STORMWATER REPORT

FOR

GROTON FARMS 500 MAIN STREET

In

GROTON, MASSACHUSETTS

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TABLE OF CONTENTS

| 1.0 | Project Narrative | 3 |
|------------|---|----|
| 1.1 | Project Type | 3 |
| 1.2 | Purpose and Scope | 3 |
| 1.3 | LID Measures | 3 |
| 1.4 | Site Description | 3 |
| 1.5 | Proposed Stormwater Management System | 5 |
| 1.6 | Methods of Analysis | 6 |
| 2.0 | Stormwater Standards Compliance | 6 |
| 2.1 | Standard 1 – Untreated Discharge | 6 |
| 2.2 | Standard 2 – Peak Rate Attenuation | 6 |
| 2.3 | Standard 3 – Recharge | 7 |
| 2.4 | Standard 4 – Water Quality | 8 |
| 2.5 | Standard 5 – Land Uses with Higher Pollutant Loads | 8 |
| 2.6 | Standard 6 – Critical Areas | 8 |
| 2.7 | Standard 7 – Redevelopment | 8 |
| 2.8 Coi | Standard 8 – Construction Period Pollution Prevention Plan and Erosion and Sedim ntrol | |
| 2.9 | Standard 9 – Operation and Maintenance Plan | 9 |
| 2.1 | 0 Standard 10 – Prohibition of Illicit Discharge | 9 |
| 3.0 | Appendices | 10 |
| App | pendix A - Locus Map | 11 |
| App | pendix B - Checklist for Stormwater Report | 12 |
| App | pendix C - Soils Data | 13 |
| App | pendix D - Existing Conditions Hydrologic Calculations | 14 |
| App | pendix E - Proposed Conditions Hydrologic Calculations | 15 |
| App | pendix F – Stormwater Calculations | 16 |
| App | pendix G – Construction Period Pollution Prevention | 17 |
| App | pendix H - Operation and Maintenance Plan | 18 |
| App | pendix I - Long Term Pollution Prevention Plan | 19 |
| 4.0 | Plans | 21 |
| Pre | -development Watershed Plan | 22 |
| Pos | t-development Watershed Plan | 23 |

The Applicant, 500 MG LLC is proposing the construction of a residential development on the north side of Route 119 just northerly of the intersection of Mill Street & Main Street. The proposed development consists of 16 quadplex units (1,220 SF ea.), 16 quadplex units (643 SF ea.), 3 apartment buildings (17,818 sf ea.), and clubhouse building (4,950 sf). The proposed work is located on Assessor's Map 216- Block 94, 95, & 96. The proposed scope of construction also includes a private roadway, on-site parking, clubhouse area with associated amenities, stormwater management systems, and new utility connections with their associated appurtenances.

1.2 Purpose and Scope

This report has been prepared to comply with the requirements of the Stormwater Management Standards incorporated in the Massachusetts Wetlands Protection Act Regulations, 310 CMR 10.00. These standards are intended to promote increased groundwater recharge and prevent stormwater discharges from causing or contributing to the pollution of surface waters and ground waters of the Commonwealth. The standards aim to accomplish these goals by encouraging the greater use of low impact development (LID) techniques and improving the operation and maintenance of stormwater best management practices (BMP).

This report addresses compliance of the proposed development with each of the ten stormwater standards, it provides calculations to support the compliance information, and it provides a Long-Term Pollution Prevention Plan and an Operation and Maintenance Plan for the stormwater management system.

1.3 LID Measures

Care has been taken to lay out the proposed site in a manner that works with existing topography. BMPs, have been specified to manage the stormwater runoff. Stormwater from the proposed impervious surface locations is routed to constructed stormwater wetlands or wet basin via land flow, curb and gutter systems, or the proposed drainage pipe system. The stormwater areas will reduce run off rates below pre-developed rates while providing water quality pretreatment by sediment forebays.

1.4 Site Description

The subject site is found on the North side of Route 119 just northerly of the intersection of Mill Street & Main Street. An existing internal road runs from Main Street and travels northeast connecting to the onsite parking lot and existing building. The existing 101,570 SF building is located towards center of the site.

An existing parking lot is located towards the northern corner of the site and wraps around the eastern side of the building. The southwestern half of the site is primarily undeveloped grassed area with clusters of woods. Multiple wetland areas as shown on the attached Site Plans are present on site located to the north, east, and west of the proposed development. Under existing conditions, the wetlands receive untreated stormwater sheet flow and point discharges.

An existing detention basin located adjacent to the building collects and treats a substantial portion of the existing impervious area on site. An outlet pipe runs from the subject detention basin under the existing paved parking area to the north where it then discharges into an existing wetland system. A smaller stormwater management area is located just north of the northern parking area where it receives run-off from portions of the existing parking lot & tributary undeveloped overland flow. The remaining stormwater runoff generated from the existing impervious area that is not collected will sheet flow towards the surrounding wetland systems without any form of treatment.

The NRCS soil survey information indicates that all of the site is underlain by soils classified as belonging to Hydrologic Soil Groups A (Carlton Fine Sandy Loam), B (Charlton-Hollis-Rock outcrop & Hollis-Rock Outcrop-Charlton complex), C (Paxton Fine Sandy Loam) & D (Swansea Muck, Freetown Muck, Ridgebury Fine Sandy Loam & Whitman Fine Sandy Loam).

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.

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

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

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

Please refer to Appendix C for further information regarding the soils on-site & existing test hole data.

1.5 Proposed Stormwater Management System

Runoff from the proposed development will be conveyed and treated through a combination of Best Management Practices (BMP's). The following is a brief discussion of each conveyance and treatment BMP proposed.

Deep Sump Hooded Catch Basin

Deep sump hooded catch basins are proposed to convey the runoff from the proposed paved areas and roofs to the stormwater wetlands or wet basin. These catch basins will discharge to manholes and conventional storm drains. Please refer to Sediment Loading Calculations in Appendix F.

Constructed Stormwater Wetlands

Constructed stormwater wetlands are stormwater wetland systems that maximize the removal of pollutants from stormwater runoff through wetland vegetation uptake, retention and settling. Constructed stormwater wetlands temporarily store runoff in shallow pools that support conditions suitable for the growth of wetland plants. Proposed constructed stormwater wetlands must be used with other BMPs, such as sediment forebays, as proposed.

Wet Basin

The proposed reconstructed wet basin utilizes a permanent pool of water as the primary mechanism to treat stormwater runoff. The permanent pool has been set at an elevation to intercept the existing groundwater table to ensure sufficient permanent pool volume. The pool allows sediments to settle (including fine sediments) and removes soluble pollutants. The wet basin has been designed to provide additional dry storage capacity to control peak discharge rates. The wet basin allows incoming stormwater to displace the water present in the pool. This stormwater remains until displaced by runoff from another storm event. Increased retention time allows particulates, including fine sediments, to settle out of the water column. The permanent pool also serves to protect deposited sediments from resuspending during large storm events. A sediment forebay designed at the entrance of the basin was included to decrease the velocity of flow and increase the settlement of heavy solids prior to the basin. Riprap will also be installed at the inlet of the sediment forebays and the outlet of the basin to control the overflow of stormwater into the adjacent wetlands and will reduce the potential for scouring.

Grassed Swales

The grassed channels have been designed with a relatively flat (2.0%) slope to reduced runoff velocity and increase hydraulic residency time to promote particulate settling. The grassed channel has been provided with a sediment forebay for stormwater pretreatment. The grass swales will receive runoff from the proposed roofs along the townhomes & sheet flow from the entrance road. The entrance road has been designed with a 2% cross-slope to pitch towards a grassed swale system to convey the runoff to Stormwater Wetland #1's sediment forebay for additional treatment.

1.6 Methods of Analysis

The United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil cover complex methods (TR-20) were employed to compute runoff quantities for the subject property. Watershed analysis demonstrate that natural drainage patterns drain toward the wetlands (design point). Two design points were modeled to analyze the total runoff from the site. HydroCAD 10.0 computer software was employed in this hydrologic analysis.

A comparison of pre- and post-development runoff quantities at the analysis points were performed in order to design a stormwater management system that will limit peak rates of runoff from the development to predevelopment levels for 24-hour rainfall events of 2-, 10-, 25- and 100-year return frequencies. Watershed boundaries for existing conditions are depicted on the attached Predevelopment Watershed Plan. Post-Developed watershed boundaries are indicated on the Postdevelopment Watershed Plan.

2.0 Stormwater Standards Compliance

2.1 Standard 1 – Untreated Discharge

The stormwater management system for the proposed development will not result in any new discharges of untreated stormwater to wetland resource areas. Stormwater management structures have been designed such that there is no erosion or scour to wetland resource areas or waters of the Commonwealth.

2.2 Standard 2 – Peak Rate Attenuation

Hydrologic calculations for existing and proposed site conditions are included in Appendices D and E respectively. Calculations for 24-hour rainfall events of 2-, 10-, 25- and 100-year return frequencies are provided. The "NRCC Extreme Precipitation in New York & New England" rainfall rates were used in the hydraulic model. The following table provides a summary of peak rates of runoff related to each of these storms for the design point through which all runoff from the subject property must flow. For all rainfall events considered, the proposed stormwater management system will control runoff from the development such that corresponding peak flows at the design point will be lower than predeveloped rates.

| | Pre-Developed (ft ³ / sec) | Post-Developed (ft ³ / sec) | | |
|------------------|--|---|--|--|
| Design Point "A" | | | | |
| 2-Year | 20.88 | 13.42 | | |
| 10-Year | 38.37 | 27.87 | | |
| 25-Year | 53.28 | 42.05 | | |
| 100-Year | 85.26 | 76.09 | | |

| Table 1: Wetland Design Point Ru | noff Summary |
|----------------------------------|--------------|
|----------------------------------|--------------|

2.3 Standard 3 – Recharge

The NRCS soil survey information indicates that all of the site is underlain by soils classified as belonging to Hydrologic Soil Groups A (Carlton Fine Sandy Loam), B (Charlton-Hollis-Rock outcrop & Hollis-Rock Outcrop-Charlton complex), C (Paxton Fine Sandy Loam) & D (Swansea Muck, Freetown Muck, Ridgebury Fine Sandy Loam & Whitman Fine Sandy Loam). On-site groundwater recharge is provided by (3) infiltration trenches designed to receive the runoff associated with the proposed roofs of the apartment buildings. Each infiltration trench has been designed with an exfiltration rate of 2.41 inches/hour (Loamy/Medium Sand) as confirmed by the attached in-situ soil testing logs. Please refer to Appendix C for further information regarding the soils on-site & existing test hole data.

The recharge standard is being met in virtue of the fact that the impervious area is being reduced on the site. The following table shows a summary of the existing and proposed runoff volumes being discharged offsite. In all design storms, the amount of runoff volume is being reduced under the proposed site conditions. This means that more stormwater is being recharged on site as compared to the preexisting conditions.

| | Pre-Developed (acre-feet) | Post-Developed (acre-feet) | Increase in Recharge Volume (acre-feet) | | | | |
|------------------|------------------------------|-------------------------------|--|--|--|--|--|
| Design Point "A" | | | | | | | |
| 2-Year | 3.067 | 2.596 | 0.471 | | | | |
| 10-Year | 5.690 | 5.043 | 0.647 | | | | |
| 25-Year | 7.911 | 7.202 | 0.709 | | | | |
| 100-Year | 12.748 | 11.979 | 0.769 | | | | |

Table 1: Wetland Design Point Volume Summary

Recharge calculations can be found in Appendix F.

2.4 Standard 4 – Water Quality

TSS removal calculations have been provided (Appendix F) showing that the proposed TSS removal efficiency from these areas will be >80% using the stormwater wetlands/wet basins with the sediment forebay & deep sump hooded catch basins for pretreatment. This BMP train is proposed for both stormwater wetlands along with the proposed wet basin (as documented). Four TSS calculation sheets have been provided. The sheet with a deep sump catch basin into a sediment forebay shows proper pre-treatment before entering the stormwater wetlands/wet basin. An additional pretreatment sheet has been included documenting the proper pretreatment for the collected sheet flow from the entrance road into the grassed channel / sediment forebay. The sheet with deep sump catch basin into a stormwater wetland & wet basin shows there is enough TSS removal within the whole system.

2.5 Standard 5 – Land Uses with Higher Pollutant Loads

The current and proposed uses of the subject site do not constitute land use with higher potential pollutant load, thus Standard 5 does not apply to the proposed project.

2.6 Standard 6 – Critical Areas

The proposed project is located within the Petapawag Watershed. The proposed stormwater management system has been designed in accordance with the specifications and sizing methodologies in Volumes 2 and 3 of the Massachusetts Stormwater Handbook. Please refer to Appendix F for required water quality volumes of 1.0-inch times the proposed impervious area. Proper pre-treatment of at least 44% has been achieved with the proposed BMP trains (as recommended in Table CA 1 Standard 6 within the Massachusetts Stormwater Manual). Please refer to Appendix F for TSS calculations regarding the proposed treatment methods.

2.7 Standard 7 – Redevelopment

The proposed project does meet the standards to be considered a Redevelopment project, however the stormwater management system has been designed to meet the standards set forth for a new development project. All requirements have been met with this proposal.

2.8 Standard 8 – Construction Period Pollution Prevention Plan and Erosion and Sediment Control

The project is subject to the filing of an Environmental Protection Agency Notice of Intent (EPA NOI), and the work will be pursuant to the NPDES Construction General Permit for disturbance to an area greater than 1 acre, a copy of the Stormwater Pollution Prevention Plan (SWPPP) will be submitted prior to construction. The SWPPP will satisfy the Standard 8 Construction Period Pollution prevention. And Erosion and Sediment Control Plan is included in the attached Site Plans.

2.9 Standard 9 – Operation and Maintenance Plan

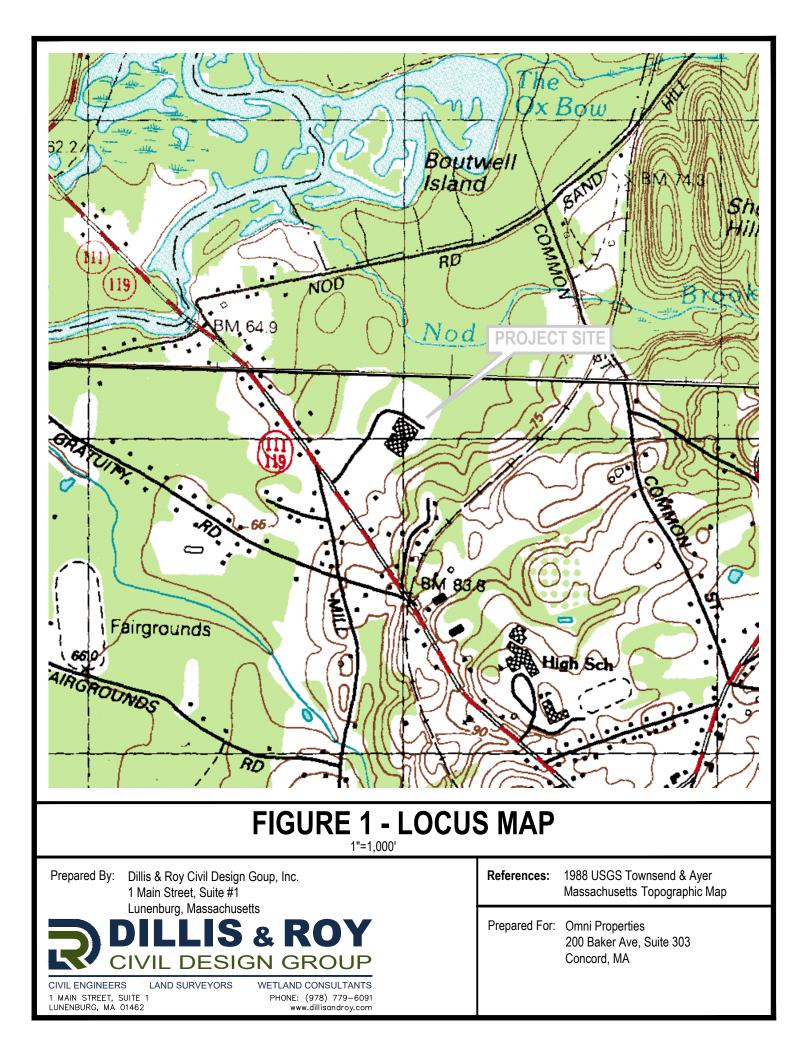
Refer to Appendix H for a complete copy of the Stormwater Operation and Maintenance Plan.

2.10 Standard 10 – Prohibition of Illicit Discharge

An illicit discharge statement will be prepared after approvals are received and prior to construction.

3.0 Appendices

Appendix A - Locus Map



Appendix B - Checklist for Stormwater Report



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands Program Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

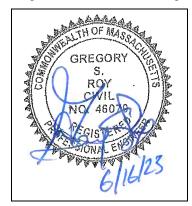
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Longterm Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

New development

Redevelopment

Mix of New Development and Redevelopment

Although the project would meet the standards as a redevelopment project, the site stormwater system has been designed to fully comply with new construction standards.



Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

| | No disturbance to any Wetland Resource Areas |
|-----|---|
| | Site Design Practices (e.g. clustered development, reduced frontage setbacks) |
| | Reduced Impervious Area (Redevelopment Only) |
| | Minimizing disturbance to existing trees and shrubs |
| | LID Site Design Credit Requested: |
| | Credit 1 |
| | Credit 2 |
| | Credit 3 |
| | Use of "country drainage" versus curb and gutter conveyance and pipe |
| | Bioretention Cells (includes Rain Gardens) |
| | Constructed Stormwater Wetlands (includes Gravel Wetlands designs) |
| | Treebox Filter |
| | Water Quality Swale |
| | Grass Channel |
| | Green Roof |
| | Other (describe): |
| | |
| Sta | ndard 1: No New Untreated Discharges |
| | |

No new untreated discharges

- Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



| Checklist (continued) |
|-----------------------|
|-----------------------|

Standard 2: Peak Rate Attenuation

- Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

 Calculations provided to show that post-development peak discharge rates do not exceed predevelopment rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24hour storm.

| Standard 3: Recharge | the impervious area is being reduced on the site. The following table shows a summary of the existing and proposed runoff volumes being discharged offsite. In all design storms, |
|--|---|
| Soil Analysis provided. | the amount of runoff volume is being reduced under the proposed site conditions. This means that more stormwater is |
| Required Recharge Volume calculation provided. | being recharged on site as compared to the preexisting conditions. |
| | |

Required Recharge volume reduced through use of the LID site Design Credits.

Sizing the infiltration, BMPs is based on the following method: Check the method used.

Static Simple Dynamic

Dynamic Field¹

Runoff from all impervious areas at the site discharging to the infiltration BMP.

Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

| Recharge BMPs have been sized to infiltrate the Required Recharge Volume only to the maximum |
|--|
| extent practicable for the following reason: |

| Site is comprised sole | ely of C and D soils and/or bedrock at the land surfa | ace |
|------------------------|---|-----|
|------------------------|---|-----|

M.G.L. c. 21E sites pursuant to 310 CMR 40.0000

Solid Waste Landfill pursuant to 310 CMR 19.000

Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist (continued)

Standard 3: Recharge (continued)

The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
- Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - is within the Zone II or Interim Wellhead Protection Area
 - is near or to other critical areas
 - is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - involves runoff from land uses with higher potential pollutant loads.
- The Required Water Quality Volume is reduced through use of the LID site Design Credits.
- Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



| Checklist (continued) | | | |
|---------------------------------------|--|--|--|
| Standard 4: Water Quality (continued) | | | |

| | The BMP | is sized | (and | calculations | provided) | based | on: |
|--|---------|----------|------|--------------|-----------|-------|-----|
|--|---------|----------|------|--------------|-----------|-------|-----|

- The 1/2" or 1" Water Quality Volume or
- The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- ☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

- The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- The NPDES Multi-Sector General Permit does *not* cover the land use.
- LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- All exposure has been eliminated.
- All exposure has *not* been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- Critical areas and BMPs are identified in the Stormwater Report.



Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

| Limited Project | t |
|-----------------|---|
|-----------------|---|

- Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- Bike Path and/or Foot Path
- Redevelopment Project
- Redevelopment portion of mix of new and redevelopment.
- Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

| The project is highly complex and information is included in the Stormwater Report that explains why |
|--|
| it is not possible to submit the Construction Period Pollution Prevention and Erosion and |
| Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and |
| Erosion and Sedimentation Control has <i>not</i> been included in the Stormwater Report but will be |
| submitted <i>before</i> land disturbance begins. |

- The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

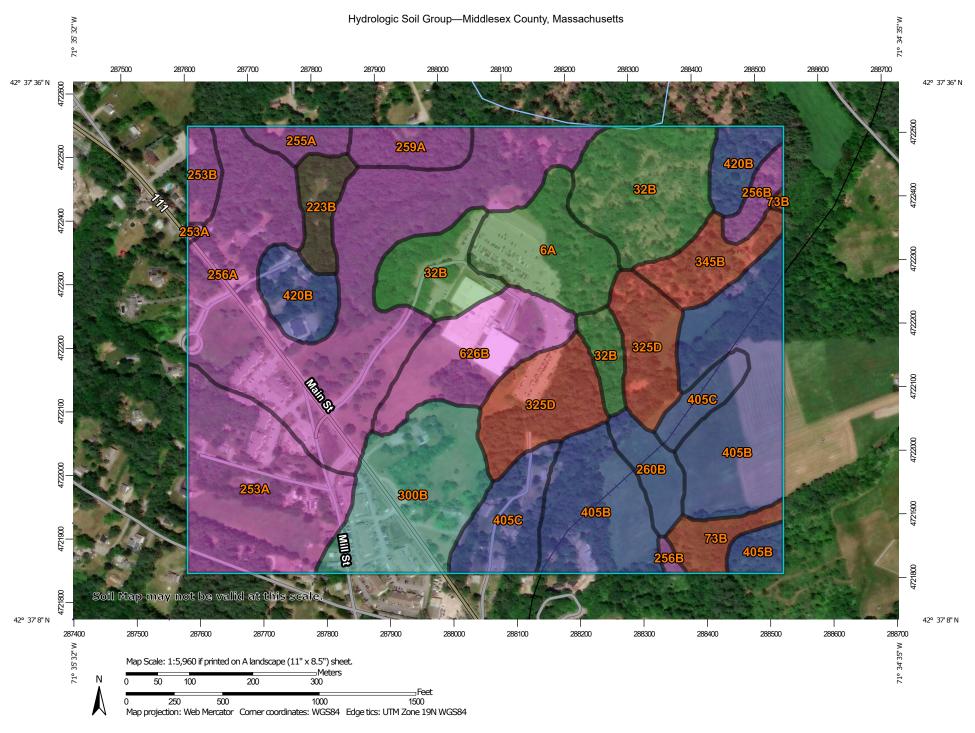
| The Post Construction Operation and Maintenance Plan is included in the Stormwater Report | t and |
|---|-------|
| includes the following information: | |

- Name of the stormwater management system owners;
- Party responsible for operation and maintenance;
- Schedule for implementation of routine and non-routine maintenance tasks;
- Plan showing the location of all stormwater BMPs maintenance access areas;
- Description and delineation of public safety features;
- Estimated operation and maintenance budget; and
- Operation and Maintenance Log Form.
- The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

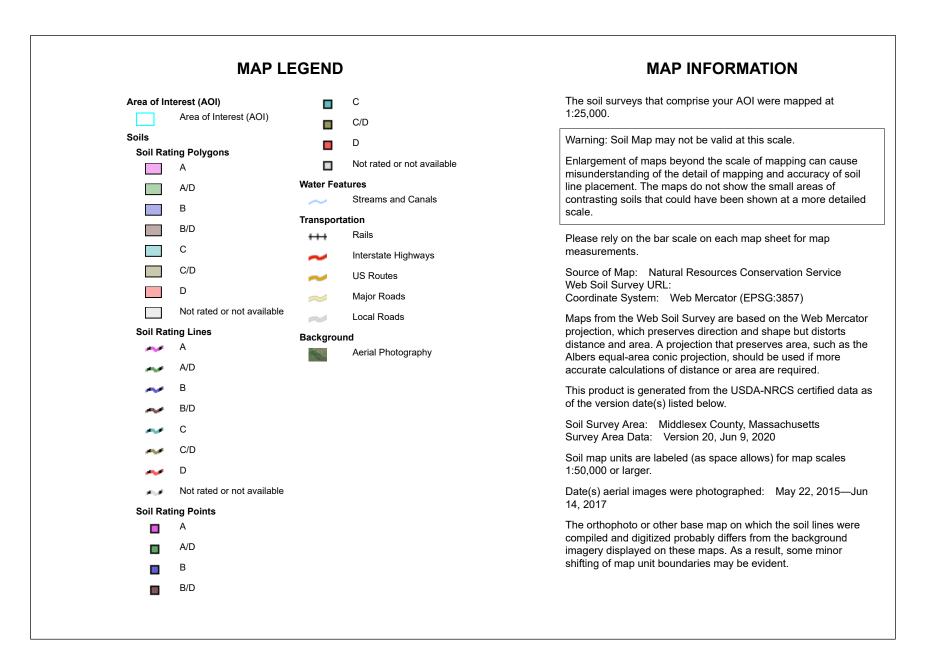
Standard 10: Prohibition of Illicit Discharges

- The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- An Illicit Discharge Compliance Statement is attached;
- NO Illicit Discharge Compliance Statement is attached but will be submitted *prior to* the discharge of any stormwater to post-construction BMPs.

Appendix C - Soils Data



USDA Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey



USDA Natural Resources Conservation Service

Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|-----------------|--|--------|--------------|----------------|
| 6A | Scarboro mucky fine sandy loam, 0 to 3 percent slopes | A/D | 7.7 | 4.7% |
| 32B | Wareham loamy fine sand, 0 to 5 percent slopes | A/D | 17.1 | 10.4% |
| 73B | Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony | D | 2.6 | 1.6% |
| 223B | Scio very fine sandy loam, 3 to 8 percent slopes | B/D | 2.8 | 1.7% |
| 253A | Hinckley loamy sand, 0 to 3 percent slopes | A | 15.1 | 9.2% |
| 253B | Hinckley loamy sand, 3 to 8 percent slopes | A | 1.8 | 1.1% |
| 255A | Windsor loamy sand, 0 to 3 percent slopes | A | 1.8 | 1.1% |
| 256A | Deerfield loamy fine sand, 0 to 3 percent slopes | A | 34.5 | 21.0% |
| 256B | Deerfield loamy fine sand, 3 to 8 percent slopes | A | 2.0 | 1.2% |
| 259A | Carver loamy coarse sand, 0 to 3 percent slopes | A | 3.1 | 1.9% |
| 260B | Sudbury fine sandy loam, 3 to 8 percent slopes | В | 2.9 | 1.8% |
| 300B | Montauk fine sandy loam, 3 to 8 percent slopes | С | 12.3 | 7.5% |
| 325D | Newport channery fine sandy loam, 8 to 25 percent slopes | D | 11.5 | 7.0% |
| 345B | Pittstown silt loam, 3 to 8 percent slopes | D | 4.1 | 2.5% |
| 405B | Charlton fine sandy loam, 3 to 8 percent slopes | В | 23.2 | 14.1% |
| 405C | Charlton fine sandy loam, 8 to 15 percent slopes | В | 7.4 | 4.5% |

| | 1 | 1 | | |
|---------------------------|--|--------|--------------|----------------|
| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
| 420B | Canton fine sandy loam, 3 to 8 percent slopes | В | 6.1 | 3.7% |
| 626B | Merrimac-Urban land complex, 0 to 8 percent slopes | A | 8.4 | 5.1% |
| Totals for Area of Intere | st | • | 164.2 | 100.0% |

Description

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

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

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

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

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

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

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

Rating Options

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

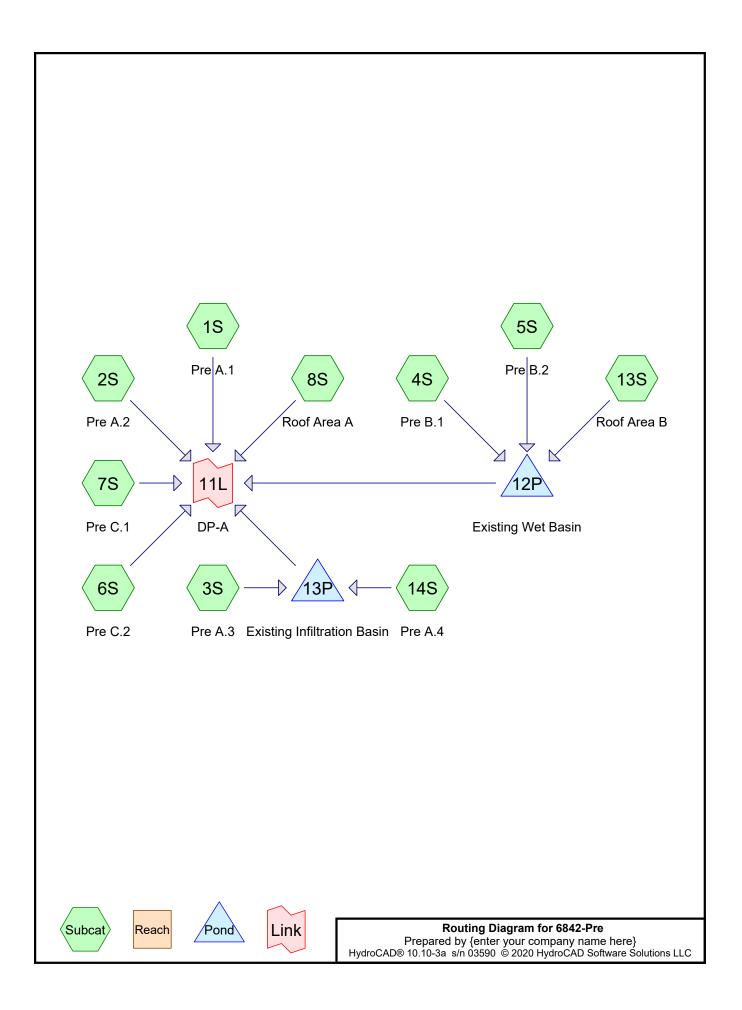
| | City/Town of Bolton Form 11 - Soil Suitability Assessment of On-Site Sewage Disposal | Bolton Soil Suit | ability A | Assessm | ent of Or | n-Site S | ewage [| Disposa | - | | |
|----------|--|---------------------------|-----------|-------------------------------------|-----------|-----------------|---------------------------------|---------------------|-----------|---------------------|----------|
| Deep O | Deep Observation Hole Number: | Number: | 1,2,3 | SAME | 'M' | | | | | ///23 | 11/25/22 |
| Depth | Soil Soil | Soil Matrix: Color- | Redo | Redoximorphic Features (mottles) | eatures | Soil Texture | Coarse Fragments % by Volume | | Soil | Soil Consistence | Other |
| (111-) | י זט ובט וו במצפו | Moist (Munsell) | Depth | Color | Percent | (USDA) | Gravel | Cobbles & Stones | Structure | (Moist) | |
| 21 | AP | 104 th 3/4 | | | | SE | | | | | |
| 30 | En | Sparts gis what | state | 30" | + 5° | 57 | | | | | |
| 400 | 0 | 2.546/4 | | | | Mad | | | | | |
| | | | X/660/ | XLEEPING STADDING | SUDING | WATER O | . 996. | * | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | 5 | |
| | | | | | | | | | | | |
| Addition | Additional Notes: | |) | | | | | | | | u. |
| | | 2 | | | | | | | | | |

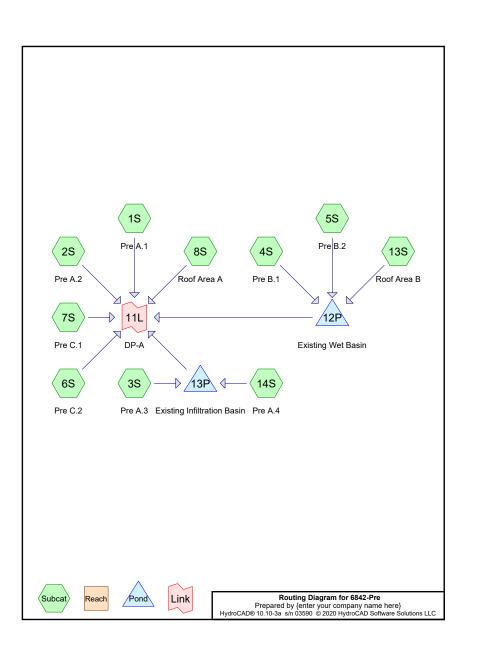
DEP Form 11 Soil Suitability Assessment for On-Site Sewage Disposal-Page 5 of 7

City/Town of Bolton **Commonwealth of Massachusetts** DEP Form 11 Soil Suitability Assessment for On-Site Sewage Disposal-Page 5 of 7

| | | - | | , | | 26 | 44 | 48° | | |] |
|-----------|----------|-------------------|--|---|---|--------|------------|----------|---------------------|-------------------------------------|-------------------------------|
| | | | | | | Se | 66 | 36 | | Depth (In.) | De |
| | | ddition | | | | 5 | 56 | 00 | | 7 | eep C |
| | | Additional Notes: | | | | 0 | 01 01 | re/ mut | | Soil Horizon/Laver | Deep Observation Hole Number: |
| 6 600 | 3 | 3 | | | | 2546/4 | 10-110 5/6 | t/sal-ol | Moist (Munsell) | Soil Matrix: Color- | Number: |
| 201 dagin | webp 9 | weep 24 | | | | | 66" | | Depth | Redo | 1456 |
| 2 | 96 | A | | | · | | 8/2 21/2 | | Color | Redoximorphic Features (mottles) | W. |
| | | | | | | | 150 | | Percent | eatures | |
| | | | | | | | · | | (USDA) | Soil Texture | |
| | | | | | | | | | Gravel | Coarse Fragments % by Volume | * |
| | | | | | | | | | Cobbles & Stones | | |
| | | | | | | | | | ondernie | Soil | 1 |
| | i i N | | | | | | | | (Moist) | Soil Consistence | |
| | | | | | | | | | | Other | |

Form 11 - Soil Suitability Assessment of On-Site Sewage Disposal City/Town of Bolton **Commonwealth of Massachusetts**





| 6842-Pre Prepared by {enter your company na HydroCAD® 10.10-3a s/n 03590 © 2020 H | me here} | pe III 24-hr 2-yr Rainfall=3.00" Page 2 |
|---|---|--|
| Time span=0 Runoff by SCS | .00-72.00 hrs, dt=0.05 hrs, 1441 r TR-20 method, UH=SCS, Weigh +Trans method - Pond routing b | points ted-CN |
| Subcatchment 1S: Pre A.1 | | % Impervious Runoff Depth=1.66" CN=86 Runoff=9.16 cfs 0.770 af |
| Subcatchment 2S: Pre A.2 | | % Impervious Runoff Depth=0.25" CN=57 Runoff=0.53 cfs 0.136 af |
| Subcatchment 3S: Pre A.3 | | % Impervious Runoff Depth=2.77" CN=98 Runoff=1.25 cfs 0.102 af |
| Subcatchment 4S: Pre B.1 | | % Impervious Runoff Depth=2.07" CN=91 Runoff=7.52 cfs 0.873 af |
| Subcatchment 5S: Pre B.2 Flow Ler | Runoff Area=71,871 sf 5.57 igth=416' Tc=12.4 min UI Adjusted | % Impervious Runoff Depth=0.71" I CN=70 Runoff=0.96 cfs 0.098 af |
| Subcatchment 6S: Pre C.2 | | % Impervious Runoff Depth=0.91" CN=74 Runoff=1.67 cfs 0.175 af |
| Subcatchment 7S: Pre C.1 | | % Impervious Runoff Depth=0.96" CN=75 Runoff=4.68 cfs 0.475 af |
| Subcatchment 8S: Roof Area A | | % Impervious Runoff Depth=2.77" CN=98 Runoff=4.68 cfs 0.380 af |
| Subcatchment 13S: Roof Area B | | % Impervious Runoff Depth=2.77" CN=98 Runoff=1.94 cfs 0.158 af |
| Subcatchment 14S: Pre A.4 | | % Impervious Runoff Depth=0.01" CN=43 Runoff=0.00 cfs 0.001 af |
| Pond 12P: Existing Wet Basin 15.0" Rot | Peak Elev=214.92' Storage= und Culvert n=0.013 L=517.0' S=0. | 11,331 cf Inflow=9.06 cfs 1.129 af 0011 '/' Outflow=3.60 cfs 1.129 af |
| Pond 13P: Existing Infiltration Basin Discarded=0. | Peak Elev=212.92' Storage 22 cfs 0.101 af Primary=0.03 cfs 0 | =1,264 cf Inflow=1.25 cfs 0.102 af 0.001 af Outflow=0.25 cfs 0.102 af |
| Link 11L: DP-A | | Inflow=20.88 cfs 3.067 af Primary=20.88 cfs 3.067 af |
| Total Runoff Area = 30.6 | 60 ac Runoff Volume = 3.168 a 69.74% Pervious = 21.383 ac | f Average Runoff Depth = 1.24" 30.26% Impervious = 9.277 ac |
| | | - |

| 842-P | | | | | - 1 | Type III | 24-hr 2-yr Rainfall=3.00" |
|--------------|-----------------------|-------------------|------------|------------------------------|------------|-------------------------------------|---------------------------|
| | | | | y name her | | Solutions LLC | Page 3 |
| | | | Sum | mary for S | ubcatch | ment 1S: Pre A.1 | |
| unoff | = | 9.16 | cfs @ 12 | .15 hrs, Vol | ume= | 0.770 af, Depth | = 1.66" |
| | y SCS TF 24-hr 2-y | | | SCS, Weigł | nted-CN, T | ime Span= 0.00-72.0 | 00 hrs, dt= 0.05 hrs |
| A | rea (sf) | CN | Descriptio | on | | | |
| | 71,903 | 98 | | rking, HSG / | | | |
| | 41,850 | | | rking, HSG I | | • | |
| | 45,336 77,493 | | | ass cover, G ass cover, G | | | |
| | 485 | | | ted paveme | | | |
| | 5,163 | 98 | Unconne | ted paveme | nt, HSG B | | |
| | 42,230 | 86 | Weighted | | | | |
| | 22,829 19,401 | | | ervious Area | | | |
| | 5,648 | | | connected | ca | | |
| | , | | | | | | |
| | Length | | | y Capacity | | tion | |
| (min) 7.7 | (feet) 50 | (ft/ft) 0.0100 | /` | // | Sheet F | low | |
| 1.1 | 50 | 0.0100 | 0.1 | 1 | | Short n= 0.150 P2= | = 2.95" |
| 2.9 | 223 | 0.0330 |) 1.2 | 7 | | Concentrated Flov | |
| | | 0.000 | | - | | rass Pasture Kv= 7. | |
| 0.2 | 25 | 0.008 | 1 1.8 | 3 | | / Concentrated Flov Kv= 20.3 fps | ν, |
| 10.8 | 298 | Total | | | Taveu | 10-20.0 103 | |
| | | | | | | | |
| | | | Sum | mary for S | ubcatch | ment 2S: Pre A.2 | 2 |
| unoff | = | 0.53 (| cfs @ 12 | .65 hrs, Vol | ume= | 0.136 af, Depth | = 0.25" |
| | y SCS TF 24-hr 2-y | | | SCS, Weigl | nted-CN, T | īme Span= 0.00-72.0 | 00 hrs, dt= 0.05 hrs |
| A | rea (sf) | CN | Descriptio | n | | | |
| | 78,930 | | | ood, HSG A | | | |
| | 49,074 | | | lood, HSG B | | | |
| | 31,909 16.373 | | | lood, HSG D ass cover, G | | ۵ | |
| | | | | | | | |
| | 13,268 | 79 | >75% Gra | ass cover, G | 000, 113G | D | |

| Prepare | | | | | | Daga 4 |
|--|---|---|--|--|---|--------|
| | | | | | | Page 4 |
| Tc (min) | Length (feet) | Slope (ft/ft) | | Capacity (cfs) | Description | |
| 3.8 | 50 | 0.0600 | | | Sheet Flow, | |
| | | | | | Grass: Short n= 0.150 P2= 2.95" | |
| 21.0 | 536 | 0.0037 | 0.43 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps | |
| 3.2 | 72 | 0.0055 | 0.37 | | Shallow Concentrated Flow, | |
| | | | | | Woodland Kv= 5.0 fps | |
| 28.0 | 658 | Total | | | | |
| | | | Summ | ary for S | ubcatchment 3S: Pre A.3 | |
| Runoff | = | 1.25 c | fs @ 12.0 | 9 hrs, Volu | ume= 0.102 af, Depth= 2.77" | |
| | y SCS TF 24-hr 2-y | | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |
| A | rea (sf) | CN I | Description | | | |
| | 19,199 | 98 | Paved park | ing HSG A | | |
| | | | | ing, 11007 | 1 | |
| | 19,199 | | | npervious A | | |
| То | , | | 100.00% Im | pervious A | vrea | |
| | Length | Slope | 100.00% Im Velocity | 0, | | |
| Tc (min) 6.0 | , | | 100.00% Im Velocity | pervious A Capacity | vrea | |
| (min) | Length | Slope | Velocity (ft/sec) | Capacity (cfs) | vrea Description | |
| (min) | Length | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | vrea Description Direct Entry, ubcatchment 4S: Pre B.1 | |
| (min) 6.0 Runoff Runoff b | Length (feet) = | Slope (ft/ft) 7.52 c R-20 met | Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S | Capacity (cfs) ary for St 3 hrs, Volu | vrea Description Direct Entry, ubcatchment 4S: Pre B.1 | |
| (min) 6.0 Runoff Runoff b Type III 2 | Length (feet) = y SCS TF | Slope (ft/ft) 7.52 c R-20 met r Rainfal | Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S | Capacity (cfs) ary for Si 3 hrs, Volu | wrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 | Slope (ft/ft) 7.52 c R-20 met Rainfal <u>CN I</u> 98 I | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S I=3.00" Description Paved park | Capacity (cfs) ary for Si 3 hrs, Volu CS, Weigh | Verea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 | Slope (ft/ft) 7.52 c R-20 met r Rainfal <u>CN I</u> 98 I | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S II=3.00" Description Paved park Paved park | ary for Si 3 hrs, Volu CS, Weigh | Virea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 36,430 | Slope (ft/ft) 7.52 c R-20 met r Rainfal <u>CN I</u> 98 I 98 I 98 J | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S I=3.00" Description Paved park Paved park Paved park | Capacity (cfs) ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG D | vrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" uted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 36,430 36,430 | Slope (ft/ft) 7.52 c R-20 met r Rainfal ON 1 98 1 98 1 98 1 98 1 98 3 | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S II=3.00" Description Paved park Paved park Paved park Paved park Paved Gras | ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B s cover, Gc | vrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" uted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 36,430 3,947 9,665 | Slope (ft/ft) 7.52 c R-20 met r Rainfal 98 I 98 I 98 I 98 I 98 I 98 3 98 1 98 7 97 3 | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S I=3.00" Description Paved park Paved park Paved park Paved park Paved park Paved fark >75% Gras | ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B ing, HSG B s cover, Gc | Virea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs obod, HSG A obod, HSG A obd, HSG B | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 36,430 3,947 9,665 556 | Slope (ft/ft) 7.52 c R-20 met r Rainfal 98 l 98 l 98 l 98 l 98 l 98 l 98 l 98 | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S II=3.00" Description Paved park Paved park | ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG D s cover, Gc s cover, Gc | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" tted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bood, HSG A bood, HSG A bood, HSG B bood, HSG D | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 36,430 3,947 9,665 | Slope (ft/ft) 7.52 c R-20 met r Rainfal CN I 98 I 98 I 98 I 98 I 98 S 98 S | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S II=3.00" Description Paved park Paved park Paved park Paved park >75% Gras >75% Gras >75% Gras | ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B s cover, Gc s cover, Gc s cover, Gc | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" tted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG B bod, HSG B bod, HSG B | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 36,430 3,947 9,665 556 1,032 | Slope (ft/ft) 7.52 c R-20 met r Rainfal 98 l 98 l 98 l 98 l 98 l 98 s 98 s 98 s 98 s 79 s 98 s | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S II=3.00" Description Paved park Paved park Paved park Paved park >75% Gras >75% Gras >75% Gras | ary for Si ary for Si 3 hrs, Volu GCS, Weigh ing, HSG B ing, HSG B is, cover, Gc s cover, Gc s cover, Gc d pavemen od, HSG D | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" tted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG B bod, HSG B bod, HSG B | |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 36,430 3,947 9,665 5566 1,032 60,160 | Slope (ft/ft) 7.52 c R-20 met r Rainfal 98 1 98 1 98 1 98 2 98 1 98 2 98 1 98 2 98 1 98 2 98 1 98 2 98 1 98 2 98 2 98 2 99 1 77 2 | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S I=3.00" Description Paved park Paved park Paved park Paved park Paved park Paved park Paved park S75% Gras >75% Gras | ary for Si ary for Si 3 hrs, Volu GCS, Weigh ing, HSG B ing, HSG B is, cover, Gc s cover, Gc s cover, Gc d pavemen od, HSG D | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" tted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bood, HSG A bood, HSG A bood, HSG B bood, HSG B bood, HSG B bood, HSG B | |
| (min) 6.0 Runoff Runoff b Type III 2 A * * * | Length (feet) = y SCS TF 24-hr 2-y rea (sf) 59,394 49,116 36,430 3,947 9,665 556 1,032 0,665 556 1,032 20,300 | Slope (ft/ft) 7.52 c R-20 met r Rainfal 98 l 98 l 98 l 98 l 98 l 98 l 98 l 98 | 100.00% In Velocity (ft/sec) Summ fs @ 12.3 thod, UH=S I=3.00" Description Paved park Paved park Paved park Paved park Paved park Paved park Paved park Paved park Paved cars Description Gras >75% Gras >75% Gras >75% Gras | ary for Si ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B ing, HSG D s cover, Gc s cover, Gc ed pavemer od, HSG D verage vious Area pervious Area | virea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 0.873 af, Depth= 2.07" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ood, HSG A ood, HSG B | |

| | | | | name here 0 HydroCAD | Software Solutions LLC Page 5 |
|-------------|---|------------------|--|--|---|
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
| 19.0 | 50 | 0.0300 | 0.04 | | Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 2.95" |
| 3.0 | 100 | 0.0500 | 0.56 | | Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps |
| 2.4 | 586 | 0.0410 | 4.11 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 24.4 | 736 | Total | | | |
| | | | Summ | ary for Su | ubcatchment 5S: Pre B.2 |
| Inoff | = | 0.96 cfs | s@ 12.2 | 0 hrs, Volu | me= 0.098 af, Depth= 0.71" |
| | 16,037 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 | | >75% Uncc Uncc Woo 70 Weig 94.4 5.57' 100.1 | % Grass co ponnected pa ds, Good, H ds, Go | ISG D ge, UI Adjusted s Area us Area nected |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
| 7.5 | 50 | 0.0780 | 0.11 | | Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" |
| 0.1 | 10 | 0.1000 | 1.58 | | Shallow Concentrated Flow, Woodland Ky= 5.0 fps |
| 0.2 | 39 | 0.3230 | 2.84 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 2.8 | 165 | 0.0380 | 0.97 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.2 | 10 | 0.0200 | 0.71 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.8 | 55 | 0.0520 | 1.14 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 0.8 | 87 | 0.1430 | 1.89 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| | | | | | |

| 12.4 | 416 | l otal |
|------|-----|--------|
| | | |

| yr Rainfall=3.00" Page 6 | Type III 24-hr 2-yr 2} Software Solutions LLC | company r 590 © 2020 | | d by {ent | |
|-----------------------------|--|-------------------------|--------------------------|------------------|-------------|
| | ubcatchment 6S: Pre C.2 | Summa | | | |
| | me= 0.175 af, Depth= 0.91" | @ 12.25 | 1.67 cfs | = | Runoff |
| 0.05 hrs | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0 | | R-20 meth r Rainfall= | | |
| | | escription | CN D | ea (sf) | Ar |
| | | oods, Goo | | 26,537 | |
| | od, HSG B | loods, Goo | | 2,127 62,399 | * |
| | od, HSG D | | | 9,762 | * |
| | · | eighted Av | 74 W | 00,825 00,825 | |
| | Description | Velocity (ft/sec) | Slope (ft/ft) | Length (feet) | Tc (min) |
| | Sheet Flow, | 0.03 | 0.0160 | 18 | 10.8 |
| P2= 2.95" | Woods: Dense underbrush n= 0.800 F | 0.22 | 0.0730 | 22 | 25 |
| | Sheet Flow, Grass: Short n= 0.150 P2= 2.95" | 0.22 | 0.0730 | 33 | 2.5 |
| | Shallow Concentrated Flow, | 2.66 | 0.1440 | 121 | 0.8 |
| | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, | 2.12 | 0.1790 | 10 | 0.1 |
| | Woodland Kv= 5.0 fps | | | | |
| | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps | 2.48 | 0.1260 | 41 | 0.3 |
| | Shallow Concentrated Flow, | 1.41 | 0.0800 | 125 | 1.5 |
| | Woodland Kv= 5.0 fps | 0.04 | 0.0170 | 0 | 0.4 |
| | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps | 0.91 | 0.0170 | 6 | 0.1 |
| | Shallow Concentrated Flow, | 2.94 | 0.0210 | 5 | 0.0 |
| | Paved Kv= 20.3 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps | 0.96 | 0.0190 | 5 | 0.1 |
| | | | Total | 364 | 16.2 |

Summary for Subcatchment 7S: Pre C.1

Runoff = 4.68 cfs @ 12.23 hrs, Volume=

lume= 0.475 af, Depth= 0.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=3.00"

| | | | company 3590 © 2020 | | Software Solutions LLC | Page |
|-------------|-----------------------|------------------|--------------------------|-------------------|---|------|
| A | rea (sf) | CN | Description | | | |
| * | 78,314 | | >75% Grass | | | |
| * ^ | 47,609 2,514 | | >75% Grass Roofs, HSG | | od, HSG B | |
| | 11,441 | | Paved parki | | | |
| | 18,629 | | Woods, Goo | | | |
| | 258,507 | | Weighted A | | | |
| 2 | 244,552 13,955 | | 94.60% Per 5.40% Impe | | | |
| Tc (min) | Length (feet) | Slope (ft/ft) | e Velocity) (ft/sec) | Capacity (cfs) | Description | |
| 1.9 | 10 | 0.1000 | 0.09 | | Sheet Flow, | _ |
| 2.7 | 40 | 0.0900 | 0.25 | | Woods: Light underbrush n= 0.400 P2= 2.95' Sheet Flow. | |
| 2.1 | 40 | 0.0300 | 0.25 | | Grass: Short n= 0.150 P2= 2.95" | |
| 1.1 | 120 | 0.0700 | 1.85 | | Shallow Concentrated Flow, | |
| 0.5 | 36 | 0.0650 |) 1.27 | | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, | |
| 0.5 | 50 | 0.0000 | 1.21 | | Woodland Kv= 5.0 fps | |
| 1.6 | 175 | 0.0650 | 1.78 | | Shallow Concentrated Flow, | |
| 0.0 | - | 0.0100 | 2.00 | | Short Grass Pasture Kv= 7.0 fps | |
| 0.0 | 5 | 0.0190 | 2.80 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps | |
| 7.4 | 368 | 0.0140 | 0.83 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps | |
| 15.2 | 754 | Total | | | | |
| | | | Summary | for Subc | atchment 8S: Roof Area A | |
| | | | | | | |
| Runoff | = | 4.68 c | fs @ 12.09 | 9 hrs, Volu | me= 0.380 af, Depth= 2.77" | |
| | y SCS TF 24-hr 2-y | | | CS, Weight | ed-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | ; |
| A | rea (sf) | CN | Description | | | |
| | 71,756 | 98 | Roofs, HSG | в | | |
| | 71,756 | | 100.00% Im | pervious A | ea | |
| Tc (min) | Length (feet) | Slope (ft/ft) | e Velocity) (ft/sec) | Capacity (cfs) | Description | |
| 6.0 | | | | | Direct Entry, | |
| | | : | Summary | for Subc | atchment 13S: Roof Area B | |
| Runoff | = | 1.94 c | fs @ 12.09 | 9 hrs, Volu | me= 0.158 af, Depth= 2.77" | |
| | | | thad UU-S | CS Weight | ed-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |

| | {enter your co .10-3a_s/n 0359 | | ie here} droCAD Software So | lutions LLC | Page 8 |
|----------------------|------------------------------------|------------------------------|--|------------------------------|----------------------|
| Area (s | f) CN Des | scription | | | |
| 29,81 | | ofs, HSG B | | | |
| 29,81 | 4 100 | 0.00% Imperv | vious Area | | |
| Tc Leng (min) (fe | | /elocity Caj (ft/sec) | pacity Descriptior (cfs) | 1 | |
| 6.0 | | | Direct Ent | ry, | |
| | ę | Summary f | or Subcatchme | ent 14S: Pre A.4 | L |
| lunoff = | 0.00 cfs (| @ 22.18 hrs | , Volume= | 0.001 af, Depth= | 0.01" |
| | S TR-20 metho 2-yr Rainfall=3 | | Weighted-CN, Tim | e Span= 0.00-72.0 | 0 hrs, dt= 0.05 hrs |
| Area (s 10.96 | / | scription | /er, Good, HSG A | | |
| 20,43 | | ods, Good, F | | | |
| 31,39 31,39 | | ighted Avera 0.00% Pervio | | | |
| Tc Lend | | /elocity Ca | | | |
| (min) (fe 6.0 | | (ft/sec) | (cfs) Direct Ent | | |
| | S | ummary fo | | isting Wet Basi | 'n |
| | | • | | • | |
| nflow Area = | | ,55.84% Im @ 12.31 hrs | pervious, Inflow D | epth = 1.83" for 1.129 af | 2-yr event |
| outflow = | 3.60 cfs (| 0 12.77 hrs | , Volume= | 1.129 af, Atten= | 60%, Lag= 27.7 min |
| initial y | | 0 12.77 hrs | , | 1.129 af | |
| | | | 0.00-72.00 hrs, dt= ea= 13,149 sf Sto | | |
| | ention time= 22 s det. time= 22 | | lated for 1.128 af (.2 - 818.6) | 100% of inflow) | |
| olume | Invert Ava | il.Storage | Storage Description | ו | |
| #1 2 | 12.30' | 64,778 cf | Custom Stage Dat | a (Irregular)Listed | below (Recalc) |
| Elevation | Surf.Area | Perim. | Inc.Store | Cum.Store | Wet.Area |
| (feet) 212.30 | (sq-ft) 50 | (feet) 75.0 | (cubic-feet) 0 | (cubic-feet) 0 | <u>(sq-ft)</u> 50 |
| 212.30 | 556 | 100.0 | 180 | 180 | 403 |
| 214.00 | 5,786 | 393.0 | 2,712 | 2,892 | 11,901 |
| 215.00 216.00 | 13,981 19.970 | 580.0 757.0 | 9,587 16,887 | 12,479 29,366 | 26,388 45.232 |
| 217.00 | 53,560 | 1,442.0 | 35,412 | 64,778 | 165,106 |
| | | | | | |
| | | | | | |
| | | | | | |

| 6842-Pre | Type III 24-hr 2-yr Rainfall=3.00" |
|--|------------------------------------|
| Prepared by {enter your company name here} | |
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Device Routing Invert Outlet Devices 212.37' 15.0" Round Culvert #1 Primary L= 517.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.37' / 211.80' S= 0.0011 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 1.23 sf

Primary OutFlow Max=3.60 cfs @ 12.77 hrs HW=214.91' (Free Discharge) 1=Culvert (Barrel Controls 3.60 cfs @ 2.93 fps)

Summary for Pond 13P: Existing Infiltration Basin

| Inflow Area = | 1.161 ac, 37.95% Impervious, Inflow De | epth = 1.06" for 2-yr event |
|---------------|--|-------------------------------------|
| Inflow = | 1.25 cfs @ 12.09 hrs, Volume= | 0.102 af |
| Outflow = | 0.25 cfs @ 12.52 hrs, Volume= | 0.102 af, Atten= 80%, Lag= 25.9 min |
| Discarded = | 0.22 cfs @ 12.52 hrs, Volume= | 0.101 af |
| Primary = | 0.03 cfs @ 12.52 hrs, Volume= | 0.001 af |

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 212.92' @ 12.52 hrs Surf.Area= 3,299 sf Storage= 1,264 cf

Plug-Flow detention time= 38.4 min calculated for 0.102 af (100% of inflow) Center-of-Mass det. time= 38.4 min (798.7 - 760.3)

-

. . . .

| Volume | Invert | Avail. | Storage | Storage Description | n | |
|---------------------|---------|-------------------|------------------|---------------------------|---------------------------|-----------------------------|
| #1 | 212.50' | 1 | 1,128 cf | Custom Stage Da | ta (Irregular)Listed | below (Recalc) |
| Elevation (feet) | Sur | f.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft <u>)</u> |
| 212.50 | | 2,793 | 372.0 | 0 | 0 | 2,793 |
| 213.00 214.00 | | 3,407 4,790 | 450.0 473.0 | 1,547 4.079 | 1,547 5.626 | 7,899 9.651 |
| 215.00 | | 6,246 | 497.0 | 5,502 | 11,128 | 11,566 |
| Device R | outing | Inv | ert Outle | et Devices | | |

_ ...

| 001100 | rtouting | Internet | Callot Deviced |
|--------|-----------|----------|---|
| #1 | Primary | 212.83' | 15.0" Round Culvert |
| | | | L= 90.0' CPP, projecting, no headwall, Ke= 0.900 |
| | | | Inlet / Outlet Invert= 212.83' / 210.39' S= 0.0271 '/' Cc= 0.900 |
| | | | n= 0.013, Flow Area= 1.23 sf |
| #2 | Discarded | 212.50' | 2.410 in/hr Exfiltration over Surface area |
| | | | Conductivity to Groundwater Elevation = 210.40' |
| #3 | Device 1 | 212.63' | 3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| | Donico i | 212.00 | |

Discarded OutFlow Max=0.22 cfs @ 12.52 hrs HW=212.92' (Free Discharge) **2=Exfiltration** (Controls 0.22 cfs)

Primary OutFlow Max=0.03 cfs @ 12.52 hrs HW=212.92' (Free Discharge) 1=Culvert (Inlet Controls 0.03 cfs @ 0.78 fps) -3=Orifice/Grate (Passes 0.03 cfs of 0.07 cfs potential flow)

| 6842-Pre | Type III 24-hr 2-yr Rainfall=3.00" | |
|--|------------------------------------|--|
| Prepared by {enter your company name here} | | |
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| | | |

Summary for Link 11L: DP-A

| Inflow Area = | 30.660 ac, 30.26% Impervious, In | flow Depth = 1.20" for 2-yr event |
|---------------|----------------------------------|-----------------------------------|
| Inflow = | 20.88 cfs @ 12.16 hrs, Volume= | 3.067 af |
| Primary = | 20.88 cfs @ 12.16 hrs, Volume= | 3.067 af, Atten= 0%, Lag= 0.0 min |

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

| Prepared by {enter your company n HydroCAD® 10.10-3a s/n 03590 © 2020 | | Page 11 |
|--|--|--------------------|
| Runoff by SC | 0.00-72.00 hrs, dt=0.05 hrs, 1441 points S TR-20 method, UH=SCS, Weighted-CN nd+Trans method - Pond routing by Stor-Ind meth | od |
| Subcatchment 1S: Pre A.1 | Runoff Area=242,230 sf 49.29% Impervious F Flow Length=298' Tc=10.8 min CN=86 Runoff= | |
| Subcatchment 2S: Pre A.2 | Runoff Area=289,668 sf 0.00% Impervious F Flow Length=658' Tc=28.0 min CN=57 Runof | |
| Subcatchment 3S: Pre A.3 | Runoff Area=19,199 sf 100.00% Impervious F Tc=6.0 min CN=98 Runof | |
| Subcatchment 4S: Pre B.1 | Runoff Area=220,300 sf 66.26% Impervious F Flow Length=736' Tc=24.4 min CN=91 Runoff= | |
| Subcatchment 5S: Pre B.2 Flow L | Runoff Area=71,871 sf 5.57% Impervious F ength=416' Tc=12.4 min UI Adjusted CN=70 Runofi | |
| Subcatchment 6S: Pre C.2 | Runoff Area=100,825 sf 0.00% Impervious F Flow Length=364' Tc=16.2 min CN=74 Runof | |
| Subcatchment 7S: Pre C.1 | Runoff Area=258,507 sf 5.40% Impervious F Flow Length=754' Tc=15.2 min CN=75 Runoff= | |
| Subcatchment 8S: Roof Area A | Runoff Area=71,756 sf 100.00% Impervious F Tc=6.0 min CN=98 Runof | |
| Subcatchment 13S: Roof Area B | Runoff Area=29,814 sf 100.00% Impervious F Tc=6.0 min CN=98 Runof | |
| Subcatchment 14S: Pre A.4 | Runoff Area=31,394 sf 0.00% Impervious F Tc=6.0 min CN=43 Runof | |
| Pond 12P: Existing Wet Basin 15.0" F | Peak Elev=215.76' Storage=24,747 cf Inflow= ound Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow | |
| Pond 13P: Existing Infiltration Basin Discarded= | Peak Elev=213.14' Storage=2,039 cf Inflow 0.25 cfs 0.151 af Primary=0.13 cfs 0.016 af Outflow | |
| Link 11L: DP-A | | 38.37 cfs 5.690 af |

| 1011 Area - 30.000 ac Runon Volume - 5.041 a | Average Runon Depth – 2.29 |
|--|------------------------------|
| 69.74% Pervious = 21.383 ac | 30.26% Impervious = 9.277 ac |

| 6842-P | | | | | | | Туре | III 24-hr 10-yr F | ainfall=4.4 | | |
|------------------------|--------------------------------------|----------|----------|---------|------------------------|------------|-----------------|--------------------|-------------|--|--|
| | | | | | name her 0 HydroCAI | | Solutions LLC | | Page | | |
| | | | • | | f O | | | | | | |
| | Summary for Subcatchment 1S: Pre A.1 | | | | | | | | | | |
| Runoff | = | 16.13 | cfs @ | 12.1 | 5 hrs, Volu | ume= | 1.366 af, De | pth= 2.95" | | | |
| | | | | | CS, Weigł | nted-CN, T | ime Span= 0.00- | 72.00 hrs, dt= 0.0 | 5 hrs | | |
| Type III 2 | 24-hr 10- | -yr Rain | ıfall=4. | 44" | | | | | | | |
| A | rea (sf) | CN | Desci | ription | | | | | | | |
| * | 71,903 | 98 | | | ing, HSG A | | | | | | |
| | 41,850 | 98 | | | ing, HSG E | | | | | | |
| * | 45,336 | 68 | | | | ood, HSG | | | | | |
| * | 77,493 | 79 | | | | ood, HSG | | | | | |
| | 485 | 98 | | | | nt, HSG A | | | | | |
| | 5,163 | 98 | | | | nt, HSG B | | | | | |
| | 42,230 22,829 | 86 | | | verage vious Area | | | | | | |
| | 22,829 | | | | vious Area | | | | | | |
| 1 | 5,648 | | | | onnected | ea | | | | | |
| | 0,040 | | 4.707 | 0 Onoc | micolou | | | | | | |
| Тс | Length | Slop | e Ve | locitv | Capacity | Descript | ion | | | | |
| (min) | (feet) | (ft/f | | /sec) | (cfs) | | | | | | |
| 7.7 | 50 | 0.010 | 0 | 0.11 | | Sheet F | low, | | | | |
| | | | | | | Grass: S | hort n= 0.150 | P2= 2.95" | | | |
| 2.9 | 223 | 0.033 | 0 | 1.27 | | | Concentrated F | | | | |
| | | | | | | | ass Pasture Kv | | | | |
| 0.2 | 25 | 0.008 | 1 | 1.83 | | | Concentrated F | low, | | | |
| 40.0 | 000 | T-4-1 | | | | Paved | Kv= 20.3 fps | | | | |
| 10.8 | 298 | Total | | | | | | | | | |
| | | | S | umma | ary for S | ubcatch | ment 2S: Pre | A.2 | | | |
| Runoff | = | 2.93 | cfs @ | 12.49 | 9 hrs, Voli | ume= | 0.455 af, De | pth= 0.82" | | | |
| Б <i>«</i> . | | | | | 00 M/ · · | | | | | | |
| Runoff b Type III 2 | | | | | CS, Weigh | nted-CN, T | ime Span= 0.00- | 72.00 hrs, dt= 0.0 | 5 hrs | | |
| | | , | | | | | | | | | |
| A | rea (sf) | CN | | ription | | | | | | | |
| | 78,930 | 30 | | | od, HSG A | | | | | | |
| | 49,074 31.909 | 55 77 | | | od, HSG B od. HSG D | | | | | | |
| * 1 | 16,373 | 68 | | | | ood, HSG | Δ | | | | |
| * | 13,268 | 79 | | | | ood, HSG | | | | | |
| | | 10 | | | | | | | | | |
| * | 114 | 89 | >75% | Grass | s cover, G | ood, HSG | D | | | | |

| 6842-P | | | | | Type III 24-hr 10-yr Rainfall=4.44" |
|--|---|--|---|--|---|
| | | | | name here | e} D Software Solutions LLC Page 13 |
| | | | | | |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
| 3.8 | 50 | 0.0600 | 0.22 | (013) | Sheet Flow. |
| | | | | | Grass: Short n= 0.150 P2= 2.95" |
| 21.0 | 536 | 0.0037 | 0.43 | | Shallow Concentrated Flow, |
| 3.2 | 72 | 0.0055 | 0.37 | | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, |
| | | | | | Woodland Kv= 5.0 fps |
| 28.0 | 658 | Total | | | |
| | | | Summ | on for S | ubastahmant 25, Dra A 2 |
| | | | Summ | ary ior Si | ubcatchment 3S: Pre A.3 |
| Runoff | = | 1.87 cf | s @ 12.0 | 9 hrs, Volu | ume= 0.154 af, Depth= 4.20" |
| | | | <u> </u> | | |
| | | | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| i ype III 2 | 24-hr 10- | yr Rainfa | 11=4.44" | | |
| А | rea (sf) | CN E | Description | | |
| | 19,199 | 98 F | aved park | ina. HSG A | |
| | | | | | |
| | 19,199 | 1 | 00.00% In | pervious A | |
| Та | , | | | pervious A | \rea |
| | Length | Slope | Velocity | pervious A Capacity | \rea |
| Tc (min) 6.0 | , | | | pervious A | \rea |
| (min) | Length | Slope | Velocity (ft/sec) | pervious A Capacity (cfs) | Area Description Direct Entry, |
| (min) | Length | Slope | Velocity (ft/sec) | pervious A Capacity (cfs) | Area Description |
| <u>(min)</u> 6.0 | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity Capacity (cfs) | Description Direct Entry, ubcatchment 4S: Pre B.1 |
| <u>(min)</u> 6.0 | Length | Slope (ft/ft) | Velocity (ft/sec) | pervious A Capacity (cfs) | Description Direct Entry, ubcatchment 4S: Pre B.1 |
| (min) 6.0 Runoff Runoff b | Length (feet) = y SCS TF | Slope (ft/ft) 12.26 cf: R-20 meth | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S | Capacity (cfs) ary for Si 3 hrs, Volu | Description Direct Entry, ubcatchment 4S: Pre B.1 |
| (min) 6.0 Runoff Runoff b | Length (feet) | Slope (ft/ft) 12.26 cf: R-20 meth | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S | Capacity (cfs) ary for Si 3 hrs, Volu | Area Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" |
| (min) 6.0 Runoff Runoff b Type III : | Length (feet) = y SCS TF 24-hr 10- | Slope (ft/ft) 12.26 cf: R-20 meth yr Rainfa | Velocity (ft/sec) Summ s @ 12.3 nod, UH=S ull=4.44" | Capacity (cfs) ary for Si 3 hrs, Volu CS, Weigh | Area Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" |
| (min) 6.0 Runoff Runoff b Type III : | Length (feet) = y SCS TF 24-hr 10- rea (sf) | Slope (ft/ft) 12.26 cf: R-20 mett -yr Rainfa <u>CN E</u> | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S ll=4.44" Description | Capacity (cfs) ary for Si 3 hrs, Volu CS, Weigh | Verea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff Runoff b Type III : | Length (feet) = y SCS TF 24-hr 10- | Slope (ft/ft) 12.26 cfr R-20 meth yr Rainfa <u>CN E</u> 98 F | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S ull=4.44" Description Paved park | Capacity (cfs) ary for Si 3 hrs, Volu CCS, Weigh | Avrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" tted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff Runoff b Type III : | Length (feet) = y SCS TF 24-hr 10- rea (sf) 59,394 | Slope (ft/ft) 12.26 cf R-20 mett yr Rainfa <u>CN E</u> 98 F 98 F | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S hll=4.44" Description Paved park aved park | Capacity (cfs) ary for Si 3 hrs, Volu CS, Weigh | Area Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" uted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff Runoff b Type III : | Length (feet) = y SCS TF 24-hr 10- rea (sf) 59,394 49,116 | Slope (ft/ft) 12.26 cf: R-20 mett yr Rainfa <u>CN E</u> 98 F 98 F 98 F 98 F 98 F 98 F | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S lill=4.44" Description Paved park 'aved park 'aved park 'aved park 'aved park | ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG E s cover, Gc | Virea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0 0 0 0 0 0 0 |
| (min) 6.0 Runoff Runoff b Type III : | Length (feet) = y SCS TF 24-hr 10- rea (sf) 59,394 49,116 36,430 3,947 9,665 | Slope (ft/ft) 12.26 cf 3-20 mett yr Rainfa 08 F 98 F 98 F 98 F 68 > 79 > | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S lil=4.44" Description Paved park Paved park Paved park Paved park Paved park Paved park Paved park Paved park | ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B ing, HSG C s cover, Gc | Area Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Abood, HSG A bood, HSG A bodd, HSG B |
| (min) 6.0 Runoff Runoff b Type III : | Length (feet) = y SCS TF 24-hr 10- 59,394 49,116 36,430 3,947 9,665 556 | Slope (ft/ft) 12.26 cf 2-20 mett yr Rainfa 98 F 98 F 98 F 98 F 98 F 98 F 98 F 98 F | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S III=4.44" Description Paved park Paved park Pa | ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG E ing, HSG E s cover, Gc s cover, Gc | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" uted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bood, HSG A bood, HSG B bood, HSG D |
| (min) 6.0 Runoff Runoff b Type III : | Length (feet) = y SCS TF 24-hr 10- 759,394 49,116 36,430 3,947 9,665 556 1,032 | Slope (ft/ft) 12.26 cf 3-20 meti yr Rainfa 98 F 98 F 98 F 98 F 68 > 79 > 89 > 89 > | Velocity (ft/sec) Summ s @ 12.3 nod, UH=S ull=4.44" Description Paved park Paved park Paved park 75% Gras 75% Gras 75% Gras | ary for Si ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B ing, HSG B s cover, Gc s cover, Gc s cover, Gc | Virea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG A bod, HSG D nt, HSG B |
| (min) 6.0 Runoff b Type III : A | Length (feet) = y SCS TF 24-hr 10- rea (sf) 59,394 49,116 36,430 3,947 9,665 5566 1,032 60,160 | Slope (ft/ft) 12.26 cf: | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S lil=4.44" Description Paved park '75% Gras '75% Gras '75% Gras '75% Gras '75% Gras | ary for Si ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG B ing, HSG B s cover, Gc s cover, Gc s cover, Gc s cover, Gc | Virea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" ited-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG A bod, HSG D nt, HSG B |
| (min) 6.0 Runoff b Type III : A | Length (feet) = y SCS TF 24-hr 10- rea (sf) 59,394 49,116 36,430 3,947 9,665 556 1,032 0,605 1,032 20,300 | Slope (ft/ft) 12.26 cf R-20 meth yr Rainfa 08 F 98 F 98 F 98 F 98 F 68 > 79 > 89 S 89 S 98 L 77 V 91 V | Velocity (ft/sec) Summ s @ 12.3 nod, UH=S III=4.44" Description Paved park Paved park Pa | ary for Si ary for Si 3 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B ing, HSG B is cover, Go s cover, Go | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" uted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff b Type III 1 A * * * | Length (feet) = y SCS TF 24-hr 10- 759,394 49,116 36,430 3,947 9,665 556 1,032 60,160 74,328 | Slope (ft/ft) 12.26 cf 2-20 mett yr Rainfa 08 F 98 F 98 F 98 F 98 F 98 F 98 F 98 S 98 V 79 > 98 U 79 V 98 V 91 V | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S ill=4.44" Description Paved park Paved park Pa | ary for Si ary for Si | Area Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" tted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG A bod, HSG B bod, HSG B bod, HSG B bod, HSG B |
| (min) 6.0 Runoff Runoff b Type III 2 A | Length (feet) = y SCS TF 24-hr 10- 759,394 49,116 36,430 3,947 9,665 556 1,032 60,160 20,300 74,328 45,972 | Slope (ft/ft) 12.26 cf: 3-20 meti yr Rainfa 98 F 98 F 98 F 98 F 98 F 98 F 98 F 98 F | Velocity (ft/sec) Summ s @ 12.3 nod, UH=S ull=4.44" Description Paved park Paved park Paved park Paved park Paved park 75% Gras 75% Gras | ary for Si ary for Si | Area Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" tted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG A bod, HSG B bod, HSG B bod, HSG B bod, HSG B |
| (min) 6.0 Runoff b Fype III : A | Length (feet) = y SCS TF 24-hr 10- 759,394 49,116 36,430 3,947 9,665 556 1,032 60,160 74,328 | Slope (ft/ft) 12.26 cf: 3-20 meti yr Rainfa 98 F 98 F 98 F 98 F 98 F 98 F 98 F 98 F | Velocity (ft/sec) Summ s @ 12.3 hod, UH=S ill=4.44" Description Paved park Paved park Pa | ary for Si ary for Si | Area Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 1.450 af, Depth= 3.44" tted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG A bod, HSG B bod, HSG B bod, HSG B bod, HSG B |

| | | tor vour i | romnany | name here | |
|-----------------------------------|---|--|---|---|--|
| | | | | | 5) Software Solutions LLC Page 14 |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
| 19.0 | 50 | 0.0300 | 0.04 | | Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 2.95" |
| 3.0 | 100 | 0.0500 | 0.56 | | Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps |
| 2.4 | 586 | 0.0410 | 4.11 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 24.4 | 736 | Total | | | |
| | | | Summ | ary for Su | ubcatchment 5S: Pre B.2 |
| Runoff | = | 2.44 cfs | s@ 12.1 | 8 hrs, Volu | ıme= 0.224 af, Depth= 1.63" |
| . " | 000 T | | | | |
| | y SCS TF 24-hr 10- | | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| ype m. | 24-111 10- | уг каппа | 11-4.44 | | |
| A | rea (sf) | CN A | Adj Desc | ription | |
| | 16,037 | 79 | >75% | 6 Grass co | ver, Good, HSG B |
| | 15,072 | 89 | | | ver, Good, HSG D |
| | 2,551 | 98 | | | avement, HSG B |
| | 1,451 | 98 | | | avement, HSG D |
| | 32,793 | 55 | VVOO | ds, Good, H | |
| | 2 067 | 77 | | | |
| | 3,967 | 77 | Woo | ds, Good, H | HSG D |
| | 71,871 | | Woo 70 Weig | <u>ds, Good, H</u> hted Avera | HSG D age, UI Adjusted |
| | 71,871 67,869 | | Woo 70 Weig 94.4 | ds, Good, H Ihted Avera 3% Perviou | HSG D age, UI Adjusted is Area |
| | 71,871 67,869 4,002 | | Woo 70 Weig 94.4 5.57 | <u>ds, Good, H</u> hted Avera | HSG D age, UI Adjusted is Area us Area |
| | 71,871 67,869 4,002 4,002 | 71 | Woo 70 Weig 94.4 5.57 100.0 | ds, Good, H hted Avera 3% Perviou % Impervio 00% Uncon | HSG D age, UI Adjusted Is Area us Area nnected |
| | 71,871 67,869 4,002 4,002 Length | 71 Slope | Woo 70 Weig 94.4 5.57 100.1 Velocity | ds, Good, H Jhted Avera 3% Perviou % Impervio 00% Uncon Capacity | HSG D age, UI Adjusted is Area us Area |
| Tc (min) 7.5 | 71,871 67,869 4,002 4,002 | 71 | Woo 70 Weig 94.4 5.57 100.0 | ds, Good, H hted Avera 3% Perviou % Impervio 00% Uncon | HSG D age, UI Adjusted Is Area us Area nnected |
| (min) 7.5 | 71,871 67,869 4,002 4,002 Length (feet) 50 | 71 Slope (ft/ft) 0.0780 | Woo 70 Weig 94.4. 5.57' 100.1 Velocity (ft/sec) 0.11 | ds, Good, H Jhted Avera 3% Perviou % Impervio 00% Uncon Capacity | HSG D age, UI Adjusted Is Area us Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" |
| (min) 7.5 0.1 | 71,871 67,869 4,002 4,002 Length (feet) 50 10 | 71 Slope (ft/ft) 0.0780 0.1000 | Woo 70 Weig 94.4: 5.57' 100.1 Velocity (ft/sec) 0.11 1.58 1.58 | ds, Good, H Jhted Avera 3% Perviou % Impervio 00% Uncon Capacity | HSG D age, UI Adjusted is Area us Area innected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| (min) 7.5 | 71,871 67,869 4,002 4,002 Length (feet) 50 | 71 Slope (ft/ft) 0.0780 | Woo 70 Weig 94.4. 5.57' 100.1 Velocity (ft/sec) 0.11 | ds, Good, H Jhted Avera 3% Perviou % Impervio 00% Uncon Capacity | HSG D age, UI Adjusted is Area us Area inected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, |
| (min) 7.5 0.1 | 71,871 67,869 4,002 4,002 Length (feet) 50 10 | 71 Slope (ft/ft) 0.0780 0.1000 | Woo 70 Weig 94.4: 5.57' 100.1 Velocity (ft/sec) 0.11 1.58 1.58 | ds, Good, H Jhted Avera 3% Perviou % Impervio 00% Uncon Capacity | HSG D age, UI Adjusted is Area us Area innected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, |
| (min) 7.5 0.1 0.2 | 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 | 71 Slope (ft/ft) 0.0780 0.1000 0.3230 | Woo 70 Weig 94.4: 5.57' 100.1 Velocity (ft/sec) 0.11 1.58 2.84 | ds, Good, H Jhted Avera 3% Perviou % Impervio 00% Uncon Capacity | HSG D age, UI Adjusted is Area us Area us Area Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, |
| (min) 7.5 0.1 0.2 2.8 | 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 165 | 71 Slope (ft/ft) 0.0780 0.1000 0.3230 0.0380 | Woo 70 Weig 94.4 5.57 100. Velocity (ft/sec) 0.11 1.58 2.84 0.97 0.97 | ds, Good, H Jhted Avera 3% Perviou % Impervio 00% Uncon Capacity | HSG D age, UI Adjusted is Area us Area innected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps |

12.4 416 Total

| | | | | name here 0 HydroCAL | D Software Solutions LLC Page 15 | | | | |
|--------------------------------------|--|-------------------------|----------------------|-------------------------|---|--|--|--|--|
| Summary for Subcatchment 6S: Pre C.2 | | | | | | | | | |
| Runoff | = 3.75 cfs @ 12.23 hrs, Volume= 0.372 af, Depth= 1.93" | | | | | | | | |
| | | R-20 meth ∙yr Rainfa | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | | | |
| Aı | rea (sf) | CN D | escription | | | | | | |
| : | 26,537 | | | od, HSG B | | | | | |
| * | 2,127 | | | od, HSG D | | | | | |
| | 62,399 9,762 | | | | ood, HSG B ood, HSG D | | | | |
| 1 | 00.825 | | Veighted A | , | 500, 1100 D | | | | |
| | 00,825 | | | ervious Are | a | | | | |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | | | | |
| 10.8 | 18 | 0.0160 | 0.03 | () | Sheet Flow, | | | | |
| 2.5 | 33 | 0.0730 | 0.22 | | Woods: Dense underbrush n= 0.800 P2= 2.95" Sheet Flow. | | | | |
| 2.0 | 00 | 0.0700 | 0.22 | | Grass: Short n= 0.150 P2= 2.95" | | | | |
| 0.8 | 121 | 0.1440 | 2.66 | | Shallow Concentrated Flow, | | | | |
| | | | a (- | | Short Grass Pasture Kv= 7.0 fps | | | | |
| 0.1 | 10 | 0.1790 | 2.12 | | Shallow Concentrated Flow, | | | | |
| 0.3 | 41 | 0.1260 | 2.48 | | Woodland Kv= 5.0 fps Shallow Concentrated Flow, | | | | |
| 0.0 | 41 | 0.1200 | 2.40 | | Short Grass Pasture Kv= 7.0 fps | | | | |
| 1.5 | 125 | 0.0800 | 1.41 | | Shallow Concentrated Flow, | | | | |
| | | | | | Woodland Kv= 5.0 fps | | | | |
| 0.1 | 6 | 0.0170 | 0.91 | | Shallow Concentrated Flow, | | | | |
| 0.0 | 5 | 0.0210 | 2.94 | | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow. | | | | |
| 0.0 | 5 | 0.0210 | 2.94 | | Paved Kv= 20.3 fps | | | | |
| 0.1 | 5 | 0.0190 | 0.96 | | Shallow Concentrated Flow, | | | | |
| | | | | | Short Grass Pasture Kv= 7.0 fps | | | | |
| 16.2 | 364 | Total | | | | | | | |

16.2 364 Total

Summary for Subcatchment 7S: Pre C.1

Runoff = 10.34 cfs @ 12.22 hrs, Volume= 0.991 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.44"

| | | | r company 03590 © 202 | | Software Solutions LLC Page |
|-----------|-------------------------|-----------------|---------------------------|-------------------|---|
| | Area (sf) | CN | Description | | |
| * | 78,314 | | >75% Gras | | |
| | 147,609 2.514 | | >75% Grass Roofs, HSG | | IOO, HSG B |
| | 11,441 | | Paved parki | | |
| | 18,629 | | Woods, Goo | | |
| | 258,507 244,552 | 75 | Weighted A 94.60% Per | | |
| | 13,955 | | 5.40% Impe | | |
| T (mir | c Length | Slope (ft/ft | | Capacity (cfs) | Description |
| 1. | , , , | | / (/ | (0.0) | Sheet Flow, |
| | | | | | Woods: Light underbrush n= 0.400 P2= 2.95" |
| 2. | 7 40 | 0.0900 | 0 0.25 | | Sheet Flow, Grass: Short n= 0.150 P2= 2.95" |
| 1. | 1 120 | 0.0700 | 0 1.85 | | Shallow Concentrated Flow, |
| | | | | | Short Grass Pasture Kv= 7.0 fps |
| 0. | 5 36 | 0.0650 | 0 1.27 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| 1. | 6 175 | 0.0650 | 0 1.78 | | Shallow Concentrated Flow, |
| 0 | о г | 0.0400 | | | Short Grass Pasture Kv= 7.0 fps |
| 0. | 0 5 | 0.0190 | 0 2.80 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 7. | 4 368 | 0.0140 | 0.83 | | Shallow Concentrated Flow, |
| 15. | 2 754 | Total | | | Short Grass Pasture Kv= 7.0 fps |
| 15. | 2 754 | Total | | | |
| | | | Summary | for Sub | catchment 8S: Roof Area A |
| Runof | f = | 6.98 0 | cfs @ 12.0 | 9 hrs, Volu | me= 0.577 af, Depth= 4.20" |
| | by SCS T II 24-hr 10 | | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| | Area (sf) | CN | Description | | |
| | 71,756 | | Roofs, HSG | | |
| | 71,756 | | 100.00% Im | pervious A | rea |
| T (mir | c Length) (feet) | Slope (ft/ft | e Velocity :) (ft/sec) | Capacity (cfs) | Description |
| 6. | 0 | | | | Direct Entry, |
| | | | Summary | for Subc | atchment 13S: Roof Area B |
| Runof | | 2 00 / | cfs @ 12.0 | ahre Volu | me= 0.240 af, Depth= 4.20" |

| 842-Pre Type III 24-hr 10-yr Rainfall=4.44" | 6842-Pre Type III 24-hr 10-yr Rainfall=4.4 |
|---|--|
| repared by {enter your company name here} /droCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 17 | Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page |
| Area (sf) CN Description | Device Routing Invert Outlet Devices |
| 29,814 98 Roofs, HSG B | #1 Primary 212.37' 15.0" Round Culvert |
| 29,814 100.00% Impervious Area | L= 517.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.37' / 211.80' S= 0.0011 '/' Cc= 0.900 |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | n= 0.013 Concrete pipe, straight & clean, Flow Area= 1.23 sf |
| 6.0 Direct Entry, | Primary OutFlow Max=4.34 cfs @ 12.89 hrs HW=215.76' (Free Discharge) 1-1=Culvert (Barrel Controls 4.34 cfs @ 3.54 fps) |
| Summary for Subcatchment 14S: Pre A.4 | Summary for Pond 13P: Existing Infiltration Basin |
| unoff = 0.04 cfs @ 12.44 hrs, Volume= 0.013 af, Depth= 0.21" | Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 1.73" for 10-yr event |
| unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs /pe III 24-hr 10-yr Rainfall=4.44" | Inflow = 1.87 cfs @ 12.09 hrs, Volume= 0.167 af Outflow = 0.39 cfs @ 12.53 hrs, Volume= 0.167 af, Atten= 79%, Lag= 26.4 min |
| | Discarded = 0.25 cfs @ 12.53 hrs, Volume= 0.151 af Primary = 0.13 cfs @ 12.53 hrs, Volume= 0.016 af |
| Area (sf) CN Description 10.963 68 >75% Grass cover, Good, HSG A | |
| 20,431 30 Woods, Good, HSG A | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| 31,394 43 Weighted Average | Peak Elev= 213.14' @ 12.53 hrs Surf.Area= 3,587 sf Storage= 2,039 cf |
| 31,394 100.00% Pervious Area | Plug-Flow detention time= 47.4 min calculated for 0.167 af (100% of inflow) |
| Tc Length Slope Velocity Capacity Description | Center-of-Mass det. time= 47.4 min (816.2 - 768.8) |
| (min) (feet) (ft/ft) (ft/sec) (cfs) | Volume Invert Avail.Storage Storage Description |
| 6.0 Direct Entry, | #1 212.50' 11,128 cf Custom Stage Data (Irregular) Listed below (Recalc) |
| Summary for Pond 12P: Existing Wet Basin | Elevation Surf.Area Perim. Inc.Store Cum.Store Wet.Area (feet) (sq-ft) (feet) (cubic-feet) (sq-ft) (sq-ft) |
| flow Area = 7.392 ac, 55.84% Impervious, Inflow Depth = 3.11" for 10-vr event | $\frac{(1000)}{212.50} = \frac{(3000)}{2.793} = \frac{(1000)}{372.0} = \frac{(3000)}{0} = \frac{(3000)}{(3000)} = \frac{(3000)}{($ |
| flow = 15.28 cfs @ 12.29 hrs, Volume= 1.914 af | 213.00 3,407 450.0 1,547 1,547 7,899 |
| utflow = 4.34 cfs @ 12.89 hrs, Volume= 1.914 af, Atten= 72%, Lag= 35.8 min rimary = 4.34 cfs @ 12.89 hrs. Volume= 1.914 af | 214.00 4,790 473.0 4,079 5,626 9,651 0.10 0.10 0.17 0 14.00 14.500 |
| rimary = 4.34 cfs @ 12.89 hrs, Volume= 1.914 af | 215.00 6,246 497.0 5,502 11,128 11,566 |
| outing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Device Routing Invert Outlet Devices |
| eak Elev= 215.76' @ 12.89 hrs Surf.Area= 18,432 sf Storage= 24,747 cf | #1 Primary 212.83' 15.0" Round Culvert |
| ug-Flow detention time= 44.0 min calculated for 1.914 af (100% of inflow) enter-of-Mass det. time= 43.6 min (850.3 - 806.8) | L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.83' / 210.39' S= 0.0271 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| | #2 Discarded 212.50' 2.410 in/hr Exfiltration over Surface area |
| blume Invert Avail.Storage Storage Description | Conductivity to Groundwater Elevation = 210.40' |
| #1 212.30' 64,778 cf Custom Stage Data (Irregular)Listed below (Recalc) | #3 Device 1 212.63' 3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low hear |
| levation Surf.Area Perim. Inc.Store Cum.Store Wet.Area (feet) (sq-ft) (feet) (cubic-feet) (cubic-feet) (sq-ft) | Discarded OutFlow Max=0.25 cfs @ 12.53 hrs HW=213.14' (Free Discharge) ←2=Exfiltration (Controls 0.25 cfs) |
| 212.30 50 75.0 0 0 50 | |
| 213.00 556 100.0 180 180 403 214.00 5.786 393.0 2.712 2.892 11.901 | Primary OutFlow Max=0.13 cfs @ 12.53 hrs HW=213.14' (Free Discharge) ←1=Culvert (Passes 0.13 cfs of 0.36 cfs potential flow) |
| 214.00 5,786 393.0 2,712 2,892 11,901 215.00 13,981 580.0 9,587 12,479 26,388 | -3=Orifice/Grate (Orifice Controls 0.13 cfs @ 2.68 fps) |
| 216.00 19,970 757.0 16,887 29,366 45,232 | |
| 217.00 53,560 1,442.0 35,412 64,778 165,106 | |

| 6842-Pre Prepared by {e HydroCAD® 10.1 | enter your company name here} 10-3a s/n 03590 © 2020 HydroCAD Software S | | 10-yr Rainfall=4.44" Page 19 | 6842-Pre Prepared by {enter your company nam HydroCAD® 10.10-3a s/n 03590 © 2020 Hyd |
|--|--|--|---------------------------------|---|
| | Summary for Link | Time span=0.0 Runoff by SCS T | | |
| Inflow Area = Inflow = Primary = | 30.660 ac, 30.26% Impervious, Inflow I 38.37 cfs @ 12.17 hrs, Volume= 38.37 cfs @ 12.17 hrs, Volume= | Depth = 2.23" for 10-y 5.690 af 5.690 af, Atten= 0%, I | | Reach routing by Stor-Ind+ ⁻ Subcatchment1S: Pre A.1 |
| Primary outflow | r = Inflow, Time Span= 0.00-72.00 hrs, dt= 0 | .05 hrs | | Subcatchment 2S: Pre A.2 |
| | | | | Subcatchment 3S: Pre A.3 |
| | | | | Subcatchment 4S: Pre B.1 |
| | | | | Subcatchment 5S: Pre B.2 Flow Lengi |
| | | | | Subcatchment 6S: Pre C.2 |
| | | | | Subcatchment 7S: Pre C.1 |
| | | | | Subcatchment 8S: Roof Area A |
| | | | | Subcatchment 13S: Roof Area B |
| | | | | Subcatchment 14S: Pre A.4 |
| | | | | Pond 12P: Existing Wet Basin 15.0" Rour |
| | | | | Pond 13P: Existing Infiltration Basin Discarded=0.29 |
| | | | | Link 11L: DP-A |
| | | | | Total Runoff Area = 30.660 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| 6842-Pre Prepared by {enter your company nar HydroCAD® 10.10-3a s/n 03590 © 2020 H | me here} | r 25-yr Rainfall=5.55" Page 20 | | | | | |
|---|--|--|--|--|--|--|--|
| 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: Pre A.1 | Runoff Area=242,230 sf 49.29% Impervi Flow Length=298' Tc=10.8 min CN=86 F | | | | | | |
| Subcatchment 2S: Pre A.2 | Runoff Area=289,668 sf 0.00% Impervi Flow Length=658' Tc=28.0 min CN=57 | | | | | | |
| Subcatchment 3S: Pre A.3 | Runoff Area=19,199 sf 100.00% Impervi Tc=6.0 min CN=98 | ious Runoff Depth=5.31" Runoff=2.34 cfs 0.195 af | | | | | |
| Subcatchment 4S: Pre B.1 | Runoff Area=220,300 sf 66.26% Impervi Flow Length=736' Tc=24.4 min CN=91 F | | | | | | |
| Subcatchment 5S: Pre B.2 Flow Len | Runoff Area=71,871 sf 5.57% Impervi gth=416' Tc=12.4 min UI Adjusted CN=70 | | | | | | |
| Subcatchment 6S: Pre C.2 | Runoff Area=100,825 sf 0.00% Impervi Flow Length=364' Tc=16.2 min CN=74 | | | | | | |
| Subcatchment 7S: Pre C.1 | Runoff Area=258,507 sf 5.40% Impervi Flow Length=754' Tc=15.2 min CN=75 F | | | | | | |
| Subcatchment 8S: Roof Area A | Runoff Area=71,756 sf 100.00% Impervi Tc=6.0 min CN=98 | ious Runoff Depth=5.31" Runoff=8.74 cfs 0.729 af | | | | | |
| Subcatchment 13S: Roof Area B | Runoff Area=29,814 sf 100.00% Impervi Tc=6.0 min CN=98 | ious Runoff Depth=5.31" Runoff=3.63 cfs 0.303 af | | | | | |
| Subcatchment 14S: Pre A.4 | Runoff Area=31,394 sf 0.00% Impervi Tc=6.0 min CN=43 | ious Runoff Depth=0.52" Runoff=0.17 cfs 0.031 af | | | | | |
| Pond 12P: Existing Wet Basin 15.0" Rot | Peak Elev=216.30' Storage=36,550 cf and Culvert n=0.013 L=517.0' S=0.0011 '/' C | | | | | | |
| Pond 13P: Existing Infiltration Basin Discarded=0.2 | Peak Elev=213.37' Storage=2,908 cf 29 cfs 0.193 af Primary=0.17 cfs 0.034 af 0 | | | | | | |
| Link 11L: DP-A | | Inflow=53.28 cfs 7.911 af rimary=53.28 cfs 7.911 af | | | | | |
| Total Runoff Area = 30.66 | 60 ac Runoff Volume = 8.104 af Avera 69.74% Pervious = 21.383 ac 30.26% | ge Runoff Depth = 3.17" ⁄ Impervious = 9.277 ac | | | | | |

| | | | | name here 0 HvdroCAE | e}) Software Solutio | ns LLC | Page 21 |
|----------|-------------------|----------|------------------------|---------------------------|--------------------------|-------------------------|----------|
| | | | | | | | . ago 21 |
| | | | Summ | ary for Si | ubcatchment | 1S: Pre A.1 | |
| Runoff | = | 21.57 c | sfs @ 12.1 | 5 hrs, Volu | ime= 1.8 | 46 af, Depth= 3.98" | |
| Runoff b | y SCS TF | R-20 me | thod, UH=S | SCS, Weigh | ted-CN, Time Sp | an= 0.00-72.00 hrs, dt= | 0.05 hrs |
| Type III | 24-hr 25- | yr Raint | all=5.55" | - | | | |
| А | rea (sf) | CN | Description | | | | |
| ł | 71,903 | | | ing, HSG A | | | |
| | 41,850 | | | ing, HSG B | | | |
| * | 45,336 | | | s cover, Go | | | |
| | 77,493 485 | | | s cover, Go ed pavemer | | | |
| | 5,163 | | | ed pavemer | | | |
| 2 | 242,230 | | Weighted A | | , | | |
| 1 | 22,829 | | | rvious Area | | | |
| 1 | 19,401 | | | pervious Ar | ea | | |
| | 5,648 | | 4.73% Unc | onnected | | | |
| Тс | Length | Slope | e Velocity | Capacity | Description | | |
| (min) | (feet) | (ft/ft | | (cfs) | | | |
| 7.7 | 50 | 0.0100 | 0.11 | | Sheet Flow, | | |
| | | | | | | n= 0.150 P2= 2.95" | |
| 2.9 | 223 | 0.0330 |) 1.27 | | | entrated Flow, | |
| 0.2 | 25 | 0.0081 | 1.83 | | | entrated Flow, | |
| 0.2 | 25 | 0.000 | 1.00 | | Paved Kv= 20 | | |
| 10.8 | 298 | Total | | | | | |
| | | | ~ | | | | |
| | | | Summ | ary for Si | ubcatchment | 2S: Pre A.2 | |
| Runoff | = | 5.69 c | fs @ 12.4 | 5 hrs, Volu | ime= 0.7 | '81 af, Depth= 1.41" | |
| Runoff h | | 2-20 me | thod UH=S | SCS Weigh | ted-CN_Time Sr | an= 0.00-72.00 hrs, dt= | 0.05 brs |
| | 24-hr 25- | | | Joo, Molgh | | an 0.00 / 2.00 mo, at | 0.001110 |
| ,, | | | | | | | |
| A | rea (sf) | | Description | | | | |
| * | 78,930 | | Woods, Go | | | | |
| | 49,074 | | Woods, Go | | | | |
| * 1 | 31,909 116,373 | | Woods, Go >75% Gras | | od, HSG A | | |
| * | 13,268 | | | is cover, Go | | | |

| | Area (sf) | CN | Description |
|---|-----------|----|-------------------------------|
| * | 78,930 | 30 | Woods, Good, HSG A |
| | 49,074 | 55 | Woods, Good, HSG B |
| | 31,909 | 77 | Woods, Good, HSG D |
| * | 116,373 | 68 | >75% Grass cover, Good, HSG A |
| * | 13,268 | 79 | >75% Grass cover, Good, HSG B |
| * | 114 | 89 | >75% Grass cover, Good, HSG D |
| | 289,668 | 57 | Weighted Average |
| | 289,668 | | 100.00% Pervious Area |

| | d by {en | | | name here 0 HydroCAE | Type III 24-hr 25-yr Rai e} 9 Software Solutions LLC | Page 22 |
|---------------------|--|-------------------------|----------------------|--------------------------------------|--|---------|
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | |
| 3.8 | 50 | 0.0600 | 0.22 | | Sheet Flow, | |
| 21.0 | 536 | 0.0037 | 0.43 | | Grass: Short n= 0.150 P2= 2.95" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps | |
| 3.2 | 72 | 0.0055 | 0.37 | | Shallow Concentrated Flow, Woodland Kv= 5.0 fps | |
| 28.0 | 658 | Total | | | | |
| | | | Summ | ary for S | ubcatchment 3S: Pre A.3 | |
| Runoff | = | 2.34 cf | s@ 12.0 | 9 hrs, Volu | me= 0.195 af, Depth= 5.31" | |
| | <u>rea (sf)</u> <u>19,199</u> 19,199 Length | 98 F | | ing, HSG A pervious A Capacity | | |
| <u>(min)</u> 6.0 | (feet) | (ft/ft) | (ft/sec) | (cfs) | Direct Entry, | |
| 0.0 | | | | | Direct Entry, | |
| | | | Summ | ary for S | ubcatchment 4S: Pre B.1 | |
| Runoff | = | 15.90 cf | s@ 12.3 | 2 hrs, Volu | me= 1.904 af, Depth= 4.52" | |
| | | R-20 metł ∙yr Rainfa | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 h | nrs |
| A | rea (sf) | CN D | escription | | | |
| | 59,394 | | | ing, HSG A | | |
| | 49,116 36.430 | | | ing, HSG B ing, HSG D | | |
| * | 3,947 | 68 > | 75% Ġras | s cover, Go | ood, HSG A | |
| * | 9,665 | | | | ood, HSG B | |
| ^ | 556 1,032 | | | s cover, Go ed pavemer | ood, HSG D | |
| | 60,160 | | | od, HSG D | | |
| | 20,300 | 91 V | Veighted A | verage | | |
| | 74,328 | | | vious Area | | |
| 1 | 45,972 | | | pervious Ar | ea | |
| | 1,032 | 0 | .71% Unc | onnected | | |

| yaroor | D® 10.10- | | company 590 © 202 | |) Software Solutions LLC Page 23 | | |
|---|---|--|--|---|--|--|--|
| Тс | Length | Slope | Velocity | Capacity | Description | | |
| (min) | (feet) | (ft/ft) | (ft/sec) | (cfs) | Decemption | | |
| 19.0 | 50 | 0.0300 | 0.04 | | Sheet Flow, | | |
| | | | | | Woods: Dense underbrush n= 0.800 P2= 2.95" | | |
| 3.0 | 100 | 0.0500 | 0.56 | | Shallow Concentrated Flow, | | |
| | | | | | Forest w/Heavy Litter Kv= 2.5 fps | | |
| 2.4 | 586 | 0.0410 | 4.11 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps | | |
| 24.4 | 736 | Total | | | | | |
| | | | - | | | | |
| | | | Summ | ary for Si | ubcatchment 5S: Pre B.2 | | |
| Runoff | = | 3.76 cfs | s@ 12.1 | 8 hrs, Volu | me= 0.337 af, Depth= 2.45" | | |
| | 000 T | | | | | | |
| | | | | CS, weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | |
| ype m | 24-hr 25- | yr Rainia | 11=5.55 | | | | |
| A | rea (sf) | CN A | Adj Desc | ription | | | |
| | 16,037 | 79 | | | ver, Good, HSG B | | |
| | 15,072 | 89 | >75% | 6 Grass co | ver, Good, HSG D | | |
| | 2,551 | 98 | Unco | Unconnected pavement, HSG B | | | |
| | | | | | | | |
| | 1,451 | 98 | | onnected pa | avement, HSG D | | |
| | 32,793 | 55 | Woo | onnected pa ds, Good, I | avement, HSG D HSG B | | |
| | 32,793 3,967 | 55 77 | Woo Woo | onnected pa ds, Good, H ds, Good, H | avement, HSG D HSG B HSG D | | |
| | 32,793 3,967 71,871 | 55 77 | Woo Woo 70 Weig | onnected pa ds, Good, H ds, Good, H jhted Avera | avement, HSG D HSG B HSG D nge, UI Adjusted | | |
| | 32,793 3,967 71,871 67,869 | 55 77 | Woo <u>Woo</u> 70 Weig 94.43 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou | avement, HSG D HSG B HSG D Ige, Ul Adjusted is Area | | |
| | 32,793 3,967 71,871 | 55 77 | Woo Woo 70 Weig 94.43 5.57 | onnected pa ds, Good, H ds, Good, H jhted Avera | avement, HSG D HSG B HSG D uge, UI Adjusted Is Area us Area | | |
| | 32,793 3,967 71,871 67,869 4,002 4,002 | 55 77 71 | Woo Woo 70 Weig 94.4: 5.57 ⁴ 100.4 | onnected pa ds, Good, H <u>ds, Good, H</u> Jhted Avera 3% Perviou % Impervio 00% Uncon | avement, HSG D HSG B HSG D ge, Ul Adjusted is Area us Area unected | | |
| Ţc | 32,793 3,967 71,871 67,869 4,002 4,002 Length | 55 77 71 Slope | Woo Woo 70 Weig 94.4 5.57 100.0 Velocity | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D ge, Ul Adjusted is Area us Area unected | | |
| (min) | 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) | 55 77 71 Slope (ft/ft) | Woo Woo 70 Weig 94.4: 5.57' 100.1 Velocity (ft/sec) | onnected pa ds, Good, H <u>ds, Good, H</u> Jhted Avera 3% Perviou % Impervio 00% Uncon | avement, HSG D HSG B HSG D Ige, UI Adjusted Is Area us Area us Area inected Description | | |
| | 32,793 3,967 71,871 67,869 4,002 4,002 Length | 55 77 71 Slope | Woo Woo 70 Weig 94.4 5.57 100.0 Velocity | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D Ige, UI Adjusted Is Area us Area us Area Inected Description Sheet Flow, | | |
| (min) 7.5 | 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 | 55 77 71 Slope (ft/ft) 0.0780 | Woo Woo 70 Weig 94.4: 5.57' 100.1 Velocity (ft/sec) 0.11 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D ISG D Isge, UI Adjusted Is Area us Area us Area Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" | | |
| (min) | 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 | 55 77 71 Slope (ft/ft) | Woo Woo 70 Weig 94.4: 5.57' 100.1 Velocity (ft/sec) | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D ge, UI Adjusted is Area us Area us Area inected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, | | |
| (min) 7.5 | 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 | 55 77 71 Slope (ft/ft) 0.0780 0.1000 | Woo Woo 70 Weig 94.4: 5.57' 100.0 Velocity (ft/sec) 0.11 1.58 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D Ige, UI Adjusted Is Area us Area us Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps | | |
| (min) 7.5 0.1 | 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 | 55 77 71 Slope (ft/ft) 0.0780 | Woo Woo 70 Weig 94.4: 5.57' 100.1 Velocity (ft/sec) 0.11 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D ge, UI Adjusted is Area us Area us Area inected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, | | |
| (min) 7.5 0.1 | 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 | 55 77 71 Slope (ft/ft) 0.0780 0.1000 | Woo Woo 70 Weig 94.4: 5.57' 100.0 Velocity (ft/sec) 0.11 1.58 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D Ige, UI Adjusted Is Area us Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, | | |
| (min) 7.5 0.1 0.2 2.8 | 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 | 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 | Woo Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 2.84 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D Use of the second sec | | |
| (min) 7.5 0.1 0.2 | 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 | 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 | Woo Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 2.84 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D ISG D Isge, UI Adjusted Is Area us Area us Area Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, | | |
| (min) 7.5 0.1 0.2 2.8 0.2 | 32,793 3,967 71,871 67,869 4,002 4,002 4,002 Length (feet) 50 10 39 165 10 | 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 0.3230 0.0380 0.0200 | Woo Woo 70 Weig 94.4 5.57' 100.1 Velocity (ft/sec) 0.11 1.58 2.84 0.97 0.71 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D HSG D Use Cliptudjusted Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps | | |
| (min) 7.5 0.1 0.2 2.8 | 32,793 3,967 71,871 67,869 4,002 4,002 4,002 Length (feet) 50 10 39 165 | 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 0.0380 | Woo Woo 91.41 5.57' 100.1 Velocity (ft/sec) 0.11 1.58 2.84 0.97 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D Ige, UI Adjusted Is Area us Area us Area Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, | | |
| (min) 7.5 0.1 0.2 2.8 0.2 0.8 | 32,793 3,967 71,871 67,869 4,002 4,002 4,002 Length (feet) 50 10 39 165 10 55 | 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 0.0380 0.0380 0.0200 0.0520 | Woo 70 Weic 94.4; 5.57' 100.1 0.11 1.58 2.84 0.97 0.71 1.14 1.14 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D Ige, UI Adjusted Is Area us Area us Area us Area Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps | | |
| (min) 7.5 0.1 0.2 2.8 0.2 | 32,793 3,967 71,871 67,869 4,002 4,002 4,002 Length (feet) 50 10 39 165 10 55 | 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 0.3230 0.0380 0.0200 | Woo Woo 70 Weig 94.4 5.57' 100.1 Velocity (ft/sec) 0.11 1.58 2.84 0.97 0.71 | onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon Capacity | avement, HSG D HSG B HSG D Ige, UI Adjusted Is Area us Area us Area Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, | | |

12.4 416 Total

| | d by {en | | | name here 0 HydroCAD | Type III 24-hr 25-yr Rainfall=5.55" e} Software Solutions LLC Page 24 | | | | |
|-------------|---|------------------|-------------------------|-------------------------|--|--|--|--|--|
| | Summary for Subcatchment 6S: Pre C.2 | | | | | | | | |
| Runoff | = | 5.54 cfs | s@ 12.2 | 3 hrs, Volu | me= 0.542 af, Depth= 2.81" | | | | |
| | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.55" | | | | | | | | |
| A | rea (sf) | CN D | escription | | | | | | |
| * | ood, HSG B ood, HSG D | | | | | | | | |
| | 00,825 00,825 | | Veighted A 00.00% Pe | verage ervious Are | а | | | | |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | | | | |
| 10.8 | 18 | 0.0160 | 0.03 | | Sheet Flow, | | | | |
| 2.5 | 33 | 0.0730 | 0.22 | | Woods: Dense underbrush n= 0.800 P2= 2.95" Sheet Flow, Cross: Sheet = 0.450, P2= 2.05" | | | | |
| 0.8 | 121 | 0.1440 | 2.66 | | Grass: Short n= 0.150 P2= 2.95" Shallow Concentrated Flow. | | | | |
| 0.1 | 10 | 0.1790 | 2.12 | | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, | | | | |
| 0.3 | 41 | 0.1260 | 2.48 | | Woodland Kv= 5.0 fps Shallow Concentrated Flow, | | | | |
| 1.5 | 125 | 0.0800 | 1.41 | | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, | | | | |
| 0.1 | 6 | 0.0170 | 0.91 | | Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Crear Desture, Kv= 7.0 fpp | | | | |
| 0.0 | 5 | 0.0210 | 2.94 | | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, Paved Kv= 20.3 fps | | | | |
| 0.1 | 5 | 0.0190 | 0.96 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps | | | | |
| 16.2 | 364 | Total | | | | | | | |

Summary for Subcatchment 7S: Pre C.1

Runoff = 15.13 cfs @ 12.21 hrs, Volume=

ume= 1.435 af, Depth= 2.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr $\,$ 25-yr Rainfall=5.55"

| HydroCA | D® 10.10- | -3a s/n 03 | 3590 © 2020 |) HydroCAD | Software Solutions LLC Page |
|---------------------|-------------------------|-------------------|---------------------------|------------------|---|
| | rea (sf) | | Description | | |
| * | 78,314 | | | s cover, Go | |
| ^ 1 | 47,609 2,514 | | >75% Grass Roofs. HSG | s cover, Go | od, HSG B |
| | 11,441 | | Paved parki | | |
| | 18,629 | | Noods, Goo | | |
| | 58,507 | | Veighted Av 94.60% Per | | |
| 2 | 44,552 13,955 | | | rvious Area | |
| | , | | | | |
| | Length | | Velocity | | Description |
| (min) 1.9 | (feet) 10 | (ft/ft) 0.1000 | | (cfs) | Sheet Flow. |
| 1.5 | 10 | 0.1000 | 0.05 | | Woods: Light underbrush n= 0.400 P2= 2.95" |
| 2.7 | 40 | 0.0900 | 0.25 | | Sheet Flow, |
| 1.1 | 120 | 0.0700 | 1.85 | | Grass: Short n= 0.150 P2= 2.95" Shallow Concentrated Flow, |
| 1.1 | 120 | 0.0700 | 1.05 | | Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 36 | 0.0650 | 1.27 | | Shallow Concentrated Flow, |
| 1.6 | 175 | 0.0650 | 1.78 | | Woodland Kv= 5.0 fps Shallow Concentrated Flow, |
| 1.0 | 1/5 | 0.0650 | 1.70 | | Short Grass Pasture Kv= 7.0 fps |
| 0.0 | 5 | 0.0190 | 2.80 | | Shallow Concentrated Flow, |
| 7.4 | 260 | 0.0140 | 0.02 | | Paved Kv= 20.3 fps |
| 7.4 | 300 | 0.0140 | 0.83 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 15.2 | 754 | Total | | | |
| | | | Summon | for Sube | atchment 8S: Roof Area A |
| | | | Summary | | atchinent 65. Roof Area A |
| Runoff | = | 8.74 ct | fs @ 12.09 | hrs, Volu | me= 0.729 af, Depth= 5.31" |
| Pupoff b | | 2 20 mot | | CS Woight | ed-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Type III 2 | 24-hr 25- | -yr Rainfa | all=5.55" | CS, Weight | ed-CN, Time Span- 0.00-72.00 firs, di- 0.03 firs |
| | | | | | |
| A | rea (sf) | | Description | D | |
| | <u>71,756</u> 71,756 | | Roofs, HSG | B pervious Ar | 202 |
| | 11,150 | | 100.00 /0 111 | pervious Ai | ea |
| | Length | | Velocity | | Description |
| <u>(min)</u> 6.0 | (feet) | (ft/ft) | (ft/sec) | (cfs) | Direct Entry, |
| 0.0 | | | | | Direct Entry, |
| | | S | Summary | for Subc | atchment 13S: Roof Area B |
| Runoff | = | 3.63 c | fs @ 12.09 | 9 hrs, Volu | me= 0.303 af, Depth= 5.31" |
| | | | | | ed-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |

| _ | | | | | | | olutions LLC | | Page 26 |
|----------------------------|------------------|-----------------|--------------|--------------------|----------------------------|-----------------------------|-----------------------------|----------------------|---------|
| | | CN | | ription | | | | | |
| | 9,814 | 98 | | , HSG | | | | | |
| 25 | 9,814 | | 100.0 | 0% Im | pervious A | rea | | | |
| Tc L (min) | ength. (feet) | Slope (ft/ft | | locity /sec) | Capacity (cfs) | Descriptio | n | | |
| 6.0 | | | | | | Direct En | try, | | |
| | | | Su | Imma | ry for Su | ıbcatchm | ent 14S: Pre | A.4 | |
| Runoff | = | 0.17 | cfs @ | 12.29 | hrs, Volu | ime= | 0.031 af, De | pth= 0.52" | |
| Runoff by S Type III 24 | | | | | CS, Weigh | ted-CN, Tir | ne Span= 0.00- | 72.00 hrs, dt= 0.05 | hrs |
| ۵re | a (sf) | CN | Desci | ription | | | | | |
| | 2 (31)),963 | 68 | | | cover. Go | ood, HSG A | | | |
| 20 | 0,431 | 30 | Wood | ls, Goo | d, HSĠ A | | | | |
| | 1,394 1,394 | 43 | | nted A | /erage rvious Are | • | | | |
| 5 | 1,004 | | | | | | | | |
| (min) | ength. (feet) | Slope (ft/ft | | locity /sec) | Capacity (cfs) | Descriptic | n | | |
| 6.0 | | | | | | Direct En | try, | | |
| | | | Sun | nmary | / for Por | nd 12P: E | kisting Wet I | Basin | |
| nflow Area | | | | | | | Depth = 4.13" | for 25-yr event | |
| nflow | | | | | hrs, Volu | | 2.544 af | 700/ 1 // | . · |
| Dutflow Primary | = | | | | 'hrs, Volu 'hrs, Volu | | 2.544 af, At 2.544 af | en= 76%, Lag= 41. | 3 min |
| , | | | 0 | | , | | | | |
| | | | | | | 2.00 hrs, dt 3.314 sf St | = 0.05 hrs orage= 36,550 | cf | |
| | | 0 | | | | , | 0 | | |
| | | | | | alculated fo 861.6 - 80 | | (100% of inflow |) | |
| | | | | | | | | | |
| /olume #1 | 212.30 | | | Storage 1,778 c | 0 | e Descriptio m Stage Da | | isted below (Recalc |) |
| | | | | | | Ū | , | , | , |
| Elevation (feet) | : | Surf.A | rea I-ft) | Perin (fee | | Inc.Store ubic-feet) | Cum.Stor (cubic-feet | | |
| 212.30 | | (00 | 50 | 75. | / | 0 | | $\frac{(34.10)}{50}$ | |
| 213.00 | | 5 | 556 | 100. | | 180 | 18 | | |
| 214.00 | | | 786 | 393. | | 2,712 | 2,89 | | |
| 01E 00 | | 13,9 | | 580. | | 9,587 | 12,47 | | |
| 215.00 | | 19,9 | | 757. | | 16,887 | 29,36 | | |
| 216.00 | | 53,5 | 000 | 1,442. | 0 | 35,412 | 64,77 | 3 165,106 | |
| | | | | | | | | | |

| 6842-Pre | Type III 24-hr 25-yr Rainfall=5.55" |
|---|-------------------------------------|
| Prepared by {enter your company name here} | |
| HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solut | tions LLC Page 27 |

Device Routing Invert Outlet Devices
 15.0"
 Round Culvert

 L= 517.0'
 CPP, projecting, no headwall, Ke= 0.900

 Inlet / Outlet Invert= 212.37' / 211.80'
 S= 0.0011 '/'
 #1 Primary 212.37' n= 0.013 Concrete pipe, straight & clean, Flow Area= 1.23 sf

Primary OutFlow Max=4.75 cfs @ 12.97 hrs HW=216.30' (Free Discharge) -1=Culvert (Barrel Controls 4.75 cfs @ 3.87 fps)

Summary for Pond 13P: Existing Infiltration Basin

| Inflow Area = | 1.161 ac, 37.95% Impervious, Inflow Depth = 2.3 | 4" for 25-yr event |
|---------------|---|---------------------------|
| Inflow = | 2.44 cfs @ 12.09 hrs, Volume= 0.226 af | |
| Outflow = | 0.47 cfs @ 12.57 hrs, Volume= 0.226 af, | Atten= 81%, Lag= 28.5 min |
| Discarded = | 0.29 cfs @ 12.57 hrs, Volume= 0.193 af | - |
| Primary = | 0.17 cfs @ 12.57 hrs, Volume= 0.034 af | |

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 213.37' @ 12.57 hrs Surf.Area= 3,895 sf Storage= 2,908 cf

Plug-Flow detention time= 57.3 min calculated for 0.226 af (100% of inflow) Center-of-Mass det. time= 57.3 min (830.6 - 773.3)

| Volume | Invert | Avail. | Storage | Storage Descriptio | n | |
|---------------------|---------|-------------------|------------------|---------------------------|-----------------------------|---------------------|
| #1 | 212.50' | 1 | 1,128 cf | Custom Stage Da | ta (Irregular) Liste | d below (Recalc) |
| Elevation (feet) | Sur | f.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) |
| 212.50 | | 2,793 | 372.0 | 0 | 0 | 2,793 |
| 213.00 214.00 | | 3,407 4,790 | 450.0 473.0 | 1,547 4,079 | 1,547 5,626 | 7,899 9,651 |
| 215.00 | | 6,246 | 497.0 | 5,502 | 11,128 | 11,566 |
| Device R | outing | Inv | ert Outle | et Devices | | |

| 801100 | rtouting | | |
|--------|-----------|---------|---|
| #1 | Primary | 212.83' | 15.0" Round Culvert |
| | | | L= 90.0' CPP, projecting, no headwall, Ke= 0.900 |
| | | | Inlet / Outlet Invert= 212.83' / 210.39' S= 0.0271 '/' Cc= 0.900 |
| | | | n= 0.013, Flow Area= 1.23 sf |
| #2 | Discarded | 212.50' | 2.410 in/hr Exfiltration over Surface area |
| | | | Conductivity to Groundwater Elevation = 210.40' |
| #3 | Device 1 | 212.63' | 3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads |
| | | | |

Discarded OutFlow Max=0.29 cfs @ 12.57 hrs HW=213.37' (Free Discharge) **2=Exfiltration** (Controls 0.29 cfs)

Primary OutFlow Max=0.17 cfs @ 12.57 hrs HW=213.37' (Free Discharge) 1=Culvert (Passes 0.17 cfs of 1.01 cfs potential flow) -3=Orifice/Grate (Orifice Controls 0.17 cfs @ 3.55 fps)

| 6842-Pre | Type III 24-hr 25-yr Rainfall=5.55" | , |
|---|-------------------------------------|---|
| Prepared by {enter your company name here} | | |
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| | | |

Summary for Link 11L: DP-A

| Inflow Area = | 30.660 ac, 30.26% Impervious, Inflow I | Depth = 3.10" for 25-yr event |
|---------------|--|-----------------------------------|
| Inflow = | 53.28 cfs @ 12.17 hrs, Volume= | 7.911 af |
| Primary = | 53.28 cfs @ 12.17 hrs, Volume= | 7.911 af, Atten= 0%, Lag= 0.0 min |

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

| Prepared by {enter your company r HydroCAD® 10.10-3a s/n 03590 © 2020 | | Page 29 |
|--|---|--|
| Runoff by SC | :0.00-72.00 hrs, dt=0.05 hrs, 1441 points :S TR-20 method, UH=SCS, Weighted-CN nd+Trans method - Pond routing by Stor-Ind metho | d |
| Subcatchment 1S: Pre A.1 | Runoff Area=242,230 sf 49.29% Impervious RL Flow Length=298' Tc=10.8 min CN=86 Runoff=3 | |
| Subcatchment 2S: Pre A.2 | Runoff Area=289,668 sf 0.00% Impervious Rt Flow Length=658' Tc=28.0 min CN=57 Runoff=1 | |
| Subcatchment 3S: Pre A.3 | Runoff Area=19,199 sf 100.00% Impervious Ru Tc=6.0 min CN=98 Runoff= | |
| Subcatchment 4S: Pre B.1 | Runoff Area=220,300 sf 66.26% Impervious Rt Flow Length=736' Tc=24.4 min CN=91 Runoff=2 | |
| Subcatchment 5S: Pre B.2 Flow L | Runoff Area=71,871 sf 5.57% Impervious Ru ength=416' Tc=12.4 min UI Adjusted CN=70 Runoff= | |
| Subcatchment 6S: Pre C.2 | Runoff Area=100,825 sf 0.00% Impervious Rt Flow Length=364' Tc=16.2 min CN=74 Runoff= | |
| Subcatchment7S: Pre C.1 | Runoff Area=258,507 sf 5.40% Impervious Rt Flow Length=754' Tc=15.2 min CN=75 Runoff=2 | |
| Subcatchment 8S: Roof Area A | Runoff Area=71,756 sf 100.00% Impervious Ru Tc=6.0 min CN=98 Runoff=1 | |
| Subcatchment 13S: Roof Area B | Runoff Area=29,814 sf 100.00% Impervious Ru Tc=6.0 min CN=98 Runoff= | |
| Subcatchment 14S: Pre A.4 | Runoff Area=31,394 sf 0.00% Impervious Ru Tc=6.0 min CN=43 Runoff= | |
| Pond 12P: Existing Wet Basin 15.0" F | Peak Elev=216.98' Storage=63,901 cf Inflow=3 cound Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow= | |
| Pond 13P: Existing Infiltration Basin Discarded= | Peak Elev=213.93' Storage=5,306 cf Inflow= 0.40 cfs 0.283 af Primary=0.25 cfs 0.082 af Outflow= | |
| Link 11L: DP-A | | .26 cfs 12.748 af .26 cfs 12.748 af |

69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

| 6842- | | | | | | Type III 24-hr | 100-yr Rainfall=7.81 |
|---------|-------------------|----------|----------------------------|-------------|-------------|------------------------------------|----------------------|
| | | | r company 03590 © 202 | | | olutions LLC | Page 3 |
| | | | Summ | ary for Su | ıbcatchm | ent 1S: Pre A.1 | |
| Runoff | f = | 32.63 | cfs @ 12.1 | ō hrs, Volu | me= | 2.849 af, Depth= 6.1 | 5" |
| | | | ethod, UH=S nfall=7.81" | CS, Weight | ed-CN, Tim | ne Span= 0.00-72.00 hrs | , dt= 0.05 hrs |
| | Area (sf) | CN | Description | | | | |
| * | 71,903 | 98 | Paved park | | | | |
| * | 41,850 | 98 | Paved park | | | | |
| * | 45,336 77,493 | 68 79 | >75% Gras >75% Gras | | | | |
| | 485 | 98 | Unconnecte | | | | |
| | 5,163 | 98 | Unconnecte | d pavemen | t, HSG B | | |
| | 242,230 | 86 | Weighted A | | | | |
| | 122,829 | | 50.71% Per | | | | |
| | 119,401 5.648 | | 49.29% Imp 4.73% Unco | | a | | |
| | 0,040 | | 4.7070 01100 | micolou | | | |
| Т | c Length | | e Velocity | | Description | n | |
| (min | | | // | (cfs) | | | |
| 7. | 7 50 | 0.0100 | 0 0.11 | | Sheet Flor | w, ort n= 0.150 P2= 2.95 | " |
| 2.9 | 9 223 | 0.0330 | 0 1.27 | | | concentrated Flow, | |
| | | 0.000 | | | | ss Pasture Kv= 7.0 fps | |
| 0.: | 2 25 | 0.008 | 1 1.83 | | | oncentrated Flow, | |
| 10. | 8 298 | Total | | | Paved K | /= 20.3 fps | |
| 10. | 0 290 | TOLAI | | | | | |
| | | | Summ | ary for Su | ıbcatchm | ent 2S: Pre A.2 | |
| Runoff | = | 12.56 | cfs @ 12.4 | 2 hrs, Volu | me= | 1.589 af, Depth= 2.8 | 7" |
| | | | | CS, Weight | ed-CN, Tim | ne Span= 0.00-72.00 hrs | , dt= 0.05 hrs |
| i ype I | 11 24-nr 10 | u-yr Rai | nfall=7.81" | | | | |
| | Area (sf) | CN | Description | | | | |
| * | 78,930 | 30 | Woods, Go | | | | |
| | 49,074 | 55 | Woods, Go | | | | |
| * | 31,909 | 77 69 | Woods, Go | | | | |
| * | 116,373 13,268 | 68 79 | >75% Gras >75% Gras | | | | |
| * | 114 | 89 | >75% Gras | | | | |
| | 289.668 | 57 | Weighted A | vorago | | | |
| | 209,000 | 57 | 100.00% Pe | | | | |

| 842-P | re | | | | Type III 24-hr 100-yr Rainfall=7.81" |
|---|---|--|--|--|---|
| | | | | name here | |
| ydroCA | D® 10.10- | -3a s/n 03 | 590 © 202 | U HydroCAL | O Software Solutions LLC Page 31 |
| | Length | | Velocity | | Description |
| (min) 3.8 | (feet) 50 | (ft/ft) 0.0600 | (ft/sec) 0.22 | (cfs) | Sheet Flow, |
| 0.0 | 50 | 0.0000 | 0.22 | | Grass: Short n= 0.150 P2= 2.95" |
| 21.0 | 536 | 0.0037 | 0.43 | | Shallow Concentrated Flow, |
| 3.2 | 70 | 0.0055 | 0.37 | | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, |
| J.Z | 12 | 0.0055 | 0.37 | | Woodland $Kv = 5.0 \text{ fps}$ |
| 28.0 | 658 | Total | | | |
| | | | Summ | arv for Si | ubcatchment 3S: Pre A.3 |
| | | | | • | |
| lunoff | = | 3.30 ct | s@ 12.0 | 9 hrs, Volu | ime= 0.278 af, Depth= 7.57" |
| lunoff b | y SCS TF | R-20 meth | nod, UH=S | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| ype III 2 | 24-hr 100 | 0-yr Raint | fall=7.81" | | |
| ^ | rea (sf) | CN E | escription | | |
| A | | | escription | | |
| | 19 199 | 98 F | aved nark | ing HSG A | |
| | <u>19,199</u> 19,199 | | | ing, HSG A pervious A | |
| | 19,199 | 1 | 00.00% Im | pervious A | vrea |
| | 19,199 Length | 1 Slope | 00.00% Im Velocity | pervious A Capacity | vrea |
| (min) | 19,199 | 1 | 00.00% Im | pervious A | nrea Description |
| | 19,199 Length | 1 Slope | 00.00% Im Velocity | pervious A Capacity | vrea |
| (min) | 19,199 Length | 1 Slope | 00.00% Im Velocity (ft/sec) | pervious A Capacity (cfs) | nrea Description |
| (min) | 19,199 Length | 1 Slope (ft/ft) | 00.00% Im Velocity (ft/sec) | pervious A Capacity (cfs) | Description Direct Entry, ubcatchment 4S: Pre B.1 |
| (min) 6.0 Runoff | 19,199 Length (feet) | 1 Slope (ft/ft) 23.22 cf | Velocity (ft/sec) Summ s @ 12.3 | Capacity (cfs) ary for St 2 hrs, Volu | wrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" |
| (min) 6.0 Runoff Runoff b | 19,199 Length (feet) = y SCS TF | 1 Slope (ft/ft) 23.22 cf: R-20 metl | Velocity (ft/sec) Summ s @ 12.3 nod, UH=S | Capacity (cfs) ary for St 2 hrs, Volu | Description Direct Entry, ubcatchment 4S: Pre B.1 |
| (min) 6.0 Runoff Runoff b | 19,199 Length (feet) = y SCS TF | 1 Slope (ft/ft) 23.22 cf: R-20 metl | Velocity (ft/sec) Summ s @ 12.3 | Capacity (cfs) ary for St 2 hrs, Volu | wrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" |
| (min) 6.0 Runoff Runoff b Type III : | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) | 1 Slope (ft/ft) 23.22 cf R-20 meth D-yr Raint CN E | 00.00% Im Velocity (ft/sec) Summ s @ 12.3 nod, UH=S fall=7.81" Description | Appervious A Capacity (cfs) ary for Su 2 hrs, Volu CS, Weigh | wrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff Runoff b Sype III 2 A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 | 1 Slope (ft/ft) 23.22 cf R-20 mett 0-yr Raint <u>CN E</u> 98 F | 00.00% Im Velocity (ft/sec) Summ s @ 12.3 nod, UH=S fall=7.81" Description Paved park | Capacity (cfs) ary for Su 2 hrs, Volu CS, Weigh | wrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff Runoff b Sype III 2 A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 49,116 | 1 Slope (ft/ft) 23.22 cf R-20 mett 0-yr Raint 0-yr Raint <u>CN E</u> 98 F 98 F | 00.00% In Velocity (ft/sec) Summ s @ 12.3 nod, UH=S fall=7.81" Description vaved park Paved park | ary for Su cry for Su 2 hrs, Volu CS, Weigh ing, HSG A ing, HSG B | wrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff Runoff b Sype III 2 A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 49,116 36,430 | 1 Slope (ft/ft) 23.22 cf R-20 mett D-yr Raint O-yr Raint O-yr Raint 98 F 98 F 98 F 98 F | 00.00% Irr Velocity (ft/sec) Summ s @ 12.3 nod, UH=S fall=7.81" Description 'aved park 'aved park 'aved park | ary for Su cry for Su ary for Su 2 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG D | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff Runoff b Sype III 2 A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 49,116 | 1 Slope (ft/ft) 23.22 cf R-20 mett 0-yr Raint 0-yr Raint 98 F 98 F 98 F 98 F 98 F | 00.00% Irr Velocity (ft/sec) Summ s @ 12.3 nod, UH=S iall=7.81" Description 'aved park 'aved park 'aved park 'aved park 'aved park | Capacity (cfs) ary for Su 2 hrs, Volu CS, Weigh ing, HSG A ing, HSG B s cover, Gc | wrea Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff Runoff b Sype III 2 A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 49,116 36,430 3,947 | 1 Slope (ft/ft) 23.22 cf R-20 meth D-yr Raint O-yr Raint 98 F 98 F 98 F 98 F 98 F 98 7 98 7 97 > | 00.00% Irr Velocity (ft/sec) Summ s @ 12.3 nod, UH=S fall=7.81" Description Paved park raved park raved park r75% Gras 75% Gras | capacity (cfs) ary for Si 2 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B s cover, Gc s cover, Gc | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A |
| (min) 6.0 Runoff Runoff b ype III : A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 49,116 36,430 3,947 9,665 556 1,032 | 1 Slope (ft/ft) 23.22 cf R-20 mett D-yr Raint O-yr Raint 98 F 98 F 98 F 98 F 68 > 79 > 89 > 89 > | 00.00% Irr Velocity (ft/sec) Summ s @ 12.3 nod, UH=S fall=7.81" Description 'aved park 'aved park 'aved park 'zs% Gras 75% Gras 75% Gras | ary for Su (cfs) ary for Su 2 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B ing, HSG B s cover, Gc s cover, Gc s cover, Gc | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG A bod, HSG B bod, HSG D bod, HSG D bod, HSG B |
| (min) 6.0 Runoff Runoff b ype III : A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 49,116 36,430 3,947 9,665 5566 1,032 60,160 | 1 Slope (ft/ft) 23.22 cf -20 mett -yr Raint 98 F 98 F 98 F 98 F 98 F 98 F 98 F 98 F | 00.00% Irr Velocity (ft/sec) Summ s @ 12.3 nod, UH=S iall=7.81" Description aved park aved park vaved park 75% Gras 75% Gras 75% Gras 75% Gras | Ary for Su (cfs) ary for Su 2 hrs, Volu CS, Weigh ing, HSG B ing, HSG B is, Cover, Gc s cover, Gc s cover, Gc s cover, Gc s cover, Gc | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG A bod, HSG B bod, HSG D bod, HSG D bod, HSG B |
| (min) 6.0 Runoff Runoff b Type III 2 A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 49,116 36,430 3,947 9,665 556 1,032 9,665 20,300 | 1 Slope (ft/ft) 23.22 cf R-20 meth D-yr Raint O-yr Raint 98 F 98 F 98 F 98 F 98 F 98 F 98 S 98 S 79 > 98 L 77 V 91 V | 00.00% In Velocity (ft/sec) Summ s @ 12.3 nod, UH=S fall=7.81" Description Paved park raved park raved park r5% Gras 75% Gras 75% Gras Voods, Goa Veighted A | capacity (cfs) ary for Si 2 hrs, Volu CS, Weigh ing, HSG A ing, HSG B ing, HSG B ing, HSG B s cover, Gc s cover, Gc s cover, Gc s cover, Gc s cover, Gc s cover, Gc s cover, Gc | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) 6.0 Runoff b Sype III : A | 19,199 Length (feet) = y SCS TF 24-hr 100 rea (sf) 59,394 49,116 36,430 3,947 9,665 5566 1,032 60,160 | 1 Slope (ft/ft) 23.22 cf R-20 meth D-yr Raint O-yr Raint 98 F 98 F 98 F 98 F 98 F 98 F 98 F 98 F | 00.00% Irr Velocity (ft/sec) Summ s @ 12.3 nod, UH=S fall=7.81" Description Paved park 75% Gras 75% Gras 75% Gras 75% Gras 75% Gras 75% Gras 75% Gras 75% Gras 75% Gras | Ary for Su (cfs) ary for Su 2 hrs, Volu CS, Weigh ing, HSG B ing, HSG B is, Cover, Gc s cover, Gc s cover, Gc s cover, Gc s cover, Gc | Description Direct Entry, ubcatchment 4S: Pre B.1 ume= 2.839 af, Depth= 6.74" ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs bod, HSG A bod, HSG A bod, HSG B bod, HSG B bod, HSG B |

| | | | company 590 © 202 | | S Software Solutions LLC Page 32 |
|--|--|--|---|--|--|
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
| 19.0 | 50 | 0.0300 | 0.04 | | Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 2.95" |
| 3.0 | 100 | 0.0500 | 0.56 | | Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps |
| 2.4 | 586 | 0.0410 | 4.11 | | Shallow Concentrated Flow, Paved Kv= 20.3 fps |
| 24.4 | 736 | Total | | | |
| | | | Summ | ary for Su | ubcatchment 5S: Pre B.2 |
| Runoff | = | 6.72 cfs | s@ 12.1 | 7 hrs, Volu | ume= 0.591 af, Depth= 4.30" |
| | | 2 20 moth | | CS Woigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| | 24-hr 100 | | | co, weign | ted-CN, Time Span- 0.00-72.00 his, dt- 0.05 his |
| | | | | | |
| A | vrea (sf) | CN A | Adj Deso | rintion | |
| | | | | | |
| | 16,037 | 79 | >75% | 6 Grass co | ver, Good, HSG B |
| | 15,072 | 89 | >75% >75% | % Grass co % Grass co | ver, Good, HSG D |
| | 15,072 2,551 | 89 98 | >75% >75% Unco | 6 Grass co 6 Grass co 5 onnected pa | ver, Good, HSG D avement, HSG B |
| | 15,072 | 89 | >75% >75% Unco Unco | 6 Grass co 6 Grass co 5 onnected pa | ver, Good, HSG D avement, HSG B avement, HSG D |
| | 15,072 2,551 1,451 | 89 98 98 | >75% >75% Unco Unco Woo | 6 Grass co 6 Grass co 5 onnected pa 5 onnected pa | ver, Good, HSG D avement, HSG B avement, HSG D HSG B |
| | 15,072 2,551 1,451 32,793 3,967 71,871 | 89 98 98 55 77 | >75% >75% Unco Unco Woo Woo 70 Weig | 6 Grass co 6 Grass co onnected pa onnected pa ds, Good, H ds, Good, H ghted Avera | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D age, UI Adjusted |
| | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 | 89 98 98 55 77 | >75% >75% Unco Unco Woo Woo 70 Weig 94.4 | 6 Grass co 6 Grass co onnected pa onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D ge, UI Adjusted is Area |
| | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 | 89 98 98 55 77 | >759 >759 Unco Woo Woo 70 Weig 94.4 5.57 | 6 Grass co 6 Grass co onnected pa onnected pa ds, Good, H ds, Good | ver, Good, HSG D avement, HSG B avement, HSG D HSG D HSG D ge, UI Adjusted Is Area us Area |
| r | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 | 89 98 98 55 77 | >759 >759 Unco Woo Woo 70 Weig 94.4 5.57 | 6 Grass co 6 Grass co onnected pa onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou | ver, Good, HSG D avement, HSG B avement, HSG D HSG D HSG D ge, UI Adjusted Is Area us Area |
| Tc | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 | 89 98 98 55 77 | >759 >759 Unco Woo Woo 70 Weig 94.4 5.57 | 6 Grass co 6 Grass co onnected pa onnected pa ds, Good, H ds, Good | ver, Good, HSG D avement, HSG B avement, HSG D HSG D HSG D ge, UI Adjusted Is Area us Area |
| Tc (min) | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 | 89 98 98 55 77 71 | >759 >759 Uncc Woo Woo 70 Weig 94.4 5.57 100. | % Grass co % Grass co onnected pa onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D age, UI Adjusted Is Area us Area unected |
| | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 Length | 89 98 98 55 77 71 Slope | >759 >759 Uncc Woo Woo 70 Weig 94.4 5.57 100.0 | % Grass co % Grass co onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D uge, UI Adjusted is Area us Area us Area inected Description Sheet Flow, |
| (min) 7.5 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 4,002 Length (feet) 50 | 89 98 98 55 77 71 Slope (ft/ft) 0.0780 | >75% >75% Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 | % Grass co % Grass co onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D age, UI Adjusted is Area us Area us Area innected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" |
| (min) | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 4,002 Length (feet) | 89 98 55 77 71 Slope (ft/ft) | >759 >759 Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) | % Grass co % Grass co onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D age, UI Adjusted is Area us Area us Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, |
| (min) 7.5 0.1 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 | 89 98 55 77 71 Slope (ft/ft) 0.0780 0.1000 | >75% >75% Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 | % Grass co % Grass co onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D uge, UI Adjusted is Area us Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| (min) 7.5 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 4,002 Length (feet) 50 | 89 98 98 55 77 71 Slope (ft/ft) 0.0780 | >75% >75% Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 | % Grass co % Grass co onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D uge, UI Adjusted is Area us Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, |
| (min) 7.5 0.1 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 | 89 98 55 77 71 Slope (ft/ft) 0.0780 0.1000 | >75% >75% Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 | % Grass co % Grass co onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D uge, UI Adjusted is Area us Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| (min) 7.5 0.1 0.2 2.8 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 | 89 98 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 0.0380 | >759 >759 Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 2.84 0.97 | % Grass co % Grass co onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D uge, UI Adjusted is Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| (min) 7.5 0.1 0.2 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 | 89 98 95 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 | >75% >75% Unac Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 2.84 | % Grass co % Grass co onnected pa onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D uge, UI Adjusted is Area us Area inected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, |
| (min) 7.5 0.1 0.2 2.8 0.2 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 165 10 | 89 98 98 55 77 71 8 10 (ft/ft) 0.0780 0.1000 0.3230 0.3230 0.0380 0.0200 | >75% >75% Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 2.84 0.97 0.71 | % Grass co % Grass co onnected pa onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D age, UI Adjusted Is Area us Area us Area innected Description Sheet Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps |
| (min) 7.5 0.1 0.2 2.8 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 165 10 | 89 98 55 77 71 Slope (ft/ft) 0.0780 0.1000 0.3230 0.0380 | >759 >759 Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 2.84 0.97 | % Grass co % Grass co onnected pa onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG B HSG D HSG D us Area unected Description Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, |
| (min) 7.5 0.1 0.2 2.8 0.2 | 15,072 2,551 1,451 32,793 3,967 71,871 67,869 4,002 4,002 Length (feet) 50 10 39 165 10 | 89 98 98 55 77 71 8 10 (ft/ft) 0.0780 0.1000 0.3230 0.3230 0.0380 0.0200 | >75% >75% Uncc Woo 70 Weig 94.4 5.57 100.1 Velocity (ft/sec) 0.11 1.58 2.84 0.97 0.71 | % Grass co % Grass co onnected pa onnected pa ds, Good, H ds, Good, H ghted Avera 3% Perviou % Impervio 00% Uncon | ver, Good, HSG D avement, HSG B avement, HSG D HSG B HSG D age, UI Adjusted Is Area us Area us Area innected Description Sheet Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps |

12.4 416 Total

| iyaroCAL | ® 10.10- | 3a s/n 03 | 590 © 202 | 0 HydroCAD | Software Solutions LLC Page 3 |
|-------------|------------------|-------------------------|----------------------|-------------------|---|
| | | | Summ | ary for Su | ubcatchment 6S: Pre C.2 |
| Runoff | = | 9.44 cfs | s@ 12.2 | 2 hrs, Volu | me= 0.917 af, Depth= 4.76" |
| | | R-20 meth)-yr Rainf | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Ar | ea (sf) | CN D | escription | | |
| 2 | 26,537 | | | od, HSG B | |
| . , | 2,127 | | | od, HSG D | |
| . (| 62,399 9,762 | | | | ood, HSG B ood, HSG D |
| 1/ | 9,702 00,825 | | Veighted A | | |
| | 0,825 00,825 | | | ervious Are | a |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
| 10.8 | 18 | 0.0160 | 0.03 | (013) | Sheet Flow, |
| | | | 0.00 | | Woods: Dense underbrush n= 0.800 P2= 2.95" |
| 2.5 | 33 | 0.0730 | 0.22 | | Sheet Flow, |
| | | | | | Grass: Short n= 0.150 P2= 2.95" |
| 0.8 | 121 | 0.1440 | 2.66 | | Shallow Concentrated Flow, |
| 0.1 | 10 | 0.1790 | 2.12 | | Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, |
| 0.1 | 10 | 0.1730 | 2.12 | | Woodland Kv= 5.0 fps |
| 0.3 | 41 | 0.1260 | 2.48 | | Shallow Concentrated Flow, |
| | | | | | Short Grass Pasture Kv= 7.0 fps |
| 1.5 | 125 | 0.0800 | 1.41 | | Shallow Concentrated Flow, |
| 0.1 | 6 | 0.0170 | 0.01 | | Woodland Kv= 5.0 fps |
| 0.1 | 6 | 0.0170 | 0.91 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 0.0 | 5 | 0.0210 | 2.94 | | Shallow Concentrated Flow, |
| 2.5 | • | | | | Paved Kv= 20.3 fps |
| 0.1 | 5 | 0.0190 | 0.96 | | Shallow Concentrated Flow, |
| | | | | | Short Grass Pasture Kv= 7.0 fps |
| 16.2 | 364 | Total | | | |

16.2 364 Total

Summary for Subcatchment 7S: Pre C.1

Runoff = 25.38 cfs @ 12.21 hrs, Volume= 2.409 af, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 100-yr Rainfall=7.81"

| HydroCA | | | | name here 0 HydroCAD |) Software Solutions LLC Page |
|-------------|------------------|-----------------|--------------------------|-------------------------|---|
| A | rea (sf) | CN | Description | | |
| * | 78,314 | | >75% Gras | | |
| * 1 | 47,609 | | >75% Grass Roofs, HSG | | iod, HSG B |
| | 2,514 11,441 | | Paved parki | | |
| | 18,629 | | Woods, Goo | | |
| | 258,507 | | Weighted A | | |
| 2 | 44,552 | | 94.60% Per | | |
| | 13,955 | | 5.40% Impe | ervious Area | 3 |
| Тс | Length | Slope | e Velocity | Capacity | Description |
| (min) | (feet) | (ft/ft) | | (cfs) | |
| 1.9 | 10 | 0.1000 | 0.09 | | Sheet Flow, |
| 2.7 | 40 | 0.0900 | 0.25 | | Woods: Light underbrush n= 0.400 P2= 2.95" Sheet Flow. |
| 2.1 | 40 | 0.0900 | 0.25 | | Grass: Short n= 0.150 P2= 2.95" |
| 1.1 | 120 | 0.0700 | 1.85 | | Shallow Concentrated Flow, |
| | | | | | Short Grass Pasture Kv= 7.0 fps |
| 0.5 | 36 | 0.0650 |) 1.27 | | Shallow Concentrated Flow, |
| 1.6 | 175 | 0.0650 |) 1.78 | | Woodland Kv= 5.0 fps Shallow Concentrated Flow. |
| 1.0 | 110 | 0.0000 | 1.70 | | Short Grass Pasture Kv= 7.0 fps |
| 0.0 | 5 | 0.0190 | 2.80 | | Shallow Concentrated Flow, |
| | | | | | Paved Kv= 20.3 fps |
| 7.4 | 368 | 0.0140 | 0.83 | | Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps |
| 15.2 | 754 | Total | | | |
| | | | • | (| |
| | | | Summary | for Sub | catchment 8S: Roof Area A |
| Runoff | = | 12.33 c | cfs @ 12.0 | 9 hrs, Volu | me= 1.039 af, Depth= 7.57" |
| | | | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Type III 2 | 24-hr 100 | J-yr Raii | nfall=7.81" | | |
| A | rea (sf) | | Description | | |
| | 71,756 | | Roofs, HSG | | |
| | 71,756 | | 100.00% Im | ipervious A | iea |
| Tc (min) | Length (feet) | Slope (ft/ft | | Capacity (cfs) | Description |
| 6.0 | | | | | Direct Entry, |
| | | : | Summary | for Subc | atchment 13S: Roof Area B |
| | | | , | | me= 0.432 af, Depth= 7.57" |

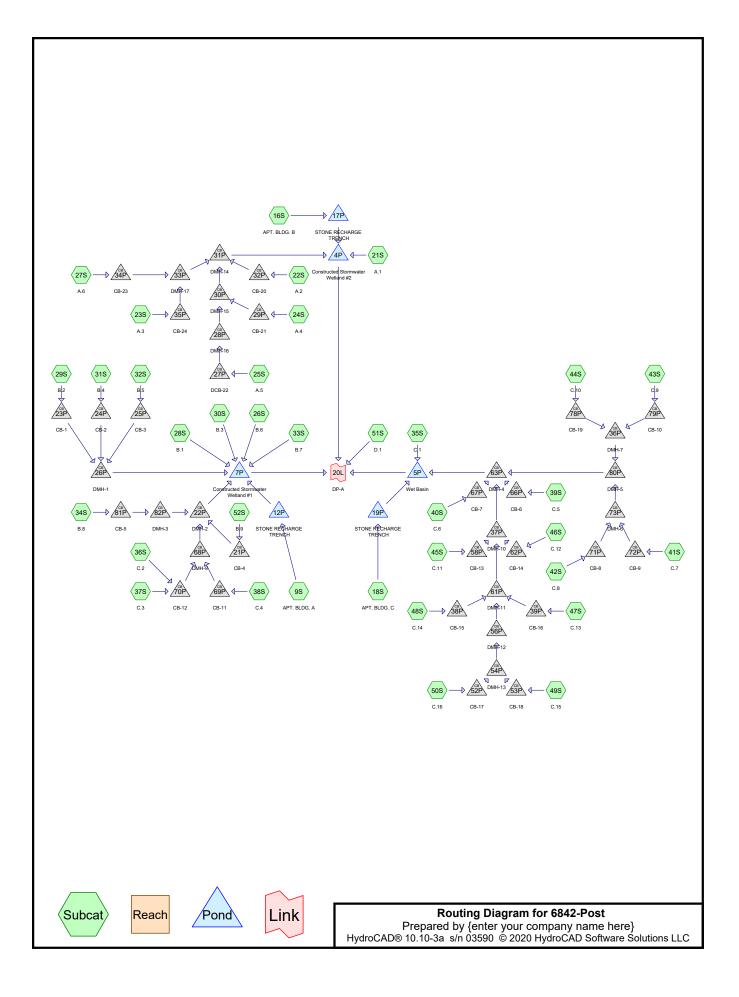
| 342-Pre Type III 24-hr 100-yr Rainfall=7.81" | 6842-Pre Type III 24-hr 100-yr Rainfall=7 |
|--|--|
| repared by {enter your company name here} /droCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 35 | Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page |
| Area (sf) CN Description | Device Routing Invert Outlet Devices |
| 29,814 98 Roofs, HSG B | #1 Primary 212.37' 15.0" Round Culvert |
| 29,814 100.00% Impervious Area | L= 517.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.37' / 211.80' S= 0.0011 '/' Cc= 0.900 |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | n= 0.013 Concrete pipe, straight & clean, Flow Area= 1.23 sf |
| 6.0 Direct Entry, | Primary OutFlow Max=5.23 cfs @ 13.16 hrs HW=216.98' (Free Discharge) ←1=Culvert (Barrel Controls 5.23 cfs @ 4.26 fps) |
| Summary for Subcatchment 14S: Pre A.4 | Summary for Pond 13P: Existing Infiltration Basin |
| unoff = 0.94 cfs @ 12.11 hrs, Volume= 0.087 af, Depth= 1.45" | |
| | Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 3.77" for 100-yr event Inflow = 4.20 cfs @ 12.09 hrs, Volume= 0.365 af |
| unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | 0.365 ar Atten= 85%, Lag= 32.5 min |
| /pe III 24-hr 100-yr Rainfall=7.81" | Discarded = 0.40 cfs @ 12.64 hrs, Volume= 0.283 af |
| Area (sf) CN Description | Primary = 0.25 cfs @ 12.64 hrs, Volume= 0.082 af |
| 10,963 68 >75% Grass cover, Good, HSG A | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| 20,431 30 Woods, Good, HSG A | Peak Elev= 213.93' @ 12.64 hrs Surf.Area= 4,689 sf Storage= 5,306 cf |
| 31,39443Weighted Average31,394100.00% Pervious Area | |
| 01,004 100.0070 F CIVICUS / I CU | Plug-Flow detention time= 81.3 min calculated for 0.365 af (100% of inflow) Center-of-Mass det. time= 81.2 min (859.6 - 778.3) |
| Tc Length Slope Velocity Capacity Description | |
| (min) (feet) (ft/ft) (ft/sec) (cfs) | Volume Invert Avail.Storage Storage Description |
| 6.0 Direct Entry, | #1 212.50' 11,128 cf Custom Stage Data (Irregular)Listed below (Recalc) |
| Summary for Pond 12P: Existing Wet Basin | Elevation Surf.Area Perim. Inc.Store Cum.Store Wet.Area |
| | |
| flow Area = 7.392 ac, 55.84% Impervious, Inflow Depth = 6.27" for 100-yr event | 212.50 2,793 372.0 0 0 2,793 |
| flow = 30.28 cfs @ 12.27 hrs, Volume= 3.862 af utflow = 5.23 cfs @ 13.16 hrs, Volume= 3.862 af, Atten= 83%, Lag= 53.0 min | 213.00 3,407 450.0 1,547 1,547 7,899 214.00 4,790 473.0 4,079 5,626 9,651 |
| imary = 5.23 cfs @ 13.16 hrs, Volume = 3.862 af | 215.00 6,246 497.0 5,502 11,128 11,566 |
| puting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Device Routing Invert Outlet Devices |
| eak Elev= 216.98' @ 13.16 hrs Surf.Area= 52,875 sf Storage= 63,901 cf | #1 Primary 212.83' 15.0'' Round Culvert |
| | L= 90.0' CPP, projecting, no headwall, Ke= 0.900 |
| ug-Flow detention time= 102.8 min calculated for 3.862 af (100% of inflow) enter-of-Mass det. time= 102.4 min (893.7 - 791.2) | Inlet / Outlet Invert= 212.83' / 210.39' S= 0.0271 '/' Cc= 0.900 |
| (0.93.7 - 791.2) | n= 0.013, Flow Area= 1.23 sf #2 Discarded 212.50' 2.410 in/hr Exfiltration over Surface area |
| olume Invert Avail.Storage Storage Description | Conductivity to Groundwater Elevation = 210.40' |
| #1 212.30' 64,778 cf Custom Stage Data (Irregular)Listed below (Recalc) | #3 Device 1 212.63' 3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low he |
| levation Surf.Area Perim. Inc.Store Cum.Store Wet.Area | Discarded OutFlow Max=0.40 cfs @ 12.64 hrs HW=213.93' (Free Discharge) |
| (feet) (sq-ft) (feet) (cubic-feet) (sq-ft) | 12=Exfiltration (Controls 0.40 cfs) |
| 212.30 50 75.0 0 0 50 | Drimany OutElow May-0.25 of a 12.64 hrs. HW-212.021 (Erea Discharge) |
| 213.00 556 100.0 180 180 403 214.00 5.786 393.0 2.712 2.892 11.901 | Primary OutFlow Max=0.25 cfs @ 12.64 hrs HW=213.93' (Free Discharge) |
| 215.00 13,981 580.0 9,587 12,479 26,388 | 1−3=Orifice/Grate (Orifice Controls 0.25 cfs @ 5.06 fps) |
| 216.00 19,970 757.0 16,887 29,366 45,232 | |
| 217.00 53,560 1,442.0 35,412 64,778 165,106 | |

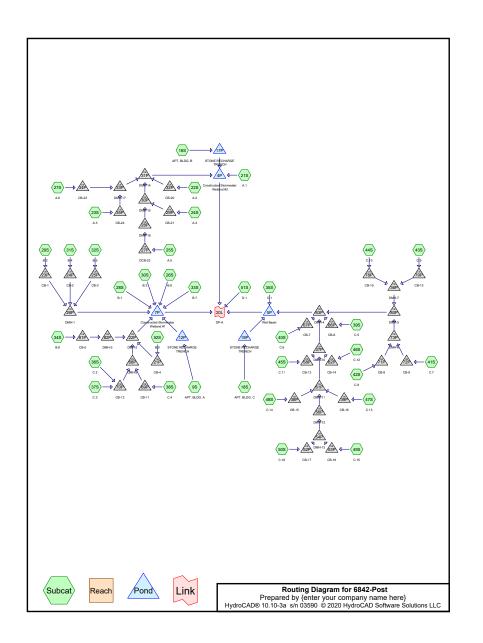
| 6842-Pre | Type III 24-hr 10 | 0-yr Rainfall=7.81" |
|--|-------------------|---------------------|
| Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software So | lutions LLC | Page 37 |

Summary for Link 11L: DP-A

| Inflow Area = | 30.660 ac, 30.26% Impervious, Inflow De | epth = 4.99" for 100-yr event |
|---------------|---|------------------------------------|
| Inflow = | 85.26 cfs @ 12.17 hrs, Volume= | 12.748 af |
| Primary = | 85.26 cfs @ 12.17 hrs, Volume= | 12.748 af, Atten= 0%, Lag= 0.0 min |

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





| 6842-Post Prepared by {enter your company nan <u>HydroCAD® 10.10-3a</u> s/n 03590 © 2020 Hy | |
|--|---|
| Runoff by SCS | 00-72.00 hrs, dt=0.05 hrs, 1441 points TR-20 method, UH=SCS, Weighted-CN Trans method . Pond routing by Stor-Ind method |
| Subcatchment 9S: APT. BLDG. A | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=1.16 cfs 0.094 af |
| Subcatchment 16S: APT. BLDG. B | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=1.16 cfs 0.094 af |
| Subcatchment 18S: APT. BLDG. C | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=1.16 cfs 0.094 af |
| Subcatchment 21S: A.1 | Runoff Area=20,195 sf 5.87% Impervious Runoff Depth=1.13" Tc=10.0 min CN=78 Runoff=0.51 cfs 0.044 af |
| Subcatchment 22S: A.2 | Runoff Area=13,850 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.90 cfs 0.073 af |
| Subcatchment 23S: A.3 | Runoff Area=9,767 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.64 cfs 0.052 af |
| Subcatchment 24S: A.4 | Runoff Area=5,341 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=0.35 cfs 0.028 af |
| Subcatchment 25S: A.5 | Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=2.77" Tc=6.0 min CN=98 Runoff=1.46 cfs 0.119 af |
| Subcatchment 26S: B.6 | Runoff Area=40,090 sf 22.31% Impervious Runoff Depth=0.86" Tc=6.0 min UI Adjusted CN=73 Runoff=0.84 cfs 0.066 af |
| Subcatchment 27S: A.6 | Runoff Area=12,567 sf 87.12% Impervious Runoff Depth=2.35" Tc=6.0 min CN=94 Runoff=0.75 cfs 0.056 af |
| Subcatchment 28S: B.1 | Runoff Area=30,829 sf 0.88% Impervious Runoff Depth=1.07" Tc=6.0 min CN=77 Runoff=0.84 cfs 0.063 af |
| Subcatchment 29S: B.2 | Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=2.25" Tc=6.0 min CN=93 Runoff=0.77 cfs 0.058 af |
| Subcatchment 30S: B.3 | Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=2.66" Tc=6.0 min CN=97 Runoff=1.09 cfs 0.087 af |
| Subcatchment 31S: B.4 | Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=2.66" Tc=6.0 min CN=97 Runoff=1.09 cfs 0.087 af |
| Subcatchment 32S: B.5 | Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=1.82" Tc=6.0 min CN=88 Runoff=1.18 cfs 0.086 af |
| Subcatchment 33S: B.7 | Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=0.76" Tc=30.0 min CN=71 Runoff=2.99 cfs 0.423 af |
| | |

| 2-Post | Type III 24-hr 2-yr Rainfall=3.00" | 6842-Post | Type III 24-hr 2-yr Rainfall |
|---|--|---|--|
| ared by {enter your company name here} CAD® 10.10-3a_s/n 03590_© 2020 HydroCAD Software Solutior | s LLC Page 3 | Prepared by {enter your company name here HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD | e}) Software Solutions LLC |
| | | | |
| | sf 88.82% Impervious Runoff Depth=2.45" =6.0 min CN=95 Runoff=0.76 cfs 0.058 af | Subcatchment 52S: B.9 Ru | unoff Area=15,018 sf 80.72% Impervious Runoff Dept Tc=6.0 min CN=92 Runoff=0.84 cfs (|
| | sf 9.34% Impervious Runoff Depth=1.07" Adjusted CN=77 Runoff=4.39 cfs 0.484 af | Pond 4P: Constructed Stormwater Wetland F | Peak Elev=213.66' Storage=8,397 cf Inflow=4.54 cfs (Outflow=0.42 cfs) |
| | sf 83.62% Impervious Runoff Depth=2.25" e6.0 min CN=93 Runoff=1.30 cfs 0.097 af | Pond 5P: Wet Basin | Peak Elev=214.56' Storage=5,583 cf Inflow=6.04 cfs (Outflow=4.54 cfs) |
| | sf 61.75% Impervious Runoff Depth=1.74" e6.0 min CN=87 Runoff=0.57 cfs 0.041 af | Pond 7P: Constructed Stormwater Wetland Pe | eak Elev=215.27' Storage=5,032 cf Inflow=10.28 cfs Outflow=9.14 cfs |
| | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.30 cfs 0.025 af | | Peak Elev=220.30' Storage=1,261 cf Inflow=1.16 cfs (.094 af Primary=0.00 cfs 0.000 af Outflow=0.15 cfs (|
| | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.38 cfs 0.031 af | Pond 17P: STONE RECHARGE TRENCH | Peak Elev=220.30' Storage=1,261 cf Inflow=1.16 cfs (.094 af Primary=0.00 cfs 0.000 af Outflow=0.15 cfs (|
| | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.26 cfs 0.021 af | Pond 19P: STONE RECHARGE TRENCH | Peak Elev=220.30' Storage=1,261 cf Inflow=1.16 cfs (.094 af Primary=0.00 cfs 0.000 af Outflow=0.15 cfs (|
| | i 100.00% Impervious Runoff Depth=2.77" e6.0 min CN=98 Runoff=0.47 cfs 0.038 af | Pond 21P: CB-4 | Peak Elev=216.07' Inflow=0.84 cfs (vert n=0.013 L=37.0' S=0.0054 '/' Outflow=0.84 cfs (|
| | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.50 cfs 0.040 af | Pond 22P: DMH-2 | Peak Elev=216.41' Inflow=3.77 cfs (ert n=0.013 L=101.0' S=0.0050 '/ Outflow=3.77 cfs (|
| | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.57 cfs 0.046 af | Pond 23P: CB-1 | Peak Elev=216.13' Inflow=0.77 cfs |
| | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.35 cfs 0.028 af | Pond 24P: CB-2 | vert n=0.013 L=27.0' S=0.0074 '/' Outflow=0.77 cfs (Peak Elev=216.82' Inflow=1.09 cfs (|
| | f 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.17 cfs 0.014 af | Pond 25P: CB-3 | vert n=0.013 L=20.0' S=0.0400 '/' Outflow=1.09 cfs (Peak Elev=217.15' Inflow=1.18 cfs (|
| | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.39 cfs 0.031 af | Pond 26P: DMH-1 | vert n=0.013 L=38.0' S=0.0289 '/' Outflow=1.18 cfs (Peak Elev=216.24' Inflow=3.04 cfs (|
| | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.13 cfs 0.011 af | 18.0" Round Culv | vert n=0.013 L=56.0' S=0.0089 '/' Outflow=3.04 cfs (Peak Elev=216.27' Inflow=1.46 cfs (|
| atchment 48S: C.14 Runoff Area=1,885 s | 100.00% Impervious Runoff Depth=2.77" =6.0 min CN=98 Runoff=0.12 cfs 0.010 af | | vert n=0.013 L=50.0' S=0.0060 '/' Outflow=1.46 cfs (Peak Elev=215.86' Inflow=1.46 cfs (|
| atchment 49S: C.15 Runoff Area=3,487 s | 100.00% Impervious Runoff Depth=2.77" | 12.0" Round Culve | ert n=0.013 L=160.0' S=0.0050 '/' Outflow=1.46 cfs (|
| | =6.0 min CN=98 Runoff=0.23 cfs 0.018 af | Pond 29P: CB-21 12.0" Round Culv | Peak Elev=216.53' Inflow=0.35 cfs (vert n=0.013 L=26.0' S=0.0192 '/' Outflow=0.35 cfs (|
| Тс | =6.0 min CN=98 Runoff=0.23 cfs 0.019 af | Pond 30P: DMH-15 15.0" Round Culve | Peak Elev=214.96' Inflow=1.81 cfs ert n=0.013 L=250.0' S=0.0052 '/' Outflow=1.81 cfs |
| | sf 0.38% Impervious Runoff Depth=0.37" 20.0 min CN=61 Runoff=1.60 cfs 0.281 af | | |

| 6842-Post | Type III 24-hr 2-yr Rainfall=3.00 | 6842-Post | Type III 24-hr 2-yr Rainfall=3.00" |
|--------------------------|---|------------------------|---|
| Prepared by {enter your | | | ur company name here} |
| lydroCAD® 10.10-3a s/n 0 | 03590 © 2020 HydroCAD Software Solutions LLC Page 5 | HydroCAD® 10.10-3a s/r | n 03590 © 2020 HydroCAD Software Solutions LLC Page 6 |
| Pond 31P: DMH-14 | Peak Elev=214.01' Inflow=4.10 cfs 0.329 at | | |
| | 18.0" Round Culvert n=0.013 L=61.0' S=0.0049 '/' Outflow=4.10 cfs 0.329 at | Pond 67P: CB-7 | Peak Elev=216.28' Inflow=0.26 cfs 0.021 af |
| | | | 12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.26 cfs 0.021 af |
| ond 32P: CB-20 | Peak Elev=216.06' Inflow=0.90 cfs 0.073 at | | |
| | 12.0" Round Culvert n=0.013 L=12.0' S=0.0167 '/' Outflow=0.90 cfs 0.073 at | Pond 68P: DMH-9 | Peak Elev=216.94' Inflow=2.17 cfs 0.163 af |
| | | | 15.0" Round Culvert n=0.013 L=79.0' S=0.0089 '/' Outflow=2.17 cfs 0.163 af |
| ond 33P: DMH-17 | Peak Elev=216.33' Inflow=1.38 cfs 0.108 at | | |
| | 12.0" Round Culvert n=0.013 L=180.0' S=0.0050 '/' Outflow=1.38 cfs 0.108 at | Pond 69P: CB-11 | Peak Elev=216.63' Inflow=0.30 cfs 0.025 af |
| | | | 12.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=0.30 cfs 0.025 af |
| ond 34P: CB-23 | Peak Elev=216.42' Inflow=0.75 cfs 0.056 at | | |
| | 12.0" Round Culvert n=0.013 L=28.0' S=0.0071 '/' Outflow=0.75 cfs 0.056 at | Pond 70P: CB-12 | Peak Elev=217.14' Inflow=1.87 cfs 0.138 af |
| | | | 15.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=1.87 cfs 0.138 af |
| ond 35P: CB-24 | Peak Elev=216.36' Inflow=0.64 cfs 0.052 at | | |
| | 12.0" Round Culvert n=0.013 L=20.0' S=0.0100 '/' Outflow=0.64 cfs 0.052 at | Pond 71P: CB-8 | Peak Elev=215.92' Inflow=0.50 cfs 0.040 af |
| | | | 12.0" Round Culvert n=0.013 L=32.0' S=0.0062 '/' Outflow=0.50 cfs 0.040 af |
| ond 36P: DMH-7 | Peak Elev=216.56' Inflow=0.92 cfs 0.074 at | | |
| | 12.0" Round Culvert n=0.013 L=220.0' S=0.0055 '/' Outflow=0.92 cfs 0.074 at | Pond 72P: CB-9 | Peak Elev=215.91' Inflow=0.47 cfs 0.038 af |
| | | | 12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=0.47 cfs 0.038 af |
| ond 37P: DMH-10 | Peak Elev=218.71' Inflow=1.26 cfs 0.103 at | | |
| | 15.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=1.26 cfs 0.103 at | Pond 73P: DMH-6 | Peak Elev=215.78' Inflow=0.97 cfs 0.079 af |
| | | | 12.0" Round Culvert n=0.013 L=52.0' S=0.0077 '/' Outflow=0.97 cfs 0.079 af |
| ond 38P: CB-15 | Peak Elev=232.39' Inflow=0.12 cfs 0.010 at | | |
| | 12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.12 cfs 0.010 at | Pond 78P: CB-19 | Peak Elev=216.73' Inflow=0.35 cfs 0.028 af |
| | | | 12.0" Round Culvert n=0.013 L=45.0' S=0.0067 '/' Outflow=0.35 cfs 0.028 af |
| nd 39P: CB-16 | Peak Elev=232.40' Inflow=0.13 cfs 0.011 at | Devid 70D: 0D 40 | |
| | 12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.13 cfs 0.011 at | Pond 79P: CB-10 | Peak Elev=216.83' Inflow=0.57 cfs 0.046 af |
| | | | 12.0" Round Culvert n=0.013 L=17.0' S=0.0176 '/' Outflow=0.57 cfs 0.046 af |
| nd 52P: CB-17 | Peak Elev=247.66' Inflow=0.23 cfs 0.019 at | | |
| | 12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.23 cfs 0.019 at | Pond 80P: DMH-5 | Peak Elev=215.47' Inflow=1.88 cfs 0.153 af |
| nd 53P: CB-18 | Peak Elev=247.66' Inflow=0.23 cfs 0.018 at | | 15.0" Round Culvert n=0.013 L=67.0' S=0.0075 // Outflow=1.88 cfs 0.153 af |
| na 53P: CB-18 | 12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.23 cfs 0.018 at | Pond 81P: CB-5 | Peak Elev=216.53' Inflow=0.76 cfs 0.058 af |
| | 12.0 Round Cuivert n=0.013 L=10.0 3=0.0500 / Outilow=0.25 cis 0.016 al | FOILUOTE. CB-5 | 12.0" Round Culvert n=0.013 L=31.0' S=0.0065 '/' Outflow=0.76 cfs 0.058 af |
| ond 54P: DMH-13 | Peak Elev=246.78' Inflow=0.46 cfs 0.037 at | | 12.0 Round Culvert 11=0.013 E=31.0 3=0.00037 Outhow=0.70 Cis 0.030 al |
| JIU 34F. DIVIN-13 | 12.0" Round Culvert n=0.013 L=85.0' S=0.0753 '/' Outflow=0.46 cfs 0.037 at | Pond 82P: DMH-3 | Peak Elev=216.22' Inflow=0.76 cfs 0.058 af |
| | | FOND 02F. DWH-5 | 12.0" Round Culvert n=0.013 L=70.0' S=0.0057 '/' Outflow=0.76 cfs 0.058 af |
| nd 56P: DMH-12 | Peak Elev=240.28' Inflow=0.46 cfs 0.037 at | | |
| 10 30F. DWH-12 | 12.0" Round Culvert n=0.013 L=110.0' S=0.0745 '/' Outflow=0.46 cfs 0.037 at | Link 20L: DP-A | Inflow=13.42 cfs 2.596 af |
| | | Ellik 20E. DF-A | Primary=13.42 cfs 2.596 af |
| nd 58P: CB-13 | Peak Elev=219.13' Inflow=0.17 cfs 0.014 at | | 1 mility 10.42 010 2.000 di |
| | 12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.17 cfs 0.014 at | Total Ru | noff Area = 30.660 ac Runoff Volume = 2.881 af Average Runoff Depth = 1.13' |
| | | | 75.28% Pervious = 23.079 ac 24.72% Impervious = 7.580 ac |
| nd 61P: DMH-11 | Peak Elev=232.09' Inflow=0.71 cfs 0.058 at | | |
| | 12.0" Round Culvert n=0.013 L=198.0' S=0.0677 '/' Outflow=0.71 cfs 0.058 af | | |
| | | | |
| nd 62P: CB-14 | Peak Elev=219.25' Inflow=0.39 cfs 0.031 at | | |
| | 12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.39 cfs 0.031 at | | |
| | | | |
| nd 63P: DMH-4 | Peak Elev=215.19' Inflow=3.79 cfs 0.308 at | | |
| | 24.0" Round Culvert n=0.013 L=35.0' S=0.0029 '/' Outflow=3.79 cfs 0.308 at | | |
| | | | |
| nd 66P: CB-6 | Peak Elev=216.35' Inflow=0.38 cfs 0.031 at | | |
| | 12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.38 cfs 0.031 af | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| 6842-Post Type III 24-hr 2-yr Rainfall=3.00" Prepared by {enter your company name here} | 6842-Post Type III 24-hr 2-yr Rainfall=3.0 Prepared by {enter your company name here} |
|--|---|
| łydroCAD® 10.10-3a ś/n 03590 © 2020 HydroCAD Software Solutions LLC Page 7 | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page |
| Summary for Subcatchment 9S: APT. BLDG. A | Summary for Subcatchment 21S: A.1 |
| Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af, Depth= 2.77" | Runoff = 0.51 cfs @ 12.15 hrs, Volume= 0.044 af, Depth= 1.13" |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ype III 24-hr 2-yr Rainfall=3.00" | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=3.00" |
| Area (sf) CN Description | Area (sf) CN Description |
| 17,818 98 Roofs, HSG A | * 18,718 77 >75% Grass cover, Good, HSG A |
| 17,818 100.00% Impervious Area | * 291 43 Woods, Good, HSG A 95 98 Unconnected pavement, HSG A |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | 1,091 98 Roofs, HSG A 20,195 78 Weighted Average |
| 6.0 Direct Entry, | 19,009 94.13% Pervious Area 1,186 5.87% Impervious Area |
| Summary for Subcatchment 16S: APT. BLDG. B | 95 8.01% Unconnected |
| unoff = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af, Depth= 2.77" | Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ype III 24-hr 2-yr Rainfall=3.00" | 10.0 Direct Entry, |
| | Summary for Subcatchment 22S: A.2 |
| Area (sf) CN Description 17.818 98 Roofs, HSG A | Runoff = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af, Depth= 2.77" |
| 17,818 100.00% Impervious Area | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | Type III 24-hr 2-yr Rainfall=3.00" |
| 6.0 Direct Entry, | Area (sf) CN Description |
| Summary for Subcatchment 18S: APT. BLDG. C | 12,935 98 Paved parking, HSG A 915 98 Roofs, HSG A |
| Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af, Depth= 2.77" | 13,85098Weighted Average13,850100.00% Impervious Area |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) |
| ype III 24-hr 2-yr Rainfall=3.00" | 6.0 Direct Entry, |
| Area (sf) CN Description 17,818 98 Roofs, HSG A | Summary for Subcatchment 23S: A.3 |
| 17,818 100.00% Impervious Area | Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af, Depth= 2.77" |
| Tc Length Slope Velocity Capacity Description | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) (fet) (ft/sec) (cfs) 6.0 Direct Entry, | Type III 24-hr 2-yr Rainfall=3.00" |
| | Area (sf) CN Description |
| | 9.767 98 Paved parking, HSG A |

| HydroCAD® 1 | 0.10-3a ś/n 0 | 3590 © 202 | 0 HydroCAE | D Software Solutions LLC Page 9 |
|--|--|--|---|--|
| Tc Len (min) (fe | igth Slope eet) (ft/ft) | | Capacity (cfs) | |
| 6.0 | | | | Direct Entry, |
| | | Sumr | nary for | Subcatchment 24S: A.4 |
| Runoff = | 0.35 c | fs @ 12.0 | 9 hrs, Volu | ume= 0.028 af, Depth= 2.77" |
| Runoff by SC Type III 24-hr | | | CS, Weigh | nted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Area (| | Description | | |
| 2 5,1 | | Paved park Roofs, HSC | | Ą |
| 5,3 5,3 | | Weighted A 100.00% Im | | Area |
| Tc Len (min) (fe | igth Slope eet) (ft/ft) | | Capacity (cfs) | Description |
| 6.0 | | | | Direct Entry, |
| | | Sum | | |
| | | Sum | nary for S | Subcatchment 25S: A.5 |
| Runoff = | 1.46 c | fs @ 12.0 | • | |
| Runoff by SC | S TR-20 me | fs @ 12.0 thod, UH=S | 9 hrs, Volu | |
| Runoff by SC | S TR-20 me 2-yr Rainfa | fs @ 12.0 thod, UH=S | 9 hrs, Volu SCS, Weigh | ume= 0.119 af, Depth= 2.77" |
| Runoff by SC Type III 24-hr <u>Area (</u> 22,4 | S TR-20 me 2-yr Rainfa sf) CN 26 98 | fs @ 12.0 thod, UH=S II=3.00" Description Paved park | 9 hrs, Volu CS, Weigh | ume= 0.119 af, Depth= 2.77" nted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Runoff by SC Type III 24-hr Area (| S TR-20 me 2-yr Rainfa sf) CN 26 98 | fs @ 12.0 thod, UH=S II=3.00" <u>Description</u> <u>Paved park</u> 100.00% Im | 9 hrs, Volu CS, Weigh ing, HSG A npervious A | ume= 0.119 af, Depth= 2.77" nted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Area |
| Runoff by SC Type III 24-hr <u>Area (</u> 22,4 22,4 Tc Len | S TR-20 me 2-yr Rainfa sf) CN 26 98 26 | fs @ 12.0 thod, UH=S II=3.00" <u>Description</u> <u>Paved park</u> 100.00% Im Velocity | 9 hrs, Volu CS, Weigh ing, HSG A npervious A | ume= 0.119 af, Depth= 2.77" hted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs A Area Description |
| Runoff by SC Type III 24-hr <u>Area (</u> 22,4 22,4 Tc Len | S TR-20 me [;] 2-yr Rainfa <u>sf) CN</u> 26 98 26 gth Slope | fs @ 12.0 thod, UH=S II=3.00" <u>Description</u> <u>Paved park</u> 100.00% Im Velocity | 9 hrs, Volu SCS, Weigh ing, HSG A apervious A Capacity | ume= 0.119 af, Depth= 2.77" hted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs A Area Description |
| Runoff by SC Type III 24-hr <u>Area (</u> 22,4 22,4 Tc Len (min) (fe | S TR-20 me [;] 2-yr Rainfa <u>sf) CN</u> 26 98 26 gth Slope | fs @ 12.0 thod, UH=S ll=3.00" <u>Description</u> <u>Paved park</u> 100.00% Im Velocity (ft/sec) | 9 hrs, Volu iCS, Weigh ing, HSG A pervious A Capacity (cfs) | ume= 0.119 af, Depth= 2.77" hted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs A Area Description |
| Runoff by SC Type III 24-hr <u>Area (</u> 22,4 22,4 Tc Len (min) (fe | S TR-20 me [:] 2-yr Rainfa sf) <u>CN</u> 26 98 26 gth Slope set) (ft/ft) | fs @ 12.0 thod, UH=S ll=3.00" <u>Description</u> <u>Paved park</u> 100.00% Im Velocity (ft/sec) | 9 hrs, Volu GCS, Weigh ing, HSG A ppervious A Capacity (cfs) mary for S | ume= 0.119 af, Depth= 2.77" hted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Area Description Direct Entry, Subcatchment 26S: B.6 |

| Inoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pe III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 8,883 98 Paved parking, HSG A 1,619 68 >75% Grass cover, Good, HSG A 948 98 Unconnected pavement, HSG A 1,17 98 Roofs, HSG A 12,567 94 Weighted Average 1,619 12.88% Pervious Area 10,948 87.12% Impervious Area 948 8.66% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 28S: B.1 | 6842-Post | Type III 24-hr 2-yr Rainfall=3. |
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| 31,146 68 >75% Grass cover, Good, HSG A 3,467 98 Unconnected pavement, HSG A 40,090 75 73 Weighted Average, UI Adjusted 31,146 68 77.69% Pervious Area 8,944 22.31% Impervious Area 8,944 22.31% Impervious Area 3,467 38.76% Unconnected Tc Length Slope (feet) (ft/ft) (ft/sec) 6.0 Direct Entry, Summary for Subcatchment 27S: A.6 noff = noff = 0.75 cfs @ 12.09 hrs, Volume= 0.056 af, Depth= 0.05 CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pe III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 8.883 98 Paved parking, HSG A 1.619 88.75% Grass cover, Good, HSG A 1,619 82 75% Grass cover, Good, HSG A 1.117 98 Roofs, HSG A 1,619 12.86% Pervious Area 10.948 87.12% Impervious Area | | |
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| (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 28S: B.1 noff = 0.84 cfs @ 12.10 hrs, Volume= 0.063 af, Depth= 1.07" noff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pe III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,559 77 Veighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area 270 0.88% Impervious Area | 940 | 8.00% Chiconnected |
| Direct Entry, Bummary for Subcatchment 28S: B.1 noff = 0.84 cfs @ 12.10 hrs, Volume= 0.063 af, Depth= 1.07" noff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pe III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,559 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | | |
| Summary for Subcatchment 28S: B.1 anoff = 0.84 cfs @ 12.10 hrs, Volume= 0.063 af, Depth= 1.07" anoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pe III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | | |
| inoff = 0.84 cfs @ 12.10 hrs, Volume= 0.063 af, Depth= 1.07" inoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pe III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | 6.0 | Direct Entry, |
| Interview of the colspan= 0.00-72.00 hrs, dt= 0.05 hrs inoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pe III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | | Summary for Subcatchment 28S: B.1 |
| pe III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | Runoff = | 0.84 cfs @ 12.10 hrs, Volume= 0.063 af, Depth= 1.07" |
| Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | | |
| 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | | • |
| 27098Unconnected pavement, HSG A30,82977Weighted Average30,55999.12% Pervious Area2700.88% Impervious Area | | |
| 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | | |
| 30,559 99.12% Pervious Area 270 0.88% Impervious Area | | |
| | 30,559 | 99.12% Pervious Area |
| 270 100.00% Unconnected | | |
| | 270 | 100.00% Unconnected |
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| | | ur company 03590 © 2020 | | | utions LLC | | Page 11 |
|--|---|--|--|--|---|-----------------------------------|---------|
| Tc Le (min) (| ength Slop feet) (ft/i | e Velocity ft) (ft/sec) | Capacity (cfs) | Description | | | |
| 6.0 | | | | Direct Entr | у, | | |
| | | Sumn | nary for S | Subcatchm | ent 29S: B.2 | | |
| Runoff = | = 0.77 | cfs @ 12.09 | 9 hrs, Volu | ume= | 0.058 af, Depth | ר= 2.25" | |
| Runoff by S0 Type III 24-h | | | CS, Weigh | ited-CN, Time | Span= 0.00-72 | .00 hrs, dt= 0.05 hrs | |
| Area | | Description | | | | | |
| | 173 68 997 98 | >75% Grass Unconnecte | | | | | |
| 9,2 | 211 98 | Paved parki | ing, HSG A | | | | |
| | 381 93 173 | Weighted A 16.24% Per | | | | | |
| 11, | 208 | 83.76% Imp | ervious Ar | | | | |
| 1,9 | 997 | 17.82% Und | connected | | | | |
| Tc Le (min) (| ength Slop feet) (ft/ | be Velocity ft) (ft/sec) | Capacity (cfs) | Description | | | |
| 6.0 | | | | | | | |
| | | | | Direct Entr | у, | | |
| | | Sumr | nary for s | | | | |
| | | | • | Subcatchm | ent 30S: B.3 | | |
| Runoff = | = 1.09 | Sum r cfs @ 12.09 | • | Subcatchm | | n= 2.66" | |
| Runoff by S(| CS TR-20 m | cfs @ 12.09 ethod, UH=S | 9 hrs, Volu | Subcatchm ume= | ent 30S: B.3 0.087 af, Deptł | n= 2.66" .00 hrs, dt= 0.05 hrs | |
| Runoff by S0 Type III 24-h | CS TR-20 m nr 2-yr Raint | cfs @ 12.09 ethod, UH=S fall=3.00" | 9 hrs, Volu CS, Weigh | Subcatchm ume= | ent 30S: B.3 0.087 af, Deptł | | |
| Runoff by S0 Type III 24-h Area | CS TR-20 m nr 2-yr Raint (sf) CN 731 68 | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass | 9 hrs, Volu CS, Weigh | Subcatchm ume= nted-CN, Time | ent 30S: B.3 0.087 af, Deptł | | |
| Runoff by S(Type III 24-h <u>Area</u> | CS TR-20 m nr 2-yr Raint (sf) CN 731 68 575 98 | cfs @ 12.09 ethod, UH=S fall=3.00" <u>Description</u> >75% Grass Unconnecte | 9 hrs, Volu CS, Weigh s cover, Go | Subcatchm ume= nted-CN, Time pod, HSG A nt, HSG A | ent 30S: B.3 0.087 af, Deptl | | |
| Runoff by S0 Type III 24-h Area * 2, 13, | CS TR-20 m nr 2-yr Raint (sf) CN 731 68 | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass | 9 hrs, Volu CS, Weigh s cover, Go d pavemen | Subcatchm ume= nted-CN, Time pod, HSG A nt, HSG A | ent 30S: B.3 0.087 af, Deptl | | |
| Runoff by S0 Type III 24-h * | CS TR-20 m nr 2-yr Raini (sf) CN 731 68 575 98 754 98 060 97 731 | cfs @ 12.09 ethod, UH=S fall=3.00" >75% Gras: Unconnecte Paved parkit Weighted A 4.28% Perv | 9 hrs, Volu CS, Weigh s cover, Go d pavemen ing, HSG A verage ious Area | Subcatchm ume= uted-CN, Time pood, HSG A nt, HSG A | ent 30S: B.3 0.087 af, Deptl | | |
| Runoff by S(Type III 24-h * 2,, 13, 17,, 16, | CS TR-20 m nr 2-yr Raint (sf) CN 731 68 575 98 754 98 060 97 | cfs @ 12.09 ethod, UH=S fall=3.00" <u>Description</u> >75% Grass Unconnecte Paved parki Weighted A | 9 hrs, Volu CS, Weigh s cover, Go d pavemen ing, HSG A verage ious Area servious Ar | Subcatchm ume= uted-CN, Time pood, HSG A nt, HSG A | ent 30S: B.3 0.087 af, Deptl | | |
| Runoff by S0 Type III 24-h * 2,, 13, 17,(16, 2, | CS TR-20 m r 2-yr Raint (sf) CN 731 68 575 98 754 98 060 97 731 329 575 | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass Unconnecte Paved parki Weighted A 4.28% Perv 95.72% Imp 15.77% Uno | 9 hrs, Volu CS, Weigh s cover, Gc d pavemen ing, HSG A verage ious Area bervious Ar connected | Subcatchm ume= ted-CN, Time pod, HSG A nt, HSG A A ea | eent 30S: B.3 0.087 af, Deptt Span= 0.00-72 | | |
| Runoff by SC Type III 24-h * 2, 13, 17, 16, 2, Tc Le | CS TR-20 m r 2-yr Raint (sf) CN 731 68 575 98 754 98 060 97 731 329 575 | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass Unconnecte Paved parki Weighted A 4.28% Perv 95.72% Imp 15.77% Unco | 9 hrs, Volu CS, Weigh s cover, Go d pavemen ing, HSG A verage ious Area servious Ar | Subcatchm ume= ted-CN, Time pod, HSG A nt, HSG A A ea | eent 30S: B.3 0.087 af, Deptt Span= 0.00-72 | | |
| Runoff by SC Type III 24-h * 2, 13, 17, 16, 2, Tc Le | CS TR-20 m nr 2-yr Raini 731 68 575 98 754 98 060 97 731 329 575 ength Slop | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass Unconnecte Paved parki Weighted A 4.28% Perv 95.72% Imp 15.77% Unco | 9 hrs, Volu CS, Weigh s cover, Go d pavemen ing, HSG A verage ious Area pervious Area connected Capacity | Subcatchm ume= ted-CN, Time pod, HSG A nt, HSG A A ea | eent 30S: B.3 0.087 af, Deptt Span= 0.00-72 | | |
| Runoff by S(Type III 24-h * 2, 13, 17, 16, 2, Tc Le _(min) ((| CS TR-20 m nr 2-yr Raini 731 68 575 98 754 98 060 97 731 329 575 ength Slop | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass Unconnecte Paved parkit Weighted A 4.28% Perv 95.72% Imp 15.77% Unc be Velocity ft) (ft/sec) | 9 hrs, Volu CS, Weigh s cover, Go d pavemen ing, HSG A verage ious Area vervious Are pervious Area connected Capacity (cfs) | Subcatchm ume= ted-CN, Time ood, HSG A nt, HSG A t, HSG A becription Direct Entr | vent 30S: B.3 0.087 af, Deptt Span= 0.00-72 | | |
| Runoff by S(Type III 24-h * 2, 13, 17, 16, 2, Tc Le _(min) ((| CS TR-20 m nr 2-yr Raini 731 68 575 98 754 98 060 97 731 329 575 ength Slop | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass Unconnecte Paved parkit Weighted A 4.28% Perv 95.72% Imp 15.77% Unc be Velocity ft) (ft/sec) | 9 hrs, Volu CS, Weigh s cover, Go d pavemen ing, HSG A verage ious Area vervious Are pervious Area connected Capacity (cfs) | Subcatchm ume= ted-CN, Time ood, HSG A nt, HSG A t, HSG A becription Direct Entr | eent 30S: B.3 0.087 af, Deptt Span= 0.00-72 | | |
| Runoff by S(Type III 24-h * 2,; 13, 17, 16,; 2, Tc Le (min) (6.0 | CS TR-20 m nr 2-yr Raint (<u>sf) CN</u> 731 68 575 98 754 98 060 97 731 329 575 575 soft Slop feet) (ft/ | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass Unconnecte Paved parkit Weighted A 4.28% Perv 95.72% Imp 15.77% Unc be Velocity ft) (ft/sec) | 9 hrs, Volu CS, Weigh s cover, Go d pavemen ing, HSG A verage ious Area bervious Area bervious Area connected Capacity (cfs) | Subcatchm ume= ted-CN, Time bod, HSG A nt, HSG A c ea Description Direct Entr Subcatchm | vent 30S: B.3 0.087 af, Deptt Span= 0.00-72 | .00 hrs, dt= 0.05 hrs | |
| Runoff by S(Type III 24-h * 2,, 13,; 16,; 2,5 Tc Le (min) (6.0 Runoff = | CS TR-20 m nr 2-yr Raini (sf) CN 731 68 575 98 575 98 060 97 731 97 329 575 575 songth Slop feet) (ft/ | cfs @ 12.09 ethod, UH=S fall=3.00" Description >75% Grass Unconnecte Paved parkit Weighted A 4.28% Perv 95.72% Imp 15.77% Unconecte yeighted A 4.28% Perv 95.72% Imp 15.77% Unconecte yeighted A 5.72% Imp 15.72% Imp 15.72 | 9 hrs, Volu CS, Weigh s cover, Gc d pavemen ing, HSG A verage ious Area verage ious Area verous Area verous Area connected Capacity (cfs) | Subcatchm Ime= Ited-CN, Time Dod, HSG A A A Description Direct Entr Subcatchm Ime= | eent 30S: B.3 0.087 af, Deptt Span= 0.00-72 y, eent 31S: B.4 0.087 af, Deptt | .00 hrs, dt= 0.05 hrs | |

| 6842-Post Type III 24-hr 2-yr Rainfall | =3.00" |
|--|---------------|
| Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC P | <u>age 12</u> |
| | |
| Area (sf) CN Description | |
| * 731 68 >75% Grass cover, Good, HSG A 2,575 98 Unconnected pavement, HSG A | |
| 13,754 98 Paved parking, HSG A | |
| 17,060 97 Weighted Average 731 4.28% Pervious Area | |
| 16,329 95.72% Impervious Area | |
| 2,575 15.77% Unconnected | |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | |
| 6.0 Direct Entry, | |
| Summary for Subcatchment 32S: B.5 | |
| Runoff = 1.18 cfs @ 12.09 hrs, Volume= 0.086 af, Depth= 1.82" | |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=3.00" | |
| Area (sf) CN Description | |
| 8,616 98 Paved parking, HSG A * 8,034 68 >75% Grass cover, Good, HSG A | |
| 1,324 98 Unconnected pavement, HSG A | |
| 6,653 98 Roofs, HSG A 24,627 88 Weighted Average | |
| 8,034 32.62% Pervious Area | |
| 16,593 67.38% Impervious Area 1,324 7.98% Unconnected | |
| | |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | |
| 6.0 Direct Entry, | |
| Summary for Subcatchment 33S: B.7 | |
| Runoff = 2.99 cfs @ 12.48 hrs, Volume= 0.423 af, Depth= 0.76" | |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=3.00" | |
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| | | | ur company n 03590 © 2020 | | | olutions L | LC | | Page 13 |
|---|--|---|---|--|---|--------------------------|-----------------|-------------------------|---------|
| A | Area (sf) | CN | Description | | | | | | |
| | 129,407 | 68 | >75% Grass | | | | | | |
| | 97,286 | 79 | >75% Grass | | | | | | |
| | 9,046 27.194 | 89 43 | >75% Grass | | | | | | |
| | 15,779 | 43 76 | Woods, Goo Woods, Goo | | | | | | |
| | 4,399 | 82 | Woods, Goo | | | | | | |
| | 1,606 | 98 | Unconnected | | | | | | |
| | 319 | 98 | Unconnected | | nt, HSG C | | | | |
| | 5,475 | 98 | Roofs, HSG | | | | | | |
| | 290,511 283,111 | 71 | Weighted Av 97.45% Perv | | | | | | |
| | 7,400 | | 2.55% Imper | | | | | | |
| | 1,925 | | 26.01% Unco | | | | | | |
| | | | | | | | | | |
| | Length | Slop | | | Description | n | | | |
| (min) | | (ft/1 | t) (ft/sec) | (cfs) | Direct End | | | | |
| 30.0 | | | | | Direct Ent | ıry, | | | |
| | | | Summ | arv for | Subcatch | ment 34 | 4S: B.8 | | |
| | | | | | | | | | |
| | | | | - | | | | | |
| lunoff | = | 0.76 | cfs @ 12.09 | hrs, Volu | ume= | 0.058 | af, Depth= 2 | .45" | |
| | | | U | , | | | · · | | |
| lunoff l | by SCS TF | R-20 m | ethod, UH=SC | , | | | · · | .45" rs, dt= 0.05 hr | s |
| unoff l | | R-20 m | ethod, UH=SC | , | | | · · | | s |
| tunoff I ype III | by SCS TF | R-20 m | ethod, UH=SC | , | | | · · | | s |
| tunoff I ype III | oy SCS TF 24-hr 2-y Area (sf) 9,724 | R-20 m r Rainf <u>CN</u> 98 | ethod, UH=SC all=3.00" <u>Description</u> Paved parkir | CS, Weigh | nted-CN, Tim | | · · | | s |
| tunoff I ype III | oy SCS TF 24-hr 2-y Area (sf) 9,724 1,396 | R-20 m r Rainf <u>CN</u> 98 68 | ethod, UH=SC all=3.00" <u>Description</u> Paved parkir >75% Grass | CS, Weigh | nted-CN, Tim | | · · | | s |
| tunoff I ype III | by SCS TF 24-hr 2-y Area (sf) 9,724 1,396 1,364 | R-20 m r Rainf <u>CN</u> 98 68 98 | ethod, UH=SC all=3.00" <u>Description</u> Paved parkir >75% Grass <u>Unconnected</u> | CS, Weigh ng, HSG A cover, Go | nted-CN, Tim | | · · | | s |
| tunoff I ype III | by SCS TF 24-hr 2-y Area (sf) 9,724 1,396 1,364 12,484 | R-20 m r Rainf <u>CN</u> 98 68 | ethod, UH=SC all=3.00" Description Paved parkir >75% Grass Unconnected Weighted Av | CS, Weigh ng, HSG A cover, Go <u>J pavemen</u> erage | nted-CN, Tim A bod, HSG A nt, HSG A | | · · | | s |
| tunoff I ype III | by SCS TF 24-hr 2-y Area (sf) 9,724 1,396 1,364 12,484 1,396 | R-20 m r Rainf <u>CN</u> 98 68 98 | ethod, UH=SC all=3.00" Paved parkir >75% Grass Unconnected Weighted Av 11.18% Perv | CS, Weigh ng, HSG A cover, Go <u>1 pavemen</u> erage rious Area | nted-CN, Tim A bood, HSG A <u>nt, HSG A</u> | | · · | | s |
| tunoff I ype III | by SCS TF 24-hr 2-y <u>Area (sf)</u> 9,724 1,396 1,364 12,484 1,396 11,088 | R-20 m r Rainf <u>CN</u> 98 68 98 | ethod, UH=SC all=3.00" <u>Description</u> Paved parkir >75% Grass <u>Unconnectec</u> Weighted Av 11.18% Perv 88.82% Impe | CS, Weigh ng, HSG A cover, Go <u>1 pavemen</u> erage rious Area ervious Area | nted-CN, Tim A bood, HSG A <u>nt, HSG A</u> | | · · | | s |
| tunoff I ype III / | by SCS TF 24-hr 2-y 9,724 1,396 1,364 12,484 1,396 11,088 1,364 | R-20 m r Rainf 98 68 98 95 | ethod, UH=SC all=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco | CS, Weigh ng, HSG A cover, Go d pavemen rerage rious Area ervious Area connected | tted-CN, Tim A bod, HSG A nt, HSG A i ea | e Span= | · · | | s |
| tunoff I ype III / | by SCS TF 24-hr 2-y 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length | R-20 m r Rainf 98 68 98 95 Slop | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkin >75% Grass <u>Unconnectec</u> Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity | CS, Weigh ng, HSG A cover, Go <u>1 pavemen</u> erage rious Area ervious Area connected Capacity | tted-CN, Tim A bod, HSG A nt, HSG A i ea | e Span= | · · | | s |
| tunoff I ype III / / Tc (min) | by SCS TF 24-hr 2-y <u>Area (sf)</u> 9,724 1,396 12,484 1,364 11,088 1,364 Length (feet) | R-20 m r Rainf 98 68 98 95 | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkin >75% Grass <u>Unconnectec</u> Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity | CS, Weigh ng, HSG A cover, Go d pavemen rerage rious Area ervious Area connected | nted-CN, Tim bod, HSG A nt, HSG A ea Description | ne Span= | · · | | s |
| tunoff I ype III / | by SCS TF 24-hr 2-y <u>Area (sf)</u> 9,724 1,396 12,484 1,364 11,088 1,364 Length (feet) | R-20 m r Rainf 98 68 98 95 Slop | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkin >75% Grass <u>Unconnectec</u> Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity | CS, Weigh ng, HSG A cover, Go <u>1 pavemen</u> erage rious Area ervious Area connected Capacity | tted-CN, Tim A bod, HSG A nt, HSG A i ea | ne Span= | · · | | s |
| tunoff I ype III / / Tc (min) | by SCS TF 24-hr 2-y <u>Area (sf)</u> 9,724 1,396 12,484 1,364 11,088 1,364 Length (feet) | R-20 m r Rainf 98 68 98 95 Slop | ethod, UH=SC all=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) | CS, Weigh ng, HSG A cover, Gc <u>1 pavemen</u> erage rious Area ervious Area ponnected Capacity (cfs) | nted-CN, Tim bod, HSG A nt, HSG A ea Description | n ry , | = 0.00-72.00 h | | s |
| tunoff I ype III / / Tc (min) 6.0 | by SCS TF 24-hr 2-y <u>Area (sf)</u> 9,724 1,396 12,484 1,364 11,088 1,364 Length (feet) | R-20 m r Rainf 98 68 98 95 Slop (ft/ | ethod, UH=SC all=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) | CS, Weigh ng, HSG A cover, Gc 4 pavemen erage rious Area rrvious Ar connected Capacity (cfs) | ood, HSG A nt, HSG A ea Description Direct Ent | n n ry, ment 34 | = 0.00-72.00 h | rs, dt= 0.05 hr | s |
| Tc (min) 6.0 | by SCS TF 24-hr 2-y 9,724 1,396 11,364 11,088 1,364 Length (feet) | R-20 m r Rainf 98 68 98 95 Slop (ft/ | ethod, UH=SC all=3.00" <u>Description</u> Paved parkir >75% Grass Unconnected Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) Summ cfs @ 12.30 | CS, Weigh ng, HSG A cover, Gc <u>1 pavemen</u> erage fous Area ervious Ar onnected Capacity (cfs) a ry for S hrs, Volu | ood, HSG A ht, HSG A ea Description Direct Ent Subcatche | n rry, 0.484 ; | 5 S: C.1 | rs, dt= 0.05 hr | |
| Tc (min) 6.0 | by SCS TF 24-hr 2-y 9,724 1,396 1,364 1,364 1,364 Length (feet) = | R-20 m r Rainf 98 68 98 95 95 Slop (ft/ 4.39 R-20 m | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) Summ cfs @ 12.30 ethod, UH=SC | CS, Weigh ng, HSG A cover, Gc <u>1 pavemen</u> erage fous Area ervious Ar onnected Capacity (cfs) a ry for S hrs, Volu | ood, HSG A ht, HSG A ea Description Direct Ent Subcatche | n rry, 0.484 ; | 5 S: C.1 | rs, dt= 0.05 hr | |
| Tc ((min)) (unoff tunoff | by SCS TF 24-hr 2-y 9,724 1,396 11,364 11,088 1,364 Length (feet) | R-20 m r Rainf 98 68 98 95 95 Slop (ft/ 4.39 R-20 m | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) Summ cfs @ 12.30 ethod, UH=SC | CS, Weigh ng, HSG A cover, Gc <u>1 pavemen</u> erage fous Area ervious Ar onnected Capacity (cfs) a ry for S hrs, Volu | ood, HSG A ht, HSG A ea Description Direct Ent Subcatche | n rry, 0.484 ; | 5 S: C.1 | rs, dt= 0.05 hr | |
| Tc ((min)) (unoff tunoff | by SCS TF 24-hr 2-y 9,724 1,396 1,364 1,364 1,364 Length (feet) = | R-20 m r Rainf 98 68 98 95 95 Slop (ft/ 4.39 R-20 m | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) Summ cfs @ 12.30 ethod, UH=SC | CS, Weigh ng, HSG A cover, Gc <u>1 pavemen</u> erage fous Area ervious Ar onnected Capacity (cfs) a ry for S hrs, Volu | ood, HSG A ht, HSG A ea Description Direct Ent Subcatche | n rry, 0.484 ; | 5 S: C.1 | rs, dt= 0.05 hr | |
| Tc (min) 6.0 | by SCS TF 24-hr 2-y 9,724 1,396 1,364 1,364 1,364 Length (feet) = | R-20 m r Rainf 98 68 98 95 95 Slop (ft/ 4.39 R-20 m | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) Summ cfs @ 12.30 ethod, UH=SC | CS, Weigh ng, HSG A cover, Gc <u>1 pavemen</u> erage fous Area ervious Ar onnected Capacity (cfs) a ry for S hrs, Volu | ood, HSG A ht, HSG A ea Description Direct Ent Subcatche | n rry, 0.484 ; | 5 S: C.1 | rs, dt= 0.05 hr | |
| Tc (min) 6.0 | by SCS TF 24-hr 2-y 9,724 1,396 1,364 1,364 1,364 Length (feet) = | R-20 m r Rainf 98 68 98 95 95 Slop (ft/ 4.39 R-20 m | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) Summ cfs @ 12.30 ethod, UH=SC | CS, Weigh ng, HSG A cover, Gc <u>1 pavemen</u> erage fous Area ervious Ar onnected Capacity (cfs) a ry for S hrs, Volu | ood, HSG A ht, HSG A ea Description Direct Ent Subcatche | n rry, 0.484 ; | 5 S: C.1 | rs, dt= 0.05 hr | |
| Tc (min) 6.0 | by SCS TF 24-hr 2-y 9,724 1,396 1,364 1,364 1,364 Length (feet) = | R-20 m r Rainf 98 68 98 95 95 Slop (ft/ 4.39 R-20 m | ethod, UH=SC iall=3.00" <u>Description</u> Paved parkir >75% Grass Unconnecter Weighted Av 11.18% Perv 88.82% Impe 12.30% Unco we Velocity t) (ft/sec) Summ cfs @ 12.30 ethod, UH=SC | CS, Weigh ng, HSG A cover, Gc <u>1 pavemen</u> erage fous Area ervious Ar onnected Capacity (cfs) a ry for S hrs, Volu | ood, HSG A ht, HSG A ea Description Direct Ent Subcatche | n rry, 0.484 ; | 5 S: C.1 | rs, dt= 0.05 hr | |

| 6842-Post | Type III 24-hr 2-yr Rainfall=3.00" |
|--|---|
| | er your company name here} 3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 14 |
| Area (sf) | CN Adj Description |
| * 128,543 * 69,229 | 68 >75% Grass cover, Good, HSG A 89 >75% Grass cover, Good, HSG D |
| * 16,469 | 82 Woods, Good, HSG D |
| 14,141 7,926 | 98 Unconnected pavement, HSG A 98 Roofs, HSG A |
| 236,308 | 78 77 Weighted Average, UI Adjusted |
| 214,241 22.067 | 90.66% Pervious Area 9.34% Impervious Area |
| 14,141 | 64.08% Unconnected |
| Tc Length (min) (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) |
| 20.0 | Direct Entry, |
| | Summary for Subcatchment 36S: C.2 |
| Runoff = | 1.30 cfs @ 12.09 hrs, Volume= 0.097 af, Depth= 2.25" |
| Runoff by SCS TF Type III 24-hr 2-y | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs r Rainfall=3.00" |
| Area (sf) | CN Description |
| 12,989 * 3,687 | 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A |
| 2,989 | 98 Unconnected pavement, HSG A |
| 2,851 | 98 Roofs, HSG A 93 Weighted Average |
| 22,516 3,687 | 16.38% Pervious Area |
| 18,829 | 83.62% Impervious Area |
| 2,989 | 15.87% Unconnected |
| Tc Length (min) (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) |
| 6.0 | Direct Entry, |
| | Summary for Subcatchment 37S: C.3 |
| Runoff = | 0.57 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 1.74" |
| Runoff by SCS TF | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Type III 24-hr 2-y | |
| Area (sf) | CN Description |
| 5,266 * 4,754 | 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A |
| 4,754 | 68 >75% Grass cover, Good, HSG A 98 Roofs, HSG A |
| 1,900 | 98 Roofs, HSG A |
| 12,429 4,754 | 87 Weighted Average 38.25% Pervious Area |
| 7,675 | 61.75% Impervious Area |
| | |
| | |
| | |
| | |

| Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Sc Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatcher Runoff = 0.30 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" <u>Area (sf) CN Description</u> 4,655 98 Paved parking, HSG A 4,655 100.00% Impervious Area Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatcher Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" <u>Area (sf) CN Description</u> 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatcher Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatcher | Image: marked system Tc Image: marked system Tc Image: marked system 6.0 Image: marked system Runoff Image: marked system Runof |
|--|---|
| (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatchn Runoff = 0.30 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4.655 98 Paved parking, HSG A 4.655 100.00% Impervious Area Tc Length Slope Velocity Capacity Description 6.0 Direct Ent Summary for Subcatchn Runoff = 0.38 cfs @ 12.09 hrs, Volume= Kog 98 | m |
| (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatchn Runoff = 0.30 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,655 98 Paved parking, HSG A 4,655 100.00% Impervious Area Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) 6.0 Direct Ent Summary for Subcatchn Runoff = 0.38 cfs @ 12.09 hrs, Volume= | ry, 6.0 nent 38S: C.4 Runoff 0.025 af, Depth= 2.77" Runoff b e Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III : |
| 6.0 Direct Ent Bunoff is presented by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,655 98 Paved parking, HSG A 4,655 100.00% Impervious Area Tc Length Slope Velocity Capacity Description 6.0 Direct Ent Bunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Direct Ent Summary for Subcatchr Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 1,777 30.34% Unconnected 1,777 Tc Length Slope Velocity Capacity 5,857 98 Weighted Average 5,857 100.00% Imper | ry, nent 38S: C.4 0.025 af, Depth= 2.77" e Span= 0.00-72.00 hrs, dt= 0.05 hrs ry, Tc 6.0 |
| Runoff= $0.30 \text{ cfs} @ 12.09 \text{ hrs, Volume=}$ Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00"Area (sf)CNDescription4,6559898Paved parking, HSG A4,655100.00% Impervious AreaTcLengthSlopeVelocityCapacityDescription(min)(feet)(ft/ft)(ft/sec)6.0Direct EntSummary for SubcatcherRunoff=0.38 cfs @12.09 hrs, Volume=Runoff=0.38 cfs @12.09 hrs, Volume=RunoffSSTR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00"Area (sf)CNDescription4,08098Paved parking, HSG A1,77798Unconnected pavement, HSG A5,857100.00% Impervious Area1,77730.34% UnconnectedTcLengthSlopeVelocityCapacityDescription(min)(feet)(ft/ft)(ft/sec)(cfs)Direct Ent | 0.025 af, Depth= 2.77" e Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,655 98 Paved parking, HSG A 4,655 100.00% Impervious Area Tc Length Slope 0 (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatchr Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Tc Length Slope Velocity Capacity Description 4,080 98 Paved parking, HSG A 1,777 30.34% Unconnected 1,777 30.34% | 0.025 af, Depth= 2.77" e Span= 0.00-72.00 hrs, dt= 0.05 hrs A Type III : A Tc (min) 6.0 |
| Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,655 98 Paved parking, HSG A 4,655 100.00% Impervious Area Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatchr Runoff 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) Direct Ent | e Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III : |
| 4,655 98 Paved parking, HSG A 4,655 100.00% Impervious Area Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) Direct Ent 6.0 Direct Ent Summary for Subcatchr Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description 6.0 Direct Ent Direct Ent Direct Ent Direct Ent | Tc (min) 6.0 |
| 4,655 98 Paved parking, HSG A 4,655 100.00% Impervious Area Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) Direct Ent 6.0 Direct Ent Summary for Subcatchr Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description 6.0 Direct Ent Direct Ent Direct Ent Direct Ent | ry, Tc 6.0 |
| Tc Length (feet) Slope (ft/ft) (ft/sec) Capacity (cfs) Description (cfs) 6.0 Direct Ent Summary for Subcatcher Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description Tc Length Slope Velocity Capacity Description 6.0 Direct Ent | ry, Tc 6.0 |
| (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent Summary for Subcatcher Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff s 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Descriptior (min) (feet) (ft/ft) (ft/sec) (cfs) Direct Ent | ry, Tc 6.0 |
| 6.0 Direct Ent Bunoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN 4,080 98 Paved parking, HSG A 1,777 98 5,857 100.00% 5,857 100.00% 1,777 30.34% 1,777 30.34% Tc Length Slope Velocity Cheet (ft/ft) 6.0 Direct Ent | ry, (min) 6.0 |
| Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 5,857 98 Weighted Average 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Min (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent | |
| Runoff = 0.38 cfs @ 12.09 hrs, Volume= Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" Area (sf) CN Description 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 5,857 98 Weighted Average 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description fmin (feet) (ft/ft) (ft/sec) (cfs) Direct Ent | |
| 4,080 98 Paved parking, HSG A 1,777 98 Unconnected pavement, HSG A 5,857 98 Weighted Average 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent | Runoff b Type III |
| 5,857 98 Weighted Average 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent | <u> </u> |
| 5,857 100.00% Impervious Area 1,777 30.34% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent | |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent | |
| (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Ent | Tc (min) |
| | |
| Summary for Subcatch | ry, |
| | nent 40S: C.6 Runoff |
| Runoff = 0.26 cfs @ 12.09 hrs, Volume= | 0.021 af, Depth= 2.77" Runoff b |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Tim Type III 24-hr 2-yr Rainfall=3.00" | e Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Area (sf) CN Description | |
| 4,047 98 Paved parking, HSG A | |
| 4,047 100.00% Impervious Area | |
| | |

| Tc Length | Slope Velocity | Capacity | | <u>ge 16</u> |
|---|--|-------------------|--|--------------|
| (min) (feet) 6.0 | (ft/ft) (ft/sec) | (cfs) | Direct Entry. | |
| 0.0 | C | nom for S | . | |
| | | • | Subcatchment 41S: C.7 | |
| unoff = | 0.47 cfs @ 12.0 | 9 hrs, Volu | ume= 0.038 af, Depth= 2.77" | |
| | R-20 method, UH=S /r Rainfall=3.00" | CS, Weight | hted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |
| Area (sf) | CN Description | | | |
| 6,072 1,116 | 98 Paved park 98 Roofs, HSG | | A | |
| 7,188 7,188 | 98 Weighted A | | Area | |
| Tc Length (min) (feet) | Slope Velocity (ft/ft) (ft/sec) | Capacity (cfs) | | |
| 6.0 | | | Direct Entry, | |
| | Sumr | nary for S | Subcatchment 42S: C.8 | |
| unoff = | 0.50 cfs @ 12.0 | 9 hrs, Volu | ume= 0.040 af, Depth= 2.77" | |
| | R-20 method, UH=S /r Rainfall=3.00" | CS, Weight | hted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |
| Area (sf) | CN Description | | | |
| 7,639 | 98 Paved park | | | |
| 7,639 | 100.00% In | npervious Ar | Area | |
| Tc Length (min) (feet) | Slope Velocity (ft/ft) (ft/sec) | Capacity (cfs) | | |
| 6.0 | | | Direct Entry, | |
| | Sumr | mary for S | Subcatchment 43S: C.9 | |
| | 0.57 cfs @ 12.0 | 9 hrs, Volu | ume= 0.046 af, Depth= 2.77" | |
| unoff = | R-20 method UH=S | CS, Weight | hted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |
| unoff by SCS T | r Rainfall=3.00" | | | |
| unoff by SCS T ype III 24-hr 2- Area (sf) | r Rainfall=3.00" CN Description | | | |
| unoff by SCS T ype III 24-hr 2- | r Rainfall=3.00" <u>CN Description</u> 98 Paved park | | | |

| | | | company | | | Type III 24-hr 2-y | |
|--|---|--|--|--|---|---|----------|
| HydroCA | D® 10.10- | 3a s/n 0. | 3590 © 202 | U HydroCAL | Software So | Iutions LLC | Page 17 |
| Tc (min) | Length (feet) | Slope (ft/ft) | | Capacity (cfs) | Description | I | |
| 6.0 | (1001) | (1011) | (14000) | (010) | Direct Entr | ry, | |
| | | | Summ | nary for S | ubcatchm | ent 44S: C.10 | |
| Runoff | = | 0.35 ct | fs @ 12.0 | 9 hrs, Volu | ime= | 0.028 af, Depth= 2.77" | |
| | y SCS TF 24-hr 2-y | | | CS, Weigh | ted-CN, Tim | e Span= 0.00-72.00 hrs, dt= (|).05 hrs |
| A | rea (sf) | CN [| Description | | | | |
| | 5,326 | | Paved park | | | | |
| | 5,326 | | 100.00% In | pervious A | rea | | |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | 1 | |
| 6.0 | (1001) | (1010) | (11000) | (0.0) | Direct Ent | ry, | |
| | | | | | | | |
| | | | Summ | ary for 9 | ubcatchm | oont 455: C 11 | |
| | | | Summ | nary for S | Subcatchm | nent 45S: C.11 | |
| Runoff | = | 0.17 c | Summ | - | | 0.014 af, Depth= 2.77" | |
| Runoff b | | R-20 met | fs @ 12.0 | 9 hrs, Volu | ime= | |).05 hrs |
| Runoff b Type III : | y SCS TF | R-20 met r Rainfal | fs @ 12.0 | 9 hrs, Volu CS, Weigh | ime= | 0.014 af, Depth= 2.77" |).05 hrs |
| Runoff b Type III : | y SCS TF 24-hr 2-y <u>rea (sf)</u> 1,483 | R-20 met r Rainfal <u>CN [</u> 98 F | fs @ 12.0 thod, UH=S II=3.00" <u>Description</u> Paved park | 9 hrs, Volu CS, Weigh | ted-CN, Time | 0.014 af, Depth= 2.77" |).05 hrs |
| Runoff b Type III : | y SCS TF 24-hr 2-y rea (sf) | R-20 met r Rainfal <u>CN [</u> 98 F 98 F | fs @ 12.0 thod, UH=S II=3.00" Description | 9 hrs, Volu CS, Weigh ing, HSG A ing, HSG D | ted-CN, Time | 0.014 af, Depth= 2.77" |).05 hrs |
| Runoff b Type III : | y SCS TF 24-hr 2-y <u>rea (sf)</u> 1,483 946 126 76 | R-20 met r Rainfal <u>CN [</u> 98 F 98 L 98 L 98 L | fs @ 12.0 thod, UH=S II=3.00" Description Paved park Paved park Unconnecte Unconnected | 9 hrs, Volu CS, Weigh ing, HSG A ing, HSG E ad pavement ad pavement | ted-CN, Time | 0.014 af, Depth= 2.77" |).05 hrs |
| Runoff b Type III : | y SCS TF 24-hr 2-y <u>rea (sf)</u> 1,483 946 126 76 2,631 | R-20 met r Rainfal 98 F 98 F 98 U 98 U 98 U | fs @ 12.0 thod, UH=S ll=3.00" Description Paved park Paved park Unconnecte Unconnecte Weighted A | 9 hrs, Volu CS, Weigh ing, HSG A ing, HSG E ed pavemen ed pavemen verage | ime= ted-CN, Time) nt, HSG A nt, HSG D | 0.014 af, Depth= 2.77" |).05 hrs |
| Runoff b Type III : | y SCS TF 24-hr 2-y <u>rea (sf)</u> 1,483 946 126 76 | R-20 met r Rainfal 98 F 98 F 98 U 98 U 98 U | fs @ 12.0 thod, UH=S II=3.00" Description Paved park Paved park Unconnecte Unconnected | 9 hrs, Volu CS, Weigh ing, HSG A ing, HSG D d pavemer werage ipervious A | ime= ted-CN, Time) nt, HSG A nt, HSG D | 0.014 af, Depth= 2.77" |).05 hrs |
| Runoff b Type III : A | y SCS TF 24-hr 2-y 1,483 946 126 2,631 2,631 202 Length | R-20 met r Rainfal 98 F 98 K 98 K 98 K 98 K | fs @ 12.0 thod, UH=S II=3.00" Description Paved park Paved park Unconnecte Weighted A 100.00% Im 7.68% Unco Velocity | 9 hrs, Volu CS, Weigh ing, HSG A ing, HSG D d pavemer d pavemer verage opervious A onnected Capacity | ime= ted-CN, Time) nt, HSG A nt, HSG D | 0.014 af, Depth= 2.77" e Span= 0.00-72.00 hrs, dt= 0 | 0.05 hrs |
| Runoff b Type III : A | y SCS TF 24-hr 2-y 1,483 946 126 76 2,631 2,631 202 | R-20 met r Rainfal 98 F 98 F 98 U 98 U 98 U | fs @ 12.0 thod, UH=S II=3.00" Description Paved park Paved park Unconnecte Weighted A 100.00% Im 7.68% Unco Velocity | 9 hrs, Volu CS, Weigh ing, HSG A ing, HSG D d pavemen ad pavemen verage opervious A opnnected | ime= ted-CN, Time) nt, HSG A nt, HSG D irea | 0.014 af, Depth= 2.77" e Span= 0.00-72.00 hrs, dt= (|).05 hrs |
| Runoff b Type III : A Tc (min) | y SCS TF 24-hr 2-y 1,483 946 126 2,631 2,631 202 Length | R-20 met r Rainfal 98 F 98 K 98 K 98 K 98 K | fs @ 12.0 thod, UH=S II=3.00" Description Paved park Paved park Unconnecte Unconnecte Unconnecte Unconnecte Neighted A 100.00% Im 7.68% Unco Velocity (ft/sec) | 9 hrs, Volu CS, Weigh ing, HSG A ing, HSG D ad pavement de pavemen | ime= ted-CN, Time ht, HSG A ht, HSG D rea Description Direct Ent | 0.014 af, Depth= 2.77" e Span= 0.00-72.00 hrs, dt= (| 0.05 hrs |

| Tepared by ter | nter you | ir company | name here | e} | | Type III 24 | ···· _)· · · ··· ··· | |
|--|--|--|---|--|--------------------------------|---------------|-----------------------|-------|
| lydroCAD® 10.10 |)-3a s/n | <u>03590 © 202</u> | 0 HydroCAE | Software So | olutions LLC | ; | Pa | age 1 |
| Area (sf) | CN | Description | | | | | | |
| 2,144 | 98 | Paved park | | \ \ | | | | |
| 2,144 | 98 98 | Paved park | | | | | | |
| 853 | 98 | Unconnecte | | | | | | |
| 696 | 98 | Unconnecte | | | | | | |
| 96 | 98 | Roofs, HSG | | , - | | | | |
| 5,910 | 98 | Weighted A | verage | | | | | |
| 5,910 | | 100.00% Im | npervious A | Area | | | | |
| 1,549 | | 26.21% Un | connected | | | | | |
| Tc Length | | | Capacity | Descriptio | n | | | |
| (min) (feet) | (ft/1 | t) (ft/sec) | (cfs) | | | | | |
| 6.0 | | | | Direct En | t ry , | | | |
| | | Summ | nary for S | Subcatchr | nent 47S | : C.13 | | |
| Runoff = | 0.13 | cfs @ 12.0 | 9 hrs. Volu | ıme= | 0.011 af. | Depth= 2 | | |
| | | | , | - | | | | |
| | | | | | | | | |
| Runoff by SCS T Type III 24-hr 2- | | | CS, Weigh | nted-CN, Tin | ne Span= 0 | 0.00-72.00 h | nrs, dt= 0.05 hrs | |
| Type III 24-hr 2- | yr Rainf | all=3.00" | , 0 | nted-CN, Tin | ne Span= 0 | 0.00-72.00 h | nrs, dt= 0.05 hrs | |
| Type III 24-hr 2- Area (sf) | yr Rainf CN | all=3.00" Description | | | ie Span= 0 | 0.00-72.00 h | nrs, dt= 0.05 hrs | |
| Type III 24-hr 2- | yr Rainf <u>CN</u> 98 | all=3.00" <u>Description</u> Paved park | ing, HSG D |) | ne Span= 0 | 0.00-72.00 h | nrs, dt= 0.05 hrs | |
| Гуре III 2́4-hr 2- <u>Area (sf)</u> 1,832 155 | yr Rainf CN | all=3.00" Description Paved park Unconnecte | ing, HSG E |) | ne Span= 0 | 0.00-72.00 h | nrs, dt= 0.05 hrs | |
| Fype III 24-hr 2- <u>Area (sf)</u> 1,832 | yr Rainf <u>CN</u> 98 98 | all=3.00" <u>Description</u> Paved park | ing, HSG E ad pavement verage |) nt, HSG D | ne Span= 0 | 0.00-72.00 h | nrs, dt= 0.05 hrs | |
| Туре III 2́4-hr 2- <u>Area (sf)</u> 1,832 <u>155</u> 1,987 | yr Rainf <u>CN</u> 98 98 | all=3.00" <u>Description</u> Paved park <u>Unconnecte</u> Weighted A | ing, HSG E ed pavemen verage pervious A |) nt, HSG D | ne Span= 0 | 0.00-72.00 h | nrs, dt= 0.05 hrs | |
| Гуре III 2́4-hr 2- <u>Area (sf)</u> 1,832 155 1,987 1,987 155 Тс Length | yr Rainf <u>CN</u> 98 98 98 Slop | all=3.00" <u>Description</u> Paved park <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Unco Pe Velocity | ing, HSG E ad pavement verage apervious A connected Capacity |) nt, HSG D Area | | 0.00-72.00 H | nrs, dt= 0.05 hrs | |
| Type III 24-hr 2- Area (sf) 1,832 155 1,987 1,987 1,987 | yr Rainf <u>CN</u> 98 98 98 Slop | all=3.00" <u>Description</u> Paved park <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Unco Pe Velocity | ing, HSG E ed pavemen verage pervious A ponnected |) nt, HSG D Area | n | 1.00-72.00 H | nrs, dt= 0.05 hrs | |
| Type III 24-hr 2- Area (sf) 1,832 155 1,987 1,987 155 Tc Length (min) (feet) | yr Rainf <u>CN</u> 98 98 98 Slop | all=3.00" Description Paved park Unconnecte Weighted A 100.00% Im 7.80% Unco ve Velocity t) (ft/sec) | ing, HSG E ad pavemen verage apervious A connected Capacity (cfs) |) nt, HSG D Area Descriptio Direct En | n i ry, | | nrs, dt= 0.05 hrs | |
| Type III 24-hr 2- Area (sf) 1,832 155 1,987 1,987 155 Tc Length (min) (feet) | yr Rainf <u>CN</u> 98 98 98 Slop | all=3.00" Description Paved park Unconnecte Weighted A 100.00% Im 7.80% Unco ve Velocity t) (ft/sec) | ing, HSG E ad pavemen verage apervious A connected Capacity (cfs) |) nt, HSG D Area Descriptio | n i ry, | | nrs, dt= 0.05 hrs | |
| Fype III 24-hr 2- Area (sf) 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) 6.0 | yr Rainf <u>CN</u> 98 98 98 98 Slop (ft/f | all=3.00" Description Paved park Unconnecte Weighted A 100.00% Im 7.80% Unco ve Velocity t) (ft/sec) | ing, HSG E ad pavement verage pervious A ponnected Capacity (cfs) nary for S |) nt, HSG D Area Descriptio Direct En Subcatchr | n try, nent 48S | | | |
| Type III 24-hr 2- <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) 6.0 | yr Rainf <u>CN</u> 98 98 98 Slop (ft/f 0.12 R-20 m | all=3.00" <u>Description</u> Paved park <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Unco ve Velocity t) (ft/sec) Summ cfs @ 12.0 ethod, UH=S | ing, HSG E ad pavement verage pervious A connected Capacity (cfs) nary for S 9 hrs, Volu |) nt, HSG D Area Descriptio Direct En Subcatchr | n i ry , nent 48S | : C.14 | | |
| Fype III 24-hr 2- <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) 6.0 Runoff = Runoff by SCS T | yr Rainf <u>CN</u> 98 98 98 Slop (ft/f 0.12 R-20 m | all=3.00" <u>Description</u> Paved park <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Unco ve Velocity t) (ft/sec) Summ cfs @ 12.0 ethod, UH=S | ing, HSG E ad pavement verage opervious A connected Capacity (cfs) nary for S 9 hrs, Volu GCS, Weigh |) nt, HSG D Area Descriptio Direct En Subcatchr | n i ry , nent 48S | : C.14 | | |

| | | Description |
|-----------------------|----------|--|
| 1,744 141 | 98 98 | Paved parking, HSG D Unconnected pavement, HSG D |
| 1,885 1,885 141 | 98 | Weighted Average 100.00% Impervious Area 7.48% Unconnected |

| (min) | Length (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
|-------------|-----------------------|--|---|
| 6.0 | | Direct Entry, | |
| | | Summary for Subcatchment 49S: C.15 | |
| Runoff | = | 0.23 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 2.77" | |
| | | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hr r Rainfall=3.00" | S |
| A | rea (sf) | CN Description | |
| | 3,220 267 | 98 Paved parking, HSG D 98 Unconnected pavement, HSG D | |
| | 3,487 | 98 Weighted Average | |
| | 3,487 267 | 100.00% Impervious Area 7.66% Unconnected | |
| Tc (min) | Length (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
| 6.0 | (ieet) | Direct Entry, | |
| | | 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 2.77" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hr r Rainfall=3.00" | s |
| A | rea (sf) | CN Description | |
| | 3,238 270 | 98 Paved parking, HSG D 98 Unconnected pavement, HSG D | |
| | 3,508 3,508 270 | 98 Weighted Average 100.00% Impervious Area 7.70% Unconnected | |
| Tc (min) | Length (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
| 6.0 | | Direct Entry, | |
| | | Summary for Subcatchment 51S: D.1 | |
| | = | 1.60 cfs @ 12.44 hrs, Volume= 0.281 af, Depth= 0.37" | |
| Runoff | | | |

| 6842-Post Prepared by {enter your company name here} | Type III 24-hr 2-yr Rainfall=3.00" |
|---|---|
| HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions | LLC Page 20 |
| Area (sf) CN Description | |
| 1,527 98 Unconnected pavement, HSG A | |
| 182,934 68 >75% Grass cover, Good, HSG A | |
| 518 79 >75% Grass cover, Good, HSG B 51,440 89 >75% Grass cover, Good, HSG D | |
| * 160,796 43 Woods, Good, HSG A | |
| 5,106 65 Woods, Good, HSG B 450 82 Woods, Good, HSG D | |
| 400,771 61 Weighted Average | |
| 401,244 99.62% Pervious Area | |
| 1,527 0.38% Impervious Area 1,527 100.00% Unconnected | |
| | |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | |
| 20.0 Direct Entry, | |
| Summary for Subcatchment | 52S' B 9 |
| | |
| Runoff = 0.84 cfs @ 12.09 hrs, Volume= 0.06 | 2 af, Depth= 2.16" |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Spa Fype III 24-hr 2-yr Rainfall=3.00" | n= 0.00-72.00 hrs, dt= 0.05 hrs |
| Area (sf) CN Description | |
| 10,973 98 Paved parking, HSG A * 2.895 68 >75% Grass cover, Good, HSG A | |
| 1,150 98 Unconnected pavement, HSG A | |
| 15,018 92 Weighted Average | |
| 2,895 19.28% Pervious Area 12,123 80.72% Impervious Area | |
| 1,150 9.49% Unconnected | |
| Tc Length Slope Velocity Capacity Description | |
| (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry. | |
| 6.0 Direct Entry, | |
| Summary for Pond 4P: Constructed Sto | rmwater Wetland #2 |
| nflow Area = 2.341 ac, 79.77% Impervious, Inflow Depth = nflow = 4.54 cfs @ 12.09 hrs, Volume= 0.37 | |
| Dutflow = 0.42 cfs @ 13.02 hrs, Volume= 0.37 Primary = 0.42 cfs @ 13.02 hrs, Volume= 0.37 | 1 af, Atten= 91%, Lag= 55.9 min 1 af |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 Peak Elev= 213.66' @ 13.02 hrs Surf.Area= 7,993 sf Storage= | |
| Plug-Flow detention time= 296.6 min calculated for 0.371 af (100% Center-of-Mass det. time= 294.5 min (1,068.6 - 774.1) | 6 of inflow) |
| | |
| | |
| | |

| Page | lutions LLC | ydroCAD Software S | | | ed by {enter D® 10.10-3a | |
|--|--|---|--|---|---|--|
| | า | Storage Description | .Storage | t Avai | Invert | Volume |
| below (Recalc) | ta (Irregular)Listed | Custom Stage Da | 31,125 cf | r' : | 212.50 | #1 |
| Wet.Area | Cum.Store | Inc.Store | Perim. | Surf.Area | | Elevatio |
| (sq-ft) | (cubic-feet) | (cubic-feet) | (feet) | (sq-ft) | / | (feet |
| 6,500 | 0 | 0 | 322.0 | 6,500 | | 212.5 |
| 8,737 14,695 | 11,187 31,125 | 11,187 19,938 | 362.0 453.0 | 8,459 11,559 | | 214.00 216.00 |
| 14,000 | 01,120 | 15,500 | 400.0 | 11,000 | | 210.00 |
| | | et Devices | | | 5 | |
| Rectangular Weir | | | | 215. | Primary | #1 |
| | | d (feet) 0.20 0.40 | | | | |
| 2.67 2.66 2.64 2 End Contraction(s) | | f. (English) 2.57 2. | | 214. | Device 3 | #2 |
| | i Neclangular We | " Round Culvert | | 214. | Primary | #2 #3 |
| e= 0.900 | ng, no headwall, k | 11.0' CPP, project | | - 12 | | |
| .0186 '/' Cc= 0.900 | .50' / 210.44' S= 0 | / Outlet Invert= 212 | Inlet | | | |
| | ~ ~ ~ | .013, Flow Area= 1 | | | | |
| | | | | | | |
| to weir flow at low head | C= 0.600 Limite (Free Discharge) fs) | | cfs @ 13.0 gular Weir s of 3.44 c angular W | d Rectang ses 0.42 cf sted Rect | oad-Creste Ilvert (Pass Sharp-Cres | -1=Bro -3=Cul -2=\$ |
| to weir flow at low head | C= 0.600 Limite (Free Discharge) fs) | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) /eir (Controls 0.00 0.42 cfs @ 4.80 fps | ofs @ 13.0 gular Weir s of 3.44 c angular W e Controls | Max=0.42 ed Rectang ses 0.42 cf sted Rect | OutFlow Moad-Crester | Primary 1=Bro 3=Cul 2=5 |
| l to weir flow at low head | C= 0.600 Limite (Free Discharge) fs) | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) Veir (Controls 0.00 | ofs @ 13.0 gular Weir s of 3.44 c angular W e Controls | Max=0.42 ed Rectang ses 0.42 cf sted Rect | OutFlow Moad-Crester | Primary 1=Bro 3=Cul 2=5 |
| t to weir flow at low head | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for | Vert. Orifice/Grate 22 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) /eir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I | cfs @ 13.0 gular Weir s of 3.44 c angular W c Controls Summ 31.40% li | Max=0.42 of d Rectang ses 0.42 of sted Rect ate (Orifice 7.170 ac, | OutFlow M oad-Crested Ilvert (Pass Sharp-Cress Orifice/Gra | Primary 1=Bro 3=Cul 2=\$ 4=0 |
| 2-yr event | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) Veir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow [rs, Volume= | cfs @ 13.0 gular Weir s of 3.44 c angular W c Controls Summ 31.40% li 2 12.25 h | Max=0.42 d d Rectang ses 0.42 cf sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ | OutFlow M oad-Crested Ivert (Pass Sharp-Crest Orifice/Gra | rimary 1=Bro 3=Cul 2=\$ 4=0 nflow Ard |
| | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) feir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= | cfs @ 13.0 gular Weir s of 3.44 c angular W c Controls Summ 31.40% li 2 12.25 h 2 12.25 h | Max=0.42 cf cd Rectan ses 0.42 cf sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ 4.54 cfs @ | OutFlow M oad-Creste livert (Pass Sharp-Cres Orifice/Gra | rimary 1=Bro 3=Cul 2=5 4=0 nflow Are nflow Dutflow |
| 2-yr event | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af 0.792 af, Atten= 0.792 af | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) /eir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= rs, Volume= | cfs @ 13.0 gular Weir s of 3.44 cc angular W e Controls Summ 31.40% li 2 12.25 h 2 12.46 h 12.46 h | Max=0.42 d d Rectan ses 0.42 cf sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ 4.54 cfs @ | OutFlow M oad-Creste livert (Pass Sharp-Cress Orifice/Gra | Primary 1=Bro 3=Cul 2== 4=0 Inflow Ard Inflow Outflow Primary |
| 2-yr event | C= 0.600 Limite (Free Discharge) fs) : Wet Basin epth = 1.33" for 0.792 af 0.792 af, Atten= 0.792 af = 0.05 hrs | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) feir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= | cfs @ 13.0 gular Weir s of 3.44 c angular W c Controls Summ 31.40% li 2 12.25 h 2 12.46 h 12.46 h 12.46 h | Max=0.42 d cd Rectang ses 0.42 d sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ 4.54 cfs @ 4.54 cfs @ method, T | OutFlow M oad-Creste Ilvert (Pass Sharp-Cres Orifice/Gra | Primary 1=Bro 3=Cul 2=s 4=c Inflow Ard Inflow Outflow Primary Routing b |
| 2-yr event | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af 0.792 af, Atten= 0.792 af 0.792 af 0.792 af | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) /eir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt wea= 10,941 sf St | cfs @ 13.0 yular Weir s of 3.44 c angular Wei controls Summ 31.40% In) 12.25 h) 12.46 h) 12.46 h ime Spanars | Max=0.42 d dd Rectang ses 0.42 d sted Rect sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ 4.54 cfs @ method, T @ 12.46 l | OutFlow M oad-Creste livert (Pass Sharp-Crest Orifice/Gra | rimary 1=Bro 2=Cul 2=2= 4=0 nflow Ard nflow Dutflow Primary Routing E Peak Ele |
| 2-yr event | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af 0.792 af, Atten= 0.792 af 0.792 af 0.792 af | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) feir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt | cfs @ 13.0 gular Weir s of 3.44 c angular Wei controls Summ 31.40% lr 12.25 h 12.46 h 12.46 h 12.46 h 12.46 h 12.46 h | Vlax=0.42 vd Rectany ses 0.42 cf sted Rect sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ 4.54 cfs @ method, T @ 12.46 l a time= 30. | OutFlow M oad-Creste Ulvert (Pass Sharp-Crest Orifice/Gra rea = = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = | Primary 1=Bro 3=Cul -2=: 4=: Inflow Ard Inflow Outflow Primary Routing L Peak Ele Plug-Flov |
| 2-yr event | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af 0.792 af, Atten= 0.792 af = 0.05 hrs orage= 5,583 cf 100% of inflow) | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) feir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt trea= 10,941 sf St ulated for 0.792 af 6.0 - 825.8) | cfs @ 13.0 gular Weir s of 3.44 c angular Wei controls Summ 31.40% lr 12.25 h 12.46 h 12.46 h 12.46 h 12.46 h 12.46 h | Max=0.42 d d Rectang ses 0.42 d sted Rect ate (Orifice 7.170 ac, 6 6.04 cfs (4 4.54 cfs (6 4.54 cfs (6 4.54 cfs (6 method, T (0) 12.46 l time= 30. time= 30. | OutFlow M oad-Creste Ulvert (Pass Sharp-Crest Orifice/Gra rea = = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = | Primary 1=Brog 3=Cul 2=5 4=0 Inflow Ard Outflow Outflow Primary Routing t Peak Ele Plug-Flov Center-ol |
| 2-yr event 25%, Lag= 12.4 min | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af 0.792 af, Atten= 0.792 af = 0.05 hrs orage= 5,583 cf 100% of inflow) | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) /eir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt vea= 10,941 sf St ulated for 0.792 af 6.0 - 825.8) Storage Descriptic | cfs @ 13.0 gular Wein s of 3.44 c angular W controls Summ 31.40% li 2 12.25 h 2 12.46 h 2 12.46 h ime Span- rrs Surf. ² 1 min calc 2 min (85 | Max=0.42 d de Rectang ses 0.42 d sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ 4.54 cfs @ method, T @ 12.46 l time= 30. time= 30. | OutFlow M oad-Creste livert (Pass Sharp-Cress Orifice/Gra | nflow Ard nflow Ard nflow Ard nflow Dutflow Dutflow Primary Routing E Peak Ele Plug-Flov Center-of |
| 2-yr event 25%, Lag= 12.4 min | C= 0.600 Limite (Free Discharge) fs) : Wet Basin epth = 1.33" for 0.792 af, Atten= 0.792 af, Atten= 0.792 af 100% of inflow) | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) /eir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt vea= 10,941 sf St ulated for 0.792 af 6.0 - 825.8) Storage Descriptic | cfs @ 13.0 gular Wein s of 3.44 c angular Wei controls Summ 31.40% li) 12.25 h) 12.46 h) 12.46 h) 12.46 h) 12.46 h 1 12.46 h (12.46 h) 12.46 h) 12.46 h (12.46 h) 12.46 h (12.46 h) 12.46 h) 12.46 h) 12.46 h (12.46 h) 12.46 h) 12.46 h (12.46 h) 12.4 | Max=0.42 d de Rectang ses 0.42 d sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ 4.54 cfs @ method, T @ 12.46 l time= 30. time= 30. | OutFlow M oad-Creste livert (Pass Sharp-Cres Orifice/Gra | nflow Ard nflow Ard nflow Ard Dutflow Primary Routing b Peak Ele Plug-Flov Center-of Volume #1 |
| 2-yr event 25%, Lag= 12.4 min below (Recalc) | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af 0.792 af, Atten= 0.792 af e 0.05 hrs orage= 5,583 cf 100% of inflow) ta (Irregular)Listed | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) feir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt trea= 10,941 sf St ulated for 0.792 af 6.0 - 825.8) Storage Description Custom Stage Data Inc.Store | cfs @ 13.0 gular Weir s of 3.44 c angular W c Controls Summ 31.40% Ir) 12.25 h) 12.26 h) 12.46 h ime Span- ars Surf.A 1 min calc 2 min (85 <u>Storage</u>)3,930 cf | Max=0.42 d d Rectang ses 0.42 d sted Rect ate (Orifice 7.170 ac, 6.04 cfs (4.54 cfs (4.54 cfs (4.54 cfs (0 12.46 l 0 time= 30. time= 30. time= 30. t Avail 1 100 times (1 100 times) t Avail 1 100 times (1 100 times) t | OutFlow M oad-Creste livert (Pass Sharp-Cress Orifice/Gra rea = = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = | Primary 3=Cul 3=Cul 2=3 4=0 1=2=3 4=0 0utflow Primary Routing b Peak Ele Plug-Flov Center-ol Volume |
| 2-yr event 25%, Lag= 12.4 min below (Recalc) <u>Wet.Area (sq-ft)</u> 9,189 | C= 0.600 Limite (Free Discharge) (fs) : Wet Basin epth = 1.33" for 0.792 af 0.792 af, Atten= 0.792 af = 0.05 hrs orage = 5,583 cf 100% of inflow) h ta (Irregular)Listed Cum.Store | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) Veir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt vea= 10,941 sf St ulated for 0.792 af 6.0 - 825.8) Storage Descriptic Custom Stage Descriptic Inc.Store (cubic-feet) 0 | cfs @ 13.0 gular Weir s of 3.44 c angular Wei controls 31.40% lr 1 2.25 h 2 12.46 h 1 | Max=0.42 (dd Rectanges 0.42 cf sted Rectate 7.170 ac, 6.04 cfs @ 4.54 cfs @ method, T @ 12.46 l n time= 30. t Avail y 10 Surf.Area (sq-ft) 9,189 | OutFlow M oad-Creste livert (Pass Sharp-Cres Orifice/Gra rea = (= 2 by Stor-Ind ev= 214.56' w detention of-Mass det. <u>Invert</u> 214.00' on S | Primary 1=Brod 3=Cul 2=S 4=C 1=Cul 2=S 4=C 1=Cul 2=S 4=C 1=Cul 2=S 4=C 4=C 1=Cul 2=S 4=C 4=C 1=Cul 2=S 4=C 4=C 4=C 4=C 4=C 4=C 4=C 4=C |
| 2-yr event 25%, Lag= 12.4 min below (Recalc) Wet.Area (sq-ft) | C= 0.600 Limite (Free Discharge) (Free Discharge) (Fs) (Fs) (Fs) (Fs) (Fs) (Fs) (Fs) (Fs | Vert. Orifice/Grate 2 hrs HW=213.66' (Controls 0.00 cfs fs potential flow) feir (Controls 0.00 0.42 cfs @ 4.80 fps hary for Pond 5F mpervious, Inflow I rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt vrea= 10,941 sf St ulated for 0.792 af 6.0 - 825.8) Storage Descriptic Custom Stage Descriptic Inc.Store (cubic-feet) | cfs @ 13.0 gular Wei s of 3.44 c angular W c Controls 31.40% li) 12.26 h) 12.46 h) | Max=0.42 ' dd Rectang ses 0.42 cf sted Rect sted Rect ate (Orifice 7.170 ac, 6.04 cfs @ 4.54 cfs @ 4.54 cfs @ 4.54 cfs @ 4.54 cfs @ 12.46 l time= 30. time= 30. tim= 30. time= 30. tim= 30. tim= 30. time= 30. time= 30. time= | OutFlow M oad-Crested livert (Pass Sharp-Crest Orifice/Gra | Primary 1=Brod 3=Cul 2=3 4=0 1nflow Ard Inflow Ard Notifies Primary Routing the Peak Ele Plug-Flov Center-of Volume #1 Elevation (feet |

| | | your compa s/n 03590 © | | DCAD Software S | Solutions LLC | Page 22 |
|---|---|--|--|---|---|---|
| Device | Routing | Invert | Outlet D | evices | | |
| #1 | Primary | 213.43' | L= 580.0 Inlet / O | | | Ke= 0.900 0.0031 '/' Cc= 0.900 |
| #2 | Device 1 | 214.00' | | g x 4.0' long S 6 (C= 3.20) | harp-Crested Vee/ | Trap Weir |
| #3 | Device 1 | 215.50' | 4.2' lon Head (fe 2.50 3.0 Coef. (E | g x 4.2' bread eet) 0.20 0.40 00 3.50 4.00 inglish) 2.37 2 | 4.50 5.00 5.50 | .20 1.40 1.60 1.80 2.00 7 2.67 2.65 2.66 2.66 |
| -1=Ci 2⊧ | Ivert (Barre Sharp-Cres | l Controls 4.5 ted Vee/Tra | 54 cfs @ 3 5 Weir (Pa | .60 fps) | ' (Free Discharge) f 5.53 cfs potential cfs) | |
| | Su | mmary for | Pond 7F | P: Construct | ed Stormwater V | Wetland #1 |
| nflow A nflow | | | | | Depth = 1.16" fo | or 2-yr event |
| Outflow Primary | = 9 | 9.14 cfs @ 1 9.14 cfs @ 1 | 2.14 hrs, 2.14 hrs, | Volume= | 1.151 af, Atten= 1.151 af | = 11%, Lag= 2.9 min |
| Outflow Primary Routing | = 9 = 9 by Stor-Ind 1 | 9.14 cfs @ 1 9.14 cfs @ 1 method, Time | 2.14 hrs, 2.14 hrs, Span= 0. | Volume= Volume= 00-72.00 hrs, d | 1.151 af, Atten= 1.151 af | = 11%, Lag= 2.9 min |
| Dutflow Primary Routing Peak El Plug-Flo | = 9 = 9 ev= 215.27 | 9.14 cfs @ 1 9.14 cfs @ 1 method, Time @ 12.14 hrs | 2.14 hrs, 2.14 hrs, Span= 0. Surf.Area | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 | - 11%, Lag= 2.9 min |
| Outflow Primary Routing Peak El Plug-Flo Center- /olume | = 9 = 9 ev= 215.27 w detention of-Mass det. | 0.14 cfs @ 1 0.14 cfs @ 1 0.14 cfs @ 1 0.14 cfs @ 1 0.14 cfs 0.14 | 2.14 hrs, 2.14 hrs, Span= 0. Surf.Area in calculat in (890.2 orage Str | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af - 838.2) orage Descripti | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 torage= 5,032 cf (100% of inflow) | |
| Dutflow Primary Routing Peak El Plug-Flo Center-i | = s = s by Stor-Ind ev= 215.27' www.detention of-Mass.det. | 0.14 cfs @ 1 0.14 cfs @ 1 0.14 cfs @ 1 0.14 cfs @ 1 0.14 cfs 0.14 | 2.14 hrs, 2.14 hrs, Span= 0. Surf.Area in calculat in (890.2 orage Str | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af - 838.2) orage Descripti | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 torage= 5,032 cf (100% of inflow) | |
| Outflow Primary Peak El Plug-Flo Center-i <u>Volume</u> #1 Elevatio | = S by Stor-Ind i ev= 215.27' ow detention of-Mass det. <u>Invert</u> 214.80' on S | 9.14 cfs @ 1 9.14 cfs @ 1 method, Time @ 12.14 hrs time= 52.4 m time= 52.0 m <u>Avail.Str</u> 14,7 urf.Area F | 2.14 hrs, 2.14 hrs, Span= 0. Surf.Area in calculat in (890.2 <u>orage Str</u> 59 cf Cu Perim. | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af - 838.2) orage Descripti istom Stage D Inc.Store | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 torage= 5,032 cf (100% of inflow) on ata (Irregular)Liste Cum.Store | d below (Recalc) Wet.Area |
| Outflow Primary Routing Peak El Plug-Flo Center- <u>/olume</u> | = S = S by Stor-Ind ev= 215.27' by detention of-Mass det. Invert 214.80' on Si et) | 9.14 cfs @ 1 9.14 cfs @ 1 method, Time @ 12.14 hrs time= 52.4 m time= 52.0 m <u>Avail.Stc</u> 14,7 urf.Area F (sq-ft) | 2.14 hrs, 2.14 h | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af - 838.2) orage Descripti ustom Stage D | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 torage= 5,032 cf (100% of inflow) on ata (Irregular)Liste | d below (Recalc) |
| Dutflow Primary Routing Peak El Plug-Flc Center #1 Elevatio (fer 214.i 215.i | = \$ = \$ by Stor-Ind ev= 215.27' by detention of-Mass det. <u>Invert</u> 214.80' on \$ ot \$ 00 00 | 9.14 cfs @ 1 9.14 cfs @ 1 method, Time @ 12.14 hrs time= 52.4 rr time= 52.0 rr <u>Avail.Stc</u> 14,7 urf.Area F (sq-ft) 9,939 10,413 | 2.14 hrs, 2.14 hrs, 2.14 hrs, 2.5 span= 0. Surf.Area in calculatin (890.2 brage Str 59 cf Ct 2 erim. (feet) 766.0 771.0 | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af - 838.2) orage Descripti ustom Stage D Inc.Store (cubic-feet) 0 2,035 | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 torage= 5,032 cf (100% of inflow) on ata (Irregular)Liste Cum.Store (cubic-feet) 0 2,035 | d below (Recalc) Wet.Area (sq-ft) 9,939 10,570 |
| Dutflow Primary Routing Peak El Plug-Flo Center-4 /olume #1 Elevatio (feo 214.5 | = \$ = \$ by Stor-Ind ev= 215.27' by detention of-Mass det. <u>Invert</u> 214.80' on \$ ot \$ 00 00 | 9.14 cfs @ 1 9.14 cfs @ 1 method, Time @ 12.14 hrs time= 52.4 rr time= 52.0 rr <u>Avail.Stc</u> 14,7 urf.Area F (sq-ft) 9,939 10,413 | 2.14 hrs, 2.14 h | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af - 838.2) orage Descripti ustom Stage D Inc.Store (cubic-feet) 0 | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 torage= 5,032 cf (100% of inflow) on ata (Irregular)Liste Cum.Store (cubic-feet) 0 | d below (Recalc) Wet.Area (sq-ft) 9,939 |
| Dutflow Primary Routing Peak El Plug-Flc Center-d #1 Elevatin (fer 214.; 215.] 216.] Device | = { = { by Stor-Ind ev= 215.27' bw detention of-Mass det. <u>Invert</u> 214.80' con Si a0 00 Routing | 9.14 cfs @ 1 9.14 cfs @ 1 method, Time @ 12.14 hrs time= 52.4 rr time= 52.0 rr Avail.Sto 14,7 urf.Area F 9,939 10,413 15,185 1, Invert | 2.14 hrs, 2.14 h | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af - 838.2) orage Descripti ustom Stage D Inc.Store (cubic-feet) 0 2,035 12,724 | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 torage= 5,032 cf (100% of inflow) on ata (Irregular)Liste Cum.Store (cubic-feet) 0 2,035 14,759 | d below (Recalc) Wet.Area (sq-ft) 9,939 10,570 79,782 |
| Dutflow Primary Routing Peak El Plug-Flc Center #1 Elevatio (fer 214.i 215.i | = { = { by Stor-Ind ev= 215.27' w detention of-Mass det. <u>Invert</u> 214.80' con Si a0 00 00 00 | 9.14 cfs @ 1 9.14 cfs @ 1 method, Time @ 12.14 hrs time= 52.4 m time= 52.0 m <u>Avail.Str</u> 14,7 urf.Area F (sq-ft) 9,939 10,413 15,185 1, | 2.14 hrs, 2.14 h | Volume= Volume= 00-72.00 hrs, d a= 11,623 sf S ted for 1.151 af - 838.2) orage Descripti ustom Stage D Inc.Store (cubic-feet) 0 2,035 12,724 Devices ng x 10.0' brea bet) 0.20 0.40 | 1.151 af, Atten= 1.151 af t= 0.05 hrs / 3 torage= 5,032 cf (100% of inflow) on ata (Irregular)Liste Cum.Store (cubic-feet) 0 2,035 14,759 adth Broad-Creste 0.60 0.80 1.00 1 56 2.70 2.69 2.6 | d below (Recalc) Wet.Area (sq-ft) 9,939 10,570 79,782 d Rectangular Weir .20 1.40 1.60 |

The production of the state of the stat

| | | | 0 HydroCAD Software | | | age <u>23</u> |
|---|--|--|---|---|---|---------------|
| | S | ummary for | Pond 12P: STO | NE RECHARGE TH | RENCH | |
| Inflow A Inflow Outflow Discard Primary | = 1.1 = 0.1 ed = 0.1 | 16 cfs @ 12.0 15 cfs @ 12.6 15 cfs @ 12.6 | % Impervious, Inflov 9 hrs, Volume= 2 hrs, Volume= 2 hrs, Volume= 0 hrs, Volume= | v Depth = 2.77" for 0.094 af 0.094 af, Atten= 0.094 af 0.000 af | 2-yr event 87%, Lag= 31.9 mir | I |
| Peak ĔĬ | ev= 220.30' @ | 12.62 hrs Su | an= 0.00-72.00 hrs, rf.Area= 2,427 sf S | torage= 1,261 cf | | |
| | | | alculated for 0.094 a 810.4 - 757.8) | af (100% of inflow) | | |
| Volume | Invert | Avail.Storag | e Storage Descrip | tion | | |
| #1 | 219.00' | 1,942 | cf 3.00'W x 809.00 4,854 cf Overall | 'L x 2.00'H Prismato x 40.0% Voids | id | |
| Device | U | | utlet Devices | | | |
| #1 | Primary | H 2 C | ead (feet) 0.20 0.4 50 3.00 oef. (English) 2.69 | eadth Broad-Crested 0 0.60 0.80 1.00 1.1 2.72 2.75 2.85 2.98 | 20 1.40 1.60 1.80 | |
| #2 | Discarded | 219.00' 2 | | on over Surface area | | |
| Discard | led OutFlow N | 219.00' 2 C | 410 in/hr Exfiltration onductivity to Groun 0 12.62 hrs HW=22 | on over Surface area dwater Elevation = 21 0.30' (Free Discharg | 0.00' | |
| Discarc 2=Ex Primary | led OutFlow M tfiltration (Co | 219.00' 2 C Max=0.15 cfs @ ontrols 0.15 cfs x=0.00 cfs @ 0 | 410 in/hr Exfiltratio onductivity to Groun 0 12.62 hrs HW=22 | dwater Elevation = 21 0.30' (Free Discharg ' (Free Discharge) | 0.00' | |
| Discarc 2=Ex Primary | led OutFlow M (filtration (Co / OutFlow Ma road-Crested I | 219.00' 2 C Max=0.15 cfs @ ontrols 0.15 cfs x=0.00 cfs @ C Rectangular W | 410 in/hr Exfiltratic onductivity to Groun 2 12.62 hrs HW=22 .00 hrs HW=219.00 /eir (Controls 0.00 o | dwater Elevation = 21 0.30' (Free Discharg ' (Free Discharge) | 0.00' ∍) | |
| Discarc 2=Ex Primary | led OutFlow M filtration (Co y OutFlow Ma road-Crested I S area = 0. = 1.1 = 0.1 ed = 0.1 | 219.00' 2 CMax=0.15 cfs (ontrols 0.15 cfs) x=0.00 cfs @ 0 Rectangular M ummary for 409 ac,100.00' 16 cfs @ 12.0 15 cfs @ 12.6 15 cfs @ 12.6 | 410 in/hr Exfiltratio onductivity to Groun 2 12.62 hrs HW=22 .00 hrs HW=219.00 /eir (Controls 0.00 of Pond 17P: STOP | dwater Elevation = 21 0.30' (Free Discharge) (Free Discharge) (Fs) IE RECHARGE TF (N Depth = 2.77" for 0.094 af | 0.00' ∍) RENCH | 1 |
| Discarc 2=E) Primary 1=Br Inflow A Inflow Outflow Discard Primary Routing | led OutFlow M (filtration (Co y OutFlow Ma road-Crested I S area = 0.1 = 1.1 = 0.1 ed = 0.1 = 0.0 by Stor-Ind me | 219.00' 2 CMax=0.15 cfs (ontrols 0.15 cfs) x=0.00 cfs @ C Rectangular W ummary for 409 ac,100.00' 16 cfs @ 12.0 15 cfs @ 12.6 15 cfs @ 12.6 00 cfs @ 0.0 ethod, Time Sp | 410 in/hr Exfiltratio onductivity to Groun 2 12.62 hrs HW=22 .00 hrs HW=219.00 /eir (Controls 0.00 of Pond 17P: STOI % Impervious, Inflow 9 hrs, Volume= 2 hrs, Volume= 2 hrs, Volume= | dwater Elevation = 21 0.30' (Free Discharge) fs) IE RECHARGE TF v Depth = 2.77" for 0.094 af 0.094 af, Atten= 0.094 af 0.009 af dt= 0.05 hrs | 0.00' e) RENCH 2-yr event | 1 |
| Primary Primary Primary Primary Inflow A Inflow A Inflow Outflow Outflow Discard Primary Routing Peak El Plug-Flo | led OutFlow Ma (filtration (Co y OutFlow Ma road-Crested I S area = 0.1 = 0.1 ed = 0.1 = 0.0 by Stor-Ind me ev= 220.30' @ | 219.00' 2 Max=0.15 cfs (ontrols 0.15 cfs) x=0.00 cfs (C Rectangular W ummary for 409 ac,100.00' 16 cfs (12.0 15 cfs (12.6 12.6 15 cfs (12.6 12 | 410 in/hr Exfiltratio onductivity to Groun 2 12.62 hrs HW=22 .00 hrs HW=219.00 /eir (Controls 0.00 of Pond 17P: STOI % Impervious, Inflov 9 hrs, Volume= 2 hrs, Volume= 2 hrs, Volume= 0 hrs, Volume= an= 0.00-72.00 hrs, | dwater Elevation = 21 D.30' (Free Discharge) fs) NE RECHARGE TF v Depth = 2.77" for 0.094 af 0.094 af, Atten= 0.094 af 0.000 af dt= 0.05 hrs torage= 1,261 cf | 0.00' e) RENCH 2-yr event | 1 |
| Primary Primary Primary Primary Inflow A Inflow A Inflow Outflow Outflow Discard Primary Routing Peak El Plug-Flo | led OutFlow Ma filtration (Co y OutFlow Ma road-Crested I S area = 0. = 1.1 = 0.1 ed = 0.1 = 0.0 by Stor-Ind ma ev= 220.30' @ bw detention tir of-Mass det. tir | 219.00' 2 Max=0.15 cfs (ontrols 0.15 cfs) x=0.00 cfs @ 0 Rectangular M ummary for 409 ac,100.00' 16 cfs @ 12.0 15 cfs @ 12.6 10 cfs @ 0.0 ethod, Time Sp 12.62 hrs Su me= 52.7 min c me= 52.6 min (| 410 in/hr Exfiltratio onductivity to Groun 2 12.62 hrs HW=22 .00 hrs HW=219.00 feir (Controls 0.00 of Pond 17P: STOI % Impervious, Inflow 9 hrs, Volume= 2 hrs, Volume= 2 hrs, Volume= 0 hrs, Volume= 0 hrs, Volume= 0 hrs, Volume= an= 0.00-72.00 hrs, ff.Area= 2,427 sf S alculated for 0.094 a 810.4 - 757.8) e Storage Descrip | dwater Elevation = 21 0.30' (Free Discharge) fs) NE RECHARGE TF v Depth = 2.77" for 0.094 af, Atten= 0.094 af 0.009 af dt= 0.05 hrs torage= 1,261 cf af (100% of inflow) | 0.00' ∍) RENCH 2-yr event 87%, Lag= 31.9 mir | |

| 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs 12.62 hrs HW=220.30' (Free Discharge) 2=Exfiltration (Controls 0.15 cfs) 12.62 hrs HW=219.00' (Free Discharge) Primary OutFlow Max=0.00 cfs 0.00 hrs HW=219.00' (Free Discharge) 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs) Summary for Pond 19P: STONE RECHARGE TRENCH Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 1.16 cfs 12.09 hrs, Volume= 0.094 af Outflow = 0.15 cfs 12.62 hrs, Volume= 0.094 af Outflow = 0.15 cfs 12.62 hrs, Volume= 0.000 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev=220.30' @ 12.62 hrs Surf.Area= 2.427 sf Storage 1.261 cf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Center-of-Mass det. time= 52.6 min (810.4 - 757.8) Volume 1.00 for 3.01 20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 #2 Discarded 219 | #1 #2 Discarde 2=Exfi Primary (1=Bro nflow Are nflow Are nflow Discarded | Primary Discarded d OutFlow M iltration (Co OutFlow Ma: ad-Crested I S ea = 0. = 1.1 = 0.1 d = 0.1 | 221.00' 219.00' Max=0.15 cfs ontrols 0.15 c x=0.00 cfs @ Rectangular ummary fo 409 ac,100. 16 cfs @ 12 15 cfs @ 12 | 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' fs 12.62 hrs HW=220.30' (Free Discharge) cfs) @ 0.00 hrs HW=219.00' (Free Discharge) effor Pond 19P: STONE RECHARGE TRENCH .00% Impervious, Inflow Depth = 2.77" for 2-yr event 100% Impervious, Inflow Depth = 2.77" for 2-yr event |
|--|---|---|--|--|
| Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef (English) 2.69 2.75 2.85 2.98 3.08 3.20 3.28 3.31 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Piscarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) 2=Exfiltration (Controls 0.15 cfs) ? Summary for Pond 19P: STONE RECHARGE TRENCH filow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event nflow = 1.16 cfs @ 12.62 hrs, Volume= 0.094 af Dutflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Dutflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev=220.30' @ 12.62 hrs Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Pervece Avail.Storage <th>#2 Discarde -2=Exfi Primary (-1=Bro nflow Area nflow Area nflow Dutflow Dutflow Discarded</th> <th>Discarded d OutFlow M litration (Cc OutFlow Ma: ad-Crested I S ea = 0. = 1.1 = 0.1</th> <th>219.00' Max=0.15 cfs introls 0.15 c x=0.00 cfs @ Rectangular ummary fo 409 ac,100.0 16 cfs @ 12 15 cfs @ 12</th> <th>Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' fs @ 12.62 hrs HW=220.30' (Free Discharge) cfs) @ 0.00 hrs HW=219.00' (Free Discharge) ar Weir (Controls 0.00 cfs) for Pond 19P: STONE RECHARGE TRENCH .00% Impervious, Inflow Depth = 2.77" for 2-yr event</th> | #2 Discarde -2=Exfi Primary (-1=Bro nflow Area nflow Area nflow Dutflow Dutflow Discarded | Discarded d OutFlow M litration (Cc OutFlow Ma: ad-Crested I S ea = 0. = 1.1 = 0.1 | 219.00' Max=0.15 cfs introls 0.15 c x=0.00 cfs @ Rectangular ummary fo 409 ac,100.0 16 cfs @ 12 15 cfs @ 12 | Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' fs @ 12.62 hrs HW=220.30' (Free Discharge) cfs) @ 0.00 hrs HW=219.00' (Free Discharge) ar Weir (Controls 0.00 cfs) for Pond 19P: STONE RECHARGE TRENCH .00% Impervious, Inflow Depth = 2.77" for 2-yr event |
| #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs 0.12.62 hrs HW=220.30' (Free Discharge) 2=Exfiltration (Controls 0.15 cfs) 0.00 hrs HW=219.00' (Free Discharge) 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs) Summary for Pond 19P: STONE RECHARGE TRENCH Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 2.77'' for 2-yr event Inflow = 1.16 cfs @ 12.62 hrs, Volume= 0.094 af Dutflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.000 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Pack Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Penter-of-Mass det. time= 52.6 min (810.4 - 757.8) Pulg-Flow detention time= 52.6 min (810.4 - 757.8) /olume Invert Avail.Storage Storage Description 1.43.64 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices 21.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 | Discarde 2=Exfi 2rimary (1=Brown nflow Areanflow Dutflow Discarded | d OutFlow M litration (Co DutFlow Ma: ad-Crested I S sa = 0.1 = 1.1 = 0.1 d = 0.1 | Max=0.15 cfs introls 0.15 c x=0.00 cfs (Rectangular ummary fo 409 ac,100.0 16 cfs (@ 12 15 cfs (@ 12 | 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' fs @ 12.62 hrs HW=220.30' (Free Discharge) cfs) @ 0.00 hrs HW=219.00' (Free Discharge) ar Weir (Controls 0.00 cfs) for Pond 19P: STONE RECHARGE TRENCH .00% Impervious, Inflow Depth = 2.77" for 2-yr event |
| | 2=Exfi | iltration (Co OutFlow Mail ad-Crested I Sizea = 0.4 = 1.1 = 0.1 d = 0.1 | ontrols 0.15 c x=0.00 cfs @ Rectangular ummary fo 409 ac,100.0 16 cfs @ 12 15 cfs @ 12 | cfs) @ 0.00 hrs HW=219.00' (Free Discharge) ar Weir (Controls 0.00 cfs) for Pond 19P: STONE RECHARGE TRENCH .00% Impervious, Inflow Depth = 2.77" for 2-yr event |
| Image: Control of the second | nflow Are nflow Dutflow Discarded | ad-Crested I S a = 0.4 = 1.1 = 0.1 d = 0.1 | Rectangular ummary fo 409 ac,100.0 16 cfs @ 12 15 cfs @ 12 | r Weir (Controls 0.00 cfs) for Pond 19P: STONE RECHARGE TRENCH .00% Impervious, Inflow Depth = 2.77" for 2-yr event |
| nflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event nflow = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af Dutflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Peaker Peaker Center-of-Mass det. time= 52.6 min (810.4 - 757.8) Primary 1.942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid #1 219.00' 1,942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4.854 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 | nflow Dutflow Discardeo | ea = 0. = 1.1 = 0.1 d = 0.1 | 409 ac,100.0 16 cfs @ 12 15 cfs @ 12 | .00% Impervious, Inflow Depth = 2.77" for 2-yr event |
| nflow = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af Dutflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.094 af Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Center-of-Mass det. time= 52.6 min (810.4 - 757.8) /olume Invert Avail.Storage Storage Description #1 219.00' 1,942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4,854 cf Overall x 40.0% Voids Voids Device Routing Invert Outlet Devices #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Conducti | nflow Dutflow Discardeo | = 1.1 = 0.1 d = 0.1 | 16 cfs @ 12 15 cfs @ 12 | .00% Impervious, Inflow Depth = 2.77" for 2-yr event 2.09 hrs, Volume= 0.094 af |
| Outflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af, Atten= 87%, Lag= 31.9 min Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0.00 af Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Center-of-Mass det. time= 52.6 min (810.4 - 757.8) Volume Invert Avail.Storage Storage Description #1 219.00' 1,942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4,854 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area | Outflow Discardeo | = 0.1 d = 0.1 | 15 cfs @ 12 | 2.09 hrs, Volume= 0.094 af |
| Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Center-of-Mass det. time= 52.6 min (810.4 - 757.8) Volume Invert Avail.Storage Storage Description #1 219.00' 1,942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4.854 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) 2=Exfiltration (Controls 0.15 cfs) Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge) -2=Exfige Discharge) -2=Exfiltrexion (Controls 0.1 | Discardeo | d = 0.1 | 5 cfc @ 12 | 2.62 hrs Volume= 0.094 af Atten= 87% Lag= 31.9 min |
| Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2.427 sf Storage= 1,261 cf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Center-of-Mass det. time= 52.6 min (810.4 - 757.8) /olume Invert Avail.Storage Storage Description #1 219.00' 1,942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4,854 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Ciscarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) -2=Exfiltration (Controls 0.15 cfs) | Primary | | പാപാധ്വ | 2.62 hrs, Volume= 0.094 af |
| Peak Elev ² 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow) Penter-of-Mass det. time= 52.6 min (810.4 - 757.8) /olume Invert Avail.Storage Storage Description #1 219.00' 1,942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4,854 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) 2=Exfiltration (Controls 0.15 cfs) Primary OutFlow Max=0.00 cfs @ 0.00 hrs | | = 0.0 | | |
| Center-of-Mass det. time= 52.6 min (810.4 - 757.8) /olume Invert Avail.Storage Storage Description #1 219.00' 1,942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4,854 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs 12.62 hrs HW=220.30' (Free Discharge) 2=Exfiltration (Controls 0.15 cfs) 0.00 hrs HW=219.00' (Free Discharge) | | | | |
| #1 219.00' 1,942 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4,854 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge) | Center-of | -Mass det. tir | me= 52.6 mi | in (810.4 - 757.8) |
| 4,854 cf Overall x 40.0% Voids Device Routing Invert Outlet Devices #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) = 2=Exfiltration (Controls 0.15 cfs) @ 0.00 hrs HW=219.00' (Free Discharge) | | | | |
| #1 Primary 221.00' 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 #2 Discarded 219.00' 2410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) -2=Exfiltration (Controls 0.15 cfs) @ 10.00 hrs HW=219.00' (Free Discharge) | #1 | 219.00 | 1,94 | |
| Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) —2=Exfiltration (Controls 0.15 cfs) @ 0.00 hrs HW=219.00' (Free Discharge) | | Routing | | |
| 3.30 3.31 3.32 #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) ←2=Exfiltration (Controls 0.15 cfs) Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge) | #1 | Primary | 221.00' | Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 |
| #2 Discarded 219.00' 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) —2=Exfiltration (Controls 0.15 cfs) Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge) | | | | |
| Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge) C=2=Exfiltration (Controls 0.15 cfs) Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge) | #2 | Discarded | 219.00' | 2.410 in/hr Exfiltration over Surface area |
| 2=Exfiltration (Controls 0.15 cfs) Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge) | | | | Conductivity to Groundwater Elevation = 210.00' |
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| 6842-Post Type III 24-hr 2-yr Rainfall=3.00" Prepared by {enter your company name here} Every CAD® 10 10-3a, s/n 03590, © 2020 Every CAD Software Solutions LLC Page 25 | 6842-Post Type III 24-hr 2-yr Rainfall=3.00" Prepared by {enter your company name here} HydroCAD® 10 10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC. Page 26 |
|---|--|
| | |
| Primary OutFlow Max=3.68 cfs @ 12.09 hrs HW=216.40' (Free Discharge) | Peak Elev= 217.15' @ 12.09 hrs Flood Elev= 219.50' |
| Summary for Pond 23P: CB-1 Inflow Area = 0.307 ac, 83.76% Impervious, Inflow Depth = 2.25" for 2-yr event Inflow = 0.77 cfs @ 12.09 hrs, Volume= 0.058 af Outflow = 0.77 cfs @ 12.09 hrs, Volume= 0.058 af Outflow = 0.77 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min Primary = 0.77 cfs @ 12.09 hrs, Volume= 0.058 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.13' @ 12.09 hrs Flood Elev= 218.60' Peak Elev= 218.60' | Device Routing Invert Outlet Devices #1 Primary 216.50' 12.0" Round Culvert L = 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert = 216.50' / 215.40' S = 0.0289 '/' Cc= 0.900 n = 0.013, Flow Area = 0.79 sf Primary OutFlow Max=1.15 cfs @ 12.09 hrs HW=217.14' (Free Discharge) Image: Controls 1.15 cfs @ 2.16 fps) |

| Def 10.10-3a is/n 03590 @ 2020 HydroCAD Software Solutions LLC Page 28 Routing Invert Outlet Devices Primary 215.10' 12.0" Round Culvert L = 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 214.30' S = 0.0050 '/' Cc= 0.900 n = 0.013, Flow Area = 0.79 sf OutFlow Max=1.42 cfs @ 12.09 hrs HW=215.85' (Free Discharge) Ivert (Barrel Controls 1.42 cfs @ 3.13 fps) Summary for Pond 29P: CB-21 ea = 0.123 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ver 216.53' @ 12.09 hrs eve 219.20' Routing Invert Outlet Devices Primary 216.20' 12.0" Round Culvert L = 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert = 216.20' / 215.70' S = 0.0192 '/ Cc= 0.900 n= 0.013. Flow Area = 0.79 sf |
|---|
| L= 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 214.30' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf OutFlow Max=1.42 cfs @ 12.09 hrs HW=215.85' (Free Discharge) Ivert (Barrel Controls 1.42 cfs @ 3.13 fps) Summary for Pond 29P: CB-21 rea = 0.123 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ev= 216.53' @ 12.09 hrs ev= 219.20' Routing Invert Outlet Devices Primary 216.20' Round Culvert L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' |
| Ivert (Barrel Controls 1.42 cfs @ 3.13 fps) Summary for Pond 29P: CB-21 rea = 0.123 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0.028 af by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0.209 ev= 219.20' Invert Outlet Devices Primary 216.20' 12.0" Round Culvert L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 |
| rea = 0.123 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ev= 216.53' @ 12.09 hrs ev= 219.20' Routing Invert Outlet Devices Primary 216.20' 12.0" Round Culvert L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inter / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 |
| = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ev= 216.53' @ 12.09 hrs ev= 219.20' Routing Invert Primary 216.20' 12.0'' Round Culvert L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 |
| Routing Invert Outlet Devices Primary 216.20' 12.0" Round Culvert L = 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S = 0.0192 '/' Cc= 0.900 |
| Primary 216.20' 12.0" Round Culvert L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' |
| n= 0.013, Flow Area= 0.79 Si |
| OutFlow Max=0.34 cfs @ 12.09 hrs HW=216.52' (Free Discharge) Ivert (Inlet Controls 0.34 cfs @ 1.53 fps) |
| Summary for Pond 30P: DMH-15 |
| rea = 0.637 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event = 1.81 cfs @ 12.09 hrs, Volume= 0.147 af = 1.81 cfs @ 12.09 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min = 1.81 cfs @ 12.09 hrs, Volume= 0.147 af by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ev= 214.96' @ 12.09 hrs ev= 219.80' |
| Routing Invert Outlet Devices |
| Primary 214.20' 15.0" Round Culvert L= 250.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.20' / 212.90' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf OutFlow Max=1.76 cfs @ 12.09 hrs HW=214.94' (Free Discharge) |
| |

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| Flood Elev= 218.50' Device Routing Invert Outlet Devices |
| #1 Primary 215.90' 12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.90' / 215.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.62 cfs @ 12.09 hrs HW=216.35' (Free Discharge) *1=Culvert (Inlet Controls 0.62 cfs @ 1.80 fps) |
| |

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| Summary for Pond 36P: DMH-7 | Device Routing Invert Outlet Devices #1 Primary 232.20' 12.0" Round Culvert |
| Inflow Area = 0.323 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.92 cfs @ 12.09 hrs, Volume= 0.074 af Outflow = 0.92 cfs @ 12.09 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min Primary = 0.92 cfs @ 12.09 hrs, Volume= 0.074 af | L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.56' @ 12.09 hrs | Primary OutFlow Max=0.12 cfs @ 12.09 hrs HW=232.39' (Free Discharge) ↓1=Culvert (Inlet Controls 0.12 cfs @ 1.16 fps) |
| Flood Elev= 219.80' | Summary for Pond 39P: CB-16 |
| Device Routing Invert Outlet Devices | Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event |
| #1 Primary 216.00' 12.0" Round Culvert L= 220.0' CPP, projecting, no headwall, Ke= 0.900 | Inflow = 0.13 cfs @ 12.09 hrs, Volume= 0.011 af Outflow = 0.13 cfs @ 12.09 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min |
| Inlet / Outlet Invert= 216.00' / 214.80' S= 0.0055 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Primary = 0.13 cfs @ 12.09 hrs , Volume= 0.011 af |
| Primary OutFlow Max=0.89 cfs @ 12.09 hrs HW=216.55' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 232.40' @ 12.09 hrs Flood Elev= 236.20' |
| Summary for Pond 37P: DMH-10 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.446 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 1.26 cfs @ 12.09 hrs, Volume= 0.103 af Outflow = 1.26 cfs @ 12.09 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min | #1 Primary 232.20' 12.0" Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Primary = 1.26 cfs @ 12.09 hrs, Volume= 0.103 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 218.71' @ 12.09 hrs 12.09 hrs | Primary OutFlow Max=0.13 cfs @ 12.09 hrs HW=232.39′ (Free Discharge) └─1=Culvert (Inlet Controls 0.13 cfs @ 1.18 fps) |
| Flood Elev= 222.20' | Summary for Pond 52P: CB-17 |
| Device Routing Invert Outlet Devices #1 Primary 218.10' 15.0" Round Culvert L = 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 | Inflow Area = 0.081 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min Primary = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af |
| n= 0.013, Flow Area= 1.23 sf Primary OutFlow Max=1.23 cfs @ 12.09 hrs HW=218.70' (Free Discharge) Lagrandian State of the state of th | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 247.66' @ 12.09 hrs Flood Elev= 251.40' |
| Summary for Pond 38P: CB-15 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.043 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min | #1 Primary 247.40' 12.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Primary = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 232.39' @ 12.09 hrs Flood Elev= 236.20' Flood Elev= 236.20' 12.09 hrs 12.09 hrs | Primary OutFlow Max=0.22 cfs @ 12.09 hrs HW=247.66' (Free Discharge) |
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| Summary for Pond 53P: CB-18 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af Primary = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af | #1 Primary 239.90' 12.0" Round Culvert L= 110.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 239.90' / 231.70' S= 0.0745 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 247.66' @ 12.09 hrs | Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=240.28' (Free Discharge) ↑_1=Culvert (Inlet Controls 0.44 cfs @ 1.65 fps) |
| Flood Elev= 251.40' | Summary for Pond 58P: CB-13 |
| Device Routing Invert Outlet Devices #1 Primary 247.40' 12.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013. Flow Area= 0.79 sf | Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af Outflow = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min Primary = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af |
| Primary OutFlow Max=0.22 cfs @ 12.09 hrs HW=247.66' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 219.13' @ 12.09 hrs Flood Elev= 221.90' |
| Summary for Pond 54P: DMH-13 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af Outflow = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min Primary = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af | #1 Primary 218.90' 12.0" Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Primary = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 246.78' @ 12.09 hrs | Primary OutFlow Max=0.17 cfs @ 12.09 hrs HW=219.12' (Free Discharge) |
| Flood Elev= 250.20' | Summary for Pond 61P: DMH-11 |
| Device Routing Invert Outlet Devices #1 Primary 246.40' 12.0" Round Culvert L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 246.40' / 240.00' S= 0.0753 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.249 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.71 cfs @ 12.09 hrs, Volume= 0.058 af Outflow = 0.71 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min Primary = 0.71 cfs @ 12.09 hrs, Volume= 0.058 af |
| Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=246.78' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 232.09' @ 12.09 hrs Flood Elev= 235.70' |
| Summary for Pond 56P: DMH-12 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af Outflow = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min Primary = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af | #1 Primary 231.60' 12.0" Round Culvert L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 231.60' / 218.20' S= 0.0677 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 240.28' @ 12.09 hrs Flood Elev= 244.00' | Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=232.08' (Free Discharge) —1=Culvert (Inlet Controls 0.69 cfs @ 1.86 fps) |
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| Summary for Pond 62P: CB-14 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.136 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af Outflow = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min Primary = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af | #1 Primary 216.00' 12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 219.25' @ 12.09 hrs | Primary OutFlow Max=0.37 cfs @ 12.09 hrs HW=216.34' (Free Discharge) |
| Flood Elev= 221.90' | Summary for Pond 67P: CB-7 |
| Device Routing Invert Outlet Devices #1 Primary 218.90' 12.0" Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.093 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af Outflow = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min Primary = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Primary OutFlow Max=0.37 cfs @ 12.09 hrs HW=219.24' (Free Discharge) └─1=Culvert (Inlet Controls 0.37 cfs @ 1.57 fps) | Peak Elev= 216.28' @ 12.09 hrs Flood Elev= 219.00' |
| Summary for Pond 63P: DMH-4 | Device Routing Invert Outlet Devices |
| Inflow Area = 1.336 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 3.79 cfs @ 12.09 hrs, Volume= 0.308 af Outflow = 3.79 cfs @ 12.09 hrs, Volume= 0.308 af Difference 0.308 af 0.008 af Atten= 0%, Lag= 0.0 min | #1 Primary 216.00' 12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Primary = 3.79 cfs @ 12.09 hrs, Volume= 0.308 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.19' @ 12.09 hrs | Primary OutFlow Max=0.26 cfs @ 12.09 hrs HW=216.28' (Free Discharge) └─1=Culvert (Inlet Controls 0.26 cfs @ 1.42 fps) |
| Flood Elev= 222.20' | Summary for Pond 68P: DMH-9 |
| Device Routing Invert Outlet Devices #1 Primary 214.10' 24.0" Round Culvert L = 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.10' / 214.00' S= 0.0029 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf | Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 2.15" for 2-yr event Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.163 af Outflow = 2.17 cfs @ 12.09 hrs, Volume= 0.163 af, Atten= 0%, Lag= 0.0 min Primary = 2.17 cfs @ 12.09 hrs, Volume= 0.163 af |
| Primary OutFlow Max=3.69 cfs @ 12.09 hrs HW=215.17' (Free Discharge) - 1=Culvert (Barrel Controls 3.69 cfs @ 3.12 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.94' @ 12.09 hrs Flood Elev= 219.40' |
| Summary for Pond 66P: CB-6 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.134 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af | #1 Primary 216.10' 15.0'' Round Culvert L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.10' / 215.40' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.35' @ 12.09 hrs Flood Elev= 219.00' | Primary OutFlow Max=2.12 cfs @ 12.09 hrs HW=216.93' (Free Discharge) -1=Culvert (Inlet Controls 2.12 cfs @ 2.45 fps) |
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| Summary for Pond 69P: CB-11 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.107 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af Outflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min Primary = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af | #1 Primary 215.50' 12.0'' Round Culvert L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0062 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.63' @ 12.09 hrs | Primary OutFlow Max=0.48 cfs @ 12.09 hrs HW=215.91' (Free Discharge) |
| Flood Elev= 219.30' | Summary for Pond 72P: CB-9 |
| Device Routing Invert Outlet Devices #1 Primary 216.30' 12.0" Round Culvert L = 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.30' / 216.20' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.165 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.47 cfs @ 12.09 hrs, Volume= 0.038 af Outflow = 0.47 cfs @ 12.09 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min Primary = 0.47 cfs @ 12.09 hrs, Volume= 0.038 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Primary OutFlow Max=0.29 cfs @ 12.09 hrs HW=216.62' (Free Discharge) —1=Culvert (Barrel Controls 0.29 cfs @ 2.02 fps) | Peak Elev= 215.91' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 70P: CB-12 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.802 ac, 75.84% Impervious, Inflow Depth = 2.07" for 2-yr event Inflow = 1.87 cfs @ 12.09 hrs, Volume= 0.138 af Outflow = 1.87 cfs @ 12.09 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.0 min Primary = 1.87 cfs @ 12.09 hrs, Volume= 0.138 af | #1 Primary 215.50' 12.0" Round Culvert L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.14' @ 12.09 hrs | Primary OutFlow Max=0.46 cfs @ 12.09 hrs HW=215.91' (Free Discharge) |
| Flood Elev= 219.30' | Summary for Pond 73P: DMH-6 |
| Device Routing Invert Outlet Devices #1 Primary 216.30' 15.0'' Round Culvert L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.30' / 216.20' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf | Inflow Area = 0.340 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.97 cfs @ 12.09 hrs, Volume= 0.079 af Outflow = 0.97 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min Primary = 0.97 cfs @ 12.09 hrs, Volume= 0.079 af Deviting hu Step lad method. Time Concerts 0.00.72.00 hrs, dts 0.05 hrs 0.07 hrs |
| Primary OutFlow Max=1.83 cfs @ 12.09 hrs HW=217.13' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.78' @ 12.09 hrs Flood Elev= 219.10' |
| Summary for Pond 71P: CB-8 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.175 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af Outflow = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min Primary = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af | #1 Primary 215.20' 12.0'' Round Culvert L= 52.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.80' S= 0.0077 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.92' @ 12.09 hrs Flood Elev= 218.50' | Primary OutFlow Max=0.94 cfs @ 12.09 hrs HW=215.77' (Free Discharge) -1=Culvert (Inlet Controls 0.94 cfs @ 2.03 fps) |
| | |

| 6842-Post Type III 24-hr 2-yr Rainfall=3.00" | 6842-Post Type III 24-hr 2-yr Rainfall=3.00" |
|---|--|
| Prepared by {enter your company name here} | Prepared by {enter your company name here} |
| HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 39 | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 40 |
| Summary for Pond 78P: CB-19 | Device Routing Invert Outlet Devices #1 Primary 214.70' 15.0" Round Culvert |
| Inflow Area = 0.122 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min Primary = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af | L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.70' / 214.20' S= 0.0075 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.73' @ 12.09 hrs | Primary OutFlow Max=1.83 cfs @ 12.09 hrs HW=215.46' (Free Discharge) [●] —1=Culvert (Inlet Controls 1.83 cfs @ 2.34 fps) |
| Flood Elev= 219.00' | Summary for Pond 81P: CB-5 |
| Device Routing Invert Outlet Devices #1 Primary 216.40' 12.0" Round Culvert L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.40' / 216.10' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.34 cfs @ 12.09 Frs. HW=216.73' (Free Discharge) | Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 2.45" for 2-yr event Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af Outflow = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min Primary = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.53' @ 12.09 hrs |
| T-1=Culvert (Barrel Controls 0.34 cfs @ 2.25 fps) | Flood Elev= 219.00' |
| Summary for Pond 79P: CB-10 Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0.057 cfs | Device Routing Invert Outlet Devices #1 Primary 216.00' 12.0" Round Culvert L = 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' Primary OutFlow Max=0.74 cfs 12.09 hrs HW=216.52' (Free Discharge) Hearel Controls 0.74 cfs 2.61 fps) 12.01 fps) |
| Peak Elev=216.83 @ 12.09 hrs Flood Elev= 219.00' | Summary for Pond 82P: DMH-3 |
| Device Routing Invert Outlet Devices #1 Primary 216.40' 12.0" Round Culvert L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.40' / 216.10' S= 0.0176 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=216.82' (Free Discharge) | Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 2.45" for 2-yr event Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af Outflow = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min Primary = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.22' @ 12.09 hrs |
| T-1=Culvert (Inlet Controls 0.55 cfs @ 1.75 fps) | Flood Elev= 218.90' |
| Summary for Pond 80P: DMH-5 | Device Routing Invert Outlet Devices #1 Primary 215.70' 12.0" Round Culvert |
| Inflow Area = 0.663 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event Inflow = 1.88 cfs @ 12.09 hrs, Volume= 0.153 af Outflow = 1.88 cfs @ 12.09 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.0 min Primary = 1.88 cfs @ 12.09 hrs, Volume= 0.153 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.47" @ Peak Elev= 215.47" @ 12.09 hrs Flood Elev= 220.00' 12.09 hrs | Primary 215.76 12.0 (CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.70' / 215.30' S= 0.0057 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.74 cfs @ 12.09 hrs HW=216.21' (Free Discharge) 1=Culvert (Barrel Controls 0.74 cfs @ 2.68 fps) |
| | |

| 42-Post Type III 24-hr 2-yr Rainfall=3.00" epared by {enter your company name here} droCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 41 | 6842-Post Prepared by {enter your company na <u>HydroCAD® 10.10-3a s/n 03590 © 2020 H</u> | |
|---|--|---|
| Summary for Link 20L: DP-A low Area = 30.660 ac, 24.72% Impervious, Inflow Depth = 1.02" for 2-yr event | Runoff by SCS | 0.00-72.00 hrs, dt=0.05 hrs, 1441 points 5 TR-20 method, UH=SCS, Weighted-CN I+Trans method → Pond routing by Stor-Ind method |
| low = 13.42 cfs @ 12.17 hrs, Volume= 2.596 af mary = 13.42 cfs @ 12.17 hrs, Volume= 2.596 af, Atten= 0%, Lag= 0.0 min | Subcatchment 9S: APT. BLDG. A | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=1.73 cfs 0.143 af |
| mary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Subcatchment 16S: APT. BLDG. B | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=1.73 cfs 0.143 af |
| | Subcatchment 18S: APT. BLDG. C | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=1.73 cfs 0.143 af |
| | Subcatchment 21S: A.1 | Runoff Area=20,195 sf 5.87% Impervious Runoff Depth=2.24" Tc=10.0 min CN=78 Runoff=1.05 cfs 0.087 af |
| | Subcatchment 22S: A.2 | Runoff Area=13,850 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=1.35 cfs 0.111 af |
| | Subcatchment 23S: A.3 | Runoff Area=9,767 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.95 cfs 0.079 af |
| | Subcatchment 24S: A.4 | Runoff Area=5,341 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.52 cfs 0.043 af |
| | Subcatchment 25S: A.5 | Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=2.18 cfs 0.180 af |
| | Subcatchment 26S: B.6 | Runoff Area=40,090 sf 22.31% Impervious Runoff Depth=1.85" Tc=6.0 min UI Adjusted CN=73 Runoff=1.93 cfs 0.142 af |
| | Subcatchment 27S: A.6 | Runoff Area=12,567 sf 87.12% Impervious Runoff Depth=3.76" Tc=6.0 min CN=94 Runoff=1.16 cfs 0.090 af |
| | Subcatchment 28S: B.1 | Runoff Area=30,829 sf 0.88% Impervious Runoff Depth=2.16" Tc=6.0 min CN=77 Runoff=1.75 cfs 0.128 af |
| | Subcatchment 29S: B.2 | Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=3.65" Tc=6.0 min CN=93 Runoff=1.22 cfs 0.093 af |
| | Subcatchment 30S: B.3 | Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=4.09" Tc=6.0 min CN=97 Runoff=1.64 cfs 0.133 af |
| | Subcatchment 31S: B.4 | Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=4.09" Tc=6.0 min CN=97 Runoff=1.64 cfs 0.133 af |
| | Subcatchment 32S: B.5 | Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=3.14" Tc=6.0 min CN=88 Runoff=2.00 cfs 0.148 af |
| | Subcatchment 33S: B.7 | Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=1.70" Tc=30.0 min CN=71 Runoff=7.30 cfs 0.947 af |
| | | |

| 6842-Post | Type III 24-hr 10-yr Rainfall=4.44" | 6842-Post Type III 24-hr 10-yr Rainfall=4.44" |
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| Prepared by {enter your company HydroCAD® 10.10-3a s/n 03590 © 202 | | Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 44 |
| | | - · · · · · · · · · · · · · · · · · · · |
| Subcatchment 34S: B.8 | Runoff Area=12,484 sf 88.82% Impervious Runoff Depth=3.87" Tc=6.0 min CN=95 Runoff=1.17 cfs 0.092 af | Subcatchment 52S: B.9 Runoff Area=15,018 sf 80.72% Impervious Runoff Depth=3.54" Tc=6.0 min CN=92 Runoff=1.34 cfs 0.102 af |
| Subcatchment 35S: C.1 | Runoff Area=236,308 sf 9.34% Impervious Runoff Depth=2.16" Tc=20.0 min UI Adjusted CN=77 Runoff=9.18 cfs 0.977 af | Pond 4P: Constructed Stormwater Wetland Peak Elev=214.32' Storage=13,989 cf Inflow=7.09 cfs 0.596 af Outflow=0.54 cfs 0.595 af |
| Subcatchment 36S: C.2 | Runoff Area=22,516 sf 83.62% Impervious Runoff Depth=3.65" Tc=6.0 min CN=93 Runoff=2.05 cfs 0.157 af | Pond 5P: Wet Basin Peak Elev=215.03' Storage=11,160 cf Inflow=11.71 cfs 1.451 af |
| Subcatchment 37S: C.3 | Runoff Area=12,429 sf 61.75% Impervious Runoff Depth=3.04" Tc=6.0 min CN=87 Runoff=0.98 cfs 0.072 af | Outflow=8.19 cfs 1.451 af Pond 7P: Constructed Stormwater Wetland Peak Elev=215.37' Storage=6,222 cf Inflow=18.71 cfs 2.191 af |
| Subcatchment 38S: C.4 | Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.45 cfs 0.037 af | Outflow=17.15 cfs 2.191 af Pond 12P: STONE RECHARGE TRENCH Peak Elev=221.00' Storage=1,942 cf Inflow=1.73 cfs 0.143 af Discarded=0.17 cfs 0.137 af Primary=0.69 cfs 0.006 af Outflow=0.85 cfs 0.143 af |
| Subcatchment 39S: C.5 | Runoff Area=5,857 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.57 cfs 0.047 af | Pond 17P: STONE RECHARGE TRENCH Peak Elev=221.00' Storage=1,942 cf Inflow=1.73 cfs 0.143 af Discarded=0.17 cfs 0.137 af Primary=0.69 cfs 0.006 af Outflow=0.85 cfs 0.143 af |
| Subcatchment 40S: C.6 | Runoff Area=4,047 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.39 cfs 0.033 af | Pond 19P: STONE RECHARGE TRENCH Peak Elev=221.00' Storage=1,942 cf Inflow=1.73 cfs 0.143 af Discarded=0.17 cfs 0.137 af Primary=0.69 cfs 0.006 af Outflow=0.85 cfs 0.143 af |
| Subcatchment 41S: C.7 | Runoff Area=7,188 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.70 cfs 0.058 af | Pond 21P: CB-4 12.0" Round Culvert n=0.013 L=37.0' S=0.0054 1/ Outflow=1.34 cfs 0.102 af |
| Subcatchment 42S: C.8 | Runoff Area=7,639 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.74 cfs 0.061 af | Pond 22P: DMH-2 18.0" Round Culvert n=0.013 L=37.0 3=0.0054 / Ottilow=1.34 Cis 0.102 at Peak Elev=216.84' Inflow=6.00 cfs 0.461 af 18.0" Round Culvert n=0.013 L=101.0' S=0.0050 // Outflow=6.00 cfs 0.461 af |
| Subcatchment 43S: C.9 | Runoff Area=8,732 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.85 cfs 0.070 af | Pond 23P: CB-1 Peak Elev=216.29' Inflow=1.22 cfs 0.093 af |
| Subcatchment 44S: C.10 | Runoff Area=5,326 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.52 cfs 0.043 af | Pond 24P: CB-2 Peak Elev=217.01' Inflow=1.64 cfs 0.133 af 42.01'' Durind Output and Output an |
| Subcatchment 45S: C.11 | Runoff Area=2,631 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.26 cfs 0.021 af | Pond 25P: CB-3 Peak Elev=217.44' Inflow=2.00 cfs 0.148 af |
| Subcatchment 46S: C.12 | Runoff Area=5,910 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.57 cfs 0.048 af | 12.0" Round Culvert n=0.013 L=38.0' S=0.0289 '/' Outflow=2.00 cfs 0.148 af Pond 26P: DMH-1 Peak Elev=216.58' Inflow=4.86 cfs 0.375 af |
| Subcatchment 47S: C.13 | Runoff Area=1,987 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af | 18.0" Round Culvert n=0.013 L=56.0' S=0.0089 '/' Outflow=4.86 cfs 0.375 af Pond 27P: DCB-22 Peak Elev=216.53' Inflow=2.18 cfs 0.180 af |
| Subcatchment 48S: C.14 | Runoff Area=1,885 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af | 12.0" Round Culvert n=0.013 L=50.0' S=0.0060 '/' Outflow=2.18 cfs 0.180 af Pond 28P: DMH-16 Peak Elev=216.13' Inflow=2.18 cfs 0.180 af |
| Subcatchment 49S: C.15 | Runoff Area=3,487 sf 100.00% Impervious Runoff Depth=4.20" Tc=6.0 min CN=98 Runoff=0.34 cfs 0.028 af | 12.0" Round Culvert n=0.013 L=160.0' S=0.0050 '/' Outflow=2.18 cfs 0.180 af Pond 29P: CB-21 Peak Elev=216.61' Inflow=0.52 cfs 0.043 af |
| Subcatchment 50S: C.16 | Runoff Area=3,508 sf 100.00% Impervious Runoff Depth=4.20" | 12.0" Round Culvert n=0.013 L=26.0' S=0.0192 '/' Outflow=0.52 cfs 0.043 af |
| Subcatchment 51S: D.1 | Tc=6.0 min CN=98 Runoff=0.34 cfs 0.028 af Runoff Area=402,771 sf 0.38% Impervious Runoff Depth=1.05" Tc=20.0 min CN=61 Runoff=6.57 cfs 0.806 af | Pond 30P: DMH-15 Peak Elev=215.17' Inflow=2.70 cfs 0.223 af 15.0" Round Culvert n=0.013 L=250.0' S=0.0052 '/' Outflow=2.70 cfs 0.223 af |

| 6842-Post Prepared by {enter your | | 6842-Post Prepared by {enter |
|--------------------------------------|---|---------------------------------|
| HydroCAD® 10.10-3a s/n 03 | 3590 © 2020 HydroCAD Software Solutions LLC Page 45 | HydroCAD® 10.10-3a |
| Pond 31P: DMH-14 | Peak Elev=214.41' Inflow=6.16 cfs 0.504 af 18.0" Round Culvert n=0.013 L=61.0' S=0.0049 '/' Outflow=6.16 cfs 0.504 af | Pond 67P: CB-7 |
| Pond 32P: CB-20 | Peak Elev=216.21' Inflow=1.35 cfs 0.111 af 12.0" Round Culvert n=0.013 L=12.0' S=0.0167 '/' Outflow=1.35 cfs 0.111 af | Pond 68P: DMH-9 |
| Pond 33P: DMH-17 | Peak Elev=216.59' Inflow=2.11 cfs 0.169 af 12.0" Round Culvert n=0.013 L=180.0' S=0.0050 '/' Outflow=2.11 cfs 0.169 af | Pond 69P: CB-11 |
| Pond 34P: CB-23 | Peak Elev=216.57' Inflow=1.16 cfs 0.090 af 12.0" Round Culvert n=0.013 L=28.0' S=0.0071 '/' Outflow=1.16 cfs 0.090 af | Pond 70P: CB-12 |
| Pond 35P: CB-24 | Peak Elev=216.48' Inflow=0.95 cfs 0.079 af 12.0" Round Culvert n=0.013 L=20.0' S=0.0100 '/' Outflow=0.95 cfs 0.079 af | Pond 71P: CB-8 |
| Pond 36P: DMH-7 | Peak Elev=216.72' Inflow=1.37 cfs 0.113 af 12.0" Round Culvert n=0.013 L=220.0' S=0.0055 '/' Outflow=1.37 cfs 0.113 af | Pond 72P: CB-9 |
| Pond 37P: DMH-10 | Peak Elev=218.87' Inflow=1.89 cfs 0.156 af 15.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=1.89 cfs 0.156 af | Pond 73P: DMH-6 |
| Pond 38P: CB-15 | Peak Elev=232.43' Inflow=0.18 cfs 0.015 af 12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.18 cfs 0.015 af | Pond 78P: CB-19 |
| Pond 39P: CB-16 | Peak Elev=232.44' Inflow=0.19 cfs 0.016 af 12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.19 cfs 0.016 af | Pond 79P: CB-10 |
| Pond 52P: CB-17 | Peak Elev=247.73' Inflow=0.34 cfs 0.028 af 12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/ Outflow=0.34 cfs 0.028 af | Pond 80P: DMH-5 |
| Pond 53P: CB-18 | Peak Elev=247.72' Inflow=0.34 cfs 0.028 af 12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.34 cfs 0.028 af | Pond 81P: CB-5 |
| Pond 54P: DMH-13 | Peak Elev=246.87' Inflow=0.68 cfs 0.056 af 12.0" Round Culvert n=0.013 L=85.0' S=0.0753 '/' Outflow=0.68 cfs 0.056 af | Pond 82P: DMH-3 |
| Pond 56P: DMH-12 | Peak Elev=240.37' Inflow=0.68 cfs 0.056 af 12.0" Round Culvert n=0.013 L=110.0' S=0.0745 '/' Outflow=0.68 cfs 0.056 af | Link 20L: DP-A |
| Pond 58P: CB-13 | Peak Elev=219.18' Inflow=0.26 cfs 0.021 af 12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.26 cfs 0.021 af | Total I |
| Pond 61P: DMH-11 | Peak Elev=232.21' Inflow=1.06 cfs 0.087 af 12.0" Round Culvert n=0.013 L=198.0' S=0.0677 '/ Outflow=1.06 cfs 0.087 af | |
| Pond 62P: CB-14 | Peak Elev=219.33' Inflow=0.57 cfs 0.048 af 12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/ Outflow=0.57 cfs 0.048 af | |
| Pond 63P: DMH-4 | Peak Elev=215.47' Inflow=5.66 cfs 0.468 af 24.0" Round Culvert n=0.013 L=35.0' S=0.0029 '/' Outflow=5.66 cfs 0.468 af | |
| Pond 66P: CB-6 | Peak Elev=216.43' Inflow=0.57 cfs 0.047 af 12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.57 cfs 0.047 af | |

| 6842-Post Prepared by {enter your comp | oany name her | 2] | Type III 24-h | r 10-yr Rainfall=4.44" |
|---|-----------------|--------------|---------------|--|
| HydroCAD® 10.10-3a s/n 03590 | | | utions LLC | Page 46 |
| | | | | |
| Pond 67P: CB-7 | 12.0" Round Cul | vert n=0.013 | | Inflow=0.39 cfs 0.033 af Dutflow=0.39 cfs 0.033 af |
| Pond 68P: DMH-9 | 15.0" Round Cul | vert n=0.013 | | Inflow=3.48 cfs 0.267 af Dutflow=3.48 cfs 0.267 af |
| Pond 69P: CB-11 | 12.0" Round Cul | vert n=0.013 | | Inflow=0.45 cfs 0.037 af Dutflow=0.45 cfs 0.037 af |
| Pond 70P: CB-12 | 15.0" Round Cul | vert n=0.013 | | Inflow=3.03 cfs 0.230 af Dutflow=3.03 cfs 0.230 af |
| Pond 71P: CB-8 | 12.0" Round Cul | vert n=0.013 | | Inflow=0.74 cfs 0.061 af Dutflow=0.74 cfs 0.061 af |
| Pond 72P: CB-9 | 12.0" Round Cul | vert n=0.013 | | Inflow=0.70 cfs 0.058 af Dutflow=0.70 cfs 0.058 af |
| Pond 73P: DMH-6 | 12.0" Round Cul | vert n=0.013 | | Inflow=1.44 cfs 0.119 af Dutflow=1.44 cfs 0.119 af |
| Pond 78P: CB-19 | 12.0" Round Cul | vert n=0.013 | | Inflow=0.52 cfs 0.043 af Dutflow=0.52 cfs 0.043 af |
| Pond 79P: CB-10 | 12.0" Round Cul | vert n=0.013 | | Inflow=0.85 cfs 0.070 af Dutflow=0.85 cfs 0.070 af |
| Pond 80P: DMH-5 | 15.0" Round Cul | vert n=0.013 | | Inflow=2.81 cfs 0.232 af Dutflow=2.81 cfs 0.232 af |
| Pond 81P: CB-5 | 12.0" Round Cul | vert n=0.013 | | Inflow=1.17 cfs 0.092 af Dutflow=1.17 cfs 0.092 af |
| Pond 82P: DMH-3 | 12.0" Round Cul | vert n=0.013 | | Inflow=1.17 cfs 0.092 af Dutflow=1.17 cfs 0.092 af |
| -ink 20L: DP-A | | | | Inflow=27.87 cfs 5.043 af rimary=27.87 cfs 5.043 af |

Total Runoff Area = 30.660 acRunoff Volume = 5.457 afAverage Runoff Depth = 2.14"75.28% Pervious = 23.079 ac24.72% Impervious = 7.580 ac

| repared by {enter your company name here} | 6842-Post Type III 24-hr 10-yr Rainfall=4.44 Prepared by {enter your company name here} |
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| ydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 47 | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 48 |
| Summary for Subcatchment 9S: APT. BLDG. A | Summary for Subcatchment 21S: A.1 |
| unoff = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af, Depth= 4.20" | Runoff = 1.05 cfs @ 12.15 hrs, Volume= 0.087 af, Depth= 2.24" |
| unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ype III 24-hr 10-yr Rainfall=4.44" | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.44" |
| Area (sf) CN Description | Area (sf) CN Description |
| 17,818 98 Roofs, HSG A | * 18,718 77 >75% Grass cover, Good, HSG A |
| 17,818 100.00% Impervious Area | * 291 43 Woods, Good, HSG A |
| Tc Length Slope Velocity Capacity Description | 95 98 Unconnected pavement, HSG A 1,091 98 Roofs, HSG A |
| (min) (feet) (ft/ft) (ft/sec) (cfs) | 20,195 78 Weighted Average |
| 6.0 Direct Entry, | 19,009 94.13% Pervious Area 1,186 5.87% Impervious Area |
| | 95 8.01% Unconnected |
| Summary for Subcatchment 16S: APT. BLDG. B | 30 0.01% Onconnected |
| unoff = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af, Depth= 4.20" | Tc Length Slope Velocity Capacity Description _(min) (feet) (ft/ft) (ft/sec) (cfs) |
| unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | 10.0 Direct Entry, |
| yoe III 24-hr 10-yr Rainfall=4.44" | |
| | Summary for Subcatchment 22S: A.2 |
| Area (sf) CN Description | |
| 17,818 98 Roofs, HSG A | Runoff = 1.35 cfs @ 12.09 hrs, Volume= 0.111 af, Depth= 4.20" |
| 17,818 100.00% Impervious Area | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Tc Length Slope Velocity Capacity Description | Type III 24-hr 10-yr Rainfall=4.44" |
| (min) (feet) (ft/ft) (ft/sec) (cfs) | |
| 6.0 Direct Entry, | Area (sf) CN Description |
| | 12,935 98 Paved parking, HSG A |
| Summary for Subcatchment 18S: APT. BLDG. C | 915 98 Roofs, HSG A |
| | 13,850 98 Weighted Average 13,850 100.00% Impervious Area |
| unoff = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af, Depth= 4.20" | |
| | Tc Length Slope Velocity Capacity Description |
| unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ype III 24-hr 10-yr Rainfall=4.44" | (min) (feet) (ft/ft) (ft/sec) (cfs) |
| /pe iii 24-iii 10-yi Kaiilaii-4.44 | 6.0 Direct Entry, |
| Area (sf) CN Description | |
| 17,818 98 Roofs, HSG A | Summary for Subcatchment 23S: A.3 |
| 17,818 100.00% Impervious Area | |
| | Runoff = 0.95 cfs @ 12.09 hrs, Volume= 0.079 af, Depth= 4.20" |
| Tc Length Slope Velocity Capacity Description | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) (feet) (ft/ft) (ft/sec) (cfs) | Type III 24-hr 10-yr Rainfall=4.44" |
| 6.0 Direct Entry, | |
| | Area (sf) CN Description |
| | 9,767 98 Paved parking, HSG A |

| (min) | Length (feet) | Slope Velo (ft/ft) (ft/s | | Description | |
|------------------------|------------------|-----------------------------------|----------------------------------|--|-----|
| 6.0 | (leet) | (1011) (103 | (013) | Direct Entry, | |
| | | S | ummary for | Subcatchment 24S: A.4 | |
| Runoff | = | 0.52 cfs @ | 12.09 hrs, Volu | ume= 0.043 af, Depth= 4.20" | |
| | | R-20 method, U yr Rainfall=4.4 | | nted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 | hrs |
| A | rea (sf) | CN Descrip | | | |
| | 227 5,114 | | parking, HSG A HSG A | A | |
| | 5,341 5,341 | | ed Average % Impervious A | Area | |
| (min) | Length (feet) | Slope Velo (ft/ft) (ft/s | city Capacity ec) (cfs) | | |
| 6.0 | | | | Direct Entry, | |
| | | S | ummary for | Subcatchment 25S: A.5 | |
| Runoff | = | 2.18 cfs @ | 12.09 hrs, Volu | ume= 0.180 af, Depth= 4.20" | |
| | | R-20 method, U yr Rainfall=4.4 | | nted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 | hrs |
| A | rea (sf) | CN Descrip | | | |
| | 22,426 22,426 | | parking, HSG A % Impervious A | | |
| | Length (feet) | | city Capacity | | |
| | (ieet) | (1011) (108 | | Direct Entry, | |
| Tc (min) 6.0 | | S | ummary for | Subcatchment 26S: B.6 | |
| (min) | | | | ume= 0.142 af, Depth= 1.85" | |
| (min) | = | 1.93 cfs @ | 12.10 hrs, Volu | une– 0.142 al, Depui– 1.00 | |
| (min) 6.0 Runoff | | 0 | , | nted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 | hrs |

| HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Area (sf) CN Adj Description * 31,146 68 >75% Grass cover, Good, HSG A 40,090 75 73 Weighted Average, UI Adjusted 31,146 77.69% Pervious Area 8,944 22.31% Impervious Area 8,944 22.31% Impervious Area 3,467 38.76% Unconnected Tc Length Slope Velocity Capacity (min) (ftet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 27S: A.6 Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.090 af, Depth= 3.76" Runoff sec Stranfall=4.44" Area (sf) CN Description 8.883 98 Paved parking, HSG A 1.619 68 * 1,619 68 >75% Grass cover, Good, HSG A 1.117 98 Roofs, HSG A * 1,619 12.86% Pervious Area 1.117 98 Roofs, HSG A 1.117 98 Roofs, HSG A </th <th></th> | |
|--|---------|
| 31,146 68 >75% Grass cover, Good, HSG A 3,467 98 Unconnected pavement, HSG A 40,090 75 73 Weighted Average, UI Adjusted 31,146 77.69% Pervious Area 3,467 3,467 38.76% Unconnected Te 8,944 22.31% Impervious Area 3,467 3,467 38.76% Unconnected Te Tc Length Slope Velocity Capacity 6.0 Direct Entry, Summary for Subcatchment 27S: A.6 Runoff 1.16 cfs @ 12.09 hrs, Volume= 0.090 af, Depth= 3.76" Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hr Type III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 8.883 98 Paved parking, HSG A 1,519 68 >75% Grass cover, Good, HSG A 1,117 98 Roofs, HSG A 12,567 94 Weighted Average 1,619 12.88% Pervious Area 10,948 87.12% Impervious Area 948 | Page 50 |
| 3.467 98 Unconnected pavement, HSG A 40,090 75 73 Weighted Average, UI Adjusted 31,146 77.69% Pervious Area 8,944 22.31% Impervious Area 3,467 38.76% Unconnected 38.76% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 0.090 af, Depth= 3.76" Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hr Ype III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 8,883 98 Paved parking, HSG A 1,619 68 >75% Grass cover, Good, HSG A 1,619 68 >75% Grass cover, Good, HSG A 1,117 98 Roofs, HSG A 12,567 94 Weighted Average 1,28% Pervious Area 10,948 87.12% Impervious Area 10,948 87.12% Impervious Area 10,948 87.12% Impervious Area 10,948 87.12% Impervious Area 10,948 87.12% Impervious Area 10.94 | |
| 5,477 98 Roofs, HSG A 40,090 75 73 Weighted Average, UI Adjusted 31,146 77.69% Pervious Area 8,944 22.31% Impervious Area 3,467 38.76% Unconnected 5.00 0 Tc Length Slope Velocity Capacity Description (min) (fteet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 27S: A.6 Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.090 af, Depth= 3.76" Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hr Ype III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 8,883 98 Paved parking, HSG A 1,619 68 >75% Grass cover, Good, HSG A 948 98 Unconnected pavement, HSG A 1,117 98 Roofs, HSG A 1,2,567 94 Weighted Average 1,619 12.88% Pervious Area 948 8.66% Unconnected | |
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| Direct Entry, Direct Entry, Summary for Subcatchment 28S: B.1 Runoff = 1.75 cfs @ 12.09 hrs, Volume= 0.128 af, Depth= 2.16" Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hr Ype III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,859 99.12% Pervious Area 270 0.88% Impervious Area | |
| Runoff = 1.75 cfs @ 12.09 hrs, Volume= 0.128 af, Depth= 2.16" Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hr Type III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hr Type III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | |
| Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | |
| Area (sf) CN Description 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | s |
| 30,559 77 >75% Grass cover, Good, HSG A 270 98 Unconnected pavement, HSG A 30,829 77 Weighted Average 30,559 99.12% Pervious Area 270 0.88% Impervious Area | |
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| HydroCA | d by {en D® 10.10- | | | | | D Software | Solutio | ns LLC | | Page |
|--|--|--|---|---|--|---|---|----------------------------------|--|--------------|
| Tc (min) | Length (feet) | Slop (ft/fl | | ocity 'sec) | Capacity (cfs | | ion | | | |
| 6.0 | (1001) | (| .) (10) | 000) | (0.0 | Direct E | ntry, | | | |
| | | | s | Summ | ary for | Subcatc | hmen | nt 29S: B. | 2 | |
| Runoff | = | 1.22 | cfs @ | 12.09 | hrs, Vo | lume= | 0.0 | 093 af, Dep | oth= 3.65" | |
| | y SCS TF 24-hr 10- | | | | CS, Weig | hted-CN, Ti | ime Sp | oan= 0.00-7 | 72.00 hrs, d | lt= 0.05 hrs |
| A | rea (sf) | | Descri | | | | | | | |
| ŧ | 2,173 1.997 | 68 98 | | | | ood, HSG / ent, HSG A | | | | |
| | 9,211 | | | | ig, HSG | | | | | |
| | 13,381 | 93 | Weigh | | | | | | | |
| | 2,173 11.208 | | | | ious Are rvious A | | | | | |
| | 1,997 | | | | onnected | | | | | |
| Tc (min) | Length | | | | Capacity | | ion | | | |
| (111111) | | (ft/fi | H) (ft/s) | (apr) | (cfc) | ` | | | | |
| 6.0 | (feet) | (ft/fl | t) (ft/: | sec) | (cfs |) Direct E | | | | |
| 6.0 | (ieet) | (ft/fl | | | • | Direct E | ntry, | | | |
| 6.0 | (leet) | (ft/f1 | | | • | / | ntry, | nt 30S: B. | 3 | |
| 6.0 Runoff | = | | S | Summ | • | Direct E Subcatcl | intry, hmen | nt 30S: B. 133 af, Dep | | |
| Runoff Runoff b | = | 1.64 R-20 me | Scfs @ ethod, L | Summ 12.09 JH=SC | ary for | Direct E Subcatcl | i ntry , hmen 0.1 | 133 af, Dep | oth= 4.09" | lt= 0.05 hrs |
| Runoff Runoff b Type III 2 | = y SCS TF 24-hr 10- | 1.64 R-20 me yr Rain | S cfs @ ethod, U fall=4.4 | 5umm 12.09 JH=SC 14" | ary for | Direct E Subcatcl | i ntry , hmen 0.1 | 133 af, Dep | oth= 4.09" | lt= 0.05 hrs |
| Runoff Runoff b Type III 2 | = y SCS TF 24-hr 10- <u>rea (sf)</u> 731 | 1.64 R-20 me yr Rain <u>CN</u> 68 | S cfs @ ethod, L fall=4.4 <u>Descri</u> >75% | Summ 12.09 JH=SC 14" Grass | hrs, Vo S, Weig | Direct E Subcatcl lume= hted-CN, Ti | intry, hmen 0.1 ime Sp | 133 af, Dep | oth= 4.09" | it= 0.05 hrs |
| Runoff Runoff b Type III 2 A | = 24-hr 10- rea (sf) 731 2,575 | 1.64 R-20 me yr Rain <u>CN</u> 68 98 | S cfs @ ethod, U ifall=4.4 <u>Descri</u> >75% Uncon | Summ 12.09 JH=SC 14" Grass inected | ary for hrs, Vo CS, Weig cover, G | Direct E Subcatcl lume= hted-CN, Ti Good, HSG A | intry, hmen 0.1 ime Sp | 133 af, Dep | oth= 4.09" | it= 0.05 hrs |
| Runoff Runoff b Type III 2 A | = 24-hr 10- <u>rea (sf)</u> 731 2,575 13,754 | 1.64 R-20 me yr Rain <u>CN</u> 68 98 | S cfs @ ethod, l fall=4.4 <u>Descri</u> >75% Uncon <u>Paved</u> | Summ 12.09 JH=SC 14" Grass inected parkir | ary for hrs, Vo CS, Weig cover, G I paveme | Direct E Subcatcl lume= hted-CN, Ti Good, HSG A | intry, hmen 0.1 ime Sp | 133 af, Dep | oth= 4.09" | it= 0.05 hrs |
| Runoff Runoff b Type III 2 A | = y SCS TF 24-hr 10- 731 2,575 13,754 17,060 731 | 1.64 R-20 me yr Rain <u>CN</u> 68 98 98 | S cfs @ ethod, U fall=4.4 <u>Descri</u> >75% Uncon <u>Paved</u> Weigh 4.28% | JH=SC JH=SC 44" Grass nected parkin ted Av Pervice | ary for hrs, Vo CS, Weig cover, C l pavem ig, HSG erage bus Area | Direct E Subcatcl lume= hted-CN, Ti bood, HSG A ent, HSG A A | intry, hmen 0.1 ime Sp | 133 af, Dep | oth= 4.09" | It= 0.05 hrs |
| Runoff Runoff b Type III 2 A | = y SCS TF 24-hr 10- 731 2,575 13,754 17,060 731 16,329 | 1.64 R-20 me yr Rain <u>CN</u> 68 98 98 | S ethod, L fall=4.4 <u>Descrii</u> >75% Uncon Paved Weigh 4.28% 95.72% | Summ 12.09 JH=SC 44" Grass Inected Grass Inected I parkin ted Av Pervic % Impe | ary for hrs, Vo CS, Weig cover, C d paveme ig, HSG erage ous Area ervious A | Direct E Subcatcl lume= hted-CN, Ti bood, HSG A ent, HSG A A | intry, hmen 0.1 ime Sp | 133 af, Dep | oth= 4.09" | It= 0.05 hrs |
| Runoff Runoff b Type III 2 A | = y SCS TF 24-hr 10- 731 2,575 13,754 17,060 731 16,329 2,575 | 1.64 R-20 me yr Rain <u>CN</u> 68 98 98 98 97 | S cfs @ ethod, L fall=4.4 <u>Descrii</u> >75% Uncon <u>Paved</u> Weigh 4.28% 95.729 15.779 | JH=SC JH=SC 44" Grass inected parkin ted Av 9 Pervic % Impe % Unco | ary for hrs, Vo CS, Weig cover, C d pavem ig, HSG erage bus Area ervious A ponnected | Direct E Subcatcl lume= hted-CN, Ti sood, HSG / ent, HSG A A | intry, hmen 0.1 ime Sp | 133 af, Dep | oth= 4.09" | lt= 0.05 hrs |
| Runoff Runoff b Type III 2 A Tc | = y SCS TF 24-hr 10- 731 2,575 13,754 17,060 731 16,329 2,575 Length | 1.64 2-20 me yr Rain 98 98 98 97 Slop | S cfs @ ethod, U fall=4.4 <u>Descri</u> >75% Uncon Paved Weigh 4.28% 95.72% 15.77% e Velo | Summ 12.09 JH=SC 44" Grass nected Cass nected parkin ted Av Pervic % Unco ocity | ary for hrs, Vo CS, Weig cover, C b pavement of, HSG erage bus Area privious A onnected Capacity | Direct E Subcatcl lume= hted-CN, Ti Good, HSG / ent, HSG A A vrea | intry, hmen 0.1 ime Sp | 133 af, Dep | oth= 4.09" | It= 0.05 hrs |
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| Runoff Runoff b Type III 2 A * Tc (min) | = y SCS TF 24-hr 10- 731 2,575 13,754 17,060 731 16,329 2,575 Length | 1.64 2-20 me yr Rain 98 98 98 97 Slop | S cfs @ ethod, L fall=4.4 >75% Uncon Paved Weigh 4.28% 95.729 15.779 e Velc b) (ft/s | JH=SC JH=SC 44" Grass necteo parkir ted Av bervic % Impe % Unco ocity sec) | ary for hrs, Vo CS, Weig cover, C d paveme gg, HSG erage ous Area ervious A onnecteo Capacity (cfs | Direct E Subcatcl lume= hted-CN, Ti bood, HSG / ent, HSG A A rea l Descripti | intry, hmen 0.1 ime Sp A | 133 af, Dep ban= 0.00-7 | oth= 4.09" 72.00 hrs, d | lt= 0.05 hrs |
| Runoff Runoff b Type III 2 A * Tc (min) | = y SCS TF 24-hr 10- 731 2,575 13,754 17,060 731 16,329 2,575 Length | 1.64 R-20 me yr Rain 68 98 98 98 97 Slop (ft/ft | S cfs @ ethod, L ifall=4.4 <u>Descrii</u> >75% Uncon <u>Paved</u> Weigh 4.28% 95.729 15.779 e Vela t) (ft/) | J2.09 JH=SC JH=SC I4" Grass Inectec J parkiri ted Av Pervic % Impe % Unco ocity sec) | ary for hrs, Vo CS, Weig cover, C d paveme gg, HSG erage ous Area ervious A onnecteo Capacity (cfs | Direct E Subcatcl lume= hted-CN, Tri Bood, HSG / ent, HSG A A vrea ' Descripti Direct E Subcatcl | intry, hmen 0.2 iime Sp A | 133 af, Dep ban= 0.00-7 | oth= 4.09" 72.00 hrs, d | It= 0.05 hrs |
| Runoff Runoff b Type III 2 A * Tc (min) 6.0 Runoff | = y SCS TF 24-hr 10- 731 2,575 13,754 17,060 731 16,329 2,575 Length (feet) | 1.64 x-20 me yr Rain <u>CN</u> 68 98 98 97 Slopp (ft/ft | S cfs @ ethod, L fall=4.4 <u>Descri</u> >75% Uncon <u>Paved</u> Weigh 4.28% 95.72% 15.77% e Veld t) (ft/: S S cfs @ | Summ 12.09 JH=SC 44" pition Grass nnectecc parkir ted Av Pervic % Impe % Uncc ocity ocity Summ 12.09 | ary for hrs, Vo CS, Weig cover, Cd d paveme ig, HSG erage ous Area ervious A onnectec Capacity (cfs ary for hrs, Vo | Direct E Subcatcl lume= hted-CN, Tri Good, HSG / ent, HSG A A rrea i Direct E Subcatcl lume= | intry, hmen 0.1 ime Sp A A ion intry, hmen 0.1 | 133 af, Dep Dan= 0.00-7 | oth= 4.09" 2.00 hrs, d 4 oth= 4.09" | It= 0.05 hrs |

| Area (sf) CN Description * 71 68 >75% Grass cover, Good, HSG A 13,754 98 Paved parking, HSG A 14,28% Pervious Area 2,575 15.77% Unconnected Tc Length Slope 16,329 95.72% Impervious Area 2,575 15.77% Unconnected Tc Length Slope 0.0 Direct Entry, Summary for Subcatchment 32S: B.5 Runoff = 2.00 cfs @ 12.09 hrs, Volume= 0.148 af, Depth= 3.14" Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Trype III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 6.653 98 Paved parking, HSG A 8,034 82.62% Pervious Area 1.324 98 Unconnected pavement, HSG A 6.653 98 Rods, HSG A 8,034 | | | | ur company 03590 © 202 | | e}) Software So | utions LLC | Page 52 |
|---|--------|-----------|---------|---------------------------|-------------|---------------------|-----------------------------|------------|
| 731 68 >75% Grass cover, Good, HSG A 2,575 98 Unconnected pavement, HSG A 13,754 98 Paved parking, HSG A 17,060 97 Weighted Average 731 4.28% Pervious Area 16,329 95.72% Impervious Area 2,575 15.77% Unconnected Tc Length Slope Velocity Capacity Description (min) (fet) (ft/ft) (ft/sec) (cfs) 0 Burnery for Subcatchment 32S: B.5 Runoff = 2.00 cfs 12.09 hrs, Volume= 0.148 af, Depth= 3.14" Runoff = 2.00 cfs 12.09 hrs, Volume= Area (sf) CN Description 8,616 98 Paved parking, HSG A 8,034 68 575% Grass cover, Good, HSG A 1,324 98 Unconnected pavement, HSG A 6,633 98 Roofs, HSG A 24,627 88 Weighted Average 8,034 32.62% Pervious Area 1,324 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> | | | | | | | | |
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| 6.0 Direct Entry, Summary for Subcatchment 32S: B.5 unoff = 2.00 cfs @ 12.09 hrs, Volume= 0.148 af, Depth= 3.14" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ype III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 8,616 98 Paved parking, HSG A 8,034 68 >75% Grass cover, Good, HSG A 1,324 98 Unconnected pavement, HSG A 8,034 32.62% Pervious Area 16,593 67.38% Impervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (fet) (ft/ft) (ft/sc) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" | | | | | | Description | | |
| unoff = $2.00 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.148 af , Depth= 3.14 " unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= $0.00-72.00 \text{ hrs}$, dt= 0.05 hrs type III 24-hr 10-yr Rainfall= 4.44 " Area (sf) CN Description 8,616 98 Paved parking, HSG A 8,034 68 >75% Grass cover, Good, HSG A 1,324 98 Unconnected pavement, HSG A 6,653 98 Roofs, HSG A 24,627 88 Weighted Average 8,034 32.62% Pervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | · · · | (leet) | (101 | it) (103eC) | (015) | Direct Ent | у, | |
| unoff = $2.00 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.148 af , Depth= 3.14 " unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= $0.00-72.00 \text{ hrs}$, dt= 0.05 hrs pe III 24-hr 10-yr Rainfall= 4.44 " Area (sf) CN Description 8,616 98 Paved parking, HSG A 8,034 68 >75% Grass cover, Good, HSG A 1,324 98 Unconnected pavement, HSG A 6,653 98 Roofs, HSG A 24,627 88 Weighted Average 8,034 32.62% Pervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | | | Sum | marv for s | Subcatchn | nent 32S: B.5 | |
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| Image III 24-hr 10-yr Rainfall=4.44" Area (sf) CN Description 8,616 98 Paved parking, HSG A 8,034 68 >75% Grass cover, Good, HSG A 1,324 98 Unconnected pavement, HSG A 6,653 98 Roofs, HSG A 24,627 88 Weighted Average 8,034 32.62% Pervious Area 16,593 67.38% Impervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | | | 0 | , | | , | 0.05 has |
| 8,616 98 Paved parking, HSG A 8,034 68 >75% Grass cover, Good, HSG A 1,324 98 Unconnected pavement, HSG A 6,653 98 Roofs, HSG A 24,627 88 Weighted Average 8,034 32.62% Pervious Area 16,593 67.38% Impervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity 0 (fuft) (ft/sec) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | | | | SCS, Weigh | ted-CN, Time | e Span= 0.00-72.00 hrs, dt= | = 0.05 hrs |
| 8,034 68 >75% Grass cover, Good, HSG A 1,324 98 Unconnected pavement, HSG A 6,653 98 Roofs, HSG A 24,627 88 Weighted Average 8,034 32.62% Pervious Area 16,593 67.38% Impervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | A | | | | | | | |
| 1,324 98 Unconnected pavement, HSG A 6,653 98 Roofs, HSG A 24,627 88 Weighted Average 8,034 32,62% Pervious Area 16,593 67.38% Impervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (fet) (ft/ft) (ft/sec) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 anoff anoff 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= unoff Summary for Subcatchment 33S: B.7 | | | | | | | | |
| 24,627 88 Weighted Average 8,034 32.62% Pervious Area 16,593 67.38% Impervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | 1,324 | 98 | Unconnect | ed pavemei | | | |
| 8,034 32.62% Pervious Area 16,593 67.38% Impervious Area 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | | | | | | | |
| 1,324 7.98% Unconnected Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | 8,034 | | 32.62% Pe | rvious Area | | | |
| (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | | | | | ea | | |
| (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry, Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | То | Longth | Slor | vo Volocity | Capacity | Description | | |
| Summary for Subcatchment 33S: B.7 unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | | | | | Description | | |
| unoff = 7.30 cfs @ 12.44 hrs, Volume= 0.947 af, Depth= 1.70" unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | 6.0 | | | | | Direct Entr | у, | |
| unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | | | | Sum | mary for | Subcatchn | nent 33S: B.7 | |
| | unoff | = | 7.30 | cfs @ 12.4 | 4 hrs, Volu | ime= | 0.947 af, Depth= 1.70" | |
| /pe III 24-hr 10-yr Rainfall=4.44" | | | | | SCS, Weigh | ted-CN, Time | e Span= 0.00-72.00 hrs, dt= | = 0.05 hrs |
| | pe III | 24-hr 10- | yr Rair | nfall=4.44" | | | | |
| | | | | | | | | |
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| <u>lydroC</u> A | | | ur company 03590 © 2020 | | ≠}) Software Solu | tions LLC | Page 53 |
|------------------------------------|-------------------------|----------------|------------------------------------|-------------------|-----------------------|----------------------------------|-------------------|
| | rea (sf) | CN | Description | - | | | |
| | 29,407 | 68 | >75% Grass | | NOT HSC A | | |
| | 97,286 | 79 | >75% Grass | | | | |
| | 9,046 | 89 | >75% Grass | | | | |
| | 27,194 | 43 | Woods, Goo | | , - | | |
| | 15,779 | 76 | Woods, Goo | | | | |
| | 4,399 | 82 | Woods, Goo | | | | |
| | 1,606 319 | 98 | Unconnecte Unconnecte | | | | |
| | 5,475 | 98 98 | Roofs, HSG | | II, HSG C | | |
| 2 | 290,511 | 71 | Weighted A | | | | |
| | 283,111 | <i>'</i> ' | 97.45% Per | | | | |
| | 7,400 | | 2.55% Impe | | | | |
| | 1,925 | | 26.01% Und | connected | | | |
| - | | ~ | | o | ь . <i>.</i> . | | |
| IC (min) | Length (feet) | Slop (ft/f | | Capacity (cfs) | Description | | |
| 30.0 | (ieet) | (101 | (1/sec) | (015) | Direct Entry | , | |
| 00.0 | | | | | Direct Entry | , | |
| | | | Sumn | nary for S | Subcatchm | ent 34S: B.8 | |
| | | | | | | | |
| unoff | = | 1.17 | cfs @ 12.09 | 9 hrs, Volu | ime= | 0.092 af, Depth= | 3.87" |
| | | | | | | | |
| | | | | CS, Weigh | ted-CN, Time | Span= 0.00-72.00 | hrs, dt= 0.05 hrs |
| ype III : | 24-hr 10- | yr Rair | nfall=4.44" | | | | |
| Δ | rea (sf) | CN | Description | | | | |
| | 9.724 | 98 | Paved parki | | | | |
| | 1,396 | 68 | >75% Grass | | | | |
| | 1,364 | 98 | Unconnecte | ed pavemer | nt, HSG A | | |
| | 12,484 | 95 | Weighted A | verage | | | |
| | 1,396 | | 11.18% Per | | | | |
| | 11,088 | | 88.82% Imp | | ea | | |
| | 1,364 | | 12.30% Und | connected | | | |
| | Length | Slon | e Velocity | Canacity | Description | | |
| Тс | | | | (cfs) | Description | | |
| | | (ft/f | | (=) | | | |
| Tc (min) 6.0 | (feet) | (ft/f | (10360) | | Direct Entry | ', | |
| (min) | | (ft/f | | | - | | |
| (min) | | <u>(ft/f</u> | | nary for \$ | - | ∕, ent 35S: C.1 | |
| <u>(min)</u> 6.0 | | | | • | Subcatchm | | 2.16" |
| (min) 6.0 cunoff | (feet) = | 9.18 | Sumn cfs @ 12.28 | 8 hrs, Volu | Subcatchm | ent 35S: C.1 0.977 af, Depth= | |
| (min) 6.0 Runoff Runoff b | (feet) = y SCS TF | 9.18 R-20 m | Sumn cfs @ 12.28 ethod, UH=S | 8 hrs, Volu | Subcatchm | ent 35S: C.1 | |
| (min) 6.0 Runoff Runoff b | (feet) = y SCS TF | 9.18 R-20 m | Sumn cfs @ 12.28 | 8 hrs, Volu | Subcatchm | ent 35S: C.1 0.977 af, Depth= | |
| (min) 6.0 Runoff Runoff b | (feet) = y SCS TF | 9.18 R-20 m | Sumn cfs @ 12.28 ethod, UH=S | 8 hrs, Volu | Subcatchm | ent 35S: C.1 0.977 af, Depth= | |
| (min) 6.0 Runoff Runoff b | (feet) = y SCS TF | 9.18 R-20 m | Sumn cfs @ 12.28 ethod, UH=S | 8 hrs, Volu | Subcatchm | ent 35S: C.1 0.977 af, Depth= | |
| (min) 6.0 Runoff Runoff b | (feet) = y SCS TF | 9.18 R-20 m | Sumn cfs @ 12.28 ethod, UH=S | 8 hrs, Volu | Subcatchm | ent 35S: C.1 0.977 af, Depth= | |
| (min) 6.0 Runoff Runoff b | (feet) = y SCS TF | 9.18 R-20 m | Sumn cfs @ 12.28 ethod, UH=S | 8 hrs, Volu | Subcatchm | ent 35S: C.1 0.977 af, Depth= | |

| 6842-P | | er voi | ır com | nanv | name her | ۵۱ | | | Ту | vpe III | 24-h | r 10- | yr Rai | nfall=4.44" |
|---------------------|-----------------------|---------------|-----------|-----------------|--------------------------|--------|-----------|----------|-------|---------|--------|--------|--------|-------------|
| | | | | | 0 HydroCA | | tware Sol | utions | LLC | | | | | Page 54 |
| А | rea (sf) | CN | Adj | Desc | ription | | | | | | | | | |
| - | 28,543 | 68 | 7.00 | | 6 Grass co | ver, | Good, H | SG A | | | | | | |
| * | 69,229 | 89 | | | 6 Grass co | | | SG D | | | | | | |
| * | 16,469 14,141 | 82 98 | | | ds, Good, onnected p | | | GΔ | | | | | | |
| | 7,926 | 98 | | | s, HSG A | aven | ioni, no | 07 | | | | | | |
| | 36,308 | 78 | 77 | | hted Avera | | | ted | | | | | | |
| 2 | 214,241 22,067 | | | | 6% Perviou % Impervio | | | | | | | | | |
| | 14,141 | | | | 8% Unconi | | | | | | | | | |
| Тс | Length | Slop | | locity | Capacity | De | scription | | | | | | | |
| (min) | (feet) | (ft/f | t) (ft | /sec) | (cfs) | | | | | | | | | |
| 20.0 | | | | | | Dir | ect Entr | у, | | | | | | |
| | | | 9 | Sumr | nary for | Sub | catchn | nent | 36S | : C.2 | | | | |
| Runoff | = | 2.05 | cfs @ | 12.0 | 9 hrs, Voli | ume= | - | 0.15 | 7 af, | Depth | n= 3. | 65" | | |
| | y SCS TF 24-hr 10- | | | | CS, Weigh | nted-0 | CN, Time | e Spai | n= 0. | .00-72 | .00 hr | s, dt= | 0.05 l | nrs |
| A | rea (sf) | CN | Descr | iption | | | | | | | | | | |
| | 12,989 | 98 | | | ing, HSG A | | | | | | | | | |
| * | 3,687 | 68 | | | s cover, G | | | | | | | | | |
| | 2,989 2,851 | 98 98 | | , HSG | ed paveme A | пі, п | SG A | | | | | | | |
| | 22,516 | 93 | | | verage | | | | | | | | | |
| | 3,687 | | | | vious Area | | | | | | | | | |
| | 18,829 2,989 | | | | pervious Ar | ea | | | | | | | | |
| | 2,000 | | | | | | | | | | | | | |
| | Length (feet) | Slop (ft/f | e Vel | locity /sec) | Capacity (cfs) | De | scription | | | | | | | |
| <u>(min)</u> 6.0 | (leel) | (171 | <u>()</u> | /sec) | (CIS) | Dir | ect Entr | v. | | | | | | |
| 0.0 | | | | | | | | , | | | | | | |
| | | | 9 | Sumr | nary for | Sub | catchn | nent | 37S | : C.3 | | | | |
| Runoff | = | 0.98 | cfs @ | 12.0 | 9 hrs, Voli | ume= | - | 0.072 | 2 af, | Depth | n= 3. | 04" | | |
| | y SCS TF 24-hr 10- | | | | CS, Weigh | nted-(| CN, Time | e Spai | n= 0. | .00-72 | .00 hr | s, dt= | 0.05 ł | nrs |
| A | rea (sf) | CN | Descr | iption | | | | | | | | | | |
| • | 5,266 | 98 | | | ing, HSG A | | | | | | | | | |
| • | 4,754 509 | 68 98 | | Gras | s cover, G A | ood, | HSG A | | | | | | | |
| | 1,900 | 98 98 | | , HSG | | | | | | | | | | |
| | 12,429 | 87 | | | verage | | | | | | | | | |
| | 4,754 7,675 | | | | vious Area ervious Ar | | | | | | | | | |
| | 1,010 | | 01.75 | 70 mmp | ei vious Al | ea | | | | | | | | |
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| | | | pany name he © 2020 HydroC | | ftware Solu | | | r 10-yr Re | Page | | 6842 Prepa <u>Hydro</u> |
|---|--|---|---|--|--|--|---|--------------|------|--|-------------------------------|
| _ | | e 11 | | _ | | | | | | | |
| IC (min) | Length (feet) | | ocity Capacit /sec) (cfs | | escription | | | | | | <u>(mi</u> 6 |
| 6.0 | | | | Di | rect Entry | у, | | | | | |
| | | : | Summary fo | r Sul | ocatchm | nent 38S: | : C.4 | | | | |
| Runoff | = | 0.45 cfs @ | 12.09 hrs, Vo | olume | = | 0.037 af, I | Depth= 4.2 | 20" | | | Runo |
| | | 8-20 method, yr Rainfall=4 | UH=SCS, Wei 44" | ghted | CN, Time | e Span= 0.0 | 00-72.00 hr | rs, dt= 0.05 | hrs | | Runo Type |
| A | rea (sf) | CN Desc | iption | | | | | | | | |
| | 4,655 | | l parking, HSG 0% Impervious | | | | | | | | |
| | 4,655 | | • | | | | | | | | |
| Tc (min) | Length (feet) | | ocity Capacit /sec) (cfs | | escription | | | | | | |
| 6.0 | | | | <i></i> | rect Entry | y, | | | | | <u>(mi</u> 6 |
| Runoff | = | 0.57 cfs @ | Summary fo 12.09 hrs, Vo | olume | = | 0.047 af, 1 | Depth= 4.2 | | | | Runo |
| Runoff b Type III 2 | y SCS TR | 0.57 cfs @ R-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave | 12.09 hrs, Vo UH=SCS, Weig 44" | olume ghted | = ·CN, Time | 0.047 af, 1 | Depth= 4.2 | | hrs | | Runo Runo Type |
| Runoff b Type III 2 | y SCS TR 24-hr 10- <u>y</u> <u>rea (sf)</u> 4,080 <u>1,777</u> 5,857 | 0.57 cfs @ R-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig | 12.09 hrs, Vo UH=SCS, Weig 44" iption I parking, HSG nected pavem ited Average | ghted ghted A hent, F | = -CN, Time | 0.047 af, 1 | Depth= 4.2 | | hrs | | Runo |
| Runoff b Type III 2 | y SCS TR 24-hr 10- <u>y</u> rea (sf) 4,080 1,777 | 0.57 cfs @ -20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 | 12.09 hrs, Vo UH=SCS, Wei 44" iption d parking, HSG innected pavem | ghted ghted A hent, H | = -CN, Time | 0.047 af, 1 | Depth= 4.2 | | hrs | | Runo Type |
| Runoff b Type III 2 A Tc (min) | y SCS TR 24-hr 10- <u>y</u> rea (sf) 4,080 1,777 5,857 5,857 5,857 | 0.57 cfs @ 2-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 30.34 Slope Ve | 12.09 hrs, Vo UH=SCS, Wei 44" I parking, HSG <u>nnected pavem</u> ted Average 0% Impervious | A A A Anent, H Area Area d ty Da | = -CN, Time | 0.047 af, 1 | Depth= 4.2 | | hrs | | Runo Type |
| Runoff b Type III 2 A Tc | y SCS TR 24-hr 10- <u>y</u> 4,080 1,777 5,857 5,857 1,777 Length | 0.57 cfs @ -20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 30.34 Slope Ve (ft/ft) (ff | 12.09 hrs, Vo UH=SCS, Wei 44" I parking, HSG <u>nected pavem</u> ted Average 0% Impervious % Unconnecte ocity Capacit (sec) (cfs | GA GA SA SArea SArea SArea S S Di Di | = CN, Time ISG A escription rect Entry | 0.047 af, e Span= 0.0 | Depth= 4.: | | hrs | | Runo Type |
| Runoff b Type III 2 A Tc (min) | y SCS TR 24-hr 10- <u>y</u> 4,080 1,777 5,857 5,857 1,777 Length | 0.57 cfs @ -20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 30.34 Slope Ve (ft/ft) (ff | 12.09 hrs, Vo UH=SCS, Weig 44" iption d parking, HSG nnected paverr nted Average 0% Impervious % Unconnecte ocity Capacit | GA GA SA SArea SArea SArea S S Di Di | = CN, Time ISG A escription rect Entry | 0.047 af, e Span= 0.0 | Depth= 4.: | | hrs | | Runo Type |
| Runoff b Type III 2 A Tc (min) | y SCS TR 24-hr 10- <u>y</u> 4,080 1,777 5,857 5,857 1,777 Length | 0.57 cfs @ 2-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 30.34 Slope Ve (ft/ft) (ff | 12.09 hrs, Vo UH=SCS, Wei 44" I parking, HSG <u>nected pavem</u> ted Average 0% Impervious % Unconnecte ocity Capacit (sec) (cfs | ghted G A S Area S Area S Area S Di T Sul | = -CN, Time | 0.047 af, 1 e Span= 0.0 y, nent 40S: | Depth= 4.: | rs, dt= 0.05 | hrs | | Runo Type |
| Runoff b Type III 2 A Tc (min) 6.0 Runoff Runoff b | y SCS TR 24-hr 10- <u>1</u> 4,080 <u>1,777</u> 5,857 1,777 Length (feet) = y SCS TR | 0.57 cfs @ 2-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 30.34 Slope Ve (ft/ft) (ff | 12.09 hrs, Vo UH=SCS, Weig 44" iption 1 parking, HSG nected pavern ted Average 0% Impervious % Unconnecte ocity Capacit /sec) (cfs Summary fo 12.09 hrs, Vo UH=SCS, Weig | blume GA GA GA GA CA CA CA CA CA CA CA CA CA C | = CN, Time ISG A escription rect Entry ocatchm = | 0.047 af, 1 e Span= 0.0 y, nent 40S: 0.033 af, 1 | Depth= 4.: 00-72.00 hr : C.6 Depth= 4.: | rs, dt= 0.05 | | | Runo Type |
| Runoff b Type III 2 A Tc (min) 6.0 Runoff Runoff b Type III 2 | y SCS TR 24-hr 10 4,080 1,777 5,857 5,857 1,777 Length (feet) = y SCS TR 24-hr 10 rea (sf) | 0.57 cfs @ 2-20 method, yr Rainfall=4. <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 30.34 Slope Ve (ft/ft) (ff 0.39 cfs @ 2-20 method, yr Rainfall=4. <u>CN Desc</u> | 12.09 hrs, Vo UH=SCS, Weie 44" iption I parking, HSG <u>nected pavem</u> ted Average 0% Impervious % Unconnecte ocity Capacit (sec) (cfs Summary fo 12.09 hrs, Vo UH=SCS, Weie 44" iption | blume ghted and s Area d blume plume ghted | = CN, Time ISG A escription rect Entry ocatchm = | 0.047 af, 1 e Span= 0.0 y, nent 40S: 0.033 af, 1 | Depth= 4.: 00-72.00 hr : C.6 Depth= 4.: | rs, dt= 0.05 | | | Runo |
| Runoff b Type III 2 A Tc (min) 6.0 Runoff Runoff b Type III 2 | y SCS TR 24-hr 10 4,080 1,777 5,857 1,777 Length (feet) = y SCS TR 24-hr 10 rea (sf) 4,047 | 0.57 cfs @ 2-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 30.34 Slope Ve (ft/ft) (ff 0.39 cfs @ 2-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave | 12.09 hrs, Vo UH=SCS, Weig 44" iption d parking, HSG <u>nected pavem</u> ted Average 0% Impervious % Unconnecte 0% Unconnecte ocity Capacit (sec) (cfs Summary fo 12.09 hrs, Vo UH=SCS, Weig 44" iption d parking, HSG | blume ghted a A nent, F a Area d ty Dr blume ghted a A | = -CN, Time | 0.047 af, 1 e Span= 0.0 y, nent 40S: 0.033 af, 1 | Depth= 4.: 00-72.00 hr : C.6 Depth= 4.: | rs, dt= 0.05 | | | Runo Type |
| Runoff b Type III 2 A Tc (min) 6.0 Runoff Runoff b Type III 2 | y SCS TR 24-hr 10 4,080 1,777 5,857 5,857 1,777 Length (feet) = y SCS TR 24-hr 10 rea (sf) | 0.57 cfs @ 2-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave 98 Unco 98 Weig 100.0 30.34 Slope Ve (ft/ft) (ff 0.39 cfs @ 2-20 method, yr Rainfall=4 <u>CN Desc</u> 98 Pave | 12.09 hrs, Vo UH=SCS, Weie 44" iption I parking, HSG <u>nected pavem</u> ted Average 0% Impervious % Unconnecte ocity Capacit (sec) (cfs Summary fo 12.09 hrs, Vo UH=SCS, Weie 44" iption | blume ghted a A nent, F a Area d ty Dr blume ghted a A | = -CN, Time | 0.047 af, 1 e Span= 0.0 y, nent 40S: 0.033 af, 1 | Depth= 4.: 00-72.00 hr : C.6 Depth= 4.: | rs, dt= 0.05 | | | Runo Type |

| (maine) (fo | gth Slope | Velocity | | Description | I | - |
|--|---|---------------------------------------|-------------------|-------------|----------------------------|------------|
| <u>(min)</u> (fe 6.0 | et) (ft/ft) | (ft/sec) | (cfs) | Direct Ent | ry, | |
| | | Sumr | nary for S | Subcatchr | nent 41S: C.7 | |
| unoff = | 0.70 cf | s@ 12.0 | 9 hrs, Volu | ime= | 0.058 af, Depth= 4.20" | |
| | S TR-20 met 10-yr Rainfa | | CS, Weigh | ted-CN, Tim | e Span= 0.00-72.00 hrs, dt | = 0.05 hrs |
| Area (s | sf) CN E | Description | | | | |
| 6,0 1,1 | | Paved parki Roofs, HSG | | | | |
| 7,18 7,18 | | Veighted A | | rea | | |
| Tc Len (min) (fe | gth Slope eet) (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | I | |
| 6.0 | | | | Direct Ent | ry, | |
| | | Sumr | nary for S | Subcatchn | nent 42S: C.8 | |
| unoff = | 0.74 cf | s@ 12.0 | 9 hrs, Volu | ime= | 0.061 af, Depth= 4.20" | |
| | S TR-20 met 10-yr Rainfa | | CS, Weigh | ted-CN, Tim | e Span= 0.00-72.00 hrs, di | = 0.05 hrs |
| Area (s | sf) CN E | Description | | | | |
| 7,63 | | Paved park | | | | |
| 7,63 | 39 1 | 00.00% Im | pervious A | rea | | |
| Tc Len (min) (fe | gth Slope eet) (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | I | |
| | | | | Direct Ent | ry, | |
| 6.0 | | Sumr | nary for S | Subcatchn | nent 43S: C.9 | |
| 6.0 | | | 9 hrs, Volu | ime= | 0.070 af, Depth= 4.20" | |
| 6.0 unoff = | 0.85 cf | 's @ 12.0 | | | | |
| unoff = unoff by SC | | hod, UH=S | CS, Weigh | ted-CN, Tim | e Span= 0.00-72.00 hrs, di | = 0.05 hrs |
| unoff = unoff by SC ype III 24-hr Area (s | S TR-20 metl 10-yr Rainfa sf) CN [| hod, UH=S all=4.44" Description | | | e Span= 0.00-72.00 hrs, di | = 0.05 hrs |
| unoff = unoff by SC ype III 24-hr | S TR-20 meti 10-yr Rainfa 6f) CN E 32 98 F | hod, UH=S all=4.44" | ing, HSG A | <u>.</u> | e Span= 0.00-72.00 hrs, di | = 0.05 hrs |

| | | | | name here | e}) Software So | lutions LLC | | Page 57 |
|--------------|------------------|------------------|----------------------|------------------------|---------------------|-------------|--------------|----------------|
| | | | | | | | | Page 57 |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | 1 | | |
| 6.0 | | | | | Direct Ent | ry, | | |
| | | | Summ | ary for S | ubcatchm | ent 44S: | C.10 | |
| Runoff | = | 0.52 cf | s@ 12.0 | 9 hrs, Volu | ime= | 0.043 af, | Depth= 4.20 |)" |
| | | | | CS, Weigh | ted-CN, Tim | e Span= 0. | 00-72.00 hrs | , dt= 0.05 hrs |
| Type III 2 | 24-hr 10- | yr Rainfa | all=4.44" | | | | | |
| A | rea (sf) | | Description | | | | | |
| | 5,326 5,326 | | | ng, HSG A | | | | |
| | 5,520 | I | 00.00% 11 | ipervious A | lea | | | |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | 1 | | |
| 6.0 | (leet) | (1011) | (II/Sec) | (CIS) | Direct Ent | rv. | | |
| | | | • | | | | | |
| | | | Summ | ary for S | ubcatchm | ient 45S: | C.11 | |
| Runoff | = | 0.26 cf | s@ 12.0 | 9 hrs, Volu | ime= | 0.021 af, | Depth= 4.20 |)" |
| | | | | CS, Weigh | ted-CN, Tim | e Span= 0. | 00-72.00 hrs | , dt= 0.05 hrs |
| Type III 2 | 24-hr 10- | yr Rainfa | all=4.44" | | | | | |
| A | rea (sf) | | Description | | | | | |
| | 1,483 | | | ng, HSG A | | | | |
| | 946 126 | | | ng, HSG D d pavemer | | | | |
| | 76 | | | d pavemer | | | | |
| | 2,631 | | Veighted A | | | | | |
| | 2,631 | 1 | 00.00% Im | pervious A | rea | | | |
| | 202 | 7 | .68% Unco | onnected | | | | |
| Тс | Length | Slope | Velocity | Capacity | Description | 1 | | |
| (min) 6.0 | (feet) | (ft/ft) | (ft/sec) | (cfs) | Direct Ent | nv. | | |
| 0.0 | | | - | | | • | - ·- | |
| | | | Summ | ary for S | ubcatchm | ent 46S: | C.12 | |
| Runoff | = | 0.57 cf | s@ 12.0 | 9 hrs, Volu | ime= | 0.048 af, | Depth= 4.20 |)" |
| | | | | | | | 00-72.00 hrs | |
| Zunoff h | A CUC TE | | | | | | | |

| Prepared by {er | nter vour | company | name here | <u>-</u>] | 7 | ype III 24- | hr 10-yr Ra | untall=4.4 |
|---|--|---|--|--|-------------------------------|----------------|-------------|------------|
| HydroCAD® 10.10 | | | | | Solutions LL | 2 | | Page (|
| Area (sf) | CN D | escription | | | | | | |
| 2,144 | | | ing, HSG A | | | | | |
| 2,121 | | | ing, HSG D | | | | | |
| 853 | | | d pavemer | | | | | |
| 696 96 | | Roofs, HSG | d pavemer | іі, на с D | | | | |
| 5,910 | | Veighted A | | | | | | |
| 5,910 | | | pervious A | rea | | | | |
| 1,549 | 2 | 6.21% Und | connected | | | | | |
| Tc Length (min) (feet) | | Velocity (ft/sec) | Capacity (cfs) | Descriptio | on | | | |
| 6.0 | | | | Direct Er | ntry, | | | |
| | | Summ | nary for S | ubcatch | ment 47S | 6: C.13 | | |
| Runoff = | 0.10 ef | 10.00 | | | 0.016 - | Denth- | 4.00" | |
| Runoli = | 0.19 CI | s@ 12.0 | 9 hrs, Volu | ime= | 0.016 a | , Depth= | 4.20 | |
| Runoff by SCS T Type III 24-hr 10 | | | , 0 | , | | | , | |
| | -yi i taima | | | | | | | |
| Area (sf) | | escription | | | | | | |
| Area (sf) 1,832 | <u>CN</u> 98 P | escription aved parki | ing, HSG D | | | | | |
| Area (sf) 1,832 155 | CN D 98 P 98 U | escription aved parki | ing, HSG D d pavemer | | | | | |
| Area (sf) 1,832 | CN D 98 P 98 U 98 V | Description Paved parki Inconnecte Veighted A | ing, HSG D d pavemer | nt, HSG D | | | | |
| Area (sf) 1,832 155 1,987 | CN D 98 P 98 U 98 V 98 V | Description Paved parki Inconnecte Veighted A | ing, HSG D ed pavemer verage ipervious A | nt, HSG D | | | | |
| Area (sf) 1,832 155 1,987 1,987 155 | CN D 98 P 98 U 98 V 98 V 1 7 | Description Paved parki Inconnecte Veighted A 00.00% Im .80% Uncc | ing, HSG D ed pavemer verage opervious A onnected | n <u>t, HSG D</u> .rea | on | | | |
| Area (sf) 1,832 155 1,987 1,987 | CN D 98 P 98 U 98 V 1 7 Slope | Description Paved parki Inconnecte Veighted A 00.00% Im | ing, HSG D ed pavemer verage opervious A onnected | nt, HSG D | on | | | |
| Area (sf) 1,832 155 1,987 1,987 155 Tc Length | CN D 98 P 98 U 98 V 1 7 Slope | Description Paved parki Inconnecte Veighted A 00.00% Im .80% Unco Velocity | ing, HSG D ed pavemer verage opervious A onnected Capacity | n <u>t, HSG D</u> .rea | | | | |
| Area (sf) 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) | CN D 98 P 98 U 98 V 1 7 Slope | Description Paved parki Inconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) | ing, HSG D d pavemer verage pervious A pnnected Capacity (cfs) | nt, HSG D rea Descriptio Direct Er | | 5: C.14 | | |
| Area (sf) 1,832 1,987 1,987 1,987 1,55 Tc Length (min) (feet) | <u>CN</u> <u>D</u> 98 P 98 U 98 V 1 7 Slope (ft/ft) | Description aved parki Inconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) | ing, HSG D d pavemer verage pervious A pnnected Capacity (cfs) | nt, HSG D Irea Descriptio Direct Er Subcatch | ntry, ment 485 | 5: C.14 | 4.20" | |
| Area (sf) 1,832 155 1,987 1,987 155 Tc Length (min) (feet) 6.0 Runoff = | CN E 98 P 98 U 98 U 98 U 98 U 98 (f/f) Slope (ft/ft) 0.18 cf: | Pescription Paved parki Inconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) Summ s @ 12.09 | ing, HSG D ad pavemer verage pervious A onnected Capacity (cfs) hary for S | nt, HSG D rea Descriptio Direct Er Subcatch | ntry, ment 485 0.015 at | , Depth= | | |
| Area (sf) 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) 6.0 Runoff = Runoff by SCS T | CN E 98 P 98 V 0.18 cfr R-20 meth | Description Paved parki Inconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) Summ s @ 12.09 nod, UH=S | ing, HSG D ad pavemer verage pervious A onnected Capacity (cfs) hary for S | nt, HSG D rea Descriptio Direct Er Subcatch | ntry, ment 485 0.015 at | , Depth= | | hrs |
| Area (sf) 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) 6.0 Runoff = Runoff by SCS T | CN E 98 P 98 U 99 U 0.18 cfr -yr Rainfa | Description Paved parki Inconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) Summ s @ 12.09 nod, UH=S | ing, HSG D d pavemer verage ipervious A onnected Capacity (cfs) hary for S 9 hrs, Volu CS, Weigh | nt, HSG D rea Descriptio Direct Er Subcatch | ntry, ment 485 0.015 at | , Depth= | | hrs |
| Area (sf) 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) 6.0 Runoff = Runoff by SCS T Type III 24-hr 10 <u>Area (sf)</u> 1,744 | CN D 98 P 98 V 0.18 cfr R-20 mett -yr Rainfa CN D 98 P | Description Paved parki Inconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) Summ s @ 12.09 nod, UH=S III=4.44" Description Paved parki | ing, HSG D id pavemer verage upervious A onnected Capacity (cfs) hary for S 9 hrs, Volu CS, Weigh ing, HSG D | nt, HSG D Description Direct Er Subcatch Ime= ted-CN, Tin | ntry, ment 485 0.015 at | , Depth= | | hrs |
| Area (sf) 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) 6.0 Runoff = Runoff by SCS T Type III 24-hr 10 Area (sf) 1,744 141 | CN E 98 P 98 V 0.18 cft R-20 method -yr Rainfa CN E 98 V 98 V | Description Paved parki Jnconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) Summ s @ 12.09 nod, UH=S Ill=4.44" Description aved parki Inconnecte | ing, HSG D id pavemer verage upervious A capacity (cfs) arry for S 9 hrs, Volu CS, Weigh ing, HSG D id pavemer | nt, HSG D Description Direct Er Subcatch Ime= ted-CN, Tin | ntry, ment 485 0.015 at | , Depth= | | hrs |
| Area (sf) 1,832 155 1,987 1,987 155 Tc Length (min) (feet) 6.0 Runoff Runoff Area (sf) 1,744 1,885 | CN D 98 P 98 V 0.18 cfr R-20 mettric -yr Rainfa CN D 98 P 98 P 98 V 98 V | Description Paved parki Inconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) Summ s @ 12.09 nod, UH=S III=4.44" Description Paved parki Inconnecte Veighted A | ing, HSG D d pavemer verage ppervious A connected Capacity (cfs) hary for S 9 hrs, Volu CS, Weigh ing, HSG D id pavemer verage | nt, HSG D Jescriptio Direct Er Subcatch Ime= ted-CN, Tiu | ntry, ment 485 0.015 at | , Depth= | | hrs |
| Area (sf) 1,832 155 1,987 1,987 1,987 155 Tc Length (min) (feet) 6.0 Runoff = Runoff by SCS T Type III 24-hr 10 Area (sf) 1,744 141 | CN D 98 P 98 U 98 U 98 U 98 U 1 7 Slope (ft/ft) 0.18 cfr V Rainfa -yr Rainfa ON D 98 P 98 U 98 U 98 U 98 U 98 U 98 U | Description Paved parki Inconnecte Veighted A 00.00% Im .80% Uncc Velocity (ft/sec) Summ s @ 12.09 nod, UH=S III=4.44" Description Paved parki Inconnecte Veighted A | ing, HSG D d pavemer verage pervious A onnected Capacity (cfs) hary for S 9 hrs, Volu CS, Weigh cS, Weigh ing, HSG D d pavemer verage pervious A | nt, HSG D Jescriptio Direct Er Subcatch Ime= ted-CN, Tiu | ntry, ment 485 0.015 at | , Depth= | | hrs |

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.44"

| (min) | Length (feet) | Slope (ft/ft) | e Veloci) (ft/se | | apacity (cfs) | Descri | ption | | | | |
|--|--|---|--|---|--|---|------------------------|---|------------------------|----------------------|-----|
| 6.0 | | | | | | Direct | Entry | y, | | | |
| | | | Sun | nmar | y for S | Subcate | chme | ent 49S: | C.15 | | |
| Runoff | = | 0.34 c | cfs @ 12 | 2.09 hi | rs, Volu | ume= | | 0.028 af, | Depth= 4 | .20" | |
| | | | thod, UH fall=4.44 | | , Weigh | ited-CN, | Time | Span= 0. | 00-72.00 h | rs, dt= 0.05 | hrs |
| A | rea (sf) | | Descripti | | | | | | | | |
| | 3,220 267 | | Paved pa Unconne | | | | D | | | | |
| | 3,487 3,487 267 | 98 | Weighted 100.00% 7.66% U | l Aver Impei | age rvious A | | | | | | |
| Tc (min) | Length (feet) | Slope (ft/ft) | | | apacity (cfs) | Descri | ption | | | | |
| 6.0 | | | | | | Direct | Entry | | | | |
| | | | | | | Direct | LIIU | y , | | | |
| | | | Sun | nmar | y for S | | - | , ent 50S: | C.16 | | |
| Runoff | _ | 0 34 c | | | | Subcate | chme | ent 50S: | | 20" | |
| Runoff | = | | cfs @ 12 | 2.09 hi | rs, Volu | Subcato | chme | ent 50S: 0.028 af, | Depth= 4 | | hus |
| Runoff b | y SCS TF | R-20 me | cfs @ 12 | 2.09 hi =SCS | rs, Volu | Subcato | chme | ent 50S: 0.028 af, | Depth= 4 | .20" rs, dt= 0.05 | hrs |
| Runoff b Type III 2 | y SCS TF | R-20 me yr Rainf | cfs @ 12 thod, UH | 2.09 hi =SCS | rs, Volu | Subcato | chme | ent 50S: 0.028 af, | Depth= 4 | | hrs |
| Runoff b Type III 2 | y SCS TF 24-hr 10- <u>rea (sf)</u> 3,238 | R-20 me yr Rainf <u>CN</u> 98 | ofs @ 12 hthod, UH fall=4.44" <u>Descripti</u> Paved pa | 2.09 hi =SCS <u>on</u> arking, | , Weigh | Subcato ume= uted-CN, | chme | ent 50S: 0.028 af, | Depth= 4 | | hrs |
| Runoff b Type III 2 | y SCS TF 24-hr 10- rea (sf) | R-20 me yr Rainf <u>CN</u> 98 98 | cfs @ 12 thod, UH fall=4.44" Descripti | 2.09 hr =SCS on arking, cted p | , Weigh , Weigh HSG E | Subcato ume= uted-CN, | chme | ent 50S: 0.028 af, | Depth= 4 | | hrs |
| Runoff b Type III 2 | y SCS TF 24-hr 10- <u>rea (sf)</u> 3,238 270 | R-20 me yr Rainf <u>CN</u> 98 98 98 | ofs @ 12 thod, UH fall=4.44" <u>Descripti</u> Paved pa <u>Unconne</u> | 2.09 hr =SCS on arking, cted p I Aver Imper | rs, Volu , Weigh HSG E baveme age rvious A | Subcato ume= nted-CN, nt, HSG | chme | ent 50S: 0.028 af, | Depth= 4 | | hrs |
| Runoff b Гуре III 2 А | y SCS TF 24-hr 10- rea (sf) 3,238 270 3,508 3,508 | R-20 me yr Rainf <u>CN</u> 98 98 98 | ofs @ 12 thod, UH fall=4.44" <u>Descripti</u> Paved pa <u>Unconne</u> Weighted 100.00% 7.70% U | 2.09 hr =SCS on arking, cted p d Aver Imper nconn ty Ca | rs, Volu , Weigh HSG E baveme age rvious A | Subcato ume= nted-CN, nt, HSG | Time | ent 50S: 0.028 af, | Depth= 4 | | hrs |
| Runoff b Type III 2 A Tc | y SCS TF 24-hr 10- 3,238 270 3,508 3,508 270 Length | R-20 me yr Rainf <u>CN</u> 98 98 98 98 Slope | ofs @ 12 thod, UH fall=4.44" <u>Descripti</u> Paved pa <u>Unconne</u> Weighted 100.00% 7.70% U | 2.09 hr =SCS on arking, cted p d Aver Imper nconn ty Ca | rs, Volu , Weigh HSG I aveme age vious A ected apacity | Subcato ume= nted-CN, nt, HSG | Time | ent 50S: 0.028 af, Span= 0. | Depth= 4 | | hrs |
| Runoff b Fype III 2 A Tc (min) | y SCS TF 24-hr 10- 3,238 270 3,508 3,508 270 Length | R-20 me yr Rainf <u>CN</u> 98 98 98 98 Slope | cfs @ 12 thod, UH fall=4.44" <u>Descripti</u> Paved pa <u>Unconne</u> Weightec 100.00% 7.70% U e Veloci) (ft/se | 2.09 hi =SCS on arking, cted p d Aver Imper nconn ty Ca c) | rs, Volu , Weigh HSG I baveme age rvious A ected apacity (cfs) | Subcato ume= hted-CN, nt, HSG vrea Descrij Direct | Time D Dtion | ent 50S: 0.028 af, Span= 0. | Depth= 4 00-72.00 h | | hrs |
| Runoff b Fype III 2 A Tc (min) | y SCS TF 24-hr 10- 3,238 270 3,508 3,508 270 Length | R-20 me yr Rainf 98 98 98 Slope (ft/ft) | cfs @ 12 thod, UH fall=4.44" <u>Descripti</u> Paved pa <u>Unconne</u> Weightec 100.00% 7.70% U e Veloci) (ft/se | 2.09 hr =SCS on arking, <u>cted p</u> d Aver Imper nconn ty Ca c) mma | rs, Volu , Weigh HSG E vaveme age vious A ected apacity (cfs) | Subcato ume= hted-CN, nt, HSG vrea Descrip Direct Subcat | Time D ption Entry chm | ent 50S: 0.028 af, Span= 0. y, ent 51S: | Depth= 4 00-72.00 h | rs, dt= 0.05 | hrs |

| 6842-Post | Type III 24-hr 10-yr Rainfall=4.44" |
|--|---|
| | ter your company name here} 3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 60 |
| Area (of) | CN Description |
| <u>Area (sf)</u> 1,527 | CN Description 98 Unconnected pavement, HSG A |
| * 182,934 | 68 >75% Grass cover, Good, HSG A |
| * 518 | 79 >75% Grass cover, Good, HSG B |
| * 51,440 * 160,796 | 89 >75% Grass cover, Good, HSG D 43 Woods, Good, HSG A |
| * 5,106 | 65 Woods, Good, HSG B |
| * 450 | 82 Woods, Good, HSG D |
| 402,771 | 61 Weighted Average |
| 401,244 1,527 | 99.62% Pervious Area 0.38% Impervious Area |
| 1,527 | 100.00% Unconnected |
| Tc Length (min) (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) |
| (min) (feet) 20.0 | Direct Entry, |
| | Summary for Subactabulant 52St B.0 |
| | Summary for Subcatchment 52S: B.9 |
| Runoff = | 1.34 cfs @ 12.09 hrs, Volume= 0.102 af, Depth= 3.54" |
| Runoff by SCS TF Type III 24-hr 10- | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs yr Rainfall=4.44" |
| Area (sf) | CN Description |
| 10,973 | 98 Paved parking, HSG A |
| * 2,895 | 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A |
| <u> </u> | 92 Weighted Average |
| 2,895 | 19.28% Pervious Area |
| 12,123 | 80.72% Impervious Area |
| 1,150 | 9.49% Unconnected |
| Tc Length | Slope Velocity Capacity Description |
| (min) (feet) 6.0 | (ft/ft) (ft/sec) (cfs) Direct Entry, |
| 0.0 | Direct Entry, |
| 5 | Summary for Pond 4P: Constructed Stormwater Wetland #2 |
| Inflow Area = | 2.341 ac, 79.77% Impervious, Inflow Depth = 3.06" for 10-yr event |
| Inflow = Outflow = | 7.09 cfs @ 12.09 hrs, Volume= 0.596 af |
| Outflow = Primary = | 0.54 cfs @ 13.36 hrs, Volume= 0.595 af, Atten= 92%, Lag= 76.0 min 0.54 cfs @ 13.36 hrs, Volume= 0.595 af |
| | nd method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 2' @ 13.36 hrs Surf.Area= 8,926 sf Storage= 13,989 cf |
| | on time= 344.0 min calculated for 0.595 af (100% of inflow) et. time= 342.4 min (1,109.0 - 766.6) |
| | |
| | |
| | |

| HydroCA | D® 10.10-3a | s/n 03590 | © 2020 I | lydroCAD Software Sc | lutions LLC | | Page 6' |
|--|--|---|--|---|---|---|---------|
| Volume | Invert | Avail | .Storage | Storage Description | ı | | |
| #1 | 212.50 | 3 | 1,125 cf | Custom Stage Dat | ta (Irregular)Listed | below (Recalc) | |
| Elevatio (fee | | urf.Area (sq-ft) | Perim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) | |
| 212.5 | / | 6,500 | 322.0 | | 0 | 6,500 | |
| 214.0 216.0 | | 8,459 11,559 | 362.0 453.0 | | 11,187 31,125 | 8,737 14,695 | |
| Device | Routing | Inv | ert Out | et Devices | | | |
| #1 | Primary | 215. | 50' 20.0 | long x 12.0' bread | | | ir |
| | | | | d (feet) 0.20 0.40 (| | | |
| #2 | Device 3 | 214. | | f. (English) 2.57 2.6 Iong Sharp-Crested | | | on(s) |
| #3 | Primary | 212. | 50' 15.0 | " Round Culvert | Ū | | |
| | | | | 111.0' CPP, projecti | | | |
| | | | | t / Outlet Invert= 212.).013, Flow Area= 1. | | .0186 7 Cc= 0.9 | UU |
| | | | | 1.010, 110W Alca - 1. | | | |
| -1=Br -3=Cu -2= | oad-Creste Ilvert (Pass Sharp-Cres | d Rectang es 0.54 cfs sted Recta | ofs @ 13.3 Jular Wei s of 5.10 Angular V | ' Vert. Orifice/Grate 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) | (Free Discharge) fs) | d to weir flow at lo | w heads |
| Primary 1=Bro 3=Cu | OutFlow Moad-Creste | lax=0.54 d d Rectang es 0.54 cf s ted Rect a | ofs @ 13.3 Jular Wei s of 5.10 angular V e Controls | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c | (Free Discharge) fs) | d to weir flow at ic | w heads |
| Primary 1=Bro 3=Cu | outFlow M oad-Creste Ilvert (Pass Sharp-Cres Orifice/Gra | lax=0.54 d d Rectang es 0.54 cfs sted Recta te (Orifice 7.170 ac, | ofs @ 13.3 gular Wei s of 5.10 (angular V controls Sumn 31.40% (| 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) nary for Pond 5P Impervious, Inflow D | (Free Discharge) fs) : Wet Basin epth = 2.43" for | d to weir flow at lo | w heads |
| Primary 1=Brd 3=Cu 2= 4= Inflow Au | OutFlow N oad-Creste Ilvert (Pass Sharp-Crest Orifice/Gra | lax=0.54 d d Rectang es 0.54 cfs sted Recta te (Orifice 7.170 ac, 1.71 cfs @ | ofs @ 13.3 gular Wei s of 5.10 (angular V controls Sumn 31.40% (2.25 h | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) nary for Pond 5P Impervious, Inflow D rrs, Volume= | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af | 10-yr event | |
| Primary 1=Bro 3=Cu 1-2= 4= | OutFlow N oad-Creste Ilvert (Pass Sharp-Cres Orifice/Gra | 1ax=0.54 d d Rectang es 0.54 cf. ited Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ | cfs @ 13.3 gular Wei s of 5.10 (angular V Controls Sumn 31.40% (2 12.25 h 12.49 h | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) nary for Pond 5P Impervious, Inflow D | (Free Discharge) fs) : Wet Basin epth = 2.43" for | 10-yr event | |
| Primary 1=Bro 3=Cu 2= 4= Inflow Ad Inflow Outflow Primary | outFlow N oad-Creste ilvert (Pass Sharp-Cress Orifice/Gra | lax=0.54 c d Rectang es 0.54 cf: sted Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ | ofs @ 13.: gular Wei s of 5.10 angular V c Controls Sumn 31.40% I 2 12.25 I 2 12.49 I 12.49 I | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) nary for Pond 5P Impervious, Inflow D rrs, Volume= rrs, Volume= rrs, Volume= | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af 1.451 af, Atten= ; 1.451 af | 10-yr event | |
| Primary 1=Bro 3=Cu 2= 4= Inflow Al Inflow Outflow Primary Routing | outFlow N oad-Creste ilvert (Pass Sharp-Crest Orifice/Gra rea = = 1 = 1 = 1 = 1 = 1 = 1 | lax=0.54 c d Rectang es 0.54 cfi ited Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ 3.19 cfs @ method, T | ofs @ 13.3 Jular Wei s of 5.10 angular V Controls Sumn 31.40% 12.25 H 12.49 H 12.49 H 12.49 H 12.49 H | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) nary for Pond 5P Impervious, Inflow D rrs, Volume= rs, Volume= | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af 1.451 af, Atten= 3 1.451 af : 0.05 hrs | 10-yr event | |
| Primary 1=Br 3=Cu 2= 4= Inflow Al Inflow Outflow Primary Routing Peak Ele Plug-Flo | rea = = 1 = 4 by Stor-Ind ev= 215.03' | lax=0.54 d d Rectang es 0.54 dc tet Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ 3.19 cfs @ method, T @ 12.49 h time= 27. | cfs @ 13.: yular Wei s of 5.10 angular V Controls Summ 31.40% 12.25 12.49 12.49 12.49 12.49 Summ Summ Summ 31.40% 12.49 12.49 21.40 str 31.40% 21.40 str 31.40% 21.40 str 31.40% 21.40 str 31.40% <td< td=""><td>36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) nary for Pond 5P Impervious, Inflow D nrs, Volume= nrs, Volume= nrs, Volume= urs, Volume= = 0.00-72.00 hrs, dt=</td><td>(Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af, Atten= 3 1.451 af, Atten= 3 1.451 af e 0.05 hrs rrage= 11,160 cf</td><td>10-yr event</td><td></td></td<> | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) nary for Pond 5P Impervious, Inflow D nrs, Volume= nrs, Volume= nrs, Volume= urs, Volume= = 0.00-72.00 hrs, dt= | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af, Atten= 3 1.451 af, Atten= 3 1.451 af e 0.05 hrs rrage= 11,160 cf | 10-yr event | |
| Primary 1=Br 3=Cu 2= 4= Inflow Al Inflow Outflow Primary Routing Peak Ele Plug-Flo | rea = = 1 = 4 by Stor-Ind ev= 215.03' | lax=0.54 d d Rectanges 0.54 df ted Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ 3.19 cfs @ 3.19 cfs @ 12.49 h time= 27. time= 27. | cfs @ 13.: yular Wei s of 5.10 angular V Controls Summ 31.40% 12.25 12.49 12.49 12.49 12.49 Summ Summ Summ 31.40% 12.49 12.49 21.40 str 31.40% 21.40 str 31.40% 21.40 str 31.40% 21.40 str 31.40% <td< td=""><td>36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) mary for Pond 5P Impervious, Inflow D nrs, Volume= nrs, Volume= hrs, Volume= ars, Volume= hrs, Volume= ars, Volume= hrs, Vol</td><td>(Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af, Atten= 3 1.451 af, Atten= 3 1.451 af 0.05 hrs wage= 11,160 cf 100% of inflow)</td><td>10-yr event</td><td></td></td<> | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) mary for Pond 5P Impervious, Inflow D nrs, Volume= nrs, Volume= hrs, Volume= ars, Volume= hrs, Volume= ars, Volume= hrs, Vol | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af, Atten= 3 1.451 af, Atten= 3 1.451 af 0.05 hrs wage= 11,160 cf 100% of inflow) | 10-yr event | |
| Primary 1=Br 3=Cu 4= Inflow Ad Inflow Outflow Primary Routing Peak Ele Plug-Flo Center-co | rea = = 1 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 | lax=0.54 d d Rectang se 0.54 d tet Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ 3.19 cfs @ method, T @ 12.49 h time= 27. time= 27. Avail | offs @ 13.: yular Weils of 5.10 (angular V) s of 5.10 (angular V) Controls Summ 31.40% (angular V) 31.40% (angular V) 2.25 (bngular V) 2 12.25 (bngular V) 2 12.25 (bngular V) 2 12.49 (bngular V) 2 12.49 (bngular V) 3 12.49 (bngular V) 7 min calk 3 min (angular V) | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) mary for Pond 5P Impervious, Inflow D nrs, Volume= nrs, Volume= hrs, Volume= ars, Volume= hrs, Volume= ars, Volume= hrs, Vol | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af, Atten= 3 1.451 af, Atten= 3 1.451 af 0.05 hrs irage= 11,160 cf 100% of inflow) | 10-yr event 30%, Lag= 14.4 r | |
| Primary 1=Br 3=Cu 2= 4= Inflow Ad Inflow Outflow Primary Routing Peak Ele Plug-Flo Center-co Volume #1 Elevatic | rea = = 1 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 = 4 | lax=0.54 d d Rectang es 0.54 df ted Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ 3.19 cfs @ 3.19 cfs @ 12.49 h time= 27. time= 27. Avail urf.Area | cfs @ 13.: jular Wei s of 5.10 (angular V Controls Sumn 31.40% (2 12.25 f) 2 12.25 f) 1 2.49 f 1 2.49 f ime Span irs Surf 7 min cald 3 min (84 <u>Storage</u> 3,930 cf Perim. | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) mary for Pond 5P Impervious, Inflow D nrs, Volume= nrs, Volume= ars, Vol | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af, Atten= 3 1.451 af, A | 10-yr event 30%, Lag= 14.4 i below (Recalc) Wet.Area | |
| Primary 1=Bm 3=Cu 2= 4= Inflow Outflow Primary Routing Peak Ele Plug-Flo Center-c Volume #1 Elevatic (fee | rea = by Stor-Ind ev= 215.03' w detention of-Mass det. Invert 214.00' on S et) | lax=0.54 d d Rectang es 0.54 df ited Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ 3.19 cfs @ 3.19 cfs @ method, T @ 12.49 h time= 27. time= 27. Avail 00 urf.Area (sq-ft) | offs @.13.: yular Weils s of 5.10 i s of 5.10 i angular V Controls Summ 31.40% i 2 12.49 i i 2 12.49 i i 2 12.49 i i 3 min (84 Storage 3,930 cf Perim | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) mary for Pond 5P Impervious, Inflow D rs, Volume= rs, Volume= rs, Volume= is, Volume= 12,562 sf Stc culated for 1.451 af (1 3.5 - 816.2) Storage Description Custom Stage Dat Inc.Store (cubic-feet) | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af, Atten= 3 1.451 af, | 10-yr event 30%, Lag= 14.4 r below (Recalc) Wet.Area (sq-ft) | |
| Primary 1=Brr 3=Cu 2= 4= Inflow Au Inflow Outflow Primary Routing Peak Ele Plug-Flo Center-co Volume #1 Elevatic (fee 214.0 | rea = by Stor-Ind ev= 215.03' w detention of-Mass det. Invert 214.00' on S bt) 00 | lax=0.54 d d Rectard es 0.54 d tet Rectat fe (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ 3.19 cfs @ 3.19 cfs @ 12.49 h time= 27. time= 27. Avail 10 urf.Area (sq-ft) 9,189 | cfs @ 13.: yular Wei s of 5.10 0 angular V Controls Summ 31.40% 12.25 f 212.49 f 12.49 f 13.40 c 13.40 c 14.40 c 1 | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) nary for Pond 5P Impervious, Inflow D rrs, Volume= rrs, Volume= rrs, Volume= ars, Volume ars, Volume= ars, Vol | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af 1.451 af, Atten= : 1.451 af 1.451 af | 10-yr event 30%, Lag= 14.4 r below (Recalc) Wet.Area (sq-ft) 9,189 | |
| Primary 1=Brr 3=Cu 2= 4= Inflow At Inflow Outflow Primary Routing Peak Elev Plug-Flo Center-co Volume #1 Elevatic (fee | rea = = 1 by Stor-Ind eve = 215.03' w detention of-Mass det. Invert 214.00' on S b) 00 00 | lax=0.54 d d Rectang es 0.54 df ited Recta te (Orifice 7.170 ac, 1.71 cfs @ 3.19 cfs @ 3.19 cfs @ 3.19 cfs @ method, T @ 12.49 h time= 27. time= 27. Avail 00 urf.Area (sq-ft) | offs @.13.: yular Weils s of 5.10 i s of 5.10 i angular V Controls Summ 31.40% i 2 12.49 i i 2 12.49 i i 2 12.49 i i 3 min (84 Storage 3,930 cf Perim | 36 hrs HW=214.32' r (Controls 0.00 cfs) cfs potential flow) Veir (Controls 0.00 c 0.54 cfs @ 6.20 fps) mary for Pond 5P Impervious, Inflow D trs, Volume= trs, Vol | (Free Discharge) fs) : Wet Basin epth = 2.43" for 1.451 af, Atten= 3 1.451 af, | 10-yr event 30%, Lag= 14.4 r below (Recalc) Wet.Area (sq-ft) | |

| | | | ny name here} 2020 HydroCAD Software Solutions LLC | Daga 62 | | | |
|---|--|--|--|---|--|--|--|
| iyuroc <i>P</i> | 10.10-3a | <u>s/11 03590 @ 2</u> | 2020 Hydrocad Software Solutions LEC | Page 62 | | | |
| Device | 0 | | Outlet Devices | | | | |
| #1 | Primary | 213.43' | 24.0" Round Culvert L= 580.0" CPP, projecting, no headwa Inlet / Outlet Invert= 213.43' / 211.63' n= 0.013, Flow Area= 3.14 sf | | | | |
| #2 | Device 1 | 214.00' | 45.0 deg x 4.0' long Sharp-Crested V | ee/Trap Weir | | | |
| #3 | Device 1 | 215.50' | Cv= 2.56 (C= 3.20) 4.2' long x 4.2' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2. 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.53 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.67 2.71 2.72 2.74 2.77 2.85 3.01 3.23 | | | | |
| -1=Ci -1=Ci | ulvert (Barre =Sharp-Cres | l Controls 8.1 ted Vee/Trap | 12.49 hrs HW=215.03' (Free Dischal 8 cfs @ 4.16 fps) Weir (Passes 8.18 cfs of 14.50 cfs pote ular Weir (Controls 0.00 cfs) | | | | |
| | Su | mmary for | Pond 7P: Constructed Stormwate | er Wetland #1 | | | |
| nflow A | | | 79% Impervious, Inflow Depth = 2.21" | for 10-yr event | | | |
| nflow Dutflow | | | 2.10 hrs, Volume= 2.191 af | | | | |
| rimary | | | 2.14 hrs, Volume= 2.191 af, Att 2.14 hrs, Volume= 2.191 af | ten= 8%, Lag= 2.4 min | | | |
| Routing | by Stor-Ind i | method. Time | Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3 | | | | |
| Peak ĔĬ | ev= 215.37' (| | Surf.Area= 12,086 sf Storage= 6,222 c | f | | | |
| lug-Flo | ow detention | @ 12.14 hrs time= 35.1 mi | | | | | |
| lug-Flo | ow detention of-Mass det. | @ 12.14 hrs time= 35.1 mi time= 34.8 mi | Surf.Area= 12,086 sf Storage= 6,222 c in calculated for 2.191 af (100% of inflow in (862.0 - 827.3) | | | | |
| Plug-Flo Center-o | ow detention of-Mass det. | @ 12.14 hrs time= 35.1 mi time= 34.8 mi Avail.Sto | Surf.Area= 12,086 sf Storage= 6,222 c in calculated for 2.191 af (100% of inflow in (862.0 - 827.3) |) | | | |
| Plug-Flo Center-o <u>(olume</u> #1 Elevatio | ow detention of-Mass det. <u>Invert</u> 214.80' on St | @ 12.14 hrs time= 35.1 mi time= 34.8 mi <u>Avail.Sto</u> 14,75 urf.Area P | Surf.Area= 12,086 sf Storage= 6,222 c in calculated for 2.191 af (100% of inflow in (862.0 - 827.3) rage Storage Description 59 cf Custom Stage Data (Irregular)L erim. Inc.Store Cum.Store |) isted below (Recalc) e Wet.Area | | | |
| Plug-Flo Center-o <u>/olume</u> #1 Elevatio (fee | ow detention of-Mass det. <u>Invert</u> 214.80' on St et) | @ 12.14 hrs time= 35.1 mi time= 34.8 mi <u>Avail.Sto</u> 14,7 urf.Area P (sq-ft) | Surf.Area= 12,086 sf Storage= 6,222 c in calculated for 2.191 af (100% of inflow in (862.0 - 827.3) rage Storage Description 59 cf Custom Stage Data (Irregular)L erim. Inc.Store Cum.Store (feet) (cubic-feet) (cubic-feet) |) isted below (Recalc) e Wet.Area :) (sq-ft) | | | |
| lug-Flo enter-o <u>olume</u> #1 Elevatio | ow detention of-Mass det. <u>Invert</u> 214.80' on Si et) 80 | @ 12.14 hrs time= 35.1 mi time= 34.8 mi <u>Avail.Sto</u> 14,75 urf.Area P (sq-ft) 9,939 | Surf.Area= 12,086 sf Storage= 6,222 c in calculated for 2.191 af (100% of inflow in (862.0 - 827.3) rage Storage Description 59 cf Custom Stage Data (Irregular)L erim. Inc.Store Cum.Store (feet) (cubic-feet) (cubic-feet) |) isted below (Recalc) e Wet.Area .) (sq-ft) 0 9,939 | | | |
| lug-Flo enter-o <u>folume</u> #1 Elevatio (fee 214.8 | ow detention of-Mass det. Invert 214.80' on Si et) 80 00 | @ 12.14 hrs time= 35.1 mi time= 34.8 mi <u>Avail.Sto</u> 14,75 urf.Area P (sq-ft) 9,939 7 10,413 7 | Surf.Area= 12,086 sf Storage= 6,222 c in calculated for 2.191 af (100% of inflow in (862.0 - 827.3) rage Storage Description 59 cf Custom Stage Data (Irregular)L erim. Inc.Store Cum.Store (feet) (cubic-feet) (cubic-feet) |) isted below (Recalc) e Wet.Area :) (sq-ft) 0 9,939 5 10,570 | | | |
| lug-Flc center-o <u>folume</u> #1 Elevatio (fee 214.8 215.0 216.0 | ow detention of-Mass det. Invert 214.80' on Si et) 80 00 | @ 12.14 hrs time= 35.1 mi time= 34.8 mi <u>Avail.Sto</u> 14,75 urf.Area P (sq-ft) 9,939 10,413 15,185 1,2 Invert | Surf.Area= 12,086 sf Storage= 6,222 c in calculated for 2.191 af (100% of inflow in (862.0 - 827.3) rage Storage Description 59 cf Custom Stage Data (Irregular)L erim. Inc.Store Cum.Store (feet) (cubic-feet) (cubic-feet) 771.0 2,035 2,033 210.0 12,724 14,755 |) isted below (Recalc) e Wet.Area :) (sq-ft) 0 9,939 5 10,570 | | | |
| lug-Flo center-o <u>'olume</u> #1 Elevatio (fec 214.8 215.0 | ow detention of-Mass det. 214.80' on Si et) 80 00 00 | @ 12.14 hrs time= 35.1 mi time= 34.8 mi <u>Avail.Sto</u> 14,74 urf.Area P (sq-ft) 9,939 10,413 15,185 1,2 | Surf.Area= 12,086 sf Storage= 6,222 c in calculated for 2.191 af (100% of inflow in (862.0 - 827.3) rage Storage Description 59 cf Custom Stage Data (Irregular)L erim. Inc.Store Cum.Store (feet) (cubic-feet) (cubic-feet) 771.0 2,035 2,033 210.0 12,724 14,755 | isted below (Recalc) e Wet.Area () (sq-ft) 0 9,939 5 10,570 9 79,782 () () () () () () () () () () () () () (| | | |

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| | | Q., | 020 HydroCAD Softw | | Page 63 |
|--|----------------|---|--|--|-----------------------------------|
| | | Summary to | or Pond 12P: ST | ONE RECHARGE TR | ENCH |
| Inflow A Inflow Outflow Discarde Primary | = = ed = | 1.73 cfs @ 12 0.85 cfs @ 12 0.17 cfs @ 12 | 0% Impervious, In: .09 hrs, Volume= .40 hrs, Volume= .40 hrs, Volume= .40 hrs, Volume= | flow Depth = 4.20" for 0.143 af 0.143 af, Atten= 5 0.137 af 0.006 af | 10-yr event i1%, Lag= 18.7 min |
| | | | Span= 0.00-72.00 h Surf.Area= 2,427 sf | nrs, dt= 0.05 hrs Storage= 1,942 cf | |
| | | | n calculated for 0.14 n(831.2-750.1) | 43 af (100% of inflow) | |
| Volume | | | age Storage Desc | | |
| #1 | 219.00 | ' 1,94 | | 0.00'L x 2.00'H Prismatoi rall x 40.0% Voids | d |
| Device | | Invert | Outlet Devices | | |
| #1 | Primary | 221.00' | Head (feet) 0.20 (2.50 3.00 | breadth Broad-Crested 0.40 0.60 0.80 1.00 1.2 69 2.72 2.75 2.85 2.98 | 0 1.40 1.60 1.80 2.00 |
| #2 | Discarded | 219.00' | | ation over Surface area oundwater Elevation = 210 | 0.00' |
| | | v Max=0.17 cfs Controls 0.17 c | | 221.00' (Free Discharge |) |
| Primary | OutFlow | Max=0.22 cfs @ d Rectangula |) 12.40 hrs HW=22 Weir (Weir Control | 21.00' (Free Discharge) Is 0.22 cfs @ 0.12 fps) | |
| | | Summary fo | or Pond 17P: ST | ONE RECHARGE TR | ENCH |
| Inflow A Inflow Outflow Discarde Primary | = = ed = | 1.73 cfs @ 12 0.85 cfs @ 12 0.17 cfs @ 12 | 0% Impervious, In .09 hrs, Volume= .40 hrs, Volume= .40 hrs, Volume= .40 hrs, Volume= | flow Depth = 4.20" for 0.143 af 0.143 af, Atten= 5 0.137 af 0.006 af | 10-yr event i1%, Lag= 18.7 min |
| | | | Span= 0.00-72.00 h Surf.Area= 2,427 sf | nrs, dt= 0.05 hrs Storage= 1,942 cf | |
| | | | n calculated for 0.14 n(831.2 - 750.1) | 43 af (100% of inflow) | |
| Volume | | | age Storage Desc | | |
| #1 | 219.00 | ' 1,94 | | 9.00'L x 2.00'H Prismatoi rall x 40.0% Voids | d |
| | | | | | |

| Device #1 #2 | Routing Primary | Invert 221.00' | Outlet Devices | |
|--|----------------------------------|--|---|-----------|
| | Primary | 221.00' | | |
| #2 | | | 809.0' long x 1.0' breadth Broad-Crested Rectangular Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3 3.30 3.31 3.32 | 1.80 2.00 |
| | Discarded | 219.00' | 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' | |
| | ed OutFlow M filtration (Cor | | : @ 12.40 hrs HW=221.00' (Free Discharge) fs) | |
| Primary 1=Bro | OutFlow Max ad-Crested R | =0.22 cfs @ ectangula | 0 12.40 hrs HW=221.00' (Free Discharge) r Weir (Weir Controls 0.22 cfs @ 0.12 fps) | |
| | Su | immary f | or Pond 19P: STONE RECHARGE TRENCH | |
| Inflow Ard Inflow Outflow Discarde Primary | = 1.73 = 0.83 d = 0.1 | 3 cfs @ 12 5 cfs @ 12 7 cfs @ 12 | 00% Impervious, Inflow Depth = 4.20" for 10-yr event 0.09 hrs, Volume= 0.143 af 2.40 hrs, Volume= 0.143 af, Atten= 51%, Lag= 18 2.40 hrs, Volume= 0.137 af 2.40 hrs, Volume= 0.006 af | 3.7 min |
| Peak Ĕle Plug-Flov | v = 221.00' @ w detention tim | 12.40 hrs ie= 81.2 mi | Span= 0.00-72.00 hrs, dt= 0.05 hrs Surf.Area= 2,427 sf Storage= 1,942 cf n calculated for 0.143 af (100% of inflow) n (831.2 - 750.1) | |
| Volume | Invert | | rage Storage Description | |
| #1 | 219.00' | 1,94 | 2 cf 3.00'W x 809.00'L x 2.00'H Prismatoid 4,854 cf Overall x 40.0% Voids | |
| Device | Routing | Invert | Outlet Devices | |
| #1 | Primary | 221.00' | 809.0' long x 1.0' breadth Broad-Crested Rectangular Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3 | 1.80 2.00 |
| #2 | Discarded | 219.00' | 2.30 3.31 3.32 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' | .20 0.01 |
| Discarde 2=Exf | ed OutFlow M filtration (Cor | ax=0.17 cfs ntrols 0.17 c | @ 12.40 hrs HW=221.00' (Free Discharge) fs) | |
| Primary | OutFlow Max ad-Crested R | =0.22 cfs @ ectangula | 0 12.40 hrs HW=221.00' (Free Discharge) • Weir (Weir Controls 0.22 cfs @ 0.12 fps) | |
| | | | | |
| | | | | |

| 6842-Post Type III 24-hr 10-yr Rainfall=4.44" Prepared by {enter your company name here} | 6842-Post Type III 24-hr 10-yr Rainfall=4.44" Prepared by {enter your company name here} |
|--|--|
| HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 65 | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 66 |
| Summary for Pond 21P: CB-4 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.345 ac, 80.72% Impervious, Inflow Depth = 3.54" for 10-yr event Inflow = 1.34 cfs @ 12.09 hrs, Volume= 0.102 af Outflow = 1.34 cfs @ 12.09 hrs, Volume= 0.102 af Primary = 1.34 cfs @ 12.09 hrs, Volume= 0.102 af | #1 Primary 215.60' 12.0'' Round Culvert L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.40' S= 0.0074 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.26' @ 12.09 hrs | Primary OutFlow Max=1.19 cfs @ 12.09 hrs HW=216.28' (Free Discharge) |
| Flood Elev= 218.50' | Summary for Pond 24P: CB-2 |
| Device Routing Invert Outlet Devices #1 Primary 215.50' 12.0'' Round Culvert L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.392 ac, 95.72% Impervious, Inflow Depth = 4.09" for 10-yr event Inflow = 1.64 cfs @ 12.09 hrs, Volume= 0.133 af Outflow = 1.64 cfs @ 12.09 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.0 min Primary = 1.64 cfs @ 12.09 hrs, Volume= 0.133 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Primary OutFlow Max=1.31 cfs @ 12.09 hrs HW=216.24' (Free Discharge) | Peak Elev= 217.01' @ 12.09 hrs Flood Elev= 219.20' |
| Summary for Pond 22P: DMH-2 | Device Routing Invert Outlet Devices |
| Inflow Area = 1.540 ac, 81.03% Impervious, Inflow Depth = 3.59" for 10-yr event Inflow = 6.00 cfs @ 12.09 hrs, Volume= 0.461 af Outflow = 6.00 cfs @ 12.09 hrs, Volume= 0.461 af, Atten= 0%, Lag= 0.0 min Primary = 6.00 cfs @ 12.09 hrs, Volume= 0.461 af | #1 Primary 216.20' 12.0'' Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.40' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.84' @ 12.09 hrs | Primary OutFlow Max=1.60 cfs @ 12.09 hrs HW=216.99' (Free Discharge) |
| Flood Elev= 218.90' | Summary for Pond 25P: CB-3 |
| Device Routing Invert Outlet Devices #1 Primary 215.30' 18.0" Round Culvert L= 101.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf | Inflow Area = 0.565 ac, 67.38% Impervious, Inflow Depth = 3.14" for 10-yr event Inflow = 2.00 cfs @ 12.09 hrs, Volume= 0.148 af Outflow = 2.00 cfs @ 12.09 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min Primary = 2.00 cfs @ 12.09 hrs, Volume= 0.148 af |
| Primary OutFlow Max=5.86 cfs @ 12.09 hrs HW=216.81' (Free Discharge) —1=Culvert (Inlet Controls 5.86 cfs @ 3.32 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.44' @ 12.09 hrs Flood Elev= 219.50' |
| Summary for Pond 23P: CB-1 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.307 ac, 83.76% Impervious, Inflow Depth = 3.65" for 10-yr event Inflow = 1.22 cfs @ 12.09 hrs, Volume= 0.093 af Outflow = 1.22 cfs @ 12.09 hrs, Volume= 0.093 af, Atten= 0%, Lag= 0.0 min Primary = 1.22 cfs @ 12.09 hrs, Volume= 0.093 af | #1 Primary 216.50' 12.0'' Round Culvert L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.50' / 215.40' S= 0.0289 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.29' @ 12.09 hrs Flood Elev= 218.60' | Primary OutFlow Max=1.96 cfs @ 12.09 hrs HW=217.42' (Free Discharge) -1=Culvert (Inlet Controls 1.96 cfs @ 2.58 fps) |
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| Z-Post Type III 24-hr 10-yr Rainfall=4.44" pared by {enter your company name here} 000000000000000000000000000000000000 | 6842-Post Type III 24-hr 10-yr Rainfall=4.4 Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 6 |
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| Summary for Pond 26P: DMH-1 | Device Routing Invert Outlet Devices |
| w Area = 1.264 ac, 80.14% Impervious, Inflow Depth = 3.56" for 10-yr event w = 4.86 cfs @ 12.09 hrs, Volume= 0.375 af low = 4.86 cfs @ 12.09 hrs, Volume= 0.375 af, Atten= 0%, Lag= 0.0 min | #1 Primary 215.10' 12.0" Round Culvert L = 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 214.30' S= 0.0050 '/' Cc= 0.900 Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| ary = 4.86 cfs @ 12.09 hrs, Volume= 0.375 af ting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs < Elev= 216.58' @ 12.09 hrs | Primary OutFlow Max=2.12 cfs @ 12.09 hrs HW=216.10' (Free Discharge) ←1=Culvert (Inlet Controls 2.12 cfs @ 2.70 fps) |
| d Elev= 218.90' | Summary for Pond 29P: CB-21 |
| ce Routing Invert Outlet Devices 11 Primary 215.30' 18.0" Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf | Inflow Area = 0.123 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af Outflow = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min Primary = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| hary OutFlow Max=4.74 cfs @ 12.09 hrs HW=216.55' (Free Discharge) =Culvert (Inlet Controls 4.74 cfs @ 3.01 fps) | Peak Elev= 216.61' @ 12.09 hrs Flood Elev= 219.20' |
| Summary for Pond 27P: DCB-22 | Device Routing Invert Outlet Devices |
| w Area = 0.515 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event w = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af low = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min ary = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af | #1 Primary 216.20' 12.0" Round Culvert L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| ing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Primary OutFlow Max=0.50 cfs @ 12.09 hrs HW=216.60' (Free Discharge) |
| k Elev= 216.53' @ 12.09 hrs d Elev= 218.50' | Summary for Pond 30P: DMH-15 |
| ce Routing Invert Outlet Devices 11 Primary 215.50' 12.0'' Round Culvert L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0060 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.637 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 2.70 cfs @ 12.09 hrs, Volume= 0.223 af Outflow = 2.70 cfs @ 12.09 hrs, Volume= 0.223 af, Atten= 0%, Lag= 0.0 min Primary = 2.70 cfs @ 12.09 hrs, Volume= 0.223 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| hary OutFlow Max=2.12 cfs @ 12.09 hrs HW=216.51' (Free Discharge) =Culvert (Inlet Controls 2.12 cfs @ 2.71 fps) | Peak Elev= 215.17' @ 12.09 hrs Flood Elev= 219.80' |
| Summary for Pond 28P: DMH-16 | Device Routing Invert Outlet Devices |
| w Area = 0.515 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event w = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af low = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min core 2.18 cfs @ 12.09 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min | #1 Primary 214.20' 15.0" Round Culvert L= 250.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.20' / 212.90' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| ary = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af ting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Primary OutFlow Max=2.63 cfs @ 12.09 hrs HW=215.15' (Free Discharge) |
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| Summary for Pond 31P: DMH-14 | Device Routing Invert Outlet Devices #1 Primary 215.60' 12.0" Round Culvert |
| ow Area = 1.468 ac, 97.47% Impervious, Inflow Depth = 4.12" for 10-yr event ow = 6.16 cfs @ 12.09 hrs, Volume= 0.504 af tflow = 6.16 cfs @ 12.09 hrs, Volume= 0.504 af v 0.504 af, Atten= 0%, Lag= 0.0 min 0.504 af | L= 180.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 214.70' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| mary = 6.16 cfs @ 12.09 hrs, Volume= 0.504 af uting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ak Elev= 214.41' @ 12.09 hrs | Primary OutFlow Max=2.06 cfs @ 12.09 hrs HW=216.57' (Free Discharge) |
| od Elev= 218.60' | Summary for Pond 34P: CB-23 |
| vice Routing Invert Outlet Devices #1 Primary 212.80' 18.0'' Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.80' / 212.50' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf | Inflow Area = 0.288 ac, 87.12% Impervious, Inflow Depth = 3.76" for 10-yr event Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.090 af Outflow = 1.16 cfs @ 12.09 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min Primary = 1.16 cfs @ 12.09 hrs, Volume= 0.090 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| mary OutFlow Max=6.00 cfs @ 12.09 hrs HW=214.37' (Free Discharge) 1=Culvert (Barrel Controls 6.00 cfs @ 4.02 fps) | Peak Elev= 216.57' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 32P: CB-20 | Device Routing Invert Outlet Devices |
| ow Area = 0.318 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event ow = 1.35 cfs @ 12.09 hrs, Volume= 0.111 af tflow = 1.35 cfs @ 12.09 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min mary = 1.35 cfs @ 12.09 hrs, Volume= 0.111 af | #1 Primary 215.90' 12.0" Round Culvert L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.90' / 215.70' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| uting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ak Elev= 216.21' @ 12.09 hrs | Primary OutFlow Max=1.13 cfs @ 12.09 hrs HW=216.56' (Free Discharge) |
| od Elev= 218.50' | Summary for Pond 35P: CB-24 |
| vice Routing Invert Outlet Devices #1 Primary 215.50' 12.0" Round Culvert L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' met / Outlet Invert= 215.50' / 215.30' S= 0.0167 '/' cc 0.013, Flow Area= 0.79 sf | Inflow Area = 0.224 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.95 cfs @ 12.09 hrs, Volume= 0.079 af Outflow = 0.95 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min Primary = 0.95 cfs @ 12.09 hrs, Volume= 0.079 af |
| mary OutFlow Max=1.31 cfs @ 12.09 hrs HW=216.20' (Free Discharge) 1=Culvert (Inlet Controls 1.31 cfs @ 2.24 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.48' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 33P: DMH-17 | Device Routing Invert Outlet Devices |
| ow Area = 0.513 ac, 92.75% Impervious, Inflow Depth = 3.95" for 10-yr event ow = 2.11 cfs @ 12.09 hrs, Volume= 0.169 af tflow = 2.11 cfs @ 12.09 hrs, Volume= 0.169 af, Atten= 0%, Lag= 0.0 min mary = 2.11 cfs @ 12.09 hrs, Volume= 0.169 af | #1 Primary 215.90' 12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.90' / 215.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| uting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ak Elev= 216.59' @ 12.09 hrs od Elev= 218.80' | Primary OutFlow Max=0.92 cfs @ 12.09 hrs HW=216.47' (Free Discharge) |
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| 6842-Post Type III 24-hr 10-yr Rainfall=4.44" Prepared by {enter your company name here} | 6842-Post Type III 24-hr 10-yr Rainfall=4.44" Prepared by {enter your company name here} |
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| Summary for Pond 36P: DMH-7 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.323 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 1.37 cfs @ 12.09 hrs, Volume= 0.113 af Outflow = 1.37 cfs @ 12.09 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min Primary = 1.37 cfs @ 12.09 hrs, Volume= 0.113 af | #1 Primary 232.20' 12.0" Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.72' @ 12.09 hrs | Primary OutFlow Max=0.18 cfs @ 12.09 hrs HW=232.43' (Free Discharge) -1=Culvert (Inlet Controls 0.18 cfs @ 1.29 fps) |
| Flood Elev= 219.80' | Summary for Pond 39P: CB-16 |
| Device Routing Invert Outlet Devices #1 Primary 216.00' 12.0" Round Culvert L= 220.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 214.80' S= 0.0055 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=1.33 cfs @ 12.09 hrs HW=216.70' (Free Discharge) 1=Culvert (Inlet Controls 1.33 cfs @ 2.25 fps) Summary for Pond 37P: DMH-10 | Inflow Area = $0.046 \text{ ac}, 100.00\%$ Impervious, Inflow Depth = 4.20° for 10-yr event Inflow = $0.19 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.016 af Outflow = $0.19 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.016 af , Atten= 0%, Lag= 0.0 min Primary = $0.19 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.016 af Routing by Stor-Ind method, Time Span= $0.00-72.00 \text{ hrs}$, dt= 0.05 hrs Peak Elev= 232.44° @ 12.09 hrs Flood Elev= 236.20° Device Routing Invert Outlet Devices |
| Inflow Area = 0.446 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 1.89 cfs @ 12.09 hrs, Volume= 0.156 af Outflow = 1.89 cfs @ 12.09 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min Primary = 1.89 cfs @ 12.09 hrs, Volume= 0.156 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 10.05 hrs | #1 Primary 232.20' 12.0'' Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.19 cfs @ 12.09 hrs HW=232.44' (Free Discharge) —1=Culvert (Inlet Controls 0.19 cfs @ 1.31 fps) |
| Peak Elev= 218.87' @ 12.09 hrs Flood Elev= 222.20' | Summary for Pond 52P: CB-17 |
| Device Routing Invert Outlet Devices #1 Primary 218.10' 15.0" Round Culvert L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf Primary OutFlow Max=1.84 cfs @ 12.09 hrs HW=218.86' (Free Discharge) T=1=Culvert (Inlet Controls 1.84 cfs @ 2.35 fps) | Inflow Area = 0.081 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 247.73' @ 12.09 hrs Flood Elev= 251.40' 12.09 hrs 12.09 hrs 12.09 hrs |
| Summary for Pond 38P: CB-15 | Device Routing Invert Outlet Devices |
| Inflow Area = $0.043 \text{ ac}, 100.00\%$ Impervious, Inflow Depth = $4.20"$ for 10-yr event Inflow = $0.18 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.015 af Outflow = $0.18 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.015 af , Atten= 0%, Lag= 0.0 min Primary = $0.18 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.015 af Routing by Stor-Ind method, Time Span= $0.00-72.00 \text{ hrs}$, dt= 0.05 hrs Peak Elev= $232.43"$ @ 12.09 hrs Flood Elev= $236.20"$ | #1 Primary 247.40' 12.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=247.72' (Free Discharge) 1=Culvert (Inlet Controls 0.33 cfs @ 1.52 fps) |
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| Summary for Pond 53P: CB-18 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af, Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af, Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af | #1 Primary 239.90' 12.0" Round Culvert L= 110.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 239.90' / 231.70' S= 0.0745 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 247.72' @ 12.09 hrs | Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=240.37' (Free Discharge) |
| Flood Elev= 251.40' | Summary for Pond 58P: CB-13 |
| Device Routing Invert Outlet Devices #1 Primary 247.40' 12.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af Outflow = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min Primary = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 219.18' @ 12.09 hrs |
| ←1=Culvert (Inlet Controls 0.33 cfs @ 1.52 fps) | Flood Elev= 221.90' |
| Summary for Pond 54P: DMH-13 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af Outflow = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min Primary = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af | #1 Primary 218.90' 12.0'' Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 246.87' @ 12.09 hrs | Primary OutFlow Max=0.25 cfs @ 12.09 hrs HW=219.18' (Free Discharge) |
| Flood Elev= 250.20' | Summary for Pond 61P: DMH-11 |
| Device Routing Invert Outlet Devices #1 Primary 246.40' 12.0" Round Culvert L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 246.40' / 240.00' S= 0.0753 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Cc= 0.900 Cc= 0.900 Cc= 0.900 Cc= 0.900 | Inflow Area = 0.249 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 1.06 cfs @ 12.09 hrs, Volume= 0.087 af Outflow = 1.06 cfs @ 12.09 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min Primary = 1.06 cfs @ 12.09 hrs, Volume= 0.087 af |
| Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=246.87' (Free Discharge) —1=Culvert (Inlet Controls 0.66 cfs @ 1.84 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 232.21' @ 12.09 hrs Flood Elev= 235.70' |
| Summary for Pond 56P: DMH-12 | Device Routing Invert Outlet Devices #1 Primary 231.60' 12.0" Round Culvert |
| Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af Outflow = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min Primary = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af | L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 231.60' / 218.20' S= 0.0677 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 240.37' @ 12.09 hrs Flood Elev= 244.00' | Primary OutFlow Max=1.03 cfs @ 12.09 hrs HW=232.20' (Free Discharge) -1=Culvert (Inlet Controls 1.03 cfs @ 2.08 fps) |
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| Summary for Pond 62P: CB-14 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.136 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af | #1 Primary 216.00' 12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 219.33' @ 12.09 hrs | Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=216.42' (Free Discharge) ▲1=Culvert (Inlet Controls 0.55 cfs @ 1.75 fps) |
| Flood Elev= 221.90' | Summary for Pond 67P: CB-7 |
| Device Routing Invert Outlet Devices #1 Primary 218.90' 12.0" Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.093 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.033 af Outflow = 0.39 cfs @ 12.09 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min Primary = 0.39 cfs @ 12.09 hrs, Volume= 0.033 af |
| Primary OutFlow Max=0.56 cfs @ 12.09 hrs HW=219.33' (Free Discharge) └──1=Culvert (Inlet Controls 0.56 cfs @ 1.75 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.35' @ 12.09 hrs Flood Elev= 219.00' |
| Summary for Pond 63P: DMH-4 | Device Routing Invert Outlet Devices |
| Inflow Area = 1.336 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 5.66 cfs @ 12.09 hrs, Volume= 0.468 af Outflow = 5.66 cfs @ 12.09 hrs, Volume= 0.468 af, Atten= 0%, Lag= 0.0 min | #1 Primary 216.00' 12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Primary = 5.66 cfs @ 12.09 hrs, Volume= 0.468 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.47' @ 12.09 hrs | Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=216.35' (Free Discharge) 1=Culvert (Inlet Controls 0.38 cfs @ 1.58 fps) |
| Flood Elev= 222.20' | Summary for Pond 68P: DMH-9 |
| Device Routing Invert Outlet Devices #1 Primary 214.10' 24.0" Round Culvert L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.10' / 214.00' S= 0.0029 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf | Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 3.52" for 10-yr event Inflow = 3.48 cfs @ 12.09 hrs, Volume = 0.267 af Outflow = 3.48 cfs @ 12.09 hrs, Volume = 0.267 af, Atten = 0%, Lag = 0.0 min Primary = 3.48 cfs @ 12.09 hrs, Volume = 0.267 af, Atten = 0%, Lag = 0.0 min |
| Primary OutFlow Max=5.50 cfs @ 12.09 hrs HW=215.44' (Free Discharge) └──1=Culvert (Barrel Controls 5.50 cfs @ 3.47 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.27' @ 12.09 hrs Flood Elev= 219.40' |
| Summary for Pond 66P: CB-6 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.134 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af | #1 Primary 216.10' 15.0'' Round Culvert L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.10' / 215.40' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.43' @ 12.09 hrs Flood Elev= 219.00' | Primary OutFlow Max=3.40 cfs @ 12.09 hrs HW=217.25' (Free Discharge) -1=Culvert (Inlet Controls 3.40 cfs @ 2.88 fps) |
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| B42-Post Type III 24-hr 10-yr Rainfall=4.44" epared by {enter your company name here} droCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 77 | 6842-Post Type III 24-hr 10-yr Rainfall=4.44 Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 7 |
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| Summary for Pond 69P: CB-11 | Device Routing Invert Outlet Devices |
| low Area = 0.107 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event low = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af utflow = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min imary = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af | #1 Primary 215.50' 12.0" Round Culvert L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0062 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| ak Elev= 216.71' @ 12.09 hrs | Primary OutFlow Max=0.72 cfs @ 12.09 hrs HW=216.01' (Free Discharge) ←1=Culvert (Barrel Controls 0.72 cfs @ 2.58 fps) |
| ood Elev= 219.30' | Summary for Pond 72P: CB-9 |
| evice Routing Invert Outlet Devices #1 Primary 216.30' 12.0'' Round Culvert L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.30' / 216.20' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.165 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.70 cfs @ 12.09 hrs, Volume= 0.058 af Outflow = 0.70 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min Primary = 0.70 cfs @ 12.09 hrs, Volume= 0.058 af |
| imary OutFlow Max=0.44 cfs @ 12.09 hrs HW=216.70' (Free Discharge) -1=Culvert (Barrel Controls 0.44 cfs @ 2.21 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.01' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 70P: CB-12 | Device Routing Invert Outlet Devices |
| Iow Area = 0.802 ac, 75.84% Impervious, Inflow Depth = 3.43" for 10-yr event Iow = 3.03 cfs @ 12.09 hrs, Volume= 0.230 af utflow = 3.03 cfs @ 12.09 hrs, Volume= 0.230 af, Atten= 0%, Lag= 0.0 min utflow = 3.03 cfs @ 12.09 hrs, Volume= 0.230 af, Atten= 0%, Lag= 0.0 min | #1 Primary 215.50' 12.0" Round Culvert L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| imary = 3.03 cfs @ 12.09 hrs, Volume= 0.230 af outing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Primary OutFlow Max=0.68 cfs @ 12.09 hrs HW=216.01' (Free Discharge) 1=Culvert (Barrel Controls 0.68 cfs @ 2.49 fps) |
| eak Elev= 217.44' @ 12.09 hrs bod Elev= 219.30' | Summary for Pond 73P: DMH-6 |
| evice Routing Invert Outlet Devices #1 Primary 216.30' 15.0'' Round Culvert L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.30' / 216.20' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf imary OutFlow Max=2.96 cfs @ 12.09 hrs HW=217.42' (Free Discharge) | Inflow Area = 0.340 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 1.44 cfs @ 12.09 hrs, Volume= 0.119 af Outflow = 1.44 cfs @ 12.09 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min Primary = 1.44 cfs @ 12.09 hrs, Volume= 0.119 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.94' @ 12.09 hrs |
| -1=Culvert (Barrel Controls 2.96 cfs @ 3.36 fps) | Flood Elev= 219.10' |
| Bow Area = 0.175 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Bow = 0.74 cfs @ 12.09 hrs, Volume= 0.061 af utflow = 0.74 cfs @ 12.09 hrs, Volume= 0.061 af utflow = 0.74 cfs @ 12.09 hrs, Volume= 0.061 af utflow = 0.74 cfs @ 12.09 hrs, Volume= 0.061 af outing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs sak Elev= sak Elev= 216.02' @ 12.09 hrs brs sod Elev= 218.50' 50 50 | Device Routing Invert Outlet Devices #1 Primary 215.20' 12.0'' Round Culvert L= 52.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.80' S= 0.0077 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=1.40 cfs @ 12.09 hrs HW=215.93' (Free Discharge) 1=Culvert (Inlet Controls 1.40 cfs @ 2.29 fps) |

| 6842-Post Type III 24-hr 10-yr Rainfall=4.44" | 6842-Post Type III 24-hr 10-yr Rainfall=4.44" |
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| | |
| Summary for Pond 78P: CB-19 | Device Routing Invert Outlet Devices #1 Primary 214.70' 15.0'' Round Culvert |
| Inflow Area = 0.122 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af Outflow = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min Primary = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af | L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.70' / 214.20' S= 0.0075 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.81' @ 12.09 hrs | Primary OutFlow Max=2.73 cfs @ 12.09 hrs HW=215.68' (Free Discharge) |
| Flood Elev= 219.00' | Summary for Pond 81P: CB-5 |
| Device Routing Invert Outlet Devices #1 Primary 216.40' 12.0" Round Culvert L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.40' / 216.10' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 3.87" for 10-yr event Inflow = 1.17 cfs @ 12.09 hrs, Volume= 0.092 af Outflow = 1.17 cfs @ 12.09 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min Primary = 1.17 cfs @ 12.09 hrs, Volume= 0.092 af, Depth = Dutflow = 1.17 cfs @ 12.09 hrs, Volume= 0.092 af |
| Primary OutFlow Max=0.50 cfs @ 12.09 hrs HW=216.81' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.68' @ 12.09 hrs Flood Elev= 219.00' |
| Summary for Pond 79P: CB-10 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.070 af Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.070 af | #1 Primary 216.00' 12.0'' Round Culvert L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.94' @ 12.09 hrs | Primary OutFlow Max=1.14 cfs @ 12.09 hrs HW=216.67' (Free Discharge) |
| Flood Elev= 219.00' | Summary for Pond 82P: DMH-3 |
| Device Routing Invert Outlet Devices #1 Primary 216.40' 12.0" Round Culvert L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.40' / 216.10' S= 0.0176 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 3.87" for 10-yr event Inflow = 1.17 cfs @ 12.09 hrs, Volume= 0.092 af Outflow = 1.17 cfs @ 12.09 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min Primary = 1.17 cfs @ 12.09 hrs, Volume= 0.092 af |
| Primary OutFlow Max=0.83 cfs @ 12.09 hrs HW=216.93' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.37' @ 12.09 hrs Flood Elev= 218.90' |
| Summary for Pond 80P: DMH-5 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.663 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event Inflow = 2.81 cfs @ 12.09 hrs, Volume= 0.232 af Outflow = 2.81 cfs @ 12.09 hrs, Volume= 0.232 af, Atten= 0%, Lag= 0.0 min Primary = 2.81 cfs @ 12.09 hrs, Volume= 0.232 af | #1 Primary 215.70' 12.0'' Round Culvert L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.70' / 215.30' S= 0.0057 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.69' @ 12.09 hrs Flood Elev= 220.00' | Primary OutFlow Max=1.14 cfs @ 12.09 hrs HW=216.36' (Free Discharge) -1=Culvert (Barrel Controls 1.14 cfs @ 2.97 fps) |
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| 842-Post Type III 24-hr 10-yr Rainfall=4.44" repared by {enter your company name here} ydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 81 | 6842-Post Prepared by {enter your company na <u>HydroCAD® 10.10-3a_s/n 03590_© 2020</u> ⊦ | |
|--|--|---|
| flow Area = 30.660 ac, 24.72% Impervious, Inflow Depth = 1.97" for 10-yr event | Runoff by SCS | 0.00-72.00 hrs, dt=0.05 hrs, 1441 points 5 TR-20 method, UH=SCS, Weighted-CN 1+Trans method , Pond routing by Stor-Ind method |
| flow = 27.87 cfs @ 12.37 hrs, Volume= 5.043 af rimary = 27.87 cfs @ 12.37 hrs, Volume= 5.043 af, Atten= 0%, Lag= 0.0 min | Subcatchment 9S: APT. BLDG. A | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=2.17 cfs 0.181 af |
| rimary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Subcatchment 16S: APT. BLDG. B | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=2.17 cfs 0.181 af |
| | Subcatchment 18S: APT. BLDG. C | Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=2.17 cfs 0.181 af |
| | Subcatchment 21S: A.1 | Runoff Area=20,195 sf 5.87% Impervious Runoff Depth=3.18" Tc=10.0 min CN=78 Runoff=1.49 cfs 0.123 af |
| | Subcatchment 22S: A.2 | Runoff Area=13,850 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=1.69 cfs 0.141 af |
| | Subcatchment 23S: A.3 | Runoff Area=9,767 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=1.19 cfs 0.099 af |
| | Subcatchment 24S: A.4 | Runoff Area=5,341 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=0.65 cfs 0.054 af |
| | Subcatchment 25S: A.5 | Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=2.73 cfs 0.228 af |
| | Subcatchment 26S: B.6 | Runoff Area=40,090 sf 22.31% Impervious Runoff Depth=2.72" Tc=6.0 min UI Adjusted CN=73 Runoff=2.87 cfs 0.209 af |
| | Subcatchment 27S: A.6 | Runoff Area=12,567 sf 87.12% Impervious Runoff Depth=4.85" Tc=6.0 min CN=94 Runoff=1.48 cfs 0.117 af |
| | Subcatchment 28S: B.1 | Runoff Area=30,829 sf 0.88% Impervious Runoff Depth=3.09" Tc=6.0 min CN=77 Runoff=2.51 cfs 0.182 af |
| | Subcatchment 29S: B.2 | Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=4.74" Tc=6.0 min CN=93 Runoff=1.56 cfs 0.121 af |
| | Subcatchment 30S: B.3 | Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=5.20" Tc=6.0 min CN=97 Runoff=2.07 cfs 0.170 af |
| | Subcatchment 31S: B.4 | Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=5.20" Tc=6.0 min CN=97 Runoff=2.07 cfs 0.170 af |
| | Subcatchment 32S: B.5 | Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=4.19" Tc=6.0 min CN=88 Runoff=2.64 cfs 0.198 af |
| | Subcatchment 33S: B.7 | Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=2.54" Tc=30.0 min CN=71 Runoff=11.11 cfs 1.412 af |
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| 842-Post | Type III 24-hr 25-yr Rainfall=5.55" | 6842-Post Type III 24-hr 25-yr Rainfall=5.55" |
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| Prepared by {enter your company name lydroCAD® 10.10-3a s/n 03590 © 2020 Hyd | e here} IroCAD Software Solutions LLC Page 83 | Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 84 |
| | Runoff Area=12,484 sf 88.82% Impervious Runoff Depth=4.96" | |
| ubcatchment 34S: B.8 | Tc=6.0 min CN=95 Runoff=1.49 cfs 0.119 af | Subcatchment 52S: B.9 Runoff Area=15,018 sf 80.72% Impervious Runoff Depth=4.63" Tc=6.0 min CN=92 Runoff=1.72 cfs 0.133 af |
| ubcatchment 35S: C.1 | Runoff Area=236,308 sf 9.34% Impervious Runoff Depth=3.09" Tc=20.0 min UI Adjusted CN=77 Runoff=13.19 cfs 1.397 af | Pond 4P: Constructed Stormwater Wetland Peak Elev=214.70' Storage=17,488 cf Inflow=9.06 cfs 0.787 af Outflow=1.78 cfs 0.785 af |
| ubcatchment 36S: C.2 | Runoff Area=22,516 sf 83.62% Impervious Runoff Depth=4.74" Tc=6.0 min CN=93 Runoff=2.62 cfs 0.204 af | Pond 5P: Wet Basin Peak Elev=215.42' Storage=16,366 cf Inflow=18.51 cfs 2.013 af |
| ubcatchment 37S: C.3 | Runoff Area=12,429 sf 61.75% Impervious Runoff Depth=4.09" Tc=6.0 min CN=87 Runoff=1.31 cfs 0.097 af | Outflow=11.16 cfs 2.013 af Pond 7P: Constructed Stormwater Wetland Peak Elev=215.44' Storage=7,069 cf Inflow=25.65 cfs 3.086 af |
| | | Outflow=23.73 cfs 3.085 af |
| ubcatchment 38S: C.4 | Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=0.57 cfs 0.047 af | Pond 12P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflow=2.17 cfs 0.181 af Discarded=0.17 cfs 0.156 af Primary=2.41 cfs 0.025 af Outflow=2.58 cfs 0.181 af |
| ubcatchment 39S: C.5 | Runoff Area=5,857 sf 100.00% Impervious Runoff Depth=5.31" | |
| | Tc=6.0 min CN=98 Runoff=0.71 cfs 0.060 af | Pond 17P: STONE RECHARGE TRENCH Discarded=0.17 cfs 0.156 af Primary=2.41 cfs 0.025 af Outflow=2.58 cfs 0.181 af |
| ubcatchment 40S: C.6 | Runoff Area=4,047 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=0.49 cfs 0.041 af | Pond 19P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflow=2.17 cfs 0.181 af |
| ubcatchment 41S: C.7 | Runoff Area=7,188 sf 100.00% Impervious Runoff Depth=5.31" | Discarded=0.17 cfs 0.156 af Primary=2.41 cfs 0.025 af Outflow=2.58 cfs 0.181 af |
| ubcatchment 413. C.7 | Tc=6.0 min CN=98 Runoff=0.88 cfs 0.073 af | Pond 21P: CB-4 12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=1.72 cfs 0.133 af |
| ubcatchment 42S: C.8 | Runoff Area=7,639 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.078 af | Pond 22P: DMH-2 18.0" Round Culvert n=0.013 L=101.0' S=0.0050 '/' Outflow=7.70 cfs 0.600 af 18.0" Round Culvert n=0.013 L=101.0' S=0.0050 '/' Outflow=7.70 cfs 0.600 af |
| ubcatchment 43S: C.9 | Runoff Area=8,732 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=1.06 cfs 0.089 af | Pond 23P: CB-1 Peak Elev=216.41' Inflow=1.56 cfs 0.121 af |
| ubcatchment 44S: C.10 | Runoff Area=5,326 sf 100.00% Impervious Runoff Depth=5.31" | 12.0" Round Culvert n=0.013 L=27.0' S=0.0074 // Outflow=1.56 cfs 0.121 af |
| ubcatchment 445. C. 10 | Tc= $6.0 \text{ min CN}=98 \text{ Runoff}=0.65 \text{ cfs } 0.054 \text{ af}$ | Pond 24P: CB-2 12.0" Round Culvert n=0.013 L=20.0' S=0.0400 '/ Outflow=2.07 cfs 0.170 af |
| ubcatchment 45S: C.11 | Runoff Area=2,631 sf 100.00% Impervious Runoff Depth=5.31" | |
| ubcatchment 46S: C.12 | Tc=6.0 min CN=98 Runoff=0.32 cfs 0.027 af Runoff Area=5,910 sf 100.00% Impervious Runoff Depth=5.31" | Pond 25P: CB-3 Peak Elev=217.78' Inflow=2.64 cfs 0.198 af 12.0" Round Culvert n=0.013 L=38.0' S=0.0289 '/' Outflow=2.64 cfs 0.198 af |
| ubcatchment 465. C. 12 | Tc= 6.0 min CN= 98 Runoff= 0.72 cfs 0.060 af | Pond 26P: DMH-1 Peak Elev=216.92' Inflow=6.26 cfs 0.488 af 18.0" Round Culvert n=0.013 L=56.0' S=0.0089 '/' Outflow=6.26 cfs 0.488 af |
| ubcatchment 47S: C.13 | Runoff Area=1,987 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=0.24 cfs 0.020 af | Pond 27P: DCB-22 12.0" Round Culvert n=0.013 L=50.0' S=0.0060 '/ Outflow=2.73 cfs 0.228 af |
| ubcatchment 48S: C.14 | Runoff Area=1,885 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af | Pond 28P: DMH-16 Peak Elev=216.58' Inflow=2.73 cfs 0.228 af |
| ubactabrant 408: C 45 | Runoff Area=3,487 sf 100.00% Impervious Runoff Depth=5.31" | 12.0" Round Culvert n=0.013 L=160.0' S=0.0050 '/' Outflow=2.73 cfs 0.228 af |
| ubcatchment 49S: C.15 | Runoii Alea-3,467 si 100.00% impervious Runoii Deput-3.31 Tc=6.0 min CN=98 Runoff=0.42 cfs 0.035 af | Pond 29P: CB-21 Peak Elev=216.66' Inflow=0.65 cfs 0.054 af 12.0" Round Culvert n=0.013 L=26.0' S=0.0192 '/' Outflow=0.65 cfs 0.054 af |
| ubcatchment 50S: C.16 | Runoff Area=3,508 sf 100.00% Impervious Runoff Depth=5.31" Tc=6.0 min CN=98 Runoff=0.43 cfs 0.036 af | Pond 30P: DMH-15 Peak Elev=215.34' Inflow=3.38 cfs 0.282 af |
| ubcatchment 51S: D.1 | Runoff Area=402,771 sf 0.38% Impervious Runoff Depth=1.71" Tc=20.0 min CN=61 Runoff=11.60 cfs 1.318 af | 15.0" Round Culvert n=0.013 L=250.0' S=0.0052 '/' Outflow=3.38 cfs 0.282 af |

| Type III 24-hr 25-yr Rainfall=5. pmpany name here} 00 © 2020 HydroCAD Software Solutions LLC Page | 6842-Post Prepared by {enter your | Type III 24-hr 25-yr Rainfall=5.55" ompany name here} 90 © 2020 HydroCAD Software Solutions LLC Page 85 | 5842-Post Prepared by {enter your |
|--|--------------------------------------|---|--------------------------------------|
| Page | 19010CAD@ 10.10-5a 3/100 | So S 2020 Hydrochd Solitware Solutions ELC Fage 05 | 19010CAD@ 10.10-5a 3/110 |
| Peak Elev=216.40' Inflow=0.49 cfs 0.04' 12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.49 cfs 0.04' | Pond 67P: CB-7 | Peak Elev=214.90' Inflow=7.74 cfs 0.639 af 18.0" Round Culvert n=0.013 L=61.0' S=0.0049 '/' Outflow=7.74 cfs 0.639 af | Pond 31P: DMH-14 |
| Peak Elev=217.65' Inflow=4.49 cfs 0.34' 15.0" Round Culvert n=0.013 L=79.0' S=0.0089 '/' Outflow=4.49 cfs 0.34' | Pond 68P: DMH-9 | Peak Elev=216.32' Inflow=1.69 cfs 0.141 af 12.0" Round Culvert n=0.013 L=12.0' S=0.0167 '/' Outflow=1.69 cfs 0.141 af | Pond 32P: CB-20 |
| Peak Elev=216.76' Inflow=0.57 cfs 0.04 12.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/ Outflow=0.57 cfs 0.04 | Pond 69P: CB-11 | Peak Elev=217.04' Inflow=2.67 cfs 0.216 af 12.0" Round Culvert n=0.013 L=180.0' S=0.0050 '/' Outflow=2.67 cfs 0.216 af | Pond 33P: DMH-17 |
| Peak Elev=217.67' Inflow=3.92 cfs 0.30' 15.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/ Outflow=3.92 cfs 0.30' | Pond 70P: CB-12 | Peak Elev=216.68' Inflow=1.48 cfs 0.117 af 12.0" Round Culvert n=0.013 L=28.0' S=0.0071 '/' Outflow=1.48 cfs 0.117 af | ond 34P: CB-23 |
| Peak Elev=216.10' Inflow=0.93 cfs 0.078 | Pond 71P: CB-8 | Peak Elev=216.56' Inflow=1.19 cfs 0.099 af 12.0" Round Culvert n=0.013 L=20.0' S=0.0100 '/' Outflow=1.19 cfs 0.099 af | ond 35P: CB-24 |
| 12.0" Round Culvert n=0.013 L=32.0' S=0.0062 '/' Outflow=0.93 cfs 0.076 Peak Elev=216.09' Inflow=0.88 cfs 0.07? | Pond 72P: CB-9 | Peak Elev=216.83' Inflow=1.71 cfs 0.143 af 12.0" Round Culvert n=0.013 L=220.0' S=0.0055 '/ Outflow=1.71 cfs 0.143 af | ond 36P: DMH-7 |
| 12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=0.88 cfs 0.073 Peak Elev=216.07' Inflow=1.81 cfs 0.15' | Pond 73P: DMH-6 | Peak Elev=218.99' Inflow=2.36 cfs 0.197 af 15.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/ Outflow=2.36 cfs 0.197 af | ond 37P: DMH-10 |
| 12.0" Round Culvert n=0.013 L=52.0' S=0.0077 '/' Outflow=1.81 cfs 0.15' | | Peak Elev=232.46' Inflow=0.23 cfs 0.019 af | ond 38P: CB-15 |
| Peak Elev=216.87' Inflow=0.65 cfs 0.05- 12.0" Round Culvert n=0.013 L=45.0' S=0.0067 '/' Outflow=0.65 cfs 0.054 | Pond 78P: CB-19 | 12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/ Outflow=0.23 cfs 0.019 af Peak Elev=232.47' Inflow=0.24 cfs 0.020 af | ond 39P: CB-16 |
| Peak Elev=217.01' Inflow=1.06 cfs 0.089 12.0" Round Culvert n=0.013 L=17.0' S=0.0176 '/' Outflow=1.06 cfs 0.089 | Pond 79P: CB-10 | 12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.24 cfs 0.020 af Peak Elev=247.77' Inflow=0.43 cfs 0.036 af | ond 52P: CB-17 |
| Peak Elev=215.88' Inflow=3.52 cfs 0.29 15.0" Round Culvert n=0.013 L=67.0' S=0.0075 '/' Outflow=3.52 cfs 0.294 | Pond 80P: DMH-5 | 12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.43 cfs 0.036 af | |
| Peak Elev=216.79' Inflow=1.49 cfs 0.119 12.0" Round Culvert n=0.013 L=31.0' S=0.0065 '/ Outflow=1.49 cfs 0.119 | Pond 81P: CB-5 | Peak Elev=247.77' Inflow=0.42 cfs 0.035 af 12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.42 cfs 0.035 af | ond 53P: CB-18 |
| Peak Elev=216.47' Inflow=1.49 cfs 0.119 12.0" Round Culvert n=0.013 L=70.0' S=0.0057 '/' Outflow=1.49 cfs 0.119 | Pond 82P: DMH-3 | Peak Elev=246.94' Inflow=0.85 cfs 0.071 af 12.0" Round Culvert n=0.013 L=85.0' S=0.0753 '/' Outflow=0.85 cfs 0.071 af | ond 54P: DMH-13 |
| Inflow=42.05 cfs 7.20 Primary=42.05 cfs 7.20 | Link 20L: DP-A | Peak Elev=240.44' Inflow=0.85 cfs 0.071 af 12.0" Round Culvert n=0.013 L=110.0' S=0.0745 '/' Outflow=0.85 cfs 0.071 af | ond 56P: DMH-12 |
| Area = 30.660 ac Runoff Volume = 7.672 af Average Runoff Depth = 3 75.28% Pervious = 23.079 ac 24.72% Impervious = 7.58 | Total Runo | Peak Elev=219.22' Inflow=0.32 cfs 0.027 af 12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.32 cfs 0.027 af | ond 58P: CB-13 |
| 75.20% Fervious - 25.075 ac 24.72% impervious - 7.50 | | Peak Elev=232.30' Inflow=1.32 cfs 0.110 af 12.0" Round Culvert n=0.013 L=198.0' S=0.0677 '/' Outflow=1.32 cfs 0.110 af | ond 61P: DMH-11 |
| | | Peak Elev=219.39' Inflow=0.72 cfs 0.060 af 12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.72 cfs 0.060 af | ond 62P: CB-14 |
| | | Peak Elev=215.66' Inflow=7.09 cfs 0.591 af 24.0" Round Culvert n=0.013 L=35.0' S=0.0029 '/' Outflow=7.09 cfs 0.591 af | ond 63P: DMH-4 |
| | | Peak Elev=216.49' Inflow=0.71 cfs 0.060 af 12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.71 cfs 0.060 af | ond 66P: CB-6 |

| 6842-Post Type III 24-hr 25-yr Rainfall=5.55" Prepared by {enter your company name here} | 6842-Post Type III 24-hr 25-yr Rainfall=5.55 Prepared by {enter your company name here} |
|--|--|
| HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 87 | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 88 |
| Summary for Subcatchment 9S: APT. BLDG. A | Summary for Subcatchment 21S: A.1 |
| unoff = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af, Depth= 5.31" | Runoff = 1.49 cfs @ 12.14 hrs, Volume= 0.123 af, Depth= 3.18" |
| unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ype III 24-hr 25-yr Rainfall=5.55" | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.55" |
| Area (sf) CN Description | Area (sf) CN Description |
| 17,818 98 Roofs, HSG A | * 18.718 77 >75% Grass cover, Good, HSG A |
| 17,818 100.00% Impervious Area | * 291 43 Woods, Good, HSG A |
| To Length Slope Velocity Capacity Description | 95 98 Unconnected pavement, HSG A 1,091 98 Roofs, HSG A |
| (min) (feet) (ft/ft) (ft/sec) (cfs) | 20,195 78 Weighted Average 19.009 94.13% Pervious Area |
| 6.0 Direct Entry, | 1.186 5.87% Inpervious Area |
| Summary for Subcatchment 16S: APT. BLDG. B | 95 8.01% Unconnected |
| | |
| Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af, Depth= 5.31" | Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | 10.0 Direct Entry, |
| Type III 24-hr 25-yr Rainfall=5.55" | Summary for Subcatchment 22S: A.2 |
| Area (sf) CN Description 17.818 98 Roofs, HSG A | Runoff = 1.69 cfs @ 12.09 hrs, Volume= 0.141 af, Depth= 5.31" |
| 17,818 100.00% Impervious Area | |
| | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Tc Length Slope Velocity Capacity Description | Type III 24-hr 25-yr Rainfall=5.55" |
| (min) (feet) (ft/ft) (ft/sec) (cfs) | Area (sf) CN Description |
| 6.0 Direct Entry, | 12,935 98 Paved parking, HSG A |
| Summer for Substatement (85: ADT, BLDC, C | 915 98 Roofs, HSG A |
| Summary for Subcatchment 18S: APT. BLDG. C | 13,850 98 Weighted Average |
| Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af, Depth= 5.31" | 13,850 100.00% Impervious Area |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) |
| Type III 24-hr 25-yr Rainfall=5.55" | 6.0 Direct Entry, |
| Area (sf) CN Description | |
| 17,818 98 Roofs, HSG A | Summary for Subcatchment 23S: A.3 |
| 17,818 100.00% Impervious Area | Duraff = 140 fr @ 40.00 hrs. Valuman 0.000 af Datt 5.04 |
| | Runoff = 1.19 cfs @ 12.09 hrs, Volume= 0.099 af, Depth= 5.31" |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| 6.0 Direct Entry, | Type III 24-hr 25-yr Rainfall=5.55" |
| | |
| olo bilot Litity, | Area (sf) CN Description |
| | Area (sf) CN Description 9.767 98 Paved parking, HSG A |

| Tc Lengt | n Slope Velocity | Capacity | Description | Page 89 |
|--|---|---|--|----------------|
| (min) (feet 6.0 |) (ft/ft) (ft/sec) | (cfs) | Direct Entry, | |
| | Sum | mary for S | Subcatchment 24S: A.4 | |
| Runoff = | 0.65 cfs @ 12.0 | 9 hrs, Volu | me= 0.054 af, Depth= 5.3 | 1" |
| | 「R-20 method, UH=S 5-yr Rainfall=5.55" | SCS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs | , dt= 0.05 hrs |
| Area (sf) | CN Description | | | |
| 227 5,114 | 98 Paved park 98 Roofs, HSC | | | |
| 5,341 5,341 | 98 Weighted A 100.00% In | verage pervious A | rea | |
| Tc Lengti (min) (feet | | Capacity (cfs) | Description | |
| 6.0 | | | Direct Entry, | |
| | Sumi | mary for S | Subcatchment 25S: A.5 | |
| Runoff = | 2.73 cfs @ 12.0 | 9 hrs, Volu | me= 0.228 af, Depth= 5.3 | 1" |
| | FR-20 method, UH=S 5-yr Rainfall=5.55" | SCS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs | , dt= 0.05 hrs |
| | | | | |
| Гуре III 2́4-hr 2 Area (sf) | CN Description | | | |
| Гуре III 2́4-hr 2 <u>Area (sf)</u> 22,426 | 98 Paved park | ing, HSG A | | |
| Гуре III 2́4-hr 2 <u>Area (sf)</u> 22,426 22,426 | 98 Paved park 100.00% In | ing, HSG A npervious A | rea | |
| Гуре III 24-hr 2 <u>Area (sf)</u> 22,426 22,426 Тс Lengtl (min) (feet | 98 Paved park 100.00% In Slope Velocity | ing, HSG A | rea Description | |
| Гуре III 24-hr 2 <u>Area (sf)</u> 22,426 22,426 Тс Lengtl | 98 Paved park 100.00% In Slope Velocity | ing, HSG A pervious A Capacity | rea | |
| Гуре III 24-hr 2 <u>Area (sf)</u> 22,426 22,426 Тс Lengtl (min) (feet | 98 Paved park 100.00% In Slope Velocity (ft/ft) (ft/sec) | ing, HSG A npervious A Capacity (cfs) | rea Description | |
| Гуре III 24-hr 2 <u>Area (sf)</u> 22,426 22,426 Тс Lengtl (min) (feet | 98 Paved park 100.00% In Slope Velocity (ft/ft) (ft/sec) | ing, HSG A ppervious A Capacity (cfs) mary for \$ | rea Description Direct Entry, Subcatchment 26S: B.6 | 2" |

| | | | | | name her 0 HydroCAI | | are Sol | utions LLC | | Page 90 |
|--------------|-----------------------|---------------|--------|----------------|--------------------------|---------|-------------------|------------|---------------|--------------|
| | | | | | | JOILWA | | | | Fage 90 |
| | rea (sf) | CN | Adj | | cription | | | | | |
| | 31,146 3,467 | 68 98 | | | % Grass co onnected p | | | | | |
| | 5,407 5,477 | 98 98 | | | fs, HSG A | aveniei | n, 110 | GA | | |
| | 40,090 | 75 | 73 | | phted Avera | age, UI | Adjus | ted | | |
| | 31,146 | | | | 9% Perviou | | | | | |
| | 8,944 3,467 | | | | 1% Imperv 6% Unconi | | ea | | | |
| Tc | 5 | Slop | | ocity | Capacity | Desc | ription | | | |
| (min) 6.0 | (feet) | (ft/f | t) (ft | sec) | (cfs) | Direc | 4 F 10 4 1 | | | |
| 0.0 | | | | | | Direc | t Entr | y, | | |
| | | | 5 | Sumr | mary for | Subca | tchn | nent 27S | : A.6 | |
| Runoff | = | 1.48 | cfs @ | 12.0 | 9 hrs, Voli | ume= | | 0.117 af, | Depth= 4.85 | ." |
| | y SCS TF 24-hr 25- | | | | SCS, Weigh | nted-CN | l, Time | e Span= 0. | 00-72.00 hrs, | dt= 0.05 hrs |
| A | rea (sf) | CN | Descr | iption | | | | | | |
| | 8,883 | 98 | | | ing, HSG A | | | | | |
| | 1,619 948 | 68 98 | | | s cover, G ed paveme | | | | | |
| | 1,117 | 98 | Roofs | | | п, пос | | | | |
| | 12,567 | 94 | | | verage | | | | | |
| | 1,619 | | | | rvious Area | | | | | |
| | 10,948 948 | | | | pervious Ar | ea | | | | |
| Tc (min) | Length (feet) | Slop (ft/f | | ocity /sec) | Capacity (cfs) | Desc | ription | | | |
| 6.0 | (1001) | (101 | (10 | 0007 | (00) | Direc | t Entr | у, | | |
| | | | 5 | Sumr | mary for | Subca | atchn | nent 28S: | : B.1 | |
| Runoff | = | 2.51 | cfs @ | 12.0 | 9 hrs, Voli | ume= | | 0.182 af, | Depth= 3.09 | ," |
| | y SCS TF 24-hr 25- | | | | SCS, Weigh | nted-CN | l, Time | e Span= 0. | 00-72.00 hrs, | dt= 0.05 hrs |
| A | rea (sf) | CN | Descr | | | | | | | |
| | 30,559 270 | 77 98 | | | s cover, Ge ed paveme | | | | | |
| | 30,829 | 77 | Weigh | ted A | verage | | | | | |
| | 30,559 | | | | rvious Area | | | | | |
| | 270 270 | | | | ervious Are | | | | | |
| | 210 | | 100.0 | | | - | | | | |
| | | | | | | | | | | |

| | 0-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 9' |
|---|--|
| Tc Length (min) (feet) | |
| 6.0 | Direct Entry, |
| | Summary for Subcatchment 29S: B.2 |
| Runoff = | 1.56 cfs @ 12.09 hrs, Volume= 0.121 af, Depth= 4.74" |
| | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 5-yr Rainfall=5.55" |
| Area (sf) | CN Description |
| * 2,173 1,997 | 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A |
| 9,211 | 98 Paved parking, HSG A |
| 13,381 2,173 | 93 Weighted Average 16.24% Pervious Area |
| 11,208 | 83.76% Impervious Area |
| 1,997 | 17.82% Unconnected |
| - | |
| Tc Length (min) (feet) | Slope Velocity Capacity Description |
| Tc Length (min) (feet) 6.0 | Slope Velocity Capacity Description |
| (min) (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) Direct Entry, |
| <u>(min) (feet)</u> 6.0 | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) Direct Entry, Direct Entry, Summary for Subcatchment 30S: B.3 |
| (min) (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) Direct Entry, |
| (min) (feet) 6.0 Runoff = Runoff by SCS Ti | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) Direct Entry, Direct Entry, Summary for Subcatchment 30S: B.3 |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI | Slope (ft/ft) Velocity (cfs) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI Type III 24-hr 25 <u>Area (sf)</u> * 731 | Slope (ft/ft) (ft/sec) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" (R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" (R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs S-yr Rainfall=5.55" CN Description 68 >75% Grass cover, Good, HSG A |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI Type III 24-hr 25 <u>Area (sf)</u> * 731 2,575 | Slope Velocity (ft/sec) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs S-yr Rainfall=5.55" CN Description 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A |
| (min) (feet) 6.0 Runoff = Runoff by SCS Til Type III 24-hr 25 <u>Area (sf)</u> * 731 2,575 13,754 17,060 | Slope Velocity (ft/sec) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry for Subcatchment 30S: B.3 CN Description 68 >75% Grass cover, Good, HSG A 98 Paved parking, HSG A 97 Weighted Average |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI Type III 24-hr 25 <u>Area (sf)</u> * 731 2,575 13,754 17,060 731 | Slope (ft/ft) Velocity (ft/sec) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" (R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry Rainfall=5.55" CN Description 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 97 Weighted Average 4.28% Pervious Area |
| (min) (feet) 6.0 Runoff = Runoff by SCS Til Type III 24-hr 25 <u>Area (sf)</u> * 731 2,575 13,754 17,060 | Slope Velocity (ft/sec) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry for Subcatchment 30S: B.3 CN Description 68 >75% Grass cover, Good, HSG A 98 Paved parking, HSG A 97 Weighted Average |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI Type III 24-hr 25 <u>Area (sf)</u> * 731 2,575 13,754 17,060 731 16,329 2,575 Tc Length | Slope Velocity (ft/sec) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" (R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry Rainfall=5.55" CN Description 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 95.72% Impervious Area 95.72% Impervious Area 95.77% Unconnected Slope Velocity Capacity Description |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI Type III 24-hr 25 <u>Area (sf)</u> * 731 16,329 2,575 | Slope Velocity Capacity Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry Rainfall=5.55" CN Description 68 >75% Grass cover, Good, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 98 99 91 92 93 94 <t< td=""></t<> |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI Type III 24-hr 25 <u>Area (sf)</u> * 731 2,575 13,754 17,060 731 16,329 2,575 Tc Length (min) (feet) | Slope Velocity (ft/sec) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Sign CN CN Description 68 >75% Grass cover, Good, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 15.77% Unconnected Slope Velocity Slope Velocity Capacity Description (ft/ft) (ft/sec) 9Direct Entry, |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI Type III 24-hr 25 <u>Area (sf)</u> * 731 2,575 13,754 17,060 731 16,329 2,575 Tc Length (min) (feet) | Slope Velocity Capacity Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Symmetry Rainfall=5.55" CN Description 68 >75% Grass cover, Good, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 98 99 91 92 93 94 <t< td=""></t<> |
| (min) (feet) 6.0 Runoff = Runoff by SCS TI Type III 24-hr 25 <u>Area (sf)</u> * 731 2,575 13,754 17,060 731 16,329 2,575 Tc Length (min) (feet) | Slope Velocity (ft/sec) Capacity (cfs) Description Direct Entry, Summary for Subcatchment 30S: B.3 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 5.20" R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Sign CN CN Description 68 >75% Grass cover, Good, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 15.77% Unconnected Slope Velocity Slope Velocity Capacity Description (ft/ft) (ft/sec) 9Direct Entry, |

| | | iter your company name here} -3a s/n 03590 © 2020 HydroCAD Software Solutions LLC | Page 92 |
|---------------------|------------------|--|---------|
| Δ | rea (sf) | CN Description | |
| P | 731 | 68 >75% Grass cover, Good, HSG A | |
| | 2,575 13,754 | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A | |
| | 17,060 | 97 Weighted Average | |
| | 731 16,329 | 4.28% Pervious Area 95.72% Impervious Area | |
| | 2,575 | 15.77% Unconnected | |
| Tc (min) | Length (feet) | | |
| 6.0 | | Direct Entry, | |
| | | Summary for Subcatchment 32S: B.5 | |
| lunoff | = | 2.64 cfs @ 12.09 hrs, Volume= 0.198 af, Depth= 4.19" | |
| | | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.0 -yr Rainfall=5.55" | 05 hrs |
| A | rea (sf) | CN Description | |
| | 8,616 8,034 | 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A | |
| | 1,324 | 98 Unconnected pavement, HSG A | |
| | 6,653 24,627 | 98 Roofs, HSG A 88 Weighted Average | |
| | 8,034 | 32.62% Pervious Area | |
| | 16,593 1,324 | 67.38% Impervious Area 7.98% Unconnected | |
| | Length | | |
| <u>(min)</u> 6.0 | (feet) | (ft/ft) (ft/sec) (cfs) Direct Entry, | |
| | | Summary for Subcatchment 33S: B.7 | |
| Runoff | = | 11.11 cfs @ 12.43 hrs, Volume= 1.412 af, Depth= 2.54" | |
| | | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.0 | 05 hrs |
| уретт | 24-111 23- | | |
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| | | | Ir company 03590 © 2020 | | C Software Sol | utions LLC | | Page 93 |
|---|---|--|---|---|---|--|---------------------------------|------------|
| А | rea (sf) | CN | Description | | | | | |
| | 29,407 | 68 | >75% Grass | | ood, HSG A | | | |
| | 97,286 | 79 | >75% Grass | | | | | |
| | 9,046 | 89 | >75% Grass | | | | | |
| | 27,194 | 43 | Woods, Goo | | | | | |
| | 15,779 | 76 | Woods, Goo | | | | | |
| | 4,399 1,606 | 82 98 | Woods, Goo Unconnecte | | | | | |
| | 319 | 98 | Unconnecte | | | | | |
| | 5,475 | 98 | Roofs, HSG | | | | | |
| 2 | 90,511 | 71 | Weighted A | verage | | | | |
| 2 | 283,111 | | 97.45% Per | | | | | |
| | 7,400 | | 2.55% Impe | | | | | |
| | 1,925 | | 26.01% Und | connected | | | | |
| Тс | Length | Slop | e Velocity | Capacity | Description | | | |
| (min) | (feet) | (ft/f | | (cfs) | Description | | | |
| 30.0 | | | | | Direct Entr | ۷. | | |
| | | | | | | | | |
| | | | Sumn | nome for (| Subaatahm | ent 34S: | B.8 | |
| | | | ounn | liary ior a | Subcatchin | ient 540. | | |
| | | | | - | | | | |
| lunoff | = | 1.49 | cfs @ 12.09 | - | | | Depth= 4.96" | |
| Runoff | | | cfs @ 12.09 | 9 hrs, Volu | ume= | 0.119 af, D | Depth= 4.96" | - 0.05 hm |
| unoff b | y SCS TF | R-20 m | cfs @ 12.09 ethod, UH=S | 9 hrs, Volu | ume= | 0.119 af, D | | = 0.05 hrs |
| unoff b | y SCS TF | R-20 m | cfs @ 12.09 | 9 hrs, Volu | ume= | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| unoff b ype III | y SCS TF | R-20 m | cfs @ 12.09 ethod, UH=S | 9 hrs, Volu CS, Weigh | ume= | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| unoff b ype III | y SCS TF 24-hr 25- <u>rea (sf)</u> 9,724 | R-20 m yr Rair | cfs @ 12.09 ethod, UH=S nfall=5.55" <u>Description</u> Paved parki | 9 hrs, Volu CS, Weigh | ume= nted-CN, Time | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| unoff b ype III | y SCS TF 24-hr 25- <u>.rea (sf)</u> 9,724 1,396 | R-20 m yr Rair <u>CN</u> 98 68 | cfs @ 12.09 ethod, UH=S nfall=5.55" <u>Description</u> Paved parki >75% Grass | 9 hrs, Volu CS, Weigh ng, HSG A | ume= nted-CN, Time | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| unoff b ype III | y SCS TF 24-hr 25- <u>rea (sf)</u> 9,724 1,396 1,364 | R-20 m yr Rair <u>CN</u> 98 68 98 | cfs @ 12.09 ethod, UH=S nfall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> | 9 hrs, Volu CS, Weigh ng, HSG A s cover, Go | ume= nted-CN, Time | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| unoff b ype III | y SCS TF 24-hr 25- <u>rea (sf)</u> 9,724 1,396 <u>1,364</u> 12,484 | R-20 m yr Rair <u>CN</u> 98 68 | cfs @ 12.09 ethod, UH=S ifall=5.55" Description Paved parki >75% Grass Unconnecte Weighted A | 9 hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage | ume= hted-CN, Time A bood, HSG A ht, HSG A | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| unoff b ype III | y SCS TF 24-hr 25- <u>rea (sf)</u> 9,724 1,396 1,364 12,484 1,396 | R-20 m yr Rair <u>CN</u> 98 68 98 | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A: 11.18% Per | 9 hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area | ume= hted-CN, Time A bod, HSG A nt, HSG A | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| unoff b ype III | y SCS TF 24-hr 25- 9,724 1,396 1,364 12,484 1,396 11,088 | R-20 m yr Rair <u>CN</u> 98 68 98 | cfs @ 12.09 ethod, UH=S ifall=5.55" Description Paved parki >75% Grass Unconnecte Weighted A 11.18% Per 88.82% Imp | 9 hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area ervious Area | ume= hted-CN, Time A bod, HSG A nt, HSG A | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| unoff b ype III | y SCS TF 24-hr 25- <u>rea (sf)</u> 9,724 1,396 1,364 12,484 1,396 | R-20 m yr Rair <u>CN</u> 98 68 98 | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A: 11.18% Per | 9 hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area ervious Area | ume= hted-CN, Time A bod, HSG A nt, HSG A | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| Lunoff b ype III A | y SCS TF 24-hr 25- 9,724 1,396 1,364 12,484 1,396 11,088 | R-20 m yr Rair 98 68 98 95 | cfs @ 12.09 ethod, UH=S ifall=5.55" Description Paved parki >75% Grass Unconnecte Weighted A 11.18% Per 88.82% Imp | P hrs, Volu CS, Weigh ng, HSG A s cover, Gc d pavemen verage vious Area vervious Area connected | ume= A A Dood, HSG A nt, HSG A a a a rea | 0.119 af, D | Depth= 4.96" | = 0.05 hrs |
| tunoff b ype III <u>A</u> Tc (min) | y SCS TF 24-hr 25- 9,724 1,396 1,364 1,364 1,396 11,088 1,364 | R-20 m yr Rair 98 68 98 95 | cfs @ 12.09 ethod, UH=S fall=5.55" Description Paved parki >75% Grass Unconnecte Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity | P hrs, Volu CS, Weigh ng, HSG A s cover, Gc d pavemen verage vious Area vervious Area connected | ume= A bod, HSG A nt, HSG A nt, HSG A bea Description | 0.119 af, E | Depth= 4.96" | = 0.05 hrs |
| tunoff b ype III A Tc | y SCS TF 24-hr 25- 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length | R-20 m yr Rair 98 68 98 95 Slop | cfs @ 12.09 ethod, UH=S fall=5.55" Description Paved parki >75% Grass Unconnecte Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity | A hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area pervious Area connected Capacity | ume= A A Dood, HSG A nt, HSG A a a a rea | 0.119 af, E | Depth= 4.96" | = 0.05 hrs |
| tunoff b ype III <u>A</u> Tc (min) | y SCS TF 24-hr 25- 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length | R-20 m yr Rair 98 68 98 95 Slop | cfs @ 12.09 ethod, UH=S fall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity t) (ft/sec) | 9 hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area vervious Area vervious Area connected Capacity (cfs) | ume= A bod, HSG A nt, HSG A nt, HSG A bea Description | 0.119 af, E Span= 0.00 | Depth= 4.96" D-72.00 hrs, dt | = 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 25- 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length | R-20 m. yr Rair 98 68 98 95 Slop (ft/f | cfs @ 12.09 ethod, UH=S fall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity t) (ft/sec) | A hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area pervious Area pervious Area connected Capacity (cfs) | ume= hted-CN, Time bod, HSG A ht, HSG A hea Description Direct Entr Subcatchm | 0.119 af, E Span= 0.00 | Depth= 4.96" D-72.00 hrs, dt | = 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 25- rea (sf) 9,724 1,396 12,484 1,396 11,088 1,364 Length (feet) | R-20 m. yr Rair 98 68 98 95 Slop (ft/f | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> >75% Grass <u>Unconnecte</u> Weighted A 11.18% Per 12.30% Unc e Velocity t) (ft/sec) Sumn cfs @ 12.28 | P hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area eervious Ar connected Capacity (cfs) nary for \$ | ume= ated-CN, Time a bod, HSG A atea Description Direct Entr Subcatchm ume= | 0.119 af, E Span= 0.00 y, eent 35S: 0 | Depth= 4.96" D-72.00 hrs, dt | |
| Tc (min) 6.0 | y SCS TF 24-hr 25- 79,724 1,396 11,364 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m. yr Rair 98 68 98 95 Slop (ft/f 13.19 R-20 m | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity t) (ft/sec) Summ cfs @ 12.28 ethod, UH=S | P hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area eervious Ar connected Capacity (cfs) nary for \$ | ume= ated-CN, Time a bod, HSG A atea Description Direct Entr Subcatchm ume= | 0.119 af, E Span= 0.00 y, eent 35S: 0 | Depth= 4.96" D-72.00 hrs, dt | |
| Tc (min) 6.0 | y SCS TF 24-hr 25- 79,724 1,396 11,364 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m. yr Rair 98 68 98 95 Slop (ft/f 13.19 R-20 m | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> >75% Grass <u>Unconnecte</u> Weighted A: 11.18% Per 88.82% Imp 12.30% Unc e Velocity t) (ft/sec) Sumn cfs @ 12.28 | P hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area eervious Ar connected Capacity (cfs) nary for \$ | ume= ated-CN, Time a bod, HSG A atea Description Direct Entr Subcatchm ume= | 0.119 af, E Span= 0.00 y, eent 35S: 0 | Depth= 4.96" D-72.00 hrs, dt | |
| Tc (min) 6.0 | y SCS TF 24-hr 25- 79,724 1,396 11,364 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m. yr Rair 98 68 98 95 Slop (ft/f 13.19 R-20 m | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity t) (ft/sec) Summ cfs @ 12.28 ethod, UH=S | P hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area eervious Ar connected Capacity (cfs) nary for \$ | ume= ated-CN, Time a bod, HSG A atea Description Direct Entr Subcatchm ume= | 0.119 af, E Span= 0.00 y, eent 35S: 0 | Depth= 4.96" D-72.00 hrs, dt | |
| Runoff b ype III <u>A</u> Tc (min) 6.0 Runoff b | y SCS TF 24-hr 25- 79,724 1,396 11,364 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m. yr Rair 98 68 98 95 Slop (ft/f 13.19 R-20 m | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity t) (ft/sec) Summ cfs @ 12.28 ethod, UH=S | P hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area eervious Ar connected Capacity (cfs) nary for \$ | ume= ated-CN, Time a bod, HSG A atea Description Direct Entr Subcatchm ume= | 0.119 af, E Span= 0.00 y, eent 35S: 0 | Depth= 4.96" D-72.00 hrs, dt | |
| Runoff b ype III <u>A</u> Tc (min) 6.0 Runoff b | y SCS TF 24-hr 25- 79,724 1,396 11,364 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m. yr Rair 98 68 98 95 Slop (ft/f 13.19 R-20 m | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity t) (ft/sec) Summ cfs @ 12.28 ethod, UH=S | P hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area eervious Ar connected Capacity (cfs) nary for \$ | ume= ated-CN, Time a bod, HSG A atea Description Direct Entr Subcatchm ume= | 0.119 af, E Span= 0.00 y, eent 35S: 0 | Depth= 4.96" D-72.00 hrs, dt | |
| Tc (min) 6.0 | y SCS TF 24-hr 25- 79,724 1,396 11,364 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m. yr Rair 98 68 98 95 Slop (ft/f 13.19 R-20 m | cfs @ 12.09 ethod, UH=S ifall=5.55" <u>Description</u> Paved parki >75% Grass <u>Unconnecte</u> Weighted A 11.18% Per 88.82% Imp 12.30% Unc e Velocity t) (ft/sec) Summ cfs @ 12.28 ethod, UH=S | P hrs, Volu CS, Weigh ng, HSG A s cover, Go d pavemen verage vious Area eervious Ar connected Capacity (cfs) nary for \$ | ume= ated-CN, Time a bod, HSG A atea Description Direct Entr Subcatchm ume= | 0.119 af, E Span= 0.00 y, eent 35S: 0 | Depth= 4.96" D-72.00 hrs, dt | |

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|--|----------|-------------------------|---------------------------|--------------|----------|-------------|---------------------|---------|
| Area (sf) | CN A | Adj Desc | ription | | | | | |
| 128,543 | 68 | | | ver, Good, | | | | |
| 69,229 16,469 | 89 82 | | % Grass co ds, Good, I | ver, Good, | HSG D | | | |
| 14,141 | 98 | | | avement, H | SG A | | | |
| 7,926 | 98 | Roof | s, HSG A | | | | | |
| 236,308 | 78 | | | age, UI Adju | sted | | | |
| 214,241 22,067 | | | 6% Perviou % Impervic | | | | | |
| 14,141 | | | 8% Unconr | | | | | |
| Tc Length | Slope | Velocity | Capacity | Descriptio | n | | | |
| (min) (feet) 20.0 | (ft/ft) | (ft/sec) | (cfs) | Direct En | trv | | | |
| 20.0 | | - | | | | | | |
| | | Sumr | nary for | Subcatch | ment | 36S: C.2 | | |
| Runoff = | 2.62 cf | s@ 12.0 | 9 hrs, Volu | ume= | 0.204 | l af, Depth | 1= 4.74" | |
| Runoff by SCS TF Type III 24-hr 25- | | | CS, Weigh | nted-CN, Tir | ne Spar | = 0.00-72. | .00 hrs, dt= 0.05 h | rs |
| Area (sf) | CN D | Description | | | | | | |
| 12,989 | | Paved parki | | | | | | |
| 3,687 2,989 | | 75% Grass Jnconnecte | | ood, HSG A | | | | |
| 2,851 | | Roofs, HSG | | ni, 1100 A | | | | |
| 22,516 | | Veighted A | | | | | | |
| 3,687 18.829 | | 6.38% Per 3.62% Imp | | | | | | |
| 2,989 | | 5.87% Und | | ea | | | | |
| Tc Length | Slope | Velocity | Capacity | Descriptio | 'n | | | |
| (min) (feet) 6.0 | (ft/ft) | (ft/sec) | (cfs) | Direct En | + vn / | | | |
| 0.0 | | | | Direct En | • | | | |
| | | Sumr | nary for | Subcatch | ment 3 | 37S: C.3 | | |
| Runoff = | 1.31 cf | s@ 12.0 | 9 hrs, Volu | ume= | 0.097 | af, Depth | n= 4.09" | |
| Runoff by SCS TF ype III 24-hr 25- | | | CS, Weigh | nted-CN, Tir | ne Spar | = 0.00-72. | .00 hrs, dt= 0.05 h | rs |
| Area (sf) | | Description | | | | | | |
| 5,266 | | Paved park | | | | | | |
| 4,754 509 | | 75% Grass Roofs, HSG | | ood, HSG A | | | | |
| 1,900 | | Roofs, HSC | | | | | | |
| 12,429 | | Veighted A | | | | | | |
| | | 8.25% Per 1.75% Imp | | | | | | |
| 4,754 7,675 | | 71.7 9 70 II MC | CIVIOUS AI | -a | | | | |
| 4,754 7,675 | 0 | | | | | | | |

| 6842-Post Prepared by | t Type III 24-hr 25-yr Rainfall=5.55" y {enter your company name here} | 6842-Post Prepared by {enter your c |
|--|--|--|
| | 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 95 | HydroCAD® 10.10-3a s/n 035 |
| Tc Ler (min) (f | ength Slope Velocity Capacity Description feet) (ft/ft) (ft/sec) (cfs) | Tc Length Slope (min) (feet) (ft/ft) |
| 6.0 | Direct Entry, | 6.0 |
| | Summary for Subcatchment 38S: C.4 | |
| Runoff = | = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af, Depth= 5.31" | Runoff = 0.88 cfs |
| Runoff by SC | CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfall |
| Type III 24-hi | nr 25-yr Rainfall=5.55" | Area (sf) CN De |
| Area (| | 6,072 98 Pa |
| · · · · · · · · · · · · · · · · · · · | 655 98 Paved parking, HSG A | <u>1,116 98 Ro</u> |
| 4,6 | 655 100.00% Impervious Area | 7,188 98 W 7,188 10 |
| Tc Ler | | , |
| | feet) (ft/ft) (ft/sec) (cfs) | Tc Length Slope |
| | | |
| <u>(min) (f</u> 6.0 | Direct Entry, | <u>(min) (feet) (ft/ft)</u> 6.0 |
| | | (min) (feet) (ft/ft) |
| ` | Direct Entry, Summary for Subcatchment 39S: C.5 | (min) (feet) (ft/ft) |
| 6.0 Runoff = | Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" | <u>(min) (feet) (ft/ft)</u> 6.0 |
| 6.0 Runoff = Runoff by SC | Direct Entry, Summary for Subcatchment 39S: C.5 | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth |
| 6.0 Runoff = Runoff by SC | Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" | (min) (feet) (ft/ft) 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 metho Type III 24-hr 25-yr Rainfall |
| 6.0 Runoff = Runoff by SC Type III 24-hi <u>Area (</u> 4,0 | Direct Entry, Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ar 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A | (min) (feet) (ft/ft) 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfall <u>Area (sf) CN De</u> |
| 6.0 Runoff = Runoff by SC Type III 24-hi <u>Area</u> (4,0 1,7 | Direct Entry, Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ar 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfal <u>Area (sf) CN Do</u> 7,639 98 Pa |
| 6.0 Runoff = Runoff by SC Type III 24-hi Area (4,0 1,7 5,8 | Direct Entry, Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs ar 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfall <u>Area (sf) CN De</u> 7,639 98 Pa |
| 6.0 Runoff by SC Type III 24-hi <u>Area (</u> 4,0 1,7 5,8 | Direct Entry, Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 98 Weighted Average | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 methor Type III 24-hr 25-yr Rainfall <u>Area (sf) CN De</u> <u>7,639 98 Pa</u> 7,639 10 Tc Length Slope |
| 6.0 Runoff = Runoff by SC Type III 24-hi <u>Area (</u> 4,0 1,7 5,8 5,8 1,7 | Direct Entry, Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs nr 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 98 Weighted Average 857 100.00% Impervious Area 777 30.34% Unconnected | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 methe Type III 24-hr 25-yr Rainfall <u>Area (sf) CN Dec</u> 7,639 98 Pe 7,639 10 Tc Length Slope <u>(min) (feet) (ft/ft)</u> |
| 6.0 Runoff by SC Type III 24-hi <u>Area (</u> 4,0 1,7 5,8 5,8 1,7 Tc Ler | Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 98 Weighted Average 857 100.00% Impervious Area 777 30.34% Unconnected ength Slope Velocity Obscription (ft/ft) (ft/ft) | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfall <u>Area (sf) CN De</u> <u>7,639 98 Pa</u> 7,639 10 Tc Length Slope |
| 6.0 Runoff by SC Type III 24-hi <u>Area (</u> 4,0 1,7 5,8 5,8 1,7 Tc Ler | Direct Entry, Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs colspan="2">Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 100.00% Impervious Area 777 30.34% Unconnected escription | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth- Type III 24-hr 25-yr Rainfall <u>Area (sf) CN De</u> 7,639 98 Pe 7,639 10 Tc Length Slope <u>(min) (feet) (ft/ft)</u> |
| 6.0 Runoff by SC Type III 24-hi <u>Area (</u> 4,0 1,7 5,8 5,8 1,7 Tc Ler (min) (f | Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 98 Weighted Average 857 100.00% Impervious Area 777 30.34% Unconnected ength Slope Velocity Obscription (ft/ft) (ft/ft) | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfal <u>Area (sf) CN Dr</u> 7,639 98 Pa 7,639 10 <u>Tc Length Slope</u> <u>(min) (feet) (ft/ft)</u> 6.0 |
| 6.0 Runoff by SC Type III 24-hi Area (4.0 1.7 5.8 5.8 1.7 Tc Ler (min) (f 6.0 | Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 100.00% Impervious Area 777 30.34% Unconnected Direct Entry, Direct Entry, Summary for Subcatchment 40S: C.6 | $\frac{\text{(min)} \text{(feet)} \text{(ft/ft)}}{6.0}$ Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfal $\frac{\text{Area (sf)} \text{CN} \text{Dr}}{7,639 \text{ 98} \text{ Pa}}$ 7,639 10 Tc Length Slope (min) (feet) (ft/ft) 6.0 Runoff = 1.06 cfs Runoff by SCS TR-20 meth |
| 6.0 Runoff by SC Type III 24-hi <u>Area (</u> 4,0 1,7 5,8 5,8 5,8 1,7 Tc Ler (min) (f 6.0 Runoff = Runoff by SC | Direct Entry, Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pr 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 100.00% Impervious Area 777 30.34% Unconnected Direct Entry, CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | $\frac{\text{(min)} (\text{feet)} (\text{ft/ft})}{6.0}$ Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfal $\frac{\text{Area} (\text{sf}) \text{ CN De}}{7,639 98 \text{Pe}}{7,639 100}$ Tc Length Slope $\frac{\text{(min)} (\text{feet)} (\text{ft/ft})}{6.0}$ Runoff = 1.06 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfal |
| 6.0 Runoff by SC Type III 24-hi <u>Area (</u> 4,0 1,7 5,8 5,8 5,8 1,7 Tc Ler (min) (f 6.0 Runoff = Runoff by SC | Direct Entry, Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs pr 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 100.00% Impervious Area 777 30.34% Unconnected Direct Entry, Direct S @ 12.09 hrs, Volume= 0.041 af, Depth= 5.31" | (min) (feet) (ft/ft) 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfal <u>Area (sf) CN Du</u> 7,639 98 Pa 7,639 10 Tc Length Slope (min) (feet) (ft/ft) 6.0 Runoff = 1.06 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfal <u>Area (sf) CN Du</u> |
| 6.0 Runoff by SC Type III 24-hi <u>Area (</u> 4,0 1,7 5,8 5,8 5,8 1,7 Tc Ler (min) (f 6.0 Runoff = Runoff sy SC | Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 98 Weighted Average 857 100.00% Impervious Area 777 30.34% Unconnected Intercent Entry, Direct Entry, Direct Entry, Summary for Subcatchment 40S: C.6 = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" | $\frac{(\min) (\text{feet}) (\text{fl/ft})}{6.0}$ Runoff = 0.93 cfs Runoff by SCS TR-20 method Type III 24-hr 25-yr Rainfall $\frac{\text{Area (sf) CN De}}{7,639 98 Pa}$ 7,639 10 Tc Length Slope (min) (feet) (ft/ft) 6.0 Runoff = 1.06 cfs Runoff by SCS TR-20 method Type III 24-hr 25-yr Rainfall $\frac{\text{Area (sf) CN De}}{8,732 98 Pa}$ |
| 6.0 Runoff = Runoff by SC Type III 24-hi Area (4.0 1.7 5.8 5.8 1.7 Tc Ler (min) (fr 6.0 Runoff = Runoff by SC Type III 24-hi Area (4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 | Direct Entry, Summary for Subcatchment 39S: C.5 = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" (sf) CN Description 080 98 Paved parking, HSG A 777 98 Unconnected pavement, HSG A 857 98 Weighted Average 857 100.00% Impervious Area 777 30.34% Unconnected Intercent Entry, Direct Entry, Direct Entry, Summary for Subcatchment 40S: C.6 = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 5.31" CS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs or 25-yr Rainfall=5.55" | <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 0.93 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfall <u>Area (sf) CN De</u> 7,639 98 Pa 7,639 10 Tc Length Slope <u>(min) (feet) (ft/ft)</u> 6.0 Runoff = 1.06 cfs Runoff by SCS TR-20 meth Type III 24-hr 25-yr Rainfall <u>Area (sf) CN De</u> |

| repared by {en /droCAD® 10.10/ | | | | | lutions LLC | | | Page 90 |
|--|--|---|---|--|---|---|-----------------|---------|
| Tc Length (min) (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Descriptior | ı | | | |
| 6.0 | | | | Direct Ent | ry, | | | |
| | | Sumr | nary for S | Subcatchr | nent 41S | : C.7 | | |
| inoff = | 0.88 cf | s@ 12.0 | 9 hrs, Volu | me= | 0.073 af, | Depth= 5.3 | 31" | |
| noff by SCS TI pe III 24-hr 25 | | | CS, Weigh | ted-CN, Tim | e Span= 0. | .00-72.00 hr | s, dt= 0.05 hrs | 6 |
| Area (sf) | CN E | Description | | | | | | |
| 6,072 1,116 | | Paved park Roofs, HSG | ing, HSG A S A | | | | | |
| 7,188 | | Veighted A 00.00% Im | verage pervious A | rea | | | | |
| 7,188 | | | | | | | | |
| 7,188 Tc Length (min) (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Descriptior | ı | | | |
| Tc Length | | | | Description | | | | |
| Tc Length (min) (feet) | | (ft/sec) | (cfs) | | ry, | : C.8 | | |
| Tc Length (min) (feet) 6.0 | (ft/ft) | (ft/sec) | (cfs) | Direct Ent Subcatchr | ^{ry,} nent 42S | | 21" | |
| Tc Length (<u>min) (feet)</u> 6.0 unoff = | (ft/ft) 0.93 cf | (ft/sec) Sumr s @ 12.0 | (cfs) mary for \$ 9 hrs, Volu | Direct Ent Subcatchr | ry, nent 42S 0.078 af, | Depth= 5.3 | | |
| Tc Length (min) (feet) 6.0 unoff = unoff by SCS Tf | (ft/́ft) 0.93 cf ⋜-20 metl | (ft/sec) Sumr s @ 12.09 nod, UH=S | (cfs) mary for \$ 9 hrs, Volu | Direct Ent Subcatchr | ry, nent 42S 0.078 af, | Depth= 5.3 | | 3 |
| Tc Length (min) (feet) 6.0 unoff = unoff by SCS Tf | (ft/ft) 0.93 cf R-20 metl -yr Rainfa | (ft/sec) Sumr s @ 12.09 nod, UH=S | (cfs) mary for \$ 9 hrs, Volu CS, Weigh | Direct Ent Subcatchr | ry, nent 42S 0.078 af, | Depth= 5.3 | | 5 |
| Tc Length (min) (feet) 6.0 unoff = unoff by SCS Ti pe III 24-hr 25- | (ft/ft) 0.93 cf R-20 mett -yr Rainfa <u>CN E</u> | (ft/sec) Sumr s @ 12.0 nod, UH=S nll=5.55" Description | (cfs) mary for \$ 9 hrs, Volu CS, Weigh | Direct Ent Subcatchr me= ted-CN, Tim | ry, nent 42S 0.078 af, | Depth= 5.3 | | 5 |
| Tc Length (min) (feet) 6.0 Inoff = Inoff by SCS Tf pe III 24-hr 25 Area (sf) | (ft/ft) 0.93 cf R-20 metl -yr Rainfa <u>CN E</u> 98 F | (ft/sec) Sumr s @ 12.0 nod, UH=S ull=5.55" Description Paved park | (cfs) nary for \$ 9 hrs, Volu CS, Weigh | Direct Ent Subcatchr me= ted-CN, Tim | ry, nent 42S 0.078 af, | Depth= 5.3 | | 5 |
| Tc Length (min) (feet) 6.0 unoff = unoff by SCS Tf pe III 24-hr 7,639 7,639 Tc Tc (min) (feet) | (ft/ft) 0.93 cf R-20 metl -yr Rainfa <u>CN E</u> 98 F | (ft/sec) Sumr s @ 12.0 nod, UH=S ull=5.55" Description Paved park | (cfs) nary for \$ 9 hrs, Volu CS, Weigh | Direct Ent Subcatchr me= ted-CN, Tim rea | ry, nent 42S 0.078 af, e Span= 0. | Depth= 5.3 | | 5 |
| Tc Length (min) (feet) 6.0 unoff = unoff by SCS Ti rpe III 24-hr 25- Area (sf) 7,639 7,639 Tc Tc | (ft/ft) 0.93 cf R-20 mett -yr Rainfa <u>CN E</u> 98 F 1 Slope | (ft/sec) Sumr s @ 12.0 nod, UH=S ill=5.55" Description 2aved park 00.00% Irr Velocity | (cfs) mary for \$ 9 hrs, Volu CS, Weigh ing, HSG A pervious A Capacity | Direct Ent Subcatchr ime= ted-CN, Tim rea | ry, nent 42S 0.078 af, e Span= 0. | Depth= 5.3 | | 5 |
| Tc Length (min) (feet) 6.0 unoff = unoff by SCS Tf pe III 24-hr 25: Area (sf) 7,639 7,639 Tc Length (min) (feet) | (ft/ft) 0.93 cf R-20 mett -yr Rainfa <u>CN E</u> 98 F 1 Slope | (ft/sec) Sumr s @ 12.0 nod, UH=S lill=5.55" Description ?aved park 00.00% In Velocity (ft/sec) | (cfs) nary for \$ 9 hrs, Volu CS, Weigh ng, HSG A npervious A Capacity (cfs) | Direct Ent Subcatchr me= ted-CN, Tim rea | ry, nent 42S 0.078 af, e Span= 0. | Depth= 5.3 | | 5 |
| Tc Length (min) 6.0 | (ft/ft) 0.93 cf -yr Rainfa -yr Rainfa -yr Rainfa -yr 98 F 98 F 1 Slope (ft/ft) | (ft/sec) Sumr s @ 12.0 nod, UH=S ill=5.55" Description 2aved park 00.00% In Velocity (ft/sec) Sumr | (cfs) nary for \$ 9 hrs, Volu CS, Weigh ng, HSG A npervious A Capacity (cfs) | Direct Ent Subcatchr ime= ted-CN, Tim rea Descriptior Direct Ent Subcatchr | ry, nent 42S 0.078 af, e Span= 0. n ry, nent 43S | Depth= 5.3 | s, dt= 0.05 hrs | 3 |
| Tc Length (min) (feet) 6.0 unoff by SCS Ti rpe III 24-hr 25- Area (sf) 7,639 7,639 Tc Length (min) (feet) 6.0 | (ft/ft) 0.93 cf -yr Rainfa -yr Ra | (ft/sec) Sumr s @ 12.0 nod, UH=S ill=5.55" Description Paved park 00.00% Irr Velocity (ft/sec) Sumr s @ 12.0 nod, UH=S | (cfs) nary for \$ 9 hrs, Volu CS, Weigh ing, HSG A pervious A Capacity (cfs) nary for \$ 9 hrs, Volu | Direct Ent Subcatchr me= ted-CN, Tim rea Descriptior Direct Ent Subcatchr | ry, nent 42S 0.078 af, e Span= 0. n ry, nent 43S 0.089 af, | Depth= 5.3 00-72.00 hr : C.9 Depth= 5.3 | s, dt= 0.05 hrs | |
| Tc Length (min) (min) (feet) 6.0 | (ft/ft) 0.93 cf R-20 mett -yr Rainfa <u>CN E</u> <u>98 F</u> 1 Slope (ft/ft) 1.06 cf R-20 mett | (ft/sec) Sumr s @ 12.0 nod, UH=S ill=5.55" Description Paved park 00.00% Irr Velocity (ft/sec) Sumr s @ 12.0 nod, UH=S | (cfs) nary for \$ 9 hrs, Volu CS, Weigh ing, HSG A pervious A Capacity (cfs) nary for \$ 9 hrs, Volu | Direct Ent Subcatchr me= ted-CN, Tim rea Descriptior Direct Ent Subcatchr | ry, nent 42S 0.078 af, e Span= 0. n ry, nent 43S 0.089 af, | Depth= 5.3 00-72.00 hr : C.9 Depth= 5.3 | s, dt= 0.05 hrs | |
| Tc Length (min) (min) (feet) 6.0 (feet) unoff = unoff pe III 24-hr 25- Area (sf) 7,639 7,639 7,639 Tc Length (min) 6.0 | (ft/ft) 0.93 cf R-20 meti yr Rainfa <u>98 F</u> 1 Slope (ft/ft) 1.06 cf R-20 meti yr Rainfa <u>CN E</u> | (ft/sec) Sumr s @ 12.0 nod, UH=S lil=5.55" Description 2aved park 00.00% In Velocity (ft/sec) Sumr s @ 12.0 nod, UH=S ill=5.55" Description | (cfs) nary for \$ 9 hrs, Volu CS, Weigh ing, HSG A pervious A Capacity (cfs) nary for \$ 9 hrs, Volu | Direct Ent Subcatchr ime= ted-CN, Tim rea Descriptior Direct Ent Subcatchr ime= ted-CN, Tim | ry, nent 42S 0.078 af, e Span= 0. n ry, nent 43S 0.089 af, | Depth= 5.3 00-72.00 hr : C.9 Depth= 5.3 | s, dt= 0.05 hrs | |

| Page 97 |
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| HydroCAD® 10.1 | 0-3a s/n 0 | 3590 © 2020 |) HydroCAE |) Software S | olutions L | LC | | Page 9 |
| Area (sf) | CN | Description | | | | | | |
| 2,144 | | Paved parki | | | | | | |
| 2,121 853 | | Paved parki Unconnecte | | | | | | |
| 696 | | Unconnecte | | | | | | |
| 96 | | Roofs, HSG | | ,e e e | | | | |
| 5,910 | | Weighted A | | | | | | |
| 5,910 1,549 | | 100.00% Im 26.21% Und | | rea | | | | |
| 1,545 | | 20.21/0 0110 | Johneolea | | | | | |
| Tc Lengt (min) (fee | | Velocity (ft/sec) | Capacity (cfs) | Descriptio | n | | | |
| 6.0 | | | | Direct En | try, | | | |
| | | Summ | ary for S | Subcatch | ment 47 | 'S: C.13 | | |
| Runoff = | 0.24 c | fs @ 12.09 | ahrs Volu | ime= | 0 020 | af, Depth= | 5 31" | |
| | 0.240 | 13 @ 12.0 | | inic- | 0.020 | ai, Dopui- | 0.01 | |
| | | | | | | | | |
| | | | CS, Weigh | ted-CN, Tir | ne Span= | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| | | | CS, Weigh | ted-CN, Tir | ne Span= | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 | 5-yr Rainf | all=5.55" | CS, Weigh | ted-CN, Tir | ne Span= | = 0.00-72.00 | hrs, dt= 0.08 | 5 hrs |
| | 5-yr Rainf CN | | | - | ne Span= | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 | 5-yr Rainf <u>CN</u> 98 98 | all=5.55" Description Paved parki Unconnecte | ng, HSG D |) | ne Span= | = 0.00-72.00 | hrs, dt= 0.0 | 5 hrs |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 | 5-yr Rainf CN 98 98 98 | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A | ng, HSG D d pavemer verage |) nt, HSG D | ne Span= | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 1,987 | 5-yr Rainf <u>CN</u> 98 98 98 | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im | ng, HSG D d pavemer verage pervious A |) nt, HSG D | ne Span= | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 | 5-yr Rainf <u>CN</u> 98 98 98 | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A | ng, HSG D d pavemer verage pervious A |) nt, HSG D | ne Span= | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Lengt | 5-yr Rainf <u>CN</u> 98 98 98 1 98 | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc Velocity | ng, HSG D d pavemer verage pervious A onnected Capacity |) nt, HSG D urea | | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Lengt (min) (fee | 5-yr Rainf <u>CN</u> 98 98 98 1 98 | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc Velocity | ng, HSG D d pavemer verage pervious A onnected |) nt, HSG D vrea Descriptic | 'n | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Lengt | 5-yr Rainf <u>CN</u> 98 98 98 1 98 | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc Velocity | ng, HSG D d pavemer verage pervious A onnected Capacity |) nt, HSG D urea | 'n | = 0.00-72.00 | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Lengt (min) (fee | 5-yr Rainf <u>CN</u> 98 98 98 1 98 | all=5.55" Description Paved parki Jnconnecte Weighted A 100.00% Im 7.80% Uncc Velocity (ft/sec) | ng, HSG D d pavemer verage pervious A onnected Capacity (cfs) |) nt, HSG D vrea Descriptic | n try, | | hrs, dt= 0.05 | 5 hrs |
| Type III 24-hr 2 Area (sf) 1,832 155 1,987 1,987 1,987 155 Tc Lengt (min) (fee 6.0 | 5-yr Rainf 98 98 98 98 98 1000000000000000000000000000000000000 | all=5.55" Description Paved parki Jnconnecte Weighted A 100.00% Im 7.80% Uncc Velocity (ft/sec) | ng, HSG D d pavemer verage pervious A onnected Capacity (cfs) nary for S |) ht, HSG D vrea Descriptic Direct En Subcatchi | n try, ment 48 | | | 5 hrs |
| 1,832 155 1,987 155 Tc Lengt (min) (fee 6.0 | 5-yr Rainf <u>CN</u> 98 98 98 98 0 0.23 c | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc Velocity (ft/sec) Summ fs @ 12.09 | ng, HSG D dd pavemer verage ipervious A onnected Capacity (cfs) hary for S |) ht, HSG D urea Descriptic Direct En Subcatchu | n try, nent 48 0.019 | 9 S: C.14 af, Depth= | 5.31" | |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 1,987 1,987 1,987 1,987 155 Tc Lengt (min) (fee 6.0 Runoff = Runoff by SCS | 5-yr Rainf <u>CN</u> 98 98 98 0 Slope) (ft/ft) 0.23 c TR-20 mei | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc Velocity (ft/sec) Summ fs @ 12.09 thod, UH=S | ng, HSG D dd pavemer verage ipervious A onnected Capacity (cfs) hary for S |) ht, HSG D urea Descriptic Direct En Subcatchi ime= | n try, nent 48 0.019 | 9 S: C.14 af, Depth= | 5.31" | |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Lengt (min) (fee 6.0 Runoff = Runoff by SCS Type III 24-hr 2 | 5-yr Rainf <u>CN</u> 98 98 98 98 0.23 c 1R-20 mel 5-yr Rainf | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc <u>Velocity</u> (ft/sec) Summ fs @ 12.09 thod, UH=S all=5.55" | ng, HSG D dd pavemer verage ipervious A onnected Capacity (cfs) hary for S |) ht, HSG D urea Descriptic Direct En Subcatchi ime= | n try, nent 48 0.019 | 9 S: C.14 af, Depth= | 5.31" | |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 1,987 1,987 1,987 155 Tc Lengt (min) (fee 6.0 Runoff = Runoff by SCS Type III 24-hr 2 <u>Area (sf)</u> | 5-yr Rainf 98 98 98 98 98 98 98 0.23 c 0.23 c 1R-20 mei 5-yr Rainf CN | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc Velocity (ft/sec) Summ fs @ 12.09 thod, UH=S all=5.55" <u>Description</u> | ng, HSG D d pavemer verage pervious A onnected Capacity (cfs) eary for S 9 hrs, Volu CS, Weigh |) nt, HSG D Descriptic Direct En Subcatchi ime= ted-CN, Tir | n try, nent 48 0.019 | 9 S: C.14 af, Depth= | 5.31" | |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Lengt (min) (fee 6.0 Runoff = Runoff by SCS Type III 24-hr 2 | 5-yr Rainf 98 98 98 98 98 0.23 c 0.23 c 1R-20 mel 5-yr Rainf 5-yr Rainf 98 | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc <u>Velocity</u> (ft/sec) Summ fs @ 12.09 thod, UH=S all=5.55" | ng, HSG D d pavemer verage pervious A onnected Capacity (cfs) hary for S D hrs, Volu CS, Weigh ng, HSG D |) ht, HSG D urea Descriptic Direct En Subcatchu ume= ted-CN, Tir | n try, nent 48 0.019 | 9 S: C.14 af, Depth= | 5.31" | |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 1,987 1,987 1,987 155 Tc Lengt (min) (fee 6.0 Runoff = Runoff sy SCS Type III 24-hr 2 <u>Area (sf)</u> 1,744 | 5-yr Rainf <u>CN</u> 98 98 98 98 0.23 c 1R-20 mei 5-yr Rainf <u>CN</u> 98 98 | all=5.55" <u>Description</u> Paved parki <u>Unconnecte</u> Weighted A 100.00% Im 7.80% Uncc Velocity (ft/sec) Summ fs @ 12.09 thod, UH=S all=5.55" <u>Description</u> Paved parki | ng, HSG D d pavemer verage pervious A onnected Capacity (cfs) hary for S 0 hrs, Volu CS, Weigh |) ht, HSG D urea Descriptic Direct En Subcatchu ume= ted-CN, Tir | n try, nent 48 0.019 | 9 S: C.14 af, Depth= | 5.31" | |
| Type III 24-hr 2 <u>Area (sf)</u> 1,832 155 1,987 1,987 1,987 155 Tc Lengt (min) (fee 6.0 Runoff = Runoff by SCS Type III 24-hr 2 <u>Area (sf)</u> 1,744 141 | 5-yr Rainf 98 98 98 98 98 98 0.23 c 0.23 c 1R-20 met 5-yr Rainf 5-yr Rainf 98 98 98 | all=5.55" Description Paved parki Unconnecte Weighted A 100.00% Im 7.80% Unco Velocity (ft/sec) Summ fs @ 12.09 thod, UH=S all=5.55" Description Paved parki Unconnecte | ng, HSG D d pavemer verage pervious A onnected Capacity (cfs) hary for S hrs, Volu CS, Weigh ng, HSG D d pavemer verage pervious A | Descriptic Descriptic Direct En Subcatchu ume= ted-CN, Tir | n try, nent 48 0.019 | 9 S: C.14 af, Depth= | 5.31" | |

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.55"

| IC (min) | Length (feet) | Slop (ft/f | | ocity /sec) | Capaci (cf | | Descript | ion | | | |
|-------------|-----------------------|---------------|-----------------|-----------------|--------------------------------|-------|------------------|------|------------------|---------------------|----|
| 6.0 | (leet) | (101 | <u>.) (10</u> | (Sec) | (0) | / | Direct E | ntry | ', | | |
| | | | S | umm | nary for | r Sı | ubcatch | nme | ent 49S: C.15 | | |
| Runoff | = | 0.42 | cfs @ | 12.0 | 9 hrs, V | olun | ne= | (| 0.035 af,Depth= | 5.31" | |
| | y SCS TF 24-hr 25- | | | | CS, Wei | ghte | ed-CN, T | ime | Span= 0.00-72.00 |) hrs, dt= 0.05 hrs | \$ |
| A | rea (sf) | CN | Descr | | | | | | | | |
| | 3,220 267 | 98 98 | | | ing, HSO d paven | | , HSG D | | | | |
| | 3,487 3,487 267 | 98 | Weigh 100.00 | nted A 0% Im | verage pervious onnected | s Are | | | | | |
| Tc (min) | Length (feet) | Slop (ft/f | | ocity /sec) | Capaci (cf | | Descript | ion | | | |
| 6.0 | | | | | | | Direct E | ntry | ', | | |
| | | | s | umm | nary for | r Sı | ubcatch | nme | ent 50S: C.16 | | |
| Runoff | = | 0.43 | cfe @ | 12.0 | 9 hrs, V | olun | no- | (| 0.036 af, Depth= | 5 31" | |
| | | | 0 | | | | | | , , | | _ |
| | 24-hr 25- | | | | CS, Wei | gnie | a-Cin, i | ime | Span= 0.00-72.00 |) hrs, at= 0.05 hrs | 5 |
| А | rea (sf) | CN | Descr | iption | | | | | | | |
| | 3,238 270 | 98 98 | | | ing, HSC | | , HSG D | | | | |
| | 3,508 | 98 | | | verage | lent | ., по б D | | | | |
| | 3,508 270 | | | | pervious | | ea | | | | |
| Tc (min) | Length (feet) | Slop (ft/f | | ocity /sec) | Capaci (cf | | Descript | ion | | | |
| 6.0 | () | (121) | <u>y (</u> |) | (2. | | Direct E | ntry | ', | | |
| | | | ç | Sumr | narv fo | r S | ubcatc | hm | ent 51S: D.1 | | |
| | | | | | - | | | | | | |
| Runoff | = | 11.60 | cfs @ | 12.3 | 0 hrs, V | olun | ne= | | 1.318 af, Depth= | 1.71" | |
| | | | | | | | | | Span= 0.00-72.00 | | |

| 6842-Post | Type III 24-hr 25-yr Rain | nfall=5.55" |
|--|--|------------------|
| | ter your company name here} 3a s/n 03590 © 2020 HydroCAD Software Solutions LLC | Page 100 |
| - | | <u>1 ugo 100</u> |
| Area (sf) 1.527 | CN Description 98 Unconnected pavement, HSG A | |
| 182,934 | 68 >75% Grass cover, Good, HSG A | |
| 518 | 79 >75% Grass cover, Good, HSG B | |
| 51,440 160,796 | 89 >75% Grass cover, Good, HSG D 43 Woods, Good, HSG A | |
| 5,106 | 65 Woods, Good, HSG B | |
| 450 | 82 Woods, Good, HSG D | |
| 402,771 | 61 Weighted Average | |
| 401,244 1,527 | 99.62% Pervious Area 0.38% Impervious Area | |
| 1,527 | 100.00% Unconnected | |
| Tc Length (min) (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
| 20.0 | Direct Entry, | |
| | Summary for Subcatchment 52S: B.9 | |
| | • | |
| Runoff = | 1.72 cfs @ 12.09 hrs, Volume= 0.133 af, Depth= 4.63" | |
| Runoff by SCS TR Type III 24-hr 25- | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 h yr Rainfall=5.55" | irs |
| Area (sf) | CN Description | |
| 10,973 2,895 | 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A | |
| 1,150 | 98 Unconnected pavement, HSG A | |
| 15,018 | 92 Weighted Average | |
| 2,895 | 19.28% Pervious Area | |
| 12,123 1,150 | 80.72% Impervious Area 9.49% Unconnected | |
| 1,150 | 3.43 /0 Onconnected | |
| Tc Length (min) (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
| 6.0 | Direct Entry, | |
| s | Summary for Pond 4P: Constructed Stormwater Wetland #2 | |
| nflow Area = | 2.341 ac, 79.77% Impervious, Inflow Depth = 4.03" for 25-yr event | |
| nflow = Outflow = | 9.06 cfs @ 12.09 hrs, Volume= 0.787 af | min |
| Dutflow = Primary = | 1.78 cfs @ 12.57 hrs, Volume= 0.785 af, Atten= 80%, Lag= 28.3 1.78 cfs @ 12.57 hrs, Volume= 0.785 af | 5 mm |
| | nd method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0' @ 12.57 hrs Surf.Area= 9,493 sf Storage= 17,488 cf | |
| | on time= 327.8 min calculated for 0.785 af (100% of inflow) et. time= 326.5 min (1,088.7 - 762.2) | |
| | | |
| | | |
| | | |

| Page 10 | lutions LLC | ydroCAD Software So | © 2020 H | s/n 03590 | D® 10.10-3a | пушоса |
|---|---|--|--|---|--|---|
| | ı | Storage Description | Storage | t Avail. | Inver | Volume |
| below (Recalc) | a (Irregular)Listed | <u>v</u> , | 1,125 cf | | 212.50 | #1 |
| Wet.Area | Cum.Store | Inc.Store | Perim. | urf.Area | on S | Elevatio |
| (sq-ft) | (cubic-feet) | (cubic-feet) | (feet) | (sq-ft) | | (fee |
| 6,500 | 0 | 0 | 322.0 | 6,500 | 50 | 212.5 |
| 8,737 | 11,187 | 11,187 | 362.0 | 8,459 | 00 | 214.0 |
| 14,695 | 31,125 | 19,938 | 453.0 | 11,559 | 00 | 216.0 |
| | | et Devices | ert Outle | Inv | Routing | Device |
| Rectangular Weir | th Broad-Crested | long x 12.0' bread | 50' 20.0 ' | 215.5 | Primary | #1 |
| | | d (feet) 0.20 0.40 (| | | | |
| | | f. (English) 2.57 2.6 | | | | |
| r 2 End Contraction(s) | l Rectangular Weir | | | 214.5 | Device 3 | #2 |
| o= 0.000 | a no hoodwall K | " Round Culvert 11.0' CPP, projecti | | 212.5 | Primary | #3 |
| .0186 '/' Cc= 0.900 | | | | | | |
| .0100 / 00- 0.000 | | .013, Flow Area= 1 | | | | |
| to weir flow at low heads | | | | 212.5 | Device 3 | #4 |
| | .17 cfs @ 1.47 fps) | (Controls 0.00 cfs) fs potential flow) /eir (Weir Controls 1 | of 5.86 c ngular W | d Rectang ses 1.77 cfs sted Recta | Ivert (Pass Sharp-Cre | -1=Br 3=Cu -2= |
| | .17 cfs @ 1.47 fps) | fs potential flow) /eir (Weir Controls 1 0.60 cfs @ 6.87 fps) | of 5.86 c ngular W Controls | d Rectang ses 1.77 cfs sted Recta | oad-Creste Ilvert (Pass Sharp-Cre | 1=Br 3=Cu -2= |
| | .17 cfs @ 1.47 fps) | fs potential flow) /eir (Weir Controls 1 | of 5.86 c ngular W Controls | d Rectang ses 1.77 cfs sted Recta | oad-Creste Ilvert (Pass Sharp-Cre | 1=Br 3=Cu -2= |
| 25-yr event | 17 cfs @ 1.47 fps) : Wet Basin | rfs potential flow) /eir (Weir Controls 1 0.60 cfs @ 6.87 fps) nary for Pond 5P mpervious, Inflow D | s of 5.86 c ngular W Controls Summ 31.40% li | d Rectang ses 1.77 cfs sted Recta tte (Orifice 7.170 ac, | oad-Creste Ilvert (Pass Sharp-Cre Orifice/Gra | 1=Br 3=Cu -2= |
| 25-yr event | .17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af | fs potential flow) /eir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= | s of 5.86 c ngular W Controls Summ 31.40% li 12.20 h | d Rectang ses 1.77 cfs sted Recta ite (Orifice 7.170 ac, 8.51 cfs @ | oad-Creste Ilvert (Pass Sharp-Cre Orifice/Gra rea = = 1 | 1=Br 3=Cu 2= 4= Inflow A Inflow |
| | .17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 | fs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= | of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.49 h | d Rectang ses 1.77 cfs sted Recta ite (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ | oad-Creste Ilvert (Pass Sharp-Cre Orifice/Gra rea = = 1 = 1 | Inflow A Inflow Outflow |
| 25-yr event | .17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af | fs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= rs, Volume= | of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.49 h | d Rectang ses 1.77 cfs sted Recta the (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ | oad-Creste Ilvert (Pass sharp-Cre orifice/Gra rea = = 1 = 1 = 1 | Inflow A Inflow A Inflow Outflow Primary |
| 25-yr event | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af 0.05 hrs | fs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= | of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.49 h 12.49 h me Span | d Rectang ses 1.77 cfs sted Recta tte (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ method, Ti | oad-Creste Ilvert (Pass Sharp-Cre orifice/Gra rea = = 1 = 1 = 1 by Stor-Ind | Inflow A Inflow A Inflow Outflow Primary Routing |
| 25-yr event | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf | rs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt= trea= 13,984 sf Sto | s of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.49 h 12.49 h me Span- rs Surf.A | d Rectang ses 1.77 cfs sted Recta tte (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ method, Ti @ 12.49 h | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra = 1 = 1 = 1 by Stor-Ind ev= 215.42' | Inflow A Inflow A Inflow Outflow Primary Routing Peak Ele |
| 25-yr event | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf | fs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dta vrea= 13,984 sf Sto ulated for 2.012 af (| s of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.49 h 12.49 h 12.49 h 12.49 h 8 min calc | d Rectang ies 1.77 cfs sted Recta ite (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ method, Ti @ 12.49 h time= 26.3 | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra = 1 = 1 = 1 by Stor-Ind ev= 215.42' www.detentior | Inflow A Inflow A Inflow Outflow Primary Routing Peak Ele Plug-Flc |
| 25-yr event | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf | rs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt= trea= 13,984 sf Sto | s of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.49 h 12.49 h 12.49 h 12.49 h 8 min calc | d Rectang ies 1.77 cfs sted Recta ite (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ method, Ti @ 12.49 h time= 26.3 | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra rea = = 1 = 1 = 1 by Stor-Ind ev= 215.42' bw detentior of-Mass det | Inflow A Inflow A Inflow Outflow Outflow Primary Routing Peak Eld Plug-Flo Center-o |
| 25-yr event 40%, Lag= 17.4 min | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf 100% of inflow) | rs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt= trea= 13,984 sf Store ulated for 2.012 af (6.3 - 809.8) Storage Description | controls Summ 31.40% II 12.20 h 12.40 h 12.49 h 12.49 h 12.49 h 12.49 h 12.49 s me Span: s Surf.A B min calc I min (83) Storage | d Rectang es 1.77 cfs sted Recta the (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ 1.16 cfs @ method, Ti @ 12.49 h time= 26.4 time= 26.4 | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra = 1 = 1 = 1 by Stor-Ind ev= 215.42' w detentior of-Mass det | Inflow A Inflow A Inflow Outflow Primary Routing Peak Ele Plug-Flc Center-o Volume |
| 25-yr event 40%, Lag= 17.4 min | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf 100% of inflow) | rs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt= trea= 13,984 sf Store ulated for 2.012 af (6.3 - 809.8) Storage Description | controls Summ 31.40% In 12.20 h 12.49 h 12.49 h 12.49 s me Span- rs Surf. ⁴ 8 min calc 4 min (83 | d Rectang es 1.77 cfs sted Recta the (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ 1.16 cfs @ method, Ti @ 12.49 h time= 26.4 time= 26.4 | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra rea = = 1 = 1 = 1 by Stor-Ind ev= 215.42' bw detentior of-Mass det | Inflow A Inflow A Inflow Outflow Outflow Primary Routing Peak Eld Plug-Flo Center-o |
| 25-yr event 40%, Lag= 17.4 min | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf 100% of inflow) | rs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt= trea= 13,984 sf Store ulated for 2.012 af (6.3 - 809.8) Storage Description | controls Summ 31.40% II 12.20 h 12.40 h 12.49 h 12.49 h 12.49 h 12.49 h 12.49 s me Span: s Surf.A B min calc I min (83) Storage | d Rectang es 1.77 cfs sted Recta the (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ 1.16 cfs @ method, Ti @ 12.49 h time= 26.4 time= 26.4 | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra = 1 = 1 = 1 by Stor-Ind ev= 215.42' bw detentior of-Mass det Inver 214.00 | Inflow A Inflow A Inflow Outflow Primary Routing Peak Ele Plug-Flc Center-o Volume |
| 25-yr event 40%, Lag= 17.4 min below (Recalc) Wet.Area (sq-ft) | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf 100% of inflow) a (Irregular)Listed | fs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt= trea= 13,984 sf Stor ulated for 2.012 af (6.3 - 809.8) <u>Storage Description</u> Custom Stage Da | c of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.49 h 12.49 h 12.49 h me Span- rs Surf.A 8 min calc 4 min (83 <u>Storage</u> 3,930 cf | d Rectang ies 1.77 cfs sted Recta ite (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ 1.16 cfs @ 1.16 cfs @ time= 26.3 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra = 1 = 1 = 1 by Stor-Ind ev= 215.42' bw detentior of-Mass det Inver 214.00 bn S | Inflow A Inflow A Inflow Outflow Primary Routing Peak Eld Plug-Flc Center-c Volume #1 |
| 25-yr event 40%, Lag= 17.4 min below (Recalc) Wet.Area (sq-ft) 9,189 | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf 100% of inflow) : a (Irregular)Listed Cum.Store (cubic-feet) 0 | rs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt= trea= 13,984 sf State ulated for 2.012 af (6.3 - 809.8) <u>Storage Description</u> Custom Stage Da Inc.Store (cubic-feet) 0 | i of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.49 h 12.49 h 12.49 h 12.49 h 8 min calc 4 min (83 <u>Storage</u> 3,930 cf Perim. (feet) 420.0 | d Rectang ies 1.77 cfs sted Recta ite (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ method, Ti @ 12.49 h time= 26.3 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 time= 26.4 | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra = 1 = 1 by Stor-Ind ev= 215.42' by detentior of-Mass det Inver 214.00 bn S et) | Inflow A Inflow A Inflow Outflow Primary Routing Peak Ele Plug-Flc Center-co <u>Volume</u> #1 Elevatic (fee 214.0 |
| 25-yr event 40%, Lag= 17.4 min below (Recalc) Wet.Area (sq-ft) | 17 cfs @ 1.47 fps) : Wet Basin epth = 3.37" for 2.013 af 2.013 af, Atten= 4 2.013 af : 0.05 hrs rage= 16,366 cf 100% of inflow) h curn.gular)Listed Cum.Store (cubic-feet) | rs potential flow) feir (Weir Controls 1 0.60 cfs @ 6.87 fps) hary for Pond 5P mpervious, Inflow D rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt= trea= 13,984 sf Sto ulated for 2.012 af (6.3 - 809.8) <u>Storage Description</u> Custom Stage Da Inc.Store (cubic-feet) | i of 5.86 c ngular W Controls Summ 31.40% li 12.20 h 12.40 h 12.49 h 12.49 h 12.49 h 3.9 surf.4 8 min calc 4 min (83 <u>Storage</u> 3,930 cf Perim. (feet) | d Rectang les 1.77 cfs sted Recta ite (Orifice 7.170 ac, 8.51 cfs @ 1.16 cfs @ 1.16 cfs @ 1.16 cfs @ method, Ti @ 12.49 h time= 26.4 time= 26.4 time= 26.4 | oad-Creste Ilvert (Pass =Sharp-Cre =Orifice/Gra = 1 = 1 = 1 by Stor-Ind ev= 215.42' by detention of-Mass det <u>Inver</u> 214.00 bon Set) 00 | Inflow A Inflow A Inflow Outflow Primary Routing Peak Ele Plug-Flc Center-c Volume #1 Elevatic (fee |

| ydroC/ | | er your com a s/n 03590 | | roCAD Software So | olutions LLC | Page 102 |
|--|--|--|--|--|---|--|
| Device | Routing | Inve | rt Outlet | Devices | | |
| #1 | Primary | 213.4 | | Round Culvert | | |
| | - | | | | ing, no headwall, K | |
| | | | | | | .0031 '/' Cc= 0.900 |
| #2 | Device 1 | 214.0 | | 13, Flow Area= 3 | | |
| #2 | Device I | 214.0 | | eg x 4.0° long Sn 56 (C= 3.20) | arp-Crested Vee/T | rap weir |
| #3 | Device 1 | 215.5 | | | n Broad-Crested R | ectangular Weir |
| | | | | | | 20 1.40 1.60 1.80 2.00 |
| | | | | .00 3.50 4.00 4 | | |
| | | | | | 53 2.69 2.68 2.67 .77 2.85 3.01 3.23 | 2.67 2.65 2.66 2.66 3 |
| rimar | / OutFlow | Max=11.15 c | ofs @ 12.49 |) hrs HW=215.42 | ?' (Free Discharge) |) |
| -1=Ci | , ulvert (Bar | rel Controls 1 | 11.15 cfs @ |) 4.43 fps) | | |
| | | | | | of 24.25 cfs potentia | l flow) |
| <u> </u> | =Broad-Cre | ested Rectar | ngular Wei | r (Controls 0.00 | cts) | |
| | S | ummary fo | or Pond 7 | P: Constructe | d Stormwater W | /etland #1 |
| nflow A | roo - | 11 003 00 0 | 9 70% Imr | | Depth = 3.11" for | 25 vr ovopt |
| nflow | | | | | Jepui – 3.11 101 | 20-yi eveni |
| | | | 12 IU DIS | Volume= | 3 086 af | |
| | | | | Volume= Volume= | 3.086 af 3.085 af. Atten= | 7%. Lag= 2.6 min |
| Outflow Primary | = : | 23.73 cfs @ 23.73 cfs @ | 12.14 hrs, | Volume= | | 7%, Lag= 2.6 min |
| Outflow Primary | = : | 23.73 cfs @ 23.73 cfs @ | 12.14 hrs, 12.14 hrs, | Volume= Volume= | 3.085 af, Atten= 3.085 af | 7%, Lag= 2.6 min |
| Outflow Primary Routing | = = by Stor-Inc | 23.73 cfs @ 23.73 cfs @ 1 method, Tin | 12.14 hrs, 12.14 hrs, ne Span= (| Volume= Volume=).00-72.00 hrs, dt | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 | 7%, Lag= 2.6 min |
| Outflow Primary Routing | = = by Stor-Inc | 23.73 cfs @ 23.73 cfs @ 1 method, Tin | 12.14 hrs, 12.14 hrs, ne Span= (| Volume= Volume= | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 | 7%, Lag= 2.6 min |
| Outflow Primary Routing Peak El | = 2 by Stor-Inc ev= 215.44 | 23.73 cfs @ 23.73 cfs @ d method, Tin ' @ 12.14 hrs | 12.14 hrs, 12.14 hrs, ne Span= (s Surf.Are | Volume= Volume=).00-72.00 hrs, dt | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf | 7%, Lag= 2.6 min |
| Dutflow Primary Routing Peak El Plug-Flo | = 2 by Stor-Inc ev= 215.44 | 23.73 cfs @ 23.73 cfs @ d method, Tin ' @ 12.14 hrs | 12.14 hrs, 12.14 hrs, ne Span= 0 s Surf.Are min calcula | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (| 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf | 7%, Lag= 2.6 min |
| Outflow Primary Routing Peak El Plug-Flo Center- | = by Stor-Inc ev= 215.44 by detentio of-Mass de | 23.73 cfs @ 23.73 cfs @ 1 method, Tin ' @ 12.14 hr: n time= 26.9 t. time= 27.9 | 12.14 hrs, 12.14 hrs, ne Span= 0 s Surf.Are min calcula min (848.9 | Volume= Volume= 0.00-72.00 hrs, dt ea= 12,410 sf St ated for 3.083 af (5 - 820.5) | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) | 7%, Lag= 2.6 min |
| Dutflow Primary Routing Peak El Plug-Flo Center-i | = by Stor-Inc ev= 215.44 by detentio of-Mass de | 23.73 cfs @ 23.73 cfs @ 4 method, Tin • @ 12.14 hr n time= 26.9 t. time= 27.9 rt Avail.5 | 12.14 hrs, 12.14 hrs, ne Span= (s Surf.Are min calcula min (848.9 Storage S | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) torage Descriptio | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) | |
| Dutflow Primary Routing Peak El Plug-Flo Center-f <u>/olume</u> #1 | = by Stor-Inc ev= 215.44 pw detentio of-Mass de <u>Inve</u> 214.80 | 23.73 cfs @ 23.73 cfs @ 1 method, Tin ' @ 12.14 hr: n time= 26.9 t. time= 27.9 rt <u>Avail.S</u> 0' 14 | 12.14 hrs, 12.14 hrs, ne Span= C s Surf.Are min calcula min (848.5 Storage S ,759 cf C | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) torage Descriptio custom Stage Da | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf 100% of inflow) n ta (Irregular)Listed | below (Recalc) |
| Dutflow Primary Routing Peak El Plug-Flo Center-f <u>/olume</u> #1 | = by Stor-Inc ev= 215.44 ow detentio of-Mass de <u>Inve</u> 214.80 on | 23.73 cfs @ 23.73 cfs @ 4 method, Tin • @ 12.14 hr n time= 26.9 t. time= 27.9 rt Avail.5 | 12.14 hrs, 12.14 hrs, ne Span= (s Surf.Are min calcula min (848.9 Storage S | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) torage Descriptio | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n | |
| Outflow Primary Peak El Plug-Flo Center-i <u>Volume</u> #1 Elevatio | = by Stor-Inc ev= 215.44 bw detentio of-Mass de <u>Inve</u> 214.8 on et) | 23.73 cfs @ 23.73 cfs @ 1 method, Tir (@ 12.14 hr: n time= 26.9 t. time= 27.9 rt <u>Avail.5</u> 0' 14 Surf.Area | 12.14 hrs, 12.14 hrs, ne Span= C s Surf.Are min calcula min (848.9 <u>Storage S</u> ,759 cf C Perim. | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) (torage Descriptio custom Stage Da Inc.Store | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n ta (Irregular)Listed Cum.Store | below (Recalc) Wet.Area |
| Outflow Primary Peak El Plug-Flo Center-i <u>Volume</u> #1 Elevatio (feo | = by Stor-Inc ev= 215.44 bw detentio of-Mass de <u>Inve</u> 214.80 on et) 80 | 23.73 cfs @ 23.73 cfs @ 1 method, Tir (@ 12.14 hr: n time= 26.9 t. time= 27.9 rt <u>Avail.S</u> 0' 14 Surf.Area (sq-ft) | 12.14 hrs, 12.14 hrs, ne Span= 0 s Surf.Are min calcula min (848.9 <u>Storage S</u> ,759 cf C Perim. (feet) | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) (torage Descriptio (torage Descriptio (torage Descriptio (torage Descriptio) (torage Descriptio) (torage Descriptio) (torage Descriptio) (torage Descriptio) (torage Descriptio) (torage Descriptio) (torage Descriptio) (torage Descriptio) | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) <u>n</u> ta (Irregular)Listed Cum.Store (cubic-feet) | below (Recalc) Wet.Area (sq-ft) |
| Outflow Primary Routing Peak El Plug-Flc Center-i #1 Elevatio (feo 214.i | = by Stor-Inc ev= 215.44 by detentio of-Mass de 214.80 on et) 80 00 | 23.73 cfs @ 23.73 cfs @ d method, Tin ' @ 12.14 hrs n time= 26.9 t. time= 27.9 t. time= 27.9 rt <u>Avail.5</u> 0' 14 Surf.Area <u>(sq-ft)</u> 9,939 10,413 | 12.14 hrs, 12.14 hrs, ne Span= 0 s Surf.Are min calcula min (848.9 <u>Storage S</u> ,759 cf C Perim. (feet) 766.0 | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) torage Descriptio custom Stage Da Inc.Store (cubic-feet) 0 | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) 0 | below (Recalc) Wet.Area (sq-ft) 9,939 |
| Outflow Primary Routing Peak El Plug-Flc Center #1 Elevatio (fer 214.i 215.i | = by Stor-Inc ev= 215.44 bw detentio of-Mass de <u>Inve</u> 214.80 on et) 80 00 00 | 23.73 cfs @ 23.73 cfs @ 1 method, Tin ' @ 12.14 hr: n time= 26.9 t. time= 27.9 rt <u>Avail.5</u> 0' 14 Surf.Area (sq-ft) 9,939 10,413 15,185 | 12.14 hrs, 12.14 hrs, ne Span= (s Surf.Are min calcula min (848.5 <u>Storage S</u> ,759 cf C Perim. (feet) 766.0 771.0 | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) (torage Descriptio (torage Descriptio (cubic-feet) 0 2,035 12,724 | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) 0 2,035 | below (Recalc) Wet.Area (sq-ft) 9,939 10,570 |
| Outflow Primary Peak El Plug-Fld Center-f #1 Elevatio (fer 215.) 216.1 | = by Stor-Inc ev= 215.44 bw detentio of-Mass de <u>Inve</u> 214.80 on et) 80 00 00 | 23.73 cfs @ 23.73 cfs @ 1 method, Tin ' @ 12.14 hr: n time= 26.9 t. time= 27.9 rt <u>Avail.5</u> 0' 14 Surf.Area (sq-ft) 9,939 10,413 15,185 | 12.14 hrs, 12.14 hrs, ne Span= (s Surf.Are min calcula min (848.5 <u>Storage S</u> ,759 cf C Perim. (feet) 766.0 771.0 1,210.0 rt Outlet 1 0' 40.0' lo | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) torage Descriptio custom Stage Da Inc.Store (cubic-feet) 0 2,035 12,724 Devices ong x 10.0' brea | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) 0 2,035 14,759 dth Broad-Crested | below (Recalc) Wet.Area (sq-ft) 9,939 10,570 79,782 Rectangular Weir |
| Outflow Primary Routing Peak El Plug-Flc Center-d #1 Elevatio (fer 214.; 215.] 216.] Device | = by Stor-Ind ev= 215.44 bw detentio of-Mass de <u>Inve</u> 214.80 on et) 80 00 00 Routing | 23.73 cfs @ 23.73 cfs @ 1 method, Tir (@ 12.14 hr: n time= 26.9 t. time= 27.9 rt Avail.5 0' 14 Surf.Area (sq-ft) 9,939 10,413 15,185 | 12.14 hrs, 12.14 hrs, 12.14 hrs, ne Span= 0 s Surf.Are min calcula min (848.5 <u>Storage S</u> ,759 cf C Perim. (feet) 766.0 771.0 1,210.0 rt Outlet I 0' 40.0' lo Head (| Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) (torage Descriptio custom Stage Da Inc.Store (cubic-feet) 0 2,035 12,724 Devices ong x 10.0' brea feet) 0.20 0.40 | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) 0 2,035 14,759 dth Broad-Crested 0.60 0.80 1.00 1.2 | below (Recalc) Wet.Area (sq-ft) 9,939 10,570 79,782 Rectangular Weir 20 1.40 1.60 |
| Dutflow Primary Routing Peak El Plug-Flc Center-d #1 Elevatii (fer 214.; 216.1 216.1 216.1 216.1 216.1 216.1 216.1 216.1 216.1 | = by Stor-Inc ev= 215.44 bw detentio of-Mass de <u>Inve</u> 214.80 on et) 80 00 00 00 <u>Routing</u> Primary | 23.73 cfs @ 23.73 cfs @ 4 method, Tin ' @ 12.14 hr: n time= 26.9 t. time= 27.9 rt Avail.5 0' 14 Surf.Area (sq-ft) 9,939 10,413 15,185 Inve 215.11 | 12.14 hrs, 12.14 hrs, 12.14 hrs, ne Span= 0 s Surf.Are min calcula min (848.5 Storage S Storage S (759 cf C Perim. (feet) 766.0 771.0 1,210.0 rt Outlet 1 0' 40.0' Id Head (Coef. (| Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) (torage Descriptio custom Stage Da Inc.Store (cubic-feet) 0 2,035 12,724 Devices ong x 10.0' brea feet) 0.20 0.40 English) 2.49 2. | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) 0 2,035 14,759 dth Broad-Crested 0.60 0.80 1.00 1.2 56 2.70 2.69 2.68 | below (Recalc) Wet.Area (sq-ft) 9,939 10,570 79,782 Rectangular Weir 20 1.40 1.60 |
| Dutflow Primary Routing Peak El Plug-Flc Center-d #1 Elevatio (fer 214.; 215.] 216.] Device | = by Stor-Ind ev= 215.44 bw detentio of-Mass de <u>Inve</u> 214.80 on et) 80 00 00 Routing | 23.73 cfs @ 23.73 cfs @ 1 method, Tir (@ 12.14 hr: n time= 26.9 t. time= 27.9 rt Avail.5 0' 14 Surf.Area (sq-ft) 9,939 10,413 15,185 | 12.14 hrs, 12.14 hrs, 12.14 hrs, ne Span= 0 s Surf.Are min calcula min (848.5 <u>Storage S</u> ,759 cf C Perim. (feet) 766.0 771.0 1,210.0 rt Outlet 0' 40.0' lo Head (Coef. (0' 12.0'' | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) torage Descriptio custom Stage Da Inc.Store (cubic-feet) 0 2,035 12,724 Devices Dag x 10.0' brea feet) 0.20 0.40 English) 2.49 2. Round Culvert X | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) 0 2,035 14,759 dth Broad-Crested 0.60 0.80 1.00 1.2 56 2.70 2.69 2.68 3.00 | below (Recalc) Wet.Area (sq-ft) 9,939 10,570 79,782 Rectangular Weir 20 1.40 1.60 2.69 2.67 2.64 |
| Dutflow Primary Routing Peak El Plug-Flc Center-f #1 Elevati (fed 215.1 215.1 215.1 215.1 215.1 | = by Stor-Inc ev= 215.44 bw detentio of-Mass de <u>Inve</u> 214.80 on et) 80 00 00 00 <u>Routing</u> Primary | 23.73 cfs @ 23.73 cfs @ 4 method, Tin ' @ 12.14 hr: n time= 26.9 t. time= 27.9 rt Avail.5 0' 14 Surf.Area (sq-ft) 9,939 10,413 15,185 Inve 215.11 | 12.14 hrs, 12.14 hrs, 12.14 hrs, ne Span= C s Surf.Are min calcula min (848.5 Storage S ,759 cf C Perim. (feet) 766.0 771.0 1,210.0 rt Outlet I 0' 40.0' lo Head (Coef. (Coef. (L=25.0) | Volume= Volume= 0.00-72.00 hrs, dt a= 12,410 sf St ated for 3.083 af (5 - 820.5) itorage Descriptio custom Stage Da lnc.Store (cubic-feet) 0 2,035 12,724 Devices ong x 10.0' brea feet) 0.20 0.40 English 2.49 z X0' CPP, projectir | 3.085 af, Atten= 3.085 af = 0.05 hrs / 3 orage= 7,069 cf (100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) 0 2,035 14,759 dth Broad-Crested 0.60 0.80 1.00 1.2 56 2.70 2.69 2.68 3.00 | below (Recalc) Wet.Area (sq-ft) 9,939 10,570 79,782 Rectangular Weir 20 1.40 1.60 2.69 2.67 2.64 |

 Image: Second Crested Rectangular Weir (Weir Controls 20.19 cfs @ 1.48 fps)

 -2=Cuivert (Inlet Controls 3.43 cfs @ 2.15 fps)

| | | | HydroCAD Software | | Page 103 |
|---|---|--|---|--|---|
| | 5 | ummary for F | ond 12P: STON | NE RECHARGE TR | ENCH |
| Inflow Ar Inflow Outflow Discarde Primary | = 2.1 = 2.5 ed = 0.1 | 409 ac,100.00% 7 cfs @ 12.09 8 cfs @ 12.20 7 cfs @ 12.20 1 cfs @ 12.20 | hrs, Volume= hrs, Volume= hrs, Volume= | v Depth = 5.31" for 0.181 af 0.181 af, Atten= 0 0.156 af 0.025 af | |
| Peak Ele | ev= 221.01' @ | 12.20 hrs Sur | n= 0.00-72.00 hrs, Area= 2,427 sf S | Storage= 1,942 cf | |
| | | ne= 75.0 min ca ne= 74.9 min (8 | lculated for 0.181 a 21.3 - 746.3) | af (100% of inflow) | |
| Volume | Invert | Avail.Storage | Storage Descrip | | |
| #1 | 219.00' | 1,942 cl | 3.00'W x 809.00 4,854 cf Overall |)'L x 2.00'H Prismatoid x 40.0% Voids | 1 |
| Device | Routing | | tlet Devices | | |
| #1 | Primary | He 2.5 Co | ad (feet) 0.20 0.40 i0 3.00 ef. (English) 2.69 | eadth Broad-Crested I 0 0.60 0.80 1.00 1.20 2.72 2.75 2.85 2.98 | 0 1.40 1.60 1.80 2.00 |
| | | | 0 3.31 3.32 | | |
| #2 | Discarded | 219.00' 2.4 | 10 in/hr Exfiltratio | on over Surface area Idwater Elevation = 210 | |
| | | 219.00' 2.4 Co | 10 in/hr Exfiltration nductivity to Groun | | .00' |
| Discardo 1 2=Ext Primary | ed OutFlow M filtration (Co OutFlow Maa | 219.00' 2.4 Co flax=0.17 cfs @ ntrols 0.17 cfs) <=1.47 cfs @ 12 | 10 in/hr Exfiltratic nductivity to Groun 12.20 hrs HW=22 ⁻ .20 hrs HW=221.0 | dwater Elevation = 210 | .00' |
| Discardo 1 2=Ext Primary | ed OutFlow M filtration(Co OutFlow Maa bad-Crested F | 219.00' 2.4 Co Max=0.17 cfs @ ntrols 0.17 cfs) <=1.47 cfs @ 12 Rectangular We | 10 in/hr Exfiltratic nductivity to Groun 12.20 hrs HW=22 .20 hrs HW=221.0 ir (Weir Controls 1 | dwater Elevation = 210 1.01' (Free Discharge) 01' (Free Discharge) | .00' |
| Discardo 2=Ext Primary 1=Bro Inflow Ar Inflow Outflow Discarde | ed OutFlow M filtration (Co OutFlow Maa coad-Crested F Si ea = 0.4 = 2.1 = 2.5 d = 0.1 | 219.00' 2.4 Co flax=0.17 cfs @ ntrols 0.17 cfs) x=1.47 cfs @ 12 Rectangular We ummary for F | 10 in/hr Exfiltratic nductivity to Groun 12.20 hrs HW=221.0 20 hrs HW=200 hrs HW=20 | dwater Elevation = 210 1.01' (Free Discharge) 01' (Free Discharge) .47 cfs @ 0.24 fps) | .00' ENCH 25-yr event |
| Discarde -2=Ext Primary -1=Bro Inflow Ar Inflow Outflow Discarde Primary Routing | ed OutFlow Ma filtration (Co OutFlow Maz oad-Crested F = 2.1 = 2.5 od = 0.1 = 2.4 by Stor-Ind me | 219.00' 2.4 Co Max=0.17 cfs @ ntrols 0.17 cfs @ (=1.47 cfs @ 12 Rectangular We ummary for F 409 ac,100.00% 7 cfs @ 12.09 8 cfs @ 12.20 7 cfs @ 12.20 1 cfs @ 12.20 ethod, Time Spa | 10 in/hr Exfiltratic nductivity to Groun 12.20 hrs HW=221.0 20 hrs HW=200 hrs HW=20 | Adwater Elevation = 210 1.01' (Free Discharge) .47 cfs @ 0.24 fps) NE RECHARGE TR NE RECHARGE TR NE RECHARGE TR NE RECHARGE TR 0.181 af 0.181 af, Atten= 0 0.156 af 0.025 af dt= 0.05 hrs | .00' ENCH 25-yr event |
| Discarde Primary Primary 1=Bro Inflow Ar Inflow Outflow Outflow Discarde Primary Routing Peak Ele Plug-Flo | ed OutFlow Ma filtration (Co OutFlow Mazo bad-Crested F Solution State = 2.1 = 2.5 = 2.4 by Stor-Ind me = 221.01' @ w detention tin | 219.00' 2.4 Co Max=0.17 cfs @ ntrols 0.17 cfs) (=1.47 cfs @ 12 Rectangular Wa ummary for F 409 ac,100.00% 7 cfs @ 12.20 8 cfs @ 12.20 1 cfs @ 12.20 1 cfs @ 12.20 ethod, Time Spa 12.20 hrs Surf | 10 in/hr Exfiltratic nductivity to Groun 12.20 hrs HW=221.0 ir (Weir Controls 1 Pond 17P: STON Impervious, Inflow hrs, Volume= hrs, Volume= hrs, Volume= hrs, Volume= n= 0.00-72.00 hrs, Area= 2,427 sf S lculated for 0.181 a | adwater Elevation = 210 1.01' (Free Discharge) .47 cfs @ 0.24 fps) NE RECHARGE TR v Depth = 5.31" for 0.181 af 0.181 af, Atten= 0 0.156 af 0.025 af dt= 0.05 hrs Storage= 1,942 cf | .00' ENCH 25-yr event |
| Discarde Primary Primary 1=Bro Inflow Ar Inflow Outflow Outflow Discarde Primary Routing Peak Ele Plug-Flo | ed OutFlow Ma filtration (Co OutFlow Mazo bad-Crested F Solution (Co Solution (C | 219.00' 2.4 Co Max=0.17 cfs @ ntrols 0.17 cfs @ 12.20 Rectangular We ummary for F 409 ac,100.00% 7 cfs @ 12.09 8 cfs @ 12.20 9 cfs @ 12.20 1 cfs @ 12.20 1 cfs @ 12.20 ethod, Time Spa 12.20 hrs Surf me= 75.0 min ca me= 74.9 min (8 | 10 in/hr Exfiltratic nductivity to Groun 12.20 hrs HW=221.0 20 hrs HW=221.0 ir (Weir Controls 1 Pond 17P: STON Impervious, Inflow hrs, Volume= hrs, Volume= hrs, Volume= hrs, Volume= n= 0.00-72.00 hrs, Area= 2,427 sf S Iculated for 0.181 a 21.3 - 746.3) Storage Descrip | adwater Elevation = 210 1.01' (Free Discharge) .47 cfs @ 0.24 fps) NE RECHARGE TR v Depth = 5.31" for 0.181 af 0.184 af, Atten= 0 0.156 af 0.025 af dt= 0.05 hrs Storage= 1,942 cf af (100% of inflow) | .00' ENCH 25-yr event %, Lag= 6.8 min |

| <u>evice</u> #1 | Routing | Invert | | | | |
|-------------------------------|-------------------------------------|------------------------------------|--------------------------|--|----------------------------|------------------|
| #1 | | | | Devices | | |
| | Primary | 221.00' | Head 2.50 Coef. | long x 1.0' breadth Brc (feet) 0.20 0.40 0.60 0. 3.00 (English) 2.69 2.72 2.75 3.31 3.32 | .80 1.00 1.20 1.4 | 0 1.60 1.80 2.00 |
| #2 | Discarded | 219.00' | 2.410 | in/hr Exfiltration over South to Groundwater Electivity to Groundwater Electivity to Groundwater Election (1997) | | |
| | ed OutFlow M filtration (Co | | | 20 hrs HW=221.01' (Fre | ee Discharge) | |
| Primary | outFlow Max oad-Crested F | k=1.47 cfs @ Rectangula | 12.20 r Weir (| hrs HW=221.01' (Free Weir Controls 1.47 cfs @ | Discharge) 0.24 fps) | |
| | S | ummary f | or Por | d 19P: STONE RECH | HARGE TRENC | н |
| Inflow A Inflow Outflow | = 2.1 = 2.5 | 7 cfs @ 12 8 cfs @ 12 | 2.09 hrs 2.20 hrs | , Volume= 0.181 | l af I af, Atten= 0%, L | |
| Discarde Primary | | 7 cfs @ 12 1 cfs @ 12 | | | | |
| | | | | 0.00-72.00 hrs, dt= 0.05 h ea= 2,427 sf Storage= 1 | | |
| | w detention tin of-Mass det. tin | | | ated for 0.181 af (100% c 3 - 746.3) | of inflow) | |
| Volume | Invert | | | Storage Description | | |
| #1 | 219.00' | 1,94 | | 3 .00'W x 809.00'L x 2.00' 4,854 cf Overall x 40.0% | | |
| Device | Routing | Invert | Outlet | Devices | | |
| #1 | Primary | 221.00' | Head 2.50 | | .80 1.00 1.20 1.4 | 0 1.60 1.80 2.00 |
| #2 | Discarded | 219.00' | 3.30 | (English) 2.69 2.72 2.75 3.31 3.32 in/hr Exfiltration over S | | 3.20 3.28 3.31 |
| | | | Condu | ctivity to Groundwater El | evation = 210.00' | |
| | ed OutFlow M filtration (Co | | | 20 hrs HW=221.01' (Fre | ee Discharge) | |
| Primary | outFlow Max oad-Crested F | k=1.47 cfs (∂ Rectangula | 12.20 r Weir (| hrs HW=221.01' (Free Weir Controls 1.47 cfs @ | Discharge) 0.24 fps) | |
| | | | | | | |
| | | | | | | |

| | 6842-Post Type III 24-hr 25-yr Rainfall=5.55" |
|--|---|
| 6842-Post Type III 24-hr 25-yr Rainfall=5.55" Prepared by {enter your company name here} | Prepared by {enter your company name here} |
| HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 105 | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 106 |
| Summary for Pond 21P: CB-4 | Device Routing Invert Outlet Devices #1 Primary 215.60' 12.0" Round Culvert |
| Inflow Area = 0.345 ac, 80.72% Impervious, Inflow Depth = 4.63" for 25-yr event Inflow = 1.72 cfs @ 12.09 hrs, Volume= 0.133 af Outflow = 1.72 cfs @ 12.09 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.0 min Primary = 1.72 cfs @ 12.09 hrs, Volume= 0.133 af | L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.40' S= 0.0074 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.39' @ 12.09 hrs | Primary OutFlow Max=1.52 cfs @ 12.09 hrs HW=216.39' (Free Discharge) |
| Flood Elev= 218.50' | Summary for Pond 24P: CB-2 |
| Device Routing Invert Outlet Devices #1 Primary 215.50' 12.0" Round Culvert L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=1.68 cfs @ 12.09 hrs HW=216.37' (Free Discharge) | Inflow Area = 0.392 ac, 95.72% Impervious, Inflow Depth = 5.20" for 25-yr event Inflow = 2.07 cfs @ 12.09 hrs, Volume= 0.170 af Outflow = 2.07 cfs @ 12.09 hrs, Volume= 0.170 af, Atten= 0%, Lag= 0.0 min Primary = 2.07 cfs @ 12.09 hrs, Volume= 0.170 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.17' @ |
| [™] 1=Culvert (Barrel Controls 1.68 cfs @ 3.07 fps) | Flood Elev= 219.20' |
| Summary for Pond 22P: DMH-2 Inflow Area = 1.540 ac, 81.03% Impervious, Inflow Depth = 4.68" for 25-yr event Inflow = 7.70 cfs @ 12.09 hrs, Volume= 0.600 af Outflow = 7.70 cfs @ 12.09 hrs, Volume= 0.600 af, Atten= 0%, Lag= 0.0 min Primary = 7.70 cfs @ 12.09 hrs, Volume= 0.600 af | Device Routing Invert Outlet Devices #1 Primary 216.20' 12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.40' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.40' @ 12.09 hrs Flood Elev= 218.90' | Primary OutFlow Max=2.01 cfs @ 12.09 hrs HW=217.15' (Free Discharge) |
| Device Routing Invert Outlet Devices | |
| #1 Primary 215.30' 18.0" Round Culvert L= 101.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf | Inflow Area = 0.565 ac, 67.38% Impervious, Inflow Depth = 4.19" for 25-yr event Inflow = 2.64 cfs @ 12.09 hrs, Volume= 0.198 af Outflow = 2.64 cfs @ 12.09 hrs, Volume= 0.198 af, Atten= 0%, Lag= 0.0 min Primary = 2.64 cfs @ 12.09 hrs, Volume= 0.198 af |
| Primary OutFlow Max=7.44 cfs @ 12.09 hrs HW=217.33' (Free Discharge) —1=Culvert (Barrel Controls 7.44 cfs @ 4.21 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.78' @ 12.09 hrs Flood Elev= 219.50' |
| Summary for Pond 23P: CB-1 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.307 ac, 83.76% Impervious, Inflow Depth = 4.74" for 25-yr event Inflow = 1.56 cfs @ 12.09 hrs, Volume= 0.121 af Outflow = 1.56 cfs @ 12.09 hrs, Volume= 0.121 af Primary = 1.56 cfs @ 12.09 hrs, Volume= 0.121 af | #1 Primary 216.50' 12.0" Round Culvert L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.50' / 215.40' S= 0.0289 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.41' @ 12.09 hrs Flood Elev= 218.60' | Primary OutFlow Max=2.58 cfs @ 12.09 hrs HW=217.74' (Free Discharge) -1=Culvert (Inlet Controls 2.58 cfs @ 3.28 fps) |
| | |

| 6842-Post Type III 24-hr 25-yr Rainfall=5.55" Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC | 6842-Post Type III 24-hr 25-yr Rainfall=5.55" Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 108 |
|---|--|
| Summary for Pond 26P: DMH-1 | Device Routing Invert Outlet Devices |
| Inflow Area = 1.264 ac, 80.14% Impervious, Inflow Depth = 4.64" for 25-yr event Inflow = 6.26 cfs @ 12.09 hrs, Volume = 0.488 af Outflow = 6.26 cfs @ 12.09 hrs, Volume = 0.488 af, Atten = 0%, Lag = 0.0 min Primary = 6.26 cfs @ 12.09 hrs, Volume = 0.488 af | #1 Primary 215.10' 12.0" Round Culvert L= 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 214.30' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.92' @ 12.09 hrs | Primary OutFlow Max=2.63 cfs @ 12.09 hrs HW=216.51' (Free Discharge) |
| Flood Elev= 218.90' | Summary for Pond 29P: CB-21 |
| Device Routing Invert Outlet Devices #1 Primary 215.30' 18.0'' Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf | Inflow Area = 0.123 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af Outflow = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min Primary = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af |
| Primary OutFlow Max=6.10 cfs @ 12.09 hrs HW=216.87' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.66' @ 12.09 hrs Flood Elev= 219.20' |
| Summary for Pond 27P: DCB-22 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af Outflow = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min Primary = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af | #1 Primary 216.20' 12.0" Round Culvert L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.84' @ 12.09 hrs | Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=216.66' (Free Discharge) └─1=Culvert (Inlet Controls 0.63 cfs @ 1.81 fps) |
| Flood Elev= 218.50' | Summary for Pond 30P: DMH-15 |
| Device Routing Invert Outlet Devices #1 Primary 215.50' 12.0" Round Culvert L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0060 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.637 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 3.38 cfs @ 12.09 hrs, Volume= 0.282 af Outflow = 3.38 cfs @ 12.09 hrs, Volume= 0.282 af, Atten= 0%, Lag= 0.0 min Primary = 3.38 cfs @ 12.09 hrs, Volume= 0.282 af |
| Primary OutFlow Max=2.66 cfs @ 12.09 hrs HW=216.79' (Free Discharge) -1=Culvert (Inlet Controls 2.66 cfs @ 3.39 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.34' @ 12.09 hrs Flood Elev= 219.80' |
| Summary for Pond 28P: DMH-16 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af Outflow = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min | #1 Primary 214.20' 15.0" Round Culvert L= 250.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.20' / 212.90' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| Primary = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.58' @ 12.09 hrs Flood Elev= 218.70' Flood Elev= 218.70' Flood Elev= 218.70' Flood Elev= 218.70' | Primary OutFlow Max=3.30 cfs @ 12.09 hrs HW=215.32' (Free Discharge) |
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| | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 110 Device Routing Invert Outlet Devices |
| Summary for Pond 31P: DMH-14 Inflow Area = 1.468 ac, 97.47% Impervious, Inflow Depth = 5.22" for 25-yr event Inflow = 7.74 cfs @ 12.09 hrs, Volume= 0.639 af Outflow = 7.74 cfs @ 12.09 hrs, Volume= 0.639 af, Atten= 0%, Lag= 0.0 min Primary = 7.74 cfs @ 12.09 hrs, Volume= 0.639 af | Bender Roduing Invent Outlet Devices #1 Primary 215.60' 12.0" Round Culvert L= 180.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 214.70' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 214.90' @ 12.09 hrs | Primary OutFlow Max=2.58 cfs @ 12.09 hrs HW=216.96' (Free Discharge) |
| Flood Elev= 218.60' | Summary for Pond 34P: CB-23 |
| Device Routing Invert Outlet Devices #1 Primary 212.80' 18.0" Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.80' / 212.50' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf | Inflow Area = 0.288 ac, 87.12% Impervious, Inflow Depth = 4.85" for 25-yr event Inflow = 1.48 cfs @ 12.09 hrs, Volume= 0.117 af Outflow = 1.48 cfs @ 12.09 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.0 min Primary = 1.48 cfs @ 12.09 hrs, Volume= 0.117 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Primary OutFlow Max=7.44 cfs @ 12.09 hrs HW=214.83' (Free Discharge) -1=Culvert (Barrel Controls 7.44 cfs @ 4.21 fps) | Peak Elev= 216.68' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 32P: CB-20 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.318 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 1.69 cfs @ 12.09 hrs, Volume= 0.141 af Outflow = 1.69 cfs @ 12.09 hrs, Volume= 0.141 af, Atten= 0%, Lag= 0.0 min Primary = 1.69 cfs @ 12.09 hrs, Volume= 0.141 af | #1 Primary 215.90' 12.0" Round Culvert L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.90' / 215.70' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.32' @ 12.09 hrs | Primary OutFlow Max=1.44 cfs @ 12.09 hrs HW=216.67' (Free Discharge) |
| Flood Elev= 218.50' | Summary for Pond 35P: CB-24 |
| Device Routing Invert Outlet Devices #1 Primary 215.50' 12.0'' Round Culvert L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.224 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 1.19 cfs @ 12.09 hrs, Volume= 0.099 af Outflow = 1.19 cfs @ 12.09 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min Primary = 1.19 cfs @ 12.09 hrs, Volume= 0.099 af |
| Primary OutFlow Max=1.64 cfs @ 12.09 hrs HW=216.31' (Free Discharge) -1=Culvert (Inlet Controls 1.64 cfs @ 2.42 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.56' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 33P: DMH-17 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.513 ac, 92.75% Impervious, Inflow Depth = 5.05" for 25-yr event Inflow = 2.67 cfs @ 12.09 hrs, Volume= 0.216 af Outflow = 2.67 cfs @ 12.09 hrs, Volume= 0.216 af, Atten= 0%, Lag= 0.0 min | #1 Primary 215.90' 12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.90' / 215.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Primary = 2.67 cfs @ 12.09 hrs, Volume= 0.216 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.04' @ 12.09 hrs Flood Elev= 218.80' | Primary OutFlow Max=1.16 cfs @ 12.09 hrs HW=216.55' (Free Discharge) |
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| Summary for Pond 36P: DMH-7Inflow Area = $0.323 ac, 100.00\%$ Impervious, Inflow Depth = $5.31"$ for 25-yr eventInflow = $1.71 cfs @$ 12.09 hrs, Volume= $0.143 af$ Outflow = $1.71 cfs @$ 12.09 hrs, Volume= $0.143 af$, Atten= 0%, Lag= 0.0 minPrimary = $1.71 cfs @$ 12.09 hrs, Volume= $0.143 af$ Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrsPeak Elev= 216.83' @ 12.09 hrsFlood Elev= 219.80'Device Routing Invert Outlet Devices#1Primary216.00'L= 220.0'CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 214.80'Sector Sector Sect | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 112 Device Routing Invert Outlet Devices #1 Primary 232.20' 12.0" Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.22 cfs @ 12.09 hrs HW=232.46' (Free Discharge) T=Culvert (Inlet Controls 0.22 cfs @ 1.37 fps) Summary for Pond 39P: CB-16 Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af Outflow = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 232.47' @ 12.09 hrs 0.02-72.00 hrs, dt= 0.05 hrs |
| Landy Cut low Max-1.07 cfs @ 12.09 his 100/2 (Nee Discharge) | Flood Elev= 236.20' |
| Summary for Pond 37P: DMH-10 Inflow Area = 0.446 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 2.36 cfs @ 12.09 hrs, Volume= 0.197 af Outflow = 2.36 cfs @ 12.09 hrs, Volume= 0.197 af, Atten= 0%, Lag= 0.0 min Primary = 2.36 cfs @ 12.09 hrs, Volume= 0.197 af | Device Routing Invert Outlet Devices #1 Primary 232.20' 12.0'' Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.23 cfs @ 12.09 hrs HW=232.47' (Free Discharge) |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 218.99' @ 12.09 hrs Flood Elev= 222.20' | ^T —1=Culvert (Inlet Controls 0.23 cfs @ 1.39 fps) Summary for Pond 52P: CB-17 |
| Device Routing Invert Outlet Devices #1 Primary 218.10' 15.0" Round Culvert L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf Primary OutFlow Max=2.30 cfs @ 12.09 hrs HW=218.97' (Free Discharge) | Inflow Area = 0.081 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.43 cfs @ 12.09 hrs, Volume= 0.036 af Outflow = 0.43 cfs @ 12.09 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min Primary = 0.43 cfs @ 12.09 hrs, Volume= 0.036 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 247.77" @ 12.09 hrs |
| ←1=Culvert (Inlet Controls 2.30 cfs @ 2.51 fps) | Flood Elev= 251.40' |
| Summary for Pond 38P: CB-15 | Device Routing Invert Outlet Devices #1 Primary 247.40' 12.0" Round Culvert |
| Inflow Area = 0.043 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min Primary = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 232.46' @ 12.09 hrs Flood Elev= 236.20' 12.09 hrs | L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.42 cfs @ 12.09 hrs HW=247.76' (Free Discharge) -1=Culvert (Inlet Controls 0.42 cfs @ 1.62 fps) |

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| Summary for Pond 53P: CB-18 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.42 cfs @ 12.09 hrs, Volume= 0.035 af Outflow = 0.42 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min Primary = 0.42 cfs @ 12.09 hrs, Volume= 0.035 af | #1 Primary 239.90' 12.0'' Round Culvert L= 110.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 239.90' / 231.70' S= 0.0745 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 247.77' @ 12.09 hrs | Primary OutFlow Max=0.83 cfs @ 12.09 hrs HW=240.43' (Free Discharge) ▲1=Culvert (Inlet Controls 0.83 cfs @ 1.96 fps) |
| Flood Elev= 251.40' | Summary for Pond 58P: CB-13 |
| Device Routing Invert Outlet Devices #1 Primary 247.40' 12.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af Outflow = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min Primary = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af |
| Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=247.76' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 219.22' @ 12.09 hrs Flood Elev= 221.90' |
| Summary for Pond 54P: DMH-13 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af | #1 Primary 218.90' 12.0'' Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 246.94' @ 12.09 hrs | Primary OutFlow Max=0.31 cfs @ 12.09 hrs HW=219.21' (Free Discharge) |
| Flood Elev= 250.20' | Summary for Pond 61P: DMH-11 |
| Device Routing Invert Outlet Devices #1 Primary 246.40' 12.0" Round Culvert L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 246.40' / 240.00' S= 0.0753 '/ Cc= 0.900 n= 0.013. Flow Area= 0.79 sf | Inflow Area = 0.249 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 1.32 cfs @ 12.09 hrs, Volume= 0.110 af Outflow = 1.32 cfs @ 12.09 hrs, Volume= 0.110 af, Atten= 0%, Lag= 0.0 min Primary = 1.32 cfs @ 12.09 hrs, Volume= 0.110 af |
| Primary OutFlow Max=0.83 cfs @ 12.09 hrs HW=246.93' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 232.30' @ 12.09 hrs Flood Elev= 235.70' |
| Summary for Pond 56P: DMH-12 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af | #1 Primary 231.60' 12.0'' Round Culvert L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 231.60' / 218.20' S= 0.0677 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 240.44' @ 12.09 hrs Flood Elev= 244.00' | Primary OutFlow Max=1.29 cfs @ 12.09 hrs HW=232.29' (Free Discharge) -1=Culvert (Inlet Controls 1.29 cfs @ 2.23 fps) |
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| Summary for Pond 62P: CB-14 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.136 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af Outflow = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.0 min Primary = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af | #1 Primary 216.00' 12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 219.39' @ 12.09 hrs | Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=216.48' (Free Discharge) ←1=Culvert (Inlet Controls 0.69 cfs @ 1.86 fps) |
| Flood Elev= 221.90' | Summary for Pond 67P: CB-7 |
| Device Routing Invert Outlet Devices #1 Primary 218.90' 12.0'' Round Culvert L = 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.093 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af Outflow = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min Primary = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af Routing by Stor-Ind method. Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Primary OutFlow Max=0.70 cfs @ 12.09 hrs HW=219.38' (Free Discharge) -1=Culvert (Inlet Controls 0.70 cfs @ 1.87 fps) | Peak Elev= 216.40' @ 12.09 hrs Flood Elev= 219.00' |
| Summary for Pond 63P: DMH-4 | Device Routing Invert Outlet Devices |
| Inflow Area = 1.336 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 7.09 cfs @ 12.09 hrs, Volume= 0.591 af Outflow = 7.09 cfs @ 12.09 hrs, Volume= 0.591 af, Atten= 0%, Lag= 0.0 min Primary = 7.09 cfs @ 12.09 hrs, Volume= 0.591 af | #1 Primary 216.00' 12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Primary = 7.09 cfs @ 12.09 hrs, Volume= 0.591 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.66' @ 12.09 hrs 12.09 hrs | Primary OutFlow Max=0.48 cfs @ 12.09 hrs HW=216.39' (Free Discharge) |
| Flood Elev= 222.20' | Summary for Pond 68P: DMH-9 |
| Device Routing Invert Outlet Devices #1 Primary 214.10' 24.0" Round Culvert L = 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.10' / 214.00' S= 0.0029 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf | Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 4.60" for 25-yr event Inflow = 4.49 cfs @ 12.09 hrs, Volume= 0.349 af Outflow = 4.49 cfs @ 12.09 hrs, Volume= 0.349 af, Atten= 0%, Lag= 0.0 min Primary = 4.49 cfs @ 12.09 hrs, Volume= 0.349 af Dutflow is 4.49 cfs @ 12.09 hrs, Volume= 0.349 af |
| Primary OutFlow Max=6.90 cfs @ 12.09 hrs HW=215.63' (Free Discharge) —1=Culvert (Barrel Controls 6.90 cfs @ 3.69 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.65' @ 12.09 hrs Flood Elev= 219.40' |
| Summary for Pond 66P: CB-6 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.134 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af Outflow = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.0 min Primary = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af | #1 Primary 216.10' 15.0" Round Culvert L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.10' / 215.40' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.49' @ 12.09 hrs Flood Elev= 219.00' | Primary OutFlow Max=4.38 cfs @ 12.09 hrs HW=217.61' (Free Discharge) 1=Culvert (Inlet Controls 4.38 cfs @ 3.57 fps) |
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| Summary for Pond 69P: CB-11 | Device Routing Invert Outlet Devices #1 Primary 215.50' 12.0" Round Culvert |
| w Area = 0.107 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event w = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af low = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min nary = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af | L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0062 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| ting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs k Elev= 216.76' @ 12.09 hrs | Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=216.09' (Free Discharge) ▲1=Culvert (Barrel Controls 0.91 cfs @ 2.72 fps) |
| d Elev= 219.30' | Summary for Pond 72P: CB-9 |
| ice Routing Invert Outlet Devices i1 Primary 216.30' 12.0" Round Culvert L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.30' / 216.20' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf mary OutFlow Max=0.55 cfs @ 12.09 hrs HW=216.76' (Free Discharge) =Culvert (Barrel Controls 0.55 cfs @ 2.33 fps) | Inflow Area = 0.165 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.88 cfs @ 12.09 hrs, Volume= 0.073 af Outflow = 0.88 cfs @ 12.09 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min Primary = 0.88 cfs @ 12.09 hrs, Volume= 0.073 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.09' @ 12.09 hrs Flood Elev= 218.50' 12.09 hrs |
| Summary for Pond 70P: CB-12 | Device Routing Invert Outlet Devices |
| w Area = 0.802 ac, 75.84% Impervious, Inflow Depth = 4.51" for 25-yr event w = 3.92 cfs @ 12.09 hrs, Volume= 0.301 af low = 3.92 cfs @ 12.09 hrs, Volume= 0.301 af, Atten= 0%, Lag= 0.0 min | #1 Primary 215.50' 12.0" Round Culvert L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| hary = 3.92 cfs @ 12.09 hrs, Volume= 0.301 af ting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=216.08' (Free Discharge) └─1=Culvert (Barrel Controls 0.85 cfs @ 2.62 fps) |
| k Elev= 217.67' @ 12.09 hrs d Elev= 219.30' | Summary for Pond 73P: DMH-6 |
| ice Routing Invert Outlet Devices #1 Primary 216.30' 15.0" Round Culvert L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.30' / 216.20' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf mary OutFlow Max=3.83 cfs @ 12.09 hrs HW=217.64' (Free Discharge) =Culvert (Barrel Controls 3.83 cfs @ 3.61 fps) | Inflow Area = 0.340 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 1.81 cfs @ 12.09 hrs, Volume= 0.151 af Outflow = 1.81 cfs @ 12.09 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min Primary = 1.81 cfs @ 12.09 hrs, Volume= 0.151 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.07" @ 12.09 hrs Flood Elev= 219.10' 12.09 hrs |
| Summary for Pond 71P: CB-8 | Device Routing Invert Outlet Devices |
| w Area = 0.175 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event w = 0.93 cfs @ 12.09 hrs, Volume= 0.078 af low = 0.93 cfs @ 12.09 hrs, Volume= 0.078 af, Atten= 0%, Lag= 0.0 min nary = 0.93 cfs @ 12.09 hrs, Volume= 0.078 af ting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs k Elev= 216.10' @, 12.09 hrs | #1 Primary 215.20' 12.0" Round Culvert L= 52.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.80' S= 0.0077 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=1.76 cfs @ 12.09 hrs HW=216.05' (Free Discharge) 1=Culvert (Inlet Controls 1.76 cfs @ 2.48 fps) |

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| Summary for Pond 78P: CB-19 | Device Routing Invert Outlet Devices #1 Primary 214.70' 15.0" Round Culvert |
| Inflow Area = 0.122 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af Outflow = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min Primary = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af | #1 Primary 214.70' 15.0" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.70' / 214.20' S= 0.0075 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.87' @ 12.09 hrs | Primary OutFlow Max=3.43 cfs @ 12.09 hrs HW=215.86' (Free Discharge) |
| Flood Elev= 219.00' | Summary for Pond 81P: CB-5 |
| Device Routing Invert Outlet Devices #1 Primary 216.40' 12.0" Round Culvert L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.40' / 216.10' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 4.96" for 25-yr event Inflow = 1.49 cfs @ 12.09 hrs, Volume= 0.119 af Outflow = 1.49 cfs @ 12.09 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min Primary = 1.49 cfs @ 12.09 hrs, Volume= 0.119 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=216.86' (Free Discharge) | Peak Elev= 216.79' @ 12.09 hrs Flood Elev= 219.00' |
| Summary for Pond 79P: CB-10 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 1.06 cfs @ 12.09 hrs, Volume= 0.089 af Outflow = 1.06 cfs @ 12.09 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.0 min Primary = 1.06 cfs @ 12.09 hrs, Volume= 0.089 af | #1 Primary 216.00' 12.0" Round Culvert L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.01' @ 12.09 hrs | Primary OutFlow Max=1.45 cfs @ 12.09 hrs HW=216.78' (Free Discharge) —1=Culvert (Barrel Controls 1.45 cfs @ 3.03 fps) |
| Flood Elev= 219.00' | Summary for Pond 82P: DMH-3 |
| Device Routing Invert Outlet Devices #1 Primary 216.40' 12.0" Round Culvert L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.40' / 216.10' S= 0.0176 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 4.96" for 25-yr event Inflow = 1.49 cfs @ 12.09 hrs, Volume= 0.119 af Outflow = 1.49 cfs @ 12.09 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min Primary = 1.49 cfs @ 12.09 hrs, Volume= 0.119 af |
| Primary OutFlow Max=1.03 cfs @ 12.09 hrs HW=217.00' (Free Discharge) —1=Culvert (Inlet Controls 1.03 cfs @ 2.09 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.47' @ 12.09 hrs Flood Elev= 218.90' |
| Summary for Pond 80P: DMH-5 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.663 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event Inflow = 3.52 cfs @ 12.09 hrs, Volume= 0.294 af Outflow = 3.52 cfs @ 12.09 hrs, Volume= 0.294 af, Atten= 0%, Lag= 0.0 min Primary = 3.52 cfs @ 12.09 hrs, Volume= 0.294 af | #1 Primary 215.70' 12.0" Round Culvert L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.70' / 215.30' S= 0.0057 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.88' @ 12.09 hrs Flood Elev= 220.00' | Primary OutFlow Max=1.45 cfs @ 12.09 hrs HW=216.46' (Free Discharge) -1=Culvert (Barrel Controls 1.45 cfs @ 3.13 fps) |
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| implement 22.05 cm 23.24 hrs. Volume 7.202 af implement 22.05 cm 23.4 hrs. Volume 7.202 af Atten= 0%, Lag= 0.0 min implement 30.05 thrs. Subcatchment39: APT. BLDG. A Rundf Area=17.818 af 100.00% Impervious Rundf Brace=17.818 af 100.00% Impervious Rundf B | Std2-Post Type III 24-hr 25-yr repared by {enter your company name here} | Prepared by {enter your compa | Type III 24-hr 100-yr Rainfall=7.81' any name here} 2020 HydroCAD Software Solutions LLC Page 122 |
|--|--|-------------------------------|---|
| ry = 42.05 cf @ 12.34 hrs, Volume 7.202 af, Attene 0%, Lag= 0.0 min ry outliow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Subcatchment163: APT, BLDG, A Subcatchment163: APT, BLDG, B Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.06 ch 0.258 al Subcatchment163: APT, BLDG, B Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.06 ch 0.258 al Subcatchment21S: A.1 Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.06 ch 0.258 al Subcatchment21S: A.1 Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.06 ch 0.258 al Subcatchment21S: A.1 Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.26 ch 0.208 al Subcatchment22S: A.2 Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.26 ch 0.208 al Subcatchment23S: A.3 Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.26 ch 0.208 al Subcatchment23S: A.3 Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.26 ch 0.208 al Subcatchment23S: A.3 Rundf Avae=17.818 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.26 ch 0.078 al Subcatchment28S: A.5 Rundf Avae=17.810 af 100.00% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.26 ch 0.078 al Subcatchment28S: B.5 Rundf Avae=17.810 af 3.71% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=3.26 ch 0.028 al Subcatchment28S: B.4 Rundf Avae=17.800 af 3.71% impervious Rundf Depht=7.67 To=6.0 mm CN=68 Rundf=2.26 ch 0.178 al Subcatchment28S: B.3 Rundf Avae=17.000 af 3.75% impervious Rundf Depht=7.47 To=6.0 mm CN=68 Rundf=2.26 ch 0.178 al Subcatchment39S: B.3 Rundf Avae=17.000 af 3.75% impervious Rundf Depht=7.47 To=6.0 mm CN=68 Rundf=2.26 ch 0.178 al Subcatchment39S: B.3 Rundf Avae=17.000 af 3.75% impervious Rundf Depht=7.47 To=6.0 mm CN=68 Rundf=2.26 ch 0.178 al Subcatchment39S: B.3 Rundf Avae=17.000 af 3.75% impervious Rundf Depht=7.47 | | Runoff | by SCS TR-20 method, UH=SCS, Weighted-CN |
| Subcatchment 16S: APT, BLDG.B Rundt Area=17,818 st 100,00% impervious. Rundt Depth=7,57 Subcatchment 18S: APT, BLDG.C Rundt Area=17,818 st 100,00% impervious. Rundt Depth=5,22 Subcatchment 21S: A.1 Rundf Area=20,165 st 5,87% impervious. Rundt Depth=5,22 To=50 mm CN=68 Rundt Area=17,836 st 100,00% impervious. Rundt Depth=5,22 Subcatchment 22S: A.2 Rundf Area=17,836 st 100,00% impervious. Rundt Depth=7,577 To=60 mm CN=88 Rundt Area=17,836 st 100,00% impervious. Rundt Depth=7,577 To=60 mm CN=88 Rundt Area=17,836 st 100,00% impervious. Rundt Depth=7,577 To=60 mm CN=88 Rundt Area=12,836 st 100,00% impervious. Rundt Depth=7,577 To=60 mm CN=88 Rundt Area=12,857 st 100,00% impervious. Rundt Depth=7,577 Subcatchment 25S: A.5 Rundt Area=2,24,258 st 100,00% impervious. Rundt Depth=7,577 To=60 mm CN=88 Rundt Area=12,857 st 100,00% impervious. Rundt Depth=7,577 To=60 mm CN=68 Rundt Area=12,857 st 100,00% impervious. Rundt Depth=7,577 To=60 mm CN=68 Rundt Area=12,857 st 100,00% impervious. Rundt Depth=7,877 To=60 mm CN=608 Rundt Area=12,857 st 100,90% impervious. Rundt Depth=7,877 To=60 mm CN=608 Rundt Area=12,857 st 100,90% impervious. Rundt Depth=7,877 To=60 mm CN=608 Rundt Area=12,857 st 100,90% impervious. Rundt Depth=7,877 < | | Subcatchment9S: APT. BLDG. | |
| Tc=60 min CA=96 Runoff=3.06 cfs 0.258 at Subcatchment21S: A.1 Runoff Area=20.065 cfs 5.02% at Subcatchment22S: A.2 Runoff Area=3.065 cfs 0.00% Impervious Runoff Breas=3.05 cfs Subcatchment22S: A.2 Runoff Area=3.05 cfs 0.00% Impervious Runoff Breas=3.05 cfs Subcatchment23S: A.3 Runoff Area=5.34 if 100.00% Impervious Runoff Breas=5.77 Tc=6.0 min CA+98 Runoff=2.68 cfs Subcatchment24S: A.4 Runoff Area=5.34 if 100.00% Impervious Runoff Breas=5.34 if 100.00% Impervious Runoff Deph=7.57 Tc=6.0 min Subcatchment24S: A.4 Runoff Area=5.34 if 100.00% Impervious Runoff Deph=7.57 Tc=6.0 min CA+98 Runoff=2.58 cfs Subcatchment26S: B.6 Runoff Area=5.43 if 100.00% Impervious Runoff Deph=7.57 Tc=6.0 min CA+98 Runoff=2.58 cfs Subcatchment26S: B.6 Runoff Area=1.78 min Runoff Area=1.78 min Runoff Area=1.78 min Area0.000 sf 2.23 1% Impervious Runoff Area=1.48 cfs 3.03 cfs Subcatchment26S: B.6 Runoff Area=1.28 of cf 3.03 Runoff=2.24 cfs 0.03 sf 1.03 Runoff=2.00 min 1.04 Runoff=2 | imary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Subcatchment 16S: APT. BLDG | |
| Tc=10.0 min CN=78 Runoff-2.43 cfs 0.202 at Subcatchment22S: A.2 Runoff Area=13,850 sf 100.00% Impervious Runoff 26 cfs 0.201 at Subcatchment23S: A.3 Runoff Area=5,767 sf 100.00% Impervious Runoff 1.48 cfs 0.201 at Subcatchment24S: A.4 Runoff Area=5,767 sf 100.00% Impervious Runoff 4.26 to 0.714 at Subcatchment24S: A.4 Runoff Area=5,767 sf 100.00% Impervious Runoff 4.26 to 0.717 Tc=6.0 min CN=98 Runoff 4.26 to 0.717 Tc=6.0 min CN=98 Runoff 4.26 to 0.717 Tc=6.0 min CN=98 Runoff 2.23 tfs 0.717 Runoff=4.20 cfs 0.325 at Subcatchment26S: B.6 Runoff Area=30.90 sf 2.315 timesrvious Runoff 2.435 timesrvious Runo | | Subcatchment 18S: APT. BLDG | |
| Te=0.0 min CH=08 Runoff 2.38 cfs 0.201 at Subcatchment23S: A.3 Runoff Area=9.767 af 100.00% Impervious Runoff DephF-7.577 Te=0.0 min CH=08 Runoff Area=9.767 af 100.00% Impervious Runoff DephF-7.577 Te=0.0 min CH=08 Runoff Area=5.341 af 100.00% Impervious Runoff DephF-7.577 Te=0.0 min CH=08 Runoff Area=22.426 af 100.00% Impervious Runoff DephF-7.577 Te=0.0 min CH=08 Runoff-3.25 cfs 0.00.00% Impervious Runoff DephF-7.577 Te=0.0 min CH=08 Runoff-3.25 cfs 0.00.00% Impervious Runoff DephF-7.577 Te=0.0 min CH=08 Runoff-3.25 cfs 0.00.00% Impervious Runoff DephF-7.577 Te=0.0 min CH=08 Runoff-3.25 cfs 0.00.00% Impervious Runoff DephF-3.677 Subcatchment26S: B.6 Runoff Area=20,090 sf 2.2.31% Impervious Runoff DephF-3.677 Tc=6.0 min Subcatchment27S: A.6 Runoff Area=30,829 af 0.83% Impervious Runoff DephF-3.677 Tc=6.0 min Tc=0.0 min CH=77 Runoff-3.25 cfs 0.017 at Tc=6.0 min CH=93 Subcatchment28S: B.1 Runoff Area=30,829 af 0.83% Impervious Runoff DephF-3.677 Tc=6.0 min CH=6.0 min Subcatchment28S: B.3 Runoff Area=13.381 tf af 75.7% Impervious Runoff DephF-3.477 <td< td=""><td></td><td>Subcatchment 21S: A.1</td><td></td></td<> | | Subcatchment 21S: A.1 | |
| Subcatchment24S: A.4 Runoff Area=5,341 sf 100,00% Impervious Runoff Depth=7,57 Tc=6.0 min CN=98 Runoff Depth=7,67 Tc=6.0 min CN=97 Runoff Depth=7,67 Ru | | Subcatchment 22S: A.2 | |
| Tc=6.0 min CN=98 Runoff=0.92 cfs 0.077 at Subcatchment25S: A.5 Runoff Area=22.426 sf 100.00% (Impervious Runoff Depth=7.57) Tc=6.0 min CN=98 Runoff=3.85 cfs 0.326 st 0.326 st Subcatchment26S: B.6 Runoff Area=22.426 sf 100.00% (Impervious Runoff Depth=4.64) Tc=6.0 min UI Adjusted CN=73 Runoff=4.90 cfs 0.356 at Subcatchment27S: A.6 Runoff Area=12,567 sf 87.12% (Impervious Runoff Depth=7.67) Tc=6.0 min CN=94 Runoff=4.90 cfs 0.307 at Subcatchment28S: B.1 Runoff Area=12,567 sf 87.12% (Impervious Runoff Depth=7.67) Tc=6.0 min CN=94 Runoff=2.42 cfs 0.301 at Subcatchment28S: B.1 Runoff Area=30,829 sf 0.88% (Impervious Runoff Depth=5.67) Tc=6.0 min CN=97 Runoff=4.92 cfs 0.301 at Subcatchment29S: B.2 Runoff Area=17,060 sf 9.572% (Impervious Runoff Depth=7.457 Tc=6.0 min CN=97 Runoff Area=27.000 sf 2.64 st 0.179 at Subcatchment30S: B.3 Subcatchment30S: B.3 Runoff Area=17,060 sf 9.572% (Impervious Runoff Depth=7.457 Tc=6.0 min CN=67 Runoff=2.92 cfs 0. | | Subcatchment 23S: A.3 | |
| Tc=6.0 min CN=98 Runoff=3.85 cfs 0.325 at Subcatchment26S: B.6 Runoff Area=40,090 sf 22.31% Impervious Runoff Depth=4.64 Tc=6.0 min U1 Adjusted CN=73 Runoff=4.90 cfs 0.356 at Subcatchment27S: A.6 Runoff Area=12,65 rf 87.12% Impervious Runoff Depth=7.09 Tc=6.0 min CN=94 Runoff=2.10 tc=6.0 min CN=94 Runoff=2.10 tc=6.0 min CN=94 Runoff=2.10 tc=6.0 min CN=74 Runoff=4.11 cfs 0.301 at Subcatchment29S: B.1 Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=7.69 Tc=6.0 min CN=77 Runoff=4.11 cfs 0.301 at Subcatchment30S: B.3 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45 Tc=6.0 min CN=97 Runoff=2.42 cfs 0.243 at Subcatchment31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45 Tc=6.0 min CN=97 Runoff=2.32 cfs 0.243 at Subcatchment32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=7.45 Tc=6.0 min CN=97 Runoff=2.32 cfs 0.243 at Subcatchment32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=7.45 Tc=6.0 min CN=97 Runoff=3.92 cfs 0.301 at | | Subcatchment 24S: A.4 | |
| Tc=6.0 min UI Adjusted CN=73 Runoff 4.90 cfs 0.356 at Subcatchment27S: A.6 Runoff Area=12,567 sf 87.12% Impervious Runoff Depth=7.09 Subcatchment28S: B.1 Runoff Area=30,829 sf 0.88% Impervious Runoff Depth=5.10 Subcatchment29S: B.2 Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=6.37' Subcatchment30S: B.3 Runoff Area=17,060 sf 9.5.72% Impervious Runoff 2.24 cfs 0.179 at Subcatchment31S: B.4 Runoff Area=17,060 sf 9.5.72% Impervious Runoff Depth=7.45' Tc=6.0 min CN=97 Runoff 2.22 cfs 0.243 at Subcatchment31S: B.4 Runoff Area=21,060 sf 9.5.72% Impervious Runoff Depth=7.45' Tc=6.0 min CN=97 Runoff=2.92 cfs 0.243 at Subcatchment31S: B.4 Runoff Area=24,627 sf 9.5.72% Impervious Runoff=2.92 cfs 0.243 at Subcatchment32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff=2.92 cfs 0.243 at Subcatchment33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff=3.92 cfs 0.301 at | | Subcatchment 25S: A.5 | |
| Tc=6.0 min CN=94 Runoff=2.12 cfs 0.171 at Subcatchment28S: B.1 Runoff Area=30.829 sf 0.88% Impervious Runoff Depth=5.10 Tc=6.0 min CN=77 Runoff=4.11 cfs 0.301 at Subcatchment29S: B.2 Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=6.97 Tc=6.0 min CN=93 Runoff=2.24 cfs 0.179 at Subcatchment30S: B.3 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45 Tc=6.0 min CN=97 Runoff=2.92 cfs 0.243 at Subcatchment31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45 Tc=6.0 min CN=97 Runoff=2.92 cfs 0.243 at Subcatchment31S: B.4 Runoff Area=27,060 sf 95.72% Impervious Runoff Depth=7.45 Tc=6.0 min CN=97 Runoff=2.92 cfs 0.243 at Subcatchment31S: B.4 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=6.38 Tc=6.0 min CN=93 Runoff=3.92 cfs 0.301 at Subcatchment32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=4.41 | | Subcatchment 26S: B.6 | |
| Tc=6.0 min CN=77 Runoff=4.11 cfs 0.301 at Subcatchment 29S: B.2 Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=6.97" Tc=6.0 min CN=93 Runoff=2.24 cfs 0.179 at Subcatchment 30S: B.3 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45" Tc=6.0 min CN=97 Runoff=2.92 cfs 0.243 at Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45" Tc=6.0 min CN=97 Runoff=2.92 cfs 0.243 at Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45" Tc=6.0 min CN=97 Runoff=2.92 cfs 0.243 at Subcatchment 32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=6.36" Tc=6.0 min CN=88 Runoff=3.92 cfs 0.301 at Subcatchment 33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=4.41" | | Subcatchment 27S: A.6 | |
| Tc=6.0 min CN=93 Runoff=2.24 cfs 0.179 at Subcatchment 30S: B.3 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45" Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45" Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45" Subcatchment 32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=6.38" Tc=6.0 min CN=98 Runoff = 2.92 cfs 0.301 at Subcatchment 33S: B.7 Runoff Area=20,511 sf 2.55% Impervious Runoff Depth=4.41" | | Subcatchment 28S: B.1 | |
| Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.45" Subcatchment 32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=6.38" Subcatchment 33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=4.41" | | Subcatchment 29S: B.2 | |
| Subcatchment 32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=6.38" Subcatchment 33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=4.41" | | Subcatchment 30S: B.3 | |
| Subcatchment 33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=4.41" | | Subcatchment 31S: B.4 | |
| | | Subcatchment 32S: B.5 | |
| 10-30.0 mini GN-71 Kunon-19.46 Cis 2.434 an | | Subcatchment 33S: B.7 | Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=4.41" Tc=30.0 min CN=71 Runoff=19.48 cfs 2.454 af |

| 6842-Post | Type III 24-hr 100-yr Rainfall=7.81" | 6842-Post Type III 24-hr 100 | -yr Rainfall=7.81" |
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| Prepared by {enter your company r HydroCAD® 10.10-3a s/n 03590 © 2020 | | Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC | Page 124 |
| Subcatchment 34S: B.8 | Runoff Area=12,484 sf 88.82% Impervious Runoff Depth=7.21" Tc=6.0 min CN=95 Runoff=2.12 cfs 0.172 af | Subcatchment 52S: B.9 Runoff Area=15,018 sf 80.72% Impervious | |
| Subcatchment 35S: C.1 | Runoff Area=236,308 sf 9.34% Impervious Runoff Depth=5.10" Tc=20.0 min UI Adjusted CN=77 Runoff=21.74 cfs 2.306 af | Tc=6.0 min CN=92 Runo Pond 4P: Constructed Stormwater Peak Elev=215.11' Storage=21,459 cf Inflow | /=15.95 cfs 1.187 af |
| Subcatchment 36S: C.2 | Runoff Area=22,516 sf 83.62% Impervious Runoff Depth=6.97" Tc=6.0 min CN=93 Runoff=3.77 cfs 0.300 af | Pond 5P: Wet Basin Peak Elev=216.35' Storage=30,936 cf Inflow | |
| Subcatchment 37S: C.3 | Runoff Area=12,429 sf 61.75% Impervious Runoff Depth=6.26" Tc=6.0 min CN=87 Runoff=1.96 cfs 0.149 af | Pond 7P: Constructed Stormwater Wetland Peak Elev=215.59' Storage=8,934 cf Inflow | v=13.77 cfs 3.219 af v=43.15 cfs 5.032 af v=40.47 cfs 5.032 af |
| Subcatchment 38S: C.4 | Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=0.80 cfs 0.067 af | Pond 12P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflo Discarded=0.17 cfs 0.188 af Primary=2.83 cfs 0.070 af Outflor | w=3.06 cfs 0.258 af |
| Subcatchment 39S: C.5 | Runoff Area=5,857 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=1.01 cfs 0.085 af | Pond 17P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflo Discarded=0.17 cfs 0.188 af Primary=2.83 cfs 0.070 af Outflo | w=3.06 cfs 0.258 af |
| Subcatchment 40S: C.6 | Runoff Area=4,047 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=0.70 cfs 0.059 af | Pond 19P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflo Discarded=0.17 cfs 0.188 af Primary=2.83 cfs 0.070 af Outflo | w=3.06 cfs 0.258 af |
| Subcatchment 41S: C.7 | Runoff Area=7,188 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=1.24 cfs 0.104 af | Pond 21P: CB-4 12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflo | w=2.49 cfs 0.197 af |
| Subcatchment 42S: C.8 | Runoff Area=7,639 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=1.31 cfs 0.111 af | Pond 22P: DMH-2 Peak Elev=218.79' Inflow | v=11.14 cfs 0.886 af |
| Subcatchment 43S: C.9 | Runoff Area=8,732 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=1.50 cfs 0.126 af | 18.0" Round Culvert n=0.013 L=101.0' S=0.0050 '/' Outflow Pond 23P: CB-1 Peak Elev=216.66' Inflo | w=2.24 cfs 0.179 af |
| Subcatchment 44S: C.10 | Runoff Area=5,326 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=0.92 cfs 0.077 af | 12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow Pond 24P: CB-2 Peak Elev=217.65' Inflow Peak Elev=217.65' Inflow Peak Elev=217.65' Inflow | w=2.92 cfs 0.243 af |
| Subcatchment 45S: C.11 | Runoff Area=2,631 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=0.45 cfs 0.038 af | 12.0" Round Culvert n=0.013 L=20.0' S=0.0400 '/' Outflow Pond 25P: CB-3 Peak Elev=218.72' Inflo | w=3.92 cfs 0.301 af |
| Subcatchment 46S: C.12 | Runoff Area=5,910 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=1.02 cfs 0.086 af | 12.0" Round Culvert n=0.013 L=38.0' S=0.0289 '/' Outflo Pond 26P: DMH-1 Peak Elev=217.87' Inflo | w=9.09 cfs 0.722 af |
| Subcatchment 47S: C.13 | Runoff Area=1,987 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=0.34 cfs 0.029 af | 18.0" Round Culvert n=0.013 L=56.0' S=0.0089 '/' Outflo Pond 27P: DCB-22 Peak Elev=217.66' Inflo | w=3.85 cfs 0.325 af |
| Subcatchment 48S: C.14 | Runoff Area=1,885 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=0.32 cfs 0.027 af | 12.0" Round Culvert n=0.013 L=50.0' S=0.0060 '/' Outflov Pond 28P: DMH-16 Peak Elev=217.88' Inflo | |
| Subcatchment 49S: C.15 | Runoff Area=3,487 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=0.60 cfs 0.051 af | 12.0" Round Culvert n=0.013 L=160.0' S=0.0050 '/' Outflov Pond 29P: CB-21 Peak Elev=216.76' Inflo | w=0.92 cfs 0.077 af |
| Subcatchment 50S: C.16 | Runoff Area=3,508 sf 100.00% Impervious Runoff Depth=7.57" Tc=6.0 min CN=98 Runoff=0.60 cfs 0.051 af | 12.0" Round Culvert n=0.013 L=26.0' S=0.0192 '/' Outflo Pond 30P: DMH-15 Peak Elev=215.94' Inflo | w=4.77 cfs 0.402 af |
| Subcatchment 51S: D.1 | Runoff Area=402,771 sf 0.38% Impervious Runoff Depth=3.30" Tc=20.0 min CN=61 Runoff=23.60 cfs 2.543 af | 15.0" Round Culvert n=0.013 L=250.0' S=0.0052 '/' Outflo | w=4.77 cts 0.402 af |

| 5842-Post Prepared by {enter you | | 6842-Post Prepared by {enter your | |
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| ydroCAD® 10.10-3a s/n 0 | 03590 © 2020 HydroCAD Software Solutions LLC Page 125 | HydroCAD® 10.10-3a s/n 03 | 3590 © 2020 HydroCAD Software Solutions LLC Page 126 |
| | Peak Elev=216.20' Inflow=10.95 cfs 0.915 af | | |
| nd 31P: DMH-14 | 18.0" Round Culvert n=0.013 L=61.0' S=0.0049 '/' Outflow=10.95 cfs 0.915 af | Pond 67P: CB-7 | Peak Elev=216.48' Inflow=0.70 cfs 0.059 a |
| | 18.0 Round Cuivert 11–0.013 L–61.0 S–0.00497 Outliow–10.95 Cis 0.915 al | Pond 6/P: CB-/ | 12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.70 cfs 0.059 a |
| | | | 12.0" Round Cuivert n=0.013 L=24.0 S=0.0208 7 Outflow=0.70 cfs 0.059 a |
| nd 32P: CB-20 | Peak Elev=216.63' Inflow=2.38 cfs 0.201 af | Develop DMU 0 | |
| | 12.0" Round Culvert n=0.013 L=12.0' S=0.0167 '/' Outflow=2.38 cfs 0.201 af | Pond 68P: DMH-9 | Peak Elev=218.68' Inflow=6.53 cfs 0.517 a |
| | | | 15.0" Round Culvert n=0.013 L=79.0' S=0.0089 '/' Outflow=6.53 cfs 0.517 a |
| nd 33P: DMH-17 | Peak Elev=218.43' Inflow=3.80 cfs 0.312 af | | |
| | 12.0" Round Culvert n=0.013 L=180.0' S=0.0050 '/' Outflow=3.80 cfs 0.312 af | Pond 69P: CB-11 | Peak Elev=216.86' Inflow=0.80 cfs 0.067 a |
| | | | 12.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=0.80 cfs 0.067 a |
| d 34P: CB-23 | Peak Elev=216.90' Inflow=2.12 cfs 0.171 af | | |
| | 12.0" Round Culvert n=0.013 L=28.0' S=0.0071 '/' Outflow=2.12 cfs 0.171 af | Pond 70P: CB-12 | Peak Elev=218.43' Inflow=5.73 cfs 0.449 a |
| | | | 15.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=5.73 cfs 0.449 a |
| d 35P: CB-24 | Peak Elev=216.73' Inflow=1.68 cfs 0.141 af | | |
| | 12.0" Round Culvert n=0.013 L=20.0' S=0.0100 '/' Outflow=1.68 cfs 0.141 af | Pond 71P: CB-8 | Peak Elev=216.24' Inflow=1.31 cfs 0.111 a |
| | | | 12.0" Round Culvert n=0.013 L=32.0' S=0.0062 '/' Outflow=1.31 cfs 0.111 a |
| d 36P: DMH-7 | Peak Elev=217.15' Inflow=2.42 cfs 0.204 af | | |
| | 12.0" Round Culvert n=0.013 L=220.0' S=0.0055 '/' Outflow=2.42 cfs 0.204 af | Pond 72P: CB-9 | Peak Elev=216.22' Inflow=1.24 cfs 0.104 a |
| | | Tond 721 . OB-5 | 12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=1.24 cfs 0.104 a |
| d 37P: DMH-10 | Peak Elev=219.23' Inflow=3.34 cfs 0.281 af | | |
| | 15.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=3.34 cfs 0.281 af | Pond 73P: DMH-6 | Peak Elev=216.43' Inflow=2.55 cfs 0.215 a |
| | 15.0 Round Guvent 11–0.013 L-122.0 3–0.02937 Outliow-3.34 Cis 0.281 al | Pona / SP: DMH-6 | 12.0" Round Culvert n=0.013 L=52.0' S=0.0077 '/' Outflow=2.55 cfs 0.215 a |
| | | | 12.0" Round Cuivert n=0.013 L=52.0" S=0.00777 Outflow=2.55 cfs 0.215 a |
| d 38P: CB-15 | Peak Elev=232.52' Inflow=0.32 cfs 0.027 af | | |
| | 12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.32 cfs 0.027 af | Pond 78P: CB-19 | Peak Elev=216.97' Inflow=0.92 cfs 0.077 a |
| | | | 12.0" Round Culvert n=0.013 L=45.0' S=0.0067 '/' Outflow=0.92 cfs 0.077 a |
| 39P: CB-16 | Peak Elev=232.53' Inflow=0.34 cfs 0.029 af | | |
| | 12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.34 cfs 0.029 af | Pond 79P: CB-10 | Peak Elev=217.16' Inflow=1.50 cfs 0.126 a |
| | | | 12.0" Round Culvert n=0.013 L=17.0' S=0.0176 '/' Outflow=1.50 cfs 0.126 a |
| 52P: CB-17 | Peak Elev=247.84' Inflow=0.60 cfs 0.051 af | | |
| | 12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.60 cfs 0.051 af | Pond 80P: DMH-5 | Peak Elev=216.45' Inflow=4.96 cfs 0.418 a |
| | | | 15.0" Round Culvert n=0.013 L=67.0' S=0.0075 '/' Outflow=4.96 cfs 0.418 a |
| d 53P: CB-18 | Peak Elev=247.84' Inflow=0.60 cfs 0.051 af | | |
| | 12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.60 cfs 0.051 af | Pond 81P: CB-5 | Peak Elev=217.01' Inflow=2.12 cfs 0.172 a |
| | | | 12.0" Round Culvert n=0.013 L=31.0' S=0.0065 '/' Outflow=2.12 cfs 0.172 a |
| d 54P: DMH-13 | Peak Elev=247.06' Inflow=1.20 cfs 0.101 af | | |
| u 54P. DMH-13 | 12.0" Round Culvert n=0.013 L=85.0' S=0.0753 '/' Outflow=1.20 cfs 0.101 af | Dand 82D: DMU 2 | Peak Elev=216.70' Inflow=2.12 cfs 0.172 a |
| | 12.0 Round Culvert II-0.013 L-65.0 3-0.07537 Outliow-1.20 Cis 0.101 al | Pond 82P: DMH-3 | |
| | | | 12.0" Round Culvert n=0.013 L=70.0' S=0.0057 '/' Outflow=2.12 cfs 0.172 a |
| d 56P: DMH-12 | Peak Elev=240.56' Inflow=1.20 cfs 0.101 af | | |
| | 12.0" Round Culvert n=0.013 L=110.0' S=0.0745 '/' Outflow=1.20 cfs 0.101 af | Link 20L: DP-A | Inflow=76.09 cfs 11.979 a |
| | | | Primary=76.09 cfs 11.979 a |
| d 58P: CB-13 | Peak Elev=219.28' Inflow=0.45 cfs 0.038 af | | |
| | 12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.45 cfs 0.038 af | Total Runoff | Area = 30.660 ac Runoff Volume = 12.544 af Average Runoff Depth = 4. |
| | | | 75.28% Pervious = 23.079 ac 24.72% Impervious = 7.580 |
| 61P: DMH-11 | Peak Elev=232.49' Inflow=1.87 cfs 0.157 af | | ····· |
| ••••• | 12.0" Round Culvert n=0.013 L=198.0' S=0.0677 '/' Outflow=1.87 cfs 0.157 af | | |
| | | | |
| 62P: CB-14 | Peak Elev=219.50' Inflow=1.02 cfs 0.086 af | | |
| 02F. CD-14 | 12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=1.02 cfs 0.086 af | | |
| | 12.0 Round Cuvert II-0.013 L-13.0 3-0.04077 Outliow-1.02 Cis 0.060 al | | |
| | | | |
| 63P: DMH-4 | Peak Elev=216.04' Inflow=10.00 cfs 0.843 af | | |
| | 24.0" Round Culvert n=0.013 L=35.0' S=0.0029 '/' Outflow=10.00 cfs 0.843 af | | |
| | | | |
| d 66P: CB-6 | Peak Elev=216.59' Inflow=1.01 cfs 0.085 af | | |
| | 12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=1.01 cfs 0.085 af | | |
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| 6842-Post Type III 24-hr 100-yr Rainfall=7.81" | 6842-Post Type III 24-hr 100-yr Rainfall=7.81 |
|--|--|
| Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 127 | Prepared by {enter your company name here} HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 12 |
| Summary for Subcatchment 9S: APT. BLDG. A | Summary for Subcatchment 21S: A.1 |
| Runoff = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af, Depth= 7.57" | Runoff = 2.43 cfs @ 12.14 hrs, Volume= 0.202 af, Depth= 5.22" |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs [ype III 24-hr 100-yr Rainfall=7.81" | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 100-yr Rainfall=7.81" |
| Area (sf) CN Description | Area (sf) CN Description |
| 17,818 98 Roofs, HSG A | * 18,718 77 >75% Grass cover, Good, HSG A |
| 17,818 100.00% Impervious Area | * 291 43 Woods, Good, HSG A 95 98 Unconnected pavement, HSG A |
| Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) | 1,091 98 Roofs, HSG A 20,195 78 Weighted Average |
| 6.0 Direct Entry, | 19,009 94.13% Pervious Area |
| Summary for Subcatchment 16S: APT. BLDG. B | 1,1865.87% Impervious Area958.01% Unconnected |
| Runoff = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af, Depth= 7.57" | Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) |
| Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | 10.0 Direct Entry, |
| Type III 24-hr 100-yr Rainfall=7.81" | Summary for Subcatchment 22S: A.2 |
| Area (sf) CN Description | |
| 17,818 98 Roofs, HSG A | Runoff = 2.38 cfs @ 12.09 hrs, Volume= 0.201 af, Depth= 7.57" |
| 17,818 100.00% Impervious Area Tc Length Slope Velocity Capacity Description | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 100-yr Rainfall=7.81" |
| (min) (feet) (ft/ft) (ft/sec) (cfs) | Area (cf) ON Description |
| 6.0 Direct Entry, | Area (sf) CN Description 12,935 98 Paved parking, HSG A |
| Summary for Subcatchment 18S: APT. BLDG. C | 915 98 Roofs, HSG A |
| Runoff = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af, Depth= 7.57" | 13,850 98 Weighted Average 13,850 100.00% Impervious Area |
| unoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs) |
| ype III 24-hr 100-yr Rainfall=7.81" | 6.0 Direct Entry, |
| Area (sf) CN Description 17.818 98 Roofs. HSG A | Summary for Subcatchment 23S: A.3 |
| 17,818 100.00% Impervious Area | |
| | Runoff = 1.68 cfs @ 12.09 hrs, Volume= 0.141 af, Depth= 7.57" |
| Tc Length Slope Velocity Description (min) (feet) (ft/ft) (ft/sec) (cfs) 6.0 Direct Entry. | Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 100-yr Rainfall=7.81" |
| 6.0 Direct Entry, | |
| | Area (sf) CN Description 9.767 98 Paved parking, HSG A |
| | 9.767 98 Paved parking, HSG A |

| (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | |
|---------------------|-------------------------|------------------|-------------------------|--------------------------|------------------------------------|--------------|
| 6.0 | (ieet) | (1011) | (11/560) | (015) | Direct Entry, | |
| | | | Sumr | nary for S | Subcatchment 24S: A.4 | |
| Runoff | = | 0.92 cfs | s@ 12.0 | 9 hrs, Volu | ume= 0.077 af, Depth= 7.57 | n |
| | / SCS TR 4-hr 100 | | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, | dt= 0.05 hrs |
| Ai | ea (sf) | | escription | | | |
| | 227 5,114 | | aved park oofs, HSG | ing, HSG A S A | N | |
| | 5,341 5,341 | | /eighted A 00.00% Im | verage ipervious A | Area | |
| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description | |
| 6.0 | | | | | Direct Entry, | |
| | | | Sumr | nary for S | Subcatchment 25S: A.5 | |
| Runoff | = | 3.85 cfs | s@ 12.0 | 9 hrs, Volu | ume= 0.325 af, Depth= 7.57 | |
| | / SCS TR 4-hr 100 | | | CS, Weigh | ted-CN, Time Span= 0.00-72.00 hrs, | dt= 0.05 hrs |
| | ea (sf) | | escription | | | |
| | <u>22,426</u> 22.426 | | | ing, HSG A pervious A | | |
| Тс | Length | Slope | Velocity | Capacity | | |
| <u>(min)</u> 6.0 | (feet) | (ft/ft) | (ft/sec) | (cfs) | Direct Entry, | |
| | | | Sumr | nary for S | Subcatchment 26S: B.6 | |
| | = | 4.90 cfs | s@ 12.0 | 9 hrs, Volu | ume= 0.356 af, Depth= 4.64 | |
| Runoff | | | | CS Weigh | ted-CN, Time Span= 0.00-72.00 hrs, | dt= 0.05 hrs |
| | / SCS TR 4-hr 100 | | | CO, Weigh | | |

| Tyuroo | | | | | name her 0 HydroCAI | D Software So | olutions | LLC | Page 130 |
|-------------------|---|--|---|---|---|--|----------|--------------|---------------------|
| | Area (of) | CN | Adi | Dece | rintion | | | | |
| * | Area (sf) 31.146 | <u>CN</u> 68 | Adj | | cription | over, Good, H | | | |
| | 3,467 | 98 | | | | avement, HS | | | |
| | 5,477 | 98 | | | fs, HSG A | , | | | |
| | 40,090 | 75 | 73 | | | age, UI Adju | sted | | |
| | 31,146 | | | | 9% Perviou | | | | |
| | 8,944 3,467 | | | | 1% Imperv 6% Unconi | | | | |
| | 0,101 | | | | 0.00000 | | | | |
| | Length | Slop | | locity | | Descriptio | n | | |
| (min | | (ft/f | t) (ft | /sec) | (cfs) | | | | |
| 6.0 |) | | | | | Direct En | try, | | |
| | | | 9 | Sumr | nary for | Subcatch | ment 2 | 27S: A.6 | |
| Runoff | = | 2.12 | cfs @ | 12.0 | 9 hrs, Volu | ume= | 0.171 | af, Depth= | 7.09" |
| - " | | | | | | | ~ | | |
| | by SCS 11 24-hr 100 | | | | CS, Weigh | nted-CN, Im | ne Spar | i= 0.00-72.0 | 0 hrs, dt= 0.05 hrs |
| турсп | 124-111 100 |)−yi i ta | initian-1 | .01 | | | | | |
| | Area (sf) | CN | | ription | | | | | |
| | 8,883 | 98 | | | ing, HSG A | | | | |
| * | 1,619 948 | 68 98 | | | | ood, HSG A ent, HSG A | | | |
| | 940 1,117 | 98 98 | | s, HSG | | III, HSG A | | | |
| | 12,567 | 94 | | | verage | | | | |
| | 1,619 | | | | rvious Area | | | | |
| | 10,948 | | | | pervious Ar | rea | | | |
| | 948 | | 8.66% | o Unco | onnected | | | | |
| То | Length | Slop | e Ve | locitv | Capacity | Descriptio | n | | |
| (min |) (feet) | (ft/f | t) (ft | /sec) | (cfs) | | | | |
| 6.0 |) | | | | | Direct En | try, | | |
| | | | ę | Sumr | nary for | Subcatch | ment 2 | 28S: B.1 | |
| | | | | | | | 0 201 | af, Depth= | 5 10" |
| Runoff | = | 4.11 | cfs @ | 12.0 | 9 hrs, Volu | ume= | 0.301 | ai, Depui- | 5.10 |
| | | | 0 | | , | | | | |
| Runoff | by SCS TF | R-20 m | ethod, | UH=S | , | | | | 0 hrs, dt= 0.05 hrs |
| Runoff | | R-20 m | ethod, | UH=S | , | | | | |
| Runoff Type II | by SCS TF I 24-hr 100 Area (sf) | R-20 m D-yr Ra CN | ethod, infall=7 | UH=S 7.81" ription | SCS, Weigh | hted-CN, Tim | ne Spar | | |
| Runoff Type II | by SCS TF I 24-hr 100 <u>Area (sf)</u> 30,559 | R-20 m 0-yr Ra <u>CN</u> 77 | ethod, infall=7 Desci >75% | UH=S 7.81" ription | SCS, Weigh | hted-CN, Tim | ne Spar | | |
| Runoff Type II | by SCS TF I 24-hr 100 <u>Area (sf)</u> 30,559 270 | R-20 m 0-yr Ra <u>CN</u> 77 98 | ethod, infall=7 Desci >75% Unco | UH=S 7.81" o Grass nnecte | SCS, Weigh s cover, Go | hted-CN, Tim | ne Spar | | |
| Runoff Type II | by SCS TF I 24-hr 100 Area (sf) 30,559 270 30,829 | R-20 m 0-yr Ra <u>CN</u> 77 | ethod, infall=7 Desci >75% Uncol Weigl | UH=S 7.81" o Grass nnecte hted A | SCS, Weigh s cover, Go ed paveme werage | nted-CN, Tim ood, HSG A ent, HSG A | ne Spar | | |
| Runoff Type II | by SCS TF 24-hr 100 <u>Area (sf)</u> 30,559 270 30,829 30,559 | R-20 m 0-yr Ra <u>CN</u> 77 98 | ethod, infall=7 <u>Desci</u> >75% <u>Unco</u> Weigl 99.12 | UH=S 7.81" Grass nnecte hted A % Per | SCS, Weigh s cover, Go | hted-CN, Tim ood, HSG A ent, HSG A | ne Spar | | |
| Type II | by SCS TF I 24-hr 100 Area (sf) 30,559 270 30,829 | R-20 m 0-yr Ra <u>CN</u> 77 98 | ethod, infall=7 >75% Unco Weigl 99.12 0.88% | UH=S 7.81" Grass nnecte hted A % Per 6 Impe | SCS, Weigh s cover, Go ed paveme werage rvious Area | nted-CN, Tim ood, HSG A ent, HSG A a a | ne Spar | | |

| Tc Length | nter your company name here} 0-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC | Page 131 |
|---|---|----------|
| (min) (feet) | | |
| 6.0 | Direct Entry, | |
| | Summary for Subcatchment 29S: B.2 | |
| Runoff = | 2.24 cfs @ 12.09 hrs, Volume= 0.179 af, Depth= 6.97" | |
| | IR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 h 00-yr Rainfall=7.81" | rs |
| Area (sf) | CN Description | |
| * 2,173 1,997 | 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A | |
| <u>9,211</u> 13,381 | 98 Paved parking, HSG A 93 Weighted Average | |
| 2,173 | 16.24% Pervious Area | |
| 11,208 1,997 | 83.76% Impervious Area 17.82% Unconnected | |
| 1,997 | | |
| Tc Length (min) (feet) | | |
| 6.0 | Direct Entry, | |
| | Summary for Subcatchment 30S: B.3 | |
| | Summary for Subcatchment 566. D.5 | |
| Runoff = | 2.92 cfs @ 12.09 hrs, Volume= 0.243 af, Depth= 7.45" | |
| | IR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 h 00-yr Rainfall=7.81" | rs |
| | CN Description | |
| Area (sf) | | |
| * 731 | 68 >75% Grass cover, Good, HSG A | |
| * 731 2,575 | 98 Unconnected pavement, HSG A | |
| * 731 2,575 13,754 17,060 | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average | |
| * 731 2,575 13,754 17,060 731 | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area | |
| * 731 2,575 13,754 17,060 | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average | |
| * 731 2,575 13,754 17,060 731 16,329 2,575 | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 15.77% Unconnected | |
| * 731 2,575 13,754 17,060 731 16,329 2,575 Tc Length (min) (feet) | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 15.77% Unconnected n Slope Velocity Capacity Description | |
| * 731 2,575 13,754 17,060 731 16,329 2,575 Tc Length | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 15.77% Unconnected n Slope Velocity Capacity Description | |
| * 731 2,575 13,754 17,060 731 16,329 2,575 Tc Length (min) (feet) | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 15.77% Unconnected n Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
| * 731 2,575 13,754 17,060 731 16,329 2,575 Tc Length (min) (feet) | 98 Unconnected pavement, HSG A 98 Paved parking, HSG A 97 Weighted Average 4.28% Pervious Area 95.72% Impervious Area 15.77% Unconnected n Slope velocity Capacity Description (ft/ft) (ft/sec) (ft/ft) Direct Entry, | |

| 6842-Post | Type III 24-hr 100-yr Rainfall=7.8 | 1" |
|---------------------------|---|-----------|
| | nter your company name here} | ~~ |
| HydroCAD® 10.10 | 0-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 1 | <u>32</u> |
| A | | |
| Area (sf) * 731 | CN Description 68 >75% Grass cover, Good, HSG A | — |
| 2,575 | 98 Unconnected pavement, HSG A | |
| 13,754 | 98 Paved parking, HSG A | |
| 17,060 731 | 97 Weighted Average 4.28% Pervious Area | |
| 16,329 | 95.72% Impervious Area | |
| 2,575 | 15.77% Unconnected | |
| Tc Length | Slope Velocity Capacity Description | |
| (min) (feet) | (ft/ft) (ft/sec) (cfs) | |
| 6.0 | Direct Entry, | |
| | Summary for Subcatchment 32S: B.5 | |
| Runoff = | 3.92 cfs @ 12.09 hrs, Volume= 0.301 af, Depth= 6.38" | |
| | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs)0-yr Rainfall=7.81" | |
| Area (sf) | CN Description | |
| 8,616 | 98 Paved parking, HSG A | |
| * 8,034 1,324 | 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A | |
| 6,653 | 98 Roofs, HSG A | |
| 24,627 | 88 Weighted Average | _ |
| 8,034 16,593 | 32.62% Pervious Area 67.38% Impervious Area | |
| 1,324 | 7.98% Unconnected | |
| To Longth | Slope Velocity Capacity Description | |
| Tc Length (min) (feet) | | |
| 6.0 | Direct Entry, | _ |
| | Summary for Subcatchment 33S: B.7 | |
| Runoff = | 19.48 cfs @ 12.42 hrs, Volume= 2.454 af, Depth= 4.41" | |
| | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | |
| Type III 24-hr 10 | 00-yr Rainfall=7.81" | |
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| | | | r company name here} 03590 © 2020 HydroCAD Software Solutions LLC | Page 133 |
|---|--|--|---|-----------------|
| A | rea (sf) | CN | Description | |
| 1 | 29,407 | 68 | >75% Grass cover, Good, HSG A | |
| | 97,286 | 79 | >75% Grass cover, Good, HSG C | |
| | 9,046 | 89 | >75% Grass cover, Good, HSG D | |
| | 27,194 15,779 | 43 76 | Woods, Good, HSG A Woods, Good, HSG C | |
| | 4,399 | 82 | Woods, Good, HSG D | |
| | 1,606 | 98 | Unconnected pavement, HSG A | |
| | 319 | 98 | Unconnected pavement, HSG C | |
| | 5,475 | 98 | Roofs, HSG A | |
| | 90,511 83,111 | 71 | Weighted Average 97.45% Pervious Area | |
| 4 | 7,400 | | 2.55% Impervious Area | |
| | 1,925 | | 26.01% Unconnected | |
| | | | | |
| | Length | Slop | | |
| (min) 30.0 | (feet) | (ft/f | t) (ft/sec) (cfs) Direct Entry, | |
| 00.0 | | | Bricer Entry, | |
| | | | Summary for Subcatchment 34S: B.8 | |
| | | | | |
| | | | • | |
| lunoff | = | 2.12 | cfs @ 12.09 hrs, Volume= 0.172 af, Depth= 7.2 | 21" |
| Runoff | | | 0 | |
| unoff b | y SCS TF | R-20 m | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs | |
| unoff b | y SCS TF | R-20 m | 0 | |
| unoff b ype III | y SCS TF | R-20 m | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs | |
| unoff b ype III | y SCS TF 24-hr 100 <u>rea (sf)</u> 9,724 | R-20 m)-yr Ra | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A | |
| unoff b ype III | y SCS TF 24-hr 100 <u>rea (sf)</u> 9,724 1,396 | R-20 m)-yr Ra <u>CN</u> 98 68 | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" <u>Description</u> Paved parking, HSG A >75% Grass cover, Good, HSG A | |
| unoff b ype III | y SCS TF 24-hr 10(<u>rea (sf)</u> 9,724 1,396 1,364 | R-20 m D-yr Ra <u>CN</u> 98 68 98 | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A | |
| unoff b ype III | y SCS TF 24-hr 100 <u>rea (sf)</u> 9,724 1,396 <u>1,364</u> 12,484 | R-20 m)-yr Ra <u>CN</u> 98 68 | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average | |
| unoff b ype III | y SCS TF 24-hr 100 9,724 1,396 1,364 12,484 1,396 | R-20 m D-yr Ra <u>CN</u> 98 68 98 | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area | |
| unoff b ype III | y SCS TF 24-hr 100 9,724 1,396 1,364 12,484 1,396 11,088 | R-20 m D-yr Ra <u>CN</u> 98 68 98 | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" <u>Description</u> Paved parking, HSG A >75% Grass cover, Good, HSG A <u>Unconnected pavement, HSG A</u> Weighted Average 11.18% Pervious Area 88.82% Impervious Area | |
| unoff b ype III | y SCS TF 24-hr 100 9,724 1,396 1,364 12,484 1,396 | R-20 m D-yr Ra <u>CN</u> 98 68 98 | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area | |
| tunoff b ype III A | y SCS TF 24-hr 100 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length | R-20 m D-yr Ra 98 68 98 95 Slop | e Velocity Capacity Description | |
| unoff b ype III A Tc (min) | y SCS TF 24-hr 100 9,724 1,396 1,364 1,364 1,396 11,088 1,364 | R-20 m/ D-yr Ra 98 68 98 95 | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) | |
| tunoff b ype III A | y SCS TF 24-hr 100 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length | R-20 m D-yr Ra 98 68 98 95 Slop | e Velocity Capacity Description | |
| tunoff b ype III A Tc (min) | y SCS TF 24-hr 100 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length | R-20 m D-yr Ra 98 68 98 95 Slop | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) | |
| Tc (min) 6.0 | y SCS TF 24-hr 100 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length (feet) | R-20 m D-yr Ra 98 68 98 95 Slop (ft/f | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description) (ft/sec) (cfs) Direct Entry, Summary for Subcatchment 35S: C.1 | s, dt= 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 100 9,724 1,396 1,364 12,484 1,396 11,088 1,364 Length | R-20 m D-yr Ra 98 68 98 95 Slop (ft/f | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) Direct Entry, | s, dt= 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 100 9,724 1,396 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m.)-yr Ra 98 68 98 95 95 Slop (ft/f 21.74 R-20 m | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) Direct Entry, Summary for Subcatchment 35S: C.1 cfs @ 12.27 hrs, Volume= 2.306 af, Depth= 5.1 ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs | s, dt= 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 100 9,724 1,396 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m.)-yr Ra 98 68 98 95 95 Slop (ft/f 21.74 R-20 m | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) Direct Entry, Summary for Subcatchment 35S: C.1 cfs @ 12.27 hrs, Volume= 2.306 af, Depth= 5.1 | s, dt= 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 100 9,724 1,396 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m.)-yr Ra 98 68 98 95 95 Slop (ft/f 21.74 R-20 m | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) Direct Entry, Summary for Subcatchment 35S: C.1 cfs @ 12.27 hrs, Volume= 2.306 af, Depth= 5.1 ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs | s, dt= 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 100 9,724 1,396 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m.)-yr Ra 98 68 98 95 95 Slop (ft/f 21.74 R-20 m | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) Direct Entry, Summary for Subcatchment 35S: C.1 cfs @ 12.27 hrs, Volume= 2.306 af, Depth= 5.1 ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs | s, dt= 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 100 9,724 1,396 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m.)-yr Ra 98 68 98 95 95 Slop (ft/f 21.74 R-20 m | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) Direct Entry, Summary for Subcatchment 35S: C.1 cfs @ 12.27 hrs, Volume= 2.306 af, Depth= 5.1 ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs | s, dt= 0.05 hrs |
| Tc (min) 6.0 | y SCS TF 24-hr 100 9,724 1,396 12,484 1,396 11,088 1,364 Length (feet) = y SCS TF | R-20 m.)-yr Ra 98 68 98 95 95 Slop (ft/f 21.74 R-20 m | ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs nfall=7.81" Description Paved parking, HSG A >75% Grass cover, Good, HSG A Unconnected pavement, HSG A Weighted Average 11.18% Pervious Area 88.82% Impervious Area 12.30% Unconnected e Velocity Capacity Description c) (ft/sec) (cfs) Direct Entry, Summary for Subcatchment 35S: C.1 cfs @ 12.27 hrs, Volume= 2.306 af, Depth= 5.1 ethod, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs | s, dt= 0.05 hrs |

| 6842-Post | Type III 24-hr 100-yr Rainfall=7.81" tter your company name here} |
|----------------------|--|
| | -3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 134 |
| Area (sf) | CN Adj Description |
| * 128,543 | 68 >75% Grass cover, Good, HSG A |
| * 69,229 * 16,469 | 89 >75% Grass cover, Good, HSG D 82 Woods, Good, HSG D |
| 14,141 | 98 Unconnected pavement, HSG A |
| 7,926 | 98 Roofs, HSG A |
| 236,308 | 78 77 Weighted Average, UI Adjusted |
| 214,241 22,067 | 90.66% Pervious Area 9.34% Impervious Area |
| 14,141 | 64.08% Unconnected |
| Tc Length | Slope Velocity Capacity Description |
| (min) (feet) | (ft/ft) (ft/sec) (cfs) |
| 20.0 | Direct Entry, |
| | Summary for Subcatchment 36S: C.2 |
| Runoff = | 3.77 cfs @ 12.09 hrs, Volume= 0.300 af, Depth= 6.97" |
| | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0-yr Rainfall=7.81" |
| Area (sf) | CN Description |
| 12,989 | 98 Paved parking, HSG A |
| * 3,687 | 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A |
| 2,989 2,851 | 98 Unconnected pavement, HSG A 98 Roofs, HSG A |
| 22,516 | 93 Weighted Average |
| 3,687 | 16.38% Pervious Area |
| 18,829 2,989 | 83.62% Impervious Area 15.87% Unconnected |
| Tc Length | |
| (min) (feet) 6.0 | (ft/ft) (ft/sec) (cfs) Direct Entry, |
| | Summary for Subcatchment 37S: C.3 |
| | |
| Runoff = | 1.96 cfs @ 12.09 hrs, Volume= 0.149 af, Depth= 6.26" |
| | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 0-yr Rainfall=7.81" |
| Area (sf) | CN Description |
| Area (SI) 5,266 | 98 Paved parking, HSG A |
| * 4,754 | 68 >75% Grass cover, Good, HSG A |
| 509 | 98 Roofs, HSG A |
| 1,900 | 98 Roofs, HSG A 87 Weighted Average |
| 4,754 | 38.25% Pervious Area |
| 7,675 | 61.75% Impervious Area |
| | |
| | |
| | |
| | |

| 6842-Post Prepared by HydroCAD® 10 | { <mark>enter yo</mark>).10-3a_s/n | ur company 03590 © 202 | name here | e}) Software \$ | Solutions LLC | r 100-yr Rainfa F | Page 135 |
|---|---|--|--|---|---|----------------------|----------|
| | | | | | | | |
| Tc Leng (min) (fe | gth Sloj et) (ft/ | | Capacity (cfs) | Descripti | on | | |
| 6.0 | | | | Direct Er | ntry, | | |
| | | Sum | mary for | Subcatch | hment 38S: C.4 | | |
| Runoff = | 0.80 | cfs @ 12.0 | 9 hrs, Volu | ume= | 0.067 af, Depth= 7 | . .57" | |
| Runoff by SCS Type III 24-hr | | | SCS, Weigh | ited-CN, Ti | ime Span= 0.00-72.00 h | nrs, dt= 0.05 hrs | |
| Area (s | sf) CN | Description | 1 | | | | |
| 4,65 | | Paved park | | | | | |
| 4,65 | 5 | 100.00% In | npervious A | Area | | | |
| Tc Len | | be Velocity ft) (ft/sec) | Capacity (cfs) | Descripti | on | | |
| | eu (10 | | | | | | |
| (min) (fe 6.0 | et) (11/ | | | Direct Er | ntry, | | |
| (min) (fe | et) (17 | Sum | mary for s | | ntry, hment 39S: C.5 | | |
| <u>(min) (fe</u> 6.0 | | Sum cfs @ 12.0 | • | Subcatch | | 7.57 " | |
| (min) (fe 6.0 Runoff = Runoff by SCS Type III 24-hr | 1.01 S TR-20 m 100-yr Ra | cfs @ 12.0 ethod, UH=S ainfall=7.81" | 9 hrs, Volu SCS, Weigh | Subcatch ume= | hment 39S: C.5 | | |
| (min) (fe 6.0 Runoff = Runoff by SCS | 1.01 S TR-20 m 100-yr Ra sf) CN | cfs @ 12.0 ethod, UH=S | 9 hrs, Volu SCS, Weigh | Subcatch ume= uted-CN, Ti | hment 39S: C.5 0.085 af, Depth= 7 | | |
| (min) (fe 6.0 Runoff = Runoff by SCG Type III 24-hr <u>Area (s</u> 4,08 1,77 | 1.01 S TR-20 m 100-yr Ra sf) <u>CN</u> 30 98 77 98 | cfs @ 12.0 ethod, UH=S ainfall=7.81" Description Paved park Unconnect | 9 hrs, Volu SCS, Weigh king, HSG A | Subcatch ume= uted-CN, Ti | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h | | |
| (min) (fe 6.0 Runoff = Runoff by SC3 Type III 24-hr <u>Area (s</u> 4,08 | 1.01 S TR-20 m 100-yr Ra 50 98 57 98 57 98 | cfs @ 12.0 ethod, UH=S ainfall=7.81" <u>Description</u> Paved park | 9 hrs, Volu SCS, Weigh ing, HSG A ed pavemen vverage npervious A | Subcatch ume= uted-CN, Ti | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h | | |
| (min) (fe 6.0 Runoff = Runoff by SC3 Type III 24-hr <u>Area (s</u> 4,00 1,77 5,88 5,88 1,77 Tc Len | 1.01 S TR-20 m 100-yr Ra 5f) CN 30 98 77 98 57 98 57 77 | cfs @ 12.0 ethod, UH=5 ainfall=7.81" Description Paved park Unconnect Weighted <i>A</i> 100.00% Ir 30.34% Un | 9 hrs, Volu SCS, Weigh Ling, HSG A ed pavement Average npervious A connected | Subcatch ume= nted-CN, Ti nt, HSG A | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h | | |
| (min) (fe 6.0 Runoff = Runoff by SC3 Type III 24-hr <u>Area (s</u> 4,00 1,77 5,88 5,88 1,77 Tc Lens | 1.01 S TR-20 m 100-yr R: 5f) CN 30 98 77 98 57 73 57 98 57 77 98 57 77 98 57 77 57 98 57 77 57 | cfs @ 12.0 ethod, UH=5 ainfall=7.81" Description Paved park Unconnect Weighted <i>A</i> 100.00% Ir 30.34% Un | 99 hrs, Volu SCS, Weigh ising, HSG A ed pavement Average npervious A connected Capacity | Subcatch ume= nted-CN, Ti nt, HSG A | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h | | |
| (min) (fe 6.0 Runoff = Runoff by SC: Type III 24-hr Area (s 4,06 1,77 5,86 5,85 1,77 Tc Len, (min) (fe | 1.01 S TR-20 m 100-yr R: 5f) CN 30 98 77 98 57 73 57 98 57 77 98 57 77 98 57 77 57 98 57 77 57 | cfs @ 12.0 ethod, UH=5 ainfall=7.81" Description Paved park Unconnect Weighted A 100.00% In 30.34% Un be Velocity ft) (ft/sec) | 99 hrs, Volu SCS, Weigh king, HSG A ed pavemel Werage npervious A connected Capacity (cfs) | Subcatch ume= hted-CN, Ti ht, HSG A hrea Descripti Direct En | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h | | |
| (min) (fe 6.0 Runoff = Runoff by SC: Type III 24-hr Area (s 4,06 1,77 5,86 5,85 1,77 Tc Len, (min) (fe | 1.01 S TR-20 m 100-yr Ra 5f) CN 30 98 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 7 98 57 7 98 57 7 98 57 7 98 57 57 98 57 57 98 57 57 57 57 57 57 57 57 57 57 57 57 57 | cfs @ 12.0 ethod, UH=5 ainfall=7.81" Description Paved park Unconnect Weighted A 100.00% In 30.34% Un be Velocity ft) (ft/sec) | 99 hrs, Volu SCS, Weigh ing, HSG A ed pavement Average npervious A connected Capacity (cfs) mary for S | Subcatch ume= nted-CN, Ti nt, HSG A Area Description Direct Ei Subcatch | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h | ırs, dt= 0.05 hrs | |
| (min) (fe 6.0 Runoff = Runoff by SC3 Type III 24-hr <u>Area (s</u> 4.06 1.77 5.88 1.77 Tc Lent (min) (fe 6.0 Runoff = | 1.01 S TR-20 m 100-yr R sf) CN 30 98 77 98 57 77 98 57 77 98 57 77 98 57 70 98 57 98 57 70 80 57 77 80 57 77 80 57 70 80 57 77 80 57 77 80 57 77 80 57 70 80 57 70 80 57 70 80 57 70 80 57 70 80 57 77 70 80 57 77 98 57 77 77 77 98 57 77 77 77 77 77 77 77 77 77 77 77 77 | cfs @ 12.0 ethod, UH=5 ainfall=7.81" Description Paved park Unconnect Weighted A 100.00% Ir 30.34% Un be Velocity ft) (ft/sec) Sum cfs @ 12.0 ethod, UH=5 | 99 hrs, Volu SCS, Weigh king, HSG A ed pavemel Average npervious A connected Capacity (cfs) mary for S | Subcatch ume= hted-CN, Ti <u>ht, HSG A</u> Area Description Direct En Subcatch ume= | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h on ntry, hment 40S: C.6 | rrs, dt= 0.05 hrs | |
| (min) (fe 6.0 Runoff = Runoff by SC: Type III 24-hr Area (s 4,06 1,77 5,88 1,77 Tc Len, (min) (fe 6.0 Runoff = Runoff by SC: Type III 24-hr Area (s | 1.01 S TR-20 m 100-yr Ra 5f) CN 30 98 77 98 57 98 57 77 gth Sloj (ft/ 0.70 S TR-20 m 100-yr Ra 5f) CN | cfs @ 12.0 ethod, UH=5 ainfall=7.81" Description Paved park Unconnect Weighted A 100.00% In 30.34% Un be Velocity ft) (ft/sec) Summ cfs @ 12.0 ethod, UH=5 ainfall=7.81" Description | 99 hrs, Volu SCS, Weigh king, HSG A ed pavemel Average npervious A connected Capacity (cfs) mary for S 99 hrs, Volu SCS, Weigh | Subcatch ume= hted-CN, Ti <u>Ant, HSG A</u> Area Description Direct En Subcatch ume= hted-CN, Ti | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h on ntry, hment 40S: C.6 0.059 af, Depth= 7 | rrs, dt= 0.05 hrs | |
| (min) (fe 6.0 Runoff = Runoff by SC3 Type III 24-hr <u>Area (s</u> 4,08 1,77 5,88 1,77 Tc Len, (min) (fe 6.0 Runoff = Runoff by SC3 Type III 24-hr | 1.01 S TR-20 m 100-yr Ra 51 CN 30 98 77 98 57 98 57 77 98 57 77 98 57 77 98 57 77 98 57 77 98 57 70 98 57 98 57 77 98 57 77 98 57 77 85 85 77 85 85 85 85 85 85 85 85 85 85 85 85 85 | cfs @ 12.0 ethod, UH=S infall=7.81" <u>Description</u> Paved park <u>Unconnect</u> Weighted A 100.00% In 30.34% Un be Velocity ft) (ft/sec) Sum cfs @ 12.0 ethod, UH=S infall=7.81" | 99 hrs, Volu SCS, Weigh ing, HSG A ed pavement werage npervious A connected Capacity (cfs) mary for S 19 hrs, Volu SCS, Weigh ing, HSG A | Subcatch ume= hted-CN, Ti ht, HSG A Area Description Direct En Subcatch ume= hted-CN, Ti | hment 39S: C.5 0.085 af, Depth= 7 ime Span= 0.00-72.00 h on ntry, hment 40S: C.6 0.059 af, Depth= 7 | rrs, dt= 0.05 hrs | |

| Tc (min) | Length (feet) | Slope (ft/ft | | Capacity (cfs) | | on | | |
|---|--|--|---|--|---|--|---|----------------------------|
| 6.0 | | | | | Direct E | ntry, | | |
| | | | Sum | mary for | Subcatc | hment 4 | 1S: C.7 | |
| Runoff | = | 1.24 (| cfs @ 12. | 09 hrs, Vol | ume= | 0.104 | af, Depth= 7 | .57" |
| | | | ethod, UH= nfall=7.81" | | hted-CN, T | ime Span- | = 0.00-72.00 h | nrs, dt= 0.05 hrs |
| A | rea (sf) | CN | Description | n | | | | |
| | 6,072 | | | king, HSG | A | | | |
| | <u>1,116</u> 7,188 | <u>98</u> 98 | Roofs, HS Weighted | | | | | |
| | 7,188 | 00 | | mpervious | Area | | | |
| Tc (min) | Length (feet) | Slope (ft/ft | | Capacity | | ion | | |
| 6.0 | | | | | Direct E | ntry, | | |
| | | | Sum | mary for | Subcatc | hment 4 | 2S: C.8 | |
| Type III | 24-hr 100 vrea (sf) | 2-20 me I-yr Rai CN | cfs @ 12. ethod, UH= nfall=7.81" Description | 09 hrs, Vol SCS, Weig n | ume= hted-CN, T | 0.111 | af, Depth= 7 | '.57" hrs, dt= 0.05 hrs |
| Runoff b Type III | oy SCS TR 24-hr 100 <u>vrea (sf)</u> 7,639 | l-20 me l-yr Rai | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> Paved par | 09 hrs, Vol SCS, Weig n <u>king, HSG</u> | ume= hted-CN, T A | 0.111 | af, Depth= 7 | |
| Runoff b Type III | y SCS TR 24-hr 100 <u>area (sf)</u> 7,639 7,639 Length | 2-20 me I-yr Rai <u>CN</u> 98 Slope | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> 100.00% I e Velocity | 09 hrs, Vol SCS, Weig <u>n</u> <u>king, HSG /</u> mpervious / v Capacity | ume= hted-CN, T A Area | 0.111 ime Span- | af, Depth= 7 | |
| Runoff b Type III | oy SCS TR 24-hr 100 area (sf) 7,639 7,639 | 2-20 me I-yr Rai <u>CN</u> 98 | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> 100.00% I e Velocity | 09 hrs, Vol SCS, Weig <u>n</u> <u>king, HSG /</u> mpervious / v Capacity | ume= hted-CN, T A Area | 0.111 ime Span= | af, Depth= 7 | |
| Runoff b Type III | y SCS TR 24-hr 100 <u>area (sf)</u> 7,639 7,639 Length | 2-20 me I-yr Rai <u>CN</u> 98 Slope | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> 100.00% I e Velocity .) (ft/sec) | 09 hrs, Vol SCS, Weig n king, HSG, mpervious, capacity (cfs) | ume= hted-CN, T Area Descripti Direct E | 0.111 ime Span- | af, Depth= 7 = 0.00-72.00 h | |
| Runoff b Type III | y SCS TR 24-hr 100 <u>area (sf)</u> 7,639 7,639 Length | 2-20 me I-yr Rai <u>CN</u> 98 Slope | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> 100.00% I e Velocity .) (ft/sec) | 09 hrs, Vol SCS, Weig <u>n</u> <u>king, HSG /</u> mpervious / v Capacity | ume= hted-CN, T Area Descripti Direct E | 0.111 ime Span- | af, Depth= 7 = 0.00-72.00 h | |
| Runoff b Type III | y SCS TR 24-hr 100 <u>area (sf)</u> 7,639 7,639 Length | 2-20 me I-yr Rai 98 Slope (ft/ft | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> 100.00% I e Velocity) (ft/sec) Sum | 09 hrs, Vol SCS, Weig n king, HSG, mpervious, capacity (cfs) | ume= hted-CN, T Area Descripti Direct E Subcatc | 0.111 ime Span= ion ntry, hment 4 | af, Depth= 7 = 0.00-72.00 h | nrs, dt= 0.05 hrs |
| Runoff b Type III | y SCS TR 24-hr 100 <u>7,639</u> 7,639 Length (feet) = | 2-20 me -yr Rai <u>CN</u> 98 Slope (ft/ft 1.50 e | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> 100.00% I e Velocity) (ft/sec) Sum cfs @ 12. | 09 hrs, Vol SCS, Weig n king, HSG mpervious (Capacity (Cfs) (Cfs) mmary for 09 hrs, Vol SCS, Weig | ume= hted-CN, T Area Descripti Direct E Subcatc ume= | 0.111 ime Spans ion ntry, hment 4 0.126 | af, Depth= 7 = 0.00-72.00 h 3S: C.9 af, Depth= 7 | nrs, dt= 0.05 hrs |
| Runoff b Type III A Tc (min) 6.0 Runoff Runoff b Type III | y SCS TR 24-hr 100 <u>7,639</u> 7,639 Length (feet) = | 2-20 me -yr Rai <u>CN</u> 98 Slope (ft/ft 1.50 e | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> 100.00% I e Velocity) (ft/sec) Sum cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> | 09 hrs, Vol SCS, Weig n king, HSG, mpervious, capacity (cfs) (cfs) mmary for 09 hrs, Vol SCS, Weig n | ume= hted-CN, T Area Descripti Direct E Subcatcl ume= hted-CN, T | 0.111 ime Spans ion ntry, hment 4 0.126 | af, Depth= 7 = 0.00-72.00 h 3 S: C.9 af, Depth= 7 | rrs, dt= 0.05 hrs |
| Runoff b Type III A | y SCS TR 24-hr 100 <u>7,639</u> 7,639 Length (feet) = y SCS TR 24-hr 100 | 2-20 me -yr Rai <u>CN</u> 98 Slope (ft/ft 1.50 c 2-20 me -yr Rai | cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> 100.00% I e Velocity) (ft/sec) Sum cfs @ 12. ethod, UH= nfall=7.81" <u>Description</u> <u>Paved par</u> | 09 hrs, Vol SCS, Weig n king, HSG , mpervious , cfs) (| ume= hted-CN, T Area Descripti Direct E Subcatc ume= hted-CN, T | 0.111 ime Spans ion ntry, hment 4 0.126 | af, Depth= 7 = 0.00-72.00 h 3 S: C.9 af, Depth= 7 | rrs, dt= 0.05 hrs |

| | | | r company | | e} ጋ Software So | | | 00-yr Rainfall=7.81" Page 137 |
|--|--|--|--|---|---|-------------------------|---------------------|----------------------------------|
| Тс | Length | Slope | e Velocity | Capacity | | | | Tage 107 |
| (min) 6.0 | (feet) | (ft/ft |) (ft/sec) | (cfs) | Direct Ent | rv. | | |
| | | | Sumr | nary for S | Subcatchm | • | C.10 | |
| Runoff | = | 0.92 c | ofs @ 12.0 | • | | | Depth= 7.57' | n |
| D | . 000 TE | | 0 | , | | , | | |
| | | | nfall=7.81 | SCS, Weigh | ited-CN, Tim | e Span= 0. | 00-72.00 hrs, | dt= 0.05 nrs |
| Ai | ea (sf) | CN | Description | | | | | |
| | 5,326 | 98 | Paved park | ing, HSG A | ١ | | | |
| | 5,326 | | 100.00% In | npervious A | Area | | | |
| Tc (min) | Length (feet) | Slope (ft/ft | e Velocity) (ft/sec) | Capacity (cfs) | Description | 1 | | |
| 6.0 | (1001) | (| , (1,000) | (0.0) | Direct Ent | ry, | | |
| | | | | | | | | |
| | | | Sumn | nary for S | Subcatchm | ent 45S: | C.11 | |
| Runoff | = | 0.45 c | Sum r cfs @ 12.0 | • | | | C.11 Depth= 7.57 | n |
| Runoff by | / SCS TF | R-20 me | cfs @ 12.0 | 9 hrs, Volu | ume= | 0.038 af, | | |
| Runoff by Type III 2 | / SCS TF | R-20 me)-yr Raii | cfs @ 12.0 thod, UH=S | 9 hrs, Volu SCS, Weigh | ume= | 0.038 af, | Depth= 7.57 | |
| Type III 2 | / SCS TF 4-hr 100 | R-20 me)-yr Raii CN | cfs @ 12.0 ethod, UH=8 nfall=7.81" | 9 hrs, Volu SCS, Weigh | ume= ited-CN, Tim | 0.038 af, | Depth= 7.57 | |
| Runoff by Type III 2 | / SCS TF 4-hr 100 <u>rea (sf)</u> 1,483 946 | R-20 me)-yr Raii <u>CN</u> 98 98 | ofs @ 12.0 hthod, UH=S nfall=7.81" <u>Description</u> Paved park Paved park | 9 hrs, Volu SCS, Weigh Ling, HSG A | ume= nted-CN, Tim | 0.038 af, | Depth= 7.57 | |
| Runoff by Type III 2 | / SCS TF 4-hr 100 <u>ea (sf)</u> 1,483 946 126 | R-20 me)-yr Raii <u>CN</u> 98 98 98 | ofs @ 12.0 thod, UH=S nfall=7.81" <u>Description</u> Paved park Paved park Unconnect | 9 hrs, Volu SCS, Weigh Ling, HSG A Ling, HSG D ed pavemen | ume= nted-CN, Tim | 0.038 af, | Depth= 7.57 | |
| Runoff by Type III 2 | / SCS TF 24-hr 100 1,483 946 126 76 | R-20 me)-yr Raii 0-yr 8 98 98 98 98 98 | ofs @ 12.0 thod, UH=5 nfall=7.81" Description Paved park Paved park Unconnect Unconnect | 9 hrs, Volu SCS, Weigh ing, HSG A ing, HSG E ed pavemen ed pavemen | ume= nted-CN, Tim | 0.038 af, | Depth= 7.57 | |
| Runoff by Type III 2 | / SCS TF 24-hr 100 1,483 946 126 76 2,631 2,631 | R-20 me D-yr Raii 98 98 98 98 98 98 98 | ofs @ 12.0 thod, UH=S nfall=7.81" Description Paved park Paved park Unconnect Unconnect Weighted <i>I</i> 100.00% Ir | 9 hrs, Volu SCS, Weigh ing, HSG A ing, HSG D ed pavemen d pavemen werage npervious A | ume= tted-CN, Tim) nt, HSG A nt, HSG D | 0.038 af, | Depth= 7.57 | |
| Runoff by Type III 2 | / SCS TF 24-hr 100 1,483 946 126 76 2,631 | R-20 me D-yr Raii 98 98 98 98 98 98 98 | ofs @ 12.0 thod, UH=S nfall=7.81" Description Paved park Paved park Unconnect Unconnect Weighted A | 9 hrs, Volu SCS, Weigh ing, HSG A ing, HSG D ed pavemen d pavemen werage npervious A | ume= tted-CN, Tim) nt, HSG A nt, HSG D | 0.038 af, | Depth= 7.57 | |
| Runoff by Type III 2 | / SCS TF 24-hr 100 1,483 946 126 76 2,631 2,631 | R-20 me D-yr Raii 98 98 98 98 98 98 98 | cfs @ 12.0 thod, UH=S nfall=7.81" Description Paved park Paved park Unconnect Unconnect Unconnect Unconnect Check Neighted A 100.00% In 7.68% Unc | 9 hrs, Volu SCS, Weigh ing, HSG A ing, HSG D ed pavemen ed pavemen werage npervious A onnected | ume= tted-CN, Tim) nt, HSG A nt, HSG D | 0.038 af, e Span= 0. | Depth= 7.57 | |
| Runoff by Type III 2 <u>Ar</u> Tc | x SCS TF 4-hr 100 1,483 946 126 76 2,631 2,631 202 Length | R-20 me D-yr Rain 98 98 98 98 98 98 98 | cfs @ 12.0 thod, UH=S nfall=7.81" Description Paved park Paved park Unconnect Unconnect Unconnect Unconnect Check Neighted A 100.00% In 7.68% Unc | 9 hrs, Volu SCS, Weigh ing, HSG A ing, HSG D ed pavemer ed pavemer ad pavemer d paveme | ume= ted-CN, Tim A D nt, HSG A nt, HSG D trea | 0.038 af, e Span= 0. | Depth= 7.57 | |

| HvdroCA | | 3a s/n | 03590 @ 20 | y name here 20 HydroCAE | | olutions LLC | | Pag |
|---|---|--|---|--|--|------------------------------------|-----------------|----------|
| IlyulooA | 00 10.10- | 0a 3/11 | 00000 @20 | | | | | ı ay |
| A | rea (sf) | CN | Descriptio | n | | | | |
| | 2,144 | 98 | | king, HSG A | | | | |
| | 2,121 | 98 | | king, HSG D | | | | |
| | 853 | 98 | | ted paveme | | | | |
| | 696 96 | 98 | | ted paveme | nt, HSG D | | | |
| | 5,910 | 98 98 | Roofs, HS Weighted | | | | | |
| | 5,910 | 90 | | mpervious A | rea | | | |
| | 1,549 | | | nconnected | lica | | | |
| | ., | | | | | | | |
| | Length | Slop | | Capacity | Descriptior | า | | |
| <u>(min)</u> | (feet) | (ft/1 | ft) (ft/sec |) (cfs) | | | | |
| 6.0 | | | | | Direct Ent | ry, | | |
| | | | Sum | mary for S | Subcatchn | nent 47S: C | .13 | |
| Runoff | = | 0.34 | cfs @ 12. | 09 hrs, Volu | ıme= | 0.029 af, De | epth= 7.57" | |
| | | | - | | | | | |
| Runoff h | | | | | | | | |
| | | | | SCS, Weigh | ited-CN, Tim | ie Span= 0.00 | -72.00 hrs, at= | 0.05 nrs |
| | | | ethod, UH= ainfall=7.81" | | ited-CN, Tim | ie Span= 0.00 | -72.00 hrs, at= | 0.05 ms |
| Type III 2 | 24-hr 100 |)-yr Ra | ainfall=7.81" | _ | ited-CN, Tim | ie Span= 0.00 | -72.00 Mrs, at= | 0.05 hrs |
| Type III 2 | 24-hr 100 .rea (sf) |)-yr Ra <u>CN</u> | infall=7.81" Descriptio | n | | ie Span= 0.00 | -72.00 hrs, dt= | 0.05 ms |
| Type III 2 | 24-hr 100 . <u>rea (sf)</u> 1,832 |)-yr Ra <u>CN</u> 98 | infall=7.81" <u>Descriptio</u> Paved par | n king, HSG D |) | ie Span= 0.00 | -72.00 hrs, dt= | 0.05 hrs |
| Type III 2 | 24-hr 100 .rea (sf) |)-yr Ra <u>CN</u> | infall=7.81" <u>Descriptio</u> Paved par | n king, HSG E ted paveme |) | le Span= 0.00 | -72.00 hrs, dt= | 0.05 ms |
| Type III 2 | 24-hr 100 . <u>rea (sf)</u> 1,832 155 |)-yr Ra <u>CN</u> 98 98 | ainfall=7.81" Descriptio Paved par Unconnec Weighted | n king, HSG E ted paveme |) nt, HSG D | e Span= 0.00 | -72.00 hrs, dt= | 0.05 ms |
| Type III 2 | 24-hr 100 <u>rea (sf)</u> 1,832 <u>155</u> 1,987 |)-yr Ra <u>CN</u> 98 98 | ainfall=7.81" Descriptio Paved par Unconnec Weighted 100.00% I | n king, HSG E ted pavemer Average |) nt, HSG D | e Span= 0.00 | -12.00 ms, at= | 0.05 ms |
| Type III 2 | 24-hr 100 <u>.rea (sf)</u> 1,832 <u>155</u> 1,987 1,987 155 |)-yr Ra <u>CN</u> 98 98 98 | ainfall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% I 7.80% Un | n king, HSG E ted pavemen Average mpervious A connected |) nt, HSG D vrea | | -12.00 ms, at= | 0.05 ms |
| Type III 2 A | 24-hr 100 <u>rea (sf)</u> 1,832 <u>155</u> 1,987 1,987 155 Length |)-yr Ra <u>CN</u> 98 98 98 Slop | hinfall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% I 7.80% Un pe Velocity | n king, HSG E ted pavemen Average mpervious A connected / Capacity |) nt, HSG D vrea | | -12.00 ms, at= | 0.05 ms |
| Type III 2 | 24-hr 100 <u>.rea (sf)</u> 1,832 <u>155</u> 1,987 1,987 155 |)-yr Ra <u>CN</u> 98 98 98 | hinfall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% I 7.80% Un pe Velocity | n king, HSG E ted pavemen Average mpervious A connected / Capacity |) nt, HSG D vrea Descriptior | 1 | -12.00 Hrs, at= | 0.05 ms |
| Type III 2 A | 24-hr 100 <u>rea (sf)</u> 1,832 <u>155</u> 1,987 1,987 155 Length |)-yr Ra <u>CN</u> 98 98 98 Slop | hinfall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% I 7.80% Un pe Velocity | n king, HSG E ted pavemen Average mpervious A connected / Capacity |) nt, HSG D vrea | 1 | -12.00 hrs, at= | 0.05 ms |
| Type III 2 A | 24-hr 100 <u>rea (sf)</u> 1,832 <u>155</u> 1,987 1,987 155 Length |)-yr Ra <u>CN</u> 98 98 98 Slop | infall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% I 7.80% Un <u>De</u> Velocity (ft/sec | n king, HSG E ted pavemen Average mpervious A connected / Capacity) (cfs) |) nt, HSG D vrea Descriptior Direct Ent | 1 | | 0.05 ms |
| Type III 2 A | 24-hr 100 <u>rea (sf)</u> 1,832 <u>155</u> 1,987 1,987 155 Length |)-yr Ra 98 98 98 98 Slop (ft/l | infall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% I 7.80% Un be Velocity ft) (ft/sec Sum | n king, HSG E ted pavemen Average mpervious A connected / Capacity) (cfs) |) nt, HSG D vrea Descriptior Direct Ent Subcatchn | יז זע, | .14 | |
| Type III : A | 24-hr 100 rea (sf) 1,832 155 1,987 1,987 1,987 155 Length (feet) | 0-yr Ra <u>CN</u> 98 98 98 Slop (ft/f | infall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% II 7.80% Un pe Velocity ft) (ft/sec Sum cfs @ 12. | n king, HSG E ted pavemen Average mpervious A connected (Capacity (Cfs) (cfs) mary for S |) nt, HSG D vrea Descriptior Direct Ent Subcatchn | ry, nent 48S: C 0.027 af, Do | .14 | |
| Type III 2 A | 24-hr 100 <u>rea (sf)</u> 1,832 <u>155</u> 1,987 1,987 155 Length (feet) = y SCS TR | 0-yr Ra <u>CN</u> 98 98 98 Slop (ft/1 0.32 2-20 m | infall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% II 7.80% Un pe Velocity ft) (ft/sec Sum cfs @ 12. | n king, HSG E ted pavemen Average mpervious A connected (Capacity (Cfs) (cfs) mary for S 09 hrs, Volu SCS, Weigh |) nt, HSG D vrea Descriptior Direct Ent Subcatchn | ry, nent 48S: C 0.027 af, Do | .14 | |
| Type III 2 A Tc (min) 6.0 Runoff Runoff b Type III 2 | 24-hr 100 rea (sf) 1,832 155 1,987 1,987 155 Length (feet) = y SCS TR 24-hr 100 rea (sf) |)-yr Ra <u>CN</u> 98 98 98 98 98 98 0.32 0.32 0.32 R-20 m 0-yr Ra <u>CN</u> | infall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% II 7.80% Un pe Velocity ft) (ft/sec Sum cfs @ 12. ethod, UH= infall=7.81" <u>Descriptio</u> | n king, HSG E ted pavemen Average mpervious A connected (Capacity (Cfs) (cfs) mary for S 09 hrs, Volu SCS, Weigh n |) nt, HSG D Vrea Description Direct Ent Subcatchn ume= uted-CN, Tim | ry, nent 48S: C 0.027 af, Do | .14 | |
| Type III 2 A Tc (min) 6.0 Runoff Runoff b Type III 2 | 24-hr 100 rea (sf) 1,832 155 1,987 1,987 155 Length (feet) 9 SCS TR 24-hr 100 rea (sf) 1,744 |)-yr Ra <u>CN</u> 98 98 98 98 Slop (ft/f 0.32 3-20 m)-yr Ra <u>CN</u> 98 | infall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% I 7.80% Un be Velocity ft) (ft/sec Sum cfs @ 12. uethod, UH= ainfall=7.81" <u>Descriptio</u> Paved par | n king, HSG E ted pavemen Average mpervious A connected / Capacity) (cfs) mary for S 09 hrs, Volu SCS, Weigh n king, HSG E |) nt, HSG D Description Direct Ent Subcatchn ume= uted-CN, Tim | ry, nent 48S: C 0.027 af, Do | .14 | |
| Type III 2 A Tc (min) 6.0 Runoff Runoff b Type III 2 | 24-hr 100 rea (sf) 1,832 155 1,987 1,987 155 Length (feet) y SCS TR 24-hr 100 rea (sf) 1,744 141 |)-yr Ra <u>CN</u> 98 98 98 98 98 0.32 CN 98 98 98 | infall=7.81" Descriptio Paved par Unconnec Weighted 100.00% I 7.80% Un be Velocity ft) (ft/sec Sum cfs @ 12. bethod, UH= ainfall=7.81" Descriptio Paved par Unconnec | n king, HSG E ted pavemen Average mpervious A connected (Capacity) (cfs) mary for S 09 hrs, Volu SCS, Weigh n king, HSG E ted pavemen |) nt, HSG D Description Direct Ent Subcatchn ume= uted-CN, Tim | ry, nent 48S: C 0.027 af, Do | .14 | |
| Type III 2 A Tc (min) 6.0 Runoff Runoff b Type III 2 | 24-hr 100 rea (sf) 1,832 155 1,987 1,987 155 Length (feet) 9 SCS TR 24-hr 100 rea (sf) 1,744 |)-yr Ra <u>CN</u> 98 98 98 98 Slop (ft/f 0.32 3-20 m)-yr Ra <u>CN</u> 98 | infall=7.81" <u>Descriptio</u> Paved par <u>Unconnec</u> Weighted 100.00% I 7.80% Un be Velocity ft) (ft/sec Sum cfs @ 12. ethod, UH= ainfall=7.81" <u>Descriptio</u> Paved par | n king, HSG E ted pavemen Average mpervious A connected (Capacity) (cfs) mary for S 09 hrs, Volu SCS, Weigh n king, HSG E ted pavemen |) nt, HSG D Vrea Description Direct Ent Subcatchn ume= ted-CN, Tim | ry, nent 48S: C 0.027 af, Do | .14 | |

6842-Post

Type III 24-hr 100-yr Rainfall=7.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type III 24-hr 100-yr Rainfall=7.81"

| (min) | Length (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
|-------------|-----------------------|--|--------|
| 6.0 | (ieet) | Direct Entry, | |
| | | Summary for Subcatchment 49S: C.15 | |
| Runoff | = | 0.60 cfs @ 12.09 hrs, Volume= 0.051 af, Depth= 7.57" | |
| | | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0. 0-yr Rainfall=7.81" | 05 hrs |
| A | rea (sf) | CN Description | |
| | 3,220 267 | 98 Paved parking, HSG D 98 Unconnected pavement, HSG D | |
| | 3,487 3,487 267 | 98 Weighted Average 100.00% Impervious Area 7.66% Unconnected | |
| Tc (min) | Length (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
| 6.0 | | Direct Entry, | |
| | | Summary for Subcatchment 50S: C.16 | |
| Runoff | = | 0.60 cfs @ 12.09 hrs, Volume= 0.051 af, Depth= 7.57" | |
| Runoff b | | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0. D-yr Rainfall=7.81" | 05 hrs |
| А | rea (sf) | CN Description | |
| | 3,238 270 | 98 Paved parking, HSG D 98 Unconnected pavement, HSG D | |
| | 3,508 3,508 270 | 98 Weighted Average 100.00% Impervious Area 7.70% Unconnected | |
| | Length (feet) | Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) | |
| Tc (min) | | Direct Entry, | |
| | | | |
| (min) | | Summary for Subcatchment 51S: D.1 | |
| (min) | = | Summary for Subcatchment 51S: D.1 23.60 cfs @ 12.29 hrs, Volume= 2.543 af, Depth= 3.30" | |

| epared by {en droCAD® 10.10- | -3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 1 |
|--|---|
| | |
| <u>Area (sf)</u> 1,527 | CN Description 98 Unconnected pavement, HSG A |
| 182,934 | 68 >75% Grass cover, Good, HSG A |
| 518 | 79 >75% Grass cover, Good, HSG B |
| 51,440 160,796 | 89 >75% Grass cover, Good, HSG D 43 Woods, Good, HSG A |
| 5,106 | 65 Woods, Good, HSG B |
| 450 | 82 Woods, Good, HSG D |
| 402,771 401,244 | 61 Weighted Average 99.62% Pervious Area |
| 1,527 | 0.38% Impervious Area |
| 1,527 | 100.00% Unconnected |
| Tc Length | Slope Velocity Capacity Description |
| (min) (feet) | (ft/ft) (ft/sec) (cfs) |
| 20.0 | Direct Entry, |
| | Summary for Subcatchment 52S: B.9 |
| inoff = | 2.49 cfs @ 12.09 hrs, Volume= 0.197 af, Depth= 6.86" |
| <i>"</i> | |
| | |
| no III 21-hr 100 | R-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| pe III 24-hr 100 | -20 method, 0H=3C3, Weighted-CN, Time Span= 0.00-72.00 ms, dt= 0.03 ms |
| Area (sf) | 0-yr Rainfall=7.81" CN Description |
| <u>Area (sf)</u> 10,973 | 0-yr Rainfall=7.81" <u>CN</u> Description 98 Paved parking, HSG A |
| <u>Area (sf)</u> 10,973 2,895 | 0-yr Rainfall=7.81" CN Description |
| Area (sf) 10,973 2,895 1,150 15,018 | 0-yr Rainfall=7.81" <u>CN</u> Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 | 0-yr Rainfall=7.81" CN Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 | 0-yr Rainfall=7.81" CN Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 | 0-yr Rainfall=7.81" <u>CN</u> Description 98 Paved parking, HSG A 98 Paved parking, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length | 0-yr Rainfall=7.81" <u>CN</u> Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected Slope Velocity Capacity Description |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length | 0-yr Rainfall=7.81" <u>CN</u> Description 98 Paved parking, HSG A 98 Paved parking, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length (min) (feet) 6.0 | 0-yr Rainfall=7.81" <u>CN</u> Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length (min) (feet) 6.0 | 0-yr Rainfall=7.81" CN Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected Slope Velocity Capacity Description (ft/ft) (ft/sec) 0/ft Direct Entry, Summary for Pond 4P: Constructed Stormwater Wetland #2 2.341 ac, 79.77% Impervious, Inflow Depth = 6.08" |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length (min) (feet) 6.0 State of the state of the sta | 0-yr Rainfall=7.81" CN Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected Slope Velocity Gapacity Description (ft/ft) (ft/sec) (cfs) Direct Entry, Summary for Pond 4P: Constructed Stormwater Wetland #2 2.341 ac, 79.77% Impervious, Inflow Depth = 6.08" 15.95 cfs @ 12.09 hrs, Volume= 1.187 af |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length (min) (feet) 6.0 Now Area = Now = 100w = | 0-yr Rainfall=7.81" CN Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected Slope Velocity Capacity Description (ft/ft) (ft/sec) 0/ft Direct Entry, Summary for Pond 4P: Constructed Stormwater Wetland #2 2.341 ac, 79.77% Impervious, Inflow Depth = 6.08" |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length (min) (feet) 6.0 State of the state of the sta | 0-yr Rainfall=7.81" CN Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected Slope Velocity Capacity Description (ft/ft) (cfs) Direct Entry, Summary for Pond 4P: Constructed Stormwater Wetland #2 2.341 ac, 79.77% Impervious, Inflow Depth = 6.08" for 100-yr event 15.95 cfs @ 12.09 hrs, Volume= 1.187 af 6.51 cfs @ 12.32 hrs, Volume= 1.185 af, Atten= 59%, Lag= 14.0 min |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length (min) (feet) 6.0 Iow Area = Iow = Io | 0-yr Rainfall=7.81" CN Description 98 Paved parking, HSG A 68 >75% Grass cover, Good, HSG A 98 Unconnected pavement, HSG A 92 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.27% Unconnected Slope Velocity Capacity Description (ft/ft) (ft/sec) (ft/ft) (ft/sec) 80 Direct Entry, Summary for Pond 4P: Constructed Stormwater Wetland #2 2.341 ac, 79.77% Impervious, Inflow Depth = 6.08" for 100-yr event 15.95 cfs @ 12.09 hrs, Volume= 1.187 af 6.51 cfs @ 12.32 hrs, Volume= 1.185 af nd method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Area (sf) 10,973 2,895 1,150 15,018 2,895 12,123 1,150 Tc Length (min) (feet) 6.0 Cow Area = low = tiflow = tiflow = tiflow = timary = buting by Stor-Ir tak Elev= 215.1 ug-Flow detenti | 0-yr Rainfall=7.81" CN Description 98 Paved parking, HSG A 98 Unconnected pavement, HSG A 99 Weighted Average 19.28% Pervious Area 80.72% Impervious Area 9.49% Unconnected Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) Direct Entry, Summary for Pond 4P: Constructed Stormwater Wetland #2 2.341 ac, 79.77% Impervious, Inflow Depth = 6.08" for 100-yr event 15.95 cfs @ 12.09 hrs, Volume= 1.187 af 6.51 cfs @ 12.32 hrs, Volume= 1.185 af, Atten= 59%, Lag= 14.0 min 6.51 cfs @ 12.32 hrs, Volume= 1.185 af nd method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs 11'@ 12.32 hrs Surf.Area= 10,116 sf Storage= 21,459 cf ion time= 256.8 min calculated for 1.185 af (100% of inflow) |

| Page 14 | lutions LLC | ydroCAD Software So | | your com s/n 03590 | | HydroCA |
|--|--|--|--|--|--|---|
| | 1 | Storage Descriptio | Storage | Δναί | Inver | Volume |
| below (Recalc) | | Custom Stage Da | 1,125 cf | | 212.50 | #1 |
| | u (megulu) ziele | oustoin oluge bu | 1,120 01 | Ū | 212.00 | <i>"</i> . |
| Wet.Area | Cum.Store | Inc.Store | Perim. | urf.Area | | Elevatio |
| (sq-ft) | (cubic-feet) | | (feet) | (sq-ft) | / | (fee |
| 6,500 | 0 | 0 | 322.0 | 6,500 | | 212.5 |
| 8,737 14,695 | 11,187 31,125 | 11,187 19,938 | 362.0 453.0 | 8,459 11,559 | | 214.0 216.0 |
| 14,035 | 51,125 | 19,900 | 400.0 | 11,000 | 50 | 210.0 |
| | | et Devices | ert Outle | Inve | Routing | Device |
| | | long x 12.0' brea | | 215.5 | Primary | #1 |
| | | d (feet) 0.20 0.40 | | | | |
| 2.07 2.06 2.04 2 End Contraction(s) | | f. (English) 2.57 2.0 | | 214.5 | Device 3 | #2 |
| | | " Round Culvert | | 214.0 | Primary | #3 |
| e= 0.900 | ng, no headwall, I | 11.0' CPP, projecti | L= 1 | | , | |
| .0186 '/' Cc= 0.900 | .50'/210.44' S= | / Outlet Invert= 212 | Inlet | | | |
| to weir flow at low heads | | .013, Flow Area= 1 | | 212.5 | Device 3 | #4 |
| I to well now at low neaus | C-0.000 Limite | vent. Onnice/Grate | 4.0 | 212.0 | Device 3 | #4 |
| | | r (Controls 0.00 cfs) | | d Rectang | | —1=Br |
| | | r (Controls 0.00 cfs) | 56 cfs @ ngular W | d Rectang Controls 6. sted Recta | oad-Creste Ivert (Inlet Sharp-Cre | 1=Br 3=Cu -2= |
| | ofs potential flow) | r (Controls 0.00 cfs) 5.35 fps) /eir (Passes < 5.97 (| 56 cfs @ ngular W s < 0.66 c | d Rectang Controls 6. sted Recta | oad-Creste Ivert (Inlet Sharp-Cre | 1=Br 3=Cu -2= |
| 100-yr event | ofs potential flow) : Wet Basin epth = 5.39" fo | r (Controls 0.00 cfs) 5.35 fps) Jeir (Passes < 5.97 fs potential flow) hary for Pond 5P mpervious, Inflow [| 56 cfs @ ingular W s < 0.66 c Summ 31.40% I | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, | road-Creste ulvert (Inlet Sharp-Cre Orifice/Gra rea = | Inflow A |
| 100-yr event 50%, Lag= 20.4 min | ofs potential flow) : Wet Basin epth = 5.39" fo 3.219 af | r (Controls 0.00 cfs) 5.35 fps) Jeir (Passes < 5.97 f fs potential flow) nary for Pond 5P | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ | road-Creste ulvert (Inlet Sharp-Cre Orifice/Gra rea = = 2 | 1=Br 3=Cu 2= 4= |
| , | ofs potential flow) : Wet Basin epth = 5.39" fo 3.219 af | r (Controls 0.00 cfs) 5.35 fps) /eir (Passes < 5.97 fs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.58 h | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ | road-Creste Jivert (Inlet =Sharp-Cre =Orifice/Gra rea = = 2 = 1 | Inflow A |
| , | efs potential flow) : Wet Basin epth = 5.39" fo 3.219 af 3.219 af, Atten= 3.219 af = 0.05 hrs | r (Controls 0.00 cfs) 5.35 fps) /eir (Passes < 5.97 fs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.58 h 12.58 h me Span | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ method, Ti | road-Creste Jivert (Inlet =Sharp-Cre =Orifice/Gra rea = = 2 = 1 = 1 by Stor-Ind | Inflow A Inflow A Inflow Outflow Primary Routing |
| , | ofs potential flow) : Wet Basin epth = 5.39" for 3.219 af, Atten= 3.219 af, Atten= 3.219 af 5.005 hrs prage= 30,936 cf | r (Controls 0.00 cfs) 5.35 fps) /eir (Passes < 5.97 of fs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.25 h 12.58 h 12.58 h me Span rs Surf. <i>F</i> | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ 3.77 cfs @ method, Ti @ 12.58 h time= 28.1 | oad-Creste Jivert (Inlet =Sharp-Cre =Orifice/Gra = 2 = 1 = 1 by Stor-Ind ev= 216.35' | Inflow A Inflow A Inflow Outflow Primary Routing Peak Ele Plug-Flc |
| , | efs potential flow) : Wet Basin epth = 5.39" fo 3.219 af 3.219 af, Atten= 3.219 af = 0.05 hrs prage= 30,936 cf 100% of inflow) | r (Controls 0.00 cfs) 5.35 fps) /eir (Passes < 5.97 of fs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt Area= 16,891 sf Str sulated for 3.217 af (8.4 - 800.3) | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.58 h 12.58 h me Span rs Surf. <i>F</i> I min calc 2 min (82 | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ 3.77 cfs @ method, Ti @ 12.58 h time= 28.1 time= 28.2 | rea = = 2 = 1 = 1 = 1 by Stor-Ind ev= 216.35' bw detentior of-Mass det | Inflow A Inflow A Inflow Outflow Primary Routing Peak Eld Plug-Flo Center-o |
| 50%, Lag= 20.4 min | efs potential flow) : Wet Basin epth = 5.39" fo 3.219 af 3.219 af, Atten= 3.219 af 5.219 a | r (Controls 0.00 cfs) 5.35 fps) (keir (Passes < 5.97 cfs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt: Area= 16,891 sf Sta culated for 3.217 af (8.4 - 800.3) Storage Descriptio | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.58 h 13.58 h | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ 3.77 cfs @ method, Ti @ 12.58 h time= 28.1 time= 28.2 : Avail. | rea = = 2 = 1 = 1 = 1 by Stor-Ind ev= 216.35' w detentior of-Mass det | Inflow A Inflow A Inflow Outflow Primary Routing Peak Eld Plug-Flc Center-o |
| 50%, Lag= 20.4 min | efs potential flow) : Wet Basin epth = 5.39" fo 3.219 af 3.219 af, Atten= 3.219 af 5.219 a | r (Controls 0.00 cfs) 5.35 fps) /eir (Passes < 5.97 of fs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt Area= 16,891 sf Sto sulated for 3.217 af (8.4 - 800.3) Storage Descriptio | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.58 h 12.58 h me Span rs Surf. <i>F</i> I min calc 2 min (82 | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ 3.77 cfs @ method, Ti @ 12.58 h time= 28.1 time= 28.2 : Avail. | rea = = 2 = 1 = 1 = 1 by Stor-Ind ev= 216.35' bw detentior of-Mass det | Inflow A Inflow A Inflow Outflow Primary Routing Peak Eld Plug-Flc Center-c Volume |
| 50%, Lag= 20.4 min below (Recalc) Wet.Area | efs potential flow) : Wet Basin epth = 5.39" fo 3.219 af 3.219 af, Atten= 3.219 af = 0.05 hrs brage= 30,936 cf 100% of inflow) h ta (Irregular)Listed Cum.Store | r (Controls 0.00 cfs) 5.35 fps) /eir (Passes < 5.97 of fs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= rs, Volume= = 0.00-72.00 hrs, dt: Area= 16,891 sf State ulated for 3.217 af (8.4 - 800.3) Storage Descriptio Custom Stage Da Inc.Store | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.58 h 13.58 h 12.58 h | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ 3.77 cfs @ 3.77 cfs @ method, Ti @ 12.58 hi time= 28.1 time= 28.2 <u>Avail.</u> 10: urf.Area | rea = = 2 = 1 = 1 = 1 by Stor-Ind ev= 216.35' bw detentior of-Mass det <u>Inver</u> 214.00 bn S | Inflow A Inflow A Inflow Outflow Primary Routing Peak Elev Plug-Flo Center-o <u>Volume</u> #1 |
| 50%, Lag= 20.4 min below (Recalc) Wet.Area (sq-ft) | cfs potential flow) : Wet Basin epth = 5.39" fo 3.219 af 3.219 af, Atten= 3.219 af, Atten= 3.219 af 100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) | r (Controls 0.00 cfs) 5.35 fps) /kir (Passes < 5.97 rfs fs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt: Area= 16,891 sf State culated for 3.217 af (8.4 - 800.3) <u>Storage Descriptio</u> Custom Stage Da Inc.Store (cubic-feet) | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.24 h 12.58 h 13.58 h | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ 3.77 cfs @ method, Ti @ 12.58 h time= 28.1 time= 28.2 time= 28.2 time= 28.2 time= 28.1 time= 28.1 tim= 28.1 time= 28.1 time= 28.1 tim | rea = = 2 = 1 = 1 = 1 by Stor-Ind ev= 216.35' bw detentior of-Mass det <u>Inver</u> 214.00 on § | Inflow A Inflow A Inflow Outflow Outflow Primary Routing Peak Ele Plug-Flc Center-c Volume #1 Elevatio (fee |
| 50%, Lag= 20.4 min below (Recalc) Wet.Area (sq-ft) 9,189 | cfs potential flow) : Wet Basin epth = 5.39" fo 3.219 af, Atten= 3.219 af, Atten= 3.219 af 5.219 af 100% of inflow) 100% of inflow) | r (Controls 0.00 cfs) 5.35 fps) /eir (Passes < 5.97 of fs potential flow) mary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt: Area= 16,891 sf Sto culated for 3.217 af (8.4 - 800.3) Storage Descriptio Custom Stage Da Inc.Store (cubic-feet) 0 | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.58 h 12.58 h 12.58 h me Span rs Surf. <i>F</i> I min calc 2 min (82 Storage 3,930 cf Perim. (feet) 420.0 | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ 3.77 cfs @ method, Ti @ 12.58 h time= 28.1 time= 28.2 <u>Avail.</u> 10: urf.Area (sq-ft) 9,189 | rea = = 2 = 1 by Stor-Ind ev= 216.35' by detentior of-Mass det Inver 214.00 on 5 et) 00 | Inflow A Inflow A Inflow Outflow Primary Routing Peak Ele Plug-Flc Center-co <u>Volume</u> #1 Elevatic (fee 214.0 |
| 50%, Lag= 20.4 min below (Recalc) Wet.Area (sq-ft) | cfs potential flow) : Wet Basin epth = 5.39" fo 3.219 af 3.219 af, Atten= 3.219 af, Atten= 3.219 af 100% of inflow) n ta (Irregular)Listed Cum.Store (cubic-feet) | r (Controls 0.00 cfs) 5.35 fps) /kir (Passes < 5.97 rfs fs potential flow) hary for Pond 5P mpervious, Inflow E rs, Volume= rs, Volume= e 0.00-72.00 hrs, dt: Area= 16,891 sf State culated for 3.217 af (8.4 - 800.3) <u>Storage Descriptio</u> Custom Stage Da Inc.Store (cubic-feet) | 56 cfs @ ngular W s < 0.66 c Summ 31.40% I 12.24 h 12.24 h 12.58 h 13.58 h | d Rectang Controls 6. sted Recta te (Passes 7.170 ac, 7.65 cfs @ 3.77 cfs @ 3.77 cfs @ method, Ti @ 12.58 h time= 28.1 time= 28.2 time= 28.2 time= 28.2 time= 28.1 time= 28.1 tim= 28.1 time= 28.1 time= 28.1 tim | oad-Crester Jvert (Inlet =Sharp-Cre =Orifice/Gra = = = = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = = = = = = 1 = 1 = = = | Inflow A Inflow A Inflow Outflow Outflow Primary Routing Peak Ele Plug-Flc Center-c Volume #1 Elevatio (fee |

| 6842-P | | | | h) | Type III 24 | l-hr 100-yr Rainfall=7.81" |
|--|-----------------------|---|---|--|---|---|
| | | er your compa 3a_s/n 03590 © 3 | | droCAD Software So | lutions LLC | Page 142 |
| Device | Routing | Invert | Outle | t Devices | | |
| #1 | Primary | 213.43' | L= 58 Inlet / | Round Culvert 60.0' CPP, projectin Outlet Invert= 213. 013. Flow Area= 3. | 43'/211.63' S= (| Ke= 0.900 0.0031 '/' Cc= 0.900 |
| #2 | Device 1 | 214.00' | 45.0 | deg x 4.0' long Sha 2.56 (C= 3.20) | | Frap Weir |
| #3 | Device 1 | 215.50' | 4.2' lo Head 2.50 Coef. | ong x 4.2' breadth (feet) 0.20 0.40 0 3.00 3.50 4.00 4.3 | 0.60 0.80 1.00 1. 50 5.00 5.50 3 2.69 2.68 2.67 | 20 1.40 1.60 1.80 2.00 7 2.67 2.65 2.66 2.66 |
| 1=Ci 1−2= | Ivert (Ba Sharp-Cr | rrel Controls 13. ested Vee/Trap | 77 cfs (Weir (| 58 hrs HW=216.35' @ 4.38 fps) Passes < 55.15 cfs eir (Passes < 8.84 c | potential flow) |) |
| | S | ummary for | Pond | 7P: Constructed | d Stormwater V | Vetland #1 |
| Inflow A Inflow Outflow Primary | = = | 11.903 ac, 28. 43.15 cfs @ 1 40.47 cfs @ 1 40.47 cfs @ 1 | 2.10 hr: 2.13 hr: | s, Volume= | 5.032 af | r 100-yr event 6%, Lag= 1.7 min |
| | | | | 0.00-72.00 hrs, dt= rea= 13,109 sf Sto | | |
| | | on time= 20.6 m et. time= 20.2 m | | llated for 5.032 af (1).6 - 810.4) | 00% of inflow) | |
| Volume | Inve | ert Avail.Sto | | Storage Description | | |
| #1 | 214.8 | 0' 14,7 | 59 cf | Custom Stage Dat | a (Irregular)Listed | below (Recalc) |
| Elevatio (fee | | | erim. (feet) | Inc.Store (cubic-feet) | Cum.Store (cubic-feet) | Wet.Area (sq-ft) |
| 214.8 215.0 216.0 | 30 00 | 9,939 10,413 | 766.0 771.0 210.0 | 0 2,035 12,724 | 0 2,035 14,759 | 9,939 10,570 79,782 |
| Device | Routing | Invert | Outle | t Devices | | |
| #1 #2 | Primary | 215.10' | 40.0' Head Coef. | | .60 0.80 1.00 1. 6 2.70 2.69 2.68 | |
| #Z | Primary | 214.80 | L= 25 Inlet / | .0' CPP, projecting | g, no headwall, Ke 80' / 214.00' S= (| e= 0.900 0.0320 '/' Cc= 0.900 |
| Primary | OutFlow | Max=39.94 cfs | | 13 hrs HW=215.58 | |) |

 1=Broad-Crested Rectangular Weir (Weir Controls 35.23 cfs @ 1.82 fps)

 2=Culvert (Inlet Controls 4.71 cfs @ 2.38 fps)

| HYDIOCADO | | | HydroCAD Softwar | | |
|----------------------|-------------|-------------------------------------|---------------------------------------|---|--------------------|
| | | - | | | |
| Inflow Area | | 409 ac,100.00% 06 cfs @12.09 | | ow Depth = 7.57" for 1 0.258 af | 00-yr event |
| Outflow | = 3.0 | 00 cfs @ 12.08 | hrs, Volume= | 0.258 af, Atten= 2% | 6, Lag= 0.0 min |
| Discarded Primary | | 17 cfs @ 12.10 83 cfs @ 12.08 | | 0.188 af 0.070 af | |
| | | | n= 0.00-72.00 hrs | | |
| Peak Elev | = 221.01' @ |) 12.10 hrs Surl | f.Area= 2,427 sf | Storage= 1,942 cf | |
| | | me= 67.1 min ca me= 67.1 min (8 | | af (100% of inflow) | |
| Volume | Invert | | Storage Descri | | |
| #1 | 219.00' | 1,942 cl | | 00'L x 2.00'H Prismatoid | |
| | Routing | | tlet Devices | | |
| #1 F | Primary | He | | readth Broad-Crested R 40 0.60 0.80 1.00 1.20 | |
| | | | ef. (English) 2.69 80 3.31 3.32 | 2.72 2.75 2.85 2.98 3 | .08 3.20 3.28 3.31 |
| #2 E | Discarded | 219.00' 2.4 | 10 in/hr Exfiltrat | ion over Surface area Indwater Elevation = 210.0 | 00' |
| | | Max=0.17 cfs @ ontrols 0.17 cfs) | 12.10 hrs HW=22 | 21.01' (Free Discharge) | |
| Primary O | outFlow Ma | x=1.86 cfs @ 12 Rectangular We | .08 hrs HW=221. air (Weir Controls | .01' (Free Discharge) 1.86 cfs @ 0.26 fps) | |
| | | | | NE RECHARGE TRE | NCH |
| Inflow Area | | | | ow Depth = 7.57" for 1 | 00-yr event |
| Inflow Outflow | | 06 cfs @ 12.09 00 cfs @ 12.08 | | 0.258 af 0.258 af, Atten= 2% | 6 Lag= 0.0 min |
| Discarded | = 0. | 17 cfs @ 12.10 | hrs, Volume= | 0.188 af | o, Edg- 0.0 min |
| Primary | = 2.8 | 83 cfs @ 12.08 | hrs, Volume= | 0.070 af | |
| | | | n= 0.00-72.00 hrs Area= 2,427 sf | s, dt= 0.05 hrs Storage= 1,942 cf | |
| | | me= 67.1 min ca me= 67.1 min (8 | | af (100% of inflow) | |
| Volume | Invert | | Storage Descri | ption | |
| #1 | 219.00' | 1,942 cl | | 10'L x 2.00'H Prismatoid II x 40.0% Voids | |
| | | | , | | |

| iyuloc <i>r</i> | <u>\D® 10.10-3a_s</u> | <u>/n 03590 © 2</u> | 2020 HydroCAD Software Solutions LLC Page 14 |
|---|--|--|---|
| Device | Routing | Invert | |
| #1 | Primary | 221.00' | 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 |
| #2 | Discarded | 219.00' | 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' |
| | led OutFlow M filtration (Co | | is @ 12.10 hrs HW=221.01' (Free Discharge) cfs) |
| | | | @ 12.08 hrs HW=221.01' (Free Discharge) ır Weir (Weir Controls 1.86 cfs @ 0.26 fps) |
| | S | ummary f | or Pond 19P: STONE RECHARGE TRENCH |
| Inflow A | | | .00% Impervious, Inflow Depth = 7.57" for 100-yr event |
| Inflow Outflow | | | 2.09 hrs, Volume= 0.258 af 2.08 hrs, Volume= 0.258 af, Atten= 2%, Lag= 0.0 min |
| Discard | ed = 0.1 | 17 cfs 🥘 12 | 2.10 hrs, Volume= 0.188 af |
| Primary | = 2.8 | 3 cfs @ 12 | 2.08 hrs, Volume= 0.070 af |
| | | | Span= 0.00-72.00 hrs, dt= 0.05 hrs Surf.Area= 2,427 sf Storage= 1,942 cf |
| | | me= 67.1 mi | in calculated for 0.258 af (100% of inflow) in (808.6 - 741.5) |
| Volume #1 | Invert 219.00' | Avail.Sto | orage Storage Description 42 cf 3.00'W x 809.00'L x 2.00'H Prismatoid |
| #1 | 219.00 | 1,94 | 42 ci 3.00 W x 809.00 L x 2.00 H Prismatold 4,854 cf Overall x 40.0% Voids |
| | | | |
| | Routing | Invert | Outlet Devices |
| <u>Device</u> #1 | Routing Primary | Invert 221.00' | Outlet Devices 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 |
| | U | | 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 |
| Device #1 #2 | U | | 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 |
| #1 #2 Discard | Primary Discarded | 221.00' 219.00' Max=0.17 cfs | 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' 's @ 12.10 hrs HW=221.01' (Free Discharge) 12.10 |
| #1 #2 Discard —2=Ex Primary | Primary Discarded led OutFlow M filtration (Cc y OutFlow Ma | 221.00' 219.00' Max=0.17 cfs ontrols 0.17 c x=1.86 cfs (| 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' 's @ 12.10 hrs HW=221.01' (Free Discharge) 12.10 |
| #1 #2 Discard -2=Ex Primary | Primary Discarded led OutFlow M filtration (Cc y OutFlow Ma | 221.00' 219.00' Max=0.17 cfs ontrols 0.17 c x=1.86 cfs (| 809.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32 2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 210.00' 56 212.10 hrs HW=221.01' (Free Discharge) cfs) @ 12.08 hrs HW=221.01' (Free Discharge) 212.08 hrs HW=221.01' (Free Discharge) |

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| Prepared by (enter your company name here) <u>HydroCAD® 10.10-3a sin 03590 @ 2020 HydroCAD® 10.10-58 sin 03590 @ 2020 HydroCAD® 10.10-38 sin 03590 @ 2020 HydroCAD® 10.10-38 sin 03590 @ 2020 HydroCAD® 10.10-37 sin 03590 @ 2020 HydroCAD® 10.10-37 sin 03590 @ 2020 HydroCAD® 10.10-37 sin 0350 @ 2020 HydroCAD® 10.179 af 00.179 af 00.179 af 00.110-37 sin 03.179 a</u> | Prepared by {enter your company name here} |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.66' @ 12.09 hrs Flood Elev= 218.60' | -1=Culvert (Inlet Controls 3.83 cfs @ 4.87 fps) |

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|--|--|--|
| Summary for Pond 26P: DMH-1 | Device Routing Invert Outlet Devices | |
| flow Area = 1.264 ac, 80.14% Impervious, Inflow Depth = 6.86" for 100-yr event flow = 9.09 cfs @ 12.09 hrs, Volume= 0.722 af utflow = 9.09 cfs @ 12.09 hrs, Volume= 0.722 af, Atten= 0%, Lag= 0.0 min imary = 9.09 cfs @ 12.09 hrs, Volume= 0.722 af | #1 Primary 215.10' 12.0'' Round Culvert L= 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 214.30' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | |
| uting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs hak Elev= 217.87' @ 12.09 hrs | Primary OutFlow Max=3.75 cfs @ 12.09 hrs HW=217.75′ (Free Discharge) ↑ 1=Culvert (Barrel Controls 3.75 cfs @ 4.78 fps) | |
| ood Elev= 218.90' | Summary for Pond 29P: CB-21 | |
| evice Routing Invert Outlet Devices #1 Primary 215.30' 18.0" Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf rimary OutFlow Max=8.85 cfs @ 12.09 hrs HW=217.79' (Free Discharge) -1=Culvert (Inlet Controls 8.85 cfs @ 5.01 fps) | Inflow Area = 0.123 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af Outflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min Primary = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.76' @ 12.09 hrs Flood Elev= 219.20' Flood Elev= 219.20' | |
| Summary for Pond 27P: DCB-22 | Device Routing Invert Outlet Devices | |
| flow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event flow = 3.85 cfs @ 12.09 hrs, Volume = 0.325 af utflow = 3.85 cfs @ 12.09 hrs, Volume = 0.325 af utflow = 2.85 cfs @ 12.09 hrs, Volume = 0.325 af utflow = 2.35 cfs @ 12.09 hrs, Volume = 0.325 af | #1 Primary 216.20' 12.0" Round Culvert L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | |
| imary = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af puting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | Primary OutFlow Max=0.89 cfs @ 12.09 hrs HW=216.75' (Free Discharge) | |
| eak Elev= 217.66' @ 12.09 hrs ood Elev= 218.50' | Summary for Pond 30P: DMH-15 | |
| evice Routing Invert Outlet Devices #1 Primary 215.50' 12.0" Round Culvert L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0060 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf rimary OutFlow Max=3.75 cfs @ 12.09 hrs HW=217.58' (Free Discharge) -1=Culvert (Inlet Controls 3.75 cfs @ 4.78 fps) | Inflow Area = 0.637 ac, 100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 4.77 cfs @ 12.09 hrs, Volume= 0.402 af Outflow = 4.77 cfs @ 12.09 hrs, Volume= 0.402 af, Atten= 0%, Lag= 0.0 min Primary = 4.77 cfs @ 12.09 hrs, Volume= 0.402 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 215.94' @ 12.09 hrs Flood Elev= 219.80' | |
| Summary for Pond 28P: DMH-16 | Device Routing Invert Outlet Devices | |
| flow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event flow = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af utflow = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af, Atten= 0%, Lag= 0.0 min rimary = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af outing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs | #1 Primary 214.20' 15.0" Round Culvert L= 250.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.20' / 212.90' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf Primary OutFlow Max=4.65 cfs @ 12.09 hrs HW=215.87' (Free Discharge) 1=Culvert (Barrel Controls 4.65 cfs @ 3.79 fps) | |
| eak Elev= 217.88' @ 12.09 hrs ood Elev= 218.70' | | |

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| Summary for Pond 31P: DMH-14 | Device Routing Invert Outlet Devices |
| nflow Area = 1.468 ac, 97.47% Impervious, Inflow Depth = 7.48" for 100-yr event nflow = 10.95 cfs @ 12.09 hrs, Volume= 0.915 af putflow = 10.95 cfs @ 12.09 hrs, Volume= 0.915 af, Atten= 0%, Lag= 0.0 min rimary = 10.95 cfs @ 12.09 hrs, Volume= 0.915 af | #1 Primary 215.60' 12.0" Round Culvert L= 180.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 214.70' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| outing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs eak Elev= 216.20' @ 12.09 hrs | Primary OutFlow Max=3.70 cfs @ 12.09 hrs HW=218.30' (Free Discharge) ☐1=Culvert (Barrel Controls 3.70 cfs @ 4.71 fps) |
| lood Elev= 218.60' | Summary for Pond 34P: CB-23 |
| vice Routing Invert Outlet Devices #1 Primary 212.80' 18.0'' Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.80' / 212.50' S= 0.0049 '/' Cc= 0.900 n= 0.013. Flow Area = 1.77 sf | Inflow Area = 0.288 ac, 87.12% Impervious, Inflow Depth = 7.09" for 100-yr event Inflow = 2.12 cfs @ 12.09 hrs, Volume= 0.171 af Outflow = 2.12 cfs @ 12.09 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min Primary = 2.12 cfs @ 12.09 hrs, Volume= 0.171 af |
| rimary OutFlow Max=10.66 cfs @ 12.09 hrs HW=216.07' (Free Discharge) —1=Culvert (Inlet Controls 10.66 cfs @ 6.03 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.90' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 32P: CB-20 | Device Routing Invert Outlet Devices |
| nflow Area = 0.318 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event nflow = 2.38 cfs @ 12.09 hrs, Volume= 0.201 af putflow = 2.38 cfs @ 12.09 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min rimary = 2.38 cfs @ 12.09 hrs, Volume= 0.201 af | #1 Primary 215.90' 12.0" Round Culvert L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.90' / 215.70' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| outing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs eak Elev= 216.63' @ 12.09 hrs | Primary OutFlow Max=2.07 cfs @ 12.09 hrs HW=216.88' (Free Discharge) |
| lood Elev= 218.50' | Summary for Pond 35P: CB-24 |
| nevice Routing Invert Outlet Devices #1 Primary 215.50' 12.0'' Round Culvert L= 12.0'' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.224 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 1.68 cfs @ 12.09 hrs, Volume= 0.141 af Outflow = 1.68 cfs @ 12.09 hrs, Volume= 0.141 af Primary = 1.68 cfs @ 12.09 hrs, Volume= 0.141 af |
| rimary OutFlow Max=2.32 cfs @ 12.09 hrs HW=216.60' (Free Discharge) —1=Culvert (Inlet Controls 2.32 cfs @ 2.95 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.73' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 33P: DMH-17 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.513 ac, 92.75% Impervious, Inflow Depth = 7.30" for 100-yr event Inflow = 3.80 cfs @ 12.09 hrs, Volume = 0.312 af Invutflow = 3.80 cfs @ 12.09 hrs, Volume = 0.312 af, Atten = 0%, Lag = Imary = 3.80 cfs @ 12.09 hrs, Volume = 0.312 af | #1 Primary 215.90' 12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.90' / 215.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| touting by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs eak Elev= 218.43' @ 12.09 hrs lood Elev= 218.80' | Primary OutFlow Max=1.63 cfs @ 12.09 hrs HW=216.71' (Free Discharge) —1=Culvert (Barrel Controls 1.63 cfs @ 3.26 fps) |
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| Inflow Area = 0.323 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 2.42 cfs @ 12.09 hrs, Volume= 0.204 af Outflow = 2.42 cfs @ 12.09 hrs, Volume= 0.204 af, Atten= 0%, Lag= 0.0 min Primary = 2.42 cfs @ 12.09 hrs, Volume= 0.204 af, Atten= 0%, Lag= 0.0 min | #1 Primary 232.20' 12.0" Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.15' @ 12.09 hrs | Primary OutFlow Max=0.31 cfs @ 12.09 hrs HW=232.51' (Free Discharge) [↑] —1=Culvert (Inlet Controls 0.31 cfs @ 1.50 fps) |
| Flood Elev= 219.80' | Summary for Pond 39P: CB-16 |
| Device Routing Invert Outlet Devices #1 Primary 216.00' 12.0" Round Culvert L= 220.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 214.80' S= 0.0055 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Primary OutFlow Max=2.35 cfs @ 12.09 hrs HW=217.12' (Free Discharge) | Peak Elev= 232.53' @ 12.09 hrs Flood Elev= 236.20' |
| Summary for Pond 37P: DMH-10 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.446 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 3.34 cfs @ 12.09 hrs, Volume= 0.281 af Outflow = 3.34 cfs @ 12.09 hrs, Volume= 0.281 af, Atten= 0%, Lag= 0.0 min Primary = 3.34 cfs @ 12.09 hrs, Volume= 0.281 af | #1 Primary 232.20' 12.0" Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 219.23' @ 12.09 hrs | Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=232.52' (Free Discharge) |
| Flood Elev= 222.20' | Summary for Pond 52P: CB-17 |
| Device Routing Invert Outlet Devices #1 Primary 218.10' 15.0'' Round Culvert L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013. Flow Area= 1.23 sf | Inflow Area = 0.081 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af Outflow = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af, Primary = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af, |
| Primary OutFlow Max=3.25 cfs @ 12.09 hrs HW=219.21' (Free Discharge) └─1=Culvert (Inlet Controls 3.25 cfs @ 2.83 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 247.84' @ 12.09 hrs Flood Elev= 251.40' |
| Summary for Pond 38P: CB-15 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.043 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af Outflow = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min Primary = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af | #1 Primary 247.40' 12.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 232.52' @ 12.09 hrs Flood Elev= 236.20' | Primary OutFlow Max=0.59 cfs @ 12.09 hrs HW=247.84' (Free Discharge) -1=Culvert (Inlet Controls 0.59 cfs @ 1.78 fps) |
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| Prepared by {enter your company name here} | Prepared by {enter your company name here} |
| Primary = 1.20 cfs (a) 12.09 hrs, Volume= 0.101 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 240.56' (a) 12.09 hrs Flood Elev= 244.00' | Primary OutFlow Max=1.82 cfs @ 12.09 hrs HW=232.47' (Free Discharge) |
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| | |
| Summary for Pond 62P: CB-14 | Device Routing Invert Outlet Devices #1 Primary 216.00' 12.0" Round Culvert |
| Inflow Area = 0.136 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 1.02 cfs @ 12.09 hrs, Volume= 0.086 af Outflow = 1.02 cfs @ 12.09 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min Primary = 1.02 cfs @ 12.09 hrs, Volume= 0.086 af | L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 219.50' @ 12.09 hrs | Primary OutFlow Max=0.98 cfs @ 12.09 hrs HW=216.58' (Free Discharge) [●] —1=Culvert (Inlet Controls 0.98 cfs @ 2.05 fps) |
| Flood Elev= 221.90' | Summary for Pond 67P: CB-7 |
| Device Routing Invert Outlet Devices #1 Primary 218.90' 12.0'' Round Culvert L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.99 cfs @ 12.09 hrs HW=219.49' (Free Discharge) | Inflow Area = 0.093 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 0.70 cfs @ 12.09 hrs, Volume= 0.059 af Outflow = 0.70 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min Primary = 0.70 cfs @ 12.09 hrs, Volume= 0.059 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.48" @ 12.09 hrs |
| 1=Culvert (Inlet Controls 0.99 cfs @ 2.06 fps) | Flood Elev= 219.00' |
| Summary for Pond 63P: DMH-4 | Device Routing Invert Outlet Devices |
| Inflow Area = 1.336 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 10.00 cfs @ 12.09 hrs, Volume= 0.843 af Outflow = 10.00 cfs @ 12.09 hrs, Volume= 0.843 af, Atten= 0%, Lag= 0.0 min Primary = 10.00 cfs @ 12.09 hrs, Volume= 0.843 af | #1 Primary 216.00' 12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.04' @ 12.09 hrs | Primary OutFlow Max=0.68 cfs @ 12.09 hrs HW=216.47' (Free Discharge) |
| Flood Elev= 222.20' | Summary for Pond 68P: DMH-9 |
| Device Routing Invert Outlet Devices #1 Primary 214.10' 24.0" Round Culvert L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.10' / 214.00' S= 0.0029 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf | Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 6.82" for 100-yr event Inflow = 6.53 cfs @ 12.09 hrs, Volume= 0.517 af Outflow = 6.53 cfs @ 12.09 hrs, Volume= 0.517 af, Atten= 0%, Lag= 0.0 min Primary = 6.53 cfs @ 12.09 hrs, Volume= 0.517 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs |
| Primary OutFlow Max=9.73 cfs @ 12.09 hrs HW=216.00' (Free Discharge) —1=Culvert (Barrel Controls 9.73 cfs @ 4.06 fps) | Peak Elev= 218.68 @ 12.09 hrs Flood Elev= 219.40' |
| Summary for Pond 66P: CB-6 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.134 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 1.01 cfs @ 12.09 hrs, Volume= 0.085 af Outflow = 1.01 cfs @ 12.09 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min Primary = 1.01 cfs @ 12.09 hrs, Volume= 0.085 af | #1 Primary 216.10' 15.0'' Round Culvert L= 79.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.10' / 215.40' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.59' @ 12.09 hrs Flood Elev= 219.00' | Primary OutFlow Max=6.36 cfs @ 12.09 hrs HW=218.58' (Free Discharge) -1=Culvert (Inlet Controls 6.36 cfs @ 5.18 fps) |
| | |
| | |

| 6842-Post Type III 24-hr 100-yr Rainfall=7.81" Prepared by {enter your company name here} | 6842-Post Type III 24-hr 100-yr Rainfall=7.81" Prepared by {enter your company name here} |
|---|---|
| HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 157 | HydroCAD® 10.10-3a s/n 03590 © 2020 HydroCAD Software Solutions LLC Page 158 Device Routing Invert Outlet Devices |
| Summary for Pond 69P: CB-11 Inflow Area = 0.107 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af Outflow = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min Primary = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af | #1 Primary 215.50' 12.0" Round Culvert L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0062 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.86' @ 12.09 hrs | Primary OutFlow Max=1.28 cfs @ 12.09 hrs HW=216.22' (Free Discharge) |
| Flood Elev= 219.30' | Summary for Pond 72P: CB-9 |
| Device Routing Invert Outlet Devices #1 Primary 216.30' 12.0" Round Culvert L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.30' / 216.20' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf | Inflow Area = 0.165 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 1.24 cfs @ 12.09 hrs, Volume= 0.104 af Outflow = 1.24 cfs @ 12.09 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min Primary = 1.24 cfs @ 12.09 hrs, Volume= 0.104 af |
| Primary OutFlow Max=0.78 cfs @ 12.09 hrs HW=216.85' (Free Discharge) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.22' @ 12.09 hrs Flood Elev= 218.50' |
| Summary for Pond 70P: CB-12 | Device Routing Invert Outlet Devices |
| Inflow Area = 0.802 ac, 75.84% Impervious, Inflow Depth = 6.72" for 100-yr event Inflow = 5.73 cfs @ 12.09 hrs, Volume= 0.449 af Outflow = 5.73 cfs @ 12.09 hrs, Volume= 0.449 af, Atten= 0%, Lag= 0.0 min Primary = 5.73 cfs @ 12.09 hrs, Volume= 0.449 af | #1 Primary 215.50' 12.0" Round Culvert L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 218.43' @ 12.09 hrs | Primary OutFlow Max=1.20 cfs @ 12.09 hrs HW=216.21' (Free Discharge) —1=Culvert (Barrel Controls 1.20 cfs @ 2.84 fps) |
| Flood Elev= 219.30' | Summary for Pond 73P: DMH-6 |
| Device Routing Invert Outlet Devices #1 Primary 216.30' 15.0'' Round Culvert L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.30' / 216.20' S= 0.0071 '/' Cc= 0.900 n= 0.013. Flow Area= 1.23 sf | Inflow Area = 0.340 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 2.55 cfs @ 12.09 hrs, Volume= 0.215 af Outflow = 2.55 cfs @ 12.09 hrs, Volume= 0.215 af, Atten= 0%, Lag= 0.0 min Primary = 2.55 cfs @ 12.09 hrs, Volume= 0.215 af |
| Primary OutFlow Max=5.58 cfs @ 12.09 hrs HW=218.36' (Free Discharge) └─1=Culvert (Inlet Controls 5.58 cfs @ 4.55 fps) | Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.43' @ 12.09 hrs Flood Elev= 219.10' |
| Summary for Pond 71P: CB-8 | Device Routing Invert Outlet Devices #1 Primary 215.20' 12.0" Round Culvert |
| Inflow Area = 0.175 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 1.31 cfs @ 12.09 hrs, Volume= 0.111 af Outflow = 1.31 cfs @ 12.09 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min Primary = 1.31 cfs @ 12.09 hrs, Volume= 0.111 af | L= 52.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.80' S= 0.0077 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf |
| Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.24' @ 12.09 hrs Flood Elev= 218.50' | Primary OutFlow Max=2.48 cfs @ 12.09 hrs HW=216.39' (Free Discharge) |
| | |
| | |

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|--|---|--|
| Summary for Pond 78P: CB-19 Inflow Area = 0.122 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af Outflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min Primary = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.97" @ 12.09 hrs Flood Elev= 219.00' Flood Elev= 219.00' | Device Routing Invert Outlet Devices #1 Primary 214.70' 15.0" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.70' / 214.20' S= 0.0075 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf Primary OutFlow Max=4.83 cfs @ 12.09 hrs HW=216.40' (Free Discharge) I=Culvert (Inlet Controls 4.83 cfs @ 3.94 fps) Summary for Pond 81P: CB-5 | |
| Device Routing Invert Outlet Devices #1 Primary 216.40' 12.0'' Round Culvert L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.40' / 216.10' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=0.89 cfs @ 12.09 hrs HW=216.96' (Free Discharge) 1=Culvert (Barrel Controls 0.89 cfs @ 2.83 fps) | Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 7.21" for 100-yr event Inflow = 2.12 cfs @ 12.09 hrs, Volume= 0.172 af Outflow = 2.12 cfs @ 12.09 hrs, Volume= 0.172 af, Atten= 0%, Lag= 0.0 min Primary = 2.12 cfs @ 12.09 hrs, Volume= 0.172 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.01' @ 12.09 hrs Flood Elev= 219.00' 12.09 hrs | |
| Summary for Pond 79P: CB-10 Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 1.50 cfs @ 12.09 hrs, Volume= 0.126 af Outflow = 1.50 cfs @ 12.09 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min Primary = 1.50 cfs @ 12.09 hrs, Volume= 0.126 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 217.16' @ 12.09 hrs Flood Elev= 219.00' Flood Elev= 219.00' | Device Routing Invert Outlet Devices #1 Primary 216.00' 12.0" Round Culvert L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=2.06 cfs @ 12.09 hrs HW=216.99' (Free Discharge) 1=Culvert (Barrel Controls 2.06 cfs @ 3.29 fps) Summary for Pond 82P: DMH-3 | |
| Device Routing Invert Outlet Devices #1 Primary 216.40' 12.0" Round Culvert L = 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.40' / 216.10' S= 0.0176 '/' Cc= 0.900 n = 0.013, Flow Area= 0.79 sf Primary OutFlow Max=1.46 cfs @ 12.09 hrs HW=217.15' (Free Discharge) —1=Culvert (Inlet Controls 1.46 cfs @ 2.32 fps) | Inflow Area = 0.287 ac , 88.82% Impervious, Inflow Depth = $7.21"$ for 100-yr event Inflow = $2.12 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.172 af Outflow = $2.12 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.172 af , Atten= 0%, Lag= 0.0 min Primary = $2.12 \text{ cfs} @ 12.09 \text{ hrs}$, Volume= 0.172 af Routing by Stor-Ind method, Time Span= $0.00-72.00 \text{ hrs}$, dt= 0.05 hrs Peak Elev= $216.70' @ 12.09 \text{ hrs}$ Flood Elev= $218.90'$ | |
| Summary for Pond 80P: DMH-5 Inflow Area = 0.663 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event Inflow = 4.96 cfs @ 12.09 hrs, Volume= 0.418 af Outflow = 4.96 cfs @ 12.09 hrs, Volume= 0.418 af Primary = 4.96 cfs @ 12.09 hrs, Volume= 0.418 af Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 216.45' @ 12.09 hrs Flood Elev= 220.00' 12.09 hrs 500 hrs | Device Routing Invert Outlet Devices #1 Primary 215.70' 12.0" Round Culvert L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.70' / 215.30' S= 0.0057 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf Primary OutFlow Max=2.07 cfs @ 12.09 hrs HW=216.68' (Free Discharge) L=Culvert (Inlet Controls 2.07 cfs @ 2.65 fps) | |

| 6842-Post | Type III 24-hr 100-yr Rainfall=7.81" | , |
|---|--------------------------------------|---|
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Summary for Link 20L: DP-A

| Inflow Area = | 30.660 ac, 24.72% Impervious, Inflow Depth = 4.69" for 100-yr event |
|---------------|---|
| Inflow = | 76.09 cfs @ 12.27 hrs, Volume= 11.979 af |
| Primary = | 76.09 cfs @ 12.27 hrs, Volume= 11.979 af, Atten= 0%, Lag= 0.0 min |

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

Appendix F – Stormwater Calculations

Groton Farms June 16, 2023 Groton, MA 6842 Recharge/WQV Calcs Stormwater Recharge Calculations Recharge volume required, Rv = 0 C.ft The recharge volume standard is being met in virtue of the fact that impervious areas are being reduced on site. ¹ Imp. area captured by Apt. roofs, Ap = 1.23 Ac ¹ Total Recharge Volume Provided = 24,568.0 C.ft

<u>NOTES:</u>

¹ = Sum of Recharge Vol. Provided from apartment building roofs.

Water Quality Calculation:

 $V_{WQ} = D_{WQ}(ft) x A_T(ft^2)$

| Water Quality Depth = | 1 | in |
|--------------------------------------|---------|-----------------|
| Water Quality Depth , Dwo = | 0.08 | ft. |
| Total impervious area on site, A⊤ = | 7.580 | |
| A _T = | 330,185 | ft ² |
| Required Water Quality Volume, Vwo = | 27,515 | C.ft. |

REFERENCES

| 1 inch depth |
|------------------------------------|
| Zone II discharges |
| IWPA discharges |
| Critical Area |
| Runoff from LUHPPL |
| Infiltration rate >2.4 inches/hour |
| 1/2 inch depth |
| Discharge to other ares |
| 8 inch |
| 9 inch |
| 10 inch |
| 11 inch |

FES-2 & FES-3 Sediment Forebay Sizing Calculations

Stormwater Recharge Calculations

CALCULATIONS

Recharge Volume, Rv:

$R_{v} = A_{C} x F$

| Hydrologic Soil Group | Impervious Area (Ac) ¹ | Target Depth (F) | Recharge Volume (Rv) Ac-feet |
|--------------------------|--------------------------------------|------------------|---------------------------------|
| A | 1.756 | 0.6 | 0.088 |
| С | 0.007 | 0.25 | 0.000 |
| | | | |
| | | | |
| Total | 1.763 | | 0.088 |

REFERENCES

Table 2.3.2: Recharge Target Depth by Hydrologic Soil Group

| NRCS Hydrologic | Approx. Soil | Target Depth |
|-----------------|--------------|-----------------------|
| Soil Group | Texture | Factor (F) |
| B | sand Ioam | 0.6 inch 0.35 inch |
| C | silty loam | 0.25 inch |
| D | clay | 0.1 inch |

| $F_v = A_c(cu.ft)x0.1inch$ of impervious area | |
|--|-------------------|
| ¹ Imp. area captured by ponds, Ap = | 1.763 Ac |
| Required Sediment Forebay vol, Fv= | 640 C.ft |
| Sediment Forebay Volume Provided = | 920.0 C.ft |

June 16, 2023 6842

FES-4 Sediment Forebay Sizing Calculations

Stormwater Recharge Calculations

CALCULATIONS

Recharge Volume, Rv:

 $R_{v} = A_{C} x F$

| Hydrologic Soil Group | Impervious Area (Ac) ¹ | Target Depth (F) | Recharge Volume (Rv) Ac-feet |
|--------------------------|--------------------------------------|------------------|---------------------------------|
| A | 1.248 | 0.6 | 0.062 |
| Total | 1.248 | | 0.062 |

REFERENCES

Table 2.3.2: Recharge Target Depth by Hydrologic Soil Group

| NRCS Hydrologic Soil Group | Approx. Soil Texture | Target Depth Factor (F) |
|-------------------------------|-------------------------|----------------------------|
| А | sand | 0.6 inch |
| В | loam | 0.35 inch |
| С | silty loam | 0.25 inch |
| D | clay | 0.1 inch |

| $F_v = A_c(cu.ft)x0.1inch$ of impervious area | |
|--|-------------------|
| ¹ Imp. area captured by ponds, Ap = | 1.248 Ac |
| Required Sediment Forebay vol, Fv= | 453 C.ft |
| Sediment Forebay Volume Provided = | 472.0 C.ft |

June 16, 2023 6842

FES-5 Sediment Forebay Sizing Calculations

Stormwater Recharge Calculations

CALCULATIONS

Recharge Volume, Rv:

 $R_{v} = A_{C} x F$

| Hydrologic Soil Impervious Group Area (Ac) ¹ | | Target Depth (F) | Recharge Volume (Rv) Ac-feet |
|--|-------|------------------|---------------------------------|
| A | 0.998 | 0.6 | 0.050 |
| D | 0.338 | 0.1 | 0.003 |
| | | | |
| | | | |
| Total | 1.336 | | 0.053 |

REFERENCES

Table 2.3.2: Recharge Target Depth by Hydrologic Soil Group

| NRCS Hydrologic Soil Group | Approx. Soil Texture | Target Depth Factor (F) |
|-------------------------------|-------------------------|----------------------------|
| А | sand | 0.6 inch |
| В | loam | 0.35 inch |
| С | silty loam | 0.25 inch |
| D | clay | 0.1 inch |

| $F_v = A_c(cu.ft)x0.1inch$ of impervious area | |
|--|---------------------|
| ¹ Imp. area captured by ponds, Ap = | 1.336 Ac |
| Required Sediment Forebay vol, Fv= | 485 C.ft |
| Sediment Forebay Volume Provided = | 3,743.0 C.ft |

June 16, 2023 6842

FES-6 Sediment Forebay Sizing Calculations

Stormwater Recharge Calculations

CALCULATIONS

Recharge Volume, Rv:

 $R_{v} = A_{C} x F$

| Hydrologic Soil Group | Impervious Area (Ac) ¹ | Target Depth (F) | Recharge Volume (Rv) Ac-feet |
|--------------------------|--------------------------------------|------------------|---------------------------------|
| A | 1.431 | 0.6 | 0.072 |
| Total | 1.431 | | 0.072 |

REFERENCES

Table 2.3.2: Recharge Target Depth by Hydrologic Soil Group

| NRCS Hydrologic Soil Group | Approx. Soil Texture | Target Depth Factor (F) |
|-------------------------------|-------------------------|----------------------------|
| А | sand | 0.6 inch |
| В | loam | 0.35 inch |
| С | silty loam | 0.25 inch |
| D | clay | 0.1 inch |

| $F_v = A_c(cu.ft)x0.1inch$ of impervious area | |
|--|-------------------|
| ¹ Imp. area captured by ponds, Ap = | 1.431 Ac |
| Required Sediment Forebay vol, Fv= | 519 C.ft |
| Sediment Forebay Volume Provided = | 684.0 C.ft |

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu

2. Select BMP from Drop Down Menu

3. After BMP is selected, TSS Removal and other Columns are automatically completed.

| | Location: | SS removal with pretreatm | ent calculation. |] | |
|--|-------------------------------------|---------------------------|------------------|---------------|---------------------------|
| | В | С | D | Е | F |
| | | TSS Removal | Starting TSS | Amount | Remaining |
| | BMP ¹ | Rate ¹ | Load* | Removed (C*D) | Load (D-E) |
| oval ion eet | Deep Sump and Hooded Catch Basin | 0.25 | 1.00 | 0.25 | 0.75 |
| ISS Remova Calculation Worksheet | Sediment Forebay | 0.25 | 0.75 | 0.19 | 0.56 |
| Vo al | | 0.00 | 0.56 | 0.00 | 0.56 |
| <u>ເ</u> ເ | | 0.00 | 0.56 | 0.00 | 0.56 |
| | | 0.00 | 0.56 | 0.00 | 0.56 |
| | | | | | Separate Form Needs to be |

Total TSS Removal =

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: 500 Main Street Prepared By: RPV

Date: 1-Feb-23

*Equals remaining load from previous BMP (E) which enters the BMP

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu

2. Select BMP from Drop Down Menu

3. After BMP is selected, TSS Removal and other Columns are automatically completed.

| | Location: | TSS removal with pretreatm | ent calculation. |] | |
|--|------------------|----------------------------|------------------|---------------|---------------------------|
| | В | С | D | Е | F |
| | | TSS Removal | Starting TSS | Amount | Remaining |
| _ | BMP ¹ | Rate ¹ | Load* | Removed (C*D) | Load (D-E) |
| a | | | | | |
| TSS Remova Calculation Worksheet | Grass Channel | 0.50 | 1.00 | 0.50 | 0.50 |
| em lat she | | | | | |
| rk Cu | Sediment Forebay | 0.25 | 0.50 | 0.13 | 0.38 |
| /o al | | 0.00 | 0.38 | 0.00 | 0.38 |
| \circ \circ $>$ | | 0.00 | 0.38 | 0.00 | 0.38 |
| - | | 0.00 | 0.38 | 0.00 | 0.38 |
| - | | | | | Separate Form Needs to be |

Total TSS Removal =

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: 500 Main Street Prepared By: RPV

Date: 1-Feb-23

*Equals remaining load from previous BMP (E) which enters the BMP

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu

2. Select BMP from Drop Down Menu

3. After BMP is selected, TSS Removal and other Columns are automatically completed.

| | Location: TSS removal for overall site. | | |] | |
|---|---|-------------------|--------------|---------------|---------------------------|
| | В | С | D | Е | F |
| | | TSS Removal | Starting TSS | Amount | Remaining |
| | BMP ¹ | Rate ¹ | Load* | Removed (C*D) | Load (D-E) |
| oval ion eet | Deep Sump and Hooded Catch Basin | 0.25 | 1.00 | 0.25 | 0.75 |
| TSS Removal Calculation Worksheet | Wet Basin | 0.80 | 0.75 | 0.60 | 0.15 |
| S Vo Vo | | 0.00 | 0.15 | 0.00 | 0.15 |
| <u>ເ</u> ທ | | 0.00 | 0.15 | 0.00 | 0.15 |
| | | 0.00 | 0.15 | 0.00 | 0.15 |
| | | | | | Separate Form Needs to be |

Total TSS Removal =

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: 500 Main Street Prepared By: RPV

Date: 1-Feb-23

*Equals remaining load from previous BMP (E) which enters the BMP

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu

2. Select BMP from Drop Down Menu

3. After BMP is selected, TSS Removal and other Columns are automatically completed.

| | Location: TSS removal for overall site. | | |] | |
|---|---|-------------------|--------------|---------------|---------------------------|
| | В | С | D | Е | F |
| | | TSS Removal | Starting TSS | Amount | Remaining |
| | BMP ¹ | Rate ¹ | Load* | Removed (C*D) | Load (D-E) |
| oval ion eet | Deep Sump and Hooded Catch Basin | 0.25 | 1.00 | 0.25 | 0.75 |
| TSS Removal Calculation Worksheet | Constructed Stormwater Wetland | 0.80 | 0.75 | 0.60 | 0.15 |
| lo al | | 0.00 | 0.15 | 0.00 | 0.15 |
| ର | | 0.00 | 0.15 | 0.00 | 0.15 |
| F | | 0.00 | 0.15 | 0.00 | 0.15 |
| | | | | | Separate Form Needs to be |

Total TSS Removal =

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: 500 Main Street

Prepared By: RPV Date: 16-Jun-23

*Equals remaining load from previous BMP (E) which enters the BMP



LAND SURVEYING

WETLAND CONSULTING

ENGINEERING 02/09/2023 #6842

Groton Farms 500 Main Street Groton, MA

Sediment Loading Calculations

The following pretreatment structure below for the proposed development receives the largest amount of tributary runoff on site to be sanded. This structure was used to analyze the capacity of the four-foot sump within the structure. This area is the sum of all paved areas that will be routed through the pre-treatment device prior to entering the stormwater management areas. The volume of sediment accumulated is based on a sand density of 90 pounds per cubic foot and assumes a frequency of 10 sandings per year. The calculation used is as follows:

Annual Sediment Accumulated = (Area to be sanded in acres) $x 500 \frac{lbs}{acre - storm} x \frac{10 \ storms}{90 \frac{lbs}{ft^3}}$

| Structure | Area to be Sanded (Acres) | Annual Sediment Accumulated (ft ³) |
|-----------|---------------------------|---|
| DCB-12 | 0.487 | 27.05 |

A four-foot sump in these structures equates to a storage area of approximately 50 cubic feet. As such, the accumulated sediment will not cause any clogging to the outlet culverts.

the Ville

Ryan Vickers, E.I.T. Civil Engineer

Gregory S. Roy, P.E. Principal

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The project is covered under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which will be submitted in place of the Construction Period Pollution Prevention Plan, prior to any land disturbance. This page was intentionally left blank

Appendix H - Operation and Maintenance Plan

STORMWATER OPERATION & MAINTENANCE MANUAL

FOR

GROTON FARMS 500 MAIN STREET

In

GROTON, MASSACHUSETTS

- PREPARED BY:DILLIS & ROY
CIVIL DESIGN GROUP, INC.
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Revised: June 16th, 2023 February 9th, 2023

CDG PROJECT #6842



TABLE OF CONTENTS:

1.0 **Project Narrative**

- 1.1 Overview of Drainage System
- 1.2 Routine Operation & Maintenance Tasks
- 1.3 *O&M Schedule*

2.0 Appendices

Appendix A – Stormwater Management System Owners/Operators

1.0 Project Narrative

1.1 Proposed Stormwater Management System

The proposed stormwater management system was designed to reduce the peak rate of stormwater leaving the site, promote groundwater recharge, and increase the water quality. Runoff from the proposed development will be conveyed and treated using sedimentation forebays, stormwater wetlands, & a wet basin. Three proposed apartment buildings will utilize a drip line recharge trench along the building's perimeter.

Constructed Stormwater Wetlands with Sediment Forebay

Two constructed stormwater wetlands with sediment forebays will treat the runoff. Constructed stormwater wetlands are stormwater wetland systems that maximize the removal of pollutants from stormwater runoff through wetland vegetation uptake, retention and settling. Constructed stormwater wetlands temporarily store runoff in shallow pools that support conditions suitable for the growth of wetland plants. The sediment forebays are designed to reduce the velocity of flow which will increase the settlement of heavy solids before emptying to the basins. Riprap will also be installed at the inlet of the sediment forebays to reduce the potential for scouring.

Deep Sump Hooded Catch Basins

Deep sump hooded catch basins are proposed to convey the runoff from the proposed roadway & roofs to the stormwater wetlands or wet basin. These catch basins will discharge to manholes and conventional storm drains.

Drip Line Recharge Trenches

Drip line recharge trenches are proposed along the foundations of each dwelling to collect and mitigate any stormwater runoff associated with the proposed roofs. The recharge trenches will consist of $\frac{3}{4}$ " trap stone laid on filter fabric to prevent sediment buildup. The recharge trenches have been designed to accommodate the runoff volume associated with the 100-year storm.

Wet Basin

The proposed reconstructed wet basin utilizes a permanent pool of water as the primary mechanism to treat stormwater runoff. The pool allows sediments to settle (including fine sediments) and removes soluble pollutants. The wet basin has been designed to provide additional dry storage capacity to control peak discharge rates. The wet basin allows incoming stormwater to displace the water present in the pool. This stormwater remains until displaced by runoff from

another storm event. Increased retention time allows particulates, including fine sediments, to settle out of the water column. The permanent pool also serves to protect deposited sediments from resuspending during large storm events. A sediment forebay was designed at the entrance of the basin to decrease the velocity of flow and increase the settlement of heavy solids prior to entering the basin. Riprap will also be installed at the inlet of the sediment forebays and the outlet of the basin to control the overflow of stormwater into the adjacent wetlands and will reduce the potential for scouring.

Grassed Swales

The grassed channels have been designed with a relatively flat (2.0%) slope to reduced runoff velocity and increase hydraulic residency time to promote particulate settling. The grassed channel has been provided with a sediment forebay for stormwater pretreatment. The grass swales will receive runoff from the proposed roofs along the townhomes & sheet flow from the entrance road. The entrance road has been designed with a 2% cross-slope to pitch towards a grassed swale system to convey the runoff to Constructed Stormwater Wetland #1's sediment forebay for additional treatment.

1.2 Operation & Maintenance Tasks

The following activities should be performed routinely to allow for proper functioning of the stormwater system. The following are guidelines referring to each major component of the stormwater management system.

1.2.1 Street Sweeping

Street sweeping should be performed at least annually. For most effective results, sweeping should be preformed by a vacuum style truck in the early spring before spring rain events can wash silt and sediment into the stormwater system. Silt and sediment should be disposed of in accordance with local, state and federal guidelines for hazardous waste.

1.2.2 Constructed Stormwater Wetlands

Unlike conventional wet basin systems that require large-scale sediment removal at infrequent intervals, constructed stormwater wetlands require small-scale maintenance at regular intervals to evaluate the health and composition of the plant species.

Proponents must carefully observe the constructed stormwater wetland system over time. In the first three years after construction, inspect the constructed stormwater wetlands twice a year during both the growing and non-growing seasons. This requirement must be included in the Operation & Maintenance plan. During these inspections, record and map the following information:

•The types and distribution of the dominant wetland plants in the marsh;

•The presence and distribution of planted wetland species;

•The presence and distribution of invasive wetland

species (invasives must be removed);

Indications that other species are replacing the planted wetland species;
Percentage of standing water that is unvegetated (excluding the deep water cells which are not suitable for emergent plant growth);

•The maximum elevation and the vegetative condition in this zone, if the design elevation of the normal pool is being maintained for wetlands with extended zones;

•Stability of the original depth zones and the micro-topographic features; and

•Accumulation of sediment in the forebay and micropool; and survival rate of plants (cells with dead plants must be replanted).

1.2.3 Sediment Forebay

A sediment forebay is required as a pretreatment device prior to discharging stormwater to the constructed wetlands & wet basin. The sediment forebay will provide pretreatment by slowing stormwater runoff and increasing settlement of the sediment. The sediment forebay should be inspected monthly and cleaned of accumulated sediment on a quarterly basis. After sediment removal, repair any damaged vegetation by reseeding or re-sodding. Grass should be maintained at a height of 4-6 inches.

1.2.4 Deep Sump Catch Basins

Deep sump catch basins shall be inspected at least semi-annually for signs of wear, settling, cracking or other fatigue. Catch basin castings should be inspected for signs of root intrusion or significant water infiltration. Catch basin sump should be check for silt/sediment buildup and cleaned as necessary. Cleaning should be performed by a vacuum truck. Catch basins should be resealed as required and outlets should be inspected incidentally with all structure inspections.

1.2.5 Storm Drain Lines

Storm drainage inlets and outlets should be inspected incidentally with all structure inspections. Evidence of debris intrusion or excessive siltation or sedimentation could result in the need to clean a storm drain line. Flushing or jetting should be performed as required. All flushing and jetting should be performed in the direction away from any outlet devices. A vacuum truck should be used at the opposite end of the flushing or jetting to remove any silt or sediment that is cleaned from the storm drain.

1.2.6 Drip Line Recharge Trenches

Perform preventive maintenance at least twice a year. Inspect and clean pretreatment BMPs every six months and after every major storm event (2-year return frequency). Remove accumulated sediment, trash, debris, leaves, and grass clippings from mowing. Remove tree seedlings, before they become firmly established. Inspect the infiltration trench after the first several rainfall events, after all major storms, and on regularly scheduled dates twice a year. If the top of the trench is grassed, it must be mowed on a seasonal basis. Grass height must be maintained to be no more than four inches. Routinely remove grass clippings leaves and accumulated sediment from the surface of the trench. Inspect the trench 24 hours or several days after a rain event, to look for ponded water. If there is ponded water at the surface of the trench, it is likely that the trench surface is clogged. To address surface clogging, remove and replace the topsoil or first layer of stone aggregate and the filter fabric. If water is ponded inside the trench, it may indicate that the bottom of the trench has failed. To rehabilitate a failed trench, all accumulated sediment must be stripped from the bottom, the bottom of the trench must be scarified and tilled to induce infiltration, and all the stone aggregate and filter fabric or media must be removed and replaced.

1.2.7 Wet Basin

Inspect the wet basin at least once per year to ensure it is operating as designed. Inspect the outlet structure for evidence of clogging or excessive outflow releases. Potential problems to check include: subsidence, erosion, cracking or tree growth on the embankment, damage to the emergency spillway, sediment accumulation around the outlet, inadequacy of the inlet/outlet channel erosion control measures, changes in the condition of the pilot channel, erosion within the basin and banks, and the emergence of invasive species. Make any necessary repairs immediately. During inspections, note any changes to the wet basin or the contributing watershed area because these may affect basin performance. At least twice a year, mow the upper-stage, side slopes, embankment and emergency spillway. At this time, also check the sediment forebay for accumulated material, sediment, trash, and debris and remove it. Remove sediment from the basin as necessary, and at least once every 10 years. Providing an on on-site sediment disposal area will reduce the overall sediment removal costs.

The riprap used for the sediment forebay should be inspected regularly for sediment build up, clogging or other unwanted materials such as trash. The riprap should be cleaned as required.

O&M Schedule

| | zM Task | Monthly | Quarterly | Spring | Fall | 2-years | As-required | |
|----|---------------------------------------|---------|-------------------------------------|--------|------|------------|-------------|--|
| 1. | Constructed Stormwater Wetlands | | | | | | | |
| | Inspection | | | X | X | | X | |
| | Remove Debris | | | X | X | | X | |
| | Remove Sediment | | | | | | X | |
| | Re-seed | | | | | | X | |
| 2. | Sediment Forebay | | | | | | | |
| | Inspection | x | | x | x | | x | |
| | Mowing | 3-4 t | 3-4 times during the growing season | | | | | |
| | Remove Debris | | X | | 0 | | X | |
| | Remove Sediment | | X | | | | x | |
| | Re-seed | | | | | | x | |
| | | | | | | | | |
| 3. | Stone Rip Rap | | | | | | | |
| | Inspection | | | X | | | | |
| | Remove Debris | | | X | | | X | |
| | Remove Silt/Sediment | | | | | X | X | |
| | Repair | | | | | | X | |
| 4. | Storm Drain Lines | | | | | | | |
| | Inspection | | | x | | | x | |
| | Clean | | | | | | X | |
| | | | | | | | | |
| 5. | Catch Basin | | | | | | | |
| | Inspection | | | X | X | | | |
| | Remove Debris | | | | | | X | |
| | Remove Silt/Sediment | | | | | | X | |
| 7. | Drain Manholes | | | | | | | |
| | Inspect Rims | | | | | | | |
| | Inspect inside/inlet and outlet pipes | - | | X | v | | | |
| | Remove sediment | | | Λ | X | 1 7 | v | |
| | Kemove seatment | | | | | X | X | |
| 8. | Wet Basin | | | | | | | |
| | Inspection | | | x | X | | x | |
| | Remove Debris | | 1 | x | X | | x | |
| | Remove Sediment | | | | | | x | |

APPENDIX A

Stormwater Management System Owners/Operators

| 1. | Stormwater Management System Owners: | To be determined |
|----|--------------------------------------|------------------|
| 2. | Current and future operators: | To be determined |
| 3. | Emergency contact information: | To be determined |
| 4. | Change of trustee: | To be determined |
| 5. | Financial Responsible Party: | To be determined |
| 6. | Routine Maintenance: | To be determined |
| 7. | O&M activities: | To be determined |
| 8. | Record keeping | To be determined |

Appendix I - Long Term Pollution Prevention Plan

LONG-TERM POLLUTION PREVENTION PLAN

FOR

GROTON FARMS 500 MAIN STREET

In

GROTON, MASSACHUSETTS

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PREPARED FOR: 500 MG LLC 6 Lyberty Way Westford, MA 01886

Revised: June 16th, 2023 February 9th, 2023

CDG PROJECT #6842



1.0 Summary

This Long-Term Pollution Prevention Plan (LTPPP) has been prepared by Dillis & Roy Civil Design Group, Inc. pursuant to the Massachusetts Stormwater Regulations. The applicant 500 MG LLC is proposing the construction of a mixed-use development on the north side of Route 119 just northerly of the intersection of Mill Street & Main Street. The proposed development consists of 16 quadplex units (1,220 SF ea.), 16 quadplex units (643 SF ea.), 3 apartment buildings (17,818 sf ea.), and clubhouse building (4,950 sf). The proposed work is located on Assessor's Map 216- Block 94, 95, & 96. The proposed scope of construction also includes a private roadway, on-site parking, clubhouse area with associated amenities, stormwater management systems, and new utility connections with their associated appurtenances.

The layout of the proposed site has been carefully planned to reduce the amount of stormwater leaving the site. The stormwater management system has been designed in accordance with the Massachusetts Stormwater Regulations to provide pretreatment of the stormwater prior to discharge.

2.0 Spill Prevention Plan

No hazardous materials other than normal cleaning items are expected to be stored on site after the construction period has ended.

It is expected that normal DEP notification procedures would be triggered for major spills such as heating oil or propane and natural gas leaks.

3.0 Stormwater System O&M

A Stormwater Operation & Maintenance plan has been prepared for the proposed stormwater management system. Refer to this document for details pertaining to the required inspections, routine maintenance and operation details.

4.0 Fertilizers, herbicides, and pesticides

Application of fertilizer, herbicides and pesticides shall be performed in a manner consistent with the industry standards for the application.

No application of chemicals is to be performed within the stormwater management areas on the site.

5.0 Snow/Salt Management

5.1 Snow Plowing

It is expected that the site will be plowed by the Groton DPW once the road is

accepted.

5.2 Salt/Sand Usage

It is expected that sanding and salting will be performed on an infrequent basis during times when unusually icy conditions persist for periods of time.

5.3 Street Sweeping

The Stormwater Operation & Maintenance Plan calls for the road and parking areas to be swept in the spring, after the threat of winter precipitation has passed.

6.0 Waste Management

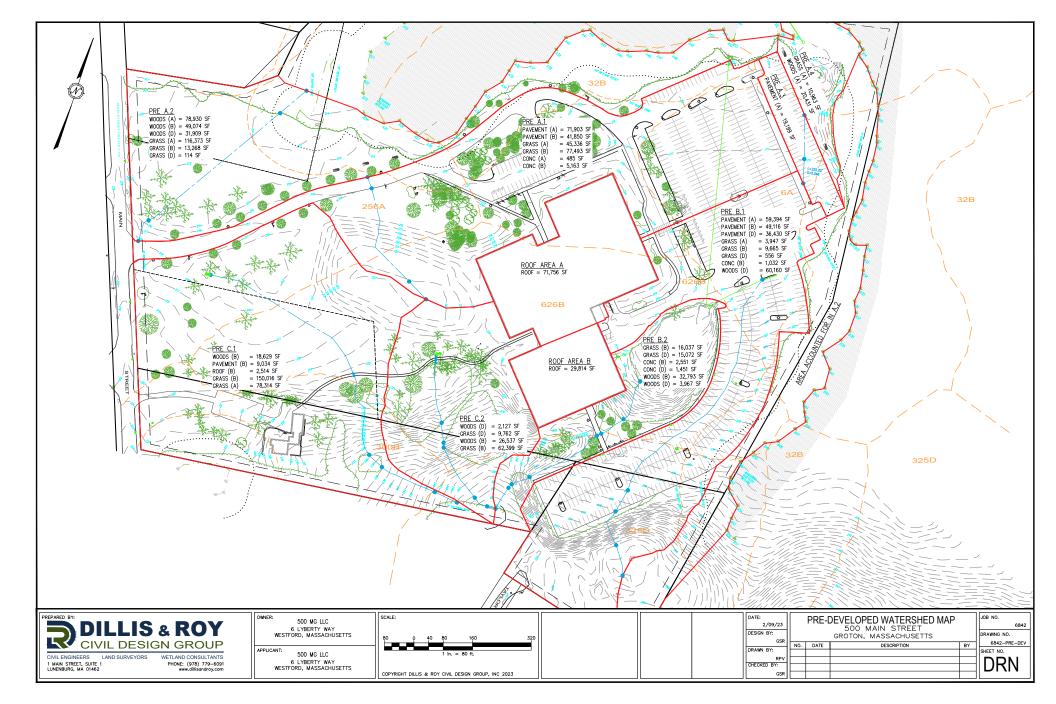
6.1 Solid Waste

A dumpster will be located on the site during construction. This area will be the primary area for the on-site storage of solid waste prior to pick-up by a waste management company.

Stormwater Report 500 Main Street

4.0 Plans

Pre-development Watershed Plan



Post-development Watershed Plan

