



The Villages at Post Farms
STORMWATER MANAGEMENT FACILITIES REPORT:
Calculations

Prepared For:

DCM Land III, L.L.C.
5731 Westwood Drive
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Sterling Project No.: 23-07-197

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12-05-24

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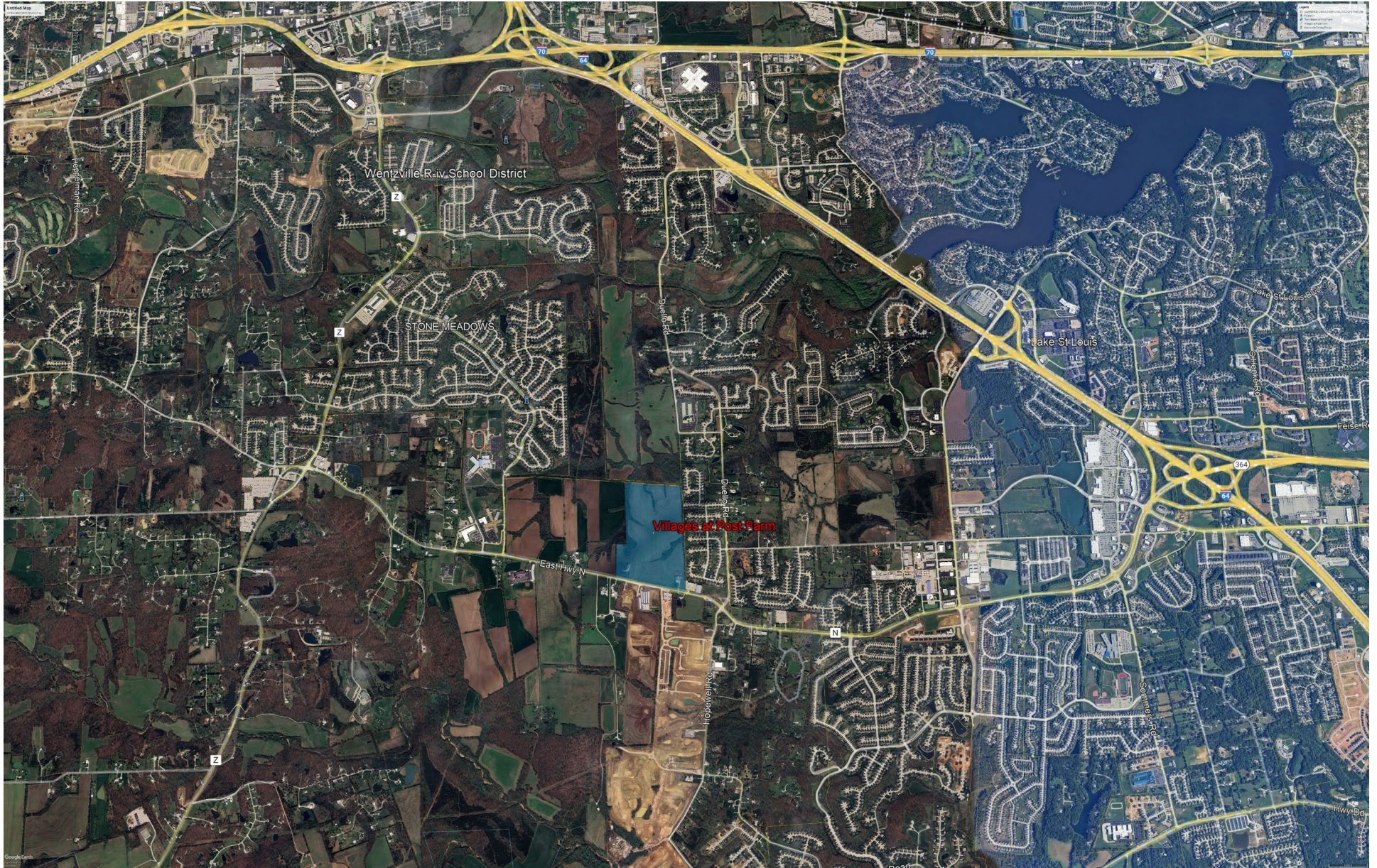
INTRODUCTION:

The Villages at Post Farms is a large planned residential development located in the southwestern corner of the City of O'Fallon, St. Charles County, MO. The development site is located approximately 2,500 feet west of the intersection of State Highway N and Duello/Hopewell Roads along the north side of State Highway N. A location map of the site is included on the following page. The overall property is approximately 103.7 acres and will ultimately include numerous width lots for detached single family housing.

The overall development will ultimately include 307 residential lots. This report will detail the stormwater requirements and calculations for the development, which includes pre and post development flow analysis to three outfall points along the property boundary. Also included is the analysis for the water quality requirements of the overall development.

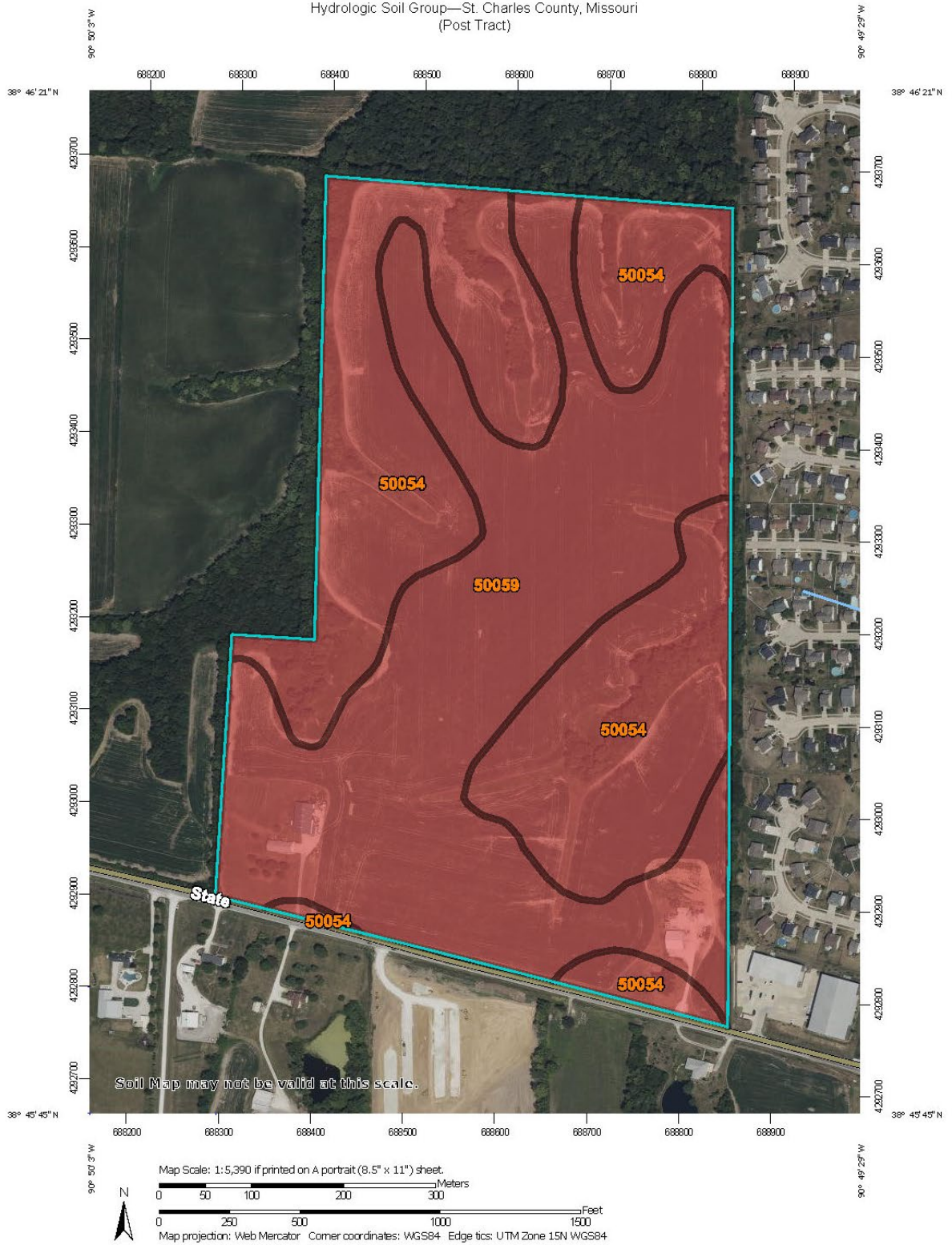
The existing soil hydrologic soil group was determined using the NRCS Web Soil mapping tool. Under existing conditions, the soil groups present on the overall site were determined to be Group D with varying types of cover, including row crop tilling, woods, impervious areas and grass areas. Further details of the existing disposition of the site are included later in the report. A map displaying the existing soil groups is included on Page 3. For post developed conditions, all disturbed areas are modeled assuming soil group D due to the changes to soil structure caused by the compaction introduced during construction.

Three lakes and one dry detention basin are proposed throughout the development as outlined in this report to provide the required stormwater detention per City ordinances. The lakes will also provide the necessary water quality requirements for the contributing areas draining into them. Details of these requirements and calculations are included in the following sections and appendices of this report. One hydrodynamic separator structure is proposed upstream of the dry detention basin that is designed to provide water quality requirements per City ordinance. Calculations and details related to the hydrodynamic structure are also included in this report.



Location Map

Hydrologic Soil Group—St. Charles County, Missouri
(Post Tract)



NRCS Web Soil Survey

MAP LEGEND

Area of Interest (AOI)	C
Area of Interest (AOI)	C/D
Soils	D
Soils	Not rated or not available
Soil Rating Polygons	
A	
A/D	
B	
B/D	
C	
C/D	
D	
Not rated or not available	
Soil Rating Lines	
A	
A/D	
B	
B/D	
C	
C/D	
D	
Not rated or not available	
Background	
Aerial Photography	
Water Features	
Streams and Canals	
Transportation	
Rails	
Interstate Highways	
US Routes	
Major Roads	
Local Roads	
Background	
Aerial Photography	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Charles County, Missouri
Survey Area Data: Version 24, Aug 23, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 22, 2022—Aug 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
50054	Armster silt loam, 2 to 7 percent slopes	D	48.2	47.6%
50059	Mexico silt loam, 1 to 4 percent slopes, eroded	D	53.1	52.4%
Totals for Area of Interest			101.3	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

WATER QUALITY

Water quality for the proposed improvements associated with the development will be provided within one of three lakes being constructed or by a hydrodynamic separator structure included in the design of one of the storm sewer systems. Details and calculations for each lake and the separator structure are included in the following sections. The following design considerations and calculations are taken from either the City of O'Fallon ordinances or from the Georgia Stormwater Manual, version 2016.

DRAINAGE AREA A

Drainage Area A contributes flow into Lake A and encompasses a large portion of the southeast corner of the proposed site. The limits of Drainage Area A are delineated on the drainage area exhibit on page 11.

The total area of Drainage Area A is 36.03 acres. Of that acreage 17.74 acres are impervious in coverage and the remaining area is grass coverage. The drainage area and coverage information are used below to calculate the required water quality volumes of Drainage Area A. Additionally, Lake A has one forebay located at the western edge of the lake.

Lake A:

From above the total area contributory to Lake A is 36.03 acres and also has an impervious coverage percentage of 49.24%. From this information the required water quality volume for the lake was determined:

$$\begin{aligned} WQ_v &= (P)(R_v)(A)/12 \\ R_v &= 0.05 + 0.009(I); 0.05 + 0.009(49.24\%) = 0.49316 \\ WQ_v &= [(1.14)(0.49316)(36.03)]/12 = 1.688012706 \\ &= 1.688012706 \text{ ac. ft.} \times 43,560 \text{ sq. ft./ac} = \mathbf{73,530 \text{ ft}^3} \text{ Req'd Volume} \end{aligned}$$

Per the Georgia Stormwater Manual, the permanent pool of the lake must be sized to have a volume equal to or larger than the calculated water quality volume. Lake A has a permanent pool volume of 174,260 ft³, significantly more than the calculated water quality volume of 73,530 ft³. Therefore, the lake meets the overall water quality volume requirement.

Additionally, the proposed forebay must meet a volume requirement of 0.1 inches per impervious acre of contributing drainage area. The total impervious area contributory to the forebay is 12.36 acres. Thus the forebay must meet the following volume requirement:

$$WQ_{FW} = [(0.1 \text{ in.} \times 12.36 \text{ ac.}) \div 12 \text{ in./ft}] \times 43,560 \text{ ft}^2/\text{ac.} = 4,487 \text{ ft}^3$$

The forebay has a total pool volume of 7,339 ft³. Additionally, the forebay is 5.5 feet deep. The forebay is separated from the permanent pool by a submerged berm that will be planted with native water grass species and rushes that will extend above the surface

of the water. The pretreatment requirements outlined in the Georgia Stormwater Manual are thus met by the design for the forebay of Lake A.

Details of Lake A and its outfall structure are provided on an exhibit plan sheet on Pages 13 and 14.

DRAINAGE AREA B

The total area of Drainage Area B is 12.21 acres. Of that acreage 6.21 acres are impervious in coverage and the remaining area is grass coverage. The limits of the drainage area are shown on the drainage area exhibit on page 11. The drainage area and coverage information are used below to calculate the required water quality volumes of Drainage Area B. Additionally Lake B has three forebays located at the southwest corner, southeast corner and midway along western side of the lake.

Lake B:

From above the total area contributory to Lake B is 12.21 acres and also has an impervious coverage percentage of 50.86%. From this information the required water quality volume for the lake was determined:

$$\begin{aligned} WQ_v &= (P)(R_v)(A)/12 \\ R_v &= 0.05 + 0.009(I); 0.05 + 0.009(50.86\%) = 0.50774 \\ WQ_v &= [(1.14)(0.50774)(12.21)]/12 = 0.588953013 \\ &= 0.588953013 \text{ ac. ft.} \times 43,560 \text{ sq. ft./ac} = \mathbf{25,655 \text{ ft}^3} \text{ Req'd Volume} \end{aligned}$$

Per the Georgia Stormwater Manual, the permanent pool of the lake must be sized to have a volume equal to or larger than the calculated water quality volume. Lake B has a permanent pool volume of 105,214 ft³, greater than the calculated water quality volume of 25,655 ft³. Therefore, the lake meets the overall water quality volume requirement.

Additionally, each of the proposed forebays must meet a volume requirement of 0.1 inches per impervious acre of contributing drainage area.

Southeast Forebay (FES 130)

The southeast forebay is located just downstream of the pipe network discharging at FES 130. The total impervious area contributory to the southeast forebay is 1.6 acres. Thus the forebay must meet the following volume requirement:

$$WQ_{FW} = [(0.1 \text{ in.} \times 1.6 \text{ ac.}) \div 12 \text{ in./ft}] \times 43,560 \text{ ft}^2/\text{ac.} = 581 \text{ ft}^3$$

The forebay has a total pool volume of 4,170 ft³. Additionally, the forebay is 5 feet deep. The forebay is separated from the permanent pool by a submerged berm that will be planted with native water grass species and rushes that will extend above the surface of the water.

Southwest Forebay

Located just downstream of FES 120, the total impervious area contributory to the southwest forebay is 0.96 acres. Thus the forebay must meet the following volume requirement:

$$WQ_{FW} = [(0.1 \text{ in.} \times 0.96 \text{ ac.}) \div 12 \text{ in./ft}] \times 43,560 \text{ ft}^2/\text{ac.} = 348 \text{ ft}^3$$

The forebay has a total pool volume of 1,720 ft³. Additionally, the forebay is 4 feet deep. The forebay is separated from the permanent pool by a submerged berm that will be planted with native water grass species and rushes that will extend above the surface of the water.

Western Forebay

The western forebay is located at the discharge point of FES 105 and the total impervious area contributory to the forebay is 1.22 acres. Thus the forebay must meet the following volume requirement:

$$WQ_{FW} = [(0.1 \text{ in.} \times 1.22 \text{ ac.}) \div 12 \text{ in./ft}] \times 43,560 \text{ ft}^2/\text{ac.} = 443 \text{ ft}^3$$

The forebay has a total pool volume of 950 ft³. Additionally, the forebay is 4 feet deep. The forebay is separated from the permanent pool by a submerged berm that will be planted with native water grass species and rushes that will extend above the surface of the water.

Details of Lake B and its outfall structure are provided on the exhibit plan sheet on Pages 15 and 16.

DRAINAGE AREA C

Drainage Area C contributes flow towards hydrodynamic separator structure C and includes portions of the pavement of Knowledge Drive, Aspire Drive and Spirit Drive and also encompasses portions of lots 112-123, 160-164 and 170-181. The limits of Drainage Area C are delineated on the drainage area exhibit on page 11.

Hydrodynamic Separator BAR C:

A 6 foot diameter Barracuda Max Structure has been selected to provide the treatment for the contributory drainage area C based upon the manufacturer sizing guidelines. Its location is labeled on the following water quality drainage area map. The total area to the structure is 6.71 Acres, 3.0 acres of that area is comprised of impervious areas such as roof, pavement and sidewalk areas. To determine the adequacy of the structure the peak water quality flow from Drainage Area C was calculated. This was done by using the method outlined in Volume 2, section 3.1.7.2 of the Georgia Stormwater Design Manual and is shown in the following equations:

$$CN = \frac{1000}{[10 + 5P + 10Q_a - 10\sqrt{Q_a^2 + 1.25Q_aP}]}$$

Where $P = 1.14$ (90% rainfall in St. Louis Metro as established by MSD) and $Q_a = P \times R_v$
 $R_v = 0.05 + 0.009(I)$; $I =$ (impervious percentage of drainage area) $= 44.71\%$
 $R_v = 0.45239$
 $Q_a = 1.14 \times 0.45239 = 0.5157246$
 $CN \approx 92$
 $I_a = (200/CN) - 2 = 0.173913043$
 $I_a/P = 0.152555301$

The time of concentration (t_c) was determined to be 18 minutes, see the stormwater detention sections for more information concerning the time of concentration calculations. From the t_c and I_a/P , the q_u can be determined from Figure 3.1.5-7 from the Georgia Stormwater Design Manual. From the Figure a q_u of 475 csm/in is determined. Q_p is then determined from the following equation:

$$Q_p = q_u \times A \times Q_a$$

Where A is the drainage area in square miles or for drainage area $C = 6.71/640 = 0.010484375$ sq. miles.

Therefore, peak water quality; $Q_p = 475 \times 0.010484375 \times 0.5157246 = \mathbf{2.56 \text{ cfs}}$.

Per the structure manufacturer a six-foot diameter Barracuda Max structure is able to treat a maximum flowrate of 3.40 cfs. A high flow bypass is proposed to be installed in the structure upstream of BAR C at MH 222.

DRAINAGE AREA D

The total area of Drainage Area D is 33.55 acres. Of that acreage 15.71 acres are impervious in coverage and the remaining area is grass coverage. Drainage Area D is contributory to Lake D and the limits of the drainage area are shown on the water quality drainage area exhibit on page 11. The drainage area and coverage information are used below to calculate the required water quality volumes for Drainage Area D. Additionally, Lake D has two forebays located at the west and east corners that will also be analyzed below.

Lake D:

From above the total area contributory to Lake B is 33.55 acres and also has an impervious coverage percentage of 46.83%. From this information the required water quality volume for the lake was determined:

$$\begin{aligned} WQ_v &= (P)(R_v)(A)/12 \\ R_v &= 0.05 + 0.009(I); 0.05 + 0.009(46.83\%) = 0.47147 \\ WQ_v &= [(1.14)(0.47147)(33.55)]/12 = 1.502692758 \\ &= 1.502692758 \text{ ac. ft.} \times 43,560 \text{ sq. ft./ac} = \mathbf{65,458 \text{ ft}^3 \text{ Req'd Volume}} \end{aligned}$$

Per the Georgia Stormwater Manual, the permanent pool of the lake must be sized to have a volume equal to or larger than the calculated water quality volume. Lake D has a

permanent pool volume of 136,751 ft³, greater than the calculated water quality volume of 65,458 ft³. Therefore, the lake meets the overall water quality volume requirement.

Additionally, each of the proposed forebays must meet a volume requirement of 0.1 inches per impervious acre of contributing drainage area.

Western Forebay (FES 305 & 310)

Located downstream of FES 305 and 310, the western forebay has a total impervious area of 6.48 acres contributory to it. Thus the forebay must meet the following volume requirement:

$$WQ_{FW} = [(0.1 \text{ in.} \times 6.48 \text{ ac.}) \div 12 \text{ in./ft}] \times 43,560 \text{ ft}^2/\text{ac.} = 2,352 \text{ ft}^3$$

The forebay has a total pool volume of 4,095 ft³. Additionally, the forebay is 6.5 feet deep. The forebay is separated from the permanent pool by a submerged berm that will be planted with native water grass species and rushes that will extend above the surface of the water.

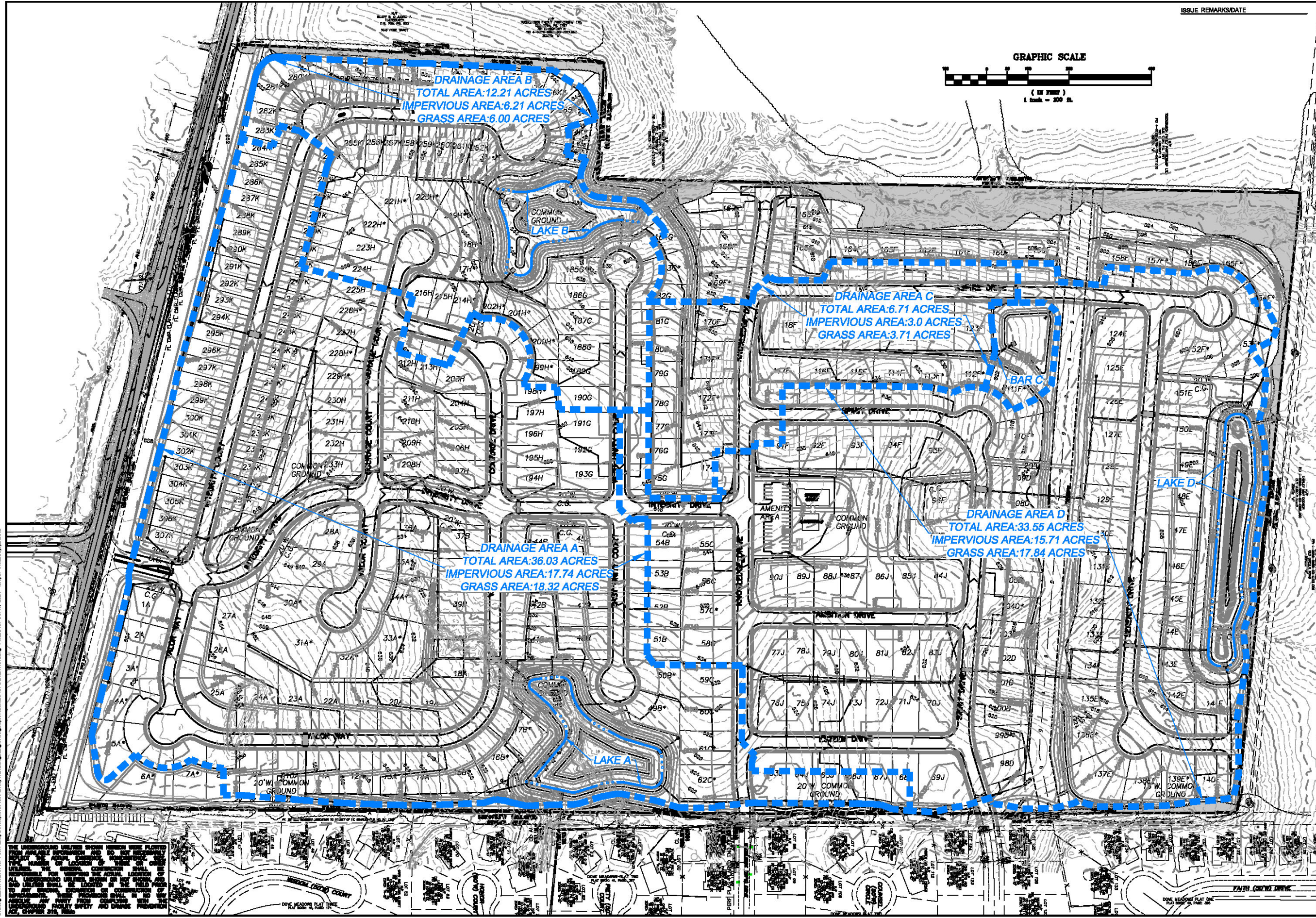
Eastern Forebay (FES 340 & 370)

The eastern forebay is located downstream of the discharge points of FES 340 and FES 370. The total impervious area contributory to the forebay is 7.50 acres. Thus the forebay must meet the following volume requirement:

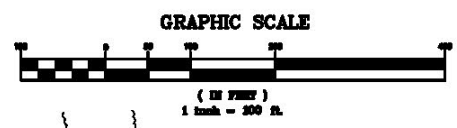
$$WQ_{FW} = [(0.1 \text{ in.} \times 7.50 \text{ ac.}) \div 12 \text{ in./ft}] \times 43,560 \text{ ft}^2/\text{ac.} = 2,723 \text{ ft}^3$$

The forebay has a total pool volume of 8,166 ft³. Additionally, the forebay is 4 feet deep. The forebay is separated from the permanent pool by a submerged berm that will be planted with native water grass species and rushes that will extend above the surface of the water.

Details of Lake D and its outfall structure are provided on the exhibit plan sheet on Pages 18 and 19.



ISSUE REMARKS/DATE



PROJECT TITLE
THE VILLAGES AT POST FARMS
 O'FALLON, MISSOURI

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Date: 2024
 Michael G. Bearding, PE
 License No. MO E-28843
 Professional Engineer

DCM III, LLC
 5731 Westwood Drive
 Weldon Spring, Missouri 63304

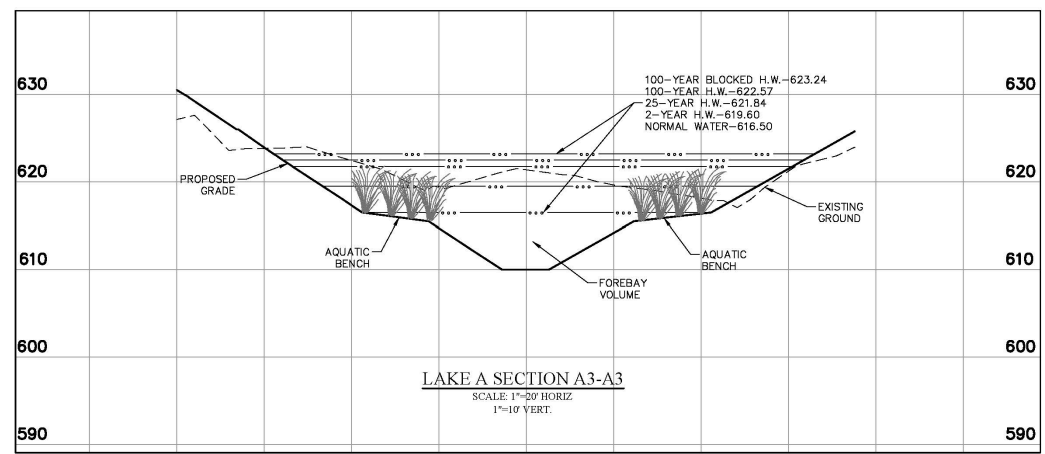
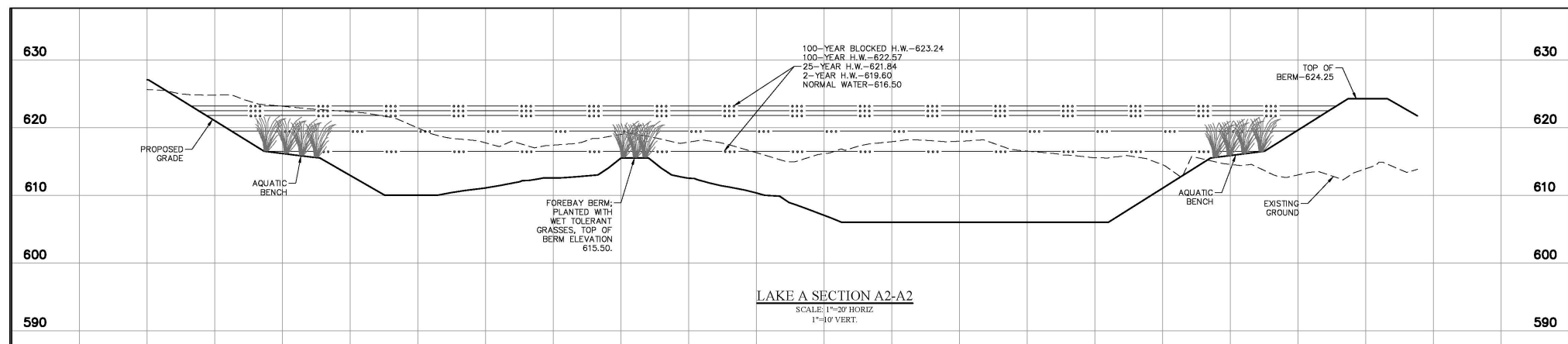
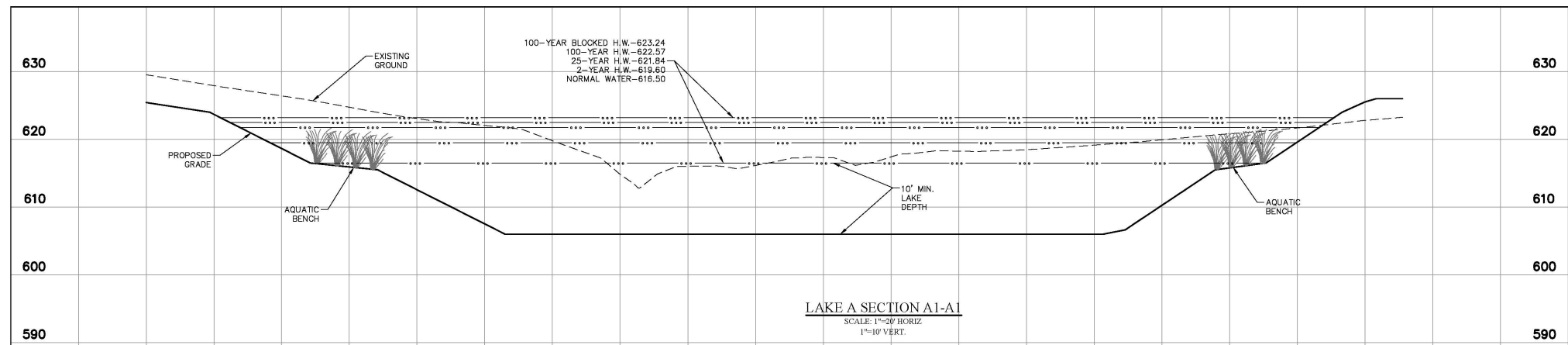
WATER QUALITY DRAINAGE AREA MAP

P-HZ No. 23-013133
City No. 24-xxx
Date 10-14-2024
Job No. 23-07-197

Page No.
 DET

TRIAL PLAN Approved Date: Sept. 26, 2024

ISSUE	REMARKS/DATE
1	2024-09-20, CITY COMMENTS
2	2024-08-08, CITY COMMENTS
3	2024-08-28, CITY COMMENTS
4	2024-08-28, CITY COMMENTS
5	2023-09-07, CITY COMMENTS
6	2023-09-20, CITY COMMENTS
7	2023-10-19, CITY APPROVAL



PROJECT TITLE

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OF FALLON, MISSOURI

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Date: XXX
Michael G. Boering, PE
License No. MO E-28643
Professional Engineer

DCM Land, LLC
5731 Westwood Drive
Weldon Spring, Missouri 63304

DETENTION / WATER QUALITY DETAILS

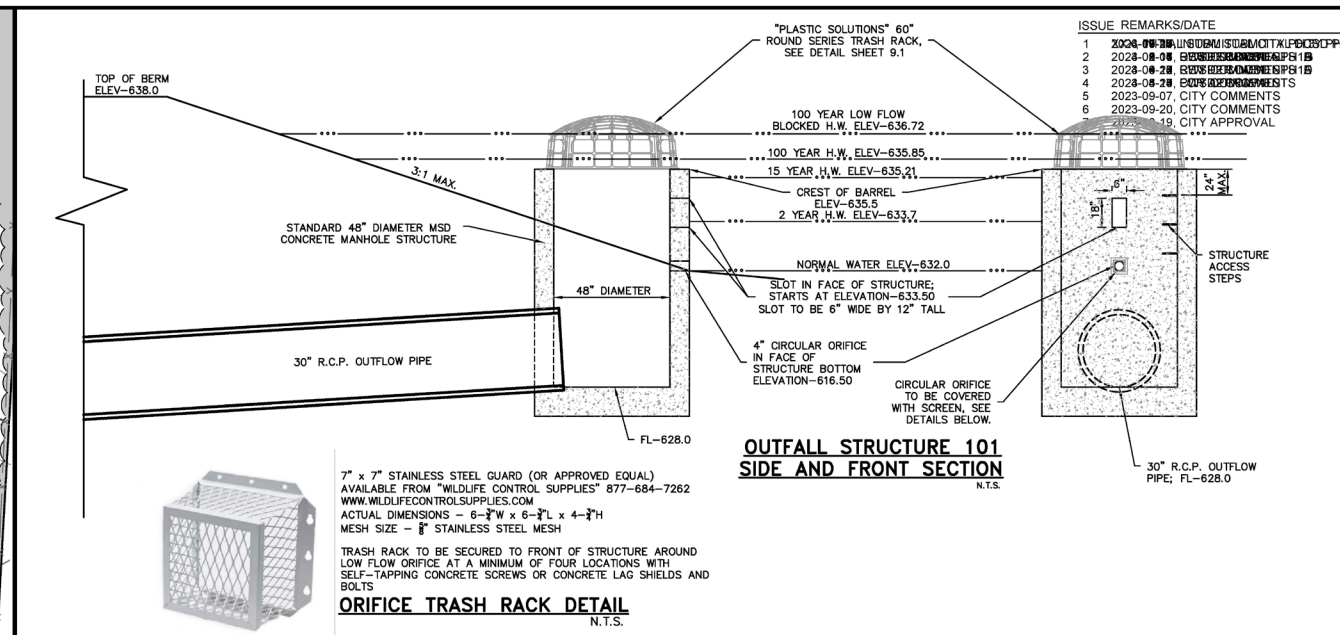
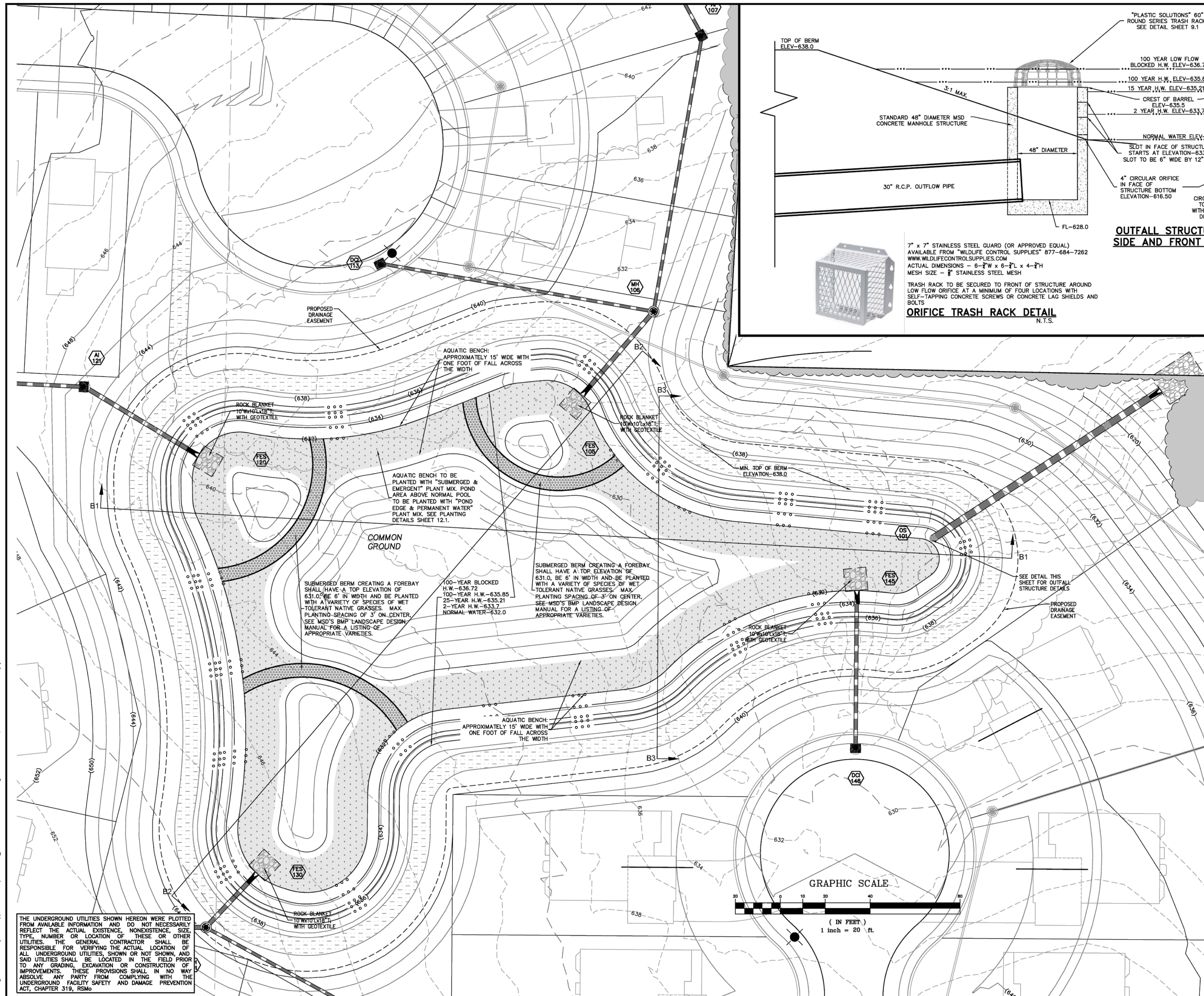
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City No. 24-xxx
Date: 09-27-2024
Job No. 23-07-197

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ISSUE	REMARKS/DATE
1	2024-08-28: INITIAL DESIGN REVIEW
2	2024-08-28: DESIGN REVISIONS
3	2024-08-28: DESIGN REVISIONS
4	2024-08-28: DESIGN REVISIONS
5	2023-09-07: CITY COMMENTS
6	2023-09-20: CITY COMMENTS
7	2023-09-19: CITY APPROVAL

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 OFFALLON, MISSOURI

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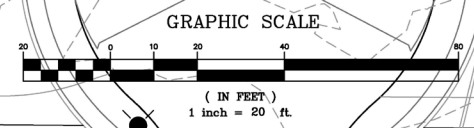
Date: XXX
 Michael G. Boering, PE
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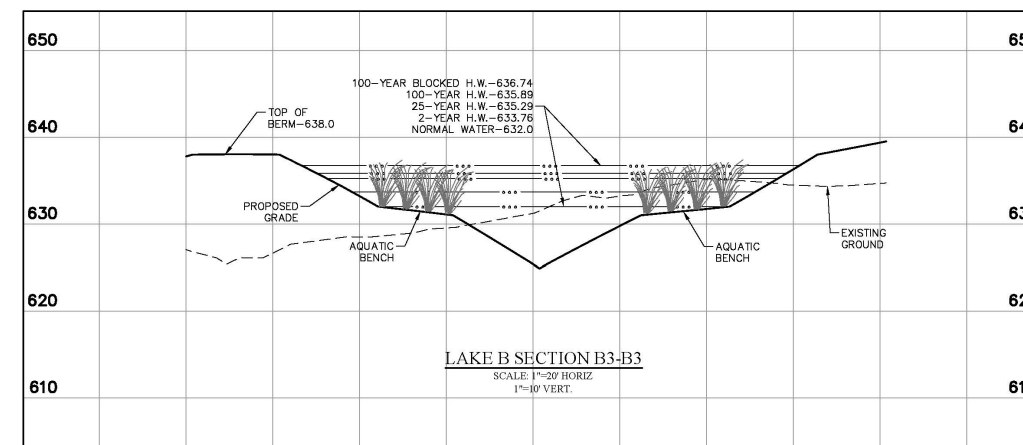
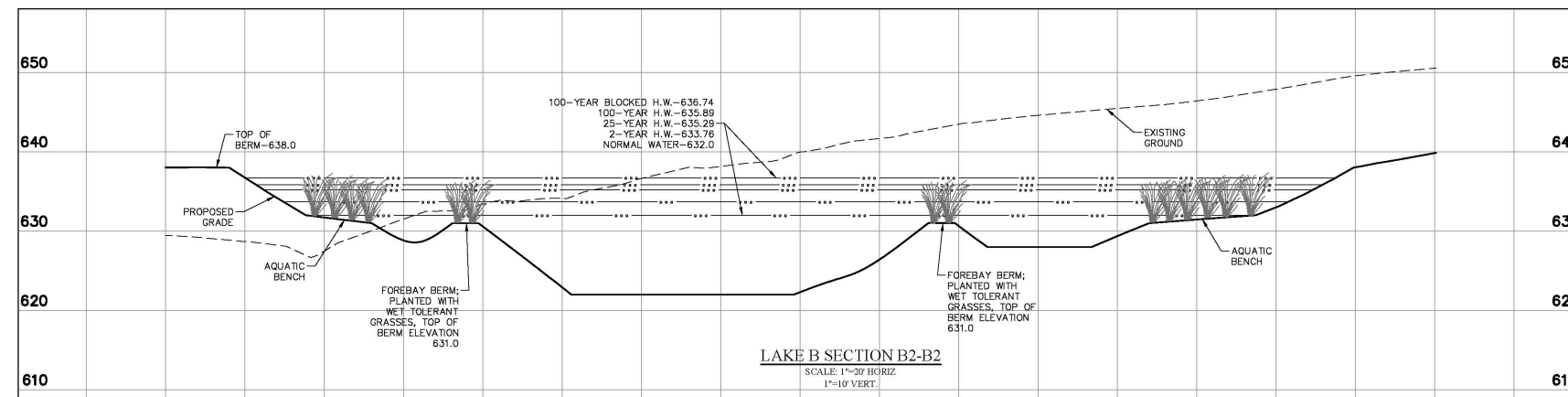
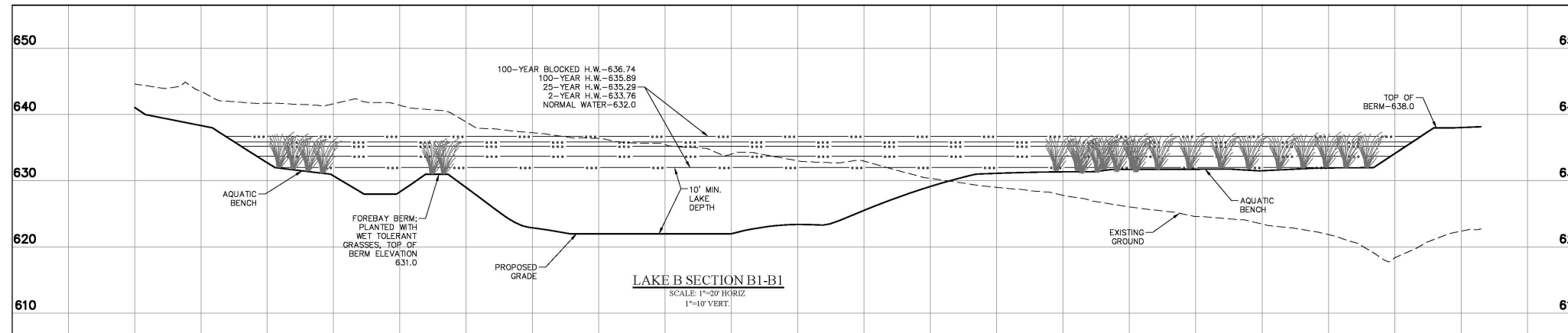
DETENTION / WATER QUALITY DETAILS

P+Z No. 23-013133
 City No. 24-xxx
 Date: 09-27-2024
 Job No. 23-07-197
 Page No. **12.4**

THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMo.



ISSUE	REMARKS	DATE
1	2023-08-07, SUBMITTAL COMMENTS	2023-08-07
2	2023-08-07, SUBMITTAL COMMENTS	2023-08-07
3	2023-08-20, SUBMITTAL COMMENTS	2023-08-20
4	2023-08-20, SUBMITTAL COMMENTS	2023-08-20
5	2023-08-07, CITY COMMENTS	2023-08-07
6	2023-09-20, CITY COMMENTS	2023-09-20
7	2023-10-19, CITY APPROVAL	2023-10-19



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Date: XXX
Michael G. Boerding, PE
License No. MO E-28643
Professional Engineer

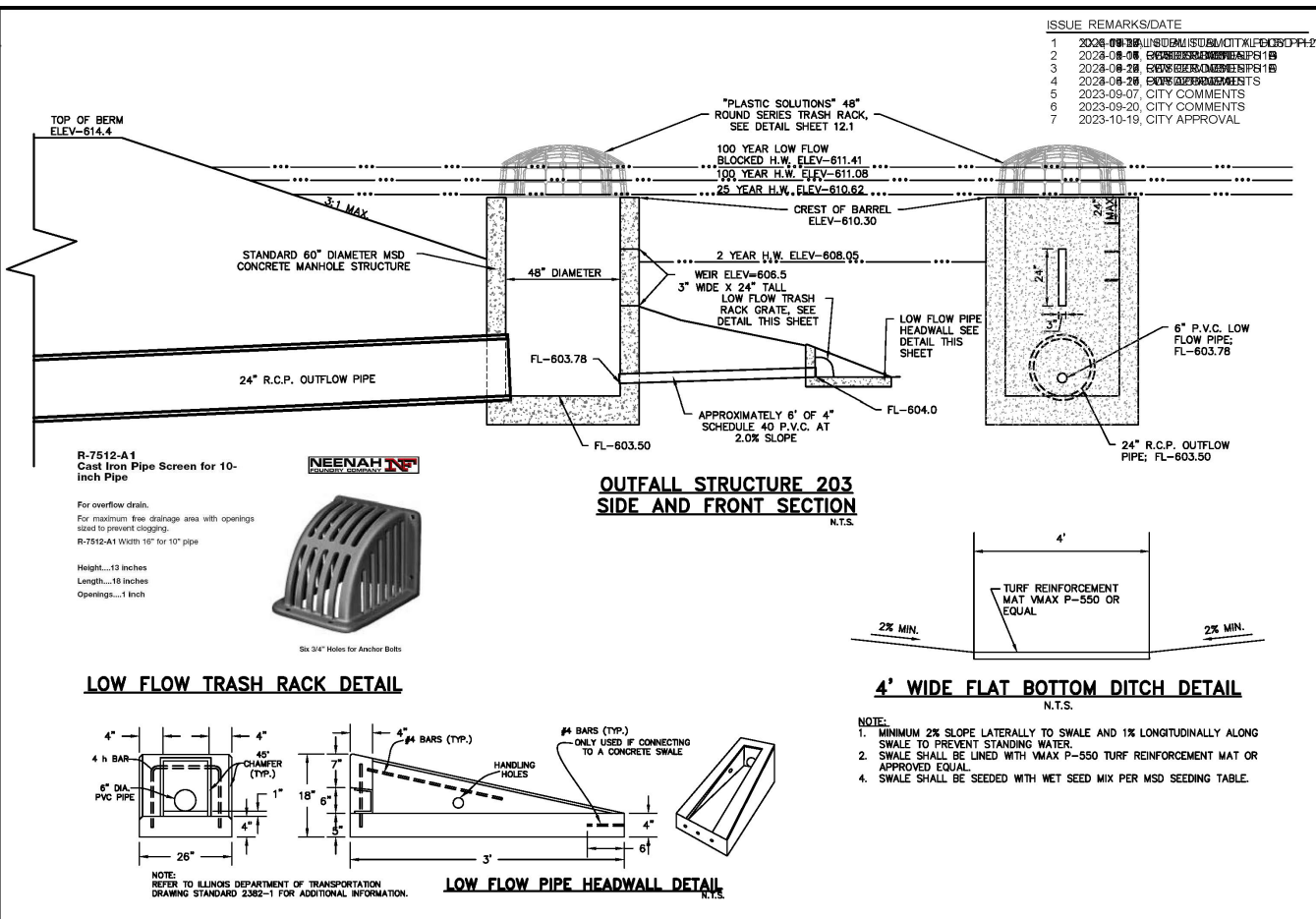
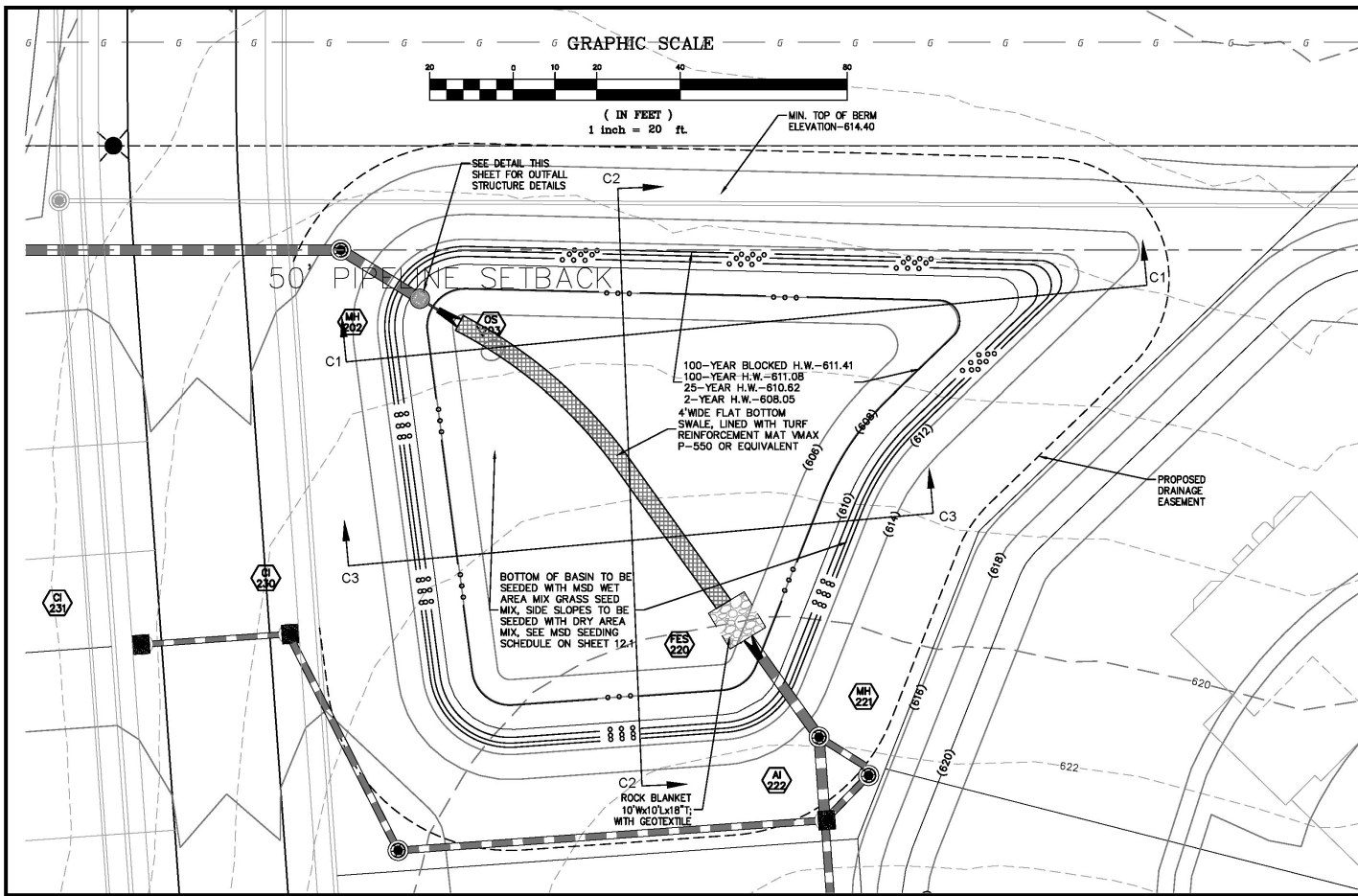
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Page No.
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OF FALLON, MISSOURI

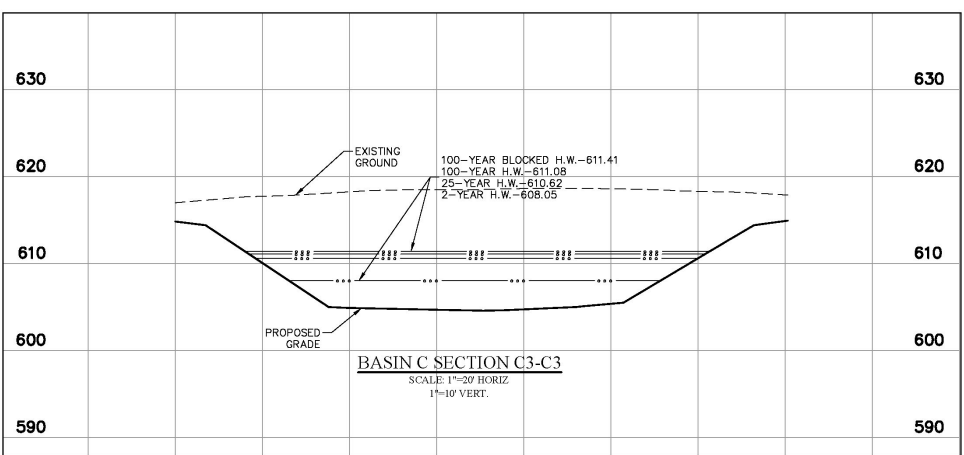
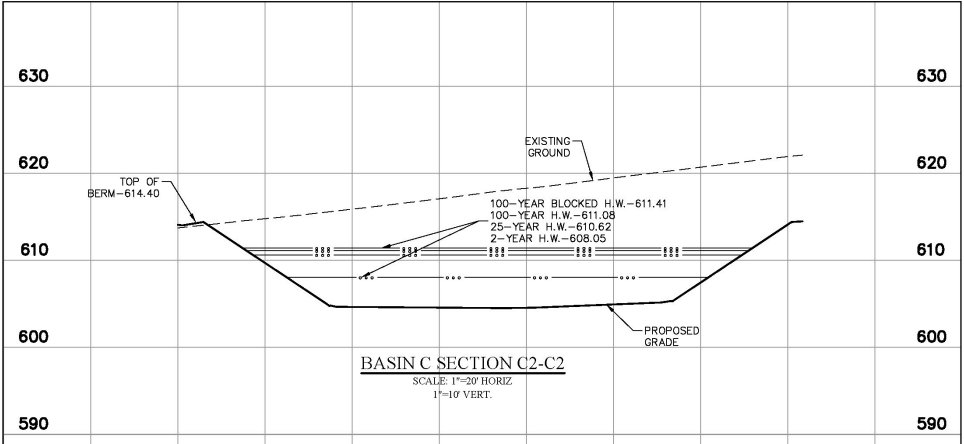
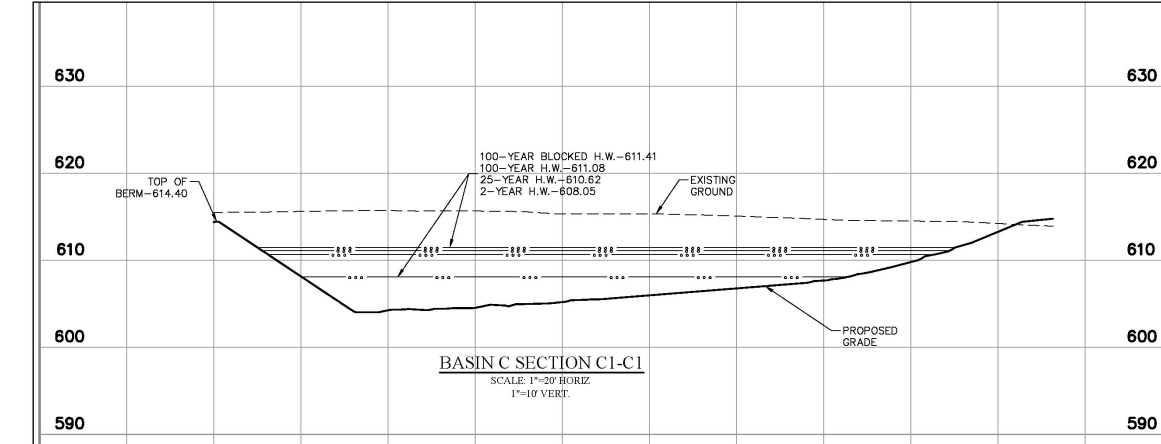
THE STERLING CO.
ENGINEERS & SURVEYORS
 5055 New Baumgartner Road
 Fallon, Missouri 64640
 PH 314-487-0040 FAX 314-487-8944
 www.sterling-eng-survey.com
 Corporate Certificate of Authority #001348

ISSUE REMARKS/DATE

1	2023-08-08	REVISIONS TO SUBMITTALS FOR CITY REVIEW
2	2023-08-08	EXPERIENCE REVIEW COMMENTS
3	2023-08-28	EXPERIENCE REVIEW COMMENTS
4	2023-08-28	EXPERIENCE REVIEW COMMENTS
5	2023-09-07	CITY COMMENTS
6	2023-09-20	CITY COMMENTS
7	2023-10-19	CITY APPROVAL

NOT APPROVED FOR CONSTRUCTION!

Date: XXX
 Michael G. Boering, PE
 License No. MO E-28643
 Professional Engineer

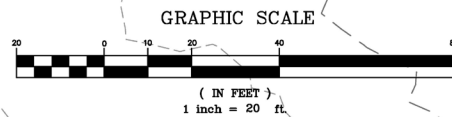
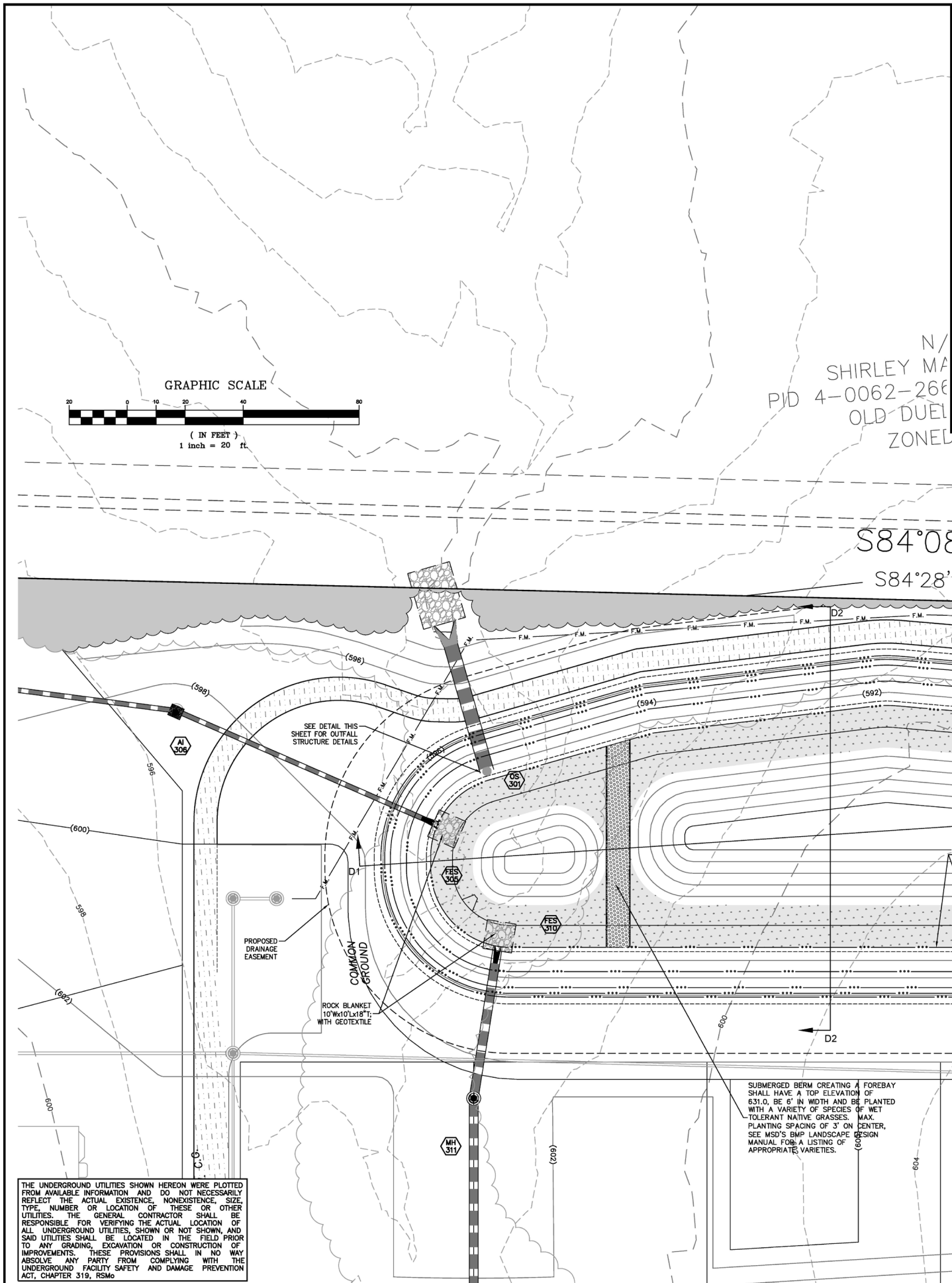


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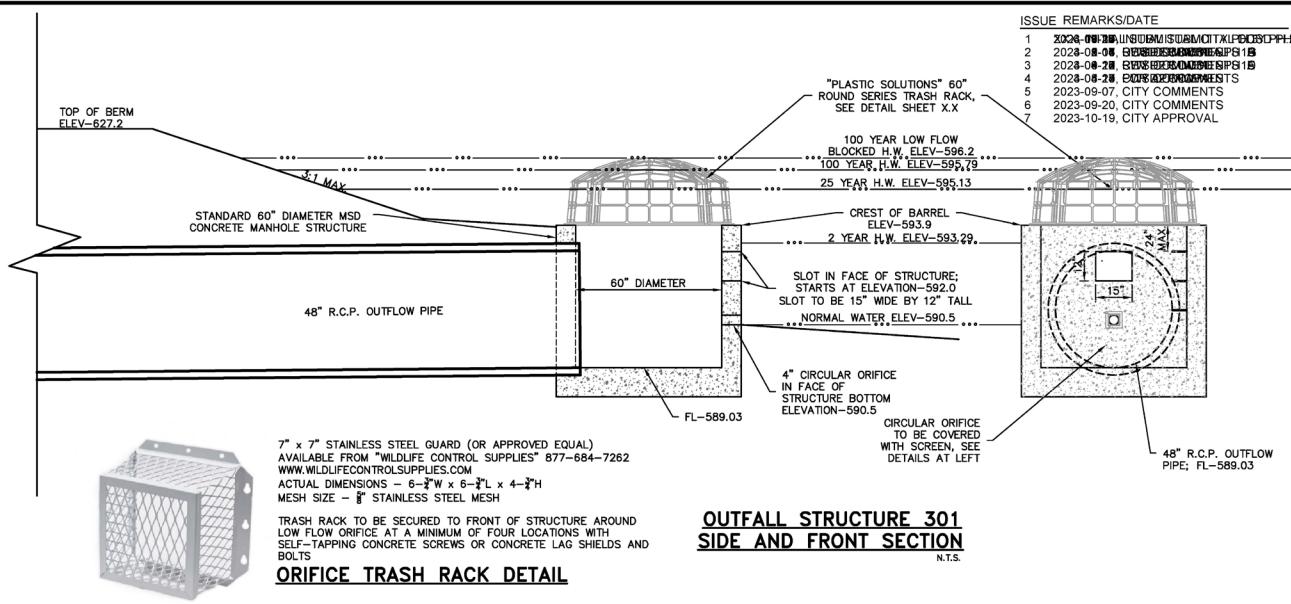
DETENTION / WATER QUALITY DETAILS

P+Z No. 23-013133
City No. 24-xxx
Date: 09-27-2024
Job No. 23-07-197
Page No. 12.6



N/
SHIRLEY MA
PID 4-0062-266
OLD DUEL
ZONED.

S84°08'03"E 1506.35'
S84°28'32"E 1508.10'(R)



PROJECT TITLE
**THE VILLAGES AT
POST FARMS**
OF FALLON, MISSOURI

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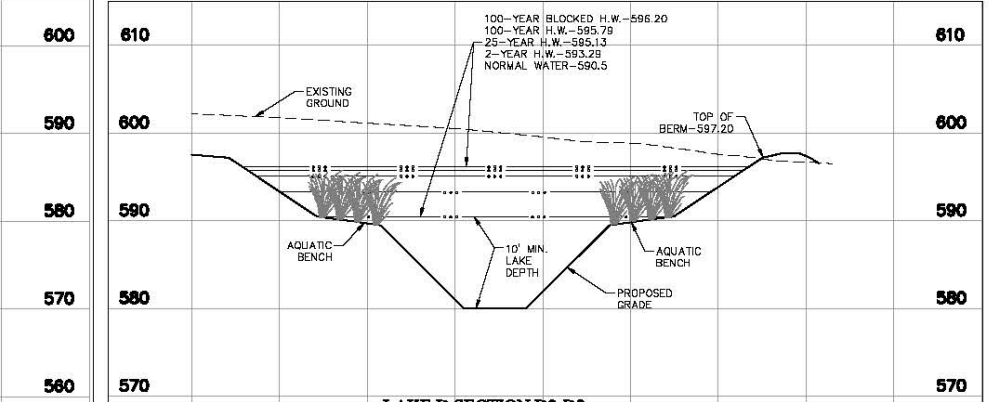
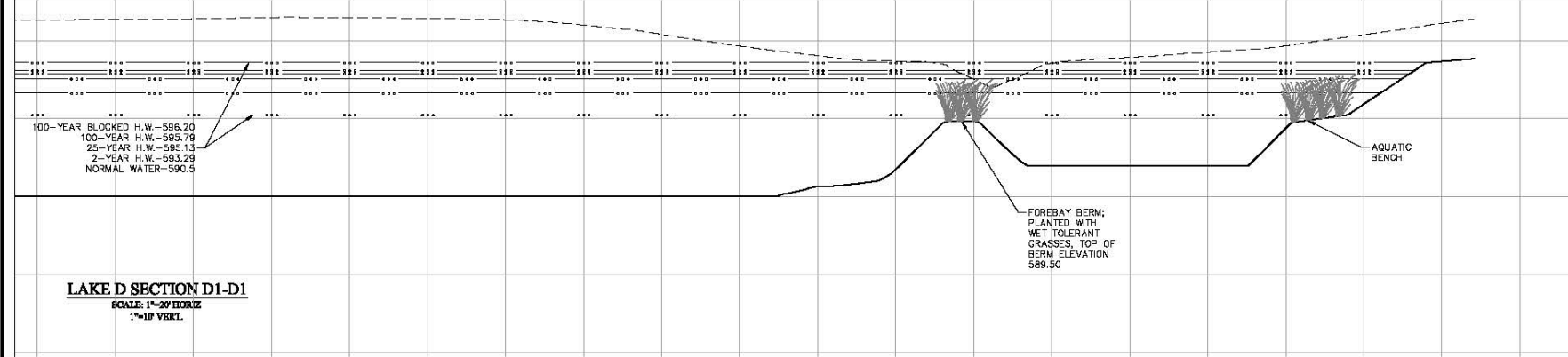
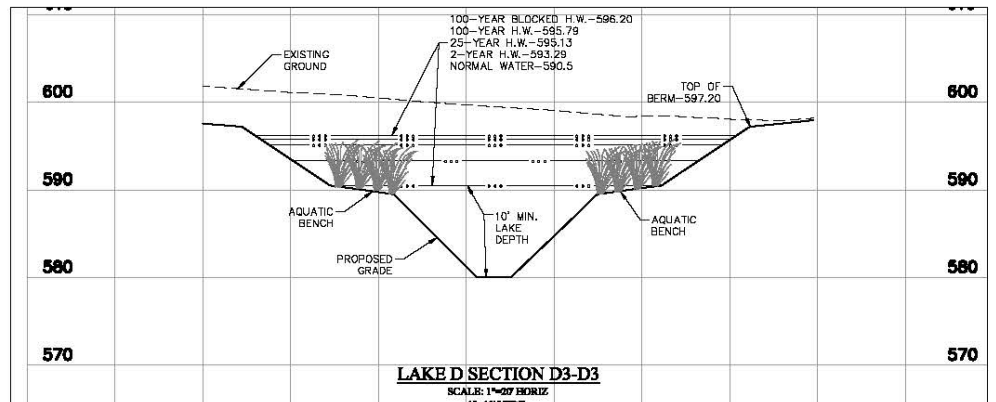
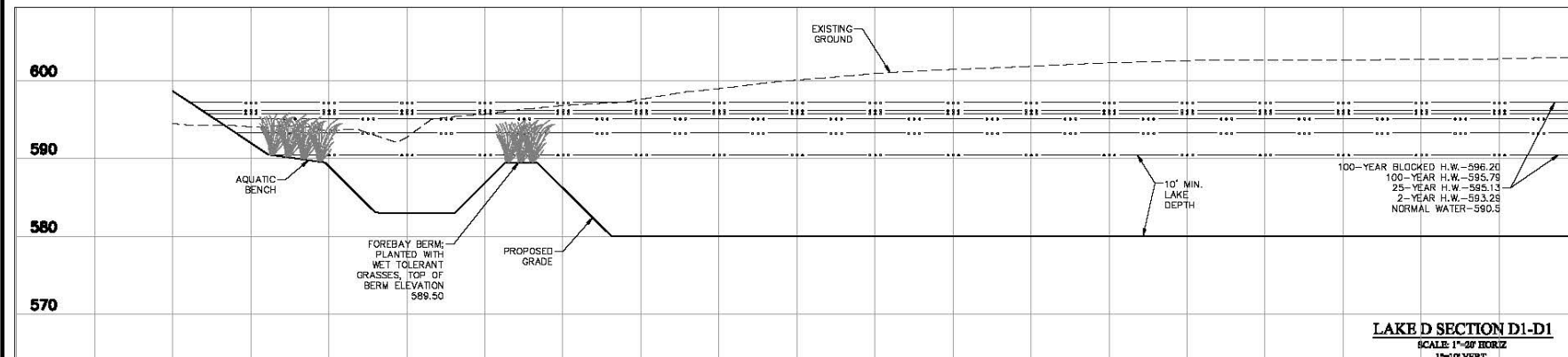
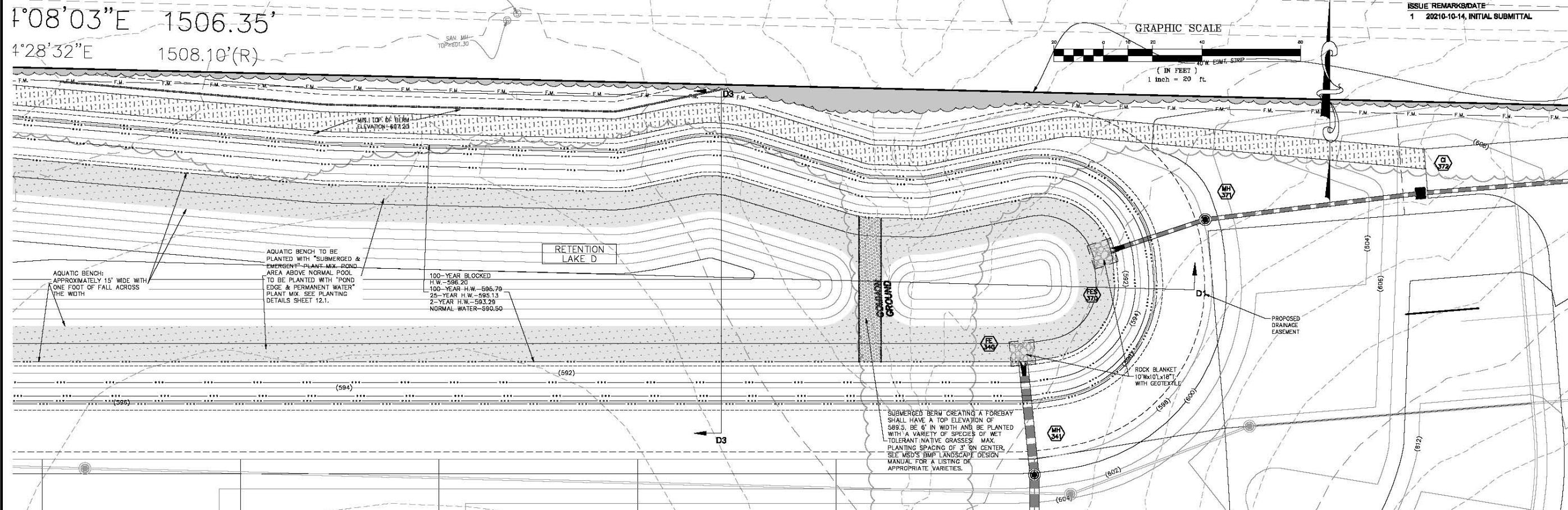
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PROJECT TITLE
THE VILLAGES AT POST FARMS
 O'FALLON, MISSOURI
CITY OF O'FALLON

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 IMP

Stormwater Detention

Per City of O'Fallon Regulations/Ordinances stormwater detention is provided for the development. Due to the overall size of the ultimate development the site will be analyzed for the 2, 25 and 100 year twenty four hour design storms. The post developed flows will be equal to or less than the pre-developed conditions flows to two outfall points associated with the development. Two outfall points were identified for the property during the pre-developed condition analysis.

In addition to making sure the post developed flows are less than the existing flows, each basin will be modeled assuming that the outfall structure has become blocked and water within the basin/lake is ponded to the crest of the outfall structure. Using this starting scenario a 100-year, 24-hour storm is routed through the basin and the highwater observed will be recorded as the maximum ponding or low flow blocked elevation. From this elevation the basin/lakes top of berm elevation will be one foot higher, thereby providing one foot of freeboard within each basin using the worst-case scenario.

Predeveloped Conditions:

Two outfall points identified for Pre-Developed Conditions; one is located on the eastern property line within the Dove Meadows development. Several storm sewer structures of the Dove Meadows development pick up storm drainage from the existing property that will become the Villages at Post Farms. Several existing structures within Dove Meadows along the eastern property line currently pick up runoff from the site, for this analysis Existing AI 177 will be analyzed as the Dove Meadows Outfall point. At the existing AI all of the stormwater flow from the Villages at Post Development has come together and under Post Developed conditions nearly all of the flow from the development will be directly contributory to that point. The second Outfall point is located along the northern property boundary near the northwestern corner. Each outfall point is labeled on the following Pre-Developed Condition Drainage Area Map. There is a small portion of the property that is contributory to Highway N along the south of the property, however this area was not analyzed because under Post Developed conditions nearly all of the area that was contributory to the south will ultimately be contributory to one of the two drainage area points mentioned above.

Each contributing drainage area was broken down into coverage types and soil types which are also delineated/labeled on the following Pre-Developed Drainage Area Map. Additionally, the time of concentration flowpaths for each drainage area are delineated on the following maps. The drainage area information shown on the following map for each drainage area was input into the Pondpack stormwater modeling program and the following pre-developed condition flows were found for the specified design storms towards each outfall point:

Pre-Developed Condition Flows

Dove Meadows Outfall

2 Year, 24 Hour Discharge: 52.91 cfs

25 Year, 24 Hour Discharge: 139.09 cfs

100 Year, 24 Hour Discharge: 190.89 cfs

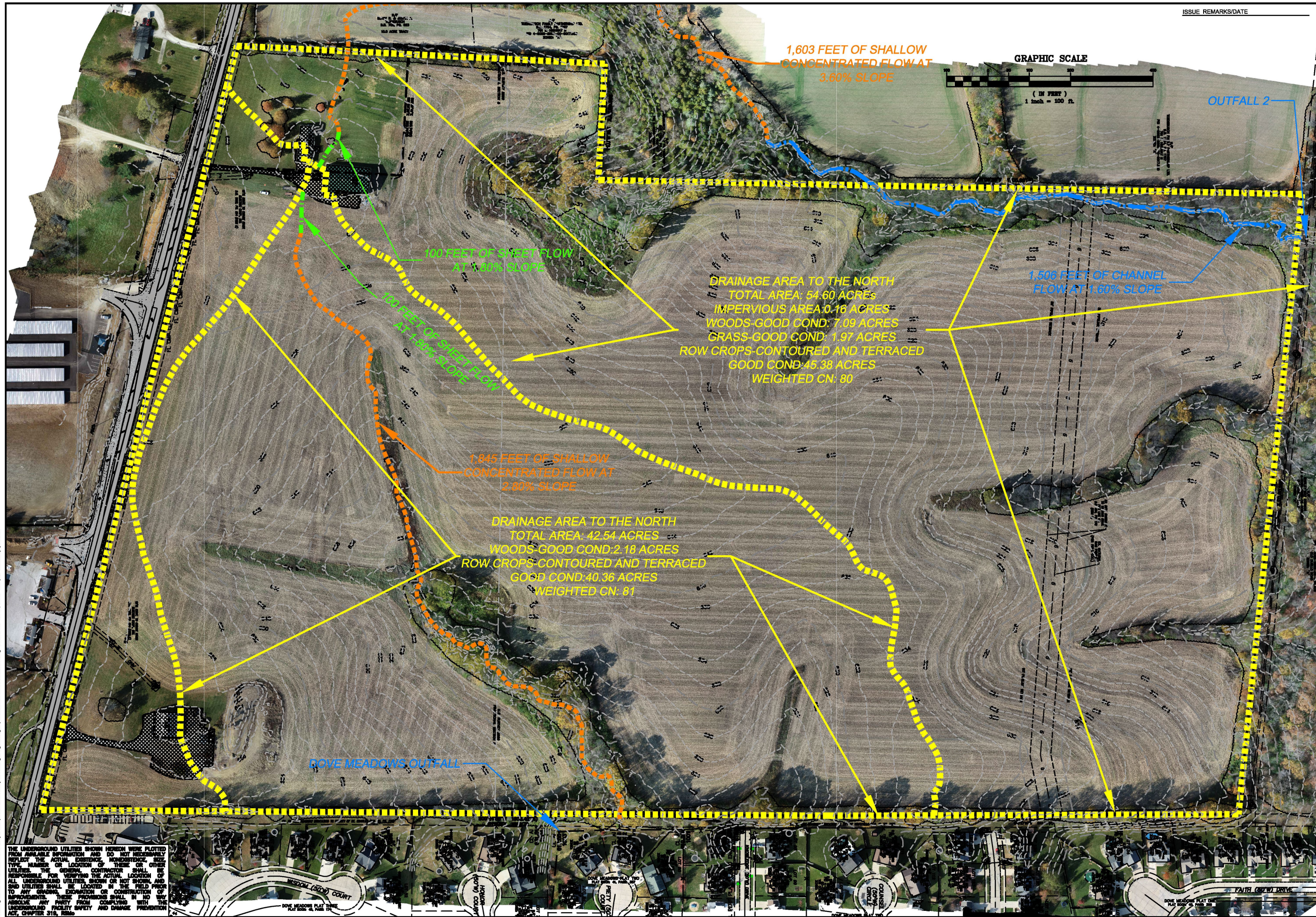
Outfall 2

2 Year, 24 Hour Discharge: 61.22 cfs

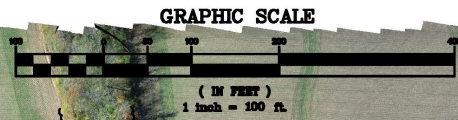
25 Year, 24 Hour Discharge: 166.74 cfs

100 Year, 24 Hour Discharge: 230.82 cfs

Pondpack software input/output is included in Appendix A.



ISSUE REMARKS/DATE



OUTFALL 2

DRAINAGE AREA TO THE NORTH
 TOTAL AREA: 54.60 ACRES
 IMPERVIOUS AREA: 0.16 ACRES
 WOODS-GOOD COND: 7.09 ACRES
 GRASS-GOOD COND: 1.97 ACRES
 ROW CROPS-CONTOURED AND TERRACED
 GOOD COND: 45.38 ACRES
 WEIGHTED CN: 80

DRAINAGE AREA TO THE NORTH
 TOTAL AREA: 42.54 ACRES
 WOODS-GOOD COND: 2.18 ACRES
 ROW CROPS-CONTOURED AND TERRACED
 GOOD COND: 40.36 ACRES
 WEIGHTED CN: 81

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EXISTING CONDITIONS DRAINAGE AREA MAP

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 City No. 24-xxx
 Date: 10-14-2024
 Job No. 23-07-197

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 DET

Post Developed Conditions

Under post developed conditions, flood control for the development will be provided by the combination of three lakes(Lake A, B and D) and one dry basin (Basins C) that will be constructed during improvements. The post developed conditions are modeled assuming a Hydrologic Soil Group of D for all disturbed areas. The Post Developed Drainage Area Map provided on the following page delineates the limits of the drainage areas to each lake/basin and each area is labeled with the overall area and the breakdown of that area in different land cover dispositions of the post developed condition. In addition, the direct runoff areas to each outfall point are also delineated on the following maps and labeled with their areas and cover types. Finally the time of concentration flowpath and its components for each drainage area are also identified/labeled on the following drainage area map.

The above discussed drainage area information/coverage disposition, time of concentration flowpath data, basin volumes and the geometry of the outfall structures within each lake/basin were input into the Pond V8i software package to determine the peak flows to all of the previously identified outfall points and identify the highwater elevations within each stormwater facility.

From the Pond V8i software the following post developed peak flows to all Outfall Points were determined and are summarized below:

Post-Developed Condition Flows

Dove Meadows Outfall

2 Year, 24 Hour Discharge: 7.38 cfs

25 Year, 24 Hour Discharge: 67.33 cfs

100 Year, 24 Hour Discharge: 120.89 cfs

Outfall 1

2 Year, 24 Hour Discharge: 18.31 cfs

25 Year, 24 Hour Discharge: 101.99 cfs

100 Year, 24 Hour Discharge: 192.99 cfs

Pondpack software input/output is included in Appendix B for the Post Developed routing condition. Comparing the peak outfalls above to the Pre-Developed condition routing results, it is apparent the peak flows are less under Post Developed conditions and thus the stormwater volume requirements of the city are met by the proposed basins and stormwater structures.

In addition to the peak flows the highwater surface for each storm frequency within each basin was determined from the Pondpack output and is summarized below:

Lake/Basin Highwater Elevations

Lake A

2-Year Highwater Elevation:	619.60
25-Year Highwater Elevation:	621.84
100-Year Highwater Elevation:	622.57

Lake B

2-Year Highwater Elevation:	633.76
25-Year Highwater Elevation:	635.29
100-Year Highwater Elevation:	635.89

Basin C

2-Year Highwater Elevation:	608.05
25-Year Highwater Elevation:	610.62
100-Year Highwater Elevation:	611.08

Lake D

2-Year Highwater Elevation:	593.29
25-Year Highwater Elevation:	595.13
100-Year Highwater Elevation:	595.79

Pondpack software input/output is included in Appendix B for the Post Developed routing condition that includes the water levels summarized above.

In addition to the standard routing scenarios discussed above, each stormwater facility will be routed to determine a maximum probable ponding elevation. The maximum ponding event analyzes the 100-year, 24 hour event in the stormwater facility assuming the outfall structure has become partially blocked so that all openings other than the crest of the structure are eliminated. In addition, it is assumed the starting water surface elevation in the stormwater facility is ponded to the crest of the structure within that facility. This information was input into the PondPack software and the resulting 100-year event highwater elevations in each basin are:

100 Year, 24 Hour Low Flow Blocked Highwaters

Lake A

100-Year Highwater Elevation-Low Flow Blocked Condition:	623.24
Top of Berm:	624.25
Freeboard provided:	1.01'

Lake B

100-Year Highwater Elevation-Low Flow Blocked Condition:	636.74
Top of Berm:	638.0
Freeboard provided:	1.26'

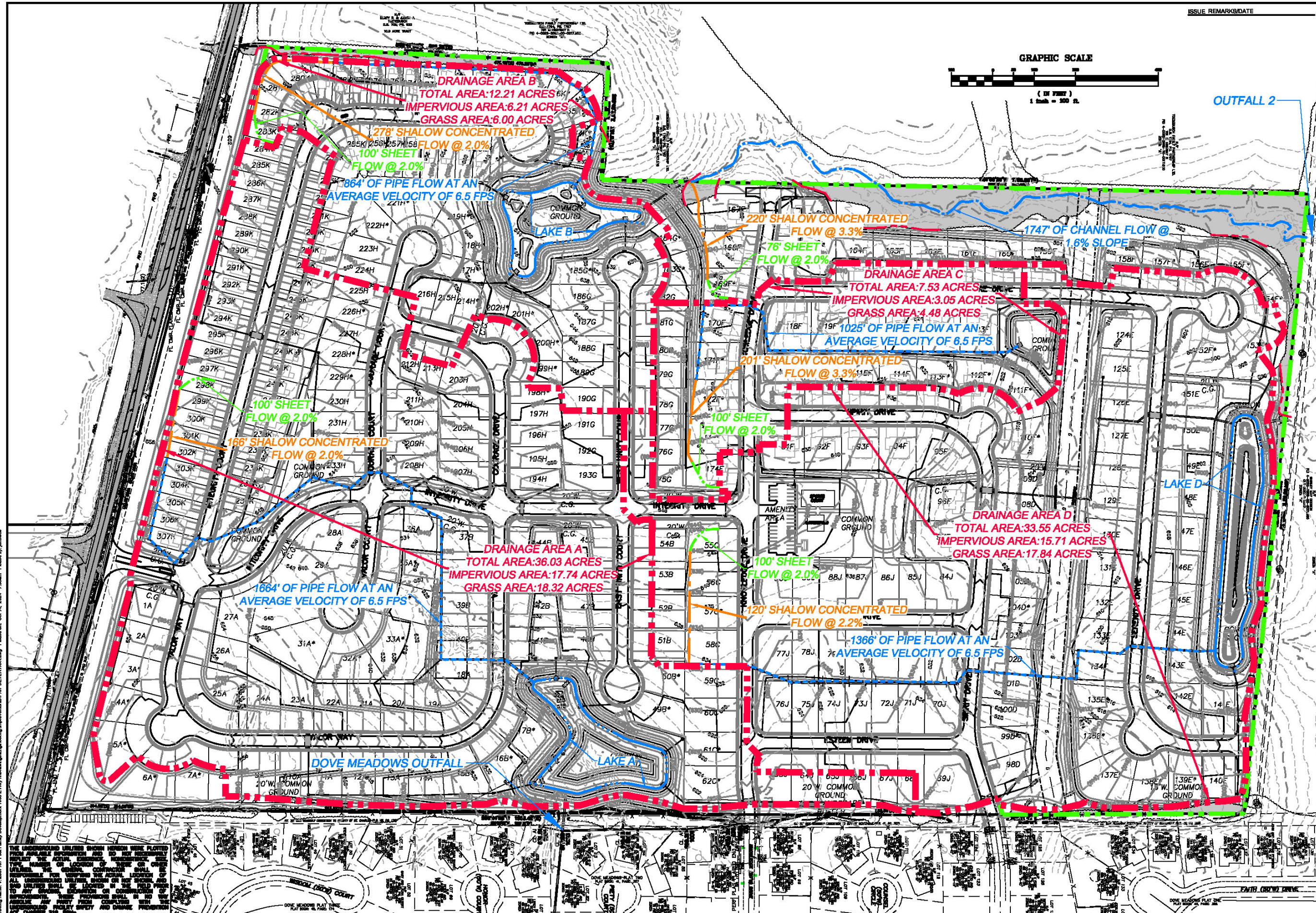
Basin C

100-Year Highwater Elevation-Low Flow Blocked Condition:	611.41
Top of Berm:	614.40
Freeboard provided:	2.99'

Lake D

100-Year Highwater Elevation-Low Flow Blocked Condition:	596.20
Top of Berm:	597.20
Freeboard provided:	1.00'

The input and output from the PondPack analysis for low flow blocked condition is included in Appendix C.



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 Weldon Spring, Missouri 63304

POST DEVELOPED CONDITIONS DRAINAGE AREA MAP

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Job No. 23-07-197
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**Pond V8i Routing of 2, 25 and 100 Year,
24 Hour Storm for
Pre-Developed Conditions Analysis**

Appendix

A

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Pre Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Exist Cond DA to North	Pre-Development 2 YR 24 Hour	2	260,729.000	729.000	61.22
Exist Cond DA to North	Pre-Development 25 YR 24 Hour	25	691,712.000	729.000	166.74
Exist Cond DA to North	Pre-Development 100 YR 24 Hour	100	961,453.000	729.000	230.82
Drainage to Dove Meadows	Pre-Development 2 YR 24 Hour	2	213,281.000	729.000	52.91
Drainage to Dove Meadows	Pre-Development 25 YR 24 Hour	25	554,482.000	729.000	139.09
Drainage to Dove Meadows	Pre-Development 100 YR 24 Hour	100	766,607.000	729.000	190.89
Exist Cond Flow to HWY N	Pre-Development 2 YR 24 Hour	2	30,523.000	720.000	11.54
Exist Cond Flow to HWY N	Pre-Development 25 YR 24 Hour	25	80,903.000	720.000	30.28
Exist Cond Flow to HWY N	Pre-Development 100 YR 24 Hour	100	112,425.000	720.000	41.52

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Outfall 1	Pre-Development 2 YR 24 Hour	2	260,729.000	729.000	61.22
Outfall 1	Pre-Development 25 YR 24 Hour	25	691,712.000	729.000	166.74
Outfall 1	Pre-Development 100 YR 24 Hour	100	961,453.000	729.000	230.82
Dove Meadows Outfall	Pre-Development 2 YR 24 Hour	2	213,281.000	729.000	52.91
Dove Meadows Outfall	Pre-Development 25 YR 24 Hour	25	554,482.000	729.000	139.09
Dove Meadows Outfall	Pre-Development 100 YR 24 Hour	100	766,607.000	729.000	190.89
HWY N Outfall	Pre-Development 2 YR 24 Hour	2	30,523.000	720.000	11.54
HWY N Outfall	Pre-Development 25 YR 24 Hour	25	80,903.000	720.000	30.28
HWY N Outfall	Pre-Development 100 YR 24 Hour	100	112,425.000	720.000	41.52

Pre Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Drainage to Dove Meadows

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.018ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	15.123min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	1,845.00ft
Is Paved?	False
Slope	0.028ft/ft
Average Velocity	2.68ft/s
Segment Time of Concentration	11.493min

Time of Concentration (Composite)

Time of Concentration (Composite)	26.615min
-----------------------------------	-----------

Pre Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Drainage to Dove Meadows

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

==== SCS Channel Flow

$$T_c = \frac{R = Q_a / W_p}{V = (1.49 * (R^{2/3}) * (S_f^{-0.5})) / n}$$

Where:

$(L_f / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

$$T_c = \frac{\text{Unpaved surface:}}{V = 16.1345 * (S_f^{0.5})}$$

$$\text{Paved Surface:}$$
$$V = 20.3282 * (S_f^{0.5})$$

Where:

$(L_f / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Pre Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Exist Cond DA to North

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.018ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	15.294min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	1,603.00ft
Is Paved?	False
Slope	0.036ft/ft
Average Velocity	3.04ft/s
Segment Time of Concentration	8.776min

Segment #3: TR-55 Channel Flow

Flow Area	18.3ft ²
Hydraulic Length	1,506.00ft
Manning's n	0.035
Slope	0.016ft/ft
Wetted Perimeter	17.70ft
Average Velocity	5.50ft/s
Segment Time of Concentration	4.567min

Time of Concentration (Composite)

Time of Concentration (Composite)	28.637min
-----------------------------------	-----------

Pre Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Exist Cond DA to North

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

==== SCS Channel Flow

$$T_c = \frac{R = Q_a / W_p}{V = (1.49 * (R^{2/3}) * (S_f^{-0.5})) / n}$$

Where: $(L_f / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

$$T_c = \frac{\text{Unpaved surface:}}{V = 16.1345 * (S_f^{0.5})}$$

$$\text{Paved Surface:}$$
$$V = 20.3282 * (S_f^{0.5})$$

Where: $(L_f / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Sheet Flow

$$T_c = \frac{(0.007 * ((n * L_f)^{0.8}))}{((P^{0.5}) * (S_f^{0.4}))}$$

Where: Tc= Time of concentration, hours
n= Manning's n
Lf= Flow length, feet
P= 2yr, 24hr Rain depth, inches
Sf= Slope, %

Pre Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Drainage to Dove Meadows

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Woods - good - Soil D	77.000	2.180	0.0	0.0	77.000
Row crops - Cont & terraced(C&T), good - Soil D	81.000	40.360	0.0	0.0	81.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	42.540	(N/A)	(N/A)	80.795

Pre Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Exist Cond DA to North

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	0.160	0.0	0.0	98.000
Woods - good - Soil D	77.000	7.090	0.0	0.0	77.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	1.970	0.0	0.0	80.000
Row crops - Cont & terraced(C&T), good - Soil D	81.000	45.380	0.0	0.0	81.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	54.600	(N/A)	(N/A)	80.494

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Drainage to Dove Meadows

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	26.615min
Area (User Defined)	42.540acres
<hr/>	
Computational Time Increment	3.549min
Time to Peak (Computed)	731.036min
Flow (Peak, Computed)	53.03ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	729.000min
Flow (Peak Interpolated Output)	52.91ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	81.000
Area (User Defined)	42.540acres
Maximum Retention (Pervious)	2.35in
Maximum Retention (Pervious, 20 percent)	0.47in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.39in
Runoff Volume (Pervious)	214,773.519ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	213,281.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	26.615min
Computational Time Increment	3.549min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Drainage to Dove Meadows

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	108.66ft ³ /s
Unit peak time, Tp	17.744min
Unit receding limb, Tr	70.974min
Total unit time, Tb	88.718min

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Drainage to Dove Meadows

Storm Event: 25 Year, 24 Hour Storm

Scenario: Pre-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	26.615min
Area (User Defined)	42.540acres
<hr/>	
Computational Time Increment	3.549min
Time to Peak (Computed)	727.488min
Flow (Peak, Computed)	140.00ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	729.000min
Flow (Peak Interpolated Output)	139.09ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	81.000
Area (User Defined)	42.540acres
Maximum Retention (Pervious)	2.35in
Maximum Retention (Pervious, 20 percent)	0.47in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.61in
Runoff Volume (Pervious)	557,681.326ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	554,482.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	26.615min
Computational Time Increment	3.549min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Drainage to Dove Meadows

Storm Event: 25 Year, 24 Hour Storm

Scenario: Pre-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	108.66ft ³ /s
Unit peak time, Tp	17.744min
Unit receding limb, Tr	70.974min
Total unit time, Tb	88.718min

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Drainage to Dove Meadows

Storm Event: 100 Year, 24 Hour Storm

Scenario: Pre-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	26.615min
Area (User Defined)	42.540acres
<hr/>	
Computational Time Increment	3.549min
Time to Peak (Computed)	727.488min
Flow (Peak, Computed)	192.52ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	729.000min
Flow (Peak Interpolated Output)	190.89ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	81.000
Area (User Defined)	42.540acres
Maximum Retention (Pervious)	2.35in
Maximum Retention (Pervious, 20 percent)	0.47in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.99in
Runoff Volume (Pervious)	770,781.119ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	766,607.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	26.615min
Computational Time Increment	3.549min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Drainage to Dove Meadows

Storm Event: 100 Year, 24 Hour Storm

Scenario: Pre-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	108.66ft ³ /s
Unit peak time, Tp	17.744min
Unit receding limb, Tr	70.974min
Total unit time, Tb	88.718min

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Exist Cond DA to North

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	28.637min
Area (User Defined)	54.600acres
<hr/>	
Computational Time Increment	3.818min
Time to Peak (Computed)	729.294min
Flow (Peak, Computed)	61.65ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	729.000min
Flow (Peak Interpolated Output)	61.22ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	80.000
Area (User Defined)	54.600acres
Maximum Retention (Pervious)	2.50in
Maximum Retention (Pervious, 20 percent)	0.50in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.33in
Runoff Volume (Pervious)	262,714.180ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	260,729.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	28.637min
Computational Time Increment	3.818min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Exist Cond DA to North

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	129.62ft ³ /s
Unit peak time, Tp	19.091min
Unit receding limb, Tr	76.366min
Total unit time, Tb	95.457min

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Exist Cond DA to North

Storm Event: 25 Year, 24 Hour Storm

Scenario: Pre-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	28.637min
Area (User Defined)	54.600acres
<hr/>	
Computational Time Increment	3.818min
Time to Peak (Computed)	729.294min
Flow (Peak, Computed)	167.57ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	729.000min
Flow (Peak Interpolated Output)	166.74ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	80.000
Area (User Defined)	54.600acres
Maximum Retention (Pervious)	2.50in
Maximum Retention (Pervious, 20 percent)	0.50in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.51in
Runoff Volume (Pervious)	696,019.654ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	691,712.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	28.637min
Computational Time Increment	3.818min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Exist Cond DA to North

Storm Event: 25 Year, 24 Hour Storm

Scenario: Pre-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	129.62ft ³ /s
Unit peak time, Tp	19.091min
Unit receding limb, Tr	76.366min
Total unit time, Tb	95.457min

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Exist Cond DA to North

Storm Event: 100 Year, 24 Hour Storm

Scenario: Pre-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	28.637min
Area (User Defined)	54.600acres
<hr/>	
Computational Time Increment	3.818min
Time to Peak (Computed)	729.294min
Flow (Peak, Computed)	231.86ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	729.000min
Flow (Peak Interpolated Output)	230.82ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	80.000
Area (User Defined)	54.600acres
Maximum Retention (Pervious)	2.50in
Maximum Retention (Pervious, 20 percent)	0.50in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.88in
Runoff Volume (Pervious)	967,090.215ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	961,453.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	28.637min
Computational Time Increment	3.818min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Pre Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Exist Cond DA to North

Storm Event: 100 Year, 24 Hour Storm

Scenario: Pre-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	129.62ft ³ /s
Unit peak time, Tp	19.091min
Unit receding limb, Tr	76.366min
Total unit time, Tb	95.457min

Pre Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 2 years

Label: Dove Meadows Outfall

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Drainage to Dove Meadows

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	Drainage to Dove Meadows	213,280.881	729.000	52.91
Flow (In)	Dove Meadows Outfall	213,280.881	729.000	52.91

Pre Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 25 years

Label: Dove Meadows Outfall

Storm Event: 25 Year, 24 Hour Storm

Scenario: Pre-Development 25 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Drainage to Dove Meadows

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	Drainage to Dove Meadows	554,481.628	729.000	139.09
Flow (In)	Dove Meadows Outfall	554,481.628	729.000	139.09

Pre Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 100 years

Label: Dove Meadows Outfall

Storm Event: 100 Year, 24 Hour Storm

Scenario: Pre-Development 100 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Drainage to Dove Meadows

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	Drainage to Dove Meadows	766,606.554	729.000	190.89
Flow (In)	Dove Meadows Outfall	766,606.554	729.000	190.89

Pre Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 2 years

Label: Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Pre-Development 2 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Exist Cond DA to North

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	Exist Cond DA to North	260,728.756	729.000	61.22
Flow (In)	Outfall 1	260,728.756	729.000	61.22

Pre Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 25 years

Label: Outfall 1

Storm Event: 25 Year, 24 Hour Storm

Scenario: Pre-Development 25 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Exist Cond DA to North

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	Exist Cond DA to North	691,711.583	729.000	166.74
Flow (In)	Outfall 1	691,711.583	729.000	166.74

Pre Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 100 years

Label: Outfall 1

Storm Event: 100 Year, 24 Hour Storm

Scenario: Pre-Development 100 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	Exist Cond DA to North

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	Exist Cond DA to North	961,453.161	729.000	230.82
Flow (In)	Outfall 1	961,453.161	729.000	230.82

Pre Developed Conditions Modeling for Post Tract

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**Pond V8i Routing of 2, 25 and 100 Year,
24 Hour Storm of the
Post Developed Conditions**

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Post Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Post Dev DA to Lake A	Post-Development 2 YR 24 Hour	2	259,434.000	726.000	75.98
Post Dev DA to Lake A	Post-Development 25 YR 24 Hour	25	579,651.000	726.000	164.07
Post Dev DA to Lake A	Post-Development 100 YR 24 Hour	100	769,884.000	726.000	214.51
Post Dev DA to Lake B	Post-Development 2 YR 24 Hour	2	87,865.000	723.000	26.16
Post Dev DA to Lake B	Post-Development 25 YR 24 Hour	25	196,324.000	723.000	56.98
Post Dev DA to Lake B	Post-Development 100 YR 24 Hour	100	260,758.000	723.000	74.65
Post Dev DA to Lake D	Post-Development 2 YR 24 Hour	2	231,393.000	723.000	70.63
Post Dev DA to Lake D	Post-Development 25 YR 24 Hour	25	526,477.000	723.000	156.87
Post Dev DA to Lake D	Post-Development 100 YR 24 Hour	100	702,627.000	723.000	206.49
Post Dev DA to Basin C	Post-Development 2 YR 24 Hour	2	49,736.000	723.000	15.09
Post Dev DA to Basin C	Post-Development 25 YR 24 Hour	25	115,253.000	723.000	34.30
Post Dev DA to Basin C	Post-Development 100 YR 24 Hour	100	154,562.000	723.000	45.40
Post Dev Direct Runoff to Outfall 1	Post-Development 2 YR 24 Hour	2	53,547.000	723.000	16.28
Post Dev Direct Runoff to Outfall 1	Post-Development 25 YR 24 Hour	25	133,794.000	723.000	40.66
Post Dev Direct Runoff to Outfall 1	Post-Development 100 YR 24 Hour	100	183,048.000	723.000	55.09

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Outfall 1	Post-Development 2 YR 24 Hour	2	271,072.000	726.000	18.31
Outfall 1	Post-Development 25 YR 24 Hour	25	778,818.000	735.000	101.99
Outfall 1	Post-Development 100 YR 24 Hour	100	1,092,288.000	732.000	192.99
Dove Meadows Outfall	Post-Development 2 YR 24 Hour	2	164,805.000	780.000	7.38
Dove Meadows Outfall	Post-Development 25 YR 24 Hour	25	466,746.000	741.000	67.33

Post Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Dove Meadows Outfall	Post-Development 100 YR 24 Hour	100	648,972.000	735.000	120.89
FES 100	Post-Development 2 YR 24 Hour	2	28,851.000	1,011.000	0.73
FES 100	Post-Development 25 YR 24 Hour	25	116,287.000	813.000	3.48
FES 100	Post-Development 100 YR 24 Hour	100	173,448.000	753.000	13.47
FES 200	Post-Development 2 YR 24 Hour	2	45,138.000	759.000	2.27
FES 200	Post-Development 25 YR 24 Hour	25	105,088.000	741.000	12.22
FES 200	Post-Development 100 YR 24 Hour	100	142,798.000	732.000	30.53

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
Lake A (IN)	Post-Development 2 YR 24 Hour	2	259,434.000	726.000	75.98	(N/A)	(N/A)
Lake A (OUT)	Post-Development 2 YR 24 Hour	2	164,805.000	780.000	7.38	619.60	151,026.000
Lake A (IN)	Post-Development 25 YR 24 Hour	25	579,651.000	726.000	164.07	(N/A)	(N/A)
Lake A (OUT)	Post-Development 25 YR 24 Hour	25	466,746.000	741.000	67.33	621.84	281,045.000
Lake A (IN)	Post-Development 100 YR 24 Hour	100	769,884.000	726.000	214.51	(N/A)	(N/A)
Lake A (OUT)	Post-Development 100 YR 24 Hour	100	648,972.000	735.000	120.89	622.57	327,234.000
Lake B (IN)	Post-Development 2 YR 24 Hour	2	87,865.000	723.000	26.16	(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
Lake B (OUT)	Post-Development 2 YR 24 Hour	2	28,851.000	1,011.000	0.73	633.76	63,506.000
Lake B (IN)	Post-Development 25 YR 24 Hour	25	196,324.000	723.000	56.98	(N/A)	(N/A)
Lake B (OUT)	Post-Development 25 YR 24 Hour	25	116,287.000	813.000	3.48	635.29	126,021.000
Lake B (IN)	Post-Development 100 YR 24 Hour	100	260,758.000	723.000	74.65	(N/A)	(N/A)
Lake B (OUT)	Post-Development 100 YR 24 Hour	100	173,448.000	753.000	13.47	635.89	152,556.000
Basin C (IN)	Post-Development 2 YR 24 Hour	2	49,736.000	723.000	15.09	(N/A)	(N/A)
Basin C (OUT)	Post-Development 2 YR 24 Hour	2	45,138.000	759.000	2.27	608.05	22,896.000
Basin C (IN)	Post-Development 25 YR 24 Hour	25	115,253.000	723.000	34.30	(N/A)	(N/A)
Basin C (OUT)	Post-Development 25 YR 24 Hour	25	105,088.000	741.000	12.22	610.62	50,257.000
Basin C (IN)	Post-Development 100 YR 24 Hour	100	154,562.000	723.000	45.40	(N/A)	(N/A)
Basin C (OUT)	Post-Development 100 YR 24 Hour	100	142,798.000	732.000	30.53	611.08	56,066.000
Lake D (IN)	Post-Development 2 YR 24 Hour	2	231,393.000	723.000	70.63	(N/A)	(N/A)
Lake D (OUT)	Post-Development 2 YR 24 Hour	2	143,843.000	786.000	6.03	593.29	134,372.000

Post Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
Lake D (IN)	Post-Development 25 YR 24 Hour	25	526,477.000	723.000	156.87	(N/A)	(N/A)
Lake D (OUT)	Post-Development 25 YR 24 Hour	25	424,286.000	738.000	73.11	595.13	240,223.000
Lake D (IN)	Post-Development 100 YR 24 Hour	100	702,627.000	723.000	206.49	(N/A)	(N/A)
Lake D (OUT)	Post-Development 100 YR 24 Hour	100	593,788.000	735.000	125.10	595.79	281,617.000

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	14.499min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	201.00ft
Is Paved?	False
Slope	0.033ft/ft
Average Velocity	2.93ft/s
Segment Time of Concentration	1.143min

Segment #3: User Defined Tc

Time of Concentration	2.630min
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Time of Concentration (Composite)

Time of Concentration (Composite)	18.272min
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Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== User Defined

Tc = Value entered by user
Where: Tc= Time of concentration, hours

==== SCS Channel Flow

Tc = $R = Qa / Wp$
 $V = (1.49 * (R^{2/3}) * (Sf^{-0.5})) / n$

Where: $(Lf / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (Sf^{0.5})$

Paved Surface:
 $V = 20.3282 * (Sf^{0.5})$

Where: $(Lf / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	14.499min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	166.00ft
Is Paved?	False
Slope	0.020ft/ft
Average Velocity	2.28ft/s
Segment Time of Concentration	1.213min

Segment #3: User Defined Tc

Time of Concentration	4.230min
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Time of Concentration (Composite)

Time of Concentration (Composite)	19.941min
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Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== User Defined

Tc = Value entered by user
Where: Tc= Time of concentration, hours

==== SCS Channel Flow

Tc = $R = Qa / Wp$
 $V = (1.49 * (R^{2/3}) * (Sf^{-0.5})) / n$

Where: $(Lf / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (Sf^{0.5})$

Paved Surface:
 $V = 20.3282 * (Sf^{0.5})$

Where: $(Lf / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	14.499min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	278.00ft
Is Paved?	False
Slope	0.020ft/ft
Average Velocity	2.28ft/s
Segment Time of Concentration	2.031min

Segment #3: User Defined Tc

Time of Concentration	2.200min
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Time of Concentration (Composite)

Time of Concentration (Composite)	18.729min
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Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== User Defined

Tc = Value entered by user
Where: Tc= Time of concentration, hours

==== SCS Channel Flow

Tc = $R = Qa / Wp$
 $V = (1.49 * (R^{2/3}) * (Sf^{-0.5})) / n$

Where: $(Lf / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (Sf^{0.5})$

Paved Surface:
 $V = 20.3282 * (Sf^{0.5})$

Where: $(Lf / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	14.499min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	120.00ft
Is Paved?	False
Slope	0.022ft/ft
Average Velocity	2.39ft/s
Segment Time of Concentration	0.836min

Segment #3: User Defined Tc

Time of Concentration	2.700min
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Time of Concentration (Composite)

Time of Concentration (Composite)	18.034min
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Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== User Defined

Tc = Value entered by user
Where: Tc= Time of concentration, hours

==== SCS Channel Flow

Tc = $R = Qa / Wp$
 $V = (1.49 * (R^{2/3}) * (Sf^{-0.5})) / n$

Where: $(Lf / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (Sf^{0.5})$

Paved Surface:
 $V = 20.3282 * (Sf^{0.5})$

Where: $(Lf / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations
 Label: Post Dev Direct Runoff to Outfall 1
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	76.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	11.641min
Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	220.00ft
Is Paved?	False
Slope	0.033ft/ft
Average Velocity	2.93ft/s
Segment Time of Concentration	1.251min
Segment #3: TR-55 Channel Flow	
Flow Area	18.3ft ²
Hydraulic Length	1,747.00ft
Manning's n	0.035
Slope	0.016ft/ft
Wetted Perimeter	17.70ft
Average Velocity	5.50ft/s
Segment Time of Concentration	5.298min
Time of Concentration (Composite)	
Time of Concentration (Composite)	18.190min

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== SCS Channel Flow

$$T_c = \frac{R = Q_a / W_p}{V = (1.49 * (R^{2/3}) * (S_f^{-0.5})) / n}$$

Where: $(L_f / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

$$T_c = \frac{\text{Unpaved surface:}}{V = 16.1345 * (S_f^{0.5})}$$

$$\text{Paved Surface:}$$
$$V = 20.3282 * (S_f^{0.5})$$

Where: $(L_f / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Sheet Flow

$$T_c = \frac{(0.007 * ((n * L_f)^{0.8}))}{((P^{0.5}) * (S_f^{0.4}))}$$

Where: Tc= Time of concentration, hours
n= Manning's n
Lf= Flow length, feet
P= 2yr, 24hr Rain depth, inches
Sf= Slope, %

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	3.050	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	4.480	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	7.530	(N/A)	(N/A)	87.291

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	17.740	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	18.290	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	36.030	(N/A)	(N/A)	88.863

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	6.210	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	6.000	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	12.210	(N/A)	(N/A)	89.155

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	15.710	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	17.840	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	33.550	(N/A)	(N/A)	88.429

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	2.140	0.0	0.0	98.000
Woods - good - Soil D	77.000	2.900	0.0	0.0	77.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	4.660	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	9.700	(N/A)	(N/A)	83.074

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	18.272min
Area (User Defined)	7.530acres
<hr/>	
Computational Time Increment	2.436min
Time to Peak (Computed)	723.553min
Flow (Peak, Computed)	15.28ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	15.09ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	87.000
Area (User Defined)	7.530acres
Maximum Retention (Pervious)	1.49in
Maximum Retention (Pervious, 20 percent)	0.30in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.83in
Runoff Volume (Pervious)	49,931.751ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	49,736.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.272min
Computational Time Increment	2.436min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	28.02ft ³ /s
Unit peak time, Tp	12.181min
Unit receding limb, Tr	48.724min
Total unit time, Tb	60.905min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Basin C

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	18.272min
Area (User Defined)	7.530acres
<hr/>	
Computational Time Increment	2.436min
Time to Peak (Computed)	723.553min
Flow (Peak, Computed)	34.61ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	34.30ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	87.000
Area (User Defined)	7.530acres
Maximum Retention (Pervious)	1.49in
Maximum Retention (Pervious, 20 percent)	0.30in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.23in
Runoff Volume (Pervious)	115,643.163ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	115,253.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.272min
Computational Time Increment	2.436min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Basin C

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	28.02ft ³ /s
Unit peak time, Tp	12.181min
Unit receding limb, Tr	48.724min
Total unit time, Tb	60.905min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Basin C

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	18.272min
Area (User Defined)	7.530acres
<hr/>	
Computational Time Increment	2.436min
Time to Peak (Computed)	723.553min
Flow (Peak, Computed)	45.78ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	45.40ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	87.000
Area (User Defined)	7.530acres
Maximum Retention (Pervious)	1.49in
Maximum Retention (Pervious, 20 percent)	0.30in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.67in
Runoff Volume (Pervious)	155,063.037ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	154,562.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.272min
Computational Time Increment	2.436min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Basin C

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	28.02ft ³ /s
Unit peak time, Tp	12.181min
Unit receding limb, Tr	48.724min
Total unit time, Tb	60.905min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	19.941min
Area (User Defined)	36.030acres
<hr/>	
Computational Time Increment	2.659min
Time to Peak (Computed)	725.856min
Flow (Peak, Computed)	76.23ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	726.000min
Flow (Peak Interpolated Output)	75.98ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	36.030acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.99in
Runoff Volume (Pervious)	260,333.694ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	259,434.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	19.941min
Computational Time Increment	2.659min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	122.83ft ³ /s
Unit peak time, Tp	13.294min
Unit receding limb, Tr	53.176min
Total unit time, Tb	66.470min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake A

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	19.941min
Area (User Defined)	36.030acres
<hr/>	
Computational Time Increment	2.659min
Time to Peak (Computed)	725.856min
Flow (Peak, Computed)	164.69ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	726.000min
Flow (Peak Interpolated Output)	164.07ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	36.030acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.45in
Runoff Volume (Pervious)	581,394.450ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	579,651.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	19.941min
Computational Time Increment	2.659min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake A

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	122.83ft ³ /s
Unit peak time, Tp	13.294min
Unit receding limb, Tr	53.176min
Total unit time, Tb	66.470min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake A

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	19.941min
Area (User Defined)	36.030acres
<hr/>	
Computational Time Increment	2.659min
Time to Peak (Computed)	725.856min
Flow (Peak, Computed)	215.34ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	726.000min
Flow (Peak Interpolated Output)	214.51ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	36.030acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.90in
Runoff Volume (Pervious)	772,108.458ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	769,884.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	19.941min
Computational Time Increment	2.659min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake A

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	122.83ft ³ /s
Unit peak time, Tp	13.294min
Unit receding limb, Tr	53.176min
Total unit time, Tb	66.470min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	18.729min
Area (User Defined)	12.210acres
<hr/>	
Computational Time Increment	2.497min
Time to Peak (Computed)	724.195min
Flow (Peak, Computed)	26.66ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	26.16ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	12.210acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.99in
Runoff Volume (Pervious)	88,222.985ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	87,865.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.729min
Computational Time Increment	2.497min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	44.32ft ³ /s
Unit peak time, Tp	12.486min
Unit receding limb, Tr	49.944min
Total unit time, Tb	62.431min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake B

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	18.729min
Area (User Defined)	12.210acres
<hr/>	
Computational Time Increment	2.497min
Time to Peak (Computed)	724.195min
Flow (Peak, Computed)	57.76ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	56.98ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	12.210acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.45in
Runoff Volume (Pervious)	197,025.468ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	196,324.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.729min
Computational Time Increment	2.497min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake B

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	44.32ft ³ /s
Unit peak time, Tp	12.486min
Unit receding limb, Tr	49.944min
Total unit time, Tb	62.431min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake B

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	18.729min
Area (User Defined)	12.210acres
<hr/>	
Computational Time Increment	2.497min
Time to Peak (Computed)	724.195min
Flow (Peak, Computed)	75.58ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	74.65ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	12.210acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.90in
Runoff Volume (Pervious)	261,655.377ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	260,758.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.729min
Computational Time Increment	2.497min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake B

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	44.32ft ³ /s
Unit peak time, Tp	12.486min
Unit receding limb, Tr	49.944min
Total unit time, Tb	62.431min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	18.034min
Area (User Defined)	33.550acres
<hr/>	
Computational Time Increment	2.405min
Time to Peak (Computed)	723.777min
Flow (Peak, Computed)	71.58ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	70.63ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	88.000
Area (User Defined)	33.550acres
Maximum Retention (Pervious)	1.36in
Maximum Retention (Pervious, 20 percent)	0.27in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.91in
Runoff Volume (Pervious)	232,291.017ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	231,393.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.034min
Computational Time Increment	2.405min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	126.47ft ³ /s
Unit peak time, Tp	12.023min
Unit receding limb, Tr	48.091min
Total unit time, Tb	60.114min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake D

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	18.034min
Area (User Defined)	33.550acres
<hr/>	
Computational Time Increment	2.405min
Time to Peak (Computed)	723.777min
Flow (Peak, Computed)	158.36ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	156.87ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	88.000
Area (User Defined)	33.550acres
Maximum Retention (Pervious)	1.36in
Maximum Retention (Pervious, 20 percent)	0.27in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.34in
Runoff Volume (Pervious)	528,250.613ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	526,477.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.034min
Computational Time Increment	2.405min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake D

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	126.47ft ³ /s
Unit peak time, Tp	12.023min
Unit receding limb, Tr	48.091min
Total unit time, Tb	60.114min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake D

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	18.034min
Area (User Defined)	33.550acres
<hr/>	
Computational Time Increment	2.405min
Time to Peak (Computed)	723.777min
Flow (Peak, Computed)	208.25ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	206.49ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	88.000
Area (User Defined)	33.550acres
Maximum Retention (Pervious)	1.36in
Maximum Retention (Pervious, 20 percent)	0.27in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.79in
Runoff Volume (Pervious)	704,898.899ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	702,627.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.034min
Computational Time Increment	2.405min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake D

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	126.47ft ³ /s
Unit peak time, Tp	12.023min
Unit receding limb, Tr	48.091min
Total unit time, Tb	60.114min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	18.190min
Area (User Defined)	9.700acres
<hr/>	
Computational Time Increment	2.425min
Time to Peak (Computed)	725.156min
Flow (Peak, Computed)	16.58ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	16.28ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	83.000
Area (User Defined)	9.700acres
Maximum Retention (Pervious)	2.05in
Maximum Retention (Pervious, 20 percent)	0.41in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.53in
Runoff Volume (Pervious)	53,784.972ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	53,547.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.190min
Computational Time Increment	2.425min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	36.25ft ³ /s
Unit peak time, Tp	12.126min
Unit receding limb, Tr	48.505min
Total unit time, Tb	60.632min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	18.190min
Area (User Defined)	9.700acres
<hr/>	
Computational Time Increment	2.425min
Time to Peak (Computed)	725.156min
Flow (Peak, Computed)	40.80ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	40.66ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	83.000
Area (User Defined)	9.700acres
Maximum Retention (Pervious)	2.05in
Maximum Retention (Pervious, 20 percent)	0.41in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.81in
Runoff Volume (Pervious)	134,290.266ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	133,794.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.190min
Computational Time Increment	2.425min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	36.25ft ³ /s
Unit peak time, Tp	12.126min
Unit receding limb, Tr	48.505min
Total unit time, Tb	60.632min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	18.190min
Area (User Defined)	9.700acres
<hr/>	
Computational Time Increment	2.425min
Time to Peak (Computed)	722.731min
Flow (Peak, Computed)	55.09ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	55.09ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	83.000
Area (User Defined)	9.700acres
Maximum Retention (Pervious)	2.05in
Maximum Retention (Pervious, 20 percent)	0.41in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.22in
Runoff Volume (Pervious)	183,691.302ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	183,048.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.190min
Computational Time Increment	2.425min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	36.25ft ³ /s
Unit peak time, Tp	12.126min
Unit receding limb, Tr	48.505min
Total unit time, Tb	60.632min

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 2 years

Label: Dove Meadows Outfall

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

Upstream Link	Upstream Node
OS 2	Lake A

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 2	164,805.414	780.000	7.38
Flow (In)	Dove Meadows Outfall	164,805.414	780.000	7.38

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 25 years

Label: Dove Meadows Outfall

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

Upstream Link	Upstream Node
OS 2	Lake A

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 2	466,746.073	741.000	67.33
Flow (In)	Dove Meadows Outfall	466,746.073	741.000	67.33

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 100 years

Label: Dove Meadows Outfall

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

	Upstream Link	Upstream Node
OS 2		Lake A

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 2	648,971.643	735.000	120.89
Flow (In)	Dove Meadows Outfall	648,971.643	735.000	120.89

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 2 years

Label: Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
OS 301	Lake D
Channel Flow From Lake B to Outfall 1	FES 100
Travel time from FES 200 to Outfall 1	FES 200
<Catchment to Outflow Node>	Post Dev Direct Runoff to Outfall 1

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 301	143,843.108	786.000	6.03
Flow (From)	Channel Flow From Lake B to Outfall 1	28,850.605	1,017.000	0.73
Flow (From)	Travel time from FES 200 to Outfall 1	45,138.160	762.000	2.27
Flow (From)	Post Dev Direct Runoff to Outfall 1	53,546.982	723.000	16.28
Flow (In)	Outfall 1	271,072.166	726.000	18.31

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 25 years

Label: Outfall 1

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
OS 301	Lake D
Channel Flow From Lake B to Outfall 1	FES 100
Travel time from FES 200 to Outfall 1	FES 200
<Catchment to Outflow Node>	Post Dev Direct Runoff to Outfall 1

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 301	424,286.046	738.000	73.11
Flow (From)	Channel Flow From Lake B to Outfall 1	116,286.955	819.000	3.48
Flow (From)	Travel time from FES 200 to Outfall 1	105,087.905	744.000	12.22
Flow (From)	Post Dev Direct Runoff to Outfall 1	133,793.721	723.000	40.66
Flow (In)	Outfall 1	778,817.893	735.000	101.99

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 100 years

Label: Outfall 1

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
OS 301	Lake D
Channel Flow From Lake B to Outfall 1	FES 100
Travel time from FES 200 to Outfall 1	FES 200
<Catchment to Outflow Node>	Post Dev Direct Runoff to Outfall 1

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 301	593,787.954	735.000	125.10
Flow (From)	Channel Flow From Lake B to Outfall 1	173,448.050	759.000	13.47
Flow (From)	Travel time from FES 200 to Outfall 1	142,798.486	735.000	30.53
Flow (From)	Post Dev Direct Runoff to Outfall 1	183,047.501	723.000	55.09
Flow (In)	Outfall 1	1,092,288.313	732.000	192.99

Post Developed Conditions Modeling for Post Tract

Subsection: Planimeter Volume Curve

Return Event: 2 years

Label: Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Pond Volume Calculations

Scale (Planimeter): 1.000 ft/in

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
604.00	0.1	0.000	0.000	0.000	0.000
604.50	7.9	0.026	0.030	218.000	218.000
605.00	26.3	0.087	0.161	1,166.000	1,385.000
605.50	39.9	0.132	0.326	2,364.000	3,749.000
606.00	46.4	0.153	0.427	3,103.000	6,852.000
607.00	53.9	0.178	0.497	7,216.000	14,068.000
608.00	62.0	0.205	0.575	8,344.000	22,412.000
609.00	70.7	0.234	0.658	9,551.000	31,963.000
610.00	79.9	0.264	0.746	10,837.000	42,800.000
611.00	89.6	0.296	0.840	12,201.000	55,001.000
612.00	99.9	0.330	0.940	13,643.000	68,644.000
613.00	110.8	0.366	1.044	15,164.000	83,808.000
614.00	122.1	0.404	1.154	16,763.000	100,571.000

Post Developed Conditions Modeling for Post Tract

Subsection: Planimeter Volume Curve

Return Event: 2 years

Label: Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Pond Volume Calculations

Scale (Planimeter): 1.000 ft/in

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
616.50	301.6	0.997	0.000	0.000	0.000
617.00	313.2	1.036	3.049	22,134.000	22,134.000
618.00	336.8	1.113	3.223	46,794.000	68,928.000
619.00	360.8	1.193	3.458	50,216.000	119,144.000
620.00	385.1	1.273	3.698	53,693.000	172,837.000
621.00	409.9	1.355	3.941	57,228.000	230,066.000
622.00	435.0	1.438	4.189	60,820.000	290,885.000
623.00	460.5	1.522	4.440	64,467.000	355,352.000
624.00	486.4	1.608	4.695	68,171.000	423,523.000

Post Developed Conditions Modeling for Post Tract

Subsection: Planimeter Volume Curve

Return Event: 2 years

Label: Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Pond Volume Calculations

Scale (Planimeter): 1.000 ft/in

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
632.00	233.0	0.770	0.000	0.000	0.000
633.00	252.8	0.836	2.408	34,965.000	34,965.000
634.00	273.0	0.902	2.607	37,847.000	72,811.000
635.00	293.2	0.969	2.807	40,760.000	113,572.000
636.00	314.6	1.040	3.013	43,755.000	157,326.000
637.00	336.0	1.111	3.225	46,831.000	204,157.000
638.00	357.7	1.183	3.439	49,938.000	254,096.000

Post Developed Conditions Modeling for Post Tract

Subsection: Planimeter Volume Curve

Return Event: 2 years

Label: Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Pond Volume Calculations

Scale (Planimeter): 1.000 ft/in

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
590.50	295.9	0.978	0.000	0.000	0.000
591.00	309.5	1.023	3.002	21,793.000	21,793.000
592.00	337.1	1.114	3.205	46,541.000	68,334.000
593.00	365.0	1.207	3.481	50,539.000	118,873.000
594.00	393.4	1.300	3.760	54,592.000	173,465.000
595.00	422.1	1.395	4.043	58,702.000	232,167.000
596.00	451.2	1.492	4.330	62,868.000	295,035.000
597.00	480.7	1.589	4.621	67,091.000	362,126.000

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 02

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Requested Pond Water Surface Elevations	
Minimum (Headwater)	616.50ft
Increment (Headwater)	0.10ft
Maximum (Headwater)	624.00ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Slot as Orifice	Forward	Outlet Culvert	619.50	624.00
Rectangular Weir	Slot in Struc Face	Forward	Outlet Culvert	618.00	619.50
Stand Pipe	Struc Crest	Forward	Outlet Culvert	620.75	624.00
Orifice-Circular	Low Flow Orifice	Forward	Outlet Culvert	616.50	624.00
Culvert-Circular	Outlet Culvert	Forward	TW	613.55	624.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 02

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Outlet Culvert	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	42.00in
Length	89.48ft
Length (Computed Barrel)	89.59ft
Slope (Computed)	0.050ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.500
Kb	0.006
Kr	0.000
Convergence Tolerance	0.00ft
Inlet Control Data	
Equation Form	Form 1
K	0.0098
M	2.0000
C	0.0398
Y	0.6700
T1 ratio (HW/D)	1.135
T2 ratio (HW/D)	1.282
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	617.52ft	T1 Flow	63.00ft ³ /s
T2 Elevation	618.04ft	T2 Flow	72.00ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 02

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Low Flow Orifice	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	616.50ft
Orifice Diameter	4.00in
Orifice Coefficient	0.600

Structure ID: Slot in Struc Face	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	618.00ft
Weir Length	1.00ft
Weir Coefficient	3.00(ft ^{0.5})/s

Structure ID: Slot as Orifice	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	618.00ft
Orifice Area	1.5ft ²
Top Elevation	619.50ft
Datum Elevation	618.75ft
Orifice Coefficient	0.600

Structure ID: Struc Crest	
Structure Type: Stand Pipe	
Number of Openings	1
Elevation	620.75ft
Diameter	60.00in
Orifice Area	19.6ft ²
Orifice Coefficient	0.600
Weir Length	15.71ft
Weir Coefficient	3.00(ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Key, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Downstream Channel

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 02

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
<hr/>	
Catalog Conduit	42 inch
Channel Slope	0.014ft/ft
Channel Invert Elevation	609.00ft
<hr/>	
Convergence Tolerances	
<hr/>	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01ft
Tailwater Tolerance (Maximum)	0.50ft
Headwater Tolerance (Minimum)	0.01ft
Headwater Tolerance (Maximum)	0.50ft
Flow Tolerance (Minimum)	0.001ft ³ /s
Flow Tolerance (Maximum)	10.000ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Requested Pond Water Surface Elevations	
Minimum (Headwater)	632.00ft
Increment (Headwater)	0.10ft
Maximum (Headwater)	638.00ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Slot as Orifice	Forward	Outlet Culvert	634.50	638.00
Rectangular Weir	Slot in Struc Face	Forward	Outlet Culvert	633.50	634.50
Stand Pipe	Struc Crest	Forward	Outlet Culvert	635.50	638.00
Orifice-Circular	Low Flow Orifice	Forward	Outlet Culvert	632.00	638.00
Culvert-Circular	Outlet Culvert	Forward	TW	628.00	638.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Outlet Culvert	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	30.00in
Length	60.00ft
Length (Computed Barrel)	60.10ft
Slope (Computed)	0.058ft/ft
<hr/>	
Outlet Control Data	
Manning's n	0.013
Ke	0.500
Kb	0.009
Kr	0.000
Convergence Tolerance	0.00ft
<hr/>	
Inlet Control Data	
Equation Form	Form 1
K	0.0098
M	2.0000
C	0.0398
Y	0.6700
T1 ratio (HW/D)	1.131
T2 ratio (HW/D)	1.278
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	630.83ft	T1 Flow	27.16ft ³ /s
T2 Elevation	631.19ft	T2 Flow	31.05ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Low Flow Orifice	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	632.00ft
Orifice Diameter	4.00in
Orifice Coefficient	0.600
Structure ID: Slot in Struc Face	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	633.50ft
Weir Length	0.50ft
Weir Coefficient	3.00(ft ^{0.5})/s
Structure ID: Slot as Orifice	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	633.50ft
Orifice Area	0.5ft ²
Top Elevation	634.50ft
Datum Elevation	634.00ft
Orifice Coefficient	0.600
Structure ID: Struc Crest	
Structure Type: Stand Pipe	
Number of Openings	1
Elevation	635.50ft
Diameter	48.00in
Orifice Area	12.6ft ²
Orifice Coefficient	0.600
Weir Length	12.57ft
Weir Coefficient	3.00(ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Key, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Convergence Tolerances

Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01ft
Tailwater Tolerance (Maximum)	0.50ft
Headwater Tolerance (Minimum)	0.01ft
Headwater Tolerance (Maximum)	0.50ft
Flow Tolerance (Minimum)	0.001ft ³ /s
Flow Tolerance (Maximum)	10.000ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
632.00	0.00	(N/A)	0.00
632.10	0.02	(N/A)	0.00
632.20	0.07	(N/A)	0.00
632.30	0.14	(N/A)	0.00
632.40	0.20	(N/A)	0.00
632.50	0.24	(N/A)	0.00
632.60	0.28	(N/A)	0.00
632.70	0.31	(N/A)	0.00
632.80	0.33	(N/A)	0.00
632.90	0.36	(N/A)	0.00
633.00	0.38	(N/A)	0.00
633.10	0.41	(N/A)	0.00
633.20	0.43	(N/A)	0.00
633.30	0.45	(N/A)	0.00
633.40	0.47	(N/A)	0.00
633.50	0.49	(N/A)	0.00
633.60	0.55	(N/A)	0.00
633.70	0.65	(N/A)	0.00
633.80	0.78	(N/A)	0.00
633.90	0.93	(N/A)	0.00
634.00	1.10	(N/A)	0.00
634.10	1.28	(N/A)	0.00
634.20	1.48	(N/A)	0.00
634.30	1.69	(N/A)	0.00
634.40	1.91	(N/A)	0.00
634.50	2.34	(N/A)	0.00
634.60	2.52	(N/A)	0.00
634.70	2.68	(N/A)	0.00
634.80	2.83	(N/A)	0.00
634.90	2.98	(N/A)	0.00
635.00	3.11	(N/A)	0.00
635.10	3.24	(N/A)	0.00
635.20	3.37	(N/A)	0.00
635.30	3.49	(N/A)	0.00
635.40	3.60	(N/A)	0.00
635.50	3.72	(N/A)	0.00
635.60	5.01	(N/A)	0.00
635.70	7.30	(N/A)	0.00
635.80	10.22	(N/A)	0.00
635.90	13.66	(N/A)	0.00
636.00	17.56	(N/A)	0.00
636.10	21.84	(N/A)	0.00

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
636.20	26.50	(N/A)	0.00
636.30	31.48	(N/A)	0.00
636.40	36.78	(N/A)	0.00
636.50	42.32	(N/A)	0.00
636.60	48.09	(N/A)	0.00
636.70	53.81	(N/A)	0.00
636.80	59.19	(N/A)	0.00
636.90	64.38	(N/A)	0.00
637.00	66.92	(N/A)	0.00
637.10	67.38	(N/A)	0.00
637.20	67.82	(N/A)	0.00
637.30	68.27	(N/A)	0.00
637.40	68.71	(N/A)	0.00
637.50	69.15	(N/A)	0.00
637.60	69.58	(N/A)	0.00
637.70	70.02	(N/A)	0.00
637.80	70.45	(N/A)	0.00
637.90	70.88	(N/A)	0.00
638.00	71.31	(N/A)	0.00

Contributing Structures

(no Q: Slot as Orifice,Slot in Struc Face,Struc Crest,Low Flow Orifice,Outlet Culvert) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
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Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)
Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)
Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)
Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 203

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Requested Pond Water Surface Elevations	
Minimum (Headwater)	604.00ft
Increment (Headwater)	0.10ft
Maximum (Headwater)	614.00ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Slot as Orifice	Forward	Outlet Culvert	608.50	614.00
Rectangular Weir	Slot in Struc Face	Forward	Outlet Culvert	606.50	608.50
Stand Pipe	Struc Crest	Forward	Outlet Culvert	610.30	614.00
Orifice-Circular	Low Flow Pipe	Forward	Outlet Culvert	604.00	614.00
Culvert-Circular	Outlet Culvert	Forward	TW	603.50	614.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 203

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Outlet Culvert	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	24.00in
Length	24.88ft
Length (Computed Barrel)	24.88ft
Slope (Computed)	0.010ft/ft
<hr/>	
Outlet Control Data	
Manning's n	0.013
Ke	0.500
Kb	0.012
Kr	0.000
Convergence Tolerance	0.00ft
<hr/>	
Inlet Control Data	
Equation Form	Form 1
K	0.0098
M	2.0000
C	0.0398
Y	0.6700
T1 ratio (HW/D)	1.155
T2 ratio (HW/D)	1.302
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	605.81ft	T1 Flow	15.55ft ³ /s
T2 Elevation	606.10ft	T2 Flow	17.77ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 203

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Low Flow Pipe	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	604.00ft
Orifice Diameter	4.00in
Orifice Coefficient	0.600

Structure ID: Slot in Struc Face	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	606.50ft
Weir Length	0.25ft
Weir Coefficient	3.00(ft ^{0.5})/s

Structure ID: Slot as Orifice	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	606.50ft
Orifice Area	0.5ft ²
Top Elevation	608.50ft
Datum Elevation	607.50ft
Orifice Coefficient	0.600

Structure ID: Struc Crest	
Structure Type: Stand Pipe	
Number of Openings	1
Elevation	610.30ft
Diameter	48.00in
Orifice Area	12.6ft ²
Orifice Coefficient	0.600
Weir Length	12.57ft
Weir Coefficient	3.00(ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Key, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Downstream Channel

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 203

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
<hr/>	
Catalog Conduit	24 inch
Channel Slope	0.023ft/ft
Channel Invert Elevation	603.25ft
<hr/>	
Convergence Tolerances	
<hr/>	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01ft
Tailwater Tolerance (Maximum)	0.50ft
Headwater Tolerance (Minimum)	0.01ft
Headwater Tolerance (Maximum)	0.50ft
Flow Tolerance (Minimum)	0.001ft ³ /s
Flow Tolerance (Maximum)	10.000ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Requested Pond Water Surface Elevations	
Minimum (Headwater)	590.50ft
Increment (Headwater)	0.10ft
Maximum (Headwater)	597.00ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Slot as Orifice	Forward	Outlet Culvert	593.00	597.00
Rectangular Weir	Slot in Struc Face	Forward	Outlet Culvert	592.00	593.00
Stand Pipe	Struc Crest	Forward	Outlet Culvert	593.90	597.00
Orifice-Circular	Low Flow Orifice	Forward	Outlet Culvert	590.50	597.00
Culvert-Circular	Outlet Culvert	Forward	TW	589.03	597.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Outlet Culvert	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	48.00in
Length	53.08ft
Length (Computed Barrel)	53.08ft
Slope (Computed)	0.010ft/ft
<hr/>	
Outlet Control Data	
Manning's n	0.013
Ke	0.500
Kb	0.005
Kr	0.000
Convergence Tolerance	0.00ft
<hr/>	
Inlet Control Data	
Equation Form	Form 1
K	0.0098
M	2.0000
C	0.0398
Y	0.6700
T1 ratio (HW/D)	1.155
T2 ratio (HW/D)	1.302
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	593.65ft	T1 Flow	87.96ft ³ /s
T2 Elevation	594.24ft	T2 Flow	100.53ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Low Flow Orifice	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	590.50ft
Orifice Diameter	4.00in
Orifice Coefficient	0.600
Structure ID: Slot in Struc Face	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	592.00ft
Weir Length	1.25ft
Weir Coefficient	3.00(ft ^{0.5})/s
Structure ID: Slot as Orifice	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	592.00ft
Orifice Area	1.3ft ²
Top Elevation	593.00ft
Datum Elevation	592.50ft
Orifice Coefficient	0.600
Structure ID: Struc Crest	
Structure Type: Stand Pipe	
Number of Openings	1
Elevation	593.90ft
Diameter	60.00in
Orifice Area	19.6ft ²
Orifice Coefficient	0.600
Weir Length	15.71ft
Weir Coefficient	3.00(ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Key, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Convergence Tolerances

Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01ft
Tailwater Tolerance (Maximum)	0.50ft
Headwater Tolerance (Minimum)	0.01ft
Headwater Tolerance (Maximum)	0.50ft
Flow Tolerance (Minimum)	0.001ft ³ /s
Flow Tolerance (Maximum)	10.000ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
590.50	0.00	(N/A)	0.00
590.60	0.02	(N/A)	0.00
590.70	0.07	(N/A)	0.00
590.80	0.14	(N/A)	0.00
590.90	0.20	(N/A)	0.00
591.00	0.24	(N/A)	0.00
591.10	0.28	(N/A)	0.00
591.20	0.30	(N/A)	0.00
591.30	0.33	(N/A)	0.00
591.40	0.36	(N/A)	0.00
591.50	0.38	(N/A)	0.00
591.60	0.41	(N/A)	0.00
591.70	0.43	(N/A)	0.00
591.80	0.45	(N/A)	0.00
591.90	0.46	(N/A)	0.00
592.00	0.48	(N/A)	0.00
592.10	0.62	(N/A)	0.00
592.20	0.86	(N/A)	0.00
592.30	1.15	(N/A)	0.00
592.40	1.50	(N/A)	0.00
592.50	1.89	(N/A)	0.00
592.60	2.33	(N/A)	0.00
592.70	2.80	(N/A)	0.00
592.80	3.30	(N/A)	0.00
592.90	3.83	(N/A)	0.00
593.00	4.90	(N/A)	0.00
593.10	5.32	(N/A)	0.00
593.20	5.70	(N/A)	0.00
593.30	6.06	(N/A)	0.00
593.40	6.40	(N/A)	0.00
593.50	6.72	(N/A)	0.00
593.60	7.03	(N/A)	0.00
593.70	7.32	(N/A)	0.00
593.80	7.60	(N/A)	0.00
593.90	7.87	(N/A)	0.00
594.00	9.63	(N/A)	0.00
594.10	12.59	(N/A)	0.00
594.20	16.36	(N/A)	0.00
594.30	20.73	(N/A)	0.00
594.40	25.68	(N/A)	0.00
594.50	31.11	(N/A)	0.00
594.60	36.98	(N/A)	0.00

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
594.70	43.31	(N/A)	0.00
594.80	50.01	(N/A)	0.00
594.90	56.68	(N/A)	0.00
595.00	63.55	(N/A)	0.00
595.10	70.72	(N/A)	0.00
595.20	78.19	(N/A)	0.00
595.30	85.93	(N/A)	0.00
595.40	93.95	(N/A)	0.00
595.50	102.18	(N/A)	0.00
595.60	110.33	(N/A)	0.00
595.70	118.26	(N/A)	0.00
595.80	125.69	(N/A)	0.00
595.90	129.25	(N/A)	0.00
596.00	130.77	(N/A)	0.00
596.10	132.27	(N/A)	0.00
596.20	133.78	(N/A)	0.00
596.30	135.23	(N/A)	0.00
596.40	136.71	(N/A)	0.00
596.50	138.14	(N/A)	0.00
596.60	139.57	(N/A)	0.00
596.70	141.00	(N/A)	0.00
596.80	142.38	(N/A)	0.00
596.90	143.77	(N/A)	0.00
597.00	145.15	(N/A)	0.00

Contributing Structures

(no Q: Slot as Orifice,Slot in Struc Face,Struc Crest,Low Flow Orifice,Outlet Culvert) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
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Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Slot as Orifice,Struc Crest,Low Flow Orifice,Outlet Culvert (no Q: Slot in Struc Face) Slot as Orifice,Struc Crest,Low Flow Orifice,Outlet Culvert (no Q: Slot in Struc Face) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration	
Infiltration Method (Computed)	No Infiltration
Initial Conditions	
Elevation (Water Surface, Initial)	604.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
604.00	0.00	0.000	0.000	0.00	0.00	0.00
604.10	0.02	5.764	0.002	0.00	0.02	0.08
604.20	0.07	23.632	0.006	0.00	0.07	0.33
604.30	0.14	60.468	0.011	0.00	0.14	0.81
604.40	0.20	123.136	0.018	0.00	0.20	1.57
604.50	0.24	218.499	0.026	0.00	0.24	2.67
604.60	0.28	352.253	0.035	0.00	0.28	4.19
604.70	0.31	529.617	0.046	0.00	0.31	6.19
604.80	0.33	756.744	0.058	0.00	0.33	8.74
604.90	0.36	1,039.787	0.072	0.00	0.36	11.91
605.00	0.38	1,384.901	0.087	0.00	0.38	15.77
605.10	0.41	1,780.951	0.095	0.00	0.41	20.19
605.20	0.43	2,213.790	0.104	0.00	0.43	25.02
605.30	0.45	2,685.052	0.113	0.00	0.45	30.28
605.40	0.47	3,196.371	0.122	0.00	0.47	35.98
605.50	0.48	3,749.381	0.132	0.00	0.48	42.14
605.60	0.50	4,332.817	0.136	0.00	0.50	48.64
605.70	0.52	4,934.510	0.140	0.00	0.52	55.35
605.80	0.54	5,554.742	0.145	0.00	0.54	62.26
605.90	0.55	6,193.796	0.149	0.00	0.55	69.37
606.00	0.57	6,851.951	0.153	0.00	0.57	76.70
606.10	0.58	7,525.004	0.156	0.00	0.58	84.19
606.20	0.60	8,208.618	0.158	0.00	0.60	91.81
606.30	0.61	8,902.876	0.161	0.00	0.61	99.54
606.40	0.63	9,607.859	0.163	0.00	0.63	107.38
606.50	0.64	10,323.650	0.166	0.00	0.64	115.35
606.60	0.68	11,050.331	0.168	0.00	0.68	123.46
606.70	0.74	11,787.985	0.171	0.00	0.74	131.71
606.80	0.80	12,536.692	0.173	0.00	0.80	140.10

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
606.90	0.88	13,296.537	0.176	0.00	0.88	148.62
607.00	0.97	14,067.600	0.178	0.00	0.97	157.28
607.10	1.07	14,849.949	0.181	0.00	1.07	166.07
607.20	1.17	15,643.651	0.184	0.00	1.17	174.99
607.30	1.28	16,448.788	0.186	0.00	1.28	184.04
607.40	1.40	17,265.441	0.189	0.00	1.40	193.23
607.50	1.52	18,093.692	0.191	0.00	1.52	202.56
607.60	1.64	18,933.624	0.194	0.00	1.64	212.01
607.70	1.77	19,785.317	0.197	0.00	1.77	221.61
607.80	1.90	20,648.853	0.200	0.00	1.90	231.33
607.90	2.04	21,524.315	0.202	0.00	2.04	241.20
608.00	2.19	22,411.785	0.205	0.00	2.19	251.21
608.10	2.33	23,311.325	0.208	0.00	2.33	261.35
608.20	2.49	24,223.000	0.211	0.00	2.49	271.63
608.30	2.64	25,146.891	0.214	0.00	2.64	282.05
608.40	2.80	26,083.080	0.216	0.00	2.80	292.61
608.50	3.25	27,031.647	0.219	0.00	3.25	303.60
608.60	3.38	27,992.674	0.222	0.00	3.38	314.41
608.70	3.49	28,966.243	0.225	0.00	3.49	325.34
608.80	3.61	29,952.434	0.228	0.00	3.61	336.42
608.90	3.72	30,951.329	0.231	0.00	3.72	347.62
609.00	3.83	31,963.009	0.234	0.00	3.83	358.97
609.10	3.94	32,987.545	0.237	0.00	3.94	370.47
609.20	4.04	34,025.007	0.240	0.00	4.04	382.09
609.30	4.14	35,075.476	0.243	0.00	4.14	393.86
609.40	4.23	36,139.033	0.246	0.00	4.23	405.78
609.50	4.33	37,215.758	0.249	0.00	4.33	417.84
609.60	4.42	38,305.734	0.252	0.00	4.42	430.04
609.70	4.51	39,409.041	0.255	0.00	4.51	442.39
609.80	4.60	40,525.759	0.258	0.00	4.60	454.88
609.90	4.68	41,655.971	0.261	0.00	4.68	467.53
610.00	4.77	42,799.757	0.264	0.00	4.77	480.33
610.10	4.85	43,957.184	0.267	0.00	4.85	493.27
610.20	4.93	45,128.318	0.270	0.00	4.93	506.36
610.30	5.01	46,313.240	0.274	0.00	5.01	519.61
610.40	6.27	47,512.030	0.277	0.00	6.27	534.18
610.50	8.51	48,724.770	0.280	0.00	8.51	549.89
610.60	11.38	49,951.540	0.283	0.00	11.38	566.40
610.70	14.76	51,192.420	0.286	0.00	14.76	583.57
610.80	18.58	52,447.492	0.290	0.00	18.58	601.33
610.90	22.78	53,716.836	0.293	0.00	22.78	619.63
611.00	27.12	55,000.533	0.296	0.00	27.12	638.24
611.10	31.27	56,298.655	0.300	0.00	31.27	656.81

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
611.20	35.41	57,611.275	0.303	0.00	35.41	675.54
611.30	39.20	58,938.474	0.306	0.00	39.20	694.07
611.40	40.36	60,280.331	0.310	0.00	40.36	710.15
611.50	40.67	61,636.928	0.313	0.00	40.67	725.52
611.60	40.97	63,008.345	0.317	0.00	40.97	741.06
611.70	41.28	64,394.663	0.320	0.00	41.28	756.77
611.80	41.57	65,795.961	0.323	0.00	41.57	772.64
611.90	41.87	67,212.322	0.327	0.00	41.87	788.68
612.00	42.16	68,643.824	0.330	0.00	42.16	804.87
612.10	42.46	70,090.536	0.334	0.00	42.46	821.24
612.20	42.75	71,552.528	0.337	0.00	42.75	837.78
612.30	43.04	73,029.879	0.341	0.00	43.04	854.48
612.40	43.33	74,522.669	0.344	0.00	43.33	871.36
612.50	43.61	76,030.980	0.348	0.00	43.61	888.40
612.60	43.89	77,554.890	0.352	0.00	43.89	905.61
612.70	44.18	79,094.480	0.355	0.00	44.18	923.00
612.80	44.45	80,649.831	0.359	0.00	44.45	940.56
612.90	44.73	82,221.023	0.363	0.00	44.73	958.30
613.00	45.01	83,808.136	0.366	0.00	45.01	976.21
613.10	45.28	85,411.239	0.370	0.00	45.28	994.30
613.20	45.56	87,030.402	0.374	0.00	45.56	1,012.56
613.30	45.83	88,665.705	0.377	0.00	45.83	1,031.00
613.40	46.10	90,317.228	0.381	0.00	46.10	1,049.62
613.50	46.37	91,985.050	0.385	0.00	46.37	1,068.42
613.60	46.63	93,669.253	0.389	0.00	46.63	1,087.40
613.70	46.90	95,369.916	0.392	0.00	46.90	1,106.56
613.80	47.16	97,087.119	0.396	0.00	47.16	1,125.91
613.90	47.42	98,820.942	0.400	0.00	47.42	1,145.43
614.00	47.68	100,571.465	0.404	0.00	47.68	1,165.14

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Basin C (IN)
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	604.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	15.09ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	2.27ft ³ /s	Time to Peak (Flow, Outlet)	759.000min

Elevation (Water Surface, Peak)	608.05ft
Volume (Peak)	22,896.205ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	49,736.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	45,138.000ft ³
Volume (Retained)	4,505.000ft ³
Volume (Unrouted)	-93.000ft ³
Error (Mass Balance)	0.2%

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Basin C (IN)
 Scenario: Post-Development 25 YR 24 Hour

Return Event: 25 years
 Storm Event: 25 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	604.00ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	34.30ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	12.22ft ³ /s	Time to Peak (Flow, Outlet)	741.000min
Peak Conditions			
Elevation (Water Surface, Peak)	610.62ft		
Volume (Peak)	50,256.539ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	115,253.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	105,088.000ft ³		
Volume (Retained)	10,049.000ft ³		
Volume (Unrouted)	-116.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Basin C (IN)
 Scenario: Post-Development 100 YR 24 Hour

Return Event: 100 years
 Storm Event: 100 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	604.00ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	45.40ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	30.53ft ³ /s	Time to Peak (Flow, Outlet)	732.000min
Peak Conditions			
Elevation (Water Surface, Peak)	611.08ft		
Volume (Peak)	56,065.728ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	154,562.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	142,798.000ft ³		
Volume (Retained)	11,632.000ft ³		
Volume (Unrouted)	-132.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration	
Infiltration Method (Computed)	No Infiltration
Initial Conditions	
Elevation (Water Surface, Initial)	616.50ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
616.50	0.00	0.000	0.997	0.00	0.00	0.00
616.60	0.02	4,359.913	1.005	0.00	0.02	48.46
616.70	0.07	8,753.135	1.012	0.00	0.07	97.32
616.80	0.14	13,179.794	1.020	0.00	0.14	146.58
616.90	0.20	17,640.017	1.028	0.00	0.20	196.20
617.00	0.24	22,133.930	1.036	0.00	0.24	246.17
617.10	0.28	26,661.408	1.043	0.00	0.28	296.51
617.20	0.31	31,222.323	1.051	0.00	0.31	347.22
617.30	0.33	35,816.800	1.059	0.00	0.33	398.30
617.40	0.36	40,444.961	1.066	0.00	0.36	449.75
617.50	0.38	45,106.929	1.074	0.00	0.38	501.57
617.60	0.41	49,802.826	1.082	0.00	0.41	553.77
617.70	0.42	54,532.777	1.090	0.00	0.42	606.34
617.80	0.45	59,296.904	1.098	0.00	0.45	659.30
617.90	0.47	64,095.330	1.106	0.00	0.47	712.64
618.00	0.49	68,928.178	1.113	0.00	0.49	766.35
618.10	0.60	73,795.246	1.121	0.00	0.60	820.54
618.20	0.79	78,696.331	1.129	0.00	0.79	875.19
618.30	1.03	83,631.550	1.137	0.00	1.03	930.27
618.40	1.31	88,601.023	1.145	0.00	1.31	985.77
618.50	1.63	93,604.867	1.153	0.00	1.63	1,041.68
618.60	1.98	98,643.201	1.161	0.00	1.98	1,098.01
618.70	2.35	103,716.143	1.169	0.00	2.35	1,154.76
618.80	2.76	108,823.813	1.177	0.00	2.76	1,211.91
618.90	3.19	113,966.328	1.185	0.00	3.19	1,269.48
619.00	3.64	119,143.806	1.193	0.00	3.64	1,327.46
619.10	4.11	124,356.069	1.201	0.00	4.11	1,385.85
619.20	4.61	129,602.934	1.208	0.00	4.61	1,444.64
619.30	5.13	134,884.516	1.216	0.00	5.13	1,503.85

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
619.40	5.66	140,200.928	1.224	0.00	5.66	1,563.45
619.50	6.96	145,552.286	1.233	0.00	6.96	1,624.20
619.60	7.37	150,938.704	1.241	0.00	7.37	1,684.47
619.70	7.76	156,360.297	1.249	0.00	7.76	1,745.10
619.80	8.15	161,817.179	1.257	0.00	8.15	1,806.12
619.90	8.49	167,309.464	1.265	0.00	8.49	1,867.49
620.00	8.84	172,837.267	1.273	0.00	8.84	1,929.26
620.10	9.16	178,400.423	1.281	0.00	9.16	1,991.39
620.20	9.48	183,998.765	1.289	0.00	9.48	2,053.91
620.30	9.78	189,632.405	1.297	0.00	9.78	2,116.81
620.40	10.09	195,301.453	1.306	0.00	10.09	2,180.11
620.50	10.38	201,006.020	1.314	0.00	10.38	2,243.78
620.60	10.65	206,746.217	1.322	0.00	10.65	2,307.83
620.70	10.92	212,522.154	1.330	0.00	10.92	2,372.28
620.75	11.07	215,423.561	1.334	0.00	11.07	2,404.66
620.80	11.72	218,333.944	1.338	0.00	11.72	2,437.66
620.90	14.18	224,181.697	1.347	0.00	14.18	2,505.09
621.00	17.59	230,065.523	1.355	0.00	17.59	2,573.88
621.10	21.69	235,985.267	1.363	0.00	21.69	2,643.75
621.20	26.42	241,940.770	1.371	0.00	26.42	2,714.65
621.30	31.63	247,932.140	1.380	0.00	31.63	2,786.43
621.40	37.35	253,959.484	1.388	0.00	37.35	2,859.12
621.50	43.46	260,022.911	1.396	0.00	43.46	2,932.61
621.60	49.98	266,122.528	1.404	0.00	49.98	3,006.89
621.70	56.89	272,258.443	1.413	0.00	56.89	3,081.98
621.80	64.13	278,430.763	1.421	0.00	64.13	3,157.81
621.90	71.72	284,639.596	1.430	0.00	71.72	3,234.38
622.00	79.63	290,885.049	1.438	0.00	79.63	3,311.69
622.10	87.17	297,166.980	1.446	0.00	87.17	3,389.02
622.20	94.44	303,485.242	1.455	0.00	94.44	3,466.50
622.30	101.82	309,839.939	1.463	0.00	101.82	3,544.48
622.40	109.12	316,231.177	1.471	0.00	109.12	3,622.80
622.50	116.25	322,659.060	1.480	0.00	116.25	3,701.35
622.60	122.80	329,123.693	1.488	0.00	122.80	3,779.73
622.70	126.61	335,625.180	1.497	0.00	126.61	3,855.78
622.80	127.53	342,163.628	1.505	0.00	127.53	3,929.35
622.90	128.44	348,739.139	1.514	0.00	128.44	4,003.32
623.00	129.34	355,351.820	1.522	0.00	129.34	4,077.70
623.10	130.22	362,001.546	1.531	0.00	130.22	4,152.46
623.20	131.13	368,688.194	1.539	0.00	131.13	4,227.67
623.30	132.01	375,411.865	1.548	0.00	132.01	4,303.26
623.40	132.88	382,172.662	1.556	0.00	132.88	4,379.25
623.50	133.75	388,970.686	1.565	0.00	133.75	4,455.65

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
623.60	134.62	395,806.040	1.573	0.00	134.62	4,532.47
623.70	135.48	402,678.827	1.582	0.00	135.48	4,609.69
623.80	136.34	409,589.148	1.591	0.00	136.34	4,687.33
623.90	137.19	416,537.105	1.599	0.00	137.19	4,765.38
624.00	138.03	423,522.802	1.608	0.00	138.03	4,843.84

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake A (IN)
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	616.50ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	75.98ft ³ /s	Time to Peak (Flow, In)	726.000min
Flow (Peak Outlet)	7.38ft ³ /s	Time to Peak (Flow, Outlet)	780.000min

Elevation (Water Surface, Peak)	619.60ft
Volume (Peak)	151,025.885ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	259,434.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	164,805.000ft ³
Volume (Retained)	94,323.000ft ³
Volume (Unrouted)	-306.000ft ³
Error (Mass Balance)	0.1%

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake A (IN)
 Scenario: Post-Development 25 YR 24 Hour

Return Event: 25 years
 Storm Event: 25 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	616.50ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	164.07ft ³ /s	Time to Peak (Flow, In)	726.000min
Flow (Peak Outlet)	67.33ft ³ /s	Time to Peak (Flow, Outlet)	741.000min

Elevation (Water Surface, Peak)	621.84ft
Volume (Peak)	281,045.404ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	579,651.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	466,746.000ft ³
Volume (Retained)	112,348.000ft ³
Volume (Unrouted)	-558.000ft ³
Error (Mass Balance)	0.1%

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake A (IN)
 Scenario: Post-Development 100 YR 24 Hour

Return Event: 100 years
 Storm Event: 100 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	616.50ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	214.51ft ³ /s	Time to Peak (Flow, In)	726.000min
Flow (Peak Outlet)	120.89ft ³ /s	Time to Peak (Flow, Outlet)	735.000min
Peak Conditions			
Elevation (Water Surface, Peak)	622.57ft		
Volume (Peak)	327,233.701ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	769,884.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	648,972.000ft ³		
Volume (Retained)	120,232.000ft ³		
Volume (Unrouted)	-681.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration	
Infiltration Method (Computed)	No Infiltration
Initial Conditions	
Elevation (Water Surface, Initial)	632.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
632.00	0.00	0.000	0.770	0.00	0.00	0.00
632.10	0.02	3,368.793	0.777	0.00	0.02	37.45
632.20	0.07	6,765.651	0.783	0.00	0.07	75.24
632.30	0.14	10,190.690	0.790	0.00	0.14	113.37
632.40	0.20	13,644.025	0.796	0.00	0.20	151.80
632.50	0.24	17,125.774	0.803	0.00	0.24	190.53
632.60	0.28	20,636.054	0.809	0.00	0.28	229.57
632.70	0.31	24,174.979	0.816	0.00	0.31	268.92
632.80	0.33	27,742.668	0.822	0.00	0.33	308.59
632.90	0.36	31,339.236	0.829	0.00	0.36	348.57
633.00	0.38	34,964.799	0.836	0.00	0.38	388.88
633.10	0.41	38,619.188	0.842	0.00	0.41	429.51
633.20	0.43	42,302.229	0.849	0.00	0.43	470.45
633.30	0.45	46,014.035	0.855	0.00	0.45	511.71
633.40	0.47	49,754.717	0.862	0.00	0.47	553.30
633.50	0.49	53,524.387	0.869	0.00	0.49	595.20
633.60	0.55	57,323.157	0.875	0.00	0.55	637.47
633.70	0.65	61,151.139	0.882	0.00	0.65	680.11
633.80	0.78	65,008.445	0.889	0.00	0.78	723.10
633.90	0.93	68,895.186	0.896	0.00	0.93	766.43
634.00	1.10	72,811.475	0.902	0.00	1.10	810.11
634.10	1.28	76,756.912	0.909	0.00	1.28	854.14
634.20	1.48	80,731.091	0.916	0.00	1.48	898.49
634.30	1.69	84,734.117	0.922	0.00	1.69	943.18
634.40	1.91	88,766.095	0.929	0.00	1.91	988.20
634.50	2.34	92,827.128	0.936	0.00	2.34	1,033.76
634.60	2.52	96,917.322	0.942	0.00	2.52	1,079.38
634.70	2.68	101,036.780	0.949	0.00	2.68	1,125.31
634.80	2.83	105,185.606	0.956	0.00	2.83	1,171.56

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
634.90	2.98	109,363.905	0.963	0.00	2.98	1,218.13
635.00	3.11	113,571.782	0.969	0.00	3.11	1,265.02
635.10	3.24	117,809.595	0.976	0.00	3.24	1,312.24
635.20	3.37	122,077.707	0.983	0.00	3.37	1,359.79
635.30	3.49	126,376.224	0.990	0.00	3.49	1,407.67
635.40	3.60	130,705.256	0.997	0.00	3.60	1,455.88
635.50	3.72	135,064.910	1.004	0.00	3.72	1,504.44
635.60	5.01	139,455.294	1.011	0.00	5.01	1,554.52
635.70	7.30	143,876.516	1.019	0.00	7.30	1,605.93
635.80	10.22	148,328.684	1.026	0.00	10.22	1,658.32
635.90	13.66	152,811.905	1.033	0.00	13.66	1,711.57
636.00	17.56	157,326.288	1.040	0.00	17.56	1,765.63
636.10	21.84	161,871.447	1.047	0.00	21.84	1,820.42
636.20	26.50	166,446.991	1.054	0.00	26.50	1,875.91
636.30	31.48	171,053.021	1.061	0.00	31.48	1,932.07
636.40	36.78	175,689.639	1.068	0.00	36.78	1,988.88
636.50	42.32	180,356.945	1.075	0.00	42.32	2,046.29
636.60	48.09	185,055.042	1.082	0.00	48.09	2,104.26
636.70	53.81	189,784.030	1.089	0.00	53.81	2,162.52
636.80	59.19	194,544.010	1.096	0.00	59.19	2,220.79
636.90	64.38	199,335.084	1.103	0.00	64.38	2,279.22
637.00	66.92	204,157.353	1.111	0.00	66.92	2,335.34
637.10	67.38	209,010.698	1.118	0.00	67.38	2,389.72
637.20	67.82	213,895.000	1.125	0.00	67.82	2,444.44
637.30	68.27	218,810.356	1.132	0.00	68.27	2,499.50
637.40	68.71	223,756.866	1.139	0.00	68.71	2,554.90
637.50	69.15	228,734.627	1.146	0.00	69.15	2,610.64
637.60	69.58	233,743.738	1.154	0.00	69.58	2,666.74
637.70	70.02	238,784.298	1.161	0.00	70.02	2,723.18
637.80	70.45	243,856.405	1.168	0.00	70.45	2,779.97
637.90	70.88	248,960.156	1.175	0.00	70.88	2,837.11
638.00	71.31	254,095.652	1.183	0.00	71.31	2,894.59

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake B (IN)
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	632.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	26.16ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	0.73ft ³ /s	Time to Peak (Flow, Outlet)	1,011.000min

Elevation (Water Surface, Peak)	633.76ft
Volume (Peak)	63,505.845ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	87,865.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	28,851.000ft ³
Volume (Retained)	58,904.000ft ³
Volume (Unrouted)	-111.000ft ³
Error (Mass Balance)	0.1%

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake B (IN)
 Scenario: Post-Development 25 YR 24 Hour

Return Event: 25 years
 Storm Event: 25 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	632.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	56.98ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	3.48ft ³ /s	Time to Peak (Flow, Outlet)	813.000min

Elevation (Water Surface, Peak)	635.29ft
Volume (Peak)	126,020.536ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	196,324.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	116,287.000ft ³
Volume (Retained)	79,776.000ft ³
Volume (Unrouted)	-261.000ft ³
Error (Mass Balance)	0.1%

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake B (IN)
 Scenario: Post-Development 100 YR 24 Hour

Return Event: 100 years
 Storm Event: 100 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	632.00ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	74.65ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	13.47ft ³ /s	Time to Peak (Flow, Outlet)	753.000min
Peak Conditions			
Elevation (Water Surface, Peak)	635.89ft		
Volume (Peak)	152,555.950ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	260,758.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	173,448.000ft ³		
Volume (Retained)	86,979.000ft ³		
Volume (Unrouted)	-331.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration	
Infiltration Method (Computed)	No Infiltration
Initial Conditions	
Elevation (Water Surface, Initial)	590.50ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
590.50	0.00	0.000	0.978	0.00	0.00	0.00
590.60	0.02	4,280.238	0.987	0.00	0.02	47.58
590.70	0.07	8,599.472	0.996	0.00	0.07	95.62
590.80	0.14	12,957.876	1.005	0.00	0.14	144.11
590.90	0.20	17,355.630	1.014	0.00	0.20	193.04
591.00	0.24	21,792.908	1.023	0.00	0.24	242.39
591.10	0.28	26,269.458	1.032	0.00	0.28	292.16
591.20	0.30	30,785.021	1.041	0.00	0.30	342.36
591.30	0.33	35,339.766	1.050	0.00	0.33	393.00
591.40	0.36	39,933.863	1.059	0.00	0.36	444.07
591.50	0.38	44,567.481	1.068	0.00	0.38	495.58
591.60	0.41	49,240.788	1.077	0.00	0.41	547.53
591.70	0.43	53,953.955	1.087	0.00	0.43	599.91
591.80	0.45	58,707.150	1.096	0.00	0.45	652.75
591.90	0.46	63,500.543	1.105	0.00	0.46	706.02
592.00	0.48	68,334.303	1.114	0.00	0.48	759.75
592.10	0.62	73,208.049	1.123	0.00	0.62	814.04
592.20	0.86	78,121.394	1.133	0.00	0.86	868.87
592.30	1.15	83,074.499	1.142	0.00	1.15	924.20
592.40	1.50	88,067.523	1.151	0.00	1.50	980.03
592.50	1.89	93,100.627	1.160	0.00	1.89	1,036.35
592.60	2.33	98,173.971	1.169	0.00	2.33	1,093.15
592.70	2.80	103,287.715	1.179	0.00	2.80	1,150.44
592.80	3.30	108,442.020	1.188	0.00	3.30	1,208.21
592.90	3.83	113,637.045	1.197	0.00	3.83	1,266.46
593.00	4.90	118,872.951	1.207	0.00	4.90	1,325.71
593.10	5.32	124,149.400	1.216	0.00	5.32	1,384.75
593.20	5.70	129,466.049	1.225	0.00	5.70	1,444.21
593.30	6.06	134,823.050	1.234	0.00	6.06	1,504.10

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
593.40	6.40	140,220.556	1.244	0.00	6.40	1,564.41
593.50	6.72	145,658.720	1.253	0.00	6.72	1,625.15
593.60	7.03	151,137.693	1.262	0.00	7.03	1,686.34
593.70	7.32	156,657.629	1.272	0.00	7.32	1,747.96
593.80	7.60	162,218.680	1.281	0.00	7.60	1,810.03
593.90	7.87	167,820.999	1.291	0.00	7.87	1,872.55
594.00	9.63	173,464.738	1.300	0.00	9.63	1,937.01
594.10	12.59	179,149.588	1.310	0.00	12.59	2,003.14
594.20	16.36	184,875.234	1.319	0.00	16.36	2,070.53
594.30	20.73	190,641.823	1.329	0.00	20.73	2,138.97
594.40	25.68	196,449.500	1.338	0.00	25.68	2,208.45
594.50	31.11	202,298.411	1.347	0.00	31.11	2,278.87
594.60	36.98	208,188.702	1.357	0.00	36.98	2,350.18
594.70	43.31	214,120.519	1.367	0.00	43.31	2,422.43
594.80	50.01	220,094.007	1.376	0.00	50.01	2,495.50
594.90	56.68	226,109.313	1.386	0.00	56.68	2,569.00
595.00	63.55	232,166.583	1.395	0.00	63.55	2,643.18
595.10	70.72	238,265.527	1.405	0.00	70.72	2,718.11
595.20	78.19	244,405.851	1.414	0.00	78.19	2,793.81
595.30	85.93	250,587.695	1.424	0.00	85.93	2,870.24
595.40	93.95	256,811.199	1.434	0.00	93.95	2,947.41
595.50	102.18	263,076.504	1.443	0.00	102.18	3,025.26
595.60	110.33	269,383.748	1.453	0.00	110.33	3,103.49
595.70	118.26	275,733.073	1.462	0.00	118.26	3,181.96
595.80	125.69	282,124.617	1.472	0.00	125.69	3,260.41
595.90	129.25	288,558.521	1.482	0.00	129.25	3,335.45
596.00	130.77	295,034.924	1.492	0.00	130.77	3,408.94
596.10	132.27	301,553.565	1.501	0.00	132.27	3,482.87
596.20	133.78	308,114.177	1.511	0.00	133.78	3,557.27
596.30	135.23	314,716.895	1.521	0.00	135.23	3,632.09
596.40	136.71	321,361.853	1.530	0.00	136.71	3,707.40
596.50	138.14	328,049.187	1.540	0.00	138.14	3,783.13
596.60	139.57	334,779.031	1.550	0.00	139.57	3,859.34
596.70	141.00	341,551.520	1.560	0.00	141.00	3,936.02
596.80	142.38	348,366.788	1.569	0.00	142.38	4,013.13
596.90	143.77	355,224.970	1.579	0.00	143.77	4,090.71
597.00	145.15	362,126.200	1.589	0.00	145.15	4,168.77

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake D (IN)
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	590.50ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	70.63ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	6.03ft ³ /s	Time to Peak (Flow, Outlet)	786.000min
Peak Conditions			
Elevation (Water Surface, Peak)	593.29ft		
Volume (Peak)	134,372.211ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	231,393.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	143,843.000ft ³		
Volume (Retained)	87,285.000ft ³		
Volume (Unrouted)	-265.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake D (IN)
 Scenario: Post-Development 25 YR 24 Hour

Return Event: 25 years
 Storm Event: 25 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	590.50ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	156.87ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	73.11ft ³ /s	Time to Peak (Flow, Outlet)	738.000min
Peak Conditions			
Elevation (Water Surface, Peak)	595.13ft		
Volume (Peak)	240,223.050ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	526,477.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	424,286.000ft ³		
Volume (Retained)	101,705.000ft ³		
Volume (Unrouted)	-485.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake D (IN)
 Scenario: Post-Development 100 YR 24 Hour

Return Event: 100 years
 Storm Event: 100 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	590.50ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	206.49ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	125.10ft ³ /s	Time to Peak (Flow, Outlet)	735.000min
Peak Conditions			
Elevation (Water Surface, Peak)	595.79ft		
Volume (Peak)	281,617.040ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	702,627.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	593,788.000ft ³		
Volume (Retained)	108,243.000ft ³		
Volume (Unrouted)	-596.000ft ³		
Error (Mass Balance)	0.1%		

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Pond V8i Routing of 100 Year,
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Post Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Post Dev DA to Lake A	Post-Development 2 YR 24 Hour	2	259,434.000	726.000	75.98
Post Dev DA to Lake A	Post-Development 25 YR 24 Hour	25	579,651.000	726.000	164.07
Post Dev DA to Lake A	Post-Development 100 YR 24 Hour	100	769,884.000	726.000	214.51
Post Dev DA to Lake B	Post-Development 2 YR 24 Hour	2	87,865.000	723.000	26.16
Post Dev DA to Lake B	Post-Development 25 YR 24 Hour	25	196,324.000	723.000	56.98
Post Dev DA to Lake B	Post-Development 100 YR 24 Hour	100	260,758.000	723.000	74.65
Post Dev DA to Lake D	Post-Development 2 YR 24 Hour	2	231,393.000	723.000	70.63
Post Dev DA to Lake D	Post-Development 25 YR 24 Hour	25	526,477.000	723.000	156.87
Post Dev DA to Lake D	Post-Development 100 YR 24 Hour	100	702,627.000	723.000	206.49
Post Dev DA to Basin C	Post-Development 2 YR 24 Hour	2	49,736.000	723.000	15.09
Post Dev DA to Basin C	Post-Development 25 YR 24 Hour	25	115,253.000	723.000	34.30
Post Dev DA to Basin C	Post-Development 100 YR 24 Hour	100	154,562.000	723.000	45.40
Post Dev Direct Runoff to Outfall 1	Post-Development 2 YR 24 Hour	2	53,547.000	723.000	16.28
Post Dev Direct Runoff to Outfall 1	Post-Development 25 YR 24 Hour	25	133,794.000	723.000	40.66
Post Dev Direct Runoff to Outfall 1	Post-Development 100 YR 24 Hour	100	183,048.000	723.000	55.09

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Outfall 1	Post-Development 2 YR 24 Hour	2	271,072.000	726.000	18.31
Outfall 1	Post-Development 25 YR 24 Hour	25	778,818.000	735.000	101.99
Outfall 1	Post-Development 100 YR 24 Hour	100	1,092,288.000	732.000	192.99
Dove Meadows Outfall	Post-Development 2 YR 24 Hour	2	164,805.000	780.000	7.38
Dove Meadows Outfall	Post-Development 25 YR 24 Hour	25	466,746.000	741.000	67.33

Post Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)
Dove Meadows Outfall	Post-Development 100 YR 24 Hour	100	648,972.000	735.000	120.89
FES 100	Post-Development 2 YR 24 Hour	2	28,851.000	1,011.000	0.73
FES 100	Post-Development 25 YR 24 Hour	25	116,287.000	813.000	3.48
FES 100	Post-Development 100 YR 24 Hour	100	173,448.000	753.000	13.47
FES 200	Post-Development 2 YR 24 Hour	2	45,138.000	759.000	2.27
FES 200	Post-Development 25 YR 24 Hour	25	105,088.000	741.000	12.22
FES 200	Post-Development 100 YR 24 Hour	100	142,798.000	732.000	30.53

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
Lake A (IN)	Post-Development 2 YR 24 Hour	2	259,434.000	726.000	75.98	(N/A)	(N/A)
Lake A (OUT)	Post-Development 2 YR 24 Hour	2	164,805.000	780.000	7.38	619.60	151,026.000
Lake A (IN)	Post-Development 25 YR 24 Hour	25	579,651.000	726.000	164.07	(N/A)	(N/A)
Lake A (OUT)	Post-Development 25 YR 24 Hour	25	466,746.000	741.000	67.33	621.84	281,045.000
Lake A (IN)	Post-Development 100 YR 24 Hour	100	769,884.000	726.000	214.51	(N/A)	(N/A)
Lake A (OUT)	Post-Development 100 YR 24 Hour	100	648,972.000	735.000	120.89	622.57	327,234.000
Lake B (IN)	Post-Development 2 YR 24 Hour	2	87,865.000	723.000	26.16	(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
Lake B (OUT)	Post-Development 2 YR 24 Hour	2	28,851.000	1,011.000	0.73	633.76	63,506.000
Lake B (IN)	Post-Development 25 YR 24 Hour	25	196,324.000	723.000	56.98	(N/A)	(N/A)
Lake B (OUT)	Post-Development 25 YR 24 Hour	25	116,287.000	813.000	3.48	635.29	126,021.000
Lake B (IN)	Post-Development 100 YR 24 Hour	100	260,758.000	723.000	74.65	(N/A)	(N/A)
Lake B (OUT)	Post-Development 100 YR 24 Hour	100	173,448.000	753.000	13.47	635.89	152,556.000
Basin C (IN)	Post-Development 2 YR 24 Hour	2	49,736.000	723.000	15.09	(N/A)	(N/A)
Basin C (OUT)	Post-Development 2 YR 24 Hour	2	45,138.000	759.000	2.27	608.05	22,896.000
Basin C (IN)	Post-Development 25 YR 24 Hour	25	115,253.000	723.000	34.30	(N/A)	(N/A)
Basin C (OUT)	Post-Development 25 YR 24 Hour	25	105,088.000	741.000	12.22	610.62	50,257.000
Basin C (IN)	Post-Development 100 YR 24 Hour	100	154,562.000	723.000	45.40	(N/A)	(N/A)
Basin C (OUT)	Post-Development 100 YR 24 Hour	100	142,798.000	732.000	30.53	611.08	56,066.000
Lake D (IN)	Post-Development 2 YR 24 Hour	2	231,393.000	723.000	70.63	(N/A)	(N/A)
Lake D (OUT)	Post-Development 2 YR 24 Hour	2	143,843.000	786.000	6.03	593.29	134,372.000

Post Developed Conditions Modeling for Post Tract

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft ³)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft ³)
Lake D (IN)	Post-Development 25 YR 24 Hour	25	526,477.000	723.000	156.87	(N/A)	(N/A)
Lake D (OUT)	Post-Development 25 YR 24 Hour	25	424,286.000	738.000	73.11	595.13	240,223.000
Lake D (IN)	Post-Development 100 YR 24 Hour	100	702,627.000	723.000	206.49	(N/A)	(N/A)
Lake D (OUT)	Post-Development 100 YR 24 Hour	100	593,788.000	735.000	125.10	595.79	281,617.000

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	14.499min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	201.00ft
Is Paved?	False
Slope	0.033ft/ft
Average Velocity	2.93ft/s
Segment Time of Concentration	1.143min

Segment #3: User Defined Tc

Time of Concentration	2.630min
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Time of Concentration (Composite)

Time of Concentration (Composite)	18.272min
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Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== User Defined

Tc = Value entered by user
Where: Tc= Time of concentration, hours

==== SCS Channel Flow

Tc = $R = Qa / Wp$
 $V = (1.49 * (R^{2/3}) * (Sf^{-0.5})) / n$
 $(Lf / V) / 3600$
Where: R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (Sf^{0.5})$
Paved Surface:
 $V = 20.3282 * (Sf^{0.5})$
 $(Lf / V) / 3600$
Where: V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	14.499min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	166.00ft
Is Paved?	False
Slope	0.020ft/ft
Average Velocity	2.28ft/s
Segment Time of Concentration	1.213min

Segment #3: User Defined Tc

Time of Concentration	4.230min
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Time of Concentration (Composite)

Time of Concentration (Composite)	19.941min
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Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== User Defined

Tc = Value entered by user
Where: Tc= Time of concentration, hours

==== SCS Channel Flow

Tc = $R = Qa / Wp$
 $V = (1.49 * (R^{2/3}) * (Sf^{-0.5})) / n$

Where: $(Lf / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (Sf^{0.5})$

Paved Surface:
 $V = 20.3282 * (Sf^{0.5})$

Where: $(Lf / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	14.499min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	278.00ft
Is Paved?	False
Slope	0.020ft/ft
Average Velocity	2.28ft/s
Segment Time of Concentration	2.031min

Segment #3: User Defined Tc

Time of Concentration	2.200min
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Time of Concentration (Composite)

Time of Concentration (Composite)	18.729min
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Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== User Defined

Tc = Value entered by user
Where: Tc= Time of concentration, hours

==== SCS Channel Flow

Tc = $R = Qa / Wp$
 $V = (1.49 * (R^{2/3}) * (Sf^{*-0.5})) / n$

Where: $(Lf / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (Sf^{*0.5})$

Paved Surface:
 $V = 20.3282 * (Sf^{*0.5})$

Where: $(Lf / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Time of Concentration Results

Segment #1: TR-55 Sheet Flow

Hydraulic Length	100.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	14.499min

Segment #2: TR-55 Shallow Concentrated Flow

Hydraulic Length	120.00ft
Is Paved?	False
Slope	0.022ft/ft
Average Velocity	2.39ft/s
Segment Time of Concentration	0.836min

Segment #3: User Defined Tc

Time of Concentration	2.700min
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Time of Concentration (Composite)

Time of Concentration (Composite)	18.034min
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Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== User Defined

Tc = Value entered by user
Where: Tc= Time of concentration, hours

==== SCS Channel Flow

Tc = $R = Qa / Wp$
 $V = (1.49 * (R^{2/3}) * (Sf^{-0.5})) / n$

Where: $(Lf / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

Tc = Unpaved surface:
 $V = 16.1345 * (Sf^{0.5})$

Paved Surface:
 $V = 20.3282 * (Sf^{0.5})$

Where: $(Lf / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations
 Label: Post Dev Direct Runoff to Outfall 1
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Time of Concentration Results

Segment #1: TR-55 Sheet Flow	
Hydraulic Length	76.00ft
Manning's n	0.240
Slope	0.020ft/ft
2 Year 24 Hour Depth	3.10in
Average Velocity	0.11ft/s
Segment Time of Concentration	11.641min
Segment #2: TR-55 Shallow Concentrated Flow	
Hydraulic Length	220.00ft
Is Paved?	False
Slope	0.033ft/ft
Average Velocity	2.93ft/s
Segment Time of Concentration	1.251min
Segment #3: TR-55 Channel Flow	
Flow Area	18.3ft ²
Hydraulic Length	1,747.00ft
Manning's n	0.035
Slope	0.016ft/ft
Wetted Perimeter	17.70ft
Average Velocity	5.50ft/s
Segment Time of Concentration	5.298min
Time of Concentration (Composite)	
Time of Concentration (Composite)	18.190min

Post Developed Conditions Modeling for Post Tract

Subsection: Time of Concentration Calculations

Return Event: 2 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

==== SCS Channel Flow

$$T_c = \frac{R = Q_a / W_p}{V = (1.49 * (R^{2/3}) * (S_f^{-0.5})) / n}$$

Where: $(L_f / V) / 3600$
R= Hydraulic radius
Aq= Flow area, square feet
Wp= Wetted perimeter, feet
V= Velocity, ft/sec
Sf= Slope, ft/ft
n= Manning's n
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Shallow Concentration Flow

$$T_c = \frac{\text{Unpaved surface:}}{V = 16.1345 * (S_f^{0.5})}$$

$$\text{Paved Surface:}$$
$$V = 20.3282 * (S_f^{0.5})$$

Where: $(L_f / V) / 3600$
V= Velocity, ft/sec
Sf= Slope, ft/ft
Tc= Time of concentration, hours
Lf= Flow length, feet

==== SCS TR-55 Sheet Flow

$$T_c = \frac{(0.007 * ((n * L_f)^{0.8}))}{((P^{0.5}) * (S_f^{0.4}))}$$

Where: Tc= Time of concentration, hours
n= Manning's n
Lf= Flow length, feet
P= 2yr, 24hr Rain depth, inches
Sf= Slope, %

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	3.050	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	4.480	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	7.530	(N/A)	(N/A)	87.291

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	17.740	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	18.290	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	36.030	(N/A)	(N/A)	88.863

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	6.210	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	6.000	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	12.210	(N/A)	(N/A)	89.155

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	15.710	0.0	0.0	98.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	17.840	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	33.550	(N/A)	(N/A)	88.429

Post Developed Conditions Modeling for Post Tract

Subsection: Runoff CN-Area

Return Event: 2 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Runoff Curve Number Data

Soil/Surface Description	CN	Area (acres)	C (%)	UC (%)	Adjusted CN
Impervious Areas - Paved; curbs and storm sewers - Soil D	98.000	2.140	0.0	0.0	98.000
Woods - good - Soil D	77.000	2.900	0.0	0.0	77.000
Open space (Lawns,parks etc.) - Good condition; grass cover > 75% - Soil D	80.000	4.660	0.0	0.0	80.000
COMPOSITE AREA & WEIGHTED CN --->	(N/A)	9.700	(N/A)	(N/A)	83.074

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	18.272min
Area (User Defined)	7.530acres
<hr/>	
Computational Time Increment	2.436min
Time to Peak (Computed)	723.553min
Flow (Peak, Computed)	15.28ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	15.09ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	87.000
Area (User Defined)	7.530acres
Maximum Retention (Pervious)	1.49in
Maximum Retention (Pervious, 20 percent)	0.30in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.83in
Runoff Volume (Pervious)	49,931.751ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	49,736.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.272min
Computational Time Increment	2.436min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	28.02ft ³ /s
Unit peak time, Tp	12.181min
Unit receding limb, Tr	48.724min
Total unit time, Tb	60.905min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Basin C

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	18.272min
Area (User Defined)	7.530acres
<hr/>	
Computational Time Increment	2.436min
Time to Peak (Computed)	723.553min
Flow (Peak, Computed)	34.61ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	34.30ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	87.000
Area (User Defined)	7.530acres
Maximum Retention (Pervious)	1.49in
Maximum Retention (Pervious, 20 percent)	0.30in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.23in
Runoff Volume (Pervious)	115,643.163ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	115,253.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.272min
Computational Time Increment	2.436min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Basin C

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	28.02ft ³ /s
Unit peak time, Tp	12.181min
Unit receding limb, Tr	48.724min
Total unit time, Tb	60.905min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Basin C

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	18.272min
Area (User Defined)	7.530acres
<hr/>	
Computational Time Increment	2.436min
Time to Peak (Computed)	723.553min
Flow (Peak, Computed)	45.78ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	45.40ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	87.000
Area (User Defined)	7.530acres
Maximum Retention (Pervious)	1.49in
Maximum Retention (Pervious, 20 percent)	0.30in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.67in
Runoff Volume (Pervious)	155,063.037ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	154,562.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.272min
Computational Time Increment	2.436min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Basin C

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	28.02ft ³ /s
Unit peak time, Tp	12.181min
Unit receding limb, Tr	48.724min
Total unit time, Tb	60.905min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	19.941min
Area (User Defined)	36.030acres
<hr/>	
Computational Time Increment	2.659min
Time to Peak (Computed)	725.856min
Flow (Peak, Computed)	76.23ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	726.000min
Flow (Peak Interpolated Output)	75.98ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	36.030acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.99in
Runoff Volume (Pervious)	260,333.694ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	259,434.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	19.941min
Computational Time Increment	2.659min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	122.83ft ³ /s
Unit peak time, Tp	13.294min
Unit receding limb, Tr	53.176min
Total unit time, Tb	66.470min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake A

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	19.941min
Area (User Defined)	36.030acres
<hr/>	
Computational Time Increment	2.659min
Time to Peak (Computed)	725.856min
Flow (Peak, Computed)	164.69ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	726.000min
Flow (Peak Interpolated Output)	164.07ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	36.030acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.45in
Runoff Volume (Pervious)	581,394.450ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	579,651.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	19.941min
Computational Time Increment	2.659min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake A

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	122.83ft ³ /s
Unit peak time, Tp	13.294min
Unit receding limb, Tr	53.176min
Total unit time, Tb	66.470min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake A

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	19.941min
Area (User Defined)	36.030acres
<hr/>	
Computational Time Increment	2.659min
Time to Peak (Computed)	725.856min
Flow (Peak, Computed)	215.34ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	726.000min
Flow (Peak Interpolated Output)	214.51ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	36.030acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.90in
Runoff Volume (Pervious)	772,108.458ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	769,884.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	19.941min
Computational Time Increment	2.659min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake A

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	122.83ft ³ /s
Unit peak time, Tp	13.294min
Unit receding limb, Tr	53.176min
Total unit time, Tb	66.470min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	18.729min
Area (User Defined)	12.210acres
<hr/>	
Computational Time Increment	2.497min
Time to Peak (Computed)	724.195min
Flow (Peak, Computed)	26.66ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	26.16ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	12.210acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.99in
Runoff Volume (Pervious)	88,222.985ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	87,865.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.729min
Computational Time Increment	2.497min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	44.32ft ³ /s
Unit peak time, Tp	12.486min
Unit receding limb, Tr	49.944min
Total unit time, Tb	62.431min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake B

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	18.729min
Area (User Defined)	12.210acres
<hr/>	
Computational Time Increment	2.497min
Time to Peak (Computed)	724.195min
Flow (Peak, Computed)	57.76ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	56.98ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	12.210acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.45in
Runoff Volume (Pervious)	197,025.468ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	196,324.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.729min
Computational Time Increment	2.497min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake B

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	44.32ft ³ /s
Unit peak time, Tp	12.486min
Unit receding limb, Tr	49.944min
Total unit time, Tb	62.431min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake B

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	18.729min
Area (User Defined)	12.210acres
<hr/>	
Computational Time Increment	2.497min
Time to Peak (Computed)	724.195min
Flow (Peak, Computed)	75.58ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	74.65ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	89.000
Area (User Defined)	12.210acres
Maximum Retention (Pervious)	1.24in
Maximum Retention (Pervious, 20 percent)	0.25in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.90in
Runoff Volume (Pervious)	261,655.377ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	260,758.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.729min
Computational Time Increment	2.497min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake B

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	44.32ft ³ /s
Unit peak time, Tp	12.486min
Unit receding limb, Tr	49.944min
Total unit time, Tb	62.431min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	18.034min
Area (User Defined)	33.550acres
<hr/>	
Computational Time Increment	2.405min
Time to Peak (Computed)	723.777min
Flow (Peak, Computed)	71.58ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	70.63ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	88.000
Area (User Defined)	33.550acres
Maximum Retention (Pervious)	1.36in
Maximum Retention (Pervious, 20 percent)	0.27in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.91in
Runoff Volume (Pervious)	232,291.017ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	231,393.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.034min
Computational Time Increment	2.405min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev DA to Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	126.47ft ³ /s
Unit peak time, Tp	12.023min
Unit receding limb, Tr	48.091min
Total unit time, Tb	60.114min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake D

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	18.034min
Area (User Defined)	33.550acres
<hr/>	
Computational Time Increment	2.405min
Time to Peak (Computed)	723.777min
Flow (Peak, Computed)	158.36ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	156.87ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	88.000
Area (User Defined)	33.550acres
Maximum Retention (Pervious)	1.36in
Maximum Retention (Pervious, 20 percent)	0.27in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.34in
Runoff Volume (Pervious)	528,250.613ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	526,477.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.034min
Computational Time Increment	2.405min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev DA to Lake D

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	126.47ft ³ /s
Unit peak time, Tp	12.023min
Unit receding limb, Tr	48.091min
Total unit time, Tb	60.114min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake D

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	18.034min
Area (User Defined)	33.550acres
<hr/>	
Computational Time Increment	2.405min
Time to Peak (Computed)	723.777min
Flow (Peak, Computed)	208.25ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	206.49ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	88.000
Area (User Defined)	33.550acres
Maximum Retention (Pervious)	1.36in
Maximum Retention (Pervious, 20 percent)	0.27in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.79in
Runoff Volume (Pervious)	704,898.899ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	702,627.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.034min
Computational Time Increment	2.405min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev DA to Lake D

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	126.47ft ³ /s
Unit peak time, Tp	12.023min
Unit receding limb, Tr	48.091min
Total unit time, Tb	60.114min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Storm Event	2 Year, 24 Hour Storm
Return Event	2years
Duration	1,440.000min
Depth	3.10in
Time of Concentration (Composite)	18.190min
Area (User Defined)	9.700acres
<hr/>	
Computational Time Increment	2.425min
Time to Peak (Computed)	725.156min
Flow (Peak, Computed)	16.58ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	16.28ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	83.000
Area (User Defined)	9.700acres
Maximum Retention (Pervious)	2.05in
Maximum Retention (Pervious, 20 percent)	0.41in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.53in
Runoff Volume (Pervious)	53,784.972ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	53,547.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.190min
Computational Time Increment	2.425min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 2 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	36.25ft ³ /s
Unit peak time, Tp	12.126min
Unit receding limb, Tr	48.505min
Total unit time, Tb	60.632min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Storm Event	25 Year, 24 Hour Storm
Return Event	25years
Duration	1,440.000min
Depth	5.70in
Time of Concentration (Composite)	18.190min
Area (User Defined)	9.700acres
<hr/>	
Computational Time Increment	2.425min
Time to Peak (Computed)	725.156min
Flow (Peak, Computed)	40.80ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	40.66ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	83.000
Area (User Defined)	9.700acres
Maximum Retention (Pervious)	2.05in
Maximum Retention (Pervious, 20 percent)	0.41in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.81in
Runoff Volume (Pervious)	134,290.266ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	133,794.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.190min
Computational Time Increment	2.425min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 25 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	36.25ft ³ /s
Unit peak time, Tp	12.126min
Unit receding limb, Tr	48.505min
Total unit time, Tb	60.632min

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Storm Event	100 Year, 24 Hour Storm
Return Event	100years
Duration	1,440.000min
Depth	7.20in
Time of Concentration (Composite)	18.190min
Area (User Defined)	9.700acres
<hr/>	
Computational Time Increment	2.425min
Time to Peak (Computed)	722.731min
Flow (Peak, Computed)	55.09ft ³ /s
Output Increment	3.000min
Time to Flow (Peak Interpolated Output)	723.000min
Flow (Peak Interpolated Output)	55.09ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	83.000
Area (User Defined)	9.700acres
Maximum Retention (Pervious)	2.05in
Maximum Retention (Pervious, 20 percent)	0.41in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.22in
Runoff Volume (Pervious)	183,691.302ft ³
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	183,048.000ft ³
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	18.190min
Computational Time Increment	2.425min
Unit Hydrograph Shape Factor	483.432
K Factor	0.749

Post Developed Conditions Modeling for Post Tract

Subsection: Unit Hydrograph Summary

Return Event: 100 years

Label: Post Dev Direct Runoff to Outfall 1

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

SCS Unit Hydrograph Parameters	
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	36.25ft ³ /s
Unit peak time, Tp	12.126min
Unit receding limb, Tr	48.505min
Total unit time, Tb	60.632min

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 2 years

Label: Dove Meadows Outfall

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

Upstream Link	Upstream Node
OS 2	Lake A

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 2	164,805.414	780.000	7.38
Flow (In)	Dove Meadows Outfall	164,805.414	780.000	7.38

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 25 years

Label: Dove Meadows Outfall

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

	Upstream Link	Upstream Node
OS 2		Lake A

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 2	466,746.073	741.000	67.33
Flow (In)	Dove Meadows Outfall	466,746.073	741.000	67.33

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 100 years

Label: Dove Meadows Outfall

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Summary for Hydrograph Addition at 'Dove Meadows Outfall'

	Upstream Link	Upstream Node
OS 2		Lake A

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 2	648,971.643	735.000	120.89
Flow (In)	Dove Meadows Outfall	648,971.643	735.000	120.89

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 2 years

Label: Outfall 1

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
OS 301	Lake D
Channel Flow From Lake B to Outfall 1	FES 100
Travel time from FES 200 to Outfall 1	FES 200
<Catchment to Outflow Node>	Post Dev Direct Runoff to Outfall 1

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 301	143,843.108	786.000	6.03
Flow (From)	Channel Flow From Lake B to Outfall 1	28,850.605	1,017.000	0.73
Flow (From)	Travel time from FES 200 to Outfall 1	45,138.160	762.000	2.27
Flow (From)	Post Dev Direct Runoff to Outfall 1	53,546.982	723.000	16.28
Flow (In)	Outfall 1	271,072.166	726.000	18.31

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 25 years

Label: Outfall 1

Storm Event: 25 Year, 24 Hour Storm

Scenario: Post-Development 25 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
OS 301	Lake D
Channel Flow From Lake B to Outfall 1	FES 100
Travel time from FES 200 to Outfall 1	FES 200
<Catchment to Outflow Node>	Post Dev Direct Runoff to Outfall 1

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 301	424,286.046	738.000	73.11
Flow (From)	Channel Flow From Lake B to Outfall 1	116,286.955	819.000	3.48
Flow (From)	Travel time from FES 200 to Outfall 1	105,087.905	744.000	12.22
Flow (From)	Post Dev Direct Runoff to Outfall 1	133,793.721	723.000	40.66
Flow (In)	Outfall 1	778,817.893	735.000	101.99

Post Developed Conditions Modeling for Post Tract

Subsection: Addition Summary

Return Event: 100 years

Label: Outfall 1

Storm Event: 100 Year, 24 Hour Storm

Scenario: Post-Development 100 YR 24 Hour

Summary for Hydrograph Addition at 'Outfall 1'

Upstream Link	Upstream Node
OS 301	Lake D
Channel Flow From Lake B to Outfall 1	FES 100
Travel time from FES 200 to Outfall 1	FES 200
<Catchment to Outflow Node>	Post Dev Direct Runoff to Outfall 1

Node Inflows

Inflow Type	Element	Volume (ft ³)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	OS 301	593,787.954	735.000	125.10
Flow (From)	Channel Flow From Lake B to Outfall 1	173,448.050	759.000	13.47
Flow (From)	Travel time from FES 200 to Outfall 1	142,798.486	735.000	30.53
Flow (From)	Post Dev Direct Runoff to Outfall 1	183,047.501	723.000	55.09
Flow (In)	Outfall 1	1,092,288.313	732.000	192.99

Post Developed Conditions Modeling for Post Tract

Subsection: Planimeter Volume Curve

Return Event: 2 years

Label: Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Pond Volume Calculations

Scale (Planimeter): 1.000 ft/in

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
604.00	0.1	0.000	0.000	0.000	0.000
604.50	7.9	0.026	0.030	218.000	218.000
605.00	26.3	0.087	0.161	1,166.000	1,385.000
605.50	39.9	0.132	0.326	2,364.000	3,749.000
606.00	46.4	0.153	0.427	3,103.000	6,852.000
607.00	53.9	0.178	0.497	7,216.000	14,068.000
608.00	62.0	0.205	0.575	8,344.000	22,412.000
609.00	70.7	0.234	0.658	9,551.000	31,963.000
610.00	79.9	0.264	0.746	10,837.000	42,800.000
611.00	89.6	0.296	0.840	12,201.000	55,001.000
612.00	99.9	0.330	0.940	13,643.000	68,644.000
613.00	110.8	0.366	1.044	15,164.000	83,808.000
614.00	122.1	0.404	1.154	16,763.000	100,571.000

Post Developed Conditions Modeling for Post Tract

Subsection: Planimeter Volume Curve

Return Event: 2 years

Label: Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Pond Volume Calculations

Scale (Planimeter): 1.000 ft/in

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
616.50	301.6	0.997	0.000	0.000	0.000
617.00	313.2	1.036	3.049	22,134.000	22,134.000
618.00	336.8	1.113	3.223	46,794.000	68,928.000
619.00	360.8	1.193	3.458	50,216.000	119,144.000
620.00	385.1	1.273	3.698	53,693.000	172,837.000
621.00	409.9	1.355	3.941	57,228.000	230,066.000
622.00	435.0	1.438	4.189	60,820.000	290,885.000
623.00	460.5	1.522	4.440	64,467.000	355,352.000
624.00	486.4	1.608	4.695	68,171.000	423,523.000

Post Developed Conditions Modeling for Post Tract

Subsection: Planimeter Volume Curve

Return Event: 2 years

Label: Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Pond Volume Calculations

Scale (Planimeter): 1.000 ft/in

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
632.00	233.0	0.770	0.000	0.000	0.000
633.00	252.8	0.836	2.408	34,965.000	34,965.000
634.00	273.0	0.902	2.607	37,847.000	72,811.000
635.00	293.2	0.969	2.807	40,760.000	113,572.000
636.00	314.6	1.040	3.013	43,755.000	157,326.000
637.00	336.0	1.111	3.225	46,831.000	204,157.000
638.00	357.7	1.183	3.439	49,938.000	254,096.000

Post Developed Conditions Modeling for Post Tract

Subsection: Planimeter Volume Curve

Return Event: 2 years

Label: Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Pond Volume Calculations

Scale (Planimeter): 1.000 ft/in

Elevation (ft)	Planimeter (ft ²)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ft ³)	Volume (Total) (ft ³)
590.50	295.9	0.978	0.000	0.000	0.000
591.00	309.5	1.023	3.002	21,793.000	21,793.000
592.00	337.1	1.114	3.205	46,541.000	68,334.000
593.00	365.0	1.207	3.481	50,539.000	118,873.000
594.00	393.4	1.300	3.760	54,592.000	173,465.000
595.00	422.1	1.395	4.043	58,702.000	232,167.000
596.00	451.2	1.492	4.330	62,868.000	295,035.000
597.00	480.7	1.589	4.621	67,091.000	362,126.000

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 02

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Requested Pond Water Surface Elevations	
Minimum (Headwater)	616.50ft
Increment (Headwater)	0.10ft
Maximum (Headwater)	624.00ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Slot as Orifice	Forward	Outlet Culvert	619.50	624.00
Rectangular Weir	Slot in Struc Face	Forward	Outlet Culvert	618.00	619.50
Stand Pipe	Struc Crest	Forward	Outlet Culvert	620.75	624.00
Orifice-Circular	Low Flow Orifice	Forward	Outlet Culvert	616.50	624.00
Culvert-Circular	Outlet Culvert	Forward	TW	613.55	624.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 02

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Outlet Culvert	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	42.00in
Length	89.48ft
Length (Computed Barrel)	89.59ft
Slope (Computed)	0.050ft/ft
<hr/>	
Outlet Control Data	
Manning's n	0.013
Ke	0.500
Kb	0.006
Kr	0.000
Convergence Tolerance	0.00ft
<hr/>	
Inlet Control Data	
Equation Form	Form 1
K	0.0098
M	2.0000
C	0.0398
Y	0.6700
T1 ratio (HW/D)	1.135
T2 ratio (HW/D)	1.282
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	617.52ft	T1 Flow	63.00ft ³ /s
T2 Elevation	618.04ft	T2 Flow	72.00ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 02

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Low Flow Orifice	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	616.50ft
Orifice Diameter	4.00in
Orifice Coefficient	0.600

Structure ID: Slot in Struc Face	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	618.00ft
Weir Length	1.00ft
Weir Coefficient	3.00(ft ^{0.5})/s

Structure ID: Slot as Orifice	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	618.00ft
Orifice Area	1.5ft ²
Top Elevation	619.50ft
Datum Elevation	618.75ft
Orifice Coefficient	0.600

Structure ID: Struc Crest	
Structure Type: Stand Pipe	
Number of Openings	1
Elevation	620.75ft
Diameter	60.00in
Orifice Area	19.6ft ²
Orifice Coefficient	0.600
Weir Length	15.71ft
Weir Coefficient	3.00(ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Key, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Downstream Channel

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 02

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
<hr/>	
Catalog Conduit	42 inch
Channel Slope	0.014ft/ft
Channel Invert Elevation	609.00ft
<hr/>	
Convergence Tolerances	
<hr/>	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01ft
Tailwater Tolerance (Maximum)	0.50ft
Headwater Tolerance (Minimum)	0.01ft
Headwater Tolerance (Maximum)	0.50ft
Flow Tolerance (Minimum)	0.001ft ³ /s
Flow Tolerance (Maximum)	10.000ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Requested Pond Water Surface Elevations	
Minimum (Headwater)	632.00ft
Increment (Headwater)	0.10ft
Maximum (Headwater)	638.00ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Slot as Orifice	Forward	Outlet Culvert	634.50	638.00
Rectangular Weir	Slot in Struc Face	Forward	Outlet Culvert	633.50	634.50
Stand Pipe	Struc Crest	Forward	Outlet Culvert	635.50	638.00
Orifice-Circular	Low Flow Orifice	Forward	Outlet Culvert	632.00	638.00
Culvert-Circular	Outlet Culvert	Forward	TW	628.00	638.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Outlet Culvert	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	30.00in
Length	60.00ft
Length (Computed Barrel)	60.10ft
Slope (Computed)	0.058ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.500
Kb	0.009
Kr	0.000
Convergence Tolerance	0.00ft
Inlet Control Data	
Equation Form	Form 1
K	0.0098
M	2.0000
C	0.0398
Y	0.6700
T1 ratio (HW/D)	1.131
T2 ratio (HW/D)	1.278
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	630.83ft	T1 Flow	27.16ft ³ /s
T2 Elevation	631.19ft	T2 Flow	31.05ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Low Flow Orifice	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	632.00ft
Orifice Diameter	4.00in
Orifice Coefficient	0.600
Structure ID: Slot in Struc Face	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	633.50ft
Weir Length	0.50ft
Weir Coefficient	3.00(ft ^{0.5})/s
Structure ID: Slot as Orifice	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	633.50ft
Orifice Area	0.5ft ²
Top Elevation	634.50ft
Datum Elevation	634.00ft
Orifice Coefficient	0.600
Structure ID: Struc Crest	
Structure Type: Stand Pipe	
Number of Openings	1
Elevation	635.50ft
Diameter	48.00in
Orifice Area	12.6ft ²
Orifice Coefficient	0.600
Weir Length	12.57ft
Weir Coefficient	3.00(ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Key, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Convergence Tolerances

Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01ft
Tailwater Tolerance (Maximum)	0.50ft
Headwater Tolerance (Minimum)	0.01ft
Headwater Tolerance (Maximum)	0.50ft
Flow Tolerance (Minimum)	0.001ft ³ /s
Flow Tolerance (Maximum)	10.000ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve
 Label: OS 101
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
632.00	0.00	(N/A)	0.00
632.10	0.02	(N/A)	0.00
632.20	0.07	(N/A)	0.00
632.30	0.14	(N/A)	0.00
632.40	0.20	(N/A)	0.00
632.50	0.24	(N/A)	0.00
632.60	0.28	(N/A)	0.00
632.70	0.31	(N/A)	0.00
632.80	0.33	(N/A)	0.00
632.90	0.36	(N/A)	0.00
633.00	0.38	(N/A)	0.00
633.10	0.41	(N/A)	0.00
633.20	0.43	(N/A)	0.00
633.30	0.45	(N/A)	0.00
633.40	0.47	(N/A)	0.00
633.50	0.49	(N/A)	0.00
633.60	0.55	(N/A)	0.00
633.70	0.65	(N/A)	0.00
633.80	0.78	(N/A)	0.00
633.90	0.93	(N/A)	0.00
634.00	1.10	(N/A)	0.00
634.10	1.28	(N/A)	0.00
634.20	1.48	(N/A)	0.00
634.30	1.69	(N/A)	0.00
634.40	1.91	(N/A)	0.00
634.50	2.34	(N/A)	0.00
634.60	2.52	(N/A)	0.00
634.70	2.68	(N/A)	0.00
634.80	2.83	(N/A)	0.00
634.90	2.98	(N/A)	0.00
635.00	3.11	(N/A)	0.00
635.10	3.24	(N/A)	0.00
635.20	3.37	(N/A)	0.00
635.30	3.49	(N/A)	0.00
635.40	3.60	(N/A)	0.00
635.50	3.72	(N/A)	0.00
635.60	5.01	(N/A)	0.00
635.70	7.30	(N/A)	0.00
635.80	10.22	(N/A)	0.00
635.90	13.66	(N/A)	0.00
636.00	17.56	(N/A)	0.00
636.10	21.84	(N/A)	0.00

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
636.20	26.50	(N/A)	0.00
636.30	31.48	(N/A)	0.00
636.40	36.78	(N/A)	0.00
636.50	42.32	(N/A)	0.00
636.60	48.09	(N/A)	0.00
636.70	53.81	(N/A)	0.00
636.80	59.19	(N/A)	0.00
636.90	64.38	(N/A)	0.00
637.00	66.92	(N/A)	0.00
637.10	67.38	(N/A)	0.00
637.20	67.82	(N/A)	0.00
637.30	68.27	(N/A)	0.00
637.40	68.71	(N/A)	0.00
637.50	69.15	(N/A)	0.00
637.60	69.58	(N/A)	0.00
637.70	70.02	(N/A)	0.00
637.80	70.45	(N/A)	0.00
637.90	70.88	(N/A)	0.00
638.00	71.31	(N/A)	0.00

Contributing Structures

(no Q: Slot as Orifice,Slot in Struc Face,Struc Crest,Low Flow Orifice,Outlet Culvert) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
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Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot in Struc Face,Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Struc Crest)
Slot as Orifice,Low Flow Orifice,Outlet Culvert (no Q: Slot in Struc Face,Struc Crest)
Slot as Orifice,Low Flow Orifice,Outlet Culvert (no Q: Slot in Struc Face,Struc Crest)
Slot as Orifice,Low Flow Orifice,Outlet Culvert (no Q: Slot in Struc Face,Struc Crest)
Slot as Orifice,Low Flow Orifice,Outlet Culvert (no Q: Slot in Struc Face,Struc Crest)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Slot as Orifice,Struc Crest,Low Flow
Orifice,Outlet Culvert (no Q: Slot in Struc Face)
Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)
Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)
Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)
Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 101

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 203

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Requested Pond Water Surface Elevations	
Minimum (Headwater)	604.00ft
Increment (Headwater)	0.10ft
Maximum (Headwater)	614.00ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Slot as Orifice	Forward	Outlet Culvert	608.50	614.00
Rectangular Weir	Slot in Struc Face	Forward	Outlet Culvert	606.50	608.50
Stand Pipe	Struc Crest	Forward	Outlet Culvert	610.30	614.00
Orifice-Circular	Low Flow Pipe	Forward	Outlet Culvert	604.00	614.00
Culvert-Circular	Outlet Culvert	Forward	TW	603.50	614.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 203

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Outlet Culvert	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	24.00in
Length	24.88ft
Length (Computed Barrel)	24.88ft
Slope (Computed)	0.010ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.500
Kb	0.012
Kr	0.000
Convergence Tolerance	0.00ft
Inlet Control Data	
Equation Form	Form 1
K	0.0098
M	2.0000
C	0.0398
Y	0.6700
T1 ratio (HW/D)	1.155
T2 ratio (HW/D)	1.302
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	605.81ft	T1 Flow	15.55ft ³ /s
T2 Elevation	606.10ft	T2 Flow	17.77ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 203

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Low Flow Pipe	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	604.00ft
Orifice Diameter	4.00in
Orifice Coefficient	0.600

Structure ID: Slot in Struc Face	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	606.50ft
Weir Length	0.25ft
Weir Coefficient	3.00(ft ^{0.5})/s

Structure ID: Slot as Orifice	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	606.50ft
Orifice Area	0.5ft ²
Top Elevation	608.50ft
Datum Elevation	607.50ft
Orifice Coefficient	0.600

Structure ID: Struc Crest	
Structure Type: Stand Pipe	
Number of Openings	1
Elevation	610.30ft
Diameter	48.00in
Orifice Area	12.6ft ²
Orifice Coefficient	0.600
Weir Length	12.57ft
Weir Coefficient	3.00(ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Key, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Downstream Channel

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 203

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
<hr/>	
Catalog Conduit	24 inch
Channel Slope	0.023ft/ft
Channel Invert Elevation	603.25ft
<hr/>	
Convergence Tolerances	
<hr/>	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01ft
Tailwater Tolerance (Maximum)	0.50ft
Headwater Tolerance (Minimum)	0.01ft
Headwater Tolerance (Maximum)	0.50ft
Flow Tolerance (Minimum)	0.001ft ³ /s
Flow Tolerance (Maximum)	10.000ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Requested Pond Water Surface Elevations	
Minimum (Headwater)	590.50ft
Increment (Headwater)	0.10ft
Maximum (Headwater)	597.00ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Area	Slot as Orifice	Forward	Outlet Culvert	593.00	597.00
Rectangular Weir	Slot in Struc Face	Forward	Outlet Culvert	592.00	593.00
Stand Pipe	Struc Crest	Forward	Outlet Culvert	593.90	597.00
Orifice-Circular	Low Flow Orifice	Forward	Outlet Culvert	590.50	597.00
Culvert-Circular	Outlet Culvert	Forward	TW	589.03	597.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Outlet Culvert	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	48.00in
Length	53.08ft
Length (Computed Barrel)	53.08ft
Slope (Computed)	0.010ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.500
Kb	0.005
Kr	0.000
Convergence Tolerance	0.00ft
Inlet Control Data	
Equation Form	Form 1
K	0.0098
M	2.0000
C	0.0398
Y	0.6700
T1 ratio (HW/D)	1.155
T2 ratio (HW/D)	1.302
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	593.65ft	T1 Flow	87.96ft ³ /s
T2 Elevation	594.24ft	T2 Flow	100.53ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Structure ID: Low Flow Orifice	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	590.50ft
Orifice Diameter	4.00in
Orifice Coefficient	0.600
Structure ID: Slot in Struc Face	
Structure Type: Rectangular Weir	
Number of Openings	1
Elevation	592.00ft
Weir Length	1.25ft
Weir Coefficient	3.00(ft ^{0.5})/s
Structure ID: Slot as Orifice	
Structure Type: Orifice-Area	
Number of Openings	1
Elevation	592.00ft
Orifice Area	1.3ft ²
Top Elevation	593.00ft
Datum Elevation	592.50ft
Orifice Coefficient	0.600
Structure ID: Struc Crest	
Structure Type: Stand Pipe	
Number of Openings	1
Elevation	593.90ft
Diameter	60.00in
Orifice Area	19.6ft ²
Orifice Coefficient	0.600
Weir Length	15.71ft
Weir Coefficient	3.00(ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Key, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False
Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Post Developed Conditions Modeling for Post Tract

Subsection: Outlet Input Data

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Convergence Tolerances

Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01ft
Tailwater Tolerance (Maximum)	0.50ft
Headwater Tolerance (Minimum)	0.01ft
Headwater Tolerance (Maximum)	0.50ft
Flow Tolerance (Minimum)	0.001ft ³ /s
Flow Tolerance (Maximum)	10.000ft ³ /s

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
590.50	0.00	(N/A)	0.00
590.60	0.02	(N/A)	0.00
590.70	0.07	(N/A)	0.00
590.80	0.14	(N/A)	0.00
590.90	0.20	(N/A)	0.00
591.00	0.24	(N/A)	0.00
591.10	0.28	(N/A)	0.00
591.20	0.30	(N/A)	0.00
591.30	0.33	(N/A)	0.00
591.40	0.36	(N/A)	0.00
591.50	0.38	(N/A)	0.00
591.60	0.41	(N/A)	0.00
591.70	0.43	(N/A)	0.00
591.80	0.45	(N/A)	0.00
591.90	0.46	(N/A)	0.00
592.00	0.48	(N/A)	0.00
592.10	0.62	(N/A)	0.00
592.20	0.86	(N/A)	0.00
592.30	1.15	(N/A)	0.00
592.40	1.50	(N/A)	0.00
592.50	1.89	(N/A)	0.00
592.60	2.33	(N/A)	0.00
592.70	2.80	(N/A)	0.00
592.80	3.30	(N/A)	0.00
592.90	3.83	(N/A)	0.00
593.00	4.90	(N/A)	0.00
593.10	5.32	(N/A)	0.00
593.20	5.70	(N/A)	0.00
593.30	6.06	(N/A)	0.00
593.40	6.40	(N/A)	0.00
593.50	6.72	(N/A)	0.00
593.60	7.03	(N/A)	0.00
593.70	7.32	(N/A)	0.00
593.80	7.60	(N/A)	0.00
593.90	7.87	(N/A)	0.00
594.00	9.63	(N/A)	0.00
594.10	12.59	(N/A)	0.00
594.20	16.36	(N/A)	0.00
594.30	20.73	(N/A)	0.00
594.40	25.68	(N/A)	0.00
594.50	31.11	(N/A)	0.00
594.60	36.98	(N/A)	0.00

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
594.70	43.31	(N/A)	0.00
594.80	50.01	(N/A)	0.00
594.90	56.68	(N/A)	0.00
595.00	63.55	(N/A)	0.00
595.10	70.72	(N/A)	0.00
595.20	78.19	(N/A)	0.00
595.30	85.93	(N/A)	0.00
595.40	93.95	(N/A)	0.00
595.50	102.18	(N/A)	0.00
595.60	110.33	(N/A)	0.00
595.70	118.26	(N/A)	0.00
595.80	125.69	(N/A)	0.00
595.90	129.25	(N/A)	0.00
596.00	130.77	(N/A)	0.00
596.10	132.27	(N/A)	0.00
596.20	133.78	(N/A)	0.00
596.30	135.23	(N/A)	0.00
596.40	136.71	(N/A)	0.00
596.50	138.14	(N/A)	0.00
596.60	139.57	(N/A)	0.00
596.70	141.00	(N/A)	0.00
596.80	142.38	(N/A)	0.00
596.90	143.77	(N/A)	0.00
597.00	145.15	(N/A)	0.00

Contributing Structures

(no Q: Slot as Orifice,Slot in Struc Face,Struc Crest,Low Flow Orifice,Outlet Culvert) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest) Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
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Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)
Low Flow Orifice,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Struc Crest)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot in Struc Face,Low
Flow Orifice,Outlet Culvert
(no Q: Slot as
Orifice,Struc Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)
Slot as Orifice,Low Flow
Orifice,Outlet Culvert (no
Q: Slot in Struc Face,Struc
Crest)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures
Slot as Orifice,Struc Crest,Low Flow Orifice,Outlet Culvert (no Q: Slot in Struc Face) Slot as Orifice,Struc Crest,Low Flow Orifice,Outlet Culvert (no Q: Slot in Struc Face) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice) Struc Crest,Outlet Culvert (no Q: Slot as Orifice,Slot in Struc Face,Low Flow Orifice)

Post Developed Conditions Modeling for Post Tract

Subsection: Composite Rating Curve

Return Event: 2 years

Label: OS 301

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Composite Outflow Summary

Contributing Structures

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Struc Crest,Outlet Culvert
(no Q: Slot as Orifice,Slot
in Struc Face,Low Flow
Orifice)

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration	
Infiltration Method (Computed)	No Infiltration
Initial Conditions	
Elevation (Water Surface, Initial)	604.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
604.00	0.00	0.000	0.000	0.00	0.00	0.00
604.10	0.02	5.764	0.002	0.00	0.02	0.08
604.20	0.07	23.632	0.006	0.00	0.07	0.33
604.30	0.14	60.468	0.011	0.00	0.14	0.81
604.40	0.20	123.136	0.018	0.00	0.20	1.57
604.50	0.24	218.499	0.026	0.00	0.24	2.67
604.60	0.28	352.253	0.035	0.00	0.28	4.19
604.70	0.31	529.617	0.046	0.00	0.31	6.19
604.80	0.33	756.744	0.058	0.00	0.33	8.74
604.90	0.36	1,039.787	0.072	0.00	0.36	11.91
605.00	0.38	1,384.901	0.087	0.00	0.38	15.77
605.10	0.41	1,780.951	0.095	0.00	0.41	20.19
605.20	0.43	2,213.790	0.104	0.00	0.43	25.02
605.30	0.45	2,685.052	0.113	0.00	0.45	30.28
605.40	0.47	3,196.371	0.122	0.00	0.47	35.98
605.50	0.48	3,749.381	0.132	0.00	0.48	42.14
605.60	0.50	4,332.817	0.136	0.00	0.50	48.64
605.70	0.52	4,934.510	0.140	0.00	0.52	55.35
605.80	0.54	5,554.742	0.145	0.00	0.54	62.26
605.90	0.55	6,193.796	0.149	0.00	0.55	69.37
606.00	0.57	6,851.951	0.153	0.00	0.57	76.70
606.10	0.58	7,525.004	0.156	0.00	0.58	84.19
606.20	0.60	8,208.618	0.158	0.00	0.60	91.81
606.30	0.61	8,902.876	0.161	0.00	0.61	99.54
606.40	0.63	9,607.859	0.163	0.00	0.63	107.38
606.50	0.64	10,323.650	0.166	0.00	0.64	115.35
606.60	0.68	11,050.331	0.168	0.00	0.68	123.46
606.70	0.74	11,787.985	0.171	0.00	0.74	131.71
606.80	0.80	12,536.692	0.173	0.00	0.80	140.10

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
606.90	0.88	13,296.537	0.176	0.00	0.88	148.62
607.00	0.97	14,067.600	0.178	0.00	0.97	157.28
607.10	1.07	14,849.949	0.181	0.00	1.07	166.07
607.20	1.17	15,643.651	0.184	0.00	1.17	174.99
607.30	1.28	16,448.788	0.186	0.00	1.28	184.04
607.40	1.40	17,265.441	0.189	0.00	1.40	193.23
607.50	1.52	18,093.692	0.191	0.00	1.52	202.56
607.60	1.64	18,933.624	0.194	0.00	1.64	212.01
607.70	1.77	19,785.317	0.197	0.00	1.77	221.61
607.80	1.90	20,648.853	0.200	0.00	1.90	231.33
607.90	2.04	21,524.315	0.202	0.00	2.04	241.20
608.00	2.19	22,411.785	0.205	0.00	2.19	251.21
608.10	2.33	23,311.325	0.208	0.00	2.33	261.35
608.20	2.49	24,223.000	0.211	0.00	2.49	271.63
608.30	2.64	25,146.891	0.214	0.00	2.64	282.05
608.40	2.80	26,083.080	0.216	0.00	2.80	292.61
608.50	3.25	27,031.647	0.219	0.00	3.25	303.60
608.60	3.38	27,992.674	0.222	0.00	3.38	314.41
608.70	3.49	28,966.243	0.225	0.00	3.49	325.34
608.80	3.61	29,952.434	0.228	0.00	3.61	336.42
608.90	3.72	30,951.329	0.231	0.00	3.72	347.62
609.00	3.83	31,963.009	0.234	0.00	3.83	358.97
609.10	3.94	32,987.545	0.237	0.00	3.94	370.47
609.20	4.04	34,025.007	0.240	0.00	4.04	382.09
609.30	4.14	35,075.476	0.243	0.00	4.14	393.86
609.40	4.23	36,139.033	0.246	0.00	4.23	405.78
609.50	4.33	37,215.758	0.249	0.00	4.33	417.84
609.60	4.42	38,305.734	0.252	0.00	4.42	430.04
609.70	4.51	39,409.041	0.255	0.00	4.51	442.39
609.80	4.60	40,525.759	0.258	0.00	4.60	454.88
609.90	4.68	41,655.971	0.261	0.00	4.68	467.53
610.00	4.77	42,799.757	0.264	0.00	4.77	480.33
610.10	4.85	43,957.184	0.267	0.00	4.85	493.27
610.20	4.93	45,128.318	0.270	0.00	4.93	506.36
610.30	5.01	46,313.240	0.274	0.00	5.01	519.61
610.40	6.27	47,512.030	0.277	0.00	6.27	534.18
610.50	8.51	48,724.770	0.280	0.00	8.51	549.89
610.60	11.38	49,951.540	0.283	0.00	11.38	566.40
610.70	14.76	51,192.420	0.286	0.00	14.76	583.57
610.80	18.58	52,447.492	0.290	0.00	18.58	601.33
610.90	22.78	53,716.836	0.293	0.00	22.78	619.63
611.00	27.12	55,000.533	0.296	0.00	27.12	638.24
611.10	31.27	56,298.655	0.300	0.00	31.27	656.81

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Basin C

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
611.20	35.41	57,611.275	0.303	0.00	35.41	675.54
611.30	39.20	58,938.474	0.306	0.00	39.20	694.07
611.40	40.36	60,280.331	0.310	0.00	40.36	710.15
611.50	40.67	61,636.928	0.313	0.00	40.67	725.52
611.60	40.97	63,008.345	0.317	0.00	40.97	741.06
611.70	41.28	64,394.663	0.320	0.00	41.28	756.77
611.80	41.57	65,795.961	0.323	0.00	41.57	772.64
611.90	41.87	67,212.322	0.327	0.00	41.87	788.68
612.00	42.16	68,643.824	0.330	0.00	42.16	804.87
612.10	42.46	70,090.536	0.334	0.00	42.46	821.24
612.20	42.75	71,552.528	0.337	0.00	42.75	837.78
612.30	43.04	73,029.879	0.341	0.00	43.04	854.48
612.40	43.33	74,522.669	0.344	0.00	43.33	871.36
612.50	43.61	76,030.980	0.348	0.00	43.61	888.40
612.60	43.89	77,554.890	0.352	0.00	43.89	905.61
612.70	44.18	79,094.480	0.355	0.00	44.18	923.00
612.80	44.45	80,649.831	0.359	0.00	44.45	940.56
612.90	44.73	82,221.023	0.363	0.00	44.73	958.30
613.00	45.01	83,808.136	0.366	0.00	45.01	976.21
613.10	45.28	85,411.239	0.370	0.00	45.28	994.30
613.20	45.56	87,030.402	0.374	0.00	45.56	1,012.56
613.30	45.83	88,665.705	0.377	0.00	45.83	1,031.00
613.40	46.10	90,317.228	0.381	0.00	46.10	1,049.62
613.50	46.37	91,985.050	0.385	0.00	46.37	1,068.42
613.60	46.63	93,669.253	0.389	0.00	46.63	1,087.40
613.70	46.90	95,369.916	0.392	0.00	46.90	1,106.56
613.80	47.16	97,087.119	0.396	0.00	47.16	1,125.91
613.90	47.42	98,820.942	0.400	0.00	47.42	1,145.43
614.00	47.68	100,571.465	0.404	0.00	47.68	1,165.14

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Basin C (IN)
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	604.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	15.09ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	2.27ft ³ /s	Time to Peak (Flow, Outlet)	759.000min

Elevation (Water Surface, Peak)	608.05ft
Volume (Peak)	22,896.205ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	49,736.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	45,138.000ft ³
Volume (Retained)	4,505.000ft ³
Volume (Unrouted)	-93.000ft ³
Error (Mass Balance)	0.2%

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Basin C (IN)
 Scenario: Post-Development 25 YR 24 Hour

Return Event: 25 years
 Storm Event: 25 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	604.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	34.30ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	12.22ft ³ /s	Time to Peak (Flow, Outlet)	741.000min

Elevation (Water Surface, Peak)	610.62ft
Volume (Peak)	50,256.539ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	115,253.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	105,088.000ft ³
Volume (Retained)	10,049.000ft ³
Volume (Unrouted)	-116.000ft ³
Error (Mass Balance)	0.1%

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Basin C (IN)
 Scenario: Post-Development 100 YR 24 Hour

Return Event: 100 years
 Storm Event: 100 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	604.00ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	45.40ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	30.53ft ³ /s	Time to Peak (Flow, Outlet)	732.000min
Peak Conditions			
Elevation (Water Surface, Peak)	611.08ft		
Volume (Peak)	56,065.728ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	154,562.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	142,798.000ft ³		
Volume (Retained)	11,632.000ft ³		
Volume (Unrouted)	-132.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration	
Infiltration Method (Computed)	No Infiltration
Initial Conditions	
Elevation (Water Surface, Initial)	616.50ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
616.50	0.00	0.000	0.997	0.00	0.00	0.00
616.60	0.02	4,359.913	1.005	0.00	0.02	48.46
616.70	0.07	8,753.135	1.012	0.00	0.07	97.32
616.80	0.14	13,179.794	1.020	0.00	0.14	146.58
616.90	0.20	17,640.017	1.028	0.00	0.20	196.20
617.00	0.24	22,133.930	1.036	0.00	0.24	246.17
617.10	0.28	26,661.408	1.043	0.00	0.28	296.51
617.20	0.31	31,222.323	1.051	0.00	0.31	347.22
617.30	0.33	35,816.800	1.059	0.00	0.33	398.30
617.40	0.36	40,444.961	1.066	0.00	0.36	449.75
617.50	0.38	45,106.929	1.074	0.00	0.38	501.57
617.60	0.41	49,802.826	1.082	0.00	0.41	553.77
617.70	0.42	54,532.777	1.090	0.00	0.42	606.34
617.80	0.45	59,296.904	1.098	0.00	0.45	659.30
617.90	0.47	64,095.330	1.106	0.00	0.47	712.64
618.00	0.49	68,928.178	1.113	0.00	0.49	766.35
618.10	0.60	73,795.246	1.121	0.00	0.60	820.54
618.20	0.79	78,696.331	1.129	0.00	0.79	875.19
618.30	1.03	83,631.550	1.137	0.00	1.03	930.27
618.40	1.31	88,601.023	1.145	0.00	1.31	985.77
618.50	1.63	93,604.867	1.153	0.00	1.63	1,041.68
618.60	1.98	98,643.201	1.161	0.00	1.98	1,098.01
618.70	2.35	103,716.143	1.169	0.00	2.35	1,154.76
618.80	2.76	108,823.813	1.177	0.00	2.76	1,211.91
618.90	3.19	113,966.328	1.185	0.00	3.19	1,269.48
619.00	3.64	119,143.806	1.193	0.00	3.64	1,327.46
619.10	4.11	124,356.069	1.201	0.00	4.11	1,385.85
619.20	4.61	129,602.934	1.208	0.00	4.61	1,444.64
619.30	5.13	134,884.516	1.216	0.00	5.13	1,503.85

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
619.40	5.66	140,200.928	1.224	0.00	5.66	1,563.45
619.50	6.96	145,552.286	1.233	0.00	6.96	1,624.20
619.60	7.37	150,938.704	1.241	0.00	7.37	1,684.47
619.70	7.76	156,360.297	1.249	0.00	7.76	1,745.10
619.80	8.15	161,817.179	1.257	0.00	8.15	1,806.12
619.90	8.49	167,309.464	1.265	0.00	8.49	1,867.49
620.00	8.84	172,837.267	1.273	0.00	8.84	1,929.26
620.10	9.16	178,400.423	1.281	0.00	9.16	1,991.39
620.20	9.48	183,998.765	1.289	0.00	9.48	2,053.91
620.30	9.78	189,632.405	1.297	0.00	9.78	2,116.81
620.40	10.09	195,301.453	1.306	0.00	10.09	2,180.11
620.50	10.38	201,006.020	1.314	0.00	10.38	2,243.78
620.60	10.65	206,746.217	1.322	0.00	10.65	2,307.83
620.70	10.92	212,522.154	1.330	0.00	10.92	2,372.28
620.75	11.07	215,423.561	1.334	0.00	11.07	2,404.66
620.80	11.72	218,333.944	1.338	0.00	11.72	2,437.66
620.90	14.18	224,181.697	1.347	0.00	14.18	2,505.09
621.00	17.59	230,065.523	1.355	0.00	17.59	2,573.88
621.10	21.69	235,985.267	1.363	0.00	21.69	2,643.75
621.20	26.42	241,940.770	1.371	0.00	26.42	2,714.65
621.30	31.63	247,932.140	1.380	0.00	31.63	2,786.43
621.40	37.35	253,959.484	1.388	0.00	37.35	2,859.12
621.50	43.46	260,022.911	1.396	0.00	43.46	2,932.61
621.60	49.98	266,122.528	1.404	0.00	49.98	3,006.89
621.70	56.89	272,258.443	1.413	0.00	56.89	3,081.98
621.80	64.13	278,430.763	1.421	0.00	64.13	3,157.81
621.90	71.72	284,639.596	1.430	0.00	71.72	3,234.38
622.00	79.63	290,885.049	1.438	0.00	79.63	3,311.69
622.10	87.17	297,166.980	1.446	0.00	87.17	3,389.02
622.20	94.44	303,485.242	1.455	0.00	94.44	3,466.50
622.30	101.82	309,839.939	1.463	0.00	101.82	3,544.48
622.40	109.12	316,231.177	1.471	0.00	109.12	3,622.80
622.50	116.25	322,659.060	1.480	0.00	116.25	3,701.35
622.60	122.80	329,123.693	1.488	0.00	122.80	3,779.73
622.70	126.61	335,625.180	1.497	0.00	126.61	3,855.78
622.80	127.53	342,163.628	1.505	0.00	127.53	3,929.35
622.90	128.44	348,739.139	1.514	0.00	128.44	4,003.32
623.00	129.34	355,351.820	1.522	0.00	129.34	4,077.70
623.10	130.22	362,001.546	1.531	0.00	130.22	4,152.46
623.20	131.13	368,688.194	1.539	0.00	131.13	4,227.67
623.30	132.01	375,411.865	1.548	0.00	132.01	4,303.26
623.40	132.88	382,172.662	1.556	0.00	132.88	4,379.25
623.50	133.75	388,970.686	1.565	0.00	133.75	4,455.65

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake A

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
623.60	134.62	395,806.040	1.573	0.00	134.62	4,532.47
623.70	135.48	402,678.827	1.582	0.00	135.48	4,609.69
623.80	136.34	409,589.148	1.591	0.00	136.34	4,687.33
623.90	137.19	416,537.105	1.599	0.00	137.19	4,765.38
624.00	138.03	423,522.802	1.608	0.00	138.03	4,843.84

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake A (IN)
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	616.50ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	75.98ft ³ /s	Time to Peak (Flow, In)	726.000min
Flow (Peak Outlet)	7.38ft ³ /s	Time to Peak (Flow, Outlet)	780.000min

Elevation (Water Surface, Peak)	619.60ft
Volume (Peak)	151,025.885ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	259,434.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	164,805.000ft ³
Volume (Retained)	94,323.000ft ³
Volume (Unrouted)	-306.000ft ³
Error (Mass Balance)	0.1%

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake A (IN)
 Scenario: Post-Development 25 YR 24 Hour

Return Event: 25 years
 Storm Event: 25 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	616.50ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	164.07ft ³ /s	Time to Peak (Flow, In)	726.000min
Flow (Peak Outlet)	67.33ft ³ /s	Time to Peak (Flow, Outlet)	741.000min
Peak Conditions			
Elevation (Water Surface, Peak)	621.84ft		
Volume (Peak)	281,045.404ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	579,651.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	466,746.000ft ³		
Volume (Retained)	112,348.000ft ³		
Volume (Unrouted)	-558.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake A (IN)
 Scenario: Post-Development 100 YR 24 Hour

Return Event: 100 years
 Storm Event: 100 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	616.50ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	214.51ft ³ /s	Time to Peak (Flow, In)	726.000min
Flow (Peak Outlet)	120.89ft ³ /s	Time to Peak (Flow, Outlet)	735.000min
Peak Conditions			
Elevation (Water Surface, Peak)	622.57ft		
Volume (Peak)	327,233.701ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	769,884.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	648,972.000ft ³		
Volume (Retained)	120,232.000ft ³		
Volume (Unrouted)	-681.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration	
Infiltration Method (Computed)	No Infiltration
Initial Conditions	
Elevation (Water Surface, Initial)	632.00ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
632.00	0.00	0.000	0.770	0.00	0.00	0.00
632.10	0.02	3,368.793	0.777	0.00	0.02	37.45
632.20	0.07	6,765.651	0.783	0.00	0.07	75.24
632.30	0.14	10,190.690	0.790	0.00	0.14	113.37
632.40	0.20	13,644.025	0.796	0.00	0.20	151.80
632.50	0.24	17,125.774	0.803	0.00	0.24	190.53
632.60	0.28	20,636.054	0.809	0.00	0.28	229.57
632.70	0.31	24,174.979	0.816	0.00	0.31	268.92
632.80	0.33	27,742.668	0.822	0.00	0.33	308.59
632.90	0.36	31,339.236	0.829	0.00	0.36	348.57
633.00	0.38	34,964.799	0.836	0.00	0.38	388.88
633.10	0.41	38,619.188	0.842	0.00	0.41	429.51
633.20	0.43	42,302.229	0.849	0.00	0.43	470.45
633.30	0.45	46,014.035	0.855	0.00	0.45	511.71
633.40	0.47	49,754.717	0.862	0.00	0.47	553.30
633.50	0.49	53,524.387	0.869	0.00	0.49	595.20
633.60	0.55	57,323.157	0.875	0.00	0.55	637.47
633.70	0.65	61,151.139	0.882	0.00	0.65	680.11
633.80	0.78	65,008.445	0.889	0.00	0.78	723.10
633.90	0.93	68,895.186	0.896	0.00	0.93	766.43
634.00	1.10	72,811.475	0.902	0.00	1.10	810.11
634.10	1.28	76,756.912	0.909	0.00	1.28	854.14
634.20	1.48	80,731.091	0.916	0.00	1.48	898.49
634.30	1.69	84,734.117	0.922	0.00	1.69	943.18
634.40	1.91	88,766.095	0.929	0.00	1.91	988.20
634.50	2.34	92,827.128	0.936	0.00	2.34	1,033.76
634.60	2.52	96,917.322	0.942	0.00	2.52	1,079.38
634.70	2.68	101,036.780	0.949	0.00	2.68	1,125.31
634.80	2.83	105,185.606	0.956	0.00	2.83	1,171.56

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake B

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
634.90	2.98	109,363.905	0.963	0.00	2.98	1,218.13
635.00	3.11	113,571.782	0.969	0.00	3.11	1,265.02
635.10	3.24	117,809.595	0.976	0.00	3.24	1,312.24
635.20	3.37	122,077.707	0.983	0.00	3.37	1,359.79
635.30	3.49	126,376.224	0.990	0.00	3.49	1,407.67
635.40	3.60	130,705.256	0.997	0.00	3.60	1,455.88
635.50	3.72	135,064.910	1.004	0.00	3.72	1,504.44
635.60	5.01	139,455.294	1.011	0.00	5.01	1,554.52
635.70	7.30	143,876.516	1.019	0.00	7.30	1,605.93
635.80	10.22	148,328.684	1.026	0.00	10.22	1,658.32
635.90	13.66	152,811.905	1.033	0.00	13.66	1,711.57
636.00	17.56	157,326.288	1.040	0.00	17.56	1,765.63
636.10	21.84	161,871.447	1.047	0.00	21.84	1,820.42
636.20	26.50	166,446.991	1.054	0.00	26.50	1,875.91
636.30	31.48	171,053.021	1.061	0.00	31.48	1,932.07
636.40	36.78	175,689.639	1.068	0.00	36.78	1,988.88
636.50	42.32	180,356.945	1.075	0.00	42.32	2,046.29
636.60	48.09	185,055.042	1.082	0.00	48.09	2,104.26
636.70	53.81	189,784.030	1.089	0.00	53.81	2,162.52
636.80	59.19	194,544.010	1.096	0.00	59.19	2,220.79
636.90	64.38	199,335.084	1.103	0.00	64.38	2,279.22
637.00	66.92	204,157.353	1.111	0.00	66.92	2,335.34
637.10	67.38	209,010.698	1.118	0.00	67.38	2,389.72
637.20	67.82	213,895.000	1.125	0.00	67.82	2,444.44
637.30	68.27	218,810.356	1.132	0.00	68.27	2,499.50
637.40	68.71	223,756.866	1.139	0.00	68.71	2,554.90
637.50	69.15	228,734.627	1.146	0.00	69.15	2,610.64
637.60	69.58	233,743.738	1.154	0.00	69.58	2,666.74
637.70	70.02	238,784.298	1.161	0.00	70.02	2,723.18
637.80	70.45	243,856.405	1.168	0.00	70.45	2,779.97
637.90	70.88	248,960.156	1.175	0.00	70.88	2,837.11
638.00	71.31	254,095.652	1.183	0.00	71.31	2,894.59

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake B (IN)
 Scenario: Post-Development 2 YR 24 Hour

Return Event: 2 years
 Storm Event: 2 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	632.00ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	26.16ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	0.73ft ³ /s	Time to Peak (Flow, Outlet)	1,011.000min
Peak Conditions			
Elevation (Water Surface, Peak)	633.76ft		
Volume (Peak)	63,505.845ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	87,865.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	28,851.000ft ³		
Volume (Retained)	58,904.000ft ³		
Volume (Unrouted)	-111.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake B (IN)
 Scenario: Post-Development 25 YR 24 Hour

Return Event: 25 years
 Storm Event: 25 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	632.00ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	56.98ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	3.48ft ³ /s	Time to Peak (Flow, Outlet)	813.000min
Peak Conditions			
Elevation (Water Surface, Peak)	635.29ft		
Volume (Peak)	126,020.536ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	196,324.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	116,287.000ft ³		
Volume (Retained)	79,776.000ft ³		
Volume (Unrouted)	-261.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake B (IN)
 Scenario: Post-Development 100 YR 24 Hour

Return Event: 100 years
 Storm Event: 100 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	632.00ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	74.65ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	13.47ft ³ /s	Time to Peak (Flow, Outlet)	753.000min
Peak Conditions			
Elevation (Water Surface, Peak)	635.89ft		
Volume (Peak)	152,555.950ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	260,758.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	173,448.000ft ³		
Volume (Retained)	86,979.000ft ³		
Volume (Unrouted)	-331.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration	
Infiltration Method (Computed)	No Infiltration
Initial Conditions	
Elevation (Water Surface, Initial)	590.50ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
590.50	0.00	0.000	0.978	0.00	0.00	0.00
590.60	0.02	4,280.238	0.987	0.00	0.02	47.58
590.70	0.07	8,599.472	0.996	0.00	0.07	95.62
590.80	0.14	12,957.876	1.005	0.00	0.14	144.11
590.90	0.20	17,355.630	1.014	0.00	0.20	193.04
591.00	0.24	21,792.908	1.023	0.00	0.24	242.39
591.10	0.28	26,269.458	1.032	0.00	0.28	292.16
591.20	0.30	30,785.021	1.041	0.00	0.30	342.36
591.30	0.33	35,339.766	1.050	0.00	0.33	393.00
591.40	0.36	39,933.863	1.059	0.00	0.36	444.07
591.50	0.38	44,567.481	1.068	0.00	0.38	495.58
591.60	0.41	49,240.788	1.077	0.00	0.41	547.53
591.70	0.43	53,953.955	1.087	0.00	0.43	599.91
591.80	0.45	58,707.150	1.096	0.00	0.45	652.75
591.90	0.46	63,500.543	1.105	0.00	0.46	706.02
592.00	0.48	68,334.303	1.114	0.00	0.48	759.75
592.10	0.62	73,208.049	1.123	0.00	0.62	814.04
592.20	0.86	78,121.394	1.133	0.00	0.86	868.87
592.30	1.15	83,074.499	1.142	0.00	1.15	924.20
592.40	1.50	88,067.523	1.151	0.00	1.50	980.03
592.50	1.89	93,100.627	1.160	0.00	1.89	1,036.35
592.60	2.33	98,173.971	1.169	0.00	2.33	1,093.15
592.70	2.80	103,287.715	1.179	0.00	2.80	1,150.44
592.80	3.30	108,442.020	1.188	0.00	3.30	1,208.21
592.90	3.83	113,637.045	1.197	0.00	3.83	1,266.46
593.00	4.90	118,872.951	1.207	0.00	4.90	1,325.71
593.10	5.32	124,149.400	1.216	0.00	5.32	1,384.75
593.20	5.70	129,466.049	1.225	0.00	5.70	1,444.21
593.30	6.06	134,823.050	1.234	0.00	6.06	1,504.10

Post Developed Conditions Modeling for Post Tract

Subsection: Elevation-Volume-Flow Table (Pond)

Return Event: 2 years

Label: Lake D

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Elevation (ft)	Outflow (ft ³ /s)	Storage (ft ³)	Area (acres)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
593.40	6.40	140,220.556	1.244	0.00	6.40	1,564.41
593.50	6.72	145,658.720	1.253	0.00	6.72	1,625.15
593.60	7.03	151,137.693	1.262	0.00	7.03	1,686.34
593.70	7.32	156,657.629	1.272	0.00	7.32	1,747.96
593.80	7.60	162,218.680	1.281	0.00	7.60	1,810.03
593.90	7.87	167,820.999	1.291	0.00	7.87	1,872.55
594.00	9.63	173,464.738	1.300	0.00	9.63	1,937.01
594.10	12.59	179,149.588	1.310	0.00	12.59	2,003.14
594.20	16.36	184,875.234	1.319	0.00	16.36	2,070.53
594.30	20.73	190,641.823	1.329	0.00	20.73	2,138.97
594.40	25.68	196,449.500	1.338	0.00	25.68	2,208.45
594.50	31.11	202,298.411	1.347	0.00	31.11	2,278.87
594.60	36.98	208,188.702	1.357	0.00	36.98	2,350.18
594.70	43.31	214,120.519	1.367	0.00	43.31	2,422.43
594.80	50.01	220,094.007	1.376	0.00	50.01	2,495.50
594.90	56.68	226,109.313	1.386	0.00	56.68	2,569.00
595.00	63.55	232,166.583	1.395	0.00	63.55	2,643.18
595.10	70.72	238,265.527	1.405	0.00	70.72	2,718.11
595.20	78.19	244,405.851	1.414	0.00	78.19	2,793.81
595.30	85.93	250,587.695	1.424	0.00	85.93	2,870.24
595.40	93.95	256,811.199	1.434	0.00	93.95	2,947.41
595.50	102.18	263,076.504	1.443	0.00	102.18	3,025.26
595.60	110.33	269,383.748	1.453	0.00	110.33	3,103.49
595.70	118.26	275,733.073	1.462	0.00	118.26	3,181.96
595.80	125.69	282,124.617	1.472	0.00	125.69	3,260.41
595.90	129.25	288,558.521	1.482	0.00	129.25	3,335.45
596.00	130.77	295,034.924	1.492	0.00	130.77	3,408.94
596.10	132.27	301,553.565	1.501	0.00	132.27	3,482.87
596.20	133.78	308,114.177	1.511	0.00	133.78	3,557.27
596.30	135.23	314,716.895	1.521	0.00	135.23	3,632.09
596.40	136.71	321,361.853	1.530	0.00	136.71	3,707.40
596.50	138.14	328,049.187	1.540	0.00	138.14	3,783.13
596.60	139.57	334,779.031	1.550	0.00	139.57	3,859.34
596.70	141.00	341,551.520	1.560	0.00	141.00	3,936.02
596.80	142.38	348,366.788	1.569	0.00	142.38	4,013.13
596.90	143.77	355,224.970	1.579	0.00	143.77	4,090.71
597.00	145.15	362,126.200	1.589	0.00	145.15	4,168.77

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary

Return Event: 2 years

Label: Lake D (IN)

Storm Event: 2 Year, 24 Hour Storm

Scenario: Post-Development 2 YR 24 Hour

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	590.50ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	70.63ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	6.03ft ³ /s	Time to Peak (Flow, Outlet)	786.000min
Peak Values			
Elevation (Water Surface, Peak)	593.29ft		
Volume (Peak)	134,372.211ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	231,393.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	143,843.000ft ³		
Volume (Retained)	87,285.000ft ³		
Volume (Unrouted)	-265.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake D (IN)
 Scenario: Post-Development 25 YR 24 Hour

Return Event: 25 years
 Storm Event: 25 Year, 24 Hour Storm

Infiltration			
Infiltration Method (Computed)	No Infiltration		
Initial Conditions			
Elevation (Water Surface, Initial)	590.50ft		
Volume (Initial)	0.000ft ³		
Flow (Initial Outlet)	0.00ft ³ /s		
Flow (Initial Infiltration)	0.00ft ³ /s		
Flow (Initial, Total)	0.00ft ³ /s		
Time Increment	3.000min		
Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	156.87ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	73.11ft ³ /s	Time to Peak (Flow, Outlet)	738.000min
Peak Conditions			
Elevation (Water Surface, Peak)	595.13ft		
Volume (Peak)	240,223.050ft ³		
Mass Balance (ft ³)			
Volume (Initial)	0.000ft ³		
Volume (Total Inflow)	526,477.000ft ³		
Volume (Total Infiltration)	0.000ft ³		
Volume (Total Outlet Outflow)	424,286.000ft ³		
Volume (Retained)	101,705.000ft ³		
Volume (Unrouted)	-485.000ft ³		
Error (Mass Balance)	0.1%		

Post Developed Conditions Modeling for Post Tract

Subsection: Level Pool Pond Routing Summary
 Label: Lake D (IN)
 Scenario: Post-Development 100 YR 24 Hour

Return Event: 100 years
 Storm Event: 100 Year, 24 Hour Storm

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	590.50ft
Volume (Initial)	0.000ft ³
Flow (Initial Outlet)	0.00ft ³ /s
Flow (Initial Infiltration)	0.00ft ³ /s
Flow (Initial, Total)	0.00ft ³ /s
Time Increment	3.000min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	206.49ft ³ /s	Time to Peak (Flow, In)	723.000min
Flow (Peak Outlet)	125.10ft ³ /s	Time to Peak (Flow, Outlet)	735.000min

Elevation (Water Surface, Peak)	595.79ft
Volume (Peak)	281,617.040ft ³

Mass Balance (ft ³)	
Volume (Initial)	0.000ft ³
Volume (Total Inflow)	702,627.000ft ³
Volume (Total Infiltration)	0.000ft ³
Volume (Total Outlet Outflow)	593,788.000ft ³
Volume (Retained)	108,243.000ft ³
Volume (Unrouted)	-596.000ft ³
Error (Mass Balance)	0.1%

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