

STORMWATER MANAGEMENT, GROUNDWATER RECHARGE AND WATER QUALITY ANALYSIS

For

SHI Builders

Proposed Residential Subdivision

**Block 80.03, Lots 21 & 10
2 & 10 Ridge Road
Township of West Orange
Essex County, New Jersey**

Prepared by:



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A handwritten signature in black ink, appearing to read 'Robert P. Freund', is written over a horizontal line.

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I. SITE DESCRIPTION

The subject site is located at 2 & 10 Ridge Road in the Township of West Orange, Essex County, New Jersey. The site is identified as Block 80.03, Lot 21 & 10 on the Township of West Orange Tax Map Sheet #32. The subject site is currently undeveloped with overgrown wooded areas. The existing conditions of the site have been verified by the ALTA/NSPS Land Title Survey as prepared by Dynamic Survey, LLC, dated 05/11/2022.

The scope of the study includes the proposed which consists of subdividing into four total lots and developing each parcel with four new single-family houses with a prototypical footprint size of 40'x60' totaling approximately 9,600 SF with accompanying driveways.

II. DESIGN OVERVIEW

This report has been prepared to define and analyze the stormwater drainage conditions that would occur as a result of the development of the subject site into four subdivided lots with four new single-family residential houses on Block 80.03, Lots 21 & 10 in the Township of West Orange, Essex County, New Jersey. The scope of the study includes the proposed which consists of subdividing into four total lots and developing each parcel with four new single-family houses with assumed footprint sizes totaling approximately 9,600 SF (2,400 SF each) with accompanying driveways as well as stormwater management facilities as shown on the accompanying engineering drawings.

Based upon the fact that the proposed development will result in more than one (1) acre of land disturbance, this project is classified as a "major development". Therefore, the proposed development has been designed to meet the stormwater runoff quantity, quality, and groundwater recharge standards, set forth by the Township of West Orange Land Use Ordinance and NJAC 7:8.

Accordingly, the following items are addressed within this report:

- Groundwater recharge standards (7:8-5.4)
- Stormwater runoff quality standards (7:8-5.5)
- Stormwater runoff quantity standards (7:8-5.6)
- Calculation of stormwater runoff and groundwater recharge (7:8-5.7)

A hydrological evaluation is provided for the NJDEP Water Quality, 2, 10, 25, and 100-year storm events utilizing the Urban Hydrology for Small Watershed TR55 method.

The Township of West Orange and NJAC 7:8 flow reduction requirements are as follows:

2-year:	50% reduction
10-year:	25% reduction
25-year:	Maintain existing flow (no reduction requirement)
100-year:	20% reduction

It is the intention of the design of this facility to comply with the Stormwater Management Best Management Practices Manual.

III. EXISTING DRAINAGE CONDITIONS

The area to be analyzed consists of approximately 3.71 acres and is comprised of impervious, brush and wooded areas. Currently, the majority of stormwater runoff generated by the subject site drains to Mount Pleasant Avenue at the south-east corner of the site through overland flow.

The subject site has been evaluated with the following drainage sub-watershed areas as depicted on the Existing Drainage Area Map included within the Appendix of this report.

Study Area Mount Pleasant Avenue: This area consists of the entire site to be disturbed, which includes impervious, brush and wooded areas. As noted above, under existing conditions, stormwater runoff generated by this area is ultimately tributary to Mount Pleasant Avenue via overland flow.

SOIL TYPE	SOIL TYPE NAME	HYDROLOGIC SOIL GROUP
BogCc	Boonton loam, 8 to 15 percent slopes, extremely stony	C
HanBc	Haledon silt loam, 0 to 8 percent slopes, extremely stony	C
YaobBc	Yalesville – Boonton – Holyoke complex, 0 to 8 percent slopes, extremely stony	C
USBONB [1]	Urban land, Boonton substratum – Boonton complex, 0 to 8 percent slopes	

[1] No soil group was provided by NRCS, therefore B rating was assumed for existing conditions while D rating soils were assumed for proposed conditions.

IV. PROPOSED SITE CONDITIONS

As noted above, the proposed development includes the development of four new single-family residential houses with assumed footprint sizes totaling approximately 9,600 SF (2,400 SF each) with accompanying driveways. Additional site improvements include constructing stormwater management facilities for each subdivided lot. The stormwater management system includes four (4) aboveground small-scale bioretention basins also known as rain gardens to detain stormwater runoff generated by the development in order to meet the stormwater management requirements set forth by the Township of West Orange and NJAC 7:8.

The proposed site conditions have been evaluated using the following drainage sub-watershed areas as depicted on the Proposed Drainage Area Map included within the Appendix of this report.

Study Area Mount Pleasant Avenue Undetained: This area consists of a small portion of the northern-most and easterly disturbed portions of the subject area which includes open grass cover for which stormwater runoff is undetained. Stormwater runoff from this area flows via overland flow to the east, ultimately tributary to Mount Pleasant Avenue located east of the site.

Study Area Basin A: This area consists primarily of the stormwater runoff associated with the development of improvements associated with the proposed Lot 1 located at the south-west portion of the tract, which includes the proposed single-family residential house, driveway, a small portion of Ridge Road, and open grass/lawn cover. Stormwater runoff from this area will flow overland to the proposed bioretention basin located at the east side of the proposed lot. Stormwater runoff generated within this area is ultimately tributary to Mount Pleasant Avenue located at the east of the site.

Study Area Basin B: This area consists primarily of the stormwater runoff associated with the development of improvements associated with the proposed Lot 2 located at the south-west portion of the tract, which includes the proposed single-family residential house, driveway, a small portion of Ridge Road, and open grass/lawn cover. Stormwater runoff from this area will flow overland to the proposed bioretention basin located at the east side of the proposed lot. Stormwater runoff generated within this area is ultimately tributary to Mount Pleasant Avenue located at the east of the site.

Study Area Basin C: This area consists primarily of the stormwater runoff associated with the development of improvements associated with the proposed Lot 3 located at the north-west portion of the tract, which includes the proposed single-family residential house, driveway, a small portion of Ridge Road, and open grass/lawn cover. Stormwater runoff from this area will flow overland to the proposed bioretention basin located at the east side of the proposed lot. Stormwater runoff generated within this area is ultimately tributary to Mount Pleasant Avenue located at the east of the site.

Study Area Basin D: This area consists primarily of the stormwater runoff associated with the development of improvements associated with the proposed Lot 4 located at the north-west portion of the tract, which includes the proposed single-family residential house, driveway, a small portion of Ridge Road, and open grass/lawn cover. Stormwater runoff from this area will flow overland to the proposed bioretention basin located at the east side of the proposed lot. Stormwater runoff generated within this area is ultimately tributary to Mount Pleasant Avenue located at the east of the site.

V. DESIGN METHODOLOGY

The intention of the design of the proposed stormwater management facilities for this development is to provide measures as required to address the applicable aspects of the Township of West Orange Land Use Ordinance and NJAC 7:8. In order to prepare the stormwater management design for the subject site, extensive initial investigation of the property and topography was performed. On-site review of the tract was initially performed by Dynamic Engineering Consultants, PC to verify existing site conditions and land cover characteristics. Dynamic Survey, LLC was contracted to prepare the ALTA/NSPS Land Title Survey with topography to depict the existing site conditions. Furthermore, Dynamic Earth, LLC performed test pits within the site to establish the seasonal high-water table and soil permeability rates.

Based on our review of the existing site conditions and survey, the Drainage Area Maps for the existing and proposed site conditions as defined within this report were established. A grading plan was developed for the proposed site improvements with consideration to the existing drainage patterns. The plan was designed to ensure runoff from the proposed development could be directed to stormwater management facilities in order to address the applicable sections of the Township of West Orange Land Development Ordinance and NJAC 7:8.

The rainfall data utilized for the analysis of the existing and proposed drainage conditions is based upon the New Jersey 24 Hour Rainfall Frequency Data for Essex County as published by the USDA NRCS utilizing the NOAA Region D rainfall distribution.

Under proposed conditions, the stormwater runoff from the subject site and surrounding areas is conveyed by overland flow for collection by the proposed aboveground small-scale bioretention basins with underdrains. The proposed basins are designed to detain and infiltrate through the planted vegetation in the soil bed to the underdrains and be released at a controlled rate through outlet control structures in order to satisfy the runoff peak rate reductions (quantity requirement) set forth by the Township of West Orange and NJAC 7:8.

The overall stormwater management design for the subject site has been evaluated by Dynamic Engineering Consultants to ensure that the overall development satisfies the standards set forth in the Township of West Orange Land Use Ordinance and NJAC 7:8.

VI. STORMWATER MANAGEMENT SYSTEM DESIGN & GREEN INFRASTRUCTURE COMPLIANCE

As detailed above, in order to meet the stormwater runoff quantity requirements for the proposed development, the stormwater management system design includes four (4) proposed aboveground small-scale bioretention basins with underdrains. The proposed development is not subject to quality or groundwater recharge requirements – More information will be detailed in the following sections of this report.

The stormwater management design utilizes four (4) small scale bioretention systems with underdrains. The systems will accept runoff via overland flow. The collected stormwater runoff will infiltrate through the planted vegetation in the soil bed to the underdrain and be released at a controlled rate through outlet control structures in order to satisfy the runoff peak rate reductions (quantity requirement). Although quality requirements are not required, the basins will also provide 80% TSS removal. The stormwater runoff from yard areas and impervious surfaces will be conveyed to the basins via overland flow and discharged at a controlled rate using outlet control structures. In accordance with the New Jersey Stormwater Best Management Practices Manual, the following design considerations have been satisfied:

- Bottom of gravel layer must be a minimum of one (1) foot above Seasonal High-Water Table
- System must fully drain volume within 72 hours
- Bottom of system must be as level as possible
- Construction of system must be done to avoid compaction of sub-grade soils
- Minimum design permeability rate of 0.5 Inches/hour
- System must be designed to safely convey overflow volume
- System may not be used where there is risk of basement flooding, etc.

Green Infrastructure Design Standards Compliance – Small Scale Bioretention Basins					
BMP Criteria	Requirement	Basin A	Basin B	Basin C	Basin D
Max. Contributory Drainage Area [1]	2.5 Ac	0.669 Ac	0.831 Ac	0.821 Ac	0.422 Ac
Max. Drain Time	72 Hrs	25.95 Hrs	26.30 Hrs	25.90 Hrs	25.50 Hrs
Min. Subsoil Design Permeability Rate	0.5 in/hr	0.5 in/hr	0.5 in/hr	0.5 in/hr	0.5 in/hr
Min. Separation between SHWT & BMP Bottom	1.0 FT with underdrain	Additional soils testing is required	Additional soils testing is required	Additional soils testing is required	Additional soils testing is required

[1] Does not include area of BMP

VII. RUNOFF RATES

The following is a comparison of the existing and proposed conditions runoff rates:

Existing and Proposed Conditions Peak Runoff Rates Results Summary (Total)

	EXISTING RUNOFF RATE	NJAC 7:8 REQUIRED REDUCTION	NJAC 7:8 ALLOWABLE RUNOFF RATE	PROPOSED RUNOFF RATE
2 Year	2.33 cfs	50%	1.17 cfs	1.17 cfs
10 Year	5.58 cfs	25%	4.19 cfs	2.49 cfs
25 Year	8.06 cfs	Meet or reduce existing	8.06 cfs	3.46 cfs
100 Year	12.84 cfs	20%	10.27 cfs	7.51 cfs

VIII. WATER QUALITY

As per NJAC 7:8-5.5 for Stormwater Runoff Quality Standards, stormwater runoff quality standards are applicable when a major development results in an increase of one-quarter acre or more of regulated motor vehicle surface. The subject development results in an increase of only approximately 0.14 acres of vehicular traveled surface and is therefore not subject to stormwater quality requirements. However, nonetheless each of the four (4) proposed small-scale bioretention basins with underdrains does infiltrate the full water quality storm through the bioretention media soil bed to achieve a TSS removal rate of 80% and would satisfy the water quality requirements aspect of NJAC 7:8 if it were required.

IX. GROUNDWATER RECHARGE

As previously noted, on-site review of the tract was initially performed by Dynamic Engineering Consultants, PC to verify existing site conditions and land cover characteristics. Furthermore, Dynamic Earth, LLC performed test pits within the site to establish the seasonal high-water table and soil permeability rates. Due to the shallow water table depth and low permeability rates observed, as per Chapter 12 of the New Jersey Best Practices Manual, the soil shall be considered a D rated soil due to the characteristics observed via soils testing. Therefore, as per NJAC 7:8-5.4 Groundwater Recharge Standards, groundwater recharge requirements are not applicable to the proposed development.

X. STANDARDS FOR OFF-SITE STABILITY

This project has been designed to satisfy the Off-Site Stability standards set forth in the Standards for Soil Erosion and Sediment Control in New Jersey.

Conditions Where Practices Applies

For purposes of analysis, two areas of concern shall be addressed: (1) at the point of discharge and (2) downstream of the discharge point (which may require a watershed-based analysis). Technical criteria for demonstrating off-site stability include consideration of proximity to a defined waterway, site topography (slope), soil texture, vegetative cover and other factors. Where the potential for erosive forces from stormwater runoff exceeds the threshold of acceptability as defined below, the plan shall provide for the construction of a stabilized channel, installation of a conduit to a stable condition or other types of hydraulic improvements to the channel. Additional design criteria or restrictions from the New Jersey Department of Environmental Protection or the New Jersey Pinelands Commission may also apply.

Compliance with this Standard will be provided for both areas of concern: (1) at the point of discharge and (2) downstream of the discharge point.

Design Criteria

This Standard involves two areas of analysis: (1) at the point(s) of storm sewer discharge and (2) beyond the site boundaries, typically a receiving channel or waterway. Stability documentation for each area is outlined in detail below. Generally, the analyses involve the manipulation of peak rates of discharge for the 2 and 10 year, 24-hour storm events such that peak flow rate values and velocities are below established thresholds. Discharges shall be located in areas with low gradient topography and covered in perennial erosion resistant vegetation as noted in table 21-1 below.

The proposed discharges have been designed to be located in areas with low gradient topography to the greatest extent feasible due to the exceptional topographic and physical features uniquely affecting the property, and will be covered in perennial erosion resistant vegetation as noted in table 21-1.

Special consideration shall be given to the use of infiltration for peak flow modifications as follows:

POINT OF DISCHARGE STABILITY ANALYSIS

When infiltration practices are proposed, an alternate analysis (failure analysis) must be provided which ignores infiltration (no dead storage volume available, no static or dynamic infiltration loss rates in the routing calculations, etc.) and demonstrates that no erosion will occur at the point of discharge if infiltration fails to function. Flow rates based solely upon basin inlet and outlet hydraulics must be used in comparison to Table 21-1 (below) to document a stable outlet.

No infiltration is proposed as part of the proposed development to reduce flow rates.

Downstream (Off-Site) Stability Analysis

Infiltration may be used to meet peak flow reduction requirements (outlined below) for the purposes of documenting stability of the downstream receiving channel, provided that the complete loss of infiltration function does not result in an increase in peak flow values above the predevelopment levels.

No infiltration is proposed as part of the proposed development to reduce flow rates.

Point of Discharge - Methods for Achieving Stability

1. No well-defined waterway below the point of discharge:

There is no well-defined waterway below the point of discharge; therefore, this method will be used.

Stability can be achieved by one of the following alternatives:

A. Retain pre-existing runoff characteristics. Do not increase the amount and rate of runoff for the development and do not concentrate flows.

Due to the increase in impervious surfaces for the proposed development, this alternative is not feasible; therefore, alternative "b" will be utilized as described below.

B. Where there is no well-defined channel, no sandy condition, no trees or brush to substantially concentrate the flows and it can be reasonably assumed that the flow will disperse over a broad area. The combinations of slopes and soils in table 21-1 and the following criteria are considered stable for flows of 10 cfs or less for a 25 year, 24 hr design storm.

Table 21-1 Non-Erosive Velocities for Point Discharges

Maximum Stable Slope for Point Discharges for Various Soils	
Soil Type	Perennial, Natural Vegetation
	Maximum Slope (%)
Sands	1.8
Sandy loam	2.0
Silt loam, loam	2.5
Sandy clay loam	3.5
Clay loam	5.0
Graded loam to gravel	8.0

Discharge from each proposed stormwater basin will disperse over a broad area. It should be noted that existing downstream surface is vegetated and no sandy surface conditions were observed. The existing vegetation will not substantially concentrate flows.

Stability Criteria (in conjunction with table 21-1)

- i. *The maximum discharge rate shall be 10 cfs or less for the twenty-five (25) year storm.*

The discharge rate for the proposed outfall does not exceed 10 cfs for the 25-year storm.

- ii. *Multiple outlets may be utilized to reduce individual outlet flow rates to levels below the thresholds noted above. Outlets should be spaced no closer than 50 ft horizontally to avoid re-mixing of flows.*

Not applicable as the outlets are below the threshold noted above.

- iii. *Flow over the outlet area shall be less than 0.5 cfs/ft. Designers shall not design excessive widths which will cause flows to concentrate.*

The proposed flows do not exceed 0.5 cfs/ft. As noted above, the peak 25-year peak flow from any of the four (4) proposed basins is 0.68 CFS. As such, the flow over the outlet area is 0.18 cfs/ft.

- iv. *Conduit outlet protection shall be provided in accordance with that Standard and may include: flat aprons, preformed scour holes, impact basins, stilling wells, plunge pools, etc. Level spreaders are not an acceptable design.*

The velocities existing the proposed flared end sections are within the allowable velocity in Table 12-1 of 5.0 fps as detailed below. The highest proposed velocity rate is 4.80 fps.

TABLE 12-1 ALLOWABLE VELOCITIES FOR VARIOUS SOILS

SOIL TEXTURE	ALLOWABLE VELOCITY (ft./sec.)
Sand	1.8
Sandy loam	2.5
Silt loam (also high lime clay), loam	3.0
Sandy clay loam	3.5
Clay loam	4.0
Clay, fine gravel, graded loam to gravel	5.0
Cobbles	5.5
Shale (non-weathered)	6.0

- v. *Topography shows broad uniform outlet area where flows will not concentrate.*

The topography downstream of the point of discharge is broad and generally uniform and flows will not concentrate.

- vi. *Discharge locations shall contain perennial, erosion resistant vegetation.*

The discharge location contains perennial, erosion resistant vegetation.

- vii. *Peak discharge velocities (in the last pipe section) do not exceed 2 fps for the 10-year storm.*

The maximum peak 10-year flow from any of the four (4) proposed basins is 0.20 CFS. As shown in the enclosed stormwater conveyance calculations, the velocity in the last pipe section is 0.13 fps.

- viii. *The maximum length of slope below the outlet(s) is 100 feet.*

The proposed basin discharge is tributary to the downstream area and therefore this criterion is satisfied.

Downstream of the Point of Discharge (Off-Site Stability Analysis)

In addition to ensuring erosion does not occur at the point of discharge, areas downstream and beyond the immediate area of site development may be damaged due to erosive forces resulting from extended duration of hydrograph peak flows. An unintended consequence of the practice of detaining and slowly releasing stormwater is the ability for peak flows to be sustained for longer periods of time, offering an opportunity for upstream discharges to coincide with project site discharges. The resulting combined discharge may be equal to or even exceed that of the pre-development condition.

To limit the potential for such an occurrence the designer may choose either of two approaches for downstream stability protection:

1. *Examine hydraulic characteristics of the receiving stream channel considering upstream discharge in combination with site discharge to assess channel stability. The scope and scale of the analysis shall be appropriate to the scale of*

the project and the post development peak discharge rate and volume. Of particular concern are hydraulic control points, (culverts, bridges, etc.), bends in streams and sudden changes in channel cross sections downstream of the discharge point. The following may be utilized to assess stability:

The proposed design utilizes approach 2 as described below.

2. *In lieu of performing a comprehensive watershed analysis, design a detention facility that reduces peak flows to the following levels. Infiltration may be used to meet these criteria:*

2-year storm – 50% of the predevelopment peak

10-year storm – 75% of the predevelopment peak

Reductions in peak flows are to be compared to pre-developed drainage area points of discharge in the event that drainage is re-directed in the post developed condition. Reductions are only required of the developed or modified portions of the project site.

As documented in the subsections above, the proposed peak flows meet the above reductions, thereby achieving off-site stability.

XI. CONCLUSION

The proposed development has been designed with provisions for the safe and efficient control of stormwater runoff in a manner that will not adversely impact the existing drainage patterns, adjacent roadways, or adjacent parcels. In addition, the proposed development satisfies the runoff quantity, quality and groundwater recharge requirements set forth by the Township of West Orange Land Use Ordinance and NJAC 7:8 through the use of the proposed aboveground small-scale bioretention basins with underdrains. With this stated, it is evident that the proposed development will not have a negative impact on the existing drainage conditions, water quality or groundwater recharge on-site or within the vicinity of the subject site.

APPENDIX

NRCS WEB SOIL SURVEY

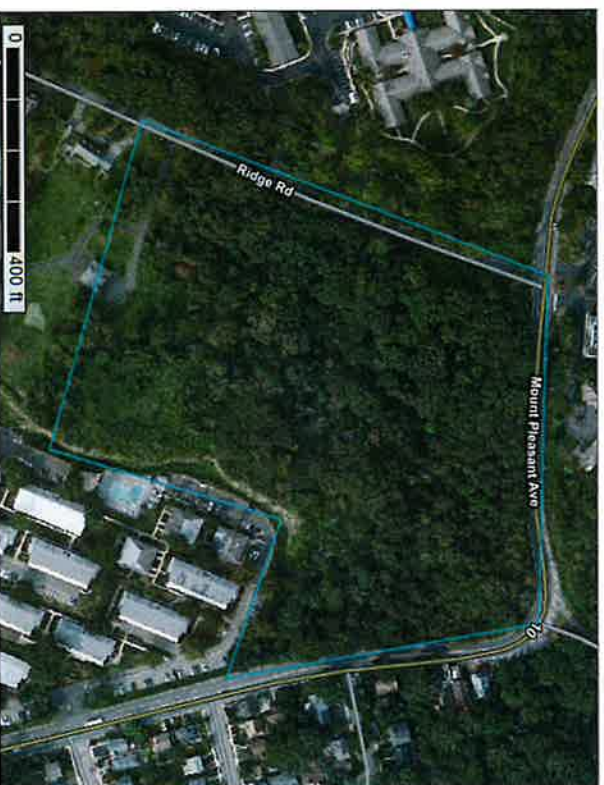


United States
Department of
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NRCS
Natural
Resources
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Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Essex County, New Jersey**



March 29, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, silt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new

interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

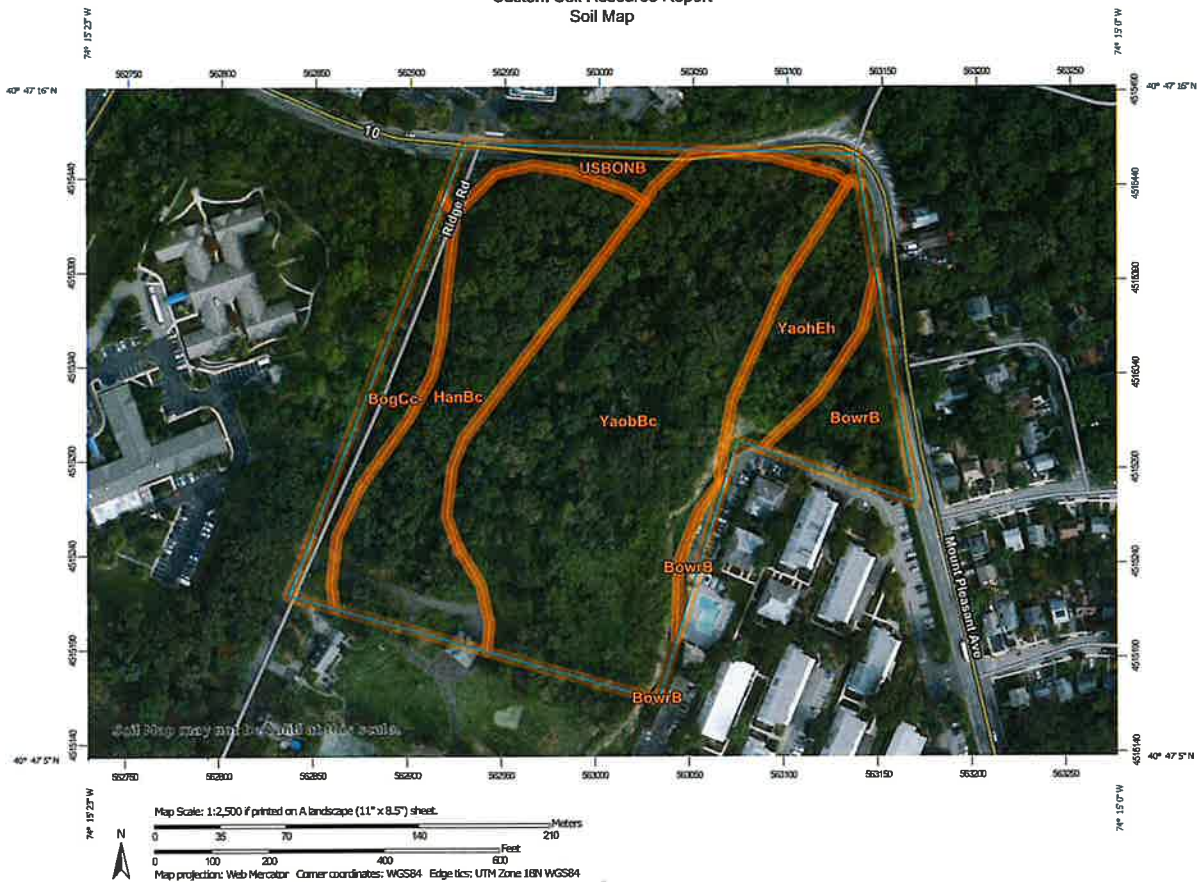
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

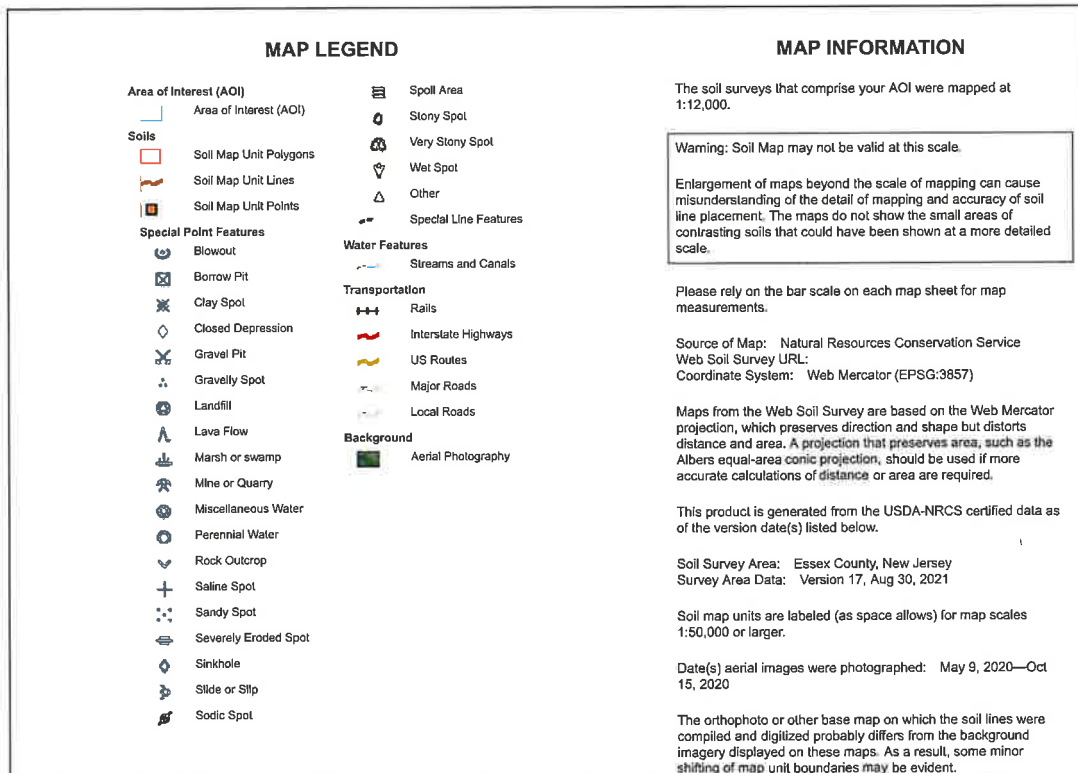
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Custom Soil Resource Report



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BogCc	Boonton loam, 8 to 15 percent slopes, extremely stony	1.1	6.9%
BowB	Boonton - Urban land, Boonton substratum complex, red sandstone lowland, 0 to 8 percent slopes	1.1	7.0%
HanBc	Haledon silt loam, 0 to 8 percent slopes, extremely stony	3.7	23.8%
USBOB	Urban land, Boonton substratum - Boonton complex, 0 to 8 percent slopes	0.7	4.3%
YaoBbc	Yatesville - Boonton - Hoylake complex, 0 to 8 percent slopes, extremely stony	7.8	49.6%
YaoBEn	Yatesville - Hoylake complex, 35 to 60 percent slopes, very rocky	1.3	8.4%
Totals for Area of Interest		15.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the

scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Essex County, New Jersey

BogCc—Boonton loam, 8 to 15 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: b120

Elevation: 50 to 500 feet

Mean annual precipitation: 30 to 64 inches

Mean annual air temperature: 46 to 79 degrees F

Frost-free period: 131 to 178 days

Farmland classification: Not prime farmland

Map Unit Composition

Boonton, extremely stony, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Boonton, Extremely Stony

Setting

Landform: Ground moraines

Landform position (three-dimensional): Upper third of mountainflank, center third of mountainflank

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Coarse-loamy basal till derived from basalt

Typical profile

Ol - 0 to 1 inches: slightly decomposed plant material

Oa - 1 to 3 inches: highly decomposed plant material

A - 3 to 5 inches: loam

Ba - 5 to 8 inches: silt loam

Be - 8 to 17 inches: silt loam

Bt - 17 to 30 inches: silt loam

Bk1 - 30 to 40 inches: gravely fine sandy loam

Bk2 - 40 to 47 inches: fine sandy loam

Cb1 - 47 to 58 inches: loamy sand

Cb2 - 58 to 72 inches: loamy sand

Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 10.0 percent

Depth to restrictive feature: 20 to 36 inches to fragipan

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply: 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: C
Ecological site: F144AY037MA - Moist Dense Till Uplands
Hydric soil rating: No

Minor Components

Boonton, moderately well drained, extremely stony

Percent of map unit: 10 percent

Landform: Ground moraines

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Head slope, side slope

Down-slope shape: Convex

Across-slope shape: Linear

Hydric soil rating: No

Haledon, extremely stony

Percent of map unit: 5 percent

Landform: Ground moraines

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Head slope, side slope

Down-slope shape: Convex

Across-slope shape: Linear

Hydric soil rating: No

BowRB—Boonton - Urban land, Boonton substratum complex, red sandstone lowland, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: w8p8

Elevation: 20 to 560 feet

Mean annual precipitation: 30 to 64 inches

Mean annual air temperature: 46 to 79 degrees F

Frost-free period: 131 to 178 days

Farmland classification: Not prime farmland

Map Unit Composition

Boonton, red sandstone lowland, and similar soils: 50 percent

Urban land, boonton red sandstone lowland substratum: 40 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Boonton, Red Sandstone Lowland

Setting

Landform: Ground moraines

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Coarse-loamy till derived from sandstone and shale

Typical profile

Ol - 0 to 1 inches: slightly decomposed plant material

A - 1 to 3 inches: silt loam
BE - 3 to 10 inches: loam
Bw - 10 to 27 inches: gravelly loam
Bx1 - 27 to 40 inches: gravelly fine sandy loam
Bx2 - 40 to 67 inches: gravelly fine sandy loam
BCx - 67 to 83 inches: gravelly sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 36 inches to fragipan
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F144AV037MA - Moist Dense Till Uplands
Hydric soil rating: No

Description of Urban Land, Boonton Red Sandstone Lowland Substratum

Setting

Landform: Ground moraines
Landform position (three-dimensional): Lower third of mountainflank
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Surface covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material

Typical profile

H1 - 0 to 12 inches: material
H2 - 12 to 67 inches: gravelly loam
2C8 - 67 to 83 inches: gravelly sandy loam

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: Unranked

Minor Components

Underthents, boonton red sandstone lowland substratum

Percent of map unit: 10 percent
Landform: Ground moraines
Landform position (three-dimensional): Lower third of mountainflank
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

HanBc—Haledon silt loam, 0 to 8 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: b12K
Elevation: 50 to 500 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Not prime farmland

Map Unit Composition

Haledon, extremely stony, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Haledon, Extremely Stony

Setting

Landform: Ground moraines
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Coarse-loamy basal till derived from basalt

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
Ap - 2 to 8 inches: silt loam
Bt - 8 to 15 inches: silt loam
Bg - 15 to 22 inches: silt loam
2Bt1 - 22 to 27 inches: loam
2Bt2 - 27 to 30 inches: loam
BCx - 30 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 10.0 percent
Depth to restrictive feature: 24 to 36 inches to fragipan
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 7 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C

Ecological site: F144AY037MA - Moist Dense Till Uplands
Hydric soil rating: No

Minor Components

Boonton, moderately well drained, extremely stony

Percent of map unit: 10 percent

Landform: Ground moraines

Landform position (three-dimensional): Upper third of mountainflank, center third

of mountainflank

Down-slope shape: Convex

Across-slope shape: Linear

Hydric soil rating: No

Hasbrouck, extremely stony

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

USBONB—Urban land, Boonton substratum - Boonton complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: w9c1

Elevation: 0 to 520 feet

Mean annual precipitation: 30 to 64 inches

Mean annual air temperature: 46 to 79 degrees F

Frost-free period: 131 to 213 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land, boonton substratum: 60 percent

Boonton and similar soils: 30 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land, Boonton Substratum

Setting

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tailf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Asphalt over supraglacial meltout till

Typical profile

M - 0 to 12 inches: material

2vC - 12 to 47 inches: gravelly sandy loam
3CBt1 - 47 to 58 inches: loamy sand
3CBt2 - 58 to 72 inches: loamy sand

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: 0 inches to manufactured layer

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Calcium carbonate, maximum content: 10 percent

Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

Description of Boonton

Setting

Landform: Ground moraines

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Upper third of mountainflank, center third

of mountainflank

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Red coarse-loamy till derived from sedimentary rock

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material

A - 2 to 4 inches: loam

Bt - 4 to 28 inches: sandy loam

Btx - 28 to 51 inches: sandy loam

BC - 51 to 72 inches: sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 20 to 39 inches to fragipan

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Very low to low (0.00 to 0.01 in/hr)

Depth to water table: About 28 to 59 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: B

Ecological site: F144AY037MA - Moist Dense Till Uplands

Hydric soil rating: No

Minor Components

Udorthents, boonton substratum

Percent of map unit: 10 percent

Landform: Ground moraines

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Lower third of mountainflank, upper third of

mountainflank, center third of mountainflank

Down-slope shape: Convex

Across-slope shape: Convex, linear

Hydric soil rating: No

YaobBc—Yalesville - Boonton - Holyoke complex, 0 to 8 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: w9dx

Elevation: 50 to 690 feet

Mean annual precipitation: 30 to 64 inches

Mean annual air temperature: 46 to 79 degrees F

Frost-free period: 131 to 178 days

Farmland classification: Not prime farmland

Map Unit Composition

Yalesville, extremely stony, and similar soils: 40 percent

Boonton, extremely stony, and similar soils: 35 percent

Holyoke, extremely stony, and similar soils: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Yalesville, Extremely Stony

Setting

Landform: Ground moraines

Landform position (three-dimensional): Mountaintop

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Coarse-loamy till derived from basalt

Typical profile

Oa - 0 to 1 inches: highly decomposed plant material

A - 1 to 5 inches: loam

Bw1 - 5 to 19 inches: fine sandy loam

Bw2 - 19 to 31 inches: fine sandy loam

BC - 31 to 32 inches: fine sandy loam

R - 32 to 80 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 10.0 percent

Depth to restrictive feature: 20 to 39 inches to lithic bedrock

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/h)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: C

Ecological site: F145XY013CT - Well Drained Till Uplands

Hydric soil rating: No

Description of Boonton, Extremely Stony

Setting

Landform: Ground moraines

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Upper third of mountainflank, center third

of mountainflank

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Coarse-loamy basal till derived from basalt

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material

Oa - 1 to 3 inches: highly decomposed plant material

A - 3 to 5 inches: loam

BA - 5 to 8 inches: gravelly loam

BE - 8 to 17 inches: silt loam

Br - 17 to 30 inches: silt loam

Bk1 - 30 to 40 inches: gravelly fine sandy loam

Bk2 - 40 to 47 inches: fine sandy loam

CBt - 47 to 58 inches: loamy sand

CBt2 - 58 to 72 inches: loamy sand

Properties and qualities

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 10.0 percent

Depth to restrictive feature: 20 to 36 inches to fragipan

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/h)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: C
Ecological site: F144AY037MA - Moist Dense Till Uplands
Hydric soil rating: No

Description of Holyoke, Extremely Stony

Setting

Landform: Ground moraines, hills, ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Loamy till derived from basalt

Typical profile

O₁ - 0 to 1 inches: slightly decomposed plant material
O_a - 1 to 3 inches: highly decomposed plant material
A - 3 to 5 inches: loam
Bw₁ - 5 to 14 inches: loam
Bw₂ - 14 to 18 inches: loam
R - 18 to 80 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 10.0 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (K_{sat}): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F145XY011CT - Well Drained Shallow Till Uplands
Hydric soil rating: No

YaohEh—Yalesville - Holyoke complex, 35 to 60 percent slopes, very rocky

Map Unit Setting

National map unit symbol: w9g0
Elevation: 50 to 860 feet
Mean annual precipitation: 30 to 64 inches

Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Not prime farmland

Map Unit Composition

Yalesville, very rocky, and similar soils: 50 percent
Holyoke, very rocky and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Yalesville, Very Rocky

Setting

Landform: Ground moraines
Landform position (three-dimensional): Mountaintop
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy till derived from basalt

Typical profile

O_a - 0 to 1 inches: highly decomposed plant material
A - 1 to 5 inches: loam
Bw₁ - 5 to 19 inches: fine sandy loam
Bw₂ - 19 to 31 inches: fine sandy loam
BC - 31 to 32 inches: fine sandy loam
R - 32 to 80 inches: bedrock

Properties and qualities

Slope: 35 to 60 percent
Surface area covered with cobbles, stones or boulders: 10.0 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (K_{sat}): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F145XY013CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Holyoke, Very Rocky

Setting

Landform: Ground moraines, hills, ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Loamy till derived from basalt

Typical profile

- O₁ - 0 to 1 inches:* slightly decomposed plant material
- O_a - 1 to 3 inches:* highly decomposed plant material
- A - 3 to 5 inches:* loam
- Bw1 - 5 to 14 inches:* loam
- Bw2 - 14 to 18 inches:* loam
- R - 18 to 80 inches:* bedrock

Properties and qualities

- Slope:* 35 to 60 percent
- Surface area covered with cobbles, stones or boulders:* 10.0 percent
- Depth to restrictive feature:* 10 to 20 inches to lithic bedrock
- Drainage class:* Well drained
- Runoff class:* High
- Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- Depth to water table:* More than 80 inches
- Frequency of flooding:* None
- Frequency of ponding:* None
- Available water supply, 0 to 80 inches:* Low (about 4.2 inches)

Interpretive groups

- Land capability classification (irrigated):* None specified
- Land capability classification (nonirrigated):* 7s
- Hydrologic Soil Group:* D
- Ecological site:* F145XY011CT - Well Drained Shallow Till Uplands
- Hydric soil rating:* No

Minor Components

Rock outcrop

- Percent of map unit:* 10 percent
- Landform:* Ridges
- Landform position (two-dimensional):* Summit
- Landform position (three-dimensional):* Interfluv
- Down-slope shape:* Convex
- Across-slope shape:* Linear
- Hydric soil rating:* Unranked
- Boonton, very rocky**
- Percent of map unit:* 10 percent
- Landform:* Ground moraines
- Landform position (two-dimensional):* Summit, shoulder
- Landform position (three-dimensional):* Upper third of mountainflank, center third of mountainflank
- Down-slope shape:* Convex
- Across-slope shape:* Linear
- Hydric soil rating:* No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

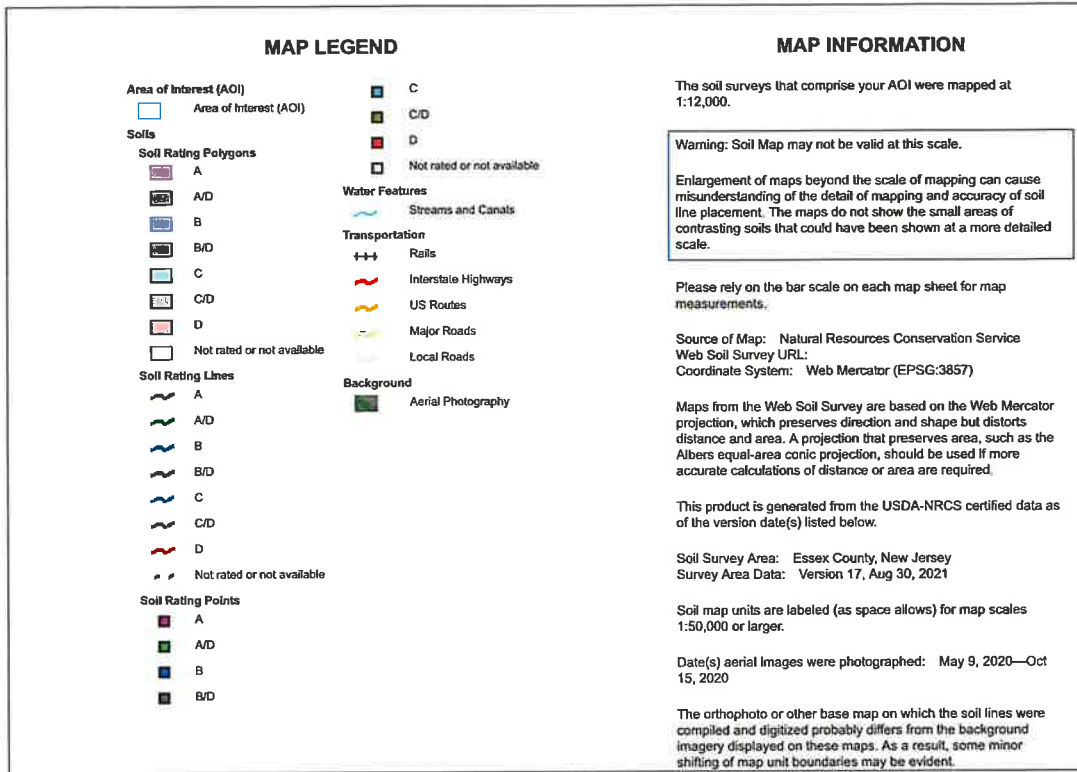
Hydrologic Soil Group

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.



Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BogCc	Boonton loam, 8 to 15 percent slopes, extremely stony	C	1.1	6.9%
BowrB	Boonton - Urban land, Boonton substratum complex, red sandstone lowland, 0 to 8 percent slopes	C	1.1	7.0%
HambC	Haledon silt loam, 0 to 8 percent slopes, extremely stony	C	3.7	23.8%
USBONB	Urban land, Boonton substratum - Boonton complex, 0 to 8 percent slopes		0.7	4.3%
YaobBc	Yalesville - Boonton - Holyoke complex, 0 to 8 percent slopes, extremely stony	C	7.8	49.6%
YaohTn	Yalesville - Holyoke complex, 35 to 60 percent slopes, very rocky	C	1.3	8.4%
Totals for Area of Interest			15.8	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition
 Component Percent Cutoff: None Specified
 Tie-break Rule: Higher

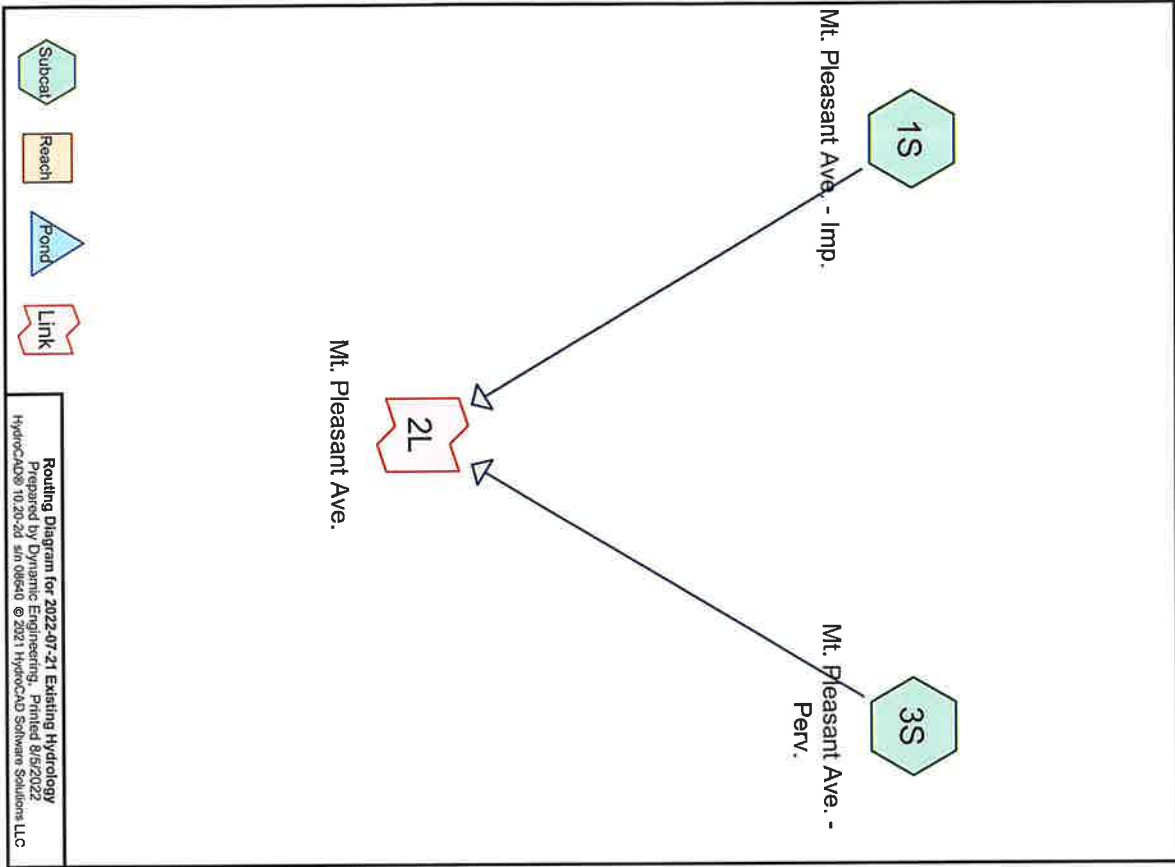
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**HYDROGRAPH SUMMARY REPORTS
EXISTING AND PROPOSED CONDITIONS
2, 10, 25, & 100-YEAR**

Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 6606 NJ Essex-D
Rainfall events imported from "NRCS-Rain.txt" for 6606 NJ Essex-D



Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NOAA 24-hr	D	Default	24.00	1	3.44	2
2	10-Year	NOAA 24-hr	D	Default	24.00	1	5.22	2
3	100-Year	NOAA 24-hr	D	Default	24.00	1	8.66	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.017	74	>75% Grass cover, Good, HSG C (3S)
0.008	98	Unconnected pavement, HSG B (1S)
0.054	98	Unconnected pavement, HSG C (1S)
3.576	70	Woods, Good, HSG C (3S)
0.054	77	Woods, Good, HSG D (3S)
3.709	71	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.008	HSG B	1S
3.647	HSG C	1S, 3S
0.054	HSG D	3S
0.000	Other	
3.709	TOTAL AREA	

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.017	0.000	0.000	0.017	>75% Grass cover, Good	3S
0.000	0.008	0.054	0.000	0.000	0.062	Unconnected pavement	1S
0.000	0.000	3.576	0.054	0.000	3.630	Woods, Good	3S
0.000	0.008	3.647	0.054	0.000	3.709	TOTAL AREA	

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: Mt. Pleasant Ave. - Imp. Runoff Area=2,696 sf 100.00% Impervious Runoff Depth=3.21"
Flow Length=330' Tc=23.5 min CN=98 Runoff=0.12 cfs 0.017 af

Subcatchment 3S: Mt. Pleasant Ave. - Perv. Runoff Area=158,870 sf 0.00% Impervious Runoff Depth=0.97"
Flow Length=245' Tc=24.8 min CN=70 Runoff=2.21 cfs 0.295 af

Link 2L: Mt. Pleasant Ave.

Inflow=2.33 cfs 0.312 af
Primary=2.33 cfs 0.312 af

Total Runoff Area = 3,709 ac Runoff Volume = 0.312 af Average Runoff Depth = 1.01"
98.33% Pervious = 3.647 ac 1.67% Impervious = 0.062 ac

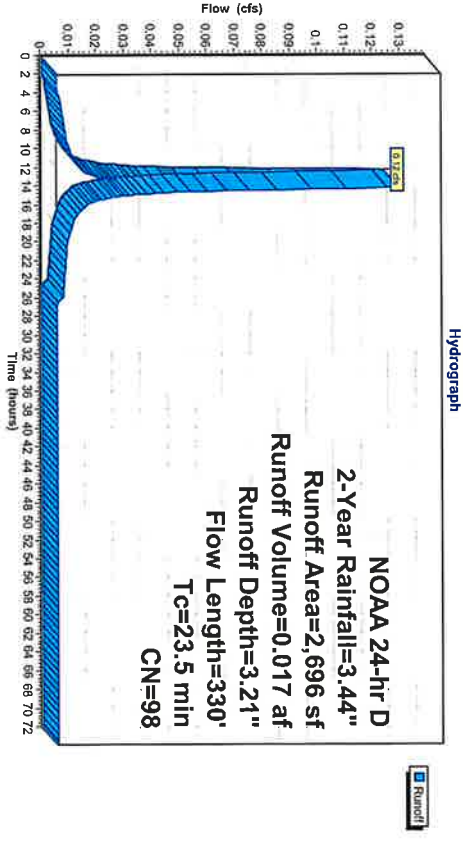
Summary for Subcatchment 1S: Mt. Pleasant Ave. - Imp.

Runoff = 0.12 cfs @ 12.33 hrs, Volume= 0.017 af, Depth= 3.21"
Routed to Link 2L : Mt. Pleasant Ave.

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description			
2,345	98	Unconnected pavement, HSG C			
351	98	Unconnected pavement, HSG B			
2,696	98	Weighted Average			
2,696		100.00% Impervious Area			
2,696		100.00% Unconnected			
Tc	Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.4	100	0.0165	0.07		Sheet Flow, Sheet Flow (AB) Woods: Light underbrush n= 0.400 P2= 3.44"
1.1	230	0.0489	3.56		Shallow Concentrated Flow, SCF - Unpaved (BC) Unpaved Kv= 16.1 fps

Subcatchment 1S: Mt. Pleasant Ave. - Imp.



Hydrograph for Subcatchment 1S: Mt. Pleasant Ave. - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	3.21	0.00
1.00	0.04	0.00	0.00	53.00	3.44	3.21	0.00
2.00	0.08	0.00	0.00	54.00	3.44	3.21	0.00
3.00	0.13	0.00	0.00	55.00	3.44	3.21	0.00
4.00	0.18	0.06	0.00	56.00	3.44	3.21	0.00
5.00	0.24	0.09	0.00	57.00	3.44	3.21	0.00
6.00	0.29	0.14	0.00	58.00	3.44	3.21	0.00
7.00	0.36	0.20	0.00	59.00	3.44	3.21	0.00
8.00	0.45	0.27	0.00	60.00	3.44	3.21	0.00
9.00	0.55	0.36	0.01	61.00	3.44	3.21	0.00
10.00	0.68	0.49	0.01	62.00	3.44	3.21	0.00
11.00	0.89	0.69	0.01	63.00	3.44	3.21	0.00
12.00	1.55	1.43	0.05	64.00	3.44	3.21	0.00
13.00	2.55	2.32	0.03	65.00	3.44	3.21	0.00
14.00	2.76	2.53	0.01	66.00	3.44	3.21	0.00
15.00	2.69	2.66	0.01	67.00	3.44	3.21	0.00
16.00	2.99	2.76	0.01	68.00	3.44	3.21	0.00
17.00	3.08	2.85	0.01	69.00	3.44	3.21	0.00
18.00	3.15	2.91	0.00	70.00	3.44	3.21	0.00
19.00	3.20	2.97	0.00	71.00	3.44	3.21	0.00
20.00	3.26	3.03	0.00	72.00	3.44	3.21	0.00
21.00	3.31	3.08	0.00				
22.00	3.36	3.12	0.00				
23.00	3.40	3.17	0.00				
24.00	3.44	3.21	0.00				
25.00	3.44	3.21	0.00				
26.00	3.44	3.21	0.00				
27.00	3.44	3.21	0.00				
28.00	3.44	3.21	0.00				
29.00	3.44	3.21	0.00				
30.00	3.44	3.21	0.00				
31.00	3.44	3.21	0.00				
32.00	3.44	3.21	0.00				
33.00	3.44	3.21	0.00				
34.00	3.44	3.21	0.00				
35.00	3.44	3.21	0.00				
36.00	3.44	3.21	0.00				
37.00	3.44	3.21	0.00				
38.00	3.44	3.21	0.00				
39.00	3.44	3.21	0.00				
40.00	3.44	3.21	0.00				
41.00	3.44	3.21	0.00				
42.00	3.44	3.21	0.00				
43.00	3.44	3.21	0.00				
44.00	3.44	3.21	0.00				
45.00	3.44	3.21	0.00				
46.00	3.44	3.21	0.00				
47.00	3.44	3.21	0.00				
48.00	3.44	3.21	0.00				
49.00	3.44	3.21	0.00				
50.00	3.44	3.21	0.00				
51.00	3.44	3.21	0.00				

Summary for Subcatchment 3S: Mt. Pleasant Ave. - Perv.

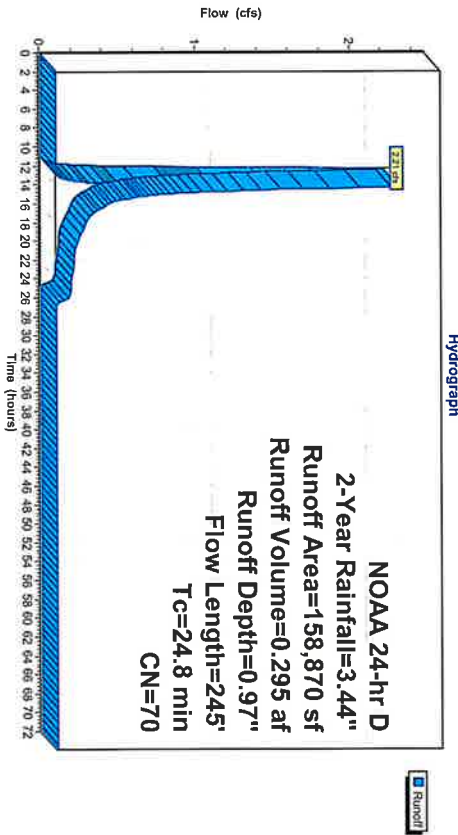
Runoff = 2.21 cfs @ 12.38 hrs, Volume= 0.295 af, Depth= 0.97"
 Routed to Link 2L : Mt. Pleasant Ave.

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description
155,762	70	Woods, Good, HSG C
2,359	77	Woods, Good, HSG D
749	74	>75% Grass cover, Good, HSG C
158,870	70	Weighted Average
158,870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.2	100	0.0135	0.07		Sheet Flow, Sheet Flow (AB)
0.6	145	0.0672	4.17		Woods: Light underbrush n= 0.400 P2= 3.44"
					Shallow Concentrated Flow, SCF - Unpaved (BC)
					Unpaved Kv= 16.1 fps
24.8	245	Total			

Subcatchment 3S: Mt. Pleasant Ave. - Perv.



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NOAA 24-hr D 2-Year Rainfall=3.44"

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Hydrograph for Subcatchment 3S: Mt. Pleasant Ave. - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	0.97	0.00
1.00	0.04	0.00	0.00	53.00	3.44	0.97	0.00
2.00	0.08	0.00	0.00	54.00	3.44	0.97	0.00
3.00	0.13	0.00	0.00	55.00	3.44	0.97	0.00
4.00	0.18	0.00	0.00	56.00	3.44	0.97	0.00
5.00	0.24	0.00	0.00	57.00	3.44	0.97	0.00
6.00	0.29	0.00	0.00	58.00	3.44	0.97	0.00
7.00	0.36	0.00	0.00	59.00	3.44	0.97	0.00
8.00	0.45	0.00	0.00	60.00	3.44	0.97	0.00
9.00	0.55	0.00	0.00	61.00	3.44	0.97	0.00
10.00	0.68	0.00	0.00	62.00	3.44	0.97	0.00
11.00	0.89	0.00	0.00	63.00	3.44	0.97	0.00
12.00	1.65	0.12	0.41	64.00	3.44	0.97	0.00
13.00	2.55	0.48	0.83	65.00	3.44	0.97	0.00
14.00	2.76	0.58	0.36	66.00	3.44	0.97	0.00
15.00	2.89	0.66	0.25	67.00	3.44	0.97	0.00
16.00	2.99	0.71	0.20	68.00	3.44	0.97	0.00
17.00	3.08	0.76	0.17	69.00	3.44	0.97	0.00
18.00	3.15	0.80	0.14	70.00	3.44	0.97	0.00
19.00	3.20	0.83	0.12	71.00	3.44	0.97	0.00
20.00	3.26	0.86	0.12	72.00	3.44	0.97	0.00
21.00	3.31	0.89	0.11				
22.00	3.36	0.92	0.10				
23.00	3.40	0.95	0.10				
24.00	3.44	0.97	0.09				
25.00	3.44	0.97	0.00				
26.00	3.44	0.97	0.00				
27.00	3.44	0.97	0.00				
28.00	3.44	0.97	0.00				
29.00	3.44	0.97	0.00				
30.00	3.44	0.97	0.00				
31.00	3.44	0.97	0.00				
32.00	3.44	0.97	0.00				
33.00	3.44	0.97	0.00				
34.00	3.44	0.97	0.00				
35.00	3.44	0.97	0.00				
36.00	3.44	0.97	0.00				
37.00	3.44	0.97	0.00				
38.00	3.44	0.97	0.00				
39.00	3.44	0.97	0.00				
40.00	3.44	0.97	0.00				
41.00	3.44	0.97	0.00				
42.00	3.44	0.97	0.00				
43.00	3.44	0.97	0.00				
44.00	3.44	0.97	0.00				
45.00	3.44	0.97	0.00				
46.00	3.44	0.97	0.00				
47.00	3.44	0.97	0.00				
48.00	3.44	0.97	0.00				
49.00	3.44	0.97	0.00				
50.00	3.44	0.97	0.00				
51.00	3.44	0.97	0.00				

2022-07-21 Existing Hydrology

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NOAA 24-hr D 2-Year Rainfall=3.44"

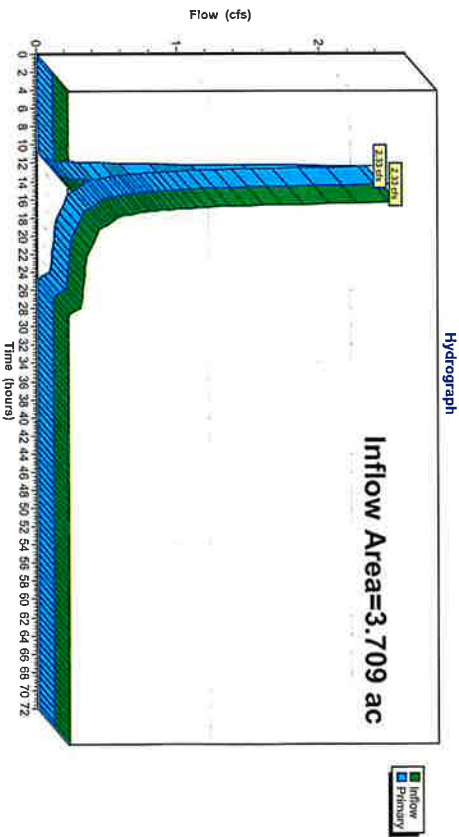
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Summary for Link 2L: Mt. Pleasant Ave.

Inflow Area = 3.709 ac, 1.67% Impervious, Inflow Depth = 1.01" for 2-Year event
Inflow = 2.33 cfs @ 12.38 hrs, Volume= 0.312 af
Primary = 2.33 cfs @ 12.38 hrs, Volume= 0.312 af, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 2L: Mt. Pleasant Ave.



2022-07-21 Existing Hydrology

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NOAA 24-hr D 2-Year Rainfall=3.44"

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Hydrograph for Link 2L: Mt. Pleasant Ave.

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	57.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	58.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00	59.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00
9.00	0.01	0.00	0.01	61.00	0.00	0.00	0.00
10.00	0.01	0.00	0.01	62.00	0.00	0.00	0.00
11.00	0.01	0.00	0.01	63.00	0.00	0.00	0.00
12.00	0.46	0.00	0.46	64.00	0.00	0.00	0.00
13.00	0.86	0.00	0.86	65.00	0.00	0.00	0.00
14.00	0.37	0.00	0.37	66.00	0.00	0.00	0.00
15.00	0.26	0.00	0.26	67.00	0.00	0.00	0.00
16.00	0.20	0.00	0.20	68.00	0.00	0.00	0.00
17.00	0.18	0.00	0.18	69.00	0.00	0.00	0.00
18.00	0.14	0.00	0.14	70.00	0.00	0.00	0.00
19.00	0.13	0.00	0.13	71.00	0.00	0.00	0.00
20.00	0.12	0.00	0.12	72.00	0.00	0.00	0.00
21.00	0.11	0.00	0.11				
22.00	0.11	0.00	0.11				
23.00	0.10	0.00	0.10				
24.00	0.09	0.00	0.09				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

2022-07-21 Existing Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"

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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: Mt. Pleasant Ave. - Imp. Runoff Area=2.696 sf 100.00% Impervious Runoff Depth=4.98"
Flow Length=330' Tc=23.5 min CN=98 Runoff=0.19 cfs 0.026 af

Subcatchment 3S: Mt. Pleasant Ave. - Perv. Runoff Area=158.870 sf 0.00% Impervious Runoff Depth=2.20"
Flow Length=245' Tc=24.8 min CN=70 Runoff=5.38 cfs 0.669 af

Link 2L: Mt. Pleasant Ave.

Inflow=5.58 cfs 0.695 af
Primary=5.58 cfs 0.695 af

Total Runoff Area = 3.709 ac Runoff Volume = 0.695 af Average Runoff Depth = 2.25"
98.33% Pervious = 3.647 ac 1.67% Impervious = 0.062 ac

2022-07-21 Existing Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"

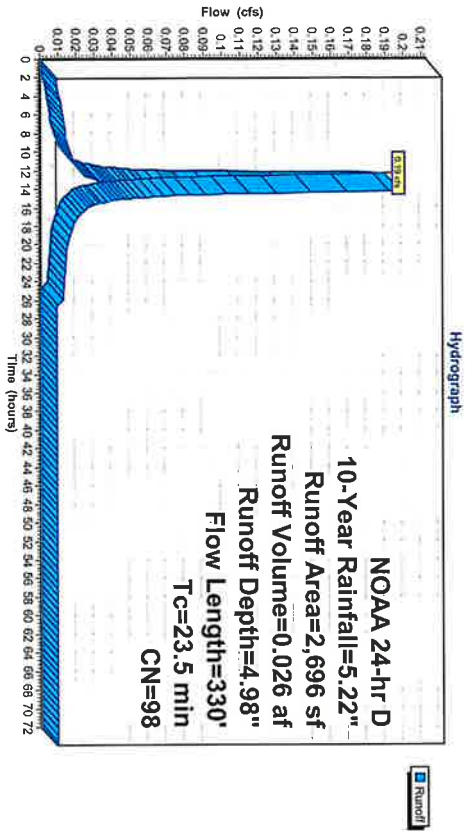
Summary for Subcatchment 1S: Mt. Pleasant Ave. - Imp.

Runoff = 0.19 cfs @ 12.33 hrs. Volume= 0.026 af. Depth= 4.98"
Routed to Link 2L : Mt. Pleasant Ave.

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description			
2,345	98	Unconnected pavement, HSG C			
351	98	Unconnected pavement, HSG B			
2,696	98	Weighted Average			
2,696		100.00% Impervious Area			
2,696		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.4	100	0.0165	0.07		Sheet Flow, Sheet Flow (AB)
					Woods: Light underbrush n= 0.400 P2= 3.44"
1.1	230	0.0489	3.56		Shallow Concentrated Flow, SCF - Unpaved (BC)
					Unpaved Kv= 16.1 fps
23.5	330	Total			

Subcatchment 1S: Mt. Pleasant Ave. - Imp.



Hydrograph for Subcatchment 1S: Mt. Pleasant Ave. - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	4.98	0.00
1.00	0.06	0.00	0.00	53.00	5.22	4.98	0.00
2.00	0.13	0.02	0.00	54.00	5.22	4.98	0.00
3.00	0.20	0.07	0.00	55.00	5.22	4.98	0.00
4.00	0.27	0.12	0.00	56.00	5.22	4.98	0.00
5.00	0.36	0.19	0.00	57.00	5.22	4.98	0.00
6.00	0.45	0.27	0.00	58.00	5.22	4.98	0.00
7.00	0.55	0.36	0.01	59.00	5.22	4.98	0.00
8.00	0.68	0.46	0.01	60.00	5.22	4.98	0.00
9.00	0.83	0.63	0.01	61.00	5.22	4.98	0.00
10.00	1.03	0.82	0.01	62.00	5.22	4.98	0.00
11.00	1.36	1.14	0.02	63.00	5.22	4.98	0.00
12.00	2.50	2.27	0.07	64.00	5.22	4.98	0.00
13.00	3.86	3.63	0.05	65.00	5.22	4.98	0.00
14.00	4.19	3.95	0.02	66.00	5.22	4.98	0.00
15.00	4.39	4.16	0.01	67.00	5.22	4.98	0.00
16.00	4.54	4.31	0.01	68.00	5.22	4.98	0.00
17.00	4.67	4.43	0.01	69.00	5.22	4.98	0.00
18.00	4.77	4.54	0.01	70.00	5.22	4.98	0.00
19.00	4.86	4.63	0.01	71.00	5.22	4.98	0.00
20.00	4.95	4.71	0.01	72.00	5.22	4.98	0.00
21.00	5.02	4.79	0.00				
22.00	5.09	4.86	0.00				
23.00	5.16	4.92	0.00				
24.00	5.22	4.98	0.00				
25.00	5.22	4.98	0.00				
26.00	5.22	4.98	0.00				
27.00	5.22	4.98	0.00				
28.00	5.22	4.98	0.00				
29.00	5.22	4.98	0.00				
30.00	5.22	4.98	0.00				
31.00	5.22	4.98	0.00				
32.00	5.22	4.98	0.00				
33.00	5.22	4.98	0.00				
34.00	5.22	4.98	0.00				
35.00	5.22	4.98	0.00				
36.00	5.22	4.98	0.00				
37.00	5.22	4.98	0.00				
38.00	5.22	4.98	0.00				
39.00	5.22	4.98	0.00				
40.00	5.22	4.98	0.00				
41.00	5.22	4.98	0.00				
42.00	5.22	4.98	0.00				
43.00	5.22	4.98	0.00				
44.00	5.22	4.98	0.00				
45.00	5.22	4.98	0.00				
46.00	5.22	4.98	0.00				
47.00	5.22	4.98	0.00				
48.00	5.22	4.98	0.00				
49.00	5.22	4.98	0.00				
50.00	5.22	4.98	0.00				
51.00	5.22	4.98	0.00				

2022-07-21 Existing Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"
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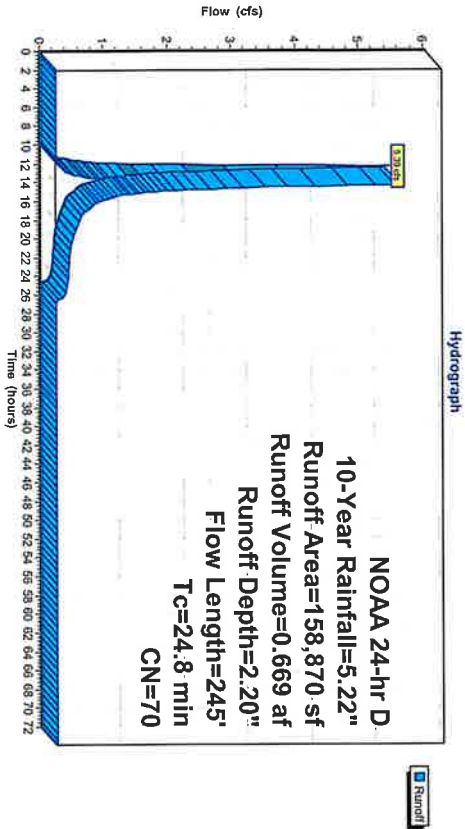
Summary for Subcatchment 3S: Mt. Pleasant Ave. - Perv.

Runoff = 5.39 cfs @ 12.37 hrs. Volume= 0.669 af. Depth= 2.20"
Routed to Link 2L : Mt. Pleasant Ave.

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description		
155,762	70	Woods, Good, HSG C		
2,359	77	Woods, Good, HSG D		
749	74	>75% Grass cover, Good, HSG C		
158,870	70	Weighted Average		
158,870		100.00% Pervious Area		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.2	100	0.0135	0.07	Sheet Flow, Sheet Flow (AB) Woods: Light underbrush n= 0.400 P2= 3.44"
0.6	145	0.0672	4.17	Shallow Concentrated Flow, SCF - Unpaved (BC) Unpaved Kv= 16.1 fps
24.8	245	Total		

Subcatchment 3S: Mt. Pleasant Ave. - Perv.



2022-07-21 Existing Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"
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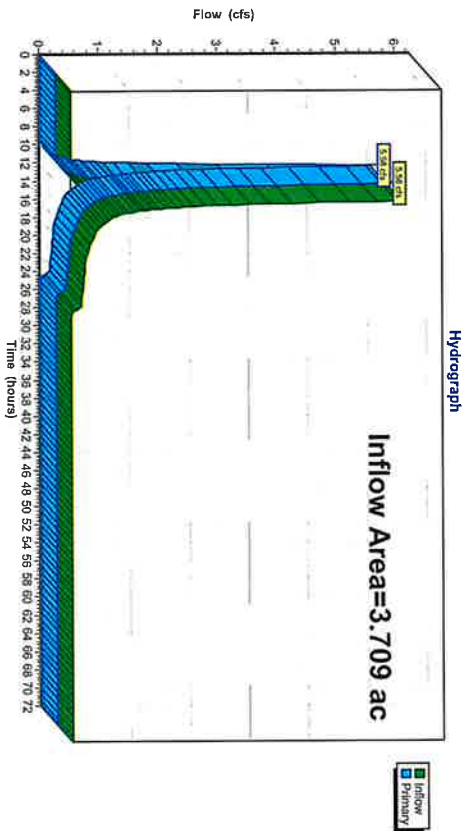
Hydrograph for Subcatchment 3S: Mt. Pleasant Ave. - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	2.20	0.00
1.00	0.06	0.00	0.00	53.00	5.22	2.20	0.00
2.00	0.13	0.00	0.00	54.00	5.22	2.20	0.00
3.00	0.20	0.00	0.00	55.00	5.22	2.20	0.00
4.00	0.27	0.00	0.00	56.00	5.22	2.20	0.00
5.00	0.36	0.00	0.00	57.00	5.22	2.20	0.00
6.00	0.45	0.00	0.00	58.00	5.22	2.20	0.00
7.00	0.55	0.00	0.00	59.00	5.22	2.20	0.00
8.00	0.68	0.00	0.00	60.00	5.22	2.20	0.00
9.00	0.83	0.00	0.00	61.00	5.22	2.20	0.00
10.00	1.03	0.01	0.03	62.00	5.22	2.20	0.00
11.00	1.36	0.05	0.19	63.00	5.22	2.20	0.00
12.00	2.50	0.46	1.41	64.00	5.22	2.20	0.00
13.00	3.86	1.24	1.76	65.00	5.22	2.20	0.00
14.00	4.19	1.45	0.72	66.00	5.22	2.20	0.00
15.00	4.39	1.60	0.50	67.00	5.22	2.20	0.00
16.00	4.54	1.70	0.39	68.00	5.22	2.20	0.00
17.00	4.67	1.80	0.33	69.00	5.22	2.20	0.00
18.00	4.77	1.87	0.27	70.00	5.22	2.20	0.00
19.00	4.86	1.94	0.24	71.00	5.22	2.20	0.00
20.00	4.95	2.00	0.22	72.00	5.22	2.20	0.00
21.00	5.02	2.05	0.21				
22.00	5.09	2.11	0.19				
23.00	5.16	2.16	0.18				
24.00	5.22	2.20	0.16				
25.00	5.22	2.20	0.00				
26.00	5.22	2.20	0.00				
27.00	5.22	2.20	0.00				
28.00	5.22	2.20	0.00				
29.00	5.22	2.20	0.00				
30.00	5.22	2.20	0.00				
31.00	5.22	2.20	0.00				
32.00	5.22	2.20	0.00				
33.00	5.22	2.20	0.00				
34.00	5.22	2.20	0.00				
35.00	5.22	2.20	0.00				
36.00	5.22	2.20	0.00				
37.00	5.22	2.20	0.00				
38.00	5.22	2.20	0.00				
39.00	5.22	2.20	0.00				
40.00	5.22	2.20	0.00				
41.00	5.22	2.20	0.00				
42.00	5.22	2.20	0.00				
43.00	5.22	2.20	0.00				
44.00	5.22	2.20	0.00				
45.00	5.22	2.20	0.00				
46.00	5.22	2.20	0.00				
47.00	5.22	2.20	0.00				
48.00	5.22	2.20	0.00				
49.00	5.22	2.20	0.00				
50.00	5.22	2.20	0.00				
51.00	5.22	2.20	0.00				

Summary for Link 2L: Mt. Pleasant Ave.

Inflow Area = 3.709 ac, 1.67% Impervious, Inflow Depth = 2.25" for 10-Year event
 Inflow = 5.58 cfs @ 12.36 hrs, Volume= 0.695 af
 Primary = 5.58 cfs @ 12.36 hrs, Volume= 0.695 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 2L: Mt. Pleasant Ave.



Hydrograph for Link 2L: Mt. Pleasant Ave.

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	57.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	58.00	0.00	0.00	0.00
7.00	0.01	0.00	0.01	59.00	0.00	0.00	0.00
8.00	0.01	0.00	0.01	60.00	0.00	0.00	0.00
9.00	0.01	0.00	0.01	61.00	0.00	0.00	0.00
10.00	0.05	0.00	0.05	62.00	0.00	0.00	0.00
11.00	0.21	0.00	0.21	63.00	0.00	0.00	0.00
12.00	1.49	0.00	1.49	64.00	0.00	0.00	0.00
13.00	1.80	0.00	1.80	65.00	0.00	0.00	0.00
14.00	0.74	0.00	0.74	66.00	0.00	0.00	0.00
15.00	0.51	0.00	0.51	67.00	0.00	0.00	0.00
16.00	0.39	0.00	0.39	68.00	0.00	0.00	0.00
17.00	0.34	0.00	0.34	69.00	0.00	0.00	0.00
18.00	0.28	0.00	0.28	70.00	0.00	0.00	0.00
19.00	0.24	0.00	0.24	71.00	0.00	0.00	0.00
20.00	0.23	0.00	0.23	72.00	0.00	0.00	0.00
21.00	0.21	0.00	0.21				
22.00	0.20	0.00	0.20				
23.00	0.18	0.00	0.18				
24.00	0.17	0.00	0.17				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

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: Mt. Pleasant Ave. - Imp. Runoff Area=2,696 sf 100.00% Impervious Runoff Depth=8.42"
Flow Length=330' Tc=23.5 min CN=98 Runoff=0.32 cfs 0.043 af

Subcatchment 3S: Mt. Pleasant Ave. - Perv. Runoff Area=158,870 sf 0.00% Impervious Runoff Depth=5.04"
Flow Length=245' Tc=24.8 min CN=70 Runoff=12.53 cfs 1.531 af

Link 2L: Mt. Pleasant Ave.

Inflow=12.84 cfs 1.574 af
Primary=12.84 cfs 1.574 af

Total Runoff Area = 3.709 ac Runoff Volume = 1.574 af Average Runoff Depth = 5.09"
98.33% Pervious = 3.647 ac 1.67% Impervious = 0.062 ac

Summary for Subcatchment 1S: Mt. Pleasant Ave. - Imp.

Runoff = 0.32 cfs @ 12.32 hrs. Volume= 0.043 af. Depth= 8.42"
Routed to Link 2L : Mt. Pleasant Ave.

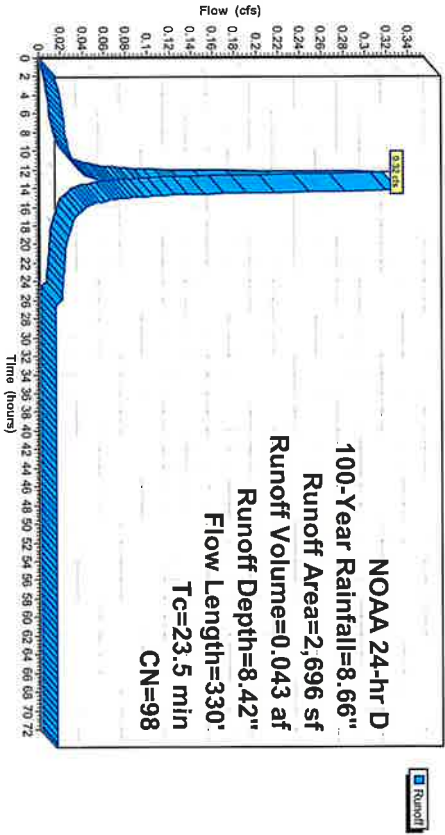
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span=0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description
2,345	98	Unconnected pavement, HSG C
351	98	Unconnected pavement, HSG B
2,696	98	Weighted Average
2,696		100.00% Impervious Area
2,696		100.00% Unconnected
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)
22.4	100	0.0165
1.1	230	0.0489
23.5	330	Total

Sheet Flow, Sheet Flow (AB)	Description
Woods: Light underbrush n= 0.400 P2= 3.44"	
Shallow Concentrated Flow, SCF - Unpaved (BC)	
Unpaved Kv= 16.1 fps	

Subcatchment 1S: Mt. Pleasant Ave. - Imp.

Hydrograph



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NOAA 24-hr D 100-Year Rainfall=8.66"

Hydrograph for Subcatchment 1S: Mt. Pleasant Ave. - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	8.42	0.00
1.00	0.10	0.01	0.00	53.00	8.66	8.42	0.00
2.00	0.21	0.08	0.00	54.00	8.66	8.42	0.00
3.00	0.33	0.17	0.01	55.00	8.66	8.42	0.00
4.00	0.45	0.28	0.01	56.00	8.66	8.42	0.00
5.00	0.59	0.40	0.01	57.00	8.66	8.42	0.00
6.00	0.74	0.54	0.01	58.00	8.66	8.42	0.00
7.00	0.91	0.71	0.01	59.00	8.66	8.42	0.00
8.00	1.12	0.91	0.01	60.00	8.66	8.42	0.00
9.00	1.37	1.16	0.02	61.00	8.66	8.42	0.00
10.00	1.72	1.49	0.02	62.00	8.66	8.42	0.00
11.00	2.25	2.02	0.04	63.00	8.66	8.42	0.00
12.00	4.15	3.91	0.12	64.00	8.66	8.42	0.00
13.00	6.41	6.17	0.08	65.00	8.66	8.42	0.00
14.00	6.94	6.70	0.03	66.00	8.66	8.42	0.00
15.00	7.29	7.05	0.02	67.00	8.66	8.42	0.00
16.00	7.54	7.30	0.02	68.00	8.66	8.42	0.00
17.00	7.75	7.51	0.01	69.00	8.66	8.42	0.00
18.00	7.92	7.68	0.01	70.00	8.66	8.42	0.00
19.00	8.07	7.83	0.01	71.00	8.66	8.42	0.00
20.00	8.21	7.97	0.01	72.00	8.66	8.42	0.00
21.00	8.33	8.09	0.01				
22.00	8.45	8.21	0.01				
23.00	8.56	8.32	0.01				
24.00	8.66	8.42	0.01				
25.00	8.66	8.42	0.00				
26.00	8.66	8.42	0.00				
27.00	8.66	8.42	0.00				
28.00	8.66	8.42	0.00				
29.00	8.66	8.42	0.00				
30.00	8.66	8.42	0.00				
31.00	8.66	8.42	0.00				
32.00	8.66	8.42	0.00				
33.00	8.66	8.42	0.00				
34.00	8.66	8.42	0.00				
35.00	8.66	8.42	0.00				
36.00	8.66	8.42	0.00				
37.00	8.66	8.42	0.00				
38.00	8.66	8.42	0.00				
39.00	8.66	8.42	0.00				
40.00	8.66	8.42	0.00				
41.00	8.66	8.42	0.00				
42.00	8.66	8.42	0.00				
43.00	8.66	8.42	0.00				
44.00	8.66	8.42	0.00				
45.00	8.66	8.42	0.00				
46.00	8.66	8.42	0.00				
47.00	8.66	8.42	0.00				
48.00	8.66	8.42	0.00				
49.00	8.66	8.42	0.00				
50.00	8.66	8.42	0.00				
51.00	8.66	8.42	0.00				

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NOAA 24-hr D 100-Year Rainfall=8.66"

Summary for Subcatchment 3S: Mt. Pleasant Ave. - Perv.

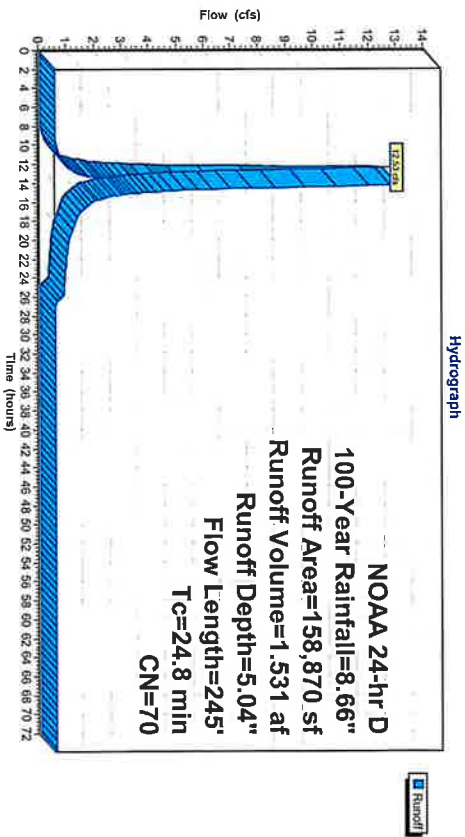
Runoff = 12.53 cfs @ 12.36 hrs. Volume= 1.531 af. Depth= 5.04"

Routed to Link 2L : Mt. Pleasant Ave.

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description			
155,762	70	Woods, Good, HSG C			
2,359	77	Woods, Good, HSG D			
749	74	>75% Grass cover, Good, HSG C			
158,870	70	Weighted Average			
158,870		100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.2	100	0.0135	0.07		Sheet Flow, Sheet Flow (AB) Woods: Light underbrush n= 0.400 P2= 3.44"
0.6	145	0.0672	4.17		Shallow Concentrated Flow, SCF - Unpaved (BC) Unpaved Kv= 16.1 fps
24.8	245	Total			

Subcatchment 3S: Mt. Pleasant Ave. - Perv.



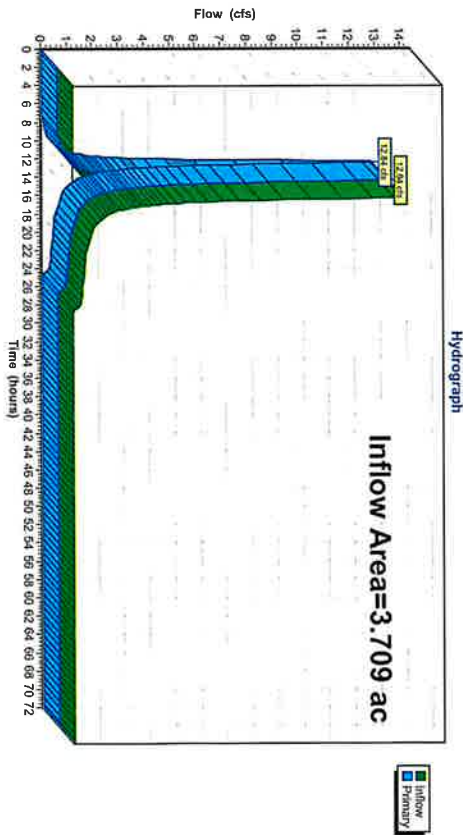
Hydrograph for Subcatchment 3S: Mt. Pleasant Ave. - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	5.04	0.00
1.00	0.10	0.00	0.00	53.00	8.66	5.04	0.00
2.00	0.21	0.00	0.00	54.00	8.66	5.04	0.00
3.00	0.33	0.00	0.00	55.00	8.66	5.04	0.00
4.00	0.45	0.00	0.00	56.00	8.66	5.04	0.00
5.00	0.59	0.00	0.00	57.00	8.66	5.04	0.00
6.00	0.74	0.00	0.00	58.00	8.66	5.04	0.00
7.00	0.91	0.00	0.00	59.00	8.66	5.04	0.00
8.00	1.12	0.02	0.06	60.00	8.66	5.04	0.00
9.00	1.37	0.06	0.16	61.00	8.66	5.04	0.00
10.00	1.72	0.14	0.35	62.00	8.66	5.04	0.00
11.00	2.25	0.34	0.79	63.00	8.66	5.04	0.00
12.00	4.15	1.43	3.89	64.00	8.66	5.04	0.00
13.00	6.41	3.13	3.71	65.00	8.66	5.04	0.00
14.00	6.94	3.57	1.46	66.00	8.66	5.04	0.00
15.00	7.29	3.86	1.01	67.00	8.66	5.04	0.00
16.00	7.54	4.07	0.76	68.00	8.66	5.04	0.00
17.00	7.75	4.25	0.65	69.00	8.66	5.04	0.00
18.00	7.92	4.40	0.53	70.00	8.66	5.04	0.00
19.00	8.07	4.52	0.46	71.00	8.66	5.04	0.00
20.00	8.21	4.64	0.43	72.00	8.66	5.04	0.00
21.00	8.33	4.75	0.40				
22.00	8.45	4.86	0.37				
23.00	8.56	4.95	0.35				
24.00	8.66	5.04	0.31				
25.00	8.66	5.04	0.00				
26.00	8.66	5.04	0.00				
27.00	8.66	5.04	0.00				
28.00	8.66	5.04	0.00				
29.00	8.66	5.04	0.00				
30.00	8.66	5.04	0.00				
31.00	8.66	5.04	0.00				
32.00	8.66	5.04	0.00				
33.00	8.66	5.04	0.00				
34.00	8.66	5.04	0.00				
35.00	8.66	5.04	0.00				
36.00	8.66	5.04	0.00				
37.00	8.66	5.04	0.00				
38.00	8.66	5.04	0.00				
39.00	8.66	5.04	0.00				
40.00	8.66	5.04	0.00				
41.00	8.66	5.04	0.00				
42.00	8.66	5.04	0.00				
43.00	8.66	5.04	0.00				
44.00	8.66	5.04	0.00				
45.00	8.66	5.04	0.00				
46.00	8.66	5.04	0.00				
47.00	8.66	5.04	0.00				
48.00	8.66	5.04	0.00				
49.00	8.66	5.04	0.00				
50.00	8.66	5.04	0.00				
51.00	8.66	5.04	0.00				

Summary for Link 2L: Mt. Pleasant Ave.

Inflow Area = 3.709 ac, 1.67% Impervious, Inflow Depth = 5.09" for 100-Year event
 Inflow = 12.84 cfs @ 12.36 hrs, Volume= 1.574 af
 Primary = 12.84 cfs @ 12.36 hrs, Volume= 1.574 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 2L: Mt. Pleasant Ave.



Hydrograph for Link 2L: Mt. Pleasant Ave.

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.01	0.00	0.01	55.00	0.00	0.00	0.00
4.00	0.01	0.00	0.01	56.00	0.00	0.00	0.00
5.00	0.01	0.00	0.01	57.00	0.00	0.00	0.00
6.00	0.01	0.00	0.01	58.00	0.00	0.00	0.00
7.00	0.01	0.00	0.01	59.00	0.00	0.00	0.00
8.00	0.08	0.00	0.08	60.00	0.00	0.00	0.00
9.00	0.17	0.00	0.17	61.00	0.00	0.00	0.00
10.00	0.37	0.00	0.37	62.00	0.00	0.00	0.00
11.00	0.83	0.00	0.83	63.00	0.00	0.00	0.00
12.00	4.01	0.00	4.01	64.00	0.00	0.00	0.00
13.00	3.79	0.00	3.79	65.00	0.00	0.00	0.00
14.00	1.49	0.00	1.49	66.00	0.00	0.00	0.00
15.00	1.03	0.00	1.03	67.00	0.00	0.00	0.00
16.00	0.78	0.00	0.78	68.00	0.00	0.00	0.00
17.00	0.66	0.00	0.66	69.00	0.00	0.00	0.00
18.00	0.54	0.00	0.54	70.00	0.00	0.00	0.00
19.00	0.47	0.00	0.47	71.00	0.00	0.00	0.00
20.00	0.44	0.00	0.44	72.00	0.00	0.00	0.00
21.00	0.41	0.00	0.41				
22.00	0.38	0.00	0.38				
23.00	0.35	0.00	0.35				
24.00	0.32	0.00	0.32				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

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2-Year Event

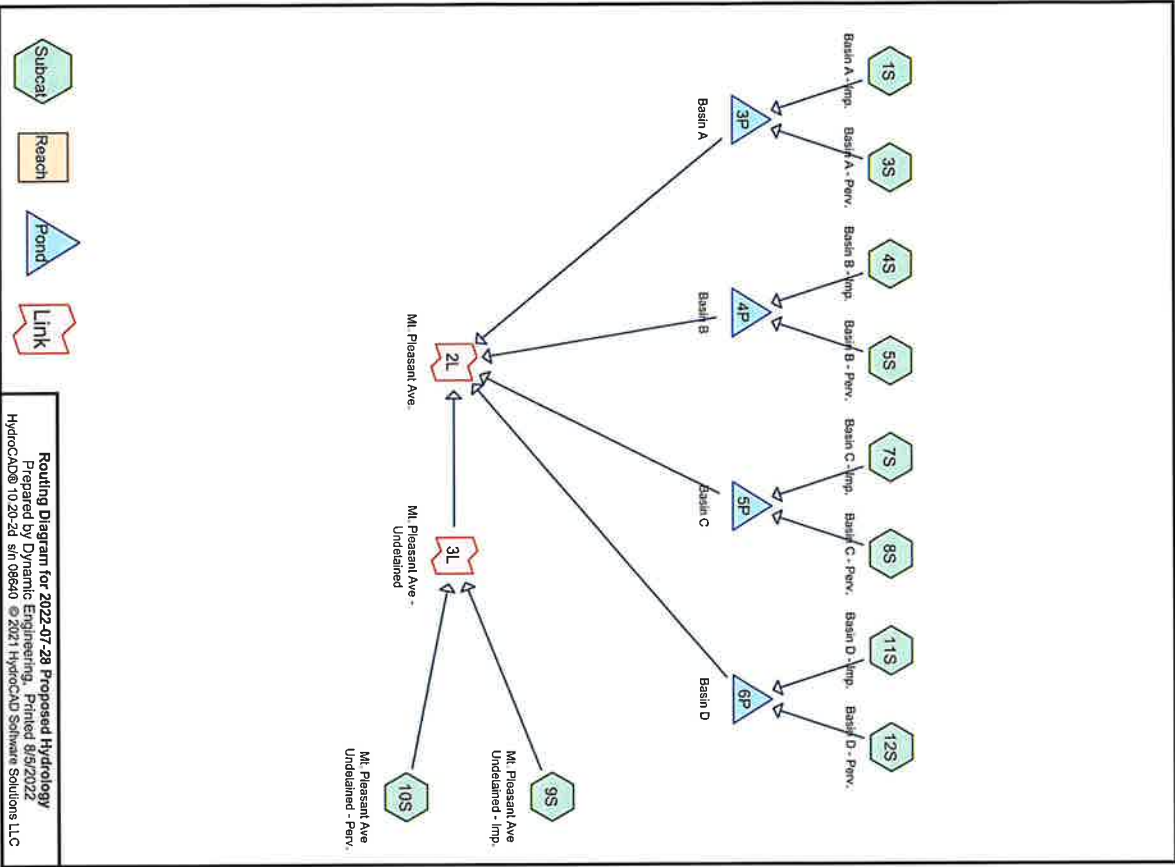
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100-Year Event

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B (inches)	Depth	AMC
1	2-Year	NOAA 24-hr	D	Default	24.00	1	3.44	2
2	10-Year	NOAA 24-hr	D	Default	24.00	1	5.22	2
3	100-Year	NOAA 24-hr	D	Default	24.00	1	8.66	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.246	74	>75% Grass cover, Good, HSG C (3S, 5S, 8S, 10S, 12S)
0.049	80	>75% Grass cover, Good, HSG D (10S)
0.400	98	Unconnected pavement, HSG C (1S, 4S, 7S, 9S, 11S)
0.014	98	Unconnected pavement, HSG D (9S)
3.709	77	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	1S, 3S, 4S, 5S, 7S, 8S, 9S, 10S, 11S, 12S
3.646	HSG C	
0.063	HSG D	9S, 10S
0.000	Other	
3.709	TOTAL AREA	

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	3.246	0.049	0.000	3.295	>75% Grass cover, Good	3S, 5S, 8S, 10S, 12S
0.000	0.000	0.400	0.014	0.000	0.414	Unconnected pavement	1S, 4S, 7S, 9S, 11S
0.000	0.000	3.646	0.063	0.000	3.709	TOTAL AREA	

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: Basin A - Imp.	Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=3.21" Tc=10.0 min CN=98 Runoff=0.30 cfs 0.029 af
Subcatchment 3S: Basin A - Perv.	Runoff Area=24,500 sf 0.00% Impervious Runoff Depth=1.20" Tc=10.0 min CN=74 Runoff=0.65 cfs 0.056 af
Subcatchment 4S: Basin B - Imp.	Runoff Area=4,648 sf 100.00% Impervious Runoff Depth=3.21" Tc=10.0 min CN=98 Runoff=0.30 cfs 0.029 af
Subcatchment 5S: Basin B - Perv.	Runoff Area=31,571 sf 0.00% Impervious Runoff Depth=1.20" Tc=10.0 min CN=74 Runoff=0.84 cfs 0.072 af
Subcatchment 7S: Basin C - Imp.	Runoff Area=4,635 sf 100.00% Impervious Runoff Depth=3.21" Tc=10.0 min CN=98 Runoff=0.30 cfs 0.028 af
Subcatchment 8S: Basin C - Perv.	Runoff Area=31,149 sf 0.00% Impervious Runoff Depth=1.20" Tc=10.0 min CN=74 Runoff=0.82 cfs 0.071 af
Subcatchment 9S: Mt. Pleasant Ave	Runoff Area=1,706 sf 100.00% Impervious Runoff Depth=3.21" Tc=10.0 min CN=98 Runoff=0.11 cfs 0.010 af
Subcatchment 10S: Mt. Pleasant Ave	Runoff Area=40,319 sf 0.00% Impervious Runoff Depth=1.20" Tc=10.0 min CN=74 Runoff=1.07 cfs 0.092 af
Subcatchment 11S: Basin D - Imp.	Runoff Area=2,400 sf 100.00% Impervious Runoff Depth=3.21" Tc=10.0 min CN=98 Runoff=0.15 cfs 0.015 af
Subcatchment 12S: Basin D - Perv.	Runoff Area=15,983 sf 0.00% Impervious Runoff Depth=1.20" Tc=10.0 min CN=74 Runoff=0.42 cfs 0.037 af
Pond 3P: Basin A	Peak Elev=625.54' Storage=3,691 cf Inflow=0.94 cfs 0.085 af Outflow=0.00 cfs 0.000 af
Pond 4P: Basin B	Peak Elev=623.78' Storage=4,396 cf Inflow=1.13 cfs 0.101 af Outflow=0.00 cfs 0.000 af
Pond 5P: Basin C	Peak Elev=620.24' Storage=4,350 cf Inflow=1.12 cfs 0.100 af Outflow=0.00 cfs 0.000 af
Pond 6P: Basin D	Peak Elev=616.00' Storage=2,238 cf Inflow=0.57 cfs 0.051 af Outflow=0.00 cfs 0.000 af
Link 2L: Mt. Pleasant Ave.	Inflow=1.17 cfs 0.103 af Primary=1.17 cfs 0.103 af
Link 3L: Mt. Pleasant Ave - Undetained	Inflow=1.17 cfs 0.103 af Primary=1.17 cfs 0.103 af

Total Runoff Area = 3.709 ac Runoff Volume = 0.440 af Average Runoff Depth = 1.42"
88.83% Pervious = 3.295 ac 11.17% Impervious = 0.414 ac

Summary for Subcatchment 1S: Basin A - Imp.

Runoff = 0.30 cfs @ 12.17 hrs, Volume= 0.029 af, Depth= 3.21"
Routed to Pond 3P : Basin A

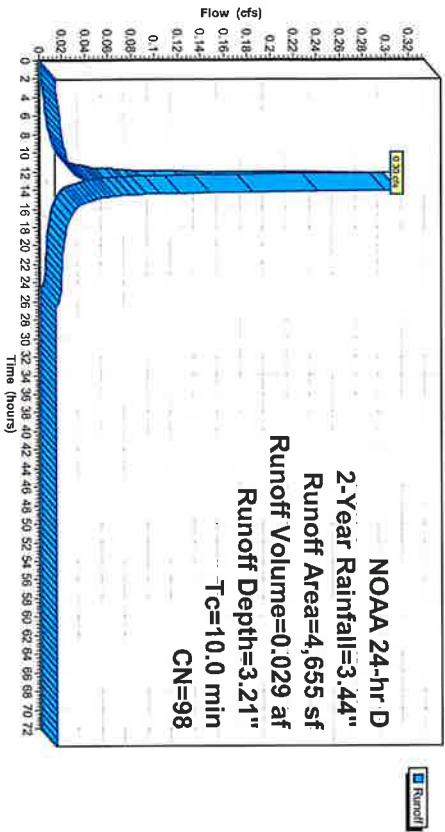
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description
4,655	98	Unconnected pavement, HSG C
4,655		100.00% Impervious Area
4,655		Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 1S: Basin A - Imp.

Hydrograph



Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	3.21	0.00
1.00	0.04	0.00	0.00	53.00	3.44	3.21	0.00
2.00	0.08	0.01	0.00	54.00	3.44	3.21	0.00
3.00	0.13	0.03	0.00	55.00	3.44	3.21	0.00
4.00	0.18	0.06	0.00	56.00	3.44	3.21	0.00
5.00	0.24	0.09	0.00	57.00	3.44	3.21	0.00
6.00	0.29	0.14	0.01	58.00	3.44	3.21	0.00
7.00	0.36	0.20	0.01	59.00	3.44	3.21	0.00
8.00	0.45	0.27	0.01	60.00	3.44	3.21	0.00
9.00	0.55	0.36	0.01	61.00	3.44	3.21	0.00
10.00	0.68	0.49	0.02	62.00	3.44	3.21	0.00
11.00	0.89	0.69	0.03	63.00	3.44	3.21	0.00
12.00	1.65	1.43	0.15	64.00	3.44	3.21	0.00
13.00	2.55	2.32	0.04	65.00	3.44	3.21	0.00
14.00	2.76	2.53	0.02	66.00	3.44	3.21	0.00
15.00	2.89	2.66	0.01	67.00	3.44	3.21	0.00
16.00	2.99	2.76	0.01	68.00	3.44	3.21	0.00
17.00	3.08	2.85	0.01	69.00	3.44	3.21	0.00
18.00	3.15	2.91	0.01	70.00	3.44	3.21	0.00
19.00	3.20	2.97	0.01	71.00	3.44	3.21	0.00
20.00	3.26	3.03	0.01	72.00	3.44	3.21	0.00
21.00	3.31	3.08	0.01				
22.00	3.36	3.12	0.00				
23.00	3.40	3.17	0.00				
24.00	3.44	3.21	0.00				
25.00	3.44	3.21	0.00				
26.00	3.44	3.21	0.00				
27.00	3.44	3.21	0.00				
28.00	3.44	3.21	0.00				
29.00	3.44	3.21	0.00				
30.00	3.44	3.21	0.00				
31.00	3.44	3.21	0.00				
32.00	3.44	3.21	0.00				
33.00	3.44	3.21	0.00				
34.00	3.44	3.21	0.00				
35.00	3.44	3.21	0.00				
36.00	3.44	3.21	0.00				
37.00	3.44	3.21	0.00				
38.00	3.44	3.21	0.00				
39.00	3.44	3.21	0.00				
40.00	3.44	3.21	0.00				
41.00	3.44	3.21	0.00				
42.00	3.44	3.21	0.00				
43.00	3.44	3.21	0.00				
44.00	3.44	3.21	0.00				
45.00	3.44	3.21	0.00				
46.00	3.44	3.21	0.00				
47.00	3.44	3.21	0.00				
48.00	3.44	3.21	0.00				
49.00	3.44	3.21	0.00				
50.00	3.44	3.21	0.00				
51.00	3.44	3.21	0.00				

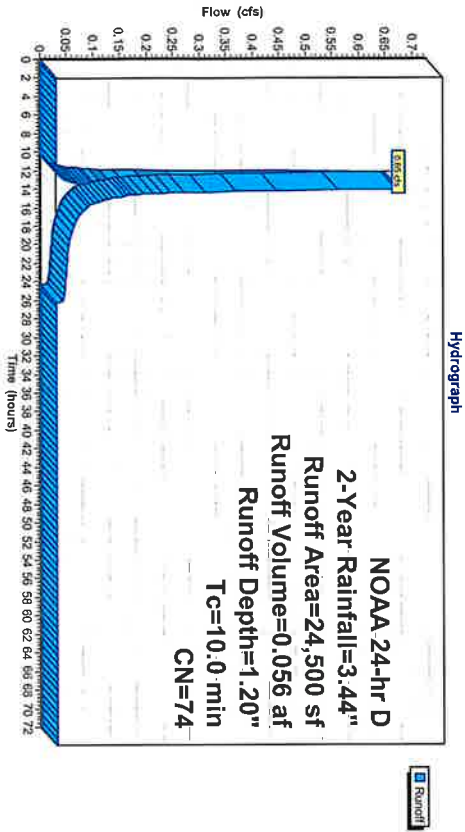
Summary for Subcatchment 3S: Basin A - Perv.

Runoff = 0.65 cfs @ 12.18 hrs, Volume= 0.056 af, Depth= 1.20"
Routed to Pond 3P : Basin A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, d= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description		
24,500	74	>75% Grass cover, Good, HSG C		
24,500		100.00% Pervious Area		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0				Direct Entry, Direct

Subcatchment 3S: Basin A - Perv.



Hydrograph for Subcatchment 3S: Basin A - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	1.20	0.00
1.00	0.04	0.00	0.00	53.00	3.44	1.20	0.00
2.00	0.08	0.00	0.00	54.00	3.44	1.20	0.00
3.00	0.13	0.00	0.00	55.00	3.44	1.20	0.00
4.00	0.18	0.00	0.00	56.00	3.44	1.20	0.00
5.00	0.24	0.00	0.00	57.00	3.44	1.20	0.00
6.00	0.29	0.00	0.00	58.00	3.44	1.20	0.00
7.00	0.36	0.00	0.00	59.00	3.44	1.20	0.00
8.00	0.45	0.00	0.00	60.00	3.44	1.20	0.00
9.00	0.55	0.00	0.00	61.00	3.44	1.20	0.00
10.00	0.66	0.00	0.00	62.00	3.44	1.20	0.00
11.00	0.89	0.01	0.01	63.00	3.44	1.20	0.00
12.00	1.65	0.20	0.11	64.00	3.44	1.20	0.00
13.00	2.55	0.63	0.24	65.00	3.44	1.20	0.00
14.00	2.76	0.76	0.06	66.00	3.44	1.20	0.00
15.00	2.89	0.84	0.04	67.00	3.44	1.20	0.00
16.00	2.99	0.90	0.03	68.00	3.44	1.20	0.00
17.00	3.08	0.96	0.03	69.00	3.44	1.20	0.00
18.00	3.15	1.00	0.02	70.00	3.44	1.20	0.00
19.00	3.20	1.04	0.02	71.00	3.44	1.20	0.00
20.00	3.26	1.08	0.02	72.00	3.44	1.20	0.00
21.00	3.31	1.11	0.02				
22.00	3.36	1.14	0.02				
23.00	3.40	1.17	0.02				
24.00	3.44	1.20	0.01				
25.00	3.44	1.20	0.00				
26.00	3.44	1.20	0.00				
27.00	3.44	1.20	0.00				
28.00	3.44	1.20	0.00				
29.00	3.44	1.20	0.00				
30.00	3.44	1.20	0.00				
31.00	3.44	1.20	0.00				
32.00	3.44	1.20	0.00				
33.00	3.44	1.20	0.00				
34.00	3.44	1.20	0.00				
35.00	3.44	1.20	0.00				
36.00	3.44	1.20	0.00				
37.00	3.44	1.20	0.00				
38.00	3.44	1.20	0.00				
39.00	3.44	1.20	0.00				
40.00	3.44	1.20	0.00				
41.00	3.44	1.20	0.00				
42.00	3.44	1.20	0.00				
43.00	3.44	1.20	0.00				
44.00	3.44	1.20	0.00				
45.00	3.44	1.20	0.00				
46.00	3.44	1.20	0.00				
47.00	3.44	1.20	0.00				
48.00	3.44	1.20	0.00				
49.00	3.44	1.20	0.00				
50.00	3.44	1.20	0.00				
51.00	3.44	1.20	0.00				

Summary for Subcatchment 4S: Basin B - Imp.

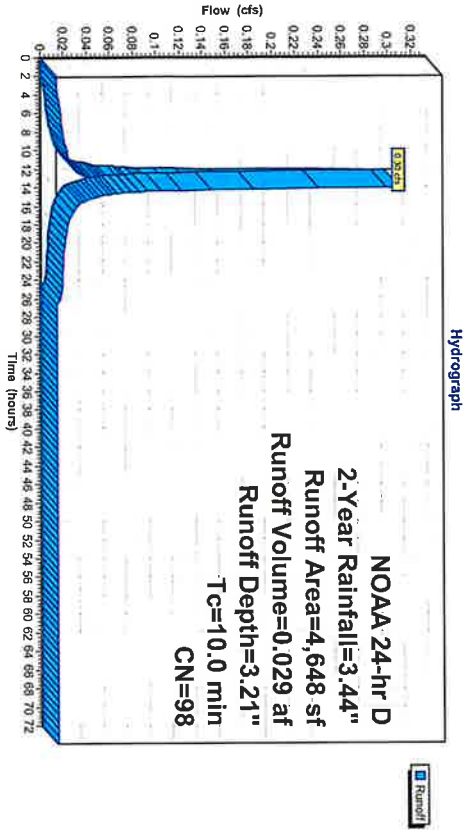
Runoff = 0.30 cfs @ 12.17 hrs, Volume= 0.029 af, Depth= 3.21"
Routed to Pond 4P : Basin B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description
4,648	98	Unconnected pavement, HSG C
4,648		100.00% Impervious Area
4,648		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 4S: Basin B - Imp.



Hydrograph for Subcatchment 4S: Basin B - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	3.21	0.00
1.00	0.04	0.00	0.00	53.00	3.44	3.21	0.00
2.00	0.08	0.01	0.00	54.00	3.44	3.21	0.00
3.00	0.13	0.03	0.00	55.00	3.44	3.21	0.00
4.00	0.18	0.06	0.00	56.00	3.44	3.21	0.00
5.00	0.24	0.09	0.00	57.00	3.44	3.21	0.00
6.00	0.29	0.14	0.01	58.00	3.44	3.21	0.00
7.00	0.36	0.20	0.01	59.00	3.44	3.21	0.00
8.00	0.45	0.27	0.01	60.00	3.44	3.21	0.00
9.00	0.55	0.36	0.01	61.00	3.44	3.21	0.00
10.00	0.68	0.49	0.02	62.00	3.44	3.21	0.00
11.00	0.89	0.69	0.03	63.00	3.44	3.21	0.00
12.00	1.65	1.43	0.15	64.00	3.44	3.21	0.00
13.00	2.55	2.32	0.04	65.00	3.44	3.21	0.00
14.00	2.76	2.53	0.02	66.00	3.44	3.21	0.00
15.00	2.89	2.66	0.01	67.00	3.44	3.21	0.00
16.00	2.99	2.76	0.01	68.00	3.44	3.21	0.00
17.00	3.08	2.85	0.01	69.00	3.44	3.21	0.00
18.00	3.15	2.91	0.01	70.00	3.44	3.21	0.00
19.00	3.20	2.97	0.01	71.00	3.44	3.21	0.00
20.00	3.26	3.03	0.01	72.00	3.44	3.21	0.00
21.00	3.31	3.08	0.01				
22.00	3.36	3.12	0.00				
23.00	3.40	3.17	0.00				
24.00	3.44	3.21	0.00				
25.00	3.44	3.21	0.00				
26.00	3.44	3.21	0.00				
27.00	3.44	3.21	0.00				
28.00	3.44	3.21	0.00				
29.00	3.44	3.21	0.00				
30.00	3.44	3.21	0.00				
31.00	3.44	3.21	0.00				
32.00	3.44	3.21	0.00				
33.00	3.44	3.21	0.00				
34.00	3.44	3.21	0.00				
35.00	3.44	3.21	0.00				
36.00	3.44	3.21	0.00				
37.00	3.44	3.21	0.00				
38.00	3.44	3.21	0.00				
39.00	3.44	3.21	0.00				
40.00	3.44	3.21	0.00				
41.00	3.44	3.21	0.00				
42.00	3.44	3.21	0.00				
43.00	3.44	3.21	0.00				
44.00	3.44	3.21	0.00				
45.00	3.44	3.21	0.00				
46.00	3.44	3.21	0.00				
47.00	3.44	3.21	0.00				
48.00	3.44	3.21	0.00				
49.00	3.44	3.21	0.00				
50.00	3.44	3.21	0.00				
51.00	3.44	3.21	0.00				

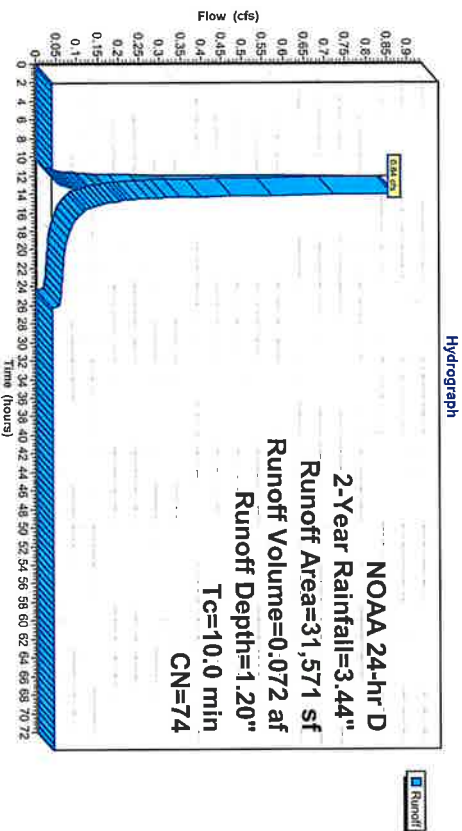
Summary for Subcatchment 5S: Basin B - Perv.

Runoff = 0.84 cfs @ 12.18 hrs, Volume= 0.072 af, Depth= 1.20"
 Routed to Pond 4P : Basin B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description		
31,571	74	>75% Grass cover, Good, HSG C		
31,571		100.00% Pervious Area		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0				Direct Entry, Direct

Subcatchment 5S: Basin B - Perv.



Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	1.20	0.00
1.00	0.04	0.00	0.00	53.00	3.44	1.20	0.00
2.00	0.08	0.00	0.00	54.00	3.44	1.20	0.00
3.00	0.13	0.00	0.00	55.00	3.44	1.20	0.00
4.00	0.18	0.00	0.00	56.00	3.44	1.20	0.00
5.00	0.24	0.00	0.00	57.00	3.44	1.20	0.00
6.00	0.29	0.00	0.00	58.00	3.44	1.20	0.00
7.00	0.36	0.00	0.00	59.00	3.44	1.20	0.00
8.00	0.45	0.00	0.00	60.00	3.44	1.20	0.00
9.00	0.55	0.00	0.00	61.00	3.44	1.20	0.00
10.00	0.68	0.00	0.00	62.00	3.44	1.20	0.00
11.00	0.89	0.01	0.02	63.00	3.44	1.20	0.00
12.00	1.65	0.20	0.30	64.00	3.44	1.20	0.00
13.00	2.55	0.63	0.15	65.00	3.44	1.20	0.00
14.00	2.76	0.76	0.08	66.00	3.44	1.20	0.00
15.00	2.89	0.84	0.05	67.00	3.44	1.20	0.00
16.00	2.99	0.90	0.04	68.00	3.44	1.20	0.00
17.00	3.08	0.96	0.04	69.00	3.44	1.20	0.00
18.00	3.15	1.00	0.03	70.00	3.44	1.20	0.00
19.00	3.20	1.04	0.03	71.00	3.44	1.20	0.00
20.00	3.26	1.08	0.03	72.00	3.44	1.20	0.00
21.00	3.31	1.11	0.02				
22.00	3.36	1.14	0.02				
23.00	3.40	1.17	0.02				
24.00	3.44	1.20	0.02				
25.00	3.44	1.20	0.00				
26.00	3.44	1.20	0.00				
27.00	3.44	1.20	0.00				
28.00	3.44	1.20	0.00				
29.00	3.44	1.20	0.00				
30.00	3.44	1.20	0.00				
31.00	3.44	1.20	0.00				
32.00	3.44	1.20	0.00				
33.00	3.44	1.20	0.00				
34.00	3.44	1.20	0.00				
35.00	3.44	1.20	0.00				
36.00	3.44	1.20	0.00				
37.00	3.44	1.20	0.00				
38.00	3.44	1.20	0.00				
39.00	3.44	1.20	0.00				
40.00	3.44	1.20	0.00				
41.00	3.44	1.20	0.00				
42.00	3.44	1.20	0.00				
43.00	3.44	1.20	0.00				
44.00	3.44	1.20	0.00				
45.00	3.44	1.20	0.00				
46.00	3.44	1.20	0.00				
47.00	3.44	1.20	0.00				
48.00	3.44	1.20	0.00				
49.00	3.44	1.20	0.00				
50.00	3.44	1.20	0.00				
51.00	3.44	1.20	0.00				

2022-07-28 Proposed Hydrology

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NOAA 24-hr D 2-Year Rainfall=3.44"
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Summary for Subcatchment 7S: Basin C - Imp.

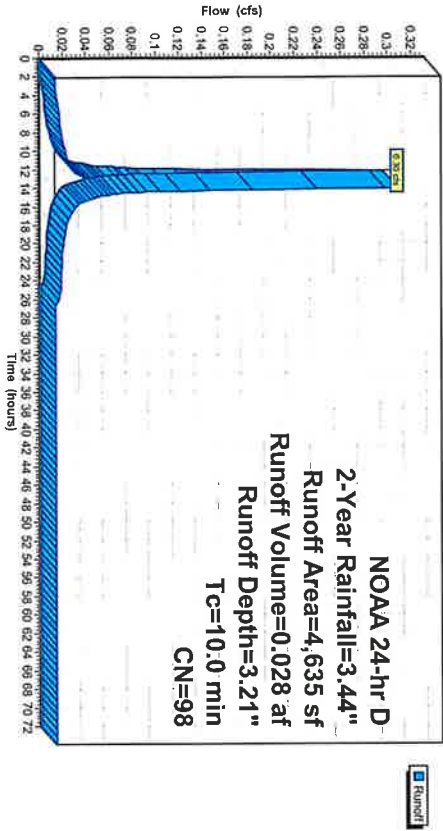
Runoff = 0.30 cfs @ 12.17 hrs. Volume= 0.028 af. Depth= 3.21"
Routed to Pond 5P : Basin C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span=0.00-72.00 hrs, dt=0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description			
4,635	98	Unconnected pavement, HSG C			
4,635		100.00% Impervious Area			
4,635		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description

Subcatchment 7S: Basin C - Imp.

Hydrograph



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Hydrograph for Subcatchment 7S: Basin C - Imp.

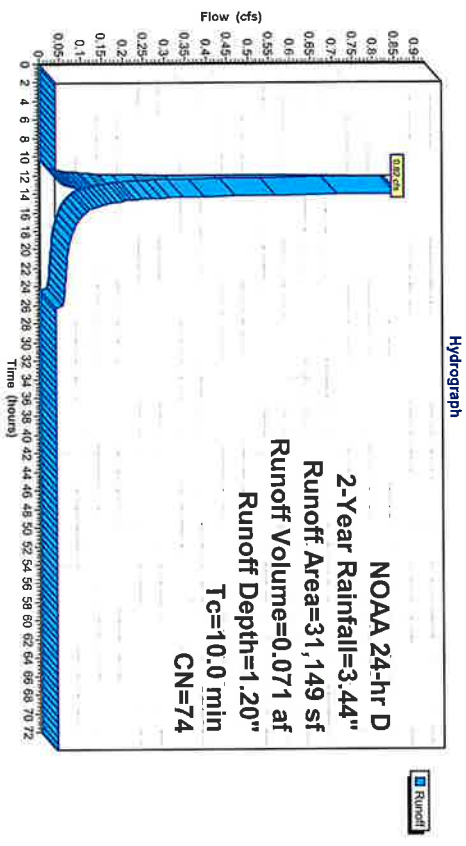
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	3.21	0.00
1.00	0.04	0.00	0.00	53.00	3.44	3.21	0.00
2.00	0.08	0.01	0.00	54.00	3.44	3.21	0.00
3.00	0.13	0.03	0.00	55.00	3.44	3.21	0.00
4.00	0.18	0.06	0.00	56.00	3.44	3.21	0.00
5.00	0.24	0.09	0.00	57.00	3.44	3.21	0.00
6.00	0.29	0.14	0.01	58.00	3.44	3.21	0.00
7.00	0.36	0.20	0.01	59.00	3.44	3.21	0.00
8.00	0.45	0.27	0.01	60.00	3.44	3.21	0.00
9.00	0.55	0.36	0.01	61.00	3.44	3.21	0.00
10.00	0.68	0.49	0.02	62.00	3.44	3.21	0.00
11.00	0.89	0.69	0.03	63.00	3.44	3.21	0.00
12.00	1.65	1.43	0.14	64.00	3.44	3.21	0.00
13.00	2.55	2.32	0.04	65.00	3.44	3.21	0.00
14.00	2.76	2.53	0.02	66.00	3.44	3.21	0.00
15.00	2.89	2.66	0.01	67.00	3.44	3.21	0.00
16.00	2.99	2.76	0.01	68.00	3.44	3.21	0.00
17.00	3.08	2.85	0.01	69.00	3.44	3.21	0.00
18.00	3.15	2.91	0.01	70.00	3.44	3.21	0.00
19.00	3.20	2.97	0.01	71.00	3.44	3.21	0.00
20.00	3.26	3.03	0.01	72.00	3.44	3.21	0.00
21.00	3.31	3.08	0.01				
22.00	3.36	3.12	0.00				
23.00	3.40	3.17	0.00				
24.00	3.44	3.21	0.00				
25.00	3.44	3.21	0.00				
26.00	3.44	3.21	0.00				
27.00	3.44	3.21	0.00				
28.00	3.44	3.21	0.00				
29.00	3.44	3.21	0.00				
30.00	3.44	3.21	0.00				
31.00	3.44	3.21	0.00				
32.00	3.44	3.21	0.00				
33.00	3.44	3.21	0.00				
34.00	3.44	3.21	0.00				
35.00	3.44	3.21	0.00				
36.00	3.44	3.21	0.00				
37.00	3.44	3.21	0.00				
38.00	3.44	3.21	0.00				
39.00	3.44	3.21	0.00				
40.00	3.44	3.21	0.00				
41.00	3.44	3.21	0.00				
42.00	3.44	3.21	0.00				
43.00	3.44	3.21	0.00				
44.00	3.44	3.21	0.00				
45.00	3.44	3.21	0.00				
46.00	3.44	3.21	0.00				
47.00	3.44	3.21	0.00				
48.00	3.44	3.21	0.00				
49.00	3.44	3.21	0.00				
50.00	3.44	3.21	0.00				
51.00	3.44	3.21	0.00				

Summary for Subcatchment 8S: Basin C - Perv.

Runoff = 0.82 cfs @ 12.18 hrs. Volume= 0.071 af. Depth= 1.20"
 Routed to Pond 5P : Basin C
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs. dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description			
31,149	74	>75% Grass cover, Good, HSG C			
31,149		100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 8S: Basin C - Perv.



Hydrograph for Subcatchment 8S: Basin C - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	1.20	0.00
1.00	0.04	0.00	0.00	53.00	3.44	1.20	0.00
2.00	0.08	0.00	0.00	54.00	3.44	1.20	0.00
3.00	0.13	0.00	0.00	55.00	3.44	1.20	0.00
4.00	0.18	0.00	0.00	56.00	3.44	1.20	0.00
5.00	0.24	0.00	0.00	57.00	3.44	1.20	0.00
6.00	0.29	0.00	0.00	58.00	3.44	1.20	0.00
7.00	0.36	0.00	0.00	59.00	3.44	1.20	0.00
8.00	0.45	0.00	0.00	60.00	3.44	1.20	0.00
9.00	0.55	0.00	0.00	61.00	3.44	1.20	0.00
10.00	0.68	0.00	0.00	62.00	3.44	1.20	0.00
11.00	0.89	0.01	0.02	63.00	3.44	1.20	0.00
12.00	1.65	0.20	0.30	64.00	3.44	1.20	0.00
13.00	2.55	0.63	0.15	65.00	3.44	1.20	0.00
14.00	2.76	0.76	0.07	66.00	3.44	1.20	0.00
15.00	2.89	0.84	0.05	67.00	3.44	1.20	0.00
16.00	2.99	0.90	0.04	68.00	3.44	1.20	0.00
17.00	3.08	0.96	0.04	69.00	3.44	1.20	0.00
18.00	3.15	1.00	0.03	70.00	3.44	1.20	0.00
19.00	3.20	1.04	0.03	71.00	3.44	1.20	0.00
20.00	3.26	1.08	0.03	72.00	3.44	1.20	0.00
21.00	3.31	1.11	0.02				
22.00	3.36	1.14	0.02				
23.00	3.40	1.17	0.02				
24.00	3.44	1.20	0.02				
25.00	3.44	1.20	0.00				
26.00	3.44	1.20	0.00				
27.00	3.44	1.20	0.00				
28.00	3.44	1.20	0.00				
29.00	3.44	1.20	0.00				
30.00	3.44	1.20	0.00				
31.00	3.44	1.20	0.00				
32.00	3.44	1.20	0.00				
33.00	3.44	1.20	0.00				
34.00	3.44	1.20	0.00				
35.00	3.44	1.20	0.00				
36.00	3.44	1.20	0.00				
37.00	3.44	1.20	0.00				
38.00	3.44	1.20	0.00				
39.00	3.44	1.20	0.00				
40.00	3.44	1.20	0.00				
41.00	3.44	1.20	0.00				
42.00	3.44	1.20	0.00				
43.00	3.44	1.20	0.00				
44.00	3.44	1.20	0.00				
45.00	3.44	1.20	0.00				
46.00	3.44	1.20	0.00				
47.00	3.44	1.20	0.00				
48.00	3.44	1.20	0.00				
49.00	3.44	1.20	0.00				
50.00	3.44	1.20	0.00				
51.00	3.44	1.20	0.00				

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NOAA 24-hr D 2-Year Rainfall=3.44"
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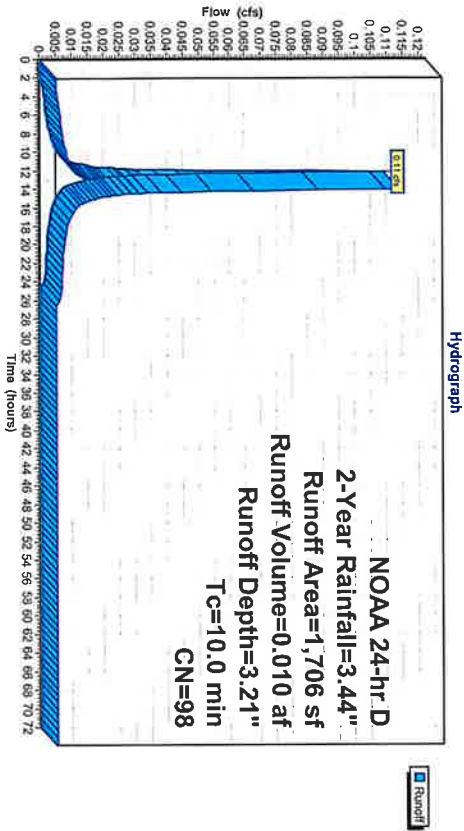
Summary for Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.

Runoff = 0.11 cfs @ 12.17 hrs. Volume= 0.010 af. Depth= 3.21"
Routed to Link 3L : Mt. Pleasant Ave - Undetained

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description		
1,085	98	Unconnected pavement, HSG C		
621	98	Unconnected pavement, HSG D		
1,706	98	Weighted Average		
1,706		100.00% Impervious Area		
1,706		100.00% Unconnected		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0				Direct Entry, Direct

Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.



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NOAA 24-hr D 2-Year Rainfall=3.44"
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Hydrograph for Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	3.21	0.00
1.00	0.04	0.00	0.00	53.00	3.44	3.21	0.00
2.00	0.08	0.01	0.00	54.00	3.44	3.21	0.00
3.00	0.13	0.03	0.00	55.00	3.44	3.21	0.00
4.00	0.18	0.06	0.00	56.00	3.44	3.21	0.00
5.00	0.24	0.09	0.00	57.00	3.44	3.21	0.00
6.00	0.29	0.14	0.00	58.00	3.44	3.21	0.00
7.00	0.36	0.20	0.00	59.00	3.44	3.21	0.00
8.00	0.45	0.27	0.00	60.00	3.44	3.21	0.00
9.00	0.55	0.36	0.00	61.00	3.44	3.21	0.00
10.00	0.68	0.49	0.01	62.00	3.44	3.21	0.00
11.00	0.89	0.69	0.01	63.00	3.44	3.21	0.00
12.00	1.65	1.43	0.05	64.00	3.44	3.21	0.00
13.00	2.55	2.32	0.01	65.00	3.44	3.21	0.00
14.00	2.76	2.53	0.01	66.00	3.44	3.21	0.00
15.00	2.89	2.66	0.00	67.00	3.44	3.21	0.00
16.00	2.99	2.76	0.00	68.00	3.44	3.21	0.00
17.00	3.08	2.85	0.00	69.00	3.44	3.21	0.00
18.00	3.15	2.91	0.00	70.00	3.44	3.21	0.00
19.00	3.20	2.97	0.00	71.00	3.44	3.21	0.00
20.00	3.26	3.03	0.00	72.00	3.44	3.21	0.00
21.00	3.31	3.08	0.00				
22.00	3.36	3.12	0.00				
23.00	3.40	3.17	0.00				
24.00	3.44	3.21	0.00				
25.00	3.44	3.21	0.00				
26.00	3.44	3.21	0.00				
27.00	3.44	3.21	0.00				
28.00	3.44	3.21	0.00				
29.00	3.44	3.21	0.00				
30.00	3.44	3.21	0.00				
31.00	3.44	3.21	0.00				
32.00	3.44	3.21	0.00				
33.00	3.44	3.21	0.00				
34.00	3.44	3.21	0.00				
35.00	3.44	3.21	0.00				
36.00	3.44	3.21	0.00				
37.00	3.44	3.21	0.00				
38.00	3.44	3.21	0.00				
39.00	3.44	3.21	0.00				
40.00	3.44	3.21	0.00				
41.00	3.44	3.21	0.00				
42.00	3.44	3.21	0.00				
43.00	3.44	3.21	0.00				
44.00	3.44	3.21	0.00				
45.00	3.44	3.21	0.00				
46.00	3.44	3.21	0.00				
47.00	3.44	3.21	0.00				
48.00	3.44	3.21	0.00				
49.00	3.44	3.21	0.00				
50.00	3.44	3.21	0.00				
51.00	3.44	3.21	0.00				

Summary for Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

Runoff = 1.07 cfs @ 12.18 hrs. Volume= 0.092 af. Depth= 1.20"
Routed to Link 3L : Mt. Pleasant Ave - Undetained

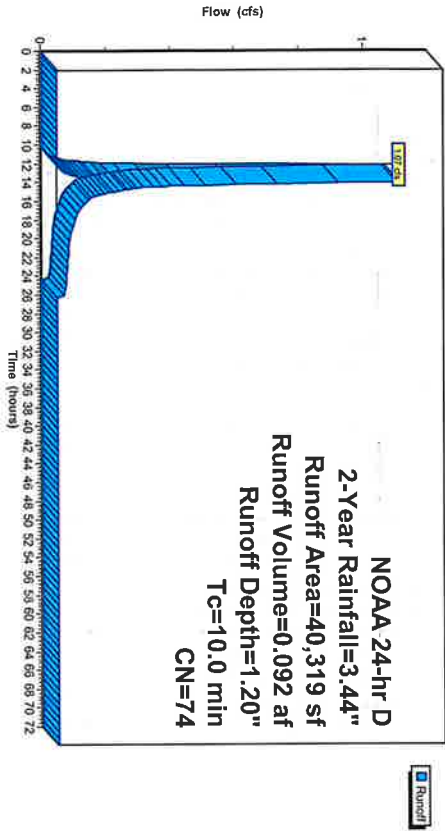
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description
38,200	74	>75% Grass cover, Good, HSG C
2,119	80	>75% Grass cover, Good, HSG D
40,319	74	Weighted Average
40,319		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

Hydrograph



Hydrograph for Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	1.20	0.00
1.00	0.04	0.00	0.00	53.00	3.44	1.20	0.00
2.00	0.08	0.00	0.00	54.00	3.44	1.20	0.00
3.00	0.13	0.00	0.00	55.00	3.44	1.20	0.00
4.00	0.18	0.00	0.00	56.00	3.44	1.20	0.00
5.00	0.24	0.00	0.00	57.00	3.44	1.20	0.00
6.00	0.29	0.00	0.00	58.00	3.44	1.20	0.00
7.00	0.36	0.00	0.00	59.00	3.44	1.20	0.00
8.00	0.45	0.00	0.00	60.00	3.44	1.20	0.00
9.00	0.55	0.00	0.00	61.00	3.44	1.20	0.00
10.00	0.68	0.00	0.00	62.00	3.44	1.20	0.00
11.00	0.89	0.01	0.02	63.00	3.44	1.20	0.00
12.00	1.65	0.20	0.39	64.00	3.44	1.20	0.00
13.00	2.55	0.63	0.19	65.00	3.44	1.20	0.00
14.00	2.76	0.76	0.10	66.00	3.44	1.20	0.00
15.00	2.89	0.84	0.07	67.00	3.44	1.20	0.00
16.00	2.99	0.90	0.06	68.00	3.44	1.20	0.00
17.00	3.08	0.96	0.05	69.00	3.44	1.20	0.00
18.00	3.15	1.00	0.04	70.00	3.44	1.20	0.00
19.00	3.20	1.04	0.04	71.00	3.44	1.20	0.00
20.00	3.26	1.08	0.03	72.00	3.44	1.20	0.00
21.00	3.31	1.11	0.03				
22.00	3.36	1.14	0.03				
23.00	3.40	1.17	0.03				
24.00	3.44	1.20	0.02				
25.00	3.44	1.20	0.00				
26.00	3.44	1.20	0.00				
27.00	3.44	1.20	0.00				
28.00	3.44	1.20	0.00				
29.00	3.44	1.20	0.00				
30.00	3.44	1.20	0.00				
31.00	3.44	1.20	0.00				
32.00	3.44	1.20	0.00				
33.00	3.44	1.20	0.00				
34.00	3.44	1.20	0.00				
35.00	3.44	1.20	0.00				
36.00	3.44	1.20	0.00				
37.00	3.44	1.20	0.00				
38.00	3.44	1.20	0.00				
39.00	3.44	1.20	0.00				
40.00	3.44	1.20	0.00				
41.00	3.44	1.20	0.00				
42.00	3.44	1.20	0.00				
43.00	3.44	1.20	0.00				
44.00	3.44	1.20	0.00				
45.00	3.44	1.20	0.00				
46.00	3.44	1.20	0.00				
47.00	3.44	1.20	0.00				
48.00	3.44	1.20	0.00				
49.00	3.44	1.20	0.00				
50.00	3.44	1.20	0.00				
51.00	3.44	1.20	0.00				

Summary for Subcatchment 11S: Basin D - Imp.

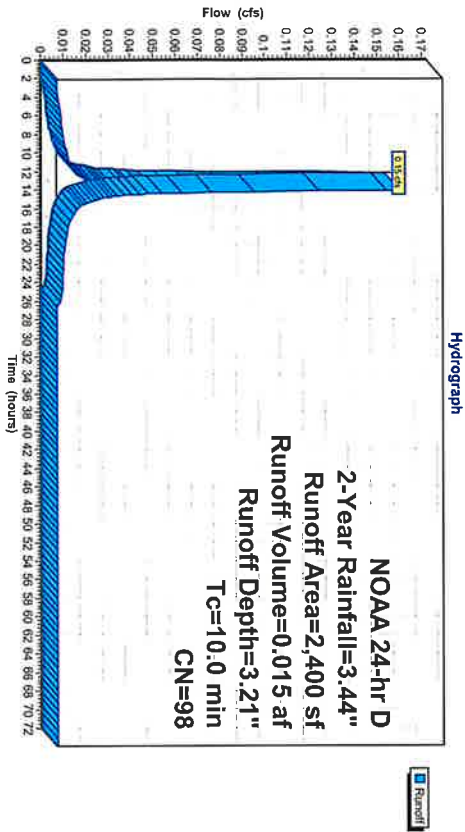
Runoff = 0.15 cfs @ 12.17 hrs, Volume= 0.015 af, Depth= 3.21"
Routed to Pond 6P : Basin D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description
2,400	98	Unconnected pavement, HSG C
2,400		100.00% Impervious Area
2,400		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 11S: Basin D - Imp.



Hydrograph for Subcatchment 11S: Basin D - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	3.21	0.00
1.00	0.04	0.00	0.00	53.00	3.44	3.21	0.00
2.00	0.08	0.01	0.00	54.00	3.44	3.21	0.00
3.00	0.13	0.03	0.00	55.00	3.44	3.21	0.00
4.00	0.18	0.06	0.00	56.00	3.44	3.21	0.00
5.00	0.24	0.09	0.00	57.00	3.44	3.21	0.00
6.00	0.29	0.14	0.00	58.00	3.44	3.21	0.00
7.00	0.36	0.20	0.00	59.00	3.44	3.21	0.00
8.00	0.45	0.27	0.00	60.00	3.44	3.21	0.00
9.00	0.55	0.36	0.01	61.00	3.44	3.21	0.00
10.00	0.68	0.49	0.01	62.00	3.44	3.21	0.00
11.00	0.89	0.69	0.01	63.00	3.44	3.21	0.00
12.00	1.65	1.43	0.07	64.00	3.44	3.21	0.00
13.00	2.55	2.32	0.02	65.00	3.44	3.21	0.00
14.00	2.76	2.53	0.01	66.00	3.44	3.21	0.00
15.00	2.89	2.66	0.01	67.00	3.44	3.21	0.00
16.00	2.99	2.76	0.01	68.00	3.44	3.21	0.00
17.00	3.08	2.85	0.00	69.00	3.44	3.21	0.00
18.00	3.15	2.91	0.00	70.00	3.44	3.21	0.00
19.00	3.20	2.97	0.00	71.00	3.44	3.21	0.00
20.00	3.26	3.03	0.00	72.00	3.44	3.21	0.00
21.00	3.31	3.08	0.00				
22.00	3.36	3.12	0.00				
23.00	3.40	3.17	0.00				
24.00	3.44	3.21	0.00				
25.00	3.44	3.21	0.00				
26.00	3.44	3.21	0.00				
27.00	3.44	3.21	0.00				
28.00	3.44	3.21	0.00				
29.00	3.44	3.21	0.00				
30.00	3.44	3.21	0.00				
31.00	3.44	3.21	0.00				
32.00	3.44	3.21	0.00				
33.00	3.44	3.21	0.00				
34.00	3.44	3.21	0.00				
35.00	3.44	3.21	0.00				
36.00	3.44	3.21	0.00				
37.00	3.44	3.21	0.00				
38.00	3.44	3.21	0.00				
39.00	3.44	3.21	0.00				
40.00	3.44	3.21	0.00				
41.00	3.44	3.21	0.00				
42.00	3.44	3.21	0.00				
43.00	3.44	3.21	0.00				
44.00	3.44	3.21	0.00				
45.00	3.44	3.21	0.00				
46.00	3.44	3.21	0.00				
47.00	3.44	3.21	0.00				
48.00	3.44	3.21	0.00				
49.00	3.44	3.21	0.00				
50.00	3.44	3.21	0.00				
51.00	3.44	3.21	0.00				

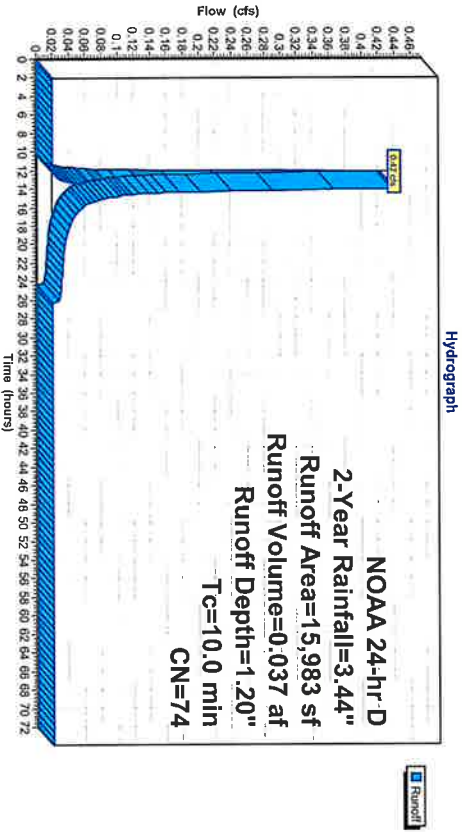
Summary for Subcatchment 12S: Basin D - Perv.

Runoff = 0.42 cfs @ 12.18 hrs, Volume= 0.037 af, Depth= 1.20"
Routed to Pond 6P : Basin D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.44"

Area (sf)	CN	Description			
15,983	74	>75% Grass cover, Good, HSG C			
15,983		100.00% Pervious Area			
Tc	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 12S: Basin D - Perv.



Hydrograph for Subcatchment 12S: Basin D - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	3.44	1.20	0.00
1.00	0.04	0.00	0.00	53.00	3.44	1.20	0.00
2.00	0.08	0.00	0.00	54.00	3.44	1.20	0.00
3.00	0.13	0.00	0.00	55.00	3.44	1.20	0.00
4.00	0.18	0.00	0.00	56.00	3.44	1.20	0.00
5.00	0.24	0.00	0.00	57.00	3.44	1.20	0.00
6.00	0.29	0.00	0.00	58.00	3.44	1.20	0.00
7.00	0.36	0.00	0.00	59.00	3.44	1.20	0.00
8.00	0.45	0.00	0.00	60.00	3.44	1.20	0.00
9.00	0.55	0.00	0.00	61.00	3.44	1.20	0.00
10.00	0.68	0.00	0.00	62.00	3.44	1.20	0.00
11.00	0.89	0.01	0.01	63.00	3.44	1.20	0.00
12.00	1.65	0.20	0.15	64.00	3.44	1.20	0.00
13.00	2.55	0.63	0.07	65.00	3.44	1.20	0.00
14.00	2.76	0.76	0.04	66.00	3.44	1.20	0.00
15.00	2.89	0.84	0.03	67.00	3.44	1.20	0.00
16.00	2.99	0.90	0.02	68.00	3.44	1.20	0.00
17.00	3.08	0.96	0.02	69.00	3.44	1.20	0.00
18.00	3.15	1.00	0.02	70.00	3.44	1.20	0.00
19.00	3.20	1.04	0.01	71.00	3.44	1.20	0.00
20.00	3.26	1.08	0.01	72.00	3.44	1.20	0.00
21.00	3.31	1.11	0.01				
22.00	3.36	1.14	0.01				
23.00	3.40	1.17	0.01				
24.00	3.44	1.20	0.01				
25.00	3.44	1.20	0.00				
26.00	3.44	1.20	0.00				
27.00	3.44	1.20	0.00				
28.00	3.44	1.20	0.00				
29.00	3.44	1.20	0.00				
30.00	3.44	1.20	0.00				
31.00	3.44	1.20	0.00				
32.00	3.44	1.20	0.00				
33.00	3.44	1.20	0.00				
34.00	3.44	1.20	0.00				
35.00	3.44	1.20	0.00				
36.00	3.44	1.20	0.00				
37.00	3.44	1.20	0.00				
38.00	3.44	1.20	0.00				
39.00	3.44	1.20	0.00				
40.00	3.44	1.20	0.00				
41.00	3.44	1.20	0.00				
42.00	3.44	1.20	0.00				
43.00	3.44	1.20	0.00				
44.00	3.44	1.20	0.00				
45.00	3.44	1.20	0.00				
46.00	3.44	1.20	0.00				
47.00	3.44	1.20	0.00				
48.00	3.44	1.20	0.00				
49.00	3.44	1.20	0.00				
50.00	3.44	1.20	0.00				
51.00	3.44	1.20	0.00				

Summary for Pond 3P: Basin A

Inflow Area = 0.669 ac, 15.97% Impervious, Inflow Depth = 1.52" for 2-Year event
Inflow = 0.94 cfs @ 12.18 hrs, Volume= 0.085 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 2L : Mt. Pleasant Ave.

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 625.54' @ 24.60 hrs Surf.Area= 2,861 sf Storage= 3,691 cf

Plug-Flow detention time= (not calculated: Initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

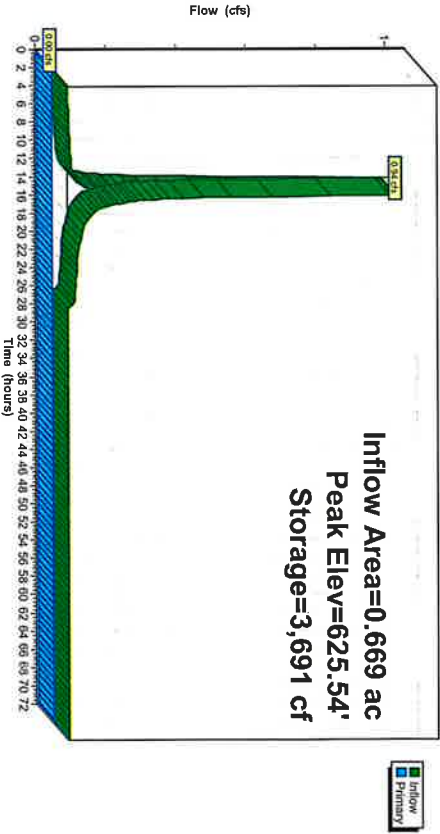
Volume		Invert	Avail. Storage	Storage Description	
#1	624.00'		8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation	Surf. Area	Inc. Store	Cum. Store		
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)		
624.00	1,951	0	0		
625.00	2,519	2,235	2,235		
626.00	3,150	2,835	5,070		
627.00	3,833	3,492	8,561		

Device Routing		Invert		Outlet Devices	
#1	Primary	626.00'	6.0" Horiz. Orifice/Gate	C=0.600	Limited to weir flow at low heads

Primary Outflow Max=0.00 cfs @ 0.00 hrs HW=624.00' (Free Discharge)
L-1=Orifice/Grate (Controls 0.00 cfs)

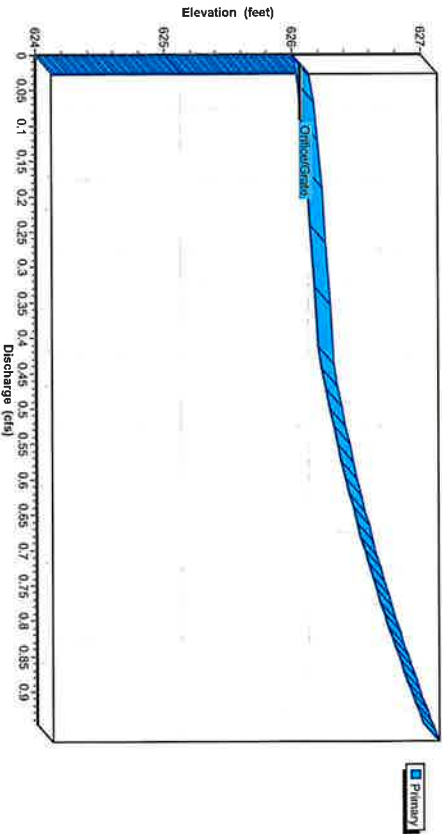
Pond 3P: Basin A

Hydrograph

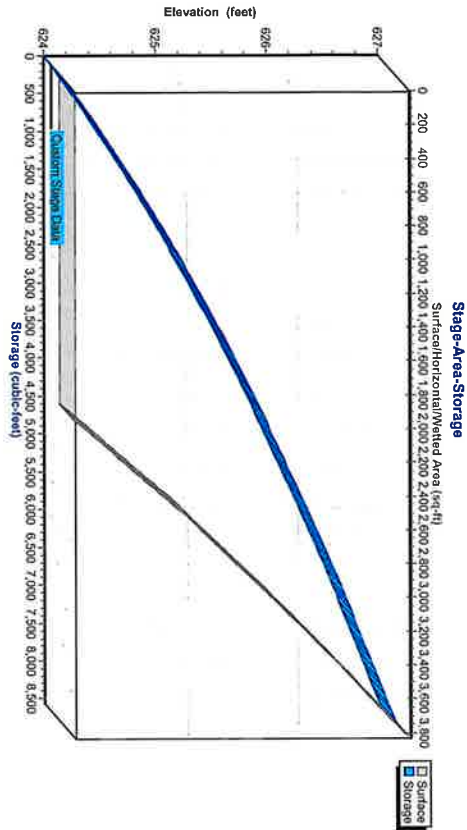


Pond 3P: Basin A

Stage-Discharge



Pond 3P: Basin A



Hydrograph for Pond 3P: Basin A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	624.00	0.00
2.50	0.00	5	624.02	0.00
5.00	0.00	34	624.02	0.00
7.50	0.01	85	624.04	0.00
10.00	0.02	180	624.09	0.00
12.50	0.29	1,745	624.80	0.00
15.00	0.05	2,723	625.19	0.00
17.50	0.03	3,103	625.33	0.00
20.00	0.03	3,359	625.42	0.00
22.50	0.02	3,572	625.50	0.00
25.00	0.00	3,691	625.54	0.00
27.50	0.00	3,691	625.54	0.00
30.00	0.00	3,691	625.54	0.00
32.50	0.00	3,691	625.54	0.00
35.00	0.00	3,691	625.54	0.00
37.50	0.00	3,691	625.54	0.00
40.00	0.00	3,691	625.54	0.00
42.50	0.00	3,691	625.54	0.00
45.00	0.00	3,691	625.54	0.00
47.50	0.00	3,691	625.54	0.00
50.00	0.00	3,691	625.54	0.00
52.50	0.00	3,691	625.54	0.00
55.00	0.00	3,691	625.54	0.00
57.50	0.00	3,691	625.54	0.00
60.00	0.00	3,691	625.54	0.00
62.50	0.00	3,691	625.54	0.00
65.00	0.00	3,691	625.54	0.00
67.50	0.00	3,691	625.54	0.00
70.00	0.00	3,691	625.54	0.00

2022-07-28 Proposed Hydrology

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NOAA 24-hr D 2-Year Rainfall=3.44"

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Stage-Discharge for Pond 3P: Basin A

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
624.00	0.00	625.04	0.00	626.08	0.12
624.02	0.00	625.06	0.00	626.10	0.16
624.04	0.00	625.08	0.00	626.12	0.21
624.06	0.00	625.10	0.00	626.14	0.27
624.08	0.00	625.12	0.00	626.16	0.33
624.10	0.00	625.14	0.00	626.18	0.39
624.12	0.00	625.16	0.00	626.20	0.42
624.14	0.00	625.18	0.00	626.22	0.44
624.16	0.00	625.20	0.00	626.24	0.46
624.18	0.00	625.22	0.00	626.26	0.48
624.20	0.00	625.24	0.00	626.28	0.50
624.22	0.00	625.26	0.00	626.30	0.52
624.24	0.00	625.28	0.00	626.32	0.53
624.26	0.00	625.30	0.00	626.34	0.55
624.28	0.00	625.32	0.00	626.36	0.57
624.30	0.00	625.34	0.00	626.38	0.58
624.32	0.00	625.36	0.00	626.40	0.60
624.34	0.00	625.38	0.00	626.42	0.61
624.36	0.00	625.40	0.00	626.44	0.63
624.38	0.00	625.42	0.00	626.46	0.64
624.40	0.00	625.44	0.00	626.48	0.66
624.42	0.00	625.46	0.00	626.50	0.67
624.44	0.00	625.48	0.00	626.52	0.68
624.46	0.00	625.50	0.00	626.54	0.69
624.48	0.00	625.52	0.00	626.56	0.71
624.50	0.00	625.54	0.00	626.58	0.72
624.52	0.00	625.56	0.00	626.60	0.73
624.54	0.00	625.58	0.00	626.62	0.74
624.56	0.00	625.60	0.00	626.64	0.76
624.58	0.00	625.62	0.00	626.66	0.77
624.60	0.00	625.64	0.00	626.68	0.78
624.62	0.00	625.66	0.00	626.70	0.79
624.64	0.00	625.68	0.00	626.72	0.80
624.66	0.00	625.70	0.00	626.74	0.81
624.68	0.00	625.72	0.00	626.76	0.82
624.70	0.00	625.74	0.00	626.78	0.83
624.72	0.00	625.76	0.00	626.80	0.85
624.74	0.00	625.78	0.00	626.82	0.86
624.76	0.00	625.80	0.00	626.84	0.87
624.78	0.00	625.82	0.00	626.86	0.88
624.80	0.00	625.84	0.00	626.88	0.89
624.82	0.00	625.86	0.00	626.90	0.90
624.84	0.00	625.88	0.00	626.92	0.91
624.86	0.00	625.90	0.00	626.94	0.92
624.88	0.00	625.92	0.00	626.96	0.93
624.90	0.00	625.94	0.00	626.98	0.94
624.92	0.00	625.96	0.00	627.00	0.95
624.94	0.00	625.98	0.00		
624.96	0.00	626.00	0.00		
624.98	0.00	626.02	0.01		
625.00	0.00	626.04	0.04		
625.02	0.00	626.06	0.08		

2022-07-28 Proposed Hydrology

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Stage-Area-Storage for Pond 3P: Basin A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
624.00	1,951	0	626.60	3,560	7,082
624.05	1,979	98	626.65	3,594	7,261
624.10	2,008	198	626.70	3,628	7,442
624.15	2,036	299	626.75	3,662	7,624
624.20	2,065	402	626.80	3,696	7,808
624.25	2,093	506	626.85	3,731	7,994
624.30	2,121	611	626.90	3,765	8,181
624.35	2,150	718	626.95	3,799	8,370
624.40	2,178	826	627.00	3,833	8,561
624.45	2,207	935			
624.50	2,235	1,047			
624.55	2,263	1,159			
624.60	2,292	1,273			
624.65	2,320	1,388			
624.70	2,349	1,505			
624.75	2,377	1,623			
624.80	2,405	1,743			
624.85	2,434	1,864			
624.90	2,462	1,986			
624.95	2,491	2,110			
625.00	2,519	2,235			
625.05	2,551	2,362			
625.10	2,582	2,490			
625.15	2,614	2,620			
625.20	2,645	2,751			
625.25	2,677	2,884			
625.30	2,708	3,019			
625.35	2,740	3,155			
625.40	2,771	3,293			
625.45	2,803	3,432			
625.50	2,835	3,573			
625.55	2,866	3,716			
625.60	2,898	3,860			
625.65	2,929	4,006			
625.70	2,961	4,153			
625.75	2,992	4,302			
625.80	3,024	4,452			
625.85	3,055	4,604			
625.90	3,087	4,758			
625.95	3,118	4,913			
626.00	3,150	5,070			
626.05	3,184	5,228			
626.10	3,218	5,388			
626.15	3,252	5,550			
626.20	3,287	5,713			
626.25	3,321	5,878			
626.30	3,355	6,045			
626.35	3,389	6,214			
626.40	3,423	6,384			
626.45	3,457	6,556			
626.50	3,492	6,730			
626.55	3,526	6,905			

Summary for Pond 4P: Basin B

Inflow Area = 0.831 ac, 12.83% Impervious, Inflow Depth = 1.46" for 2-Year event
Inflow = 1.13 cfs @ 12.18 hrs, Volume= 0.101 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 2L : Mt. Pleasant Ave.

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 623.78' @ 24.50 hrs Surf.Area= 3,012 sf Storage= 4,396 cf
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

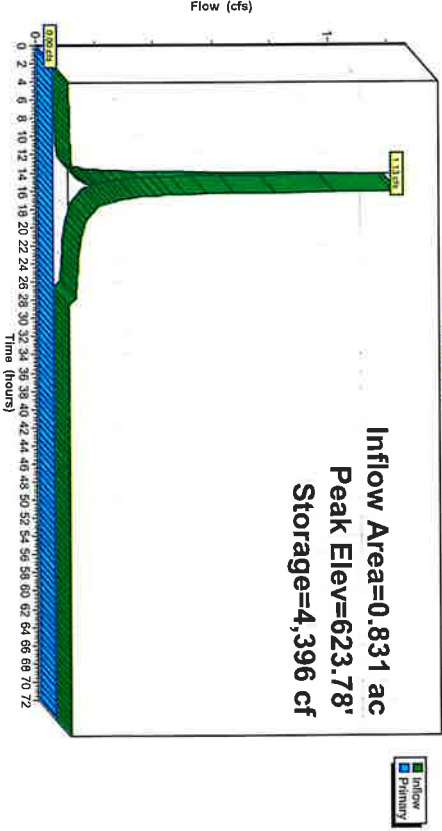
Volume Invert Avail. Storage Storage Description				
#1	622.00'	8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf. Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)	
622.00	1,951	0	0	
623.00	2,519	2,235	2,235	
624.00	3,150	2,835	5,070	
625.00	3,833	3,492	8,561	

Device Routing Invert Outlet Devices			
#1	Primary	623.80' 6.0" Horiz. Orifice/Grate	C= 0.600 Limited to weir flow at low heads

Primary Outflow Max=0.00 cfs @ 0.00 hrs HW=622.00' (Free Discharge)
L-1=Orifice/Grate (Controls 0.00 cfs)

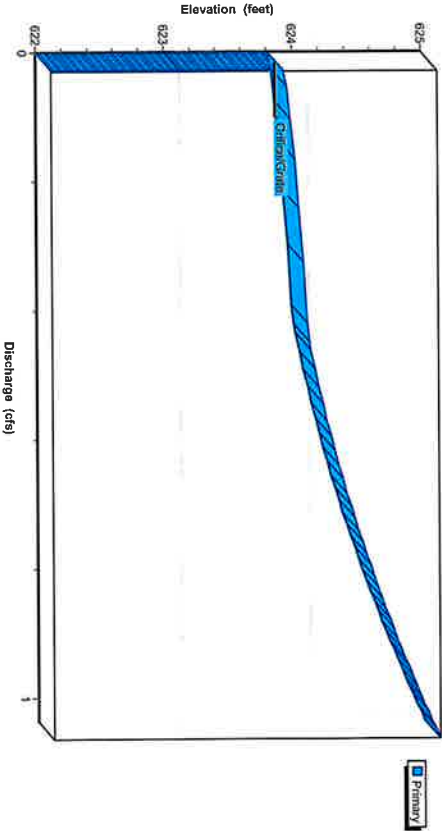
Pond 4P: Basin B

Hydrograph

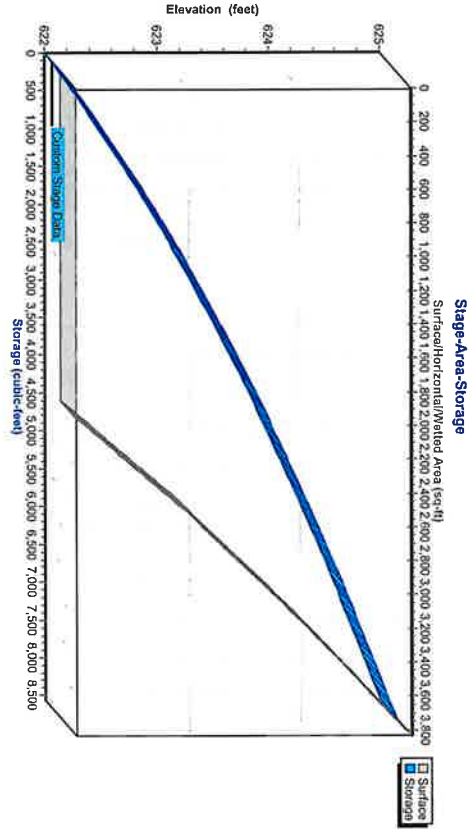


Pond 4P: Basin B

Stage-Discharge



Pond 4P: Basin B



Hydrograph for Pond 4P: Basin B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	622.00	0.00
2.50	0.00	5	622.00	0.00
5.00	0.00	34	622.02	0.00
7.50	0.01	85	622.04	0.00
10.00	0.02	179	622.09	0.00
12.50	0.36	2,021	622.91	0.00
15.00	0.07	3,211	623.37	0.00
17.50	0.04	3,675	623.54	0.00
20.00	0.03	3,988	623.64	0.00
22.50	0.03	4,249	623.73	0.00
25.00	0.00	4,396	623.78	0.00
27.50	0.00	4,396	623.78	0.00
30.00	0.00	4,396	623.78	0.00
32.50	0.00	4,396	623.78	0.00
35.00	0.00	4,396	623.78	0.00
37.50	0.00	4,396	623.78	0.00
40.00	0.00	4,396	623.78	0.00
42.50	0.00	4,396	623.78	0.00
45.00	0.00	4,396	623.78	0.00
47.50	0.00	4,396	623.78	0.00
50.00	0.00	4,396	623.78	0.00
52.50	0.00	4,396	623.78	0.00
55.00	0.00	4,396	623.78	0.00
57.50	0.00	4,396	623.78	0.00
60.00	0.00	4,396	623.78	0.00
62.50	0.00	4,396	623.78	0.00
65.00	0.00	4,396	623.78	0.00
67.50	0.00	4,396	623.78	0.00
70.00	0.00	4,396	623.78	0.00

2022-07-28 Proposed Hydrology

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Stage-Discharge for Pond 4P: Basin B

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
622.00	0.00	623.04	0.00	624.08	0.50
622.02	0.00	623.06	0.00	624.10	0.52
622.04	0.00	623.08	0.00	624.12	0.53
622.06	0.00	623.10	0.00	624.14	0.55
622.08	0.00	623.12	0.00	624.16	0.57
622.10	0.00	623.14	0.00	624.18	0.58
622.12	0.00	623.16	0.00	624.20	0.60
622.14	0.00	623.18	0.00	624.22	0.61
622.16	0.00	623.20	0.00	624.24	0.63
622.18	0.00	623.22	0.00	624.26	0.64
622.20	0.00	623.24	0.00	624.28	0.66
622.22	0.00	623.26	0.00	624.30	0.67
622.24	0.00	623.28	0.00	624.32	0.68
622.26	0.00	623.30	0.00	624.34	0.69
622.28	0.00	623.32	0.00	624.36	0.71
622.30	0.00	623.34	0.00	624.38	0.72
622.32	0.00	623.36	0.00	624.40	0.73
622.34	0.00	623.38	0.00	624.42	0.74
622.36	0.00	623.40	0.00	624.44	0.76
622.38	0.00	623.42	0.00	624.46	0.77
622.40	0.00	623.44	0.00	624.48	0.78
622.42	0.00	623.46	0.00	624.50	0.79
622.44	0.00	623.48	0.00	624.52	0.80
622.46	0.00	623.50	0.00	624.54	0.81
622.48	0.00	623.52	0.00	624.56	0.82
622.50	0.00	623.54	0.00	624.58	0.83
622.52	0.00	623.56	0.00	624.60	0.85
622.54	0.00	623.58	0.00	624.62	0.86
622.56	0.00	623.60	0.00	624.64	0.87
622.58	0.00	623.62	0.00	624.66	0.88
622.60	0.00	623.64	0.00	624.68	0.89
622.62	0.00	623.66	0.00	624.70	0.90
622.64	0.00	623.68	0.00	624.72	0.91
622.66	0.00	623.70	0.00	624.74	0.92
622.68	0.00	623.72	0.00	624.76	0.93
622.70	0.00	623.74	0.00	624.78	0.94
622.72	0.00	623.76	0.00	624.80	0.95
622.74	0.00	623.78	0.00	624.82	0.96
622.76	0.00	623.80	0.00	624.84	0.97
622.78	0.00	623.82	0.01	624.86	0.97
622.80	0.00	623.84	0.04	624.88	0.98
622.82	0.00	623.86	0.08	624.90	0.99
622.84	0.00	623.88	0.12	624.92	1.00
622.86	0.00	623.90	0.16	624.94	1.01
622.88	0.00	623.92	0.21	624.96	1.02
622.90	0.00	623.94	0.27	624.98	1.03
622.92	0.00	623.96	0.33	625.00	1.04
622.94	0.00	623.98	0.39		
622.96	0.00	624.00	0.42		
622.98	0.00	624.02	0.44		
623.00	0.00	624.04	0.46		
623.02	0.00	624.06	0.48		

2022-07-28 Proposed Hydrology

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Stage-Area-Storage for Pond 4P: Basin B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
622.00	1,951	0	624.60	3,560	7,082
622.05	1,979	98	624.65	3,594	7,261
622.10	2,008	198	624.70	3,628	7,442
622.15	2,036	299	624.75	3,662	7,624
622.20	2,065	402	624.80	3,696	7,808
622.25	2,093	506	624.85	3,731	7,994
622.30	2,121	611	624.90	3,765	8,181
622.35	2,150	718	624.95	3,799	8,370
622.40	2,178	826	625.00	3,833	8,561
622.45	2,207	935			
622.50	2,235	1,047			
622.55	2,263	1,159			
622.60	2,292	1,273			
622.65	2,320	1,388			
622.70	2,349	1,505			
622.75	2,377	1,623			
622.80	2,405	1,743			
622.85	2,434	1,864			
622.90	2,462	1,986			
622.95	2,491	2,110			
623.00	2,519	2,235			
623.05	2,551	2,362			
623.10	2,582	2,490			
623.15	2,614	2,614			
623.20	2,645	2,751			
623.25	2,677	2,884			
623.30	2,708	3,019			
623.35	2,740	3,155			
623.40	2,771	3,293			
623.45	2,803	3,432			
623.50	2,835	3,573			
623.55	2,866	3,716			
623.60	2,898	3,860			
623.65	2,929	4,006			
623.70	2,961	4,153			
623.75	2,992	4,302			
623.80	3,024	4,452			
623.85	3,055	4,604			
623.90	3,087	4,758			
623.95	3,118	4,913			
624.00	3,150	5,070			
624.05	3,184	5,228			
624.10	3,218	5,388			
624.15	3,252	5,550			
624.20	3,287	5,713			
624.25	3,321	5,878			
624.30	3,355	6,045			
624.35	3,389	6,214			
624.40	3,423	6,384			
624.45	3,457	6,556			
624.50	3,492	6,730			
624.55	3,526	6,905			

Summary for Pond SP: Basin C

Inflow Area = 0.821 ac, 12.95% impervious, Inflow Depth = 1.46" for 2-Year event
Inflow = 1.12 cfs @ 12.18 hrs, Volume= 0.100 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 2L : Mt. Pleasant Ave.

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 620.24' @ 24.50 hrs Surf.Area= 3,049 sf Storage= 4,350 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

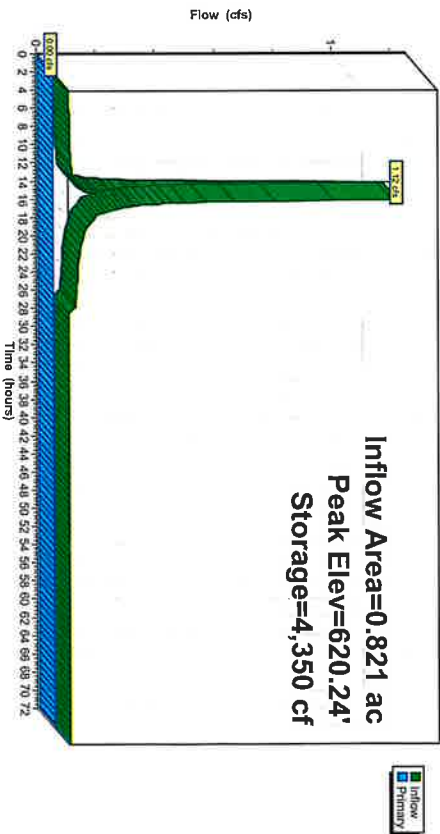
Volume	Invert	Avail Storage	Storage Description
#1	618.50'	8,744 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
618.50	1,366	0	0
619.00	2,285	1,063	1,063
620.00	2,892	2,589	3,651
621.00	3,560	3,226	6,877
621.50	3,907	1,867	8,744

Device	Routing	Invert	Outlet Devices
#1	Primary	620.50'	8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary Outflow Max=0.00 cfs @ 0.00 hrs HW=618.50' (Free Discharge)
1-Orifice/Grate (Controls 0.00 cfs)

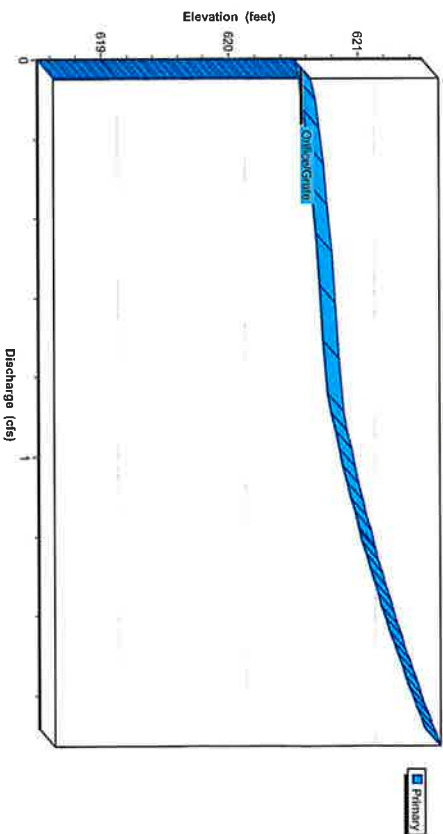
Pond SP: Basin C

Hydrograph

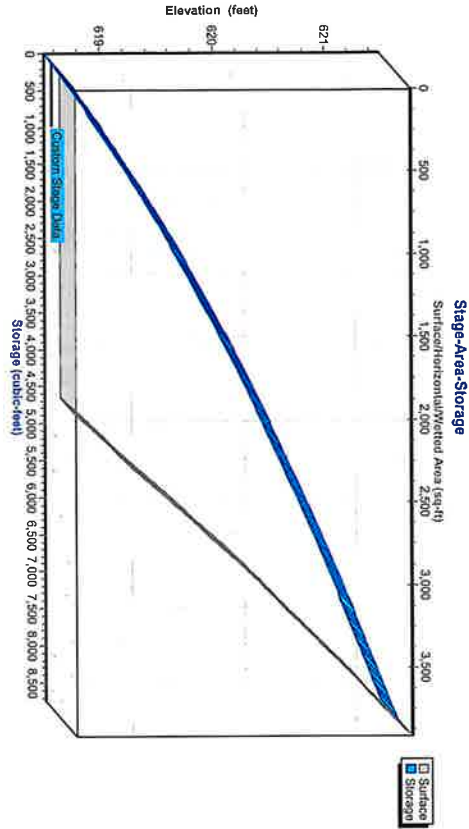


Pond SP: Basin C

Stage-Discharge



Pond 5P: Basin C



Hydrograph for Pond 5P: Basin C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	618.50	0.00
2.50	0.00	5	618.50	0.00
5.00	0.00	34	618.52	0.00
7.50	0.01	85	618.54	0.00
10.00	0.02	179	618.59	0.00
12.50	0.35	2,002	619.39	0.00
15.00	0.06	3,179	619.83	0.00
17.50	0.04	3,638	620.00	0.00
20.00	0.03	3,947	620.10	0.00
22.50	0.03	4,205	620.19	0.00
25.00	0.00	4,350	620.24	0.00
27.50	0.00	4,350	620.24	0.00
30.00	0.00	4,350	620.24	0.00
32.50	0.00	4,350	620.24	0.00
35.00	0.00	4,350	620.24	0.00
37.50	0.00	4,350	620.24	0.00
40.00	0.00	4,350	620.24	0.00
42.50	0.00	4,350	620.24	0.00
45.00	0.00	4,350	620.24	0.00
47.50	0.00	4,350	620.24	0.00
50.00	0.00	4,350	620.24	0.00
52.50	0.00	4,350	620.24	0.00
55.00	0.00	4,350	620.24	0.00
57.50	0.00	4,350	620.24	0.00
60.00	0.00	4,350	620.24	0.00
62.50	0.00	4,350	620.24	0.00
65.00	0.00	4,350	620.24	0.00
67.50	0.00	4,350	620.24	0.00
70.00	0.00	4,350	620.24	0.00

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Stage-Discharge for Pond 5P: Basin C

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
618.50	0.00	619.54	0.15	620.58	0.15
618.52	0.00	619.56	0.00	620.60	0.22
618.54	0.00	619.58	0.00	620.62	0.26
618.56	0.00	619.60	0.00	620.64	0.36
618.58	0.00	619.62	0.00	620.66	0.44
618.60	0.00	619.64	0.00	620.68	0.52
618.62	0.00	619.66	0.00	620.70	0.61
618.64	0.00	619.68	0.00	620.72	0.71
618.66	0.00	619.70	0.00	620.74	0.81
618.68	0.00	619.72	0.00	620.76	0.86
618.70	0.00	619.74	0.00	620.78	0.89
618.72	0.00	619.76	0.00	620.80	0.92
618.74	0.00	619.78	0.00	620.82	0.95
618.76	0.00	619.80	0.00	620.84	0.98
618.78	0.00	619.82	0.00	620.86	1.01
618.80	0.00	619.84	0.00	620.88	1.04
618.82	0.00	619.86	0.00	620.90	1.06
618.84	0.00	619.88	0.00	620.92	1.09
618.86	0.00	619.90	0.00	620.94	1.11
618.88	0.00	619.92	0.00	620.96	1.14
618.90	0.00	619.94	0.00	620.98	1.16
618.92	0.00	619.96	0.00	621.02	1.19
618.94	0.00	619.98	0.00	621.04	1.21
618.96	0.00	620.00	0.00	621.06	1.24
618.98	0.00	620.02	0.00	621.08	1.26
619.00	0.00	620.04	0.00	621.10	1.28
619.02	0.00	620.06	0.00	621.12	1.30
619.04	0.00	620.08	0.00	621.14	1.32
619.06	0.00	620.10	0.00	621.16	1.34
619.08	0.00	620.12	0.00	621.18	1.37
619.10	0.00	620.14	0.00	621.20	1.39
619.12	0.00	620.16	0.00	621.22	1.41
619.14	0.00	620.18	0.00	621.24	1.43
619.16	0.00	620.20	0.00	621.26	1.45
619.18	0.00	620.22	0.00	621.28	1.47
619.20	0.00	620.24	0.00	621.30	1.48
619.22	0.00	620.26	0.00	621.32	1.50
619.24	0.00	620.28	0.00	621.34	1.52
619.26	0.00	620.30	0.00	621.36	1.54
619.28	0.00	620.32	0.00	621.38	1.56
619.30	0.00	620.34	0.00	621.40	1.58
619.32	0.00	620.36	0.00	621.42	1.59
619.34	0.00	620.38	0.00	621.44	1.61
619.36	0.00	620.40	0.00	621.46	1.63
619.38	0.00	620.42	0.00	621.48	1.65
619.40	0.00	620.44	0.00	621.50	1.66
619.42	0.00	620.46	0.00		
619.44	0.00	620.48	0.00		
619.46	0.00	620.50	0.02		
619.48	0.00	620.52	0.05		
619.50	0.00	620.54	0.10		
619.52		620.56			

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Stage-Area-Storage for Pond 5P: Basin C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
618.50	1,966	0	621.10	3,629	7,237
618.55	1,998	99	621.15	3,664	7,419
618.60	2,030	200	621.20	3,699	7,603
618.65	2,062	302	621.25	3,734	7,789
618.70	2,094	406	621.30	3,768	7,976
618.75	2,126	511	621.35	3,803	8,166
618.80	2,157	619	621.40	3,838	8,357
618.85	2,189	727	621.45	3,872	8,550
618.90	2,221	837	621.50	3,907	8,744
618.95	2,253	949			
619.00	2,285	1,063			
619.05	2,315	1,178			
619.10	2,346	1,294			
619.15	2,376	1,412			
619.20	2,406	1,532			
619.25	2,437	1,653			
619.30	2,467	1,776			
619.35	2,497	1,900			
619.40	2,528	2,025			
619.45	2,558	2,152			
619.50	2,589	2,281			
619.55	2,619	2,411			
619.60	2,649	2,543			
619.65	2,680	2,676			
619.70	2,710	2,811			
619.75	2,740	2,947			
619.80	2,771	3,085			
619.85	2,801	3,224			
619.90	2,831	3,365			
619.95	2,862	3,507			
620.00	2,892	3,651			
620.05	2,925	3,797			
620.10	2,959	3,944			
620.15	2,992	4,093			
620.20	3,026	4,243			
620.25	3,059	4,395			
620.30	3,092	4,549			
620.35	3,126	4,704			
620.40	3,159	4,861			
620.45	3,193	5,020			
620.50	3,226	5,181			
620.55	3,259	5,343			
620.60	3,293	5,507			
620.65	3,326	5,672			
620.70	3,360	5,839			
620.75	3,393	6,008			
620.80	3,426	6,179			
620.85	3,460	6,351			
620.90	3,493	6,525			
620.95	3,527	6,700			
621.00	3,560	6,877			
621.05	3,595	7,056			

Summary for Pond 6P: Basin D

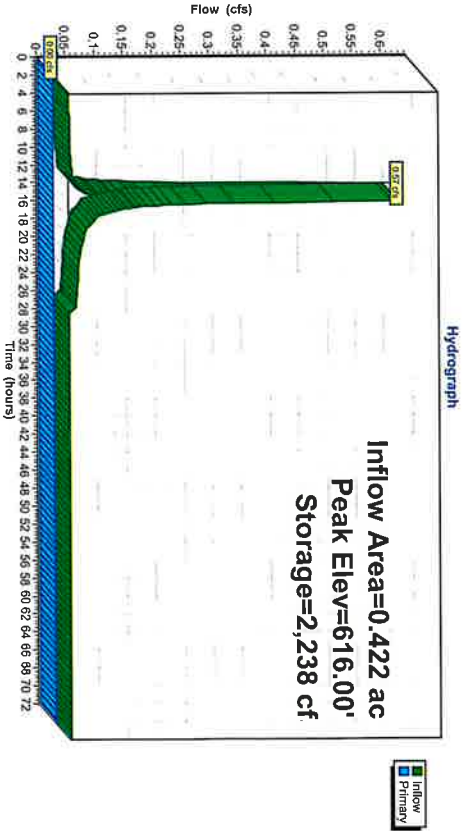
Inflow Area = 0.422 ac, 13.06% Impervious, Inflow Depth = 1.46" for 2-Year event
Inflow = 0.57 cfs @ 12.18 hrs, Volume= 0.051 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 2L : Mt. Pleasant Ave.

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 616.00' @ 24.60 hrs Surf Area= 2,520 sf Storage= 2,238 cf
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

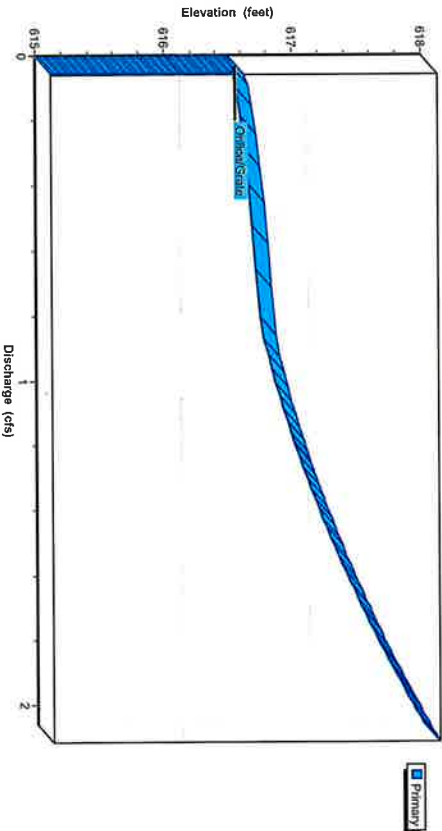
Volume Invert Avail. Storage Storage Description				
#1	615.00'	8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)	
615.00	1,951	0	0	
616.00	2,519	2,235	2,235	
617.00	3,150	2,835	5,070	
618.00	3,833	3,492	8,561	

Device Routing Invert Outlet Devices
#1 Primary 616.50' 8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
Primary Outflow Max=0.00 cfs @ 0.00 hrs HW=615.00' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

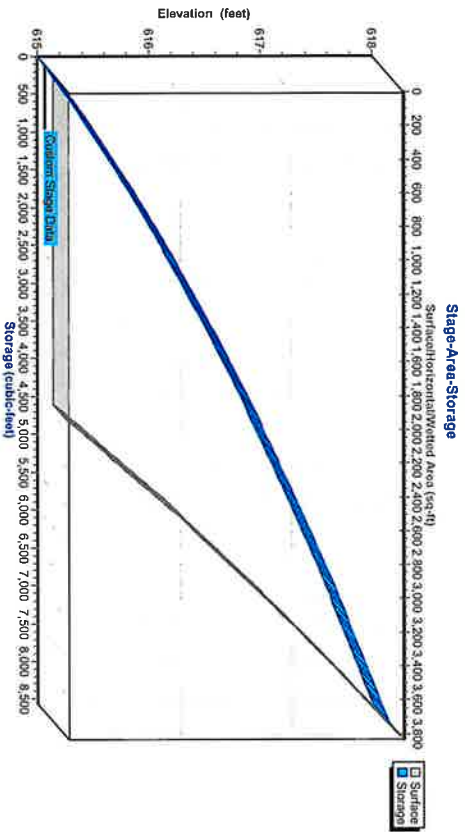
Pond 6P: Basin D



Pond 6P: Basin D



Pond 6P: Basin D



Hydrograph for Pond 6P: Basin D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	615.00	0.00
2.50	0.00	2.50	615.00	0.00
5.00	0.00	3	615.01	0.00
7.50	0.00	18	615.02	0.00
10.00	0.01	44	615.05	0.00
12.50	0.18	93	615.49	0.00
15.00	0.03	1,031	615.49	0.00
17.50	0.02	1,636	615.76	0.00
20.00	0.02	1,872	615.85	0.00
22.50	0.01	2,031	615.92	0.00
25.00	0.00	2,164	615.97	0.00
27.50	0.00	2,238	616.00	0.00
30.00	0.00	2,238	616.00	0.00
32.50	0.00	2,238	616.00	0.00
35.00	0.00	2,238	616.00	0.00
37.50	0.00	2,238	616.00	0.00
40.00	0.00	2,238	616.00	0.00
42.50	0.00	2,238	616.00	0.00
45.00	0.00	2,238	616.00	0.00
47.50	0.00	2,238	616.00	0.00
50.00	0.00	2,238	616.00	0.00
52.50	0.00	2,238	616.00	0.00
55.00	0.00	2,238	616.00	0.00
57.50	0.00	2,238	616.00	0.00
60.00	0.00	2,238	616.00	0.00
62.50	0.00	2,238	616.00	0.00
65.00	0.00	2,238	616.00	0.00
67.50	0.00	2,238	616.00	0.00
70.00	0.00	2,238	616.00	0.00

2022-07-28 Proposed Hydrology

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NOAA 24-hr D 2-Year Rainfall=3.44"

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Stage-Discharge for Pond 6P: Basin D

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
615.00	0.00	616.04	0.00
615.02	0.00	616.06	0.00
615.04	0.00	616.08	0.00
615.06	0.00	616.10	0.00
615.08	0.00	616.12	0.00
615.10	0.00	616.14	0.00
615.12	0.00	616.16	0.00
615.14	0.00	616.18	0.00
615.16	0.00	616.20	0.00
615.18	0.00	616.22	0.00
615.20	0.00	616.24	0.00
615.22	0.00	616.26	0.00
615.24	0.00	616.28	0.00
615.26	0.00	616.30	0.00
615.28	0.00	616.32	0.00
615.30	0.00	616.34	0.00
615.32	0.00	616.36	0.00
615.34	0.00	616.38	0.00
615.36	0.00	616.40	0.00
615.38	0.00	616.42	0.00
615.40	0.00	616.44	0.00
615.42	0.00	616.46	0.00
615.44	0.00	616.48	0.00
615.46	0.00	616.50	0.00
615.48	0.00	616.52	0.02
615.50	0.00	616.54	0.05
615.52	0.00	616.56	0.10
615.54	0.00	616.58	0.15
615.56	0.00	616.60	0.22
615.58	0.00	616.62	0.28
615.60	0.00	616.64	0.36
615.62	0.00	616.66	0.44
615.64	0.00	616.68	0.52
615.66	0.00	616.70	0.61
615.68	0.00	616.72	0.71
615.70	0.00	616.74	0.81
615.72	0.00	616.76	0.86
615.74	0.00	616.78	0.89
615.76	0.00	616.80	0.92
615.78	0.00	616.82	0.95
615.80	0.00	616.84	0.98
615.82	0.00	616.86	1.01
615.84	0.00	616.88	1.04
615.86	0.00	616.90	1.06
615.88	0.00	616.92	1.09
615.90	0.00	616.94	1.11
615.92	0.00	616.96	1.14
615.94	0.00	616.98	1.16
615.96	0.00	617.00	1.19
615.98	0.00	617.02	1.21
616.00	0.00	617.04	1.24
616.02	0.00	617.06	1.26

2022-07-28 Proposed Hydrology

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NOAA 24-hr D 2-Year Rainfall=3.44"

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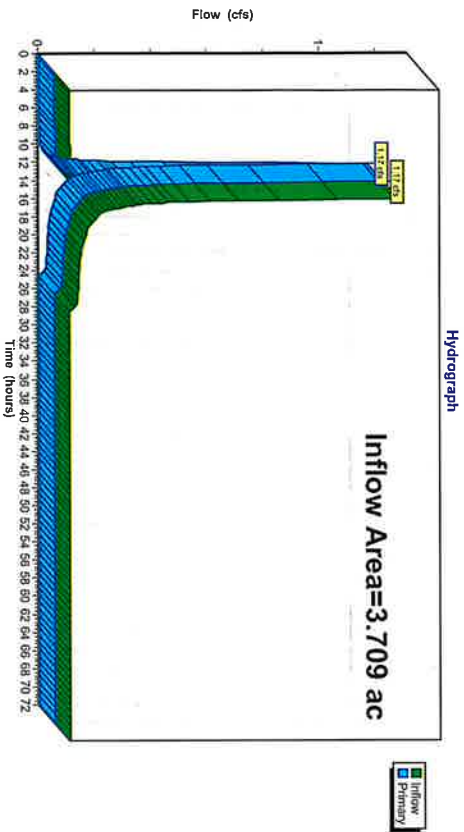
Stage-Area-Storage for Pond 6P: Basin D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
615.00	1,951	0	617.60	3,560	7,082
615.05	1,979	98	617.65	3,594	7,261
615.10	2,008	198	617.70	3,628	7,442
615.15	2,036	299	617.75	3,662	7,624
615.20	2,065	402	617.80	3,696	7,808
615.25	2,093	506	617.85	3,731	7,994
615.30	2,121	611	617.90	3,765	8,181
615.35	2,150	718	617.95	3,799	8,370
615.40	2,178	826	618.00	3,833	8,561
615.45	2,207	935			
615.50	2,235	1,047			
615.55	2,263	1,159			
615.60	2,292	1,273			
615.65	2,320	1,388			
615.70	2,349	1,505			
615.75	2,377	1,623			
615.80	2,405	1,743			
615.85	2,434	1,864			
615.90	2,462	1,986			
615.95	2,491	2,110			
616.00	2,519	2,235			
616.05	2,551	2,362			
616.10	2,582	2,490			
616.15	2,614	2,620			
616.20	2,645	2,751			
616.25	2,677	2,884			
616.30	2,708	3,019			
616.35	2,740	3,155			
616.40	2,771	3,293			
616.45	2,803	3,432			
616.50	2,835	3,573			
616.55	2,866	3,716			
616.60	2,898	3,860			
616.65	2,929	4,006			
616.70	2,961	4,153			
616.75	2,992	4,302			
616.80	3,024	4,452			
616.85	3,055	4,604			
616.90	3,087	4,758			
616.95	3,118	4,913			
617.00	3,150	5,070			
617.05	3,184	5,228			
617.10	3,218	5,388			
617.15	3,252	5,550			
617.20	3,287	5,713			
617.25	3,321	5,878			
617.30	3,355	6,045			
617.35	3,389	6,214			
617.40	3,423	6,384			
617.45	3,457	6,556			
617.50	3,492	6,730			
617.55	3,526	6,905			

Summary for Link 2L: Mt. Pleasant Ave.

Inflow Area = 3.709 ac, 11.17% Impervious, Inflow Depth = 0.33" for 2-Year event
Inflow = 1.17 cfs @ 12.18 hrs, Volume= 0.103 af
Primary = 1.17 cfs @ 12.18 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 2L: Mt. Pleasant Ave.



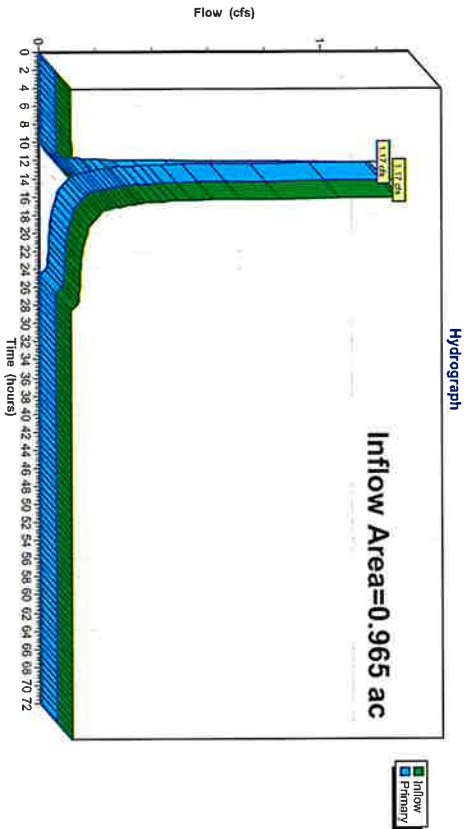
Hydrograph for Link 2L: Mt. Pleasant Ave.

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	57.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	58.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00	59.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00	61.00	0.00	0.00	0.00
10.00	0.01	0.00	0.01	62.00	0.00	0.00	0.00
11.00	0.03	0.00	0.03	63.00	0.00	0.00	0.00
12.00	0.44	0.00	0.44	64.00	0.00	0.00	0.00
13.00	0.20	0.00	0.20	65.00	0.00	0.00	0.00
14.00	0.10	0.00	0.10	66.00	0.00	0.00	0.00
15.00	0.07	0.00	0.07	67.00	0.00	0.00	0.00
16.00	0.06	0.00	0.06	68.00	0.00	0.00	0.00
17.00	0.05	0.00	0.05	69.00	0.00	0.00	0.00
18.00	0.04	0.00	0.04	70.00	0.00	0.00	0.00
19.00	0.04	0.00	0.04	71.00	0.00	0.00	0.00
20.00	0.04	0.00	0.04	72.00	0.00	0.00	0.00
21.00	0.03	0.00	0.03				
22.00	0.03	0.00	0.03				
23.00	0.03	0.00	0.03				
24.00	0.03	0.00	0.03				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

Summary for Link 3L: Mt. Pleasant Ave - Undetained

Inflow Area = 0.965 ac, 4.06% Impervious, Inflow Depth = 1.28" for 2-Year event
Inflow = 1.17 cfs @ 12.18 hrs, Volume= 0.103 af
Primary = 1.17 cfs @ 12.18 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L: Mt. Pleasant Ave.
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: Mt. Pleasant Ave - Undetained



2022-07-28 Proposed Hydrology

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NOAA 24-hr D 2-Year Rainfall=3.44"

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Hydrograph for Link 3L: Mt. Pleasant Ave - Undetained

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	57.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	58.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00	59.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00	61.00	0.00	0.00	0.00
10.00	0.01	0.00	0.01	62.00	0.00	0.00	0.00
11.00	0.03	0.00	0.03	63.00	0.00	0.00	0.00
12.00	0.44	0.00	0.44	64.00	0.00	0.00	0.00
13.00	0.20	0.00	0.20	65.00	0.00	0.00	0.00
14.00	0.10	0.00	0.10	66.00	0.00	0.00	0.00
15.00	0.07	0.00	0.07	67.00	0.00	0.00	0.00
16.00	0.06	0.00	0.06	68.00	0.00	0.00	0.00
17.00	0.05	0.00	0.05	69.00	0.00	0.00	0.00
18.00	0.04	0.00	0.04	70.00	0.00	0.00	0.00
19.00	0.04	0.00	0.04	71.00	0.00	0.00	0.00
20.00	0.04	0.00	0.04	72.00	0.00	0.00	0.00
21.00	0.03	0.00	0.03				
22.00	0.03	0.00	0.03				
23.00	0.03	0.00	0.03				
24.00	0.03	0.00	0.03				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

2022-07-28 Proposed HydrologyPrepared by Dynamic Engineering
HydroCAD® 10.20-2d s/n 08640 © 2021 HydroCAD Software Solutions LLCNOAA 24-hr D 10-Year Rainfall=5.22"
Printed 8/5/2022
Page 57Time 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: Basin A - Imp.**Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=4.98"
Tc=10.0 min CN=98 Runoff=0.45 cfs 0.044 af**Subcatchment 3S: Basin A - Perv.**Runoff Area=24,500 sf 0.00% Impervious Runoff Depth=2.54"
Tc=10.0 min CN=74 Runoff=1.41 cfs 0.119 af**Subcatchment 4S: Basin B - Imp.**Runoff Area=4,648 sf 100.00% Impervious Runoff Depth=4.98"
Tc=10.0 min CN=98 Runoff=0.45 cfs 0.044 af**Subcatchment 5S: Basin B - Perv.**Runoff Area=31,571 sf 0.00% Impervious Runoff Depth=2.54"
Tc=10.0 min CN=74 Runoff=1.82 cfs 0.153 af**Subcatchment 7S: Basin C - Imp.**Runoff Area=4,635 sf 100.00% Impervious Runoff Depth=4.98"
Tc=10.0 min CN=98 Runoff=0.45 cfs 0.044 af**Subcatchment 8S: Basin C - Perv.**Runoff Area=31,149 sf 0.00% Impervious Runoff Depth=2.54"
Tc=10.0 min CN=74 Runoff=1.79 cfs 0.151 af**Subcatchment 9S: Mt. Pleasant Ave**Runoff Area=1,706 sf 100.00% Impervious Runoff Depth=4.98"
Tc=10.0 min CN=98 Runoff=0.17 cfs 0.016 af**Subcatchment 10S: Mt. Pleasant Ave**Runoff Area=40,319 sf 0.00% Impervious Runoff Depth=2.54"
Tc=10.0 min CN=74 Runoff=2.32 cfs 0.196 af**Subcatchment 11S: Basin D - Imp.**Runoff Area=2,400 sf 100.00% Impervious Runoff Depth=4.98"
Tc=10.0 min CN=98 Runoff=0.23 cfs 0.023 af**Subcatchment 12S: Basin D - Perv.**Runoff Area=15,983 sf 0.00% Impervious Runoff Depth=2.54"
Tc=10.0 min CN=74 Runoff=0.92 cfs 0.078 af**Pond 3P: Basin A**Peak Elev=626.06' Storage=5,275 cf Inflow=1.87 cfs 0.163 af
Outflow=0.09 cfs 0.047 af**Pond 4P: Basin B**Peak Elev=623.95' Storage=4,910 cf Inflow=2.27 cfs 0.198 af
Outflow=0.30 cfs 0.096 af**Pond 5P: Basin C**Peak Elev=620.59' Storage=5,470 cf Inflow=2.24 cfs 0.196 af
Outflow=0.18 cfs 0.077 af**Pond 6P: Basin D**Peak Elev=616.53' Storage=3,655 cf Inflow=1.15 cfs 0.101 af
Outflow=0.03 cfs 0.019 af**Link 2L: Mt. Pleasant Ave.**Inflow=2.49 cfs 0.450 af
Primary=2.49 cfs 0.450 af**Link 3L: Mt. Pleasant Ave - Undetained**Inflow=2.49 cfs 0.212 af
Primary=2.49 cfs 0.212 af**2022-07-28 Proposed Hydrology**Prepared by Dynamic Engineering
HydroCAD® 10.20-2d s/n 08640 © 2021 HydroCAD Software Solutions LLCNOAA 24-hr D 10-Year Rainfall=5.22"
Printed 8/5/2022
Page 58Total Runoff Area = 3.709 ac Runoff Volume = 0.870 af Average Runoff Depth = 2.81"
88.83% Pervious = 3.295 ac 11.17% Impervious = 0.414 ac

2022-07-28 Proposed Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"
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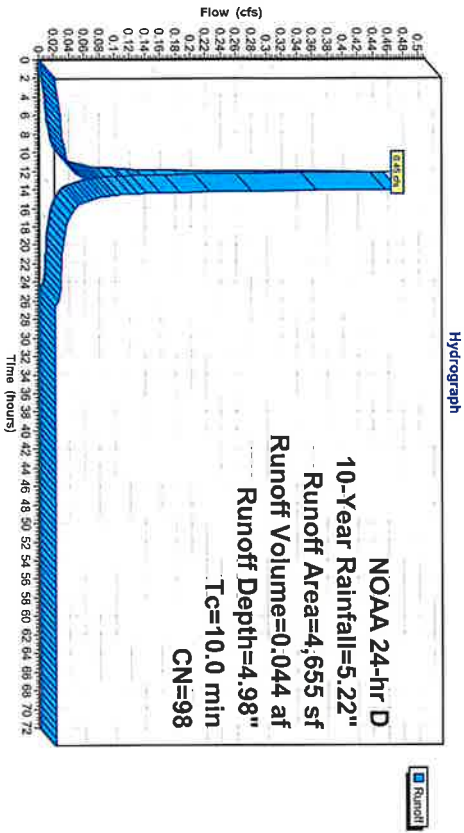
Summary for Subcatchment 1S: Basin A - Imp.

Runoff = 0.45 cfs @ 12.17 hrs. Volume= 0.044 af. Depth= 4.98"
Routed to Pond 3P : Basin A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description			
4,655	98	Unconnected pavement, HSG C			
4,655		100.00% Impervious Area			
4,655		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description

Subcatchment 1S: Basin A - Imp.



2022-07-28 Proposed Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"
Printed 8/5/2022
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Hydrograph for Subcatchment 1S: Basin A - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	62.00	5.22	4.98	0.00
1.00	0.06	0.00	0.00	63.00	5.22	4.98	0.00
2.00	0.13	0.02	0.00	64.00	5.22	4.98	0.00
3.00	0.20	0.07	0.01	65.00	5.22	4.98	0.00
4.00	0.27	0.12	0.01	66.00	5.22	4.98	0.00
5.00	0.36	0.19	0.01	67.00	5.22	4.98	0.00
6.00	0.45	0.27	0.01	68.00	5.22	4.98	0.00
7.00	0.55	0.36	0.01	69.00	5.22	4.98	0.00
8.00	0.68	0.48	0.01	70.00	5.22	4.98	0.00
9.00	0.83	0.63	0.02	71.00	5.22	4.98	0.00
10.00	1.03	0.82	0.02	72.00	5.22	4.98	0.00
11.00	1.36	1.14	0.04				
12.00	2.50	2.27	0.22				
13.00	3.86	3.63	0.06				
14.00	4.19	3.95	0.03				
15.00	4.39	4.16	0.02				
16.00	4.54	4.31	0.02				
17.00	4.67	4.43	0.01				
18.00	4.77	4.54	0.01				
19.00	4.86	4.63	0.01				
20.00	4.95	4.71	0.01				
21.00	5.02	4.79	0.01				
22.00	5.09	4.86	0.01				
23.00	5.16	4.92	0.01				
24.00	5.22	4.98	0.01				
25.00	5.22	4.98	0.00				
26.00	5.22	4.98	0.00				
27.00	5.22	4.98	0.00				
28.00	5.22	4.98	0.00				
29.00	5.22	4.98	0.00				
30.00	5.22	4.98	0.00				
31.00	5.22	4.98	0.00				
32.00	5.22	4.98	0.00				
33.00	5.22	4.98	0.00				
34.00	5.22	4.98	0.00				
35.00	5.22	4.98	0.00				
36.00	5.22	4.98	0.00				
37.00	5.22	4.98	0.00				
38.00	5.22	4.98	0.00				
39.00	5.22	4.98	0.00				
40.00	5.22	4.98	0.00				
41.00	5.22	4.98	0.00				
42.00	5.22	4.98	0.00				
43.00	5.22	4.98	0.00				
44.00	5.22	4.98	0.00				
45.00	5.22	4.98	0.00				
46.00	5.22	4.98	0.00				
47.00	5.22	4.98	0.00				
48.00	5.22	4.98	0.00				
49.00	5.22	4.98	0.00				
50.00	5.22	4.98	0.00				
51.00	5.22	4.98	0.00				

Summary for Subcatchment 3S: Basin A - Perv.

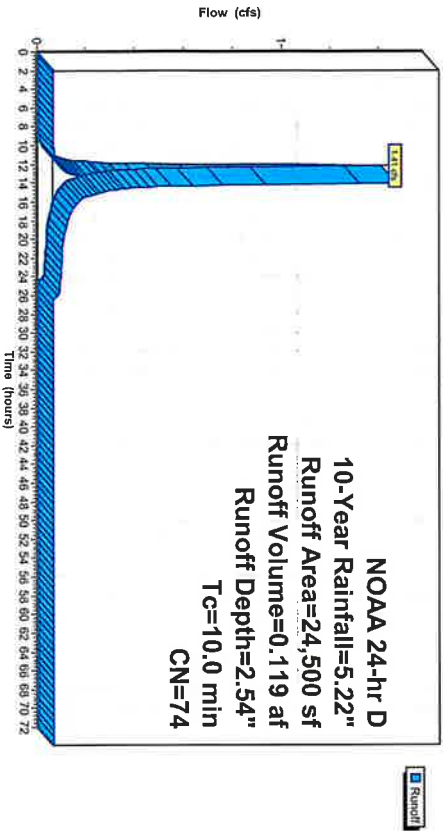
Runoff = 1.41 cfs @ 12.18 hrs. Volume= 0.119 af. Depth= 2.54"
 Routed to Pond 3P : Basin A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description		
24,500	74	>75% Grass cover, Good, HSG C		
24,500		100.00% Pervious Area		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0				Direct Entry, Direct

Subcatchment 3S: Basin A - Perv.

Hydrograph



Hydrograph for Subcatchment 3S: Basin A - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	2.54	0.00
1.00	0.06	0.00	0.00	53.00	5.22	2.54	0.00
2.00	0.13	0.00	0.00	54.00	5.22	2.54	0.00
3.00	0.20	0.00	0.00	55.00	5.22	2.54	0.00
4.00	0.27	0.00	0.00	56.00	5.22	2.54	0.00
5.00	0.36	0.00	0.00	57.00	5.22	2.54	0.00
6.00	0.45	0.00	0.00	58.00	5.22	2.54	0.00
7.00	0.55	0.00	0.00	59.00	5.22	2.54	0.00
8.00	0.68	0.00	0.00	60.00	5.22	2.54	0.00
9.00	0.83	0.00	0.00	61.00	5.22	2.54	0.00
10.00	1.03	0.03	0.02	62.00	5.22	2.54	0.00
11.00	1.36	0.10	0.06	63.00	5.22	2.54	0.00
12.00	2.50	0.61	0.58	64.00	5.22	2.54	0.00
13.00	3.86	1.50	0.22	65.00	5.22	2.54	0.00
14.00	4.19	1.73	0.11	66.00	5.22	2.54	0.00
15.00	4.39	1.89	0.08	67.00	5.22	2.54	0.00
16.00	4.54	2.01	0.06	68.00	5.22	2.54	0.00
17.00	4.67	2.10	0.05	69.00	5.22	2.54	0.00
18.00	4.77	2.19	0.04	70.00	5.22	2.54	0.00
19.00	4.86	2.26	0.04	71.00	5.22	2.54	0.00
20.00	4.95	2.32	0.04	72.00	5.22	2.54	0.00
21.00	5.02	2.38	0.03				
22.00	5.09	2.44	0.03				
23.00	5.16	2.49	0.03				
24.00	5.22	2.54	0.03				
25.00	5.22	2.54	0.00				
26.00	5.22	2.54	0.00				
27.00	5.22	2.54	0.00				
28.00	5.22	2.54	0.00				
29.00	5.22	2.54	0.00				
30.00	5.22	2.54	0.00				
31.00	5.22	2.54	0.00				
32.00	5.22	2.54	0.00				
33.00	5.22	2.54	0.00				
34.00	5.22	2.54	0.00				
35.00	5.22	2.54	0.00				
36.00	5.22	2.54	0.00				
37.00	5.22	2.54	0.00				
38.00	5.22	2.54	0.00				
39.00	5.22	2.54	0.00				
40.00	5.22	2.54	0.00				
41.00	5.22	2.54	0.00				
42.00	5.22	2.54	0.00				
43.00	5.22	2.54	0.00				
44.00	5.22	2.54	0.00				
45.00	5.22	2.54	0.00				
46.00	5.22	2.54	0.00				
47.00	5.22	2.54	0.00				
48.00	5.22	2.54	0.00				
49.00	5.22	2.54	0.00				
50.00	5.22	2.54	0.00				
51.00	5.22	2.54	0.00				

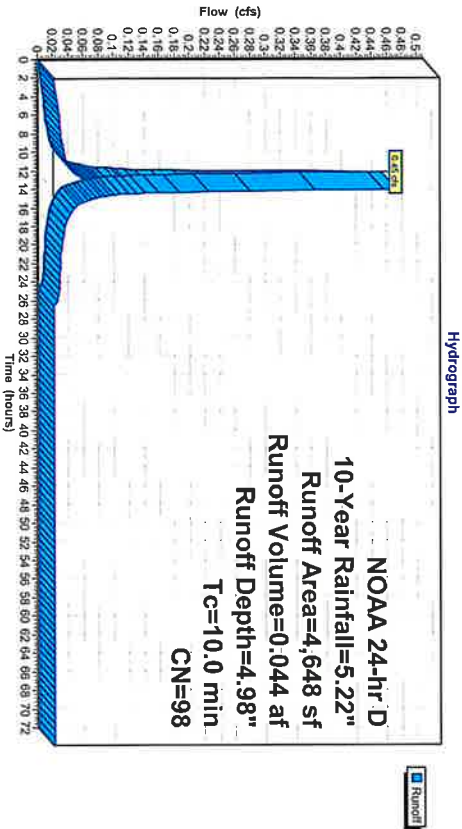
Summary for Subcatchment 4S: Basin B - Imp.

Runoff = 0.45 cfs @ 12.17 hrs, Volume= 0.044 af, Depth= 4.98"
Routed to Pond 4P : Basin B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description			
4,648	98	Unconnected pavement, HSG C			
4,648		100.00% Impervious Area			
4,648		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description

Subcatchment 4S: Basin B - Imp.



Hydrograph for Subcatchment 4S: Basin B - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	4.98	0.00
1.00	0.06	0.00	0.00	53.00	5.22	4.98	0.00
2.00	0.13	0.02	0.00	54.00	5.22	4.98	0.00
3.00	0.20	0.07	0.01	55.00	5.22	4.98	0.00
4.00	0.27	0.12	0.01	56.00	5.22	4.98	0.00
5.00	0.36	0.19	0.01	57.00	5.22	4.98	0.00
6.00	0.45	0.27	0.01	58.00	5.22	4.98	0.00
7.00	0.55	0.36	0.01	59.00	5.22	4.98	0.00
8.00	0.68	0.48	0.01	60.00	5.22	4.98	0.00
9.00	0.83	0.63	0.02	61.00	5.22	4.98	0.00
10.00	1.03	0.82	0.02	62.00	5.22	4.98	0.00
11.00	1.36	1.14	0.04	63.00	5.22	4.98	0.00
12.00	2.50	2.27	0.22	64.00	5.22	4.98	0.00
13.00	3.86	3.63	0.06	65.00	5.22	4.98	0.00
14.00	4.19	3.95	0.03	66.00	5.22	4.98	0.00
15.00	4.39	4.16	0.02	67.00	5.22	4.98	0.00
16.00	4.54	4.31	0.02	68.00	5.22	4.98	0.00
17.00	4.67	4.43	0.01	69.00	5.22	4.98	0.00
18.00	4.77	4.54	0.01	70.00	5.22	4.98	0.00
19.00	4.86	4.63	0.01	71.00	5.22	4.98	0.00
20.00	4.95	4.71	0.01	72.00	5.22	4.98	0.00
21.00	5.02	4.79	0.01				
22.00	5.09	4.86	0.01				
23.00	5.16	4.92	0.01				
24.00	5.22	4.98	0.01				
25.00	5.22	4.98	0.00				
26.00	5.22	4.98	0.00				
27.00	5.22	4.98	0.00				
28.00	5.22	4.98	0.00				
29.00	5.22	4.98	0.00				
30.00	5.22	4.98	0.00				
31.00	5.22	4.98	0.00				
32.00	5.22	4.98	0.00				
33.00	5.22	4.98	0.00				
34.00	5.22	4.98	0.00				
35.00	5.22	4.98	0.00				
36.00	5.22	4.98	0.00				
37.00	5.22	4.98	0.00				
38.00	5.22	4.98	0.00				
39.00	5.22	4.98	0.00				
40.00	5.22	4.98	0.00				
41.00	5.22	4.98	0.00				
42.00	5.22	4.98	0.00				
43.00	5.22	4.98	0.00				
44.00	5.22	4.98	0.00				
45.00	5.22	4.98	0.00				
46.00	5.22	4.98	0.00				
47.00	5.22	4.98	0.00				
48.00	5.22	4.98	0.00				
49.00	5.22	4.98	0.00				
50.00	5.22	4.98	0.00				
51.00	5.22	4.98	0.00				

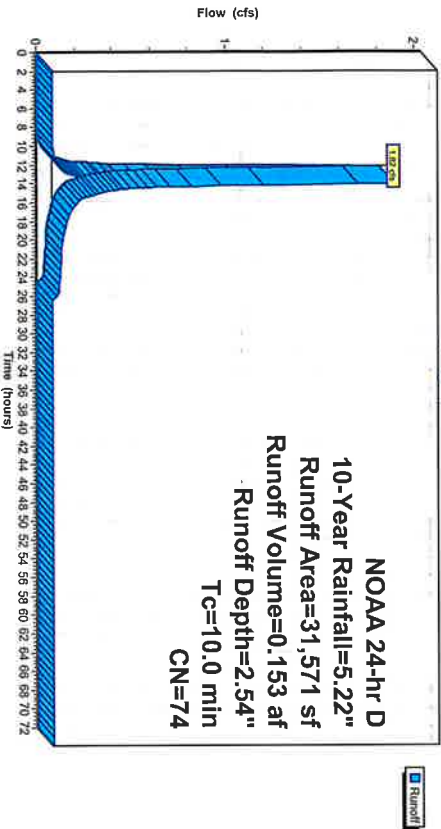
Summary for Subcatchment 5S: Basin B - Perv.

Runoff = 1.82 cfs @ 12.18 hrs. Volume= 0.153 af, Depth= 2.54"
Routed to Pond 4P : Basin B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description		
31,571	74	>75% Grass cover, Good, HSG C		
31,571		100.00% Pervious Area		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0				Direct Entry, Direct

Subcatchment 5S: Basin B - Perv.



Hydrograph for Subcatchment 5S: Basin B - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	2.54	0.00
1.00	0.06	0.00	0.00	53.00	5.22	2.54	0.00
2.00	0.13	0.00	0.00	54.00	5.22	2.54	0.00
3.00	0.20	0.00	0.00	55.00	5.22	2.54	0.00
4.00	0.27	0.00	0.00	56.00	5.22	2.54	0.00
5.00	0.36	0.00	0.00	57.00	5.22	2.54	0.00
6.00	0.45	0.00	0.00	58.00	5.22	2.54	0.00
7.00	0.55	0.00	0.00	59.00	5.22	2.54	0.00
8.00	0.68	0.00	0.00	60.00	5.22	2.54	0.00
9.00	0.83	0.00	0.01	61.00	5.22	2.54	0.00
10.00	1.03	0.03	0.03	62.00	5.22	2.54	0.00
11.00	1.36	0.10	0.08	63.00	5.22	2.54	0.00
12.00	2.50	0.61	0.75	64.00	5.22	2.54	0.00
13.00	3.86	1.50	0.29	65.00	5.22	2.54	0.00
14.00	4.19	1.73	0.14	66.00	5.22	2.54	0.00
15.00	4.39	1.89	0.10	67.00	5.22	2.54	0.00
16.00	4.54	2.01	0.08	68.00	5.22	2.54	0.00
17.00	4.67	2.10	0.07	69.00	5.22	2.54	0.00
18.00	4.77	2.19	0.06	70.00	5.22	2.54	0.00
19.00	4.86	2.26	0.05	71.00	5.22	2.54	0.00
20.00	4.95	2.32	0.05	72.00	5.22	2.54	0.00
21.00	5.02	2.38	0.04				
22.00	5.09	2.44	0.04				
23.00	5.16	2.49	0.04				
24.00	5.22	2.54	0.03				
25.00	5.22	2.54	0.00				
26.00	5.22	2.54	0.00				
27.00	5.22	2.54	0.00				
28.00	5.22	2.54	0.00				
29.00	5.22	2.54	0.00				
30.00	5.22	2.54	0.00				
31.00	5.22	2.54	0.00				
32.00	5.22	2.54	0.00				
33.00	5.22	2.54	0.00				
34.00	5.22	2.54	0.00				
35.00	5.22	2.54	0.00				
36.00	5.22	2.54	0.00				
37.00	5.22	2.54	0.00				
38.00	5.22	2.54	0.00				
39.00	5.22	2.54	0.00				
40.00	5.22	2.54	0.00				
41.00	5.22	2.54	0.00				
42.00	5.22	2.54	0.00				
43.00	5.22	2.54	0.00				
44.00	5.22	2.54	0.00				
45.00	5.22	2.54	0.00				
46.00	5.22	2.54	0.00				
47.00	5.22	2.54	0.00				
48.00	5.22	2.54	0.00				
49.00	5.22	2.54	0.00				
50.00	5.22	2.54	0.00				
51.00	5.22	2.54	0.00				

2022-07-28 Proposed Hydrology

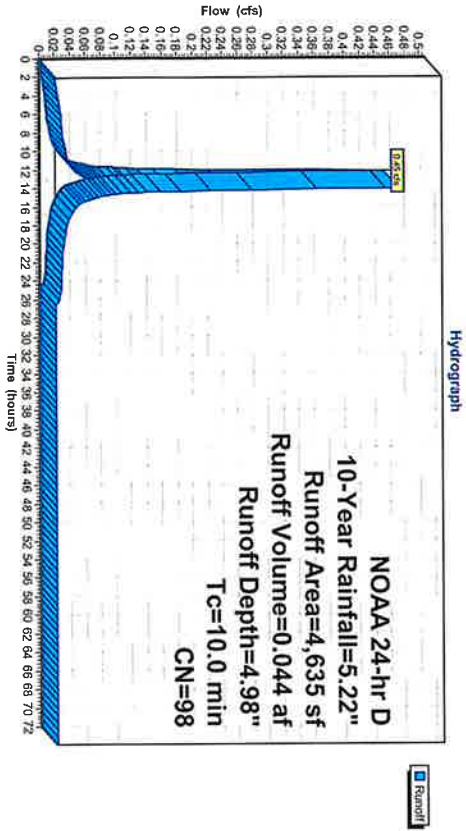
Summary for Subcatchment 7S: Basin C - Imp.

Runoff = 0.45 cfs @ 12.17 hrs. Volume= 0.044 af. Depth= 4.98"
Routed to Pond 5P : Basin C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description			
4,635	98	Unconnected pavement, HSG C			
4,635		100.00% Impervious Area			
4,635		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description

Subcatchment 7S: Basin C - Imp.



2022-07-28 Proposed Hydrology

Hydrograph for Subcatchment 7S: Basin C - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	4.98	0.00
1.00	0.06	0.00	0.00	53.00	5.22	4.98	0.00
2.00	0.13	0.02	0.00	54.00	5.22	4.98	0.00
3.00	0.20	0.07	0.01	55.00	5.22	4.98	0.00
4.00	0.27	0.12	0.01	56.00	5.22	4.98	0.00
5.00	0.36	0.19	0.01	57.00	5.22	4.98	0.00
6.00	0.45	0.27	0.01	58.00	5.22	4.98	0.00
7.00	0.55	0.36	0.01	59.00	5.22	4.98	0.00
8.00	0.68	0.48	0.01	60.00	5.22	4.98	0.00
9.00	0.83	0.63	0.02	61.00	5.22	4.98	0.00
10.00	1.03	0.82	0.04	62.00	5.22	4.98	0.00
11.00	1.36	1.14	0.06	63.00	5.22	4.98	0.00
12.00	2.50	2.27	0.22	64.00	5.22	4.98	0.00
13.00	3.86	3.63	0.06	65.00	5.22	4.98	0.00
14.00	4.19	3.95	0.03	66.00	5.22	4.98	0.00
15.00	4.39	4.16	0.02	67.00	5.22	4.98	0.00
16.00	4.54	4.31	0.02	68.00	5.22	4.98	0.00
17.00	4.67	4.43	0.01	69.00	5.22	4.98	0.00
18.00	4.77	4.54	0.01	70.00	5.22	4.98	0.00
19.00	4.86	4.63	0.01	71.00	5.22	4.98	0.00
20.00	4.95	4.71	0.01	72.00	5.22	4.98	0.00
21.00	5.02	4.79	0.01				
22.00	5.09	4.86	0.01				
23.00	5.16	4.92	0.01				
24.00	5.22	4.98	0.01				
25.00	5.22	4.98	0.00				
26.00	5.22	4.98	0.00				
27.00	5.22	4.98	0.00				
28.00	5.22	4.98	0.00				
29.00	5.22	4.98	0.00				
30.00	5.22	4.98	0.00				
31.00	5.22	4.98	0.00				
32.00	5.22	4.98	0.00				
33.00	5.22	4.98	0.00				
34.00	5.22	4.98	0.00				
35.00	5.22	4.98	0.00				
36.00	5.22	4.98	0.00				
37.00	5.22	4.98	0.00				
38.00	5.22	4.98	0.00				
39.00	5.22	4.98	0.00				
40.00	5.22	4.98	0.00				
41.00	5.22	4.98	0.00				
42.00	5.22	4.98	0.00				
43.00	5.22	4.98	0.00				
44.00	5.22	4.98	0.00				
45.00	5.22	4.98	0.00				
46.00	5.22	4.98	0.00				
47.00	5.22	4.98	0.00				
48.00	5.22	4.98	0.00				
49.00	5.22	4.98	0.00				
50.00	5.22	4.98	0.00				
51.00	5.22	4.98	0.00				

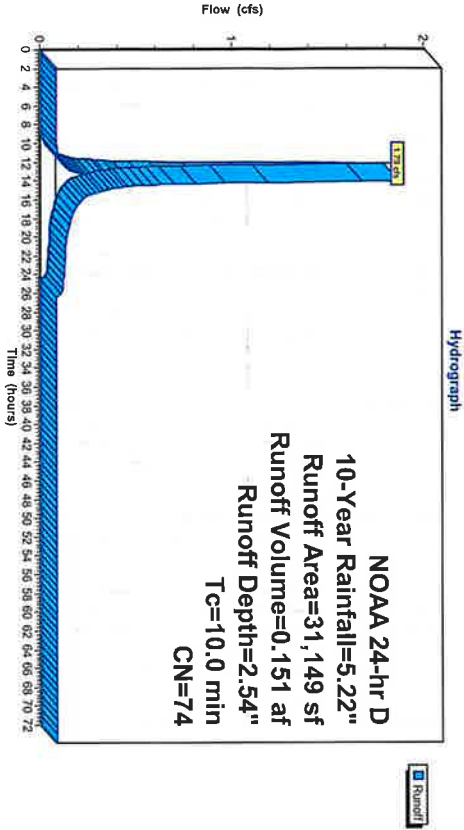
Summary for Subcatchment 8S: Basin C - Perv.

Runoff = 1.79 cfs @ 12.18 hrs, Volume= 0.151 af, Depth= 2.54"
Routed to Pond sP: Basin C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description			
31,149	74	>75% Grass cover, Good, HSG C			
31,149		100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 8S: Basin C - Perv.



Hydrograph for Subcatchment 8S: Basin C - Perv.

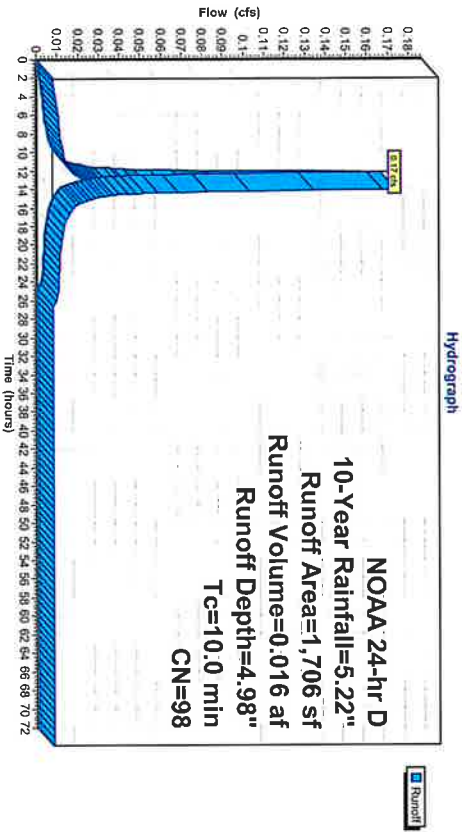
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	2.54	0.00
1.00	0.06	0.00	0.00	53.00	5.22	2.54	0.00
2.00	0.13	0.00	0.00	54.00	5.22	2.54	0.00
3.00	0.20	0.00	0.00	55.00	5.22	2.54	0.00
4.00	0.27	0.00	0.00	56.00	5.22	2.54	0.00
5.00	0.36	0.00	0.00	57.00	5.22	2.54	0.00
6.00	0.45	0.00	0.00	58.00	5.22	2.54	0.00
7.00	0.55	0.00	0.00	59.00	5.22	2.54	0.00
8.00	0.68	0.00	0.00	60.00	5.22	2.54	0.00
9.00	0.83	0.00	0.01	61.00	5.22	2.54	0.00
10.00	1.03	0.03	0.03	62.00	5.22	2.54	0.00
11.00	1.36	0.10	0.08	63.00	5.22	2.54	0.00
12.00	2.50	0.61	0.74	64.00	5.22	2.54	0.00
13.00	3.86	1.50	0.28	65.00	5.22	2.54	0.00
14.00	4.19	1.73	0.14	66.00	5.22	2.54	0.00
15.00	4.39	1.89	0.10	67.00	5.22	2.54	0.00
16.00	4.54	2.01	0.08	68.00	5.22	2.54	0.00
17.00	4.67	2.10	0.07	69.00	5.22	2.54	0.00
18.00	4.77	2.19	0.05	70.00	5.22	2.54	0.00
19.00	4.86	2.26	0.05	71.00	5.22	2.54	0.00
20.00	4.95	2.32	0.05	72.00	5.22	2.54	0.00
21.00	5.02	2.38	0.04				
22.00	5.09	2.44	0.04				
23.00	5.16	2.49	0.04				
24.00	5.22	2.54	0.03				
25.00	5.22	2.54	0.00				
26.00	5.22	2.54	0.00				
27.00	5.22	2.54	0.00				
28.00	5.22	2.54	0.00				
29.00	5.22	2.54	0.00				
30.00	5.22	2.54	0.00				
31.00	5.22	2.54	0.00				
32.00	5.22	2.54	0.00				
33.00	5.22	2.54	0.00				
34.00	5.22	2.54	0.00				
35.00	5.22	2.54	0.00				
36.00	5.22	2.54	0.00				
37.00	5.22	2.54	0.00				
38.00	5.22	2.54	0.00				
39.00	5.22	2.54	0.00				
40.00	5.22	2.54	0.00				
41.00	5.22	2.54	0.00				
42.00	5.22	2.54	0.00				
43.00	5.22	2.54	0.00				
44.00	5.22	2.54	0.00				
45.00	5.22	2.54	0.00				
46.00	5.22	2.54	0.00				
47.00	5.22	2.54	0.00				
48.00	5.22	2.54	0.00				
49.00	5.22	2.54	0.00				
50.00	5.22	2.54	0.00				
51.00	5.22	2.54	0.00				

Summary for Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.

Runoff = 0.17 cfs @ 12.17 hrs, Volume= 0.016 af, Depth= 4.98"
 Routed to Link 3L : Mt. Pleasant Ave - Undetained
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)		CN	Description		
1,085	98	Unconnected pavement, HSG C			
621	98	Unconnected pavement, HSG D			
1,706	98	Weighted Average			
1,706		100.00% Impervious Area			
1,706		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.



Hydrograph for Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	4.98	0.00
1.00	0.06	0.00	0.00	53.00	5.22	4.98	0.00
2.00	0.13	0.02	0.00	54.00	5.22	4.98	0.00
3.00	0.20	0.07	0.00	55.00	5.22	4.98	0.00
4.00	0.27	0.12	0.00	56.00	5.22	4.98	0.00
5.00	0.36	0.19	0.00	57.00	5.22	4.98	0.00
6.00	0.45	0.27	0.00	58.00	5.22	4.98	0.00
7.00	0.55	0.36	0.00	59.00	5.22	4.98	0.00
8.00	0.68	0.48	0.01	60.00	5.22	4.98	0.00
9.00	0.83	0.63	0.01	61.00	5.22	4.98	0.00
10.00	1.03	0.82	0.01	62.00	5.22	4.98	0.00
11.00	1.36	1.14	0.02	63.00	5.22	4.98	0.00
12.00	2.30	2.27	0.08	64.00	5.22	4.98	0.00
13.00	3.86	3.63	0.02	65.00	5.22	4.98	0.00
14.00	4.19	3.95	0.01	66.00	5.22	4.98	0.00
15.00	4.39	4.16	0.01	67.00	5.22	4.98	0.00
16.00	4.54	4.31	0.01	68.00	5.22	4.98	0.00
17.00	4.67	4.43	0.00	69.00	5.22	4.98	0.00
18.00	4.77	4.54	0.00	70.00	5.22	4.98	0.00
19.00	4.86	4.63	0.00	71.00	5.22	4.98	0.00
20.00	4.95	4.71	0.00	72.00	5.22	4.98	0.00
21.00	5.02	4.79	0.00				
22.00	5.09	4.86	0.00				
23.00	5.16	4.92	0.00				
24.00	5.22	4.98	0.00				
25.00	5.22	4.98	0.00				
26.00	5.22	4.98	0.00				
27.00	5.22	4.98	0.00				
28.00	5.22	4.98	0.00				
29.00	5.22	4.98	0.00				
30.00	5.22	4.98	0.00				
31.00	5.22	4.98	0.00				
32.00	5.22	4.98	0.00				
33.00	5.22	4.98	0.00				
34.00	5.22	4.98	0.00				
35.00	5.22	4.98	0.00				
36.00	5.22	4.98	0.00				
37.00	5.22	4.98	0.00				
38.00	5.22	4.98	0.00				
39.00	5.22	4.98	0.00				
40.00	5.22	4.98	0.00				
41.00	5.22	4.98	0.00				
42.00	5.22	4.98	0.00				
43.00	5.22	4.98	0.00				
44.00	5.22	4.98	0.00				
45.00	5.22	4.98	0.00				
46.00	5.22	4.98	0.00				
47.00	5.22	4.98	0.00				
48.00	5.22	4.98	0.00				
49.00	5.22	4.98	0.00				
50.00	5.22	4.98	0.00				
51.00	5.22	4.98	0.00				

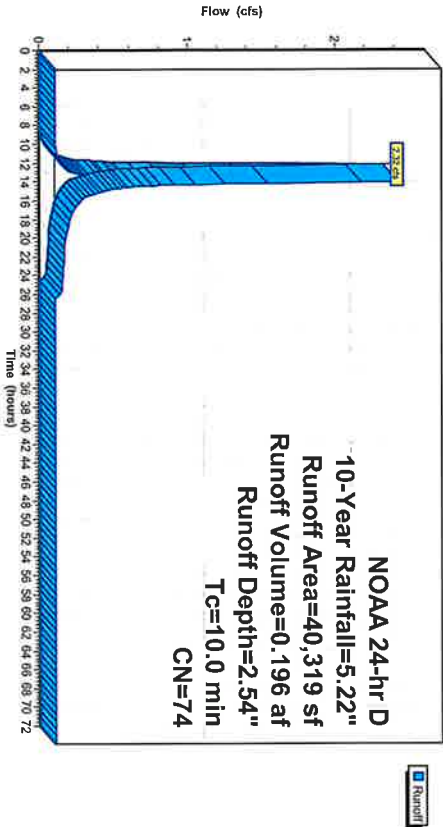
Summary for Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

Runoff = 2.32 cfs @ 12.18 hrs. Volume= 0.196 af. Depth= 2.54"
 Routed to Link 3L : Mt. Pleasant Ave - Undetained
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs. dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description			
38,200	74	>75% Grass cover, Good, HSG C			
2,119	80	>75% Grass cover, Good, HSG D			
40,319	74	Weighted Average			
40,319		100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

Hydrograph



Hydrograph for Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	32.00	5.22	2.54	0.00
1.00	0.06	0.00	0.00	33.00	5.22	2.54	0.00
2.00	0.13	0.00	0.00	34.00	5.22	2.54	0.00
3.00	0.20	0.00	0.00	35.00	5.22	2.54	0.00
4.00	0.27	0.00	0.00	36.00	5.22	2.54	0.00
5.00	0.36	0.00	0.00	37.00	5.22	2.54	0.00
6.00	0.45	0.00	0.00	38.00	5.22	2.54	0.00
7.00	0.55	0.00	0.00	39.00	5.22	2.54	0.00
8.00	0.68	0.00	0.00	40.00	5.22	2.54	0.00
9.00	0.83	0.00	0.01	41.00	5.22	2.54	0.00
10.00	1.03	0.03	0.03	42.00	5.22	2.54	0.00
11.00	1.36	0.10	0.10	43.00	5.22	2.54	0.00
12.00	2.50	0.61	0.96	44.00	5.22	2.54	0.00
13.00	3.86	1.50	0.36	45.00	5.22	2.54	0.00
14.00	4.19	1.73	0.18	46.00	5.22	2.54	0.00
15.00	4.39	1.89	0.13	47.00	5.22	2.54	0.00
16.00	4.54	2.01	0.10	48.00	5.22	2.54	0.00
17.00	4.67	2.10	0.09	49.00	5.22	2.54	0.00
18.00	4.77	2.19	0.07	50.00	5.22	2.54	0.00
19.00	4.86	2.26	0.06	51.00	5.22	2.54	0.00
20.00	4.95	2.32	0.06	52.00	5.22	2.54	0.00
21.00	5.02	2.36	0.06				
22.00	5.09	2.44	0.05				
23.00	5.16	2.49	0.05				
24.00	5.22	2.54	0.04				
25.00	5.22	2.54	0.00				
26.00	5.22	2.54	0.00				
27.00	5.22	2.54	0.00				
28.00	5.22	2.54	0.00				
29.00	5.22	2.54	0.00				
30.00	5.22	2.54	0.00				
31.00	5.22	2.54	0.00				
32.00	5.22	2.54	0.00				
33.00	5.22	2.54	0.00				
34.00	5.22	2.54	0.00				
35.00	5.22	2.54	0.00				
36.00	5.22	2.54	0.00				
37.00	5.22	2.54	0.00				
38.00	5.22	2.54	0.00				
39.00	5.22	2.54	0.00				
40.00	5.22	2.54	0.00				
41.00	5.22	2.54	0.00				
42.00	5.22	2.54	0.00				
43.00	5.22	2.54	0.00				
44.00	5.22	2.54	0.00				
45.00	5.22	2.54	0.00				
46.00	5.22	2.54	0.00				
47.00	5.22	2.54	0.00				
48.00	5.22	2.54	0.00				
49.00	5.22	2.54	0.00				
50.00	5.22	2.54	0.00				
51.00	5.22	2.54	0.00				

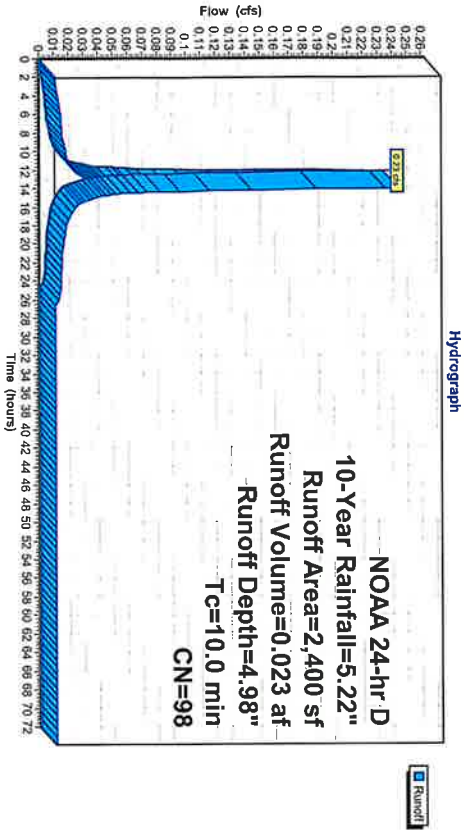
Summary for Subcatchment 11S: Basin D - Imp.

Runoff = 0.23 cfs @ 12.17 hrs. Volume= 0.023 af. Depth= 4.98"
Routed to Pond 6P : Basin D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)		CN	Description		
2,400		98	Unconnected pavement HSG C		
2,400			100.00% Impervious Area		
2,400			100.00% Unconnected		
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description

Subcatchment 11S: Basin D - Imp.



Hydrograph for Subcatchment 11S: Basin D - Imp.

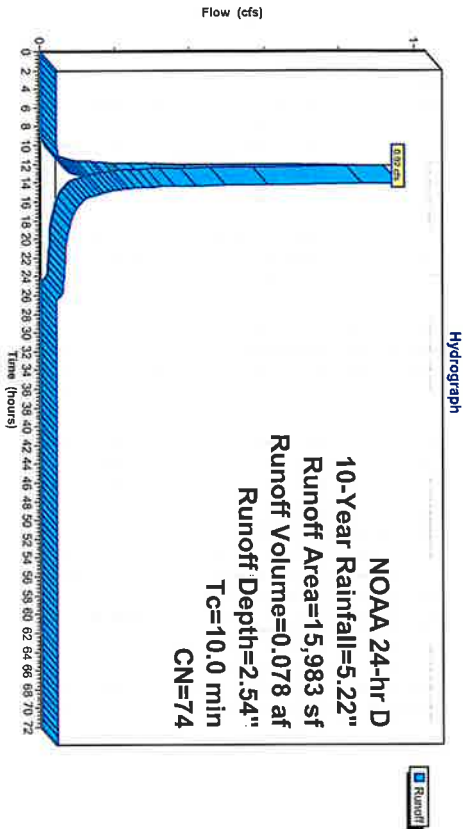
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	4.98	0.00
1.00	0.06	0.00	0.00	53.00	5.22	4.98	0.00
2.00	0.13	0.02	0.00	54.00	5.22	4.98	0.00
3.00	0.20	0.07	0.00	55.00	5.22	4.98	0.00
4.00	0.27	0.12	0.00	56.00	5.22	4.98	0.00
5.00	0.36	0.19	0.00	57.00	5.22	4.98	0.00
6.00	0.45	0.27	0.00	58.00	5.22	4.98	0.00
7.00	0.55	0.36	0.01	59.00	5.22	4.98	0.00
8.00	0.68	0.48	0.01	60.00	5.22	4.98	0.00
9.00	0.83	0.63	0.01	61.00	5.22	4.98	0.00
10.00	1.03	0.82	0.01	62.00	5.22	4.98	0.00
11.00	1.36	1.14	0.02	63.00	5.22	4.98	0.00
12.00	2.50	2.27	0.11	64.00	5.22	4.98	0.00
13.00	3.86	3.63	0.03	65.00	5.22	4.98	0.00
14.00	4.19	3.95	0.01	66.00	5.22	4.98	0.00
15.00	4.39	4.16	0.01	67.00	5.22	4.98	0.00
16.00	4.54	4.31	0.01	68.00	5.22	4.98	0.00
17.00	4.67	4.43	0.01	69.00	5.22	4.98	0.00
18.00	4.77	4.54	0.01	70.00	5.22	4.98	0.00
19.00	4.86	4.63	0.00	71.00	5.22	4.98	0.00
20.00	4.95	4.71	0.00	72.00	5.22	4.98	0.00
21.00	5.02	4.79	0.00				
22.00	5.09	4.86	0.00				
23.00	5.16	4.92	0.00				
24.00	5.22	4.98	0.00				
25.00	5.22	4.98	0.00				
26.00	5.22	4.98	0.00				
27.00	5.22	4.98	0.00				
28.00	5.22	4.98	0.00				
29.00	5.22	4.98	0.00				
30.00	5.22	4.98	0.00				
31.00	5.22	4.98	0.00				
32.00	5.22	4.98	0.00				
33.00	5.22	4.98	0.00				
34.00	5.22	4.98	0.00				
35.00	5.22	4.98	0.00				
36.00	5.22	4.98	0.00				
37.00	5.22	4.98	0.00				
38.00	5.22	4.98	0.00				
39.00	5.22	4.98	0.00				
40.00	5.22	4.98	0.00				
41.00	5.22	4.98	0.00				
42.00	5.22	4.98	0.00				
43.00	5.22	4.98	0.00				
44.00	5.22	4.98	0.00				
45.00	5.22	4.98	0.00				
46.00	5.22	4.98	0.00				
47.00	5.22	4.98	0.00				
48.00	5.22	4.98	0.00				
49.00	5.22	4.98	0.00				
50.00	5.22	4.98	0.00				
51.00	5.22	4.98	0.00				

Summary for Subcatchment 12S: Basin D - Perv.

Runoff = 0.92 cfs @ 12.18 hrs. Volume= 0.078 af, Depth= 2.54"
 Routed to Pond 6P : Basin D
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.22"

Area (sf)	CN	Description			
15,983	74	>75% Grass cover, Good, HSG C			
15,983		100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 12S: Basin D - Perv.



Hydrograph for Subcatchment 12S: Basin D - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	5.22	2.54	0.00
1.00	0.06	0.00	0.00	53.00	5.22	2.54	0.00
2.00	0.13	0.00	0.00	54.00	5.22	2.54	0.00
3.00	0.20	0.00	0.00	55.00	5.22	2.54	0.00
4.00	0.27	0.00	0.00	56.00	5.22	2.54	0.00
5.00	0.36	0.00	0.00	57.00	5.22	2.54	0.00
6.00	0.45	0.00	0.00	58.00	5.22	2.54	0.00
7.00	0.55	0.00	0.00	59.00	5.22	2.54	0.00
8.00	0.68	0.00	0.00	60.00	5.22	2.54	0.00
9.00	0.83	0.00	0.00	61.00	5.22	2.54	0.00
10.00	1.03	0.03	0.01	62.00	5.22	2.54	0.00
11.00	1.36	0.10	0.04	63.00	5.22	2.54	0.00
12.00	2.50	0.61	0.38	64.00	5.22	2.54	0.00
13.00	3.86	1.50	0.14	65.00	5.22	2.54	0.00
14.00	4.19	1.73	0.07	66.00	5.22	2.54	0.00
15.00	4.39	1.89	0.05	67.00	5.22	2.54	0.00
16.00	4.54	2.01	0.04	68.00	5.22	2.54	0.00
17.00	4.67	2.10	0.03	69.00	5.22	2.54	0.00
18.00	4.77	2.19	0.03	70.00	5.22	2.54	0.00
19.00	4.86	2.26	0.03	71.00	5.22	2.54	0.00
20.00	4.95	2.32	0.02	72.00	5.22	2.54	0.00
21.00	5.02	2.38	0.02				
22.00	5.09	2.44	0.02				
23.00	5.16	2.49	0.02				
24.00	5.22	2.54	0.02				
25.00	5.22	2.54	0.00				
26.00	5.22	2.54	0.00				
27.00	5.22	2.54	0.00				
28.00	5.22	2.54	0.00				
29.00	5.22	2.54	0.00				
30.00	5.22	2.54	0.00				
31.00	5.22	2.54	0.00				
32.00	5.22	2.54	0.00				
33.00	5.22	2.54	0.00				
34.00	5.22	2.54	0.00				
35.00	5.22	2.54	0.00				
36.00	5.22	2.54	0.00				
37.00	5.22	2.54	0.00				
38.00	5.22	2.54	0.00				
39.00	5.22	2.54	0.00				
40.00	5.22	2.54	0.00				
41.00	5.22	2.54	0.00				
42.00	5.22	2.54	0.00				
43.00	5.22	2.54	0.00				
44.00	5.22	2.54	0.00				
45.00	5.22	2.54	0.00				
46.00	5.22	2.54	0.00				
47.00	5.22	2.54	0.00				
48.00	5.22	2.54	0.00				
49.00	5.22	2.54	0.00				
50.00	5.22	2.54	0.00				
51.00	5.22	2.54	0.00				

Summary for Pond 3P: Basin A

Inflow Area = 0.669 ac, 15.97% Impervious, Inflow Depth = 2.93" for 10-Year event
Inflow = 1.87 cfs @ 12.17 hrs, Volume= 0.163 af
Outflow = 0.09 cfs @ 15.32 hrs, Volume= 0.047 af, Atten= 95%, Lag= 188.8 min
Primary = 0.09 cfs @ 15.32 hrs, Volume= 0.047 af
Routed to Link 2L : Mt. Pleasant Ave.

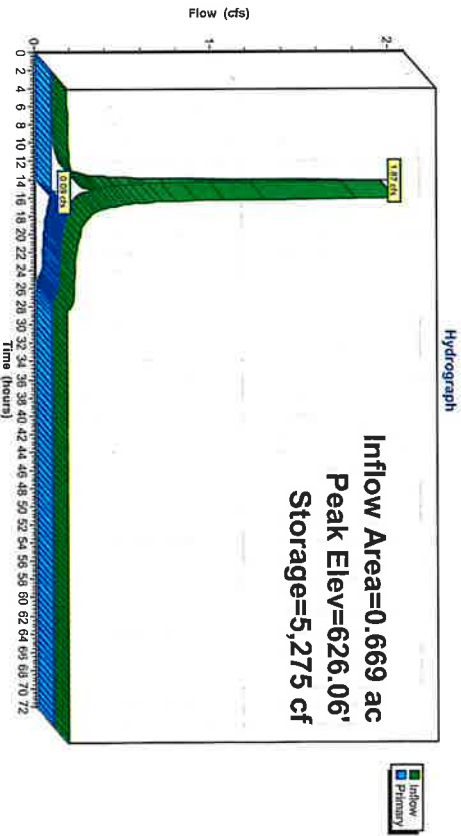
Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 626.06' @ 15.32 hrs Surf.Area= 3,194 sf Storage= 5,275 cf

Plug-Flow detention time= 479.7 min calculated for 0.047 af (29% of inflow)
Center-of-Mass det. time= 309.1 min (1,132.2 - 823.1)

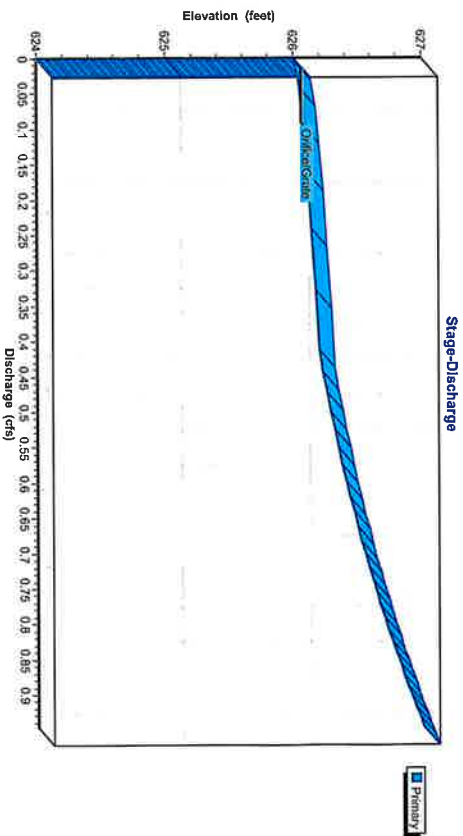
Volume		Invert	Avail. Storage		Storage Description	
#1	624.00'		8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)		
Elevation	Surf. Area	Inc. Store	Cum. Store			
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)			
624.00	1,951	0	0			
625.00	2,519	2,235	2,235			
626.00	3,150	2,835	5,070			
627.00	3,833	3,492	8,561			
Device Routing						
#1	Primary	626.00'	6.0" Horiz. Outlet Devices	Office/Grate	C= 0.600	Limited to weir flow at low heads

Primary Outflow Max=0.08 cfs @ 15.32 hrs HW=626.06' (Free Discharge)
L-1=Orifice/Grate (Weir Controls 0.08 cfs @ 0.83 fps)

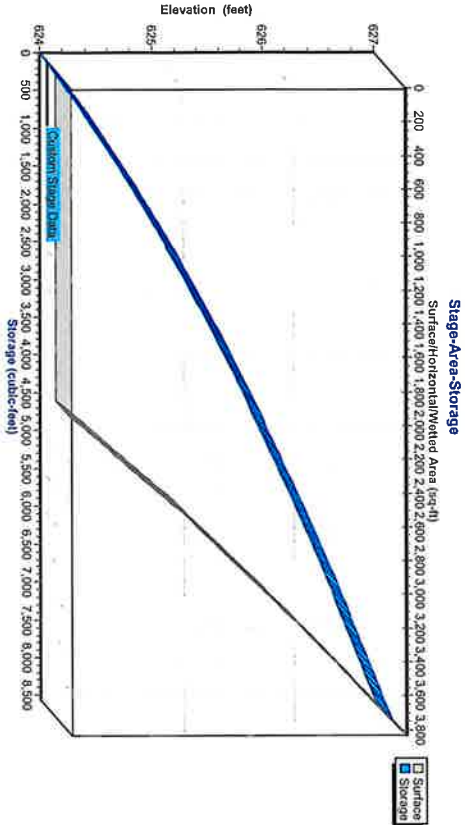
Pond 3P: Basin A



Pond 3P: Basin A



Pond 3P: Basin A



Hydrograph for Pond 3P: Basin A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	624.00	0.00
2.50	0.00	15	624.01	0.00
5.00	0.01	70	624.04	0.00
7.50	0.01	156	624.08	0.00
10.00	0.04	353	624.18	0.00
12.50	0.55	3,634	625.52	0.00
15.00	0.10	5,269	626.06	0.08
17.50	0.06	5,239	626.05	0.07
20.00	0.05	5,206	626.04	0.05
22.50	0.04	5,192	626.04	0.04
25.00	0.00	5,116	626.01	0.01
27.50	0.00	5,080	626.00	0.00
30.00	0.00	5,072	626.00	0.00
32.50	0.00	5,070	626.00	0.00
35.00	0.00	5,070	626.00	0.00
37.50	0.00	5,070	626.00	0.00
40.00	0.00	5,070	626.00	0.00
42.50	0.00	5,070	626.00	0.00
45.00	0.00	5,070	626.00	0.00
47.50	0.00	5,070	626.00	0.00
50.00	0.00	5,070	626.00	0.00
52.50	0.00	5,070	626.00	0.00
55.00	0.00	5,070	626.00	0.00
57.50	0.00	5,070	626.00	0.00
60.00	0.00	5,070	626.00	0.00
62.50	0.00	5,070	626.00	0.00
65.00	0.00	5,070	626.00	0.00
67.50	0.00	5,070	626.00	0.00
70.00	0.00	5,070	626.00	0.00

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Stage-Discharge for Pond 3P: Basin A

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
624.00	0.00	625.04	0.00	626.08	0.12
624.02	0.00	625.06	0.00	626.10	0.16
624.04	0.00	625.08	0.00	626.12	0.21
624.06	0.00	625.10	0.00	626.14	0.27
624.08	0.00	625.12	0.00	626.16	0.33
624.10	0.00	625.14	0.00	626.18	0.39
624.12	0.00	625.16	0.00	626.20	0.42
624.14	0.00	625.18	0.00	626.22	0.44
624.16	0.00	625.20	0.00	626.24	0.46
624.18	0.00	625.22	0.00	626.26	0.48
624.20	0.00	625.24	0.00	626.28	0.50
624.22	0.00	625.26	0.00	626.30	0.52
624.24	0.00	625.28	0.00	626.32	0.53
624.26	0.00	625.30	0.00	626.34	0.55
624.28	0.00	625.32	0.00	626.36	0.57
624.30	0.00	625.34	0.00	626.38	0.58
624.32	0.00	625.36	0.00	626.40	0.60
624.34	0.00	625.38	0.00	626.42	0.61
624.36	0.00	625.40	0.00	626.44	0.63
624.38	0.00	625.42	0.00	626.46	0.64
624.40	0.00	625.44	0.00	626.48	0.66
624.42	0.00	625.46	0.00	626.50	0.67
624.44	0.00	625.48	0.00	626.52	0.68
624.46	0.00	625.50	0.00	626.54	0.69
624.48	0.00	625.52	0.00	626.56	0.71
624.50	0.00	625.54	0.00	626.58	0.72
624.52	0.00	625.56	0.00	626.60	0.73
624.54	0.00	625.58	0.00	626.62	0.74
624.56	0.00	625.60	0.00	626.64	0.76
624.58	0.00	625.62	0.00	626.66	0.77
624.60	0.00	625.64	0.00	626.68	0.78
624.62	0.00	625.66	0.00	626.70	0.79
624.64	0.00	625.68	0.00	626.72	0.80
624.66	0.00	625.70	0.00	626.74	0.81
624.68	0.00	625.72	0.00	626.76	0.82
624.70	0.00	625.74	0.00	626.78	0.83
624.72	0.00	625.76	0.00	626.80	0.85
624.74	0.00	625.78	0.00	626.82	0.86
624.76	0.00	625.80	0.00	626.84	0.87
624.78	0.00	625.82	0.00	626.86	0.88
624.80	0.00	625.84	0.00	626.88	0.89
624.82	0.00	625.86	0.00	626.90	0.90
624.84	0.00	625.88	0.00	626.92	0.91
624.86	0.00	625.90	0.00	626.94	0.92
624.88	0.00	625.92	0.00	626.96	0.93
624.90	0.00	625.94	0.00	626.98	0.94
624.92	0.00	625.96	0.00	627.00	0.95
624.94	0.00	625.98	0.00		
624.96	0.00	626.00	0.00		
624.98	0.00	626.02	0.01		
625.00	0.00	626.04	0.04		
625.02	0.00	626.06	0.08		

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Stage-Area-Storage for Pond 3P: Basin A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
624.00	1,931	0	626.60	3,560	7,082
624.05	1,979	98	626.65	3,594	7,261
624.10	2,008	198	626.70	3,628	7,442
624.15	2,036	299	626.75	3,662	7,624
624.20	2,065	402	626.80	3,696	7,808
624.25	2,093	506	626.85	3,731	7,994
624.30	2,121	611	626.90	3,765	8,181
624.35	2,150	718	626.95	3,799	8,370
624.40	2,178	826	627.00	3,833	8,561
624.45	2,207	935			
624.50	2,235	1,047			
624.55	2,263	1,159			
624.60	2,292	1,273			
624.65	2,320	1,388			
624.70	2,349	1,505			
624.75	2,377	1,623			
624.80	2,405	1,743			
624.85	2,434	1,864			
624.90	2,462	1,986			
624.95	2,491	2,110			
625.00	2,519	2,235			
625.05	2,551	2,362			
625.10	2,582	2,490			
625.15	2,614	2,620			
625.20	2,645	2,751			
625.25	2,677	2,884			
625.30	2,708	3,019			
625.35	2,740	3,155			
625.40	2,771	3,293			
625.45	2,803	3,432			
625.50	2,835	3,573			
625.55	2,868	3,716			
625.60	2,898	3,860			
625.65	2,929	4,006			
625.70	2,961	4,153			
625.75	2,992	4,302			
625.80	3,024	4,452			
625.85	3,055	4,604			
625.90	3,087	4,758			
625.95	3,118	4,913			
626.00	3,150	5,070			
626.05	3,184	5,228			
626.10	3,218	5,388			
626.15	3,252	5,550			
626.20	3,287	5,713			
626.25	3,321	5,878			
626.30	3,355	6,045			
626.35	3,389	6,214			
626.40	3,423	6,384			
626.45	3,457	6,556			
626.50	3,492	6,730			
626.55	3,526	6,905			

Summary for Pond 4P: Basin B

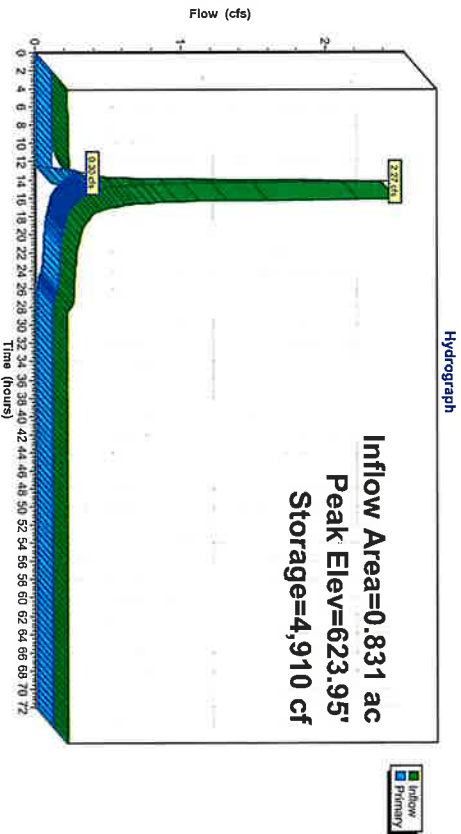
Inflow Area = 0.831 ac, 12.83% Impervious, Inflow Depth = 2.85" for 10-Year event
Inflow = 2.27 cfs @ 12.18 hrs, Volume= 0.198 af
Outflow = 0.30 cfs @ 13.15 hrs, Volume= 0.096 af Atten= 87%, Lag= 58.7 min
Primary = 0.30 cfs @ 13.15 hrs, Volume= 0.096 af
Routed to Link 2L : Mt. Pleasant Ave.

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 623.95' @ 13.15 hrs Surf.Area= 3,118 sf Storage= 4,910 cf
Plug-Flow detention time= 314.2 min calculated for 0.096 af (48% of inflow)
Center-of-Mass det. time= 177.5 min (1,005.2 - 827.7)

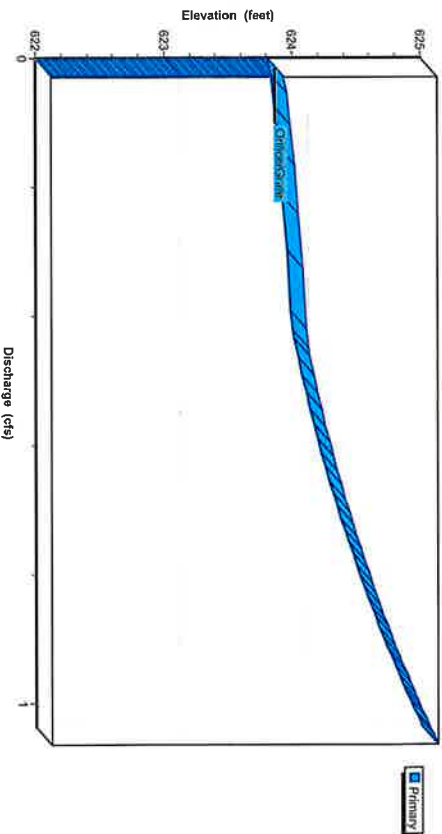
Volume Invert Avail Storage Storage Description				
#1	622.00'	8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf Area (sq-ft)	Inc Store (cubic-feet)	Cum Store (cubic-feet)	
622.00	1,951	0	0	
623.00	2,519	2,235	2,235	
624.00	3,150	2,835	5,070	
625.00	3,833	3,492	8,561	
Device Routing Invert Outlet Devices				
#1	Primary	623.80'	6.0" Horiz. Orifice/Grate	C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.30 cfs @ 13.15 hrs HW=623.95' (Free Discharge)
L1=Orifice/Grate (Weir Controls 0.30 cfs @ 1.26 fps)

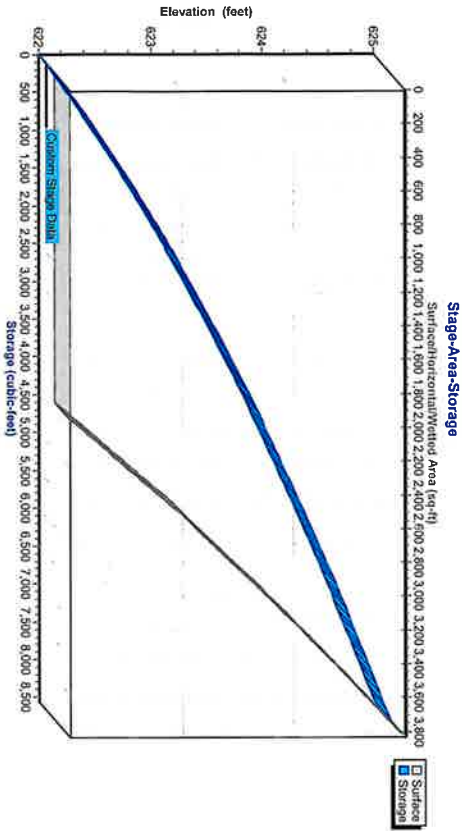
Pond 4P: Basin B



Pond 4P: Basin B



Pond 4P: Basin B



Hydrograph for Pond 4P: Basin B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	622.00	0.00
2.50	0.00	15	622.01	0.00
5.00	0.01	70	622.04	0.00
7.50	0.01	156	622.08	0.00
10.00	0.05	366	622.18	0.00
12.50	0.68	4,325	623.76	0.00
15.00	0.12	4,724	623.89	0.14
17.50	0.07	4,640	623.86	0.08
20.00	0.06	4,602	623.85	0.06
22.50	0.05	4,583	623.84	0.05
25.00	0.00	4,500	623.82	0.01
27.50	0.00	4,456	623.80	0.00
30.00	0.00	4,452	623.80	0.00
32.50	0.00	4,452	623.80	0.00
35.00	0.00	4,452	623.80	0.00
37.50	0.00	4,452	623.80	0.00
40.00	0.00	4,452	623.80	0.00
42.50	0.00	4,452	623.80	0.00
45.00	0.00	4,452	623.80	0.00
47.50	0.00	4,452	623.80	0.00
50.00	0.00	4,452	623.80	0.00
52.50	0.00	4,452	623.80	0.00
55.00	0.00	4,452	623.80	0.00
57.50	0.00	4,452	623.80	0.00
60.00	0.00	4,452	623.80	0.00
62.50	0.00	4,452	623.80	0.00
65.00	0.00	4,452	623.80	0.00
67.50	0.00	4,452	623.80	0.00
70.00	0.00	4,452	623.80	0.00

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Stage-Discharge for Pond 4P: Basin B

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
622.00	0.00	623.04	0.00
622.02	0.00	623.06	0.00
622.04	0.00	623.08	0.00
622.06	0.00	623.10	0.00
622.08	0.00	623.12	0.00
622.10	0.00	623.14	0.00
622.12	0.00	623.16	0.00
622.14	0.00	623.18	0.00
622.16	0.00	623.20	0.00
622.18	0.00	623.22	0.00
622.20	0.00	623.24	0.00
622.22	0.00	623.26	0.00
622.24	0.00	623.28	0.00
622.26	0.00	623.30	0.00
622.28	0.00	623.32	0.00
622.30	0.00	623.34	0.00
622.32	0.00	623.36	0.00
622.34	0.00	623.38	0.00
622.36	0.00	623.40	0.00
622.38	0.00	623.42	0.00
622.40	0.00	623.44	0.00
622.42	0.00	623.46	0.00
622.44	0.00	623.48	0.00
622.46	0.00	623.50	0.00
622.48	0.00	623.52	0.00
622.50	0.00	623.54	0.00
622.52	0.00	623.56	0.00
622.54	0.00	623.58	0.00
622.56	0.00	623.60	0.00
622.58	0.00	623.62	0.00
622.60	0.00	623.64	0.00
622.62	0.00	623.66	0.00
622.64	0.00	623.68	0.00
622.66	0.00	623.70	0.00
622.68	0.00	623.72	0.00
622.70	0.00	623.74	0.00
622.72	0.00	623.76	0.00
622.74	0.00	623.78	0.00
622.76	0.00	623.80	0.00
622.78	0.00	623.82	0.00
622.80	0.00	623.84	0.00
622.82	0.00	623.86	0.00
622.84	0.00	623.88	0.00
622.86	0.00	623.90	0.00
622.88	0.00	623.92	0.00
622.90	0.00	623.94	0.00
622.92	0.00	623.96	0.00
622.94	0.00	623.98	0.00
622.96	0.00	624.00	0.00
622.98	0.00	624.02	0.00
623.00	0.00	624.04	0.00
623.02	0.00	624.06	0.00

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Stage-Area-Storage for Pond 4P: Basin B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
622.00	1,351	0	624.60	3,560	7,082
622.05	1,979	98	624.65	3,594	7,261
622.10	2,008	198	624.70	3,628	7,442
622.15	2,036	299	624.75	3,662	7,624
622.20	2,065	402	624.80	3,696	7,808
622.25	2,093	506	624.85	3,731	7,994
622.30	2,121	611	624.90	3,765	8,181
622.35	2,150	718	624.95	3,799	8,370
622.40	2,178	826	625.00	3,833	8,561
622.45	2,207	935			
622.50	2,235	1,047			
622.55	2,263	1,159			
622.60	2,292	1,273			
622.65	2,320	1,388			
622.70	2,349	1,505			
622.75	2,377	1,623			
622.80	2,405	1,743			
622.85	2,434	1,864			
622.90	2,462	1,986			
622.95	2,491	2,110			
623.00	2,519	2,235			
623.05	2,548	2,362			
623.10	2,582	2,490			
623.15	2,614	2,620			
623.20	2,645	2,751			
623.25	2,677	2,884			
623.30	2,708	3,019			
623.35	2,740	3,155			
623.40	2,771	3,293			
623.45	2,803	3,432			
623.50	2,835	3,573			
623.55	2,866	3,716			
623.60	2,898	3,860			
623.65	2,929	4,006			
623.70	2,961	4,153			
623.75	2,992	4,302			
623.80	3,024	4,452			
623.85	3,055	4,604			
623.90	3,087	4,758			
623.95	3,118	4,913			
624.00	3,150	5,070			
624.05	3,184	5,228			
624.10	3,218	5,386			
624.15	3,252	5,550			
624.20	3,287	5,713			
624.25	3,321	5,878			
624.30	3,355	6,045			
624.35	3,389	6,214			
624.40	3,423	6,384			
624.45	3,457	6,556			
624.50	3,492	6,730			
624.55	3,526	6,905			

Summary for Pond SP: Basin C

Inflow Area = 0.821 ac, 12.95% Impervious, Inflow Depth = 2.96" for 10-Year event
Inflow = 2.24 cfs @ 12.18 hrs, Volume= 0.196 af
Outflow = 0.18 cfs @ 13.74 hrs, Volume= 0.077 af, Atten= 92%, Lag= 93.6 min
Primary = 0.18 cfs @ 13.74 hrs, Volume= 0.077 af
Routed to Link ZL: Mt. Pleasant Ave.

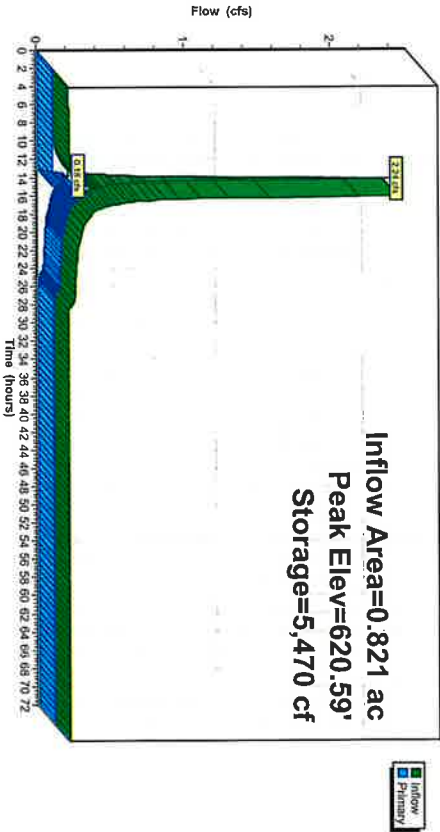
Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 620.59' @ 13.74 hrs Surf.Area= 3,285 sf Storage= 5,470 cf
Plug-Flow detention time= 369.8 min calculated for 0.077 af (39% of inflow)
Center-of-Mass det. time= 222.9 min (1,050.5 - 827.5)

Volume Invert Avail. Storage Storage Description				
#1	618.50'	8,744 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
618.50	1,966	0	0	
619.00	2,285	1,063	1,063	
620.00	2,892	2,589	3,651	
621.00	3,560	3,226	6,877	
621.50	3,907	1,867	8,744	

Device Routing Invert Outlet Devices
#1 Primary 620.50' 8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
Primary Outflow Max=0.18 cfs @ 13.74 hrs HW=620.59' (Free Discharge)
1=Orifice/Grate (Weir Controls 0.18 cfs @ 0.98 fps)

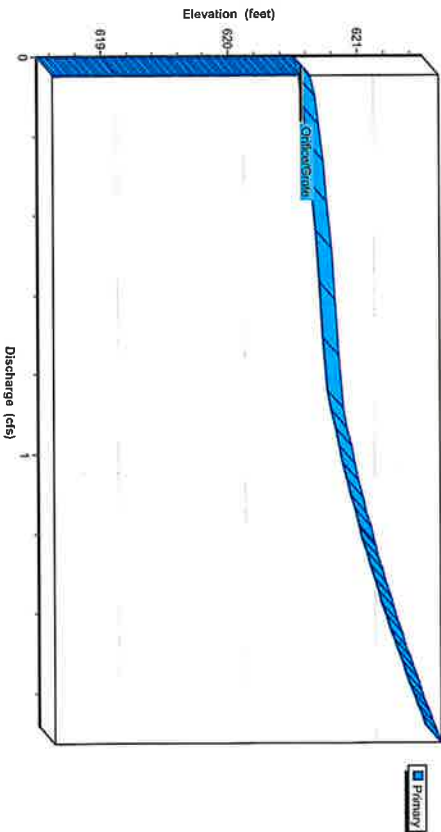
Pond SP: Basin C

Hydrograph

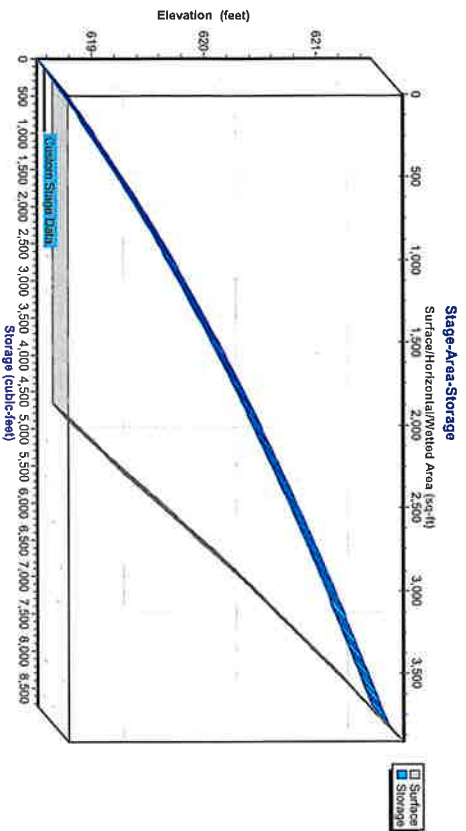


Pond SP: Basin C

Stage-Discharge



Pond 5P: Basin C



Hydrograph for Pond 5P: Basin C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	618.50	0.00
2.50	0.00	15	618.51	0.00
5.00	0.01	70	618.54	0.00
7.50	0.01	155	618.58	0.00
10.00	0.05	384	618.68	0.00
12.50	0.67	4,281	620.21	0.00
15.00	0.12	5,414	620.57	0.13
17.50	0.07	5,342	620.55	0.08
20.00	0.06	5,313	620.54	0.06
22.50	0.05	5,296	620.54	0.05
25.00	0.00	5,218	620.51	0.01
27.50	0.00	5,186	620.50	0.00
30.00	0.00	5,182	620.50	0.00
32.50	0.00	5,181	620.50	0.00
35.00	0.00	5,181	620.50	0.00
37.50	0.00	5,181	620.50	0.00
40.00	0.00	5,181	620.50	0.00
42.50	0.00	5,181	620.50	0.00
45.00	0.00	5,181	620.50	0.00
47.50	0.00	5,181	620.50	0.00
50.00	0.00	5,181	620.50	0.00
52.50	0.00	5,181	620.50	0.00
55.00	0.00	5,181	620.50	0.00
57.50	0.00	5,181	620.50	0.00
60.00	0.00	5,181	620.50	0.00
62.50	0.00	5,181	620.50	0.00
65.00	0.00	5,181	620.50	0.00
67.50	0.00	5,181	620.50	0.00
70.00	0.00	5,181	620.50	0.00

Stage-Discharge for Pond 5P: Basin C

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
618.50	0.00	619.54	0.00
618.52	0.00	619.56	0.00
618.54	0.00	619.58	0.00
618.56	0.00	619.60	0.00
618.58	0.00	619.62	0.00
618.60	0.00	619.64	0.00
618.62	0.00	619.66	0.00
618.64	0.00	619.68	0.00
618.66	0.00	619.70	0.00
618.68	0.00	619.72	0.00
618.70	0.00	619.74	0.00
618.72	0.00	619.76	0.00
618.74	0.00	619.78	0.00
618.76	0.00	619.80	0.00
618.78	0.00	619.82	0.00
618.80	0.00	619.84	0.00
618.82	0.00	619.86	0.00
618.84	0.00	619.88	0.00
618.86	0.00	619.90	0.00
618.88	0.00	619.92	0.00
618.90	0.00	619.94	0.00
618.92	0.00	619.96	0.00
618.94	0.00	619.98	0.00
618.96	0.00	620.00	0.00
618.98	0.00	620.02	0.00
619.00	0.00	620.04	0.00
619.02	0.00	620.06	0.00
619.04	0.00	620.08	0.00
619.06	0.00	620.10	0.00
619.08	0.00	620.12	0.00
619.10	0.00	620.14	0.00
619.12	0.00	620.16	0.00
619.14	0.00	620.18	0.00
619.16	0.00	620.20	0.00
619.18	0.00	620.22	0.00
619.20	0.00	620.24	0.00
619.22	0.00	620.26	0.00
619.24	0.00	620.28	0.00
619.26	0.00	620.30	0.00
619.28	0.00	620.32	0.00
619.30	0.00	620.34	0.00
619.32	0.00	620.36	0.00
619.34	0.00	620.38	0.00
619.36	0.00	620.40	0.00
619.38	0.00	620.42	0.00
619.40	0.00	620.44	0.00
619.42	0.00	620.46	0.00
619.44	0.00	620.48	0.00
619.46	0.00	620.50	0.00
619.48	0.00	620.52	0.02
619.50	0.00	620.54	0.05
619.52	0.00	620.56	0.10

Stage-Area-Storage for Pond 5P: Basin C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
618.50	1,966	0	621.10	3,629	7,237
618.55	1,998	99	621.15	3,664	7,419
618.60	2,030	200	621.20	3,699	7,603
618.65	2,062	302	621.25	3,734	7,789
618.70	2,094	406	621.30	3,768	7,976
618.75	2,126	511	621.35	3,803	8,166
618.80	2,157	619	621.40	3,838	8,357
618.85	2,189	727	621.45	3,872	8,550
618.90	2,221	837	621.50	3,907	8,744
618.95	2,253	949			
619.00	2,285	1,063			
619.05	2,315	1,178			
619.10	2,346	1,294			
619.15	2,376	1,412			
619.20	2,406	1,532			
619.25	2,437	1,653			
619.30	2,467	1,776			
619.35	2,497	1,900			
619.40	2,528	2,025			
619.45	2,558	2,152			
619.50	2,589	2,281			
619.55	2,619	2,411			
619.60	2,649	2,543			
619.65	2,680	2,676			
619.70	2,710	2,811			
619.75	2,740	2,947			
619.80	2,771	3,085			
619.85	2,801	3,224			
619.90	2,831	3,365			
619.95	2,862	3,507			
620.00	2,892	3,651			
620.05	2,925	3,797			
620.10	2,958	3,944			
620.15	2,992	4,093			
620.20	3,026	4,243			
620.25	3,059	4,395			
620.30	3,092	4,549			
620.35	3,126	4,704			
620.40	3,159	4,861			
620.45	3,193	5,020			
620.50	3,226	5,181			
620.55	3,259	5,343			
620.60	3,293	5,507			
620.65	3,326	5,672			
620.70	3,360	5,839			
620.75	3,393	6,008			
620.80	3,426	6,179			
620.85	3,460	6,351			
620.90	3,493	6,525			
620.95	3,527	6,700			
621.00	3,560	6,877			
621.05	3,595	7,056			

Summary for Pond 6P: Basin D

Inflow Area = 0.422 ac, 13.06% Impervious, Inflow Depth = 2.86" for 10-Year event
Inflow = 1.15 cfs @ 12.18 hrs, Volume= 0.101 af
Outflow = 0.03 cfs @ 17.93 hrs, Volume= 0.019 af Atten= 97%, Lag= 345.2 min
Primary = 0.03 cfs @ 17.93 hrs, Volume= 0.019 af
Routed to Link 2L : Mt. Pleasant Ave.

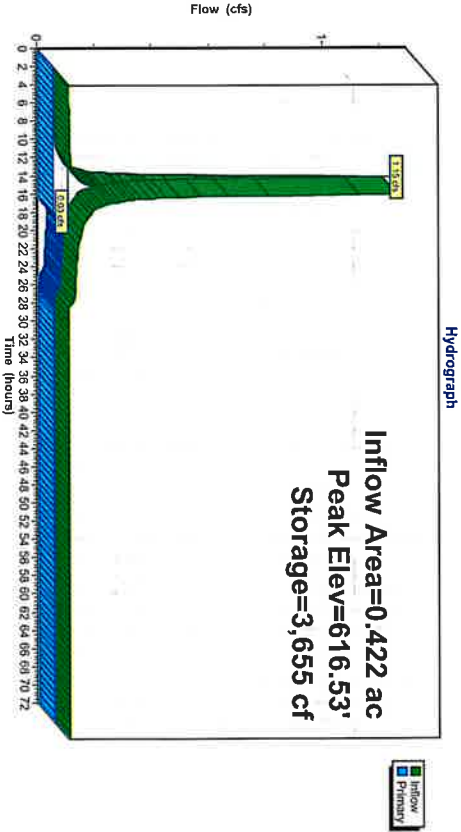
Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 616.53' @ 17.93 hrs Surf.Area= 2,853 sf Storage= 3,655 cf
Plug-Flow detention time= 601.9 min calculated for 0.019 af (18% of Inflow)
Center-of-Mass det. time= 401.0 min (1,228.4 - 827.4)

Volume Invert Avail. Storage Storage Description				
#1	615.00'	8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf. Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)	
615.00	1,951	0	0	
616.00	2,519	2,235	2,235	
617.00	3,150	2,835	5,070	
618.00	3,833	3,492	8,561	

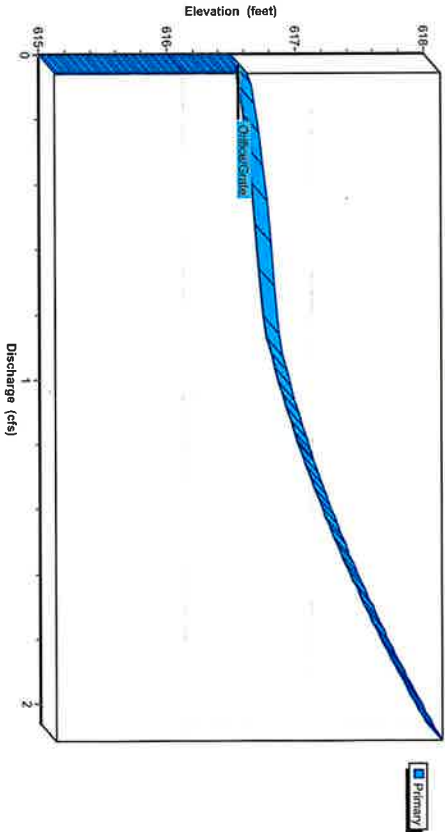
Device Routing			
#1	Primary	Invert 616.50'	Outlet Devices 8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary Outflow Max=0.03 cfs @ 17.93 hrs HW=616.53' (Free Discharge)
C-1=Orifice/Grate (Weir Controls 0.03 cfs @ 0.55 fps)

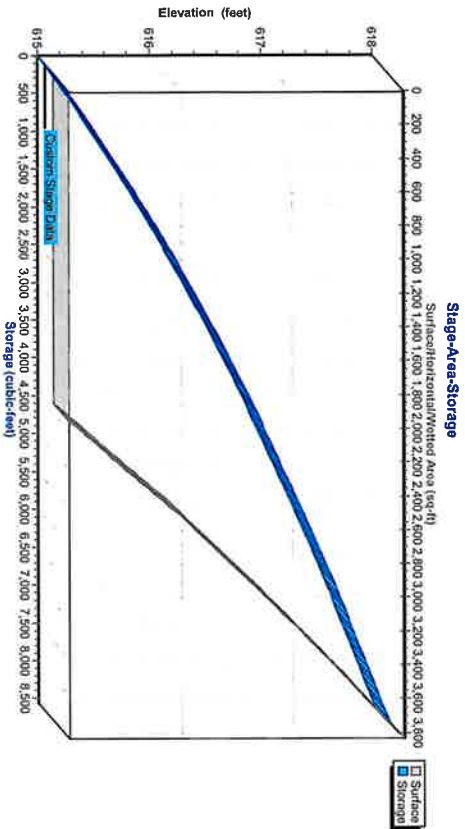
Pond 6P: Basin D



Pond 6P: Basin D



Pond 6P: Basin D



Hydrograph for Pond 6P: Basin D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	615.00	0.00
2.50	0.00	8	615.00	0.00
5.00	0.00	36	615.02	0.00
7.50	0.01	80	615.04	0.00
10.00	0.03	188	615.10	0.00
12.50	0.34	2,202	615.99	0.00
15.00	0.06	3,315	616.41	0.00
17.50	0.04	3,651	616.53	0.03
20.00	0.03	3,644	616.52	0.02
22.50	0.02	3,633	616.52	0.02
25.00	0.00	3,588	616.51	0.01
27.50	0.00	3,574	616.50	0.00
30.00	0.00	3,573	616.50	0.00
32.50	0.00	3,573	616.50	0.00
35.00	0.00	3,573	616.50	0.00
37.50	0.00	3,573	616.50	0.00
40.00	0.00	3,573	616.50	0.00
42.50	0.00	3,573	616.50	0.00
45.00	0.00	3,573	616.50	0.00
47.50	0.00	3,573	616.50	0.00
50.00	0.00	3,573	616.50	0.00
52.50	0.00	3,573	616.50	0.00
55.00	0.00	3,573	616.50	0.00
57.50	0.00	3,573	616.50	0.00
60.00	0.00	3,573	616.50	0.00
62.50	0.00	3,573	616.50	0.00
65.00	0.00	3,573	616.50	0.00
67.50	0.00	3,573	616.50	0.00
70.00	0.00	3,573	616.50	0.00

2022-07-28 Proposed Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"

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Stage-Discharge for Pond 6P: Basin D

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
615.00	0.00	616.04	0.00
615.02	0.00	616.06	0.00
615.04	0.00	616.08	0.00
615.06	0.00	616.10	0.00
615.08	0.00	616.12	0.00
615.10	0.00	616.14	0.00
615.12	0.00	616.16	0.00
615.14	0.00	616.18	0.00
615.16	0.00	616.20	0.00
615.18	0.00	616.22	0.00
615.20	0.00	616.24	0.00
615.22	0.00	616.26	0.00
615.24	0.00	616.28	0.00
615.26	0.00	616.30	0.00
615.28	0.00	616.32	0.00
615.30	0.00	616.34	0.00
615.32	0.00	616.36	0.00
615.34	0.00	616.38	0.00
615.36	0.00	616.40	0.00
615.38	0.00	616.42	0.00
615.40	0.00	616.44	0.00
615.42	0.00	616.46	0.00
615.44	0.00	616.48	0.00
615.46	0.00	616.50	0.00
615.48	0.00	616.52	0.02
615.50	0.00	616.54	0.05
615.52	0.00	616.56	0.10
615.54	0.00	616.58	0.15
615.56	0.00	616.60	0.22
615.58	0.00	616.62	0.28
615.60	0.00	616.64	0.36
615.62	0.00	616.66	0.44
615.64	0.00	616.68	0.52
615.66	0.00	616.70	0.61
615.68	0.00	616.72	0.71
615.70	0.00	616.74	0.81
615.72	0.00	616.76	0.86
615.74	0.00	616.78	0.89
615.76	0.00	616.80	0.92
615.78	0.00	616.82	0.95
615.80	0.00	616.84	0.98
615.82	0.00	616.86	1.01
615.84	0.00	616.88	1.04
615.86	0.00	616.90	1.06
615.88	0.00	616.92	1.09
615.90	0.00	616.94	1.11
615.92	0.00	616.96	1.14
615.94	0.00	616.98	1.16
615.96	0.00	617.00	1.19
615.98	0.00	617.02	1.21
616.00	0.00	617.04	1.24
616.02	0.00	617.06	1.26

2022-07-28 Proposed Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"

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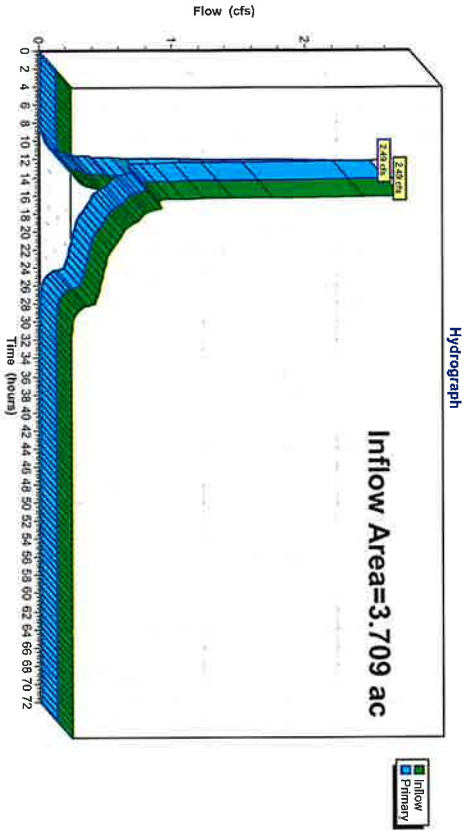
Stage-Area-Storage for Pond 6P: Basin D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
615.00	1,951	0	617.60	3,560	7,082
615.05	1,979	98	617.65	3,594	7,261
615.10	2,008	198	617.70	3,628	7,442
615.15	2,036	299	617.75	3,662	7,624
615.20	2,065	402	617.80	3,696	7,808
615.25	2,093	505	617.85	3,731	7,994
615.30	2,121	611	617.90	3,765	8,181
615.35	2,150	718	617.95	3,799	8,370
615.40	2,178	826	618.00	3,833	8,561
615.45	2,207	935			
615.50	2,235	1,047			
615.55	2,263	1,159			
615.60	2,292	1,273			
615.65	2,320	1,388			
615.70	2,349	1,505			
615.75	2,377	1,623			
615.80	2,405	1,743			
615.85	2,434	1,864			
615.90	2,462	1,986			
615.95	2,491	2,110			
616.00	2,519	2,235			
616.05	2,551	2,362			
616.10	2,582	2,490			
616.15	2,614	2,620			
616.20	2,645	2,751			
616.25	2,677	2,884			
616.30	2,708	3,019			
616.35	2,740	3,155			
616.40	2,771	3,293			
616.45	2,803	3,432			
616.50	2,835	3,573			
616.55	2,866	3,716			
616.60	2,898	3,860			
616.65	2,929	4,006			
616.70	2,961	4,153			
616.75	2,992	4,302			
616.80	3,024	4,452			
616.85	3,055	4,604			
616.90	3,087	4,758			
616.95	3,118	4,913			
617.00	3,150	5,070			
617.05	3,184	5,228			
617.10	3,216	5,388			
617.15	3,252	5,550			
617.20	3,287	5,713			
617.25	3,321	5,878			
617.30	3,355	6,045			
617.35	3,389	6,214			
617.40	3,423	6,384			
617.45	3,457	6,556			
617.50	3,492	6,730			
617.55	3,526	6,905			

Summary for Link 2L: Mt. Pleasant Ave.

Inflow Area = 3.709 ac, 11.17% Impervious, Inflow Depth = 1.46" for 10-Year event
Inflow = 2.49 cfs @ 12.18 hrs, Volume= 0.450 af
Primary = 2.49 cfs @ 12.18 hrs, Volume= 0.450 af, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 2L: Mt. Pleasant Ave.



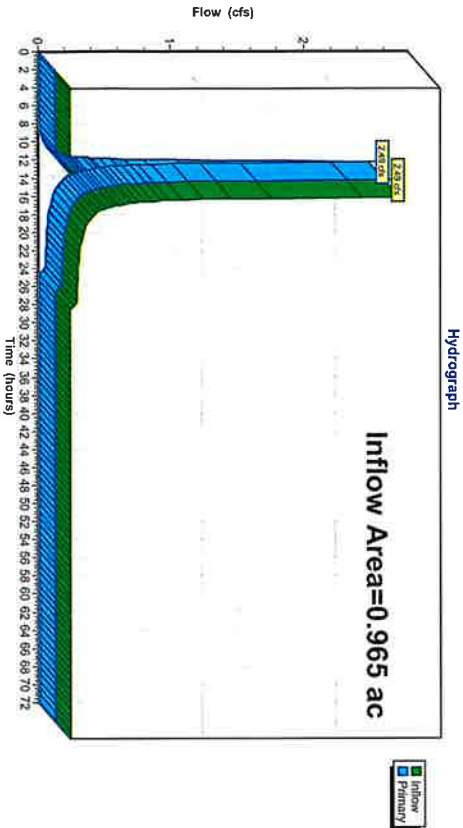
Hydrograph for Link 2L: Mt. Pleasant Ave.

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	57.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	58.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00	59.00	0.00	0.00	0.00
8.00	0.01	0.00	0.01	60.00	0.00	0.00	0.00
9.00	0.01	0.00	0.01	61.00	0.00	0.00	0.00
10.00	0.04	0.00	0.04	62.00	0.00	0.00	0.00
11.00	0.12	0.00	0.12	63.00	0.00	0.00	0.00
12.00	1.04	0.00	1.04	64.00	0.00	0.00	0.00
13.00	0.67	0.00	0.67	65.00	0.00	0.00	0.00
14.00	0.57	0.00	0.57	66.00	0.00	0.00	0.00
15.00	0.49	0.00	0.49	67.00	0.00	0.00	0.00
16.00	0.40	0.00	0.40	68.00	0.00	0.00	0.00
17.00	0.36	0.00	0.36	69.00	0.00	0.00	0.00
18.00	0.31	0.00	0.31	70.00	0.00	0.00	0.00
19.00	0.27	0.00	0.27	71.00	0.00	0.00	0.00
20.00	0.25	0.00	0.25	72.00	0.00	0.00	0.00
21.00	0.24	0.00	0.24				
22.00	0.22	0.00	0.22				
23.00	0.20	0.00	0.20				
24.00	0.19	0.00	0.19				
25.00	0.04	0.00	0.04				
26.00	0.01	0.00	0.01				
27.00	0.01	0.00	0.01				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

Summary for Link 3L: Mt. Pleasant Ave - Undetained

Inflow Area = 0.965 ac, 4.06% Impervious, Inflow Depth = 2.64" for 10-Year event
 Inflow = 2.49 cfs @ 12.18 hrs, Volume= 0.212 af
 Primary = 2.49 cfs @ 12.18 hrs, Volume= 0.212 af, Atten= 0%, Lag= 0.0 min
 Routed to Link 2L : Mt. Pleasant Ave.
 Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: Mt. Pleasant Ave - Undetained



2022-07-28 Proposed Hydrology

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NOAA 24-hr D 10-Year Rainfall=5.22"

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Hydrograph for Link 3L: Mt. Pleasant Ave - Undetained

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	57.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	58.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00	59.00	0.00	0.00	0.00
8.00	0.01	0.00	0.01	60.00	0.00	0.00	0.00
9.00	0.01	0.00	0.01	61.00	0.00	0.00	0.00
10.00	0.04	0.00	0.04	62.00	0.00	0.00	0.00
11.00	0.12	0.00	0.12	63.00	0.00	0.00	0.00
12.00	1.04	0.00	1.04	64.00	0.00	0.00	0.00
13.00	0.39	0.00	0.39	65.00	0.00	0.00	0.00
14.00	0.19	0.00	0.19	66.00	0.00	0.00	0.00
15.00	0.13	0.00	0.13	67.00	0.00	0.00	0.00
16.00	0.11	0.00	0.11	68.00	0.00	0.00	0.00
17.00	0.09	0.00	0.09	69.00	0.00	0.00	0.00
18.00	0.07	0.00	0.07	70.00	0.00	0.00	0.00
19.00	0.07	0.00	0.07	71.00	0.00	0.00	0.00
20.00	0.06	0.00	0.06	72.00	0.00	0.00	0.00
21.00	0.06	0.00	0.06				
22.00	0.05	0.00	0.05				
23.00	0.05	0.00	0.05				
24.00	0.05	0.00	0.05				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

2022-07-28 Proposed HydrologyPrepared by Dynamic Engineering
HydroCAD® 10.20.2d s/n 08640 © 2021 HydroCAD Software Solutions LLCNOAA 24-hr D 100-Year Rainfall=8.66"
Printed 8/5/2022
Page 107Time 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: Basin A - Imp.**Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=8.42"
Tc=10.0 min CN=98 Runoff=0.76 cfs 0.075 af**Subcatchment 3S: Basin A - Perv.**Runoff Area=24,500 sf 0.00% Impervious Runoff Depth=5.52"
Tc=10.0 min CN=74 Runoff=3.04 cfs 0.259 af**Subcatchment 4S: Basin B - Imp.**Runoff Area=4,648 sf 100.00% Impervious Runoff Depth=8.42"
Tc=10.0 min CN=98 Runoff=0.76 cfs 0.075 af**Subcatchment 5S: Basin B - Perv.**Runoff Area=31,571 sf 0.00% Impervious Runoff Depth=5.52"
Tc=10.0 min CN=74 Runoff=3.92 cfs 0.333 af**Subcatchment 7S: Basin C - Imp.**Runoff Area=4,635 sf 100.00% Impervious Runoff Depth=8.42"
Tc=10.0 min CN=98 Runoff=0.75 cfs 0.075 af**Subcatchment 8S: Basin C - Perv.**Runoff Area=31,149 sf 0.00% Impervious Runoff Depth=5.52"
Tc=10.0 min CN=74 Runoff=3.87 cfs 0.329 af**Subcatchment 9S: Mt. Pleasant Ave**Runoff Area=1,706 sf 100.00% Impervious Runoff Depth=8.42"
Tc=10.0 min CN=98 Runoff=0.28 cfs 0.027 af**Subcatchment 10S: Mt. Pleasant Ave**Runoff Area=40,319 sf 0.00% Impervious Runoff Depth=5.52"
Tc=10.0 min CN=74 Runoff=5.01 cfs 0.426 af**Subcatchment 11S: Basin D - Imp.**Runoff Area=2,400 sf 100.00% Impervious Runoff Depth=8.42"
Tc=10.0 min CN=98 Runoff=0.39 cfs 0.039 af**Subcatchment 12S: Basin D - Perv.**Runoff Area=15,983 sf 0.00% Impervious Runoff Depth=5.52"
Tc=10.0 min CN=74 Runoff=1.98 cfs 0.169 af**Pond 3P: Basin A**Peak Elev=626.67' Storage=7,334 cf Inflow=3.80 cfs 0.334 af
Outflow=0.77 cfs 0.217 af**Pond 4P: Basin B**Peak Elev=624.97' Storage=6,436 cf Inflow=4.67 cfs 0.408 af
Outflow=1.02 cfs 0.306 af**Pond 5P: Basin C**Peak Elev=621.26' Storage=7,839 cf Inflow=4.62 cfs 0.404 af
Outflow=1.47 cfs 0.285 af**Pond 6P: Basin D**Peak Elev=616.75' Storage=4,291 cf Inflow=2.37 cfs 0.207 af
Outflow=0.82 cfs 0.125 af**Link 2L: Mt. Pleasant Ave.**Inflow=7.51 cfs 1.387 af
Primary=7.51 cfs 1.387 af**Link 3L: Mt. Pleasant Ave - Undetained**Inflow=5.28 cfs 0.453 af
Primary=5.28 cfs 0.453 af**2022-07-28 Proposed Hydrology**Prepared by Dynamic Engineering
HydroCAD® 10.20.2d s/n 08640 © 2021 HydroCAD Software Solutions LLCNOAA 24-hr D 100-Year Rainfall=8.66"
Printed 8/5/2022
Page 108Total Runoff Area = 3,709 ac Runoff Volume = 1,806 af Average Runoff Depth = 5.84"
88.83% Pervious = 3,295 ac 11.17% Impervious = 0.414 ac

Summary for Subcatchment 1S: Basin A - Imp.

Runoff = 0.76 cfs @ 12.17 hrs, Volume= 0.075 af, Depth= 8.42"
 Routed to Pond 3P : Basin A

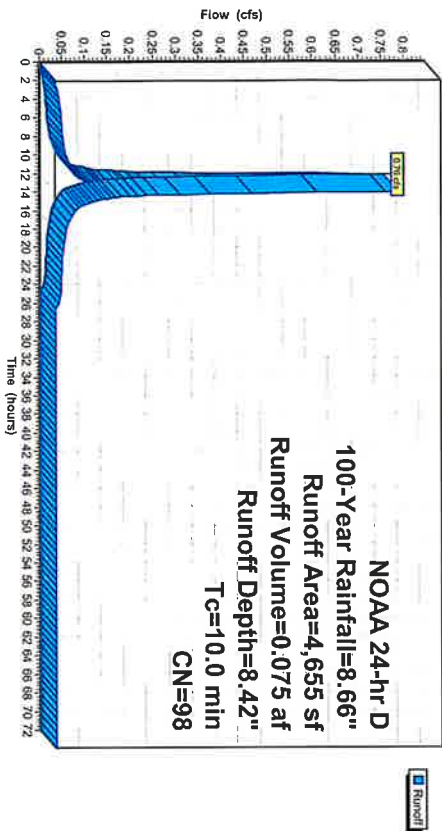
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description
4,655	98	Unconnected pavement, HSG C
4,655		100.00% Impervious Area
4,655		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 1S: Basin A - Imp.

Hydrograph



Hydrograph for Subcatchment 1S: Basin A - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	8.42	0.00
1.00	0.10	0.01	0.00	53.00	8.66	8.42	0.00
2.00	0.21	0.08	0.01	54.00	8.66	8.42	0.00
3.00	0.33	0.17	0.01	55.00	8.66	8.42	0.00
4.00	0.45	0.28	0.01	56.00	8.66	8.42	0.00
5.00	0.59	0.40	0.01	57.00	8.66	8.42	0.00
6.00	0.74	0.54	0.02	58.00	8.66	8.42	0.00
7.00	0.91	0.71	0.02	59.00	8.66	8.42	0.00
8.00	1.12	0.91	0.02	60.00	8.66	8.42	0.00
9.00	1.37	1.16	0.03	61.00	8.66	8.42	0.00
10.00	1.72	1.49	0.04	62.00	8.66	8.42	0.00
11.00	2.25	2.02	0.07	63.00	8.66	8.42	0.00
12.00	4.15	3.91	0.37	64.00	8.66	8.42	0.00
13.00	6.41	6.17	0.10	65.00	8.66	8.42	0.00
14.00	6.94	6.70	0.05	66.00	8.66	8.42	0.00
15.00	7.29	7.05	0.03	67.00	8.66	8.42	0.00
16.00	7.54	7.30	0.03	68.00	8.66	8.42	0.00
17.00	7.75	7.51	0.02	69.00	8.66	8.42	0.00
18.00	7.92	7.68	0.02	70.00	8.66	8.42	0.00
19.00	8.07	7.83	0.02	71.00	8.66	8.42	0.00
20.00	8.21	7.97	0.01	72.00	8.66	8.42	0.00
21.00	8.33	8.09	0.01				
22.00	8.45	8.21	0.01				
23.00	8.56	8.32	0.01				
24.00	8.66	8.42	0.01				
25.00	8.66	8.42	0.00				
26.00	8.66	8.42	0.00				
27.00	8.66	8.42	0.00				
28.00	8.66	8.42	0.00				
29.00	8.66	8.42	0.00				
30.00	8.66	8.42	0.00				
31.00	8.66	8.42	0.00				
32.00	8.66	8.42	0.00				
33.00	8.66	8.42	0.00				
34.00	8.66	8.42	0.00				
35.00	8.66	8.42	0.00				
36.00	8.66	8.42	0.00				
37.00	8.66	8.42	0.00				
38.00	8.66	8.42	0.00				
39.00	8.66	8.42	0.00				
40.00	8.66	8.42	0.00				
41.00	8.66	8.42	0.00				
42.00	8.66	8.42	0.00				
43.00	8.66	8.42	0.00				
44.00	8.66	8.42	0.00				
45.00	8.66	8.42	0.00				
46.00	8.66	8.42	0.00				
47.00	8.66	8.42	0.00				
48.00	8.66	8.42	0.00				
49.00	8.66	8.42	0.00				
50.00	8.66	8.42	0.00				
51.00	8.66	8.42	0.00				

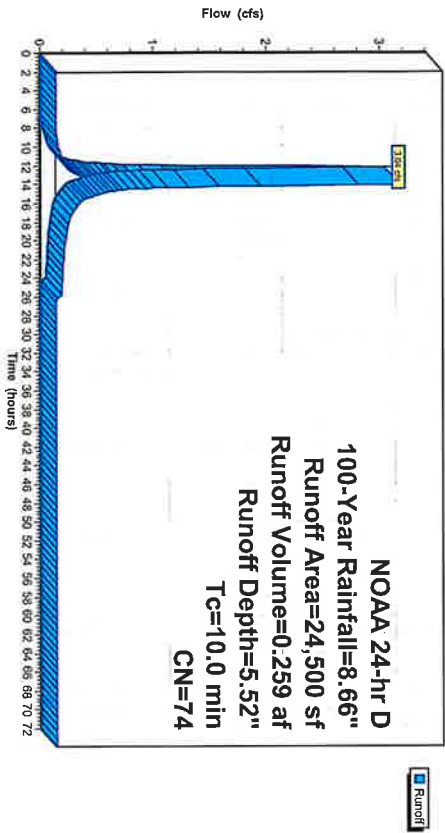
Summary for Subcatchment 3S: Basin A - Perv.

Runoff = 3.04 cfs @ 12.17 hrs. Volume= 0.259 af, Depth= 5.52"
Routed to Pond 3P : Basin A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description		
24,500	74	>75% Grass cover, Good, HSG C		
24,500		100.00% Pervious Area		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0				Direct Entry, Direct

Subcatchment 3S: Basin A - Perv.



Hydrograph for Subcatchment 3S: Basin A - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	5.52	0.00
1.00	0.10	0.00	0.00	53.00	8.66	5.52	0.00
2.00	0.21	0.00	0.00	54.00	8.66	5.52	0.00
3.00	0.33	0.00	0.00	55.00	8.66	5.52	0.00
4.00	0.45	0.00	0.00	56.00	8.66	5.52	0.00
5.00	0.59	0.00	0.00	57.00	8.66	5.52	0.00
6.00	0.74	0.00	0.00	58.00	8.66	5.52	0.00
7.00	0.91	0.01	0.01	59.00	8.66	5.52	0.00
8.00	1.12	0.05	0.02	60.00	8.66	5.52	0.00
9.00	1.37	0.11	0.04	61.00	8.66	5.52	0.00
10.00	1.72	0.23	0.08	62.00	8.66	5.52	0.00
11.00	2.25	0.47	0.19	63.00	8.66	5.52	0.00
12.00	4.15	1.71	1.36	64.00	8.66	5.52	0.00
13.00	6.41	3.53	0.44	65.00	8.66	5.52	0.00
14.00	6.94	3.99	0.21	66.00	8.66	5.52	0.00
15.00	7.29	4.29	0.15	67.00	8.66	5.52	0.00
16.00	7.54	4.51	0.12	68.00	8.66	5.52	0.00
17.00	7.75	4.70	0.10	69.00	8.66	5.52	0.00
18.00	7.92	4.85	0.08	70.00	8.66	5.52	0.00
19.00	8.07	4.99	0.07	71.00	8.66	5.52	0.00
20.00	8.21	5.11	0.07	72.00	8.66	5.52	0.00
21.00	8.33	5.23	0.06				
22.00	8.45	5.33	0.06				
23.00	8.56	5.43	0.05				
24.00	8.66	5.52	0.05				
25.00	8.66	5.52	0.00				
26.00	8.66	5.52	0.00				
27.00	8.66	5.52	0.00				
28.00	8.66	5.52	0.00				
29.00	8.66	5.52	0.00				
30.00	8.66	5.52	0.00				
31.00	8.66	5.52	0.00				
32.00	8.66	5.52	0.00				
33.00	8.66	5.52	0.00				
34.00	8.66	5.52	0.00				
35.00	8.66	5.52	0.00				
36.00	8.66	5.52	0.00				
37.00	8.66	5.52	0.00				
38.00	8.66	5.52	0.00				
39.00	8.66	5.52	0.00				
40.00	8.66	5.52	0.00				
41.00	8.66	5.52	0.00				
42.00	8.66	5.52	0.00				
43.00	8.66	5.52	0.00				
44.00	8.66	5.52	0.00				
45.00	8.66	5.52	0.00				
46.00	8.66	5.52	0.00				
47.00	8.66	5.52	0.00				
48.00	8.66	5.52	0.00				
49.00	8.66	5.52	0.00				
50.00	8.66	5.52	0.00				
51.00	8.66	5.52	0.00				

Summary for Subcatchment 4S: Basin B - Imp.

Runoff = 0.76 cfs @ 12.17 hrs. Volume= 0.075 af, Depth= 8.42"
Routed to Pond 4P : Basin B

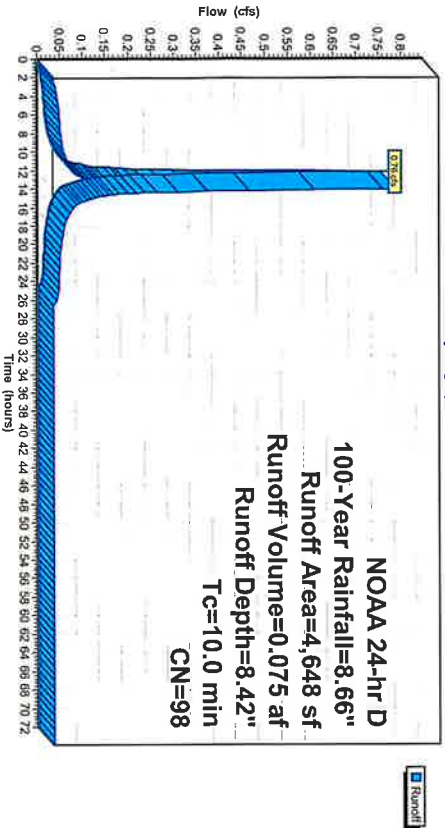
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description
4,648	98	Unconnected pavement, HSG C
4,648	100.00%	Impervious Area
4,648	100.00%	Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 4S: Basin B - Imp.

Hydrograph



Hydrograph for Subcatchment 4S: Basin B - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	8.42	0.00
1.00	0.10	0.01	0.00	53.00	8.66	8.42	0.00
2.00	0.21	0.08	0.01	54.00	8.66	8.42	0.00
3.00	0.33	0.17	0.01	55.00	8.66	8.42	0.00
4.00	0.45	0.28	0.01	56.00	8.66	8.42	0.00
5.00	0.59	0.40	0.01	57.00	8.66	8.42	0.00
6.00	0.74	0.54	0.02	58.00	8.66	8.42	0.00
7.00	0.91	0.71	0.02	59.00	8.66	8.42	0.00
8.00	1.12	0.91	0.02	60.00	8.66	8.42	0.00
9.00	1.37	1.16	0.03	61.00	8.66	8.42	0.00
10.00	1.72	1.49	0.04	62.00	8.66	8.42	0.00
11.00	2.25	2.02	0.07	63.00	8.66	8.42	0.00
12.00	4.15	3.91	0.37	64.00	8.66	8.42	0.00
13.00	6.41	6.17	0.10	65.00	8.66	8.42	0.00
14.00	6.94	6.70	0.05	66.00	8.66	8.42	0.00
15.00	7.29	7.05	0.03	67.00	8.66	8.42	0.00
16.00	7.54	7.30	0.03	68.00	8.66	8.42	0.00
17.00	7.75	7.51	0.02	69.00	8.66	8.42	0.00
18.00	7.92	7.68	0.02	70.00	8.66	8.42	0.00
19.00	8.07	7.83	0.02	71.00	8.66	8.42	0.00
20.00	8.21	7.97	0.01	72.00	8.66	8.42	0.00
21.00	8.33	8.09	0.01				
22.00	8.45	8.21	0.01				
23.00	8.56	8.32	0.01				
24.00	8.66	8.42	0.01				
25.00	8.66	8.42	0.00				
26.00	8.66	8.42	0.00				
27.00	8.66	8.42	0.00				
28.00	8.66	8.42	0.00				
29.00	8.66	8.42	0.00				
30.00	8.66	8.42	0.00				
31.00	8.66	8.42	0.00				
32.00	8.66	8.42	0.00				
33.00	8.66	8.42	0.00				
34.00	8.66	8.42	0.00				
35.00	8.66	8.42	0.00				
36.00	8.66	8.42	0.00				
37.00	8.66	8.42	0.00				
38.00	8.66	8.42	0.00				
39.00	8.66	8.42	0.00				
40.00	8.66	8.42	0.00				
41.00	8.66	8.42	0.00				
42.00	8.66	8.42	0.00				
43.00	8.66	8.42	0.00				
44.00	8.66	8.42	0.00				
45.00	8.66	8.42	0.00				
46.00	8.66	8.42	0.00				
47.00	8.66	8.42	0.00				
48.00	8.66	8.42	0.00				
49.00	8.66	8.42	0.00				
50.00	8.66	8.42	0.00				
51.00	8.66	8.42	0.00				

Summary for Subcatchment 5S: Basin B - Perv.

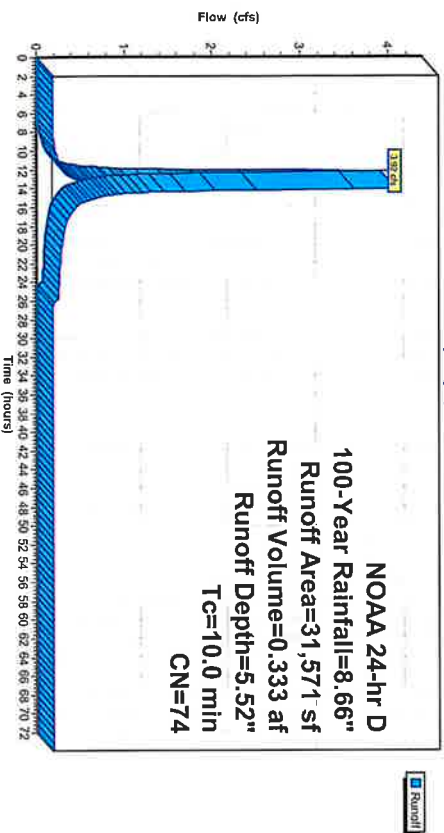
Runoff = 3.92 cfs @ 12.17 hrs, Volume= 0.333 af, Depth= 5.52"
 Routed to Pond 4P : Basin B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)					CN	Description
31,571					74	>75% Grass cover, Good, HSG C
31,571						100.00% Pervious Area
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
10.0					Direct Entry, Direct	

Subcatchment 5S: Basin B - Perv.

Hydrograph



Hydrograph for Subcatchment 5S: Basin B - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	5.52	0.00
1.00	0.10	0.00	0.00	53.00	8.66	5.52	0.00
2.00	0.21	0.00	0.00	54.00	8.66	5.52	0.00
3.00	0.33	0.00	0.00	55.00	8.66	5.52	0.00
4.00	0.45	0.00	0.00	56.00	8.66	5.52	0.00
5.00	0.59	0.00	0.00	57.00	8.66	5.52	0.00
6.00	0.74	0.00	0.00	58.00	8.66	5.52	0.00
7.00	0.91	0.01	0.01	59.00	8.66	5.52	0.00
8.00	1.12	0.05	0.03	60.00	8.66	5.52	0.00
9.00	1.37	0.11	0.05	61.00	8.66	5.52	0.00
10.00	1.72	0.23	0.11	62.00	8.66	5.52	0.00
11.00	2.25	0.47	0.24	63.00	8.66	5.52	0.00
12.00	4.15	1.71	1.75	64.00	8.66	5.52	0.00
13.00	6.41	3.53	0.56	65.00	8.66	5.52	0.00
14.00	6.94	3.99	0.27	66.00	8.66	5.52	0.00
15.00	7.29	4.29	0.19	67.00	8.66	5.52	0.00
16.00	7.54	4.51	0.15	68.00	8.66	5.52	0.00
17.00	7.75	4.70	0.13	69.00	8.66	5.52	0.00
18.00	7.92	4.85	0.10	70.00	8.66	5.52	0.00
19.00	8.07	4.99	0.09	71.00	8.66	5.52	0.00
20.00	8.21	5.11	0.09	72.00	8.66	5.52	0.00
21.00	8.33	5.23	0.08				
22.00	8.45	5.33	0.08				
23.00	8.56	5.43	0.07				
24.00	8.66	5.52	0.06				
25.00	8.66	5.52	0.00				
26.00	8.66	5.52	0.00				
27.00	8.66	5.52	0.00				
28.00	8.66	5.52	0.00				
29.00	8.66	5.52	0.00				
30.00	8.66	5.52	0.00				
31.00	8.66	5.52	0.00				
32.00	8.66	5.52	0.00				
33.00	8.66	5.52	0.00				
34.00	8.66	5.52	0.00				
35.00	8.66	5.52	0.00				
36.00	8.66	5.52	0.00				
37.00	8.66	5.52	0.00				
38.00	8.66	5.52	0.00				
39.00	8.66	5.52	0.00				
40.00	8.66	5.52	0.00				
41.00	8.66	5.52	0.00				
42.00	8.66	5.52	0.00				
43.00	8.66	5.52	0.00				
44.00	8.66	5.52	0.00				
45.00	8.66	5.52	0.00				
46.00	8.66	5.52	0.00				
47.00	8.66	5.52	0.00				
48.00	8.66	5.52	0.00				
49.00	8.66	5.52	0.00				
50.00	8.66	5.52	0.00				
51.00	8.66	5.52	0.00				

Summary for Subcatchment 7S: Basin C - Imp.

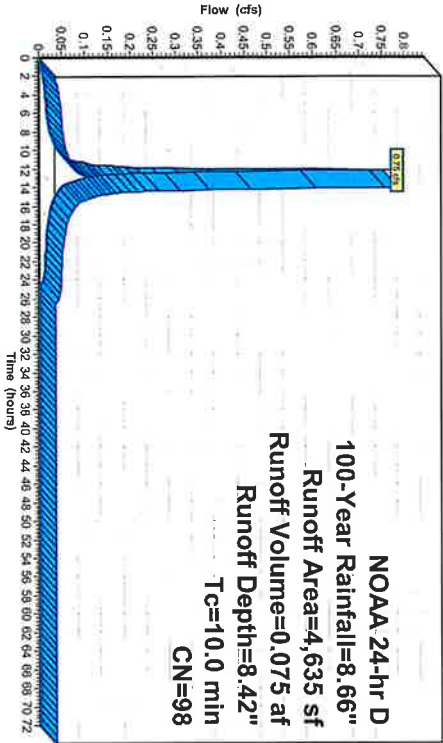
Runoff = 0.75 cfs @ 12.17 hrs, Volume= 0.075 af, Depth= 8.42"
Routed to Pond SP : Basin C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description			
4,635	98	Unconnected pavement HSG C			
4,635		100.00% Impervious Area			
4,635		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description

Subcatchment 7S: Basin C - Imp.

Hydrograph



Hydrograph for Subcatchment 7S: Basin C - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	8.42	0.00
1.00	0.10	0.01	0.00	53.00	8.66	8.42	0.00
2.00	0.21	0.08	0.01	54.00	8.66	8.42	0.00
3.00	0.33	0.17	0.01	55.00	8.66	8.42	0.00
4.00	0.45	0.28	0.01	56.00	8.66	8.42	0.00
5.00	0.59	0.40	0.01	57.00	8.66	8.42	0.00
6.00	0.74	0.54	0.02	58.00	8.66	8.42	0.00
7.00	0.91	0.71	0.02	59.00	8.66	8.42	0.00
8.00	1.12	0.91	0.02	60.00	8.66	8.42	0.00
9.00	1.37	1.16	0.03	61.00	8.66	8.42	0.00
10.00	1.72	1.49	0.04	62.00	8.66	8.42	0.00
11.00	2.25	2.02	0.07	63.00	8.66	8.42	0.00
12.00	4.15	3.91	0.37	64.00	8.66	8.42	0.00
13.00	6.41	6.17	0.10	65.00	8.66	8.42	0.00
14.00	6.94	6.70	0.05	66.00	8.66	8.42	0.00
15.00	7.29	7.05	0.03	67.00	8.66	8.42	0.00
16.00	7.54	7.30	0.03	68.00	8.66	8.42	0.00
17.00	7.75	7.51	0.02	69.00	8.66	8.42	0.00
18.00	7.92	7.68	0.02	70.00	8.66	8.42	0.00
19.00	8.07	7.83	0.02	71.00	8.66	8.42	0.00
20.00	8.21	7.97	0.01	72.00	8.66	8.42	0.00
21.00	8.33	8.09	0.01				
22.00	8.45	8.21	0.01				
23.00	8.56	8.32	0.01				
24.00	8.66	8.42	0.01				
25.00	8.66	8.42	0.00				
26.00	8.66	8.42	0.00				
27.00	8.66	8.42	0.00				
28.00	8.66	8.42	0.00				
29.00	8.66	8.42	0.00				
30.00	8.66	8.42	0.00				
31.00	8.66	8.42	0.00				
32.00	8.66	8.42	0.00				
33.00	8.66	8.42	0.00				
34.00	8.66	8.42	0.00				
35.00	8.66	8.42	0.00				
36.00	8.66	8.42	0.00				
37.00	8.66	8.42	0.00				
38.00	8.66	8.42	0.00				
39.00	8.66	8.42	0.00				
40.00	8.66	8.42	0.00				
41.00	8.66	8.42	0.00				
42.00	8.66	8.42	0.00				
43.00	8.66	8.42	0.00				
44.00	8.66	8.42	0.00				
45.00	8.66	8.42	0.00				
46.00	8.66	8.42	0.00				
47.00	8.66	8.42	0.00				
48.00	8.66	8.42	0.00				
49.00	8.66	8.42	0.00				
50.00	8.66	8.42	0.00				
51.00	8.66	8.42	0.00				

Summary for Subcatchment 8S: Basin C - Perv.

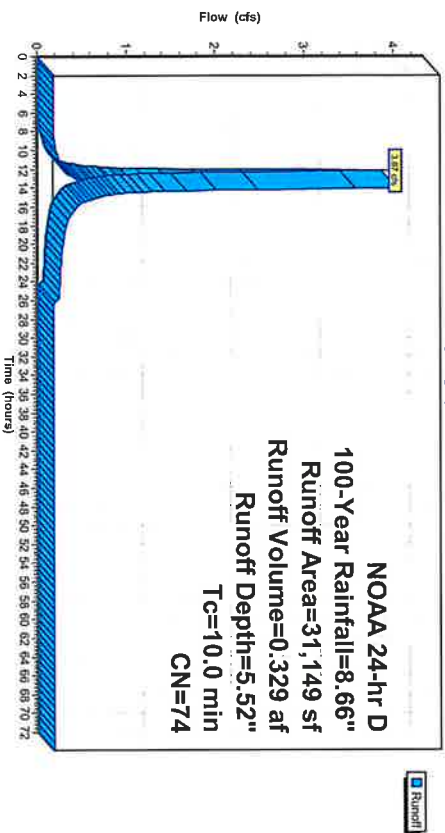
Runoff = 3.87 cfs @ 12.17 hrs, Volume= 0.329 af, Depth= 5.52"
 Routed to Pond SP : Basin C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description		
31,149	74	>75% Grass cover, Good, HSG C		
31,149		100.00% Pervious Area		
Tc Length (min)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0				Direct Entry, Direct

Subcatchment 8S: Basin C - Perv.

Hydrograph



Hydrograph for Subcatchment 8S: Basin C - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	5.52	0.00
1.00	0.10	0.00	0.00	53.00	8.66	5.52	0.00
2.00	0.21	0.00	0.00	54.00	8.66	5.52	0.00
3.00	0.33	0.00	0.00	55.00	8.66	5.52	0.00
4.00	0.45	0.00	0.00	56.00	8.66	5.52	0.00
5.00	0.59	0.00	0.00	57.00	8.66	5.52	0.00
6.00	0.74	0.00	0.00	58.00	8.66	5.52	0.00
7.00	0.91	0.01	0.01	59.00	8.66	5.52	0.00
8.00	1.12	0.06	0.03	60.00	8.66	5.52	0.00
9.00	1.37	0.11	0.05	61.00	8.66	5.52	0.00
10.00	1.72	0.23	0.11	62.00	8.66	5.52	0.00
11.00	2.25	0.47	0.24	63.00	8.66	5.52	0.00
12.00	4.15	1.71	1.72	64.00	8.66	5.52	0.00
13.00	6.41	3.53	0.55	65.00	8.66	5.52	0.00
14.00	6.94	3.99	0.27	66.00	8.66	5.52	0.00
15.00	7.29	4.29	0.19	67.00	8.66	5.52	0.00
16.00	7.54	4.51	0.15	68.00	8.66	5.52	0.00
17.00	7.75	4.70	0.13	69.00	8.66	5.52	0.00
18.00	7.92	4.85	0.10	70.00	8.66	5.52	0.00
19.00	8.07	4.99	0.09	71.00	8.66	5.52	0.00
20.00	8.21	5.11	0.09	72.00	8.66	5.52	0.00
21.00	8.33	5.23	0.08				
22.00	8.45	5.33	0.07				
23.00	8.56	5.43	0.07				
24.00	8.66	5.52	0.06				
25.00	8.66	5.52	0.00				
26.00	8.66	5.52	0.00				
27.00	8.66	5.52	0.00				
28.00	8.66	5.52	0.00				
29.00	8.66	5.52	0.00				
30.00	8.66	5.52	0.00				
31.00	8.66	5.52	0.00				
32.00	8.66	5.52	0.00				
33.00	8.66	5.52	0.00				
34.00	8.66	5.52	0.00				
35.00	8.66	5.52	0.00				
36.00	8.66	5.52	0.00				
37.00	8.66	5.52	0.00				
38.00	8.66	5.52	0.00				
39.00	8.66	5.52	0.00				
40.00	8.66	5.52	0.00				
41.00	8.66	5.52	0.00				
42.00	8.66	5.52	0.00				
43.00	8.66	5.52	0.00				
44.00	8.66	5.52	0.00				
45.00	8.66	5.52	0.00				
46.00	8.66	5.52	0.00				
47.00	8.66	5.52	0.00				
48.00	8.66	5.52	0.00				
49.00	8.66	5.52	0.00				
50.00	8.66	5.52	0.00				
51.00	8.66	5.52	0.00				

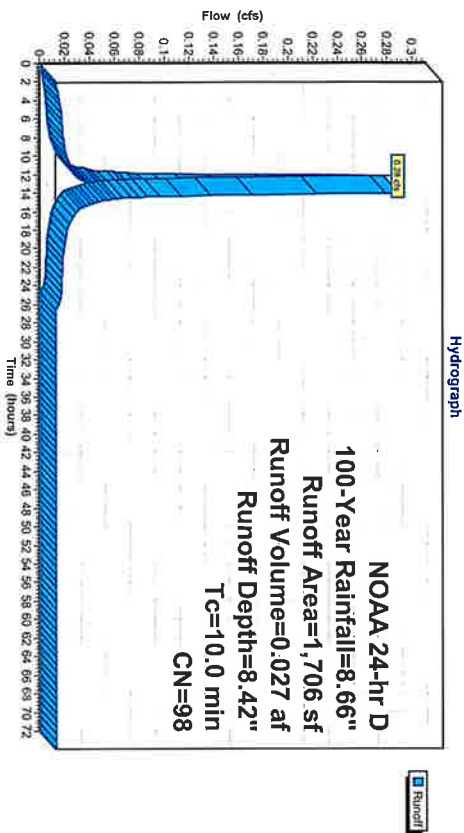
Summary for Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.

Runoff = 0.28 cfs @ 12.17 hrs, Volume= 0.027 af, Depth= 8.42"
 Routed to Link 3L : Mt. Pleasant Ave - Undetained

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description			
1,085	98	Unconnected pavement, HSG C			
621	98	Unconnected pavement, HSG D			
1,706	98	Weighted Average			
1,706		100.00% Impervious Area			
1,706		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.



Hydrograph for Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	8.42	0.00
1.00	0.10	0.01	0.00	53.00	8.66	8.42	0.00
2.00	0.21	0.08	0.00	54.00	8.66	8.42	0.00
3.00	0.33	0.17	0.00	55.00	8.66	8.42	0.00
4.00	0.45	0.28	0.00	56.00	8.66	8.42	0.00
5.00	0.59	0.40	0.01	57.00	8.66	8.42	0.00
6.00	0.74	0.54	0.01	58.00	8.66	8.42	0.00
7.00	0.91	0.71	0.01	59.00	8.66	8.42	0.00
8.00	1.12	0.91	0.01	60.00	8.66	8.42	0.00
9.00	1.37	1.16	0.01	61.00	8.66	8.42	0.00
10.00	1.72	1.49	0.02	62.00	8.66	8.42	0.00
11.00	2.25	2.02	0.03	63.00	8.66	8.42	0.00
12.00	4.15	3.91	0.14	64.00	8.66	8.42	0.00
13.00	6.41	6.17	0.04	65.00	8.66	8.42	0.00
14.00	6.94	6.70	0.02	66.00	8.66	8.42	0.00
15.00	7.29	7.05	0.01	67.00	8.66	8.42	0.00
16.00	7.54	7.30	0.01	68.00	8.66	8.42	0.00
17.00	7.75	7.51	0.01	69.00	8.66	8.42	0.00
18.00	7.92	7.68	0.01	70.00	8.66	8.42	0.00
19.00	8.07	7.83	0.01	71.00	8.66	8.42	0.00
20.00	8.21	7.97	0.01	72.00	8.66	8.42	0.00
21.00	8.33	8.09	0.00				
22.00	8.45	8.21	0.00				
23.00	8.56	8.32	0.00				
24.00	8.66	8.42	0.00				
25.00	8.66	8.42	0.00				
26.00	8.66	8.42	0.00				
27.00	8.66	8.42	0.00				
28.00	8.66	8.42	0.00				
29.00	8.66	8.42	0.00				
30.00	8.66	8.42	0.00				
31.00	8.66	8.42	0.00				
32.00	8.66	8.42	0.00				
33.00	8.66	8.42	0.00				
34.00	8.66	8.42	0.00				
35.00	8.66	8.42	0.00				
36.00	8.66	8.42	0.00				
37.00	8.66	8.42	0.00				
38.00	8.66	8.42	0.00				
39.00	8.66	8.42	0.00				
40.00	8.66	8.42	0.00				
41.00	8.66	8.42	0.00				
42.00	8.66	8.42	0.00				
43.00	8.66	8.42	0.00				
44.00	8.66	8.42	0.00				
45.00	8.66	8.42	0.00				
46.00	8.66	8.42	0.00				
47.00	8.66	8.42	0.00				
48.00	8.66	8.42	0.00				
49.00	8.66	8.42	0.00				
50.00	8.66	8.42	0.00				
51.00	8.66	8.42	0.00				

Summary for Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

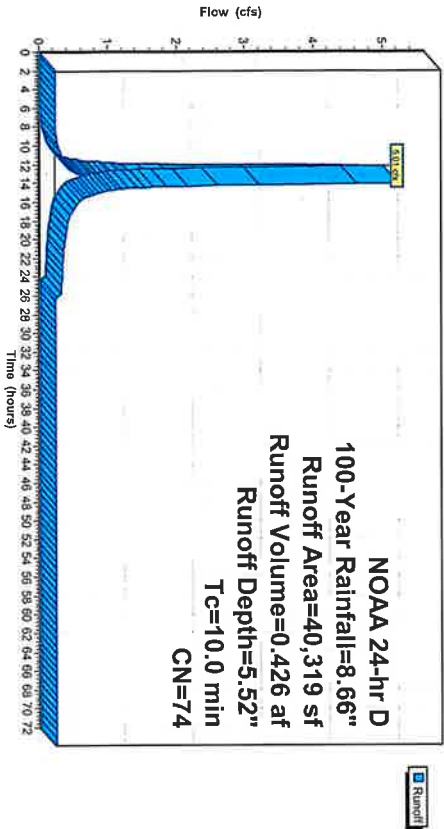
Runoff = 5.01 cfs @ 12.17 hrs, Volume= 0.426 af, Depth= 5.52"
Routed to Link 3L : Mt. Pleasant Ave - Undetained

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)		CN	Description		
38,200		74	>75% Grass cover, Good, HSG C		
2,119		80	>75% Grass cover, Good, HSG D		
40,319		74	Weighted Average		
40,319			100.00% Pervious Area		
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

Hydrograph



2022-07-28 Proposed Hydrology				NOAA 24-hr D 100-Year Rainfall=8.66"			
Prepared by Dynamic Engineering				Printed 8/5/2022			
HydroCAD® 10.20.24 s/n 08640 © 2021 HydroCAD Software Solutions LLC				Page 124			
Hydrograph for Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.							
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	5.52	0.00
1.00	0.10	0.00	0.00	53.00	8.66	5.52	0.00
2.00	0.21	0.00	0.00	54.00	8.66	5.52	0.00
3.00	0.33	0.00	0.00	55.00	8.66	5.52	0.00
4.00	0.45	0.00	0.00	56.00	8.66	5.52	0.00
5.00	0.59	0.00	0.00	57.00	8.66	5.52	0.00
6.00	0.74	0.00	0.00	58.00	8.66	5.52	0.00
7.00	0.91	0.01	0.02	59.00	8.66	5.52	0.00
8.00	1.12	0.05	0.04	60.00	8.66	5.52	0.00
9.00	1.37	0.11	0.07	61.00	8.66	5.52	0.00
10.00	1.72	0.23	0.14	62.00	8.66	5.52	0.00
11.00	2.25	0.47	0.31	63.00	8.66	5.52	0.00
12.00	4.15	1.71	2.23	64.00	8.66	5.52	0.00
13.00	6.41	3.53	0.72	65.00	8.66	5.52	0.00
14.00	6.94	3.99	0.35	66.00	8.66	5.52	0.00
15.00	7.29	4.29	0.24	67.00	8.66	5.52	0.00
16.00	7.54	4.51	0.20	68.00	8.66	5.52	0.00
17.00	7.75	4.70	0.16	69.00	8.66	5.52	0.00
18.00	7.92	4.85	0.13	70.00	8.66	5.52	0.00
19.00	8.07	4.99	0.12	71.00	8.66	5.52	0.00
20.00	8.21	5.11	0.11	72.00	8.66	5.52	0.00
21.00	8.33	5.23	0.10				
22.00	8.45	5.33	0.10				
23.00	8.56	5.43	0.09				
24.00	8.66	5.52	0.08				
25.00	8.66	5.52	0.00				
26.00	8.66	5.52	0.00				
27.00	8.66	5.52	0.00				
28.00	8.66	5.52	0.00				
29.00	8.66	5.52	0.00				
30.00	8.66	5.52	0.00				
31.00	8.66	5.52	0.00				
32.00	8.66	5.52	0.00				
33.00	8.66	5.52	0.00				
34.00	8.66	5.52	0.00				
35.00	8.66	5.52	0.00				
36.00	8.66	5.52	0.00				
37.00	8.66	5.52	0.00				
38.00	8.66	5.52	0.00				
39.00	8.66	5.52	0.00				
40.00	8.66	5.52	0.00				
41.00	8.66	5.52	0.00				
42.00	8.66	5.52	0.00				
43.00	8.66	5.52	0.00				
44.00	8.66	5.52	0.00				
45.00	8.66	5.52	0.00				
46.00	8.66	5.52	0.00				
47.00	8.66	5.52	0.00				
48.00	8.66	5.52	0.00				
49.00	8.66	5.52	0.00				
50.00	8.66	5.52	0.00				
51.00	8.66	5.52	0.00				

Summary for Subcatchment 11S: Basin D - Imp.

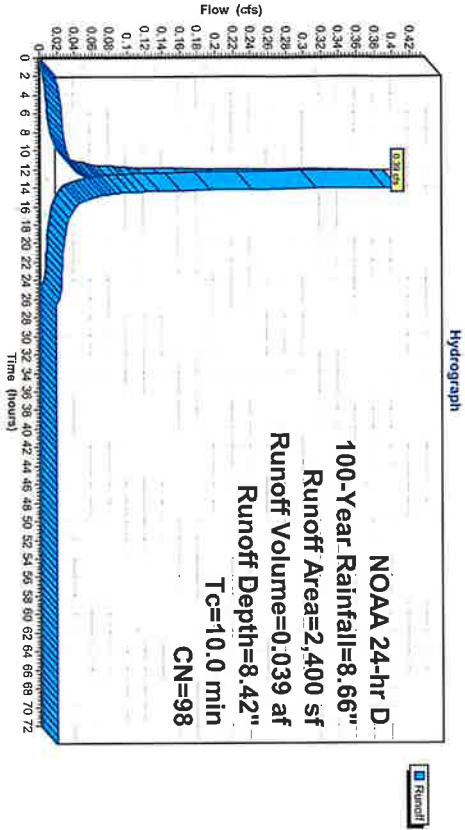
Runoff = 0.39 cfs @ 12.17 hrs, Volume= 0.039 af, Depth= 8.42"
Routed to Pond 6P : Basin D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description
2,400	98	Unconnected pavement, HSG C
2,400		100.00% Impervious Area
2,400		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 11S: Basin D - Imp.



Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	8.42	0.00
1.00	0.10	0.01	0.00	53.00	8.66	8.42	0.00
2.00	0.21	0.08	0.00	54.00	8.66	8.42	0.00
3.00	0.33	0.17	0.01	55.00	8.66	8.42	0.00
4.00	0.45	0.28	0.01	56.00	8.66	8.42	0.00
5.00	0.59	0.40	0.01	57.00	8.66	8.42	0.00
6.00	0.74	0.54	0.01	58.00	8.66	8.42	0.00
7.00	0.91	0.71	0.01	59.00	8.66	8.42	0.00
8.00	1.12	0.91	0.01	60.00	8.66	8.42	0.00
9.00	1.37	1.16	0.01	61.00	8.66	8.42	0.00
10.00	1.72	1.49	0.02	62.00	8.66	8.42	0.00
11.00	2.25	2.02	0.04	63.00	8.66	8.42	0.00
12.00	4.15	3.91	0.19	64.00	8.66	8.42	0.00
13.00	6.41	6.17	0.05	65.00	8.66	8.42	0.00
14.00	6.94	6.70	0.02	66.00	8.66	8.42	0.00
15.00	7.29	7.05	0.02	67.00	8.66	8.42	0.00
16.00	7.54	7.30	0.01	68.00	8.66	8.42	0.00
17.00	7.75	7.51	0.01	69.00	8.66	8.42	0.00
18.00	7.92	7.68	0.01	70.00	8.66	8.42	0.00
19.00	8.07	7.83	0.01	71.00	8.66	8.42	0.00
20.00	8.21	7.97	0.01	72.00	8.66	8.42	0.00
21.00	8.33	8.09	0.01				
22.00	8.45	8.21	0.01				
23.00	8.56	8.32	0.01				
24.00	8.66	8.42	0.01				
25.00	8.66	8.42	0.00				
26.00	8.66	8.42	0.00				
27.00	8.66	8.42	0.00				
28.00	8.66	8.42	0.00				
29.00	8.66	8.42	0.00				
30.00	8.66	8.42	0.00				
31.00	8.66	8.42	0.00				
32.00	8.66	8.42	0.00				
33.00	8.66	8.42	0.00				
34.00	8.66	8.42	0.00				
35.00	8.66	8.42	0.00				
36.00	8.66	8.42	0.00				
37.00	8.66	8.42	0.00				
38.00	8.66	8.42	0.00				
39.00	8.66	8.42	0.00				
40.00	8.66	8.42	0.00				
41.00	8.66	8.42	0.00				
42.00	8.66	8.42	0.00				
43.00	8.66	8.42	0.00				
44.00	8.66	8.42	0.00				
45.00	8.66	8.42	0.00				
46.00	8.66	8.42	0.00				
47.00	8.66	8.42	0.00				
48.00	8.66	8.42	0.00				
49.00	8.66	8.42	0.00				
50.00	8.66	8.42	0.00				
51.00	8.66	8.42	0.00				

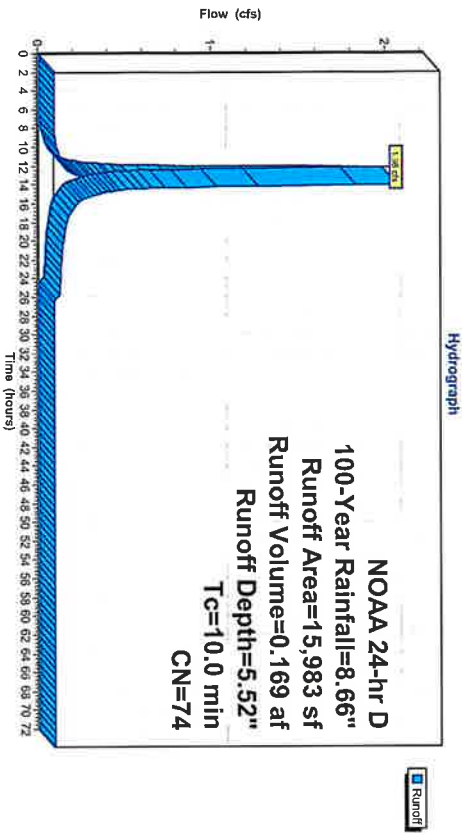
Summary for Subcatchment 12S: Basin D - Perv.

Runoff = 1.98 cfs @ 12.17 hrs, Volume= 0.169 af, Depth= 5.52"
 Routed to Pond 6P : Basin D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100-Year Rainfall=8.66"

Area (sf)	CN	Description			
15,983	74	>75% Grass cover, Good, HSG C			
15,983		100.00% Pervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 12S: Basin D - Perv.



Hydrograph for Subcatchment 12S: Basin D - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	8.66	5.52	0.00
1.00	0.10	0.00	0.00	53.00	8.66	5.52	0.00
2.00	0.21	0.00	0.00	54.00	8.66	5.52	0.00
3.00	0.33	0.00	0.00	55.00	8.66	5.52	0.00
4.00	0.45	0.00	0.00	56.00	8.66	5.52	0.00
5.00	0.59	0.00	0.00	57.00	8.66	5.52	0.00
6.00	0.74	0.00	0.00	58.00	8.66	5.52	0.00
7.00	0.91	0.01	0.01	59.00	8.66	5.52	0.00
8.00	1.12	0.05	0.02	60.00	8.66	5.52	0.00
9.00	1.37	0.11	0.03	61.00	8.66	5.52	0.00
10.00	1.72	0.23	0.06	62.00	8.66	5.52	0.00
11.00	2.25	0.47	0.12	63.00	8.66	5.52	0.00
12.00	4.15	1.71	0.88	64.00	8.66	5.52	0.00
13.00	6.41	3.53	0.28	65.00	8.66	5.52	0.00
14.00	6.94	3.99	0.14	66.00	8.66	5.52	0.00
15.00	7.29	4.29	0.10	67.00	8.66	5.52	0.00
16.00	7.54	4.51	0.08	68.00	8.66	5.52	0.00
17.00	7.75	4.70	0.07	69.00	8.66	5.52	0.00
18.00	7.92	4.85	0.05	70.00	8.66	5.52	0.00
19.00	8.07	4.99	0.05	71.00	8.66	5.52	0.00
20.00	8.21	5.11	0.04	72.00	8.66	5.52	0.00
21.00	8.33	5.23	0.04				
22.00	8.45	5.33	0.04				
23.00	8.56	5.43	0.04				
24.00	8.66	5.52	0.03				
25.00	8.66	5.52	0.00				
26.00	8.66	5.52	0.00				
27.00	8.66	5.52	0.00				
28.00	8.66	5.52	0.00				
29.00	8.66	5.52	0.00				
30.00	8.66	5.52	0.00				
31.00	8.66	5.52	0.00				
32.00	8.66	5.52	0.00				
33.00	8.66	5.52	0.00				
34.00	8.66	5.52	0.00				
35.00	8.66	5.52	0.00				
36.00	8.66	5.52	0.00				
37.00	8.66	5.52	0.00				
38.00	8.66	5.52	0.00				
39.00	8.66	5.52	0.00				
40.00	8.66	5.52	0.00				
41.00	8.66	5.52	0.00				
42.00	8.66	5.52	0.00				
43.00	8.66	5.52	0.00				
44.00	8.66	5.52	0.00				
45.00	8.66	5.52	0.00				
46.00	8.66	5.52	0.00				
47.00	8.66	5.52	0.00				
48.00	8.66	5.52	0.00				
49.00	8.66	5.52	0.00				
50.00	8.66	5.52	0.00				
51.00	8.66	5.52	0.00				

Summary for Pond 3P: Basin A

Inflow Area = 0.669 ac, 15.97% impervious, Inflow Depth = 5.98" for 100-Year event
Inflow = 3.80 cfs @ 12.17 hrs, Volume= 0.334 af
Outflow = 0.77 cfs @ 12.67 hrs, Volume= 0.217 af, Atten= 80%, Lag= 29.7 min
Primary = 0.77 cfs @ 12.67 hrs, Volume= 0.217 af
Routed to Link 2L : Mt. Pleasant Ave.

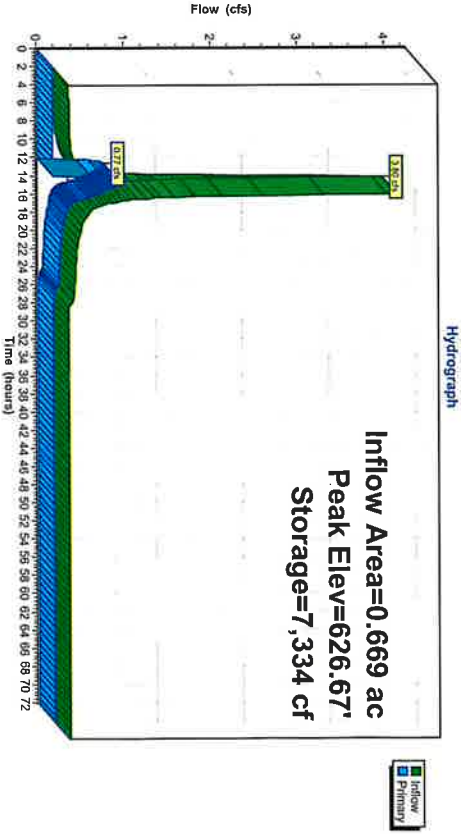
Routing by Stor-lnd method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 626.67' @ 12.67 hrs Surf.Area= 3,608 sf Storage= 7,334 cf
Plug-Flow detention time= 234.6 min calculated for 0.217 af (65% of inflow)
Center-of-Mass del. time= 122.5 min (929.3 - 806.8)

Volume Invert Avail. Storage Storage Description			
#1	624.00'	8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
624.00	1,951	0	0
625.00	2,519	2,235	2,235
626.00	3,150	2,835	5,070
627.00	3,833	3,492	8,561

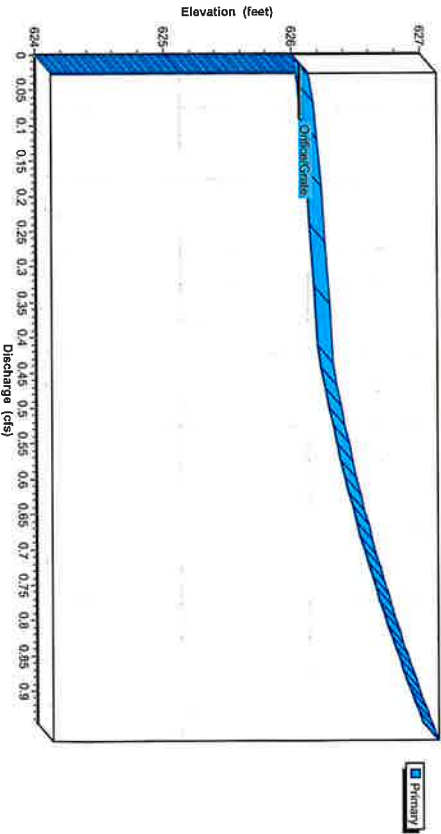
Device Routing Invert Outlet Devices			
#1	Primary	626.00' 6.0" Horiz. Orifice/Grate	C= 0.600 Limited to weir flow at low heads

Primary Outflow Max=0.77 cfs @ 12.67 hrs HW=626.67' (Free Discharge)
L-1=Orifice/Grate (Orifice Controls 0.77 cfs @ 3.94 fps)

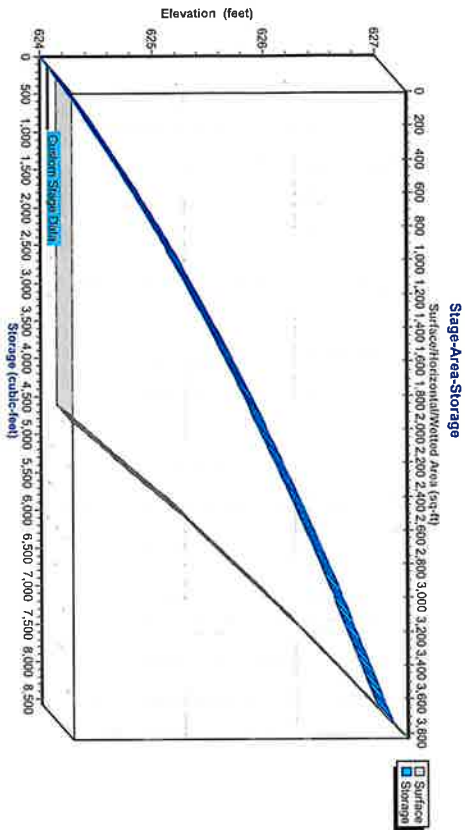
Pond 3P: Basin A



Pond 3P: Basin A



Pond 3P: Basin A



Hydrograph for Pond 3P: Basin A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	624.00	0.00
2.50	0.01	40	624.02	0.00
5.00	0.01	148	624.08	0.00
7.50	0.04	342	624.17	0.00
10.00	0.13	971	624.47	0.00
12.50	1.07	7,242	626.64	0.76
15.00	0.18	5,485	626.13	0.24
17.50	0.11	5,326	626.08	0.12
20.00	0.08	5,275	626.06	0.09
22.50	0.07	5,249	626.06	0.07
25.00	0.00	5,133	626.02	0.02
27.50	0.00	5,082	626.00	0.00
30.00	0.00	5,072	626.00	0.00
32.50	0.00	5,070	626.00	0.00
35.00	0.00	5,070	626.00	0.00
37.50	0.00	5,070	626.00	0.00
40.00	0.00	5,070	626.00	0.00
42.50	0.00	5,070	626.00	0.00
45.00	0.00	5,070	626.00	0.00
47.50	0.00	5,070	626.00	0.00
50.00	0.00	5,070	626.00	0.00
52.50	0.00	5,070	626.00	0.00
55.00	0.00	5,070	626.00	0.00
57.50	0.00	5,070	626.00	0.00
60.00	0.00	5,070	626.00	0.00
62.50	0.00	5,070	626.00	0.00
65.00	0.00	5,070	626.00	0.00
67.50	0.00	5,070	626.00	0.00
70.00	0.00	5,070	626.00	0.00

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Stage-Discharge for Pond 3P: Basin A

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
624.00	0.00	625.04	0.00	626.08	0.12
624.02	0.00	625.06	0.00	626.10	0.16
624.04	0.00	625.08	0.00	626.12	0.21
624.06	0.00	625.10	0.00	626.14	0.27
624.08	0.00	625.12	0.00	626.16	0.33
624.10	0.00	625.14	0.00	626.18	0.39
624.12	0.00	625.16	0.00	626.20	0.42
624.14	0.00	625.18	0.00	626.22	0.44
624.16	0.00	625.20	0.00	626.24	0.46
624.18	0.00	625.22	0.00	626.26	0.48
624.20	0.00	625.24	0.00	626.28	0.50
624.22	0.00	625.26	0.00	626.30	0.52
624.24	0.00	625.28	0.00	626.32	0.53
624.26	0.00	625.30	0.00	626.34	0.55
624.28	0.00	625.32	0.00	626.36	0.57
624.30	0.00	625.34	0.00	626.38	0.58
624.32	0.00	625.36	0.00	626.40	0.60
624.34	0.00	625.38	0.00	626.42	0.61
624.36	0.00	625.40	0.00	626.44	0.63
624.38	0.00	625.42	0.00	626.46	0.64
624.40	0.00	625.44	0.00	626.48	0.66
624.42	0.00	625.46	0.00	626.50	0.67
624.44	0.00	625.48	0.00	626.52	0.68
624.46	0.00	625.50	0.00	626.54	0.69
624.48	0.00	625.52	0.00	626.56	0.71
624.50	0.00	625.54	0.00	626.58	0.72
624.52	0.00	625.56	0.00	626.60	0.73
624.54	0.00	625.58	0.00	626.62	0.74
624.56	0.00	625.60	0.00	626.64	0.76
624.58	0.00	625.62	0.00	626.66	0.77
624.60	0.00	625.64	0.00	626.68	0.78
624.62	0.00	625.66	0.00	626.70	0.79
624.64	0.00	625.68	0.00	626.72	0.80
624.66	0.00	625.70	0.00	626.74	0.81
624.68	0.00	625.72	0.00	626.76	0.82
624.70	0.00	625.74	0.00	626.78	0.83
624.72	0.00	625.76	0.00	626.80	0.85
624.74	0.00	625.78	0.00	626.82	0.86
624.76	0.00	625.80	0.00	626.84	0.87
624.78	0.00	625.82	0.00	626.86	0.88
624.80	0.00	625.84	0.00	626.88	0.89
624.82	0.00	625.86	0.00	626.90	0.90
624.84	0.00	625.88	0.00	626.92	0.91
624.86	0.00	625.90	0.00	626.94	0.92
624.88	0.00	625.92	0.00	626.96	0.93
624.90	0.00	625.94	0.00	626.98	0.94
624.92	0.00	625.96	0.00	627.00	0.95
624.94	0.00	625.98	0.00		
624.96	0.00	626.00	0.00		
624.98	0.00	626.02	0.01		
625.00	0.00	626.04	0.04		
625.02	0.00	626.06	0.08		

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Stage-Area-Storage for Pond 3P: Basin A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
624.00	1,951	0	626.60	3,560	7,082
624.05	1,979	98	626.65	3,594	7,261
624.10	2,008	198	626.70	3,628	7,442
624.15	2,036	299	626.75	3,662	7,624
624.20	2,065	402	626.80	3,696	7,808
624.25	2,093	506	626.85	3,731	7,994
624.30	2,121	611	626.90	3,765	8,181
624.35	2,150	718	626.95	3,799	8,370
624.40	2,178	826	627.00	3,833	8,561
624.45	2,207	935			
624.50	2,235	1,047			
624.55	2,263	1,159			
624.60	2,292	1,273			
624.65	2,320	1,388			
624.70	2,349	1,505			
624.75	2,377	1,623			
624.80	2,405	1,743			
624.85	2,434	1,864			
624.90	2,462	1,986			
624.95	2,491	2,110			
625.00	2,519	2,235			
625.05	2,551	2,362			
625.10	2,582	2,490			
625.15	2,614	2,620			
625.20	2,645	2,751			
625.25	2,677	2,884			
625.30	2,708	3,019			
625.35	2,740	3,155			
625.40	2,771	3,293			
625.45	2,803	3,432			
625.50	2,835	3,573			
625.55	2,868	3,716			
625.60	2,898	3,860			
625.65	2,929	4,006			
625.70	2,961	4,153			
625.75	2,992	4,302			
625.80	3,024	4,452			
625.85	3,055	4,604			
625.90	3,087	4,758			
625.95	3,118	4,913			
626.00	3,150	5,070			
626.05	3,184	5,228			
626.10	3,218	5,388			
626.15	3,252	5,550			
626.20	3,287	5,713			
626.25	3,321	5,878			
626.30	3,355	6,045			
626.35	3,389	6,214			
626.40	3,423	6,384			
626.45	3,457	6,556			
626.50	3,492	6,730			
626.55	3,526	6,905			

Summary for Pond 4P: Basin B

Inflow Area = 0.831 ac, 12.83% Impervious, Inflow Depth = 5.89" for 100-Year event
Inflow = 4.67 cfs @ 12.17 hrs, Volume= 0.408 af
Outflow = 1.02 cfs @ 12.64 hrs, Volume= 0.306 af, Atten= 78%, Lag= 27.8 min
Primary = 1.02 cfs @ 12.64 hrs, Volume= 0.306 af
Routed to Link 2L : Mt. Pleasant Ave.

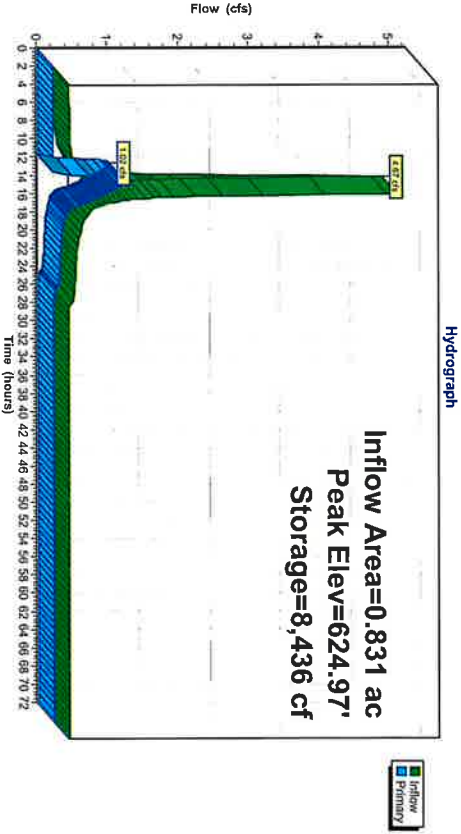
Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 624.97' @ 12.64 hrs Surf.Area= 3,811 sf Storage= 8,436 cf
Plug-Flow detention time= 201.2 min calculated for 0.306 af (75% of inflow)
Center-of-Mass det. time= 105.6 min (915.7 - 810.1)

Volume Invert Avail. Storage Storage Description			
#1	622.00'	8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)
622.00	1,951	0	0
623.00	2,519	2,235	2,235
624.00	3,150	2,835	5,070
625.00	3,833	3,492	8,561

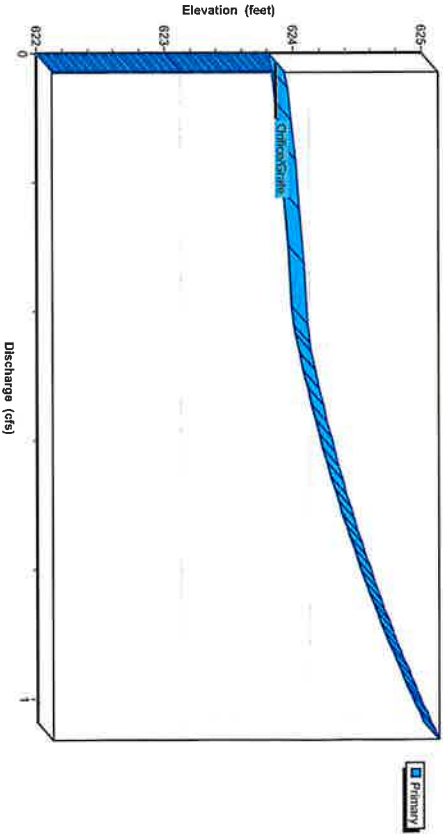
Device Routing Invert Outlet Devices			
#1	Primary	623.80' 6.0" Horiz. Orifice/Grate	C= 0.600 Limited to weir flow at low heads

Primary Outflow Max=1.02 cfs @ 12.64 hrs HW=624.97' (Free Discharge)
L-1=Orifice/Grate (Orifice Controls 1.02 cfs @ 5.20 fps)

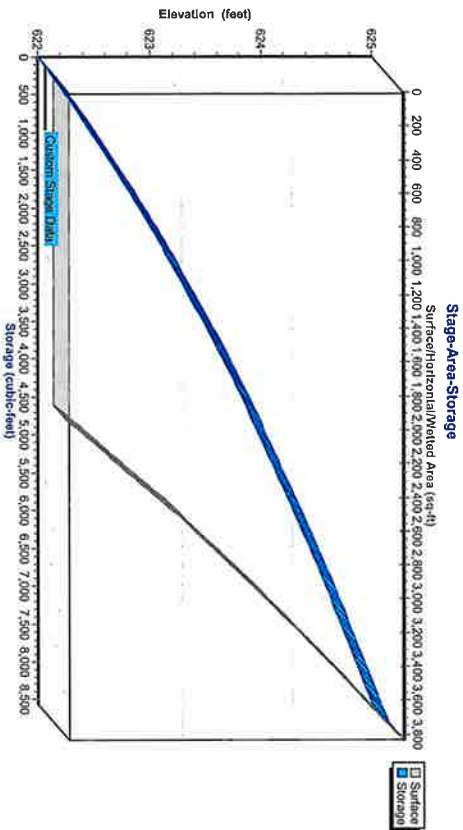
Pond 4P: Basin B



Pond 4P: Basin B



Pond 4P: Basin B



Hydrograph for Pond 4P: Basin B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	622.00	0.00
2.50	0.01	40	622.02	0.00
5.00	0.01	148	622.07	0.00
7.50	0.04	353	622.18	0.00
10.00	0.15	1,090	622.52	0.00
12.50	1.32	8,361	624.95	1.01
15.00	0.22	5,283	624.07	0.49
17.50	0.14	4,736	623.89	0.15
20.00	0.10	4,679	623.87	0.11
22.50	0.08	4,652	623.87	0.09
25.00	0.00	4,519	623.82	0.02
27.50	0.00	4,457	623.80	0.00
30.00	0.00	4,452	623.80	0.00
32.50	0.00	4,452	623.80	0.00
35.00	0.00	4,452	623.80	0.00
37.50	0.00	4,452	623.80	0.00
40.00	0.00	4,452	623.80	0.00
42.50	0.00	4,452	623.80	0.00
45.00	0.00	4,452	623.80	0.00
47.50	0.00	4,452	623.80	0.00
50.00	0.00	4,452	623.80	0.00
52.50	0.00	4,452	623.80	0.00
55.00	0.00	4,452	623.80	0.00
57.50	0.00	4,452	623.80	0.00
60.00	0.00	4,452	623.80	0.00
62.50	0.00	4,452	623.80	0.00
65.00	0.00	4,452	623.80	0.00
67.50	0.00	4,452	623.80	0.00
70.00	0.00	4,452	623.80	0.00

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Stage-Discharge for Pond 4P: Basin B

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
622.00	0.00	623.04	0.00
622.02	0.00	623.06	0.00
622.04	0.00	623.08	0.00
622.06	0.00	623.10	0.00
622.08	0.00	623.12	0.00
622.10	0.00	623.14	0.00
622.12	0.00	623.16	0.00
622.14	0.00	623.18	0.00
622.16	0.00	623.20	0.00
622.18	0.00	623.22	0.00
622.20	0.00	623.24	0.00
622.22	0.00	623.26	0.00
622.24	0.00	623.28	0.00
622.26	0.00	623.30	0.00
622.28	0.00	623.32	0.00
622.30	0.00	623.34	0.00
622.32	0.00	623.36	0.00
622.34	0.00	623.38	0.00
622.36	0.00	623.40	0.00
622.38	0.00	623.42	0.00
622.40	0.00	623.44	0.00
622.42	0.00	623.46	0.00
622.44	0.00	623.48	0.00
622.46	0.00	623.50	0.00
622.48	0.00	623.52	0.00
622.50	0.00	623.54	0.00
622.52	0.00	623.56	0.00
622.54	0.00	623.58	0.00
622.56	0.00	623.60	0.00
622.58	0.00	623.62	0.00
622.60	0.00	623.64	0.00
622.62	0.00	623.66	0.00
622.64	0.00	623.68	0.00
622.66	0.00	623.70	0.00
622.68	0.00	623.72	0.00
622.70	0.00	623.74	0.00
622.72	0.00	623.76	0.00
622.74	0.00	623.78	0.00
622.76	0.00	623.80	0.00
622.78	0.00	623.82	0.00
622.80	0.00	623.84	0.01
622.82	0.00	623.86	0.01
622.84	0.00	623.88	0.04
622.86	0.00	623.90	0.08
622.88	0.00	623.92	0.12
622.90	0.00	623.94	0.16
622.92	0.00	623.96	0.21
622.94	0.00	623.98	0.27
622.96	0.00	624.00	0.33
622.98	0.00	624.02	0.39
623.00	0.00	624.04	0.44
623.02	0.00	624.06	0.46
			0.48

2022-07-28 Proposed Hydrology

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Stage-Area-Storage for Pond 4P: Basin B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
622.00	1,951	0	624.60	3,560	7,082
622.05	1,979	98	624.65	3,594	7,261
622.10	2,008	198	624.70	3,628	7,442
622.15	2,036	299	624.75	3,662	7,624
622.20	2,065	402	624.80	3,696	7,808
622.25	2,093	506	624.85	3,731	7,994
622.30	2,121	611	624.90	3,765	8,181
622.35	2,150	718	624.95	3,799	8,370
622.40	2,178	826	625.00	3,833	8,561
622.45	2,207	935			
622.50	2,235	1,047			
622.55	2,263	1,159			
622.60	2,292	1,273			
622.65	2,320	1,388			
622.70	2,349	1,505			
622.75	2,377	1,623			
622.80	2,405	1,743			
622.85	2,434	1,864			
622.90	2,462	1,986			
622.95	2,491	2,110			
623.00	2,519	2,235			
623.05	2,551	2,362			
623.10	2,582	2,490			
623.15	2,614	2,620			
623.20	2,645	2,751			
623.25	2,677	2,884			
623.30	2,708	3,019			
623.35	2,740	3,155			
623.40	2,771	3,293			
623.45	2,803	3,432			
623.50	2,835	3,573			
623.55	2,866	3,716			
623.60	2,898	3,860			
623.65	2,929	4,006			
623.70	2,961	4,153			
623.75	2,992	4,302			
623.80	3,024	4,452			
623.85	3,055	4,604			
623.90	3,087	4,758			
623.95	3,118	4,913			
624.00	3,150	5,070			
624.05	3,184	5,228			
624.10	3,218	5,388			
624.15	3,252	5,550			
624.20	3,287	5,713			
624.25	3,321	5,878			
624.30	3,355	6,045			
624.35	3,389	6,214			
624.40	3,423	6,384			
624.45	3,457	6,556			
624.50	3,492	6,730			
624.55	3,526	6,905			

Summary for Pond 5P: Basin C

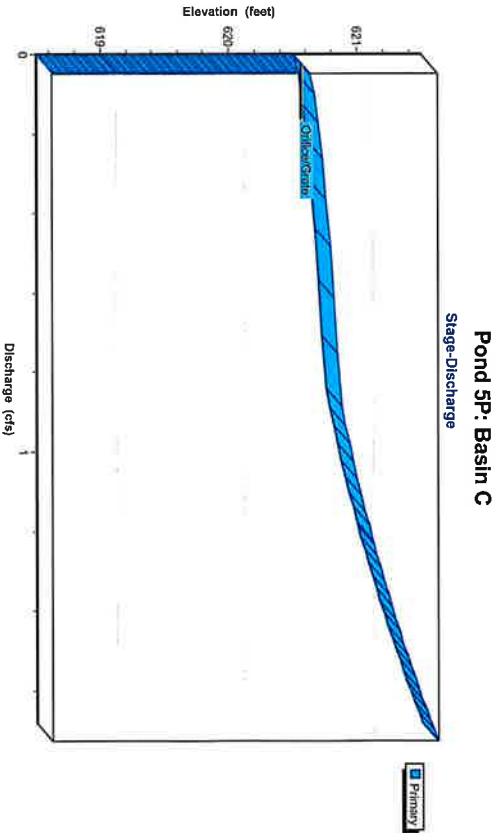
Inflow Area = 0.821 ac, 12.95% Impervious, Inflow Depth = 5.90" for 100-Year event
Inflow = 4.62 cfs @ 12.17 hrs, Volume= 0.404 af
Outflow = 1.47 cfs @ 12.46 hrs, Volume= 0.285 af, Atten= 68%, Lag= 17.3 min
Primary = 1.47 cfs @ 12.46 hrs, Volume= 0.285 af
Routed to Link 2L : Mt. Pleasant Ave.

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 621.26' @ 12.46 hrs Surf Area= 3,743 sf Storage= 7,839 cf
Plug-Flow detention time= 199.5 min calculated for 0.285 af (71% of inflow)
Center-of-Mass det. time= 95.6 min (905.6 - 810.0)

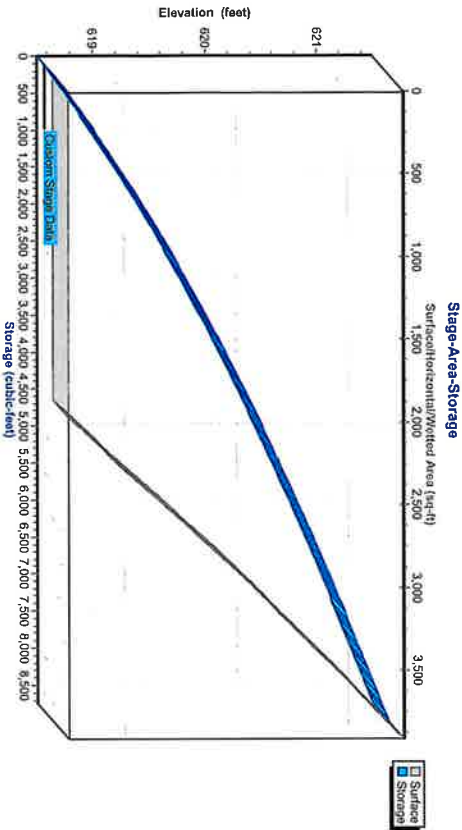
Volume Invert Avail Storage Storage Description				
#1	618.50'	8,744 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)	
618.50	1,966	0	0	
619.00	2,285	1,063	1,063	
620.00	2,892	2,589	3,651	
621.00	3,560	3,226	6,877	
621.50	3,907	1,867	8,744	

Device Routing Invert Outlet Devices
#1 Primary 620.50' 8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
Primary Outflow Max=1.47 cfs @ 12.46 hrs HW=621.26' (Free Discharge)
L=1=Orifice/Grate (Orifice Controls 1.47 cfs @ 4.20 fps)

Pond 5P: Basin C



Pond 5P: Basin C



Hydrograph for Pond 5P: Basin C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	618.50	0.00
2.50	0.01	40	618.52	0.00
5.00	0.01	148	618.57	0.00
7.50	0.04	352	618.67	0.00
10.00	0.15	1,081	619.01	0.00
12.50	1.31	7,826	621.26	1.47
15.00	0.22	5,534	620.61	0.25
17.50	0.13	5,426	620.58	0.14
20.00	0.10	5,377	620.56	0.10
22.50	0.08	5,353	620.55	0.09
25.00	0.00	5,230	620.52	0.02
27.50	0.00	5,188	620.50	0.00
30.00	0.00	5,182	620.50	0.00
32.50	0.00	5,181	620.50	0.00
35.00	0.00	5,181	620.50	0.00
37.50	0.00	5,181	620.50	0.00
40.00	0.00	5,181	620.50	0.00
42.50	0.00	5,181	620.50	0.00
45.00	0.00	5,181	620.50	0.00
47.50	0.00	5,181	620.50	0.00
50.00	0.00	5,181	620.50	0.00
52.50	0.00	5,181	620.50	0.00
55.00	0.00	5,181	620.50	0.00
57.50	0.00	5,181	620.50	0.00
60.00	0.00	5,181	620.50	0.00
62.50	0.00	5,181	620.50	0.00
65.00	0.00	5,181	620.50	0.00
67.50	0.00	5,181	620.50	0.00
70.00	0.00	5,181	620.50	0.00

2022-07-28 Proposed Hydrology

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Stage-Discharge for Pond 5P: Basin C

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
618.50	0.00	619.54	0.00
618.52	0.00	619.56	0.00
618.54	0.00	619.58	0.00
618.56	0.00	619.60	0.00
618.58	0.00	619.62	0.00
618.60	0.00	619.64	0.00
618.62	0.00	619.66	0.00
618.64	0.00	619.68	0.00
618.66	0.00	619.70	0.00
618.68	0.00	619.72	0.00
618.70	0.00	619.74	0.00
618.72	0.00	619.76	0.00
618.74	0.00	619.78	0.00
618.76	0.00	619.80	0.00
618.78	0.00	619.82	0.00
618.80	0.00	619.84	0.00
618.82	0.00	619.86	0.00
618.84	0.00	619.88	0.00
618.86	0.00	619.90	0.00
618.88	0.00	619.92	0.00
618.90	0.00	619.94	0.00
618.92	0.00	619.96	0.00
618.94	0.00	619.98	0.00
618.96	0.00	620.00	0.00
618.98	0.00	620.02	0.00
619.00	0.00	620.04	0.00
619.02	0.00	620.06	0.00
619.04	0.00	620.08	0.00
619.06	0.00	620.10	0.00
619.08	0.00	620.12	0.00
619.10	0.00	620.14	0.00
619.12	0.00	620.16	0.00
619.14	0.00	620.18	0.00
619.16	0.00	620.20	0.00
619.18	0.00	620.22	0.00
619.20	0.00	620.24	0.00
619.22	0.00	620.26	0.00
619.24	0.00	620.28	0.00
619.26	0.00	620.30	0.00
619.28	0.00	620.32	0.00
619.30	0.00	620.34	0.00
619.32	0.00	620.36	0.00
619.34	0.00	620.38	0.00
619.36	0.00	620.40	0.00
619.38	0.00	620.42	0.00
619.40	0.00	620.44	0.00
619.42	0.00	620.46	0.00
619.44	0.00	620.48	0.00
619.46	0.00	620.50	0.00
619.48	0.00	620.52	0.02
619.50	0.00	620.54	0.05
619.52	0.00	620.56	0.10

2022-07-28 Proposed Hydrology

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Stage-Area-Storage for Pond 5P: Basin C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
618.50	1,966	0	621.10	3,629	7,237
618.55	1,998	99	621.15	3,664	7,419
618.60	2,030	200	621.20	3,699	7,603
618.65	2,062	302	621.25	3,734	7,789
618.70	2,094	406	621.30	3,768	7,976
618.75	2,126	511	621.35	3,803	8,166
618.80	2,157	619	621.40	3,838	8,357
618.85	2,189	727	621.45	3,872	8,550
618.90	2,221	837	621.50	3,907	8,744
618.95	2,253	949			
619.00	2,285	1,063			
619.05	2,315	1,178			
619.10	2,346	1,294			
619.15	2,376	1,412			
619.20	2,406	1,532			
619.25	2,437	1,653			
619.30	2,467	1,776			
619.35	2,497	1,900			
619.40	2,528	2,025			
619.45	2,558	2,152			
619.50	2,589	2,281			
619.55	2,619	2,411			
619.60	2,649	2,543			
619.65	2,680	2,676			
619.70	2,710	2,811			
619.75	2,740	2,947			
619.80	2,771	3,085			
619.85	2,801	3,224			
619.90	2,831	3,365			
619.95	2,862	3,507			
620.00	2,892	3,651			
620.05	2,925	3,797			
620.10	2,959	3,944			
620.15	2,992	4,093			
620.20	3,026	4,243			
620.25	3,059	4,395			
620.30	3,092	4,549			
620.35	3,126	4,704			
620.40	3,159	4,861			
620.45	3,193	5,020			
620.50	3,226	5,181			
620.55	3,259	5,343			
620.60	3,293	5,507			
620.65	3,326	5,672			
620.70	3,360	5,839			
620.75	3,393	6,006			
620.80	3,426	6,179			
620.85	3,460	6,351			
620.90	3,493	6,525			
620.95	3,527	6,700			
621.00	3,560	6,877			
621.05	3,595	7,056			

Summary for Pond 6P: Basin D

Inflow Area = 0.422 ac, 13.06% Impervious, Inflow Depth = 5.90" for 100-Year event
Inflow = 2.37 cfs @ 12.17 hrs, Volume= 0.207 af
Outflow = 0.82 cfs @ 12.43 hrs, Volume= 0.125 af, Atten= 65%, Lag= 15.7 min
Primary = 0.82 cfs @ 12.43 hrs, Volume= 0.125 af
Routed to Link 2L : Mt. Pleasant Ave.

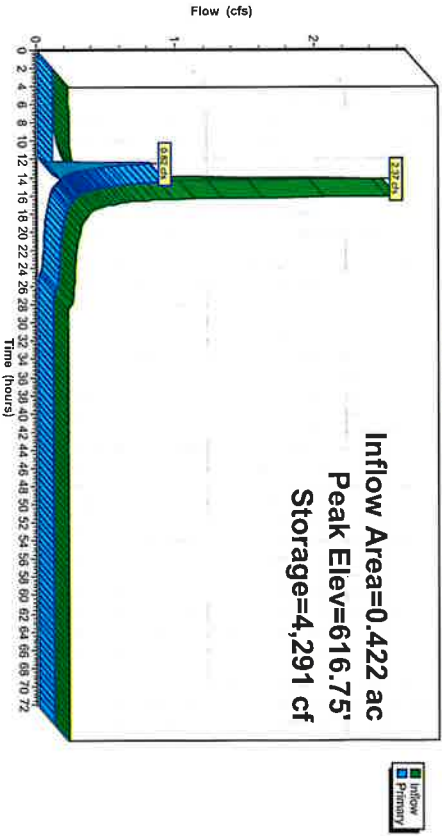
Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 616.75' @ 12.43 hrs Surf.Area= 2,990 sf Storage= 4,291 cf
Plug-Flow detention time= 235.1 min calculated for 0.125 af (60% of Inflow)
Center-of-Mass det. time= 118.5 min (928.4 - 809.9)

Volume	Invert	Avail. Storage	Storage Description
#1	615.00'	8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf. Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)
615.00	1,951	0	0
616.00	2,519	2,235	2,235
617.00	3,150	2,835	5,070
618.00	3,833	3,492	8,561

Device Routing Invert Outlet Devices
#1 Primary 616.50' 8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
Primary Outflow Max=0.83 cfs @ 12.43 hrs HW=616.75' (Free Discharge)
L-1=Orifice/Grate (Orifice Controls 0.83 cfs @ 2.39 fps)

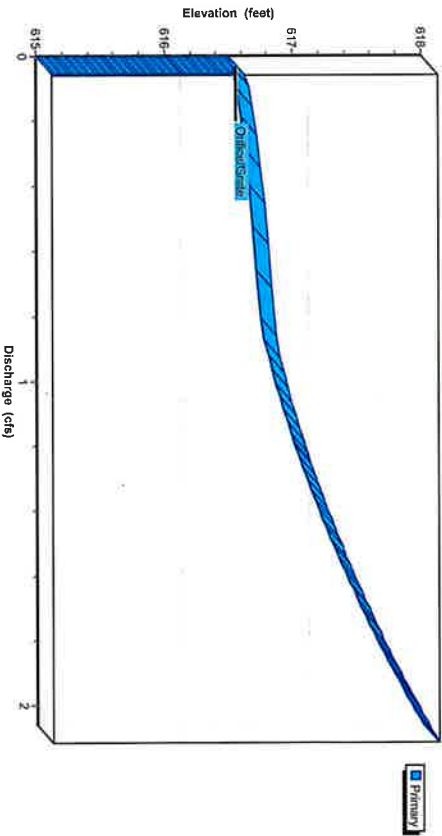
Pond 6P: Basin D

Hydrograph

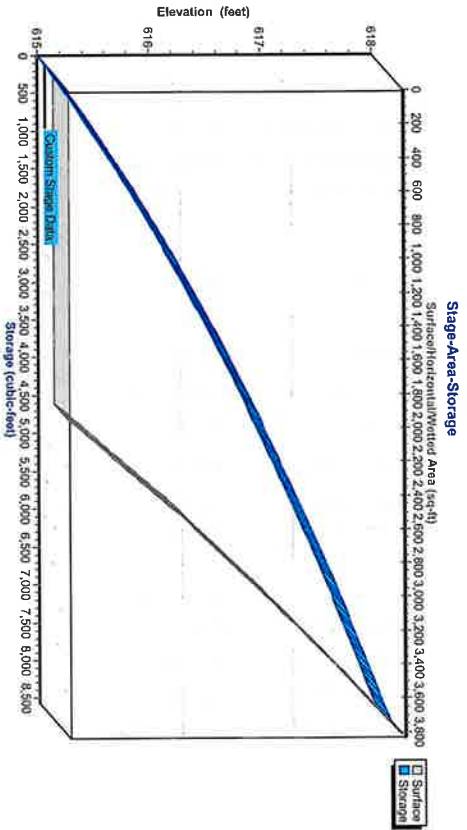


Pond 6P: Basin D

Stage-Discharge



Pond 6P: Basin D



Hydrograph for Pond 6P: Basin D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	615.00	0.00
2.50	0.00	21	615.01	0.00
5.00	0.01	76	615.04	0.00
7.50	0.02	182	615.09	0.00
10.00	0.08	557	615.27	0.00
12.50	0.67	4,273	616.74	0.81
15.00	0.11	3,772	616.57	0.13
17.50	0.07	3,710	616.55	0.07
20.00	0.05	3,682	616.54	0.05
22.50	0.04	3,670	616.53	0.04
25.00	0.00	3,599	616.51	0.01
27.50	0.00	3,574	616.50	0.00
30.00	0.00	3,573	616.50	0.00
32.50	0.00	3,573	616.50	0.00
35.00	0.00	3,573	616.50	0.00
37.50	0.00	3,573	616.50	0.00
40.00	0.00	3,573	616.50	0.00
42.50	0.00	3,573	616.50	0.00
45.00	0.00	3,573	616.50	0.00
47.50	0.00	3,573	616.50	0.00
50.00	0.00	3,573	616.50	0.00
52.50	0.00	3,573	616.50	0.00
55.00	0.00	3,573	616.50	0.00
57.50	0.00	3,573	616.50	0.00
60.00	0.00	3,573	616.50	0.00
62.50	0.00	3,573	616.50	0.00
65.00	0.00	3,573	616.50	0.00
67.50	0.00	3,573	616.50	0.00
70.00	0.00	3,573	616.50	0.00

2022-07-28 Proposed Hydrology

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Stage-Discharge for Pond 6P: Basin D

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
615.00	0.00	616.04	0.00
615.02	0.00	616.06	0.00
615.04	0.00	616.08	0.00
615.06	0.00	616.10	0.00
615.08	0.00	616.12	0.00
615.10	0.00	616.14	0.00
615.12	0.00	616.16	0.00
615.14	0.00	616.18	0.00
615.16	0.00	616.20	0.00
615.18	0.00	616.22	0.00
615.20	0.00	616.24	0.00
615.22	0.00	616.26	0.00
615.24	0.00	616.28	0.00
615.26	0.00	616.30	0.00
615.28	0.00	616.32	0.00
615.30	0.00	616.34	0.00
615.32	0.00	616.36	0.00
615.34	0.00	616.38	0.00
615.36	0.00	616.40	0.00
615.38	0.00	616.42	0.00
615.40	0.00	616.44	0.00
615.42	0.00	616.46	0.00
615.44	0.00	616.48	0.00
615.46	0.00	616.50	0.00
615.48	0.00	616.52	0.00
615.50	0.00	616.54	0.00
615.52	0.00	616.56	0.00
615.54	0.00	616.58	0.15
615.56	0.00	616.60	0.22
615.58	0.00	616.62	0.28
615.60	0.00	616.64	0.36
615.62	0.00	616.66	0.44
615.64	0.00	616.68	0.52
615.66	0.00	616.70	0.61
615.68	0.00	616.72	0.71
615.70	0.00	616.74	0.81
615.72	0.00	616.76	0.86
615.74	0.00	616.78	0.89
615.76	0.00	616.80	0.92
615.78	0.00	616.82	0.95
615.80	0.00	616.84	0.98
615.82	0.00	616.86	1.01
615.84	0.00	616.88	1.04
615.86	0.00	616.90	1.06
615.88	0.00	616.92	1.09
615.90	0.00	616.94	1.11
615.92	0.00	616.96	1.14
615.94	0.00	616.98	1.16
615.96	0.00	617.00	1.19
615.98	0.00	617.02	1.21
616.00	0.00	617.04	1.24
616.02	0.00	617.06	1.26

2022-07-28 Proposed Hydrology

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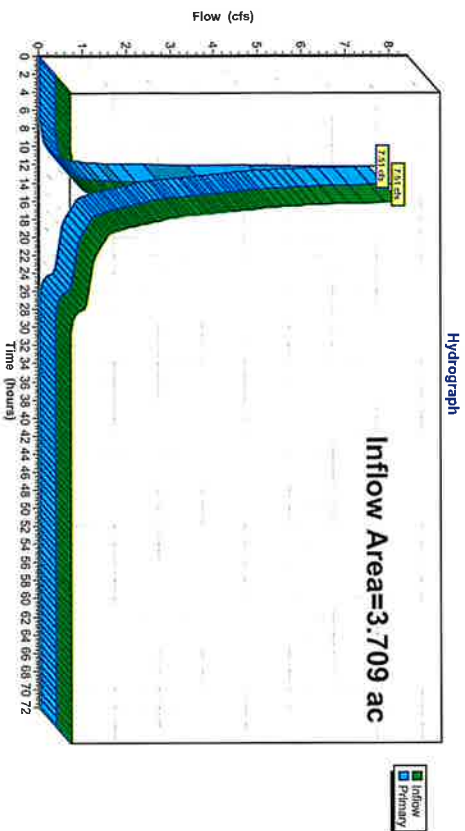
Stage-Area-Storage for Pond 6P: Basin D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
615.00	1,931	0	617.60	3,560	7,082
615.05	1,979	98	617.65	3,594	7,261
615.10	2,008	198	617.70	3,628	7,442
615.15	2,036	299	617.75	3,662	7,624
615.20	2,065	402	617.80	3,696	7,808
615.25	2,093	506	617.85	3,731	7,994
615.30	2,121	611	617.90	3,765	8,181
615.35	2,150	718	617.95	3,799	8,370
615.40	2,178	826	618.00	3,833	8,561
615.45	2,207	935			
615.50	2,235	1,047			
615.55	2,263	1,159			
615.60	2,292	1,273			
615.65	2,320	1,388			
615.70	2,349	1,505			
615.75	2,377	1,623			
615.80	2,405	1,743			
615.85	2,434	1,864			
615.90	2,462	1,986			
615.95	2,491	2,110			
616.00	2,519	2,235			
616.05	2,551	2,362			
616.10	2,582	2,490			
616.15	2,614	2,620			
616.20	2,645	2,751			
616.25	2,677	2,884			
616.30	2,708	3,019			
616.35	2,740	3,155			
616.40	2,771	3,293			
616.45	2,803	3,432			
616.50	2,835	3,573			
616.55	2,866	3,716			
616.60	2,898	3,860			
616.65	2,929	4,006			
616.70	2,961	4,153			
616.75	2,992	4,302			
616.80	3,024	4,452			
616.85	3,055	4,604			
616.90	3,087	4,758			
616.95	3,118	4,913			
617.00	3,150	5,070			
617.05	3,184	5,228			
617.10	3,218	5,388			
617.15	3,252	5,550			
617.20	3,287	5,713			
617.25	3,321	5,878			
617.30	3,355	6,045			
617.35	3,389	6,214			
617.40	3,423	6,384			
617.45	3,457	6,556			
617.50	3,492	6,730			
617.55	3,526	6,905			

Summary for Link 2L: Mt. Pleasant Ave.

Inflow Area = 3.709 ac, 11.17% Impervious, Inflow Depth = 4.49" for 100-Year event
 Inflow = 7.51 cfs @ 12.21 hrs, Volume= 1.387 af
 Primary = 7.51 cfs @ 12.21 hrs, Volume= 1.387 af, Atten= 0%, Lag= 0.0 min
 Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 2L: Mt. Pleasant Ave.

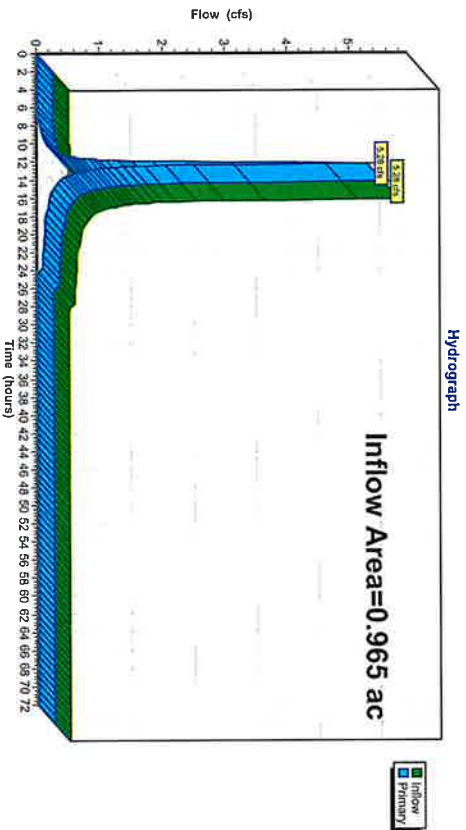


2022-07-28 Proposed Hydrology				NOAA 24-hr D 100-Year Rainfall=8.66"			
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Hydrograph for Link 2L: Mt. Pleasant Ave.							
Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.01	0.00	0.01	57.00	0.00	0.00	0.00
6.00	0.01	0.00	0.01	58.00	0.00	0.00	0.00
7.00	0.02	0.00	0.02	59.00	0.00	0.00	0.00
8.00	0.05	0.00	0.05	60.00	0.00	0.00	0.00
9.00	0.08	0.00	0.08	61.00	0.00	0.00	0.00
10.00	0.15	0.00	0.15	62.00	0.00	0.00	0.00
11.00	0.34	0.00	0.34	63.00	0.00	0.00	0.00
12.00	2.37	0.00	2.37	64.00	0.00	0.00	0.00
13.00	4.13	0.00	4.13	65.00	0.00	0.00	0.00
14.00	2.24	0.00	2.24	66.00	0.00	0.00	0.00
15.00	1.36	0.00	1.36	67.00	0.00	0.00	0.00
16.00	0.85	0.00	0.85	68.00	0.00	0.00	0.00
17.00	0.70	0.00	0.70	69.00	0.00	0.00	0.00
18.00	0.57	0.00	0.57	70.00	0.00	0.00	0.00
19.00	0.50	0.00	0.50	71.00	0.00	0.00	0.00
20.00	0.47	0.00	0.47	72.00	0.00	0.00	0.00
21.00	0.43	0.00	0.43				
22.00	0.40	0.00	0.40				
23.00	0.37	0.00	0.37				
24.00	0.34	0.00	0.34				
25.00	0.06	0.00	0.06				
26.00	0.02	0.00	0.02				
27.00	0.01	0.00	0.01				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

Summary for Link 3L: Mt. Pleasant Ave - Undetained

Inflow Area = 0.965 ac, 4.06% Impervious, Inflow Depth = 5.64" for 100-Year event
Inflow = 5.28 cfs @ 12.17 hrs, Volume= 0.453 af
Primary = 5.28 cfs @ 12.17 hrs, Volume= 0.453 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Mt. Pleasant Ave.
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 3L: Mt. Pleasant Ave - Undetained



Hydrograph for Link 3L: Mt. Pleasant Ave - Undetained

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	53.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.01	0.00	0.01	57.00	0.00	0.00	0.00
6.00	0.01	0.00	0.01	58.00	0.00	0.00	0.00
7.00	0.02	0.00	0.02	59.00	0.00	0.00	0.00
8.00	0.05	0.00	0.05	60.00	0.00	0.00	0.00
9.00	0.08	0.00	0.08	61.00	0.00	0.00	0.00
10.00	0.15	0.00	0.15	62.00	0.00	0.00	0.00
11.00	0.34	0.00	0.34	63.00	0.00	0.00	0.00
12.00	2.37	0.00	2.37	64.00	0.00	0.00	0.00
13.00	0.75	0.00	0.75	65.00	0.00	0.00	0.00
14.00	0.37	0.00	0.37	66.00	0.00	0.00	0.00
15.00	0.25	0.00	0.25	67.00	0.00	0.00	0.00
16.00	0.20	0.00	0.20	68.00	0.00	0.00	0.00
17.00	0.17	0.00	0.17	69.00	0.00	0.00	0.00
18.00	0.14	0.00	0.14	70.00	0.00	0.00	0.00
19.00	0.13	0.00	0.13	71.00	0.00	0.00	0.00
20.00	0.12	0.00	0.12	72.00	0.00	0.00	0.00
21.00	0.11	0.00	0.11				
22.00	0.10	0.00	0.10				
23.00	0.09	0.00	0.09				
24.00	0.08	0.00	0.08				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

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- 2 Project Notes
- 3 Rainfall Events Listing (selected events)
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- 5 Soil Listing (all nodes)
- 6 Ground Covers (all nodes)

2-Year EventNode Listing

- 9 Subcat 1S: Basin A - Imp.
- 11 Subcat 3S: Basin A - Perv.
- 13 Subcat 4S: Basin B - Imp.
- 15 Subcat 5S: Basin B - Perv.
- 17 Subcat 7S: Basin C - Imp.
- 19 Subcat 8S: Basin C - Perv.
- 21 Subcat 9S: Mt. Pleasant Ave Undetained - Imp.
- 23 Subcat 10S: Mt. Pleasant Ave Undetained - Perv.
- 25 Subcat 11S: Basin D - Imp.
- 27 Subcat 12S: Basin D - Perv.
- 29 Pond 3P: Basin A
- 35 Pond 4P: Basin B
- 41 Pond 5P: Basin C
- 47 Pond 6P: Basin D
- 53 Link 2L: Mt. Pleasant Ave.
- 55 Link 3L: Mt. Pleasant Ave - Undetained

10-Year EventNode Listing

- 59 Subcat 1S: Basin A - Imp.
- 61 Subcat 3S: Basin A - Perv.
- 63 Subcat 4S: Basin B - Imp.
- 65 Subcat 5S: Basin B - Perv.
- 67 Subcat 7S: Basin C - Imp.
- 69 Subcat 8S: Basin C - Perv.
- 71 Subcat 9S: Mt. Pleasant Ave Undetained - Imp.
- 73 Subcat 10S: Mt. Pleasant Ave Undetained - Perv.
- 75 Subcat 11S: Basin D - Imp.
- 77 Subcat 12S: Basin D - Perv.
- 79 Pond 3P: Basin A
- 85 Pond 4P: Basin B
- 91 Pond 5P: Basin C
- 97 Pond 6P: Basin D
- 103 Link 2L: Mt. Pleasant Ave.
- 105 Link 3L: Mt. Pleasant Ave - Undetained

100-Year EventNode Listing

- 109 Subcat 1S: Basin A - Imp.
- 111 Subcat 3S: Basin A - Perv.
- 113 Subcat 4S: Basin B - Imp.
- 115 Subcat 5S: Basin B - Perv.
- 117 Subcat 7S: Basin C - Imp.
- 119 Subcat 8S: Basin C - Perv.
- 121 Subcat 9S: Mt. Pleasant Ave Undetained - Imp.
- 123 Subcat 10S: Mt. Pleasant Ave Undetained - Perv.
- 125 Subcat 11S: Basin D - Imp.
- 127 Subcat 12S: Basin D - Perv.
- 129 Pond 3P: Basin A
- 135 Pond 4P: Basin B
- 141 Pond 5P: Basin C
- 147 Pond 6P: Basin D
- 153 Link 2L: Mt. Pleasant Ave.
- 155 Link 3L: Mt. Pleasant Ave - Undetained

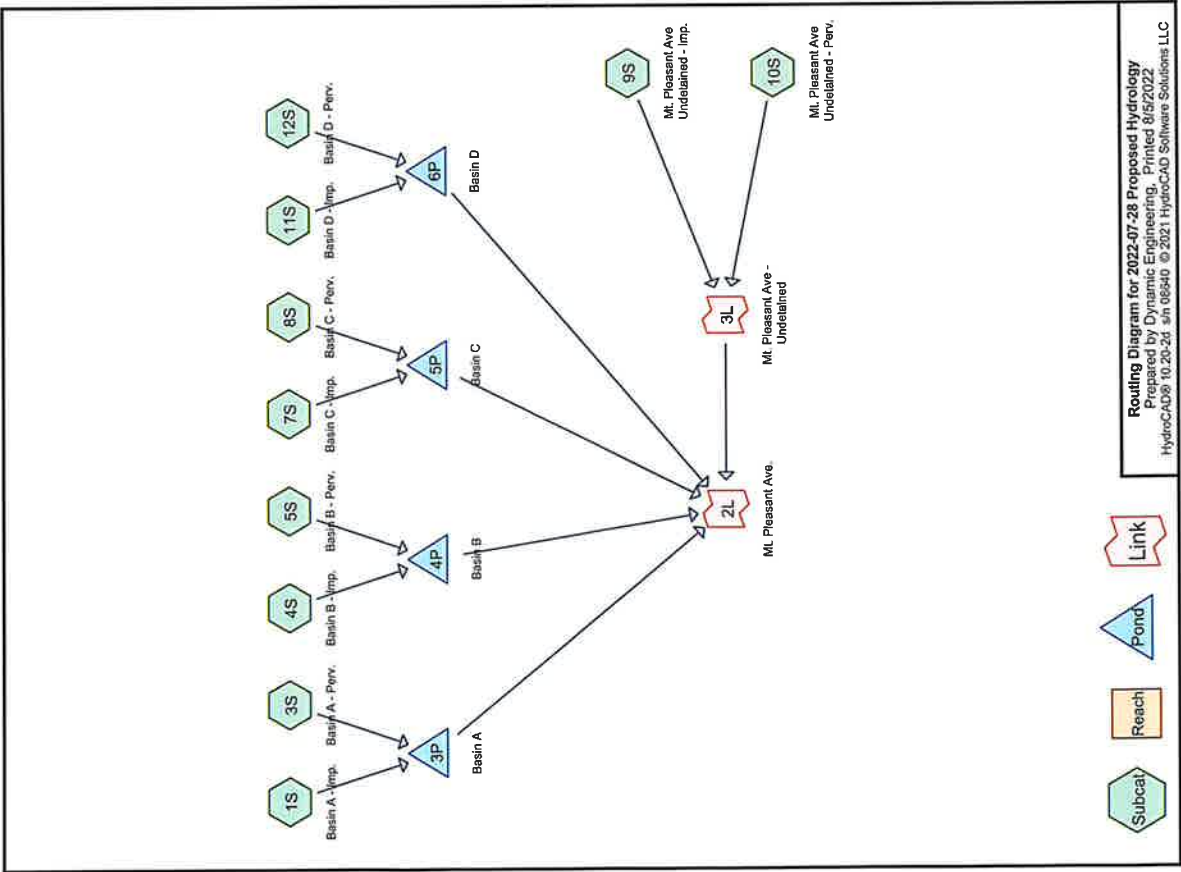
**HYDROGRAPH SUMMARY REPORTS -
WATER QUALITY STORM**

Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 6606 NJ Essex-D

Rainfall events imported from "2022-04-05 Proposed Conditions.hcp"

Rainfall events imported from "NRCS-Rain.txt" for 6606 NJ Essex-D



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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	WQ	NJ DEP 2-hr		Default	2.00	1	1.25	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.246	74	>75% Grass cover, Good, HSG C (3S, 5S, 8S, 10S, 12S)
0.049	80	>75% Grass cover, Good, HSG D (10S)
0.400	98	Unconnected pavement, HSG C (1S, 4S, 7S, 9S, 11S)
0.014	98	Unconnected pavement, HSG D (9S)
3.709	77	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
3.646	HSG C	1S, 3S, 4S, 5S, 7S, 8S, 9S, 10S, 11S, 12S
0.063	HSG D	9S, 10S
0.000	Other	
3.709	TOTAL AREA	

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	3.246	0.049	0.000	3.295	>75% Grass cover, Good	3S, 5S, 8S,
							10S, 12S
0.000	0.000	0.400	0.014	0.000	0.414	Unconnected pavement	1S, 4S, 7S, 9S, 11S
0.000	0.000	3.646	0.063	0.000	3.709	TOTAL AREA	

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: Basin A - Imp.	Runoff Area=4,655 sf	100.00% Impervious	Runoff Depth=1.03"
	Tc=10.0 min	CN=98	Runoff=0.28 cfs 0.009 af
Subcatchment 3S: Basin A - Perv.	Runoff Area=24,500 sf	0.00% Impervious	Runoff Depth=0.07"
	Tc=10.0 min	CN=74	Runoff=0.07 cfs 0.003 af
Subcatchment 4S: Basin B - Imp.	Runoff Area=4,648 sf	100.00% Impervious	Runoff Depth=1.03"
	Tc=10.0 min	CN=98	Runoff=0.27 cfs 0.009 af
Subcatchment 5S: Basin B - Perv.	Runoff Area=31,574 sf	0.00% Impervious	Runoff Depth=0.07"
	Tc=10.0 min	CN=74	Runoff=0.09 cfs 0.004 af
Subcatchment 7S: Basin C - Imp.	Runoff Area=4,635 sf	100.00% Impervious	Runoff Depth=1.03"
	Tc=10.0 min	CN=98	Runoff=0.27 cfs 0.009 af
Subcatchment 8S: Basin C - Perv.	Runoff Area=31,149 sf	0.00% Impervious	Runoff Depth=0.07"
	Tc=10.0 min	CN=74	Runoff=0.09 cfs 0.004 af
Subcatchment 9S: Mt. Pleasant Ave	Runoff Area=1,706 sf	100.00% Impervious	Runoff Depth=1.03"
	Tc=10.0 min	CN=98	Runoff=0.10 cfs 0.003 af
Subcatchment 10S: Mt. Pleasant Ave	Runoff Area=40,319 sf	0.00% Impervious	Runoff Depth=0.07"
	Tc=10.0 min	CN=74	Runoff=0.12 cfs 0.006 af
Subcatchment 11S: Basin D - Imp.	Runoff Area=2,400 sf	100.00% Impervious	Runoff Depth=1.03"
	Tc=10.0 min	CN=98	Runoff=0.14 cfs 0.005 af
Subcatchment 12S: Basin D - Perv.	Runoff Area=15,983 sf	0.00% Impervious	Runoff Depth=0.07"
	Tc=10.0 min	CN=74	Runoff=0.05 cfs 0.002 af
Pond 3P: Basin A	Peak Elev=624.27'	Storage=552 cf	Inflow=0.31 cfs 0.013 af Outflow=0.00 cfs 0.000 af
Pond 4P: Basin B	Peak Elev=622.29'	Storage=595 cf	Inflow=0.32 cfs 0.014 af Outflow=0.00 cfs 0.000 af
Pond 5P: Basin C	Peak Elev=618.79'	Storage=591 cf	Inflow=0.32 cfs 0.014 af Outflow=0.00 cfs 0.000 af
Pond 6P: Basin D	Peak Elev=615.15'	Storage=305 cf	Inflow=0.17 cfs 0.007 af Outflow=0.00 cfs 0.000 af
Link 2L: Mt. Pleasant Ave.			Inflow=0.19 cfs 0.009 af Primary=0.19 cfs 0.009 af
Link 3L: Mt. Pleasant Ave - Undetained			Inflow=0.19 cfs 0.009 af Primary=0.19 cfs 0.009 af

Total Runoff Area = 3,709 ac Runoff Volume = 0.056 af Average Runoff Depth = 0.18"
88.83% Pervious = 3,295 ac 11.17% Impervious = 0.414 ac

Hydrograph for Subcatchment 1S: Basin A - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	1.03	0.00
1.00	0.63	0.43	0.11	53.00	1.25	1.03	0.00
2.00	1.25	1.03	0.01	54.00	1.25	1.03	0.00
3.00	1.25	1.03	0.00	55.00	1.25	1.03	0.00
4.00	1.25	1.03	0.00	56.00	1.25	1.03	0.00
5.00	1.25	1.03	0.00	57.00	1.25	1.03	0.00
6.00	1.25	1.03	0.00	58.00	1.25	1.03	0.00
7.00	1.25	1.03	0.00	59.00	1.25	1.03	0.00
8.00	1.25	1.03	0.00	60.00	1.25	1.03	0.00
9.00	1.25	1.03	0.00	61.00	1.25	1.03	0.00
10.00	1.25	1.03	0.00	62.00	1.25	1.03	0.00
11.00	1.25	1.03	0.00	63.00	1.25	1.03	0.00
12.00	1.25	1.03	0.00	64.00	1.25	1.03	0.00
13.00	1.25	1.03	0.00	65.00	1.25	1.03	0.00
14.00	1.25	1.03	0.00	66.00	1.25	1.03	0.00
15.00	1.25	1.03	0.00	67.00	1.25	1.03	0.00
16.00	1.25	1.03	0.00	68.00	1.25	1.03	0.00
17.00	1.25	1.03	0.00	69.00	1.25	1.03	0.00
18.00	1.25	1.03	0.00	70.00	1.25	1.03	0.00
19.00	1.25	1.03	0.00	71.00	1.25	1.03	0.00
20.00	1.25	1.03	0.00	72.00	1.25	1.03	0.00
21.00	1.25	1.03	0.00				
22.00	1.25	1.03	0.00				
23.00	1.25	1.03	0.00				
24.00	1.25	1.03	0.00				
25.00	1.25	1.03	0.00				
26.00	1.25	1.03	0.00				
27.00	1.25	1.03	0.00				
28.00	1.25	1.03	0.00				
29.00	1.25	1.03	0.00				
30.00	1.25	1.03	0.00				
31.00	1.25	1.03	0.00				
32.00	1.25	1.03	0.00				
33.00	1.25	1.03	0.00				
34.00	1.25	1.03	0.00				
35.00	1.25	1.03	0.00				
36.00	1.25	1.03	0.00				
37.00	1.25	1.03	0.00				
38.00	1.25	1.03	0.00				
39.00	1.25	1.03	0.00				
40.00	1.25	1.03	0.00				
41.00	1.25	1.03	0.00				
42.00	1.25	1.03	0.00				
43.00	1.25	1.03	0.00				
44.00	1.25	1.03	0.00				
45.00	1.25	1.03	0.00				
46.00	1.25	1.03	0.00				
47.00	1.25	1.03	0.00				
48.00	1.25	1.03	0.00				
49.00	1.25	1.03	0.00				
50.00	1.25	1.03	0.00				
51.00	1.25	1.03	0.00				

Summary for Subcatchment 1S: Basin A - Imp.

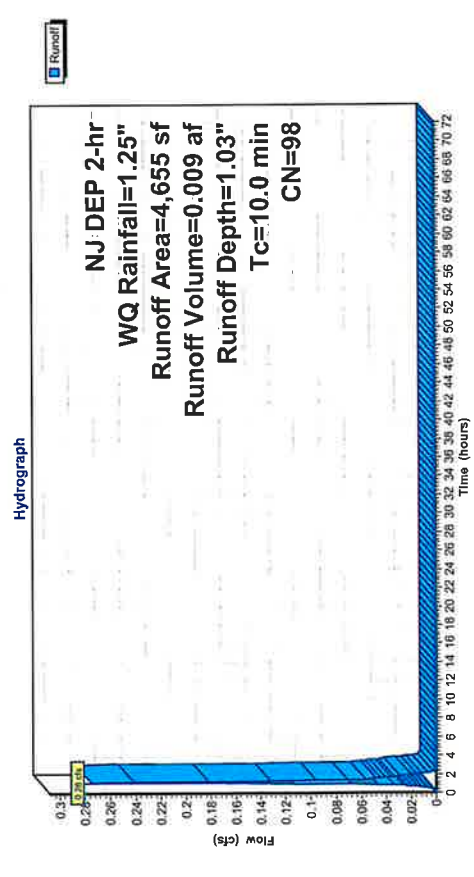
Runoff = 0.28 cfs @ 1.15 hrs, Volume= 0.009 af, Depth= 1.03"
Routed to Pond 3P : Basin A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description
4,655	98	Unconnected pavement, HSG C
4,655	100.00%	Impervious Area
4,655	100.00%	Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 1S: Basin A - Imp.



Hydrograph for Subcatchment 3S: Basin A - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	0.07	0.00
1.00	0.63	0.00	0.00	53.00	1.25	0.07	0.00
2.00	1.25	0.07	0.02	54.00	1.25	0.07	0.00
3.00	1.25	0.07	0.00	55.00	1.25	0.07	0.00
4.00	1.25	0.07	0.00	56.00	1.25	0.07	0.00
5.00	1.25	0.07	0.00	57.00	1.25	0.07	0.00
6.00	1.25	0.07	0.00	58.00	1.25	0.07	0.00
7.00	1.25	0.07	0.00	59.00	1.25	0.07	0.00
8.00	1.25	0.07	0.00	60.00	1.25	0.07	0.00
9.00	1.25	0.07	0.00	61.00	1.25	0.07	0.00
10.00	1.25	0.07	0.00	62.00	1.25	0.07	0.00
11.00	1.25	0.07	0.00	63.00	1.25	0.07	0.00
12.00	1.25	0.07	0.00	64.00	1.25	0.07	0.00
13.00	1.25	0.07	0.00	65.00	1.25	0.07	0.00
14.00	1.25	0.07	0.00	66.00	1.25	0.07	0.00
15.00	1.25	0.07	0.00	67.00	1.25	0.07	0.00
16.00	1.25	0.07	0.00	68.00	1.25	0.07	0.00
17.00	1.25	0.07	0.00	69.00	1.25	0.07	0.00
18.00	1.25	0.07	0.00	70.00	1.25	0.07	0.00
19.00	1.25	0.07	0.00	71.00	1.25	0.07	0.00
20.00	1.25	0.07	0.00	72.00	1.25	0.07	0.00
21.00	1.25	0.07	0.00				
22.00	1.25	0.07	0.00				
23.00	1.25	0.07	0.00				
24.00	1.25	0.07	0.00				
25.00	1.25	0.07	0.00				
26.00	1.25	0.07	0.00				
27.00	1.25	0.07	0.00				
28.00	1.25	0.07	0.00				
29.00	1.25	0.07	0.00				
30.00	1.25	0.07	0.00				
31.00	1.25	0.07	0.00				
32.00	1.25	0.07	0.00				
33.00	1.25	0.07	0.00				
34.00	1.25	0.07	0.00				
35.00	1.25	0.07	0.00				
36.00	1.25	0.07	0.00				
37.00	1.25	0.07	0.00				
38.00	1.25	0.07	0.00				
39.00	1.25	0.07	0.00				
40.00	1.25	0.07	0.00				
41.00	1.25	0.07	0.00				
42.00	1.25	0.07	0.00				
43.00	1.25	0.07	0.00				
44.00	1.25	0.07	0.00				
45.00	1.25	0.07	0.00				
46.00	1.25	0.07	0.00				
47.00	1.25	0.07	0.00				
48.00	1.25	0.07	0.00				
49.00	1.25	0.07	0.00				
50.00	1.25	0.07	0.00				
51.00	1.25	0.07	0.00				

Summary for Subcatchment 3S: Basin A - Perv.

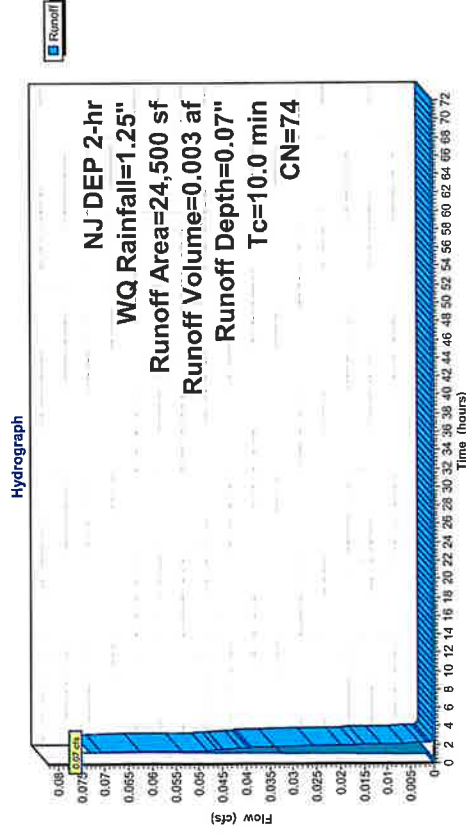
Runoff = 0.07 cfs @ 1.27 hrs, Volume= 0.003 af, Depth= 0.07"
Routed to Pond 3P : Basin A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description
24,500	74	>75% Grass cover, Good, HSG C
24,500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 3S: Basin A - Perv.



Hydrograph for Subcatchment 4S: Basin B - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	1.03	0.00
1.00	0.63	0.43	0.11	53.00	1.25	1.03	0.00
2.00	1.25	1.03	0.01	54.00	1.25	1.03	0.00
3.00	1.25	1.03	0.00	55.00	1.25	1.03	0.00
4.00	1.25	1.03	0.00	56.00	1.25	1.03	0.00
5.00	1.25	1.03	0.00	57.00	1.25	1.03	0.00
6.00	1.25	1.03	0.00	58.00	1.25	1.03	0.00
7.00	1.25	1.03	0.00	59.00	1.25	1.03	0.00
8.00	1.25	1.03	0.00	60.00	1.25	1.03	0.00
9.00	1.25	1.03	0.00	61.00	1.25	1.03	0.00
10.00	1.25	1.03	0.00	62.00	1.25	1.03	0.00
11.00	1.25	1.03	0.00	63.00	1.25	1.03	0.00
12.00	1.25	1.03	0.00	64.00	1.25	1.03	0.00
13.00	1.25	1.03	0.00	65.00	1.25	1.03	0.00
14.00	1.25	1.03	0.00	66.00	1.25	1.03	0.00
15.00	1.25	1.03	0.00	67.00	1.25	1.03	0.00
16.00	1.25	1.03	0.00	68.00	1.25	1.03	0.00
17.00	1.25	1.03	0.00	69.00	1.25	1.03	0.00
18.00	1.25	1.03	0.00	70.00	1.25	1.03	0.00
19.00	1.25	1.03	0.00	71.00	1.25	1.03	0.00
20.00	1.25	1.03	0.00	72.00	1.25	1.03	0.00

Summary for Subcatchment 4S: Basin B - Imp.

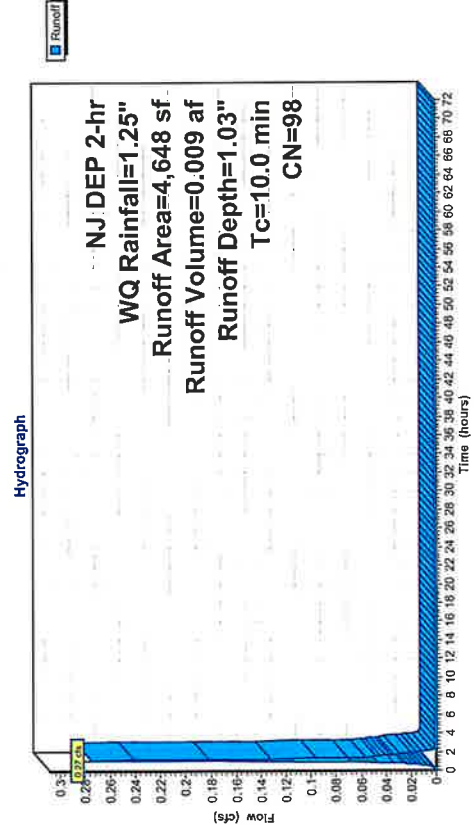
Runoff = 0.27 cfs @ 1.15 hrs, Volume= 0.009 af, Depth= 1.03"
Routed to Pond 4P : Basin B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span=0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description
4,648	98	Unconnected pavement, HSG C
4,648		100.00% Impervious Area
4,648		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 4S: Basin B - Imp.



Summary for Subcatchment 5S: Basin B - Perv.

Runoff = 0.09 cfs @ 1.27 hrs, Volume= 0.004 af, Depth= 0.07"
Routed to Pond 4P : Basin B

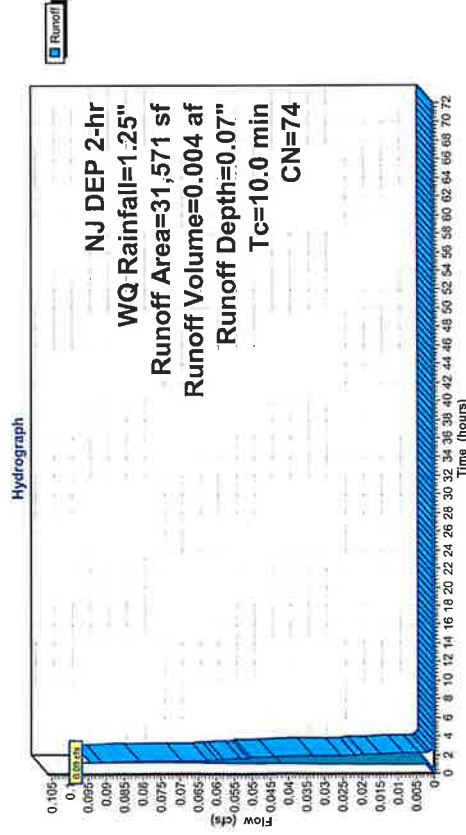
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description
31,571	74	>75% Grass cover, Good, HSG C

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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10.0 Direct Entry, Direct

Subcatchment 5S: Basin B - Perv.



Hydrograph for Subcatchment 5S: Basin B - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	0.07	0.00
1.00	0.63	0.00	0.00	53.00	1.25	0.07	0.00
2.00	1.25	0.07	0.02	54.00	1.25	0.07	0.00
3.00	1.25	0.07	0.00	55.00	1.25	0.07	0.00
4.00	1.25	0.07	0.00	56.00	1.25	0.07	0.00
5.00	1.25	0.07	0.00	57.00	1.25	0.07	0.00
6.00	1.25	0.07	0.00	58.00	1.25	0.07	0.00
7.00	1.25	0.07	0.00	59.00	1.25	0.07	0.00
8.00	1.25	0.07	0.00	60.00	1.25	0.07	0.00
9.00	1.25	0.07	0.00	61.00	1.25	0.07	0.00
10.00	1.25	0.07	0.00	62.00	1.25	0.07	0.00
11.00	1.25	0.07	0.00	63.00	1.25	0.07	0.00
12.00	1.25	0.07	0.00	64.00	1.25	0.07	0.00
13.00	1.25	0.07	0.00	65.00	1.25	0.07	0.00
14.00	1.25	0.07	0.00	66.00	1.25	0.07	0.00
15.00	1.25	0.07	0.00	67.00	1.25	0.07	0.00
16.00	1.25	0.07	0.00	68.00	1.25	0.07	0.00
17.00	1.25	0.07	0.00	69.00	1.25	0.07	0.00
18.00	1.25	0.07	0.00	70.00	1.25	0.07	0.00
19.00	1.25	0.07	0.00	71.00	1.25	0.07	0.00
20.00	1.25	0.07	0.00	72.00	1.25	0.07	0.00
21.00	1.25	0.07	0.00				
22.00	1.25	0.07	0.00				
23.00	1.25	0.07	0.00				
24.00	1.25	0.07	0.00				
25.00	1.25	0.07	0.00				
26.00	1.25	0.07	0.00				
27.00	1.25	0.07	0.00				
28.00	1.25	0.07	0.00				
29.00	1.25	0.07	0.00				
30.00	1.25	0.07	0.00				
31.00	1.25	0.07	0.00				
32.00	1.25	0.07	0.00				
33.00	1.25	0.07	0.00				
34.00	1.25	0.07	0.00				
35.00	1.25	0.07	0.00				
36.00	1.25	0.07	0.00				
37.00	1.25	0.07	0.00				
38.00	1.25	0.07	0.00				
39.00	1.25	0.07	0.00				
40.00	1.25	0.07	0.00				
41.00	1.25	0.07	0.00				
42.00	1.25	0.07	0.00				
43.00	1.25	0.07	0.00				
44.00	1.25	0.07	0.00				
45.00	1.25	0.07	0.00				
46.00	1.25	0.07	0.00				
47.00	1.25	0.07	0.00				
48.00	1.25	0.07	0.00				
49.00	1.25	0.07	0.00				
50.00	1.25	0.07	0.00				
51.00	1.25	0.07	0.00				

Summary for Subcatchment 7S: Basin C - Imp.

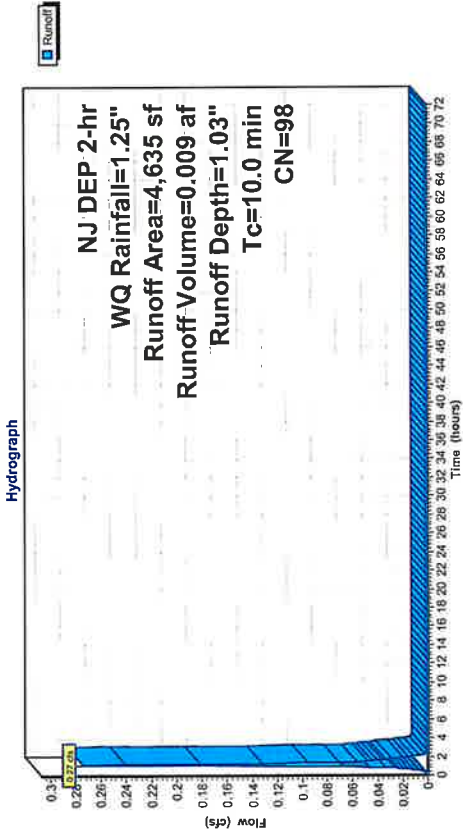
Runoff = 0.27 cfs @ 1.15 hrs, Volume= 0.009 af, Depth= 1.03"
Routed to Pond 5P : Basin C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description
4,635	98	Unconnected pavement, HSG C
4,635	100.00%	Impervious Area
4,635	100.00%	Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 7S: Basin C - Imp.



Hydrograph for Subcatchment 7S: Basin C - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	1.03	0.00
1.00	0.63	0.43	0.11	53.00	1.25	1.03	0.00
2.00	1.25	1.03	0.01	54.00	1.25	1.03	0.00
3.00	1.25	1.03	0.00	55.00	1.25	1.03	0.00
4.00	1.25	1.03	0.00	56.00	1.25	1.03	0.00
5.00	1.25	1.03	0.00	57.00	1.25	1.03	0.00
6.00	1.25	1.03	0.00	58.00	1.25	1.03	0.00
7.00	1.25	1.03	0.00	59.00	1.25	1.03	0.00
8.00	1.25	1.03	0.00	60.00	1.25	1.03	0.00
9.00	1.25	1.03	0.00	61.00	1.25	1.03	0.00
10.00	1.25	1.03	0.00	62.00	1.25	1.03	0.00
11.00	1.25	1.03	0.00	63.00	1.25	1.03	0.00
12.00	1.25	1.03	0.00	64.00	1.25	1.03	0.00
13.00	1.25	1.03	0.00	65.00	1.25	1.03	0.00
14.00	1.25	1.03	0.00	66.00	1.25	1.03	0.00
15.00	1.25	1.03	0.00	67.00	1.25	1.03	0.00
16.00	1.25	1.03	0.00	68.00	1.25	1.03	0.00
17.00	1.25	1.03	0.00	69.00	1.25	1.03	0.00
18.00	1.25	1.03	0.00	70.00	1.25	1.03	0.00
19.00	1.25	1.03	0.00	71.00	1.25	1.03	0.00
20.00	1.25	1.03	0.00	72.00	1.25	1.03	0.00
21.00	1.25	1.03	0.00				
22.00	1.25	1.03	0.00				
23.00	1.25	1.03	0.00				
24.00	1.25	1.03	0.00				
25.00	1.25	1.03	0.00				
26.00	1.25	1.03	0.00				
27.00	1.25	1.03	0.00				
28.00	1.25	1.03	0.00				
29.00	1.25	1.03	0.00				
30.00	1.25	1.03	0.00				
31.00	1.25	1.03	0.00				
32.00	1.25	1.03	0.00				
33.00	1.25	1.03	0.00				
34.00	1.25	1.03	0.00				
35.00	1.25	1.03	0.00				
36.00	1.25	1.03	0.00				
37.00	1.25	1.03	0.00				
38.00	1.25	1.03	0.00				
39.00	1.25	1.03	0.00				
40.00	1.25	1.03	0.00				
41.00	1.25	1.03	0.00				
42.00	1.25	1.03	0.00				
43.00	1.25	1.03	0.00				
44.00	1.25	1.03	0.00				
45.00	1.25	1.03	0.00				
46.00	1.25	1.03	0.00				
47.00	1.25	1.03	0.00				
48.00	1.25	1.03	0.00				
49.00	1.25	1.03	0.00				
50.00	1.25	1.03	0.00				
51.00	1.25	1.03	0.00				

Hydrograph for Subcatchment 8S: Basin C - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	0.07	0.00
1.00	0.63	0.00	0.00	53.00	1.25	0.07	0.00
2.00	1.25	0.07	0.02	54.00	1.25	0.07	0.00
3.00	1.25	0.07	0.00	55.00	1.25	0.07	0.00
4.00	1.25	0.07	0.00	56.00	1.25	0.07	0.00
5.00	1.25	0.07	0.00	57.00	1.25	0.07	0.00
6.00	1.25	0.07	0.00	58.00	1.25	0.07	0.00
7.00	1.25	0.07	0.00	59.00	1.25	0.07	0.00
8.00	1.25	0.07	0.00	60.00	1.25	0.07	0.00
9.00	1.25	0.07	0.00	61.00	1.25	0.07	0.00
10.00	1.25	0.07	0.00	62.00	1.25	0.07	0.00
11.00	1.25	0.07	0.00	63.00	1.25	0.07	0.00
12.00	1.25	0.07	0.00	64.00	1.25	0.07	0.00
13.00	1.25	0.07	0.00	65.00	1.25	0.07	0.00
14.00	1.25	0.07	0.00	66.00	1.25	0.07	0.00
15.00	1.25	0.07	0.00	67.00	1.25	0.07	0.00
16.00	1.25	0.07	0.00	68.00	1.25	0.07	0.00
17.00	1.25	0.07	0.00	69.00	1.25	0.07	0.00
18.00	1.25	0.07	0.00	70.00	1.25	0.07	0.00
19.00	1.25	0.07	0.00	71.00	1.25	0.07	0.00
20.00	1.25	0.07	0.00	72.00	1.25	0.07	0.00
21.00	1.25	0.07	0.00				
22.00	1.25	0.07	0.00				
23.00	1.25	0.07	0.00				
24.00	1.25	0.07	0.00				
25.00	1.25	0.07	0.00				
26.00	1.25	0.07	0.00				
27.00	1.25	0.07	0.00				
28.00	1.25	0.07	0.00				
29.00	1.25	0.07	0.00				
30.00	1.25	0.07	0.00				
31.00	1.25	0.07	0.00				
32.00	1.25	0.07	0.00				
33.00	1.25	0.07	0.00				
34.00	1.25	0.07	0.00				
35.00	1.25	0.07	0.00				
36.00	1.25	0.07	0.00				
37.00	1.25	0.07	0.00				
38.00	1.25	0.07	0.00				
39.00	1.25	0.07	0.00				
40.00	1.25	0.07	0.00				
41.00	1.25	0.07	0.00				
42.00	1.25	0.07	0.00				
43.00	1.25	0.07	0.00				
44.00	1.25	0.07	0.00				
45.00	1.25	0.07	0.00				
46.00	1.25	0.07	0.00				
47.00	1.25	0.07	0.00				
48.00	1.25	0.07	0.00				
49.00	1.25	0.07	0.00				
50.00	1.25	0.07	0.00				
51.00	1.25	0.07	0.00				

Summary for Subcatchment 8S: Basin C - Perv.

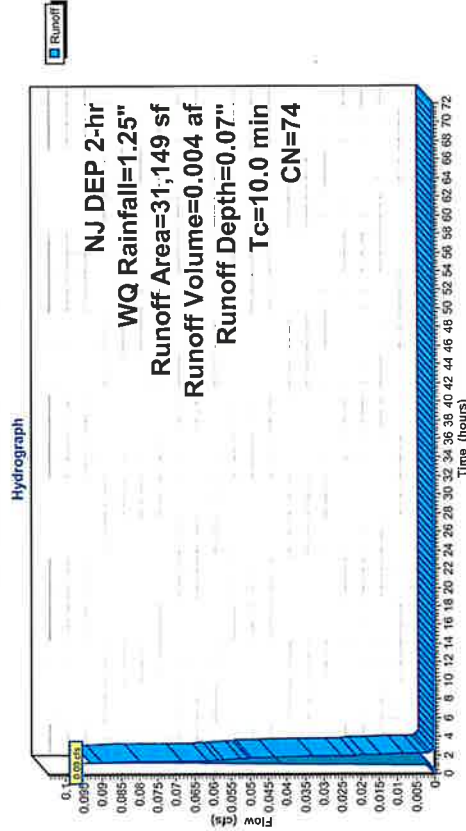
Runoff = 0.09 cfs @ 1.27 hrs, Volume= 0.004 af, Depth= 0.07"
Routed to Pond 5P : Basin C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description
31,149	74	>75% Grass cover, Good, HSG C
31,149		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 8S: Basin C - Perv.

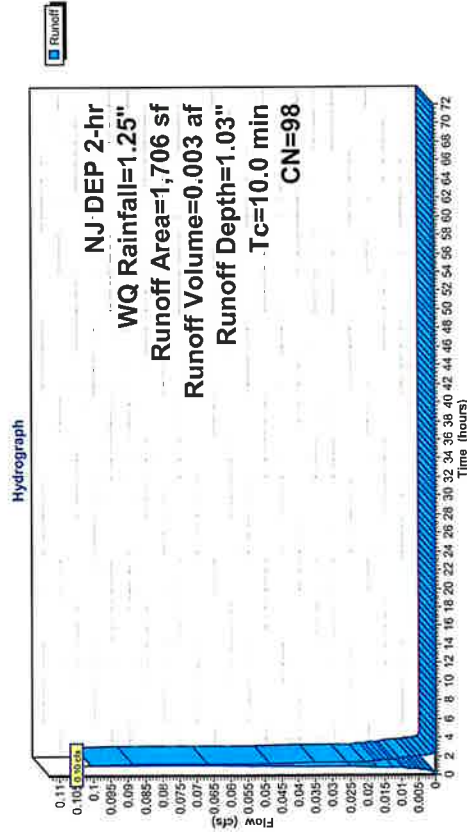


Summary for Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.

Runoff = 0.10 cfs @ 1.15 hrs, Volume= 0.003 af, Depth= 1.03"
 Routed to Link 3L : Mt. Pleasant Ave - Undetained
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description			
1,085	98	Unconnected pavement, HSG C			
621	98	Unconnected pavement, HSG D			
1,706	98	Weighted Average			
1,706		100.00% Impervious Area			
1,706		100.00% Unconnected			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.



Hydrograph for Subcatchment 9S: Mt. Pleasant Ave Undetained - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	1.03	0.00
1.00	0.63	0.43	0.04	53.00	1.25	1.03	0.00
2.00	1.25	1.03	0.00	54.00	1.25	1.03	0.00
3.00	1.25	1.03	0.00	55.00	1.25	1.03	0.00
4.00	1.25	1.03	0.00	56.00	1.25	1.03	0.00
5.00	1.25	1.03	0.00	57.00	1.25	1.03	0.00
6.00	1.25	1.03	0.00	58.00	1.25	1.03	0.00
7.00	1.25	1.03	0.00	59.00	1.25	1.03	0.00
8.00	1.25	1.03	0.00	60.00	1.25	1.03	0.00
9.00	1.25	1.03	0.00	61.00	1.25	1.03	0.00
10.00	1.25	1.03	0.00	62.00	1.25	1.03	0.00
11.00	1.25	1.03	0.00	63.00	1.25	1.03	0.00
12.00	1.25	1.03	0.00	64.00	1.25	1.03	0.00
13.00	1.25	1.03	0.00	65.00	1.25	1.03	0.00
14.00	1.25	1.03	0.00	66.00	1.25	1.03	0.00
15.00	1.25	1.03	0.00	67.00	1.25	1.03	0.00
16.00	1.25	1.03	0.00	68.00	1.25	1.03	0.00
17.00	1.25	1.03	0.00	69.00	1.25	1.03	0.00
18.00	1.25	1.03	0.00	70.00	1.25	1.03	0.00
19.00	1.25	1.03	0.00	71.00	1.25	1.03	0.00
20.00	1.25	1.03	0.00	72.00	1.25	1.03	0.00
21.00	1.25	1.03	0.00				
22.00	1.25	1.03	0.00				
23.00	1.25	1.03	0.00				
24.00	1.25	1.03	0.00				
25.00	1.25	1.03	0.00				
26.00	1.25	1.03	0.00				
27.00	1.25	1.03	0.00				
28.00	1.25	1.03	0.00				
29.00	1.25	1.03	0.00				
30.00	1.25	1.03	0.00				
31.00	1.25	1.03	0.00				
32.00	1.25	1.03	0.00				
33.00	1.25	1.03	0.00				
34.00	1.25	1.03	0.00				
35.00	1.25	1.03	0.00				
36.00	1.25	1.03	0.00				
37.00	1.25	1.03	0.00				
38.00	1.25	1.03	0.00				
39.00	1.25	1.03	0.00				
40.00	1.25	1.03	0.00				
41.00	1.25	1.03	0.00				
42.00	1.25	1.03	0.00				
43.00	1.25	1.03	0.00				
44.00	1.25	1.03	0.00				
45.00	1.25	1.03	0.00				
46.00	1.25	1.03	0.00				
47.00	1.25	1.03	0.00				
48.00	1.25	1.03	0.00				
49.00	1.25	1.03	0.00				
50.00	1.25	1.03	0.00				
51.00	1.25	1.03	0.00				

Summary for Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

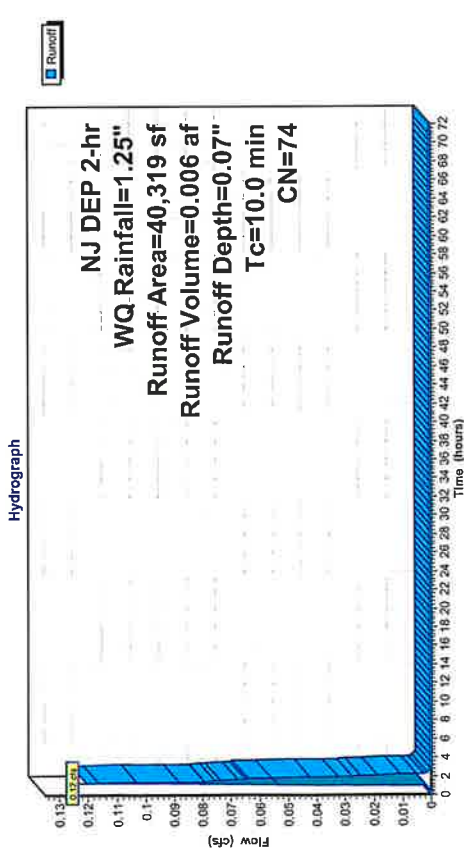
Runoff = 0.12 cfs @ 1.27 hrs, Volume= 0.006 af, Depth= 0.07"
Routed to Link 3L : Mt. Pleasant Ave - Undetained

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description
38,200	74	>75% Grass cover, Good, HSG C
2,119	80	>75% Grass cover, Good, HSG D
40,319	74	Weighted Average
40,319		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct

Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.



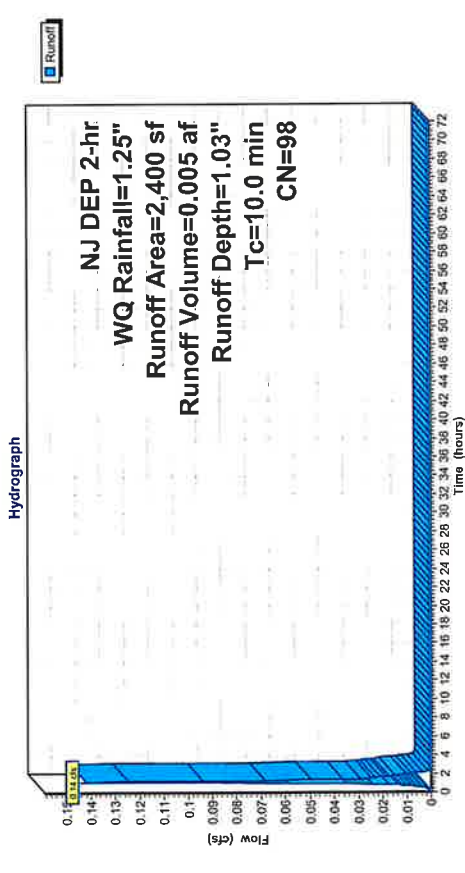
Hydrograph for Subcatchment 10S: Mt. Pleasant Ave Undetained - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	0.07	0.00
1.00	0.63	0.00	0.00	53.00	1.25	0.07	0.00
2.00	1.25	0.07	0.03	54.00	1.25	0.07	0.00
3.00	1.25	0.07	0.00	55.00	1.25	0.07	0.00
4.00	1.25	0.07	0.00	56.00	1.25	0.07	0.00
5.00	1.25	0.07	0.00	57.00	1.25	0.07	0.00
6.00	1.25	0.07	0.00	58.00	1.25	0.07	0.00
7.00	1.25	0.07	0.00	59.00	1.25	0.07	0.00
8.00	1.25	0.07	0.00	60.00	1.25	0.07	0.00
9.00	1.25	0.07	0.00	61.00	1.25	0.07	0.00
10.00	1.25	0.07	0.00	62.00	1.25	0.07	0.00
11.00	1.25	0.07	0.00	63.00	1.25	0.07	0.00
12.00	1.25	0.07	0.00	64.00	1.25	0.07	0.00
13.00	1.25	0.07	0.00	65.00	1.25	0.07	0.00
14.00	1.25	0.07	0.00	66.00	1.25	0.07	0.00
15.00	1.25	0.07	0.00	67.00	1.25	0.07	0.00
16.00	1.25	0.07	0.00	68.00	1.25	0.07	0.00
17.00	1.25	0.07	0.00	69.00	1.25	0.07	0.00
18.00	1.25	0.07	0.00	70.00	1.25	0.07	0.00
19.00	1.25	0.07	0.00	71.00	1.25	0.07	0.00
20.00	1.25	0.07	0.00	72.00	1.25	0.07	0.00
21.00	1.25	0.07	0.00				
22.00	1.25	0.07	0.00				
23.00	1.25	0.07	0.00				
24.00	1.25	0.07	0.00				
25.00	1.25	0.07	0.00				
26.00	1.25	0.07	0.00				
27.00	1.25	0.07	0.00				
28.00	1.25	0.07	0.00				
29.00	1.25	0.07	0.00				
30.00	1.25	0.07	0.00				
31.00	1.25	0.07	0.00				
32.00	1.25	0.07	0.00				
33.00	1.25	0.07	0.00				
34.00	1.25	0.07	0.00				
35.00	1.25	0.07	0.00				
36.00	1.25	0.07	0.00				
37.00	1.25	0.07	0.00				
38.00	1.25	0.07	0.00				
39.00	1.25	0.07	0.00				
40.00	1.25	0.07	0.00				
41.00	1.25	0.07	0.00				
42.00	1.25	0.07	0.00				
43.00	1.25	0.07	0.00				
44.00	1.25	0.07	0.00				
45.00	1.25	0.07	0.00				
46.00	1.25	0.07	0.00				
47.00	1.25	0.07	0.00				
48.00	1.25	0.07	0.00				
49.00	1.25	0.07	0.00				
50.00	1.25	0.07	0.00				
51.00	1.25	0.07	0.00				

Summary for Subcatchment 11S: Basin D - Imp.

Runoff = 0.14 cfs @ 1.15 hrs, Volume= 0.005 af, Depth= 1.03"	
Routed to Pond 6P : Basin D	
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs	
NJ DEP 2-hr WQ Rainfall=1.25"	
Area (sf)	CN
2,400	98
100.00% Impervious Area	
2,400	100.00% Unconnected
Tc (min)	Slope (ft/ft)
10.0	Velocity (ft/sec)
Capacity (cfs)	
Description	
Direct Entry, Direct	

Subcatchment 11S: Basin D - Imp.



Hydrograph for Subcatchment 11S: Basin D - Imp.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	1.03	0.00
1.00	0.63	0.43	0.06	53.00	1.25	1.03	0.00
2.00	1.25	1.03	0.01	54.00	1.25	1.03	0.00
3.00	1.25	1.03	0.00	55.00	1.25	1.03	0.00
4.00	1.25	1.03	0.00	56.00	1.25	1.03	0.00
5.00	1.25	1.03	0.00	57.00	1.25	1.03	0.00
6.00	1.25	1.03	0.00	58.00	1.25	1.03	0.00
7.00	1.25	1.03	0.00	59.00	1.25	1.03	0.00
8.00	1.25	1.03	0.00	60.00	1.25	1.03	0.00
9.00	1.25	1.03	0.00	61.00	1.25	1.03	0.00
10.00	1.25	1.03	0.00	62.00	1.25	1.03	0.00
11.00	1.25	1.03	0.00	63.00	1.25	1.03	0.00
12.00	1.25	1.03	0.00	64.00	1.25	1.03	0.00
13.00	1.25	1.03	0.00	65.00	1.25	1.03	0.00
14.00	1.25	1.03	0.00	66.00	1.25	1.03	0.00
15.00	1.25	1.03	0.00	67.00	1.25	1.03	0.00
16.00	1.25	1.03	0.00	68.00	1.25	1.03	0.00
17.00	1.25	1.03	0.00	69.00	1.25	1.03	0.00
18.00	1.25	1.03	0.00	70.00	1.25	1.03	0.00
19.00	1.25	1.03	0.00	71.00	1.25	1.03	0.00
20.00	1.25	1.03	0.00	72.00	1.25	1.03	0.00
21.00	1.25	1.03	0.00				
22.00	1.25	1.03	0.00				
23.00	1.25	1.03	0.00				
24.00	1.25	1.03	0.00				
25.00	1.25	1.03	0.00				
26.00	1.25	1.03	0.00				
27.00	1.25	1.03	0.00				
28.00	1.25	1.03	0.00				
29.00	1.25	1.03	0.00				
30.00	1.25	1.03	0.00				
31.00	1.25	1.03	0.00				
32.00	1.25	1.03	0.00				
33.00	1.25	1.03	0.00				
34.00	1.25	1.03	0.00				
35.00	1.25	1.03	0.00				
36.00	1.25	1.03	0.00				
37.00	1.25	1.03	0.00				
38.00	1.25	1.03	0.00				
39.00	1.25	1.03	0.00				
40.00	1.25	1.03	0.00				
41.00	1.25	1.03	0.00				
42.00	1.25	1.03	0.00				
43.00	1.25	1.03	0.00				
44.00	1.25	1.03	0.00				
45.00	1.25	1.03	0.00				
46.00	1.25	1.03	0.00				
47.00	1.25	1.03	0.00				
48.00	1.25	1.03	0.00				
49.00	1.25	1.03	0.00				
50.00	1.25	1.03	0.00				
51.00	1.25	1.03	0.00				

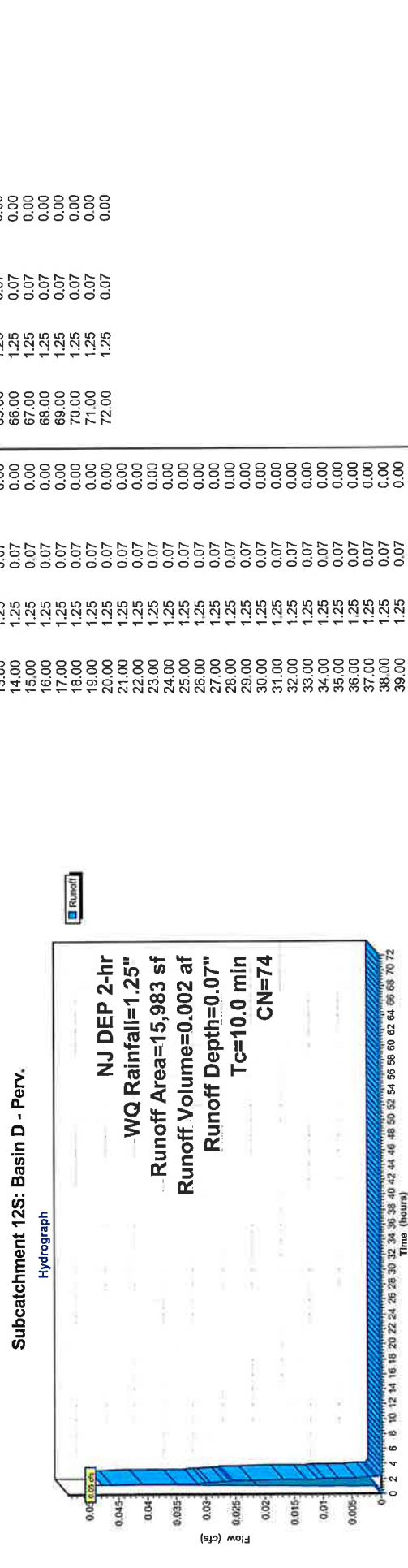
Summary for Subcatchment 12S: Basin D - Perv.

Runoff = 0.05 cfs @ 1.27 hrs, Volume= 0.002 af, Depth= 0.07"
Routed to Pond 6P : Basin D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Rainfall=1.25"

Area (sf)	CN	Description
15,983	74	>75% Grass cover, Good, HSG C
15,983		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry, Direct



Hydrograph for Subcatchment 12S: Basin D - Perv.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	1.25	0.07	0.00
1.00	0.63	0.00	0.00	53.00	1.25	0.07	0.00
2.00	1.25	0.01	0.01	54.00	1.25	0.07	0.00
3.00	1.25	0.07	0.00	55.00	1.25	0.07	0.00
4.00	1.25	0.07	0.00	56.00	1.25	0.07	0.00
5.00	1.25	0.07	0.00	57.00	1.25	0.07	0.00
6.00	1.25	0.07	0.00	58.00	1.25	0.07	0.00
7.00	1.25	0.07	0.00	59.00	1.25	0.07	0.00
8.00	1.25	0.07	0.00	60.00	1.25	0.07	0.00
9.00	1.25	0.07	0.00	61.00	1.25	0.07	0.00
10.00	1.25	0.07	0.00	62.00	1.25	0.07	0.00
11.00	1.25	0.07	0.00	63.00	1.25	0.07	0.00
12.00	1.25	0.07	0.00	64.00	1.25	0.07	0.00
13.00	1.25	0.07	0.00	65.00	1.25	0.07	0.00
14.00	1.25	0.07	0.00	66.00	1.25	0.07	0.00
15.00	1.25	0.07	0.00	67.00	1.25	0.07	0.00
16.00	1.25	0.07	0.00	68.00	1.25	0.07	0.00
17.00	1.25	0.07	0.00	69.00	1.25	0.07	0.00
18.00	1.25	0.07	0.00	70.00	1.25	0.07	0.00
19.00	1.25	0.07	0.00	71.00	1.25	0.07	0.00
20.00	1.25	0.07	0.00	72.00	1.25	0.07	0.00
21.00	1.25	0.07	0.00				
22.00	1.25	0.07	0.00				
23.00	1.25	0.07	0.00				
24.00	1.25	0.07	0.00				
25.00	1.25	0.07	0.00				
26.00	1.25	0.07	0.00				
27.00	1.25	0.07	0.00				
28.00	1.25	0.07	0.00				
29.00	1.25	0.07	0.00				
30.00	1.25	0.07	0.00				
31.00	1.25	0.07	0.00				
32.00	1.25	0.07	0.00				
33.00	1.25	0.07	0.00				
34.00	1.25	0.07	0.00				
35.00	1.25	0.07	0.00				
36.00	1.25	0.07	0.00				
37.00	1.25	0.07	0.00				
38.00	1.25	0.07	0.00				
39.00	1.25	0.07	0.00				
40.00	1.25	0.07	0.00				
41.00	1.25	0.07	0.00				
42.00	1.25	0.07	0.00				
43.00	1.25	0.07	0.00				
44.00	1.25	0.07	0.00				
45.00	1.25	0.07	0.00				
46.00	1.25	0.07	0.00				
47.00	1.25	0.07	0.00				
48.00	1.25	0.07	0.00				
49.00	1.25	0.07	0.00				
50.00	1.25	0.07	0.00				
51.00	1.25	0.07	0.00				

Summary for Pond 3P: Basin A

Inflow Area = 0.669 ac, 15.97% Impervious, Inflow Depth = 0.23" for WQ event
Inflow = 0.31 cfs @ 1.17 hrs, Volume= 0.013 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 2L : Mt. Pleasant Ave.

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 624.27' @ 2.60 hrs Surf.Area= 2,106 sf Storage= 552 cf

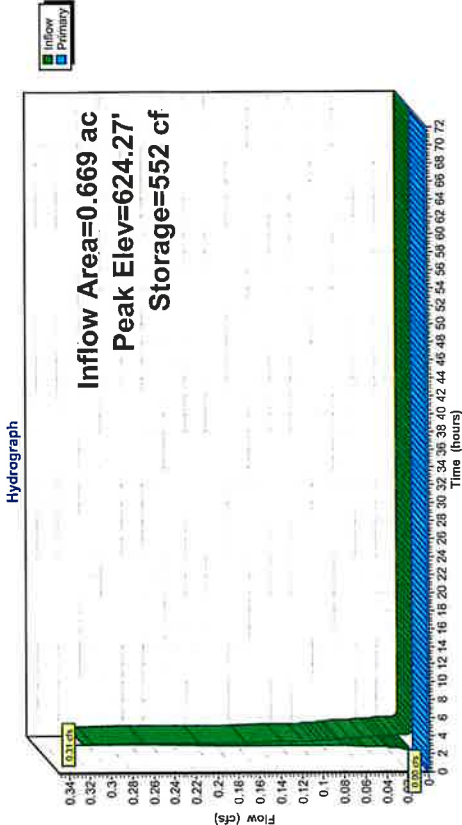
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume		Invert	Avail. Storage	Storage Description
#1	624.00'		8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf. Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)	
624.00	1,951	0	0	
625.00	2,519	2,235	2,235	
626.00	3,150	2,835	5,070	
627.00	3,833	3,492	8,561	

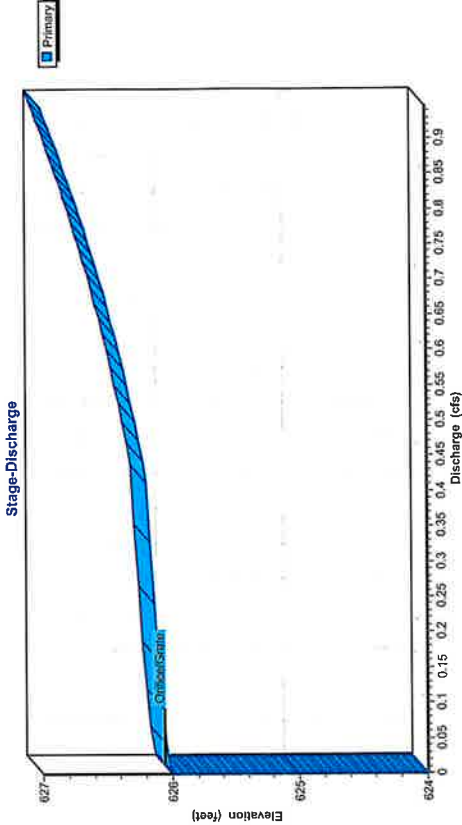
Device	Routing	Invert	Outlet Devices
#1	Primary	626.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=624.00' (Free Discharge)
1-1=Orifice/Grate (Controls 0.00 cfs)

Pond 3P: Basin A



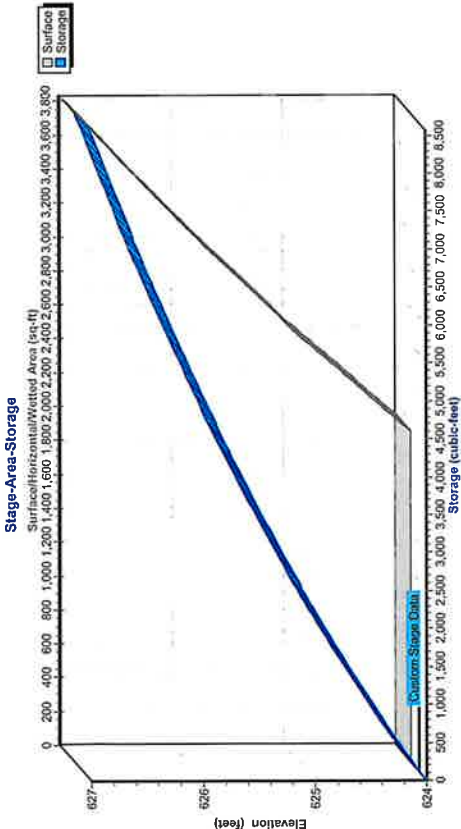
Pond 3P: Basin A



Hydrograph for Pond 3P: Basin A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	624.00	0.00
2.50	0.00	552	624.27	0.00
5.00	0.00	552	624.27	0.00
7.50	0.00	552	624.27	0.00
10.00	0.00	552	624.27	0.00
12.50	0.00	552	624.27	0.00
15.00	0.00	552	624.27	0.00
17.50	0.00	552	624.27	0.00
20.00	0.00	552	624.27	0.00
22.50	0.00	552	624.27	0.00
25.00	0.00	552	624.27	0.00
27.50	0.00	552	624.27	0.00
30.00	0.00	552	624.27	0.00
32.50	0.00	552	624.27	0.00
35.00	0.00	552	624.27	0.00
37.50	0.00	552	624.27	0.00
40.00	0.00	552	624.27	0.00
42.50	0.00	552	624.27	0.00
45.00	0.00	552	624.27	0.00
47.50	0.00	552	624.27	0.00
50.00	0.00	552	624.27	0.00
52.50	0.00	552	624.27	0.00
55.00	0.00	552	624.27	0.00
57.50	0.00	552	624.27	0.00
60.00	0.00	552	624.27	0.00
62.50	0.00	552	624.27	0.00
65.00	0.00	552	624.27	0.00
67.50	0.00	552	624.27	0.00
70.00	0.00	552	624.27	0.00

Pond 3P: Basin A



Stage-Discharge for Pond 3P: Basin A

Elevation (feet)	Primary (cfs)	Primary (cfs)	Elevation (feet)	Primary (cfs)
624.00	0.00	0.00	626.08	0.12
624.02	0.00	0.00	626.10	0.16
624.04	0.00	0.00	626.12	0.21
624.06	0.00	0.00	626.14	0.27
624.08	0.00	0.00	626.16	0.33
624.10	0.00	0.00	626.18	0.39
624.12	0.00	0.00	626.20	0.42
624.14	0.00	0.00	626.22	0.44
624.16	0.00	0.00	626.24	0.46
624.18	0.00	0.00	626.26	0.48
624.20	0.00	0.00	626.28	0.50
624.22	0.00	0.00	626.30	0.52
624.24	0.00	0.00	626.32	0.53
624.26	0.00	0.00	626.34	0.55
624.28	0.00	0.00	626.36	0.57
624.30	0.00	0.00	626.38	0.58
624.32	0.00	0.00	626.40	0.60
624.34	0.00	0.00	626.42	0.61
624.36	0.00	0.00	626.44	0.63
624.38	0.00	0.00	626.46	0.64
624.40	0.00	0.00	626.48	0.66
624.42	0.00	0.00	626.50	0.67
624.44	0.00	0.00	626.52	0.68
624.46	0.00	0.00	626.54	0.69
624.48	0.00	0.00	626.56	0.71
624.50	0.00	0.00	626.58	0.72
624.52	0.00	0.00	626.60	0.73
624.54	0.00	0.00	626.62	0.74
624.56	0.00	0.00	626.64	0.76
624.58	0.00	0.00	626.66	0.77
624.60	0.00	0.00	626.68	0.78
624.62	0.00	0.00	626.70	0.79
624.64	0.00	0.00	626.72	0.80
624.66	0.00	0.00	626.74	0.81
624.68	0.00	0.00	626.76	0.82
624.70	0.00	0.00	626.78	0.83
624.72	0.00	0.00	626.80	0.85
624.74	0.00	0.00	626.82	0.86
624.76	0.00	0.00	626.84	0.87
624.78	0.00	0.00	626.86	0.88
624.80	0.00	0.00	626.88	0.89
624.82	0.00	0.00	626.90	0.90
624.84	0.00	0.00	626.92	0.91
624.86	0.00	0.00	626.94	0.92
624.88	0.00	0.00	626.96	0.93
624.90	0.00	0.00	626.98	0.94
624.92	0.00	0.00	627.00	0.95
624.94	0.00	0.00		
624.96	0.00	0.00		
624.98	0.00	0.01		
625.00	0.00	0.04		
625.02	0.00	0.08		

Stage-Area-Storage for Pond 3P: Basin A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
624.00	1,951	0	626.60	3,560	7,082
624.05	1,979	98	626.65	3,594	7,261
624.10	2,008	198	626.70	3,628	7,442
624.15	2,036	299	626.75	3,662	7,624
624.20	2,065	402	626.80	3,696	7,808
624.25	2,093	506	626.85	3,731	7,994
624.30	2,121	611	626.90	3,765	8,181
624.35	2,150	718	626.95	3,799	8,370
624.40	2,178	826	627.00	3,833	8,561
624.45	2,207	935			
624.50	2,235	1,047			
624.55	2,263	1,159			
624.60	2,292	1,273			
624.65	2,320	1,388			
624.70	2,349	1,505			
624.75	2,377	1,623			
624.80	2,405	1,743			
624.85	2,434	1,864			
624.90	2,462	1,986			
624.95	2,491	2,110			
625.00	2,519	2,235			
625.05	2,551	2,362			
625.10	2,582	2,490			
625.15	2,614	2,620			
625.20	2,645	2,751			
625.25	2,677	2,884			
625.30	2,708	3,019			
625.35	2,740	3,155			
625.40	2,771	3,293			
625.45	2,803	3,432			
625.50	2,835	3,573			
625.55	2,866	3,716			
625.60	2,898	3,860			
625.65	2,929	4,006			
625.70	2,961	4,153			
625.75	2,992	4,302			
625.80	3,024	4,452			
625.85	3,055	4,604			
625.90	3,087	4,758			
625.95	3,118	4,913			
626.00	3,150	5,070			
626.05	3,184	5,228			
626.10	3,218	5,388			
626.15	3,252	5,550			
626.20	3,287	5,713			
626.25	3,321	5,878			
626.30	3,355	6,045			
626.35	3,389	6,214			
626.40	3,423	6,384			
626.45	3,457	6,556			
626.50	3,492	6,730			
626.55	3,526	6,905			

Summary for Pond 4P: Basin B

Inflow Area = 0.831 ac, 12.83% Impervious, Inflow Depth = 0.20" for WQ event
Inflow = 0.32 cfs @ 1.18 hrs, Volume= 0.014 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 2L : Mt. Pleasant Ave.

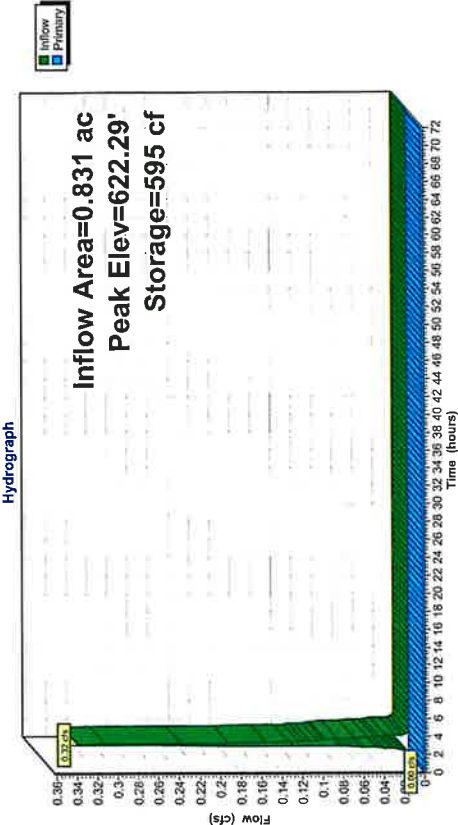
Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 622.29' @ 2.60 hrs Surf.Area= 2,117 sf Storage= 595 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

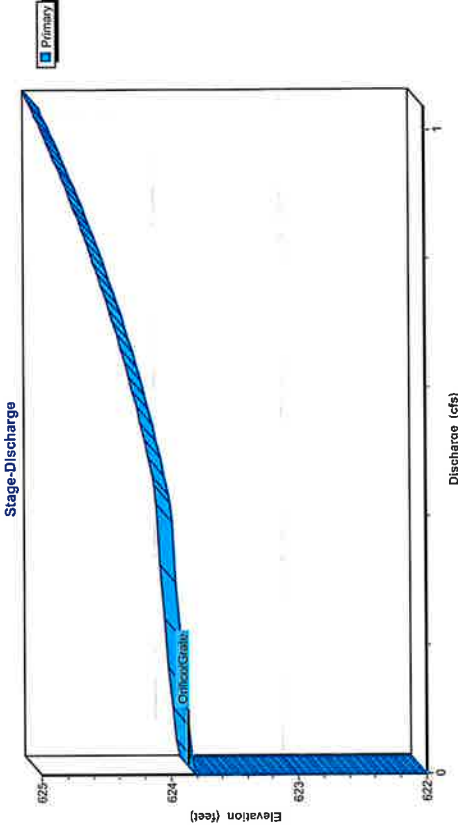
Volume		Avail.Storage		Storage Description	
#1	622.00'	8,561 cf			
Custom Stage Data (Prismatic) Listed below (Recalc)					
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)		
622.00	1,951	0	0		
623.00	2,519	2,235	2,235		
624.00	3,150	2,835	5,070		
625.00	3,833	3,492	8,561		

Device		Routing	Invert	Outlet Devices	
#1	Primary	623.80'	6.0" Horiz. Orifice/Grate	C= 0.600	Limited to weir flow at low heads
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=622.00' (Free Discharge)					
1=Orifice/Grate (Controls 0.00 cfs)					

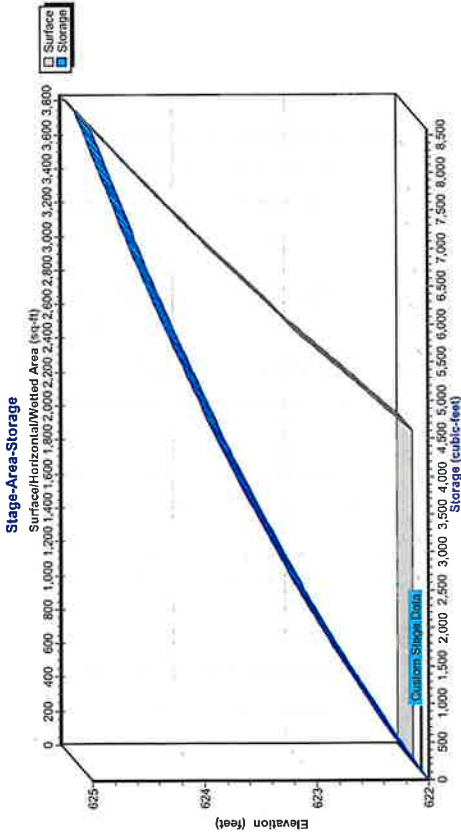
Pond 4P: Basin B



Pond 4P: Basin B



Pond 4P: Basin B



Hydrograph for Pond 4P: Basin B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	622.00	0.00
2.50	0.00	595	622.29	0.00
5.00	0.00	595	622.29	0.00
7.50	0.00	595	622.29	0.00
10.00	0.00	595	622.29	0.00
12.50	0.00	595	622.29	0.00
15.00	0.00	595	622.29	0.00
17.50	0.00	595	622.29	0.00
20.00	0.00	595	622.29	0.00
22.50	0.00	595	622.29	0.00
25.00	0.00	595	622.29	0.00
27.50	0.00	595	622.29	0.00
30.00	0.00	595	622.29	0.00
32.50	0.00	595	622.29	0.00
35.00	0.00	595	622.29	0.00
37.50	0.00	595	622.29	0.00
40.00	0.00	595	622.29	0.00
42.50	0.00	595	622.29	0.00
45.00	0.00	595	622.29	0.00
47.50	0.00	595	622.29	0.00
50.00	0.00	595	622.29	0.00
52.50	0.00	595	622.29	0.00
55.00	0.00	595	622.29	0.00
57.50	0.00	595	622.29	0.00
60.00	0.00	595	622.29	0.00
62.50	0.00	595	622.29	0.00
65.00	0.00	595	622.29	0.00
67.50	0.00	595	622.29	0.00
70.00	0.00	595	622.29	0.00

Stage-Discharge for Pond 4P: Basin B

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
622.00	0.00	623.04	0.00	624.08	0.50
622.02	0.00	623.06	0.00	624.10	0.52
622.04	0.00	623.08	0.00	624.12	0.53
622.06	0.00	623.10	0.00	624.14	0.55
622.08	0.00	623.12	0.00	624.16	0.57
622.10	0.00	623.14	0.00	624.18	0.58
622.12	0.00	623.16	0.00	624.20	0.60
622.14	0.00	623.18	0.00	624.22	0.61
622.16	0.00	623.20	0.00	624.24	0.63
622.18	0.00	623.22	0.00	624.26	0.64
622.20	0.00	623.24	0.00	624.28	0.66
622.22	0.00	623.26	0.00	624.30	0.67
622.24	0.00	623.28	0.00	624.32	0.68
622.26	0.00	623.30	0.00	624.34	0.69
622.28	0.00	623.32	0.00	624.36	0.71
622.30	0.00	623.34	0.00	624.38	0.72
622.32	0.00	623.36	0.00	624.40	0.73
622.34	0.00	623.38	0.00	624.42	0.74
622.36	0.00	623.40	0.00	624.44	0.76
622.38	0.00	623.42	0.00	624.46	0.77
622.40	0.00	623.44	0.00	624.48	0.78
622.42	0.00	623.46	0.00	624.50	0.79
622.44	0.00	623.48	0.00	624.52	0.80
622.46	0.00	623.50	0.00	624.54	0.81
622.48	0.00	623.52	0.00	624.56	0.82
622.50	0.00	623.54	0.00	624.58	0.83
622.52	0.00	623.56	0.00	624.60	0.85
622.54	0.00	623.58	0.00	624.62	0.86
622.56	0.00	623.60	0.00	624.64	0.87
622.58	0.00	623.62	0.00	624.66	0.88
622.60	0.00	623.64	0.00	624.68	0.89
622.62	0.00	623.66	0.00	624.70	0.90
622.64	0.00	623.68	0.00	624.72	0.91
622.66	0.00	623.70	0.00	624.74	0.92
622.68	0.00	623.72	0.00	624.76	0.93
622.70	0.00	623.74	0.00	624.78	0.94
622.72	0.00	623.76	0.00	624.80	0.95
622.74	0.00	623.78	0.00	624.82	0.95
622.76	0.00	623.80	0.00	624.84	0.96
622.78	0.00	623.82	0.01	624.86	0.97
622.80	0.00	623.84	0.04	624.88	0.98
622.82	0.00	623.86	0.08	624.90	0.99
622.84	0.00	623.88	0.12	624.92	1.00
622.86	0.00	623.90	0.16	624.94	1.01
622.88	0.00	623.92	0.21	624.96	1.02
622.90	0.00	623.94	0.27	624.98	1.03
622.92	0.00	623.96	0.33	625.00	1.04
622.94	0.00	623.98	0.39		
622.96	0.00	624.00	0.42		
622.98	0.00	624.02	0.44		
623.00	0.00	624.04	0.46		
623.02	0.00	624.06	0.48		

Stage-Area-Storage for Pond 4P: Basin B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
622.00	1,951	0	624.60	3,560	7,082
622.05	1,979	98	624.65	3,594	7,261
622.10	2,008	198	624.70	3,628	7,442
622.15	2,036	299	624.75	3,662	7,624
622.20	2,065	402	624.80	3,696	7,808
622.25	2,093	506	624.85	3,731	7,994
622.30	2,121	611	624.90	3,765	8,181
622.35	2,150	718	624.95	3,799	8,370
622.40	2,178	826	625.00	3,833	8,561
622.45	2,207	935			
622.50	2,235	1,047			
622.55	2,263	1,159			
622.60	2,292	1,273			
622.65	2,320	1,388			
622.70	2,349	1,505			
622.75	2,377	1,623			
622.80	2,405	1,743			
622.85	2,434	1,864			
622.90	2,462	1,986			
622.95	2,491	2,110			
623.00	2,519	2,235			
623.05	2,551	2,362			
623.10	2,582	2,490			
623.15	2,614	2,620			
623.20	2,645	2,751			
623.25	2,677	2,884			
623.30	2,708	3,019			
623.35	2,740	3,155			
623.40	2,771	3,293			
623.45	2,803	3,432			
623.50	2,835	3,573			
623.55	2,866	3,716			
623.60	2,898	3,860			
623.65	2,929	4,006			
623.70	2,961	4,153			
623.75	2,992	4,302			
623.80	3,024	4,452			
623.85	3,055	4,604			
623.90	3,087	4,758			
623.95	3,118	4,913			
624.00	3,150	5,070			
624.05	3,184	5,228			
624.10	3,218	5,388			
624.15	3,252	5,550			
624.20	3,287	5,713			
624.25	3,321	5,878			
624.30	3,355	6,045			
624.35	3,389	6,214			
624.40	3,423	6,384			
624.45	3,457	6,556			
624.50	3,492	6,730			
624.55	3,526	6,905			

Summary for Pond 5P: Basin C

Inflow Area = 0.821 ac, 12.95% Impervious, Inflow Depth = 0.20" for WQ event
Inflow = 0.32 cfs @ 1.18 hrs, Volume= 0.014 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 2L : Mt. Pleasant Ave.

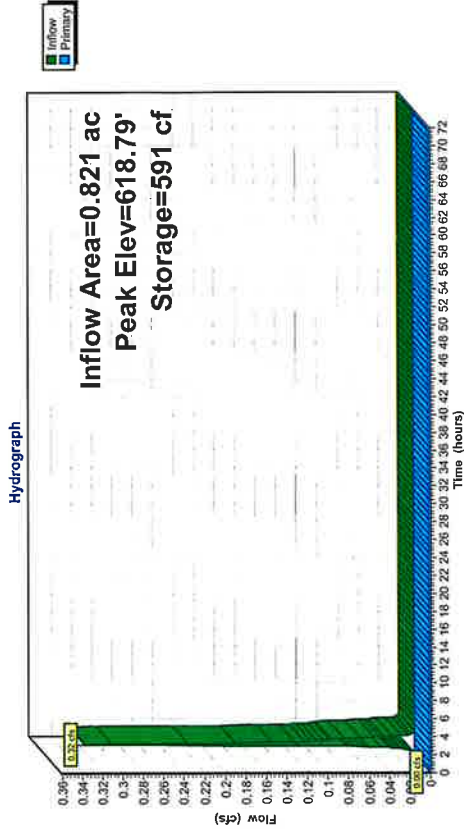
Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs,
Peak Elev= 618.79' @ 2.50 hrs Surf.Area= 2,149 sf Storage= 591 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass del. time= (not calculated: no outflow)

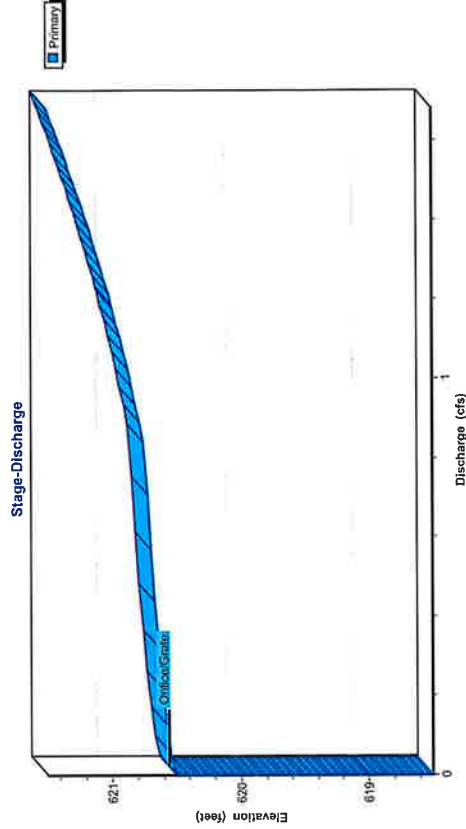
Volume		Invert	Avail.Storage	Storage Description	
#1	618.50'		8,744 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)		
618.50	1,966	0	0		
619.00	2,285	1,063	1,063		
620.00	2,892	2,589	3,651		
621.00	3,560	3,226	6,877		
621.50	3,907	1,867	8,744		

Device		Routing	Invert	Outlet Devices	
#1	Primary	620.50'	8.0" Horiz. Orifice/Grate	C= 0.600	Limited to weir flow at low heads
Primary Outflow Max=0.00 cfs @ 0.00 hrs HW=618.50' (Free Discharge)					
↓ i=Orifice/Grate (Controls 0.00 cfs)					

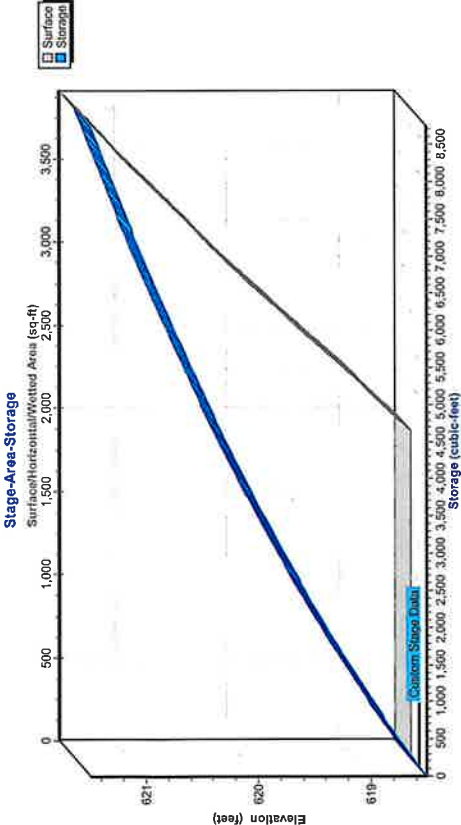
Pond 5P: Basin C



Pond 5P: Basin C



Pond 5P: Basin C



Hydrograph for Pond 5P: Basin C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	618.50	0.00
2.50	0.00	591	618.79	0.00
5.00	0.00	591	618.79	0.00
7.50	0.00	591	618.79	0.00
10.00	0.00	591	618.79	0.00
12.50	0.00	591	618.79	0.00
15.00	0.00	591	618.79	0.00
17.50	0.00	591	618.79	0.00
20.00	0.00	591	618.79	0.00
22.50	0.00	591	618.79	0.00
25.00	0.00	591	618.79	0.00
27.50	0.00	591	618.79	0.00
30.00	0.00	591	618.79	0.00
32.50	0.00	591	618.79	0.00
35.00	0.00	591	618.79	0.00
37.50	0.00	591	618.79	0.00
40.00	0.00	591	618.79	0.00
42.50	0.00	591	618.79	0.00
45.00	0.00	591	618.79	0.00
47.50	0.00	591	618.79	0.00
50.00	0.00	591	618.79	0.00
52.50	0.00	591	618.79	0.00
55.00	0.00	591	618.79	0.00
57.50	0.00	591	618.79	0.00
60.00	0.00	591	618.79	0.00
62.50	0.00	591	618.79	0.00
65.00	0.00	591	618.79	0.00
67.50	0.00	591	618.79	0.00
70.00	0.00	591	618.79	0.00

Stage-Discharge for Pond 5P: Basin C

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
618.50	0.00	619.54	0.00	620.58	0.15
618.52	0.00	619.56	0.00	620.60	0.22
618.54	0.00	619.58	0.00	620.62	0.28
618.56	0.00	619.60	0.00	620.64	0.36
618.58	0.00	619.62	0.00	620.66	0.44
618.60	0.00	619.64	0.00	620.68	0.52
618.62	0.00	619.66	0.00	620.70	0.61
618.64	0.00	619.68	0.00	620.72	0.71
618.66	0.00	619.70	0.00	620.74	0.81
618.68	0.00	619.72	0.00	620.76	0.86
618.70	0.00	619.74	0.00	620.78	0.89
618.72	0.00	619.76	0.00	620.80	0.92
618.74	0.00	619.78	0.00	620.82	0.95
618.76	0.00	619.80	0.00	620.84	0.98
618.78	0.00	619.82	0.00	620.86	1.01
618.80	0.00	619.84	0.00	620.88	1.04
618.82	0.00	619.86	0.00	620.90	1.06
618.84	0.00	619.88	0.00	620.92	1.09
618.86	0.00	619.90	0.00	620.94	1.11
618.88	0.00	619.92	0.00	620.96	1.14
618.90	0.00	619.94	0.00	620.98	1.16
618.92	0.00	619.96	0.00	621.00	1.19
618.94	0.00	619.98	0.00	621.02	1.21
618.96	0.00	620.00	0.00	621.04	1.24
618.98	0.00	620.02	0.00	621.06	1.26
619.00	0.00	620.04	0.00	621.08	1.28
619.02	0.00	620.06	0.00	621.10	1.30
619.04	0.00	620.08	0.00	621.12	1.32
619.06	0.00	620.10	0.00	621.14	1.34
619.08	0.00	620.12	0.00	621.16	1.37
619.10	0.00	620.14	0.00	621.18	1.39
619.12	0.00	620.16	0.00	621.20	1.41
619.14	0.00	620.18	0.00	621.22	1.43
619.16	0.00	620.20	0.00	621.24	1.45
619.18	0.00	620.22	0.00	621.26	1.47
619.20	0.00	620.24	0.00	621.28	1.48
619.22	0.00	620.26	0.00	621.30	1.50
619.24	0.00	620.28	0.00	621.32	1.52
619.26	0.00	620.30	0.00	621.34	1.54
619.28	0.00	620.32	0.00	621.36	1.56
619.30	0.00	620.34	0.00	621.38	1.58
619.32	0.00	620.36	0.00	621.40	1.59
619.34	0.00	620.38	0.00	621.42	1.61
619.36	0.00	620.40	0.00	621.44	1.63
619.38	0.00	620.42	0.00	621.46	1.65
619.40	0.00	620.44	0.00	621.48	1.66
619.42	0.00	620.46	0.00	621.50	1.68
619.44	0.00	620.48	0.00		
619.46	0.00	620.50	0.00		
619.48	0.00	620.52	0.02		
619.50	0.00	620.54	0.05		
619.52	0.00	620.56	0.10		

Stage-Area-Storage for Pond 5P: Basin C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
618.50	1,966	0	621.10	3,629	7,237
618.55	1,998	99	621.15	3,664	7,419
618.60	2,030	200	621.20	3,699	7,603
618.65	2,062	302	621.25	3,734	7,789
618.70	2,094	406	621.30	3,768	7,976
618.75	2,126	511	621.35	3,803	8,166
618.80	2,157	619	621.40	3,838	8,357
618.85	2,189	727	621.45	3,872	8,550
618.90	2,221	837	621.50	3,907	8,744
618.95	2,253	949			
619.00	2,285	1,063			
619.05	2,315	1,178			
619.10	2,346	1,294			
619.15	2,376	1,412			
619.20	2,406	1,532			
619.25	2,437	1,653			
619.30	2,467	1,776			
619.35	2,497	1,900			
619.40	2,528	2,025			
619.45	2,558	2,152			
619.50	2,589	2,281			
619.55	2,619	2,411			
619.60	2,649	2,543			
619.65	2,680	2,676			
619.70	2,710	2,811			
619.75	2,740	2,947			
619.80	2,771	3,085			
619.85	2,801	3,224			
619.90	2,831	3,365			
619.95	2,862	3,507			
620.00	2,892	3,651			
620.05	2,925	3,797			
620.10	2,959	3,944			
620.15	2,992	4,093			
620.20	3,026	4,243			
620.25	3,059	4,395			
620.30	3,092	4,549			
620.35	3,126	4,704			
620.40	3,159	4,861			
620.45	3,193	5,020			
620.50	3,226	5,181			
620.55	3,259	5,343			
620.60	3,293	5,507			
620.65	3,326	5,672			
620.70	3,360	5,839			
620.75	3,393	6,008			
620.80	3,426	6,179			
620.85	3,460	6,351			
620.90	3,493	6,525			
620.95	3,527	6,700			
621.00	3,560	6,877			
621.05	3,595	7,056			

Summary for Pond 6P: Basin D

Inflow Area = 0.422 ac, 13.06% Impervious, Inflow Depth = 0.20" for WQ event
Inflow = 0.17 cfs @ 1.18 hrs, Volume= 0.007 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 2L : Mt. Pleasant Ave.

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 615.15' @ 2.60 hrs Surf.Area= 2,038 sf Storage= 305 cf

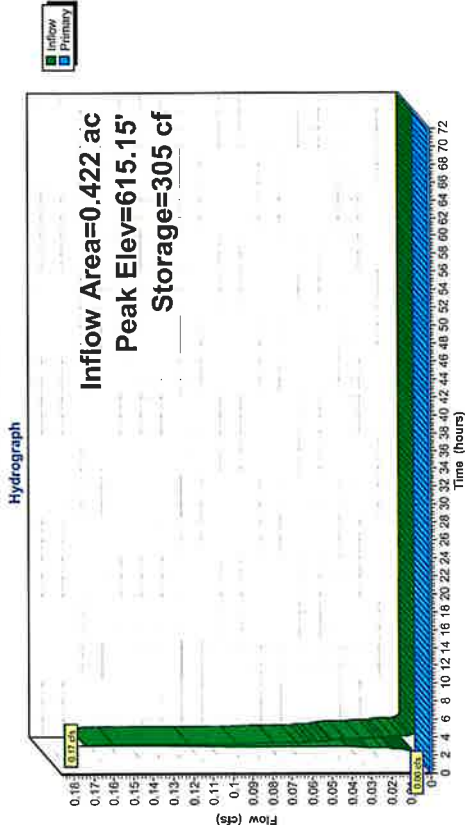
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	615.00'	8,561 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
615.00	1,951	0	0
616.00	2,519	2,235	2,235
617.00	3,150	2,835	5,070
618.00	3,833	3,492	8,561

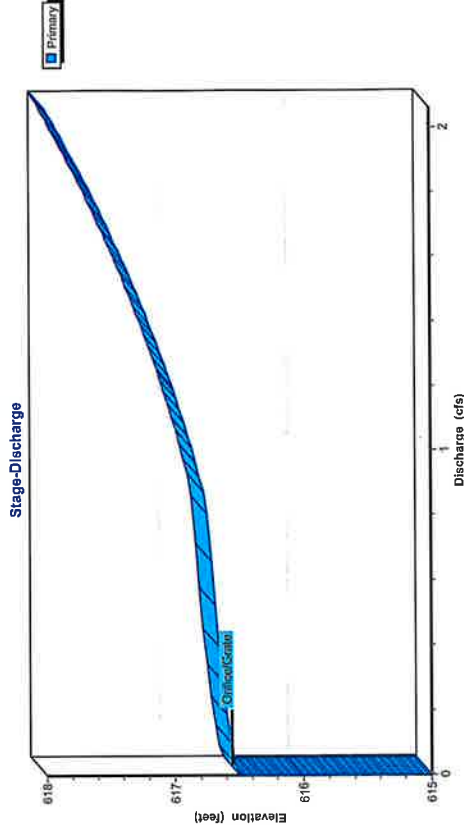
Device	Routing	Invert	Outlet Devices
#1	Primary	616.50'	8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary Outflow Max=0.00 cfs @ 0.00 hrs HW=615.00' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Pond 6P: Basin D



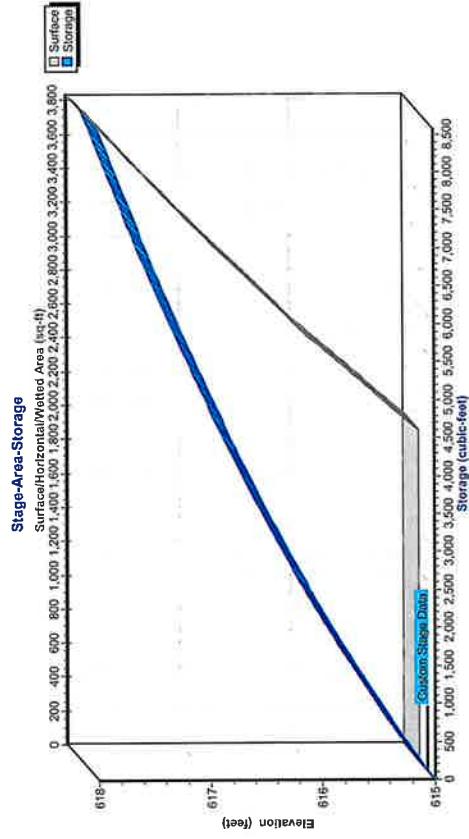
Pond 6P: Basin D



Hydrograph for Pond 6P: Basin D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	615.00	0.00
2.50	0.00	305	615.15	0.00
5.00	0.00	305	615.15	0.00
7.50	0.00	305	615.15	0.00
10.00	0.00	305	615.15	0.00
12.50	0.00	305	615.15	0.00
15.00	0.00	305	615.15	0.00
17.50	0.00	305	615.15	0.00
20.00	0.00	305	615.15	0.00
22.50	0.00	305	615.15	0.00
25.00	0.00	305	615.15	0.00
27.50	0.00	305	615.15	0.00
30.00	0.00	305	615.15	0.00
32.50	0.00	305	615.15	0.00
35.00	0.00	305	615.15	0.00
37.50	0.00	305	615.15	0.00
40.00	0.00	305	615.15	0.00
42.50	0.00	305	615.15	0.00
45.00	0.00	305	615.15	0.00
47.50	0.00	305	615.15	0.00
50.00	0.00	305	615.15	0.00
52.50	0.00	305	615.15	0.00
55.00	0.00	305	615.15	0.00
57.50	0.00	305	615.15	0.00
60.00	0.00	305	615.15	0.00
62.50	0.00	305	615.15	0.00
65.00	0.00	305	615.15	0.00
67.50	0.00	305	615.15	0.00
70.00	0.00	305	615.15	0.00

Pond 6P: Basin D



Stage-Discharge for Pond 6P: Basin D

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
615.00	0.00	617.08	1.28
615.02	0.00	617.10	1.30
615.04	0.00	617.12	1.32
615.06	0.00	617.14	1.34
615.08	0.00	617.16	1.37
615.10	0.00	617.18	1.39
615.12	0.00	617.20	1.41
615.14	0.00	617.22	1.43
615.16	0.00	617.24	1.45
615.18	0.00	617.26	1.47
615.20	0.00	617.28	1.48
615.22	0.00	617.30	1.50
615.24	0.00	617.32	1.52
615.26	0.00	617.34	1.54
615.28	0.00	617.36	1.56
615.30	0.00	617.38	1.58
615.32	0.00	617.40	1.59
615.34	0.00	617.42	1.61
615.36	0.00	617.44	1.63
615.38	0.00	617.46	1.65
615.40	0.00	617.48	1.66
615.42	0.00	617.50	1.68
615.44	0.00	617.52	1.70
615.46	0.00	617.54	1.71
615.48	0.00	617.56	1.73
615.50	0.00	617.58	1.75
615.52	0.00	617.60	1.76
615.54	0.00	617.62	1.78
615.56	0.00	617.64	1.79
615.58	0.00	617.66	1.81
615.60	0.00	617.68	1.83
615.62	0.00	617.70	1.84
615.64	0.00	617.72	1.86
615.66	0.00	617.74	1.87
615.68	0.00	617.76	1.89
615.70	0.00	617.78	1.90
615.72	0.00	617.80	1.92
615.74	0.00	617.82	1.93
615.76	0.00	617.84	1.95
615.78	0.00	617.86	1.96
615.80	0.00	617.88	1.97
615.82	0.00	617.90	1.99
615.84	0.00	617.92	2.00
615.86	0.00	617.94	2.02
615.88	0.00	617.96	2.03
615.90	0.00	617.98	2.04
615.92	0.00	618.00	2.06
615.94	0.00		
615.96	0.00		
615.98	0.00		
616.00	0.00		
616.02	0.00		

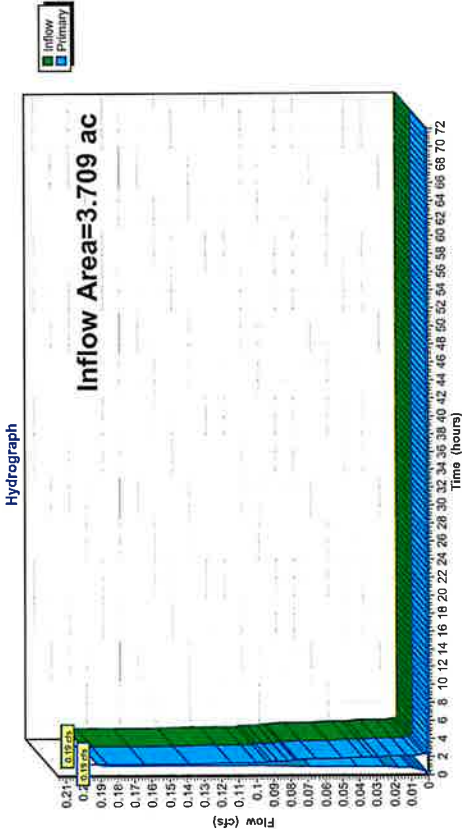
Stage-Area-Storage for Pond 6P: Basin D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
615.00	1,951	0	617.60	3,560	7,082
615.05	1,979	98	617.65	3,594	7,261
615.10	2,008	198	617.70	3,628	7,442
615.15	2,036	299	617.75	3,662	7,624
615.20	2,065	402	617.80	3,696	7,808
615.25	2,093	506	617.85	3,731	7,994
615.30	2,121	611	617.90	3,765	8,181
615.35	2,150	718	617.95	3,799	8,370
615.40	2,178	826	618.00	3,833	8,561
615.45	2,207	935			
615.50	2,235	1,047			
615.55	2,263	1,159			
615.60	2,292	1,273			
615.65	2,320	1,388			
615.70	2,349	1,505			
615.75	2,377	1,623			
615.80	2,405	1,743			
615.85	2,434	1,864			
615.90	2,462	1,986			
615.95	2,491	2,110			
616.00	2,519	2,235			
616.05	2,551	2,362			
616.10	2,582	2,490			
616.15	2,614	2,620			
616.20	2,645	2,751			
616.25	2,677	2,884			
616.30	2,708	3,019			
616.35	2,740	3,155			
616.40	2,771	3,293			
616.45	2,803	3,432			
616.50	2,835	3,573			
616.55	2,866	3,716			
616.60	2,898	3,860			
616.65	2,929	4,006			
616.70	2,961	4,153			
616.75	2,992	4,302			
616.80	3,024	4,452			
616.85	3,055	4,604			
616.90	3,087	4,758			
616.95	3,118	4,913			
617.00	3,150	5,070			
617.05	3,184	5,228			
617.10	3,218	5,388			
617.15	3,252	5,550			
617.20	3,287	5,713			
617.25	3,321	5,878			
617.30	3,355	6,045			
617.35	3,389	6,214			
617.40	3,423	6,384			
617.45	3,457	6,556			
617.50	3,492	6,730			
617.55	3,526	6,905			

Summary for Link 2L: Mt. Pleasant Ave.

Inflow Area = 3.709 ac, 11.17% Impervious, Inflow Depth = 0.03" for WQ event
Inflow = 0.19 cfs @ 1.22 hrs, Volume= 0.009 af
Primary = 0.19 cfs @ 1.22 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 2L: Mt. Pleasant Ave.



Hydrograph for Link 2L: Mt. Pleasant Ave.

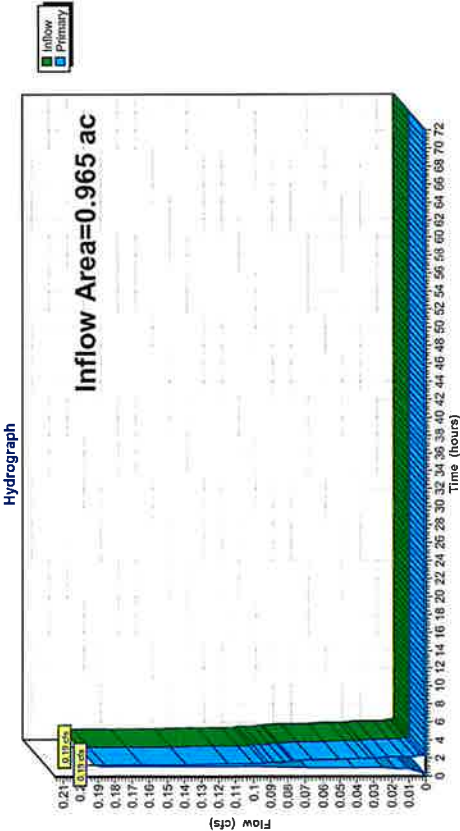
Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.04	0.00	0.04	53.00	0.00	0.00	0.00
2.00	0.03	0.00	0.03	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	57.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	58.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00	59.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00	61.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	62.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00	63.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00	65.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00	68.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00	69.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00	70.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00	71.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00	72.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00				
22.00	0.00	0.00	0.00				
23.00	0.00	0.00	0.00				
24.00	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

Summary for Link 3L: Mt. Pleasant Ave - Undetained

Inflow Area = 0.965 ac, 4.06% Impervious, Inflow Depth = 0.11" for WQ event
Inflow = 0.19 cfs @ 1.22 hrs, Volume= 0.009 af
Primary = 0.19 cfs @ 1.22 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Mt. Pleasant Ave.

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

Link 3L: Mt. Pleasant Ave - Undetained



Hydrograph for Link 3L: Mt. Pleasant Ave - Undetained

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	52.00	0.00	0.00	0.00
1.00	0.00	0.04	0.00	53.00	0.00	0.00	0.00
2.00	0.03	0.00	0.03	54.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	55.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	56.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	57.00	0.00	0.00	0.00
6.00	0.00	0.00	0.00	58.00	0.00	0.00	0.00
7.00	0.00	0.00	0.00	59.00	0.00	0.00	0.00
8.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00
9.00	0.00	0.00	0.00	61.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	62.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00	63.00	0.00	0.00	0.00
12.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00
13.00	0.00	0.00	0.00	65.00	0.00	0.00	0.00
14.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00
16.00	0.00	0.00	0.00	68.00	0.00	0.00	0.00
17.00	0.00	0.00	0.00	69.00	0.00	0.00	0.00
18.00	0.00	0.00	0.00	70.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00	71.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00	72.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00				
22.00	0.00	0.00	0.00				
23.00	0.00	0.00	0.00				
24.00	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				
27.00	0.00	0.00	0.00				
28.00	0.00	0.00	0.00				
29.00	0.00	0.00	0.00				
30.00	0.00	0.00	0.00				
31.00	0.00	0.00	0.00				
32.00	0.00	0.00	0.00				
33.00	0.00	0.00	0.00				
34.00	0.00	0.00	0.00				
35.00	0.00	0.00	0.00				
36.00	0.00	0.00	0.00				
37.00	0.00	0.00	0.00				
38.00	0.00	0.00	0.00				
39.00	0.00	0.00	0.00				
40.00	0.00	0.00	0.00				
41.00	0.00	0.00	0.00				
42.00	0.00	0.00	0.00				
43.00	0.00	0.00	0.00				
44.00	0.00	0.00	0.00				
45.00	0.00	0.00	0.00				
46.00	0.00	0.00	0.00				
47.00	0.00	0.00	0.00				
48.00	0.00	0.00	0.00				
49.00	0.00	0.00	0.00				
50.00	0.00	0.00	0.00				
51.00	0.00	0.00	0.00				

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**STORMWATER COLLECTION SYSTEM
CALCULATIONS
(PIPE SIZING)**



DYNAMIC ENGINEERING

Stormwater Collection System Calculations

Project: Residential Subdivision
Job #: 4266-99-001
Location: West Orange Township
Design Storm: 25-Yr

Computed By: RMW
Checked By: RPF
Date: 8/4/2022

NOTES:

- 1) Design method used is Rational Method, unless otherwise noted.
- 2) Refer to Weighted Runoff Coefficient table for calculation of incremental areas and C values

PIPE SECTION		SUBCATCHMENT AREA	INCREMENTAL		CUMULATIVE	TIME OF CONCENTRATION			I	PEAK RUNOFF		PIPING INPUT			PIPING DATA		
FROM	TO	Area (Acres)	"C" [#]	A x C Ac	A x C (acres)	Tc to Inlet (min)	Tc in Pipe (min.)	Final Tc (min)	(In/Hr)	Q to Inlet (CFS)	Q cum. for Pipe (CFS)	Dia. (In)	Length (Ft)	Man. "n"	Slope (ft/ft)	Pipe Capacity (cfs)	Pipe Velocity (fps)
Basin A	FES A	0.05	0.95	0.05	0.05	10.00	0.51	10.00	6.80	0.34	0.34	15	123.0	0.012	0.0050	4.95	4.04
Basin B	FES B	0.08	0.95	0.08	0.08	10.00	0.81	10.00	6.80	0.54	0.54	15	233.0	0.012	0.0071	5.89	4.80
Basin C	MH	0.10	0.95	0.10	0.10	10.00	1.47	10.00	6.80	0.68	0.68	15	299.0	0.012	0.0033	4.14	3.38
MH	FES C	0.00	0.95	0.00	0.10	10.00	0.08	11.47	6.56	0.00	0.66	15	20.0	0.012	0.0050	4.95	4.04

OVERFLOW SPILLWAY CALCULATIONS



Overflow Spillway Calculations

Project: Residential Subdivision
Job #: 4266-99-001
Location: West Orange Township
Computed By: RMW
Checked By: RPF
Date: 8/5/2022

BIORETENTION BASIN A

To Size Spillway:

- Assume complete blockage of the outlet control structure and no infiltration
- Route 2, 10 & 100 year storm through basin assuming that the basin is filled with water up to the Emergency Spillway Elevation

	2 Year	10 Year	100 Year
Spillway Width (ft.)	10.00	10.00	10.00
Spillway Elevation (ft.)	627.10	627.10	627.10
Flow through Spillway (Q) (cfs)	0.750	1.570	3.310
Water Surface Elevation (ft)	627.19	627.25	627.35
Depth of Flow (ft)	0.09	0.15	0.25
Area of Flow (A) (sf)*	0.91	1.52	2.56

Velocity (V) = Q / A (ft/sec) 0.83 1.03 1.29

** V = < 2.0 FPS ** Stability Achieved



Overflow Spillway Calculations

Project: Residential Subdivision
Job #: 4266-99-001
Location: West Orange Township
Computed By: RMW
Checked By: RPF
Date: 8/5/2022

BIORETENTION BASIN B

To Size Spillway:

- Assume complete blockage of the outlet control structure and no infiltration
- Route 2, 10 & 100 year storm through basin assuming that the basin is filled with water up to the Emergency Spillway Elevation

	2 Year	10 Year	100 Year
Spillway Width (ft.)	10.00	10.00	10.00
Spillway Elevation (ft.)	625.10	625.10	625.10
Flow through Spillway (Q) (cfs)	0.910	1.930	4.110
Water Surface Elevation (ft)	625.21	625.28	625.39
Depth of Flow (ft)	0.11	0.18	0.29
Area of Flow (A) (sf)*	1.11	1.83	2.98

Velocity (V) = Q / A (ft/sec) 0.82 1.05 1.38

✱ V = < 2.0 FPS ✱ Stability Achieved



Overflow Spillway Calculations

Project: Residential Subdivision
Job #: 4266-99-001
Location: West Orange Township
Computed By: RMW
Checked By: RPF
Date: 8/5/2022

BIORETENTION BASIN C

To Size Spillway:

- Assume complete blockage of the outlet control structure and no infiltration
- Route 2, 10 & 100 year storm through basin assuming that the basin is filled with water up to the Emergency Spillway Elevation

	2 Year	10 Year	100 Year
Spillway Width (ft.)	10.00	10.00	10.00
Spillway Elevation (ft.)	621.60	621.60	621.60
Flow through Spillway (Q) (cfs)	0.900	1.910	4.060
Water Surface Elevation (ft)	621.71	621.78	621.89
Depth of Flow (ft)	0.11	0.18	0.29
Area of Flow (A) (sf)*	1.11	1.83	2.98

Velocity (V) = Q / A (ft/sec) 0.81 1.04 1.36

** V = < 2.0 FPS ** Stability Achieved



Overflow Spillway Calculations

Project: Residential Subdivision
Job #: 4266-99-001
Location: West Orange Township
Computed By: RMW
Checked By: RPF
Date: 8/5/2022

BIORETENTION BASIN D

To Size Spillway:

- Assume complete blockage of the outlet control structure and no infiltration
- Route 2, 10 & 100 year storm through basin assuming that the basin is filled with water up to the Emergency Spillway Elevation

	2 Year	10 Year	100 Year
Spillway Width (ft.)	10.00	10.00	10.00
Spillway Elevation (ft.)	618.10	618.10	618.10
Flow through Spillway (Q) (cfs)	0.440	0.940	2.030
Water Surface Elevation (ft)	618.17	618.21	618.28
Depth of Flow (ft)	0.07	0.11	0.18
Area of Flow (A) (sf)*	0.70	1.11	1.83

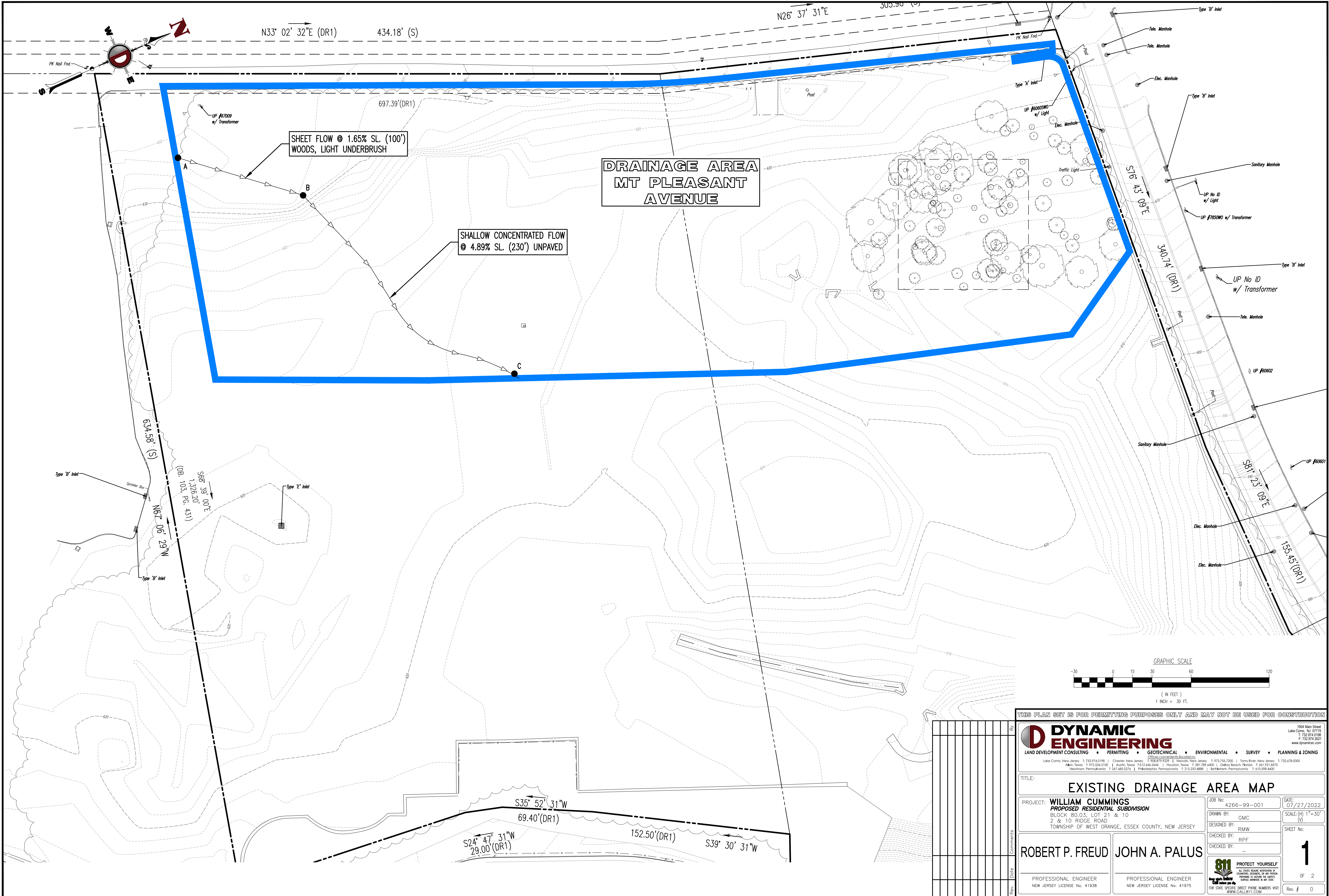
Velocity (V) = Q / A (ft/sec) 0.62 0.85 1.11

** V = < 2.0 FPS ** Stability Achieved

**REPORT OF PRELIMINARY GEOTECHNICAL AND
STORMWATER BASIN AREA INVESTIGATION,
PREPARED BY DYNAMIC EARTH, LLC (ATTACHED
SEPARATELY)**

DRAINAGE AREA MAPS

Plotted: 08/04/22 - 3:47 PM, By: gowdick, - Product Ver: 24.1s (LMS Tech)
File: P:\VEPCP PROJECTS\4266 SHI Builders\99-001 West Orange Dwg\DA Maps\0426699001 DAE0.dwg, ----> EXISTING DRAINAGE AREA MAP



Plotted: 08/04/22 - 4:23 PM, By: gowdick, Product Ver: 24.1s (LMS Tech)
File: P:\VEPCP PROJECTS\4286 SHI Builders\9a-01 West Orange\DWG\DA Maps\0426699001 DAP0.dwg, ----> PROPOSED DRAINAGE AREA MAP

