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STORMWATER MANAGEMENT REPORT
for
201 WALNUT AVENUE

Block 484, Lot 19.01
Cranford Township
Union County, New Jersey

Prepared for Owner/Applicant:
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Date: 2022.09.19 14:42:54-04'00'

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February 04, 2021
Revised February 2, 2022
Revised September 19, 2022
FPA No. 16377.001

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1.0 INTRODUCTION

This report contains the stormwater management calculations required by the Local, County, and State agencies for their review of the Preliminary and Final Major Site Plan for 201 Walnut Avenue, currently known as Block 484, Lot 19.01 in the Township of Cranford, Union County, New Jersey. The property is located within the Downtown Transition (D-T) District per the Township's Zoning Map and has a total area of 36,876 SF (approximately 0.85 acres). The site is currently occupied by two (2) singe-story masonry buildings, a commercial building, and associated parking. The project proposes a multi-family residential unit, associated parking, and an underground detention basin.

2.0 BASIS OF ENGINEERING ANALYSIS

All stormwater management systems, including collection and conveyance structures, and the recharge, water quality, and detention measures (BMP'S) have been designed in accordance with the provisions of the N.J.A.C. 7:8 – Stormwater Management Rules (NJSMR). The methods outlined in the New Jersey Stormwater Best Management Practices (NJBMP) Manual last updated March 2020 were used to comply with the referenced Rules.

The subject property is located within the Metropolitan State Planning Area, PA-1, and therefore is not required to meet groundwater recharge requirements.

Drainage area delineations were based upon the aerial topographic map of the project site supplemented by field reconnaissance and site-specific surveys.

Based upon NRCS NEW JERSEY BULLETIN NO. NJ210-12-1, effective September 10, 2012 New Jersey has two new rainfall distribution regions, Region C and Region D. These new rainfall distributions replace use of the TYPE III distribution in New Jersey. Union County is within Region D, therefore NOAA-D Distribution and the updated 24-hour rainfall-frequency data for Union County were used to compute the present and proposed condition hydrographs. The latest PondPack Connection Edition Computer Program developed by the Haested Methods was used to generate the runoff hydrographs and hydrologic model for project site. Peak discharges, run-off volumes, and hydrographs were computed for the NJ Water Quality Design Storm, as well as the 2, 10, and 100-year storms. Run-off calculations and precipitation losses were calculated using the NRCS Run-off Curve Numbers (RCNs), based upon the present and proposed watershed conditions. Times of Concentration (TCs) were based upon estimates of overland, shallow concentrated, and open channel flow utilizing methods presented in the National Engineering Handbook, Part 630, Chapter 15. Pre- and Post-development drainage area maps are included in the back pockets of the report.

3.0 EXISTING CONDITIONS

The project site is located on Walnut Avenue. The site is currently occupied by two (2) singe-story masonry buildings and a commercial building with associated parking. Based on the NRCS web soil survey map for Union County, the soils within the project are Haledon-Urban (HatB) and Boonton-Urban (BovB), which both have a hydrologic group rating C. A copy of the soils map can be found in Appendix A.

Under existing conditions, the project site has a total drainage area of 38,874 SF with 19,019 SF of impervious cover consisting of roof areas, walkways, and parking areas. Stormwater runoff flows overland towards three (3) yard drains that are then piped into the existing stormwater system that runs along Chestnut Street.

The following table summarizes the pre-development peak runoff rates from the proposed site.

Table 3.1

Summary of Pre-Development Peak Runoff Rates			
2-Yr. Storm (cfs)	**10-Yr. Storm (cfs)**	**25-Yr. Storm (cfs)**	**100-Yr. Storm (cfs)**
1.96	3.36	4.39	6.27

Detailed computations are presented in Appendix B of this report.

4.0 PROPOSED CONDITIONS

The project consists of a multi-family residential building, associated parking area, and an underground detention basin. The project will include the removal of existing single-story masonry buildings and a commercial building. The proposed facility will result in a land disturbance of 0.99 acres and an increase in impervious cover of 0.278 acres. Due to the increase in impervious cover being greater than 0.25 acres, the project requires compliance with New Jersey Stormwater Management Rules at N.J.A.C. 7:8 and the Township of Cranford stormwater management ordinance.

In the proposed condition, all impervious stormwater runoff will be directed to the underground detention basin. Most of the parking area will be covered by the building roof that will direct the water towards the basin. A small portion of the parking area that is uncovered will be fitted with porous pavement. Runoff from this area will be directed towards the basin via the porous pavement underdrain and/or stormwater piping. The basin will discharge into the existing stormwater piping that runs along Chestnut Street. The following sections detail the site's

compliance with the NJSMR and Township of Cranford stormwater management ordinance.

4.1 Water Quantity Control

In the proposed condition, the site will drain to an underground detention basin located in the westerly portion of the site, which will in turn discharge to an existing storm sewer system. In accordance with NJSMR and the township's stormwater ordinance, the detention basin was designed to reduce the post-development peak runoff rates from the site. The following table summarizes the estimated peak inflows, outflows, and water surface elevations for the underground detention basin.

Table 4.1

SUBSURFACE DETENTION BASIN 1 SUMMARY				
Storm Frequency	**2-Yr. Storm**	**10-Yr. Storm**	**25-Yr. Storm**	**100-Yr. Storm**
Peak Inflow (cfs)	2.52	3.97	4.99	6.85
Peak Outflow (cfs)	0.82	2.05	3.14	5.01
Maximum Water Surface Elevation (ft)	59.50	59.89	60.10	60.40

The Basin has also been analyzed for a condition in which the 100-year flood of the Rahway River causes a tailwater hydraulic grade in the basin at the elevation of the flood; Elevation 60.0. The following table summarizes the estimated peak inflows, outflows, and water surface elevations for the underground detention basin under this condition.

Table 4.2

SUBSURFACE DETENTION BASIN 1 SUMMARY (TAILWATER CONDITION)				
Storm Frequency	**2-Yr. Storm**	**10-Yr. Storm**	**25-Yr. Storm**	**100-Yr. Storm**
Peak Inflow (cfs)	2.52	3.97	4.99	6.85
Peak Outflow (cfs)	1.97	3.18	3.99	5.01
Maximum Water Surface Elevation (ft)	60.16	60.33	60.44	At Capacity

The basin, with a drainage area of 0.85 acres, reaches its peak flow approximately 12 hours after the start of each storm event and will empty approximately 24 hours after the start of each storm event. In comparison, the Rahway River, with a drainage area of 23,232 acres, will reach it's peak

100-Year flood elevation of 60.0 over two days after the start of the storm event. At the time the Rahway River reaches its peak, the underground detention basin will have emptied and completed its function for the storm event. Based on these peak timings, the tailwater generated by the Rahway River's 100-year storm event will not have an impact on the function of the underground detention basin for the same storm event.

To ensure the basin remains unimpacted by Rahway River flood events, a one-directional valve will be installed in the manhole downstream of the outlet structure to prevent backups.

As previously noted, the basin was designed in accordance with NJSMR and the township's stormwater ordinance to reduce the post-development peak runoff rates from the site. Table 4.3 presents a comparison of the existing versus the proposed runoff from the overall project site.

Table 4.3

Pre-Development vs. Post-Development Peak Runoff Rate (cfs)					
Storm Frequency (Year)	**Pre-Development Peak Runoff Rate (cfs)**	**Minimum Required Reduction N.J.A.C. 7:8**	**Maximum Allowable Post-Development Peak Runoff Rate (cfs)**	**Estimated Post-Development Peal Runoff Rate (cfs)**	
2	1.96	50%	0.98	0.82	O.K.
10	3.36	75%	2.52	2.05	O.K.
100	6.27	80%	5.02	5.01	O.K.

Based upon Table 4.2, the proposed outflows meet the required reductions set forth in NJSMR and Township of Cranford stormwater management ordinance. Detailed computations are presented in Appendix C of this report.

4.2 Water Quality Control

The NJSMR requires that a reduction of 80% in Total Suspended Solids (TSS) must be achieved for all proposed TSS producing surfaces. Most of the parking area will be covered by the building roof that will direct the water towards the basin. A small portion of the parking area that is uncovered will be fitted with porous pavement.

The New Jersey Water Quality Design Storm of 1.25 inches in 2 hours was utilized to compute the volume of runoff to be treated. The porous pavement is designed to treat the water quality storm runoff volume from its drainage area. According to Chapter 9.7 of the NJBMP manual this

design will provide the required 80% TSS removal rate as follows:

Storage Volume

The storage bed is required to have sufficient volume to fully contain the Water Quality Design Storm of 1.25-inches in 2 hours. The uncovered parking area produces a water quality runoff volume of 328 cubic feet. A 40% void ratio is assumed for the storage beds.

Storage Depth:

Treatment Area = 3,912 sf

WQ Runoff Volume = 335 cubic feet

Storage Bed Depth = 335/3912 = 0.086 ft/0.40 void ratio = 0.21 ft or 2.5 in. of depth, 6" used for design

Drain Time

The storage bed must drain completely within 72 hours of a rain event in order to provide sufficient storage for the next rain event as well as prevent anaerobic standing water conditions. In order to ensure the proposed system is capable of draining the water quality storm within 72 hours, a minimum flow rate for the proposed 4" underdrains was calculated using a minimum slope of 0.08%. This slope was chosen as the underdrains will match the slope of the pavement above, and all of the pavement area will be at or above this slope, making 0.08% a conservative value to ensure that the entirety of the underdrain network will drain in a sufficient time period:

$$Minimum\ Flow\ Rate\ Thru\ Underdrains = Q = \frac{1.49}{n} AR^{2/3}\sqrt{S}$$

Where:

$n = manning's\ roughness\ coefficient = 0.012\ for\ ADS$

$A = cross\ sectional\ area\ of\ pipe = 12.6in^2 = 0.087ft^2\ for\ 4"\ dia. pipe$

$R = hydraulic\ radius\ of\ pipe = 1.00\ in\ = 0.083ft\ for\ 3"\ dia.\ pipe\ flowing\ full$

$S = pipe\ slope = 0.08\% = 0.0008$

$$Q = \frac{1.49}{0.012} * 0.087 * 0.083^{2/3} * \sqrt{0.0008} = 0.058\ ^{ft^3}/_s$$

Based upon the flow rate calculated above, the volume of runoff that can be drained within 72 hours is as follows:

$$V = 0.058\frac{ft^3}{s} * \frac{3{,}600s}{1\ hr} * 72hr = 15{,}156ft^3$$

At a water quality storm depth of 1.25 inches, the maximum allowable tributary area per each underdrain can be calculated as:

$$A = \frac{15{,}156 ft^3}{1.25in * \frac{1ft}{12in}} = 145{,}495 ft^2$$

The largest tributary area that drains to one underdrain is approximately 3,836 square feet. Therefore, the proposed underdrain system will allow for the water quality storm to be drained well within the 72-hour time limit.

4.3 Groundwater Recharge

The Subject property is a developed site located within the Metropolitan State Planning Area, PA-1, and is therefore not subject to groundwater recharge requirements.

4.4 Low Impact Development

The Low Impact Development Checklist provided in Appendix D of the New Jersey Stormwater Best Management Practices Manual was utilized to identify nonstructural stormwater management strategies incorporated into proposed project.

As per NJAC 7:8-5.3, Nonstructural stormwater management strategies we offer the following:

1. Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss – **We are providing soil erosion and sediment control measures in accordance with the New Jersey Standards to prevent soil erosion and sediment loss.**
2. Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces – I**mpervious surfaces have been minimized to meet the allowable coverages permitted by the township regulations. Porous pavement is provided for exposed pavements areas,**
3. Maximize the protection of natural drainage features and vegetation – **Currently, there are no natural drainage features on the project site. Additional landscaping and native plantings are being proposed throughout the project site.**
4. Minimize the decrease in the "time of concentration" from the pre-construction to post construction. "Time of concentration" is defined as the time it takes for runoff to travel from the hydraulically most distant point of the drainage area to the point

of interest within a watershed. – **The proposed stormwater management system has been designed to minimize the decrease in the time of concentration. The existing site is currently developed, and overall times of concentration should remain unchanged.**

5. Minimize land disturbance including clearing and grading – **The existing site is currently developed and disturbed. In addition, a soil erosion and sediment control plan has been prepared to control the land disturbance and specify soil erosion measures for this project in accordance with the New Jersey Standards.**

6. Minimize soil compaction – **Light weight equipment shall be utilized throughout the project, where applicable, to minimize soil compaction. The project will also meet the Land Grading standards of the Standards for Soil Erosion and Sediment Control in new Jersey, which has requirement for minimizing soil compaction where possible.**

7. Provide low-maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers and pesticides – **The landscape design does provide low maintenance landscaping with mostly native vegetation.**

8. Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas – **open channels are utilized to convey stormwater in lawn areas where possible.**

9. Provide other source controls to prevent or minimize the use or exposure of pollutants at the site in order to prevent or minimize the release of those pollutants into the stormwater runoff. These source controls include, but not limited to:

   i. Site design features that help to prevent accumulation of trash and debris in drainage system – **The majority of runoff from the site will be collected on the building roof and will therefore be clean. Remaining exposed pollutant producing surfaces will be treated with porous pavement.**

   ii. Site design features that help to prevent discharge of trash and debris from drainage system – **The majority of runoff from the site will be collected on the building roof and will therefore be clean. Remaining exposed pollutant producing surfaces will be treated with porous pavement.**

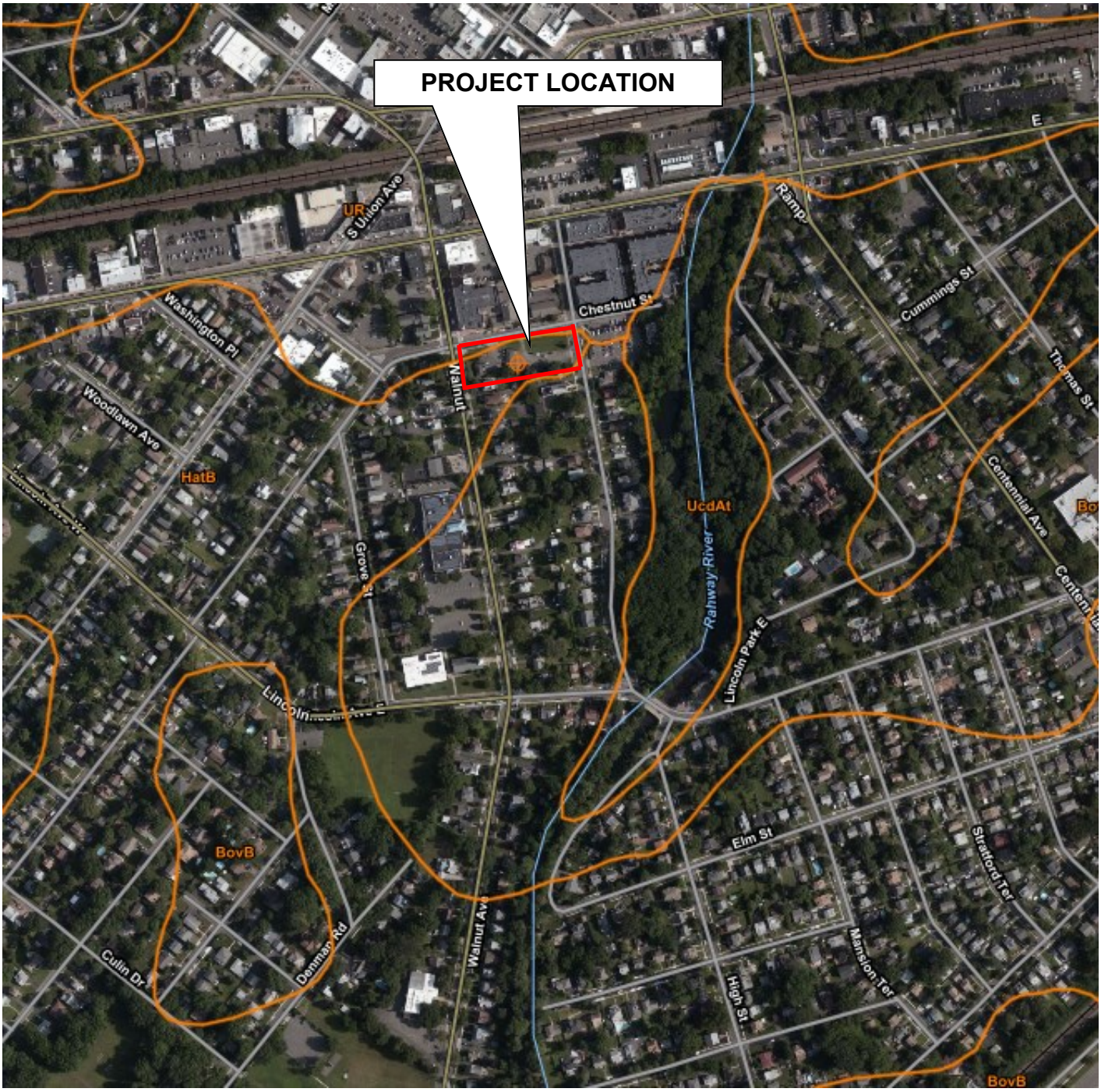
iii. Site design features that help to prevent and/or contain spills or other harmful accumulations of pollutants at commercial developments – **The proposed development is a multifamily residential development which will not promote any harmful pollutants.**

iv. When establishing vegetation after land disturbance, applying fertilizer in accordance with the requirements established under the Soil Erosion and Sediment Control Act and implementing rules. – **We have provided the fertilizer standards on our plans that are consistent with the Soil Erosion and Sediment Control Act and a soil erosion and sediment control certification will be obtained for the project.**

5.0 CONCLUSION

Based upon the calculations present in this report, the proposed stormwater management system meets the requirements of the N.J.A.C. 7:8 - New Jersey Stormwater Management Rules and the New Jersey Best Management Practices Manual.

APPENDIX A
Supporting Documents



SOIL MAP

MAP SOURCE : WEB SOIL SURVEY

Soils:

HatB - Haledon Urban land-hasbrouck complex, 0 to 8 percent slopes

UR - Urban Land

BovB - Boonton-Urban land - Haledon complex, 0 to 8 percent slopes

FRENCH & PARRELLO ASSOCIATES

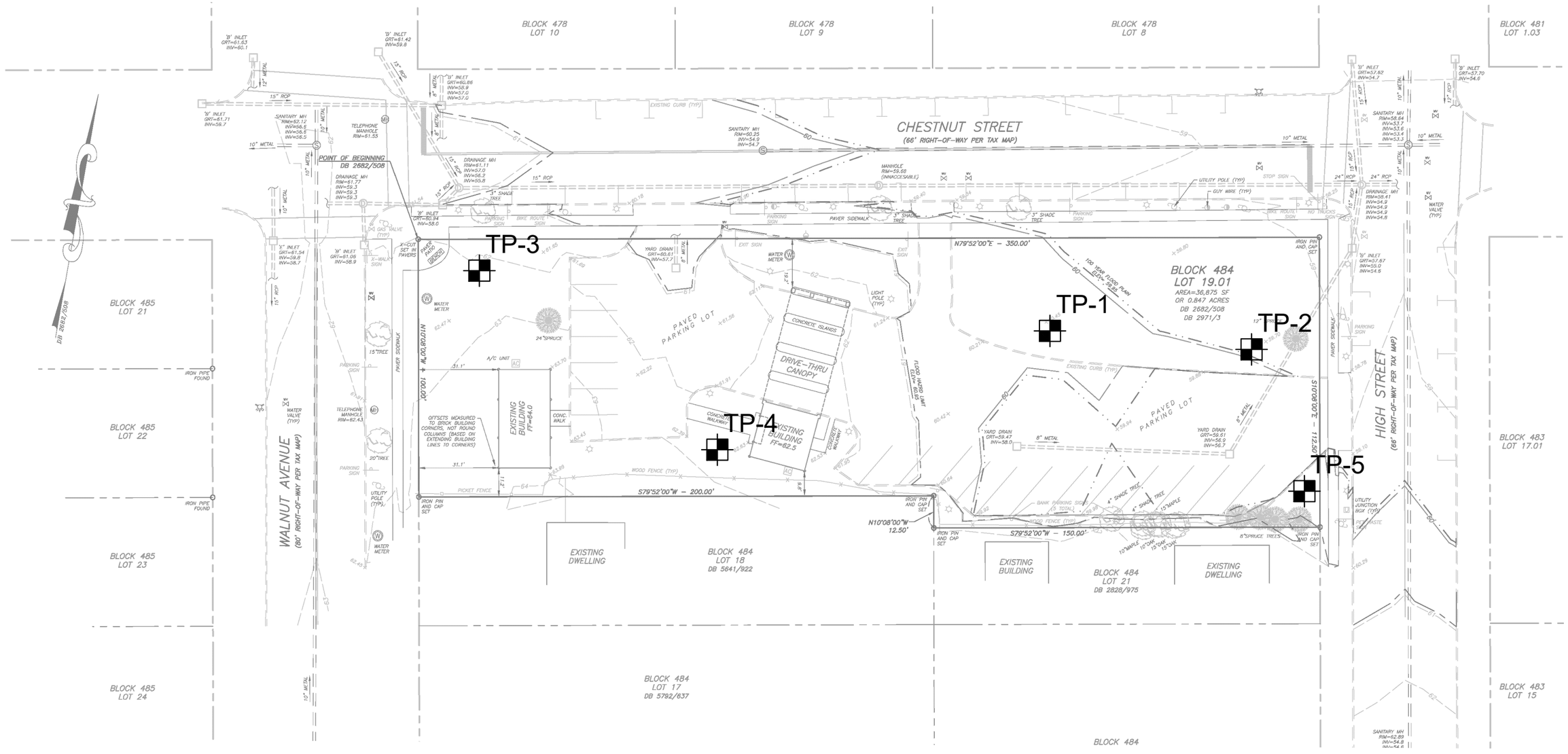
201 Walnut Avenue

Block 484, Lot 19.01

Township of Cranford

Union County, New Jersey

SCALE:	DATE:	JOB	DRAWING
AS SHOWN	**December 2020**	**16377.001**	**4**



LEGEND:

TEST PIT LOCATION

FRENCH & PARRELLO ASSOCIATES

Corporate Office:
1800 Route 34, Suite 101
Wall, New Jersey 07719
732.312.9800

FPAengineers.com

New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia

TEST PIT LOCATION PLAN

FOR

201 WALNUT AVENUE

CRANFORD TOWNSHIP
UNION COUNTY, NEW JERSEY

DATE:	SCALE:	DRAWING #
JANUARY 2021	APPROX. 1"=40'	1
DRAWN BY: DMR	PROJECT NUMBER: 16377.001	

TEST PIT LOG

201 WALNUT AVENUE
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY (FPA JOB NO. 16377.001)

TEST PIT NO.: TP-1
DATE: 1/27/2021

GROUND ELEV.: +60.5'±
DEPTH OF WATER: N/A
GROUNDWATER ELEV.: N/A
DEPTH TO EST. SEASONAL HIGH WATER: N/A

DEPTH	DESCRIPTION
0 – 27"	Brown & Dark Grey-Brown mf **SAND**, some^{+} Silt. (fill w/ few pieces of asphalt & concrete – approx. 15% by volume)
27 – 42"	Grey **SILT & CLAY**, little^{-} f Sand.

END OF TEST PIT AT @ 3.5'*

NOTES: *Test Pit filled with water to depth of 24" below ground surface. Moved test pit 10 east with similar water level in test pit. Test Pit abandoned.

SOILS ENGINEER: J. Tierney, PE	**CONTRACTOR:** Esposito Construction
TEST PIT OBSERVER: D. Rohmeyer, PE	**EXCAVATOR:** Deere 50G Mini Excavator

The information shown hereon indicates the subsurface conditions encountered at the specified test pit location on the date(s) of excavation. Subsurface conditions are likely to vary across the project site. Interpretation of the subsurface data shall be at the discretion of the user.

TEST PIT LOG

201 WALNUT AVENUE
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY (FPA JOB NO. 16377.001)

TEST PIT NO.: TP-2
DATE: 1/27/2021

GROUND ELEV.: +60'±
DEPTH OF WATER: 96"*±
GROUNDWATER ELEV.: +52'±
DEPTH TO EST. SEASONAL HIGH WATER: 89"±

DEPTH	DESCRIPTION
0 – 31"	Dark Grey-Brown cmf^{+} **SAND**, and^{-} Silt, some^{-} c^{+}mf Gravel. (fill w/ many pieces of concrete, brick & metal - approx. 30% by volume)
31 – 65"	Tan-Grey **CLAY & SILT**, trace^{+} f Sand, trace f Gravel.
65 – 84"	Grey & Tan-Brown f **SAND**, and^{-} Silt. (w/ many pieces of cemented sands)
84 – 89"	Tan-Brown **Clayey SILT**, some mf^{+} Sand.
89 – 126"	Red-Brown c^{+}mf **SAND**, some^{+} cmf Gravel, little^{+} Silt. (w/ many cobbles)

END OF TEST PIT AT @ 10.5'

NOTES: ***Very Minor Seepage @ 66"

SOILS ENGINEER: J. Tierney, PE	**CONTRACTOR:** Esposito Construction
TEST PIT OBSERVER: D. Rohmeyer, PE	**EXCAVATOR:** Deere 50G Mini Excavator

The information shown hereon indicates the subsurface conditions encountered at the specified test pit location on the date(s) of excavation. Subsurface conditions are likely to vary across the project site. Interpretation of the subsurface data shall be at the discretion of the user.

TEST PIT LOG

201 WALNUT AVENUE
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY (FPA JOB NO. 16377.001)

TEST PIT NO.: TP-3
DATE: 1/27/2021

GROUND ELEV.: +62'±
DEPTH OF WATER: 74"±
GROUNDWATER ELEV.: +55.8'±
DEPTH TO EST. SEASONAL HIGH WATER: 69"±

DEPTH	DESCRIPTION
0 – 12"	Brown mf^{+} **SAND**, and^{+} Silt & Clay, trace f Gravel. (fill w/ few pieces of plastic)
12 – 41"	Brown & Grey-Brown **SILT & CLAY**, trace^{+} f Sand.
41 – 69"	Tan-Brown & Grey **SILT**, some f Sand. (w/ many pieces of cemented sands & few cobbles)
69 – 108"	Red-Brown cmf **SAND**, some^{+} cm^{+}f Gravel, little Silt. (w/ many cobbles)
108 – 122"	Red-Brown c^{+}mf **GRAVEL**, some^{-} cmf Sand, little Silt.
122 – 126"	Red-Brown highly weathered, highly fractured **SHALE**.

END OF TEST PIT AT @ 10.5'

NOTES:

SOILS ENGINEER: J. Tierney, PE	**CONTRACTOR:** Esposito Construction
TEST PIT OBSERVER: D. Rohmeyer, PE	**EXCAVATOR:** Deere 50G Mini Excavator

The information shown hereon indicates the subsurface conditions encountered at the specified test pit location on the date(s) of excavation. Subsurface conditions are likely to vary across the project site. Interpretation of the subsurface data shall be at the discretion of the user.

TEST PIT LOG

201 WALNUT AVENUE
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY (FPA JOB NO. 16377.001)

TEST PIT NO.: TP-4
DATE: 1/27/2021

GROUND ELEV.: +63'±
DEPTH OF WATER: 66"
GROUNDWATER ELEV.: +57.5'±
DEPTH TO EST. SEASONAL HIGH WATER: 57"

DEPTH	DESCRIPTION
0 – 16"	Brown mf^{+} **SAND**, and^{-} Silt, little^{-} mf^{+} Gravel. (w/ few roots)
16 – 36"	Light Brown **Clayey SILT**, little f Sand, trace^{+} cmf Gravel. (w/ few cobbles)
36 – 57"	Tan-Brown **SILT**, some^{-} f Sand. (w/ few pieces of cemented sands)
57 – 104"	Red-Brown cmf^{+} **SAND**, some^{+} m^{+}f Gravel, little^{+} Silt. (w/ many cobbles)
104 – 120"	Red-Brown highly weathered, highly fractured **SHALE**.

END OF TEST PIT AT @ 10' *(Excavator Refusal)*

NOTES:

SOILS ENGINEER: J. Tierney, PE	**CONTRACTOR:** Esposito Construction
TEST PIT OBSERVER: D. Rohmeyer, PE	**EXCAVATOR:** Deere 50G Mini Excavator

The information shown hereon indicates the subsurface conditions encountered at the specified test pit location on the date(s) of excavation. Subsurface conditions are likely to vary across the project site. Interpretation of the subsurface data shall be at the discretion of the user.

TEST PIT LOG

201 WALNUT AVENUE
CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY (FPA JOB NO. 16377.001)

TEST PIT NO.: TP-5
DATE: 1/27/2021

GROUND ELEV.: +60'±
DEPTH OF WATER: Dry
GROUNDWATER ELEV.: N/A
DEPTH TO EST. SEASONAL HIGH WATER: 80"

DEPTH	DESCRIPTION
0 – 14"	Dark Brown **Clayey SILT**, some^{-} cm^{+}f Sand, little^{+} c^{+}mf Gravel. (fill w/ many pieces of concrete slab, cinder block, asphalt & roots – approx. 40% by volume)
14 – 36"	Light Brown **SILT & CLAY**, little^{-} f Sand.
36 – 64"	Brown **Clayey SILT**, some^{+} mf Sand, little^{+} mf^{+} Gravel.
64 – 80"	Tan-Brown & Red-Brown **SILT**, some^{-} f Sand, trace^{+} mf Gravel.
80 – 90"	Red-Brown cmf^{+} **SAND**, some^{-} Silt, little cmf Gravel.

END OF TEST PIT AT @ 7.5'*

NOTES: *Test pit ended @ 7.5' due to limited access.

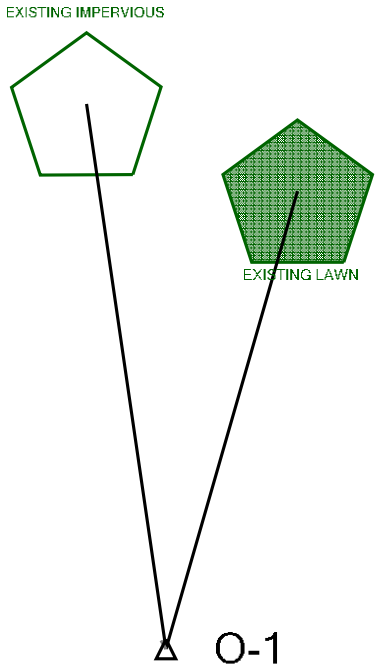
SOILS ENGINEER: J. Tierney, PE	**CONTRACTOR:** Esposito Construction
TEST PIT OBSERVER: D. Rohmeyer, PE	**EXCAVATOR:** Deere 50G Mini Excavator

The information shown hereon indicates the subsurface conditions encountered at the specified test pit location on the date(s) of excavation. Subsurface conditions are likely to vary across the project site. Interpretation of the subsurface data shall be at the discretion of the user.

APPENDIX B
Predevelopment Runoff Calculations

Project Summary	
Title	201 Walnut Avenue - Pre-Development Runoff Calculations
Engineer	Bahram Farzaneh
Company	French and Parrello Associates
Date	2/4/2021

Notes	Revision Date: 4/28/2021



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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft^3)	Time to Peak (min)	Peak Flow (ft^3/s)
EXISTING IMPERVIOUS	Pre-Development 2 year	2	5,038.000	727.000	1.41
EXISTING IMPERVIOUS	Pre-Development 10 year	10	7,872.000	727.000	2.17
EXISTING IMPERVIOUS	Pre-Development 100 year	100	13,484.000	727.000	3.66
EXISTING LAWN	Pre-Development 2 year	2	1,718.000	727.000	0.55
EXISTING LAWN	Pre-Development 10 year	10	3,689.000	727.000	1.20
EXISTING LAWN	Pre-Development 100 year	100	8,186.000	727.000	2.61

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft^3)	Time to Peak (min)	Peak Flow (ft^3/s)
O-1	Pre-Development 2 year	2	6,755.000	727.000	1.96
O-1	Pre-Development 10 year	10	11,561.000	727.000	3.36
O-1	Pre-Development 100 year	100	21,670.000	727.000	6.27

Subsection: Runoff CN-Area
Label: EXISTING IMPERVIOUS
Scenario: Pre-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil C	98.000	0.440	0.000	0.000	98.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.440	(N/A)	(N/A)	98.000

Subsection: Runoff CN-Area
Label: EXISTING IMPERVIOUS
Scenario: Pre-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil C	98.000	0.440	0.000	0.000	98.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.440	(N/A)	(N/A)	98.000

Subsection: Runoff CN-Area
Label: EXISTING IMPERVIOUS
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved parking lots, roofs, driveways, Streets and roads - Soil C	98.000	0.440	0.000	0.000	98.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.440	(N/A)	(N/A)	98.000

Subsection: Runoff CN-Area
Label: EXISTING LAWN
Scenario: Pre-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	0.407	0.000	0.000	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.407	(N/A)	(N/A)	74.000

Subsection: Runoff CN-Area
Label: EXISTING LAWN
Scenario: Pre-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	0.407	0.000	0.000	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.407	(N/A)	(N/A)	74.000

Subsection: Runoff CN-Area
Label: EXISTING LAWN
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil C	74.000	0.407	0.000	0.000	74.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	0.407	(N/A)	(N/A)	74.000

Storm Event	NOAA-D (3.39 in)
Return Event	2 years
Duration	1,440.000 min
Depth	3.39 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.440 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	1.41 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	1.41 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.440 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.16 in
Runoff Volume (Pervious)	5,042.078 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	5,038.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	4.99 ft³/s

Subsection: Unit Hydrograph Summary
Label: EXISTING IMPERVIOUS
Scenario: Pre-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (5.17 in)
Return Event	10 years
Duration	1,440.000 min
Depth	5.17 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.440 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	2.17 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	2.17 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.440 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.93 in
Runoff Volume (Pervious)	7,878.845 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	7,872.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	4.99 ft³/s

Subsection: Unit Hydrograph Summary
Label: EXISTING IMPERVIOUS
Scenario: Pre-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (8.69 in)
Return Event	100 years
Duration	1,440.000 min
Depth	8.69 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.440 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	3.66 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	3.66 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.440 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	8.45 in
Runoff Volume (Pervious)	13,496.031 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	13,484.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	4.99 ft³/s

Subsection: Unit Hydrograph Summary
Label: EXISTING IMPERVIOUS
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (3.39 in)
Return Event	2 years
Duration	1,440.000 min
Depth	3.39 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.407 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	0.55 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	0.55 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.407 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.16 in
Runoff Volume (Pervious)	1,720.616 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	1,718.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	4.61 ft³/s

Subsection: Unit Hydrograph Summary
Label: EXISTING LAWN
Scenario: Pre-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (5.17 in)
Return Event	10 years
Duration	1,440.000 min
Depth	5.17 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.407 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	1.20 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	1.20 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.407 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	2.50 in
Runoff Volume (Pervious)	3,694.398 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	3,689.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	4.61 ft³/s

Subsection: Unit Hydrograph Summary
Label: EXISTING LAWN
Scenario: Pre-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (8.69 in)
Return Event	100 years
Duration	1,440.000 min
Depth	8.69 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.407 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	2.62 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	2.61 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.407 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.55 in
Runoff Volume (Pervious)	8,195.440 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	8,186.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	4.61 ft³/s

Subsection: Unit Hydrograph Summary
Label: EXISTING LAWN
Scenario: Pre-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

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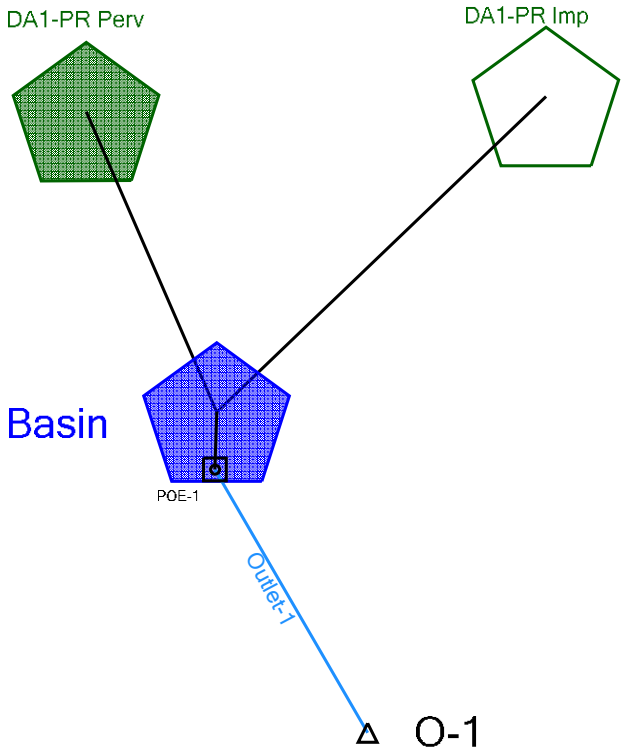
APPENDIX C
Post Development Runoff Calculations

Project Summary	
Title	201 Walnut Avenue - Post-Development Runoff Calculations
Engineer	Bahram Farzaneh
Company	French and Parrello Associates
Date	2/4/2021

Notes	Revision Date: 9/16/2022



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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (min)	Peak Flow (ft³/s)
DA1-PR Imp	Post-Development 2 year	2	8,472.000	727.000	2.38
DA1-PR Imp	Post-Development 10 year	10	13,239.000	727.000	3.65
DA1-PR Imp	Post-Development 25 year	25	16,590.000	727.000	4.54
DA1-PR Imp	Post-Development 100 year	100	22,678.000	727.000	6.15
DA1-PR Perv	Post-Development 2 year	2	464.000	727.000	0.15
DA1-PR Perv	Post-Development 10 year	10	997.000	727.000	0.32
DA1-PR Perv	Post-Development 25 year	25	1,412.000	727.000	0.46
DA1-PR Perv	Post-Development 100 year	100	2,212.000	727.000	0.71

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (min)	Peak Flow (ft³/s)
O-1	Post-Development 2 year	2	8,658.000	738.000	0.82
O-1	Post-Development 10 year	10	13,889.000	733.000	2.07
O-1	Post-Development 25 year	25	17,607.000	731.000	3.14
O-1	Post-Development 100 year	100	24,417.000	730.000	5.01

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (min)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
Basin (IN)	Post-Development 2 year	2	8,936.000	727.000	2.52	(N/A)	(N/A)
Basin (OUT)	Post-Development 2 year	2	8,658.000	738.000	0.82	59.50	2,402.000
Basin (IN)	Post-Development 10 year	10	14,236.000	727.000	3.97	(N/A)	(N/A)

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (min)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
Basin (OUT)	Post-Development 10 year	10	13,889.000	733.000	2.07	59.89	3,336.000
Basin (IN)	Post-Development 25 year	25	18,002.000	727.000	4.99	(N/A)	(N/A)
Basin (OUT)	Post-Development 25 year	25	17,607.000	731.000	3.14	60.10	3,839.000
Basin (IN)	Post-Development 100 year	100	24,890.000	727.000	6.85	(N/A)	(N/A)
Basin (OUT)	Post-Development 100 year	100	24,417.000	730.000	5.01	60.40	4,566.000

Storm Event	NOAA-D (3.39 in)
Return Event	2 years
Duration	1,440.000 min
Depth	3.39 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.740 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	2.38 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	2.38 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.740 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.16 in
Runoff Volume (Pervious)	8,479.859 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	8,472.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	8.38 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (5.17 in)
Return Event	10 years
Duration	1,440.000 min
Depth	5.17 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.740 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	3.65 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	3.65 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.740 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.93 in
Runoff Volume (Pervious)	13,250.784 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	13,239.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	8.38 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (6.42 in)
Return Event	25 years
Duration	1,440.000 min
Depth	6.42 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.740 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	4.54 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	4.54 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.740 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.18 in
Runoff Volume (Pervious)	16,604.553 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	16,590.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	8.38 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (8.69 in)
Return Event	100 years
Duration	1,440.000 min
Depth	8.69 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.740 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	6.16 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	6.15 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.740 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	8.45 in
Runoff Volume (Pervious)	22,697.870 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	22,678.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	8.38 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (3.39 in)
Return Event	2 years
Duration	1,440.000 min
Depth	3.39 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.110 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	0.15 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	0.15 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.110 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.16 in
Runoff Volume (Pervious)	465.031 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	464.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.25 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (5.17 in)
Return Event	10 years
Duration	1,440.000 min
Depth	5.17 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.110 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	0.33 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	0.32 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.110 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	2.50 in
Runoff Volume (Pervious)	998.486 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	997.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.25 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (6.42 in)
Return Event	25 years
Duration	1,440.000 min
Depth	6.42 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.110 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	0.46 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	0.46 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.110 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.54 in
Runoff Volume (Pervious)	1,413.973 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	1,412.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.25 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Storm Event	NOAA-D (8.69 in)
Return Event	100 years
Duration	1,440.000 min
Depth	8.69 in
Time of Concentration (Composite)	6.000 min
Area (User Defined)	0.110 acres

Computational Time Increment	0.800 min
Time to Peak (Computed)	727.200 min
Flow (Peak, Computed)	0.71 ft³/s
Output Increment	1.002 min
Time to Flow (Peak Interpolated Output)	727.000 min
Flow (Peak Interpolated Output)	0.71 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.110 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.55 in
Runoff Volume (Pervious)	2,214.984 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	2,212.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.000 min
Computational Time Increment	0.800 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.25 ft³/s

Subsection: Unit Hydrograph Summary
Label: DA1-PR Perv
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.000 min
Unit receding limb, Tr	16.000 min
Total unit time, Tb	20.000 min

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
Outlet-1	Basin

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (min)	Flow (Peak) (ft³/s)
Flow (From)	Outlet-1	8,657.755	738.000	0.82
Flow (In)	O-1	8,657.755	738.000	0.82

Subsection: Addition Summary
Label: O-1
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
Outlet-1	Basin

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (min)	Flow (Peak) (ft^3/s)
Flow (From)	Outlet-1	13,889.253	733.000	2.07
Flow (In)	O-1	13,889.253	733.000	2.07

Subsection: Addition Summary
Label: O-1
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
Outlet-1	Basin

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (min)	Flow (Peak) (ft^3/s)
Flow (From)	Outlet-1	17,607.464	731.000	3.14
Flow (In)	O-1	17,607.464	731.000	3.14

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
Outlet-1	Basin

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (min)	Flow (Peak) (ft³/s)
Flow (From)	Outlet-1	24,416.571	730.000	5.01
Flow (In)	O-1	24,416.571	730.000	5.01

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	58.50	58.50	58.50	58.50	58.50
5.000	58.50	58.50	58.50	58.50	58.50
10.000	58.50	58.50	58.50	58.50	58.50
15.000	58.50	58.50	58.50	58.50	58.50
20.000	58.50	58.50	58.50	58.50	58.50
25.000	58.50	58.50	58.50	58.50	58.50
30.000	58.50	58.50	58.50	58.50	58.50
35.000	58.50	58.50	58.50	58.50	58.50
40.000	58.50	58.50	58.50	58.50	58.50
45.000	58.50	58.50	58.50	58.50	58.50
50.000	58.50	58.50	58.50	58.50	58.50
55.000	58.50	58.50	58.50	58.50	58.50
60.000	58.50	58.50	58.50	58.50	58.50
65.000	58.50	58.50	58.50	58.50	58.50
70.000	58.50	58.50	58.50	58.50	58.50
75.000	58.50	58.50	58.50	58.50	58.50
80.000	58.50	58.50	58.50	58.50	58.50
85.000	58.50	58.50	58.50	58.50	58.50
90.000	58.50	58.50	58.50	58.50	58.50
95.000	58.50	58.50	58.50	58.50	58.50
100.000	58.50	58.50	58.50	58.50	58.50
105.000	58.50	58.50	58.50	58.50	58.50
110.000	58.50	58.50	58.50	58.50	58.50
115.000	58.50	58.50	58.51	58.51	58.51
120.000	58.51	58.51	58.51	58.51	58.51
125.000	58.51	58.51	58.51	58.51	58.51
130.000	58.51	58.51	58.51	58.51	58.51
135.000	58.51	58.51	58.51	58.51	58.51
140.000	58.51	58.51	58.51	58.51	58.51
145.000	58.51	58.51	58.51	58.51	58.51
150.000	58.51	58.51	58.51	58.51	58.51
155.000	58.51	58.51	58.51	58.52	58.52
160.000	58.52	58.52	58.52	58.52	58.52
165.000	58.52	58.52	58.52	58.52	58.52
170.000	58.52	58.52	58.52	58.52	58.52
175.000	58.52	58.52	58.52	58.52	58.52
180.000	58.52	58.52	58.52	58.52	58.52
185.000	58.52	58.52	58.52	58.52	58.52
190.000	58.52	58.53	58.53	58.53	58.53
195.000	58.53	58.53	58.53	58.53	58.53
200.000	58.53	58.53	58.53	58.53	58.53
205.000	58.53	58.53	58.53	58.53	58.53

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
210.000	58.53	58.53	58.53	58.53	58.53
215.000	58.53	58.53	58.53	58.53	58.53
220.000	58.54	58.54	58.54	58.54	58.54
225.000	58.54	58.54	58.54	58.54	58.54
230.000	58.54	58.54	58.54	58.54	58.54
235.000	58.54	58.54	58.54	58.54	58.54
240.000	58.54	58.54	58.54	58.54	58.54
245.000	58.54	58.54	58.55	58.55	58.55
250.000	58.55	58.55	58.55	58.55	58.55
255.000	58.55	58.55	58.55	58.55	58.55
260.000	58.55	58.55	58.55	58.55	58.55
265.000	58.55	58.55	58.55	58.55	58.55
270.000	58.55	58.55	58.55	58.55	58.56
275.000	58.56	58.56	58.56	58.56	58.56
280.000	58.56	58.56	58.56	58.56	58.56
285.000	58.56	58.56	58.56	58.56	58.56
290.000	58.56	58.56	58.56	58.56	58.56
295.000	58.56	58.56	58.56	58.56	58.56
300.000	58.56	58.57	58.57	58.57	58.57
305.000	58.57	58.57	58.57	58.57	58.57
310.000	58.57	58.57	58.57	58.57	58.57
315.000	58.57	58.57	58.57	58.57	58.57
320.000	58.57	58.57	58.57	58.57	58.57
325.000	58.57	58.57	58.58	58.58	58.58
330.000	58.58	58.58	58.58	58.58	58.58
335.000	58.58	58.58	58.58	58.58	58.58
340.000	58.58	58.58	58.58	58.58	58.58
345.000	58.58	58.58	58.58	58.58	58.58
350.000	58.58	58.58	58.58	58.58	58.59
355.000	58.59	58.59	58.59	58.59	58.59
360.000	58.59	58.59	58.59	58.59	58.59
365.000	58.59	58.59	58.59	58.59	58.59
370.000	58.59	58.59	58.59	58.59	58.59
375.000	58.59	58.59	58.59	58.59	58.59
380.000	58.60	58.60	58.60	58.60	58.60
385.000	58.60	58.60	58.60	58.60	58.60
390.000	58.60	58.60	58.60	58.60	58.60
395.000	58.60	58.60	58.60	58.60	58.60
400.000	58.60	58.60	58.60	58.61	58.61
405.000	58.61	58.61	58.61	58.61	58.61
410.000	58.61	58.61	58.61	58.61	58.61
415.000	58.61	58.61	58.61	58.61	58.61

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
420.000	58.61	58.61	58.61	58.61	58.61
425.000	58.61	58.61	58.61	58.62	58.62
430.000	58.62	58.62	58.62	58.62	58.62
435.000	58.62	58.62	58.62	58.62	58.62
440.000	58.62	58.62	58.62	58.62	58.62
445.000	58.62	58.62	58.62	58.62	58.62
450.000	58.62	58.62	58.62	58.62	58.62
455.000	58.63	58.63	58.63	58.63	58.63
460.000	58.63	58.63	58.63	58.63	58.63
465.000	58.63	58.63	58.63	58.63	58.63
470.000	58.63	58.63	58.63	58.63	58.63
475.000	58.63	58.63	58.63	58.63	58.63
480.000	58.63	58.63	58.63	58.63	58.64
485.000	58.64	58.64	58.64	58.64	58.64
490.000	58.64	58.64	58.64	58.64	58.64
495.000	58.64	58.64	58.64	58.64	58.64
500.000	58.64	58.64	58.64	58.64	58.64
505.000	58.64	58.64	58.64	58.64	58.64
510.000	58.64	58.64	58.64	58.64	58.65
515.000	58.65	58.65	58.65	58.65	58.65
520.000	58.65	58.65	58.65	58.65	58.65
525.000	58.65	58.65	58.65	58.65	58.65
530.000	58.65	58.65	58.65	58.65	58.65
535.000	58.65	58.65	58.65	58.65	58.65
540.000	58.65	58.65	58.65	58.65	58.65
545.000	58.66	58.66	58.66	58.66	58.66
550.000	58.66	58.66	58.66	58.66	58.66
555.000	58.66	58.66	58.66	58.66	58.66
560.000	58.66	58.66	58.66	58.66	58.66
565.000	58.66	58.66	58.67	58.67	58.67
570.000	58.67	58.67	58.67	58.67	58.67
575.000	58.67	58.67	58.67	58.67	58.67
580.000	58.67	58.67	58.67	58.67	58.68
585.000	58.68	58.68	58.68	58.68	58.68
590.000	58.68	58.68	58.68	58.68	58.68
595.000	58.68	58.68	58.68	58.69	58.69
600.000	58.69	58.69	58.69	58.69	58.69
605.000	58.69	58.69	58.69	58.69	58.69
610.000	58.69	58.70	58.70	58.70	58.70
615.000	58.70	58.70	58.70	58.70	58.70
620.000	58.70	58.70	58.70	58.70	58.71
625.000	58.71	58.71	58.71	58.71	58.71

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
630.000	58.71	58.71	58.71	58.71	58.71
635.000	58.71	58.72	58.72	58.72	58.72
640.000	58.72	58.72	58.72	58.72	58.72
645.000	58.73	58.73	58.73	58.73	58.73
650.000	58.73	58.73	58.74	58.74	58.74
655.000	58.74	58.74	58.74	58.74	58.75
660.000	58.75	58.75	58.75	58.75	58.75
665.000	58.76	58.76	58.76	58.76	58.76
670.000	58.77	58.77	58.77	58.77	58.78
675.000	58.78	58.78	58.78	58.79	58.79
680.000	58.79	58.79	58.80	58.80	58.80
685.000	58.80	58.81	58.81	58.81	58.82
690.000	58.82	58.82	58.83	58.83	58.83
695.000	58.84	58.84	58.85	58.85	58.86
700.000	58.86	58.87	58.87	58.88	58.88
705.000	58.89	58.89	58.90	58.91	58.91
710.000	58.92	58.93	58.94	58.95	58.96
715.000	58.97	58.99	59.00	59.02	59.04
720.000	59.06	59.09	59.11	59.14	59.18
725.000	59.22	59.26	59.30	59.35	59.39
730.000	59.42	59.45	59.46	59.48	59.49
735.000	59.49	59.50	59.50	59.50	59.50
740.000	59.50	59.50	59.49	59.49	59.48
745.000	59.48	59.47	59.46	59.45	59.45
750.000	59.44	59.43	59.43	59.42	59.41
755.000	59.40	59.39	59.38	59.37	59.37
760.000	59.36	59.35	59.34	59.33	59.32
765.000	59.31	59.30	59.29	59.28	59.27
770.000	59.26	59.25	59.24	59.24	59.23
775.000	59.22	59.21	59.20	59.19	59.18
780.000	59.17	59.16	59.16	59.15	59.14
785.000	59.13	59.12	59.11	59.10	59.10
790.000	59.09	59.08	59.07	59.06	59.06
795.000	59.05	59.04	59.03	59.03	59.02
800.000	59.01	59.00	59.00	58.99	58.98
805.000	58.98	58.97	58.97	58.96	58.95
810.000	58.95	58.94	58.94	58.93	58.93
815.000	58.92	58.92	58.91	58.91	58.90
820.000	58.90	58.90	58.89	58.89	58.88
825.000	58.88	58.88	58.87	58.87	58.87
830.000	58.86	58.86	58.86	58.85	58.85
835.000	58.85	58.85	58.84	58.84	58.84

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
840.000	58.84	58.83	58.83	58.83	58.83
845.000	58.82	58.82	58.82	58.82	58.82
850.000	58.81	58.81	58.81	58.81	58.81
855.000	58.80	58.80	58.80	58.80	58.80
860.000	58.80	58.79	58.79	58.79	58.79
865.000	58.79	58.79	58.78	58.78	58.78
870.000	58.78	58.78	58.78	58.78	58.77
875.000	58.77	58.77	58.77	58.77	58.77
880.000	58.77	58.77	58.76	58.76	58.76
885.000	58.76	58.76	58.76	58.76	58.76
890.000	58.76	58.75	58.75	58.75	58.75
895.000	58.75	58.75	58.75	58.75	58.75
900.000	58.74	58.74	58.74	58.74	58.74
905.000	58.74	58.74	58.74	58.74	58.74
910.000	58.73	58.73	58.73	58.73	58.73
915.000	58.73	58.73	58.73	58.73	58.73
920.000	58.73	58.72	58.72	58.72	58.72
925.000	58.72	58.72	58.72	58.72	58.72
930.000	58.72	58.72	58.72	58.72	58.72
935.000	58.72	58.71	58.71	58.71	58.71
940.000	58.71	58.71	58.71	58.71	58.71
945.000	58.71	58.71	58.71	58.71	58.71
950.000	58.71	58.71	58.71	58.71	58.71
955.000	58.70	58.70	58.70	58.70	58.70
960.000	58.70	58.70	58.70	58.70	58.70
965.000	58.70	58.70	58.70	58.70	58.70
970.000	58.70	58.70	58.70	58.70	58.70
975.000	58.70	58.70	58.70	58.70	58.70
980.000	58.69	58.69	58.69	58.69	58.69
985.000	58.69	58.69	58.69	58.69	58.69
990.000	58.69	58.69	58.69	58.69	58.69
995.000	58.69	58.69	58.69	58.69	58.69
1,000.000	58.69	58.69	58.69	58.69	58.69
1,005.000	58.69	58.69	58.69	58.68	58.68
1,010.000	58.68	58.68	58.68	58.68	58.68
1,015.000	58.68	58.68	58.68	58.68	58.68
1,020.000	58.68	58.68	58.68	58.68	58.68
1,025.000	58.68	58.68	58.68	58.68	58.68
1,030.000	58.68	58.68	58.68	58.68	58.68
1,035.000	58.68	58.68	58.67	58.67	58.67
1,040.000	58.67	58.67	58.67	58.67	58.67
1,045.000	58.67	58.67	58.67	58.67	58.67

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,050.000	58.67	58.67	58.67	58.67	58.67
1,055.000	58.67	58.67	58.67	58.67	58.67
1,060.000	58.67	58.67	58.67	58.67	58.67
1,065.000	58.67	58.67	58.66	58.66	58.66
1,070.000	58.66	58.66	58.66	58.66	58.66
1,075.000	58.66	58.66	58.66	58.66	58.66
1,080.000	58.66	58.66	58.66	58.66	58.66
1,085.000	58.66	58.66	58.66	58.66	58.66
1,090.000	58.66	58.66	58.66	58.66	58.66
1,095.000	58.66	58.66	58.66	58.66	58.65
1,100.000	58.65	58.65	58.65	58.65	58.65
1,105.000	58.65	58.65	58.65	58.65	58.65
1,110.000	58.65	58.65	58.65	58.65	58.65
1,115.000	58.65	58.65	58.65	58.65	58.65
1,120.000	58.65	58.65	58.65	58.65	58.65
1,125.000	58.65	58.65	58.65	58.65	58.65
1,130.000	58.65	58.65	58.65	58.65	58.65
1,135.000	58.65	58.65	58.65	58.65	58.65
1,140.000	58.65	58.65	58.65	58.65	58.64
1,145.000	58.64	58.64	58.64	58.64	58.64
1,150.000	58.64	58.64	58.64	58.64	58.64
1,155.000	58.64	58.64	58.64	58.64	58.64
1,160.000	58.64	58.64	58.64	58.64	58.64
1,165.000	58.64	58.64	58.64	58.64	58.64
1,170.000	58.64	58.64	58.64	58.64	58.64
1,175.000	58.64	58.64	58.64	58.64	58.64
1,180.000	58.64	58.64	58.64	58.64	58.64
1,185.000	58.64	58.64	58.64	58.64	58.64
1,190.000	58.64	58.64	58.64	58.64	58.64
1,195.000	58.64	58.64	58.64	58.64	58.64
1,200.000	58.64	58.64	58.64	58.64	58.64
1,205.000	58.64	58.64	58.64	58.64	58.64
1,210.000	58.64	58.64	58.64	58.64	58.64
1,215.000	58.64	58.64	58.64	58.64	58.63
1,220.000	58.63	58.63	58.63	58.63	58.63
1,225.000	58.63	58.63	58.63	58.63	58.63
1,230.000	58.63	58.63	58.63	58.63	58.63
1,235.000	58.63	58.63	58.63	58.63	58.63
1,240.000	58.63	58.63	58.63	58.63	58.63
1,245.000	58.63	58.63	58.63	58.63	58.63
1,250.000	58.63	58.63	58.63	58.63	58.63
1,255.000	58.63	58.63	58.63	58.63	58.63

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,260.000	58.63	58.63	58.63	58.63	58.63
1,265.000	58.63	58.63	58.63	58.63	58.63
1,270.000	58.63	58.63	58.63	58.63	58.63
1,275.000	58.63	58.63	58.63	58.63	58.63
1,280.000	58.63	58.63	58.63	58.63	58.63
1,285.000	58.63	58.63	58.63	58.63	58.63
1,290.000	58.63	58.63	58.63	58.63	58.63
1,295.000	58.63	58.63	58.63	58.63	58.63
1,300.000	58.63	58.63	58.63	58.63	58.63
1,305.000	58.63	58.63	58.63	58.63	58.63
1,310.000	58.63	58.63	58.63	58.63	58.63
1,315.000	58.63	58.63	58.63	58.63	58.63
1,320.000	58.63	58.63	58.63	58.63	58.63
1,325.000	58.63	58.63	58.63	58.63	58.62
1,330.000	58.62	58.62	58.62	58.62	58.62
1,335.000	58.62	58.62	58.62	58.62	58.62
1,340.000	58.62	58.62	58.62	58.62	58.62
1,345.000	58.62	58.62	58.62	58.62	58.62
1,350.000	58.62	58.62	58.62	58.62	58.62
1,355.000	58.62	58.62	58.62	58.62	58.62
1,360.000	58.62	58.62	58.62	58.62	58.62
1,365.000	58.62	58.62	58.62	58.62	58.62
1,370.000	58.62	58.62	58.62	58.62	58.62
1,375.000	58.62	58.62	58.62	58.62	58.62
1,380.000	58.62	58.62	58.62	58.62	58.62
1,385.000	58.62	58.62	58.62	58.62	58.62
1,390.000	58.62	58.62	58.62	58.62	58.62
1,395.000	58.62	58.62	58.62	58.62	58.62
1,400.000	58.62	58.62	58.62	58.62	58.62
1,405.000	58.62	58.62	58.62	58.62	58.62
1,410.000	58.62	58.62	58.62	58.62	58.62
1,415.000	58.62	58.62	58.62	58.62	58.62
1,420.000	58.62	58.62	58.62	58.62	58.62
1,425.000	58.62	58.62	58.62	58.62	58.62
1,430.000	58.62	58.62	58.62	58.62	58.62
1,435.000	58.62	58.62	58.62	58.62	58.62
1,440.000	58.62	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	58.50	58.50	58.50	58.50	58.50
5.000	58.50	58.50	58.50	58.50	58.50
10.000	58.50	58.50	58.50	58.50	58.50
15.000	58.50	58.50	58.50	58.50	58.50
20.000	58.50	58.50	58.50	58.50	58.50
25.000	58.50	58.50	58.50	58.50	58.50
30.000	58.50	58.50	58.50	58.50	58.50
35.000	58.50	58.50	58.50	58.50	58.50
40.000	58.50	58.50	58.50	58.50	58.50
45.000	58.50	58.50	58.50	58.50	58.50
50.000	58.50	58.50	58.50	58.50	58.50
55.000	58.50	58.50	58.50	58.50	58.50
60.000	58.50	58.50	58.50	58.50	58.50
65.000	58.50	58.50	58.50	58.50	58.50
70.000	58.50	58.50	58.50	58.50	58.50
75.000	58.50	58.50	58.50	58.50	58.50
80.000	58.51	58.51	58.51	58.51	58.51
85.000	58.51	58.51	58.51	58.51	58.51
90.000	58.51	58.51	58.51	58.51	58.51
95.000	58.51	58.51	58.51	58.51	58.51
100.000	58.51	58.51	58.51	58.51	58.51
105.000	58.51	58.51	58.51	58.52	58.52
110.000	58.52	58.52	58.52	58.52	58.52
115.000	58.52	58.52	58.52	58.52	58.52
120.000	58.52	58.52	58.52	58.52	58.52
125.000	58.52	58.52	58.52	58.52	58.53
130.000	58.53	58.53	58.53	58.53	58.53
135.000	58.53	58.53	58.53	58.53	58.53
140.000	58.53	58.53	58.53	58.53	58.53
145.000	58.53	58.53	58.53	58.54	58.54
150.000	58.54	58.54	58.54	58.54	58.54
155.000	58.54	58.54	58.54	58.54	58.54
160.000	58.54	58.54	58.54	58.54	58.54
165.000	58.55	58.55	58.55	58.55	58.55
170.000	58.55	58.55	58.55	58.55	58.55
175.000	58.55	58.55	58.55	58.55	58.55
180.000	58.55	58.55	58.55	58.56	58.56
185.000	58.56	58.56	58.56	58.56	58.56
190.000	58.56	58.56	58.56	58.56	58.56
195.000	58.56	58.56	58.56	58.56	58.57
200.000	58.57	58.57	58.57	58.57	58.57
205.000	58.57	58.57	58.57	58.57	58.57

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
210.000	58.57	58.57	58.57	58.57	58.57
215.000	58.58	58.58	58.58	58.58	58.58
220.000	58.58	58.58	58.58	58.58	58.58
225.000	58.58	58.58	58.58	58.58	58.58
230.000	58.58	58.58	58.59	58.59	58.59
235.000	58.59	58.59	58.59	58.59	58.59
240.000	58.59	58.59	58.59	58.59	58.59
245.000	58.59	58.59	58.59	58.60	58.60
250.000	58.60	58.60	58.60	58.60	58.60
255.000	58.60	58.60	58.60	58.60	58.60
260.000	58.60	58.60	58.60	58.60	58.60
265.000	58.61	58.61	58.61	58.61	58.61
270.000	58.61	58.61	58.61	58.61	58.61
275.000	58.61	58.61	58.61	58.61	58.61
280.000	58.61	58.61	58.61	58.61	58.62
285.000	58.62	58.62	58.62	58.62	58.62
290.000	58.62	58.62	58.62	58.62	58.62
295.000	58.62	58.62	58.62	58.62	58.62
300.000	58.62	58.62	58.62	58.62	58.62
305.000	58.62	58.62	58.62	58.62	58.63
310.000	58.63	58.63	58.63	58.63	58.63
315.000	58.63	58.63	58.63	58.63	58.63
320.000	58.63	58.63	58.63	58.63	58.63
325.000	58.63	58.63	58.63	58.63	58.63
330.000	58.63	58.63	58.63	58.63	58.63
335.000	58.63	58.63	58.63	58.63	58.63
340.000	58.64	58.64	58.64	58.64	58.64
345.000	58.64	58.64	58.64	58.64	58.64
350.000	58.64	58.64	58.64	58.64	58.64
355.000	58.64	58.64	58.64	58.64	58.64
360.000	58.64	58.64	58.64	58.64	58.64
365.000	58.64	58.64	58.64	58.64	58.64
370.000	58.64	58.64	58.64	58.64	58.64
375.000	58.64	58.64	58.65	58.65	58.65
380.000	58.65	58.65	58.65	58.65	58.65
385.000	58.65	58.65	58.65	58.65	58.65
390.000	58.65	58.65	58.65	58.65	58.65
395.000	58.65	58.65	58.65	58.65	58.65
400.000	58.65	58.65	58.65	58.65	58.65
405.000	58.65	58.65	58.65	58.66	58.66
410.000	58.66	58.66	58.66	58.66	58.66
415.000	58.66	58.66	58.66	58.66	58.66

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
420.000	58.66	58.66	58.66	58.66	58.66
425.000	58.66	58.66	58.66	58.66	58.66
430.000	58.66	58.66	58.66	58.66	58.66
435.000	58.67	58.67	58.67	58.67	58.67
440.000	58.67	58.67	58.67	58.67	58.67
445.000	58.67	58.67	58.67	58.67	58.67
450.000	58.67	58.67	58.67	58.67	58.67
455.000	58.67	58.67	58.67	58.67	58.68
460.000	58.68	58.68	58.68	58.68	58.68
465.000	58.68	58.68	58.68	58.68	58.68
470.000	58.68	58.68	58.68	58.68	58.68
475.000	58.68	58.68	58.68	58.68	58.68
480.000	58.68	58.68	58.68	58.69	58.69
485.000	58.69	58.69	58.69	58.69	58.69
490.000	58.69	58.69	58.69	58.69	58.69
495.000	58.69	58.69	58.69	58.69	58.69
500.000	58.69	58.69	58.69	58.69	58.69
505.000	58.69	58.70	58.70	58.70	58.70
510.000	58.70	58.70	58.70	58.70	58.70
515.000	58.70	58.70	58.70	58.70	58.70
520.000	58.70	58.70	58.70	58.70	58.70
525.000	58.70	58.70	58.70	58.71	58.71
530.000	58.71	58.71	58.71	58.71	58.71
535.000	58.71	58.71	58.71	58.71	58.71
540.000	58.71	58.71	58.71	58.71	58.71
545.000	58.71	58.71	58.71	58.71	58.71
550.000	58.71	58.71	58.72	58.72	58.72
555.000	58.72	58.72	58.72	58.72	58.72
560.000	58.72	58.72	58.72	58.72	58.72
565.000	58.72	58.72	58.72	58.73	58.73
570.000	58.73	58.73	58.73	58.73	58.73
575.000	58.73	58.73	58.73	58.73	58.73
580.000	58.73	58.74	58.74	58.74	58.74
585.000	58.74	58.74	58.74	58.74	58.74
590.000	58.74	58.74	58.74	58.75	58.75
595.000	58.75	58.75	58.75	58.75	58.75
600.000	58.75	58.75	58.75	58.75	58.76
605.000	58.76	58.76	58.76	58.76	58.76
610.000	58.76	58.76	58.76	58.76	58.77
615.000	58.77	58.77	58.77	58.77	58.77
620.000	58.77	58.77	58.77	58.77	58.78
625.000	58.78	58.78	58.78	58.78	58.78

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
630.000	58.78	58.78	58.78	58.78	58.79
635.000	58.79	58.79	58.79	58.79	58.79
640.000	58.79	58.80	58.80	58.80	58.80
645.000	58.80	58.80	58.81	58.81	58.81
650.000	58.81	58.81	58.82	58.82	58.82
655.000	58.82	58.82	58.83	58.83	58.83
660.000	58.83	58.84	58.84	58.84	58.84
665.000	58.85	58.85	58.85	58.85	58.86
670.000	58.86	58.86	58.87	58.87	58.87
675.000	58.88	58.88	58.88	58.89	58.89
680.000	58.89	58.90	58.90	58.91	58.91
685.000	58.91	58.92	58.92	58.93	58.93
690.000	58.93	58.94	58.94	58.95	58.95
695.000	58.96	58.96	58.97	58.98	58.98
700.000	58.99	59.00	59.01	59.01	59.02
705.000	59.03	59.04	59.05	59.06	59.07
710.000	59.08	59.10	59.11	59.13	59.15
715.000	59.17	59.19	59.22	59.25	59.28
720.000	59.32	59.36	59.41	59.46	59.52
725.000	59.58	59.65	59.72	59.78	59.83
730.000	59.86	59.88	59.89	59.89	59.89
735.000	59.88	59.87	59.85	59.84	59.82
740.000	59.81	59.80	59.78	59.77	59.75
745.000	59.74	59.72	59.71	59.70	59.69
750.000	59.67	59.66	59.65	59.64	59.63
755.000	59.62	59.61	59.60	59.59	59.58
760.000	59.57	59.56	59.55	59.55	59.54
765.000	59.53	59.52	59.51	59.50	59.50
770.000	59.49	59.48	59.47	59.46	59.45
775.000	59.45	59.44	59.43	59.42	59.41
780.000	59.40	59.39	59.38	59.38	59.37
785.000	59.36	59.35	59.34	59.33	59.32
790.000	59.31	59.30	59.29	59.29	59.28
795.000	59.27	59.26	59.25	59.24	59.23
800.000	59.22	59.22	59.21	59.20	59.19
805.000	59.18	59.17	59.17	59.16	59.15
810.000	59.14	59.13	59.12	59.12	59.11
815.000	59.10	59.09	59.09	59.08	59.07
820.000	59.06	59.06	59.05	59.04	59.03
825.000	59.03	59.02	59.01	59.01	59.00
830.000	58.99	58.99	58.98	58.98	58.97
835.000	58.97	58.96	58.96	58.95	58.95

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
840.000	58.94	58.94	58.93	58.93	58.93
845.000	58.92	58.92	58.92	58.91	58.91
850.000	58.91	58.90	58.90	58.90	58.89
855.000	58.89	58.89	58.89	58.88	58.88
860.000	58.88	58.88	58.87	58.87	58.87
865.000	58.87	58.86	58.86	58.86	58.86
870.000	58.86	58.85	58.85	58.85	58.85
875.000	58.85	58.84	58.84	58.84	58.84
880.000	58.84	58.83	58.83	58.83	58.83
885.000	58.83	58.83	58.82	58.82	58.82
890.000	58.82	58.82	58.82	58.82	58.81
895.000	58.81	58.81	58.81	58.81	58.81
900.000	58.81	58.80	58.80	58.80	58.80
905.000	58.80	58.80	58.80	58.80	58.79
910.000	58.79	58.79	58.79	58.79	58.79
915.000	58.79	58.79	58.78	58.78	58.78
920.000	58.78	58.78	58.78	58.78	58.78
925.000	58.78	58.78	58.77	58.77	58.77
930.000	58.77	58.77	58.77	58.77	58.77
935.000	58.77	58.77	58.77	58.77	58.76
940.000	58.76	58.76	58.76	58.76	58.76
945.000	58.76	58.76	58.76	58.76	58.76
950.000	58.76	58.76	58.76	58.75	58.75
955.000	58.75	58.75	58.75	58.75	58.75
960.000	58.75	58.75	58.75	58.75	58.75
965.000	58.75	58.75	58.75	58.75	58.75
970.000	58.75	58.74	58.74	58.74	58.74
975.000	58.74	58.74	58.74	58.74	58.74
980.000	58.74	58.74	58.74	58.74	58.74
985.000	58.74	58.74	58.74	58.74	58.74
990.000	58.74	58.74	58.73	58.73	58.73
995.000	58.73	58.73	58.73	58.73	58.73
1,000.000	58.73	58.73	58.73	58.73	58.73
1,005.000	58.73	58.73	58.73	58.73	58.73
1,010.000	58.73	58.73	58.73	58.73	58.73
1,015.000	58.73	58.72	58.72	58.72	58.72
1,020.000	58.72	58.72	58.72	58.72	58.72
1,025.000	58.72	58.72	58.72	58.72	58.72
1,030.000	58.72	58.72	58.72	58.72	58.72
1,035.000	58.72	58.72	58.72	58.72	58.72
1,040.000	58.72	58.72	58.72	58.72	58.71
1,045.000	58.71	58.71	58.71	58.71	58.71

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,050.000	58.71	58.71	58.71	58.71	58.71
1,055.000	58.71	58.71	58.71	58.71	58.71
1,060.000	58.71	58.71	58.71	58.71	58.71
1,065.000	58.71	58.71	58.71	58.71	58.71
1,070.000	58.71	58.71	58.71	58.70	58.70
1,075.000	58.70	58.70	58.70	58.70	58.70
1,080.000	58.70	58.70	58.70	58.70	58.70
1,085.000	58.70	58.70	58.70	58.70	58.70
1,090.000	58.70	58.70	58.70	58.70	58.70
1,095.000	58.70	58.70	58.70	58.70	58.70
1,100.000	58.70	58.70	58.70	58.70	58.69
1,105.000	58.69	58.69	58.69	58.69	58.69
1,110.000	58.69	58.69	58.69	58.69	58.69
1,115.000	58.69	58.69	58.69	58.69	58.69
1,120.000	58.69	58.69	58.69	58.69	58.69
1,125.000	58.69	58.69	58.69	58.69	58.69
1,130.000	58.69	58.69	58.69	58.69	58.69
1,135.000	58.69	58.69	58.69	58.69	58.69
1,140.000	58.69	58.69	58.69	58.69	58.69
1,145.000	58.69	58.69	58.68	58.68	58.68
1,150.000	58.68	58.68	58.68	58.68	58.68
1,155.000	58.68	58.68	58.68	58.68	58.68
1,160.000	58.68	58.68	58.68	58.68	58.68
1,165.000	58.68	58.68	58.68	58.68	58.68
1,170.000	58.68	58.68	58.68	58.68	58.68
1,175.000	58.68	58.68	58.68	58.68	58.68
1,180.000	58.68	58.68	58.68	58.68	58.68
1,185.000	58.68	58.68	58.68	58.68	58.68
1,190.000	58.68	58.68	58.68	58.68	58.68
1,195.000	58.68	58.68	58.68	58.68	58.68
1,200.000	58.68	58.68	58.68	58.68	58.67
1,205.000	58.67	58.67	58.67	58.67	58.67
1,210.000	58.67	58.67	58.67	58.67	58.67
1,215.000	58.67	58.67	58.67	58.67	58.67
1,220.000	58.67	58.67	58.67	58.67	58.67
1,225.000	58.67	58.67	58.67	58.67	58.67
1,230.000	58.67	58.67	58.67	58.67	58.67
1,235.000	58.67	58.67	58.67	58.67	58.67
1,240.000	58.67	58.67	58.67	58.67	58.67
1,245.000	58.67	58.67	58.67	58.67	58.67
1,250.000	58.67	58.67	58.67	58.67	58.67
1,255.000	58.67	58.67	58.67	58.67	58.67

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,260.000	58.67	58.67	58.67	58.67	58.67
1,265.000	58.67	58.67	58.67	58.67	58.67
1,270.000	58.67	58.67	58.67	58.67	58.67
1,275.000	58.67	58.66	58.66	58.66	58.66
1,280.000	58.66	58.66	58.66	58.66	58.66
1,285.000	58.66	58.66	58.66	58.66	58.66
1,290.000	58.66	58.66	58.66	58.66	58.66
1,295.000	58.66	58.66	58.66	58.66	58.66
1,300.000	58.66	58.66	58.66	58.66	58.66
1,305.000	58.66	58.66	58.66	58.66	58.66
1,310.000	58.66	58.66	58.66	58.66	58.66
1,315.000	58.66	58.66	58.66	58.66	58.66
1,320.000	58.66	58.66	58.66	58.66	58.66
1,325.000	58.66	58.66	58.66	58.66	58.66
1,330.000	58.66	58.66	58.66	58.66	58.66
1,335.000	58.66	58.66	58.66	58.66	58.66
1,340.000	58.66	58.66	58.66	58.66	58.66
1,345.000	58.66	58.66	58.66	58.66	58.66
1,350.000	58.66	58.66	58.66	58.66	58.66
1,355.000	58.65	58.65	58.65	58.65	58.65
1,360.000	58.65	58.65	58.65	58.65	58.65
1,365.000	58.65	58.65	58.65	58.65	58.65
1,370.000	58.65	58.65	58.65	58.65	58.65
1,375.000	58.65	58.65	58.65	58.65	58.65
1,380.000	58.65	58.65	58.65	58.65	58.65
1,385.000	58.65	58.65	58.65	58.65	58.65
1,390.000	58.65	58.65	58.65	58.65	58.65
1,395.000	58.65	58.65	58.65	58.65	58.65
1,400.000	58.65	58.65	58.65	58.65	58.65
1,405.000	58.65	58.65	58.65	58.65	58.65
1,410.000	58.65	58.65	58.65	58.65	58.65
1,415.000	58.65	58.65	58.65	58.65	58.65
1,420.000	58.65	58.65	58.65	58.65	58.65
1,425.000	58.65	58.65	58.65	58.65	58.65
1,430.000	58.65	58.65	58.65	58.65	58.65
1,435.000	58.65	58.64	58.64	58.64	58.64
1,440.000	58.64	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	58.50	58.50	58.50	58.50	58.50
5.000	58.50	58.50	58.50	58.50	58.50
10.000	58.50	58.50	58.50	58.50	58.50
15.000	58.50	58.50	58.50	58.50	58.50
20.000	58.50	58.50	58.50	58.50	58.50
25.000	58.50	58.50	58.50	58.50	58.50
30.000	58.50	58.50	58.50	58.50	58.50
35.000	58.50	58.50	58.50	58.50	58.50
40.000	58.50	58.50	58.50	58.50	58.50
45.000	58.50	58.50	58.50	58.50	58.50
50.000	58.50	58.50	58.50	58.50	58.50
55.000	58.50	58.50	58.50	58.50	58.50
60.000	58.50	58.50	58.50	58.50	58.50
65.000	58.50	58.51	58.51	58.51	58.51
70.000	58.51	58.51	58.51	58.51	58.51
75.000	58.51	58.51	58.51	58.51	58.51
80.000	58.51	58.51	58.51	58.51	58.51
85.000	58.51	58.51	58.51	58.52	58.52
90.000	58.52	58.52	58.52	58.52	58.52
95.000	58.52	58.52	58.52	58.52	58.52
100.000	58.52	58.52	58.52	58.52	58.52
105.000	58.53	58.53	58.53	58.53	58.53
110.000	58.53	58.53	58.53	58.53	58.53
115.000	58.53	58.53	58.53	58.53	58.53
120.000	58.53	58.54	58.54	58.54	58.54
125.000	58.54	58.54	58.54	58.54	58.54
130.000	58.54	58.54	58.54	58.54	58.54
135.000	58.55	58.55	58.55	58.55	58.55
140.000	58.55	58.55	58.55	58.55	58.55
145.000	58.55	58.55	58.55	58.56	58.56
150.000	58.56	58.56	58.56	58.56	58.56
155.000	58.56	58.56	58.56	58.56	58.56
160.000	58.56	58.57	58.57	58.57	58.57
165.000	58.57	58.57	58.57	58.57	58.57
170.000	58.57	58.57	58.57	58.57	58.58
175.000	58.58	58.58	58.58	58.58	58.58
180.000	58.58	58.58	58.58	58.58	58.58
185.000	58.58	58.58	58.59	58.59	58.59
190.000	58.59	58.59	58.59	58.59	58.59
195.000	58.59	58.59	58.59	58.59	58.59
200.000	58.60	58.60	58.60	58.60	58.60
205.000	58.60	58.60	58.60	58.60	58.60

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
210.000	58.60	58.60	58.61	58.61	58.61
215.000	58.61	58.61	58.61	58.61	58.61
220.000	58.61	58.61	58.61	58.61	58.61
225.000	58.61	58.61	58.62	58.62	58.62
230.000	58.62	58.62	58.62	58.62	58.62
235.000	58.62	58.62	58.62	58.62	58.62
240.000	58.62	58.62	58.62	58.62	58.63
245.000	58.63	58.63	58.63	58.63	58.63
250.000	58.63	58.63	58.63	58.63	58.63
255.000	58.63	58.63	58.63	58.63	58.63
260.000	58.63	58.63	58.63	58.63	58.64
265.000	58.64	58.64	58.64	58.64	58.64
270.000	58.64	58.64	58.64	58.64	58.64
275.000	58.64	58.64	58.64	58.64	58.64
280.000	58.64	58.64	58.64	58.64	58.64
285.000	58.64	58.64	58.64	58.64	58.65
290.000	58.65	58.65	58.65	58.65	58.65
295.000	58.65	58.65	58.65	58.65	58.65
300.000	58.65	58.65	58.65	58.65	58.65
305.000	58.65	58.65	58.65	58.65	58.65
310.000	58.65	58.65	58.65	58.65	58.65
315.000	58.65	58.65	58.65	58.66	58.66
320.000	58.66	58.66	58.66	58.66	58.66
325.000	58.66	58.66	58.66	58.66	58.66
330.000	58.66	58.66	58.66	58.66	58.66
335.000	58.66	58.66	58.66	58.66	58.66
340.000	58.66	58.66	58.66	58.66	58.66
345.000	58.66	58.66	58.66	58.66	58.66
350.000	58.66	58.66	58.66	58.66	58.67
355.000	58.67	58.67	58.67	58.67	58.67
360.000	58.67	58.67	58.67	58.67	58.67
365.000	58.67	58.67	58.67	58.67	58.67
370.000	58.67	58.67	58.67	58.67	58.67
375.000	58.67	58.67	58.67	58.67	58.67
380.000	58.67	58.67	58.67	58.67	58.67
385.000	58.67	58.67	58.67	58.68	58.68
390.000	58.68	58.68	58.68	58.68	58.68
395.000	58.68	58.68	58.68	58.68	58.68
400.000	58.68	58.68	58.68	58.68	58.68
405.000	58.68	58.68	58.68	58.68	58.68
410.000	58.68	58.68	58.68	58.68	58.69
415.000	58.69	58.69	58.69	58.69	58.69

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
420.000	58.69	58.69	58.69	58.69	58.69
425.000	58.69	58.69	58.69	58.69	58.69
430.000	58.69	58.69	58.69	58.69	58.69
435.000	58.69	58.70	58.70	58.70	58.70
440.000	58.70	58.70	58.70	58.70	58.70
445.000	58.70	58.70	58.70	58.70	58.70
450.000	58.70	58.70	58.70	58.70	58.70
455.000	58.70	58.70	58.71	58.71	58.71
460.000	58.71	58.71	58.71	58.71	58.71
465.000	58.71	58.71	58.71	58.71	58.71
470.000	58.71	58.71	58.71	58.71	58.71
475.000	58.71	58.71	58.71	58.71	58.72
480.000	58.72	58.72	58.72	58.72	58.72
485.000	58.72	58.72	58.72	58.72	58.72
490.000	58.72	58.72	58.72	58.72	58.72
495.000	58.72	58.72	58.72	58.72	58.72
500.000	58.72	58.72	58.73	58.73	58.73
505.000	58.73	58.73	58.73	58.73	58.73
510.000	58.73	58.73	58.73	58.73	58.73
515.000	58.73	58.73	58.73	58.73	58.73
520.000	58.73	58.73	58.73	58.73	58.73
525.000	58.73	58.74	58.74	58.74	58.74
530.000	58.74	58.74	58.74	58.74	58.74
535.000	58.74	58.74	58.74	58.74	58.74
540.000	58.74	58.74	58.74	58.74	58.74
545.000	58.74	58.74	58.74	58.74	58.75
550.000	58.75	58.75	58.75	58.75	58.75
555.000	58.75	58.75	58.75	58.75	58.75
560.000	58.75	58.75	58.75	58.75	58.76
565.000	58.76	58.76	58.76	58.76	58.76
570.000	58.76	58.76	58.76	58.76	58.76
575.000	58.77	58.77	58.77	58.77	58.77
580.000	58.77	58.77	58.77	58.77	58.77
585.000	58.78	58.78	58.78	58.78	58.78
590.000	58.78	58.78	58.78	58.78	58.78
595.000	58.79	58.79	58.79	58.79	58.79
600.000	58.79	58.79	58.79	58.79	58.80
605.000	58.80	58.80	58.80	58.80	58.80
610.000	58.80	58.80	58.81	58.81	58.81
615.000	58.81	58.81	58.81	58.81	58.81
620.000	58.81	58.82	58.82	58.82	58.82
625.000	58.82	58.82	58.82	58.82	58.82

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
630.000	58.83	58.83	58.83	58.83	58.83
635.000	58.83	58.83	58.84	58.84	58.84
640.000	58.84	58.84	58.84	58.85	58.85
645.000	58.85	58.85	58.85	58.86	58.86
650.000	58.86	58.86	58.87	58.87	58.87
655.000	58.87	58.88	58.88	58.88	58.88
660.000	58.89	58.89	58.89	58.90	58.90
665.000	58.90	58.91	58.91	58.91	58.92
670.000	58.92	58.92	58.93	58.93	58.93
675.000	58.94	58.94	58.95	58.95	58.95
680.000	58.96	58.96	58.97	58.97	58.98
685.000	58.98	58.99	58.99	58.99	59.00
690.000	59.00	59.01	59.01	59.02	59.03
695.000	59.03	59.04	59.05	59.06	59.07
700.000	59.08	59.09	59.10	59.11	59.12
705.000	59.13	59.15	59.16	59.17	59.19
710.000	59.21	59.23	59.25	59.27	59.30
715.000	59.32	59.35	59.39	59.43	59.47
720.000	59.52	59.57	59.63	59.69	59.75
725.000	59.82	59.89	59.96	60.02	60.06
730.000	60.09	60.10	60.10	60.08	60.07
735.000	60.05	60.03	60.00	59.98	59.96
740.000	59.94	59.92	59.89	59.87	59.85
745.000	59.84	59.82	59.80	59.78	59.77
750.000	59.76	59.74	59.73	59.72	59.71
755.000	59.70	59.68	59.67	59.66	59.65
760.000	59.64	59.63	59.62	59.61	59.60
765.000	59.59	59.59	59.58	59.57	59.56
770.000	59.56	59.55	59.54	59.53	59.53
775.000	59.52	59.51	59.51	59.50	59.49
780.000	59.48	59.48	59.47	59.46	59.45
785.000	59.45	59.44	59.43	59.42	59.41
790.000	59.41	59.40	59.39	59.38	59.37
795.000	59.36	59.36	59.35	59.34	59.33
800.000	59.32	59.31	59.31	59.30	59.29
805.000	59.28	59.27	59.26	59.26	59.25
810.000	59.24	59.23	59.22	59.22	59.21
815.000	59.20	59.19	59.18	59.17	59.17
820.000	59.16	59.15	59.14	59.14	59.13
825.000	59.12	59.11	59.11	59.10	59.09
830.000	59.09	59.08	59.07	59.07	59.06
835.000	59.05	59.05	59.04	59.03	59.03

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
840.000	59.02	59.02	59.01	59.01	59.00
845.000	59.00	58.99	58.98	58.98	58.98
850.000	58.97	58.97	58.96	58.96	58.95
855.000	58.95	58.95	58.94	58.94	58.94
860.000	58.93	58.93	58.93	58.92	58.92
865.000	58.92	58.91	58.91	58.91	58.91
870.000	58.90	58.90	58.90	58.90	58.89
875.000	58.89	58.89	58.89	58.88	58.88
880.000	58.88	58.88	58.88	58.87	58.87
885.000	58.87	58.87	58.87	58.86	58.86
890.000	58.86	58.86	58.86	58.86	58.85
895.000	58.85	58.85	58.85	58.85	58.85
900.000	58.84	58.84	58.84	58.84	58.84
905.000	58.84	58.83	58.83	58.83	58.83
910.000	58.83	58.83	58.82	58.82	58.82
915.000	58.82	58.82	58.82	58.82	58.82
920.000	58.81	58.81	58.81	58.81	58.81
925.000	58.81	58.81	58.81	58.81	58.81
930.000	58.80	58.80	58.80	58.80	58.80
935.000	58.80	58.80	58.80	58.80	58.80
940.000	58.80	58.80	58.79	58.79	58.79
945.000	58.79	58.79	58.79	58.79	58.79
950.000	58.79	58.79	58.79	58.79	58.79
955.000	58.79	58.78	58.78	58.78	58.78
960.000	58.78	58.78	58.78	58.78	58.78
965.000	58.78	58.78	58.78	58.78	58.78
970.000	58.78	58.78	58.77	58.77	58.77
975.000	58.77	58.77	58.77	58.77	58.77
980.000	58.77	58.77	58.77	58.77	58.77
985.000	58.77	58.77	58.77	58.77	58.77
990.000	58.77	58.76	58.76	58.76	58.76
995.000	58.76	58.76	58.76	58.76	58.76
1,000.000	58.76	58.76	58.76	58.76	58.76
1,005.000	58.76	58.76	58.76	58.76	58.76
1,010.000	58.76	58.75	58.75	58.75	58.75
1,015.000	58.75	58.75	58.75	58.75	58.75
1,020.000	58.75	58.75	58.75	58.75	58.75
1,025.000	58.75	58.75	58.75	58.75	58.75
1,030.000	58.75	58.75	58.75	58.75	58.74
1,035.000	58.74	58.74	58.74	58.74	58.74
1,040.000	58.74	58.74	58.74	58.74	58.74
1,045.000	58.74	58.74	58.74	58.74	58.74

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,050.000	58.74	58.74	58.74	58.74	58.74
1,055.000	58.74	58.74	58.73	58.73	58.73
1,060.000	58.73	58.73	58.73	58.73	58.73
1,065.000	58.73	58.73	58.73	58.73	58.73
1,070.000	58.73	58.73	58.73	58.73	58.73
1,075.000	58.73	58.73	58.73	58.73	58.73
1,080.000	58.73	58.72	58.72	58.72	58.72
1,085.000	58.72	58.72	58.72	58.72	58.72
1,090.000	58.72	58.72	58.72	58.72	58.72
1,095.000	58.72	58.72	58.72	58.72	58.72
1,100.000	58.72	58.72	58.72	58.72	58.72
1,105.000	58.72	58.72	58.72	58.72	58.71
1,110.000	58.71	58.71	58.71	58.71	58.71
1,115.000	58.71	58.71	58.71	58.71	58.71
1,120.000	58.71	58.71	58.71	58.71	58.71
1,125.000	58.71	58.71	58.71	58.71	58.71
1,130.000	58.71	58.71	58.71	58.71	58.71
1,135.000	58.71	58.71	58.71	58.71	58.71
1,140.000	58.71	58.71	58.71	58.71	58.71
1,145.000	58.71	58.71	58.71	58.71	58.71
1,150.000	58.71	58.71	58.71	58.71	58.71
1,155.000	58.71	58.71	58.70	58.70	58.70
1,160.000	58.70	58.70	58.70	58.70	58.70
1,165.000	58.70	58.70	58.70	58.70	58.70
1,170.000	58.70	58.70	58.70	58.70	58.70
1,175.000	58.70	58.70	58.70	58.70	58.70
1,180.000	58.70	58.70	58.70	58.70	58.70
1,185.000	58.70	58.70	58.70	58.70	58.70
1,190.000	58.70	58.70	58.70	58.70	58.70
1,195.000	58.70	58.70	58.70	58.70	58.70
1,200.000	58.70	58.70	58.70	58.70	58.70
1,205.000	58.70	58.70	58.70	58.70	58.70
1,210.000	58.70	58.70	58.70	58.70	58.70
1,215.000	58.70	58.70	58.70	58.70	58.70
1,220.000	58.70	58.70	58.70	58.70	58.70
1,225.000	58.70	58.70	58.70	58.70	58.70
1,230.000	58.70	58.70	58.70	58.69	58.69
1,235.000	58.69	58.69	58.69	58.69	58.69
1,240.000	58.69	58.69	58.69	58.69	58.69
1,245.000	58.69	58.69	58.69	58.69	58.69
1,250.000	58.69	58.69	58.69	58.69	58.69
1,255.000	58.69	58.69	58.69	58.69	58.69

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,260.000	58.69	58.69	58.69	58.69	58.69
1,265.000	58.69	58.69	58.69	58.69	58.69
1,270.000	58.69	58.69	58.69	58.69	58.69
1,275.000	58.69	58.69	58.69	58.69	58.69
1,280.000	58.69	58.69	58.69	58.69	58.69
1,285.000	58.69	58.69	58.69	58.69	58.69
1,290.000	58.69	58.69	58.69	58.69	58.69
1,295.000	58.69	58.69	58.69	58.69	58.69
1,300.000	58.69	58.69	58.69	58.68	58.68
1,305.000	58.68	58.68	58.68	58.68	58.68
1,310.000	58.68	58.68	58.68	58.68	58.68
1,315.000	58.68	58.68	58.68	58.68	58.68
1,320.000	58.68	58.68	58.68	58.68	58.68
1,325.000	58.68	58.68	58.68	58.68	58.68
1,330.000	58.68	58.68	58.68	58.68	58.68
1,335.000	58.68	58.68	58.68	58.68	58.68
1,340.000	58.68	58.68	58.68	58.68	58.68
1,345.000	58.68	58.68	58.68	58.68	58.68
1,350.000	58.68	58.68	58.68	58.68	58.68
1,355.000	58.68	58.68	58.68	58.68	58.68
1,360.000	58.68	58.68	58.68	58.68	58.68
1,365.000	58.68	58.68	58.68	58.68	58.68
1,370.000	58.67	58.67	58.67	58.67	58.67
1,375.000	58.67	58.67	58.67	58.67	58.67
1,380.000	58.67	58.67	58.67	58.67	58.67
1,385.000	58.67	58.67	58.67	58.67	58.67
1,390.000	58.67	58.67	58.67	58.67	58.67
1,395.000	58.67	58.67	58.67	58.67	58.67
1,400.000	58.67	58.67	58.67	58.67	58.67
1,405.000	58.67	58.67	58.67	58.67	58.67
1,410.000	58.67	58.67	58.67	58.67	58.67
1,415.000	58.67	58.67	58.67	58.67	58.67
1,420.000	58.67	58.67	58.67	58.67	58.67
1,425.000	58.67	58.67	58.67	58.67	58.67
1,430.000	58.67	58.67	58.67	58.67	58.67
1,435.000	58.67	58.66	58.66	58.66	58.66
1,440.000	58.66	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	58.50	58.50	58.50	58.50	58.50
5.000	58.50	58.50	58.50	58.50	58.50
10.000	58.50	58.50	58.50	58.50	58.50
15.000	58.50	58.50	58.50	58.50	58.50
20.000	58.50	58.50	58.50	58.50	58.50
25.000	58.50	58.50	58.50	58.50	58.50
30.000	58.50	58.50	58.50	58.50	58.50
35.000	58.50	58.50	58.50	58.50	58.50
40.000	58.50	58.50	58.50	58.50	58.50
45.000	58.50	58.50	58.50	58.50	58.50
50.000	58.51	58.51	58.51	58.51	58.51
55.000	58.51	58.51	58.51	58.51	58.51
60.000	58.51	58.51	58.51	58.51	58.51
65.000	58.51	58.51	58.52	58.52	58.52
70.000	58.52	58.52	58.52	58.52	58.52
75.000	58.52	58.52	58.52	58.52	58.52
80.000	58.53	58.53	58.53	58.53	58.53
85.000	58.53	58.53	58.53	58.53	58.53
90.000	58.53	58.54	58.54	58.54	58.54
95.000	58.54	58.54	58.54	58.54	58.54
100.000	58.54	58.55	58.55	58.55	58.55
105.000	58.55	58.55	58.55	58.55	58.55
110.000	58.55	58.56	58.56	58.56	58.56
115.000	58.56	58.56	58.56	58.56	58.56
120.000	58.56	58.57	58.57	58.57	58.57
125.000	58.57	58.57	58.57	58.57	58.57
130.000	58.58	58.58	58.58	58.58	58.58
135.000	58.58	58.58	58.58	58.58	58.59
140.000	58.59	58.59	58.59	58.59	58.59
145.000	58.59	58.59	58.59	58.60	58.60
150.000	58.60	58.60	58.60	58.60	58.60
155.000	58.60	58.60	58.61	58.61	58.61
160.000	58.61	58.61	58.61	58.61	58.61
165.000	58.61	58.61	58.62	58.62	58.62
170.000	58.62	58.62	58.62	58.62	58.62
175.000	58.62	58.62	58.62	58.63	58.63
180.000	58.63	58.63	58.63	58.63	58.63
185.000	58.63	58.63	58.63	58.63	58.63
190.000	58.64	58.64	58.64	58.64	58.64
195.000	58.64	58.64	58.64	58.64	58.64
200.000	58.64	58.64	58.64	58.65	58.65
205.000	58.65	58.65	58.65	58.65	58.65

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
210.000	58.65	58.65	58.65	58.65	58.65
215.000	58.65	58.65	58.65	58.65	58.66
220.000	58.66	58.66	58.66	58.66	58.66
225.000	58.66	58.66	58.66	58.66	58.66
230.000	58.66	58.66	58.66	58.66	58.66
235.000	58.66	58.67	58.67	58.67	58.67
240.000	58.67	58.67	58.67	58.67	58.67
245.000	58.67	58.67	58.67	58.67	58.67
250.000	58.67	58.67	58.67	58.67	58.67
255.000	58.67	58.68	58.68	58.68	58.68
260.000	58.68	58.68	58.68	58.68	58.68
265.000	58.68	58.68	58.68	58.68	58.68
270.000	58.68	58.68	58.68	58.68	58.68
275.000	58.68	58.68	58.68	58.68	58.68
280.000	58.69	58.69	58.69	58.69	58.69
285.000	58.69	58.69	58.69	58.69	58.69
290.000	58.69	58.69	58.69	58.69	58.69
295.000	58.69	58.69	58.69	58.69	58.69
300.000	58.69	58.69	58.69	58.69	58.69
305.000	58.69	58.69	58.70	58.70	58.70
310.000	58.70	58.70	58.70	58.70	58.70
315.000	58.70	58.70	58.70	58.70	58.70
320.000	58.70	58.70	58.70	58.70	58.70
325.000	58.70	58.70	58.70	58.70	58.70
330.000	58.70	58.70	58.70	58.70	58.70
335.000	58.70	58.70	58.70	58.70	58.71
340.000	58.71	58.71	58.71	58.71	58.71
345.000	58.71	58.71	58.71	58.71	58.71
350.000	58.71	58.71	58.71	58.71	58.71
355.000	58.71	58.71	58.71	58.71	58.71
360.000	58.71	58.71	58.71	58.71	58.71
365.000	58.71	58.71	58.71	58.71	58.71
370.000	58.71	58.71	58.71	58.71	58.71
375.000	58.71	58.71	58.71	58.72	58.72
380.000	58.72	58.72	58.72	58.72	58.72
385.000	58.72	58.72	58.72	58.72	58.72
390.000	58.72	58.72	58.72	58.72	58.72
395.000	58.72	58.72	58.72	58.72	58.72
400.000	58.72	58.72	58.72	58.72	58.72
405.000	58.73	58.73	58.73	58.73	58.73
410.000	58.73	58.73	58.73	58.73	58.73
415.000	58.73	58.73	58.73	58.73	58.73

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
420.000	58.73	58.73	58.73	58.73	58.73
425.000	58.73	58.73	58.74	58.74	58.74
430.000	58.74	58.74	58.74	58.74	58.74
435.000	58.74	58.74	58.74	58.74	58.74
440.000	58.74	58.74	58.74	58.74	58.74
445.000	58.74	58.74	58.74	58.75	58.75
450.000	58.75	58.75	58.75	58.75	58.75
455.000	58.75	58.75	58.75	58.75	58.75
460.000	58.75	58.75	58.75	58.75	58.75
465.000	58.75	58.75	58.75	58.76	58.76
470.000	58.76	58.76	58.76	58.76	58.76
475.000	58.76	58.76	58.76	58.76	58.76
480.000	58.76	58.76	58.76	58.76	58.76
485.000	58.76	58.76	58.77	58.77	58.77
490.000	58.77	58.77	58.77	58.77	58.77
495.000	58.77	58.77	58.77	58.77	58.77
500.000	58.77	58.77	58.77	58.77	58.77
505.000	58.78	58.78	58.78	58.78	58.78
510.000	58.78	58.78	58.78	58.78	58.78
515.000	58.78	58.78	58.78	58.78	58.78
520.000	58.78	58.78	58.78	58.78	58.79
525.000	58.79	58.79	58.79	58.79	58.79
530.000	58.79	58.79	58.79	58.79	58.79
535.000	58.79	58.79	58.79	58.79	58.79
540.000	58.79	58.79	58.80	58.80	58.80
545.000	58.80	58.80	58.80	58.80	58.80
550.000	58.80	58.80	58.80	58.80	58.80
555.000	58.80	58.81	58.81	58.81	58.81
560.000	58.81	58.81	58.81	58.81	58.81
565.000	58.81	58.82	58.82	58.82	58.82
570.000	58.82	58.82	58.82	58.82	58.82
575.000	58.83	58.83	58.83	58.83	58.83
580.000	58.83	58.83	58.83	58.84	58.84
585.000	58.84	58.84	58.84	58.84	58.84
590.000	58.84	58.85	58.85	58.85	58.85
595.000	58.85	58.85	58.85	58.85	58.86
600.000	58.86	58.86	58.86	58.86	58.86
605.000	58.86	58.87	58.87	58.87	58.87
610.000	58.87	58.87	58.87	58.87	58.88
615.000	58.88	58.88	58.88	58.88	58.88
620.000	58.88	58.89	58.89	58.89	58.89
625.000	58.89	58.89	58.89	58.90	58.90

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
630.000	58.90	58.90	58.90	58.90	58.91
635.000	58.91	58.91	58.91	58.91	58.92
640.000	58.92	58.92	58.92	58.92	58.93
645.000	58.93	58.93	58.93	58.94	58.94
650.000	58.94	58.95	58.95	58.95	58.96
655.000	58.96	58.96	58.96	58.97	58.97
660.000	58.97	58.98	58.98	58.99	58.99
665.000	58.99	59.00	59.00	59.01	59.01
670.000	59.01	59.02	59.02	59.03	59.04
675.000	59.04	59.05	59.05	59.06	59.07
680.000	59.07	59.08	59.09	59.09	59.10
685.000	59.11	59.11	59.12	59.13	59.14
690.000	59.15	59.15	59.16	59.17	59.18
695.000	59.20	59.21	59.22	59.24	59.25
700.000	59.27	59.28	59.30	59.31	59.33
705.000	59.35	59.37	59.39	59.41	59.44
710.000	59.46	59.49	59.52	59.56	59.59
715.000	59.63	59.66	59.71	59.75	59.80
720.000	59.85	59.90	59.96	60.02	60.08
725.000	60.15	60.22	60.29	60.35	60.39
730.000	60.40	60.40	60.38	60.35	60.32
735.000	60.28	60.24	60.21	60.17	60.14
740.000	60.11	60.08	60.05	60.02	59.99
745.000	59.97	59.95	59.92	59.90	59.89
750.000	59.87	59.86	59.84	59.83	59.81
755.000	59.80	59.79	59.77	59.76	59.75
760.000	59.73	59.72	59.71	59.70	59.69
765.000	59.68	59.68	59.67	59.66	59.65
770.000	59.64	59.64	59.63	59.62	59.62
775.000	59.61	59.60	59.60	59.59	59.59
780.000	59.58	59.57	59.57	59.56	59.55
785.000	59.55	59.54	59.54	59.53	59.52
790.000	59.52	59.51	59.50	59.50	59.49
795.000	59.49	59.48	59.47	59.47	59.46
800.000	59.45	59.45	59.44	59.43	59.43
805.000	59.42	59.41	59.41	59.40	59.39
810.000	59.38	59.38	59.37	59.36	59.35
815.000	59.35	59.34	59.33	59.32	59.31
820.000	59.31	59.30	59.29	59.28	59.28
825.000	59.27	59.26	59.25	59.25	59.24
830.000	59.23	59.23	59.22	59.21	59.21
835.000	59.20	59.19	59.19	59.18	59.17

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
840.000	59.17	59.16	59.15	59.15	59.14
845.000	59.14	59.13	59.12	59.12	59.11
850.000	59.11	59.10	59.10	59.09	59.08
855.000	59.08	59.07	59.07	59.06	59.06
860.000	59.05	59.05	59.04	59.04	59.03
865.000	59.03	59.02	59.02	59.01	59.01
870.000	59.01	59.00	59.00	58.99	58.99
875.000	58.98	58.98	58.98	58.97	58.97
880.000	58.97	58.96	58.96	58.96	58.95
885.000	58.95	58.95	58.94	58.94	58.94
890.000	58.94	58.93	58.93	58.93	58.92
895.000	58.92	58.92	58.92	58.92	58.91
900.000	58.91	58.91	58.91	58.90	58.90
905.000	58.90	58.90	58.90	58.89	58.89
910.000	58.89	58.89	58.89	58.88	58.88
915.000	58.88	58.88	58.88	58.88	58.87
920.000	58.87	58.87	58.87	58.87	58.87
925.000	58.87	58.86	58.86	58.86	58.86
930.000	58.86	58.86	58.86	58.86	58.85
935.000	58.85	58.85	58.85	58.85	58.85
940.000	58.85	58.85	58.85	58.85	58.84
945.000	58.84	58.84	58.84	58.84	58.84
950.000	58.84	58.84	58.84	58.84	58.84
955.000	58.84	58.83	58.83	58.83	58.83
960.000	58.83	58.83	58.83	58.83	58.83
965.000	58.83	58.83	58.83	58.83	58.83
970.000	58.82	58.82	58.82	58.82	58.82
975.000	58.82	58.82	58.82	58.82	58.82
980.000	58.82	58.82	58.82	58.82	58.82
985.000	58.82	58.81	58.81	58.81	58.81
990.000	58.81	58.81	58.81	58.81	58.81
995.000	58.81	58.81	58.81	58.81	58.81
1,000.000	58.81	58.81	58.81	58.81	58.80
1,005.000	58.80	58.80	58.80	58.80	58.80
1,010.000	58.80	58.80	58.80	58.80	58.80
1,015.000	58.80	58.80	58.80	58.80	58.80
1,020.000	58.80	58.80	58.80	58.80	58.80
1,025.000	58.79	58.79	58.79	58.79	58.79
1,030.000	58.79	58.79	58.79	58.79	58.79
1,035.000	58.79	58.79	58.79	58.79	58.79
1,040.000	58.79	58.79	58.79	58.79	58.78
1,045.000	58.78	58.78	58.78	58.78	58.78

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,050.000	58.78	58.78	58.78	58.78	58.78
1,055.000	58.78	58.78	58.78	58.78	58.78
1,060.000	58.78	58.78	58.78	58.77	58.77
1,065.000	58.77	58.77	58.77	58.77	58.77
1,070.000	58.77	58.77	58.77	58.77	58.77
1,075.000	58.77	58.77	58.77	58.77	58.77
1,080.000	58.77	58.77	58.76	58.76	58.76
1,085.000	58.76	58.76	58.76	58.76	58.76
1,090.000	58.76	58.76	58.76	58.76	58.76
1,095.000	58.76	58.76	58.76	58.76	58.76
1,100.000	58.76	58.76	58.75	58.75	58.75
1,105.000	58.75	58.75	58.75	58.75	58.75
1,110.000	58.75	58.75	58.75	58.75	58.75
1,115.000	58.75	58.75	58.75	58.75	58.75
1,120.000	58.75	58.75	58.75	58.75	58.75
1,125.000	58.75	58.75	58.75	58.75	58.75
1,130.000	58.75	58.75	58.74	58.74	58.74
1,135.000	58.74	58.74	58.74	58.74	58.74
1,140.000	58.74	58.74	58.74	58.74	58.74
1,145.000	58.74	58.74	58.74	58.74	58.74
1,150.000	58.74	58.74	58.74	58.74	58.74
1,155.000	58.74	58.74	58.74	58.74	58.74
1,160.000	58.74	58.74	58.74	58.74	58.74
1,165.000	58.74	58.74	58.74	58.74	58.74
1,170.000	58.74	58.74	58.74	58.74	58.74
1,175.000	58.74	58.74	58.74	58.73	58.73
1,180.000	58.73	58.73	58.73	58.73	58.73
1,185.000	58.73	58.73	58.73	58.73	58.73
1,190.000	58.73	58.73	58.73	58.73	58.73
1,195.000	58.73	58.73	58.73	58.73	58.73
1,200.000	58.73	58.73	58.73	58.73	58.73
1,205.000	58.73	58.73	58.73	58.73	58.73
1,210.000	58.73	58.73	58.73	58.73	58.73
1,215.000	58.73	58.73	58.73	58.73	58.73
1,220.000	58.73	58.73	58.73	58.73	58.73
1,225.000	58.73	58.73	58.73	58.73	58.73
1,230.000	58.73	58.73	58.73	58.73	58.73
1,235.000	58.73	58.73	58.73	58.73	58.73
1,240.000	58.73	58.73	58.72	58.72	58.72
1,245.000	58.72	58.72	58.72	58.72	58.72
1,250.000	58.72	58.72	58.72	58.72	58.72
1,255.000	58.72	58.72	58.72	58.72	58.72

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 1.002 min
Time on left represents time for first value in each row.

Time (min)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1,260.000	58.72	58.72	58.72	58.72	58.72
1,265.000	58.72	58.72	58.72	58.72	58.72
1,270.000	58.72	58.72	58.72	58.72	58.72
1,275.000	58.72	58.72	58.72	58.72	58.72
1,280.000	58.72	58.72	58.72	58.72	58.72
1,285.000	58.72	58.72	58.72	58.72	58.72
1,290.000	58.72	58.72	58.72	58.72	58.72
1,295.000	58.72	58.72	58.72	58.72	58.72
1,300.000	58.72	58.72	58.72	58.72	58.72
1,305.000	58.72	58.72	58.72	58.72	58.72
1,310.000	58.72	58.72	58.72	58.71	58.71
1,315.000	58.71	58.71	58.71	58.71	58.71
1,320.000	58.71	58.71	58.71	58.71	58.71
1,325.000	58.71	58.71	58.71	58.71	58.71
1,330.000	58.71	58.71	58.71	58.71	58.71
1,335.000	58.71	58.71	58.71	58.71	58.71
1,340.000	58.71	58.71	58.71	58.71	58.71
1,345.000	58.71	58.71	58.71	58.71	58.71
1,350.000	58.71	58.71	58.71	58.71	58.71
1,355.000	58.71	58.71	58.71	58.71	58.71
1,360.000	58.71	58.71	58.71	58.71	58.71
1,365.000	58.71	58.71	58.71	58.71	58.71
1,370.000	58.71	58.71	58.71	58.71	58.71
1,375.000	58.71	58.71	58.71	58.71	58.71
1,380.000	58.71	58.71	58.71	58.71	58.71
1,385.000	58.71	58.70	58.70	58.70	58.70
1,390.000	58.70	58.70	58.70	58.70	58.70
1,395.000	58.70	58.70	58.70	58.70	58.70
1,400.000	58.70	58.70	58.70	58.70	58.70
1,405.000	58.70	58.70	58.70	58.70	58.70
1,410.000	58.70	58.70	58.70	58.70	58.70
1,415.000	58.70	58.70	58.70	58.70	58.70
1,420.000	58.70	58.70	58.70	58.70	58.70
1,425.000	58.70	58.70	58.70	58.70	58.70
1,430.000	58.70	58.70	58.70	58.70	58.70
1,435.000	58.70	58.70	58.70	58.70	58.70
1,440.000	58.70	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Outlet Input Data
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Requested Pond Water Surface Elevations	
Minimum (Headwater)	58.50 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	60.50 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	TW	58.50	60.50
Rectangular Weir	Weir - 1	Forward	TW	59.51	60.50
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Orifice - 1 Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	58.50 ft
Orifice Diameter	6.0 in
Orifice Coefficient	0.600

Structure ID: Weir - 1 Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	59.51 ft
Weir Length	1.50 ft
Weir Coefficient	3.00 (ft^0.5)/s

Structure ID: TW Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft³/s
Flow Tolerance (Maximum)	10.000 ft³/s

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Orifice - 1 (Orifice-Circular)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
58.50	0.00	(N/A)	0.00
58.60	0.02	(N/A)	0.00
58.70	0.09	(N/A)	0.00
58.80	0.19	(N/A)	0.00
58.90	0.31	(N/A)	0.00
59.00	0.47	(N/A)	0.00
59.10	0.56	(N/A)	0.00
59.20	0.63	(N/A)	0.00
59.30	0.70	(N/A)	0.00
59.40	0.76	(N/A)	0.00
59.50	0.82	(N/A)	0.00
59.51	0.82	(N/A)	0.00
59.60	0.87	(N/A)	0.00
59.70	0.92	(N/A)	0.00
59.80	0.97	(N/A)	0.00
59.90	1.01	(N/A)	0.00
60.00	1.06	(N/A)	0.00
60.10	1.10	(N/A)	0.00
60.20	1.14	(N/A)	0.00
60.30	1.18	(N/A)	0.00
60.40	1.21	(N/A)	0.00
60.50	1.25	(N/A)	0.00

Computation Messages

Upstream HW &
DNstream TW < Inv.El
CRIT.DEPTH CONTROL
Vh= .025ft Dcr= .074ft
CRIT.DEPTH Hev= .00ft
CRIT.DEPTH CONTROL
Vh= .053ft Dcr= .146ft
CRIT.DEPTH Hev= .00ft
CRIT.DEPTH CONTROL
Vh= .083ft Dcr= .217ft
CRIT.DEPTH Hev= .00ft
CRIT.DEPTH CONTROL
Vh= .116ft Dcr= .283ft
CRIT.DEPTH Hev= .00ft
H =.25
H =.35

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Orifice - 1 (Orifice-Circular)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Computation Messages
H =.45
H =.55
H =.65
H =.75
H =.76
H =.85
H =.95
H =1.05
H =1.15
H =1.25
H =1.35
H =1.45
H =1.55
H =1.65
H =1.75

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
58.50	0.00	(N/A)	0.00
58.60	0.00	(N/A)	0.00
58.70	0.00	(N/A)	0.00
58.80	0.00	(N/A)	0.00
58.90	0.00	(N/A)	0.00
59.00	0.00	(N/A)	0.00
59.10	0.00	(N/A)	0.00
59.20	0.00	(N/A)	0.00
59.30	0.00	(N/A)	0.00
59.40	0.00	(N/A)	0.00
59.50	0.00	(N/A)	0.00
59.51	0.00	(N/A)	0.00
59.60	0.12	(N/A)	0.00
59.70	0.37	(N/A)	0.00
59.80	0.70	(N/A)	0.00
59.90	1.10	(N/A)	0.00
60.00	1.54	(N/A)	0.00
60.10	2.04	(N/A)	0.00
60.20	2.58	(N/A)	0.00
60.30	3.16	(N/A)	0.00
60.40	3.78	(N/A)	0.00
60.50	4.43	(N/A)	0.00

Computation Messages
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Computation Messages
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510
HW & TW below Inv.El.=59.510
H=.00; Htw=.00; Qfree=.00;
H=.09; Htw=.00; Qfree=.12;
H=.19; Htw=.00; Qfree=.37;
H=.29; Htw=.00; Qfree=.70;
H=.39; Htw=.00; Qfree=1.10;
H=.49; Htw=.00; Qfree=1.54;
H=.59; Htw=.00; Qfree=2.04;
H=.69; Htw=.00; Qfree=2.58;
H=.79; Htw=.00; Qfree=3.16;
H=.89; Htw=.00; Qfree=3.78;
H=.99; Htw=.00; Qfree=4.43;

Subsection: Composite Rating Curve
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
58.50	0.00	(N/A)	0.00
58.60	0.02	(N/A)	0.00
58.70	0.09	(N/A)	0.00
58.80	0.19	(N/A)	0.00
58.90	0.31	(N/A)	0.00
59.00	0.47	(N/A)	0.00
59.10	0.56	(N/A)	0.00
59.20	0.63	(N/A)	0.00
59.30	0.70	(N/A)	0.00
59.40	0.76	(N/A)	0.00
59.50	0.82	(N/A)	0.00
59.51	0.82	(N/A)	0.00
59.60	0.99	(N/A)	0.00
59.70	1.29	(N/A)	0.00
59.80	1.67	(N/A)	0.00
59.90	2.11	(N/A)	0.00
60.00	2.60	(N/A)	0.00
60.10	3.14	(N/A)	0.00
60.20	3.72	(N/A)	0.00
60.30	4.34	(N/A)	0.00
60.40	4.99	(N/A)	0.00
60.50	5.68	(N/A)	0.00

Contributing Structures
None Contributing
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1

Subsection: Composite Rating Curve
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Composite Outflow Summary

Contributing Structures
Orifice - 1 + Weir - 1

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Basin
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	1.000 min

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (acres)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
58.50	0.00	0.000	0.000	0.00	0.00	0.00
58.60	0.02	240.000	0.000	0.00	0.02	8.02
58.70	0.09	480.000	0.000	0.00	0.09	16.09
58.80	0.19	720.000	0.000	0.00	0.19	24.19
58.90	0.31	960.000	0.000	0.00	0.31	32.31
59.00	0.47	1,200.000	0.000	0.00	0.47	40.47
59.10	0.56	1,440.000	0.000	0.00	0.56	48.56
59.20	0.63	1,680.000	0.000	0.00	0.63	56.63
59.30	0.70	1,920.000	0.000	0.00	0.70	64.70
59.40	0.76	2,160.000	0.000	0.00	0.76	72.76
59.50	0.82	2,400.000	0.000	0.00	0.82	80.82
59.51	0.82	2,424.000	0.000	0.00	0.82	81.62
59.60	0.99	2,640.000	0.000	0.00	0.99	88.99
59.70	1.29	2,880.000	0.000	0.00	1.29	97.29
59.80	1.67	3,120.000	0.000	0.00	1.67	105.67
59.90	2.11	3,360.000	0.000	0.00	2.11	114.11
60.00	2.60	3,600.000	0.000	0.00	2.60	122.60
60.10	3.14	3,840.000	0.000	0.00	3.14	131.14
60.20	3.72	4,080.000	0.000	0.00	3.72	139.72
60.30	4.34	4,320.000	0.000	0.00	4.34	148.34
60.40	4.99	4,560.000	0.000	0.00	4.99	156.99
60.50	5.68	4,800.000	0.000	0.00	5.68	165.68

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Basin
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	1.000 min

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (acres)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
58.50	0.00	0.000	0.000	0.00	0.00	0.00
58.60	0.02	240.000	0.000	0.00	0.02	8.02
58.70	0.09	480.000	0.000	0.00	0.09	16.09
58.80	0.19	720.000	0.000	0.00	0.19	24.19
58.90	0.31	960.000	0.000	0.00	0.31	32.31
59.00	0.47	1,200.000	0.000	0.00	0.47	40.47
59.10	0.56	1,440.000	0.000	0.00	0.56	48.56
59.20	0.63	1,680.000	0.000	0.00	0.63	56.63
59.30	0.70	1,920.000	0.000	0.00	0.70	64.70
59.40	0.76	2,160.000	0.000	0.00	0.76	72.76
59.50	0.82	2,400.000	0.000	0.00	0.82	80.82
59.51	0.82	2,424.000	0.000	0.00	0.82	81.62
59.60	0.99	2,640.000	0.000	0.00	0.99	88.99
59.70	1.29	2,880.000	0.000	0.00	1.29	97.29
59.80	1.67	3,120.000	0.000	0.00	1.67	105.67
59.90	2.11	3,360.000	0.000	0.00	2.11	114.11
60.00	2.60	3,600.000	0.000	0.00	2.60	122.60
60.10	3.14	3,840.000	0.000	0.00	3.14	131.14
60.20	3.72	4,080.000	0.000	0.00	3.72	139.72
60.30	4.34	4,320.000	0.000	0.00	4.34	148.34
60.40	4.99	4,560.000	0.000	0.00	4.99	156.99
60.50	5.68	4,800.000	0.000	0.00	5.68	165.68

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Basin
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	1.000 min

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (acres)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
58.50	0.00	0.000	0.000	0.00	0.00	0.00
58.60	0.02	240.000	0.000	0.00	0.02	8.02
58.70	0.09	480.000	0.000	0.00	0.09	16.09
58.80	0.19	720.000	0.000	0.00	0.19	24.19
58.90	0.31	960.000	0.000	0.00	0.31	32.31
59.00	0.47	1,200.000	0.000	0.00	0.47	40.47
59.10	0.56	1,440.000	0.000	0.00	0.56	48.56
59.20	0.63	1,680.000	0.000	0.00	0.63	56.63
59.30	0.70	1,920.000	0.000	0.00	0.70	64.70
59.40	0.76	2,160.000	0.000	0.00	0.76	72.76
59.50	0.82	2,400.000	0.000	0.00	0.82	80.82
59.51	0.82	2,424.000	0.000	0.00	0.82	81.62
59.60	0.99	2,640.000	0.000	0.00	0.99	88.99
59.70	1.29	2,880.000	0.000	0.00	1.29	97.29
59.80	1.67	3,120.000	0.000	0.00	1.67	105.67
59.90	2.11	3,360.000	0.000	0.00	2.11	114.11
60.00	2.60	3,600.000	0.000	0.00	2.60	122.60
60.10	3.14	3,840.000	0.000	0.00	3.14	131.14
60.20	3.72	4,080.000	0.000	0.00	3.72	139.72
60.30	4.34	4,320.000	0.000	0.00	4.34	148.34
60.40	4.99	4,560.000	0.000	0.00	4.99	156.99
60.50	5.68	4,800.000	0.000	0.00	5.68	165.68

Subsection: Level Pool Pond Routing Summary
Label: Basin (IN)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	1.000 min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	2.52 ft³/s	Time to Peak (Flow, In)	727.000 min
Flow (Peak Outlet)	0.82 ft³/s	Time to Peak (Flow, Outlet)	738.000 min

Elevation (Water Surface, Peak)	59.50 ft
Volume (Peak)	2,401.730 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	8,936.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	8,658.000 ft³
Volume (Retained)	277.000 ft³
Volume (Unrouted)	-2.000 ft³
Error (Mass Balance)	0.022 %

Subsection: Level Pool Pond Routing Summary
Label: Basin (IN)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	1.000 min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	3.97 ft³/s	Time to Peak (Flow, In)	727.000 min
Flow (Peak Outlet)	2.07 ft³/s	Time to Peak (Flow, Outlet)	733.000 min

Elevation (Water Surface, Peak)	59.89 ft
Volume (Peak)	3,336.001 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	14,236.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	13,889.000 ft³
Volume (Retained)	344.000 ft³
Volume (Unrouted)	-3.000 ft³
Error (Mass Balance)	0.022 %

Subsection: Level Pool Pond Routing Summary
Label: Basin (IN)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	1.000 min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	6.85 ft³/s	Time to Peak (Flow, In)	727.000 min
Flow (Peak Outlet)	5.01 ft³/s	Time to Peak (Flow, Outlet)	730.000 min

Elevation (Water Surface, Peak)	60.40 ft
Volume (Peak)	4,565.628 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	24,890.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	24,417.000 ft³
Volume (Retained)	469.000 ft³
Volume (Unrouted)	-5.000 ft³
Error (Mass Balance)	0.021 %

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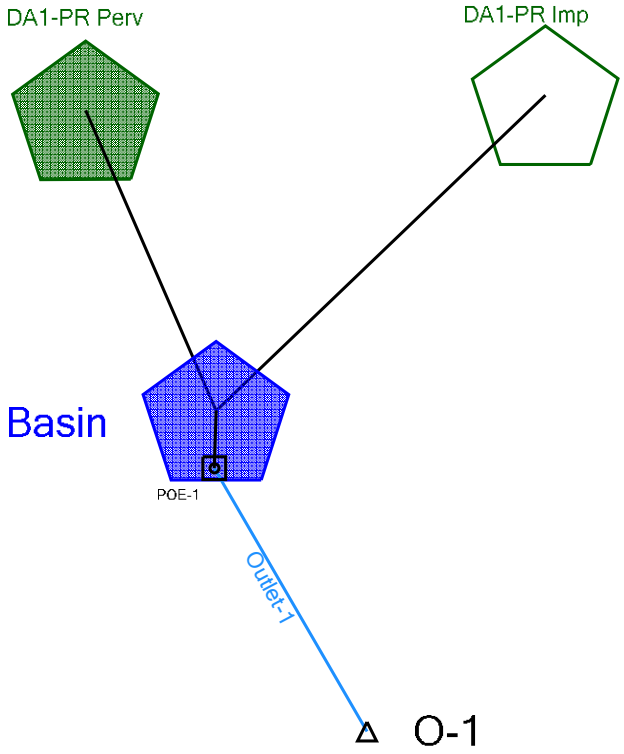
Project Summary	
Title	201 Walnut Avenue - Post-Development Runoff Calculations
Engineer	Bahram Farzaneh
Company	French and Parrello Associates
Date	2/4/2021

Notes	Revision Date: 9/16/2022 - TAILWATER CONDITION



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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DA1-PR Imp	Post-Development 2 year	2	8,472.000	12.117	2.38
DA1-PR Imp	Post-Development 10 year	10	13,239.000	12.117	3.65
DA1-PR Imp	Post-Development 25 year	25	16,590.000	12.117	4.54
DA1-PR Imp	Post-Development 100 year	100	22,678.000	12.117	6.15
DA1-PR Perv	Post-Development 2 year	2	464.000	12.117	0.15
DA1-PR Perv	Post-Development 10 year	10	997.000	12.117	0.32
DA1-PR Perv	Post-Development 25 year	25	1,412.000	12.117	0.46
DA1-PR Perv	Post-Development 100 year	100	2,212.000	12.117	0.71

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
O-1	Post-Development 2 year	2	5,331.000	12.167	1.97
O-1	Post-Development 10 year	10	10,628.000	12.167	3.18
O-1	Post-Development 25 year	25	14,392.000	12.167	3.99
O-1	Post-Development 100 year	100	21,684.000	12.100	4.43

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
Basin (IN)	Post-Development 2 year	2	8,936.000	12.117	2.52	(N/A)	(N/A)
Basin (OUT)	Post-Development 2 year	2	5,331.000	12.167	1.97	60.16	3,996.000
Basin (IN)	Post-Development 10 year	10	14,236.000	12.117	3.97	(N/A)	(N/A)

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft^3)	Time to Peak (hours)	Peak Flow (ft^3/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft^3)
Basin (OUT)	Post-Development 10 year	10	10,628.000	12.167	3.18	60.33	4,393.000
Basin (IN)	Post-Development 25 year	25	18,002.000	12.117	4.99	(N/A)	(N/A)
Basin (OUT)	Post-Development 25 year	25	14,392.000	12.167	3.99	60.44	4,658.000
Basin (IN)	Post-Development 100 year	100	24,890.000	12.117	6.85	(N/A)	(N/A)
Basin (OUT)	Post-Development 100 year	100	21,684.000	12.100	4.43	60.50	4,800.000

Storm Event	NOAA-D (3.39 in)
Return Event	2 years
Duration	24.000 hours
Depth	3.39 in
Time of Concentration (Composite)	0.100 hours
Area (User Defined)	0.740 acres

Computational Time Increment	0.013 hours
Time to Peak (Computed)	12.120 hours
Flow (Peak, Computed)	2.38 ft³/s
Output Increment	0.017 hours
Time to Flow (Peak Interpolated Output)	12.117 hours
Flow (Peak Interpolated Output)	2.38 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.740 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.16 in
Runoff Volume (Pervious)	8,479.859 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	8,472.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.100 hours
Computational Time Increment	0.013 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	8.38 ft³/s

Subsection: Unit Hydrograph Summary
Label: DA1-PR Imp
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.067 hours
Unit receding limb, Tr	0.267 hours
Total unit time, Tb	0.333 hours

Storm Event	NOAA-D (5.17 in)
Return Event	10 years
Duration	24.000 hours
Depth	5.17 in
Time of Concentration (Composite)	0.100 hours
Area (User Defined)	0.740 acres

Computational Time Increment	0.013 hours
Time to Peak (Computed)	12.120 hours
Flow (Peak, Computed)	3.65 ft³/s
Output Increment	0.017 hours
Time to Flow (Peak Interpolated Output)	12.117 hours
Flow (Peak Interpolated Output)	3.65 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.740 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.93 in
Runoff Volume (Pervious)	13,250.784 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	13,239.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.100 hours
Computational Time Increment	0.013 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	8.38 ft³/s

Subsection: Unit Hydrograph Summary
Label: DA1-PR Imp
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.067 hours
Unit receding limb, Tr	0.267 hours
Total unit time, Tb	0.333 hours

Storm Event	NOAA-D (6.42 in)
Return Event	25 years
Duration	24.000 hours
Depth	6.42 in
Time of Concentration (Composite)	0.100 hours
Area (User Defined)	0.740 acres

Computational Time Increment	0.013 hours
Time to Peak (Computed)	12.120 hours
Flow (Peak, Computed)	4.54 ft³/s
Output Increment	0.017 hours
Time to Flow (Peak Interpolated Output)	12.117 hours
Flow (Peak Interpolated Output)	4.54 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.740 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.18 in
Runoff Volume (Pervious)	16,604.553 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	16,590.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.100 hours
Computational Time Increment	0.013 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	8.38 ft³/s

Subsection: Unit Hydrograph Summary
Label: DA1-PR Imp
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.067 hours
Unit receding limb, Tr	0.267 hours
Total unit time, Tb	0.333 hours

Storm Event	NOAA-D (8.69 in)
Return Event	100 years
Duration	24.000 hours
Depth	8.69 in
Time of Concentration (Composite)	0.100 hours
Area (User Defined)	0.740 acres

Computational Time Increment	0.013 hours
Time to Peak (Computed)	12.120 hours
Flow (Peak, Computed)	6.16 ft³/s
Output Increment	0.017 hours
Time to Flow (Peak Interpolated Output)	12.117 hours
Flow (Peak Interpolated Output)	6.15 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.740 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	8.45 in
Runoff Volume (Pervious)	22,697.870 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	22,678.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.100 hours
Computational Time Increment	0.013 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	8.38 ft³/s

Subsection: Unit Hydrograph Summary
Label: DA1-PR Imp
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.067 hours
Unit receding limb, Tr	0.267 hours
Total unit time, Tb	0.333 hours

Storm Event	NOAA-D (3.39 in)
Return Event	2 years
Duration	24.000 hours
Depth	3.39 in
Time of Concentration (Composite)	0.100 hours
Area (User Defined)	0.110 acres

Computational Time Increment	0.013 hours
Time to Peak (Computed)	12.120 hours
Flow (Peak, Computed)	0.15 ft³/s
Output Increment	0.017 hours
Time to Flow (Peak Interpolated Output)	12.117 hours
Flow (Peak Interpolated Output)	0.15 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.110 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.16 in
Runoff Volume (Pervious)	465.031 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	464.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.100 hours
Computational Time Increment	0.013 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.25 ft³/s

Subsection: Unit Hydrograph Summary
Label: DA1-PR Perv
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.067 hours
Unit receding limb, Tr	0.267 hours
Total unit time, Tb	0.333 hours

Storm Event	NOAA-D (5.17 in)
Return Event	10 years
Duration	24.000 hours
Depth	5.17 in
Time of Concentration (Composite)	0.100 hours
Area (User Defined)	0.110 acres

Computational Time Increment	0.013 hours
Time to Peak (Computed)	12.120 hours
Flow (Peak, Computed)	0.33 ft³/s
Output Increment	0.017 hours
Time to Flow (Peak Interpolated Output)	12.117 hours
Flow (Peak Interpolated Output)	0.32 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.110 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	2.50 in
Runoff Volume (Pervious)	998.486 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	997.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.100 hours
Computational Time Increment	0.013 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.25 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.067 hours
Unit receding limb, Tr	0.267 hours
Total unit time, Tb	0.333 hours

Storm Event	NOAA-D (6.42 in)
Return Event	25 years
Duration	24.000 hours
Depth	6.42 in
Time of Concentration (Composite)	0.100 hours
Area (User Defined)	0.110 acres

Computational Time Increment	0.013 hours
Time to Peak (Computed)	12.120 hours
Flow (Peak, Computed)	0.46 ft³/s
Output Increment	0.017 hours
Time to Flow (Peak Interpolated Output)	12.117 hours
Flow (Peak Interpolated Output)	0.46 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.110 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.54 in
Runoff Volume (Pervious)	1,413.973 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	1,412.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.100 hours
Computational Time Increment	0.013 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.25 ft³/s

Subsection: Unit Hydrograph Summary
Label: DA1-PR Perv
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.067 hours
Unit receding limb, Tr	0.267 hours
Total unit time, Tb	0.333 hours

Storm Event	NOAA-D (8.69 in)
Return Event	100 years
Duration	24.000 hours
Depth	8.69 in
Time of Concentration (Composite)	0.100 hours
Area (User Defined)	0.110 acres

Computational Time Increment	0.013 hours
Time to Peak (Computed)	12.120 hours
Flow (Peak, Computed)	0.71 ft³/s
Output Increment	0.017 hours
Time to Flow (Peak Interpolated Output)	12.117 hours
Flow (Peak Interpolated Output)	0.71 ft³/s

Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.110 acres
Maximum Retention (Pervious)	3.51 in
Maximum Retention (Pervious, 20 percent)	0.70 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.55 in
Runoff Volume (Pervious)	2,214.984 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	2,212.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.100 hours
Computational Time Increment	0.013 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.25 ft³/s

Subsection: Unit Hydrograph Summary
Label: DA1-PR Perv
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.067 hours
Unit receding limb, Tr	0.267 hours
Total unit time, Tb	0.333 hours

Subsection: Addition Summary
Label: O-1
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
Outlet-1	Basin

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	Outlet-1	5,331.430	12.167	1.97
Flow (In)	O-1	5,331.430	12.167	1.97

Subsection: Addition Summary
Label: O-1
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
Outlet-1	Basin

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	Outlet-1	10,628.359	12.167	3.18
Flow (In)	O-1	10,628.359	12.167	3.18

Subsection: Addition Summary
Label: O-1
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
Outlet-1	Basin

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	Outlet-1	14,392.379	12.167	3.99
Flow (In)	O-1	14,392.379	12.167	3.99

Subsection: Addition Summary
Label: O-1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
Outlet-1	Basin

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	Outlet-1	21,684.000	12.100	4.43
Flow (In)	O-1	21,684.000	12.100	4.43

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	58.50	58.50	58.50	58.50	58.50
0.083	58.50	58.50	58.50	58.50	58.50
0.167	58.50	58.50	58.50	58.50	58.50
0.250	58.50	58.50	58.50	58.50	58.50
0.333	58.50	58.50	58.50	58.50	58.50
0.417	58.50	58.50	58.50	58.50	58.50
0.500	58.50	58.50	58.50	58.50	58.50
0.583	58.50	58.50	58.50	58.50	58.50
0.667	58.50	58.50	58.50	58.50	58.50
0.750	58.50	58.50	58.50	58.50	58.50
0.833	58.50	58.50	58.50	58.50	58.50
0.917	58.50	58.50	58.50	58.50	58.50
1.000	58.50	58.50	58.50	58.50	58.50
1.083	58.50	58.50	58.50	58.50	58.50
1.167	58.50	58.50	58.50	58.50	58.50
1.250	58.50	58.50	58.50	58.50	58.50
1.333	58.50	58.50	58.50	58.50	58.50
1.417	58.50	58.50	58.50	58.50	58.50
1.500	58.50	58.50	58.50	58.50	58.50
1.583	58.50	58.50	58.50	58.50	58.50
1.667	58.50	58.50	58.50	58.50	58.50
1.750	58.50	58.50	58.50	58.50	58.50
1.833	58.50	58.50	58.50	58.50	58.51
1.917	58.51	58.51	58.51	58.51	58.51
2.000	58.51	58.51	58.51	58.51	58.51
2.083	58.51	58.51	58.51	58.51	58.51
2.167	58.51	58.51	58.51	58.51	58.51
2.250	58.51	58.51	58.51	58.51	58.51
2.333	58.51	58.51	58.51	58.51	58.51
2.417	58.51	58.51	58.51	58.51	58.51
2.500	58.52	58.52	58.52	58.52	58.52
2.583	58.52	58.52	58.52	58.52	58.52
2.667	58.52	58.52	58.52	58.52	58.52
2.750	58.52	58.52	58.52	58.52	58.52
2.833	58.52	58.52	58.52	58.52	58.52
2.917	58.52	58.53	58.53	58.53	58.53
3.000	58.53	58.53	58.53	58.53	58.53
3.083	58.53	58.53	58.53	58.53	58.53
3.167	58.53	58.53	58.53	58.53	58.53
3.250	58.53	58.53	58.53	58.54	58.54
3.333	58.54	58.54	58.54	58.54	58.54
3.417	58.54	58.54	58.54	58.54	58.54

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
3.500	58.54	58.54	58.54	58.54	58.54
3.583	58.54	58.54	58.55	58.55	58.55
3.667	58.55	58.55	58.55	58.55	58.55
3.750	58.55	58.55	58.55	58.55	58.55
3.833	58.55	58.55	58.55	58.55	58.56
3.917	58.56	58.56	58.56	58.56	58.56
4.000	58.56	58.56	58.56	58.56	58.56
4.083	58.56	58.56	58.56	58.56	58.56
4.167	58.56	58.57	58.57	58.57	58.57
4.250	58.57	58.57	58.57	58.57	58.57
4.333	58.57	58.57	58.57	58.57	58.57
4.417	58.57	58.58	58.58	58.58	58.58
4.500	58.58	58.58	58.58	58.58	58.58
4.583	58.58	58.58	58.58	58.58	58.58
4.667	58.59	58.59	58.59	58.59	58.59
4.750	58.59	58.59	58.59	58.59	58.59
4.833	58.59	58.59	58.59	58.59	58.60
4.917	58.60	58.60	58.60	58.60	58.60
5.000	58.60	58.60	58.60	58.60	58.60
5.083	58.60	58.60	58.61	58.61	58.61
5.167	58.61	58.61	58.61	58.61	58.61
5.250	58.61	58.61	58.61	58.61	58.61
5.333	58.62	58.62	58.62	58.62	58.62
5.417	58.62	58.62	58.62	58.62	58.62
5.500	58.62	58.62	58.62	58.63	58.63
5.583	58.63	58.63	58.63	58.63	58.63
5.667	58.63	58.63	58.63	58.63	58.63
5.750	58.64	58.64	58.64	58.64	58.64
5.833	58.64	58.64	58.64	58.64	58.64
5.917	58.64	58.65	58.65	58.65	58.65
6.000	58.65	58.65	58.65	58.65	58.65
6.083	58.65	58.65	58.65	58.66	58.66
6.167	58.66	58.66	58.66	58.66	58.66
6.250	58.66	58.66	58.66	58.67	58.67
6.333	58.67	58.67	58.67	58.67	58.67
6.417	58.67	58.67	58.67	58.67	58.68
6.500	58.68	58.68	58.68	58.68	58.68
6.583	58.68	58.68	58.68	58.69	58.69
6.667	58.69	58.69	58.69	58.69	58.69
6.750	58.69	58.69	58.69	58.70	58.70
6.833	58.70	58.70	58.70	58.70	58.70
6.917	58.70	58.70	58.71	58.71	58.71

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
7.000	58.71	58.71	58.71	58.71	58.71
7.083	58.72	58.72	58.72	58.72	58.72
7.167	58.72	58.72	58.72	58.73	58.73
7.250	58.73	58.73	58.73	58.73	58.73
7.333	58.73	58.74	58.74	58.74	58.74
7.417	58.74	58.74	58.74	58.74	58.75
7.500	58.75	58.75	58.75	58.75	58.75
7.583	58.75	58.75	58.76	58.76	58.76
7.667	58.76	58.76	58.76	58.76	58.77
7.750	58.77	58.77	58.77	58.77	58.77
7.833	58.77	58.78	58.78	58.78	58.78
7.917	58.78	58.78	58.78	58.79	58.79
8.000	58.79	58.79	58.79	58.79	58.79
8.083	58.80	58.80	58.80	58.80	58.80
8.167	58.80	58.81	58.81	58.81	58.81
8.250	58.81	58.81	58.81	58.82	58.82
8.333	58.82	58.82	58.82	58.82	58.83
8.417	58.83	58.83	58.83	58.83	58.83
8.500	58.83	58.84	58.84	58.84	58.84
8.583	58.84	58.84	58.85	58.85	58.85
8.667	58.85	58.85	58.85	58.86	58.86
8.750	58.86	58.86	58.86	58.86	58.87
8.833	58.87	58.87	58.87	58.87	58.88
8.917	58.88	58.88	58.88	58.88	58.88
9.000	58.89	58.89	58.89	58.89	58.89
9.083	58.89	58.90	58.90	58.90	58.90
9.167	58.90	58.91	58.91	58.91	58.91
9.250	58.91	58.92	58.92	58.92	58.92
9.333	58.92	58.93	58.93	58.93	58.93
9.417	58.93	58.94	58.94	58.94	58.94
9.500	58.95	58.95	58.95	58.95	58.96
9.583	58.96	58.96	58.96	58.96	58.97
9.667	58.97	58.97	58.97	58.98	58.98
9.750	58.98	58.98	58.99	58.99	58.99
9.833	58.99	59.00	59.00	59.00	59.00
9.917	59.01	59.01	59.01	59.02	59.02
10.000	59.02	59.02	59.03	59.03	59.03
10.083	59.03	59.04	59.04	59.04	59.05
10.167	59.05	59.05	59.05	59.06	59.06
10.250	59.06	59.07	59.07	59.07	59.08
10.333	59.08	59.08	59.09	59.09	59.09
10.417	59.09	59.10	59.10	59.10	59.11

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	59.11	59.11	59.12	59.12	59.12
10.583	59.13	59.13	59.13	59.14	59.14
10.667	59.15	59.15	59.15	59.16	59.16
10.750	59.17	59.17	59.17	59.18	59.18
10.833	59.19	59.19	59.20	59.20	59.20
10.917	59.21	59.21	59.22	59.22	59.23
11.000	59.23	59.24	59.24	59.25	59.25
11.083	59.26	59.27	59.27	59.28	59.28
11.167	59.29	59.30	59.30	59.31	59.31
11.250	59.32	59.33	59.33	59.34	59.35
11.333	59.36	59.36	59.37	59.38	59.38
11.417	59.39	59.40	59.41	59.42	59.42
11.500	59.43	59.44	59.45	59.46	59.47
11.583	59.48	59.49	59.50	59.51	59.52
11.667	59.53	59.54	59.56	59.57	59.58
11.750	59.59	59.61	59.62	59.64	59.65
11.833	59.67	59.69	59.71	59.73	59.75
11.917	59.77	59.79	59.82	59.85	59.88
12.000	59.92	59.95	60.00	60.03	60.07
12.083	60.09	60.11	60.14	60.15	60.16
12.167	60.16	60.16	60.15	60.14	60.13
12.250	60.11	60.10	60.09	60.08	60.07
12.333	60.06	60.06	60.05	60.05	60.05
12.417	60.04	60.04	60.04	60.04	60.04
12.500	60.04	60.04	60.03	60.03	60.03
12.583	60.03	60.03	60.03	60.03	60.03
12.667	60.03	60.03	60.02	60.02	60.02
12.750	60.02	60.02	60.02	60.02	60.02
12.833	60.02	60.02	60.02	60.02	60.02
12.917	60.02	60.02	60.02	60.02	60.02
13.000	60.02	60.02	60.02	60.02	60.02
13.083	60.02	60.02	60.02	60.02	60.02
13.167	60.02	60.02	60.02	60.02	60.01
13.250	60.01	60.01	60.01	60.01	60.01
13.333	60.01	60.01	60.01	60.01	60.01
13.417	60.01	60.01	60.01	60.01	60.01
13.500	60.01	60.01	60.01	60.01	60.01
13.583	60.01	60.01	60.01	60.01	60.01
13.667	60.01	60.01	60.01	60.01	60.01
13.750	60.01	60.01	60.01	60.01	60.01
13.833	60.01	60.01	60.01	60.01	60.01
13.917	60.01	60.01	60.01	60.01	60.01

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
14.000	60.01	60.01	60.01	60.01	60.01
14.083	60.01	60.01	60.01	60.01	60.01
14.167	60.01	60.01	60.01	60.01	60.01
14.250	60.01	60.01	60.01	60.01	60.01
14.333	60.01	60.01	60.01	60.01	60.01
14.417	60.01	60.01	60.01	60.01	60.01
14.500	60.01	60.01	60.01	60.01	60.01
14.583	60.01	60.01	60.01	60.01	60.01
14.667	60.01	60.01	60.01	60.01	60.01
14.750	60.01	60.01	60.01	60.01	60.01
14.833	60.01	60.01	60.01	60.01	60.01
14.917	60.01	60.01	60.01	60.01	60.01
15.000	60.01	60.01	60.01	60.01	60.01
15.083	60.01	60.01	60.01	60.01	60.01
15.167	60.01	60.01	60.01	60.01	60.01
15.250	60.01	60.01	60.01	60.01	60.01
15.333	60.01	60.01	60.01	60.01	60.01
15.417	60.01	60.01	60.01	60.01	60.01
15.500	60.01	60.01	60.01	60.01	60.01
15.583	60.01	60.01	60.01	60.01	60.01
15.667	60.01	60.01	60.01	60.01	60.01
15.750	60.01	60.01	60.01	60.01	60.01
15.833	60.01	60.01	60.01	60.01	60.01
15.917	60.01	60.01	60.01	60.01	60.01
16.000	60.01	60.01	60.01	60.01	60.01
16.083	60.00	60.00	60.00	60.00	60.00
16.167	60.00	60.00	60.00	60.00	60.00
16.250	60.00	60.00	60.00	60.00	60.00
16.333	60.00	60.00	60.00	60.00	60.00
16.417	60.00	60.00	60.00	60.00	60.00
16.500	60.00	60.00	60.00	60.00	60.00
16.583	60.00	60.00	60.00	60.00	60.00
16.667	60.00	60.00	60.00	60.00	60.00
16.750	60.00	60.00	60.00	60.00	60.00
16.833	60.00	60.00	60.00	60.00	60.00
16.917	60.00	60.00	60.00	60.00	60.00
17.000	60.00	60.00	60.00	60.00	60.00
17.083	60.00	60.00	60.00	60.00	60.00
17.167	60.00	60.00	60.00	60.00	60.00
17.250	60.00	60.00	60.00	60.00	60.00
17.333	60.00	60.00	60.00	60.00	60.00
17.417	60.00	60.00	60.00	60.00	60.00

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
17.500	60.00	60.00	60.00	60.00	60.00
17.583	60.00	60.00	60.00	60.00	60.00
17.667	60.00	60.00	60.00	60.00	60.00
17.750	60.00	60.00	60.00	60.00	60.00
17.833	60.00	60.00	60.00	60.00	60.00
17.917	60.00	60.00	60.00	60.00	60.00
18.000	60.00	60.00	60.00	60.00	60.00
18.083	60.00	60.00	60.00	60.00	60.00
18.167	60.00	60.00	60.00	60.00	60.00
18.250	60.00	60.00	60.00	60.00	60.00
18.333	60.00	60.00	60.00	60.00	60.00
18.417	60.00	60.00	60.00	60.00	60.00
18.500	60.00	60.00	60.00	60.00	60.00
18.583	60.00	60.00	60.00	60.00	60.00
18.667	60.00	60.00	60.00	60.00	60.00
18.750	60.00	60.00	60.00	60.00	60.00
18.833	60.00	60.00	60.00	60.00	60.00
18.917	60.00	60.00	60.00	60.00	60.00
19.000	60.00	60.00	60.00	60.00	60.00
19.083	60.00	60.00	60.00	60.00	60.00
19.167	60.00	60.00	60.00	60.00	60.00
19.250	60.00	60.00	60.00	60.00	60.00
19.333	60.00	60.00	60.00	60.00	60.00
19.417	60.00	60.00	60.00	60.00	60.00
19.500	60.00	60.00	60.00	60.00	60.00
19.583	60.00	60.00	60.00	60.00	60.00
19.667	60.00	60.00	60.00	60.00	60.00
19.750	60.00	60.00	60.00	60.00	60.00
19.833	60.00	60.00	60.00	60.00	60.00
19.917	60.00	60.00	60.00	60.00	60.00
20.000	60.00	60.00	60.00	60.00	60.00
20.083	60.00	60.00	60.00	60.00	60.00
20.167	60.00	60.00	60.00	60.00	60.00
20.250	60.00	60.00	60.00	60.00	60.00
20.333	60.00	60.00	60.00	60.00	60.00
20.417	60.00	60.00	60.00	60.00	60.00
20.500	60.00	60.00	60.00	60.00	60.00
20.583	60.00	60.00	60.00	60.00	60.00
20.667	60.00	60.00	60.00	60.00	60.00
20.750	60.00	60.00	60.00	60.00	60.00
20.833	60.00	60.00	60.00	60.00	60.00
20.917	60.00	60.00	60.00	60.00	60.00

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	60.00	60.00	60.00	60.00	60.00
21.083	60.00	60.00	60.00	60.00	60.00
21.167	60.00	60.00	60.00	60.00	60.00
21.250	60.00	60.00	60.00	60.00	60.00
21.333	60.00	60.00	60.00	60.00	60.00
21.417	60.00	60.00	60.00	60.00	60.00
21.500	60.00	60.00	60.00	60.00	60.00
21.583	60.00	60.00	60.00	60.00	60.00
21.667	60.00	60.00	60.00	60.00	60.00
21.750	60.00	60.00	60.00	60.00	60.00
21.833	60.00	60.00	60.00	60.00	60.00
21.917	60.00	60.00	60.00	60.00	60.00
22.000	60.00	60.00	60.00	60.00	60.00
22.083	60.00	60.00	60.00	60.00	60.00
22.167	60.00	60.00	60.00	60.00	60.00
22.250	60.00	60.00	60.00	60.00	60.00
22.333	60.00	60.00	60.00	60.00	60.00
22.417	60.00	60.00	60.00	60.00	60.00
22.500	60.00	60.00	60.00	60.00	60.00
22.583	60.00	60.00	60.00	60.00	60.00
22.667	60.00	60.00	60.00	60.00	60.00
22.750	60.00	60.00	60.00	60.00	60.00
22.833	60.00	60.00	60.00	60.00	60.00
22.917	60.00	60.00	60.00	60.00	60.00
23.000	60.00	60.00	60.00	60.00	60.00
23.083	60.00	60.00	60.00	60.00	60.00
23.167	60.00	60.00	60.00	60.00	60.00
23.250	60.00	60.00	60.00	60.00	60.00
23.333	60.00	60.00	60.00	60.00	60.00
23.417	60.00	60.00	60.00	60.00	60.00
23.500	60.00	60.00	60.00	60.00	60.00
23.583	60.00	60.00	60.00	60.00	60.00
23.667	60.00	60.00	60.00	60.00	60.00
23.750	60.00	60.00	60.00	60.00	60.00
23.833	60.00	60.00	60.00	60.00	60.00
23.917	60.00	60.00	60.00	60.00	60.00
24.000	60.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	58.50	58.50	58.50	58.50	58.50
0.083	58.50	58.50	58.50	58.50	58.50
0.167	58.50	58.50	58.50	58.50	58.50
0.250	58.50	58.50	58.50	58.50	58.50
0.333	58.50	58.50	58.50	58.50	58.50
0.417	58.50	58.50	58.50	58.50	58.50
0.500	58.50	58.50	58.50	58.50	58.50
0.583	58.50	58.50	58.50	58.50	58.50
0.667	58.50	58.50	58.50	58.50	58.50
0.750	58.50	58.50	58.50	58.50	58.50
0.833	58.50	58.50	58.50	58.50	58.50
0.917	58.50	58.50	58.50	58.50	58.50
1.000	58.50	58.50	58.50	58.50	58.50
1.083	58.50	58.50	58.50	58.50	58.50
1.167	58.50	58.50	58.50	58.50	58.50
1.250	58.50	58.50	58.50	58.50	58.51
1.333	58.51	58.51	58.51	58.51	58.51
1.417	58.51	58.51	58.51	58.51	58.51
1.500	58.51	58.51	58.51	58.51	58.51
1.583	58.51	58.51	58.51	58.51	58.51
1.667	58.51	58.51	58.51	58.51	58.52
1.750	58.52	58.52	58.52	58.52	58.52
1.833	58.52	58.52	58.52	58.52	58.52
1.917	58.52	58.52	58.52	58.52	58.52
2.000	58.52	58.52	58.53	58.53	58.53
2.083	58.53	58.53	58.53	58.53	58.53
2.167	58.53	58.53	58.53	58.53	58.53
2.250	58.53	58.53	58.54	58.54	58.54
2.333	58.54	58.54	58.54	58.54	58.54
2.417	58.54	58.54	58.54	58.54	58.54
2.500	58.54	58.55	58.55	58.55	58.55
2.583	58.55	58.55	58.55	58.55	58.55
2.667	58.55	58.55	58.55	58.56	58.56
2.750	58.56	58.56	58.56	58.56	58.56
2.833	58.56	58.56	58.56	58.56	58.56
2.917	58.57	58.57	58.57	58.57	58.57
3.000	58.57	58.57	58.57	58.57	58.57
3.083	58.57	58.58	58.58	58.58	58.58
3.167	58.58	58.58	58.58	58.58	58.58
3.250	58.58	58.58	58.59	58.59	58.59
3.333	58.59	58.59	58.59	58.59	58.59
3.417	58.59	58.59	58.60	58.60	58.60

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
3.500	58.60	58.60	58.60	58.60	58.60
3.583	58.60	58.61	58.61	58.61	58.61
3.667	58.61	58.61	58.61	58.61	58.61
3.750	58.61	58.62	58.62	58.62	58.62
3.833	58.62	58.62	58.62	58.62	58.62
3.917	58.63	58.63	58.63	58.63	58.63
4.000	58.63	58.63	58.63	58.63	58.64
4.083	58.64	58.64	58.64	58.64	58.64
4.167	58.64	58.64	58.65	58.65	58.65
4.250	58.65	58.65	58.65	58.65	58.65
4.333	58.65	58.66	58.66	58.66	58.66
4.417	58.66	58.66	58.66	58.66	58.67
4.500	58.67	58.67	58.67	58.67	58.67
4.583	58.67	58.67	58.68	58.68	58.68
4.667	58.68	58.68	58.68	58.68	58.68
4.750	58.69	58.69	58.69	58.69	58.69
4.833	58.69	58.69	58.69	58.70	58.70
4.917	58.70	58.70	58.70	58.70	58.70
5.000	58.71	58.71	58.71	58.71	58.71
5.083	58.71	58.71	58.71	58.72	58.72
5.167	58.72	58.72	58.72	58.72	58.72
5.250	58.73	58.73	58.73	58.73	58.73
5.333	58.73	58.73	58.74	58.74	58.74
5.417	58.74	58.74	58.74	58.74	58.74
5.500	58.75	58.75	58.75	58.75	58.75
5.583	58.75	58.75	58.76	58.76	58.76
5.667	58.76	58.76	58.76	58.76	58.77
5.750	58.77	58.77	58.77	58.77	58.77
5.833	58.78	58.78	58.78	58.78	58.78
5.917	58.78	58.78	58.79	58.79	58.79
6.000	58.79	58.79	58.79	58.79	58.80
6.083	58.80	58.80	58.80	58.80	58.80
6.167	58.81	58.81	58.81	58.81	58.81
6.250	58.81	58.81	58.82	58.82	58.82
6.333	58.82	58.82	58.82	58.83	58.83
6.417	58.83	58.83	58.83	58.83	58.84
6.500	58.84	58.84	58.84	58.84	58.84
6.583	58.85	58.85	58.85	58.85	58.85
6.667	58.86	58.86	58.86	58.86	58.86
6.750	58.86	58.87	58.87	58.87	58.87
6.833	58.87	58.88	58.88	58.88	58.88
6.917	58.88	58.88	58.89	58.89	58.89

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
7.000	58.89	58.89	58.90	58.90	58.90
7.083	58.90	58.90	58.91	58.91	58.91
7.167	58.91	58.91	58.92	58.92	58.92
7.250	58.92	58.92	58.93	58.93	58.93
7.333	58.93	58.93	58.94	58.94	58.94
7.417	58.94	58.94	58.95	58.95	58.95
7.500	58.95	58.96	58.96	58.96	58.96
7.583	58.96	58.97	58.97	58.97	58.97
7.667	58.98	58.98	58.98	58.98	58.98
7.750	58.99	58.99	58.99	58.99	59.00
7.833	59.00	59.00	59.00	59.00	59.01
7.917	59.01	59.01	59.01	59.02	59.02
8.000	59.02	59.02	59.03	59.03	59.03
8.083	59.03	59.04	59.04	59.04	59.04
8.167	59.05	59.05	59.05	59.05	59.06
8.250	59.06	59.06	59.06	59.07	59.07
8.333	59.07	59.07	59.08	59.08	59.08
8.417	59.08	59.09	59.09	59.09	59.09
8.500	59.10	59.10	59.10	59.10	59.11
8.583	59.11	59.11	59.11	59.12	59.12
8.667	59.12	59.13	59.13	59.13	59.13
8.750	59.14	59.14	59.14	59.14	59.15
8.833	59.15	59.15	59.16	59.16	59.16
8.917	59.16	59.17	59.17	59.17	59.18
9.000	59.18	59.18	59.18	59.19	59.19
9.083	59.19	59.20	59.20	59.20	59.20
9.167	59.21	59.21	59.21	59.22	59.22
9.250	59.22	59.23	59.23	59.23	59.24
9.333	59.24	59.24	59.25	59.25	59.25
9.417	59.26	59.26	59.26	59.27	59.27
9.500	59.28	59.28	59.28	59.29	59.29
9.583	59.29	59.30	59.30	59.30	59.31
9.667	59.31	59.32	59.32	59.32	59.33
9.750	59.33	59.34	59.34	59.34	59.35
9.833	59.35	59.36	59.36	59.37	59.37
9.917	59.37	59.38	59.38	59.39	59.39
10.000	59.40	59.40	59.40	59.41	59.41
10.083	59.42	59.42	59.43	59.43	59.44
10.167	59.44	59.45	59.45	59.46	59.46
10.250	59.46	59.47	59.47	59.48	59.48
10.333	59.49	59.49	59.50	59.50	59.51
10.417	59.51	59.52	59.53	59.53	59.54

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	59.54	59.55	59.55	59.56	59.56
10.583	59.57	59.57	59.58	59.59	59.59
10.667	59.60	59.60	59.61	59.62	59.62
10.750	59.63	59.64	59.64	59.65	59.66
10.833	59.66	59.67	59.68	59.68	59.69
10.917	59.70	59.71	59.71	59.72	59.73
11.000	59.74	59.75	59.75	59.76	59.77
11.083	59.78	59.79	59.80	59.81	59.82
11.167	59.83	59.84	59.85	59.86	59.87
11.250	59.88	59.89	59.90	59.91	59.92
11.333	59.93	59.94	59.96	59.97	59.98
11.417	59.99	60.00	60.01	60.02	60.02
11.500	60.03	60.03	60.03	60.03	60.04
11.583	60.04	60.04	60.04	60.04	60.05
11.667	60.05	60.05	60.05	60.05	60.05
11.750	60.05	60.05	60.06	60.06	60.06
11.833	60.06	60.07	60.07	60.08	60.08
11.917	60.09	60.09	60.10	60.11	60.12
12.000	60.13	60.15	60.16	60.18	60.21
12.083	60.23	60.26	60.29	60.31	60.33
12.167	60.33	60.32	60.30	60.28	60.26
12.250	60.24	60.22	60.20	60.17	60.16
12.333	60.14	60.12	60.11	60.10	60.09
12.417	60.08	60.07	60.07	60.06	60.06
12.500	60.06	60.06	60.05	60.05	60.05
12.583	60.05	60.05	60.05	60.04	60.04
12.667	60.04	60.04	60.04	60.04	60.04
12.750	60.04	60.04	60.04	60.04	60.03
12.833	60.03	60.03	60.03	60.03	60.03
12.917	60.03	60.03	60.03	60.03	60.03
13.000	60.03	60.03	60.03	60.03	60.03
13.083	60.03	60.03	60.03	60.03	60.02
13.167	60.02	60.02	60.02	60.02	60.02
13.250	60.02	60.02	60.02	60.02	60.02
13.333	60.02	60.02	60.02	60.02	60.02
13.417	60.02	60.02	60.02	60.02	60.02
13.500	60.02	60.02	60.02	60.02	60.02
13.583	60.02	60.02	60.02	60.02	60.02
13.667	60.02	60.02	60.02	60.02	60.02
13.750	60.02	60.02	60.02	60.02	60.02
13.833	60.02	60.01	60.01	60.01	60.01
13.917	60.01	60.01	60.01	60.01	60.01

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
14.000	60.01	60.01	60.01	60.01	60.01
14.083	60.01	60.01	60.01	60.01	60.01
14.167	60.01	60.01	60.01	60.01	60.01
14.250	60.01	60.01	60.01	60.01	60.01
14.333	60.01	60.01	60.01	60.01	60.01
14.417	60.01	60.01	60.01	60.01	60.01
14.500	60.01	60.01	60.01	60.01	60.01
14.583	60.01	60.01	60.01	60.01	60.01
14.667	60.01	60.01	60.01	60.01	60.01
14.750	60.01	60.01	60.01	60.01	60.01
14.833	60.01	60.01	60.01	60.01	60.01
14.917	60.01	60.01	60.01	60.01	60.01
15.000	60.01	60.01	60.01	60.01	60.01
15.083	60.01	60.01	60.01	60.01	60.01
15.167	60.01	60.01	60.01	60.01	60.01
15.250	60.01	60.01	60.01	60.01	60.01
15.333	60.01	60.01	60.01	60.01	60.01
15.417	60.01	60.01	60.01	60.01	60.01
15.500	60.01	60.01	60.01	60.01	60.01
15.583	60.01	60.01	60.01	60.01	60.01
15.667	60.01	60.01	60.01	60.01	60.01
15.750	60.01	60.01	60.01	60.01	60.01
15.833	60.01	60.01	60.01	60.01	60.01
15.917	60.01	60.01	60.01	60.01	60.01
16.000	60.01	60.01	60.01	60.01	60.01
16.083	60.01	60.01	60.01	60.01	60.01
16.167	60.01	60.01	60.01	60.01	60.01
16.250	60.01	60.01	60.01	60.01	60.01
16.333	60.01	60.01	60.01	60.01	60.01
16.417	60.01	60.01	60.01	60.01	60.01
16.500	60.01	60.01	60.01	60.01	60.01
16.583	60.01	60.01	60.01	60.01	60.01
16.667	60.01	60.01	60.01	60.01	60.01
16.750	60.01	60.01	60.01	60.01	60.01
16.833	60.01	60.01	60.01	60.01	60.01
16.917	60.01	60.01	60.01	60.01	60.01
17.000	60.01	60.01	60.01	60.01	60.01
17.083	60.01	60.01	60.01	60.01	60.01
17.167	60.01	60.01	60.01	60.01	60.01
17.250	60.01	60.01	60.01	60.01	60.01
17.333	60.01	60.01	60.01	60.01	60.01
17.417	60.01	60.01	60.01	60.01	60.01

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
17.500	60.01	60.01	60.01	60.01	60.01
17.583	60.01	60.01	60.01	60.01	60.01
17.667	60.01	60.01	60.01	60.01	60.01
17.750	60.01	60.01	60.01	60.01	60.01
17.833	60.01	60.01	60.01	60.01	60.01
17.917	60.01	60.01	60.01	60.01	60.01
18.000	60.01	60.01	60.01	60.01	60.01
18.083	60.01	60.01	60.01	60.01	60.01
18.167	60.01	60.01	60.01	60.01	60.01
18.250	60.01	60.01	60.01	60.01	60.01
18.333	60.01	60.01	60.01	60.01	60.01
18.417	60.01	60.01	60.00	60.00	60.00
18.500	60.00	60.00	60.00	60.00	60.00
18.583	60.00	60.00	60.00	60.00	60.00
18.667	60.00	60.00	60.00	60.00	60.00
18.750	60.00	60.00	60.00	60.00	60.00
18.833	60.00	60.00	60.00	60.00	60.00
18.917	60.00	60.00	60.00	60.00	60.00
19.000	60.00	60.00	60.00	60.00	60.00
19.083	60.00	60.00	60.00	60.00	60.00
19.167	60.00	60.00	60.00	60.00	60.00
19.250	60.00	60.00	60.00	60.00	60.00
19.333	60.00	60.00	60.00	60.00	60.00
19.417	60.00	60.00	60.00	60.00	60.00
19.500	60.00	60.00	60.00	60.00	60.00
19.583	60.00	60.00	60.00	60.00	60.00
19.667	60.00	60.00	60.00	60.00	60.00
19.750	60.00	60.00	60.00	60.00	60.00
19.833	60.00	60.00	60.00	60.00	60.00
19.917	60.00	60.00	60.00	60.00	60.00
20.000	60.00	60.00	60.00	60.00	60.00
20.083	60.00	60.00	60.00	60.00	60.00
20.167	60.00	60.00	60.00	60.00	60.00
20.250	60.00	60.00	60.00	60.00	60.00
20.333	60.00	60.00	60.00	60.00	60.00
20.417	60.00	60.00	60.00	60.00	60.00
20.500	60.00	60.00	60.00	60.00	60.00
20.583	60.00	60.00	60.00	60.00	60.00
20.667	60.00	60.00	60.00	60.00	60.00
20.750	60.00	60.00	60.00	60.00	60.00
20.833	60.00	60.00	60.00	60.00	60.00
20.917	60.00	60.00	60.00	60.00	60.00

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	60.00	60.00	60.00	60.00	60.00
21.083	60.00	60.00	60.00	60.00	60.00
21.167	60.00	60.00	60.00	60.00	60.00
21.250	60.00	60.00	60.00	60.00	60.00
21.333	60.00	60.00	60.00	60.00	60.00
21.417	60.00	60.00	60.00	60.00	60.00
21.500	60.00	60.00	60.00	60.00	60.00
21.583	60.00	60.00	60.00	60.00	60.00
21.667	60.00	60.00	60.00	60.00	60.00
21.750	60.00	60.00	60.00	60.00	60.00
21.833	60.00	60.00	60.00	60.00	60.00
21.917	60.00	60.00	60.00	60.00	60.00
22.000	60.00	60.00	60.00	60.00	60.00
22.083	60.00	60.00	60.00	60.00	60.00
22.167	60.00	60.00	60.00	60.00	60.00
22.250	60.00	60.00	60.00	60.00	60.00
22.333	60.00	60.00	60.00	60.00	60.00
22.417	60.00	60.00	60.00	60.00	60.00
22.500	60.00	60.00	60.00	60.00	60.00
22.583	60.00	60.00	60.00	60.00	60.00
22.667	60.00	60.00	60.00	60.00	60.00
22.750	60.00	60.00	60.00	60.00	60.00
22.833	60.00	60.00	60.00	60.00	60.00
22.917	60.00	60.00	60.00	60.00	60.00
23.000	60.00	60.00	60.00	60.00	60.00
23.083	60.00	60.00	60.00	60.00	60.00
23.167	60.00	60.00	60.00	60.00	60.00
23.250	60.00	60.00	60.00	60.00	60.00
23.333	60.00	60.00	60.00	60.00	60.00
23.417	60.00	60.00	60.00	60.00	60.00
23.500	60.00	60.00	60.00	60.00	60.00
23.583	60.00	60.00	60.00	60.00	60.00
23.667	60.00	60.00	60.00	60.00	60.00
23.750	60.00	60.00	60.00	60.00	60.00
23.833	60.00	60.00	60.00	60.00	60.00
23.917	60.00	60.00	60.00	60.00	60.00
24.000	60.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	58.50	58.50	58.50	58.50	58.50
0.083	58.50	58.50	58.50	58.50	58.50
0.167	58.50	58.50	58.50	58.50	58.50
0.250	58.50	58.50	58.50	58.50	58.50
0.333	58.50	58.50	58.50	58.50	58.50
0.417	58.50	58.50	58.50	58.50	58.50
0.500	58.50	58.50	58.50	58.50	58.50
0.583	58.50	58.50	58.50	58.50	58.50
0.667	58.50	58.50	58.50	58.50	58.50
0.750	58.50	58.50	58.50	58.50	58.50
0.833	58.50	58.50	58.50	58.50	58.50
0.917	58.50	58.50	58.50	58.50	58.50
1.000	58.50	58.50	58.50	58.50	58.50
1.083	58.51	58.51	58.51	58.51	58.51
1.167	58.51	58.51	58.51	58.51	58.51
1.250	58.51	58.51	58.51	58.51	58.51
1.333	58.51	58.51	58.51	58.51	58.51
1.417	58.51	58.52	58.52	58.52	58.52
1.500	58.52	58.52	58.52	58.52	58.52
1.583	58.52	58.52	58.52	58.52	58.52
1.667	58.52	58.53	58.53	58.53	58.53
1.750	58.53	58.53	58.53	58.53	58.53
1.833	58.53	58.53	58.53	58.53	58.54
1.917	58.54	58.54	58.54	58.54	58.54
2.000	58.54	58.54	58.54	58.54	58.54
2.083	58.55	58.55	58.55	58.55	58.55
2.167	58.55	58.55	58.55	58.55	58.55
2.250	58.56	58.56	58.56	58.56	58.56
2.333	58.56	58.56	58.56	58.56	58.56
2.417	58.57	58.57	58.57	58.57	58.57
2.500	58.57	58.57	58.57	58.57	58.58
2.583	58.58	58.58	58.58	58.58	58.58
2.667	58.58	58.58	58.58	58.59	58.59
2.750	58.59	58.59	58.59	58.59	58.59
2.833	58.59	58.59	58.60	58.60	58.60
2.917	58.60	58.60	58.60	58.60	58.60
3.000	58.61	58.61	58.61	58.61	58.61
3.083	58.61	58.61	58.61	58.62	58.62
3.167	58.62	58.62	58.62	58.62	58.62
3.250	58.62	58.63	58.63	58.63	58.63
3.333	58.63	58.63	58.63	58.64	58.64
3.417	58.64	58.64	58.64	58.64	58.64

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
3.500	58.65	58.65	58.65	58.65	58.65
3.583	58.65	58.65	58.66	58.66	58.66
3.667	58.66	58.66	58.66	58.66	58.67
3.750	58.67	58.67	58.67	58.67	58.67
3.833	58.67	58.68	58.68	58.68	58.68
3.917	58.68	58.68	58.68	58.69	58.69
4.000	58.69	58.69	58.69	58.69	58.69
4.083	58.70	58.70	58.70	58.70	58.70
4.167	58.70	58.71	58.71	58.71	58.71
4.250	58.71	58.71	58.72	58.72	58.72
4.333	58.72	58.72	58.72	58.72	58.73
4.417	58.73	58.73	58.73	58.73	58.73
4.500	58.74	58.74	58.74	58.74	58.74
4.583	58.74	58.75	58.75	58.75	58.75
4.667	58.75	58.75	58.76	58.76	58.76
4.750	58.76	58.76	58.76	58.77	58.77
4.833	58.77	58.77	58.77	58.77	58.78
4.917	58.78	58.78	58.78	58.78	58.78
5.000	58.79	58.79	58.79	58.79	58.79
5.083	58.79	58.80	58.80	58.80	58.80
5.167	58.80	58.81	58.81	58.81	58.81
5.250	58.81	58.81	58.82	58.82	58.82
5.333	58.82	58.82	58.83	58.83	58.83
5.417	58.83	58.83	58.83	58.84	58.84
5.500	58.84	58.84	58.84	58.85	58.85
5.583	58.85	58.85	58.85	58.85	58.86
5.667	58.86	58.86	58.86	58.86	58.87
5.750	58.87	58.87	58.87	58.87	58.87
5.833	58.88	58.88	58.88	58.88	58.88
5.917	58.89	58.89	58.89	58.89	58.89
6.000	58.90	58.90	58.90	58.90	58.90
6.083	58.91	58.91	58.91	58.91	58.91
6.167	58.92	58.92	58.92	58.92	58.92
6.250	58.93	58.93	58.93	58.93	58.93
6.333	58.94	58.94	58.94	58.94	58.94
6.417	58.95	58.95	58.95	58.95	58.95
6.500	58.96	58.96	58.96	58.96	58.97
6.583	58.97	58.97	58.97	58.97	58.98
6.667	58.98	58.98	58.98	58.99	58.99
6.750	58.99	58.99	59.00	59.00	59.00
6.833	59.00	59.00	59.01	59.01	59.01
6.917	59.01	59.02	59.02	59.02	59.02

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
7.000	59.03	59.03	59.03	59.03	59.04
7.083	59.04	59.04	59.04	59.05	59.05
7.167	59.05	59.05	59.06	59.06	59.06
7.250	59.06	59.07	59.07	59.07	59.07
7.333	59.08	59.08	59.08	59.09	59.09
7.417	59.09	59.09	59.10	59.10	59.10
7.500	59.10	59.11	59.11	59.11	59.12
7.583	59.12	59.12	59.12	59.13	59.13
7.667	59.13	59.14	59.14	59.14	59.14
7.750	59.15	59.15	59.15	59.16	59.16
7.833	59.16	59.16	59.17	59.17	59.17
7.917	59.18	59.18	59.18	59.19	59.19
8.000	59.19	59.19	59.20	59.20	59.20
8.083	59.21	59.21	59.21	59.22	59.22
8.167	59.22	59.23	59.23	59.23	59.23
8.250	59.24	59.24	59.24	59.25	59.25
8.333	59.25	59.26	59.26	59.26	59.27
8.417	59.27	59.27	59.28	59.28	59.28
8.500	59.29	59.29	59.29	59.30	59.30
8.583	59.30	59.31	59.31	59.31	59.32
8.667	59.32	59.32	59.33	59.33	59.34
8.750	59.34	59.34	59.35	59.35	59.35
8.833	59.36	59.36	59.36	59.37	59.37
8.917	59.37	59.38	59.38	59.38	59.39
9.000	59.39	59.40	59.40	59.40	59.41
9.083	59.41	59.41	59.42	59.42	59.43
9.167	59.43	59.43	59.44	59.44	59.45
9.250	59.45	59.45	59.46	59.46	59.47
9.333	59.47	59.48	59.48	59.48	59.49
9.417	59.49	59.50	59.50	59.51	59.51
9.500	59.52	59.52	59.52	59.53	59.53
9.583	59.54	59.54	59.55	59.55	59.56
9.667	59.56	59.57	59.57	59.58	59.58
9.750	59.59	59.59	59.60	59.60	59.61
9.833	59.61	59.62	59.63	59.63	59.64
9.917	59.64	59.65	59.65	59.66	59.66
10.000	59.67	59.67	59.68	59.69	59.69
10.083	59.70	59.70	59.71	59.72	59.72
10.167	59.73	59.73	59.74	59.75	59.75
10.250	59.76	59.76	59.77	59.78	59.78
10.333	59.79	59.79	59.80	59.81	59.81
10.417	59.82	59.83	59.83	59.84	59.85

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	59.85	59.86	59.87	59.87	59.88
10.583	59.89	59.90	59.90	59.91	59.92
10.667	59.93	59.93	59.94	59.95	59.96
10.750	59.97	59.97	59.98	59.99	60.00
10.833	60.01	60.01	60.02	60.02	60.02
10.917	60.02	60.02	60.02	60.03	60.03
11.000	60.03	60.03	60.03	60.03	60.03
11.083	60.03	60.03	60.03	60.03	60.03
11.167	60.03	60.03	60.03	60.03	60.03
11.250	60.03	60.03	60.04	60.04	60.04
11.333	60.04	60.04	60.04	60.04	60.04
11.417	60.04	60.04	60.04	60.04	60.04
11.500	60.04	60.04	60.04	60.05	60.05
11.583	60.05	60.05	60.05	60.06	60.06
11.667	60.06	60.06	60.06	60.06	60.06
11.750	60.07	60.07	60.07	60.08	60.08
11.833	60.08	60.09	60.09	60.10	60.10
11.917	60.11	60.12	60.13	60.14	60.16
12.000	60.18	60.20	60.22	60.25	60.28
12.083	60.32	60.35	60.39	60.42	60.44
12.167	60.44	60.43	60.41	60.38	60.36
12.250	60.33	60.30	60.27	60.25	60.22
12.333	60.20	60.18	60.16	60.15	60.13
12.417	60.12	60.10	60.09	60.09	60.08
12.500	60.08	60.07	60.07	60.07	60.07
12.583	60.06	60.06	60.06	60.06	60.05
12.667	60.05	60.05	60.05	60.05	60.05
12.750	60.05	60.05	60.04	60.04	60.04
12.833	60.04	60.04	60.04	60.04	60.04
12.917	60.04	60.04	60.04	60.04	60.04
13.000	60.04	60.04	60.04	60.03	60.03
13.083	60.03	60.03	60.03	60.03	60.03
13.167	60.03	60.03	60.03	60.03	60.03
13.250	60.03	60.03	60.03	60.03	60.03
13.333	60.03	60.03	60.03	60.03	60.03
13.417	60.03	60.02	60.02	60.02	60.02
13.500	60.02	60.02	60.02	60.02	60.02
13.583	60.02	60.02	60.02	60.02	60.02
13.667	60.02	60.02	60.02	60.02	60.02
13.750	60.02	60.02	60.02	60.02	60.02
13.833	60.02	60.02	60.02	60.02	60.02
13.917	60.02	60.02	60.02	60.02	60.02

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
14.000	60.02	60.02	60.02	60.02	60.02
14.083	60.02	60.02	60.02	60.02	60.02
14.167	60.02	60.02	60.02	60.02	60.02
14.250	60.02	60.02	60.02	60.02	60.02
14.333	60.02	60.02	60.02	60.02	60.02
14.417	60.02	60.02	60.02	60.02	60.02
14.500	60.02	60.01	60.01	60.01	60.01
14.583	60.01	60.01	60.01	60.01	60.01
14.667	60.01	60.01	60.01	60.01	60.01
14.750	60.01	60.01	60.01	60.01	60.01
14.833	60.01	60.01	60.01	60.01	60.01
14.917	60.01	60.01	60.01	60.01	60.01
15.000	60.01	60.01	60.01	60.01	60.01
15.083	60.01	60.01	60.01	60.01	60.01
15.167	60.01	60.01	60.01	60.01	60.01
15.250	60.01	60.01	60.01	60.01	60.01
15.333	60.01	60.01	60.01	60.01	60.01
15.417	60.01	60.01	60.01	60.01	60.01
15.500	60.01	60.01	60.01	60.01	60.01
15.583	60.01	60.01	60.01	60.01	60.01
15.667	60.01	60.01	60.01	60.01	60.01
15.750	60.01	60.01	60.01	60.01	60.01
15.833	60.01	60.01	60.01	60.01	60.01
15.917	60.01	60.01	60.01	60.01	60.01
16.000	60.01	60.01	60.01	60.01	60.01
16.083	60.01	60.01	60.01	60.01	60.01
16.167	60.01	60.01	60.01	60.01	60.01
16.250	60.01	60.01	60.01	60.01	60.01
16.333	60.01	60.01	60.01	60.01	60.01
16.417	60.01	60.01	60.01	60.01	60.01
16.500	60.01	60.01	60.01	60.01	60.01
16.583	60.01	60.01	60.01	60.01	60.01
16.667	60.01	60.01	60.01	60.01	60.01
16.750	60.01	60.01	60.01	60.01	60.01
16.833	60.01	60.01	60.01	60.01	60.01
16.917	60.01	60.01	60.01	60.01	60.01
17.000	60.01	60.01	60.01	60.01	60.01
17.083	60.01	60.01	60.01	60.01	60.01
17.167	60.01	60.01	60.01	60.01	60.01
17.250	60.01	60.01	60.01	60.01	60.01
17.333	60.01	60.01	60.01	60.01	60.01
17.417	60.01	60.01	60.01	60.01	60.01

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
17.500	60.01	60.01	60.01	60.01	60.01
17.583	60.01	60.01	60.01	60.01	60.01
17.667	60.01	60.01	60.01	60.01	60.01
17.750	60.01	60.01	60.01	60.01	60.01
17.833	60.01	60.01	60.01	60.01	60.01
17.917	60.01	60.01	60.01	60.01	60.01
18.000	60.01	60.01	60.01	60.01	60.01
18.083	60.01	60.01	60.01	60.01	60.01
18.167	60.01	60.01	60.01	60.01	60.01
18.250	60.01	60.01	60.01	60.01	60.01
18.333	60.01	60.01	60.01	60.01	60.01
18.417	60.01	60.01	60.01	60.01	60.01
18.500	60.01	60.01	60.01	60.01	60.01
18.583	60.01	60.01	60.01	60.01	60.01
18.667	60.01	60.01	60.01	60.01	60.01
18.750	60.01	60.01	60.01	60.01	60.01
18.833	60.01	60.01	60.01	60.01	60.01
18.917	60.01	60.01	60.01	60.01	60.01
19.000	60.01	60.01	60.01	60.01	60.01
19.083	60.01	60.01	60.01	60.01	60.01
19.167	60.01	60.01	60.01	60.01	60.01
19.250	60.01	60.01	60.01	60.01	60.01
19.333	60.01	60.01	60.01	60.01	60.01
19.417	60.01	60.01	60.01	60.01	60.01
19.500	60.01	60.01	60.01	60.01	60.01
19.583	60.01	60.01	60.01	60.01	60.01
19.667	60.01	60.01	60.01	60.01	60.01
19.750	60.01	60.01	60.01	60.01	60.01
19.833	60.01	60.01	60.01	60.01	60.01
19.917	60.01	60.01	60.01	60.01	60.01
20.000	60.01	60.01	60.01	60.01	60.01
20.083	60.01	60.01	60.01	60.01	60.01
20.167	60.01	60.01	60.01	60.01	60.01
20.250	60.01	60.01	60.01	60.01	60.01
20.333	60.01	60.01	60.01	60.01	60.01
20.417	60.01	60.01	60.01	60.01	60.01
20.500	60.01	60.01	60.01	60.01	60.01
20.583	60.01	60.01	60.01	60.01	60.01
20.667	60.01	60.01	60.01	60.01	60.01
20.750	60.01	60.01	60.01	60.01	60.01
20.833	60.01	60.01	60.01	60.01	60.01
20.917	60.01	60.01	60.01	60.01	60.01

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 25 year

Return Event: 25 years
Storm Event: NOAA-D (6.42 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	60.01	60.01	60.01	60.01	60.01
21.083	60.01	60.01	60.01	60.01	60.01
21.167	60.01	60.01	60.01	60.01	60.01
21.250	60.01	60.01	60.01	60.01	60.01
21.333	60.01	60.01	60.01	60.01	60.01
21.417	60.01	60.01	60.01	60.01	60.01
21.500	60.01	60.01	60.01	60.01	60.00
21.583	60.00	60.00	60.00	60.00	60.00
21.667	60.00	60.00	60.00	60.00	60.00
21.750	60.00	60.00	60.00	60.00	60.00
21.833	60.00	60.00	60.00	60.00	60.00
21.917	60.00	60.00	60.00	60.00	60.00
22.000	60.00	60.00	60.00	60.00	60.00
22.083	60.00	60.00	60.00	60.00	60.00
22.167	60.00	60.00	60.00	60.00	60.00
22.250	60.00	60.00	60.00	60.00	60.00
22.333	60.00	60.00	60.00	60.00	60.00
22.417	60.00	60.00	60.00	60.00	60.00
22.500	60.00	60.00	60.00	60.00	60.00
22.583	60.00	60.00	60.00	60.00	60.00
22.667	60.00	60.00	60.00	60.00	60.00
22.750	60.00	60.00	60.00	60.00	60.00
22.833	60.00	60.00	60.00	60.00	60.00
22.917	60.00	60.00	60.00	60.00	60.00
23.000	60.00	60.00	60.00	60.00	60.00
23.083	60.00	60.00	60.00	60.00	60.00
23.167	60.00	60.00	60.00	60.00	60.00
23.250	60.00	60.00	60.00	60.00	60.00
23.333	60.00	60.00	60.00	60.00	60.00
23.417	60.00	60.00	60.00	60.00	60.00
23.500	60.00	60.00	60.00	60.00	60.00
23.583	60.00	60.00	60.00	60.00	60.00
23.667	60.00	60.00	60.00	60.00	60.00
23.750	60.00	60.00	60.00	60.00	60.00
23.833	60.00	60.00	60.00	60.00	60.00
23.917	60.00	60.00	60.00	60.00	60.00
24.000	60.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	58.50	58.50	58.50	58.50	58.50
0.083	58.50	58.50	58.50	58.50	58.50
0.167	58.50	58.50	58.50	58.50	58.50
0.250	58.50	58.50	58.50	58.50	58.50
0.333	58.50	58.50	58.50	58.50	58.50
0.417	58.50	58.50	58.50	58.50	58.50
0.500	58.50	58.50	58.50	58.50	58.50
0.583	58.50	58.50	58.50	58.50	58.50
0.667	58.50	58.50	58.50	58.50	58.50
0.750	58.50	58.50	58.50	58.50	58.50
0.833	58.51	58.51	58.51	58.51	58.51
0.917	58.51	58.51	58.51	58.51	58.51
1.000	58.51	58.51	58.51	58.51	58.51
1.083	58.51	58.52	58.52	58.52	58.52
1.167	58.52	58.52	58.52	58.52	58.52
1.250	58.52	58.52	58.53	58.53	58.53
1.333	58.53	58.53	58.53	58.53	58.53
1.417	58.53	58.53	58.54	58.54	58.54
1.500	58.54	58.54	58.54	58.54	58.54
1.583	58.54	58.55	58.55	58.55	58.55
1.667	58.55	58.55	58.55	58.55	58.56
1.750	58.56	58.56	58.56	58.56	58.56
1.833	58.56	58.57	58.57	58.57	58.57
1.917	58.57	58.57	58.57	58.57	58.58
2.000	58.58	58.58	58.58	58.58	58.58
2.083	58.59	58.59	58.59	58.59	58.59
2.167	58.59	58.59	58.60	58.60	58.60
2.250	58.60	58.60	58.60	58.61	58.61
2.333	58.61	58.61	58.61	58.61	58.61
2.417	58.62	58.62	58.62	58.62	58.62
2.500	58.62	58.63	58.63	58.63	58.63
2.583	58.63	58.64	58.64	58.64	58.64
2.667	58.64	58.64	58.65	58.65	58.65
2.750	58.65	58.65	58.65	58.66	58.66
2.833	58.66	58.66	58.66	58.67	58.67
2.917	58.67	58.67	58.67	58.67	58.68
3.000	58.68	58.68	58.68	58.68	58.69
3.083	58.69	58.69	58.69	58.69	58.70
3.167	58.70	58.70	58.70	58.70	58.71
3.250	58.71	58.71	58.71	58.71	58.72
3.333	58.72	58.72	58.72	58.72	58.73
3.417	58.73	58.73	58.73	58.73	58.74

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
3.500	58.74	58.74	58.74	58.74	58.75
3.583	58.75	58.75	58.75	58.75	58.76
3.667	58.76	58.76	58.76	58.76	58.77
3.750	58.77	58.77	58.77	58.77	58.78
3.833	58.78	58.78	58.78	58.79	58.79
3.917	58.79	58.79	58.79	58.80	58.80
4.000	58.80	58.80	58.81	58.81	58.81
4.083	58.81	58.81	58.82	58.82	58.82
4.167	58.82	58.83	58.83	58.83	58.83
4.250	58.83	58.84	58.84	58.84	58.84
4.333	58.85	58.85	58.85	58.85	58.85
4.417	58.86	58.86	58.86	58.86	58.87
4.500	58.87	58.87	58.87	58.88	58.88
4.583	58.88	58.88	58.89	58.89	58.89
4.667	58.89	58.89	58.90	58.90	58.90
4.750	58.90	58.91	58.91	58.91	58.91
4.833	58.92	58.92	58.92	58.92	58.93
4.917	58.93	58.93	58.93	58.94	58.94
5.000	58.94	58.94	58.95	58.95	58.95
5.083	58.95	58.96	58.96	58.96	58.96
5.167	58.97	58.97	58.97	58.97	58.98
5.250	58.98	58.98	58.98	58.99	58.99
5.333	58.99	58.99	59.00	59.00	59.00
5.417	59.00	59.01	59.01	59.01	59.01
5.500	59.02	59.02	59.02	59.02	59.03
5.583	59.03	59.03	59.03	59.04	59.04
5.667	59.04	59.04	59.05	59.05	59.05
5.750	59.06	59.06	59.06	59.06	59.07
5.833	59.07	59.07	59.07	59.08	59.08
5.917	59.08	59.08	59.09	59.09	59.09
6.000	59.09	59.10	59.10	59.10	59.11
6.083	59.11	59.11	59.11	59.12	59.12
6.167	59.12	59.13	59.13	59.13	59.13
6.250	59.14	59.14	59.14	59.15	59.15
6.333	59.15	59.15	59.16	59.16	59.16
6.417	59.17	59.17	59.17	59.18	59.18
6.500	59.18	59.18	59.19	59.19	59.19
6.583	59.20	59.20	59.20	59.21	59.21
6.667	59.21	59.22	59.22	59.22	59.23
6.750	59.23	59.23	59.24	59.24	59.24
6.833	59.25	59.25	59.25	59.26	59.26
6.917	59.26	59.27	59.27	59.27	59.28

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
7.000	59.28	59.28	59.29	59.29	59.29
7.083	59.30	59.30	59.30	59.31	59.31
7.167	59.31	59.32	59.32	59.33	59.33
7.250	59.33	59.34	59.34	59.34	59.35
7.333	59.35	59.35	59.36	59.36	59.37
7.417	59.37	59.37	59.38	59.38	59.39
7.500	59.39	59.39	59.40	59.40	59.40
7.583	59.41	59.41	59.42	59.42	59.42
7.667	59.43	59.43	59.44	59.44	59.44
7.750	59.45	59.45	59.46	59.46	59.47
7.833	59.47	59.47	59.48	59.48	59.49
7.917	59.49	59.49	59.50	59.50	59.51
8.000	59.51	59.52	59.52	59.52	59.53
8.083	59.53	59.54	59.54	59.55	59.55
8.167	59.55	59.56	59.56	59.57	59.57
8.250	59.58	59.58	59.59	59.59	59.60
8.333	59.60	59.60	59.61	59.61	59.62
8.417	59.62	59.63	59.63	59.64	59.64
8.500	59.65	59.65	59.66	59.66	59.66
8.583	59.67	59.67	59.68	59.68	59.69
8.667	59.69	59.70	59.70	59.71	59.71
8.750	59.72	59.72	59.73	59.73	59.74
8.833	59.74	59.75	59.75	59.76	59.76
8.917	59.77	59.77	59.78	59.78	59.79
9.000	59.79	59.80	59.80	59.81	59.81
9.083	59.82	59.82	59.83	59.83	59.84
9.167	59.85	59.85	59.86	59.86	59.87
9.250	59.87	59.88	59.89	59.89	59.90
9.333	59.90	59.91	59.92	59.92	59.93
9.417	59.93	59.94	59.95	59.95	59.96
9.500	59.97	59.97	59.98	59.98	59.99
9.583	60.00	60.00	60.01	60.01	60.01
9.667	60.02	60.02	60.02	60.02	60.02
9.750	60.02	60.02	60.02	60.02	60.02
9.833	60.02	60.02	60.02	60.02	60.02
9.917	60.02	60.02	60.02	60.02	60.02
10.000	60.02	60.02	60.02	60.02	60.02
10.083	60.02	60.02	60.02	60.02	60.02
10.167	60.02	60.02	60.02	60.02	60.02
10.250	60.02	60.02	60.02	60.02	60.02
10.333	60.02	60.02	60.02	60.02	60.02
10.417	60.02	60.02	60.02	60.02	60.02

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	60.02	60.02	60.02	60.03	60.03
10.583	60.03	60.03	60.03	60.03	60.03
10.667	60.03	60.03	60.03	60.03	60.03
10.750	60.03	60.03	60.03	60.03	60.03
10.833	60.03	60.03	60.03	60.03	60.03
10.917	60.03	60.04	60.04	60.04	60.04
11.000	60.04	60.04	60.04	60.04	60.04
11.083	60.04	60.04	60.04	60.04	60.04
11.167	60.04	60.04	60.05	60.05	60.05
11.250	60.05	60.05	60.05	60.05	60.05
11.333	60.05	60.05	60.05	60.05	60.06
11.417	60.06	60.06	60.06	60.06	60.06
11.500	60.06	60.06	60.06	60.06	60.07
11.583	60.07	60.07	60.07	60.08	60.08
11.667	60.08	60.08	60.09	60.09	60.09
11.750	60.09	60.09	60.10	60.10	60.11
11.833	60.12	60.12	60.13	60.14	60.16
11.917	60.17	60.18	60.20	60.22	60.25
12.000	60.28	60.31	60.34	60.38	60.42
12.083	60.47	60.50	60.50	60.50	60.50
12.167	60.50	60.50	60.50	60.50	60.50
12.250	60.50	60.50	60.50	60.50	60.50
12.333	60.50	60.48	60.42	60.37	60.33
12.417	60.29	60.26	60.23	60.20	60.18
12.500	60.17	60.15	60.14	60.13	60.12
12.583	60.11	60.10	60.09	60.08	60.08
12.667	60.07	60.07	60.07	60.07	60.07
12.750	60.06	60.06	60.06	60.06	60.06
12.833	60.06	60.06	60.06	60.06	60.05
12.917	60.05	60.05	60.05	60.05	60.05
13.000	60.05	60.05	60.05	60.05	60.05
13.083	60.05	60.04	60.04	60.04	60.04
13.167	60.04	60.04	60.04	60.04	60.04
13.250	60.04	60.04	60.04	60.04	60.04
13.333	60.04	60.04	60.04	60.04	60.03
13.417	60.03	60.03	60.03	60.03	60.03
13.500	60.03	60.03	60.03	60.03	60.03
13.583	60.03	60.03	60.03	60.03	60.03
13.667	60.03	60.03	60.03	60.03	60.03
13.750	60.03	60.03	60.03	60.03	60.03
13.833	60.03	60.03	60.03	60.03	60.03
13.917	60.03	60.02	60.02	60.02	60.02

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
14.000	60.02	60.02	60.02	60.02	60.02
14.083	60.02	60.02	60.02	60.02	60.02
14.167	60.02	60.02	60.02	60.02	60.02
14.250	60.02	60.02	60.02	60.02	60.02
14.333	60.02	60.02	60.02	60.02	60.02
14.417	60.02	60.02	60.02	60.02	60.02
14.500	60.02	60.02	60.02	60.02	60.02
14.583	60.02	60.02	60.02	60.02	60.02
14.667	60.02	60.02	60.02	60.02	60.02
14.750	60.02	60.02	60.02	60.02	60.02
14.833	60.02	60.02	60.02	60.02	60.02
14.917	60.02	60.02	60.02	60.02	60.02
15.000	60.02	60.02	60.02	60.02	60.02
15.083	60.02	60.02	60.02	60.02	60.02
15.167	60.02	60.02	60.02	60.02	60.02
15.250	60.02	60.02	60.02	60.01	60.01
15.333	60.01	60.01	60.01	60.01	60.01
15.417	60.01	60.01	60.01	60.01	60.01
15.500	60.01	60.01	60.01	60.01	60.01
15.583	60.01	60.01	60.01	60.01	60.01
15.667	60.01	60.01	60.01	60.01	60.01
15.750	60.01	60.01	60.01	60.01	60.01
15.833	60.01	60.01	60.01	60.01	60.01
15.917	60.01	60.01	60.01	60.01	60.01
16.000	60.01	60.01	60.01	60.01	60.01
16.083	60.01	60.01	60.01	60.01	60.01
16.167	60.01	60.01	60.01	60.01	60.01
16.250	60.01	60.01	60.01	60.01	60.01
16.333	60.01	60.01	60.01	60.01	60.01
16.417	60.01	60.01	60.01	60.01	60.01
16.500	60.01	60.01	60.01	60.01	60.01
16.583	60.01	60.01	60.01	60.01	60.01
16.667	60.01	60.01	60.01	60.01	60.01
16.750	60.01	60.01	60.01	60.01	60.01
16.833	60.01	60.01	60.01	60.01	60.01
16.917	60.01	60.01	60.01	60.01	60.01
17.000	60.01	60.01	60.01	60.01	60.01
17.083	60.01	60.01	60.01	60.01	60.01
17.167	60.01	60.01	60.01	60.01	60.01
17.250	60.01	60.01	60.01	60.01	60.01
17.333	60.01	60.01	60.01	60.01	60.01
17.417	60.01	60.01	60.01	60.01	60.01

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
17.500	60.01	60.01	60.01	60.01	60.01
17.583	60.01	60.01	60.01	60.01	60.01
17.667	60.01	60.01	60.01	60.01	60.01
17.750	60.01	60.01	60.01	60.01	60.01
17.833	60.01	60.01	60.01	60.01	60.01
17.917	60.01	60.01	60.01	60.01	60.01
18.000	60.01	60.01	60.01	60.01	60.01
18.083	60.01	60.01	60.01	60.01	60.01
18.167	60.01	60.01	60.01	60.01	60.01
18.250	60.01	60.01	60.01	60.01	60.01
18.333	60.01	60.01	60.01	60.01	60.01
18.417	60.01	60.01	60.01	60.01	60.01
18.500	60.01	60.01	60.01	60.01	60.01
18.583	60.01	60.01	60.01	60.01	60.01
18.667	60.01	60.01	60.01	60.01	60.01
18.750	60.01	60.01	60.01	60.01	60.01
18.833	60.01	60.01	60.01	60.01	60.01
18.917	60.01	60.01	60.01	60.01	60.01
19.000	60.01	60.01	60.01	60.01	60.01
19.083	60.01	60.01	60.01	60.01	60.01
19.167	60.01	60.01	60.01	60.01	60.01
19.250	60.01	60.01	60.01	60.01	60.01
19.333	60.01	60.01	60.01	60.01	60.01
19.417	60.01	60.01	60.01	60.01	60.01
19.500	60.01	60.01	60.01	60.01	60.01
19.583	60.01	60.01	60.01	60.01	60.01
19.667	60.01	60.01	60.01	60.01	60.01
19.750	60.01	60.01	60.01	60.01	60.01
19.833	60.01	60.01	60.01	60.01	60.01
19.917	60.01	60.01	60.01	60.01	60.01
20.000	60.01	60.01	60.01	60.01	60.01
20.083	60.01	60.01	60.01	60.01	60.01
20.167	60.01	60.01	60.01	60.01	60.01
20.250	60.01	60.01	60.01	60.01	60.01
20.333	60.01	60.01	60.01	60.01	60.01
20.417	60.01	60.01	60.01	60.01	60.01
20.500	60.01	60.01	60.01	60.01	60.01
20.583	60.01	60.01	60.01	60.01	60.01
20.667	60.01	60.01	60.01	60.01	60.01
20.750	60.01	60.01	60.01	60.01	60.01
20.833	60.01	60.01	60.01	60.01	60.01
20.917	60.01	60.01	60.01	60.01	60.01

Subsection: Time vs. Elevation
Label: Basin (OUT)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Time vs. Elevation (ft)

Output Time increment = 0.017 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	60.01	60.01	60.01	60.01	60.01
21.083	60.01	60.01	60.01	60.01	60.01
21.167	60.01	60.01	60.01	60.01	60.01
21.250	60.01	60.01	60.01	60.01	60.01
21.333	60.01	60.01	60.01	60.01	60.01
21.417	60.01	60.01	60.01	60.01	60.01
21.500	60.01	60.01	60.01	60.01	60.01
21.583	60.01	60.01	60.01	60.01	60.01
21.667	60.01	60.01	60.01	60.01	60.01
21.750	60.01	60.01	60.01	60.01	60.01
21.833	60.01	60.01	60.01	60.01	60.01
21.917	60.01	60.01	60.01	60.01	60.01
22.000	60.01	60.01	60.01	60.01	60.01
22.083	60.01	60.01	60.01	60.01	60.01
22.167	60.01	60.01	60.01	60.01	60.01
22.250	60.01	60.01	60.01	60.01	60.01
22.333	60.01	60.01	60.01	60.01	60.01
22.417	60.01	60.01	60.01	60.01	60.01
22.500	60.01	60.01	60.01	60.01	60.01
22.583	60.01	60.01	60.01	60.01	60.01
22.667	60.01	60.01	60.01	60.01	60.01
22.750	60.01	60.01	60.01	60.01	60.01
22.833	60.01	60.01	60.01	60.01	60.01
22.917	60.01	60.01	60.01	60.01	60.01
23.000	60.01	60.01	60.01	60.01	60.01
23.083	60.01	60.01	60.01	60.01	60.01
23.167	60.01	60.01	60.01	60.01	60.01
23.250	60.01	60.01	60.01	60.01	60.01
23.333	60.01	60.01	60.01	60.01	60.01
23.417	60.01	60.01	60.01	60.01	60.01
23.500	60.01	60.01	60.01	60.01	60.01
23.583	60.01	60.01	60.01	60.01	60.01
23.667	60.01	60.01	60.01	60.01	60.01
23.750	60.01	60.01	60.01	60.01	60.01
23.833	60.01	60.01	60.01	60.01	60.01
23.917	60.01	60.01	60.01	60.01	60.01
24.000	60.01	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Outlet Input Data
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Requested Pond Water Surface Elevations	
Minimum (Headwater)	58.50 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	60.50 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	TW	58.50	60.50
Rectangular Weir	Weir - 1	Forward	TW	59.51	60.50
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Orifice - 1 Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	58.50 ft
Orifice Diameter	6.0 in
Orifice Coefficient	0.600

Structure ID: Weir - 1 Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	59.51 ft
Weir Length	1.50 ft
Weir Coefficient	3.00 (ft^0.5)/s

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Orifice - 1 (Orifice-Circular)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
58.50	0.00	60.00	0.00
58.60	0.00	60.00	0.00
58.70	0.00	60.00	0.00
58.80	0.00	60.00	0.00
58.90	0.00	60.00	0.00
59.00	0.00	60.00	0.00
59.10	0.00	60.00	0.00
59.20	0.00	60.00	0.00
59.30	0.00	60.00	0.00
59.40	0.00	60.00	0.00
59.50	0.00	60.00	0.00
59.51	0.00	60.00	0.00
59.60	0.00	60.00	0.00
59.70	0.00	60.00	0.00
59.80	0.00	60.00	0.00
59.90	0.00	60.00	0.00
60.00	0.00	60.00	0.00
60.10	0.30	60.00	0.00
60.20	0.42	60.00	0.00
60.30	0.52	60.00	0.00
60.40	0.60	60.00	0.00
60.50	0.67	60.00	0.00

Computation Messages
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Orifice - 1 (Orifice-Circular)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Computation Messages
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
H =.00
H =.10
H =.20
H =.30
H =.40
H =.50

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
58.50	0.00	60.00	0.00
58.60	0.00	60.00	0.00
58.70	0.00	60.00	0.00
58.80	0.00	60.00	0.00
58.90	0.00	60.00	0.00
59.00	0.00	60.00	0.00
59.10	0.00	60.00	0.00
59.20	0.00	60.00	0.00
59.30	0.00	60.00	0.00
59.40	0.00	60.00	0.00
59.50	0.00	60.00	0.00
59.51	0.00	60.00	0.00
59.60	0.00	60.00	0.00
59.70	0.00	60.00	0.00
59.80	0.00	60.00	0.00
59.90	0.00	60.00	0.00
60.00	0.00	60.00	0.00
60.10	1.18	60.00	0.00
60.20	1.82	60.00	0.00
60.30	2.44	60.00	0.00
60.40	3.09	60.00	0.00
60.50	3.76	60.00	0.00

Computation Messages
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off

Subsection: Individual Outlet Curves
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

RATING TABLE FOR ONE OUTLET TYPE
Structure ID = Weir - 1 (Rectangular Weir)

Upstream ID = (Pond Water Surface)
Downstream ID = Tailwater (Pond Outfall)

Computation Messages
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
REVERSE: Flow is closed off
H=.49; Htw=.49; Qfree=1.54;
H=.59; Htw=.49; Qfree=2.04;
H=.69; Htw=.49; Qfree=2.58;
H=.79; Htw=.49; Qfree=3.16;
H=.89; Htw=.49; Qfree=3.78;
H=.99; Htw=.49; Qfree=4.43;

Subsection: Composite Rating Curve
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft^3/s)	Tailwater Elevation (ft)	Convergence Error (ft)
58.50	0.00	60.00	0.00
58.60	0.00	60.00	0.00
58.70	0.00	60.00	0.00
58.80	0.00	60.00	0.00
58.90	0.00	60.00	0.00
59.00	0.00	60.00	0.00
59.10	0.00	60.00	0.00
59.20	0.00	60.00	0.00
59.30	0.00	60.00	0.00
59.40	0.00	60.00	0.00
59.50	0.00	60.00	0.00
59.51	0.00	60.00	0.00
59.60	0.00	60.00	0.00
59.70	0.00	60.00	0.00
59.80	0.00	60.00	0.00
59.90	0.00	60.00	0.00
60.00	0.00	60.00	0.00
60.10	1.48	60.00	0.00
60.20	2.24	60.00	0.00
60.30	2.96	60.00	0.00
60.40	3.68	60.00	0.00
60.50	4.43	60.00	0.00

Contributing Structures
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1
Orifice - 1 + Weir - 1

Subsection: Composite Rating Curve
Label: Composite Outlet Structure - 1
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Composite Outflow Summary

Contributing Structures
Orifice - 1 + Weir - 1

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Basin
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.017 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (acres)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
58.50	0.00	0.000	0.000	0.00	0.00	0.00
58.60	0.00	240.000	0.000	0.00	0.00	8.00
58.70	0.00	480.000	0.000	0.00	0.00	16.00
58.80	0.00	720.000	0.000	0.00	0.00	24.00
58.90	0.00	960.000	0.000	0.00	0.00	32.00
59.00	0.00	1,200.000	0.000	0.00	0.00	40.00
59.10	0.00	1,440.000	0.000	0.00	0.00	48.00
59.20	0.00	1,680.000	0.000	0.00	0.00	56.00
59.30	0.00	1,920.000	0.000	0.00	0.00	64.00
59.40	0.00	2,160.000	0.000	0.00	0.00	72.00
59.50	0.00	2,400.000	0.000	0.00	0.00	80.00
59.51	0.00	2,424.000	0.000	0.00	0.00	80.80
59.60	0.00	2,640.000	0.000	0.00	0.00	88.00
59.70	0.00	2,880.000	0.000	0.00	0.00	96.00
59.80	0.00	3,120.000	0.000	0.00	0.00	104.00
59.90	0.00	3,360.000	0.000	0.00	0.00	112.00
60.00	0.00	3,600.000	0.000	0.00	0.00	120.00
60.10	1.48	3,840.000	0.000	0.00	1.48	129.48
60.20	2.24	4,080.000	0.000	0.00	2.24	138.24
60.30	2.96	4,320.000	0.000	0.00	2.96	146.96
60.40	3.68	4,560.000	0.000	0.00	3.68	155.68
60.50	4.43	4,800.000	0.000	0.00	4.43	164.43

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Basin
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.017 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (acres)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
58.50	0.00	0.000	0.000	0.00	0.00	0.00
58.60	0.00	240.000	0.000	0.00	0.00	8.00
58.70	0.00	480.000	0.000	0.00	0.00	16.00
58.80	0.00	720.000	0.000	0.00	0.00	24.00
58.90	0.00	960.000	0.000	0.00	0.00	32.00
59.00	0.00	1,200.000	0.000	0.00	0.00	40.00
59.10	0.00	1,440.000	0.000	0.00	0.00	48.00
59.20	0.00	1,680.000	0.000	0.00	0.00	56.00
59.30	0.00	1,920.000	0.000	0.00	0.00	64.00
59.40	0.00	2,160.000	0.000	0.00	0.00	72.00
59.50	0.00	2,400.000	0.000	0.00	0.00	80.00
59.51	0.00	2,424.000	0.000	0.00	0.00	80.80
59.60	0.00	2,640.000	0.000	0.00	0.00	88.00
59.70	0.00	2,880.000	0.000	0.00	0.00	96.00
59.80	0.00	3,120.000	0.000	0.00	0.00	104.00
59.90	0.00	3,360.000	0.000	0.00	0.00	112.00
60.00	0.00	3,600.000	0.000	0.00	0.00	120.00
60.10	1.48	3,840.000	0.000	0.00	1.48	129.48
60.20	2.24	4,080.000	0.000	0.00	2.24	138.24
60.30	2.96	4,320.000	0.000	0.00	2.96	146.96
60.40	3.68	4,560.000	0.000	0.00	3.68	155.68
60.50	4.43	4,800.000	0.000	0.00	4.43	164.43

Subsection: Elevation-Volume-Flow Table (Pond)
Label: Basin
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.017 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (acres)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
58.50	0.00	0.000	0.000	0.00	0.00	0.00
58.60	0.00	240.000	0.000	0.00	0.00	8.00
58.70	0.00	480.000	0.000	0.00	0.00	16.00
58.80	0.00	720.000	0.000	0.00	0.00	24.00
58.90	0.00	960.000	0.000	0.00	0.00	32.00
59.00	0.00	1,200.000	0.000	0.00	0.00	40.00
59.10	0.00	1,440.000	0.000	0.00	0.00	48.00
59.20	0.00	1,680.000	0.000	0.00	0.00	56.00
59.30	0.00	1,920.000	0.000	0.00	0.00	64.00
59.40	0.00	2,160.000	0.000	0.00	0.00	72.00
59.50	0.00	2,400.000	0.000	0.00	0.00	80.00
59.51	0.00	2,424.000	0.000	0.00	0.00	80.80
59.60	0.00	2,640.000	0.000	0.00	0.00	88.00
59.70	0.00	2,880.000	0.000	0.00	0.00	96.00
59.80	0.00	3,120.000	0.000	0.00	0.00	104.00
59.90	0.00	3,360.000	0.000	0.00	0.00	112.00
60.00	0.00	3,600.000	0.000	0.00	0.00	120.00
60.10	1.48	3,840.000	0.000	0.00	1.48	129.48
60.20	2.24	4,080.000	0.000	0.00	2.24	138.24
60.30	2.96	4,320.000	0.000	0.00	2.96	146.96
60.40	3.68	4,560.000	0.000	0.00	3.68	155.68
60.50	4.43	4,800.000	0.000	0.00	4.43	164.43

Subsection: Level Pool Pond Routing Summary
Label: Basin (IN)
Scenario: Post-Development 2 year

Return Event: 2 years
Storm Event: NOAA-D (3.39 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.017 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	2.52 ft³/s	Time to Peak (Flow, In)	12.117 hours
Flow (Peak Outlet)	1.97 ft³/s	Time to Peak (Flow, Outlet)	12.167 hours

Elevation (Water Surface, Peak)	60.16 ft
Volume (Peak)	3,995.844 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	8,936.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	5,331.000 ft³
Volume (Retained)	3,603.000 ft³
Volume (Unrouted)	-2.000 ft³
Error (Mass Balance)	0.017 %

Subsection: Level Pool Pond Routing Summary
Label: Basin (IN)
Scenario: Post-Development 10 year

Return Event: 10 years
Storm Event: NOAA-D (5.17 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.017 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	3.97 ft³/s	Time to Peak (Flow, In)	12.117 hours
Flow (Peak Outlet)	3.18 ft³/s	Time to Peak (Flow, Outlet)	12.167 hours

Elevation (Water Surface, Peak)	60.33 ft
Volume (Peak)	4,392.889 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	14,236.000 ft³
Volume (Total Infiltration)	0.000 ft³
Volume (Total Outlet Outflow)	10,628.000 ft³
Volume (Retained)	3,605.000 ft³
Volume (Unrouted)	-2.000 ft³
Error (Mass Balance)	0.017 %

Subsection: Level Pool Pond Routing Summary
Label: Basin (IN)
Scenario: Post-Development 100 year

Return Event: 100 years
Storm Event: NOAA-D (8.69 in)

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	58.50 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.00 ft³/s
Flow (Initial Infiltration)	0.00 ft³/s
Flow (Initial, Total)	0.00 ft³/s
Time Increment	0.017 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	(N/A) ft³/s	Time to Peak (Flow, In)	(N/A) hours
Flow (Peak Outlet)	(N/A) ft³/s	Time to Peak (Flow, Outlet)	(N/A) hours

Elevation (Water Surface, Peak)	(N/A) ft
Volume (Peak)	(N/A) ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	(N/A) ft³
Volume (Total Infiltration)	(N/A) ft³
Volume (Total Outlet Outflow)	(N/A) ft³
Volume (Retained)	(N/A) ft³
Volume (Unrouted)	(N/A) ft³
Error (Mass Balance)	(N/A) %

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APPENDIX D
Low Impact Development Compliance

New Jersey Stormwater Best Management Practices Manual

February 2004

APPENDIX A

Low Impact Development Checklist

A checklist for identifying nonstructural stormwater management strategies incorporated into proposed land development

According to the NJDEP Stormwater Management Rules at N.J.A.C. 7:8, the groundwater recharge, stormwater quality, and stormwater quantity standards established by the Rules for major land development projects must be met by incorporating nine specific nonstructural stormwater management strategies into the project's design to the maximum extent practicable.

To accomplish this, the Rules require an applicant seeking land development approval from a regulatory board or agency to identify those nonstructural strategies that have been incorporated into the project's design. In addition, if an applicant contends that it is not feasible to incorporate any of the specific strategies into the project's design, particularly for engineering, environmental, or safety reasons, the Rules further require that the applicant provide a basis for that contention.

This checklist has been prepared to assist applicants, site designers, and regulatory boards and agencies in ensuring that the nonstructural stormwater management requirements of the Rules are met. It provides an applicant with a means to identify both the nonstructural strategies incorporated into the development's design and the specific low impact development BMPs (LID-BMPs) that have been used to do so. It can also help an applicant explain the engineering, environmental, and/or safety reasons that a specific nonstructural strategy could not be incorporated into the development's design.

The checklist can also assist municipalities and other land development review agencies in the development of specific requirements for both nonstructural strategies and LID-BMPs in zoning and/or land use ordinances and regulations. As such, where requirements consistent with the Rules have been adopted, they may supersede this checklist.

Finally, the checklist can be used during a pre-design meeting between an applicant and pertinent review personnel to discuss local nonstructural strategies and LID-BMPs requirements in order to optimize the development's nonstructural stormwater management design.

Since this checklist is intended to promote the use of nonstructural stormwater management strategies and provide guidance in their incorporation in land development projects, municipalities are permitted to revise it as necessary to meet the goals and objectives of their specific stormwater management program and plan within the limits of N.J.A.C. 7:8.

Low Impact Development Checklist

A checklist for identifying nonstructural stormwater management strategies incorporated into proposed land development

Municipality: Cranford

County: Union Date: 2/3/2021

Review board or agency: Cranford Township

Proposed land development name: 201 Walnut Ave.

Lot(s): 19.01 Block(s): 484

Project or application number: _____

Applicant's name: 201 Walnut Ave., LLC

Applicant's address: 55 Bleecker Street, 2nd Floor

Milburn, NJ 07041

Telephone: _____ Fax: _____

Email address: _____

Designer's name: French & Parrello Associates - Bahram Fazaneh, PE

Designer's address: 1800 Route 34, Suite 101

Wall, NJ 07719

Telephone: 732-312-9800 Fax: _____

Email address: bahram.farzaneh@fpaengineers.com

Part 1: Description of Nonstructural Approach to Site Design

In narrative form, provide an overall description of the nonstructural stormwater management approach and strategies incorporated into the proposed site's design. Attach additional pages as necessary. Details of each nonstructural strategy are provided in Part 3 below.

Porous Pavement is used for pollutant producing paved areas. Open channels are used to convey stormwater runoff in lawn areas until it is collected into the stormwater management system.

Part 2: Review of Local Stormwater Management Regulations

Title and date of stormwater management regulations used in development design:

N.J.A.C. 7:8 - Amended June 20, 2016

Do regulations include nonstructural requirements? Yes: _____ No: X

If yes, briefly describe: _____

List LID-BMPs prohibited by local regulations: _____

Pre-design meeting held? Yes: _____ Date: _____ No: X

Meeting held with: _____

Pre-design site walk held? Yes: _____ Date: _____ No: X

Site walk held with: _____

Other agencies with stormwater review jurisdiction:

Name: Somerset-Union Soil Conservation District

Required approval: Yes

Name: _____

Required approval: _____

Name: _____

Required approval: _____

Part 3: Nonstructural Strategies and LID-BMPs in Design

3.1 Vegetation and Landscaping

Effective management of both existing and proposed site vegetation can reduce a development's adverse impacts on groundwater recharges and runoff quality and quantity. This section of the checklist helps identify the vegetation and landscaping strategies and nonstructural LID-BMPs that have been incorporated into the proposed development's design to help maintain existing recharge rates and/or minimize or prevent increases in runoff quantity and pollutant loading.

A. Has an inventory of existing site vegetation been performed? Yes: X No: _____

If yes, was this inventory a factor in the site's layout and design? Yes: X No: _____

B. Does the site design utilize any of the following nonstructural LID-BMPs?

Preservation of natural areas? Yes: _____ No: X If yes, specify % of site: _____

Native ground cover? Yes: _____ No: X If yes, specify % of site: _____

Vegetated buffers? Yes: _____ No: X If yes, specify % of site: _____

C. Do the land development regulations require these nonstructural LID-BMPs?

Preservation of natural areas? Yes: _____ No: X If yes, specify % of site: _____

Native ground cover? Yes: _____ No: X If yes, specify % of site: _____

Vegetated buffers? Yes: _____ No: X If yes, specify % of site: _____

D. If vegetated filter strips or buffers are utilized, specify their functions:

Reduce runoff volume increases through lower runoff coefficient: Yes: _____ No: X

Reduce runoff pollutant loads through runoff treatment: Yes: X No: _____

Maintain groundwater recharge by preserving natural areas: Yes: _____ No: X

3.2 Minimize Land Disturbance

Minimizing land disturbance is a nonstructural LID-BMP that can be applied during both the development's construction and post-construction phases. This section of the checklist helps identify those land disturbance strategies and nonstructural LID-BMPs that have been incorporated into the proposed development's design to minimize land disturbance and the resultant change in the site's hydrologic character.

A. Have inventories of existing site soils and slopes been performed? Yes: _____ No: X

If yes, were these inventories factors in the site's layout and design? Yes: _____ No: X

B. Does the development's design utilize any of the following nonstructural LID-BMPs?

Restrict permanent site disturbance by land owners? Yes: _____ No: X

If yes, how: _____

_____

Restrict temporary site disturbance during construction? Yes: _____ No: X

If yes, how: _____

_____

Consider soils and slopes in selecting disturbance limits? Yes: _____ No: X

If yes, how: _____

_____

C. Specify percentage of site to be cleared: 100 Regraded: 100

D. Specify percentage of cleared areas done so for buildings: 70

For driveways and parking: 30 For roadways: _____

E. What design criteria and/or site changes would be required to reduce the percentages in C and D above?

None, the site is fully developed in the existing condition

F. Specify site's hydrologic soil group (HSG) percentages:

HSG A: _____ HSG B: _____ HSG C: X HSG D: _____

G. Specify percentage of each HSG that will be permanently disturbed:

HSG A: _____ HSG B: _____ HSG C: 100 HSG D: _____

H. Locating site disturbance within areas with less permeable soils (HSG C and D) and minimizing disturbance within areas with greater permeable soils (HSG A and B) can help maintain groundwater recharge rates and reduce runoff volume increases. In light of the HSG percentages in F and G above, what other practical measures if any can be taken to achieve this?

Entire site is HSG C

I. Does the site include Karst topography? Yes: _____ No: X

If yes, discuss measures taken to limit Karst impacts:

3.3 Impervious Area Management

New impervious surfaces at a development site can have the greatest adverse effect on groundwater recharge and stormwater quality and quantity. This section of the checklist helps identify those nonstructural strategies and LID-BMPs that have been incorporated into a proposed development's design to comprehensively manage the extent and impacts of new impervious surfaces.

A. Specify impervious cover at site: Existing: 52% Proposed: 85%

B. Specify maximum site impervious coverage allowed by regulations: 80%

C. Compare proposed street cartway widths with those required by regulations:

Type of Street	Proposed Cartway Width (feet)	Required Cartway Width (feet)
Residential access – low intensity	24 ft.	24 ft.
Residential access – medium intensity		
Residential access – high intensity with parking		
Residential access – high intensity without parking		
Neighborhood		
Minor collector – low intensity without parking		
Minor collector – with one parking lane		
Minor collector – with two parking lanes		
Minor collector – without parking		
Major collector		

D. Compare proposed parking space dimensions with those required by regulations:

Proposed: 9' x 18' Regulations: 9' x 18'

E. Compare proposed number of parking spaces with those required by regulations:

Proposed: _____ Regulations: _____

F. Specify percentage of total site impervious cover created by buildings: 85%

By driveways and parking: 15% By roadways: _____

G. What design criteria and/or site changes would be required to reduce the percentages in F above?

None

H. Specify percentage of total impervious area that will be unconnected:

Total site: 0 Buildings: 0 Driveways and parking: 0 Roads: 0

I. Specify percentage of total impervious area that will be porous:

Total site: 0 Buildings: 0 Driveways and parking: 15 Roads: 0

J. Specify percentage of total building roof area that will be vegetated: 0

K. Specify percentage of total parking area located beneath buildings: 85

L. Specify percentage of total parking located within multi-level parking deck: 0

3.4 Time of Concentration Modifications

Decreasing a site's time of concentration (Tc) can lead directly to increased site runoff rates which, in turn, can create new and/or aggravate existing erosion and flooding problems downstream. This section of the checklist helps identify those nonstructural strategies and LID-BMPs that have been incorporated into the proposed development's design to effectively minimize such Tc decreases.

When reviewing Tc modification strategies, it is important to remember that a drainage area's Tc should reflect the general conditions throughout the area. As a result, Tc modifications must generally be applied throughout a drainage area, not just along a specific Tc route.

A. Specify percentage of site's total stormwater conveyance system length that will be:

Storm sewer: 85 Vegetated swale: _____ Natural channel: _____

Stormwater management facility: 15 Other: _____

Note: the total length of the stormwater conveyance system should be measured from the site's downstream property line to the downstream limit of sheet flow at the system's headwaters.

B. What design criteria and/or site changes would be required to reduce the storm sewer percentages and increase the vegetated swale and natural channel percentages in A above?

None

C. In conveyance system subareas that have overland or sheet flow over impervious surfaces or turf grass, what practical and effective site changes can be made to:

Decrease overland flow slope: None

Increase overland flow roughness: None

3.5 Preventative Source Controls

The most effective way to address water quality concerns is by pollution prevention. This section of the checklist helps identify those nonstructural strategies and LID-BMPs that have been incorporated into the proposed development's design to reduce the exposure of pollutants to prevent their release into the stormwater runoff.

A. Trash Receptacles

Specify the number of trash receptacles provided: TBD

Specify the spacing between the trash receptacles: TBD

Compare trash receptacles proposed with those required by regulations:

Proposed: TBD Regulations: 0

B. Pet Waste Stations

Specify the number of pet waste stations provided: 0

Specify the spacing between the pet waste stations: _____

Compare pet waste stations proposed with those required by regulations:

Proposed: 0 Regulations: 0

C. Inlets, Trash Racks, and Other Devices that Prevent Discharge of Large Trash and Debris

Specify percentage of total inlets that comply with the NJPDES storm drain inlet criteria: 100

D. Maintenance

Specify the frequency of the following maintenance activities:

Street sweeping: Proposed: TBD Regulations: None

Litter collection: Proposed: TBD Regulations: None

Identify other stormwater management measures on the site that prevent discharge of large trash and debris:

Outlet Structure trash rack

E. Prevention and Containment of Spills

Identify locations where pollutants are located on the site, and the features that prevent these pollutants from being exposed to stormwater runoff:

Pollutant: None Location: _____

Feature utilized to prevent pollutant exposure, harmful accumulation, or contain spills:

Pollutant: N/A Location: _____

Feature utilized to prevent pollutant exposure, harmful accumulation, or contain spills:

Pollutant: N/A Location: _____

Feature utilized to prevent pollutant exposure, harmful accumulation, or contain spills:

Pollutant: N/A Location: _____

Feature utilized to prevent pollutant exposure, harmful accumulation, or contain spills:

Pollutant: N/A Location: _____

Part 4: Compliance with Nonstructural Requirements of NJDEP Stormwater Management Rules

1. Based upon the checklist responses above, indicate which nonstructural strategies have been incorporated into the proposed development's design in accordance with N.J.A.C. 7:8-5.3(b):

No.	Nonstructural Strategy	Yes	No
1.	Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss.	X	
2.	Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces.	X	
3.	Maximize the protection of natural drainage features and vegetation.	X	
4.	Minimize the decrease in the pre-construction time of concentration.	X	
5.	Minimize land disturbance including clearing and grading.	X	
6.	Minimize soil compaction.	X	
7.	Provide low maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers, and pesticides.	X	
8.	Provide vegetated open-channel conveyance systems discharge into and through stable vegetated areas.	X	
9.	Provide preventative source controls.	X	

2. For those strategies that have not been incorporated into the proposed development's design, provide engineering, environmental, and/or safety reasons. Attached additional pages as necessary.

_____

_____

_____

_____

_____

_____

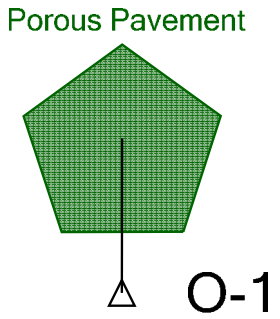
_____

_____

APPENDIX E
Water Quality Calculations

Project Summary	
Title	201 Walnut Avenue - Water Quality Calculations
Engineer	Bahram Farzaneh
Company	French and Parrello Associates
Date	2/4/2021

Notes	Revision Date: 11/01/2021



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	Master Network Summary	2
Porous Pavement	Unit Hydrograph Summary, 1 years (Post-Development 1 year)	3
O-1	Addition Summary, 1 years (Post-Development 1 year)	5

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft^3)	Time to Peak (min)	Peak Flow (ft^3/s)
Porous Pavement	Post-Development 1 year	1	335.000	66.00	0.26

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft^3)	Time to Peak (min)	Peak Flow (ft^3/s)
O-1	Post-Development 1 year	1	335.000	66.00	0.26

Storm Event	NJWQ (1.3 in)
Return Event	1 years
Duration	120.00 min
Depth	1.25 in
Time of Concentration (Composite)	6.00 min
Area (User Defined)	0.090 acres

Computational Time Increment	0.80 min
Time to Peak (Computed)	65.60 min
Flow (Peak, Computed)	0.26 ft³/s
Output Increment	1.00 min
Time to Flow (Peak Interpolated Output)	66.00 min
Flow (Peak Interpolated Output)	0.26 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	0.090 acres
Maximum Retention (Pervious)	0.20 in
Maximum Retention (Pervious, 20 percent)	0.04 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.03 in
Runoff Volume (Pervious)	337.995 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	335.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	6.00 min
Computational Time Increment	0.80 min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.02 ft³/s

Subsection: Unit Hydrograph Summary
Label: Porous Pavement
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: NJWQ (1.3 in)

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	4.00 min
Unit receding limb, Tr	16.00 min
Total unit time, Tb	20.00 min

Subsection: Addition Summary
Label: O-1
Scenario: Post-Development 1 year

Return Event: 1 years
Storm Event: NJWQ (1.3 in)

Summary for Hydrograph Addition at 'O-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Porous Pavement

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (min)	Flow (Peak) (ft^3/s)
Flow (From)	Porous Pavement	335.456	66.00	0.26
Flow (In)	O-1	335.456	66.00	0.26

Index

M

Master Network Summary...2

O

O-1 (Addition Summary, 1 years (Post-Development 1 year))...5

P

Porous Pavement (Unit Hydrograph Summary, 1 years (Post-Development 1 year))...3, 4

APPENDIX F
Drainage Area Maps

NJDEP ELECTRONIC APPROVAL STAMP

CHESTNUT STREET
(66' RIGHT-OF-WAY PER TAX MAP)

WALNUT AVENUE
(60' RIGHT-OF-WAY PER TAX MAP)

HIGH STREET
(66' RIGHT-OF-WAY PER TAX MAP)

POINT OF BEGINNING
DB 2682/508

BLOCK 484
LOT 19.01
AREA=36,870 SF
OR 0.847 ACRES
DB 2682/508
DB 2971/3

N79°47'09"E – 350.00'

S10°12'51"E – 112.50'

S79°47'09"W – 150.00'

N10°12'51"W – 100.00'

S79°47'09"W – 200.00'

N10°12'51"W
12.50'

IRON PIN AND CAP SET

PAVED PARKING LOT

DRIVE-THRU CANOPY

EXISTING BUILDING
FF=64.0

EXISTING BUILDING
FF=62.5

CONCRETE ISLANDS

CONCRETE WALKWAY

CONC. WALK

WOOD FENCE (TYP)

PICKET FENCE

EXISTING CURB (TYP)

PAVER SIDEWALK

BANK PARKING SIGNS (5 TOTAL)

100 YEAR FLOOD ELEVATION

BLOCK 485
LOT 21

BLOCK 485
LOT 22

BLOCK 485
LOT 23

BLOCK 485
LOT 24

BLOCK 478
LOT 10

BLOCK 478
LOT 9

BLOCK 478
LOT 8

BLOCK 481
LOT 1.03

BLOCK 483
LOT 17.01

BLOCK 483
LOT 15

BLOCK 484
LOT 18
DB 5641/922

BLOCK 484
LOT 17
DB 5792/637

BLOCK 484
LOT 21
DB 2828/975

BLOCK 484
LOT 22

EXISTING DWELLING

EXISTING BUILDING

EXISTING DWELLING

DRAINAGE AREA 1
0.85 ACRES (36,874 SF)
0.44 ACRES IMPERVIOUS
0.41 ACRES PERVIOUS

No.	Date	Revision	Revised By	Checked By
3	11/01/2021	REVISED BUILDING FOOTPRINT	SP	MS
2	4/30/2021	REVISED PER NJDEP COMMENTS	MS	BF
1	4/28/2021	REVISED PER NJDEP COMMENTS	SP	MS

20 0 20 40
SCALE IN FEET

FRENCH & PARRELLO ASSOCIATES
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Wall, New Jersey 07719
732.312.9800
FPAengineers.com
New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia

EXISTING DRAINAGE AREAS
FOR
PRELIMINARY AND FINAL SITE PLAN
FOR
201 WALNUT AVENUE
BLOCK 484 LOT 19.01
TOWNSHIP OF CRANFORD
UNION COUNTY NEW JERSEY

DATE:	DESIGNED BY:	SCALE:	PROJECT NUMBER:
02/04/2021	BF	1" = 20'	16377.001
DRAWN BY:	CHECKED BY:	FIELD BOOK	SHEET:
SP	BF		1 of 2

O:\16K\16300\16377 - 201 Walnut Ave\16377.001 - 201 Walnut Ave\CADD\DWG\16377.001 - DA.dwg DA-EX

NJDEP ELECTRONIC APPROVAL STAMP

PORTION OF PARKING LOT BELOW BUILDING ROOF

CHESTNUT STREET
(66' RIGHT-OF-WAY PER TAX MAP)

HIGH STREET
(66' RIGHT-OF-WAY PER TAX MAP)

WALNUT AVENUE
(80' RIGHT-OF-WAY PER TAX MAP)

BLOCK 478 LOT 10
BLOCK 478 LOT 9
BLOCK 478 LOT 8
BLOCK 481 LOT 1.03
BLOCK 485 LOT 21
BLOCK 485 LOT 22
BLOCK 485 LOT 23
BLOCK 485 LOT 24
BLOCK 483 LOT 17.01
BLOCK 483 LOT 15
BLOCK 484 LOT 18 DB 5641/922
BLOCK 484 LOT 17 DB 5792/637
BLOCK 484 LOT 21 DB 2828/975
BLOCK 484 LOT 22

POINT OF BEGINNING DB 2682/508

STORM MANHOLE RIM 61.80 INV. IN (15") 55.94 INV. OUT (15") 55.94

24 LF 15" RCP @ 1.00%

STORM MANHOLE, 5' DIAMETER WITH TIDEFLEX CHECK VALVE RIM 62.15 INV. IN (15") 56.18 INV. OUT (15") 56.18

30 LF 15" RCP @ 1.00%

STORM OUTLET STRUCTURE RIM 61.40 GRATE 61.40 6" ORIFICE 57.00 1.5 FT. WIDE WEIR 58.01 INV. IN (15") 57.00 INV. OUT (15") 56.78

19 LF 15" RCP @ 1.00%

STORM DOGHOUSE MANHOLE RIM 61.10 INV. IN (15") 55.75 CONTRACTOR TO FIELD VERIFY INVERT PRIOR TO CONSTRUCTION

STORM INLET 2 TYPE 'A' GRATE 61.78 INV. OUT (12") 58.69

19 LF 12" ADS PIPE @ 1.00%

3-STORY MULTI-FAMILY BUILDING F.F. 63.50

LINED UNDERGROUND DETENTION BASIN 24" STORM TANKS INV. 58.50

17 LF 12" ADS PIPE @ 0.50%

INV. IN 58.50

INV. IN 58.50

INV. 59.75

1.5'x12' CULVERT, 156 LF @ 0.25%

INV. 59.38

2'x12' CULVERT, 150 LF @ 0.25%

INV. 59.33

2'x10' CULVERT, 130 LF @ 0.25%

INV. 59.36

1.5'x10' CULVERT, 77 LF @ 0.25%

INV. 59.15

2'x12' CULVERT, 55 LF @ 0.25%

INV. 59.12

INV. 59.50

1.5'x15' CULVERT, 144 LF @ 0.25%

INV. 59.14

INV. 59.00

INV. 59.00

SEE SMARTVENT LAYOUT

LOADING ZONE

STOP

STOP

9' SIDE YARD SETBACK

9' SIDE YARD SETBACK

10.8' REAR YARD SETBACK

10.8' REAR YARD SETBACK

N79°47'09"E – 200.00'

N10°12'51"W 12.50'

S79°47'09"W – 150.00'

122 LF 4" PERFORATED ADS UNDERDRAIN PIPE. SEE POROUS PAVEMENT DETAIL

STORM MANHOLE RIM 63.21 INV. IN/OUT (4") 60.06 INV. IN (12") 58.59 INV. OUT (12") 58.59 (SEE DETAIL)

85 LF 4" PERFORATED ADS UNDERDRAIN PIPE. SEE POROUS PAVEMENT DETAIL

STORM MANHOLE RIM 62.53 IINV. OUT (4") 60.37

STORM MANHOLE RIM 62.94 INV. IN/OUT (4") 59.84

177 LF 12" ADS PIPE @ 0.50%

112 LF 4" PERFORATED ADS UNDERDRAIN PIPE. SEE POROUS PAVEMENT DETAIL

STORM INLET 1 TYPE 'A' GRATE 61.00 INV. IN (12") 58.98 INV. OUT (12") 58.98

9 LF 12" ADS PIPE @ 0.50%

STORM MANHOLE RIM 60.90 INV. IN (4") 59.56 INV. OUT (12") 59.03

EXISTING DWELLING

EXISTING BUILDING

IRON PIN AND CAP SET

DRAINAGE AREA 1
0.85 ACRES (36,874 SF)
0.74 ACRES IMPERVIOUS
0.11 ACRES PERVIOUS

PORTION OF PARKING LOT EXPOSED AND SUBJECT TO WATER QUALITY TRATMENT

LEGEND

BUILDING ROOF AREA

PORTION OF PARKING LOT EXPOSED AND SUBJECT TO WATER QUALITY TREATMENT

No.	Date	Revision	Revised By	Checked By
8	09/08/2022	REVISED PER TOWNSHIP DRC MEETING		BF
7	08/10/2022	REVISED PER TOWNSHIP COMPLETENESS REVIEW		BF
6	07/05/2022	REVISED SANITARY SEWER PROFILE	SP	BF
5	04/25/2022	REVISED PER UNION COUNTY COMMENTS DATED JAN. 6, 2022	SP	MS
4	12/08/2021	REVISED PER UNION COUNTY COMMENTS	SP	MS
3	11/01/2021	REVISED BUILDING FOOTPRINT	SP	MS
2	4/30/2021	REVISED PER NJDEP COMMENTS	MS	BF
1	4/28/2021	REVISED PER NJDEP COMMENTS	SP	MS

20 0 20 40
SCALE IN FEET

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PROPOSED DRAINAGE AREAS
FOR
PRELIMINARY AND FINAL SITE PLAN
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SP	BF		2 of 2

C:\16K\16300\16377 – 201 Walnut Ave\16377.001 – 201 Walnut Ave\CADD\DWG\16377.001 – DA.dwg DA–PR

Rahway River Drainage Area at Chestnut Street

Region ID: NJ
Workspace ID: NJ20211101145418385000
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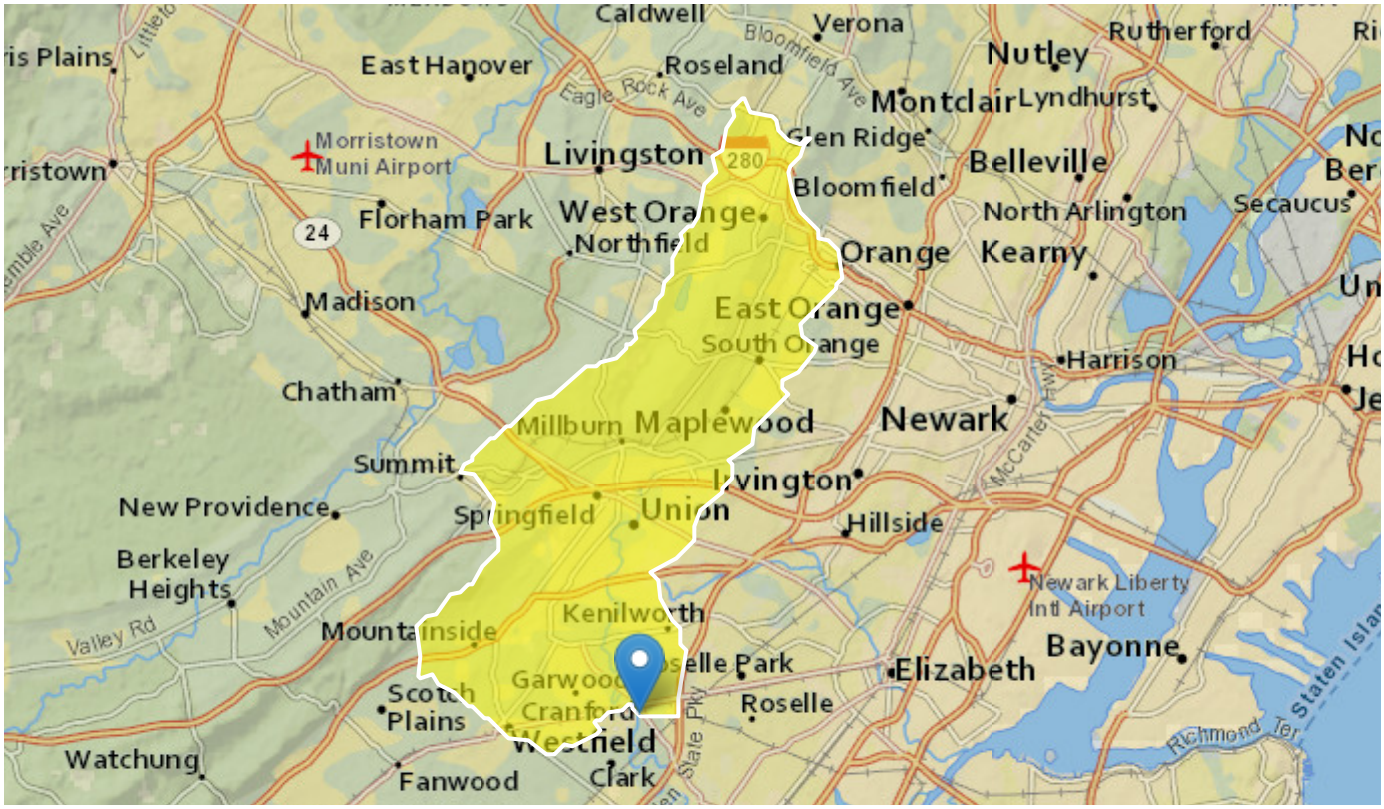
Time: 2021-11-01 10:54:39 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	37.4	square miles

Application Version: 4.6.2
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2