XX	S610MNH0208XX	1.39	0.66	10.60	9.40	1.81	1.22	0.42	0.56	0.49	0.57	2.0	1.9
4644	12	504	0.001	0.013	S591MNH0202XX	S591MNH0201XX	2.12	1.39	10.90	10.60	2.49	1.88	0.37	0.49	0.43	0.40	1.7	1.5

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C4 - MPSP Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
3388	10	231	0.004	0.013	S591MNH0203XX	S591MNH0202XX	3.20	2.29	12.10	10.90	3.49	2.55	0.29	0.26	0.33	0.36	2.5	2.1
4447-1	18	166	0.002	0.013	NEW-4447	S592MNH0214XX	3.48	3.17	13.55	13.19	4.57	4.31	1.09	1.14	0.75	3.82	2.6	2.9
4447-2	18	205	0.002	0.013	S592MNH0212XX	NEW-4447	3.87	3.48	14.00	13.55	4.93	4.58	1.06	1.10	0.72	3.82	2.6	2.9
3056	18	154	0.002	0.013	S592MNH0214XX	S592MNH0215XX	3.17	2.88	13.19	12.80	4.22	3.87	1.05	0.99	0.68	3.96	2.6	2.9
2989	21	137	0.003	0.013	S592MNH0215XX	S592MNH0216XX	2.88	2.52	12.80	12.92	3.80	3.45	0.92	0.93	0.53	4.41	3.4	3.4
2818	21	94	0.003	0.013	S592MNH0216XX	S592MNH0217XX	2.52	2.27	12.92	12.10	3.44	3.21	0.92	0.94	0.53	4.41	3.4	3.5
4450-1	21	171	0.003	0.013	NEW-4450	S609MNH0206XX	1.75	1.30	11.68	11.33	2.67	2.32	0.92	1.02	0.56	4.41	3.4	3.5
4450-2	21	201	0.003	0.013	S592MNH0217XX	NEW-4450	2.27	1.75	12.10	11.68	3.19	2.69	0.92	0.94	0.53	4.41	3.4	3.4
4053-1	21	148	0.003	0.013	NEW-4053	S609MNH0207XX	0.86	0.47	10.63	10.00	1.80	1.44	0.94	0.97	0.55	4.60	3.4	3.5
4053-2	21	166	0.003	0.013	S609MNH0206XX	NEW-4053	1.30	0.86	11.33	10.63	2.24	1.81	0.94	0.95	0.54	4.60	3.4	3.5
2670	21	60	0.003	0.013	S609MNH0207XX	S609MNH0208XX	0.47	0.32	10.00	10.31	1.43	1.28	0.96	0.96	0.55	4.60	3.3	3.4
4491-1	21	170	0.003	0.013	NEW-4491	S610MNH0203XX	-0.25	-0.70	10.47	10.60	0.76	0.56	1.01	1.26	0.65	4.60	3.4	3.5
4491-2	21	216	0.003	0.013	S609MNH0208XX	NEW-4491	0.32	-0.25	10.31	10.47	1.26	0.77	0.94	1.02	0.56	4.60	3.4	3.5
2676	21	60	0.002	0.013	S610MNH0203XX	S610MNH0205XX	-0.70	-0.85	10.60	9.91	0.51	0.46	1.21	1.31	0.72	4.60	3.3	3.4
2698	18	63	0.032	0.013	S610MNH0204XX	S610MNH0205XX	3.00	1.00	9.00	9.91	3.51	1.32	0.51	0.32	0.28	1.83	10.6	6.7
4485	18	385	0.001	0.013	S610MNH0205XX	S610MNH0209XX	2.50	2.23	9.91	10.20	2.50	2.25	0.00	0.02	0.01	0.00	1.6	0.0
4640-1	24	231	0.003	0.013	NEW-4640	S631MNH0203XX	-1.74	-2.35	8.81	7.84	-0.67	-1.26	1.07	1.09	0.54	6.51	3.7	3.8
4640-2	24	263	0.003	0.013	S610MNH0205XX	NEW-4640	-1.05	-1.74	9.91	8.81	0.02	-0.66	1.07	1.08	0.54	6.51	3.7	3.8
3784	10	280	0.002	0.013	S610MNH0206XX	S631MNH0206XX	2.00	1.34	8.36	7.38	2.19	1.64	0.19	0.30	0.29	0.12	2.0	1.3
4392	18	366	0.001	0.013	S610MNH0207XX	S611MNH0201XX	0.23	-0.08	9.00	8.20	0.71	0.32	0.48	0.40	0.29	0.69	1.7	1.4
3172	12	180	0.002	0.013	S610MNH0208XX	S610MNH0207XX	0.56	0.23	9.40	9.00	1.02	0.78	0.46	0.55	0.50	0.64	1.9	1.9
4512	18	396	0.002	0.013	S610MNH0209XX	S610MNH0210XX	2.23	1.46	10.20	9.30	2.25	1.48	0.02	0.02	0.01	0.00	2.6	0.3
4479	18	381	0.003	0.013	S610MNH0210XX	S610MNH0207XX	1.46	0.23	9.30	9.00	1.48	0.74	0.02	0.51	0.18	0.00	3.4	0.4
2706	18	65	0.002	0.013	S611MNH0201XX	S611MNH0202XX	-0.08	-0.21	8.20	8.20	0.31	0.20	0.39	0.41	0.27	0.69	2.7	1.9
4253	18	344	0.002	0.013	S611MNH0202XX	S611MNH0203XX	-0.21	-0.79	8.20	9.20	0.20	-0.43	0.41	0.36	0.25	0.69	2.4	1.8
4556	18	411	0.005	0.013	S611MNH0203XX	S590MNH0219XX	-0.79	-3.03	9.20	7.79	-0.47	-2.28	0.32	0.75	0.36	0.74	4.4	2.8
4506	27	393	0.003	0.013	S611MNH0205XX	S611MNH0206XX	-2.40	-3.69	6.40	5.10	-0.92	-1.86	1.48	1.83	0.74	13.69	4.5	4.9
3314	27	213	0.001	0.013	S611MNH0206XX	S611MNH0208XX	-3.69	-3.99	5.10	5.09	-1.88	-2.70	1.81	1.29	0.69	13.69	2.9	3.4
4484	27	383	0.003	0.013	S611MNH0207XX	S630MNH0205XX	-4.91	-6.17	4.20	5.59	-3.43	-4.57	1.48	1.60	0.68	13.69	4.5	4.9
3207	27	187	0.004	0.013	S611MNH0208XX	S611MNH0207XX	-4.19	-4.91	5.09	4.20	-2.79	-3.41	1.40	1.50	0.65	13.69	4.8	5.3
4558	42	412	0.003	0.013	S611MNH0209XX	S611MNH0210XX	-4.52	-5.91	7.03	5.87	-3.19	-4.38	1.33	1.53	0.41	17.97	6.1	5.3
2462	10	23	0.000	0.013	S611MNH0210XX	S611MNH0208XX	0.00	0.00	5.87	5.09	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0
4678	42	620	0.002	0.013	S611MNH0210XX	S630MNH0209XX	-5.91	-7.31	5.87	5.52	-4.38	-5.93	1.53	1.38	0.41	18.81	5.0	4.7
3491	10	248	0.002	0.013	S611MNH0214XX	S630MNH0213XX	-2.40	-2.87	5.50	5.52	-2.23	-2.60	0.17	0.27	0.26	0.08	1.8	1.1
4022	10	309	0.003	0.013	S612CLN1001XX	S612MNH0203XX	2.20	1.35	4.37	5.37	2.54	1.72	0.34	0.37	0.43	0.39	2.1	1.9
4169	12	339	0.003	0.013	S612MNH0201XX	S611MNH0210XX	-1.98	-3.10	5.33	5.87	-1.53	-2.72	0.45	0.38	0.42	0.84	2.6	2.5
3915	12	298	0.003	0.013	S612MNH0202XX	S612MNH0201XX	-1.08	-1.98	5.76	5.33	-0.65	-1.45	0.43	0.53	0.48	0.76	2.5	2.3
3864	10	294	0.008	0.013	S612MNH0203XX	S612MNH0202XX	1.35	-1.08	5.37	5.76	1.67	-0.58	0.32	0.50	0.49	0.53	3.7	3.1
3427	24	238	0.002	0.013	S613MNH0201XX	S613MNH0203XX	-4.82	-5.35	4.45	3.10	-3.80	-4.14	1.02	1.21	0.56	5.35	3.4	3.4
4608	24	450	0.002	0.013	S613MNH0202XX	S613MNH0201XX	-3.92	-4.82	5.95	4.45	-2.90	-3.76	1.02	1.06	0.52	5.21	3.2	3.2
3319	24	214	0.002	0.013	S613MNH0203XX	S613MNH0208XX	-5.35	-5.72	3.10	3.20	-4.18	-4.56	1.17	1.16	0.58	6.13	3.0	3.2
4047	12	312	0.003	0.013	S613MNH0204XX	S613MNH0203XX	-3.37	-4.44	3.42	3.10	-2.96	-4.08	0.41	0.36	0.39	0.75	2.7	2.4
2375	24	12	0.008	0.013	S613MNH0208XX	S613TEE1001XX	-5.72	-5.82	3.20	2.66	-4.60	-4.58	1.12	1.24	0.59	6.32	6.5	5.8
4584	24	427	0.002	0.013	S613TEE1001XX	S628MNH0207XX	-5.82	-6.49	2.66	2.88	-4.59	-5.52	1.23	0.97	0.55	6.32	2.9	3.1
4069	12	315	0.000	0.013	S614MNH0201XX	S613MNH0204XX	-3.31	-3.37	3.31	3.42	-2.57	-2.95	0.74	0.42	0.58	0.75	0.6	1.0
3983	12	304	0.005	0.013	S614MNH0202XX	S614MNH0201XX	-1.82	-3.31	3.70	3.31	-1.44	-2.57	0.38	0.74	0.56	0.75	3.2	2.8
3924	12	299	0.003	0.013	S614MNH0203XX	S614MNH0202XX	-1.07	-1.82	3.53	3.70	-0.69	-1.13	0.38	0.69	0.54	0.56	2.3	2.0
3840	12	290	0.002	0.013	S614MNH0204XX	S586MNH0209XX	-0.22	-0.90	3.65	3.61	0.12	-0.54	0.34	0.36	0.35	0.43	2.2	1.8
4627	21	471	0.002	0.013	S615MNH0201XX	S615MNH0202XX	-1.16	-1.88	5.25	4.85	-0.67	-1.40	0.49	0.48	0.28	1.08	2.6	1.9
3850	21	293	0.002	0.013	S615MNH0202XX	S615MNH0210XX	-1.88	-2.40	4.85	4.80	-1.40	-2.03	0.48	0.37	0.24	1.08	2.8	2.0
2690	21	62	0.002	0.013	S615MNH0203XX	S615MNH0204XX	-4.00	-4.15	5.00	4.88	-3.11	-3.12	0.89	1.03	0.55	1.64	3.2	2.6
4620-1	48	227	0.001	0.013	NEW-4620	S627MNH0202XX	-6.16	-6.41	7.91	10.90	-3.66	-3.90	2.50	2.51	0.63	34.01	3.8	4.1
4620-2	42	231	0.001	0.013	S615MNH0204XX	NEW-4620	-5.90	-6.16	4.88	7.91	-3.29	-3.65	2.61	2.51	0.73	34.01	3.5	4.0
3857	42	294	0.001	0.013	S615MNH0206XX	S615MNH0204XX	-5.37	-5.70	2.00	4.88	-2.82	-3.27	2.55	2.43	0.71	32.37	3.5	4.0
3619	12	262	0.003	0.013	S615MNH0207XX	S615MNH0210XX	-2.30	-3.00	2.20	4.80	-1.97	-2.73	0.33	0.27	0.30	0.43	2.3	1.9
3671	12	267	0.003	0.013	S615MNH0208XX	S615MNH0207XX	-1.57	-2.30	2.70	2.20	-1.24	-1.97	0.33	0.33	0.33	0.43	2.4	1.9
3087	21	160	0.004	0.013	S615MNH0210XX	S615MNH0203XX	-3.38	-4.00	4.80	5.00	-2.92	-3.04	0.46	0.96	0.41	1.50	4.1	3.0
4694-1	48	354	0.001	0.013	NEW-4694	S628MNH0206XX	-7.64	-8.03	3.51	3.43	-5.17	-5.59	2.47	2.44	0.61	34.01	3.8	4.1

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C4 - MPSP Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4694-2	48	355	0.001	0.013	S627MNH0201XX	NEW-4694	-7.25	-7.64	3.60	3.51	-4.76	-5.17	2.49	2.47	0.62	34.01	3.8	4.1
4697-1	48	378	0.001	0.013	NEW-4697	S627MNH0201XX	-6.83	-7.25	7.25	3.60	-4.34	-4.75	2.49	2.50	0.62	34.01	3.8	4.1
4697-2	48	379	0.001	0.013	S627MNH0202XX	NEW-4697	-6.41	-6.83	10.90	7.25	-3.91	-4.33	2.50	2.50	0.63	34.01	3.8	4.1
2783	10	85	0.005	0.013	S628MNH0201XX	S628MNH0209XX	-5.87	-6.31	3.70	4.02	-5.65	-5.94	0.22	0.37	0.35	0.23	2.9	2.1
3029	10	146	0.006	0.013	S628MNH0205XX	S628MNH0201XX	-4.54	-5.46	5.25	3.70	-4.33	-5.25	0.21	0.21	0.25	0.23	3.2	2.2
3395	48	231	0.001	0.013	S628MNH0206XX	S628MNH0209XX	-8.23	-8.49	3.43	4.02	-5.67	-6.09	2.56	2.40	0.62	40.33	3.8	4.3
2537	24	36	0.006	0.013	S628MNH0207XX	S628MNH0206XX	-6.49	-6.71	2.88	3.43	-5.54	-5.49	0.95	1.22	0.54	6.32	5.7	5.2
2578	48	43	0.006	0.013	S628MNH0209XX	S628MNH0210XX	-8.69	-8.94	4.02	4.30	-6.12	-6.10	2.57	2.84	0.68	40.56	8.7	8.1
2479	54	27	0.003	0.013	S628MNH0210XX	S628MNH0211XX	-8.94	-9.01	4.30	4.40	-6.13	-6.14	2.81	2.87	0.63	40.56	6.3	6.0
4637-1	54	244	0.001	0.013	NEW-4637	S628MNH0212XX	-9.23	-9.46	4.05	3.70	-6.34	-6.52	2.89	2.94	0.65	40.56	3.8	4.1
4637-2	54	244	0.001	0.013	S628MNH0211XX	NEW-4637	-9.01	-9.23	4.40	4.05	-6.15	-6.34	2.86	2.89	0.64	40.56	3.7	4.0
3683	54	268	0.001	0.013	S628MNH0212XX	S629MNH0213XX	-9.46	-9.71	3.70	3.30	-6.53	-6.72	2.93	2.99	0.66	40.56	3.8	4.1
4295	10	346	0.006	0.013	S628MNH0213XX	S628TEE1001XX	-2.13	-4.13	5.10	5.18	-1.93	-3.93	0.20	0.20	0.24	0.21	3.1	2.1
2442	10	21	0.006	0.013	S628TEE1001XX	S628MNH0205XX	-4.13	-4.25	5.18	5.25	-3.93	-4.05	0.20	0.20	0.24	0.21	3.1	2.1
2391	10	14	0.001	0.013	S629MNH0201XX	S629MNH0210XX	-1.47	-1.49	3.99	4.05	-1.22	-1.25	0.25	0.24	0.29	0.16	1.5	1.2
4496	10	389	0.004	0.013	S629MNH0201XX	S629MNH0209XX	-1.16	-2.57	3.99	5.60	-1.16	-2.50	0.00	0.07	0.04	0.00	2.4	0.0
2804	10	92	0.012	0.013	S629MNH0202XX	S629MNH0201XX	-0.40	-1.47	4.50	3.99	-0.23	-1.22	0.17	0.25	0.26	0.16	4.3	2.5
3203	10	187	0.004	0.013	S629MNH0203XX	S629MNH0202XX	0.34	-0.40	5.26	4.50	0.53	-0.21	0.19	0.19	0.23	0.16	2.5	1.7
2453	54	22	0.001	0.013	S629MNH0204XX	S629MNH0214XX	-10.71	-10.73	4.70	5.30	-8.04	-8.06	2.67	2.67	0.59	40.56	3.8	4.0
2582 [4]	30	49	0.000	0.013	S629MNH0205XX	S629MNH0204XX	-10.69	-10.71	4.60	4.70	-7.49	-7.61	3.20	3.10	SURCHARGED	20.28	1.7	0.0
2581 [4]	30	49	0.000	0.013	S629MNH0205XX	S629MNH0204XX	-10.69	-10.71	4.60	4.70	-7.71	-7.83	2.98	2.88	SURCHARGED	20.28	1.7	4.1
4384	10	360	0.006	0.013	S629MNH0208XX	S629MNH0218XX	-3.93	-6.00	4.50	3.10	-3.81	-5.88	0.12	0.12	0.14	0.07	3.1	1.5
4487	10	385	0.004	0.013	S629MNH0209XX	S629MNH0208XX	-2.57	-3.93	5.60	4.50	-2.50	-3.77	0.07	0.16	0.14	0.02	2.4	0.9
4431	10	371	0.002	0.013	S629MNH0210XX	S628MNH0213XX	-1.49	-2.13	4.05	5.10	-1.25	-1.85	0.24	0.28	0.31	0.16	1.7	1.3
4696-1	54	375	0.001	0.013	NEW-4696	S629MNH0224XX	-10.36	-10.67	3.75	3.40	-7.25	-7.46	3.11	3.21	0.70	40.56	3.6	3.9
4696-2	54	377	0.001	0.013	S629MNH0211XX	NEW-4696	-10.04	-10.36	4.10	3.75	-7.01	-7.24	3.03	3.12	0.68	40.56	3.6	3.9
3155	54	175	0.001	0.013	S629MNH0212XX	S629MNH0211XX	-9.87	-10.04	3.40	4.10	-6.88	-6.99	2.99	3.05	0.67	40.56	3.9	4.1
3196	54	186	0.001	0.013	S629MNH0213XX	S629MNH0212XX	-9.71	-9.87	3.30	3.40	-6.74	-6.86	2.97	3.01	0.67	40.56	3.6	3.9
4538	54	402	0.001	0.013	S629MNH0214XX	S652MNH0215XX	-10.73	-11.08	5.30	7.10	-8.14	-8.66	2.59	2.42	0.56	40.56	3.7	4.0
2532	33	36	0.003	0.013	S629MNH0216XX	S629MNH0218XX	-8.99	-9.10	3.06	3.10	-7.61	-7.63	1.38	1.47	0.52	9.46	4.9	0.0
2924	33	127	0.003	0.013	S629MNH0216XX	S629MNH0217XX	-8.99	-9.31	3.06	3.88	-7.75	-7.87	1.24	1.44	0.49	9.46	4.5	4.1
4651	42	517	0.004	0.013	S629MNH0217XX	S652MNH0225XX	-9.31	-11.36	3.88	8.62	-7.98	-8.50	1.33	2.86	0.60	19.02	6.6	5.8
2796	33	91	0.002	0.013	S629MNH0218XX	S629MNH0217XX	-9.10	-9.31	3.10	3.88	-7.79	-7.88	1.31	1.43	0.50	9.56	4.3	4.0
3182	10	182	0.004	0.013	S629MNH0223XX	S629MNH0203XX	1.07	0.34	4.82	5.26	1.25	0.56	0.18	0.22	0.24	0.15	2.6	1.7
2454	54	22	0.001	0.013	S629MNH0224XX	S629MNH0205XX	-10.67	-10.69	3.40	4.60	-7.54	-7.56	3.13	3.13	0.70	40.56	3.8	4.0
3313	12	213	0.003	0.013	S630MNH0201XX	S630MNH0204XX	-4.72	-5.36	4.70	3.70	-4.46	-5.04	0.26	0.32	0.29	0.30	2.5	1.8
2978	27	135	0.003	0.013	S630MNH0202XX	S630MNH0210XX	-7.43	-7.79	5.10	5.00	-5.85	-6.34	1.58	1.45	0.68	13.99	4.0	4.5
3246	27	199	0.003	0.013	S630MNH0203XX	S630MNH0202XX	-6.89	-7.43	3.72	5.10	-5.27	-5.83	1.62	1.60	0.72	13.99	4.1	4.6
3129	12	169	0.003	0.013	S630MNH0204XX	S630MNH0203XX	-5.36	-5.87	3.70	3.72	-5.04	-5.08	0.32	0.79	0.55	0.30	2.5	1.8
3231	27	195	0.003	0.013	S630MNH0205XX	S630MNH0203XX	-6.17	-6.69	5.59	3.72	-4.59	-5.26	1.58	1.43	0.67	13.69	4.0	4.5
4604	42	444	0.004	0.013	S630MNH0209XX	S629MNH0216XX	-7.31	-8.92	5.52	3.06	-5.97	-7.59	1.34	1.33	0.38	18.92	6.3	5.6
3599	27	260	0.003	0.013	S630MNH0210XX	S652MNH0209XX	-7.99	-8.69	5.00	2.69	-6.37	-7.09	1.62	1.60	0.72	13.99	4.0	4.6
3795	12	282	0.003	0.013	S630MNH0211XX	S630MNH0201XX	-3.70	-4.52	4.00	4.70	-3.45	-4.15	0.25	0.37	0.31	0.26	2.5	1.7
2397	10	15	0.005	0.013	S630MNH0212XX	S630MNH0211XX	-3.63	-3.70	4.00	4.00	-3.27	-3.27	0.36	0.43	0.47	0.21	2.8	1.9
3608	10	261	0.003	0.013	S630MNH0213XX	S630MNH0212XX	-2.87	-3.63	5.52	4.00	-2.65	-3.17	0.22	0.46	0.41	0.17	2.2	1.6
2633	10	54	0.121	0.013	S630TEE1001XX	S630MNH0210XX	0.00	-6.54	5.01	5.00	0.00	-6.18	0.00	0.36	0.22	0.00	14.0	0.0
3807	24	284	0.002	0.013	S631MNH0201XX	S631MNH0208XX	-3.21	-3.67	6.00	5.20	-1.87	-2.29	1.34	1.38	0.68	7.10	2.9	3.2
2914	24	121	0.002	0.013	S631MNH0202XX	S631MNH0201XX	-3.02	-3.21	6.48	6.00	-1.66	-1.83	1.36	1.38	0.69	6.85	2.9	3.1
3171	24	179	0.003	0.013	S631MNH0203XX	S631MNH0202XX	-2.35	-2.82	7.84	6.48	-1.27	-1.65	1.08	1.17	0.56	6.51	3.7	3.8
3674	12	277	0.002	0.013	S631MNH0206XX	S631MNH0207XX	1.34	0.73	7.38	7.30	1.61	1.01	0.27	0.28	0.27	0.27	2.1	1.6
3831	12	293	0.002	0.013	S631MNH0207XX	S631MNH0210XX	0.73	0.09	7.30	8.22	1.00	0.42	0.27	0.33	0.30	0.27	2.1	1.6
4641-1	24	200	0.002	0.013	NEW-4641	S650MNH0207XX	-4.14	-4.46	7.06	8.30	-2.73	-2.98	1.41	1.48	0.72	7.10	2.9	3.2
4641-2	24	298	0.002	0.013	S631MNH0208XX	NEW-4641	-3.67	-4.14	5.20	7.06	-2.31	-2.72	1.36	1.42	0.70	7.10	2.9	3.2
3966	12	302	0.002	0.013	S631MNH0209XX	S631MNH0202XX	-0.57	-1.23	8.50	6.48	-0.26	-0.99	0.31	0.24	0.27	0.34	2.1	1.7
4007	12	307	0.002	0.013	S631MNH0210XX	S631MNH0209XX	0.09	-0.57	8.22	8.50	0.38	-0.22	0.29	0.35	0.32	0.31	2.1	1.6
4108	27	320	0.001	0.013	S648MNH0201XX	S649MNH0206XX	0.08	-0.24	9.50	8.90	0.90	0.58	0.82	0.82	0.37	2.78	2.5	2.1
4107	27	320	0.001	0.013	S648MNH0202XX	S648MNH0201XX	0.40	0.08	10.20	9.50	1.22	0.90	0.82	0.82	0.37	2.78	2.5	2.1

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C4 - MPSP Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4494	27	387	0.001	0.013	S649MNH0201XX	S650MNH0201XX	-1.13	-1.52	7.90	8.10	-0.31	-0.71	0.82	0.81	0.36	2.78	2.5	2.1
3534	27	253	0.001	0.013	S649MNH0204XX	S649MNH0201XX	-0.88	-1.13	7.90	7.90	-0.06	-0.31	0.82	0.82	0.37	2.78	2.5	2.1
4116	27	321	0.001	0.013	S649MNH0205XX	S649MNH0204XX	-0.56	-0.88	7.90	7.90	0.26	-0.05	0.82	0.83	0.37	2.78	2.5	2.1
4104	27	320	0.001	0.013	S649MNH0206XX	S649MNH0205XX	-0.24	-0.56	8.90	7.90	0.58	0.26	0.82	0.82	0.37	2.78	2.5	2.1
3781	27	280	0.001	0.013	S650MNH0201XX	S650MNH0202XX	-1.52	-1.80	8.10	7.00	-0.71	-1.23	0.81	0.57	0.31	2.78	2.5	2.1
2421	27	18	0.032	0.013	S650MNH0202XX	S650MNH0205XX	-1.80	-2.38	7.00	7.00	-1.24	-1.59	0.56	0.79	0.30	2.78	14.0	7.3
4680	36	629	0.000	0.013	S650MNH0203XX	S650MNH0210XX	-5.71	-5.96	3.87	4.13	-4.82	-5.42	0.89	0.54	0.24	2.78	1.9	1.5
3146	36	173	0.019	0.013	S650MNH0204XX	S650MNH0203XX	-2.45	-5.71	3.45	3.87	-1.93	-4.81	0.52	0.90	0.24	2.78	13.0	5.8
2835	27	99	0.001	0.013	S650MNH0205XX	S650MNH0204XX	-2.38	-2.45	7.00	3.45	-1.60	-1.89	0.78	0.56	0.30	2.78	2.1	1.9
4597-1	27	223	0.002	0.013	NEW-4597	S650MNH0209XX	-5.13	-5.49	7.51	6.40	-3.91	-4.26	1.22	1.23	0.55	7.11	3.1	3.2
4597-2	27	218	0.002	0.013	S650MNH0206XX	NEW-4597	-4.77	-5.13	8.60	7.51	-3.56	-3.90	1.21	1.23	0.54	7.11	3.2	3.3
2714	27	67	0.002	0.013	S650MNH0207XX	S650MNH0206XX	-4.46	-4.57	8.30	8.60	-2.98	-3.03	1.48	1.54	0.67	7.10	3.2	3.3
4618-1	27	230	0.002	0.013	NEW-4618	S651MNH0201XX	-5.85	-6.22	5.46	4.50	-4.63	-5.00	1.22	1.22	0.54	7.11	3.1	3.2
4618-2	27	225	0.002	0.013	S650MNH0209XX	NEW-4618	-5.49	-5.85	6.40	5.46	-4.27	-4.62	1.22	1.23	0.55	7.11	3.1	3.2
2959	36	131	0.005	0.013	S650MNH0210XX	S650MNH0211XX	-5.96	-6.67	4.13	3.90	-5.43	-6.13	0.53	0.54	0.18	2.87	7.0	3.8
4661	36	538	0.005	0.013	S650MNH0211XX	S651MNH0202XX	-6.67	-9.58	3.90	9.72	-6.14	-7.81	0.53	1.77	0.38	2.91	6.9	3.8
2378	33	13	0.141	0.013	S650MNH0215XX	S650MNH0204XX	-0.65	-2.45	6.94	3.45	-0.65	-1.91	0.00	0.54	0.10	0.00	33.4	0.0
2362	18	11	0.062	0.013	S650TEE1001XX	S650MNH0215XX	0.00	-0.65	5.62	6.94	0.00	-0.65	0.00	0.00	0.00	0.00	14.8	0.0
4602-1	27	221	0.002	0.013	NEW-4602	S651MNH0203XX	-6.58	-6.93	7.72	10.92	-5.38	-6.02	1.20	0.91	0.47	7.11	3.1	3.2
4602-2	27	223	0.002	0.013	S651MNH0201XX	NEW-4602	-6.22	-6.58	4.50	7.72	-5.00	-5.37	1.22	1.21	0.54	7.11	3.1	3.2
2505	36	30	0.001	0.013	S651MNH0202XX	S651MNH0203XX	-9.58	-9.61	9.72	10.92	-7.84	-7.84	1.74	1.77	0.58	2.95	3.0	2.1
4630	36	478	0.001	0.013	S651MNH0203XX	S651MNH0205XX	-9.61	-10.03	10.92	8.47	-7.85	-8.05	1.76	1.98	0.62	10.06	2.8	2.8
3014	36	143	0.001	0.013	S651MNH0205XX	S651MNH0211XX	-9.60	-9.77	8.47	9.00	-8.10	-8.21	1.50	1.56	0.51	10.06	3.3	3.2
2883	33	111	0.001	0.013	S651MNH0208XX	S651MNH0210XX	-10.16	-10.27	1.59	1.22	-8.57	-8.66	1.59	1.61	0.58	10.06	2.8	2.9
4375	18	358	0.001	0.013	S651MNH0209XX	S652MNH0207XX	-6.03	-6.44	4.18	5.63	-6.03	-6.44	0.00	0.00	0.00	0.00	2.0	0.0
3360	33	221	0.001	0.013	S651MNH0210XX	S652MNH0208XX	-10.27	-10.55	1.22	3.20	-8.68	-8.84	1.59	1.71	0.60	10.06	3.2	3.2
2350	18	8	0.012	0.013	S651MNH0211XX	00_S651MNH0211XX	-5.34	-5.44	9.00	10.76	-5.34	-5.44	0.00	0.00	0.00	0.00	6.6	0.0
4467	33	376	0.001	0.013	S651MNH0211XX	S651MNH0208XX	-9.77	-10.16	9.00	1.59	-8.22	-8.55	1.55	1.61	0.58	10.06	2.9	3.0
2713	48	72	0.011	0.013	S652MNH0202XX	S652MNH0211XX	-14.10	-14.90	6.16	5.81	-13.01	-13.57	1.09	1.33	0.30	13.99	12.0	7.5
2562	54	40	0.004	0.013	S652MNH0203XX	S652MNH0214XX	-11.45	-11.61	7.80	9.74	-9.62	-9.84	1.83	1.77	0.40	40.56	7.8	7.0
2637	39	55	0.004	0.013	S652MNH0204XX	S652MNH0214XX	-11.54	-11.78	6.85	9.74	-9.84	-10.09	1.70	1.69	0.52	29.08	6.6	6.7
2356	33	10	0.064	0.013	S652MNH0205XX	S652MNH0204XX	-10.90	-11.54	6.68	6.85	-9.11	-9.52	1.79	2.02	0.69	29.08	22.5	18.0
2716	24	68	0.020	0.013	S652MNH0207XX	S652MNH0202XX	-10.15	-11.50	5.63	6.16	-8.80	-10.54	1.35	0.96	0.58	13.99	10.2	9.8
2569	33	45	0.003	0.013	S652MNH0208XX	S652MNH0225XX	-10.55	-10.70	3.20	8.62	-8.86	-8.87	1.69	1.83	0.64	10.06	5.1	4.6
4198	30	362	0.002	0.013	S652MNH0209XX	S652MNH0207XX	-8.69	-9.50	2.69	5.63	-7.12	-8.24	1.57	1.26	0.57	13.99	4.0	4.3
4728	48	14	0.000	0.013	S652MNH0211XX	WPCP	-14.90	-14.90	5.81	0.00	-13.65	-13.81	1.25	1.09	0.29	13.99	0.1	1.1
4727	54	14	0.000	0.013	S652MNH0212XX	WPCP	-14.90	-14.90	5.89	0.00	-12.21	-12.47	2.69	2.43	0.57	69.64	0.1	4.4
2618	54	51	0.016	0.013	S652MNH0214XX	S652MNH0212XX	-14.10	-14.90	9.74	5.89	-11.67	-12.04	2.43	2.86	0.59	69.64	15.5	13.3
2459 [4]	48	24	0.015	0.013	S652MNH0215XX	S652MNH0203XX	-11.08	-11.45	7.10	7.80	-7.74	-7.74	3.34	3.71	0.88	20.28	14.1	0.0
2458 [4]	48	25	0.015	0.013	S652MNH0215XX	S652MNH0203XX	-11.08	-11.45	7.10	7.80	-8.70	-8.68	2.38	2.77	0.88	20.28	14.0	9.3
2443	33	21	0.010	0.013	S652MNH0225XX	S652MNH0205XX	-10.70	-10.90	8.62	6.68	-8.91	-8.72	1.79	2.18	0.72	29.08	8.8	9.0
4105	27	320	0.001	0.013	S673MNH0201XX	S648MNH0202XX	0.72	0.40	10.80	10.20	1.54	1.22	0.82	0.82	0.37	2.78	2.5	2.1
4531	21	400	0.002	0.013	S673MNH0202XX	S673MNH0201XX	2.12	1.32	12.00	10.80	2.88	1.92	0.76	0.60	0.39	2.78	3.0	2.8
4529	21	400	0.002	0.013	S674MNH0201XX	S673MNH0202XX	2.92	2.12	12.30	12.00	3.68	2.89	0.76	0.77	0.44	2.78	3.0	2.8
4439	21	370	0.002	0.013	S674MNH0202XX	S674MNH0201XX	3.56	2.92	12.60	12.30	4.07	3.71	0.51	0.79	0.37	1.22	2.7	2.1

Notes:
1. Highlighted pipe diameters reflect pipelines upsized as part of the recommended MPSP improvements.
2. Half full velocity is determined per Manning's equation assuming no backwater conditions downstream.
3. Velocity as indicated by the model at the specified d/D.
4. These pipelines were identified as depressed sewer and improvements were not recommended to address d/D deficiencies.

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C5 - Cumulative Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
00_S651MNH0211XX	10.76	-5.75	16.51	0.00	-5.75	0.00	0.00
MH1_MofffetRealign	16.70	4.40	12.30	0.00	4.94	0.54	0.18
MH2_MoffetRealign	16.10	4.22	11.88	0.03	4.88	0.66	0.21
MH3_MoffetRealign	14.95	3.78	11.17	0.18	4.12	0.34	0.39
MH4_MoffetRealign	15.30	3.39	11.91	0.03	3.67	0.28	0.41
MH5_MoffetRealign	13.40	2.42	10.98	0.00	2.69	0.27	0.41
S529MNH0207XX	28.30	13.00	15.30	2.94	26.45	13.45	2.94
S529MNH0208XX	24.30	12.83	11.47	0.02	24.30	11.47	2.96
S549MNH0201XX	14.40	1.51	12.89	5.70	2.47	0.96	5.70
S549MNH0203XX	12.22	3.79	8.43	0.00	3.88	0.09	0.03
S549MNH0217XX	12.22	4.67	7.55	0.03	4.76	0.09	0.03
S550MNH0201XX	16.49	1.59	14.90	0.20	4.00	2.41	20.64
S550MNH0202XX	17.27	10.07	7.20	0.00	11.55	1.48	20.20
S550MNH0203XX	18.30	6.40	11.90	0.00	11.42	5.02	13.39
S550MNH0204XX	18.40	6.66	11.74	0.00	11.87	5.21	13.39
S550MNH0205XX	18.25	4.60	13.65	0.00	4.88	0.28	0.14
S550MNH0207XX	20.00	11.04	8.96	20.20	13.06	2.02	20.20
S550MNH0210XX	20.80	9.39	11.41	13.39	14.97	5.58	13.39
S550MNH0217XX	14.80	6.42	8.38	0.00	6.55	0.13	0.06
S550MNH0218XX	15.45	5.46	9.99	0.00	5.60	0.14	0.06
S550MNH0220XX	16.40	5.18	11.22	0.00	10.03	4.85	13.39
S550MNH0221XX	17.32	3.65	13.67	0.11	4.07	0.42	0.24
S550MNH0222XX	13.90	7.31	6.59	0.06	7.44	0.13	0.06
S550MNH0223XX	17.92	10.62	7.30	0.00	12.57	1.95	20.20
S550MNH0225XX	16.80	1.60	15.20	0.00	3.99	2.39	20.64
S550MNH0226XX	17.72	4.31	13.41	0.00	4.48	0.17	0.14
S551MNH0203XX	21.50	7.70	13.80	0.00	7.84	0.14	0.08
S551MNH0204XX	22.25	6.62	15.63	0.00	6.75	0.13	0.08
S551MNH0205XX	20.20	5.66	14.54	0.00	5.80	0.14	0.08
S552MNH0201XX	20.19	9.20	10.99	0.01	20.19	10.99	3.14
S552MNH0202XX	21.70	10.23	11.47	0.05	21.70	11.47	3.13
S552MNH0203XX	25.50	11.68	13.82	0.09	24.17	12.49	3.08
S552MNH0204XX	25.40	12.00	13.40	0.03	25.21	13.21	2.99
S552MNH0206XX	24.00	9.32	14.68	0.00	9.32	0.00	0.00
S552MNH0207XX	23.40	8.90	14.50	0.08	9.03	0.13	0.08
S552MNH0208XX	22.00	13.92	8.08	0.00	18.15	4.23	0.00
S552MNH0209XX	20.00	11.22	8.78	0.30	18.14	6.92	0.30
S552MNH0211XX	23.18	11.06	12.12	0.00	23.00	11.94	3.08
S552MNH0212XX	23.40	11.37	12.03	0.00	23.40	12.03	3.08
S569MNH0204XX	19.04	8.13	10.91	0.77	19.04	10.91	3.91
S569MNH0205XX	18.20	7.10	11.10	0.05	18.01	10.91	0.38
S569MNH0206XX	18.40	8.50	9.90	0.03	18.05	9.55	0.33
S569MNH0209XX	14.50	4.18	10.32	0.00	14.50	10.32	4.35
S569MNH0210XX	15.30	4.73	10.57	0.00	15.30	10.57	4.35

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C5 - Cumulative Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S569MNH0211XX	17.23	5.05	12.18	0.07	17.23	12.18	4.35
S569MNH0212XX	18.00	5.38	12.62	0.00	18.00	12.62	4.28
S570MNH0201XX	13.30	4.12	9.18	0.15	4.33	0.21	0.15
S570MNH0202XX	14.55	5.95	8.60	0.14	6.18	0.23	0.17
S570MNH0203XX	15.10	6.60	8.50	0.03	6.70	0.10	0.03
S570MNH0204XX	15.90	4.45	11.45	0.01	4.95	0.50	0.18
S571MNH0205XX	11.74	3.94	7.80	0.13	4.11	0.17	0.13
S571MNH0207XX	12.90	3.92	8.98	0.00	8.61	4.69	13.39
S571MNH0208XX	11.55	2.20	9.35	0.12	2.50	0.30	0.41
S571MNH0209XX	12.44	3.06	9.38	0.16	3.32	0.26	0.29
S571MNH0211XX	12.23	0.88	11.35	0.03	2.39	1.51	21.08
S571MNH0212XX	13.73	1.78	11.95	0.00	3.53	1.75	20.64
S571MNH0216XX	10.72	-0.20	10.92	0.00	1.25	1.45	21.49
S571MNH0219XX	12.08	2.66	9.42	0.00	7.20	4.54	13.39
S572MNH0201XX	10.22	2.83	7.39	0.00	2.91	0.08	0.03
S572MNH0202XX	9.10	4.43	4.67	0.18	4.63	0.20	0.18
S572MNH0203XX	12.40	6.40	6.00	0.00	6.40	0.00	0.00
S572MNH0204XX	13.30	5.50	7.80	0.00	5.50	0.00	0.00
S572MNH0206XX	8.40	3.81	4.59	0.00	4.01	0.20	0.18
S572MNH0207XX	11.15	6.29	4.86	0.00	6.29	0.00	0.00
S573MNH0201XX	10.00	-0.51	10.51	0.01	0.44	0.95	5.78
S573MNH0202XX	9.00	-0.07	9.07	0.01	1.43	1.50	5.74
S573MNH0203XX	10.10	-1.30	11.40	0.00	-0.11	1.19	6.07
S573MNH0204XX	9.62	1.43	8.19	0.00	1.54	0.11	0.06
S573MNH0210XX	7.38	3.07	4.31	0.10	3.23	0.16	0.10
S573MNH0211XX	6.93	2.72	4.21	0.08	2.94	0.22	0.19
S573MNH0212XX	9.97	0.70	9.27	0.00	1.73	1.03	5.73
S573MNH0213XX	8.25	-0.21	8.46	0.02	1.20	1.41	5.76
S573TEE1001XX	10.63	0.00	10.63	0.23	0.53	0.53	0.23
S574MNH0202XX	7.04	2.90	4.14	0.12	3.07	0.17	0.12
S575MNH0203XX	6.26	1.25	5.01	0.68	1.66	0.41	0.68
S575MNH0206XX	6.55	1.45	5.10	0.09	1.59	0.14	0.09
S586MNH0201XX	4.45	-0.83	5.28	0.00	-0.35	0.48	1.00
S586MNH0202XX	4.60	-0.27	4.87	0.00	0.20	0.47	1.00
S586MNH0204XX	5.70	0.32	5.38	0.00	0.87	0.55	1.00
S586MNH0205XX	6.40	0.72	5.68	0.23	1.20	0.48	1.00
S586MNH0209XX	3.61	-0.90	4.51	0.00	-0.56	0.34	0.43
S586TEE1003XX	6.44	0.00	6.44	0.00	0.36	0.36	1.00
S587MNH0201XX	4.25	-0.34	4.59	0.04	0.01	0.35	0.46
S587MNH0202XX	5.17	0.44	4.73	0.11	0.77	0.33	0.41
S587MNH0206XX	4.35	0.55	3.80	0.03	0.87	0.32	0.38
S587MNH0207XX	5.22	1.34	3.88	0.17	1.64	0.30	0.35
S587MNH0208XX	6.39	2.12	4.27	0.06	2.33	0.21	0.18
S588MNH0201XX	7.25	-3.02	10.27	0.39	-1.86	1.16	6.46

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C5 - Cumulative Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S588MNH0202XX	8.80	-1.87	10.67	0.00	-0.62	1.25	6.07
S588MNH0203XX	6.14	1.22	4.92	0.00	1.50	0.28	0.30
S588MNH0204XX	5.98	1.97	4.01	0.12	2.25	0.28	0.30
S589MNH0202XX	8.90	1.46	7.44	0.08	1.73	0.27	0.24
S589MNH0203XX	9.15	2.35	6.80	0.14	2.56	0.21	0.16
S589MNH0204XX	9.25	3.24	6.01	0.04	3.32	0.08	0.02
S589MNH0205XX	9.82	1.85	7.97	0.01	2.01	0.16	0.06
S589MNH0206XX	8.10	2.20	5.90	0.00	2.45	0.25	0.27
S589MNH0207XX	7.50	1.30	6.20	0.09	1.59	0.29	0.36
S589MNH0208XX	8.00	0.77	7.23	0.00	1.06	0.29	0.36
S589MNH0211XX	7.40	3.10	4.30	0.10	3.35	0.25	0.27
S589MNH0214XX	9.60	2.54	7.06	0.03	2.67	0.13	0.05
S590MNH0201XX	8.90	0.59	8.31	0.03	0.82	0.23	0.27
S590MNH0202XX	8.60	0.13	8.47	0.01	4.21	4.08	13.63
S590MNH0203XX	8.80	0.52	8.28	0.05	4.71	4.19	13.61
S590MNH0204XX	9.90	1.39	8.51	0.18	5.75	4.36	13.56
S590MNH0213XX	7.90	-0.53	8.43	0.12	-0.15	0.38	0.57
S590MNH0215XX	8.94	-2.25	11.19	0.00	-0.45	1.80	21.49
S590MNH0216XX	8.63	-2.40	11.03	0.00	-0.82	1.58	22.07
S590MNH0217XX	8.06	-4.19	12.25	0.00	-2.00	2.19	25.07
S590MNH0218XX	7.60	-1.13	8.73	0.08	2.70	3.83	13.71
S590MNH0219XX	7.79	-1.91	9.70	0.00	-1.88	0.03	2.73
S590MNH0220XX	8.02	0.38	7.64	0.09	0.71	0.33	0.45
S591MNH0201XX	10.60	1.39	9.21	0.17	1.81	0.42	0.57
S591MNH0202XX	10.90	2.12	8.78	0.04	2.49	0.37	0.40
S591MNH0203XX	12.10	3.20	8.90	0.21	3.49	0.29	0.36
S592MNH0212XX	14.00	3.93	10.07	0.00	14.00	10.07	4.35
S592MNH0214XX	13.19	3.03	10.16	0.14	13.19	10.16	4.49
S592MNH0215XX	12.80	2.88	9.92	0.45	12.80	9.92	4.94
S592MNH0216XX	12.92	2.63	10.29	0.00	12.92	10.29	4.94
S592MNH0217XX	12.10	2.46	9.64	0.00	12.10	9.64	4.94
S609MNH0206XX	11.33	1.56	9.77	0.19	11.33	9.77	5.13
S609MNH0207XX	10.00	1.12	8.88	0.00	10.00	8.88	5.13
S609MNH0208XX	10.31	0.97	9.34	0.00	10.31	9.34	5.13
S610MNH0203XX	10.60	0.00	10.60	0.00	6.43	6.43	5.13
S610MNH0204XX	9.00	3.00	6.00	1.83	4.91	1.91	1.83
S610MNH0205XX	9.91	-0.50	10.41	0.09	4.70	5.20	5.06
S610MNH0206XX	8.36	2.00	6.36	0.12	3.95	1.95	0.12
S610MNH0207XX	9.00	0.23	8.77	0.05	1.25	1.02	2.68
S610MNH0208XX	9.40	0.56	8.84	0.06	1.35	0.79	0.64
S610MNH0209XX	10.20	2.23	7.97	0.00	2.92	0.69	1.99
S610MNH0210XX	9.30	1.46	7.84	0.00	2.06	0.60	1.99
S611MNH0201XX	8.20	-0.08	8.28	0.00	0.77	0.85	2.68
S611MNH0202XX	8.20	-0.21	8.41	0.00	0.65	0.86	2.68

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C5 - Cumulative Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S611MNH0203XX	9.20	-0.79	9.99	0.05	-0.16	0.63	2.73
S611MNH0205XX	6.40	-2.40	8.80	0.05	1.12	3.52	13.76
S611MNH0206XX	5.10	-3.69	8.79	0.00	-0.36	3.33	13.76
S611MNH0207XX	4.20	-4.91	9.11	0.00	-1.90	3.01	13.76
S611MNH0208XX	5.09	-4.19	9.28	0.00	-1.18	3.01	13.76
S611MNH0209XX	7.03	-4.52	11.55	0.07	-2.92	1.60	25.14
S611MNH0210XX	5.87	-5.91	11.78	0.00	-4.07	1.84	25.98
S611MNH0214XX	5.50	-2.40	7.90	0.08	-2.23	0.17	0.08
S612CLN1001XX	4.37	2.20	2.17	0.39	2.54	0.34	0.39
S612MNH0201XX	5.33	-1.98	7.31	0.09	-1.44	0.54	0.84
S612MNH0202XX	5.76	-1.08	6.84	0.22	-0.60	0.48	0.76
S612MNH0203XX	5.37	1.35	4.02	0.14	1.67	0.32	0.53
S613MNH0201XX	4.45	-4.82	9.27	0.14	-3.62	1.20	6.72
S613MNH0202XX	5.95	-3.92	9.87	0.12	-2.74	1.18	6.58
S613MNH0203XX	3.10	-5.35	8.45	0.03	-3.98	1.37	7.50
S613MNH0204XX	3.42	-3.37	6.79	0.00	-2.96	0.41	0.75
S613MNH0208XX	3.20	-5.72	8.92	0.19	-4.37	1.35	7.69
S613TEE1001XX	2.66	-5.82	8.48	0.00	-4.37	1.45	7.69
S614MNH0201XX	3.31	-3.31	6.62	0.00	-2.57	0.74	0.75
S614MNH0202XX	3.70	-1.82	5.52	0.19	-1.44	0.38	0.75
S614MNH0203XX	3.53	-1.07	4.60	0.10	-0.69	0.38	0.56
S614MNH0204XX	3.65	-0.22	3.87	0.05	0.12	0.34	0.43
S615MNH0201XX	5.25	-1.16	6.41	0.08	-0.67	0.49	1.08
S615MNH0202XX	4.85	-1.88	6.73	0.00	-1.41	0.47	1.08
S615MNH0203XX	5.00	-5.20	10.20	0.14	-2.28	2.92	1.64
S615MNH0204XX	4.88	-5.92	10.80	0.00	-2.43	3.49	30.57
S615MNH0206XX	2.00	-5.37	7.37	28.93	-2.05	3.32	28.93
S615MNH0207XX	2.20	-2.30	4.50	0.00	-1.97	0.33	0.43
S615MNH0208XX	2.70	-1.57	4.27	0.00	-1.24	0.33	0.43
S615MNH0210XX	4.80	-3.38	8.18	0.00	-2.23	1.15	1.50
S627MNH0201XX	3.60	-7.54	11.14	0.00	-4.13	3.41	30.57
S627MNH0202XX	10.90	-6.69	17.59	0.00	-3.07	3.62	30.57
S628MNH0201XX	3.70	-5.87	9.57	0.00	-5.48	0.39	0.23
S628MNH0205XX	5.25	-4.54	9.79	0.02	-4.33	0.21	0.23
S628MNH0206XX	3.43	-8.36	11.79	0.00	-5.22	3.14	38.26
S628MNH0207XX	2.88	-6.49	9.37	0.00	-4.99	1.50	7.69
S628MNH0209XX	4.02	-8.59	12.61	0.00	-5.73	2.86	38.49
S628MNH0210XX	4.30	-8.94	13.24	0.00	-5.79	3.15	38.49
S628MNH0211XX	4.40	-9.01	13.41	0.00	-5.82	3.19	38.49
S628MNH0212XX	3.70	-9.46	13.16	0.00	-6.18	3.28	38.49
S628MNH0213XX	5.10	-2.13	7.23	0.04	-1.93	0.20	0.21
S628TEE1001XX	5.18	-4.13	9.31	0.00	-3.93	0.20	0.21
S629MNH0201XX	3.99	-1.47	5.46	0.00	-1.22	0.25	0.16
S629MNH0202XX	4.50	-0.40	4.90	0.00	-0.23	0.17	0.16

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C5 - Cumulative Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S629MNH0203XX	5.26	0.34	4.92	0.02	0.53	0.19	0.16
S629MNH0204XX	4.70	-10.71	15.41	0.00	-7.77	2.94	38.49
S629MNH0205XX	4.60	-10.69	15.29	0.00	-7.41	3.28	19.24
S629MNH0208XX	4.50	-3.93	8.43	0.05	-3.81	0.12	0.07
S629MNH0209XX	5.60	-2.57	8.17	0.02	-2.50	0.07	0.02
S629MNH0210XX	4.05	-1.49	5.54	0.00	-1.25	0.24	0.16
S629MNH0211XX	4.10	-10.04	14.14	0.00	-6.67	3.37	38.49
S629MNH0212XX	3.40	-9.87	13.27	0.00	-6.54	3.33	38.49
S629MNH0213XX	3.30	-9.71	13.01	0.00	-6.39	3.32	38.49
S629MNH0214XX	5.30	-10.73	16.03	0.00	-7.87	2.86	38.49
S629MNH0216XX	3.06	-8.99	12.05	0.00	-7.47	1.52	13.04
S629MNH0217XX	3.88	-9.31	13.19	0.00	-7.73	1.58	26.19
S629MNH0218XX	3.10	-9.10	12.20	0.02	-7.51	1.59	13.14
S629MNH0223XX	4.82	1.07	3.75	0.15	1.25	0.18	0.15
S629MNH0224XX	3.40	-10.67	14.07	0.00	-7.25	3.42	38.49
S630MNH0201XX	4.70	-4.55	9.25	0.04	-3.71	0.84	0.30
S630MNH0202XX	5.10	-7.43	12.53	0.00	-4.89	2.54	14.06
S630MNH0203XX	3.72	-7.37	11.09	0.00	-4.09	3.28	14.06
S630MNH0204XX	3.70	-5.21	8.91	0.00	-3.75	1.46	0.30
S630MNH0205XX	5.59	-6.17	11.76	0.00	-3.34	2.83	13.76
S630MNH0209XX	5.52	-7.31	12.83	0.11	-5.70	1.61	26.09
S630MNH0210XX	5.00	-7.94	12.94	0.00	-5.45	2.49	14.06
S630MNH0211XX	4.00	-3.70	7.70	0.05	-3.44	0.26	0.26
S630MNH0212XX	4.00	-3.63	7.63	0.03	-3.11	0.52	0.21
S630MNH0213XX	5.52	-2.87	8.39	0.09	-2.65	0.22	0.17
S630TEE1001XX	5.01	0.00	5.01	0.00	0.00	0.00	0.00
S631MNH0201XX	6.00	-3.10	9.10	0.25	2.65	5.75	5.64
S631MNH0202XX	6.48	-3.02	9.50	0.00	3.08	6.10	5.40
S631MNH0203XX	7.84	-1.94	9.78	0.00	3.53	5.47	5.06
S631MNH0206XX	7.38	1.34	6.04	0.15	3.93	2.59	0.27
S631MNH0207XX	7.30	0.73	6.57	0.00	3.92	3.19	0.27
S631MNH0208XX	5.20	-3.24	8.44	0.00	1.79	5.03	5.64
S631MNH0209XX	8.50	-0.57	9.07	0.03	3.87	4.44	0.34
S631MNH0210XX	8.22	0.09	8.13	0.04	3.90	3.81	0.31
S648MNH0201XX	9.50	0.08	9.42	0.00	0.92	0.84	2.89
S648MNH0202XX	10.20	0.40	9.80	0.00	1.24	0.84	2.89
S649MNH0201XX	7.90	-1.13	9.03	0.00	-0.29	0.84	2.89
S649MNH0204XX	7.90	-0.88	8.78	0.00	-0.04	0.84	2.89
S649MNH0205XX	7.90	-0.56	8.46	0.00	0.28	0.84	2.89
S649MNH0206XX	8.90	-0.24	9.14	0.00	0.60	0.84	2.89
S650MNH0201XX	8.10	-1.52	9.62	0.00	-0.70	0.82	2.89
S650MNH0202XX	7.00	-1.80	8.80	0.00	-1.23	0.57	2.89
S650MNH0203XX	3.87	-5.71	9.58	0.00	-4.80	0.91	2.89
S650MNH0204XX	3.45	-2.45	5.90	0.00	-1.92	0.53	2.89

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C5 - Cumulative Evaluation Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S650MNH0205XX	7.00	-2.38	9.38	0.00	-1.58	0.80	2.89
S650MNH0206XX	8.60	-3.89	12.49	0.01	-1.60	2.29	5.65
S650MNH0207XX	8.30	-3.67	11.97	0.00	0.33	4.00	5.64
S650MNH0209XX	6.40	-4.65	11.05	0.00	-2.91	1.74	5.65
S650MNH0210XX	4.13	-5.96	10.09	0.09	-5.42	0.54	2.98
S650MNH0211XX	3.90	-6.67	10.57	0.03	-6.13	0.54	3.02
S650MNH0215XX	6.94	-0.65	7.59	0.00	-0.65	0.00	0.00
S650TEE1001XX	5.62	0.00	5.62	0.00	0.00	0.00	0.00
S651MNH0201XX	4.50	-5.41	9.91	0.00	-4.28	1.13	5.65
S651MNH0202XX	9.72	-9.58	19.30	0.04	-7.87	1.71	3.06
S651MNH0203XX	10.92	-9.61	20.53	0.00	-7.87	1.74	8.72
S651MNH0205XX	8.47	-10.03	18.50	0.00	-8.06	1.97	8.72
S651MNH0208XX	1.59	-10.16	11.75	0.00	-8.31	1.85	8.72
S651MNH0209XX	4.18	-6.03	10.21	0.00	-6.03	0.00	0.00
S651MNH0210XX	1.22	-10.27	11.49	0.00	-8.36	1.91	8.72
S651MNH0211XX	9.00	-9.77	18.77	0.00	-8.13	1.64	8.72
S652MNH0202XX	6.16	-14.10	20.26	0.00	-13.00	1.10	14.06
S652MNH0203XX	7.80	-11.45	19.25	0.00	-9.60	1.85	38.49
S652MNH0204XX	6.85	-11.54	18.39	0.00	-9.65	1.89	34.90
S652MNH0205XX	6.68	-10.90	17.58	0.00	-8.93	1.97	34.90
S652MNH0207XX	5.63	-10.15	15.78	0.00	-8.80	1.35	14.06
S652MNH0208XX	3.20	-10.55	13.75	0.00	-8.43	2.12	8.72
S652MNH0209XX	2.69	-8.69	11.38	0.00	-6.50	2.19	14.06
S652MNH0211XX	5.81	-14.90	20.71	0.00	-13.65	1.25	14.06
S652MNH0212XX	5.89	-14.90	20.79	0.00	-12.02	2.88	73.39
S652MNH0214XX	9.74	-14.10	23.84	0.00	-11.51	2.59	73.39
S652MNH0215XX	7.10	-11.08	18.18	0.00	-8.31	2.77	19.24
S652MNH0225XX	8.62	-11.36	19.98	0.00	-8.48	2.88	34.90
S673MNH0201XX	10.80	0.72	10.08	0.00	1.56	0.84	2.89
S673MNH0202XX	12.00	2.12	9.88	0.00	2.90	0.78	2.89
S674MNH0201XX	12.30	2.92	9.38	1.57	3.70	0.78	2.89
S674MNH0202XX	12.60	3.56	9.04	1.33	4.09	0.53	1.33

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C6 - Cumulative Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4300	18	348	0.001	0.013	00_S651MNH0211XX	S651MNH0209XX	-5.75	-6.03	10.76	4.18	-5.75	-6.03	0.00	0.00	0.00	0.00	1.7	0.0
2991	10	138	0.001	0.013	MH1_MofffetRealign	MH2_MoffetRealign	4.40	4.22	16.70	16.10	4.94	4.93	0.54	0.71	0.75	0.18	1.5	1.2
3678	10	268	0.002	0.013	MH2_MoffetRealign	MH3_MoffetRealign	4.22	3.78	16.10	14.95	4.88	4.85	0.66	1.07	SURCHARGED	0.21	1.6	1.3
3017	10	143	0.003	0.013	MH3_MoffetRealign	MH4_MoffetRealign	3.78	3.42	14.95	15.30	4.12	3.94	0.34	0.52	0.52	0.39	2.0	1.8
3193	12	185	0.005	0.013	MH4_MoffetRealign	MH5_MoffetRealign	3.39	2.51	15.30	13.40	3.67	2.78	0.28	0.27	0.27	0.41	3.1	2.3
3130	12	169	0.006	0.013	MH5_MoffetRealign	S571MNH0211XX	2.42	1.48	13.40	12.23	2.69	2.57	0.27	1.09	0.68	0.41	3.4	2.5
4079	12	316	0.001	0.013	S529MNH0207XX	S529MNH0208XX	13.00	12.83	28.30	24.30	26.45	24.30	13.45	11.47	SURCHARGED	2.94	1.1	3.8
4388	12	361	0.002	0.013	S529MNH0208XX	S552MNH0204XX	12.83	12.00	24.30	25.40	27.79	25.30	14.96	13.30	SURCHARGED	2.96	2.2	3.8
3312	21	212	0.004	0.013	S549MNH0201XX	S573MNH0212XX	1.51	0.70	14.40	9.97	2.47	1.75	0.96	1.05	0.58	5.70	4.1	4.2
4504	10	392	0.002	0.013	S549MNH0203XX	S572MNH0201XX	3.79	2.83	12.22	10.22	3.88	2.91	0.09	0.08	0.10	0.03	2.0	0.9
4436	10	370	0.002	0.013	S549MNH0217XX	S549MNH0203XX	4.67	3.79	12.22	12.22	4.76	3.88	0.09	0.09	0.11	0.03	2.0	0.8
2359	42	10	-0.001	0.013	S550MNH0201XX	S550MNH0225XX	1.59	1.60	16.49	16.80	4.00	3.99	2.41	2.39	0.69	20.64	3.3	2.1
2606	33	48	0.165	0.013	S550MNH0202XX	S550MNH0201XX	10.07	2.09	17.27	16.49	11.55	4.02	1.48	1.93	0.62	20.20	36.2	22.7
4492	24	386	0.003	0.013	S550MNH0203XX	S550MNH0220XX	6.41	5.18	18.30	16.40	11.42	10.06	5.01	4.88	SURCHARGED	13.39	4.1	4.3
2736	24	78	0.003	0.013	S550MNH0204XX	S550MNH0203XX	6.66	6.40	18.40	18.30	11.87	11.59	5.21	5.19	SURCHARGED	13.39	4.2	4.3
2998	15	138	0.003	0.013	S550MNH0205XX	S550MNH0226XX	4.71	4.31	18.25	17.72	4.88	4.48	0.17	0.17	0.14	0.14	2.8	1.4
3438	33	240	0.002	0.013	S550MNH0207XX	S550MNH0223XX	11.04	10.62	20.00	17.92	13.06	12.59	2.02	1.97	0.73	20.20	3.7	4.2
4552	21	409	0.006	0.013	S550MNH0210XX	S550MNH0204XX	9.39	6.91	20.80	18.40	14.97	12.05	5.58	5.14	SURCHARGED	13.39	5.1	5.6
4535	10	400	0.002	0.013	S550MNH0217XX	S550MNH0218XX	6.42	5.46	14.80	15.45	6.55	5.60	0.13	0.14	0.16	0.06	2.0	1.1
4545	10	404	0.002	0.013	S550MNH0218XX	S550MNH0205XX	5.46	4.60	15.45	18.25	5.60	4.88	0.14	0.28	0.25	0.06	1.9	1.0
4511	24	394	0.003	0.013	S550MNH0220XX	S571MNH0207XX	5.18	3.92	16.40	12.90	10.03	8.65	4.85	4.73	SURCHARGED	13.39	4.1	4.3
2482	15	27	0.002	0.013	S550MNH0221XX	S550MNH0201XX	3.65	3.60	17.32	16.49	4.07	4.07	0.42	0.47	0.35	0.24	2.3	1.4
4091	10	318	0.003	0.013	S550MNH0222XX	S550MNH0217XX	7.31	6.42	13.90	14.80	7.44	6.55	0.13	0.13	0.16	0.06	2.1	1.1
3964	33	302	0.002	0.013	S550MNH0223XX	S550MNH0202XX	10.62	10.07	17.92	17.27	12.57	11.57	1.95	1.50	0.63	20.20	3.8	4.3
3824	42	287	0.001	0.013	S550MNH0225XX	S571MNH0212XX	2.00	1.78	16.80	13.73	3.99	3.54	1.99	1.76	0.54	20.64	2.9	3.2
3093	15	160	0.003	0.013	S550MNH0226XX	S550MNH0221XX	4.31	3.85	17.72	17.32	4.48	4.13	0.17	0.28	0.18	0.14	2.8	1.4
4622	15	463	0.002	0.013	S551MNH0203XX	S551MNH0204XX	7.70	6.62	21.50	22.25	7.84	6.75	0.14	0.13	0.11	0.08	2.5	1.1
4503	15	393	0.002	0.013	S551MNH0204XX	S551MNH0205XX	6.62	5.66	22.25	20.20	6.75	5.80	0.13	0.14	0.11	0.08	2.6	1.1
4595	15	448	0.002	0.013	S551MNH0205XX	S550MNH0205XX	5.66	4.60	20.20	18.25	5.80	4.88	0.14	0.28	0.17	0.08	2.6	1.1
4461	12	375	0.003	0.013	S552MNH0201XX	S569MNH0204XX	9.20	8.20	20.19	19.04	21.95	19.04	12.75	10.84	SURCHARGED	3.14	2.3	4.0
3431	12	239	0.004	0.013	S552MNH0202XX	S552MNH0201XX	10.23	9.30	21.70	20.19	22.03	20.19	11.80	10.89	SURCHARGED	3.13	2.8	4.0
2855	12	102	0.003	0.013	S552MNH0203XX	S552MNH0212XX	11.68	11.37	25.50	23.40	24.17	23.40	12.49	12.03	SURCHARGED	3.08	2.5	3.9
2860	12	105	0.003	0.013	S552MNH0204XX	S552MNH0203XX	12.00	11.68	25.40	25.50	25.21	24.47	13.21	12.79	SURCHARGED	2.99	2.5	3.8
3465	15	245	0.002	0.013	S552MNH0206XX	S552MNH0207XX	9.32	8.90	24.00	23.40	9.32	9.07	0.00	0.17	0.07	0.00	2.2	0.0
4587	15	432	0.003	0.013	S552MNH0207XX	S551MNH0203XX	8.90	7.70	23.40	21.50	9.03	7.84	0.13	0.14	0.11	0.08	2.8	1.1
4613	10	454	0.006	0.013	S552MNH0208XX	S552MNH0209XX	13.92	11.22	22.00	20.00	18.15	18.15	4.23	6.93	SURCHARGED	0.00	3.1	0.0
4601	10	444	0.006	0.013	S552MNH0209XX	S569MNH0206XX	11.22	8.56	20.00	18.40	18.14	18.06	6.92	9.50	SURCHARGED	0.30	3.1	0.6
3150	12	173	0.005	0.013	S552MNH0211XX	S552MNH0202XX	11.06	10.28	23.18	21.70	23.00	21.70	11.94	11.42	SURCHARGED	3.08	3.0	3.9
2850	12	102	0.003	0.013	S552MNH0212XX	S552MNH0211XX	11.37	11.06	23.40	23.18	23.83	23.07	12.46	12.01	SURCHARGED	3.08	2.5	3.9
3847	12	291	0.003	0.013	S569MNH0204XX	S569MNH0212XX	8.13	7.30	19.04	18.00	21.50	18.00	13.37	10.70	SURCHARGED	3.91	2.4	5.0
2671	12	60	0.008	0.013	S569MNH0205XX	S569MNH0212XX	7.10	6.60	18.20	18.00	18.01	18.00	10.91	11.40	SURCHARGED	0.38	4.2	0.5
3133	10	169	0.008	0.013	S569MNH0206XX	S569MNH0205XX	8.50	7.18	18.40	18.20	18.05	18.02	9.55	10.84	SURCHARGED	0.33	3.6	0.6
2927	12	124	0.002	0.013	S569MNH0209XX	S592MNH0212XX	4.18	3.93	14.50	14.00	15.86	14.00	11.68	10.07	SURCHARGED	4.35	2.0	5.5
3282	12	205	0.003	0.013	S569MNH0210XX	S569MNH0209XX	4.73	4.18	15.30	14.50	17.57	14.50	12.84	10.32	SURCHARGED	4.35	2.4	5.5
3423	12	237	0.001	0.013	S569MNH0211XX	S569MNH0210XX	5.05	4.73	17.23	15.30	18.84	15.30	13.79	10.57	SURCHARGED	4.35	1.7	5.5
3370	12	228	0.001	0.013	S569MNH0212XX	S569MNH0211XX	5.38	5.08	18.00	17.23	20.52	17.23	15.14	12.15	SURCHARGED	4.28	1.7	5.5
4409	10	365	0.003	0.013	S570MNH0201XX	S591MNH0203XX	4.12	3.20	13.30	12.10	4.33	3.63	0.21	0.43	0.38	0.15	2.0	1.4
4373	10	358	0.002	0.013	S570MNH0202XX	S570MNH0204XX	5.95	5.17	14.55	15.90	6.18	5.35	0.23	0.18	0.24	0.17	1.9	1.4
3356	10	225	0.002	0.013	S570MNH0203XX	S570MNH0202XX	6.60	6.05	15.10	14.55	6.70	6.41	0.10	0.36	0.27	0.03	2.0	0.9
2529	10	34	0.001	0.013	S570MNH0204XX	MH1_MofffetRealign	4.45	4.40	15.90	16.70	4.95	4.94	0.50	0.54	0.62	0.18	1.5	1.2
3652	12	265	0.003	0.013	S571MNH0205XX	S571MNH0209XX	3.94	3.06	11.74	12.44	4.11	3.37	0.17	0.31	0.24	0.13	2.6	1.5
4507	24	393	0.003	0.013	S571MNH0207XX	S571MNH0219XX	3.92	2.66	12.90	12.08	8.61	7.24	4.69	4.58	SURCHARGED	13.39	4.1	4.3
3833	12	297	0.003	0.013	S571MNH0208XX	S571MNH0216XX	2.20	1.22	11.55	10.72	2.50	1.49	0.30	0.27	0.29	0.41	2.6	2.0
3624	12	263	0.003	0.013	S571MNH0209XX	S571MNH0208XX	3.06	2.20	12.44	11.55	3.32	2.58	0.26	0.38	0.32	0.29	2.6	1.8
4408	42	365	0.003	0.013	S571MNH0211XX	S571MNH0216XX	0.88	-0.20	12.23	10.72	2.39	1.26	1.51	1.46	0.43	21.08	5.7	5.3

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C6 - Cumulative Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4396	42	363	0.002	0.013	S571MNH0212XX	S571MNH0211XX	1.78	1.18	13.73	12.23	3.53	2.57	1.75	1.39	0.45	20.64	4.3	4.3
4670	42	582	0.004	0.013	S571MNH0216XX	S590MNH0215XX	-0.20	-2.25	10.72	8.94	1.25	-0.44	1.45	1.81	0.47	21.49	6.2	5.7
4513	24	394	0.003	0.013	S571MNH0219XX	S590MNH0204XX	2.66	1.39	12.08	9.90	7.20	5.82	4.54	4.43	SURCHARGED	13.39	4.1	4.3
4530	10	400	0.004	0.013	S572MNH0201XX	S573MNH0212XX	2.83	1.07	10.22	9.97	2.91	1.77	0.08	0.70	0.47	0.03	2.7	1.0
3237	12	198	0.003	0.013	S572MNH0202XX	S572MNH0206XX	4.43	3.81	9.10	8.40	4.63	4.01	0.20	0.20	0.20	0.18	2.5	1.6
2550	10	38	0.003	0.013	S572MNH0203XX	S572MNH0207XX	6.40	6.29	12.40	11.15	6.40	6.29	0.00	0.00	0.00	0.00	2.2	0.0
3912	10	298	0.003	0.013	S572MNH0204XX	S549MNH0203XX	5.50	4.62	13.30	12.22	5.50	4.62	0.00	0.00	0.00	0.00	2.2	0.0
3389	12	231	0.003	0.013	S572MNH0206XX	S589MNH0211XX	3.81	3.10	8.40	7.40	4.01	3.42	0.20	0.32	0.26	0.18	2.5	1.6
3628	10	263	0.003	0.013	S572MNH0207XX	S572MNH0204XX	6.29	5.50	11.15	13.30	6.29	5.50	0.00	0.00	0.00	0.00	2.2	0.0
3232	21	196	0.004	0.013	S573MNH0201XX	S573MNH0203XX	-0.51	-1.30	10.00	10.10	0.44	-0.09	0.95	1.21	0.62	5.78	4.2	4.3
3020	21	144	0.001	0.013	S573MNH0202XX	S573MNH0213XX	-0.07	-0.21	9.00	8.25	1.43	1.24	1.50	1.45	0.84	5.74	2.1	2.4
3490	21	247	0.002	0.013	S573MNH0203XX	S588MNH0202XX	-1.30	-1.87	10.10	8.80	-0.11	-0.61	1.19	1.26	0.70	6.07	3.2	3.5
2800	10	90	0.005	0.013	S573MNH0204XX	S573MNH0203XX	1.43	0.99	9.62	10.10	1.54	1.10	0.11	0.11	0.13	0.06	2.8	1.4
2977	12	135	0.003	0.013	S573MNH0210XX	S573MNH0211XX	3.07	2.72	7.38	6.93	3.23	2.94	0.16	0.22	0.19	0.10	2.3	1.3
3883	12	296	0.003	0.013	S573MNH0211XX	S588MNH0204XX	2.72	1.97	6.93	5.98	2.94	2.26	0.22	0.29	0.25	0.19	2.3	1.5
3298	21	209	0.004	0.013	S573MNH0212XX	S573MNH0202XX	0.70	-0.07	9.97	9.00	1.73	1.47	1.03	1.54	0.73	5.73	4.0	4.2
4015	21	308	0.001	0.013	S573MNH0213XX	S573MNH0201XX	-0.21	-0.51	8.25	10.00	1.20	0.59	1.41	1.10	0.72	5.76	2.1	2.4
2694	10	63	-0.003	0.013	S573TEE1001XX	S573MNH0203XX	0.00	0.20	10.63	10.10	0.53	0.41	0.53	0.21	0.45	0.23	2.3	0.4
4017	12	308	0.003	0.013	S574MNH0202XX	S587MNH0208XX	2.90	2.12	7.04	6.39	3.07	2.34	0.17	0.22	0.20	0.12	2.3	1.3
4279	18	345	0.002	0.013	S575MNH0203XX	S586MNH0205XX	1.25	0.72	6.26	6.40	1.66	1.23	0.41	0.51	0.31	0.68	2.3	1.7
3107	10	162	0.004	0.013	S575MNH0206XX	S586MNH0205XX	1.45	0.72	6.55	6.40	1.59	1.22	0.14	0.50	0.39	0.09	2.7	1.5
3340	21	218	0.002	0.013	S586MNH0201XX	S615MNH0201XX	-0.83	-1.16	4.45	5.25	-0.35	-0.63	0.48	0.53	0.29	1.00	2.6	1.9
4275	21	358	0.002	0.013	S586MNH0202XX	S586MNH0201XX	-0.27	-0.83	4.60	4.45	0.20	-0.34	0.47	0.49	0.28	1.00	2.6	1.9
4401	21	369	0.001	0.013	S586MNH0204XX	S586TEE1003XX	0.32	0.00	5.70	6.44	0.87	0.36	0.55	0.36	0.26	1.00	1.9	1.5
3705	21	276	0.001	0.013	S586MNH0205XX	S586MNH0204XX	0.72	0.32	6.40	5.70	1.20	0.87	0.48	0.55	0.30	1.00	2.5	1.9
3715	12	273	0.002	0.013	S586MNH0209XX	S615MNH0208XX	-0.90	-1.57	3.61	2.70	-0.56	-1.24	0.34	0.33	0.33	0.43	2.3	1.9
2515	21	31	0.009	0.013	S586TEE1003XX	S586MNH0202XX	0.00	-0.27	6.44	4.60	0.36	0.21	0.36	0.48	0.24	1.00	6.1	3.5
3891	12	296	0.002	0.013	S587MNH0201XX	S614MNH0203XX	-0.34	-1.07	4.25	3.53	0.01	-0.66	0.35	0.41	0.38	0.46	2.3	1.9
4035	12	310	0.003	0.013	S587MNH0202XX	S587MNH0201XX	0.44	-0.34	5.17	4.25	0.77	0.02	0.33	0.36	0.35	0.41	2.3	1.9
4127	12	323	0.002	0.013	S587MNH0206XX	S614MNH0204XX	0.55	-0.22	4.35	3.65	0.87	0.19	0.32	0.41	0.36	0.38	2.2	1.8
4081	12	316	0.002	0.013	S587MNH0207XX	S587MNH0206XX	1.34	0.55	5.22	4.35	1.64	0.88	0.30	0.33	0.31	0.35	2.3	1.8
3920	12	298	0.003	0.013	S587MNH0208XX	S587MNH0207XX	2.12	1.34	6.39	5.22	2.33	1.65	0.21	0.31	0.26	0.18	2.3	1.5
4617	24	455	0.002	0.013	S588MNH0201XX	S613MNH0202XX	-3.02	-3.92	7.25	5.95	-1.86	-2.70	1.16	1.22	0.60	6.46	3.2	3.4
4611	21	452	0.002	0.013	S588MNH0202XX	S588MNH0201XX	-1.87	-2.77	8.80	7.25	-0.62	-1.81	1.25	0.96	0.63	6.07	2.9	3.3
4024	12	309	0.003	0.013	S588MNH0203XX	S587MNH0202XX	1.22	0.44	6.14	5.17	1.50	0.78	0.28	0.34	0.31	0.30	2.3	1.7
3937	12	300	0.003	0.013	S588MNH0204XX	S588MNH0203XX	1.97	1.22	5.98	6.14	2.25	1.50	0.28	0.28	0.28	0.30	2.3	1.7
4489	10	385	0.002	0.013	S589MNH0202XX	S590MNH0201XX	1.46	0.59	8.90	8.90	1.73	0.94	0.27	0.35	0.37	0.24	1.9	1.6
3984	10	304	0.003	0.013	S589MNH0203XX	S589MNH0202XX	2.35	1.47	9.15	8.90	2.56	1.78	0.21	0.31	0.31	0.16	2.2	1.5
3992	10	305	0.003	0.013	S589MNH0204XX	S589MNH0203XX	3.24	2.35	9.25	9.15	3.32	2.59	0.08	0.24	0.19	0.02	2.2	0.9
4287	10	347	0.002	0.013	S589MNH0204XX	S589MNH0214XX	3.24	2.54	9.25	9.60	3.33	2.67	0.09	0.13	0.13	0.02	1.8	0.0
4194	10	331	0.001	0.013	S589MNH0205XX	S573MNH0204XX	1.85	1.43	9.82	9.62	2.01	1.55	0.16	0.12	0.17	0.06	1.4	0.9
3961	12	302	0.003	0.013	S589MNH0206XX	S589MNH0207XX	2.20	1.30	8.10	7.50	2.45	1.62	0.25	0.32	0.29	0.27	2.5	1.8
3159	12	176	0.003	0.013	S589MNH0207XX	S589MNH0208XX	1.30	0.77	7.50	8.00	1.59	1.06	0.29	0.29	0.29	0.36	2.5	1.9
2916	12	122	0.003	0.013	S589MNH0208XX	S590MNH0220XX	0.77	0.38	8.00	8.02	1.06	0.76	0.29	0.38	0.33	0.36	2.6	1.9
4027	12	309	0.003	0.013	S589MNH0211XX	S589MNH0206XX	3.10	2.20	7.40	8.10	3.35	2.46	0.25	0.26	0.26	0.27	2.5	1.7
4459	10	376	0.002	0.013	S589MNH0214XX	S589MNH0205XX	2.54	1.85	9.60	9.82	2.67	2.02	0.13	0.17	0.18	0.05	1.7	0.9
3472	10	245	0.012	0.013	S590MNH0201XX	S590MNH0217XX	0.59	-2.41	8.90	8.06	0.82	-1.88	0.23	0.53	0.46	0.27	4.4	3.0
4514	24	394	0.003	0.013	S590MNH0202XX	S590MNH0218XX	0.13	-1.13	8.60	7.60	4.21	2.78	4.08	3.91	SURCHARGED	13.63	4.1	4.3
2903	24	118	0.003	0.013	S590MNH0203XX	S590MNH0202XX	0.52	0.13	8.80	8.60	4.71	4.29	4.19	4.16	SURCHARGED	13.61	4.1	4.3
3676	24	267	0.003	0.013	S590MNH0204XX	S590MNH0203XX	1.39	0.52	9.90	8.80	5.75	4.79	4.36	4.27	SURCHARGED	13.56	4.1	4.3
4188	12	338	0.003	0.013	S590MNH0213XX	S590MNH0216XX	-0.53	-1.46	7.90	8.63	-0.15	-0.64	0.38	0.82	0.60	0.57	2.4	2.1
2954	42	130	0.002	0.013	S590MNH0215XX	S590MNH0216XX	-2.20	-2.40	8.94	8.63	-0.45	-0.81	1.75	1.59	0.48	21.49	4.1	4.2
4673	42	601	0.003	0.013	S590MNH0216XX	S590MNH0217XX	-2.40	-4.04	8.63	8.06	-0.82	-1.99	1.58	2.05	0.52	22.07	5.5	5.2
4480	42	380	0.001	0.013	S590MNH0217XX	S611MNH0209XX	-4.19	-4.52	8.06	7.03	-2.00	-2.88	2.19	1.64	0.55	25.07	3.1	3.5
3341	24	406	0.003	0.013	S590MNH0218XX	S611MNH0205XX	-1.13	-2.40	7.60	6.40	2.70	1.21	3.83	3.61	SURCHARGED	13.71	4.0	4.4

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C6 - Cumulative Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
2463	18	23	0.010	0.013	S590MNH0219XX	S590MNH0217XX	-3.03	-3.25	7.79	8.06	-1.88	-1.88	1.15	1.37	0.84	2.73	5.9	4.9
3985	12	304	0.003	0.013	S590MNH0220XX	S590MNH0213XX	0.38	-0.53	8.02	7.90	0.71	-0.08	0.33	0.45	0.39	0.45	2.5	2.0
4426	12	368	0.002	0.013	S591MNH0201XX	S610MNH0208XX	1.39	0.66	10.60	9.40	1.81	1.43	0.42	0.77	0.59	0.57	2.0	1.9
4644	12	504	0.001	0.013	S591MNH0202XX	S591MNH0201XX	2.12	1.39	10.90	10.60	2.49	1.88	0.37	0.49	0.43	0.40	1.7	1.5
3388	10	231	0.004	0.013	S591MNH0203XX	S591MNH0202XX	3.20	2.29	12.10	10.90	3.49	2.55	0.29	0.26	0.33	0.36	2.5	2.1
4447	12	371	0.002	0.013	S592MNH0212XX	S592MNH0214XX	3.93	3.04	14.00	13.19	18.74	13.19	14.81	10.15	SURCHARGED	4.35	2.2	5.5
3056	12	154	0.001	0.013	S592MNH0214XX	S592MNH0215XX	3.03	2.88	13.19	12.80	15.24	12.80	12.21	9.92	SURCHARGED	4.49	1.4	5.7
2989	12	137	0.002	0.013	S592MNH0215XX	S592MNH0216XX	2.88	2.63	12.80	12.92	15.56	12.92	12.68	10.29	SURCHARGED	4.94	1.9	6.3
2818	12	94	0.002	0.013	S592MNH0216XX	S592MNH0217XX	2.63	2.46	12.92	12.10	13.90	12.10	11.27	9.64	SURCHARGED	4.94	1.9	6.3
4450	12	372	0.002	0.013	S592MNH0217XX	S609MNH0206XX	2.46	1.71	12.10	11.33	18.48	11.33	16.02	9.62	SURCHARGED	4.94	2.0	6.3
4053	12	313	0.001	0.013	S609MNH0206XX	S609MNH0207XX	1.56	1.12	11.33	10.00	16.50	10.00	14.94	8.88	SURCHARGED	5.13	1.7	6.5
2670	12	60	0.003	0.013	S609MNH0207XX	S609MNH0208XX	1.12	0.97	10.00	10.31	11.55	10.31	10.43	9.34	SURCHARGED	5.13	2.3	6.5
4491	12	386	0.003	0.013	S609MNH0208XX	S610MNH0203XX	0.97	0.00	10.31	10.60	15.23	7.22	14.26	7.22	SURCHARGED	5.13	2.3	6.5
2676	12	60	0.000	0.013	S610MNH0203XX	S610MNH0205XX	0.00	0.00	10.60	9.91	6.43	5.18	6.43	5.18	SURCHARGED	5.13	0.1	6.5
2698	18	63	0.032	0.013	S610MNH0204XX	S610MNH0205XX	3.00	1.00	9.00	9.91	4.91	4.90	1.91	3.90	SURCHARGED	1.83	10.6	1.0
4485	18	385	0.001	0.013	S610MNH0205XX	S610MNH0209XX	2.50	2.23	9.91	10.20	3.39	2.92	0.89	0.69	0.53	1.99	1.6	0.0
4640	18	494	0.003	0.013	S610MNH0205XX	S631MNH0203XX	-0.50	-1.94	9.91	7.84	4.70	3.55	5.20	5.49	SURCHARGED	5.06	3.2	2.9
3784	10	280	0.002	0.013	S610MNH0206XX	S631MNH0206XX	2.00	1.34	8.36	7.38	3.95	3.94	1.95	2.60	SURCHARGED	0.12	2.0	0.2
4392	18	366	0.001	0.013	S610MNH0207XX	S611MNH0201XX	0.23	-0.08	9.00	8.20	1.25	0.78	1.02	0.86	0.63	2.68	1.7	2.0
3172	12	180	0.002	0.013	S610MNH0208XX	S610MNH0207XX	0.56	0.23	9.40	9.00	1.35	1.30	0.79	1.07	0.93	0.64	1.9	1.9
4512	18	396	0.002	0.013	S610MNH0209XX	S610MNH0210XX	2.23	1.46	10.20	9.30	2.92	2.07	0.69	0.61	0.43	1.99	2.6	2.5
4479	18	381	0.003	0.013	S610MNH0210XX	S610MNH0207XX	1.46	0.23	9.30	9.00	2.06	1.34	0.60	1.11	0.57	1.99	3.4	3.0
2706	18	65	0.002	0.013	S611MNH0201XX	S611MNH0202XX	-0.08	-0.21	8.20	8.20	0.77	0.67	0.85	0.88	0.58	2.68	2.7	2.8
4253	18	344	0.002	0.013	S611MNH0202XX	S611MNH0203XX	-0.21	-0.79	8.20	9.20	0.65	-0.05	0.86	0.74	0.53	2.68	2.4	2.6
4556	18	411	0.005	0.013	S611MNH0203XX	S590MNH0219XX	-0.79	-3.03	9.20	7.79	-0.16	-1.87	0.63	1.16	0.60	2.73	4.4	4.0
4506	24	393	0.003	0.013	S611MNH0205XX	S611MNH0206XX	-2.40	-3.69	6.40	5.10	1.12	-0.33	3.52	3.36	SURCHARGED	13.76	4.1	4.4
3314	24	213	0.002	0.013	S611MNH0206XX	S611MNH0208XX	-3.69	-4.19	5.10	5.09	-0.36	-1.15	3.33	3.04	SURCHARGED	13.76	3.5	4.4
4484	24	383	0.003	0.013	S611MNH0207XX	S630MNH0205XX	-4.91	-6.17	4.20	5.59	-1.90	-3.31	3.01	2.86	SURCHARGED	13.76	4.1	4.4
3207	24	187	0.004	0.013	S611MNH0208XX	S611MNH0207XX	-4.19	-4.91	5.09	4.20	-1.18	-1.87	3.01	3.04	SURCHARGED	13.76	4.5	4.4
4558	42	412	0.003	0.013	S611MNH0209XX	S611MNH0210XX	-4.52	-5.91	7.03	5.87	-2.92	-4.06	1.60	1.85	0.49	25.14	6.1	5.8
2462	10	23	0.000	0.013	S611MNH0210XX	S611MNH0208XX	0.00	0.00	5.87	5.09	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0
4678	42	620	0.002	0.013	S611MNH0210XX	S630MNH0209XX	-5.91	-7.31	5.87	5.52	-4.07	-5.66	1.84	1.65	0.50	25.98	5.0	5.1
3491	10	248	0.002	0.013	S611MNH0214XX	S630MNH0213XX	-2.40	-2.87	5.50	5.52	-2.23	-2.60	0.17	0.27	0.26	0.08	1.8	1.1
4022	10	309	0.003	0.013	S612CLN1001XX	S612MNH0203XX	2.20	1.35	4.37	5.37	2.54	1.72	0.34	0.37	0.43	0.39	2.1	1.9
4169	10	339	0.003	0.013	S612MNH0201XX	S611MNH0210XX	-1.98	-2.88	5.33	5.87	-1.44	-2.47	0.54	0.41	0.57	0.84	2.1	2.3
3915	10	298	0.003	0.013	S612MNH0202XX	S612MNH0201XX	-1.08	-1.98	5.76	5.33	-0.60	-1.29	0.48	0.69	0.70	0.76	2.2	2.3
3864	10	294	0.008	0.013	S612MNH0203XX	S612MNH0202XX	1.35	-1.08	5.37	5.76	1.67	-0.47	0.32	0.61	0.56	0.53	3.7	3.1
3427	24	238	0.002	0.013	S613MNH0201XX	S613MNH0203XX	-4.82	-5.35	4.45	3.10	-3.62	-3.95	1.20	1.40	0.65	6.72	3.4	3.6
4608	24	450	0.002	0.013	S613MNH0202XX	S613MNH0201XX	-3.92	-4.82	5.95	4.45	-2.74	-3.58	1.18	1.24	0.61	6.58	3.2	3.4
3319	24	214	0.002	0.013	S613MNH0203XX	S613MNH0208XX	-5.35	-5.72	3.10	3.20	-3.98	-4.33	1.37	1.39	0.69	7.50	3.0	3.3
4047	12	312	0.003	0.013	S613MNH0204XX	S613MNH0203XX	-3.37	-4.44	3.42	3.10	-2.96	-3.89	0.41	0.55	0.48	0.75	2.7	2.4
2375	24	12	0.008	0.013	S613MNH0208XX	S613TEE1001XX	-5.72	-5.82	3.20	2.66	-4.37	-4.36	1.35	1.46	0.70	7.69	6.5	6.1
4584	24	427	0.002	0.013	S613TEE1001XX	S628MNH0207XX	-5.82	-6.49	2.66	2.88	-4.37	-4.98	1.45	1.51	0.74	7.69	2.9	3.2
4069	12	315	0.000	0.013	S614MNH0201XX	S613MNH0204XX	-3.31	-3.37	3.31	3.42	-2.57	-2.95	0.74	0.42	0.58	0.75	0.6	1.0
3983	12	304	0.005	0.013	S614MNH0202XX	S614MNH0201XX	-1.82	-3.31	3.70	3.31	-1.44	-2.57	0.38	0.74	0.56	0.75	3.2	2.8
3924	12	299	0.003	0.013	S614MNH0203XX	S614MNH0202XX	-1.07	-1.82	3.53	3.70	-0.69	-1.13	0.38	0.69	0.54	0.56	2.3	2.0
3840	12	290	0.002	0.013	S614MNH0204XX	S586MNH0209XX	-0.22	-0.90	3.65	3.61	0.12	-0.54	0.34	0.36	0.35	0.43	2.2	1.8
4627	21	471	0.002	0.013	S615MNH0201XX	S615MNH0202XX	-1.16	-1.88	5.25	4.85	-0.67	-1.40	0.49	0.48	0.28	1.08	2.6	1.9
3850	21	293	0.002	0.013	S615MNH0202XX	S615MNH0210XX	-1.88	-2.40	4.85	4.80	-1.41	-2.03	0.47	0.37	0.24	1.08	2.8	2.0
2690	21	62	0.000	0.013	S615MNH0203XX	S615MNH0204XX	-5.20	-5.20	5.00	4.88	-2.28	-2.28	2.92	2.92	SURCHARGED	1.64	0.1	0.7
4620	39	458	0.002	0.013	S615MNH0204XX	S627MNH0202XX	-5.92	-6.69	4.88	10.90	-2.43	-3.06	3.49	3.63	SURCHARGED	30.57	4.1	3.7
3857	39	294	0.002	0.013	S615MNH0206XX	S615MNH0204XX	-5.37	-5.92	2.00	4.88	-2.05	-2.41	3.32	3.51	SURCHARGED	28.93	4.3	3.5
3619	12	262	0.003	0.013	S615MNH0207XX	S615MNH0210XX	-2.30	-3.00	2.20	4.80	-1.97	-2.23	0.33	0.77	0.55	0.43	2.3	1.9
3671	12	267	0.003	0.013	S615MNH0208XX	S615MNH0207XX	-1.57	-2.30	2.70	2.20	-1.24	-1.97	0.33	0.33	0.33	0.43	2.4	1.9
3087	21	160	0.011	0.013	S615MNH0210XX	S615MNH0203XX	-3.38	-5.20	4.80	5.00	-2.23	-2.24	1.15	2.96	SURCHARGED	1.50	7.0	4.3

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C6 - Cumulative Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4694	39	709	0.001	0.013	S627MNH0201XX	S628MNH0206XX	-7.54	-8.36	3.60	3.43	-4.13	-5.10	3.41	3.26	SURCHARGED	30.57	3.4	3.7
4697	39	757	0.001	0.013	S627MNH0202XX	S627MNH0201XX	-6.69	-7.54	10.90	3.60	-3.07	-4.11	3.62	3.43	SURCHARGED	30.57	3.3	3.7
2783	10	85	0.005	0.013	S628MNH0201XX	S628MNH0209XX	-5.87	-6.31	3.70	4.02	-5.48	-5.49	0.39	0.82	0.73	0.23	2.9	2.1
3029	10	146	0.006	0.013	S628MNH0205XX	S628MNH0201XX	-4.54	-5.46	5.25	3.70	-4.33	-5.25	0.21	0.21	0.25	0.23	3.2	2.2
3395	39	231	0.001	0.013	S628MNH0206XX	S628MNH0209XX	-8.36	-8.59	3.43	4.02	-5.22	-5.69	3.14	2.90	0.93	38.26	3.1	4.6
2537	24	36	0.006	0.013	S628MNH0207XX	S628MNH0206XX	-6.49	-6.71	2.88	3.43	-4.99	-5.00	1.50	1.71	0.80	7.69	5.7	5.5
2578	39	43	0.008	0.013	S628MNH0209XX	S628MNH0210XX	-8.59	-8.94	4.02	4.30	-5.73	-5.76	2.86	3.18	0.93	38.49	9.0	9.1
2479	48	27	0.003	0.013	S628MNH0210XX	S628MNH0211XX	-8.94	-9.01	4.30	4.40	-5.79	-5.81	3.15	3.20	0.79	38.49	5.9	5.9
4637	48	487	0.001	0.013	S628MNH0211XX	S628MNH0212XX	-9.01	-9.46	4.40	3.70	-5.82	-6.17	3.19	3.29	0.81	38.49	3.5	3.9
3683	48	268	0.001	0.013	S628MNH0212XX	S629MNH0213XX	-9.46	-9.71	3.70	3.30	-6.18	-6.37	3.28	3.34	0.83	38.49	3.5	3.9
4295	10	346	0.006	0.013	S628MNH0213XX	S628TEE1001XX	-2.13	-4.13	5.10	5.18	-1.93	-3.93	0.20	0.20	0.24	0.21	3.1	2.1
2442	10	21	0.006	0.013	S628TEE1001XX	S628MNH0205XX	-4.13	-4.25	5.18	5.25	-3.93	-4.05	0.20	0.20	0.24	0.21	3.1	2.1
2391	10	14	0.001	0.013	S629MNH0201XX	S629MNH0210XX	-1.47	-1.49	3.99	4.05	-1.22	-1.25	0.25	0.24	0.29	0.16	1.5	1.2
4496	10	389	0.004	0.013	S629MNH0201XX	S629MNH0209XX	-1.16	-2.57	3.99	5.60	-1.16	-2.50	0.00	0.07	0.04	0.00	2.4	0.0
2804	10	92	0.012	0.013	S629MNH0202XX	S629MNH0201XX	-0.40	-1.47	4.50	3.99	-0.23	-1.22	0.17	0.25	0.26	0.16	4.3	2.5
3203	10	187	0.004	0.013	S629MNH0203XX	S629MNH0202XX	0.34	-0.40	5.26	4.50	0.53	-0.21	0.19	0.19	0.23	0.16	2.5	1.7
2453	48	22	0.001	0.013	S629MNH0204XX	S629MNH0214XX	-10.71	-10.73	4.70	5.30	-7.77	-7.79	2.94	2.94	0.73	38.49	3.5	3.9
2582	30	49	0.000	0.013	S629MNH0205XX	S629MNH0204XX	-10.69	-10.71	4.60	4.70	-7.15	-7.26	3.54	3.45	SURCHARGED	19.24	1.7	0.0
2581	30	49	0.000	0.013	S629MNH0205XX	S629MNH0204XX	-10.69	-10.71	4.60	4.70	-7.41	-7.52	3.28	3.19	SURCHARGED	19.24	1.7	3.9
4384	10	360	0.006	0.013	S629MNH0208XX	S629MNH0218XX	-3.93	-6.00	4.50	3.10	-3.81	-5.88	0.12	0.12	0.14	0.07	3.1	1.5
4487	10	385	0.004	0.013	S629MNH0209XX	S629MNH0208XX	-2.57	-3.93	5.60	4.50	-2.50	-3.77	0.07	0.16	0.14	0.02	2.4	0.9
4431	10	371	0.002	0.013	S629MNH0210XX	S628MNH0213XX	-1.49	-2.13	4.05	5.10	-1.25	-1.85	0.24	0.28	0.31	0.16	1.7	1.3
4696	48	752	0.001	0.013	S629MNH0211XX	S629MNH0224XX	-10.04	-10.67	4.10	3.40	-6.67	-7.16	3.37	3.51	0.86	38.49	3.3	3.8
3155	48	175	0.001	0.013	S629MNH0212XX	S629MNH0211XX	-9.87	-10.04	3.40	4.10	-6.54	-6.65	3.33	3.39	0.84	38.49	3.6	4.0
3196	48	186	0.001	0.013	S629MNH0213XX	S629MNH0212XX	-9.71	-9.87	3.30	3.40	-6.39	-6.52	3.32	3.35	0.83	38.49	3.4	3.8
4538	48	402	0.001	0.013	S629MNH0214XX	S652MNH0215XX	-10.73	-11.08	5.30	7.10	-7.87	-8.29	2.86	2.79	0.71	38.49	3.4	3.8
2532	33	36	0.003	0.013	S629MNH0216XX	S629MNH0218XX	-8.99	-9.10	3.06	3.10	-7.27	-7.29	1.72	1.81	0.64	13.04	4.9	0.0
2924	33	127	0.003	0.013	S629MNH0216XX	S629MNH0217XX	-8.99	-9.31	3.06	3.88	-7.47	-7.59	1.52	1.72	0.59	13.04	4.5	4.5
4651	42	517	0.004	0.013	S629MNH0217XX	S652MNH0225XX	-9.31	-11.36	3.88	8.62	-7.73	-8.05	1.58	3.31	0.70	26.19	6.6	6.3
2796	33	91	0.002	0.013	S629MNH0218XX	S629MNH0217XX	-9.10	-9.31	3.10	3.88	-7.51	-7.60	1.59	1.71	0.60	13.14	4.3	4.3
3182	10	182	0.004	0.013	S629MNH0223XX	S629MNH0203XX	1.07	0.34	4.82	5.26	1.25	0.56	0.18	0.22	0.24	0.15	2.6	1.7
2454	48	22	0.001	0.013	S629MNH0224XX	S629MNH0205XX	-10.67	-10.69	3.40	4.60	-7.25	-7.27	3.42	3.42	0.86	38.49	3.5	3.9
3313	10	213	0.003	0.013	S630MNH0201XX	S630MNH0204XX	-4.55	-5.21	4.70	3.70	-3.71	-3.75	0.84	1.46	SURCHARGED	0.30	2.2	0.5
2978	24	135	0.004	0.013	S630MNH0202XX	S630MNH0210XX	-7.43	-7.94	5.10	5.00	-4.89	-5.41	2.54	2.53	SURCHARGED	14.06	4.4	4.5
3246	24	199	0.000	0.013	S630MNH0203XX	S630MNH0202XX	-7.37	-7.43	3.72	5.10	-4.09	-4.86	3.28	2.57	SURCHARGED	14.06	1.3	4.5
3129	10	169	0.004	0.013	S630MNH0204XX	S630MNH0203XX	-5.21	-5.87	3.70	3.72	-3.75	-3.78	1.46	2.09	SURCHARGED	0.30	2.5	0.5
3231	24	195	0.006	0.013	S630MNH0205XX	S630MNH0203XX	-6.17	-7.37	5.59	3.72	-3.34	-4.06	2.83	3.31	SURCHARGED	13.76	5.7	4.4
4604	42	444	0.004	0.013	S630MNH0209XX	S629MNH0216XX	-7.31	-8.92	5.52	3.06	-5.70	-7.35	1.61	1.57	0.45	26.09	6.3	6.1
3599	24	260	0.003	0.013	S630MNH0210XX	S652MNH0209XX	-7.94	-8.69	5.00	2.69	-5.45	-6.46	2.49	2.23	SURCHARGED	14.06	3.9	4.5
3795	10	282	0.003	0.013	S630MNH0211XX	S630MNH0201XX	-3.70	-4.55	4.00	4.70	-3.44	-3.63	0.26	0.92	0.71	0.26	2.2	1.8
2397	10	15	0.005	0.013	S630MNH0212XX	S630MNH0211XX	-3.63	-3.70	4.00	4.00	-3.11	-3.11	0.52	0.59	0.66	0.21	2.8	1.9
3608	10	261	0.003	0.013	S630MNH0213XX	S630MNH0212XX	-2.87	-3.63	5.52	4.00	-2.65	-3.06	0.22	0.57	0.47	0.17	2.2	1.6
2633	10	54	0.121	0.013	S630TEE1001XX	S630MNH0210XX	0.00	-6.54	5.01	5.00	0.00	-5.19	0.00	1.35	0.81	0.00	14.0	0.0
3807	18	284	0.000	0.013	S631MNH0201XX	S631MNH0208XX	-3.10	-3.24	6.00	5.20	2.65	1.84	5.75	5.08	SURCHARGED	5.64	1.3	3.2
2914	18	121	0.001	0.013	S631MNH0202XX	S631MNH0201XX	-3.02	-3.10	6.48	6.00	3.08	2.76	6.10	5.86	SURCHARGED	5.40	1.5	3.1
3171	18	179	0.006	0.013	S631MNH0203XX	S631MNH0202XX	-1.94	-3.02	7.84	6.48	3.53	3.11	5.47	6.13	SURCHARGED	5.06	4.6	2.9
3674	12	277	0.002	0.013	S631MNH0206XX	S631MNH0207XX	1.34	0.73	7.38	7.30	3.93	3.92	2.59	3.19	SURCHARGED	0.27	2.1	0.3
3831	12	293	0.002	0.013	S631MNH0207XX	S631MNH0210XX	0.73	0.09	7.30	8.22	3.92	3.90	3.19	3.81	SURCHARGED	0.27	2.1	0.3
4641	18	497	0.001	0.013	S631MNH0208XX	S650MNH0207XX	-3.24	-3.67	5.20	8.30	1.79	0.36	5.03	4.03	SURCHARGED	5.64	1.8	3.2
3966	12	302	0.002	0.013	S631MNH0209XX	S631MNH0202XX	-0.57	-1.23	8.50	6.48	3.87	3.84	4.44	5.07	SURCHARGED	0.34	2.1	0.4
4007	12	307	0.002	0.013	S631MNH0210XX	S631MNH0209XX	0.09	-0.57	8.22	8.50	3.90	3.87	3.81	4.44	SURCHARGED	0.31	2.1	0.4
4108	27	320	0.001	0.013	S648MNH0201XX	S649MNH0206XX	0.08	-0.24	9.50	8.90	0.92	0.60	0.84	0.84	0.37	2.89	2.5	2.1
4107	27	320	0.001	0.013	S648MNH0202XX	S648MNH0201XX	0.40	0.08	10.20	9.50	1.24	0.92	0.84	0.84	0.37	2.89	2.5	2.1
4494	27	387	0.001	0.013	S649MNH0201XX	S650MNH0201XX	-1.13	-1.52	7.90	8.10	-0.29	-0.69	0.84	0.83	0.37	2.89	2.5	2.2
3534	27	253	0.001	0.013	S649MNH0204XX	S649MNH0201XX	-0.88	-1.13	7.90	7.90	-0.04	-0.29	0.84	0.84	0.37	2.89	2.5	2.1

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C6 - Cumulative Evaluation Pipe Results - PWWF

Pipe ID	Pipe Diameter	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [1]	Velocity [2]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4116	27	321	0.001	0.013	S649MNH0205XX	S649MNH0204XX	-0.56	-0.88	7.90	7.90	0.28	-0.04	0.84	0.84	0.37	2.89	2.5	2.1
4104	27	320	0.001	0.013	S649MNH0206XX	S649MNH0205XX	-0.24	-0.56	8.90	7.90	0.60	0.28	0.84	0.84	0.37	2.89	2.5	2.1
3781	27	280	0.001	0.013	S650MNH0201XX	S650MNH0202XX	-1.52	-1.80	8.10	7.00	-0.70	-1.22	0.82	0.58	0.31	2.89	2.5	2.1
2421	27	18	0.032	0.013	S650MNH0202XX	S650MNH0205XX	-1.80	-2.38	7.00	7.00	-1.23	-1.58	0.57	0.80	0.31	2.89	14.0	7.4
4680	36	629	0.000	0.013	S650MNH0203XX	S650MNH0210XX	-5.71	-5.96	3.87	4.13	-4.80	-5.41	0.91	0.55	0.24	2.89	1.9	1.5
3146	36	173	0.019	0.013	S650MNH0204XX	S650MNH0203XX	-2.45	-5.71	3.45	3.87	-1.92	-4.79	0.53	0.92	0.24	2.89	13.0	5.9
2835	27	99	0.001	0.013	S650MNH0205XX	S650MNH0204XX	-2.38	-2.45	7.00	3.45	-1.58	-1.88	0.80	0.57	0.31	2.89	2.1	1.9
4597	18	448	0.002	0.013	S650MNH0206XX	S650MNH0209XX	-3.89	-4.65	8.60	6.40	-1.60	-2.90	2.29	1.75	SURCHARGED	5.65	2.5	3.2
2714	18	67	0.003	0.013	S650MNH0207XX	S650MNH0206XX	-3.67	-3.89	8.30	8.60	0.33	0.13	4.00	4.02	SURCHARGED	5.64	3.4	3.2
4618	18	455	0.002	0.013	S650MNH0209XX	S651MNH0201XX	-4.65	-5.41	6.40	4.50	-2.91	-4.26	1.74	1.15	0.96	5.65	2.4	3.2
2959	36	131	0.005	0.013	S650MNH0210XX	S650MNH0211XX	-5.96	-6.67	4.13	3.90	-5.42	-6.12	0.54	0.55	0.18	2.98	7.0	3.8
4661	36	538	0.005	0.013	S650MNH0211XX	S651MNH0202XX	-6.67	-9.58	3.90	9.72	-6.13	-7.84	0.54	1.74	0.38	3.02	6.9	3.8
2378	33	13	0.141	0.013	S650MNH0215XX	S650MNH0204XX	-0.65	-2.45	6.94	3.45	-0.65	-1.90	0.00	0.55	0.10	0.00	33.4	0.0
2362	18	11	0.062	0.013	S650TEE1001XX	S650MNH0215XX	0.00	-0.65	5.62	6.94	0.00	-0.65	0.00	0.00	0.00	0.00	14.8	0.0
4602	18	444	0.003	0.013	S651MNH0201XX	S651MNH0203XX	-5.41	-6.93	4.50	10.92	-4.28	-6.01	1.13	0.92	0.68	5.65	3.5	4.0
2505	36	30	0.001	0.013	S651MNH0202XX	S651MNH0203XX	-9.58	-9.61	9.72	10.92	-7.87	-7.87	1.71	1.74	0.58	3.06	3.0	2.1
4630	36	478	0.001	0.013	S651MNH0203XX	S651MNH0205XX	-9.61	-10.03	10.92	8.47	-7.87	-8.02	1.74	2.01	0.63	8.72	2.8	2.7
3014	36	143	0.001	0.013	S651MNH0205XX	S651MNH0211XX	-9.60	-9.77	8.47	9.00	-8.06	-8.12	1.54	1.65	0.53	8.72	3.3	3.0
2883	33	111	0.001	0.013	S651MNH0208XX	S651MNH0210XX	-10.16	-10.27	1.59	1.22	-8.31	-8.35	1.85	1.92	0.69	8.72	2.8	2.8
4375	18	358	0.001	0.013	S651MNH0209XX	S652MNH0207XX	-6.03	-6.44	4.18	5.63	-6.03	-6.44	0.00	0.00	0.00	0.00	2.0	0.0
3360	33	221	0.001	0.013	S651MNH0210XX	S652MNH0208XX	-10.27	-10.55	1.22	3.20	-8.36	-8.42	1.91	2.13	0.74	8.72	3.2	3.1
2350	18	8	0.012	0.013	S651MNH0211XX	00_S651MNH0211XX	-5.34	-5.44	9.00	10.76	-5.34	-5.44	0.00	0.00	0.00	0.00	6.6	0.0
4467	33	376	0.001	0.013	S651MNH0211XX	S651MNH0208XX	-9.77	-10.16	9.00	1.59	-8.13	-8.30	1.64	1.86	0.64	8.72	2.9	2.9
2713	48	72	0.011	0.013	S652MNH0202XX	S652MNH0211XX	-14.10	-14.90	6.16	5.81	-13.00	-13.56	1.10	1.34	0.30	14.06	12.0	7.5
2562	48	40	0.004	0.013	S652MNH0203XX	S652MNH0214XX	-11.45	-11.61	7.80	9.74	-9.60	-9.79	1.85	1.82	0.46	38.49	7.2	6.9
2637	39	55	0.004	0.013	S652MNH0204XX	S652MNH0214XX	-11.54	-11.78	6.85	9.74	-9.65	-9.91	1.89	1.87	0.58	34.90	6.6	7.0
2356	33	10	0.064	0.013	S652MNH0205XX	S652MNH0204XX	-10.90	-11.54	6.68	6.85	-8.93	-9.28	1.97	2.26	0.77	34.90	22.5	19.0
2716	24	68	0.020	0.013	S652MNH0207XX	S652MNH0202XX	-10.15	-11.50	5.63	6.16	-8.80	-10.54	1.35	0.96	0.58	14.06	10.2	9.8
2569	33	45	0.003	0.013	S652MNH0208XX	S652MNH0225XX	-10.55	-10.70	3.20	8.62	-8.43	-8.44	2.12	2.26	0.80	8.72	5.1	4.4
4198	24	362	0.002	0.013	S652MNH0209XX	S652MNH0207XX	-8.69	-9.50	2.69	5.63	-6.50	-8.15	2.19	1.35	0.89	14.06	3.4	4.5
4728	48	14	0.000	0.013	S652MNH0211XX	WPCP	-14.90	-14.90	5.81	0.00	-13.65	-13.80	1.25	1.10	0.29	14.06	0.1	1.1
2618	48	51	0.016	0.013	S652MNH0214XX	S652MNH0212XX	-14.10	-14.90	9.74	5.89	-11.51	-11.79	2.59	3.11	0.71	73.39	14.3	13.6
2459	48	24	0.015	0.013	S652MNH0215XX	S652MNH0203XX	-11.08	-11.45	7.10	7.80	-7.00	-7.00	4.08	4.45	SURCHARGED	19.24	14.1	0.0
2458	48	25	0.015	0.013	S652MNH0215XX	S652MNH0203XX	-11.08	-11.45	7.10	7.80	-8.31	-8.30	2.77	3.15	SURCHARGED	19.24	14.0	9.2
2443	33	21	0.010	0.013	S652MNH0225XX	S652MNH0205XX	-10.70	-10.90	8.62	6.68	-8.48	-8.46	2.22	2.44	0.85	34.90	8.8	9.4
4105	27	320	0.001	0.013	S673MNH0201XX	S648MNH0202XX	0.72	0.40	10.80	10.20	1.56	1.24	0.84	0.84	0.37	2.89	2.5	2.1
4531	21	400	0.002	0.013	S673MNH0202XX	S673MNH0201XX	2.12	1.32	12.00	10.80	2.90	1.94	0.78	0.62	0.40	2.89	3.0	2.8
4529	21	400	0.002	0.013	S674MNH0201XX	S673MNH0202XX	2.92	2.12	12.30	12.00	3.70	2.91	0.78	0.79	0.45	2.89	3.0	2.8
4439	21	370	0.002	0.013	S674MNH0202XX	S674MNH0201XX	3.56	2.92	12.60	12.30	4.09	3.73	0.53	0.81	0.38	1.33	2.7	2.1
4727	48	14	0.000	0.013	S652MNH0212XX	WPCP	-14.90	-14.90	5.89	0.00	-12.02	-12.31	2.88	2.59	0.68	73.39	0.1	5.8

Notes:
1. Half full velocity is determined per Manning's equation assuming no backwater conditions downstream.
2. Velocity as indicated by the model at the specified d/D.

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C7 - Cumulative Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
00_S651MNH0211XX	10.76	-5.75	16.51	0.00	-5.75	0.00	0.00
MH1_MofffetRealign	16.70	4.40	12.30	0.00	4.62	0.22	0.18
MH2_MoffetRealign	16.10	3.99	12.11	0.03	4.21	0.22	0.21
MH3_MoffetRealign	14.95	2.98	11.97	0.18	3.28	0.30	0.39
MH4_MoffetRealign	15.30	2.55	12.75	0.03	2.86	0.31	0.41
MH5_MoffetRealign	13.40	1.99	11.41	0.00	2.58	0.59	0.41
S529MNH0207XX	28.30	13.00	15.30	2.94	13.81	0.81	2.94
S529MNH0208XX	24.30	12.13	12.17	0.02	12.91	0.78	2.96
S549MNH0201XX	14.40	1.51	12.89	5.70	2.47	0.96	5.70
S549MNH0203XX	12.22	3.79	8.43	0.00	3.88	0.09	0.03
S549MNH0217XX	12.22	4.67	7.55	0.03	4.76	0.09	0.03
S550MNH0201XX	16.49	1.59	14.90	0.20	4.00	2.41	20.64
S550MNH0202XX	17.27	10.07	7.20	0.00	11.55	1.48	20.20
S550MNH0203XX	18.30	6.40	11.90	0.00	7.89	1.49	13.39
S550MNH0204XX	18.40	6.66	11.74	0.00	8.17	1.51	13.39
S550MNH0205XX	18.25	4.60	13.65	0.00	4.88	0.28	0.14
S550MNH0207XX	20.00	11.04	8.96	20.20	13.06	2.02	20.20
S550MNH0210XX	20.80	9.39	11.41	13.39	10.66	1.27	13.39
S550MNH0217XX	14.80	6.42	8.38	0.00	6.55	0.13	0.06
S550MNH0218XX	15.45	5.46	9.99	0.00	5.60	0.14	0.06
S550MNH0220XX	16.40	5.18	11.22	0.00	6.65	1.47	13.39
S550MNH0221XX	17.32	3.65	13.67	0.11	4.07	0.42	0.24
S550MNH0222XX	13.90	7.31	6.59	0.06	7.44	0.13	0.06
S550MNH0223XX	17.92	10.62	7.30	0.00	12.57	1.95	20.20
S550MNH0225XX	16.80	1.60	15.20	0.00	3.99	2.39	20.64
S550MNH0226XX	17.72	4.31	13.41	0.00	4.48	0.17	0.14
S551MNH0203XX	21.50	7.70	13.80	0.00	7.84	0.14	0.08
S551MNH0204XX	22.25	6.62	15.63	0.00	6.75	0.13	0.08
S551MNH0205XX	20.20	5.66	14.54	0.00	5.80	0.14	0.08
S552MNH0201XX	20.19	9.14	11.05	0.01	9.91	0.77	3.14
S552MNH0202XX	21.70	9.80	11.90	0.05	10.61	0.81	3.13
S552MNH0203XX	25.50	10.84	14.66	0.09	11.64	0.80	3.08
S552MNH0204XX	25.40	11.13	14.27	0.03	12.03	0.90	2.99
S552MNH0206XX	24.00	9.32	14.68	0.00	9.32	0.00	0.00
S552MNH0207XX	23.40	8.90	14.50	0.08	9.03	0.13	0.08
S552MNH0208XX	22.00	13.92	8.08	0.00	13.92	0.00	0.00
S552MNH0209XX	20.00	11.22	8.78	0.30	11.46	0.24	0.30
S552MNH0211XX	23.18	10.28	12.90	0.00	11.09	0.81	3.08
S552MNH0212XX	23.40	10.56	12.84	0.00	11.36	0.80	3.08
S569MNH0204XX	19.04	7.50	11.54	0.77	8.42	0.92	3.91
S569MNH0205XX	18.20	7.10	11.10	0.05	7.35	0.25	0.38
S569MNH0206XX	18.40	8.50	9.90	0.03	8.74	0.24	0.33
S569MNH0209XX	14.50	4.11	10.39	0.00	5.12	1.01	4.35
S569MNH0210XX	15.30	4.50	10.80	0.00	5.51	1.01	4.35
S569MNH0211XX	17.23	4.95	12.28	0.07	5.96	1.01	4.35
S569MNH0212XX	18.00	5.70	12.30	0.00	6.54	0.84	4.28

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C7 - Cumulative Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S570MNH0201XX	13.30	4.12	9.18	0.15	4.33	0.21	0.15
S570MNH0202XX	14.55	5.95	8.60	0.14	6.18	0.23	0.17
S570MNH0203XX	15.10	6.60	8.50	0.03	6.70	0.10	0.03
S570MNH0204XX	15.90	4.45	11.45	0.01	4.70	0.25	0.18
S571MNH0205XX	11.74	3.94	7.80	0.13	4.11	0.17	0.13
S571MNH0207XX	12.90	3.92	8.98	0.00	5.39	1.47	13.39
S571MNH0208XX	11.55	2.20	9.35	0.12	2.50	0.30	0.41
S571MNH0209XX	12.44	3.06	9.38	0.16	3.32	0.26	0.29
S571MNH0211XX	12.23	0.88	11.35	0.03	2.39	1.51	21.08
S571MNH0212XX	13.73	1.78	11.95	0.00	3.53	1.75	20.64
S571MNH0216XX	10.72	-0.20	10.92	0.00	1.25	1.45	21.49
S571MNH0219XX	12.08	2.66	9.42	0.00	4.13	1.47	13.39
S572MNH0201XX	10.22	2.83	7.39	0.00	2.91	0.08	0.03
S572MNH0202XX	9.10	4.43	4.67	0.18	4.63	0.20	0.18
S572MNH0203XX	12.40	6.40	6.00	0.00	6.40	0.00	0.00
S572MNH0204XX	13.30	5.50	7.80	0.00	5.50	0.00	0.00
S572MNH0206XX	8.40	3.81	4.59	0.00	4.01	0.20	0.18
S572MNH0207XX	11.15	6.29	4.86	0.00	6.29	0.00	0.00
S573MNH0201XX	10.00	-0.69	10.69	0.01	0.47	1.16	5.78
S573MNH0202XX	9.00	0.26	8.74	0.01	1.46	1.20	5.74
S573MNH0203XX	10.10	-1.30	11.40	0.00	-0.11	1.19	6.07
S573MNH0204XX	9.62	1.43	8.19	0.00	1.54	0.11	0.06
S573MNH0210XX	7.38	3.07	4.31	0.10	3.23	0.16	0.10
S573MNH0211XX	6.93	2.72	4.21	0.08	2.94	0.22	0.19
S573MNH0212XX	9.97	0.70	9.27	0.00	1.89	1.19	5.73
S573MNH0213XX	8.25	-0.04	8.29	0.02	1.15	1.19	5.76
S573TEE1001XX	10.63	0.00	10.63	0.23	0.53	0.53	0.23
S574MNH0202XX	7.04	2.90	4.14	0.12	3.07	0.17	0.12
S575MNH0203XX	6.26	1.25	5.01	0.68	1.66	0.41	0.68
S575MNH0206XX	6.55	1.45	5.10	0.09	1.59	0.14	0.09
S586MNH0201XX	4.45	-0.83	5.28	0.00	-0.35	0.48	1.00
S586MNH0202XX	4.60	-0.27	4.87	0.00	0.20	0.47	1.00
S586MNH0204XX	5.70	0.32	5.38	0.00	0.87	0.55	1.00
S586MNH0205XX	6.40	0.72	5.68	0.23	1.20	0.48	1.00
S586MNH0209XX	3.61	-0.90	4.51	0.00	-0.56	0.34	0.43
S586TEE1003XX	6.44	0.00	6.44	0.00	0.36	0.36	1.00
S587MNH0201XX	4.25	-0.34	4.59	0.04	0.01	0.35	0.46
S587MNH0202XX	5.17	0.44	4.73	0.11	0.77	0.33	0.41
S587MNH0206XX	4.35	0.55	3.80	0.03	0.87	0.32	0.38
S587MNH0207XX	5.22	1.34	3.88	0.17	1.64	0.30	0.35
S587MNH0208XX	6.39	2.12	4.27	0.06	2.33	0.21	0.18
S588MNH0201XX	7.25	-3.02	10.27	0.39	-1.86	1.16	6.46
S588MNH0202XX	8.80	-1.87	10.67	0.00	-0.62	1.25	6.07
S588MNH0203XX	6.14	1.22	4.92	0.00	1.50	0.28	0.30
S588MNH0204XX	5.98	1.97	4.01	0.12	2.25	0.28	0.30
S589MNH0202XX	8.90	1.46	7.44	0.08	1.73	0.27	0.24

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C7 - Cumulative Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S589MNH0203XX	9.15	2.35	6.80	0.14	2.56	0.21	0.16
S589MNH0204XX	9.25	3.24	6.01	0.04	3.32	0.08	0.02
S589MNH0205XX	9.82	1.85	7.97	0.01	2.01	0.16	0.06
S589MNH0206XX	8.10	2.20	5.90	0.00	2.45	0.25	0.27
S589MNH0207XX	7.50	1.30	6.20	0.09	1.59	0.29	0.36
S589MNH0208XX	8.00	0.77	7.23	0.00	1.06	0.29	0.36
S589MNH0211XX	7.40	3.10	4.30	0.10	3.35	0.25	0.27
S589MNH0214XX	9.60	2.54	7.06	0.03	2.67	0.13	0.05
S590MNH0201XX	8.90	0.59	8.31	0.03	0.82	0.23	0.27
S590MNH0202XX	8.60	0.13	8.47	0.01	1.62	1.49	13.63
S590MNH0203XX	8.80	0.52	8.28	0.05	2.01	1.49	13.61
S590MNH0204XX	9.90	1.39	8.51	0.18	2.87	1.48	13.56
S590MNH0213XX	7.90	-0.53	8.43	0.12	-0.15	0.38	0.57
S590MNH0215XX	8.94	-2.25	11.19	0.00	-0.45	1.80	21.49
S590MNH0216XX	8.63	-2.40	11.03	0.00	-0.82	1.58	22.07
S590MNH0217XX	8.06	-4.19	12.25	0.00	-2.10	2.09	23.08
S590MNH0218XX	7.60	-1.13	8.73	0.08	0.38	1.51	13.71
S590MNH0219XX	7.79	-1.91	9.70	0.00	-1.99	-0.08	0.74
S590MNH0220XX	8.02	0.38	7.64	0.09	0.71	0.33	0.45
S591MNH0201XX	10.60	1.39	9.21	0.17	1.81	0.42	0.57
S591MNH0202XX	10.90	2.12	8.78	0.04	2.49	0.37	0.40
S591MNH0203XX	12.10	3.20	8.90	0.21	3.49	0.29	0.36
S592MNH0212XX	14.00	3.87	10.13	0.00	4.88	1.01	4.35
S592MNH0214XX	13.19	3.17	10.02	0.14	4.21	1.04	4.49
S592MNH0215XX	12.80	2.88	9.92	0.45	3.87	0.99	4.94
S592MNH0216XX	12.92	2.52	10.40	0.00	3.51	0.99	4.94
S592MNH0217XX	12.10	2.27	9.83	0.00	3.26	0.99	4.94
S609MNH0206XX	11.33	1.30	10.03	0.19	2.31	1.01	5.13
S609MNH0207XX	10.00	0.47	9.53	0.00	1.49	1.02	5.13
S609MNH0208XX	10.31	0.32	9.99	0.00	1.33	1.01	5.13
S610MNH0203XX	10.60	-0.70	11.30	0.00	0.58	1.28	5.13
S610MNH0204XX	9.00	3.00	6.00	1.83	3.51	0.51	1.83
S610MNH0205XX	9.91	-1.05	10.96	0.09	0.08	1.13	7.05
S610MNH0206XX	8.36	2.00	6.36	0.12	2.19	0.19	0.12
S610MNH0207XX	9.00	0.23	8.77	0.05	0.71	0.48	0.69
S610MNH0208XX	9.40	0.56	8.84	0.06	1.02	0.46	0.64
S610MNH0209XX	10.20	2.23	7.97	0.00	2.25	0.02	0.00
S610MNH0210XX	9.30	1.46	7.84	0.00	1.48	0.02	0.00
S611MNH0201XX	8.20	-0.08	8.28	0.00	0.31	0.39	0.69
S611MNH0202XX	8.20	-0.21	8.41	0.00	0.20	0.41	0.69
S611MNH0203XX	9.20	-0.79	9.99	0.05	-0.47	0.32	0.74
S611MNH0205XX	6.40	-2.40	8.80	0.05	-0.91	1.49	13.76
S611MNH0206XX	5.10	-3.69	8.79	0.00	-1.87	1.82	13.76
S611MNH0207XX	4.20	-4.91	9.11	0.00	-3.42	1.49	13.76
S611MNH0208XX	5.09	-4.19	9.28	0.00	-2.78	1.41	13.76
S611MNH0209XX	7.03	-4.52	11.55	0.07	-2.99	1.53	23.15

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C7 - Cumulative Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S611MNH0210XX	5.87	-5.91	11.78	0.00	-4.16	1.75	23.99
S611MNH0214XX	5.50	-2.40	7.90	0.08	-2.23	0.17	0.08
S612CLN1001XX	4.37	2.20	2.17	0.39	2.54	0.34	0.39
S612MNH0201XX	5.33	-1.98	7.31	0.09	-1.53	0.45	0.84
S612MNH0202XX	5.76	-1.08	6.84	0.22	-0.65	0.43	0.76
S612MNH0203XX	5.37	1.35	4.02	0.14	1.67	0.32	0.53
S613MNH0201XX	4.45	-4.82	9.27	0.14	-3.62	1.20	6.72
S613MNH0202XX	5.95	-3.92	9.87	0.12	-2.74	1.18	6.58
S613MNH0203XX	3.10	-5.35	8.45	0.03	-4.00	1.35	7.50
S613MNH0204XX	3.42	-3.37	6.79	0.00	-2.96	0.41	0.75
S613MNH0208XX	3.20	-5.72	8.92	0.19	-4.42	1.30	7.69
S613TEE1001XX	2.66	-5.82	8.48	0.00	-4.42	1.40	7.69
S614MNH0201XX	3.31	-3.31	6.62	0.00	-2.57	0.74	0.75
S614MNH0202XX	3.70	-1.82	5.52	0.19	-1.44	0.38	0.75
S614MNH0203XX	3.53	-1.07	4.60	0.10	-0.69	0.38	0.56
S614MNH0204XX	3.65	-0.22	3.87	0.05	0.12	0.34	0.43
S615MNH0201XX	5.25	-1.16	6.41	0.08	-0.67	0.49	1.08
S615MNH0202XX	4.85	-1.88	6.73	0.00	-1.41	0.47	1.08
S615MNH0203XX	5.00	-4.00	9.00	0.14	-3.14	0.86	1.64
S615MNH0204XX	4.88	-5.90	10.78	0.00	-3.29	2.61	30.57
S615MNH0206XX	2.00	-5.37	7.37	28.93	-2.92	2.45	28.93
S615MNH0207XX	2.20	-2.30	4.50	0.00	-1.97	0.33	0.43
S615MNH0208XX	2.70	-1.57	4.27	0.00	-1.24	0.33	0.43
S615MNH0210XX	4.80	-3.38	8.18	0.00	-2.92	0.46	1.50
S627MNH0201XX	3.60	-7.25	10.85	0.00	-4.78	2.47	30.57
S627MNH0202XX	10.90	-6.41	17.31	0.00	-3.83	2.58	30.57
S628MNH0201XX	3.70	-5.87	9.57	0.00	-5.65	0.22	0.23
S628MNH0205XX	5.25	-4.54	9.79	0.02	-4.33	0.21	0.23
S628MNH0206XX	3.43	-8.23	11.66	0.00	-5.77	2.46	38.26
S628MNH0207XX	2.88	-6.49	9.37	0.00	-5.50	0.99	7.69
S628MNH0209XX	4.02	-8.69	12.71	0.00	-6.24	2.45	38.49
S628MNH0210XX	4.30	-8.94	13.24	0.00	-6.24	2.70	38.49
S628MNH0211XX	4.40	-9.01	13.41	0.00	-6.27	2.74	38.49
S628MNH0212XX	3.70	-9.46	13.16	0.00	-6.65	2.81	38.49
S628MNH0213XX	5.10	-2.13	7.23	0.04	-1.93	0.20	0.21
S628TEE1001XX	5.18	-4.13	9.31	0.00	-3.93	0.20	0.21
S629MNH0201XX	3.99	-1.47	5.46	0.00	-1.22	0.25	0.16
S629MNH0202XX	4.50	-0.40	4.90	0.00	-0.23	0.17	0.16
S629MNH0203XX	5.26	0.34	4.92	0.02	0.53	0.19	0.16
S629MNH0204XX	4.70	-10.71	15.41	0.00	-8.12	2.59	38.49
S629MNH0205XX	4.60	-10.69	15.29	0.00	-7.81	2.88	19.24
S629MNH0208XX	4.50	-3.93	8.43	0.05	-3.81	0.12	0.07
S629MNH0209XX	5.60	-2.57	8.17	0.02	-2.50	0.07	0.02
S629MNH0210XX	4.05	-1.49	5.54	0.00	-1.25	0.24	0.16
S629MNH0211XX	4.10	-10.04	14.14	0.00	-7.14	2.90	38.49
S629MNH0212XX	3.40	-9.87	13.27	0.00	-7.00	2.87	38.49

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C7 - Cumulative Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S629MNH0213XX	3.30	-9.71	13.01	0.00	-6.86	2.85	38.49
S629MNH0214XX	5.30	-10.73	16.03	0.00	-8.22	2.51	38.49
S629MNH0216XX	3.06	-8.99	12.05	0.00	-7.54	1.45	12.05
S629MNH0217XX	3.88	-9.31	13.19	0.00	-7.80	1.51	24.20
S629MNH0218XX	3.10	-9.10	12.20	0.02	-7.58	1.52	12.15
S629MNH0223XX	4.82	1.07	3.75	0.15	1.25	0.18	0.15
S629MNH0224XX	3.40	-10.67	14.07	0.00	-7.67	3.00	38.49
S630MNH0201XX	4.70	-4.72	9.42	0.04	-4.46	0.26	0.30
S630MNH0202XX	5.10	-7.43	12.53	0.00	-5.84	1.59	14.06
S630MNH0203XX	3.72	-6.89	10.61	0.00	-5.27	1.62	14.06
S630MNH0204XX	3.70	-5.36	9.06	0.00	-5.04	0.32	0.30
S630MNH0205XX	5.59	-6.17	11.76	0.00	-4.59	1.58	13.76
S630MNH0209XX	5.52	-7.31	12.83	0.11	-5.78	1.53	24.10
S630MNH0210XX	5.00	-7.99	12.99	0.00	-6.36	1.63	14.06
S630MNH0211XX	4.00	-3.70	7.70	0.05	-3.45	0.25	0.26
S630MNH0212XX	4.00	-3.63	7.63	0.03	-3.27	0.36	0.21
S630MNH0213XX	5.52	-2.87	8.39	0.09	-2.65	0.22	0.17
S630TEE1001XX	5.01	0.00	5.01	0.00	0.00	0.00	0.00
S631MNH0201XX	6.00	-3.21	9.21	0.25	-1.80	1.41	7.63
S631MNH0202XX	6.48	-3.02	9.50	0.00	-1.59	1.43	7.39
S631MNH0203XX	7.84	-2.35	10.19	0.00	-1.21	1.14	7.05
S631MNH0206XX	7.38	1.34	6.04	0.15	1.61	0.27	0.27
S631MNH0207XX	7.30	0.73	6.57	0.00	1.00	0.27	0.27
S631MNH0208XX	5.20	-3.67	8.87	0.00	-2.25	1.42	7.63
S631MNH0209XX	8.50	-0.57	9.07	0.03	-0.26	0.31	0.34
S631MNH0210XX	8.22	0.09	8.13	0.04	0.38	0.29	0.31
S648MNH0201XX	9.50	0.08	9.42	0.00	0.92	0.84	2.89
S648MNH0202XX	10.20	0.40	9.80	0.00	1.24	0.84	2.89
S649MNH0201XX	7.90	-1.13	9.03	0.00	-0.29	0.84	2.89
S649MNH0204XX	7.90	-0.88	8.78	0.00	-0.04	0.84	2.89
S649MNH0205XX	7.90	-0.56	8.46	0.00	0.28	0.84	2.89
S649MNH0206XX	8.90	-0.24	9.14	0.00	0.60	0.84	2.89
S650MNH0201XX	8.10	-1.52	9.62	0.00	-0.70	0.82	2.89
S650MNH0202XX	7.00	-1.80	8.80	0.00	-1.23	0.57	2.89
S650MNH0203XX	3.87	-5.71	9.58	0.00	-4.80	0.91	2.89
S650MNH0204XX	3.45	-2.45	5.90	0.00	-1.92	0.53	2.89
S650MNH0205XX	7.00	-2.38	9.38	0.00	-1.58	0.80	2.89
S650MNH0206XX	8.60	-4.77	13.37	0.01	-3.50	1.27	7.65
S650MNH0207XX	8.30	-4.46	12.76	0.00	-2.90	1.56	7.63
S650MNH0209XX	6.40	-5.49	11.89	0.00	-4.21	1.28	7.65
S650MNH0210XX	4.13	-5.96	10.09	0.09	-5.42	0.54	2.98
S650MNH0211XX	3.90	-6.67	10.57	0.03	-6.13	0.54	3.02
S650MNH0215XX	6.94	-0.65	7.59	0.00	-0.65	0.00	0.00
S650TEE1001XX	5.62	0.00	5.62	0.00	0.00	0.00	0.00
S651MNH0201XX	4.50	-6.22	10.72	0.00	-4.95	1.27	7.65
S651MNH0202XX	9.72	-9.58	19.30	0.04	-7.76	1.82	3.06

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C7 - Cumulative Improvement Node Results - PWWF

Node ID	Ground/Rim Elevation (ft)	Invert Elevation (ft)	Structure Depth (ft)	Wastewater Loading (cfs)	Hydraulic Grade Line (ft)	Flow Depth (ft)	System Flow (cfs)
S651MNH0203XX	10.92	-9.61	20.53	0.00	-7.77	1.84	10.71
S651MNH0205XX	8.47	-10.03	18.50	0.00	-8.02	2.01	10.71
S651MNH0208XX	1.59	-10.16	11.75	0.00	-8.46	1.70	10.71
S651MNH0209XX	4.18	-6.03	10.21	0.00	-6.03	0.00	0.00
S651MNH0210XX	1.22	-10.27	11.49	0.00	-8.57	1.70	10.71
S651MNH0211XX	9.00	-9.77	18.77	0.00	-8.13	1.64	10.71
S652MNH0202XX	6.16	-14.10	20.26	0.00	-13.00	1.10	14.06
S652MNH0203XX	7.80	-11.45	19.25	0.00	-9.67	1.78	38.49
S652MNH0204XX	6.85	-11.54	18.39	0.00	-9.65	1.89	34.90
S652MNH0205XX	6.68	-10.90	17.58	0.00	-8.98	1.92	34.90
S652MNH0207XX	5.63	-10.15	15.78	0.00	-8.80	1.35	14.06
S652MNH0208XX	3.20	-10.55	13.75	0.00	-8.73	1.82	10.71
S652MNH0209XX	2.69	-8.69	11.38	0.00	-7.11	1.58	14.06
S652MNH0211XX	5.81	-14.90	20.71	0.00	-13.65	1.25	14.06
S652MNH0212XX	5.89	-14.90	20.79	0.00	-12.14	2.76	73.39
S652MNH0214XX	9.74	-14.10	23.84	0.00	-11.60	2.50	73.39
S652MNH0215XX	7.10	-11.08	18.18	0.00	-8.79	2.29	19.24
S652MNH0225XX	8.62	-11.36	19.98	0.00	-8.78	2.58	34.90
S673MNH0201XX	10.80	0.72	10.08	0.00	1.56	0.84	2.89
S673MNH0202XX	12.00	2.12	9.88	0.00	2.90	0.78	2.89
S674MNH0201XX	12.30	2.92	9.38	1.57	3.70	0.78	2.89
S674MNH0202XX	12.60	3.56	9.04	1.33	4.09	0.53	1.33
NEW-4602	7.72	-6.58	14.30	0.00	-5.33	1.24	7.65
NEW-4618	5.46	-5.85	11.31	0.00	-4.57	1.28	7.65
NEW-4597	7.51	-5.13	12.64	0.00	-3.85	1.27	7.65
NEW-4641	7.06	-4.14	11.20	0.00	-2.71	1.43	7.63
NEW-4640	8.81	-1.74	10.55	0.00	-0.62	1.13	7.05
NEW-4491	10.47	-0.25	10.72	0.00	0.84	1.09	5.13
NEW-4053	10.63	0.86	9.77	0.00	1.87	1.01	5.13
NEW-4450	11.68	1.75	9.93	0.00	2.75	1.00	4.94
NEW-4447	13.55	3.48	10.07	0.00	4.52	1.04	4.35
NEW-4461	19.62	8.52	11.10	0.00	9.19	0.67	3.14
NEW-4388	24.86	11.62	13.24	0.00	12.45	0.83	2.96
NEW-4696	3.75	-10.36	14.11	0.00	-7.38	2.98	38.49
NEW-4637	4.05	-9.23	13.28	0.00	-6.46	2.77	38.49
NEW-4694	3.51	-7.64	11.15	0.00	-5.31	2.33	30.57
NEW-4697	7.25	-6.83	14.08	0.00	-4.29	2.54	30.57
NEW-4620	7.91	-6.16	14.07	0.00	-3.56	2.60	30.57

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C8 - Cumulative Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4300	18	348	0.001	0.013	00_S651MNH0211XX	S651MNH0209XX	-5.75	-6.03	10.76	4.18	-5.75	-6.03	0.00	0.00	0.00	0.00	1.7	0.0
2991	10	138	0.003	0.013	MH1_MofffetRealign	MH2_MoffetRealign	4.40	3.99	16.70	16.10	4.62	4.45	0.22	0.46	0.41	0.18	2.2	1.6
3678	12	268	0.003	0.013	MH2_MoffetRealign	MH3_MoffetRealign	3.99	3.18	16.10	14.95	4.21	3.81	0.22	0.63	0.42	0.21	2.5	1.6
3017	12	143	0.003	0.013	MH3_MoffetRealign	MH4_MoffetRealign	2.98	2.55	14.95	15.30	3.28	3.10	0.30	0.55	0.43	0.39	2.5	1.9
3193	12	185	0.003	0.013	MH4_MoffetRealign	MH5_MoffetRealign	2.55	1.99	15.30	13.40	2.86	2.58	0.31	0.59	0.45	0.41	2.5	2.0
3130	15	169	0.003	0.013	MH5_MoffetRealign	S571MNH0211XX	1.99	1.48	13.40	12.23	2.58	2.57	0.59	1.09	0.67	0.41	2.9	1.9
4079	18	316	0.003	0.013	S529MNH0207XX	S529MNH0208XX	13.00	12.13	28.30	24.30	13.81	13.46	0.81	1.33	0.71	2.94	3.1	3.2
4388-1	18	179	0.003	0.013	NEW-4388	S552MNH0204XX	11.62	11.13	24.86	25.40	12.45	12.24	0.83	1.11	0.65	2.96	3.1	3.2
4388-2	18	183	0.003	0.013	S529MNH0208XX	NEW-4388	12.13	11.62	24.30	24.86	12.91	12.46	0.78	0.84	0.54	2.96	3.1	3.2
3312	21	212	0.004	0.013	S549MNH0201XX	S573MNH0212XX	1.51	0.70	14.40	9.97	2.47	1.91	0.96	1.21	0.62	5.70	4.1	4.2
4504	10	392	0.002	0.013	S549MNH0203XX	S572MNH0201XX	3.79	2.83	12.22	10.22	3.88	2.91	0.09	0.08	0.10	0.03	2.0	0.9
4436	10	370	0.002	0.013	S549MNH0217XX	S549MNH0203XX	4.67	3.79	12.22	12.22	4.76	3.88	0.09	0.09	0.11	0.03	2.0	0.8
2359	42	10	-0.001	0.013	S550MNH0201XX	S550MNH0225XX	1.59	1.60	16.49	16.80	4.00	3.99	2.41	2.39	0.69	20.64	3.3	2.1
2606	33	48	0.165	0.013	S550MNH0202XX	S550MNH0201XX	10.07	2.09	17.27	16.49	11.55	4.02	1.48	1.93	0.62	20.20	36.2	22.7
4492	27	386	0.003	0.013	S550MNH0203XX	S550MNH0220XX	6.41	5.18	18.30	16.40	7.89	6.67	1.48	1.49	0.66	13.39	4.4	4.8
2736	27	78	0.003	0.013	S550MNH0204XX	S550MNH0203XX	6.66	6.40	18.40	18.30	8.17	7.99	1.51	1.59	0.69	13.39	4.5	4.9
2998	15	138	0.003	0.013	S550MNH0205XX	S550MNH0226XX	4.71	4.31	18.25	17.72	4.88	4.48	0.17	0.17	0.14	0.14	2.8	1.4
3438	33	240	0.002	0.013	S550MNH0207XX	S550MNH0223XX	11.04	10.62	20.00	17.92	13.06	12.59	2.02	1.97	0.73	20.20	3.7	4.2
4552	27	409	0.006	0.013	S550MNH0210XX	S550MNH0204XX	9.39	6.91	20.80	18.40	10.66	8.27	1.27	1.36	0.58	13.39	6.1	6.2
4535	10	400	0.002	0.013	S550MNH0217XX	S550MNH0218XX	6.42	5.46	14.80	15.45	6.55	5.60	0.13	0.14	0.16	0.06	2.0	1.1
4545	10	404	0.002	0.013	S550MNH0218XX	S550MNH0205XX	5.46	4.60	15.45	18.25	5.60	4.88	0.14	0.28	0.25	0.06	1.9	1.0
4511	27	394	0.003	0.013	S550MNH0220XX	S571MNH0207XX	5.18	3.92	16.40	12.90	6.65	5.41	1.47	1.49	0.66	13.39	4.4	4.9
2482	15	27	0.002	0.013	S550MNH0221XX	S550MNH0201XX	3.65	3.60	17.32	16.49	4.07	4.07	0.42	0.47	0.35	0.24	2.3	1.4
4091	10	318	0.003	0.013	S550MNH0222XX	S550MNH0217XX	7.31	6.42	13.90	14.80	7.44	6.55	0.13	0.13	0.16	0.06	2.1	1.1
3964	33	302	0.002	0.013	S550MNH0223XX	S550MNH0202XX	10.62	10.07	17.92	17.27	12.57	11.57	1.95	1.50	0.63	20.20	3.8	4.3
3824	42	287	0.001	0.013	S550MNH0225XX	S571MNH0212XX	2.00	1.78	16.80	13.73	3.99	3.54	1.99	1.76	0.54	20.64	2.9	3.2
3093	15	160	0.003	0.013	S550MNH0226XX	S550MNH0221XX	4.31	3.85	17.72	17.32	4.48	4.13	0.17	0.28	0.18	0.14	2.8	1.4
4622	15	463	0.002	0.013	S551MNH0203XX	S551MNH0204XX	7.70	6.62	21.50	22.25	7.84	6.75	0.14	0.13	0.11	0.08	2.5	1.1
4503	15	393	0.002	0.013	S551MNH0204XX	S551MNH0205XX	6.62	5.66	22.25	20.20	6.75	5.80	0.13	0.14	0.11	0.08	2.6	1.1
4595	15	448	0.002	0.013	S551MNH0205XX	S550MNH0205XX	5.66	4.60	20.20	18.25	5.80	4.88	0.14	0.28	0.17	0.08	2.6	1.1
4461-1	18	188	0.005	0.013	NEW-4461	S569MNH0204XX	8.52	7.50	19.62	19.04	9.19	8.89	0.67	1.39	0.69	3.14	4.4	4.2
4461-2	18	187	0.003	0.013	S552MNH0201XX	NEW-4461	9.14	8.52	20.19	19.62	9.91	9.21	0.77	0.69	0.49	3.14	3.4	3.5
3431	18	239	0.003	0.013	S552MNH0202XX	S552MNH0201XX	9.80	9.14	21.70	20.19	10.61	10.05	0.81	0.91	0.57	3.13	3.1	3.2
2855	18	102	0.003	0.013	S552MNH0203XX	S552MNH0212XX	10.84	10.56	25.50	23.40	11.64	11.37	0.80	0.81	0.54	3.08	3.1	3.2
2860	18	105	0.003	0.013	S552MNH0204XX	S552MNH0203XX	11.13	10.84	25.40	25.50	12.03	11.92	0.90	1.08	0.66	2.99	3.1	3.2
3465	15	245	0.002	0.013	S552MNH0206XX	S552MNH0207XX	9.32	8.90	24.00	23.40	9.32	9.07	0.00	0.17	0.07	0.00	2.2	0.0
4587	15	432	0.003	0.013	S552MNH0207XX	S551MNH0203XX	8.90	7.70	23.40	21.50	9.03	7.84	0.13	0.14	0.11	0.08	2.8	1.1
4613	10	454	0.006	0.013	S552MNH0208XX	S552MNH0209XX	13.92	11.22	22.00	20.00	13.92	11.61	0.00	0.39	0.23	0.00	3.1	0.0
4601	10	444	0.006	0.013	S552MNH0209XX	S569MNH0206XX	11.22	8.56	20.00	18.40	11.46	8.85	0.24	0.29	0.32	0.30	3.1	2.4
3150	18	173	0.003	0.013	S552MNH0211XX	S552MNH0202XX	10.28	9.80	23.18	21.70	11.09	10.73	0.81	0.93	0.58	3.08	3.1	3.2
2850	18	102	0.003	0.013	S552MNH0212XX	S552MNH0211XX	10.56	10.28	23.40	23.18	11.36	11.10	0.80	0.82	0.54	3.08	3.1	3.2
3847	21	291	0.002	0.013	S569MNH0204XX	S569MNH0212XX	7.50	6.90	19.04	18.00	8.42	7.62	0.92	0.72	0.47	3.91	3.0	3.1
2671	12	60	0.008	0.013	S569MNH0205XX	S569MNH0212XX	7.10	6.60	18.20	18.00	7.35	6.83	0.25	0.23	0.24	0.38	4.2	2.8
3133	12	169	0.008	0.013	S569MNH0206XX	S569MNH0205XX	8.50	7.18	18.40	18.20	8.74	8.10	0.24	0.92	0.58	0.33	4.0	2.6
2927	21	124	0.002	0.013	S569MNH0209XX	S592MNH0212XX	4.11	3.87	14.50	14.00	5.12	4.89	1.01	1.02	0.58	4.35	2.9	3.1
3282	21	205	0.002	0.013	S569MNH0210XX	S569MNH0209XX	4.50	4.11	15.30	14.50	5.51	5.14	1.01	1.03	0.58	4.35	2.9	3.0
3423	21	237	0.002	0.013	S569MNH0211XX	S569MNH0210XX	4.95	4.50	17.23	15.30	5.96	5.54	1.01	1.04	0.59	4.35	2.9	3.0
3370	21	228	0.003	0.013	S569MNH0212XX	S569MNH0211XX	5.70	4.95	18.00	17.23	6.54	6.16	0.84	1.21	0.59	4.28	3.8	3.7
4409	10	365	0.003	0.013	S570MNH0201XX	S591MNH0203XX	4.12	3.20	13.30	12.10	4.33	3.63	0.21	0.43	0.38	0.15	2.0	1.4
4373	10	358	0.002	0.013	S570MNH0202XX	S570MNH0204XX	5.95	5.17	14.55	15.90	6.18	5.35	0.23	0.18	0.24	0.17	1.9	1.4
3356	10	225	0.002	0.013	S570MNH0203XX	S570MNH0202XX	6.60	6.05	15.10	14.55	6.70	6.41	0.10	0.36	0.27	0.03	2.0	0.9
2529	10	34	0.001	0.013	S570MNH0204XX	MH1_MofffetRealign	4.45	4.40	15.90	16.70	4.70	4.63	0.25	0.23	0.29	0.18	1.5	1.2
3652	12	265	0.003	0.013	S571MNH0205XX	S571MNH0209XX	3.94	3.06	11.74	12.44	4.11	3.37	0.17	0.31	0.24	0.13	2.6	1.5
4507	27	393	0.003	0.013	S571MNH0207XX	S571MNH0219XX	3.92	2.66	12.90	12.08	5.39	4.15	1.47	1.49	0.66	13.39	4.4	4.9
3833	12	297	0.003	0.013	S571MNH0208XX	S571MNH0216XX	2.20	1.22	11.55	10.72	2.50	1.49	0.30	0.27	0.29	0.41	2.6	2.0
3624	12	263	0.003	0.013	S571MNH0209XX	S571MNH0208XX	3.06	2.20	12.44	11.55	3.32	2.58	0.26	0.38	0.32	0.29	2.6	1.8
4408	42	365	0.003	0.013	S571MNH0211XX	S571MNH0216XX	0.88	-0.20	12.23	10.72	2.39	1.26	1.51	1.46	0.43	21.08	5.7	5.3
4396	42	363	0.002	0.013	S571MNH0212XX	S571MNH0211XX	1.78	1.18	13.73	12.23	3.53	2.57	1.75	1.39	0.45	20.64	4.3	4.3
4670	42	582	0.004	0.013	S571MNH0216XX	S590MNH0215XX	-0.20	-2.25	10.72	8.94	1.25	-0.44	1.45	1.81	0.47	21.49	6.2	5.7
4513	27	394	0.003	0.013	S571MNH0219XX	S590MNH0204XX	2.66	1.39	12.08	9.90	4.13	2.92	1.47	1.53	0.67	13.39	4.4	4.9

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C8 - Cumulative Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4530	10	400	0.004	0.013	S572MNH0201XX	S573MNH0212XX	2.83	1.07	10.22	9.97	2.91	1.92	0.08	0.85	0.56	0.03	2.7	1.0
3237	12	198	0.003	0.013	S572MNH0202XX	S572MNH0206XX	4.43	3.81	9.10	8.40	4.63	4.01	0.20	0.20	0.20	0.18	2.5	1.6
2550	10	38	0.003	0.013	S572MNH0203XX	S572MNH0207XX	6.40	6.29	12.40	11.15	6.40	6.29	0.00	0.00	0.00	0.00	2.2	0.0
3912	10	298	0.003	0.013	S572MNH0204XX	S549MNH0203XX	5.50	4.62	13.30	12.22	5.50	4.62	0.00	0.00	0.00	0.00	2.2	0.0
3389	12	231	0.003	0.013	S572MNH0206XX	S589MNH0211XX	3.81	3.10	8.40	7.40	4.01	3.42	0.20	0.32	0.26	0.18	2.5	1.6
3628	10	263	0.003	0.013	S572MNH0207XX	S572MNH0204XX	6.29	5.50	11.15	13.30	6.29	5.50	0.00	0.00	0.00	0.00	2.2	0.0
3232	21	196	0.002	0.013	S573MNH0201XX	S573MNH0203XX	-0.69	-1.10	10.00	10.10	0.47	-0.09	1.16	1.01	0.62	5.78	3.0	3.4
3020	21	144	0.002	0.013	S573MNH0202XX	S573MNH0213XX	0.26	-0.04	9.00	8.25	1.46	1.19	1.20	1.23	0.70	5.74	3.0	3.3
3490	21	247	0.002	0.013	S573MNH0203XX	S588MNH0202XX	-1.30	-1.87	10.10	8.80	-0.11	-0.61	1.19	1.26	0.70	6.07	3.2	3.5
2800	10	90	0.005	0.013	S573MNH0204XX	S573MNH0203XX	1.43	0.99	9.62	10.10	1.54	1.10	0.11	0.11	0.13	0.06	2.8	1.4
2977	12	135	0.003	0.013	S573MNH0210XX	S573MNH0211XX	3.07	2.72	7.38	6.93	3.23	2.94	0.16	0.22	0.19	0.10	2.3	1.3
3883	12	296	0.003	0.013	S573MNH0211XX	S588MNH0204XX	2.72	1.97	6.93	5.98	2.94	2.26	0.22	0.29	0.25	0.19	2.3	1.5
3298	21	209	0.002	0.013	S573MNH0212XX	S573MNH0202XX	0.70	0.26	9.97	9.00	1.89	1.52	1.19	1.26	0.70	5.73	3.0	3.4
4015	21	308	0.002	0.013	S573MNH0213XX	S573MNH0201XX	-0.04	-0.69	8.25	10.00	1.15	0.58	1.19	1.27	0.70	5.76	3.0	3.4
2694	10	63	-0.003	0.013	S573TEE1001XX	S573MNH0203XX	0.00	0.20	10.63	10.10	0.53	0.41	0.53	0.21	0.45	0.23	2.3	0.4
4017	12	308	0.003	0.013	S574MNH0202XX	S587MNH0208XX	2.90	2.12	7.04	6.39	3.07	2.34	0.17	0.22	0.20	0.12	2.3	1.3
4279	18	345	0.002	0.013	S575MNH0203XX	S586MNH0205XX	1.25	0.72	6.26	6.40	1.66	1.23	0.41	0.51	0.31	0.68	2.3	1.7
3107	10	162	0.004	0.013	S575MNH0206XX	S586MNH0205XX	1.45	0.72	6.55	6.40	1.59	1.22	0.14	0.50	0.39	0.09	2.7	1.5
3340	21	218	0.002	0.013	S586MNH0201XX	S615MNH0201XX	-0.83	-1.16	4.45	5.25	-0.35	-0.63	0.48	0.53	0.29	1.00	2.6	1.9
4275	21	358	0.002	0.013	S586MNH0202XX	S586MNH0201XX	-0.27	-0.83	4.60	4.45	0.20	-0.34	0.47	0.49	0.28	1.00	2.6	1.9
4401	21	369	0.001	0.013	S586MNH0204XX	S586TEE1003XX	0.32	0.00	5.70	6.44	0.87	0.36	0.55	0.36	0.26	1.00	1.9	1.5
3705	21	276	0.001	0.013	S586MNH0205XX	S586MNH0204XX	0.72	0.32	6.40	5.70	1.20	0.87	0.48	0.55	0.30	1.00	2.5	1.9
3715	12	273	0.002	0.013	S586MNH0209XX	S615MNH0208XX	-0.90	-1.57	3.61	2.70	-0.56	-1.24	0.34	0.33	0.33	0.43	2.3	1.9
2515	21	31	0.009	0.013	S586TEE1003XX	S586MNH0202XX	0.00	-0.27	6.44	4.60	0.36	0.21	0.36	0.48	0.24	1.00	6.1	3.5
3891	12	296	0.002	0.013	S587MNH0201XX	S614MNH0203XX	-0.34	-1.07	4.25	3.53	0.01	-0.66	0.35	0.41	0.38	0.46	2.3	1.9
4035	12	310	0.003	0.013	S587MNH0202XX	S587MNH0201XX	0.44	-0.34	5.17	4.25	0.77	0.02	0.33	0.36	0.35	0.41	2.3	1.9
4127	12	323	0.002	0.013	S587MNH0206XX	S614MNH0204XX	0.55	-0.22	4.35	3.65	0.87	0.19	0.32	0.41	0.36	0.38	2.2	1.8
4081	12	316	0.002	0.013	S587MNH0207XX	S587MNH0206XX	1.34	0.55	5.22	4.35	1.64	0.88	0.30	0.33	0.31	0.35	2.3	1.8
3920	12	298	0.003	0.013	S587MNH0208XX	S587MNH0207XX	2.12	1.34	6.39	5.22	2.33	1.65	0.21	0.31	0.26	0.18	2.3	1.5
4617	24	455	0.002	0.013	S588MNH0201XX	S613MNH0202XX	-3.02	-3.92	7.25	5.95	-1.86	-2.70	1.16	1.22	0.60	6.46	3.2	3.4
4611	21	452	0.002	0.013	S588MNH0202XX	S588MNH0201XX	-1.87	-2.77	8.80	7.25	-0.62	-1.81	1.25	0.96	0.63	6.07	2.9	3.3
4024	12	309	0.003	0.013	S588MNH0203XX	S587MNH0202XX	1.22	0.44	6.14	5.17	1.50	0.78	0.28	0.34	0.31	0.30	2.3	1.7
3937	12	300	0.003	0.013	S588MNH0204XX	S588MNH0203XX	1.97	1.22	5.98	6.14	2.25	1.50	0.28	0.28	0.28	0.30	2.3	1.7
4489	10	385	0.002	0.013	S589MNH0202XX	S590MNH0201XX	1.46	0.59	8.90	8.90	1.73	0.94	0.27	0.35	0.37	0.24	1.9	1.6
3984	10	304	0.003	0.013	S589MNH0203XX	S589MNH0202XX	2.35	1.47	9.15	8.90	2.56	1.78	0.21	0.31	0.31	0.16	2.2	1.5
3992	10	305	0.003	0.013	S589MNH0204XX	S589MNH0203XX	3.24	2.35	9.25	9.15	3.32	2.59	0.08	0.24	0.19	0.02	2.2	0.9
4287	10	347	0.002	0.013	S589MNH0204XX	S589MNH0214XX	3.24	2.54	9.25	9.60	3.33	2.67	0.09	0.13	0.13	0.02	1.8	0.0
4194	10	331	0.001	0.013	S589MNH0205XX	S573MNH0204XX	1.85	1.43	9.82	9.62	2.01	1.55	0.16	0.12	0.17	0.06	1.4	0.9
3961	12	302	0.003	0.013	S589MNH0206XX	S589MNH0207XX	2.20	1.30	8.10	7.50	2.45	1.62	0.25	0.32	0.29	0.27	2.5	1.8
3159	12	176	0.003	0.013	S589MNH0207XX	S589MNH0208XX	1.30	0.77	7.50	8.00	1.59	1.06	0.29	0.29	0.29	0.36	2.5	1.9
2916	12	122	0.003	0.013	S589MNH0208XX	S590MNH0220XX	0.77	0.38	8.00	8.02	1.06	0.76	0.29	0.38	0.33	0.36	2.6	1.9
4027	12	309	0.003	0.013	S589MNH0211XX	S589MNH0206XX	3.10	2.20	7.40	8.10	3.35	2.46	0.25	0.26	0.26	0.27	2.5	1.7
4459	10	376	0.002	0.013	S589MNH0214XX	S589MNH0205XX	2.54	1.85	9.60	9.82	2.67	2.02	0.13	0.17	0.18	0.05	1.7	0.9
3472	10	245	0.012	0.013	S590MNH0201XX	S590MNH0217XX	0.59	-2.41	8.90	8.06	0.82	-1.99	0.23	0.42	0.39	0.27	4.4	3.0
4514	27	394	0.003	0.013	S590MNH0202XX	S590MNH0218XX	0.13	-1.13	8.60	7.60	1.62	0.43	1.49	1.56	0.68	13.63	4.4	4.9
2903	27	118	0.003	0.013	S590MNH0203XX	S590MNH0202XX	0.52	0.13	8.80	8.60	2.01	1.67	1.49	1.54	0.67	13.61	4.5	4.9
3676	27	267	0.003	0.013	S590MNH0204XX	S590MNH0203XX	1.39	0.52	9.90	8.80	2.87	2.06	1.48	1.54	0.67	13.56	4.4	4.9
4188	12	338	0.003	0.013	S590MNH0213XX	S590MNH0216XX	-0.53	-1.46	7.90	8.63	-0.15	-0.64	0.38	0.82	0.60	0.57	2.4	2.1
2954	42	130	0.002	0.013	S590MNH0215XX	S590MNH0216XX	-2.20	-2.40	8.94	8.63	-0.45	-0.81	1.75	1.59	0.48	21.49	4.1	4.2
4673	42	601	0.003	0.013	S590MNH0216XX	S590MNH0217XX	-2.40	-4.04	8.63	8.06	-0.82	-2.09	1.58	1.95	0.51	22.07	5.5	5.2
4480	42	380	0.001	0.013	S590MNH0217XX	S611MNH0209XX	-4.19	-4.52	8.06	7.03	-2.10	-2.96	2.09	1.56	0.52	23.08	3.1	3.4
3341	27	406	0.003	0.013	S590MNH0218XX	S611MNH0205XX	-1.13	-2.40	7.60	6.40	0.38	-0.86	1.51	1.54	0.68	13.71	4.4	4.8
2463	21	23	0.010	0.013	S590MNH0219XX	S590MNH0217XX	-3.03	-3.25	7.79	8.06	-1.99	-1.99	1.04	1.26	0.66	0.74	6.5	3.3
3985	12	304	0.003	0.013	S590MNH0220XX	S590MNH0213XX	0.38	-0.53	8.02	7.90	0.71	-0.08	0.33	0.45	0.39	0.45	2.5	2.0
4426	12	368	0.002	0.013	S591MNH0201XX	S610MNH0208XX	1.39	0.66	10.60	9.40	1.81	1.22	0.42	0.56	0.49	0.57	2.0	1.9
4644	12	504	0.001	0.013	S591MNH0202XX	S591MNH0201XX	2.12	1.39	10.90	10.60	2.49	1.88	0.37	0.49	0.43	0.40	1.7	1.5
3388	10	231	0.004	0.013	S591MNH0203XX	S591MNH0202XX	3.20	2.29	12.10	10.90	3.49	2.55	0.29	0.26	0.33	0.36	2.5	2.1
4447-1	21	166	0.002	0.013	NEW-4447	S592MNH0214XX	3.48	3.17	13.55	13.19	4.52	4.27	1.04	1.10	0.61	4.35	2.9	3.0
4447-2	21	205	0.002	0.013	S592MNH0212XX	NEW-4447	3.87	3.48	14.00	13.55	4.88	4.53	1.01	1.05	0.59	4.35	2.9	3.0
3056	21	154	0.002	0.013	S592MNH0214XX	S592MNH0215XX	3.17	2.88	13.19	12.80	4.21	3.95	1.04	1.07	0.60	4.49	2.9	3.1

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C8 - Cumulative Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
2989	21	137	0.003	0.013	S592MNH0215XX	S592MNH0216XX	2.88	2.52	12.80	12.92	3.87	3.52	0.99	1.00	0.57	4.94	3.4	3.5
2818	21	94	0.003	0.013	S592MNH0216XX	S592MNH0217XX	2.52	2.27	12.92	12.10	3.51	3.28	0.99	1.01	0.57	4.94	3.4	3.6
4450-1	21	171	0.003	0.013	NEW-4450	S609MNH0206XX	1.75	1.30	11.68	11.33	2.75	2.39	1.00	1.09	0.60	4.94	3.4	3.5
4450-2	21	201	0.003	0.013	S592MNH0217XX	NEW-4450	2.27	1.75	12.10	11.68	3.26	2.76	0.99	1.01	0.57	4.94	3.4	3.5
4053-1	21	148	0.003	0.013	NEW-4053	S609MNH0207XX	0.86	0.47	10.63	10.00	1.87	1.51	1.01	1.04	0.59	5.13	3.4	3.6
4053-2	21	166	0.003	0.013	S609MNH0206XX	NEW-4053	1.30	0.86	11.33	10.63	2.31	1.88	1.01	1.02	0.58	5.13	3.4	3.6
2670	21	60	0.003	0.013	S609MNH0207XX	S609MNH0208XX	0.47	0.32	10.00	10.31	1.49	1.35	1.02	1.03	0.59	5.13	3.3	3.5
4491-1	21	170	0.003	0.013	NEW-4491	S610MNH0203XX	-0.25	-0.70	10.47	10.60	0.84	0.61	1.09	1.31	0.69	5.13	3.4	3.6
4491-2	21	216	0.003	0.013	S609MNH0208XX	NEW-4491	0.32	-0.25	10.31	10.47	1.33	0.85	1.01	1.10	0.60	5.13	3.4	3.6
2676	24	60	0.002	0.013	S610MNH0203XX	S610MNH0205XX	-0.70	-0.85	10.60	9.91	0.58	0.54	1.28	1.39	0.67	5.13	3.6	3.5
2698	18	63	0.032	0.013	S610MNH0204XX	S610MNH0205XX	3.00	1.00	9.00	9.91	3.51	1.32	0.51	0.32	0.28	1.83	10.6	6.7
4485	18	385	0.001	0.013	S610MNH0205XX	S610MNH0209XX	2.50	2.23	9.91	10.20	2.50	2.25	0.00	0.02	0.01	0.00	1.6	0.0
4640-1	24	231	0.003	0.013	NEW-4640	S631MNH0203XX	-1.74	-2.35	8.81	7.84	-0.62	-1.20	1.12	1.15	0.57	7.05	3.7	3.9
4640-2	24	263	0.003	0.013	S610MNH0205XX	NEW-4640	-1.05	-1.74	9.91	8.81	0.08	-0.60	1.13	1.14	0.57	7.05	3.7	3.9
3784	10	280	0.002	0.013	S610MNH0206XX	S631MNH0206XX	2.00	1.34	8.36	7.38	2.19	1.64	0.19	0.30	0.29	0.12	2.0	1.3
4392	18	366	0.001	0.013	S610MNH0207XX	S611MNH0201XX	0.23	-0.08	9.00	8.20	0.71	0.32	0.48	0.40	0.29	0.69	1.7	1.4
3172	12	180	0.002	0.013	S610MNH0208XX	S610MNH0207XX	0.56	0.23	9.40	9.00	1.02	0.78	0.46	0.55	0.50	0.64	1.9	1.9
4512	18	396	0.002	0.013	S610MNH0209XX	S610MNH0210XX	2.23	1.46	10.20	9.30	2.25	1.48	0.02	0.02	0.01	0.00	2.6	0.3
4479	18	381	0.003	0.013	S610MNH0210XX	S610MNH0207XX	1.46	0.23	9.30	9.00	1.48	0.74	0.02	0.51	0.18	0.00	3.4	0.4
2706	18	65	0.002	0.013	S611MNH0201XX	S611MNH0202XX	-0.08	-0.21	8.20	8.20	0.31	0.20	0.39	0.41	0.27	0.69	2.7	1.9
4253	18	344	0.002	0.013	S611MNH0202XX	S611MNH0203XX	-0.21	-0.79	8.20	9.20	0.20	-0.43	0.41	0.36	0.25	0.69	2.4	1.8
4556	18	411	0.005	0.013	S611MNH0203XX	S590MNH0219XX	-0.79	-3.03	9.20	7.79	-0.47	-1.99	0.32	1.04	0.45	0.74	4.4	2.8
4506	27	393	0.003	0.013	S611MNH0205XX	S611MNH0206XX	-2.40	-3.69	6.40	5.10	-0.91	-1.85	1.49	1.84	0.74	13.76	4.5	4.9
3314	27	213	0.001	0.013	S611MNH0206XX	S611MNH0208XX	-3.69	-3.99	5.10	5.09	-1.87	-2.70	1.82	1.29	0.69	13.76	2.9	3.5
4484	27	383	0.003	0.013	S611MNH0207XX	S630MNH0205XX	-4.91	-6.17	4.20	5.59	-3.42	-4.57	1.49	1.60	0.69	13.76	4.5	4.9
3207	27	187	0.004	0.013	S611MNH0208XX	S611MNH0207XX	-4.19	-4.91	5.09	4.20	-2.78	-3.40	1.41	1.51	0.65	13.76	4.8	5.3
4558	42	412	0.003	0.013	S611MNH0209XX	S611MNH0210XX	-4.52	-5.91	7.03	5.87	-2.99	-4.15	1.53	1.76	0.47	23.15	6.1	5.7
2462	10	23	0.000	0.013	S611MNH0210XX	S611MNH0208XX	0.00	0.00	5.87	5.09	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0
4678	42	620	0.002	0.013	S611MNH0210XX	S630MNH0209XX	-5.91	-7.31	5.87	5.52	-4.16	-5.74	1.75	1.57	0.48	23.99	5.0	5.0
3491	10	248	0.002	0.013	S611MNH0214XX	S630MNH0213XX	-2.40	-2.87	5.50	5.52	-2.23	-2.60	0.17	0.27	0.26	0.08	1.8	1.1
4022	10	309	0.003	0.013	S612CLN1001XX	S612MNH0203XX	2.20	1.35	4.37	5.37	2.54	1.72	0.34	0.37	0.43	0.39	2.1	1.9
4169	12	339	0.003	0.013	S612MNH0201XX	S611MNH0210XX	-1.98	-3.10	5.33	5.87	-1.53	-2.72	0.45	0.38	0.42	0.84	2.6	2.5
3915	12	298	0.003	0.013	S612MNH0202XX	S612MNH0201XX	-1.08	-1.98	5.76	5.33	-0.65	-1.45	0.43	0.53	0.48	0.76	2.5	2.3
3864	10	294	0.008	0.013	S612MNH0203XX	S612MNH0202XX	1.35	-1.08	5.37	5.76	1.67	-0.58	0.32	0.50	0.49	0.53	3.7	3.1
3427	24	238	0.002	0.013	S613MNH0201XX	S613MNH0203XX	-4.82	-5.35	4.45	3.10	-3.62	-3.97	1.20	1.38	0.65	6.72	3.4	3.6
4608	24	450	0.002	0.013	S613MNH0202XX	S613MNH0201XX	-3.92	-4.82	5.95	4.45	-2.74	-3.58	1.18	1.24	0.60	6.58	3.2	3.4
3319	24	214	0.002	0.013	S613MNH0203XX	S613MNH0208XX	-5.35	-5.72	3.10	3.20	-4.00	-4.38	1.35	1.34	0.67	7.50	3.0	3.3
4047	12	312	0.003	0.013	S613MNH0204XX	S613MNH0203XX	-3.37	-4.44	3.42	3.10	-2.96	-3.90	0.41	0.54	0.48	0.75	2.7	2.4
2375	24	12	0.008	0.013	S613MNH0208XX	S613TEE1001XX	-5.72	-5.82	3.20	2.66	-4.42	-4.41	1.30	1.41	0.68	7.69	6.5	6.1
4584	24	427	0.002	0.013	S613TEE1001XX	S628MNH0207XX	-5.82	-6.49	2.66	2.88	-4.42	-5.48	1.40	1.01	0.60	7.69	2.9	3.2
4069	12	315	0.000	0.013	S614MNH0201XX	S613MNH0204XX	-3.31	-3.37	3.31	3.42	-2.57	-2.95	0.74	0.42	0.58	0.75	0.6	1.0
3983	12	304	0.005	0.013	S614MNH0202XX	S614MNH0201XX	-1.82	-3.31	3.70	3.31	-1.44	-2.57	0.38	0.74	0.56	0.75	3.2	2.8
3924	12	299	0.003	0.013	S614MNH0203XX	S614MNH0202XX	-1.07	-1.82	3.53	3.70	-0.69	-1.13	0.38	0.69	0.54	0.56	2.3	2.0
3840	12	290	0.002	0.013	S614MNH0204XX	S586MNH0209XX	-0.22	-0.90	3.65	3.61	0.12	-0.54	0.34	0.36	0.35	0.43	2.2	1.8
4627	21	471	0.002	0.013	S615MNH0201XX	S615MNH0202XX	-1.16	-1.88	5.25	4.85	-0.67	-1.40	0.49	0.48	0.28	1.08	2.6	1.9
3850	21	293	0.002	0.013	S615MNH0202XX	S615MNH0210XX	-1.88	-2.40	4.85	4.80	-1.41	-2.03	0.47	0.37	0.24	1.08	2.8	2.0
2690	21	62	0.002	0.013	S615MNH0203XX	S615MNH0204XX	-4.00	-4.15	5.00	4.88	-3.14	-3.15	0.86	1.00	0.53	1.64	3.2	2.6
4620-1	42	227	0.001	0.013	NEW-4620	S627MNH0202XX	-6.16	-6.41	7.91	10.90	-3.56	-3.82	2.60	2.59	0.74	30.57	3.5	3.9
4620-2	42	231	0.001	0.013	S615MNH0204XX	NEW-4620	-5.90	-6.16	4.88	7.91	-3.29	-3.55	2.61	2.61	0.75	30.57	3.5	4.0
3857	42	294	0.001	0.013	S615MNH0206XX	S615MNH0204XX	-5.37	-5.70	2.00	4.88	-2.92	-3.27	2.45	2.43	0.70	28.93	3.5	3.9
3619	12	262	0.003	0.013	S615MNH0207XX	S615MNH0210XX	-2.30	-3.00	2.20	4.80	-1.97	-2.73	0.33	0.27	0.30	0.43	2.3	1.9
3671	12	267	0.003	0.013	S615MNH0208XX	S615MNH0207XX	-1.57	-2.30	2.70	2.20	-1.24	-1.97	0.33	0.33	0.33	0.43	2.4	1.9
3087	21	160	0.004	0.013	S615MNH0210XX	S615MNH0203XX	-3.38	-4.00	4.80	5.00	-2.92	-3.07	0.46	0.93	0.40	1.50	4.1	3.0
4694-1	48	354	0.001	0.013	NEW-4694	S628MNH0206XX	-7.64	-8.03	3.51	3.43	-5.31	-5.69	2.33	2.34	0.58	30.57	3.8	4.0
4694-2	42	355	0.001	0.013	S627MNH0201XX	NEW-4694	-7.25	-7.64	3.60	3.51	-4.78	-5.30	2.47	2.34	0.69	30.57	3.5	3.9
4697-1	42	378	0.001	0.013	NEW-4697	S627MNH0201XX	-6.83	-7.25	7.25	3.60	-4.29	-4.76	2.54	2.49	0.72	30.57	3.5	4.0
4697-2	42	379	0.001	0.013	S627MNH0202XX	NEW-4697	-6.41	-6.83	10.90	7.25	-3.83	-4.28	2.58	2.55	0.73	30.57	3.5	4.0
2783	10	85	0.005	0.013	S628MNH0201XX	S628MNH0209XX	-5.87	-6.31	3.70	4.02	-5.65	-6.07	0.22	0.24	0.28	0.23	2.9	2.1
3029	10	146	0.006	0.013	S628MNH0205XX	S628MNH0201XX	-4.54	-5.46	5.25	3.70	-4.33	-5.25	0.21	0.21	0.25	0.23	3.2	2.2
3395	48	231	0.001	0.013	S628MNH0206XX	S628MNH0209XX	-8.23	-8.49	3.43	4.02	-5.77	-6.21	2.46	2.28	0.59	38.26	3.8	4.3

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C8 - Cumulative Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
2537	24	36	0.006	0.013	S628MNH0207XX	S628MNH0206XX	-6.49	-6.71	2.88	3.43	-5.50	-5.60	0.99	1.11	0.52	7.69	5.7	5.5
2578	48	43	0.006	0.013	S628MNH0209XX	S628MNH0210XX	-8.69	-8.94	4.02	4.30	-6.24	-6.22	2.45	2.72	0.65	38.49	8.7	8.0
2479	54	27	0.003	0.013	S628MNH0210XX	S628MNH0211XX	-8.94	-9.01	4.30	4.40	-6.24	-6.26	2.70	2.76	0.61	38.49	6.3	5.9
4637-1	54	244	0.001	0.013	NEW-4637	S628MNH0212XX	-9.23	-9.46	4.05	3.70	-6.46	-6.64	2.77	2.82	0.62	38.49	3.8	4.0
4637-2	54	244	0.001	0.013	S628MNH0211XX	NEW-4637	-9.01	-9.23	4.40	4.05	-6.27	-6.45	2.74	2.78	0.61	38.49	3.7	4.0
3683	54	268	0.001	0.013	S628MNH0212XX	S629MNH0213XX	-9.46	-9.71	3.70	3.30	-6.65	-6.84	2.81	2.87	0.63	38.49	3.8	4.0
4295	10	346	0.006	0.013	S628MNH0213XX	S628TEE1001XX	-2.13	-4.13	5.10	5.18	-1.93	-3.93	0.20	0.20	0.24	0.21	3.1	2.1
2442	10	21	0.006	0.013	S628TEE1001XX	S628MNH0205XX	-4.13	-4.25	5.18	5.25	-3.93	-4.05	0.20	0.20	0.24	0.21	3.1	2.1
2391	10	14	0.001	0.013	S629MNH0201XX	S629MNH0210XX	-1.47	-1.49	3.99	4.05	-1.22	-1.25	0.25	0.24	0.29	0.16	1.5	1.2
4496	10	389	0.004	0.013	S629MNH0201XX	S629MNH0209XX	-1.16	-2.57	3.99	5.60	-1.16	-2.50	0.00	0.07	0.04	0.00	2.4	0.0
2804	10	92	0.012	0.013	S629MNH0202XX	S629MNH0201XX	-0.40	-1.47	4.50	3.99	-0.23	-1.22	0.17	0.25	0.26	0.16	4.3	2.5
3203	10	187	0.004	0.013	S629MNH0203XX	S629MNH0202XX	0.34	-0.40	5.26	4.50	0.53	-0.21	0.19	0.19	0.23	0.16	2.5	1.7
2453	54	22	0.001	0.013	S629MNH0204XX	S629MNH0214XX	-10.71	-10.73	4.70	5.30	-8.12	-8.15	2.59	2.58	0.57	38.49	3.8	4.0
2582 [4]	30	49	0.000	0.013	S629MNH0205XX	S629MNH0204XX	-10.69	-10.71	4.60	4.70	-7.61	-7.72	3.08	2.99	SURCHARGED	19.24	1.7	0.0
2581 [4]	30	49	0.000	0.013	S629MNH0205XX	S629MNH0204XX	-10.69	-10.71	4.60	4.70	-7.81	-7.92	2.88	2.79	SURCHARGED	19.24	1.7	3.9
4384	10	360	0.006	0.013	S629MNH0208XX	S629MNH0218XX	-3.93	-6.00	4.50	3.10	-3.81	-5.88	0.12	0.12	0.14	0.07	3.1	1.5
4487	10	385	0.004	0.013	S629MNH0209XX	S629MNH0208XX	-2.57	-3.93	5.60	4.50	-2.50	-3.77	0.07	0.16	0.14	0.02	2.4	0.9
4431	10	371	0.002	0.013	S629MNH0210XX	S628MNH0213XX	-1.49	-2.13	4.05	5.10	-1.25	-1.85	0.24	0.28	0.31	0.16	1.7	1.3
4696-1	54	375	0.001	0.013	NEW-4696	S629MNH0224XX	-10.36	-10.67	3.75	3.40	-7.38	-7.59	2.98	3.08	0.67	38.49	3.6	3.8
4696-2	54	377	0.001	0.013	S629MNH0211XX	NEW-4696	-10.04	-10.36	4.10	3.75	-7.14	-7.37	2.90	2.99	0.66	38.49	3.6	3.9
3155	54	175	0.001	0.013	S629MNH0212XX	S629MNH0211XX	-9.87	-10.04	3.40	4.10	-7.00	-7.12	2.87	2.92	0.64	38.49	3.9	4.1
3196	54	186	0.001	0.013	S629MNH0213XX	S629MNH0212XX	-9.71	-9.87	3.30	3.40	-6.86	-6.99	2.85	2.88	0.64	38.49	3.6	3.9
4538	54	402	0.001	0.013	S629MNH0214XX	S652MNH0215XX	-10.73	-11.08	5.30	7.10	-8.22	-8.76	2.51	2.32	0.54	38.49	3.7	3.9
2532	33	36	0.003	0.013	S629MNH0216XX	S629MNH0218XX	-8.99	-9.10	3.06	3.10	-7.36	-7.38	1.63	1.72	0.61	12.05	4.9	0.0
2924	33	127	0.003	0.013	S629MNH0216XX	S629MNH0217XX	-8.99	-9.31	3.06	3.88	-7.54	-7.67	1.45	1.64	0.56	12.05	4.5	4.4
4651	42	517	0.004	0.013	S629MNH0217XX	S652MNH0225XX	-9.31	-11.36	3.88	8.62	-7.80	-8.36	1.51	3.00	0.65	24.20	6.6	6.1
2796	33	91	0.002	0.013	S629MNH0218XX	S629MNH0217XX	-9.10	-9.31	3.10	3.88	-7.58	-7.67	1.52	1.64	0.57	12.15	4.3	4.2
3182	10	182	0.004	0.013	S629MNH0223XX	S629MNH0203XX	1.07	0.34	4.82	5.26	1.25	0.56	0.18	0.22	0.24	0.15	2.6	1.7
2454	54	22	0.001	0.013	S629MNH0224XX	S629MNH0205XX	-10.67	-10.69	3.40	4.60	-7.67	-7.68	3.00	3.01	0.67	38.49	3.8	4.0
3313	12	213	0.003	0.013	S630MNH0201XX	S630MNH0204XX	-4.72	-5.36	4.70	3.70	-4.46	-5.03	0.26	0.33	0.29	0.30	2.5	1.8
2978	27	135	0.003	0.013	S630MNH0202XX	S630MNH0210XX	-7.43	-7.79	5.10	5.00	-5.84	-6.33	1.59	1.46	0.68	14.06	4.0	4.5
3246	27	199	0.003	0.013	S630MNH0203XX	S630MNH0202XX	-6.89	-7.43	3.72	5.10	-5.27	-5.82	1.62	1.61	0.72	14.06	4.1	4.6
3129	12	169	0.003	0.013	S630MNH0204XX	S630MNH0203XX	-5.36	-5.87	3.70	3.72	-5.04	-5.07	0.32	0.80	0.56	0.30	2.5	1.8
3231	27	195	0.003	0.013	S630MNH0205XX	S630MNH0203XX	-6.17	-6.69	5.59	3.72	-4.59	-5.25	1.58	1.44	0.67	13.76	4.0	4.5
4604	42	444	0.004	0.013	S630MNH0209XX	S629MNH0216XX	-7.31	-8.92	5.52	3.06	-5.78	-7.41	1.53	1.51	0.44	24.10	6.3	5.9
3599	27	260	0.003	0.013	S630MNH0210XX	S652MNH0209XX	-7.99	-8.69	5.00	2.69	-6.36	-7.09	1.63	1.60	0.72	14.06	4.0	4.6
3795	12	282	0.003	0.013	S630MNH0211XX	S630MNH0201XX	-3.70	-4.52	4.00	4.70	-3.45	-4.15	0.25	0.37	0.31	0.26	2.5	1.7
2397	10	15	0.005	0.013	S630MNH0212XX	S630MNH0211XX	-3.63	-3.70	4.00	4.00	-3.27	-3.27	0.36	0.43	0.47	0.21	2.8	1.9
3608	10	261	0.003	0.013	S630MNH0213XX	S630MNH0212XX	-2.87	-3.63	5.52	4.00	-2.65	-3.17	0.22	0.46	0.41	0.17	2.2	1.6
2633	10	54	0.121	0.013	S630TEE1001XX	S630MNH0210XX	0.00	-6.54	5.01	5.00	0.00	-6.17	0.00	0.37	0.22	0.00	14.0	0.0
3807	24	284	0.002	0.013	S631MNH0201XX	S631MNH0208XX	-3.21	-3.67	6.00	5.20	-1.80	-2.24	1.41	1.43	0.71	7.63	2.9	3.3
2914	24	121	0.002	0.013	S631MNH0202XX	S631MNH0201XX	-3.02	-3.21	6.48	6.00	-1.59	-1.75	1.43	1.46	0.72	7.39	2.9	3.2
3171	24	179	0.003	0.013	S631MNH0203XX	S631MNH0202XX	-2.35	-2.82	7.84	6.48	-1.21	-1.58	1.14	1.24	0.60	7.05	3.7	3.9
3674	12	277	0.002	0.013	S631MNH0206XX	S631MNH0207XX	1.34	0.73	7.38	7.30	1.61	1.01	0.27	0.28	0.27	0.27	2.1	1.6
3831	12	293	0.002	0.013	S631MNH0207XX	S631MNH0210XX	0.73	0.09	7.30	8.22	1.00	0.42	0.27	0.33	0.30	0.27	2.1	1.6
4641-1	27	200	0.002	0.013	NEW-4641	S650MNH0207XX	-4.14	-4.46	7.06	8.30	-2.71	-2.89	1.43	1.57	0.67	7.63	3.1	3.3
4641-2	24	298	0.002	0.013	S631MNH0208XX	NEW-4641	-3.67	-4.14	5.20	7.06	-2.25	-2.71	1.42	1.43	0.71	7.63	2.9	3.2
3966	12	302	0.002	0.013	S631MNH0209XX	S631MNH0202XX	-0.57	-1.23	8.50	6.48	-0.26	-0.99	0.31	0.24	0.27	0.34	2.1	1.7
4007	12	307	0.002	0.013	S631MNH0210XX	S631MNH0209XX	0.09	-0.57	8.22	8.50	0.38	-0.22	0.29	0.35	0.32	0.31	2.1	1.6
4108	27	320	0.001	0.013	S648MNH0201XX	S649MNH0206XX	0.08	-0.24	9.50	8.90	0.92	0.60	0.84	0.84	0.37	2.89	2.5	2.1
4107	27	320	0.001	0.013	S648MNH0202XX	S648MNH0201XX	0.40	0.08	10.20	9.50	1.24	0.92	0.84	0.84	0.37	2.89	2.5	2.1
4494	27	387	0.001	0.013	S649MNH0201XX	S650MNH0201XX	-1.13	-1.52	7.90	8.10	-0.29	-0.69	0.84	0.83	0.37	2.89	2.5	2.2
3534	27	253	0.001	0.013	S649MNH0204XX	S649MNH0201XX	-0.88	-1.13	7.90	7.90	-0.04	-0.29	0.84	0.84	0.37	2.89	2.5	2.1
4116	27	321	0.001	0.013	S649MNH0205XX	S649MNH0204XX	-0.56	-0.88	7.90	7.90	0.28	-0.04	0.84	0.84	0.37	2.89	2.5	2.1
4104	27	320	0.001	0.013	S649MNH0206XX	S649MNH0205XX	-0.24	-0.56	8.90	7.90	0.60	0.28	0.84	0.84	0.37	2.89	2.5	2.1
3781	27	280	0.001	0.013	S650MNH0201XX	S650MNH0202XX	-1.52	-1.80	8.10	7.00	-0.70	-1.22	0.82	0.58	0.31	2.89	2.5	2.1
2421	27	18	0.032	0.013	S650MNH0202XX	S650MNH0205XX	-1.80	-2.38	7.00	7.00	-1.23	-1.58	0.57	0.80	0.31	2.89	14.0	7.4
4680	36	629	0.000	0.013	S650MNH0203XX	S650MNH0210XX	-5.71	-5.96	3.87	4.13	-4.80	-5.41	0.91	0.55	0.24	2.89	1.9	1.5
3146	36	173	0.019	0.013	S650MNH0204XX	S650MNH0203XX	-2.45	-5.71	3.45	3.87	-1.92	-4.79	0.53	0.92	0.24	2.89	13.0	5.9
2835	27	99	0.001	0.013	S650MNH0205XX	S650MNH0204XX	-2.38	-2.45	7.00	3.45	-1.58	-1.88	0.80	0.57	0.31	2.89	2.1	1.9

Moffett Park Specific Plan - Wastewater Master Plan
Appendix C - SewerCAD Model Output
Table C8 - Cumulative Improvement Pipe Results - PWWF

Pipe ID	Pipe Diameter [1]	Length	Slope	Pipe Roughness	Upstream Node	Downstream Node	Invert Elevation		Ground / Rim Elevation		HGL Elevation		Flow Depth		Depth to Diameter	Peak Flow	Half Full Velocity [2]	Velocity [3]
							Upstream	Downstream	Upstream	Downstream	Upstream	Downstream	Upstream	Downstream				
	(in)	(ft)	(ft/ft)	(Mannings n)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(d/D)	(cfs)	(ft/s)	(ft/s)
4597-1	27	223	0.002	0.013	NEW-4597	S650MNH0209XX	-5.13	-5.49	7.51	6.40	-3.85	-4.20	1.28	1.29	0.57	7.65	3.1	3.3
4597-2	27	218	0.002	0.013	S650MNH0206XX	NEW-4597	-4.77	-5.13	8.60	7.51	-3.50	-3.84	1.27	1.29	0.57	7.65	3.2	3.3
2714	27	67	0.002	0.013	S650MNH0207XX	S650MNH0206XX	-4.46	-4.57	8.30	8.60	-2.90	-2.94	1.56	1.63	0.71	7.63	3.2	3.3
4618-1	27	230	0.002	0.013	NEW-4618	S651MNH0201XX	-5.85	-6.22	5.46	4.50	-4.57	-4.94	1.28	1.28	0.57	7.65	3.1	3.3
4618-2	27	225	0.002	0.013	S650MNH0209XX	NEW-4618	-5.49	-5.85	6.40	5.46	-4.21	-4.57	1.28	1.28	0.57	7.65	3.1	3.3
2959	36	131	0.005	0.013	S650MNH0210XX	S650MNH0211XX	-5.96	-6.67	4.13	3.90	-5.42	-6.12	0.54	0.55	0.18	2.98	7.0	3.8
4661	36	538	0.005	0.013	S650MNH0211XX	S651MNH0202XX	-6.67	-9.58	3.90	9.72	-6.13	-7.73	0.54	1.85	0.40	3.02	6.9	3.8
2378	33	13	0.141	0.013	S650MNH0215XX	S650MNH0204XX	-0.65	-2.45	6.94	3.45	-0.65	-1.90	0.00	0.55	0.10	0.00	33.4	0.0
2362	18	11	0.062	0.013	S650TEE1001XX	S650MNH0215XX	0.00	-0.65	5.62	6.94	0.00	-0.65	0.00	0.00	0.00	0.00	14.8	0.0
4602-1	27	221	0.002	0.013	NEW-4602	S651MNH0203XX	-6.58	-6.93	7.72	10.92	-5.33	-5.98	1.25	0.95	0.49	7.65	3.1	3.3
4602-2	27	223	0.002	0.013	S651MNH0201XX	NEW-4602	-6.22	-6.58	4.50	7.72	-4.95	-5.32	1.27	1.26	0.56	7.65	3.1	3.3
2505	36	30	0.001	0.013	S651MNH0202XX	S651MNH0203XX	-9.58	-9.61	9.72	10.92	-7.76	-7.76	1.82	1.85	0.61	3.06	3.0	2.1
4630	36	478	0.001	0.013	S651MNH0203XX	S651MNH0205XX	-9.61	-10.03	10.92	8.47	-7.77	-7.97	1.84	2.06	0.65	10.71	2.8	2.9
3014	36	143	0.001	0.013	S651MNH0205XX	S651MNH0211XX	-9.60	-9.77	8.47	9.00	-8.02	-8.13	1.58	1.64	0.54	10.71	3.3	3.2
2883	33	111	0.001	0.013	S651MNH0208XX	S651MNH0210XX	-10.16	-10.27	1.59	1.22	-8.46	-8.55	1.70	1.72	0.62	10.71	2.8	3.0
4375	18	358	0.001	0.013	S651MNH0209XX	S652MNH0207XX	-6.03	-6.44	4.18	5.63	-6.03	-6.44	0.00	0.00	0.00	0.00	2.0	0.0
3360	33	221	0.001	0.013	S651MNH0210XX	S652MNH0208XX	-10.27	-10.55	1.22	3.20	-8.57	-8.71	1.70	1.84	0.64	10.71	3.2	3.3
2350	18	8	0.012	0.013	S651MNH0211XX	00_S651MNH0211XX	-5.34	-5.44	9.00	10.76	-5.34	-5.44	0.00	0.00	0.00	0.00	6.6	0.0
4467	33	376	0.001	0.013	S651MNH0211XX	S651MNH0208XX	-9.77	-10.16	9.00	1.59	-8.13	-8.45	1.64	1.71	0.61	10.71	2.9	3.0
2713	48	72	0.011	0.013	S652MNH0202XX	S652MNH0211XX	-14.10	-14.90	6.16	5.81	-13.00	-13.56	1.10	1.34	0.30	14.06	12.0	7.5
2562	54	40	0.004	0.013	S652MNH0203XX	S652MNH0214XX	-11.45	-11.61	7.80	9.74	-9.67	-9.89	1.78	1.72	0.39	38.49	7.8	6.9
2637	39	55	0.004	0.013	S652MNH0204XX	S652MNH0214XX	-11.54	-11.78	6.85	9.74	-9.65	-9.91	1.89	1.87	0.58	34.90	6.6	7.0
2356	33	10	0.064	0.013	S652MNH0205XX	S652MNH0204XX	-10.90	-11.54	6.68	6.85	-8.98	-9.28	1.92	2.26	0.70	34.90	23.9	18.8
2716	24	68	0.020	0.013	S652MNH0207XX	S652MNH0202XX	-10.15	-11.50	5.63	6.16	-8.80	-10.54	1.35	0.96	0.58	14.06	10.2	9.8
2569	33	45	0.003	0.013	S652MNH0208XX	S652MNH0225XX	-10.55	-10.70	3.20	8.62	-8.73	-8.75	1.82	1.95	0.69	10.71	5.1	4.7
4198	30	362	0.002	0.013	S652MNH0209XX	S652MNH0207XX	-8.69	-9.50	2.69	5.63	-7.11	-8.24	1.58	1.26	0.57	14.06	4.0	4.3
4728	48	14	0.000	0.013	S652MNH0211XX	WPCP	-14.90	-14.90	5.81	0.00	-13.65	-13.80	1.25	1.10	0.29	14.06	0.1	1.1
4727	54	14	0.000	0.013	S652MNH0212XX	WPCP	-14.90	-14.90	5.89	0.00	-12.14	-12.40	2.76	2.50	0.59	73.39	0.1	4.6
2618	54	51	0.016	0.013	S652MNH0214XX	S652MNH0212XX	-14.10	-14.90	9.74	5.89	-11.60	-11.95	2.50	2.95	0.61	73.39	15.5	13.5
2459 [4]	48	24	0.015	0.013	S652MNH0215XX	S652MNH0203XX	-11.08	-11.45	7.10	7.80	-7.88	-7.87	3.20	3.58	0.85	19.24	14.1	0.0
2458 [4]	48	25	0.015	0.013	S652MNH0215XX	S652MNH0203XX	-11.08	-11.45	7.10	7.80	-8.79	-8.77	2.29	2.68	0.85	19.24	14.0	9.2
2443	33	21	0.010	0.013	S652MNH0225XX	S652MNH0205XX	-10.70	-10.90	8.62	6.68	-8.78	-8.58	1.92	2.32	0.71	34.90	9.3	9.4
4105	27	320	0.001	0.013	S673MNH0201XX	S648MNH0202XX	0.72	0.40	10.80	10.20	1.56	1.24	0.84	0.84	0.37	2.89	2.5	2.1
4531	21	400	0.002	0.013	S673MNH0202XX	S673MNH0201XX	2.12	1.32	12.00	10.80	2.90	1.94	0.78	0.62	0.40	2.89	3.0	2.8
4529	21	400	0.002	0.013	S674MNH0201XX	S673MNH0202XX	2.92	2.12	12.30	12.00	3.70	2.91	0.78	0.79	0.45	2.89	3.0	2.8
4439	21	370	0.002	0.013	S674MNH0202XX	S674MNH0201XX	3.56	2.92	12.60	12.30	4.09	3.73	0.53	0.81	0.38	1.33	2.7	2.1

Notes:
1. Highlighted pipe diameters reflect pipelines upsized as part of the recommended MPSP improvements.
2. Half full velocity is determined per Manning's equation assuming no backwater conditions downstream.
3. Velocity as indicated by the model at the specified d/D.
4. These pipelines were identified as depressed sewer and improvements were not recommended to address d/D deficiencies.