

December 2, 2021

Wareham Planning Board  
54 Marion Road  
Wareham, MA 02571

**RE: 1-13 NORTH CARVER ROAD  
FORM C - DEFINITIVE SUBDIVISION PLAN**

Dear Board Members:

On behalf of our client, LSE Lucana LLC, we hereby submit a Form C - Application for Approval of Definitive Subdivision Plan. This submittal includes the following:

Town Clerk:

1 copy of the package

Planning Board:

10 packages:

- Form C application
- Plans
- Stormwater Report
- Tax Form
- List of abutters
- Deed

Additionally, a check to the Town of Wareham for \$1,320 ( $\$750 + 2 \text{ lots} \times \$75 + \$420 \times \text{LF of road}$ ) for the filing fee and a check to Wareham Week for \$100 for the legal ad is enclosed.

Board of Health

1 copy of the package

Sincerely,

**PRIME ENGINEERING, INC.**

A handwritten signature in cursive script that reads 'Richard J. Rheume'.

Richard J. Rheume, P.E., LSP  
Chief Engineer

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CIVIL ENGINEERING ENVIRONMENTAL ASSESSMENT LAND SURVEYING

P.O. Box 1088, 350 Bedford Street, Lakeville, MA 02347

Form C

APPLICATION FOR APPROVAL OF  
DEFINTIVE SUBDIVISION PLAN

December 2, 2021

To the Planning Board of the City/Town of Wareham

The undersigned, being the applicant as defined under the Chapter 41, Section 81-L, for approval of a proposed subdivision shown on a plan entitled: Definitive Subdivision Plan of Entero Way

by Prime Engineering, Inc., dated December 2, 2021  
and described as follows: Map 103, Lots 1037, 1038 and 1039,  
located 1-13 North Carver Road, number of lots  
proposed 2 total acreage of tract 60.10, said applicant hereby submits said  
plan as a **DEFINITIVE** plan in accordance with the Rules and Regulations of the Wareham  
Planning Board and makes application to the Board for approval of said plan.

The undersigned's title to said land is derived from

by deed dated November 6, 2014 and recorded in the Plymouth County  
District Registry of Deeds Book 44921, Page 100, registered in the \_\_\_\_\_  
Registry District of the Land Court.

Certificate of Title No. \_\_\_\_\_ and  
said land is free of encumbrances except for the following: \_\_\_\_\_

Said plan has  has not ( ) evolved from a preliminary plan submitted to the Board on \_\_\_\_\_  
May 3, 2021 and approved (with modifications)  (disapproved) ( ) on \_\_\_\_\_,  
20\_\_\_\_.

The undersigned hereby applies for the approval of said DEFINITIVE plan by the Board, in belief that the  
plan conforms to the Board's Rules and Regulations.

Received by City/Town Clerk: \_\_\_\_\_

Date \_\_\_\_\_

Time \_\_\_\_\_

Signature \_\_\_\_\_

Treasurers office: \_\_\_\_\_

\\nas-dell\Users\Planning\Form C.docx

Applicant's signature [Signature]

Applicant' address: LSE Tucana LLC  
c/o Eric Crisler, 1508 W. 30th  
Austin, TX 78703

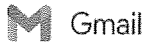
Applicant's phone # (512) 736-2038  
Owner's signature and address if not the  
applicant or applicant's authorization if not  
the owner

Cindy A. Barlow, 19 East Bar LeDoc Dr.  
Corpus Christi, TX 78414  
(720) 641-7283

[Signature]  
\* as per deputization  
(see attached)

11/29/21, 11:08 AM

Entero Energy Mail - Signatures for Definitive Subdivision Plan - 370 County Road



Austin Krause <austin@enteroenergy.com>

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**Signatures for Definitive Subdivision Plan - 370 County Road**

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CINDY BARLOW <jcbarlow@comcast.net>  
To: Austin Krause <austin@enteroenergy.com>

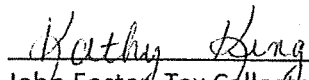
Sun, Nov 28, 2021 at 7:10 PM

Please accept this email as my agreement to deputize Prime Engineering and allow them to sign on my behalf with regard to the definitive subdivision plan for 1-13 North Carver Road.

Cindy Barlow

**PLANNING BOARD**  
**TAX VERIFICATION FORM**

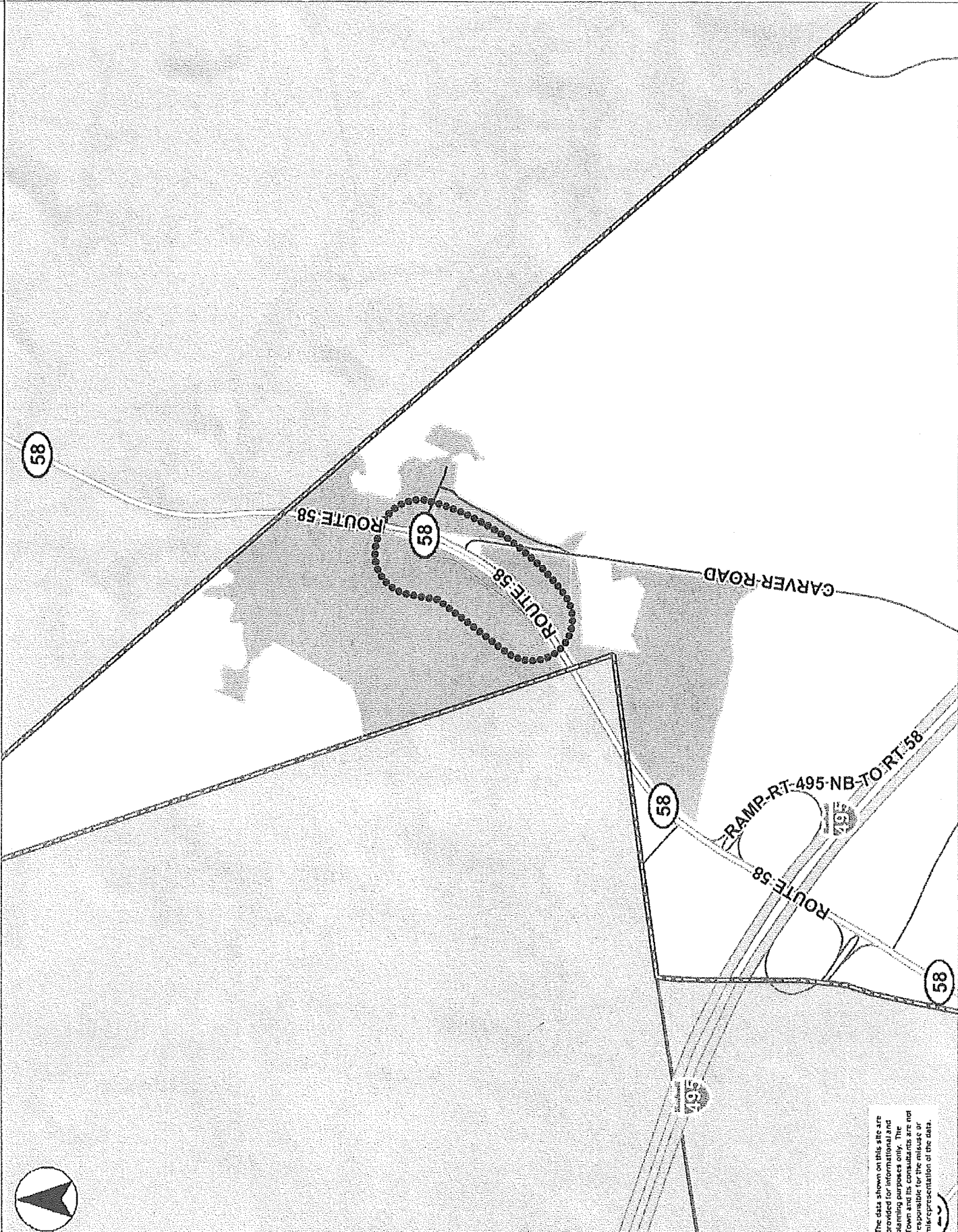
This verifies that LSE Tucana LLC (name of applicant) is up-to-date on the taxes for the property(ies) he/she owns in Wareham. If the applicant is not the current owner of the property that the application addresses, the current owner Cindy A. Barlow (name of property owner) is up-to-date on taxes and on all properties he/she owns in the Town of Wareham.

  
\_\_\_\_\_  
John Foster, Tax Collector

TOWN OF WAREHAM						
ABUTTERS LIST - 300'						
OWNER: BARLOW, CINDY A						
MAP 103 LOTS 1037 THROUGH 1039						
MAP/LOT	OWNER	MAILING ADDRESS	TOWN	ST	ZIP	
103-1019/A	RINTA PAUL E + LINDA A	34 N CARVER RD	W WAREHAM	MA	02576	
103-1038	BARLOW CINDY A	19 EAST BAR LE DOC DR	CORPUS CHRISTI	TX	78414	
103-1036	SELLON DEBORAH G	15 NORTH CARVER RD	W WAREHAM	MA	02576	
103-1037	BARLOW CINDY A	19 EAST BAR LE DOC DR	CORPUS CHRISTI	TX	78414	
103-1039	BARLOW CINDY A	19 EAST BAR LE DOC DR	CORPUS CHRISTI	TX	78414	
103-1042	ERICKSON RICHARD A TRUSTEE	77 BEACH ST	MIDDLEBORO	MA	02346	
103-1040	BARBOZA THOMAS H + SHIRLEY A	628 COUNTY RD	W WAREHAM	MA	02576	
104-1050/A	MEREDITH BRETT W	PO BOX 359	CARVER	MA	02330	
104-1050/B	SELLON LORING W	15 N CARVER RD	W WAREHAM	MA	02576	
104-1049/D	MEREDITH BRETT W	PO BOX 359	CARVER	MA	02330	
CERTIFIED ABUTTERS AS THEY						
APPEAR ON OUR TAX ROLLS						
AS OF 11/15/2021						
						
ASSESSORS OFFICE						
REQUESTED BY: GENNY REYNOLDS/ PRIME ENGINEERING						
grynolds@primeengineering.org						



- MA Places
- Bus Station
- Police Station
- Town Hall
- Public Library
- School
- Buildings
- Parcels
- Town Boundary
- MA Highways
- Interstate
- US Highway
- Numbered Rout
- Streets
- Bathymetry
- 0-5 ft
- 5-10 ft
- 10-15 ft
- 15-20 ft
- 20-30 ft
- 30-40 ft
- 40-50 ft
- 50-60 ft
- 60-70 ft
- 70+ ft
- Abutting Town Labels
- Abutting Towns



The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.



Printed on 11/29/2021 at 10:53 AM



Bk: 44921 Pg: 100 Page: 1 of 5  
Recorded: 11/06/2014 03:30 PM  
ATTEST: John R. Buckley, Jr. Register  
Plymouth County Registry of Deeds

QUITCLAIM DEED

I, Cindy A. Barlow, Personal Representative for the Estate of James E. Croke, Docket No. PL12P2107EA, Plymouth County by power conferred by my appointment by the Plymouth County Probate and Family Court as Personal Representative as of February 14, 2013

for consideration paid, and in full consideration of love and affection only, no monetary consideration

grant to Cindy A. Barlow, Individually, of 19 East Bar LeDoc Drive, Corpus Christi, Texas, with Quitclaim Covenants, the land in the Towns of Carver, Middleboro and Wareham, County of Plymouth and Commonwealth of Massachusetts, bounded and described as follows:

with quitclaim covenants

The land in the Towns of Carver, Middleboro and Wareham, County of Plymouth and Commonwealth of Massachusetts, bounded and described as follows:

Parcel I:

The land situated in the Town of Wareham containing 5.98 acres, more or less, on the westerly side of Route 58 and on the easterly side of the line dividing the Towns of Middleboro and Wareham and being shown on an unrecorded plan entitled: "Plan of Land Situated in Wareham, Mass., Surveyed for William M. Griffin Est., Scale: 1" = 50', January, 1944, Walter E. Rowley, Sur., a copy of which is on file with the office of Charles L. Rowley & Associates, Civil Engineers & Surveyors, 2229 Cranberry Highway, West Wareham, MA., and being more particularly described as follows:

Beginning at a stone bound set in or near the division line of the Towns of Middleboro and Wareham at the southwesterly corner of the lot to be described;

thence in said Town Line, N. 2° 40' 50" W., as shown on said plan, a distance of 747.84 feet to a stone bound and land now or formerly of Helvi E. Timonen;

thence in said Timonen's line, S. 72° 40' 50" E., a distance of 132.0 feet to a stone bound;

thence again in said Timonen's line, S. 63° 33' 30" E., a distance of 234.49 feet to a white oak tree;

thence in line of land now or formerly of Heirs of Nahum F. Morse, S. 33° 19' 50" E., a distance of 279.78 feet to a stone bound;

Return to:  
GAY & GAY, P.C.  
P.O. Box 988  
Taunton, MA 02780

TGJ

PROPERTY LOCATION: VACANT RT. 58 WAREHAM & CARVER, MA LAND

thence again in line of land of said Morse Heirs, S. 26° 30' 00" W., a distance of 420.10 feet to a stone bound and other land of the grantor;

thence in said grantor's line, S. 86° 36' 00" W., a distance of 160.0 feet to a stone bound;

thence again in line of land of the grantor, N. 81° 35' 20" W., a distance of 108.77 feet to the point of beginning.

Parcel II:

The land on the northwesterly side of Route 58 partly in the Town of Wareham and partly in the Town of Carver and adjacent to the division line between the Towns of Middleboro and Wareham, containing 58 acres, more or less, and being more particularly described as follows:

Beginning at a point in the northwesterly sideline of Route 58, a 1964 highway layout; said point being the intersection point of said northwesterly sideline of Route 58 and the division line between the Towns of Middleboro and Wareham;

thence in said town Line, northerly, a distance of 1510 feet, more or less, to a stone bound and southwesterly corner of Parcel III, described above;

thence in line of Parcel III, S. 81° 35' 20" E., a distance of 108.77 feet to a stone bound;

thence again in line of Parcel III, N. 86° 36' 00" E., a distance of 160.0 feet to a stone bound and land now or formerly of the Heirs of Nahum F. Morse;

thence in line of land now or formerly of the Heirs of Nahum F. Morse, northeasterly and northwesterly to land now or formerly of Helvi E. Timonen;

thence northerly in said Timeonen's line to the Weweantic River;

thence easterly and downstream by the Weweantic River to the westerly sideline of Carver Road;

thence southerly, and southwesterly by the westerly sideline of Carver Road and the northwesterly sideline of Route 58, a distance of 2470 feet, more or less, to the point of beginning.

Subject to drainage easements on the westerly side of Carver Road near its intersection with the Weweantic River.

EXCEPTING from the above-described parcel that portion of land contained within the above description and known as Wareham Assessors Sheet 103, Lot 1040.

Meaning and intending to convey as Parcel IV, all of the premises described in a deed from Ruel S. Gibbs to Homer L. Gibbs dated February 8, 1952, recorded in Plymouth County Registry of Deeds at Book 2191, Page 160, which lies between the division line of the Towns of Middleboro and



Wareham, the northwesterly sideline of Route 58 and westerly sideline of Carver Road, and southerly of the Weweantic River and including that portion of the premises situated on the northwesterly side of Route 58 which is described in a deed from Homer L. Gibbs and Mildred H. Gibbs dated December 14, 1959, recorded in Plymouth County Registry of Deeds at Book 2747, Page 498, and which is shown on an unrecorded plan entitled: "Plan of Land situated in Wareham, Mass., Survey for Homer L. Gibbs, et al, Scale: 1" = 100', May 28, 1938" by Samuel H. Corse, Surveyor, Rochester, Mass., a copy of said plan being on file with the Office of Charles L. Rowley & Associates, Civil Engineers & Surveyors, 2229 Cranberry Highway, West Wareham, Mass.

Parcel III:

A certain parcel or tract of land situated in the Towns of Wareham and Carver, County of Plymouth, and Commonwealth of Massachusetts, bounded and described as follows:

Beginning at a point on the easterly sideline of Carver Road, also known as Route 58 in the Town of Wareham; said point being situated N. 7° 38' 02" E., of and 98.65 feet distance from the most northerly corner of the lot shown on a plan entitled: "Plan of Land Prepared For Philip H. Gibbs, Route 58 & Carver Road, West Wareham, MA, Scale: 1" = 60', October 21, 1992" by Charles L. Rowley & Associates, Civil Engineers & Surveyors, West Wareham, MA and recorded as Plan No. 29 of 1993 in the Plymouth County Registry of Deeds; (the above referenced bearing of N. 07° 38' 02" E., is the extension of the easterly street line of Carver Road as shown on the plan but which has been adjusted to the Massachusetts Coordinate System, NAD '27).

Thence S. 80° 01' 08" E., a distance of 500.61 feet;

thence S. 10° 31' 38" E., a distance of 167.78 feet;

thence S. 79° 24' 44" E., a distance of 179.61 feet;

thence in the middle line of a dike, S. 61° 54' 37" E., a distance of 465.45 feet;

thence in the general line of an existing bog road, the following fourteen courses:

- S. 29° 15' 23" E., a distance of 29.30 feet;
- S. 07° 17' 37" E., a distance of 132.84 feet;
- S. 03° 47' 33" E., a distance of 76.92 feet;
- S. 23° 22' 47" E., a distance of 37.84 feet;
- S. 52° 12' 29" E., a distance of 34.70 feet;
- S. 81° 22' 38" E., a distance of 55.57 feet;
- S. 69° 44' 52" E., a distance of 31.71 feet;
- S. 51° 01' 09" E., a distance of 53.61 feet;
- S. 62° 44' 48" E., a distance of 45.88 feet;
- N. 86° 49' 33" E., a distance of 32.00 feet;
- N. 50° 33' 53" E., a distance of 39.86 feet;
- N. 30° 13' 18" E., a distance of 49.45 feet;

N. 36° 50' 13" E., a distance of 44.66 feet;

N. 45° 40' 15" E., a distance of 69.89 feet;

thence leaving the general line of the bog road and running S. 62° 31' 47" E., a distance of 77.54 feet to a point in the Town Line separating the Towns of Carver and Wareham;

thence in said Town Line S. 41° 19' 06" E., a distance of 300 feet, more or less, to the Weweantic River;

thence following the course of said River Northerly and Northwesterly to a point in the Easterly sideline of Tremont Street in Carver, where said River crosses Tremont Street;

thence Southerly in line of Tremont Street and Carver Road approximately 1200 feet more or less, to the point and place of beginning.

Intending to convey and hereby conveying all land Easterly of Carver - Tremont Road, bounded Northerly and Easterly by the Weweantic River and Southerly by land this day conveyed to Paul E. Rinta and Linda A. Rinta.

There is also conveyed a right in common with others, to use the bog road running Easterly from Tremont Street and being the Southerly boundary of the lot conveyed. Said road may be used for all purposes incident to cranberry horticulture on land abutting to the South and this day conveyed to said Rinta, et ux.

Intending to convey and hereby conveying the land known as Carver Assessors Sheet 128, Lots 7, 8 and 9; and Wareham Assessors Sheet 104, Lot 1049A (part thereof), Lot 1049B (part thereof), and 1049C (part thereof).


#### Parcel IV

The land in the Town of Carver, County of Plymouth and Commonwealth of Massachusetts, located on the westerly side of Tremont Street shown and delineated as Carver Assessors Map 97, Lot 1; and Carver Assessors Map 98, Lots 1 and 7.

Also intending to convey to grantee herein all land located on the Westerly side of Carver Road in Wareham, adjacent to the Town Line between Carver and Wareham bounded Southerly by the Weweantic River at a point on Tremont Street and Northeasterly by the Town Line of Wareham and Carver and not otherwise described herein.

Being the same premises conveyed to the late James E. Croke, by deed of Philip H. Gibbs, individually and as Trustee of P.H.G. Trust and Jean O. Gibbs a/k/a Jean Gibbs, individually and as Trustee of J.O.G. Trust dated January 22, 1993 and recorded with the Plymouth County Registry of Deeds at Book 11608, Page 252. See Form M792 for the Estate of James E. Croke recorded at the Plymouth County Registry of Deeds at Book 44705, Page 13.

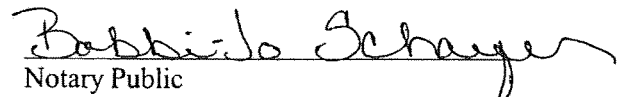
WITNESS my hand and seal this 3<sup>RD</sup> day of Nov, 2014.

  
Cindy A. Barlow, Personal Representative  
Estate of James E. Croke

State of Texas

On this 3<sup>RD</sup> day of Nov, 2014, before me, the undersigned notary public, personally appeared **Cindy A. Barlow** proved to me through satisfactory evidence of identification, which was () photographic identification with signature issued by a federal or state government agency, () oath or affirmation of a credible witness, or () personal knowledge of the undersigned, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of her knowledge and belief.



  
Notary Public  
My Commission Expires: 12/20/2016

(\*Individual — Joint Tenants — Tenants in Common.)

CHAPTER 183 SEC. 6 AS AMENDED BY CHAPTER 497 OF 1969

Every deed presented for record shall contain or have endorsed upon it the full name, residence and post office address of the grantee and a recital of the amount of the full consideration thereof in dollars or the nature of the other consideration therefor. If not delivered for a specific monetary sum. The full consideration shall mean the total price for the conveyance without deduction for any liens or encumbrances assumed by the grantee or remaining thereon. All such endorsements and recitals shall be recorded as part of the deed. Failure to comply with this section shall not affect the validity of any deed. No register of deeds shall accept a deed for recording unless it is in compliance with the requirements of this section.

**STORMWATER REPORT FOR  
ENTERO WAY SUBDIVISION  
OFF NORTH CARVER ROAD  
WAREHAM, MA**

**PREPARED FOR:**

**LSE TUCANA LLC  
C/O ERIC CRISLER  
1508 W. 30<sup>TH</sup>  
AUSTIN, TX 78703**

**PREPARED BY:**

**PRIME ENGINEERING, INC.  
P.O. BOX 1088  
LAKEVILLE, MA**

**DECEMBER 2, 2021**

## **1.0 INTRODUCTION**

It is proposed to construct an approximately 420 foot “residential minor street” to service two large lots off North Carver Road. This project requires approval from the Wareham Planning Board and from the Wareham Conservation Commission. This report has been prepared in support of those petitions.

## **2.0 PROPOSED IMPROVEMENTS**

It is proposed to construct an 18-foot-wide paved road bordered with 12” wide and 4” high Cape Cod berms with 5-foot-wide grass shoulders. This 420-foot-long road will provide access to two lots.

## **3.0 PROPOSED DRAINAGE**

The first 98 feet of the road will slope to catch basins at the sideline of North Carver Road. The runoff will be conveyed to the detention basin which will be constructed as constructed pocket wetlands which has been confirmed to remove 80 percent of the suspended solids. The remainder of the road will slope to a set of catch basins at station 3+08. The storm flow from the reminder of the road will be conveyed to the detention basins. Subdivisions of four lots or less are exempt from the MassDEP Stormwater Standards, however, this design meets most of the standards, including no untreated discharges, no increase in peak rate of runoff and treatment of suspended solids. The attached summary chart summarizes the results of the hydrologic computations which follow (Attachment A).

**Proposed Entero Way Subdivision  
1-13 North Carver Road  
WAREHAM, MASSACHUSETTS**

**Drainage Summary  
November 30, 2021**

**2 YR STORM (3.4 in.)**

Receptor	Pre Development Q Max (cfs)	Post Development Q Max (cfs)
1L	0.11	0.08
2L	0.03	0.03
3L	0.00	0.00

**10 YR STORM (4.8 in.)**

Receptor	Pre Development Q Max (cfs)	Post Development Q Max (cfs)
1L	1.30	0.85
2L	0.36	0.29
3L	0.00	0.00

**25 YR STORM (5.6 in.)**

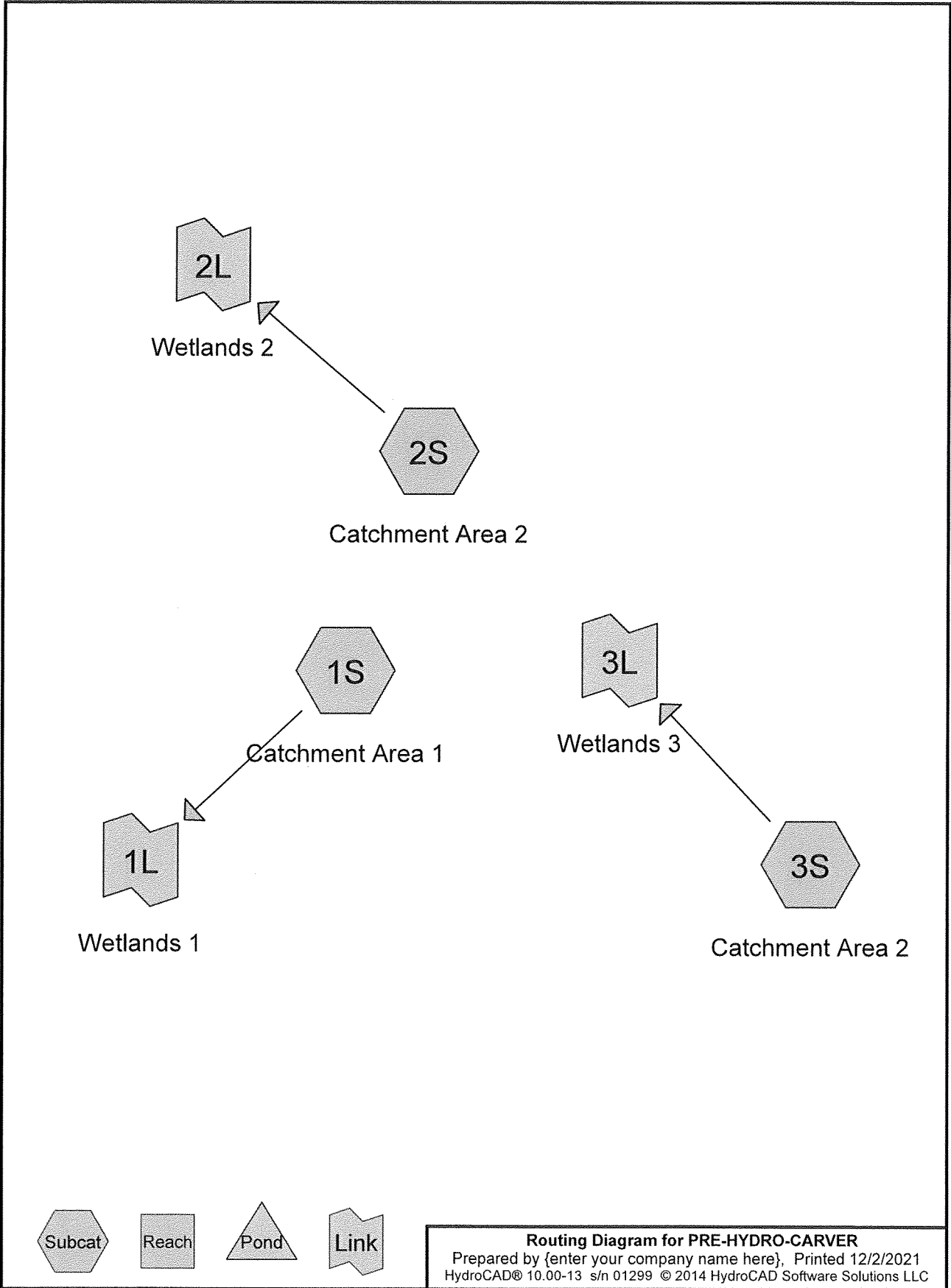
Receptor	Pre Development Q Max (cfs)	Post Development Q Max (cfs)
1L	3.11	2.22
2L	0.76	0.65
3L	0.01	0.01

**100 YR STORM (7.0 in.)**

Receptor	Pre Development Q Max (cfs)	Post Development Q Max (cfs)
1L	7.90	6.21
2L	1.75	1.56
3L	0.06	0.06

**ATTACHMENT A**  
**HYDROLOGIC CALCULATIONS**

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**Routing Diagram for PRE-HYDRO-CARVER**  
 Prepared by {enter your company name here}, Printed 12/2/2021  
 HydroCAD® 10.00-13 s/n 01299 © 2014 HydroCAD Software Solutions LLC



**PRE-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

Prepared by {enter your company name here}

Printed 12/2/2021

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Page 2

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Catchment Area 1**      Runoff Area=701,637 sf 0.00% Impervious    Runoff Depth=0.05"  
Flow Length=571' Tc=41.6 min CN=44    Runoff=0.11 cfs 0.072 af

**Subcatchment 2S: Catchment Area 2**      Runoff Area=127,915 sf 0.00% Impervious    Runoff Depth=0.09"  
Flow Length=571' Tc=41.6 min CN=46    Runoff=0.03 cfs 0.021 af

**Subcatchment 3S: Catchment Area 2**      Runoff Area=89,507 sf 0.00% Impervious    Runoff Depth=0.00"  
Flow Length=571' Tc=41.6 min CN=30    Runoff=0.00 cfs 0.000 af

**Link 1L: Wetlands 1**      Inflow=0.11 cfs 0.072 af  
Primary=0.11 cfs 0.072 af

**Link 2L: Wetlands 2**      Inflow=0.03 cfs 0.021 af  
Primary=0.03 cfs 0.021 af

**Link 3L: Wetlands 3**      Inflow=0.00 cfs 0.000 af  
Primary=0.00 cfs 0.000 af

**Total Runoff Area = 21.099 ac    Runoff Volume = 0.093 af    Average Runoff Depth = 0.05"**  
**100.00% Pervious = 21.099 ac    0.00% Impervious = 0.000 ac**

**PRE-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

Prepared by {enter your company name here}

Printed 12/2/2021

HydroCAD® 10.00-13 s/n 01299 © 2014 HydroCAD Software Solutions LLC

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**Summary for Subcatchment 1S: Catchment Area 1**

Runoff = 0.11 cfs @ 15.75 hrs, Volume= 0.072 af, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
398,966	30	Woods, Good, HSG A
172,672	70	Woods, Good, HSG C
36,988	49	50-75% Grass cover, Fair, HSG A
14,939	79	50-75% Grass cover, Fair, HSG C
78,072	49	50-75% Grass cover, Fair, HSG A
701,637	44	Weighted Average
701,637		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

Prepared by {enter your company name here}

Printed 12/2/2021

HydroCAD® 10.00-13 s/n 01299 © 2014 HydroCAD Software Solutions LLC

Page 4

**Summary for Subcatchment 2S: Catchment Area 2**

Runoff = 0.03 cfs @ 15.20 hrs, Volume= 0.021 af, Depth= 0.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
22,195	30	Woods, Good, HSG A
105,720	49	50-75% Grass cover, Fair, HSG A
127,915	46	Weighted Average
127,915		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

Prepared by {enter your company name here}

Printed 12/2/2021

HydroCAD® 10.00-13 s/n 01299 © 2014 HydroCAD Software Solutions LLC

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**Summary for Subcatchment 3S: Catchment Area 2**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
87,465	30	Woods, Good, HSG A
2,042	49	50-75% Grass cover, Fair, HSG A
89,507	30	Weighted Average
89,507		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b>
					Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b>
					Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b>
					Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Link 1L: Wetlands 1**

Inflow Area = 16.107 ac, 0.00% Impervious, Inflow Depth = 0.05" for 2-Year event  
Inflow = 0.11 cfs @ 15.75 hrs, Volume= 0.072 af  
Primary = 0.11 cfs @ 15.75 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Link 2L: Wetlands 2**

Inflow Area = 2.937 ac, 0.00% Impervious, Inflow Depth = 0.09" for 2-Year event  
Inflow = 0.03 cfs @ 15.20 hrs, Volume= 0.021 af  
Primary = 0.03 cfs @ 15.20 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Link 3L: Wetlands 3**

Inflow Area = 2.055 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Catchment Area 1**

Runoff Area=701,637 sf 0.00% Impervious Runoff Depth=0.34"  
Flow Length=571' Tc=41.6 min CN=44 Runoff=1.30 cfs 0.455 af

**Subcatchment 2S: Catchment Area 2**

Runoff Area=127,915 sf 0.00% Impervious Runoff Depth=0.42"  
Flow Length=571' Tc=41.6 min CN=46 Runoff=0.36 cfs 0.104 af

**Subcatchment 3S: Catchment Area 2**

Runoff Area=89,507 sf 0.00% Impervious Runoff Depth=0.00"  
Flow Length=571' Tc=41.6 min CN=30 Runoff=0.00 cfs 0.000 af

**Link 1L: Wetlands 1**

Inflow=1.30 cfs 0.455 af  
Primary=1.30 cfs 0.455 af

**Link 2L: Wetlands 2**

Inflow=0.36 cfs 0.104 af  
Primary=0.36 cfs 0.104 af

**Link 3L: Wetlands 3**

Inflow=0.00 cfs 0.000 af  
Primary=0.00 cfs 0.000 af

**Total Runoff Area = 21.099 ac Runoff Volume = 0.559 af Average Runoff Depth = 0.32"**  
**100.00% Pervious = 21.099 ac 0.00% Impervious = 0.000 ac**



**PRE-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Subcatchment 1S: Catchment Area 1**

Runoff = 1.30 cfs @ 12.91 hrs, Volume= 0.455 af, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
398,966	30	Woods, Good, HSG A
172,672	70	Woods, Good, HSG C
36,988	49	50-75% Grass cover, Fair, HSG A
14,939	79	50-75% Grass cover, Fair, HSG C
78,072	49	50-75% Grass cover, Fair, HSG A
701,637	44	Weighted Average
701,637		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Subcatchment 2S: Catchment Area 2**

Runoff = 0.36 cfs @ 12.83 hrs, Volume= 0.104 af, Depth= 0.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
22,195	30	Woods, Good, HSG A
105,720	49	50-75% Grass cover, Fair, HSG A
127,915	46	Weighted Average
127,915		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Subcatchment 3S: Catchment Area 2**

Runoff = 0.00 cfs @ 24.15 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
87,465	30	Woods, Good, HSG A
2,042	49	50-75% Grass cover, Fair, HSG A
89,507	30	Weighted Average
89,507		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Link 1L: Wetlands 1**

Inflow Area = 16.107 ac, 0.00% Impervious, Inflow Depth = 0.34" for 10-Year event  
Inflow = 1.30 cfs @ 12.91 hrs, Volume= 0.455 af  
Primary = 1.30 cfs @ 12.91 hrs, Volume= 0.455 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Link 2L: Wetlands 2**

Inflow Area = 2.937 ac, 0.00% Impervious, Inflow Depth = 0.42" for 10-Year event  
Inflow = 0.36 cfs @ 12.83 hrs, Volume= 0.104 af  
Primary = 0.36 cfs @ 12.83 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Link 3L: Wetlands 3**

Inflow Area = 2.055 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event  
Inflow = 0.00 cfs @ 24.15 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 24.15 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Catchment Area 1**      Runoff Area=701,637 sf 0.00% Impervious    Runoff Depth=0.59"  
Flow Length=571'    Tc=41.6 min    CN=44    Runoff=3.11 cfs 0.794 af

**Subcatchment 2S: Catchment Area 2**      Runoff Area=127,915 sf 0.00% Impervious    Runoff Depth=0.71"  
Flow Length=571'    Tc=41.6 min    CN=46    Runoff=0.76 cfs 0.173 af

**Subcatchment 3S: Catchment Area 2**      Runoff Area=89,507 sf 0.00% Impervious    Runoff Depth=0.04"  
Flow Length=571'    Tc=41.6 min    CN=30    Runoff=0.01 cfs 0.006 af

**Link 1L: Wetlands 1**      Inflow=3.11 cfs 0.794 af  
Primary=3.11 cfs 0.794 af

**Link 2L: Wetlands 2**      Inflow=0.76 cfs 0.173 af  
Primary=0.76 cfs 0.173 af

**Link 3L: Wetlands 3**      Inflow=0.01 cfs 0.006 af  
Primary=0.01 cfs 0.006 af

**Total Runoff Area = 21.099 ac    Runoff Volume = 0.972 af    Average Runoff Depth = 0.55"**  
**100.00% Pervious = 21.099 ac    0.00% Impervious = 0.000 ac**

**PRE-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Subcatchment 1S: Catchment Area 1**

Runoff = 3.11 cfs @ 12.79 hrs, Volume= 0.794 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-Year Rainfall=5.60"

Area (sf)	CN	Description
398,966	30	Woods, Good, HSG A
172,672	70	Woods, Good, HSG C
36,988	49	50-75% Grass cover, Fair, HSG A
14,939	79	50-75% Grass cover, Fair, HSG C
78,072	49	50-75% Grass cover, Fair, HSG A
701,637	44	Weighted Average
701,637		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			



**PRE-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Subcatchment 2S: Catchment Area 2**

Runoff = 0.76 cfs @ 12.76 hrs, Volume= 0.173 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-Year Rainfall=5.60"

Area (sf)	CN	Description
22,195	30	Woods, Good, HSG A
105,720	49	50-75% Grass cover, Fair, HSG A
127,915	46	Weighted Average
127,915		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Subcatchment 3S: Catchment Area 2**

Runoff = 0.01 cfs @ 17.80 hrs, Volume= 0.006 af, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 25-Year Rainfall=5.60"

Area (sf)	CN	Description
87,465	30	Woods, Good, HSG A
2,042	49	50-75% Grass cover, Fair, HSG A
89,507	30	Weighted Average
89,507		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Link 1L: Wetlands 1**

Inflow Area = 16.107 ac, 0.00% Impervious, Inflow Depth = 0.59" for 25-Year event  
Inflow = 3.11 cfs @ 12.79 hrs, Volume= 0.794 af  
Primary = 3.11 cfs @ 12.79 hrs, Volume= 0.794 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Link 2L: Wetlands 2**

Inflow Area = 2.937 ac, 0.00% Impervious, Inflow Depth = 0.71" for 25-Year event  
Inflow = 0.76 cfs @ 12.76 hrs, Volume= 0.173 af  
Primary = 0.76 cfs @ 12.76 hrs, Volume= 0.173 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

*Type III 24-hr 25-Year Rainfall=5.60"*

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**Summary for Link 3L: Wetlands 3**

Inflow Area = 2.055 ac, 0.00% Impervious, Inflow Depth = 0.04" for 25-Year event  
Inflow = 0.01 cfs @ 17.80 hrs, Volume= 0.006 af  
Primary = 0.01 cfs @ 17.80 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Catchment Area 1**      Runoff Area=701,637 sf 0.00% Impervious Runoff Depth=1.15"  
Flow Length=571' Tc=41.6 min CN=44 Runoff=7.90 cfs 1.550 af

**Subcatchment 2S: Catchment Area 2**      Runoff Area=127,915 sf 0.00% Impervious Runoff Depth=1.32"  
Flow Length=571' Tc=41.6 min CN=46 Runoff=1.75 cfs 0.323 af

**Subcatchment 3S: Catchment Area 2**      Runoff Area=89,507 sf 0.00% Impervious Runoff Depth=0.21"  
Flow Length=571' Tc=41.6 min CN=30 Runoff=0.06 cfs 0.036 af

**Link 1L: Wetlands 1**      Inflow=7.90 cfs 1.550 af  
Primary=7.90 cfs 1.550 af

**Link 2L: Wetlands 2**      Inflow=1.75 cfs 0.323 af  
Primary=1.75 cfs 0.323 af

**Link 3L: Wetlands 3**      Inflow=0.06 cfs 0.036 af  
Primary=0.06 cfs 0.036 af

**Total Runoff Area = 21.099 ac Runoff Volume = 1.910 af Average Runoff Depth = 1.09"**  
**100.00% Pervious = 21.099 ac - 0.00% Impervious = 0.000 ac**

**PRE-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Subcatchment 1S: Catchment Area 1**

Runoff = 7.90 cfs @ 12.71 hrs, Volume= 1.550 af, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
398,966	30	Woods, Good, HSG A
172,672	70	Woods, Good, HSG C
36,988	49	50-75% Grass cover, Fair, HSG A
14,939	79	50-75% Grass cover, Fair, HSG C
78,072	49	50-75% Grass cover, Fair, HSG A
701,637	44	Weighted Average
701,637		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Subcatchment 2S: Catchment Area 2**

Runoff = 1.75 cfs @ 12.69 hrs, Volume= 0.323 af, Depth= 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
22,195	30	Woods, Good, HSG A
105,720	49	50-75% Grass cover, Fair, HSG A
127,915	46	Weighted Average
127,915		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			



**PRE-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Subcatchment 3S: Catchment Area 2**

Runoff = 0.06 cfs @ 14.86 hrs, Volume= 0.036 af, Depth= 0.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
87,465	30	Woods, Good, HSG A
2,042	49	50-75% Grass cover, Fair, HSG A
89,507	30	Weighted Average
89,507		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**PRE-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Link 1L: Wetlands 1**

Inflow Area = 16.107 ac, 0.00% Impervious, Inflow Depth = 1.15" for 100-Year event  
Inflow = 7.90 cfs @ 12.71 hrs, Volume= 1.550 af  
Primary = 7.90 cfs @ 12.71 hrs, Volume= 1.550 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Link 2L: Wetlands 2**

Inflow Area = 2.937 ac, 0.00% Impervious, Inflow Depth = 1.32" for 100-Year event  
Inflow = 1.75 cfs @ 12.69 hrs, Volume= 0.323 af  
Primary = 1.75 cfs @ 12.69 hrs, Volume= 0.323 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**PRE-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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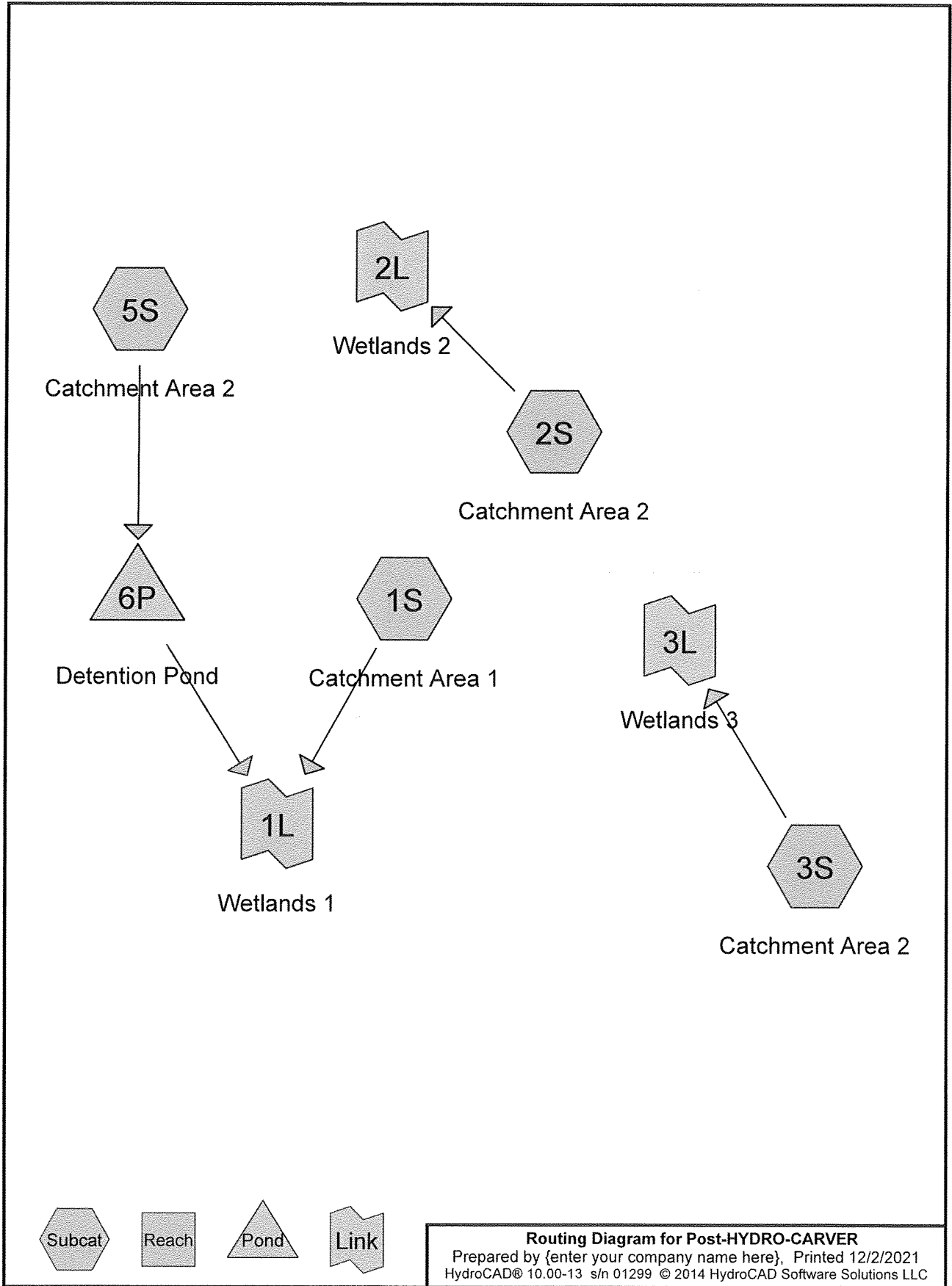
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**Summary for Link 3L: Wetlands 3**

Inflow Area = 2.055 ac, 0.00% Impervious, Inflow Depth = 0.21" for 100-Year event  
Inflow = 0.06 cfs @ 14.86 hrs, Volume= 0.036 af  
Primary = 0.06 cfs @ 14.86 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs



**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment 1S: Catchment Area 1</b>	Runoff Area=659,422 sf 0.00% Impervious Runoff Depth=0.03" Flow Length=571' Tc=41.6 min CN=42 Runoff=0.05 cfs 0.036 af
<b>Subcatchment 2S: Catchment Area 2</b>	Runoff Area=126,126 sf 0.00% Impervious Runoff Depth=0.07" Flow Length=571' Tc=41.6 min CN=45 Runoff=0.03 cfs 0.017 af
<b>Subcatchment 3S: Catchment Area 2</b>	Runoff Area=89,507 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=571' Tc=41.6 min CN=30 Runoff=0.00 cfs 0.000 af
<b>Subcatchment 5S: Catchment Area 2</b>	Runoff Area=40,233 sf 35.97% Impervious Runoff Depth=0.49" Flow Length=571' Tc=41.6 min CN=60 Runoff=0.18 cfs 0.038 af
<b>Pond 6P: Detention Pond</b>	Peak Elev=65.12' Storage=730 cf Inflow=0.18 cfs 0.038 af Primary=0.04 cfs 0.036 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.036 af
<b>Link 1L: Wetlands 1</b>	Inflow=0.08 cfs 0.072 af Primary=0.08 cfs 0.072 af
<b>Link 2L: Wetlands 2</b>	Inflow=0.03 cfs 0.017 af Primary=0.03 cfs 0.017 af
<b>Link 3L: Wetlands 3</b>	Inflow=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af

**Total Runoff Area = 21.012 ac Runoff Volume = 0.090 af Average Runoff Depth = 0.05"**  
**98.42% Pervious = 20.680 ac 1.58% Impervious = 0.332 ac**

**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Subcatchment 1S: Catchment Area 1**

Runoff = 0.05 cfs @ 17.46 hrs, Volume= 0.036 af, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
360,021	30	Woods, Good, HSG A
153,835	70	Woods, Good, HSG C
51,321	39	>75% Grass cover, Good, HSG A
16,158	30	Meadow, non-grazed, HSG A
78,087	49	50-75% Grass cover, Fair, HSG A
659,422	42	Weighted Average
659,422		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Subcatchment 2S: Catchment Area 2**

Runoff = 0.03 cfs @ 15.49 hrs, Volume= 0.017 af, Depth= 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
25,444	30	Woods, Good, HSG A
100,682	49	50-75% Grass cover, Fair, HSG A
126,126	45	Weighted Average
126,126		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			



**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Subcatchment 3S: Catchment Area 2**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
87,465	30	Woods, Good, HSG A
2,042	49	50-75% Grass cover, Fair, HSG A
89,507	30	Weighted Average
89,507		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Subcatchment 5S: Catchment Area 2**

Runoff = 0.18 cfs @ 12.73 hrs, Volume= 0.038 af, Depth= 0.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.40"

Area (sf)	CN	Description
14,470	98	Paved roads w/curbs & sewers, HSG A
25,763	39	>75% Grass cover, Good, HSG A
40,233	60	Weighted Average
25,763		64.03% Pervious Area
14,470		35.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Pond 6P: Detention Pond**

Inflow Area = 0.924 ac, 35.97% Impervious, Inflow Depth = 0.49" for 2-Year event  
 Inflow = 0.18 cfs @ 12.73 hrs, Volume= 0.038 af  
 Outflow = 0.04 cfs @ 16.00 hrs, Volume= 0.036 af, Atten= 79%, Lag= 196.6 min  
 Primary = 0.04 cfs @ 16.00 hrs, Volume= 0.036 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Peak Elev= 65.12' @ 16.00 hrs Surf.Area= 6,392 sf Storage= 730 cf

Plug-Flow detention time= 452.9 min calculated for 0.036 af (96% of inflow)  
 Center-of-Mass det. time= 430.8 min ( 1,376.2 - 945.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	14,909 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.00	6,256	0	0
66.00	7,437	6,847	6,847
67.00	8,688	8,063	14,909

Device	Routing	Invert	Outlet Devices
#1	Primary	65.00'	<b>12.0" Round Culvert</b> L= 25.0' Ke= 0.700 Inlet / Outlet Invert= 65.00' / 64.90' S= 0.0040 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Device 1	65.00'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600
#3	Secondary	66.00'	<b>4.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

**Primary OutFlow** Max=0.04 cfs @ 16.00 hrs HW=65.12' (Free Discharge)

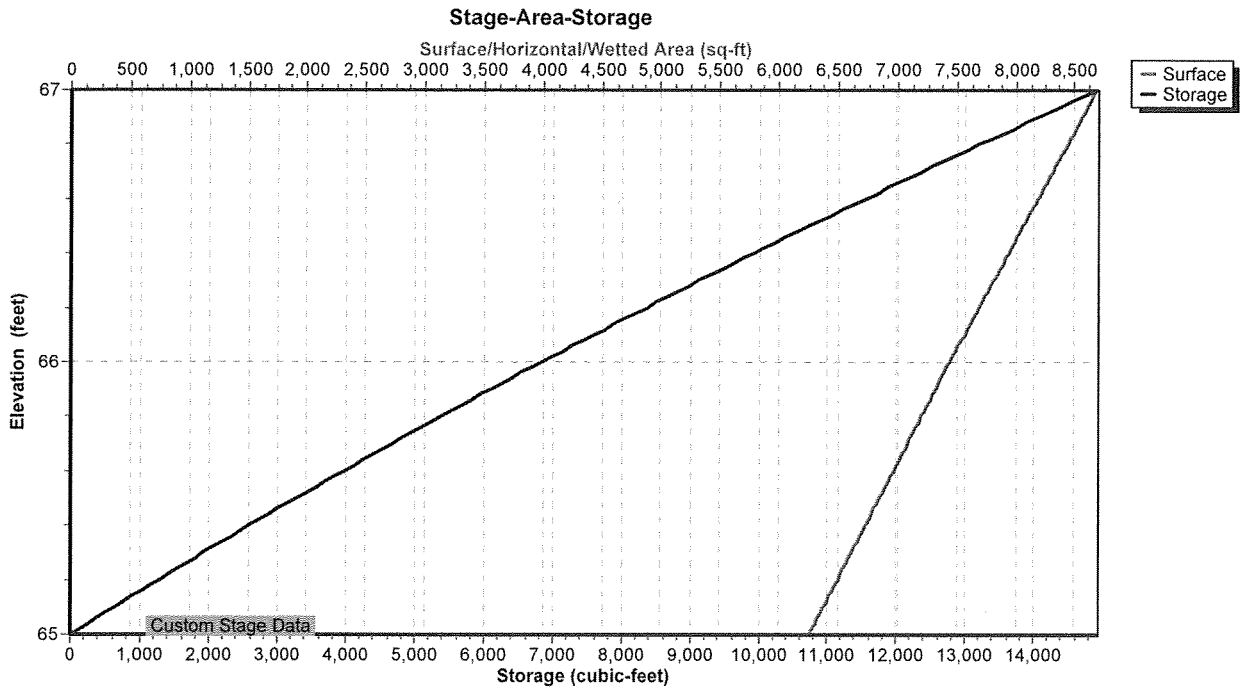
↑ **1=Culvert** (Barrel Controls 0.04 cfs @ 1.11 fps)

↑ **2=Orifice/Grate** (Passes 0.04 cfs of 0.04 cfs potential flow)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=65.00' (Free Discharge)

↑ **3=Broad-Crested Rectangular Weir** ( Controls 0.00 cfs)

### Pond 6P: Detention Pond



**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Stage-Area-Storage for Pond 6P: Detention Pond**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
65.00	6,256	0	66.06	7,512	7,295
65.02	6,280	125	66.08	7,537	7,445
65.04	6,303	251	66.10	7,562	7,596
65.06	6,327	377	66.12	7,587	7,748
65.08	6,350	504	66.14	7,612	7,900
65.10	6,374	632	66.16	7,637	8,052
65.12	6,398	759	66.18	7,662	8,205
65.14	6,421	887	66.20	7,687	8,359
65.16	6,445	1,016	66.22	7,712	8,513
65.18	6,469	1,145	66.24	7,737	8,667
65.20	6,492	1,275	66.26	7,762	8,822
65.22	6,516	1,405	66.28	7,787	8,978
65.24	6,539	1,535	66.30	7,812	9,134
65.26	6,563	1,666	66.32	7,837	9,290
65.28	6,587	1,798	66.34	7,862	9,447
65.30	6,610	1,930	66.36	7,887	9,605
65.32	6,634	2,062	66.38	7,912	9,763
65.34	6,658	2,195	66.40	7,937	9,921
65.36	6,681	2,329	66.42	7,962	10,080
65.38	6,705	2,463	66.44	7,987	10,240
65.40	6,728	2,597	66.46	8,012	10,400
65.42	6,752	2,732	66.48	8,037	10,560
65.44	6,776	2,867	66.50	8,063	10,721
65.46	6,799	3,003	66.52	8,088	10,883
65.48	6,823	3,139	66.54	8,113	11,045
65.50	6,847	3,276	66.56	8,138	11,207
65.52	6,870	3,413	66.58	8,163	11,370
65.54	6,894	3,550	66.60	8,188	11,534
65.56	6,917	3,689	66.62	8,213	11,698
65.58	6,941	3,827	66.64	8,238	11,862
65.60	6,965	3,966	66.66	8,263	12,027
65.62	6,988	4,106	66.68	8,288	12,193
65.64	7,012	4,246	66.70	8,313	12,359
65.66	7,035	4,386	66.72	8,338	12,525
65.68	7,059	4,527	66.74	8,363	12,692
65.70	7,083	4,669	66.76	8,388	12,860
65.72	7,106	4,810	66.78	8,413	13,028
65.74	7,130	4,953	66.80	8,438	13,196
65.76	7,154	5,096	66.82	8,463	13,365
65.78	7,177	5,239	66.84	8,488	13,535
65.80	7,201	5,383	66.86	8,513	13,705
65.82	7,224	5,527	66.88	8,538	13,875
65.84	7,248	5,672	66.90	8,563	14,046
65.86	7,272	5,817	66.92	8,588	14,218
65.88	7,295	5,963	66.94	8,613	14,390
65.90	7,319	6,109	66.96	8,638	14,562
65.92	7,343	6,255	66.98	8,663	14,735
65.94	7,366	6,402	67.00	<b>8,688</b>	<b>14,909</b>
65.96	7,390	6,550			
65.98	7,413	6,698			
66.00	7,437	6,847			
66.02	7,462	6,995			
66.04	7,487	7,145			

**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Link 1L: Wetlands 1**

Inflow Area = 16.062 ac, 2.07% Impervious, Inflow Depth > 0.05" for 2-Year event  
Inflow = 0.08 cfs @ 17.05 hrs, Volume= 0.072 af  
Primary = 0.08 cfs @ 17.05 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Link 2L: Wetlands 2**

Inflow Area = 2.895 ac, 0.00% Impervious, Inflow Depth = 0.07" for 2-Year event  
Inflow = 0.03 cfs @ 15.49 hrs, Volume= 0.017 af  
Primary = 0.03 cfs @ 15.49 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 2-Year Rainfall=3.40"

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**Summary for Link 3L: Wetlands 3**

Inflow Area = 2.055 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs



**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Catchment Area 1**      Runoff Area=659,422 sf   0.00% Impervious   Runoff Depth=0.26"  
Flow Length=571'   Tc=41.6 min   CN=42   Runoff=0.74 cfs   0.331 af

**Subcatchment 2S: Catchment Area 2**      Runoff Area=126,126 sf   0.00% Impervious   Runoff Depth=0.38"  
Flow Length=571'   Tc=41.6 min   CN=45   Runoff=0.29 cfs   0.092 af

**Subcatchment 3S: Catchment Area 2**      Runoff Area=89,507 sf   0.00% Impervious   Runoff Depth=0.00"  
Flow Length=571'   Tc=41.6 min   CN=30   Runoff=0.00 cfs   0.000 af

**Subcatchment 5S: Catchment Area 2**      Runoff Area=40,233 sf   35.97% Impervious   Runoff Depth=1.19"  
Flow Length=571'   Tc=41.6 min   CN=60   Runoff=0.55 cfs   0.091 af

**Pond 6P: Detention Pond**      Peak Elev=65.23'   Storage=1,498 cf   Inflow=0.55 cfs   0.091 af  
Primary=0.15 cfs   0.090 af   Secondary=0.00 cfs   0.000 af   Outflow=0.15 cfs   0.090 af

**Link 1L: Wetlands 1**      Inflow=0.85 cfs   0.420 af  
Primary=0.85 cfs   0.420 af

**Link 2L: Wetlands 2**      Inflow=0.29 cfs   0.092 af  
Primary=0.29 cfs   0.092 af

**Link 3L: Wetlands 3**      Inflow=0.00 cfs   0.000 af  
Primary=0.00 cfs   0.000 af

**Total Runoff Area = 21.012 ac   Runoff Volume = 0.514 af   Average Runoff Depth = 0.29"**  
**98.42% Pervious = 20.680 ac   1.58% Impervious = 0.332 ac**

**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Subcatchment 1S: Catchment Area 1**

Runoff = 0.74 cfs @ 13.03 hrs, Volume= 0.331 af, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
360,021	30	Woods, Good, HSG A
153,835	70	Woods, Good, HSG C
51,321	39	>75% Grass cover, Good, HSG A
16,158	30	Meadow, non-grazed, HSG A
78,087	49	50-75% Grass cover, Fair, HSG A
659,422	42	Weighted Average
659,422		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Subcatchment 2S: Catchment Area 2**

Runoff = 0.29 cfs @ 12.87 hrs, Volume= 0.092 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
25,444	30	Woods, Good, HSG A
100,682	49	50-75% Grass cover, Fair, HSG A
126,126	45	Weighted Average
126,126		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Subcatchment 3S: Catchment Area 2**

Runoff = 0.00 cfs @ 24.15 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
87,465	30	Woods, Good, HSG A
2,042	49	50-75% Grass cover, Fair, HSG A
89,507	30	Weighted Average
89,507		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Subcatchment 5S: Catchment Area 2**

Runoff = 0.55 cfs @ 12.65 hrs, Volume= 0.091 af, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=4.80"

Area (sf)	CN	Description
14,470	98	Paved roads w/curbs & sewers, HSG A
25,763	39	>75% Grass cover, Good, HSG A
40,233	60	Weighted Average
25,763		64.03% Pervious Area
14,470		35.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Pond 6P: Detention Pond**

Inflow Area = 0.924 ac, 35.97% Impervious, Inflow Depth = 1.19" for 10-Year event  
 Inflow = 0.55 cfs @ 12.65 hrs, Volume= 0.091 af  
 Outflow = 0.15 cfs @ 13.88 hrs, Volume= 0.090 af, Atten= 73%, Lag= 73.5 min  
 Primary = 0.15 cfs @ 13.88 hrs, Volume= 0.090 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Peak Elev= 65.23' @ 13.88 hrs Surf.Area= 6,533 sf Storage= 1,498 cf

Plug-Flow detention time= 272.8 min calculated for 0.090 af (98% of inflow)  
 Center-of-Mass det. time= 262.3 min ( 1,173.9 - 911.5 )

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	14,909 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.00	6,256	0	0
66.00	7,437	6,847	6,847
67.00	8,688	8,063	14,909

Device	Routing	Invert	Outlet Devices
#1	Primary	65.00'	<b>12.0" Round Culvert</b> L= 25.0' Ke= 0.700 Inlet / Outlet Invert= 65.00' / 64.90' S= 0.0040 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Device 1	65.00'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600
#3	Secondary	66.00'	<b>4.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

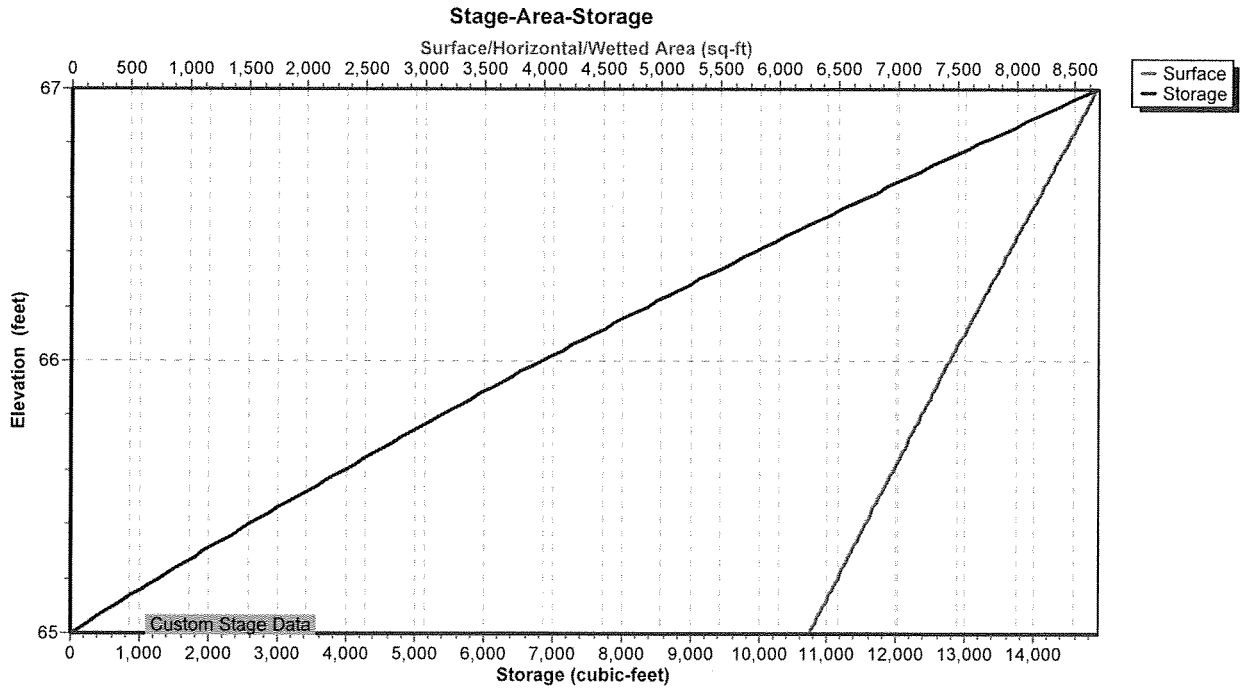
**Primary OutFlow** Max=0.15 cfs @ 13.88 hrs HW=65.23' (Free Discharge)

- ↑1=Culvert (Passes 0.15 cfs of 0.15 cfs potential flow)
- ↑2=Orifice/Grate (Orifice Controls 0.15 cfs @ 1.65 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=65.00' (Free Discharge)

- ↑3=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond 6P: Detention Pond



**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Stage-Area-Storage for Pond 6P: Detention Pond**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
65.00	6,256	0	66.06	7,512	7,295
65.02	6,280	125	66.08	7,537	7,445
65.04	6,303	251	66.10	7,562	7,596
65.06	6,327	377	66.12	7,587	7,748
65.08	6,350	504	66.14	7,612	7,900
65.10	6,374	632	66.16	7,637	8,052
65.12	6,398	759	66.18	7,662	8,205
65.14	6,421	887	66.20	7,687	8,359
65.16	6,445	1,016	66.22	7,712	8,513
65.18	6,469	1,145	66.24	7,737	8,667
65.20	6,492	1,275	66.26	7,762	8,822
65.22	6,516	1,405	66.28	7,787	8,978
65.24	6,539	1,535	66.30	7,812	9,134
65.26	6,563	1,666	66.32	7,837	9,290
65.28	6,587	1,798	66.34	7,862	9,447
65.30	6,610	1,930	66.36	7,887	9,605
65.32	6,634	2,062	66.38	7,912	9,763
65.34	6,658	2,195	66.40	7,937	9,921
65.36	6,681	2,329	66.42	7,962	10,080
65.38	6,705	2,463	66.44	7,987	10,240
65.40	6,728	2,597	66.46	8,012	10,400
65.42	6,752	2,732	66.48	8,037	10,560
65.44	6,776	2,867	66.50	8,063	10,721
65.46	6,799	3,003	66.52	8,088	10,883
65.48	6,823	3,139	66.54	8,113	11,045
65.50	6,847	3,276	66.56	8,138	11,207
65.52	6,870	3,413	66.58	8,163	11,370
65.54	6,894	3,550	66.60	8,188	11,534
65.56	6,917	3,689	66.62	8,213	11,698
65.58	6,941	3,827	66.64	8,238	11,862
65.60	6,965	3,966	66.66	8,263	12,027
65.62	6,988	4,106	66.68	8,288	12,193
65.64	7,012	4,246	66.70	8,313	12,359
65.66	7,035	4,386	66.72	8,338	12,525
65.68	7,059	4,527	66.74	8,363	12,692
65.70	7,083	4,669	66.76	8,388	12,860
65.72	7,106	4,810	66.78	8,413	13,028
65.74	7,130	4,953	66.80	8,438	13,196
65.76	7,154	5,096	66.82	8,463	13,365
65.78	7,177	5,239	66.84	8,488	13,535
65.80	7,201	5,383	66.86	8,513	13,705
65.82	7,224	5,527	66.88	8,538	13,875
65.84	7,248	5,672	66.90	8,563	14,046
65.86	7,272	5,817	66.92	8,588	14,218
65.88	7,295	5,963	66.94	8,613	14,390
65.90	7,319	6,109	66.96	8,638	14,562
65.92	7,343	6,255	66.98	8,663	14,735
65.94	7,366	6,402	67.00	<b>8,688</b>	<b>14,909</b>
65.96	7,390	6,550			
65.98	7,413	6,698			
66.00	7,437	6,847			
66.02	7,462	6,995			
66.04	7,487	7,145			



**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Link 1L: Wetlands 1**

Inflow Area = 16.062 ac, 2.07% Impervious, Inflow Depth > 0.31" for 10-Year event  
Inflow = 0.85 cfs @ 13.10 hrs, Volume= 0.420 af  
Primary = 0.85 cfs @ 13.10 hrs, Volume= 0.420 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Link 2L: Wetlands 2**

Inflow Area = 2.895 ac, 0.00% Impervious, Inflow Depth = 0.38" for 10-Year event  
Inflow = 0.29 cfs @ 12.87 hrs, Volume= 0.092 af  
Primary = 0.29 cfs @ 12.87 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 10-Year Rainfall=4.80"

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**Summary for Link 3L: Wetlands 3**

Inflow Area = 2.055 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event  
Inflow = 0.00 cfs @ 24.15 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 24.15 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

- Subcatchment 1S: Catchment Area 1**      Runoff Area=659,422 sf 0.00% Impervious    Runoff Depth=0.48"  
Flow Length=571'    Tc=41.6 min    CN=42    Runoff=2.06 cfs 0.610 af
- Subcatchment 2S: Catchment Area 2**      Runoff Area=126,126 sf 0.00% Impervious    Runoff Depth=0.65"  
Flow Length=571'    Tc=41.6 min    CN=45    Runoff=0.65 cfs 0.156 af
- Subcatchment 3S: Catchment Area 2**      Runoff Area=89,507 sf 0.00% Impervious    Runoff Depth=0.04"  
Flow Length=571'    Tc=41.6 min    CN=30    Runoff=0.01 cfs 0.006 af
- Subcatchment 5S: Catchment Area 2**      Runoff Area=40,233 sf 35.97% Impervious    Runoff Depth=1.67"  
Flow Length=571'    Tc=41.6 min    CN=60    Runoff=0.81 cfs 0.128 af
- Pond 6P: Detention Pond**      Peak Elev=65.32'    Storage=2,051 cf    Inflow=0.81 cfs 0.128 af  
Primary=0.25 cfs 0.126 af    Secondary=0.00 cfs 0.000 af    Outflow=0.25 cfs 0.126 af
- Link 1L: Wetlands 1**      Inflow=2.22 cfs 0.737 af  
Primary=2.22 cfs 0.737 af
- Link 2L: Wetlands 2**      Inflow=0.65 cfs 0.156 af  
Primary=0.65 cfs 0.156 af
- Link 3L: Wetlands 3**      Inflow=0.01 cfs 0.006 af  
Primary=0.01 cfs 0.006 af

**Total Runoff Area = 21.012 ac    Runoff Volume = 0.901 af    Average Runoff Depth = 0.51"**  
**98.42% Pervious = 20.680 ac    1.58% Impervious = 0.332 ac**

**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Subcatchment 1S: Catchment Area 1**

Runoff = 2.06 cfs @ 12.84 hrs, Volume= 0.610 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 25-Year Rainfall=5.60"

Area (sf)	CN	Description
360,021	30	Woods, Good, HSG A
153,835	70	Woods, Good, HSG C
51,321	39	>75% Grass cover, Good, HSG A
16,158	30	Meadow, non-grazed, HSG A
78,087	49	50-75% Grass cover, Fair, HSG A
659,422	42	Weighted Average
659,422		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Subcatchment 2S: Catchment Area 2**

Runoff = 0.65 cfs @ 12.77 hrs, Volume= 0.156 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-Year Rainfall=5.60"

Area (sf)	CN	Description
25,444	30	Woods, Good, HSG A
100,682	49	50-75% Grass cover, Fair, HSG A
126,126	45	Weighted Average
126,126		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Subcatchment 3S: Catchment Area 2**

Runoff = 0.01 cfs @ 17.80 hrs, Volume= 0.006 af, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-Year Rainfall=5.60"

Area (sf)	CN	Description
87,465	30	Woods, Good, HSG A
2,042	49	50-75% Grass cover, Fair, HSG A
89,507	30	Weighted Average
89,507		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Subcatchment 5S: Catchment Area 2**

Runoff = 0.81 cfs @ 12.63 hrs, Volume= 0.128 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 25-Year Rainfall=5.60"

Area (sf)	CN	Description
14,470	98	Paved roads w/curbs & sewers, HSG A
25,763	39	>75% Grass cover, Good, HSG A
40,233	60	Weighted Average
25,763		64.03% Pervious Area
14,470		35.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			



**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Pond 6P: Detention Pond**

Inflow Area = 0.924 ac, 35.97% Impervious, Inflow Depth = 1.67" for 25-Year event  
 Inflow = 0.81 cfs @ 12.63 hrs, Volume= 0.128 af  
 Outflow = 0.25 cfs @ 13.57 hrs, Volume= 0.126 af, Atten= 69%, Lag= 56.2 min  
 Primary = 0.25 cfs @ 13.57 hrs, Volume= 0.126 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Peak Elev= 65.32' @ 13.57 hrs Surf.Area= 6,632 sf Storage= 2,051 cf

Plug-Flow detention time= 226.6 min calculated for 0.126 af (99% of inflow)  
 Center-of-Mass det. time= 218.8 min ( 1,119.2 - 900.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	14,909 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.00	6,256	0	0
66.00	7,437	6,847	6,847
67.00	8,688	8,063	14,909

Device	Routing	Invert	Outlet Devices
#1	Primary	65.00'	<b>12.0" Round Culvert</b> L= 25.0' Ke= 0.700 Inlet / Outlet Invert= 65.00' / 64.90' S= 0.0040 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Device 1	65.00'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600
#3	Secondary	66.00'	<b>4.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

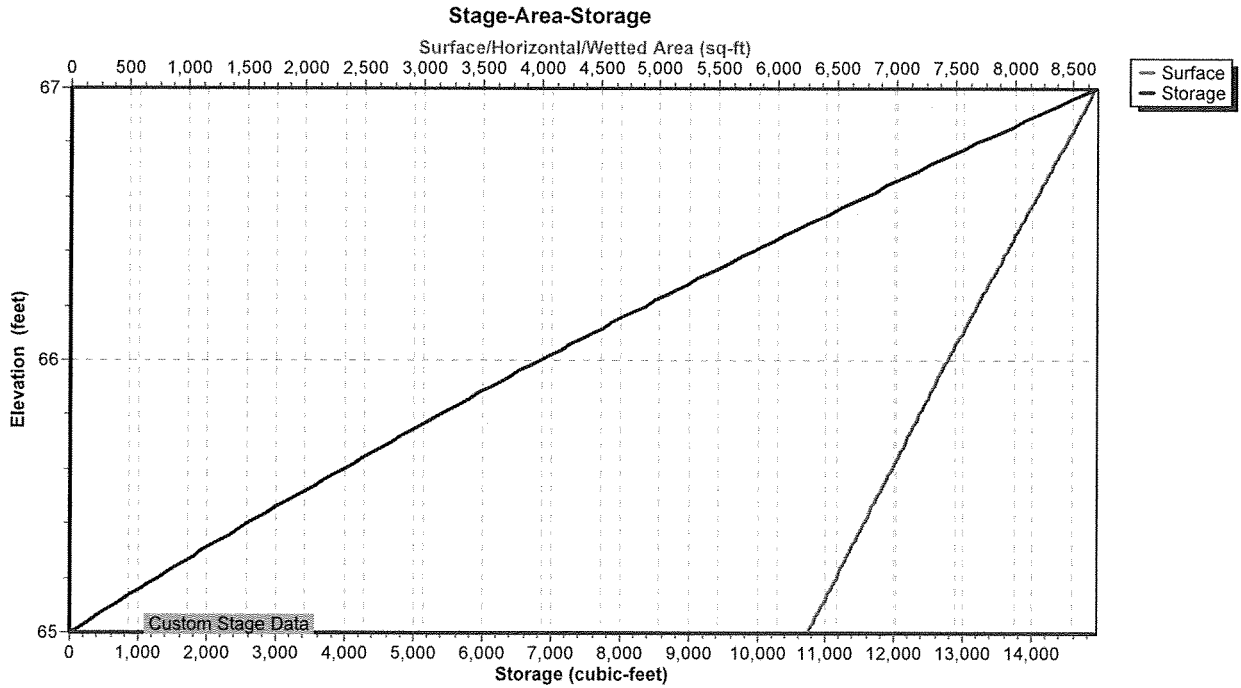
**Primary OutFlow** Max=0.25 cfs @ 13.57 hrs HW=65.32' (Free Discharge)

- ↑1=Culvert (Passes 0.25 cfs of 0.28 cfs potential flow)
- ↑2=Orifice/Grate (Orifice Controls 0.25 cfs @ 1.92 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=65.00' (Free Discharge)

- ↑3=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond 6P: Detention Pond



**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Stage-Area-Storage for Pond 6P: Detention Pond**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
65.00	6,256	0	66.06	7,512	7,295
65.02	6,280	125	66.08	7,537	7,445
65.04	6,303	251	66.10	7,562	7,596
65.06	6,327	377	66.12	7,587	7,748
65.08	6,350	504	66.14	7,612	7,900
65.10	6,374	632	66.16	7,637	8,052
65.12	6,398	759	66.18	7,662	8,205
65.14	6,421	887	66.20	7,687	8,359
65.16	6,445	1,016	66.22	7,712	8,513
65.18	6,469	1,145	66.24	7,737	8,667
65.20	6,492	1,275	66.26	7,762	8,822
65.22	6,516	1,405	66.28	7,787	8,978
65.24	6,539	1,535	66.30	7,812	9,134
65.26	6,563	1,666	66.32	7,837	9,290
65.28	6,587	1,798	66.34	7,862	9,447
65.30	6,610	1,930	66.36	7,887	9,605
65.32	6,634	2,062	66.38	7,912	9,763
65.34	6,658	2,195	66.40	7,937	9,921
65.36	6,681	2,329	66.42	7,962	10,080
65.38	6,705	2,463	66.44	7,987	10,240
65.40	6,728	2,597	66.46	8,012	10,400
65.42	6,752	2,732	66.48	8,037	10,560
65.44	6,776	2,867	66.50	8,063	10,721
65.46	6,799	3,003	66.52	8,088	10,883
65.48	6,823	3,139	66.54	8,113	11,045
65.50	6,847	3,276	66.56	8,138	11,207
65.52	6,870	3,413	66.58	8,163	11,370
65.54	6,894	3,550	66.60	8,188	11,534
65.56	6,917	3,689	66.62	8,213	11,698
65.58	6,941	3,827	66.64	8,238	11,862
65.60	6,965	3,966	66.66	8,263	12,027
65.62	6,988	4,106	66.68	8,288	12,193
65.64	7,012	4,246	66.70	8,313	12,359
65.66	7,035	4,386	66.72	8,338	12,525
65.68	7,059	4,527	66.74	8,363	12,692
65.70	7,083	4,669	66.76	8,388	12,860
65.72	7,106	4,810	66.78	8,413	13,028
65.74	7,130	4,953	66.80	8,438	13,196
65.76	7,154	5,096	66.82	8,463	13,365
65.78	7,177	5,239	66.84	8,488	13,535
65.80	7,201	5,383	66.86	8,513	13,705
65.82	7,224	5,527	66.88	8,538	13,875
65.84	7,248	5,672	66.90	8,563	14,046
65.86	7,272	5,817	66.92	8,588	14,218
65.88	7,295	5,963	66.94	8,613	14,390
65.90	7,319	6,109	66.96	8,638	14,562
65.92	7,343	6,255	66.98	8,663	14,735
65.94	7,366	6,402	67.00	<b>8,688</b>	<b>14,909</b>
65.96	7,390	6,550			
65.98	7,413	6,698			
66.00	7,437	6,847			
66.02	7,462	6,995			
66.04	7,487	7,145			

**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Link 1L: Wetlands 1**

Inflow Area = 16.062 ac, 2.07% Impervious, Inflow Depth > 0.55" for 25-Year event  
Inflow = 2.22 cfs @ 12.87 hrs, Volume= 0.737 af  
Primary = 2.22 cfs @ 12.87 hrs, Volume= 0.737 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Link 2L: Wetlands 2**

Inflow Area = 2.895 ac, 0.00% Impervious, Inflow Depth = 0.65" for 25-Year event  
Inflow = 0.65 cfs @ 12.77 hrs, Volume= 0.156 af  
Primary = 0.65 cfs @ 12.77 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 25-Year Rainfall=5.60"

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**Summary for Link 3L: Wetlands 3**

Inflow Area = 2.055 ac, 0.00% Impervious, Inflow Depth = 0.04" for 25-Year event  
Inflow = 0.01 cfs @ 17.80 hrs, Volume= 0.006 af  
Primary = 0.01 cfs @ 17.80 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Catchment Area 1**      Runoff Area=659,422 sf 0.00% Impervious Runoff Depth=1.00"  
Flow Length=571' Tc=41.6 min CN=42 Runoff=5.91 cfs 1.255 af

**Subcatchment 2S: Catchment Area 2**      Runoff Area=126,126 sf 0.00% Impervious Runoff Depth=1.24"  
Flow Length=571' Tc=41.6 min CN=45 Runoff=1.57 cfs 0.298 af

**Subcatchment 3S: Catchment Area 2**      Runoff Area=89,507 sf 0.00% Impervious Runoff Depth=0.21"  
Flow Length=571' Tc=41.6 min CN=30 Runoff=0.06 cfs 0.036 af

**Subcatchment 5S: Catchment Area 2**      Runoff Area=40,233 sf 35.97% Impervious Runoff Depth=2.60"  
Flow Length=571' Tc=41.6 min CN=60 Runoff=1.31 cfs 0.200 af

**Pond 6P: Detention Pond**      Peak Elev=65.48' Storage=3,173 cf Inflow=1.31 cfs 0.200 af  
Primary=0.46 cfs 0.199 af Secondary=0.00 cfs 0.000 af Outflow=0.46 cfs 0.199 af

**Link 1L: Wetlands 1**      Inflow=6.21 cfs 1.454 af  
Primary=6.21 cfs 1.454 af

**Link 2L: Wetlands 2**      Inflow=1.57 cfs 0.298 af  
Primary=1.57 cfs 0.298 af

**Link 3L: Wetlands 3**      Inflow=0.06 cfs 0.036 af  
Primary=0.06 cfs 0.036 af

**Total Runoff Area = 21.012 ac    Runoff Volume = 1.791 af    Average Runoff Depth = 1.02"**  
**98.42% Pervious = 20.680 ac    1.58% Impervious = 0.332 ac**

**Post-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Subcatchment 1S: Catchment Area 1**

Runoff = 5.91 cfs @ 12.73 hrs, Volume= 1.255 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
360,021	30	Woods, Good, HSG A
153,835	70	Woods, Good, HSG C
51,321	39	>75% Grass cover, Good, HSG A
16,158	30	Meadow, non-grazed, HSG A
78,087	49	50-75% Grass cover, Fair, HSG A
659,422	42	Weighted Average
659,422		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			



**Post-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Subcatchment 2S: Catchment Area 2**

Runoff = 1.57 cfs @ 12.70 hrs, Volume= 0.298 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
25,444	30	Woods, Good, HSG A
100,682	49	50-75% Grass cover, Fair, HSG A
126,126	45	Weighted Average
126,126		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Subcatchment 3S: Catchment Area 2**

Runoff = 0.06 cfs @ 14.86 hrs, Volume= 0.036 af, Depth= 0.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
87,465	30	Woods, Good, HSG A
2,042	49	50-75% Grass cover, Fair, HSG A
89,507	30	Weighted Average
89,507		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Subcatchment 5S: Catchment Area 2**

Runoff = 1.31 cfs @ 12.61 hrs, Volume= 0.200 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
14,470	98	Paved roads w/curbs & sewers, HSG A
25,763	39	>75% Grass cover, Good, HSG A
40,233	60	Weighted Average
25,763		64.03% Pervious Area
14,470		35.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	50	0.0300	0.18		<b>Sheet Flow,</b> Grass: Short n= 0.150 P2= 3.40"
0.3	28	0.1000	1.58		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
36.7	493	0.0020	0.22		<b>Shallow Concentrated Flow,</b> Woodland Kv= 5.0 fps
41.6	571	Total			

**Post-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Pond 6P: Detention Pond**

Inflow Area = 0.924 ac, 35.97% Impervious, Inflow Depth = 2.60" for 100-Year event  
 Inflow = 1.31 cfs @ 12.61 hrs, Volume= 0.200 af  
 Outflow = 0.46 cfs @ 13.40 hrs, Volume= 0.199 af, Atten= 65%, Lag= 47.2 min  
 Primary = 0.46 cfs @ 13.40 hrs, Volume= 0.199 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Peak Elev= 65.48' @ 13.40 hrs Surf.Area= 6,829 sf Storage= 3,173 cf

Plug-Flow detention time= 179.8 min calculated for 0.198 af (99% of inflow)  
 Center-of-Mass det. time= 176.4 min ( 1,063.0 - 886.5 )

Volume	Invert	Avail.Storage	Storage Description
#1	65.00'	14,909 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.00	6,256	0	0
66.00	7,437	6,847	6,847
67.00	8,688	8,063	14,909

Device	Routing	Invert	Outlet Devices
#1	Primary	65.00'	<b>12.0" Round Culvert</b> L= 25.0' Ke= 0.700 Inlet / Outlet Invert= 65.00' / 64.90' S= 0.0040 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Device 1	65.00'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600
#3	Secondary	66.00'	<b>4.0' long x 0.5' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

**Primary OutFlow** Max=0.46 cfs @ 13.40 hrs HW=65.48' (Free Discharge)

1=Culvert (Passes 0.46 cfs of 0.60 cfs potential flow)

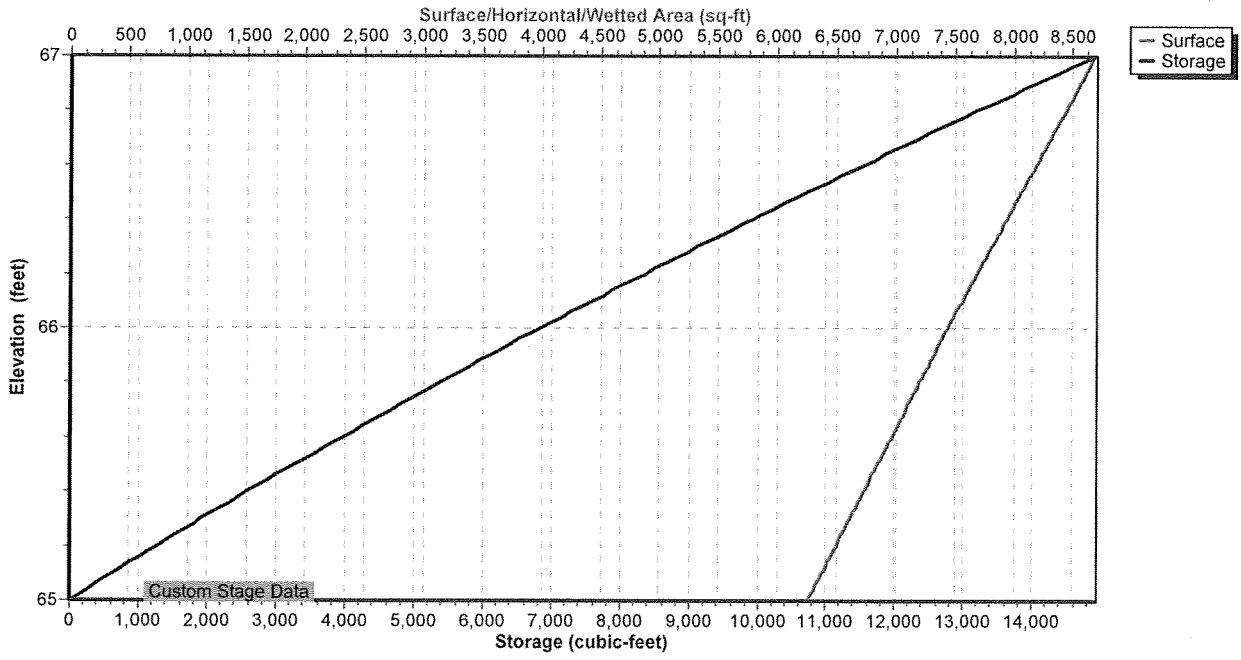
2=Orifice/Grate (Orifice Controls 0.46 cfs @ 2.37 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=65.00' (Free Discharge)

3=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond 6P: Detention Pond

Stage-Area-Storage



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**Stage-Area-Storage for Pond 6P: Detention Pond**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
65.00	6,256	0	66.06	7,512	7,295
65.02	6,280	125	66.08	7,537	7,445
65.04	6,303	251	66.10	7,562	7,596
65.06	6,327	377	66.12	7,587	7,748
65.08	6,350	504	66.14	7,612	7,900
65.10	6,374	632	66.16	7,637	8,052
65.12	6,398	759	66.18	7,662	8,205
65.14	6,421	887	66.20	7,687	8,359
65.16	6,445	1,016	66.22	7,712	8,513
65.18	6,469	1,145	66.24	7,737	8,667
65.20	6,492	1,275	66.26	7,762	8,822
65.22	6,516	1,405	66.28	7,787	8,978
65.24	6,539	1,535	66.30	7,812	9,134
65.26	6,563	1,666	66.32	7,837	9,290
65.28	6,587	1,798	66.34	7,862	9,447
65.30	6,610	1,930	66.36	7,887	9,605
65.32	6,634	2,062	66.38	7,912	9,763
65.34	6,658	2,195	66.40	7,937	9,921
65.36	6,681	2,329	66.42	7,962	10,080
65.38	6,705	2,463	66.44	7,987	10,240
65.40	6,728	2,597	66.46	8,012	10,400
65.42	6,752	2,732	66.48	8,037	10,560
65.44	6,776	2,867	66.50	8,063	10,721
65.46	6,799	3,003	66.52	8,088	10,883
65.48	6,823	3,139	66.54	8,113	11,045
65.50	6,847	3,276	66.56	8,138	11,207
65.52	6,870	3,413	66.58	8,163	11,370
65.54	6,894	3,550	66.60	8,188	11,534
65.56	6,917	3,689	66.62	8,213	11,698
65.58	6,941	3,827	66.64	8,238	11,862
65.60	6,965	3,966	66.66	8,263	12,027
65.62	6,988	4,106	66.68	8,288	12,193
65.64	7,012	4,246	66.70	8,313	12,359
65.66	7,035	4,386	66.72	8,338	12,525
65.68	7,059	4,527	66.74	8,363	12,692
65.70	7,083	4,669	66.76	8,388	12,860
65.72	7,106	4,810	66.78	8,413	13,028
65.74	7,130	4,953	66.80	8,438	13,196
65.76	7,154	5,096	66.82	8,463	13,365
65.78	7,177	5,239	66.84	8,488	13,535
65.80	7,201	5,383	66.86	8,513	13,705
65.82	7,224	5,527	66.88	8,538	13,875
65.84	7,248	5,672	66.90	8,563	14,046
65.86	7,272	5,817	66.92	8,588	14,218
65.88	7,295	5,963	66.94	8,613	14,390
65.90	7,319	6,109	66.96	8,638	14,562
65.92	7,343	6,255	66.98	8,663	14,735
65.94	7,366	6,402	67.00	<b>8,688</b>	<b>14,909</b>
65.96	7,390	6,550			
65.98	7,413	6,698			
66.00	7,437	6,847			
66.02	7,462	6,995			
66.04	7,487	7,145			

**Post-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Link 1L: Wetlands 1**

Inflow Area = 16.062 ac, 2.07% Impervious, Inflow Depth = 1.09" for 100-Year event  
Inflow = 6.21 cfs @ 12.74 hrs, Volume= 1.454 af  
Primary = 6.21 cfs @ 12.74 hrs, Volume= 1.454 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

**Post-HYDRO-CARVER**

Type III 24-hr 100-Year Rainfall=7.00"

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**Summary for Link 2L: Wetlands 2**

Inflow Area = 2.895 ac, 0.00% Impervious, Inflow Depth = 1.24" for 100-Year event  
Inflow = 1.57 cfs @ 12.70 hrs, Volume= 0.298 af  
Primary = 1.57 cfs @ 12.70 hrs, Volume= 0.298 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs



**Post-HYDRO-CARVER**

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**Summary for Link 3L: Wetlands 3**

Inflow Area = 2.055 ac, 0.00% Impervious, Inflow Depth = 0.21" for 100-Year event  
Inflow = 0.06 cfs @ 14.86 hrs, Volume= 0.036 af  
Primary = 0.06 cfs @ 14.86 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs