



PLANNING COMMISSION MEETING

September 10, 2024 at 6:30 PM

City Hall Council Chambers – 450 Virginia Avenue, Long Lake, MN 55356

AGENDA

1. **Call to Order**

2. **Pledge of Allegiance**

3. **Approve Agenda**

4. **Consent Agenda**

A. Approve Minutes of May 15, 2024 Planning Commission Meeting

5. **Open Correspondence**

NOTE: Open Correspondence is an item on the agenda during which the public may address the City Council.

No formal action is taken by the City Council and comments shall be limited to five minutes or less.

Open Correspondence comments may also be emailed to City staff by 12:00 noon on the date of the meeting.

6. **Regular Business**

A. Public Hearing: Review of Development Application for 'Wilds on Wayzata' Proposed Subdivision, 925 Wayzata Boulevard W (Flip & Gina Carlson, Wilds on Wayzata LLC / Property Owners: Dylan Carlson & Alec Martinez)

7. **Other Business**

8. **Adjourn**



**MINUTES
PLANNING COMMISSION MEETING
May 15, 2024**

CALL TO ORDER

The meeting was called to order at 6:30 pm by Vice-Chair Goodsell.

Present: Vice-Chair: Lori Goodsell; Commissioners: Virginia See, Anita Secord, and Judd Axelson;
City Administrator: Scott Weske; Planning Consultant: Hannah Rybak; and Council
Liaison: Mike Feldmann

Absent: Commission Chair: Roger Adams

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

APPROVE AGENDA

Commissioner Secord moved to approve the agenda as presented. Commissioner See seconded. Ayes: all.

CONSENT AGENDA

- A. Minutes of the February 13, 2024 Planning Commission Meeting

Commissioner See moved to approve the Consent Agenda as presented. Commissioner Secord seconded. Ayes: all.

OPEN CORRESPONDENCE

No one was in attendance to address the Planning Commission during Open Correspondence.

BUSINESS ITEMS

- A. Public Hearing: Review Draft Ordinance Regarding Parking Regulations and the Storage of Boats, Trailers, and Recreational Vehicles

Planning Consultant Rybak reported that the City Council had reviewed the draft ordinance and had requested that there be additional discussion related to parking and storage of various vehicles and equipment. She noted that Sections 1 through 3 remained unchanged from the last time the Commission had reviewed the draft ordinance, but Sections 4 through 6 include some proposed amendments based on the outcome of the Council's discussions. She provided an overview of the proposed new and amended definitions in Section 4.

The Commission discussed various scenarios with non-conforming situations, grandfathering, enforcement, and work vehicles that people may park at home.

Rybak reviewed the proposed clarifications to Section 5 related to exterior storage in residential districts, and Section 6 related to parking and use restrictions. She answered Commissioner questions regarding hypothetical scenarios related to parking restrictions, parties, and the City's complaint based enforcement policy.

Commissioner Axelson asked about the discussion the City Council had regarding having multiple types of recreational vehicles on one trailer and asked if that had been addressed.

Rybak responded that the matter had been addressed in the definition and explained that when vehicles are stored or kept on a trailer, it would be considered as one recreational vehicle.

Commissioner Axelson questioned if that meant that someone could just park a long trailer on their property and just put everything on it, such as a boat, an ice house, and a snowmobile and it would just be counted as one thing.

Rybak confirmed Commissioner Axelson's understanding was correct.

City Administrator Weske pointed out that all of the vehicles would have to be registered and up to date with their licensing.

Commissioner See asked if there was a limit on the size of the trailer allowed.

Rybak replied that there was not a limit.

The Commission discussed the different types of open and closed trailers and how they may be used.

Vice-Chair Goodsell opened the public hearing at 6:50 pm. There being no public comment, Vice-Chair Goodsell closed the public hearing at 6:50 pm.

Commissioner See moved to recommend the City Council approve the draft Ordinance Regarding Parking Regulations and the Storage of Boats, Trailers, and Recreational Vehicles. Commissioner Axelson seconded. Ayes: all.

OTHER BUSINESS

Overnight Use of Park Property - Vice-Chair Goodsell stated that she had walked her dog through Holbrook Park earlier that morning and found someone sleeping in their vehicle. She was unsure whether it had just been a one night thing, but was concerned that it may be an ongoing activity. She reflected that her fear was that if one person was allowed to do so, word may get out and five others could show up and do the same thing, which she would not want to see happen in the City. She asked if there was a way to have public safety look into that situation. Weske indicated that he would speak to the Police Department and ask them to patrol the area more frequently.

A. Council Liaison Report

Council member Feldmann expressed his appreciation for the work the Planning Commission does for the City. He gave a brief update on the fire services situation and the recent letter the City had sent to Orono outlining some updated options including coming back to the table and considering a Joint Powers Agreement.

Vice-Chair Goodsell commented that she had seen the letter and thought it was very well written.

Council member Feldmann noted that he agreed, but he had spoken with one Orono Council member that expressed that they were not happy with the letter. He had asked them if their displeasure was with the content or the tone of the letter. The answer he received was that it was both, but they could not elaborate on specific issues.

Vice-Chair Goodsell observed that she felt the tone of the letter could not have been more humble than it was, and added that she felt it was conciliatory in nature.

Council member Feldmann recalled that one of the options presented was a Joint Powers Agreement, and the other was to continue with the contract. Orono responded with a letter that, in his opinion, did not have a lot of content. One message Orono has been communicating is that Long Lake has demanded 'veto' power, which is untrue and is something that has never been stated, and he found that messaging to be frustrating. The City is planning to hold another open house meeting later in the month to update residents on the fire services issue.

Weske added that he believed the open house had been scheduled for May 29, 2024.

Council member Feldmann indicated that the idea of the open house will be to offer an update on the situation as well as to allow people to speak their minds and ask questions. The City is trying to continue to be very transparent with everything that relates to fire services, and he reiterated that the situation has been very frustrating.

Commissioner Secord reflected that 2025 is just a matter of months away from now.

Council member Feldmann added that Orono is only one and a half months from taking over servicing the Navarre area in Orono, and it is still unclear to him how they will actually be able to run their daytime duty crews.

Vice-Chair Goodsell asked if that would provide adequate protection for the Navarre area.

Council member Feldmann replied that Orono claims that they are 100% ready to go. He shared that he was not sure what they were actually going to do and was assuming that they will operate out of their old Public Works facility and move vehicles during the day to a facility that hasn't been built yet.

Vice-Chair Goodsell stressed that this was all supposed to happen starting July 1, 2024.

Council member Feldmann expressed concern because the July 4th holiday is usually very busy and Orono does not have a boat, which would mean that they will have to lean on mutual aid for pretty

much everything. He observed that he found this to be a very scary situation for the residents of the community.

Commissioner Secord asked if the City planned to invite the residents of the Navarre area to attend the upcoming open house.

Council member Feldmann stated that anyone would be welcome to attend, but he wasn't sure how they would find out about it.

Weske clarified that 'open house' may not be the correct term to use because it will be more like an 'open forum'.

Commissioner Secord commented that she felt everyone who is covered by Long Lake Fire Department should receive a notice about that meeting, and asked how long the City would have Station 2 and Station 1.

Weske responded that the City would be operating out of Station 2 until the end of the current contract which extends through year-end 2025.

Council member Feldmann clarified that Station 1 was owned equally by both Long Lake and Orono, and the situation regarding what will happen on January 1, 2026 is unresolved as of yet.

Commissioner Secord echoed Council member Feldmann's frustrations because people's lives will be on the line.

Council member Feldmann noted that in discussions with other area communities, it looks like everyone, except Orono, was currently looking into Joint Powers Agreement and district type models for their fire services.

Vice-Chair Goodsell asked for details on the open forum meeting.

Weske replied that it will be held on May 29, 2024 at Calvin Presbyterian Church.

Vice-Chair Goodsell encouraged the Commission, if they know anyone who lives in the Navarre area, to get in touch with them and let them know about this meeting.

Weske stated that was a fine idea, but pointed out that ultimately they need to be contacting the Orono City Council and not the Long Lake City Council about the plans for the Navarre pull-out.

Vice-Chair Goodsell questioned whether the City had ever purchased an ad on Google, Facebook, or NextDoor where they could announce this type of information.

Weske replied that most of the time staff sends the information out through ListServ.

Vice-Chair Goodsell noted that the ListServ was only for the residents of Long Lake and there needs to be a way to get Navarre and Minnetonka Beach residents there for the meeting.

Council member Feldmann stated that he thinks once the information is sent out through ListServ, he would expect the information to end up getting plastered all over NextDoor and Facebook.

B. Commission Member Business

No other Commissioner business was discussed.

C. Staff Business

No other staff business was discussed.

ADJOURN

Commissioner See moved to adjourn the meeting at 7:12 pm. Commissioner Secord seconded. Ayes: all.

Respectfully submitted,

Scott Weske
City Administrator



CITY OF
LONG LAKE

Planning Commission Agenda Report

City of Long Lake

450 Virginia Avenue, PO Box 606

Long Lake, MN 55356

MEETING DATE / September 10, 2024

SUBJECT: Public Hearing: Review of Development Application for 'Wilds on Wayzata'
Proposed Subdivision, 925 Wayzata Boulevard W

APPLICANT: Flip & Gina Carlson, Wilds on Wayzata LLC

PROPERTY OWNERS: Dylan Carlson & Alec Martinez

PREPARED BY: Hannah Rybak, City Planner
Jeff Oliver, City Engineer

Report Date: 9/05/2024

Overview / Background

The Applicants have submitted a development application for the review of a Master Development Plan for a Planned Unit Development (PUD), a Rezoning to the Planned Unit Development District, a Preliminary Plat and Final Plat located at 925 Wayzata Boulevard W. The purpose of the request is to split the existing single-family lot into four developable single-family lots.

This application was originally received by the City in April of 2023. Since then, the Applicants have submitted approximately 10 iterations of these plans, for various three and four lot subdivisions. Staff identified many issues with these iterations, and outlined areas of the plans that do not conform to the Long Lake Zoning and Subdivision Ordinances. To account for the areas that do not conform to the Code, the Applicants have now requested that their application be processed through a Planned Unit Development (PUD) District.

Developments processed through a PUD can be granted flexibility from zoning and subdivision provisions. This application, as submitted, has not been deemed "complete" by staff. There are several items missing from the list of required submittals for a PUD Master Development Plan, and there are many engineering-related issues that have not been addressed by the submitted plans. Staff have made the Applicants aware of these missing and unaddressed items but the Applicants have not relented from their position that they wish for this configuration to be presented to the Planning Commission and City Council for consideration. So, staff is honoring that request and bringing it forward for Commission review, despite the application being deemed incomplete by staff.

The subject property contains one single-family home and 55 trees. The lot is 52,663 SF, or 1.2 acres, and contains approximately 215 feet of frontage along Wayzata Boulevard W. The proposed project would include the removal of the existing home, and the splitting of the property into four new single-family lots. The subdivision would essentially quarter the property into rectangular lots. The two eastern lots would have frontage along Wayzata Boulevard W, and the two western lots would be situated behind the front lots, and would have no frontage. The Applicants have proposed a single access for a "private road" to be shared between the four lots. The road would be situated down the middle of the lots, on the shared interior property line. It would run the length of the eastern two (front) lots, and continue down the middle of the western two (rear) lots. The plans show the homes being oriented to "front" on the private road, rather than Wayzata Boulevard W. Private roads are only permitted in the PUD District; under the existing R-1 Zoning, this would be considered a shared driveway.

Staff has reviewed the project for compliance with the current R-1 Single Family Residential zoning.

	Lot Area	Lot Width	Frontage on a public street	Direct access to an improved roadway
R-1 Minimum Requirement	10,000 SF	75 feet		
Lot 1	16, 438 SF	102.97 feet	Yes	Yes
Lot 2	12,312 SF	111.89 feet	No	No
Lot 3	10,573 SF	111.89 feet	No	No
Lot 4	13,339 SF	105.44 feet	Yes	Yes

The following items would require variances under current R-1 zoning:

- Lack of frontage on a public street for Lots 2 and 3
- Lack of direct access to an improved roadway for Lots 2 and 3 (access crosses entirely through Lots 1 and 4)
- Shared driveway for 4 lots (max is 2 lots sharing a driveway)

Rather than requesting these variances, the Applicants have requested to rezone the property to the PUD Planned Unit Development District.

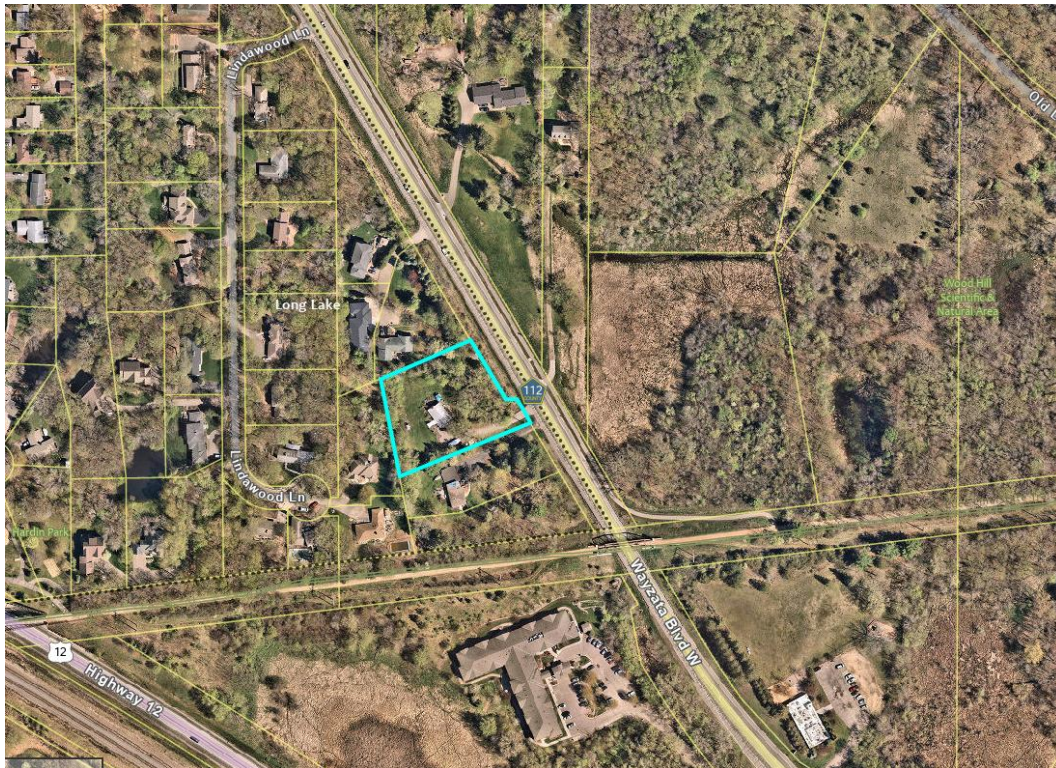
Property Information

The current zoning and Comprehensive Plan land use designation for the properties are as follows:

Current Zoning:	R-1 Single Family Residential
Requested Zoning:	Planned Unit Development
2040 Comprehensive Plan Designation:	Low Density Residential

Project Location

925 Wayzata Boulevard W



Planned Unit Development Eligibility

Section 5, Subd. 6, A Lot Requirements:

2. The minimum area for all PUD developments outside the Downtown Village Mixed Use area as identified in the Comprehensive Plan shall be two acres unless the City Council finds that:

- a. The PUD and Master Development Plan includes two distinct land uses.*

Single family residential is the sole use proposed. **Criterion not met.**

- b. There are existing natural features on the property that would be impacted if development occurred according to the existing zoning of the property.*

The only existing natural features on the property are the existing trees. This development plan is more harmful to the trees than an allowable development meeting standard zoning requirements would be.

Criterion not met.

- c. The PUD and Master Development Plan requirements and process provides for development that is compatible with the planned land uses of the surrounding area.*

All surrounding properties are single family residences that largely comply with current R-1 Low Density Residential zoning. The lack of frontage for two of the lots, and small lot size (in comparison to surrounding properties) is not compatible with the surrounding area. Additionally, based on the grading plan provided, it appears that neighboring properties could be directly impacted by drainage and tree damage. **Criterion not met.**

Staff does not find any of the above criteria to be met, and as such finds that this project is not eligible to be processed through a PUD.

Lot and Building Requirements

Lot Area

- PUD area requirement: 2 acres
 - Proposed: 1.02 acres

Density

- Low density residential: 3-7 units per acre
 - Proposed: 4 units per acre

Height

- 35 feet maximum
 - No building plans provided – height cannot be evaluated

Setbacks

- R-1 District Setbacks
 - Front yard: 35 feet
 - Side yards: 10 feet
 - Rear yard: 25 feet
- PUD District Setbacks for Single-Family Development
 - Front yard: 25 feet
 - Side yards: 5 feet
 - Rear yard: 10 feet

The plans show a concept building pad on each lot that meets both R-1 and PUD District setbacks.

Tree Preservation and Landscape Plan

The Applicants have provided a tree inventory on the Existing Conditions survey. There are 55 significant trees on the property.

The Applicants have not submitted a Tree Preservation or Landscape Plan. Based upon the Grading Plan provided, most if not all of the trees would need to be removed to accommodate this development. Additionally, it appears that the root systems of trees located on neighboring properties will be impacted by the proposed grading. This proposal is in conflict with the following provisions located in *Section 33: Tree Preservation and Landscape Standards*:

Subd.1: Purpose. It is the policy of the City of Long Lake to recognize and preserve existing natural resources of the community, and to encourage the greening of the City. The City Council finds that the preservation of trees and other vegetation, where practicable, is in the best interest of City residents' health and welfare.

Subd. 5, Landscape Requirements for Development and Redevelopment Plans., B, 2. Design Considerations. During the planning process, it is expected that all measures will be taken to protect significant trees and woodland areas on, or adjacent to, the parcel and that roads, utilities and structures will be sited to minimize the impact on trees and natural areas. Extensive clearing of undergrowth and/or disturbance of the ground litter layer should not occur in areas where trees are to be preserved.

Fire Comments

The City of Long Lake Fire Chief has reviewed the plans and offers the following comments:

The proposed plans do not provide fire apparatus access consistent with Appendix D of the 2020 Minnesota State Fire Code. Appendix D addresses minimums for turn arounds on dead end fire apparatus access roads. The use of the full length of the private driveways for maneuvering as shown in the turning movement exhibit included in the plans does not meet the requirements of the Fire Code.

Engineering Comments

City Engineer Oliver has conducted a preliminary review of the site and identified a preliminary list of requirements as follows:

ALTA Survey

- The existing topography on the ALTA survey is insufficient to understand drainage patterns between the subject property and adjacent properties. Topography must be shown a minimum of fifty feet beyond the boundary of the subject property on this, and all other plan sheets with topography shown.
- This plan sheet identifies an existing catch basin in the right-of-way for Wayzata Boulevard near the southeast corner of the site. There is no outlet pipe for this catch basin shown. This information must be included on this plan sheet and all other applicable plan sheets.

Preliminary and Final Plats

- All non-standard drainage and utility easements must be labeled and dimensioned on the preliminary and final plats.
- Hennepin County standards for the right-of way on Wayzata Boulevard is 60 feet on each side of the centerline of the roadway. The preliminary and final plats do not meet this requirement. The Hennepin County Transportation Department should comment on this issue.

- Although the location of the shared driveway for the four proposed lots is not specifically labeled on the plans, it is assumed to be 20 feet wide and centered within the Drainage and Utility Easement shown on the site plan. A joint use driveway easement must be shown on the preliminary plat for the proposed driveway, allowing each of the property owners full access across other private properties. This easement, or a maintenance agreement, must also be established to outline all maintenance of the driveway, including snow removal, pavement preservation and reconstruction of the driveway. The easement and maintenance agreement must be recorded against all four proposed lots.
- The Turning Movement exhibit in the plans shows the City ladder truck access into the site will include wheel paths to the outside edge of the center driveway. The plan also includes utilizing the private driveways for Lots 2 and 3 for a multi turn movement, including backing, turn around on the end of the driveway. The wheel paths also appears to leave the driveways and cross turf areas. These issues will also likely be present for garbage and delivery trucks. The fire chief should comment on the acceptability of the width and access driveway as proposed.
- The proposed 20 foot wide central driveway will effectively be narrowed significantly in the winter due to “snow bank creep”, resulting in a situation where passage of two vehicles going opposite directions will be difficult or impossible.

Watermain and Sanitary Sewer

- A 20 foot wide Drainage and Utility Easement is shown on the center lot line, with the sanitary sewer centered on the lot line. Required separation between the sanitary sewer and watermain is 10 feet, placing it at the front lot line for Lots 1 and 2. However, the watermain is not shown in the required location. In addition, there must be a ten foot drainage and utility easement to the south of the watermain. These discrepancies must be reviewed and rectified by the developer.
- The proposed Utility Plan includes gravity sewer serving Lots 1 and 4 flowing into a sump manhole in the common driveway. This manhole is labeled to include a “forcemain pump” that discharges into another manhole to the west. This proposed design is non-standard and must be revised to include a standard design for sanitary sewer systems that is consistent with the City Engineers Association of Minnesota Standards for Utilities, and the Minnesota State Plumbing Code.
- As proposed the sanitary sewer and watermain exit the easement covering the common driveway near the west property line, turn south and includes multiple turns to connect to the existing sanitary sewer and water in the property to the west. This proposed design is problematic for operations and maintenance of the sewer and water systems, including the potential for a build up of solids in the sewer. The design must be revised to prevent these maintenance concerns.
- An additional hydrant must be included near the end of the common driveway for fire department hookup. Final details of hydrant locations to be approved by the Fire Chief.
- The need for an air relief valve near the proposed connection point to the existing watermain west of the property will be determined during final plan review.

Storm Sewer

- Review and approval of the plans by the Minnehaha Creek Watershed District is required.
- An independent review will be provided by WSB for storm sewer system and drainage. This review will include recommendations on the need for additional storm sewer in front and rear yards to reduce or eliminate runoff across driveways and through adjoining properties.

As a condition of approval, the City Engineer will have final review and approval of the above technical details.

Staff Comments and Findings – Master Development Plan

The Planning Commission shall base their comments and the City Council shall base their actions regarding the application for a Master Development Plan on consideration of:

- a. The City of Long Lake Comprehensive Plan and Design Guidelines, as may be amended from time to time;*

The proposed development is in conformance with the Comprehensive Plan guidance of Low Density Residential. However, there are several goals within the Comprehensive Plan that the proposed development is in conflict with:

Goal: Provide a mix of housing options for all stages of life

- *As families age, alternative housing styles should be considered allowing residents to remain in Long Lake throughout their lives.*
- *Provide housing opportunities, which meets the needs of all generations and income levels, particularly varying type of independent and accessible senior housing.*

Goal: Protect the environment

- *Promote and protect natural resources areas in the review and approval of new development*
- *Embrace public and private actions to preserve and enhance our lakes, wetlands, and trees as a significant aesthetic, recreational and economic value to be preserved for all generations*

The proposed development does not contribute to the diversification of land uses within the city, nor does it protect the existing trees on the site, therefore it may not warrant the flexibility requested through the PUD. **Criterion not met.**

- b. The effect of the development on the neighborhood and surrounding area of the City;*

The immediate area is characterized by a rural feel, with large lots and many existing mature trees. The proposed development would squeeze in four large homes on relatively small lots, and require the removal of many trees. There is varying topography in the area, which could lead to drainage problems that would negatively impact neighboring properties. **Criterion not met.**

- c. The impacts of the development on community facilities including but not limited to adjacent roadways and parks;*

The proposed development will have no impact on Wayzata Boulevard W or City parks. **Criterion met.**

- d. The quality of design of the project and its relationship to adjacent planned uses;*

The Applicant has not provided plans for the proposed buildings, so it is not possible to evaluate the aesthetic impact of the development. However, the configuration of the project is concerning. The concept building pads show large home footprints on relatively small lots. The lot sizes are significantly smaller than others in the area. This coupled with the necessary tree removals to facilitate the development could lead to this project looking out of place in the context of the immediate area. **Criterion not met.**

e. The compliance of the application with the purpose and requirements of the PUD district; and

The purpose and intent of the PUD District, outside of the Downtown Village Mixed Use Area, includes:

- Preservation and enhancement of desirable environmental features on property such as mature trees, vegetative buffer areas, significant slopes and water-related features.
- Development that implements goals or policies of the Comprehensive Plan throughout the City of Long Lake.

The proposed development is not consistent with either of the above statements. **Criterion not met.**

f. Other such factors as the City finds relevant to the evaluation of the application.

The proposed plans lack topographic detail on adjacent properties to allow evaluation of potential impacts to those properties. In addition, the proposed sanitary sewer and water systems do not appear to meet current standards of the City of Long Lake, and across the state. The proposed site grading includes drainage across driveways through back yards within the development that are concerning and can likely be addressed with additional storm sewer. Access for fire apparatus, delivery and garbage trucks, appears to be difficult without exiting the driveway and performing backing operations. During winter months, it appears that space constraints will make it difficult or impossible for multiple personal vehicles to simultaneously travel in opposite directions on the proposed driveway. **Criterion not met.**

Staff Comment and Findings – Rezoning to the PUD District

The Planning Commission and City Council may approve the rezoning of the property of to a Planned Unit Development concurrently with the approval of the Master Development Plan. **Based on the findings in this report, staff does not recommend approving the Master Development Plan or rezoning the property to PUD.** Specifically:

1. The proposed development does not satisfy any of the criteria to permit the use of a PUD District on land located outside of the Downtown Village Mixed Use District, totaling less than two acres in size. In staff's opinion, this fact alone prohibits the approval of the Master Development Plan.
2. The proposed development is in conflict with provisions in the City's Comprehensive Plan and Tree Preservation Ordinance.
3. The proposed development is not in keeping with the character of the area and potential negative impacts to adjacent property have not been addressed by the plans provided with this application.
4. The proposed development is in conflict with the purpose and intent of the PUD District as it relates to property outside of the Downtown Village Mixed Use District.
5. There are serious concerns associated with passenger vehicles, delivery vehicle and trash collection vehicle access, which are not addressed by the submitted plans.
6. The proposed access does not meet the specifications found within the Minnesota State Fire Code for emergency access.

Staff Comments and Finding – Platting

Below are the Ordinance requirements for approval of a Preliminary and Final Plat. The proposed Preliminary and Final plats cannot be approved without either approval of the Master Development Plan and subsequent rezoning to the PUD District, or variances to account for the areas of the plans that do not conform to Zoning and Subdivision Ordinance requirements. The Applicants have not applied for any variances. **Based on these facts and the recommendation above related to the Master Development Plan and rezoning request, staff recommends denial of the proposed Preliminary and Final plats.** Further, staff has found that the proposed plats do not satisfy all criteria required for the approval of preliminary and final plats, as outlined below.

Subdivision Design Standards (Section 18, Subdivision 6)**A. General**

1. *All subdivisions shall comply with the Comprehensive Plan and the provisions of this Ordinance. **Criterion not met.***
2. *All subdivisions shall be platted or described by Registered Land Survey in accordance with Minnesota Statute 505. No subdivision shall be allowed if the conveyance is described by metes and bounds. **Criterion met.***
3. *The design of all improvements required by the subdivision of land shall comply with the:*
 - a. *City of Long Lake Street & Utility Standards & Detail Plates, dated May 15, 2002, as amended from time to time, which are herein adopted by reference. Section 18 Page 13 09/07/2006*
 - b. *City of Long Lake Stormwater Management Plan, dated August 2002, as amended from time to time.*
 - c. *Any other plan and specification standards pertaining to the design of improvements adopted by the City, and*
 - d. *Requirements of the Minnehaha Creek Watershed District (MCWD).*

Criterion not met.**Section B. Overall Requirements.**

1. *No subdivision shall be approved if the property is not suitable for the proposed land uses of the plat because of potential flooding, topography, inaccessibility, adverse soil conditions, rock formations or protected waters or wetlands. **Criterion not met.***
2. *Land subject to life, health or property hazards shall not be subdivided until all such hazards have been eliminated or unless adequate safeguards against such hazards are provided by the subdivision plan. **Criterion met.***
3. *Subdivisions shall be designed to complement the surrounding properties, natural features, environmental conditions and public access to allow for coordinated, attractive and efficient development within the City. **Criterion not met.***
4. *No plat shall extend over or onto another municipal or school district boundary. **Criterion met.***
5. *If the subdivision plan shows that one or more lots may be resubdivided in compliance with the zoning district of the property and/or the Comprehensive Plan, the City may require the platting of public right of way and/or dedication of easements to allow for the extension of public roads. **Not applicable.***
6. *Subdivisions shall be designed to the extent practical and reasonable so that lots obtain access from local streets rather than collector, minor arterial and arterial roadways. **Criterion met.***

Primary Issues to Consider

1. Does the Planning Commission find the proposed project to meet the criteria to utilize the PUD process on a lot that does not meet the minimum 2-acre area requirement (see Code standards below)?
 - a. The PUD and Master Development Plan includes two distinct land uses.
 - b. There are existing natural features on the property that would be impacted if development occurred according to the existing zoning of the property.
 - c. The PUD and Master Development Plan requirements and process provides for development that is compatible with the planned land uses of the surrounding area.

2. Does the Planning Commission find the proposed Master Development Plan to meet the ordinance requirements, as outlined by the criteria above?
3. Does the Planning Commission find the Master Development Plan sufficient as to approve the rezoning to Planned Unit Development?
4. Does the Planning Commission find that the proposed preliminary and final plats satisfy all requirements to be approved?

Recommended Planning Commission Action

Following the public hearing and review, and for all of the above-described reasons, staff recommends that the Planning Commission move to recommend that the City Council deny the requested Master Development Plan, rezoning to the PUD District, and preliminary and final plats. Staff does not think that the submission of any of the outstanding information will be able to achieve compliance for the application, as it is currently proposed, due to the referenced issues. The draft resolution attached reflects this recommendation.

Alternative Action

1. If the Planning Commission finds that this project, as proposed, potentially meets the criteria to be eligible for use of the PUD District and further would potentially support the request for rezoning for this project, depending on the details contained within the information that has not been provided by the Applicant, it is recommended that this item be tabled for future consideration to allow the Applicant to submit all required and requested information. This would include:
 - a. Plan updates addressing all requirements in the “Engineering Comments” section of this report
 - b. Plan updates demonstrating that the access complies with the Minnesota State Fire Code
 - c. Submission of a Tree Preservation Plan depicting all mature trees that will be saved or removed (on both the subject property and trees located on neighboring properties that could be impacted)
 - d. Landscape Plan indicating the species, size and planting specifications
 - e. Renderings depicting the height, bulk and gross square footage of the uses including the number and size of dwelling units.
2. The Planning Commission may decide to go against the recommendation of staff and recommend approval of the Master Development Plan, rezoning to the PUD District, and preliminary and final plats. The Planning Commission will need to provide clear findings for approval and direct staff to prepare a resolution recommending approval. If this path is selected, the Planning Commission should provide staff with direction as to any contingencies related to currently missing information.

Supporting Information

- Draft Resolution of Denial
- Land Use Application and supporting documentation
- Hennepin County Preliminary Review
- Minnehaha Creek Watershed District Comments – Wilds on Wayzata



**City Council
Resolution No. 2024-DRAFT**

A RESOLUTION DENYING REQUESTS FOR A PLANNED UNIT DEVELOPMENT MASTER DEVELOPMENT PLAN, REZONING TO THE PLANNED UNIT DEVELOPMENT DISTRICT, AND PRELIMINARY AND FINAL PLAT FOR WILDS ON WAYZATA

WHEREAS, the City of Long Lake received a request from Flip and Gina Carlson, Wilds on Wayzata LLC, on behalf of property owners Dylan Carlson and Alec Martinez (the “Applicants”) on August 9, 2024 for the review of a Master Development Plan for a Planned Unit Development, a Rezoning to the Planned Unit Development District, a Preliminary Plat and Final Plat located at 925 Wayzata Boulevard W. The property is legally described as follows:

The part of the East 1/2 of the Southeast 1/4 of Section 35, Township 118, Range 23 bounded by a line described as follows: Commencing at the point of intersection of the West line of said East 1/2 of the Southeast 1/4 with the Northerly line of the right of way of the Minnesota Western Railroad; thence North along the West line of said East 1/2 of the Southeast 1/4 a distance of 350 feet; thence deflecting 67 degrees to the right a distance of 100 feet to the actual point of beginning of the tract to be described; thence continuing along last described course to the Southwesterly line U.S. Highway Number 12, thence Southeasterly along Westerly line of said highway to a point a distance of 271.5 feet Northwesterly measured along the Westerly line of said highway from its intersection with the Northerly line of said railroad right of way; thence deflecting 98 degrees 35 minutes to the right, a distance of 304.2 feet; thence Northerly a distance of 207.4 feet to the actual point of beginning, according to Government survey thereof.

; and

WHEREAS, the Planning Commission reviewed and considered the request based on the related documents shown in the Applicants’ application at their regular meeting on September 10, 2024 and recommended denial of the Planned Unit Development Master Plan, rezoning request, and proposed preliminary and final plats; and

WHEREAS, the City Council reviewed and considered the reports, documents, testimony, Planning Commission recommendation, and other materials presented; and

WHEREAS, the City Council can deny a Planned Unit Master Development Plan and rezoning to the Planned Unit Development District if it finds that all requirements of Section 5 of the Long Lake Zoning Ordinance have not been met; and

WHEREAS, The City Council can deny a preliminary and final plat if it finds that all requirements of Section 18 of the Long Lake Zoning Ordinance have not been met.

NOW THEREFORE, BE IT RESOLVED, that the City Council of the City of Long Lake hereby denies the Applicants' request for approval of a Planned Unit Development Master Development Plan and rezoning to the Planned Unit Development District based on the following findings of fact:

1. The proposed development does not satisfy any of the criteria to permit the use of a PUD District on land located outside of the Downtown Village Mixed Use District, totaling less than two acres in size. This fact alone prohibits the approval of the Master Development Plan.
2. The proposed development is in conflict with provisions in the City's Comprehensive Plan and Tree Preservation Ordinance.
3. The proposed development is not in keeping with the character of the area and potential negative impacts to adjacent property have not been addressed by the plans provided with this application.
4. The proposed development is in conflict with the purpose and intent of the PUD District as it relates to property outside of the Downtown Village Mixed Use District.
5. There are serious concerns associated with emergency vehicle, delivery vehicle and trash collection vehicle access, which are not addressed by the submitted plans. Site constraints appear to prohibit a compliant plan, based upon the proposed Project design.

NOW THEREFORE, BE IT FUTHER RESOLVED, that the City Council of the City of Long Lake hereby denies the Applicants request for preliminary and final plat approval of WILDS ON WAYZATA based on the following findings of fact:

1. Without the approval of the Master Development Plan and rezoning to the PUD District, the proposed plat does not satisfy the following requirements of the Zoning Ordinance:
 - a. All lots shall have frontage on a public street (Lots 2 and 3 have no frontage)
 - b. All lots shall have direct access to an improved roadway (Lots 2 and 3 are accessed by passing through the entirety of Lots 1 and 4)
 - c. Shared driveway serving more than two lots (shared driveway would serve four lots)
2. The existing topography on the ALTA survey is insufficient to understand drainage patterns between the subject property and adjacent properties.
3. Significant engineering issues identified by the City Engineer are not addressed by the proposed preliminary and final plats, and associated plans.

Adopted by the City Council of the City of Long Lake this 17th day of September 2024.

BY:

Charlie Miner, Mayor

ATTEST:

Jeanette Moeller, City Clerk



2023 Land Use Application

CITY OF LONG LAKE
450 Virginia Avenue
MAIL TO: PO Box 606
Long Lake, MN 55356
Phone / 952.473.6961

Escrow Deposit: \$ _____

Date Paid: _____

☐ Check # _____

☐ Cash Receipt # _____

FOR OFFICE USE ONLY

Planning Case #: _____

Application Fee: \$ _____

Date Paid: _____

☐ Check # _____

☐ Cash Receipt # _____

PROPERTY INFORMATION

Address of Property Involved 925 WAYZATA BLVD, WAYZATA, MN 55391

Property Identification Number 35-118-23-44-000 Current Zoning R1

Legal Description of Property SEE PLAN

Property Owner Name DYLAN CARLSON P.O.A. ALEC MARTINEZ

Property Owner Mailing Address 1161 E. WAYZATA BLVD. #154

City, State, Zip WAYZATA, MN 55391

APPLICANT INFORMATION

Full Name WILDS ON WAYZATA, LLC Daytime Phone FLIP 612-802-9505

Fax _____ Email Address gina @ WILDS ON WAYZATA.COM

Street Address 1161 E. WAYZATA BLVD. #154

City, State, Zip WAYZATA, MINNESOTA 55391

TYPE OF REQUEST (Check All That Apply)

Zoning:

- ☐ Conditional Use Permit
☐ Zoning Amendment (Rezoning or Text)
☐ Variance
☐ Change to Nonconforming Use or Structure
☒ PUD Master Development Plan or Concept Plan
☐ Final Site and Building Plan Review
☐ Interim Use Zoning Amendment/Permit

Subdivision:

- ☒ Preliminary or
☒ Final Plat
☐ Minor Subdivision
 (lot line adjustment only)
☐ Major Subdivision
 (all platting applications)

Other:

- ☐ Comprehensive Plan Amendment
☐ Sign Variance
☒ Informal Concept Review (PC)
☐ Village Design Guidelines Review
☐ _____

All applications must be accompanied by the Submittal Information for the specific type of request and the required list of items.

Description of Request: SEEKING CITY APPROVAL TO
SUBDIVIDE THE PROPERTY AT 925 WAYZATA BLVD.
INTO 4-BUILDABLE LOTS AND RELOCATE THE EXISTING
DRIVEWAY ACCESS TO 112.

AGENDA DEADLINE & MEETING SCHEDULE

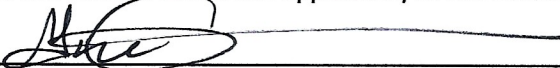
All regularly scheduled Planning Commission and City Council meetings are held in the City Hall Council Chambers beginning at 6:30 pm. The Planning Commission regularly meets on the second Tuesday of each month, and the City Council regularly meets on the first and third Tuesday of each month. Meeting dates may be subject to change due to member availability, holidays, election dates, or other conflicts that may arise during the calendar year.

APPLICANT ACKNOWLEDGMENT & SIGNATURE

With my signature below, I acknowledge that I have read, understand, and agree to all of the information listed in the Long Lake Land Use Application and fully understand and agree that I am responsible for all costs, including, without limitation, any consultant fees incurred by the City related to the processing and review of this application through completion and final inspection of any improvements, consistent with the 'Payment of Fees and Escrow Requirements' section above. I agree that if additional fees are required to cover costs incurred by the City, the City Administrator has the right to require additional payment from one or more of the undersigned, who shall be jointly and severally liable for such fees. I further understand and agree that if timely payment is not made, the application process may be terminated and the application denied for failure to reimburse the City for costs incurred. I also understand and agree that, in the event of non-payment of fees or costs related to this application or the project herein contemplated, the City may approve a special assessment against my property to recover the same and I hereby specifically waive any and all right to appeal said assessment pursuant to Minnesota Statute 429.

I, the undersigned, certify that the information on this application, to the best of my knowledge, is true and correct.

X Signature of Applicant


WILDS ON WAYATA

Date 8-9-24

Is applicant also the owner of the properties involved in this application? ☒ YES [] NO

PROPERTY OWNER SIGNATURE

I am the owner of the property or properties involved in this application, and consent to the applicant making a Land Use Application.

X Signature of Property Owner



Date 8-9-24

Wilds on Wayzata

1161 E. Wayzata Blvd., Unit 154, Wayzata, MN 55391

Gina Carlson PH: 612-805-3966 Email: gina@wildsonwayzata.com
 Flip Carlson PH: 612-802-9505 Email: flip@wildsonwayzata.com

August 9, 2024

City of Long Lake

Zoning Administration Offices

450 Virginia Ave., Long Lake, MN 55356

PH: 952-473-6961

Email: jmoeller@longlakemn.gov

RE: “Wilds on Wayzata” Property Development at 925 Wayzata Blvd., Wayzata, MN

OVERVIEW

Wilds on Wayzata, LLC. is pleased to present its proposed new property development “**Wilds on Wayzata**” with proposed plans for subdividing the 1.24 acre property located at **925 Wayzata Blvd, Wayzata, Minnesota** that is zoned R-1. We are requesting Planning and Council approval for dividing the parcel into 4-single-family residential lots in R-1 and relocating the access onto Hennepin County Road 112. Integral to the process is moving and/or demolishing the current house on the property; other structures on the property are temporary. The surrounding properties are also zoned R-1 single family residential.

We are proposing a PUD process for approval since the project’s shared road poses a unique access that is perpendicular to Highway 112 instead of a parallel frontage road as defined in the Long Lake Ordinances. The current driveway curb-cut will be moved to the center of the property that borders Highway 112; again with only one curb-cut. We have gone through several iterations of various layouts and have concluded that this 4-lot layout is most conducive to the unique characteristics of the property, and most fitting within the surrounding neighborhoods. The property will be landscaped along Wayzata Blvd. similar to “Landings at Long Lake” across Wayzata Boulevard from this location.

The design of the road access herein, takes into account the most current feedback from Hennepin County as reviewed with the Long Lake City Engineer.

This new upscale neighborhood will have essentially the same layout as the properties directly to the north that also have Wayzata Boulevard addresses. The single-family homes directly to the west on Lindawood Lane is a neighborhood with one shared access road to Wayzata Boulevard. The two properties to the south also have one shared access to Wayzata Boulevard. The property across Wayzata Boulevard to the east are (2) R-1 single family properties and large DNR property that is unbuildable.

ENCLOSURES

1. Application
2. Legal Description
3. Plans – Civil Site Group
 - C0.0 Title Sheet – Project Location
 - V1.0 Site Surveying – Existing Conditions
 - VI.1 Preliminary Plat
 - VI.2 Final Plat
 - C2.0 Site Plan and Turning Movement Plan
 - C3.0 Grading Plan
 - C4.0 Utility Plan
 - C5.0 Details
 - C6.0 Erosion Control Plan
 - C6.1 Erosion Control Plan Notes
 - C7.0 SWPPP
 - C7.1 SWPPP
4. Stormwater Management Report - Civil Site Group. The plan has yet to be submitted to the Minnehaha Watershed.
5. Access Easement and Utility and Stormwater Easement with (future) Wilds on Wayzata Homeowners.
6. Landscape Plan and Lighting Plan will meet the required guidelines set-forth in the Long Lake Ordinance for the access road and be similar in character to the “Landings at Long Lake”.
7. Building elevations and floorplans will follow upon application for building permits. The 4-homes are approximately 3000+ square feet in this upscale neighborhood. The buildable area for each home is shown on the site plans.
8. A moving permit will be obtained should the 1-story house built in 1950 be moved off the property versus being demolished.
9. A temporary sign permit will be requested for sales of the homes that will be custom designed and built by the Owner. The first home will start construction upon City approval and financing, with the remaining 3-custom homes built as soon as they are sold.
10. Attached are the following maps:
 - A. 925 Wayzata Blvd. W., Wayzata, MN. – subject property. The current PID map from the Hennepin County website.
 - B. 925 Wayzata Blvd. W., Wayzata, MN. The aerial photo from the Hennepin County website.
 - C. The neighborhood show neighborhoods with similar layouts to the proposed **Wilds on Wayzata** 4-lot development that have *shared road access* to Wayzata Boulevard:
 1. NORTH ADJACENT PROPERTIES: The neighborhood directly north has 3-houses located at 945, 955, and 965 Wayzata Blvd that share a perpendicular access road to Highway 112.

2. EAST SIDE OF 112: There is a recently approved 4-lot development fronting Highway 112 located at 1090, 1070, 1050, and 1040 Old Long Lake Road that share a frontage road.
3. EAST SIDE OF 112: There are 7 houses on Underhill Circle that have a shared road connection to Highway 112.
4. WEST ADJACENT PROPERTIES: The Lindawood Lane neighborhood has 19 houses that share one access road to Highway 112.
5. SOUTH ADJACENT PROPERTIES: There are 2 houses connected to the access drive just south of our proposed development.
- D. Map of another PUD recently built in Long Lake by Aava Vetta subdividing the 1-acre plus property, of similar size to Wilds on Wayzata parcel, that is now individual owner townhomes.
- E. Long Lake Comprehensive Plan Map – CURRENT & 2040 show the surrounding neighborhoods to the subject property.
11. Neighbors List of Names and Addresses for Notification.
12. Development Agreement with the City will be provided upon City approval and financing in-place including the required “Letter of Credit” to the City.

We look forward to working with the City on this exciting new neighborhood that benefits the City of Long Lake.

- Contact Gina Carlson with questions or comments on this submittal as below.
- Contact Rory Synstelien at Civil Site Group with questions or comments on the engineering/surveying plans at 612-802-3222 and email Rory@civilsitegroup.com.

We would like to schedule a concept review meeting at your convenience.

Regards,

Wilds on Wayzata, llc

Gina Carlson 612-805-3966 gina@wildsonwayzata.com



Hennepin County Property Map

Date: 8/7/2024



PARCEL ID: 3511823440001

OWNER NAME: D Carlson & A D Martinez

PARCEL ADDRESS: 925 Wayzata Blvd W, Long Lake MN 55391

PARCEL AREA: 1.24 acres, 53,920 sq ft

A-T-B: Abstract

SALE PRICE: \$285,000

SALE DATE: 01/2020

SALE CODE: Warranty Deed

ASSESSED 2023, PAYABLE 2024

PROPERTY TYPE: Residential

HOMESTEAD: Homestead

MARKET VALUE: \$340,300

TAX TOTAL: \$3,789.00

ASSESSED 2024, PAYABLE 2025

PROPERTY TYPE: Residential

HOMESTEAD: Homestead

MARKET VALUE: \$338,900

Comments:

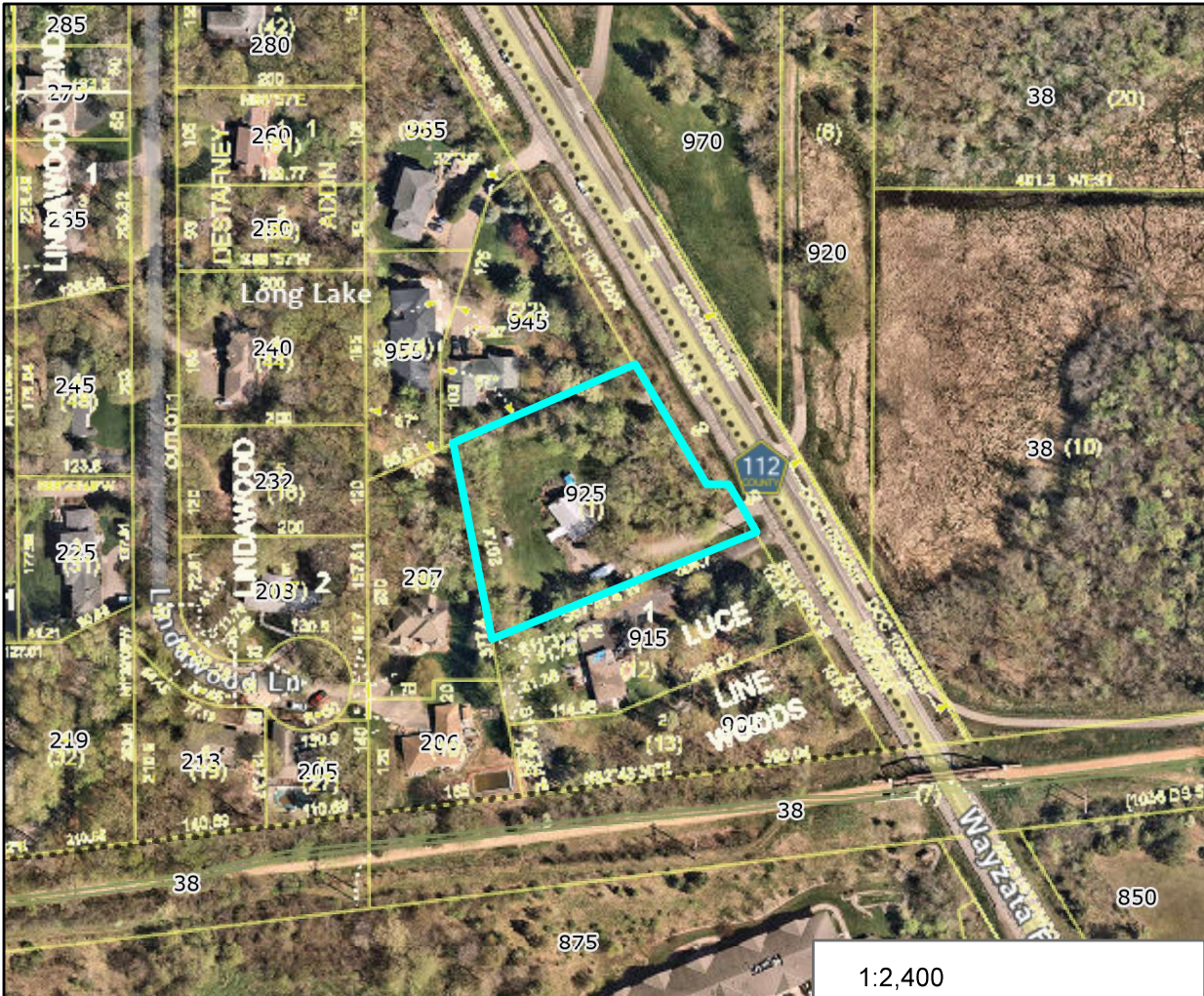
This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

COPYRIGHT © HENNEPIN
COUNTY 2024



Hennepin County Property Map

Date: 8/7/2024



PARCEL ID: 3511823440001

OWNER NAME: D Carlson & A D Martinez

PARCEL ADDRESS: 925 Wayzata Blvd W, Long Lake MN 55391

PARCEL AREA: 1.24 acres, 53,920 sq ft

A-T-B: Abstract

SALE PRICE: \$285,000

SALE DATE: 01/2020

SALE CODE: Warranty Deed

ASSESSED 2023, PAYABLE 2024

PROPERTY TYPE: Residential

HOMESTEAD: Homestead

MARKET VALUE: \$340,300

TAX TOTAL: \$3,789.00

ASSESSED 2024, PAYABLE 2025

PROPERTY TYPE: Residential

HOMESTEAD: Homestead

MARKET VALUE: \$338,900

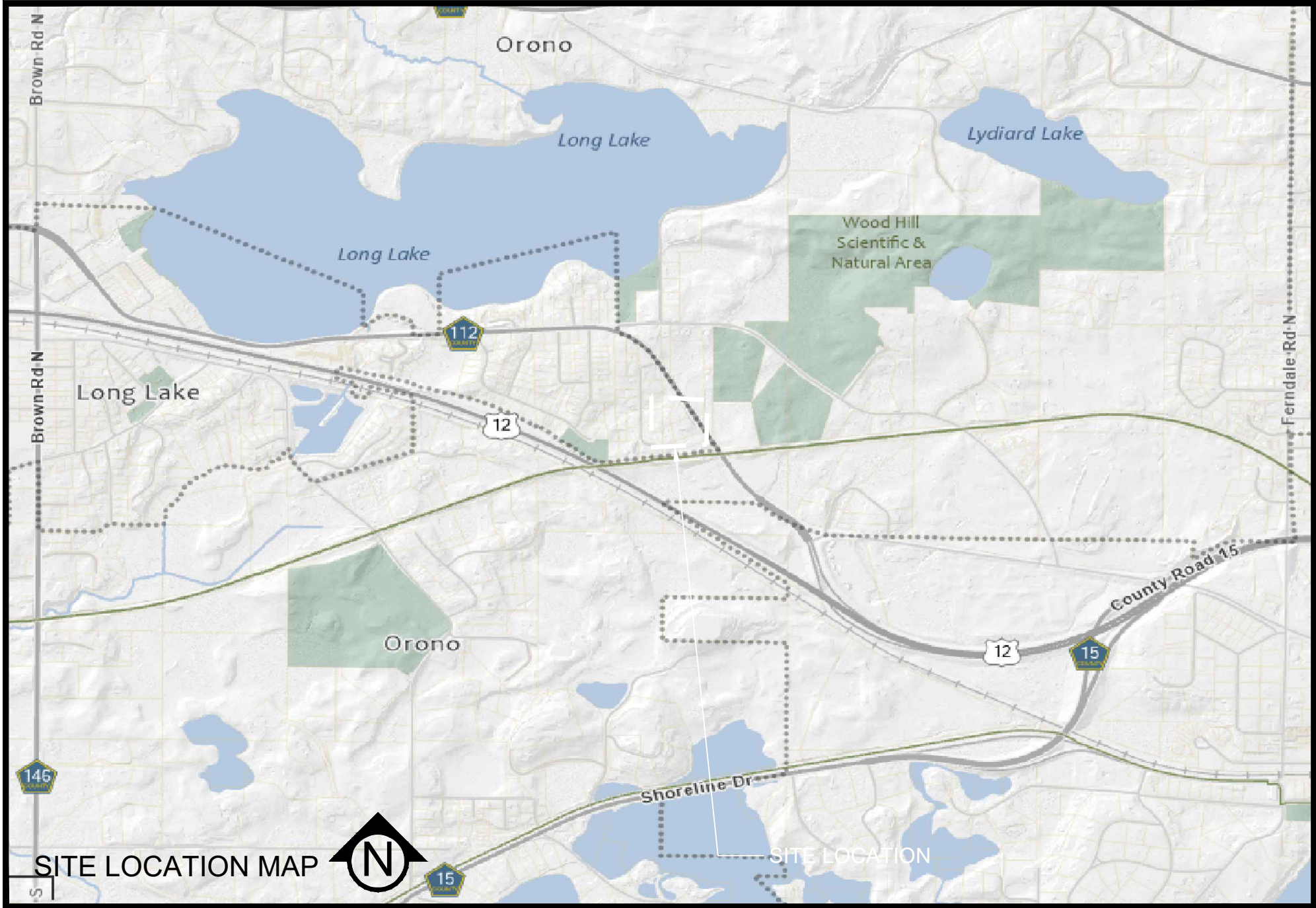
Comments:

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

COPYRIGHT © HENNEPIN
COUNTY 2024

WILDS ON WAYZATA

LONG LAKE, MINNESOTA



DEVELOPER / PROPERTY OWNER:

FLIP CARLSON
BLUESKY GROUP
1161 East Wayzata Blvd, No. 154,
Wayzata MN, 55391
612-802-9505

ENGINEER / LANDSCAPE ARCHITECT:

CIVIL SITE GROUP
4931 W 35TH STREET
SUITE 200
ST LOUIS PARK, MN 55416
612-615-0060

SURVEYOR:

CIVIL SITE GROUP
4931 W 35TH STREET
SUITE 200
ST LOUIS PARK, MN 55416
612-615-0060



CivilSite
GROUP
Civil Engineering • Surveying • Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com612-615-0060

PROJECT

925 Wayzata Blvd W
Long Lake, Hennepin County, MN 55391

CLIENT

Blue Sky Group
1161 E Wayzata Blvd #154, Wayzata, MN 55391

I HEREBY CERTIFY THAT THIS SURVEY, PLAN, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

RORY L. SYNSTELIEN

DATE: LICENSE NO:

SHEET INDEX

SHEET NUMBER	SHEET TITLE
C0.0	TITLE SHEET
V1.0	SITE SURVEY
V1.1	PRELIMINARY PLAT
V1.2	FINAL PLAT
C2.0	SITE PLAN & TURNING MOVEMENT PLAN
C3.0	GRADING PLAN
C4.0	UTILITY PLAN
C5.0	DETAILS
C6.0	EROSION CONTROL PLAN
C6.1	EROSION CONTROL PLAN NOTES
C7.0	SWPPP
C7.1	SWPPP

VICINITY MAP

REVISION SUMMARY

DATE	DESCRIPTION

COVER SHEET

C0.0

Section 6A

©COPYRIGHT 2022 CIVIL SITE GROUP

25

925 Wayzata Blvd W

Long Lake, Hennepin County, MN 55391

Blue Sky Group

1161 E Wayzata Blvd #154, Wayzata, MN 55391

PROJECT

CLIENT

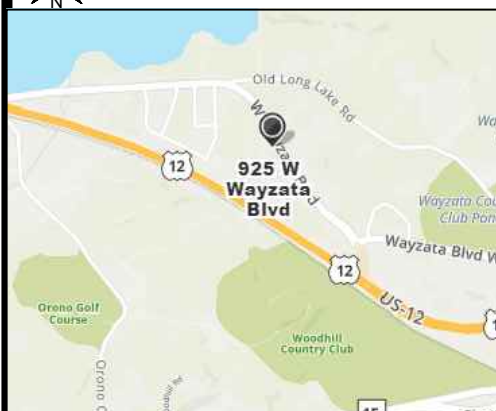
I HEREBY CERTIFY THAT THIS SURVEY, PLAN, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

RORY L. SYNSTELIEN
DATE 7-2-2020 LICENSE NO. 44565

QA/QC

FIELD CREW	DO
DRAWN BY	FJJSW/CJ
REVIEWED BY	RLS
UPDATED BY	

VICINITY MAP



REVISION SUMMARY

DATE	DESCRIPTION
4-21-23	Added Tree Table

PROJECT NO.: 20163

ALTA/NSPS LAND
TITLE SURVEY

V1.0

Tree Table		Tree Table		Tree Table	
Point #	Description	Point #	Description	Point #	Description
1210	12" SPR	1315	8" HAC	1213	16" SPR
1018	21" MAP	1187	11" BOX	1214	12" BOX
1328	11" BOX	1316	15" ELM	1313	20" HAC
1072	25" MAP	1188	12" BOX	1294	14" PIN
1107	13" SPR	1317	13" BOX	1297	18" PIN
1108	15" SPR	1189	13" BOX	1301	16" SPR
1302	14" BOX	1318	13" BOX	1305	9" SPR
1110	20" APP	1190	12" BOX	1306	8" SPR
1118	15" ELM	1319	10" APP	1307	10" BOX
1311	20" BOX	1191	16" BOX	1308	12" BOX
1119	12" MAP	1320	8" APP	1309	24" BOX
1158	12" SPR	1192	14" ELM	1324	12" ELM
1159	18" PIN	1321	8" BOX	1326	12" BOX
1288	10" BOX	1193	14" SPR	1327	11" BOX
1160	7" MAP	1322	8" BOX	1329	11" BOX
1289	10" APP	1194	14" SPR		
1161	13" BOX	1323	10" BOX		
1175	29" PIN	1195	14" BIR		
1314	8" BOX	1211	15" SPR		
1186	15" BOX	1212	14" SPR		

DESCRIPTION OF PROPERTY SURVEYED

The part of the East 1/2 of the Southeast 1/4 of Section 35, Township 118, Range 23 bounded by a line described as follows: Commencing at the point of intersection of the West line of said East 1/2 of the Southeast 1/4 with the Northerly line of the right of way of the Minnesota Western Railroad; thence North along the West line of said East 1/2 of the Southeast 1/4 a distance of 350 feet; thence deflecting 67 degrees to the right a distance of 100 feet to the actual point of beginning of the tract to be described; thence continuing along last described course to the Southwesterly line U.S. Highway Number 12, thence Southeasterly along Westerly line of said highway to a point a distance of 271.5 feet Northwesterly measured along the Westerly line of said highway from its intersection with the Northerly line of said railroad right of way; thence deflecting 98 degrees 35 minutes to the right, a distance of 304.2 feet; thence Northerly a distance of 207.4 feet to the actual point of beginning, according to Government survey thereof.

ALTA/NSPS Land Title Survey Notes

(numbered per Table A)

- Bearings are based on the Hennepin County Coordinate System (1986 Adjustment).
- Site Address: 925 Wayzata Blvd, Long Lake, MN 55391.
- This property is contained in Zone X (area determined to be outside the 0.2% annual chance floodplain) per Flood Insurance Rate Map, Community Panel No. 27053C0306F, effective date of November 4, 2016.
- The Gross land area is 52,663 +/- square feet or 1.209 +/- acres.
- Elevations are based on the NGVD 29 Datum. Site Benchmark is top nut of hydrant located at the rear of the property. Elevation=996.56.
- The current Zoning for the subject property was not provided.

Please note that the general restrictions for the subject property may have been amended through a city process. We could be unaware of such amendments if they are not in a recorded document provided to us. We recommend that a zoning letter be obtained from the Zoning Administrator for the current restrictions for this site.

- No parking stripes were observed.

- We have shown the location of utilities to the best of our ability based on observed evidence together with evidence from the following sources: plans obtained from utility companies, plans provided by client, markings by utility companies and other appropriate sources. We have used this information to develop a view of the underground utilities for this site. However, lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, the client is advised that excavation may be necessary. Also, please note that seasonal conditions may inhibit our ability to visibly observe all the utilities located on the subject property.

- The names of the adjoining owners of the platted lands, as shown hereon, are based on information obtained from Hennepin County GIS.

SURVEY REPORT

- This map and report was prepared without the benefit of a Commitment for Title Insurance. The property description hereon were obtained from a Warranty Deed (Doc. No. 10751021) retrieved from the Hennepin County Record Ease website and may or may not be the latest description of record. There may be easements or other matters of record that we are unaware of and thus not shown hereon.

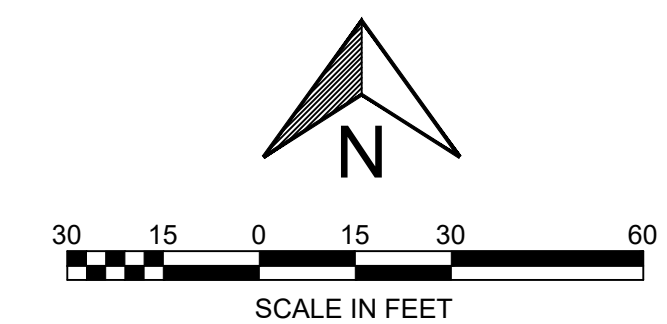
ALTA CERTIFICATION

To: Dylan Carlson and Alec D Martinez:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 6, 8, 9, 11, and 13 of Table A thereof. The field work was completed on 05-20-2020. Dated this 2nd day of July, 2020.

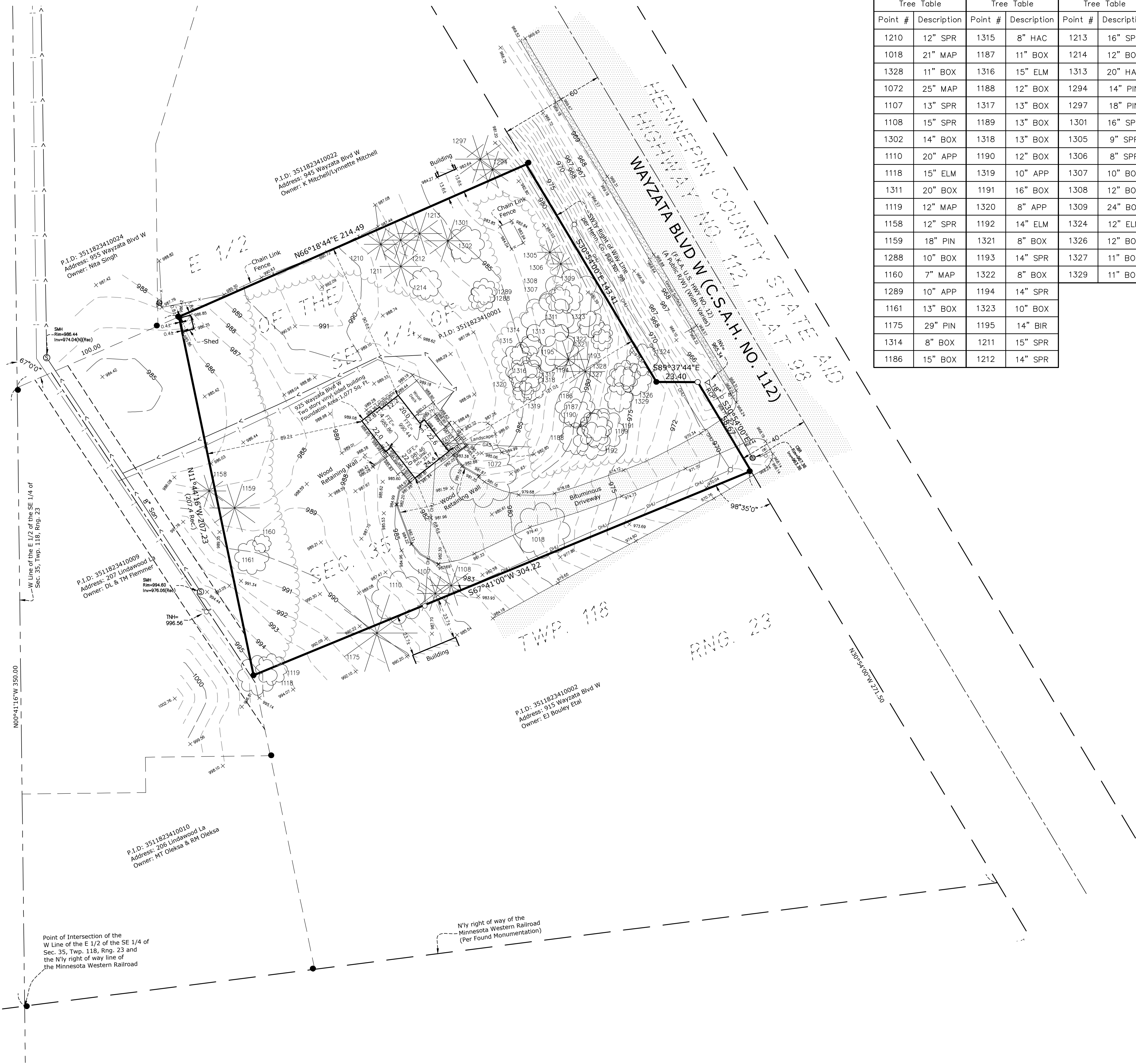
Rory L. Synstelién
rory@civilsitegroup.com

Minnesota License No. 44565



Linetype & Symbol Legend

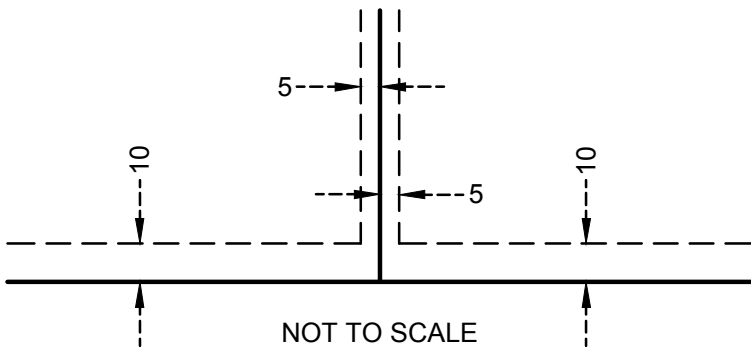
FD	FIBER OPTIC	⚡	SIGN	⊠	AIR CONDITIONER
—	GASMAIN	⊕	UTILITY MANHOLE	●	BOLLARD
—	WATERMAIN	⊕	SANITARY MANHOLE	⊕	ELECTRIC MANHOLE
—	SANITARY SEWER	⊕	STORM MANHOLE	—	FLAG POLE
—	STORM SEWER	⊕	CATCH BASIN	—	FLARED END SECTION
—	OVERHEAD UTILITIES	⊕	ROOF DRAIN	⊕	GAS VALVE
TEL	TELEPHONE LINE	⊕	TELEPHONE BOX	⊕	HANDICAP SYMBOL
—	ELECTRIC LINE	⊕	TELEPHONE MANHOLE	⊕	HYDRANT
CTV	CABLE LINE	⊕	ELECTRIC TRANSFORMER	⊕	WATER MANHOLE
—	CHAINLINK FENCELINE	⊕	TRAFFIC SIGNAL	⊕	WATER VALVE
—	WOODEN FENCELINE	⊕	CABLE TV BOX	⊕	POWER POLE
—	GUARDRAIL	⊕	ELECTRICAL METER	⊕	GUY WIRE
—	CONCRETE SURFACE	⊕	GAS METER	⊕	CONFEROUS TREE
—	PAVER SURFACE	⊕	FOUND IRON MONUMENT	⊕	DECIDUOUS TREE
—	BITUMINOUS SURFACE	⊕	SET IRON MONUMENT		
—	GRAVEL/LANDSCAPE SURFACE	⊕	CAST IRON MONUMENT		



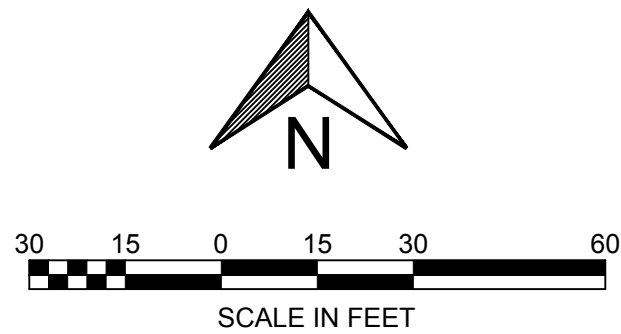
C.R. DOC. NO _____

WILDS ON WAYZATA

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



Being 5 feet in width and adjoining lot lines, unless otherwise indicated, and 10 feet in width and adjoining right of way lines unless otherwise indicated, as shown on this plat.



Bearings are based on the west line of the East 1/2 of the Southeast 1/4 of Section 35, Township 118, Range 23 having an assumed bearing of North 00 degrees 41 minutes 16 seconds West

- Found Iron Monument (see map for type)
- 1/2 inch by 14 Iron Rebar Set Marked "RLS 44565"
- ◎ Found Hennepin County Cast Iron Monument

KNOW ALL PERSONS BY THESE PRESENTS: That Dylan Carlson, a single person, and Alec Martinez, a single person, fee owners of the following described property:

The part of the East 1/2 of the Southeast 1/4 of Section 35, Township 118, Range 23 bounded by a line described as follows: Commencing at the point of intersection of the West line of said East 1/2 of the Southeast 1/4 with the Northerly line of the right of way of the Minnesota Western Railroad; thence North along the West line of said East 1/2 of the Southeast 1/4 a distance of 350 feet; thence deflecting 67 degrees to the right a distance of 100 feet to the actual point of beginning of the tract to be described; thence continuing along last described course to the Southwesterly line U.S. Highway Number 12, thence Southeasterly along Westerly line of said highway to a point a distance of 271.5 feet Northwesterly measured along the Westerly line of said highway from its intersection with the Northerly line of said railroad right of way; thence deflecting 98 degrees 35 minutes to the right, a distance of 304.2 feet; thence Northerly a distance of 207.4 feet to the actual point of beginning, according to Government survey thereof.

Has caused the same to be surveyed and platted as WILDS ON WAYZATA and does hereby dedicate to the public for public use the drainage and utility easements as created by this plat.

In witness whereof said Dylan Carlson, a single person, has hereunto set his hand this _____ day of _____, 20_____.

Dylan Carlson

STATE OF _____, COUNTY OF _____

This instrument was acknowledged before me this _____ day of _____, 20_____, by Dylan Carlson, a single person.

Notary Public, Signature

Notary Public, Printed Name
My Commission Expires: _____

Notary Public _____ County, _____

In witness whereof said Alec Martinez, a single person, has hereunto set his hand this _____ day of _____, 20_____.

Alec Martinez

STATE OF _____, COUNTY OF _____

This instrument was acknowledged before me this _____ day of _____, 20_____, by Alec Martinez, a single person.

Notary Public, Signature

Notary Public, Printed Name
My Commission Expires: _____

Notary Public _____ County, _____

SURVEYORS CERTIFICATE

I Rory L. Synsteliien do hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been or will be set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this certificate are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this _____ day of _____, 20_____.

Rory L. Synsteliien, Licensed Land Surveyor
Minnesota License No. 44565

STATE OF MINNESOTA, COUNTY OF _____
PRELIMINARY

This instrument was acknowledged before me this _____ day of _____, 20_____, by Rory L. Synsteliien.

Notary Public, Signature

Notary Public, Printed Name
My Commission Expires: _____

Notary Public _____ County, _____

CITY COUNCIL, CITY OF LONG LAKE, MINNESOTA

This plat of WILDS ON WAYZATA was approved and accepted by the City Council of The City of Long Lake, Minnesota at a regular meeting thereof held this _____ day of _____, 20_____, and said plat is in compliance with the provisions of Minnesota Statutes, Section 505.03, Subd. 2.

City Council, City of Long Lake, Minnesota

By: _____, Mayor
By: _____, City Administrator

RESIDENT AND REAL ESTATE SERVICES, Hennepin County, Minnesota

I hereby certify that taxes payable in 20_____ and prior years have been paid for land described on this plat, dated this _____ day of _____, 20_____.

County Auditor

By: _____, Deputy

SURVEY DIVISION, Hennepin County, Minnesota

Pursuant to Minnesota Statutes Section 383B.565 (1969), this plat has been approved this _____ day of _____, 20_____.

Chris F. Mavis, County Surveyor

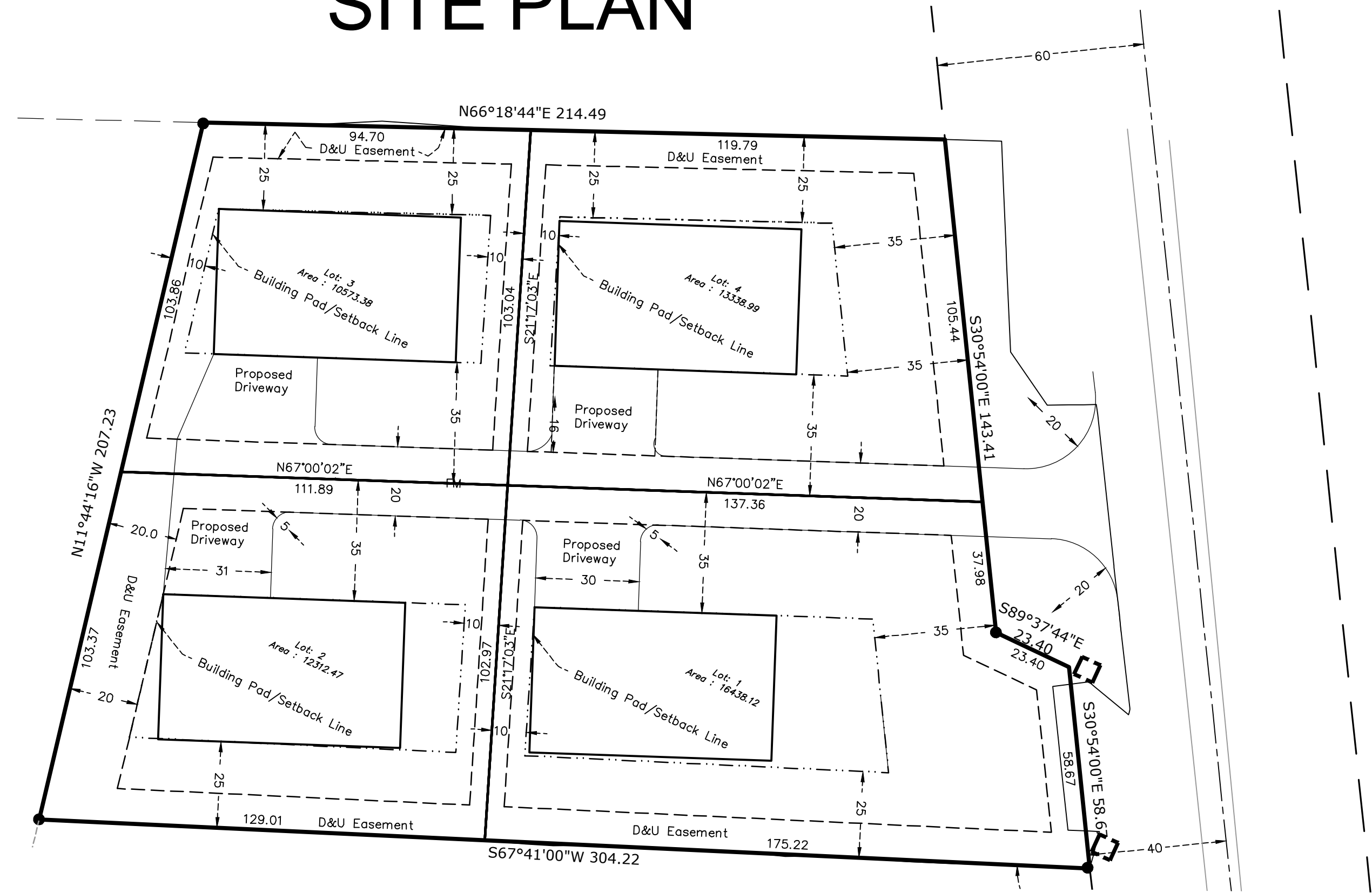
By: _____

COUNTY RECORDER, Hennepin County, Minnesota

I hereby certify that the within plat of WILDS ON WAYZATA was recorded in this office this _____ day of _____, 20_____, at _____ O'Clock _____ M.

Amber Bougie, County Recorder

By: _____, Deputy



1. CONTRACTOR SHALL VERIFY LOCATIONS AND LAYOUT OF ALL SITE ELEMENTS PRIOR TO BEGINNING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, LOCATIONS OF EXISTING AND PROPOSED PROPERTY LINES, EASEMENTS, SETBACKS, UTILITIES, BUILDINGS AND PAVEMENTS. CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATIONS OF ALL ELEMENTS FOR THE SITE. ANY REVISIONS REQUIRED AFTER COMMENCEMENT OF CONSTRUCTION, DUE TO LOCATIONAL ADJUSTMENTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO OWNER. ADJUSTMENTS TO THE LAYOUT SHALL BE APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF MATERIALS. STAKE LAYOUT FOR APPROVAL.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, INCLUDING A RIGHT-OF-WAY AND STREET OPENING PERMIT.
3. THE CONTRACTOR SHALL VERIFY RECOMMENDATIONS NOTED IN THE GEO TECHNICAL REPORT PRIOR TO INSTALLATION OF SITE IMPROVEMENT MATERIALS.
4. CONTRACTOR SHALL FIELD VERIFY COORDINATES AND LOCATION DIMENSIONS OF THE BUILDING AND STAKE FOR REVIEW AND APPROVAL BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION OF FOOTING MATERIALS.
5. LOCATIONS OF STRUCTURES, ROADWAY PAVEMENTS, CURBS AND GUTTERS, BOLLARDS, AND WALKS ARE APPROXIMATE AND SHALL BE STAKED IN THE FIELD, PRIOR TO INSTALLATION, FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT.
6. CURB DIMENSIONS SHOWN ARE TO FACE OF CURB. BUILDING DIMENSIONS ARE TO FACE OF CONCRETE FOUNDATION. LOCATION OF BUILDING IS TO BUILDING FOUNDATION AND SHALL BE AS SHOWN ON THE DRAWINGS.
7. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR SAMPLES AS SPECIFIED FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO FABRICATION FOR ALL PREFABRICATED SITE IMPROVEMENT MATERIALS SUCH AS, BUT NOT LIMITED TO THE FOLLOWING, FURNISHINGS, PAVEMENTS, WALLS, RAILINGS, BENCHES, FLAGPOLES, LANDING PADS FOR CURB RAMPS, AND LIGHT AND POLES. THE OWNER RESERVES THE RIGHT TO REJECT INSTALLED MATERIALS NOT PREVIOUSLY APPROVED.
8. PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOME LANDING AREAS IN ACCORDANCE WITH A.D.A. REQUIREMENTS-SEE DETAIL.
9. CROSSWALK STRIPING SHALL BE 24" WIDE WHITE PAINTED LINE, SPACED 48" ON CENTER PERPENDICULAR TO THE FLOW OF TRAFFIC. WIDTH OF CROSSWALK SHALL BE 5' WIDE. ALL OTHER PAVEMENT MARKINGS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED OR REQUIRED BY ADA OR LOCAL GOVERNING BODIES.
10. SEE SITE PLAN FOR CURB AND GUTTER TYPE. TAPER BETWEEN CURB TYPES-SEE DETAIL.
11. ALL CURB RADII ARE MINIMUM 3' UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL REFER TO FINAL PLAT FOR LOT BOUNDARIES, NUMBERS, AREAS AND DIMENSIONS PRIOR TO SITE IMPROVEMENTS.
13. FIELD VERIFY ALL EXISTING SITE CONDITIONS, DIMENSIONS.
14. PARKING IS TO BE SET PARALLEL OR PERPENDICULAR TO EXISTING BUILDING UNLESS NOTED OTHERWISE.
15. ALL PARKING LOT PAINT STRIPPING TO BE WHITE, 4" WIDE TYP.
16. BITUMINOUS PAVING TO BE "LIGHT DUTY" UNLESS OTHERWISE NOTED. SEE DETAIL SHEETS FOR PAVEMENT SECTIONS.
17. ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED FROM DAMAGE WITH A CONSTRUCTION FENCE AT THE DRIP LINE. SEE LANDSCAPE DOCUMENTS.

925 Wayzata Blvd W

Long Lake, Hennepin County, MN 55391

Blue Sky Group

1161 E Wayzata Blvd #154, Wayzata, MN 55391

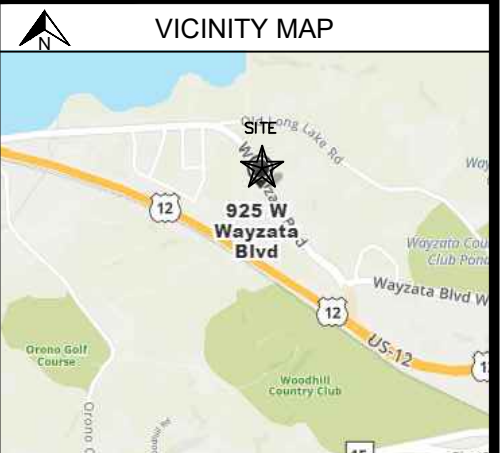
PROJECT

CLIENT

I HEREBY CERTIFY THAT THIS SURVEY, PLAN, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

RORY L. SYNSTELIEN
DATE _____ LICENSE NO. _____

QA/QC	
FIELD CREW	
DRAWN BY	SIW
REVIEWED BY	RS
UPDATED BY	



REVISION SUMMARY	
DATE	DESCRIPTION
7-7-23	Added Labels

PROJECT NO. - 20163

SITE PLAN &
TURNING MOVEMENT

C2.0

925 Wayzata Blvd W

Long Lake, Hennepin County, MN 55391

Blue Sky Group

1161 E Wayzata Blvd #154, Wayzata, MN 55391

PROJECT

CLIENT

I HEREBY CERTIFY THAT THIS SURVEY, PLAN, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

RORY L. SYNSTELIEN
DATE _____ LICENSE NO. _____

QA/QC	
FIELD CREW	
DRAWN BY	SIW
REVIEWED BY	RS
UPDATED BY	



REVISION SUMMARY	
DATE	DESCRIPTION
7-7-23	Added Labels

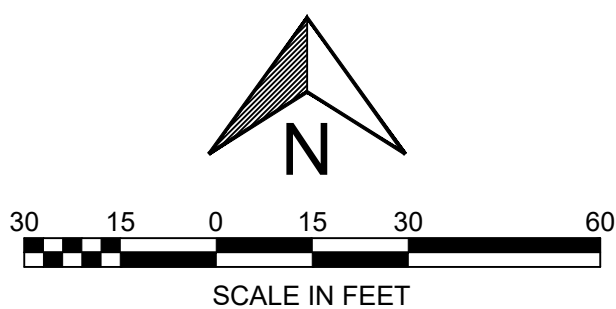
PROJECT NO. - 20163

GRADING PLAN

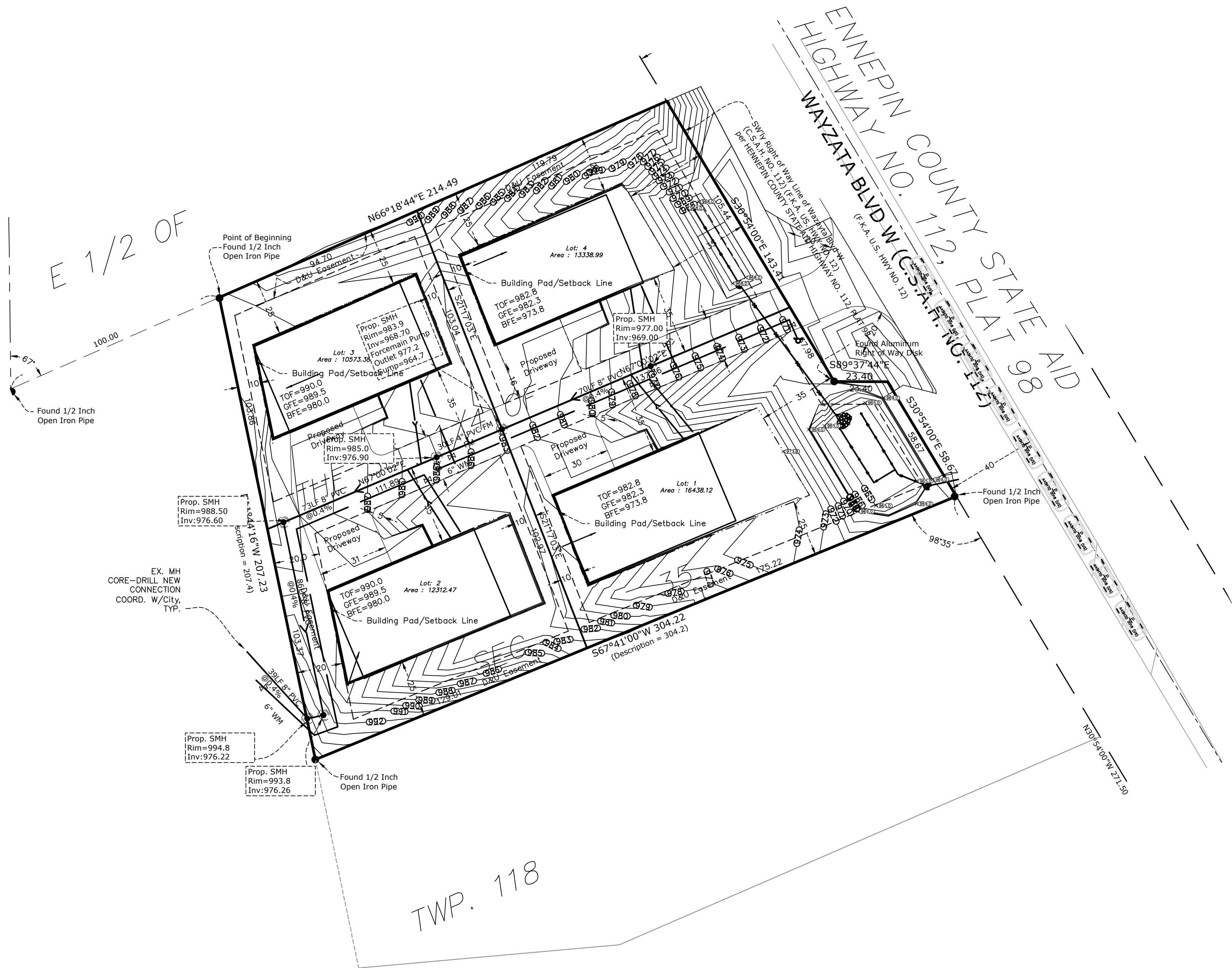
C3.0

- ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (851-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
- CONTRACTOR SHALL VERIFY LOCATIONS AND LAYOUT OF ALL SITE ELEMENTS PRIOR TO BEGINNING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, LOCATIONS OF EXISTING AND PROPOSED PROPERTY LINES, EASEMENTS, SETBACKS, UTILITIES, BUILDINGS AND PAVEMENTS. CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATIONS OF ALL ELEMENTS FOR THE SITE. ANY REVISIONS REQUIRED AFTER COMMENCEMENT OF CONSTRUCTION, DUE TO LOCATIONAL ADJUSTMENTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO OWNER. ADJUSTMENTS TO THE LAYOUT SHALL BE APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF MATERIALS. STAKE LAYOUT FOR APPROVAL.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, INCLUDING A RIGHT-OF-WAY AND STREET OPENING PERMIT.
- THE CONTRACTOR SHALL VERIFY RECOMMENDATIONS NOTED IN THE GEO TECHNICAL REPORT PRIOR TO INSTALLATION OF SITE IMPROVEMENT MATERIALS.
- CONTRACTOR SHALL FIELD VERIFY COORDINATES AND LOCATION DIMENSIONS & ELEVATIONS OF THE BUILDING AND STAKE FOR REVIEW AND APPROVAL BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION OF FOOTING MATERIALS.
- LOCATIONS OF STRUCTURES, ROADWAY PAVEMENTS, CURBS AND GUTTERS, BOLLARDS, AND WALKS ARE APPROXIMATE AND SHALL BE STAKED IN THE FIELD, PRIOR TO INSTALLATION, FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT.
- CURB DIMENSIONS SHOWN ARE TO FACE OF CURB. BUILDING DIMENSIONS ARE TO FACE OF CONCRETE FOUNDATION. LOCATION OF BUILDING IS TO BUILDING FOUNDATION AND SHALL BE AS SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR SAMPLES AS SPECIFIED FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO FABRICATION FOR ALL PREFABRICATED SITE IMPROVEMENT MATERIALS SUCH AS, BUT NOT LIMITED TO THE FOLLOWING, FURNISHINGS, PAVEMENTS, WALLS, RAILINGS, BENCHES, FLAGPOLES, LANDING PADS FOR CURB RAMPS, AND LIGHT AND POLES. THE OWNER RESERVES THE RIGHT TO REJECT INSTALLED MATERIALS NOT PREVIOUSLY APPROVED.
- PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOME LANDING AREAS IN ACCORDANCE WITH A.D.A. REQUIREMENTS-SEE DETAIL.
- CROSSWALK STRIPING SHALL BE 24" WIDE WHITE PAINTED LINE, SPACED 48" ON CENTER PERPENDICULAR TO THE FLOW OF TRAFFIC. WIDTH OF CROSSWALK SHALL BE 5' WIDE. ALL OTHER PAVEMENT MARKINGS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED OR REQUIRED BY ADA OR LOCAL GOVERNING BODIES.
- SEE SITE PLAN FOR CURB AND GUTTER TYPE. TAPER BETWEEN CURB TYPES-SEE DETAIL.
- ALL CURB RADII ARE MINIMUM 3' UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL REFER TO FINAL PLAT FOR LOT BOUNDARIES, NUMBERS, AREAS AND DIMENSIONS PRIOR TO SITE IMPROVEMENTS.
- FIELD VERIFY ALL EXISTING SITE CONDITIONS, DIMENSIONS.
- PARKING IS TO BE SET PARALLEL OR PERPENDICULAR TO EXISTING BUILDING UNLESS NOTED OTHERWISE.
- ALL PARKING LOT PAINT STRIPING TO BE WHITE, 4" WIDE TYP.
- BITUMINOUS PAVING TO BE "LIGHT DUTY" UNLESS OTHERWISE NOTED. SEE DETAIL SHEETS FOR PAVEMENT SECTIONS.
- ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED FROM DAMAGE WITH A CONSTRUCTION FENCE AT THE DRIP LINE. SEE LANDSCAPE DOCUMENTS.
- CONTRACTOR IS RESPONSIBLE TO INSTALL ANY SIDEWALK AND CURBING PER DESIGN PLAN. CONTRACTOR TO VERIFY ALL CURBS AND SIDEWALKS WILL DRAIN PROPERLY IN FIELD CONDITIONS. **CONTRACTOR MUST CONTACT THE CIVIL ENGINEER 24-HOURS PRIOR TO ANY CURB AND/OR SIDEWALK INSTALLATION TO REVIEW AND INSPECT CURB STAKES. CONTRACTOR IS RESPONSIBLE FOR ANY CURB OR SIDEWALK REPLACEMENT IF THIS PROCEDURE IS NOT FOLLOWED.**

PRELIMINARY

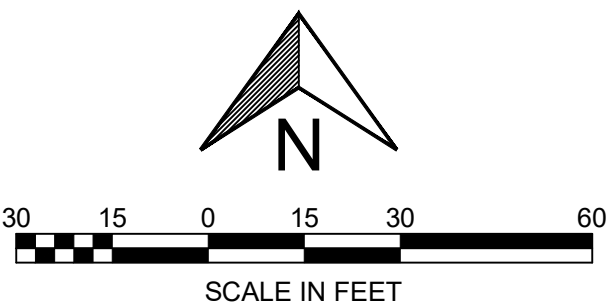


Know what's below.
Call before you dig.



1. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (851-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS. 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
2. CONTRACTOR SHALL VERIFY LOCATIONS AND LAYOUT OF ALL SITE ELEMENTS PRIOR TO BEGINNING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, LOCATIONS OF EXISTING AND PROPOSED PROPERTY LINES, EASEMENTS, SETBACKS, UTILITIES, BUILDINGS AND PAVEMENTS. CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATIONS OF ALL ELEMENTS FOR THE SITE. ANY REVISIONS REQUIRED AFTER COMMENCEMENT OF CONSTRUCTION, DUE TO LOCATIONAL ADJUSTMENTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO OWNER. ADJUSTMENTS TO THE LAYOUT SHALL BE APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF MATERIALS. STAKE LAYOUT FOR APPROVAL.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, INCLUDING A RIGHT-OF-WAY AND STREET OPENING PERMIT.
4. THE CONTRACTOR SHALL VERIFY RECOMMENDATIONS NOTED IN THE GEO TECHNICAL REPORT PRIOR TO INSTALLATION OF SITE IMPROVEMENT MATERIALS.
5. CONTRACTOR SHALL FIELD VERIFY COORDINATES AND LOCATION DIMENSIONS & ELEVATIONS OF THE BUILDING AND STAKE FOR REVIEW AND APPROVAL BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION OF FOOTING MATERIALS.
6. LOCATIONS OF STRUCTURES, ROADWAY PAVEMENTS, CURBS AND GUTTERS, BOLLARDS, AND WALKS ARE APPROXIMATE AND SHALL BE STAKED IN THE FIELD, PRIOR TO INSTALLATION, FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT.
7. CURB DIMENSIONS SHOWN ARE TO FACE OF CURB. BUILDING DIMENSIONS ARE TO FACE OF CONCRETE FOUNDATION. LOCATION OF BUILDING IS TO BUILDING FOUNDATION AND SHALL BE AS SHOWN ON THE DRAWINGS.
8. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR SAMPLES AS SPECIFIED FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO FABRICATION FOR ALL PREFABRICATED SITE IMPROVEMENT MATERIALS SUCH AS, BUT NOT LIMITED TO THE FOLLOWING, FURNISHINGS, PAVEMENTS, WALLS, RAILINGS, BENCHES, FLAGPOLES, LANDING PADS FOR CURB RAMPS, AND LIGHT AND POLES. THE OWNER RESERVES THE RIGHT TO REJECT INSTALLED MATERIALS NOT PREVIOUSLY APPROVED.
9. PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOME LANDING AREAS IN ACCORDANCE WITH A.D.A. REQUIREMENTS-SEE DETAIL.
10. CROSSWALK STRIPING SHALL BE 24" WIDE WHITE PAINTED LINE, SPACED 48" ON CENTER PERPENDICULAR TO THE FLOW OF TRAFFIC. WIDTH OF CROSSWALK SHALL BE 5' WIDE. ALL OTHER PAVEMENT MARKINGS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED OR REQUIRED BY ADA OR LOCAL GOVERNING BODIES.
11. SEE SITE PLAN FOR CURB AND GUTTER TYPE. TAPER BETWEEN CURB TYPES-SEE DETAIL.
12. ALL CURB RADII ARE MINIMUM 3' UNLESS OTHERWISE NOTED.
13. CONTRACTOR SHALL REFER TO FINAL PLAT FOR LOT BOUNDARIES, NUMBERS, AREAS AND DIMENSIONS PRIOR TO SITE IMPROVEMENTS.
14. FIELD VERIFY ALL EXISTING SITE CONDITIONS, DIMENSIONS.
15. PARKING IS TO BE SET PARALLEL OR PERPENDICULAR TO EXISTING BUILDING UNLESS NOTED OTHERWISE.
16. ALL PARKING LOT PAINT STRIPING TO BE WHITE, 4" WIDE TYP.
17. BITUMINOUS PAVING TO BE "LIGHT DUTY" UNLESS OTHERWISE NOTED. SEE DETAIL SHEETS FOR PAVEMENT SECTIONS.
18. ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED FROM DAMAGE WITH A CONSTRUCTION FENCE AT THE DRIP LINE. SEE LANDSCAPE DOCUMENTS.
19. CONTRACTOR IS RESPONSIBLE TO INSTALL ANY SIDEWALK AND CURBING PER DESIGN PLAN. CONTRACTOR TO VERIFY ALL CURBS AND SIDEWALKS WILL DRAIN PROPERLY IN FIELD CONDITIONS. **CONTRACTOR MUST CONTACT THE CIVIL ENGINEER 24-HOURS PRIOR TO ANY CURB AND/OR SIDEWALK INSTALLATION TO REVIEW AND INSPECT CURB STAKES. CONTRACTOR IS RESPONSIBLE FOR ANY CURB OR SIDEWALK REPLACEMENT IF THIS PROCEDURE IS NOT FOLLOWED.**

PRELIMINARY



Know what's below.
Call before you dig.

925 Wayzata Blvd W

Long Lake, Hennepin County, MN 55391

Blue Sky Group

1161 E Wayzata Blvd #154, Wayzata, MN 55391

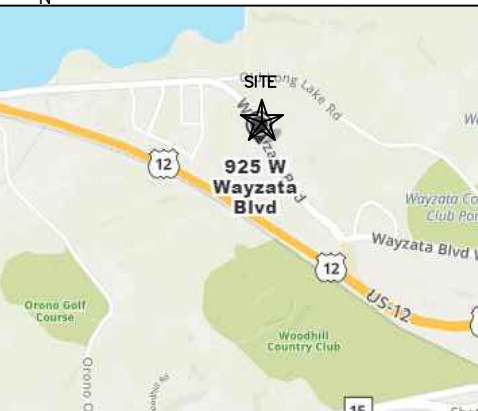
PROJECT

CLIENT

QA/QC

FIELD CREW	
DRAWN BY	SIW
REVIEWED BY	RS
UPDATED BY	

VICINITY MAP



REVISION SUMMARY

DATE	DESCRIPTION
7-7-23	Added Labels

PROJECT NO. - 20163

UTILITY PLAN

C4.0

925 Wayzata Blvd W

Long Lake, Hennepin County, MN 55391

Blue Sky Group

1161 E Wayzata Blvd #154, Wayzata, MN 55391

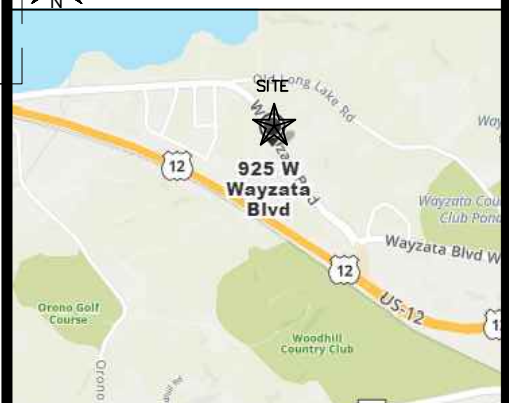
PROJECT

CLIENT

QA/QC

FIELD CREW	
DRAWN BY	SIW
REVIEWED BY	RS
UPDATED BY	

VICINITY MAP



REVISION SUMMARY

DATE	DESCRIPTION
7-7-23	Added Labels

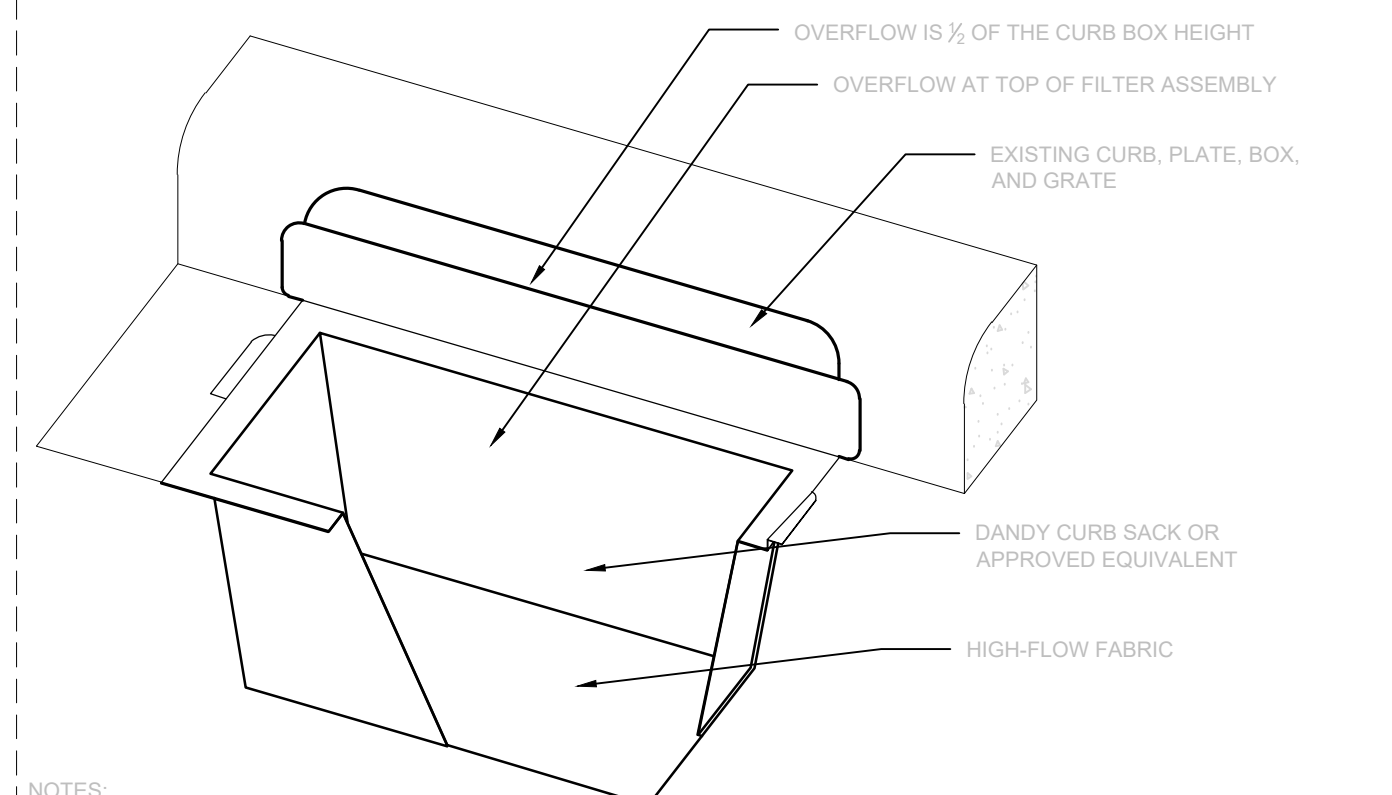
PROJECT NO. - 20163

CIVIL DETAILS

C5.0

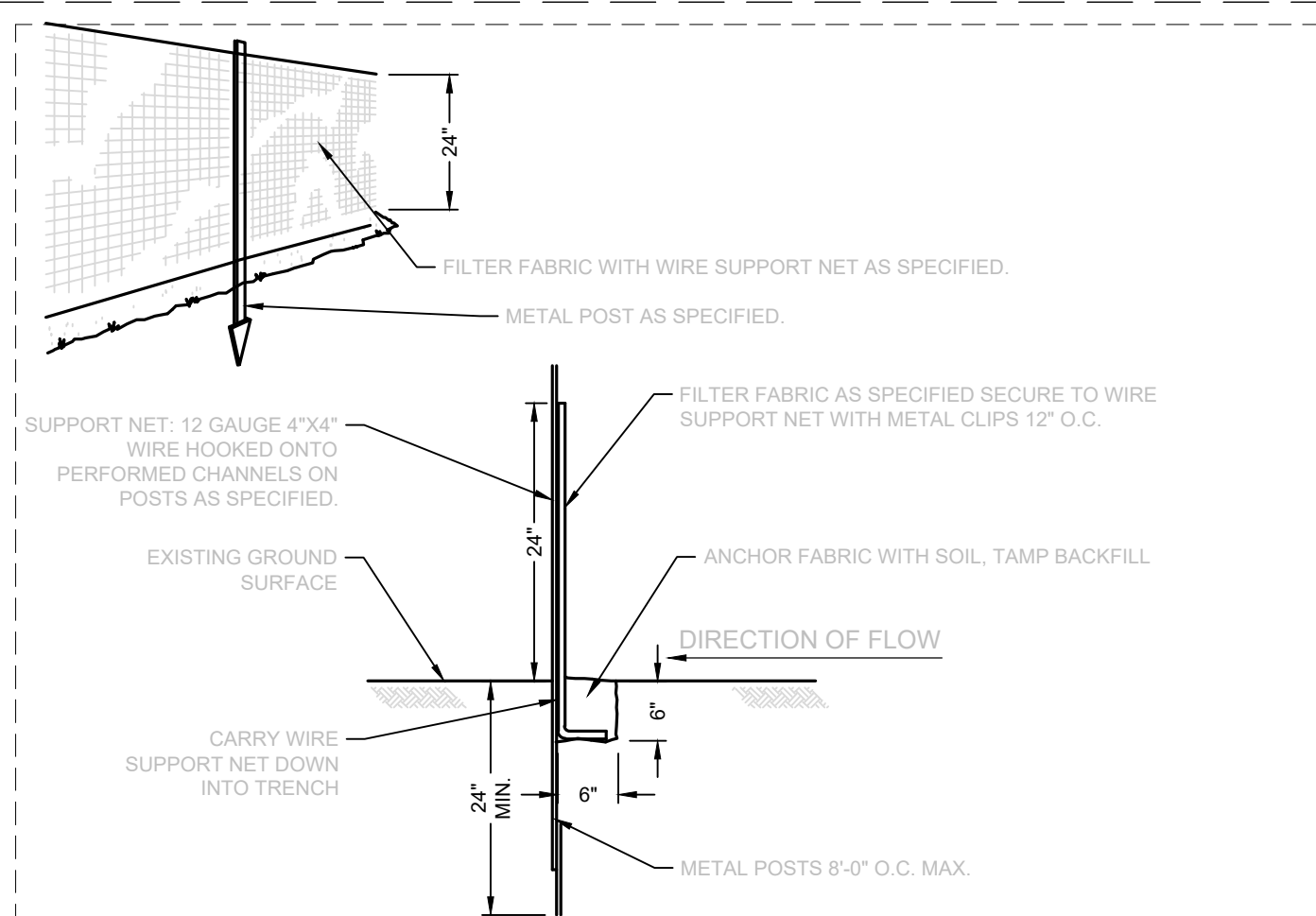
©COPYRIGHT 2022 CIVIL SITE GROUP

32

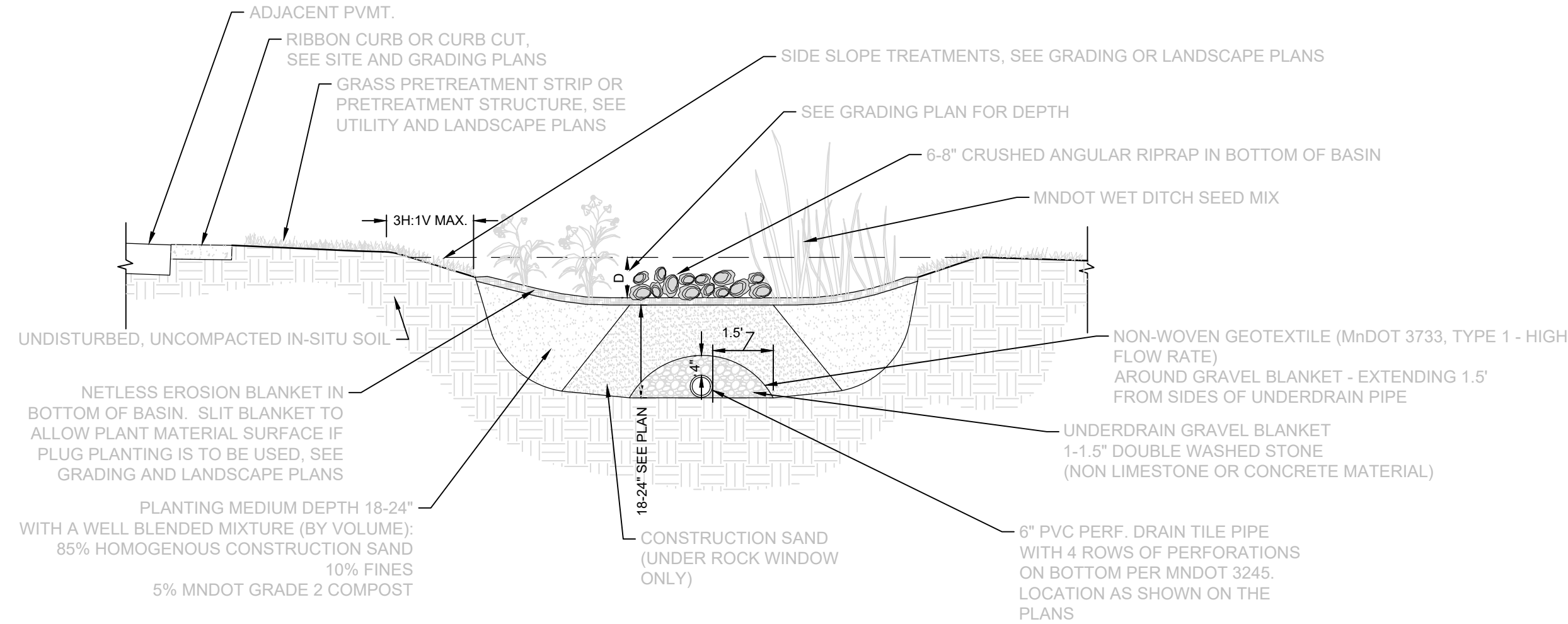


- NOTES:
1. REPLACE INLET GRATE UPON COMPLETE INSTALLATION OF INLET PROTECTION FABRIC.
 2. CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE OF THE SYSTEM AFTER EACH STORM EVENT AND AT THE COMPLETION OF THE CONTRACT.
 3. CONTRACTOR SHALL USE DANDY SACK OR APPROVED EQUIVALENT FOR STRUCTURES WITHOUT CURBING.

DRAWN @ 7 size



DRAWN @ 7 size



CONSTRUCTION SEQUENCING

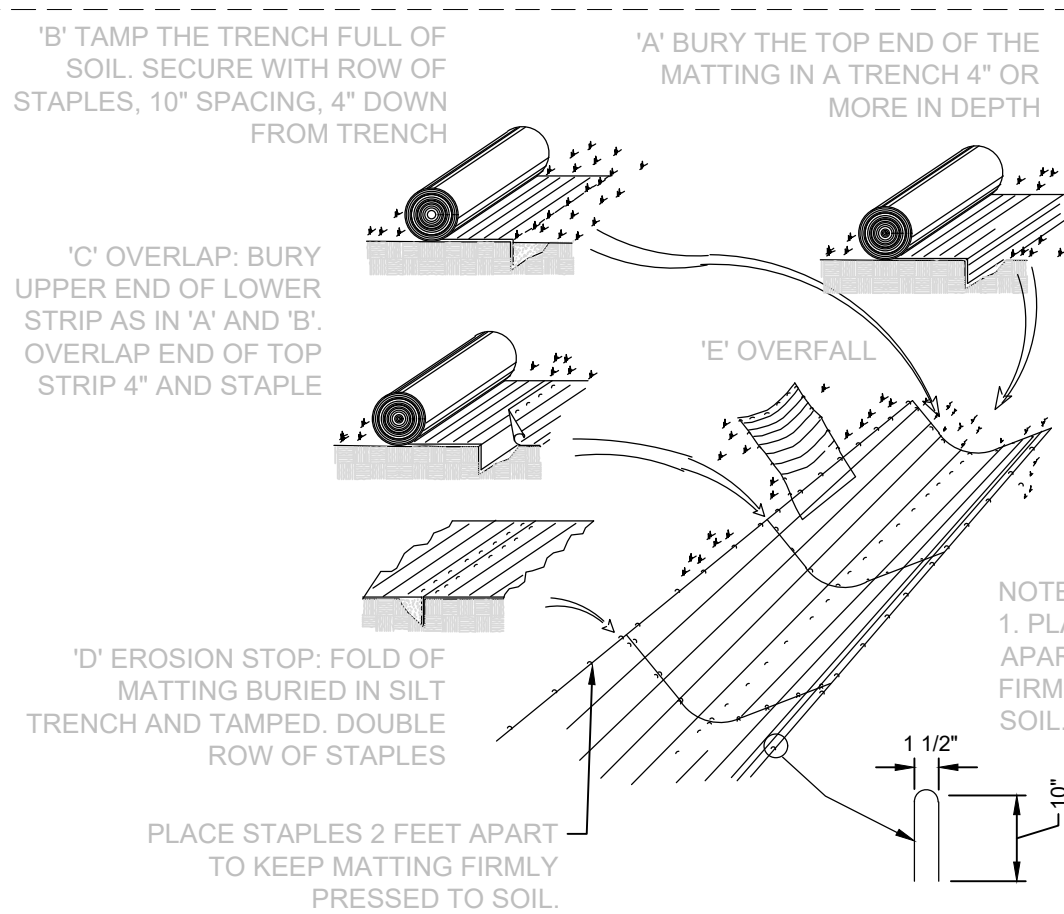
1. INSTALL SILT FENCE AND/OR OTHER APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
2. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMP'S MUST BE IN PLACE BEFORE ANY UP-GRADIENT LAND DISTURBING ACTIVITY BEGINS.
3. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
4. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO THE STORMWATER SYSTEM.
5. ROUGH GRADE THE SITE. IF BIORETENTION AREAS ARE BEING USED AS TEMPORARY SEDIMENT BASINS, LEAVE A MINIMUM OF 3 FEET OF COVER OVER THE PRACTICE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
6. PERFORM ALL OTHER SITE IMPROVEMENTS.
7. PLANT ALL AREAS AFTER DISTURBANCE
8. CONSTRUCT BIORETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
9. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
10. PLANT AND/OR ROCK MULCH BIORETENTION DEVICE.

11. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

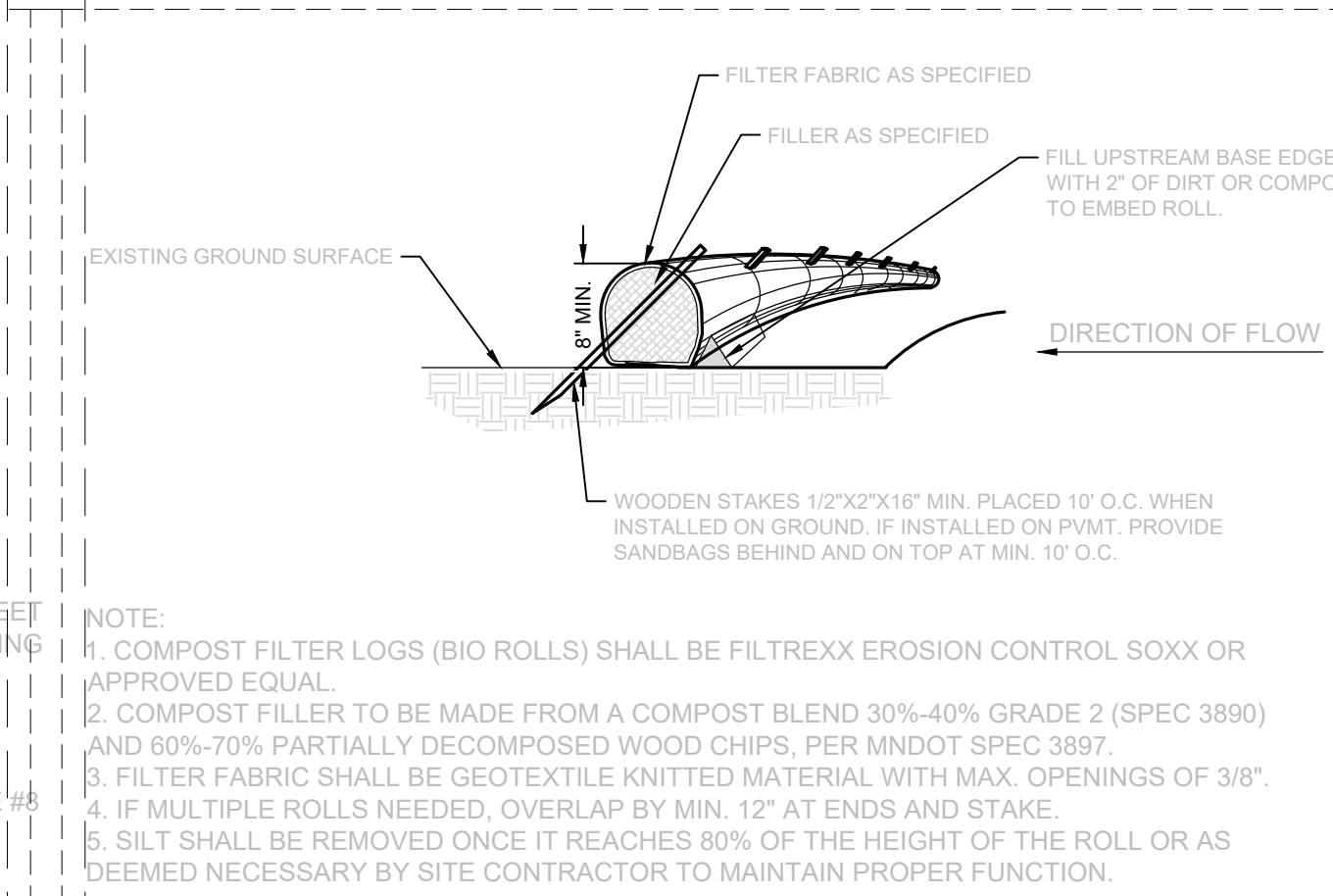
GENERAL NOTES

1. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
2. GRADING OF BIORETENTION DEVICES SHALL BE ACCOMPLISHED USING LOW-COMPACTON EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
3. ALL SUB MATERIALS BELOW THE SPECIFIED BIORETENTION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE NOTED.
4. SEE UTILITY PLAN / SHOP DRAWINGS FOR SYSTEM LAYOUT.

DRAWN @ 7 size



DRAWN @ 7 size

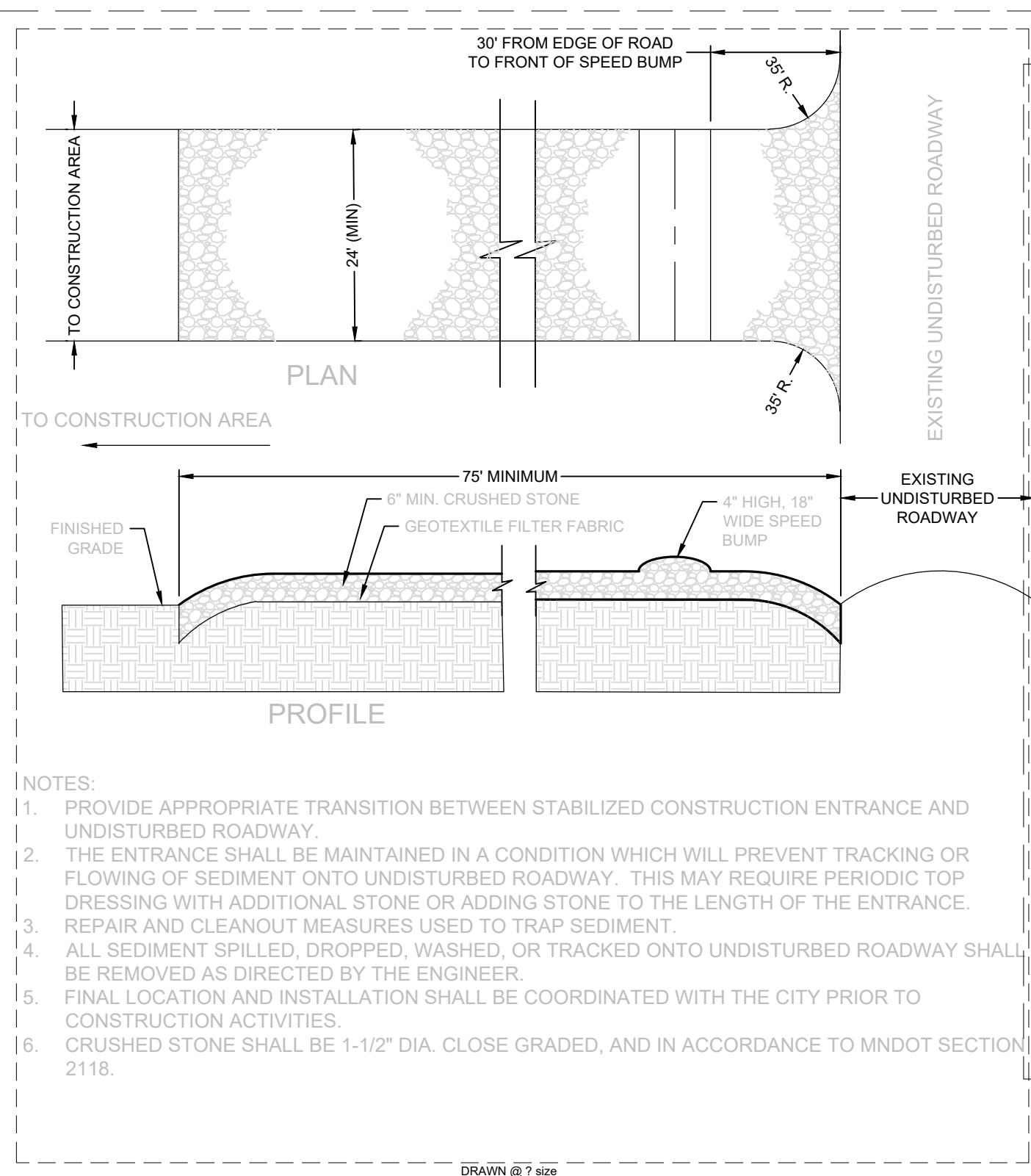


DRAWN @ 7 size

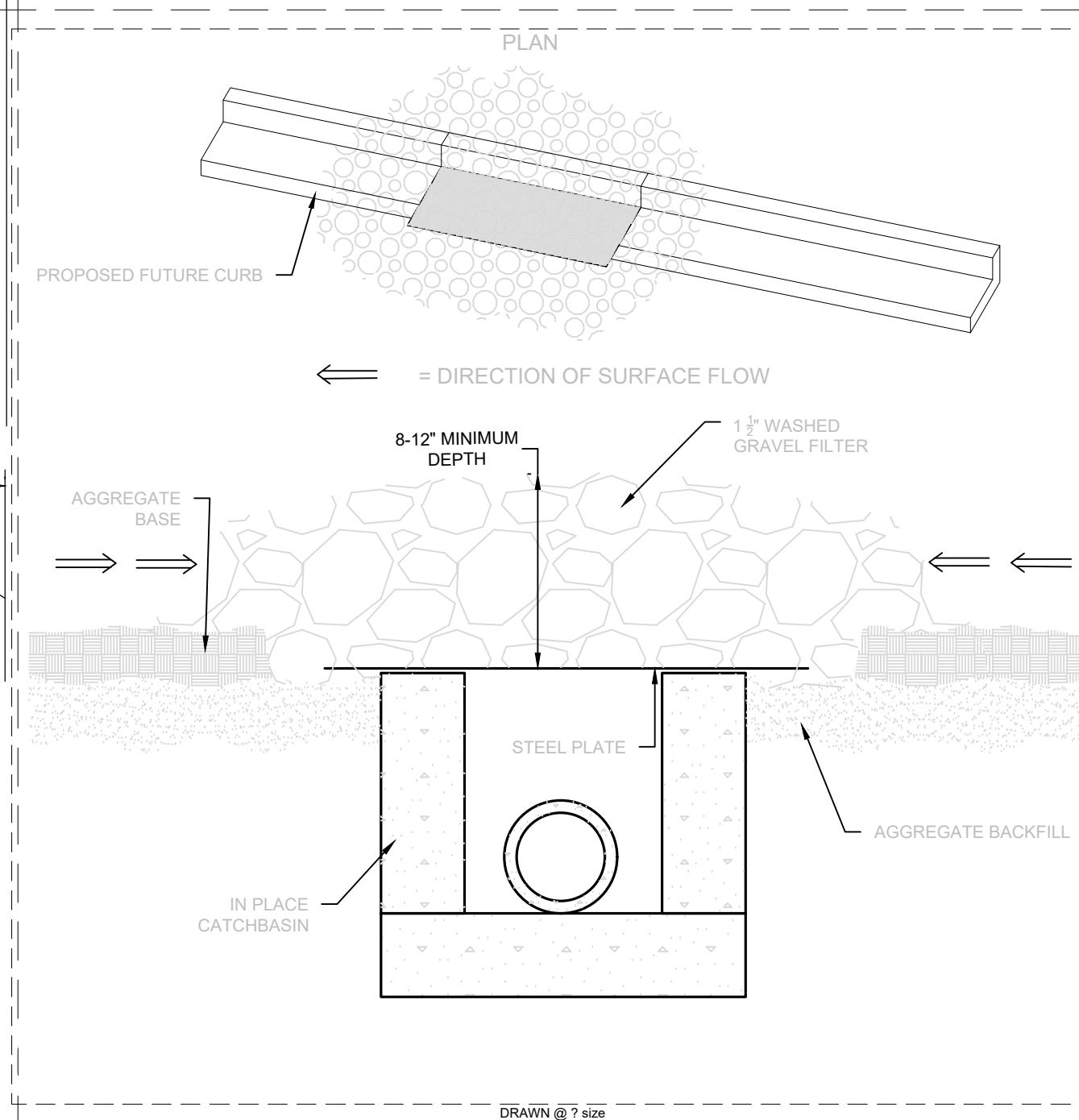
	TYPE	WEAR (A)	BASE (B)	AGG.(C)
"A" WEAR COURSE (MNDOT 2360 - SPWEA340B)	LIGHT DUTY	1.5"	2"	6"
TACK COAT (MNDOT 2357)	HEAVY DUTY	X"	X"	X"
"B" BASE COURSE (MNDOT 2360 - SPWBA330B)				
"C" CLASS 5 AGGREGATE SUBBASE (MNDOT 313B)				
COMPACTED SUBGRADE (100% OF STANDARD PROCTOR MAX. DRY DENSITY)				

NOTE:
IF NO DESIGN IS DEFINED IN ABOVE CHART, SEE GEOTECH REPORT FOR FINAL PAVEMENT SECTION. IF DESIGN IS DEFINED IN ABOVE CHART, IT SHOULD BE CONSIDERED FOR BIDDING PURPOSES ONLY. REFER TO GEOTECH FOR FINAL PAVEMENT SECTION.

DRAWN @ 7 size



DRAWN @ 7 size



DRAWN @ 7 size



Know what's below.
Call before you dig.

925 Wayzata Blvd W

Long Lake, Hennepin County, MN 55391

Blue Sky Group

1161 E Wayzata Blvd #154, Wayzata, MN 55391

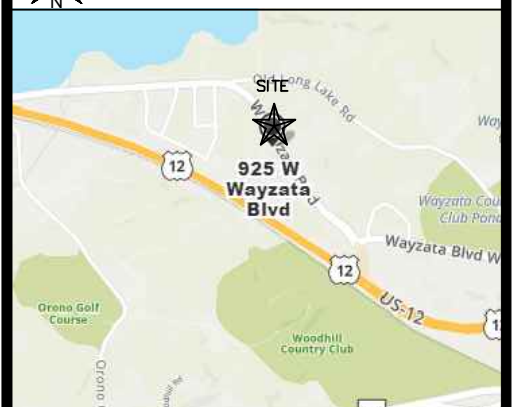
PROJECT

CLIENT

DATE _____

QA/QC

FIELD CREW	.
DRAWN BY	SIW
REVIEWED BY	RS
UPDATED BY	.

 VICINITY MAP

REVISION SUMMARY

DATE	DESCRIPTION
7-7-23	Added Labels
" "	
" "	
" "	
" "	
" "	

PROJECT NO.: 20163

EROSION CONTROL
PLAN

C6.0



Know what's below.
Call before you dig.

THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED WITH A CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WILL IMPLEMENT A POLLUTANT CONTROL MEASURE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT (DATED AUGUST 1, 2018 # MNR100001) AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATION CONTROL.

STORMWATER DISCHARGE DESIGN REQUIREMENTS

SWPPP

THE NATURE OF THIS PROJECT WILL BE CONSISTENT WITH WHAT IS REPRESENTED IN THIS SET OF CONSTRUCTION PLANS AND SPECIFICATIONS. SEE THE SWPPP PLAN SHEETS AND SWPPP NARRATIVE ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR ADDITIONAL SITE SPECIFIC SWPPP INFORMATION. THE PLANS SHOW LOCATIONS AND TYPES OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMP'S. STANDARD DETAILS ARE ATTACHED TO THIS SWPPP DOCUMENT.

THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:

1. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE
2. INSTALLATION OF SILT FENCE AROUND SITE
3. INSTALL ORANGE CONSTRUCTION FENCING AROUND INFILTRATION AREAS
4. INSTALL INLET PROTECTION AT ALL ADJACENT AND DOWNSTREAM CATCH BASINS
5. CLEAR AND GRUB FOR TEMPORARY SEDIMENT BASIN / POND INSTALL
6. CONSTRUCT TEMPORARY SEDIMENT BASIN / POND (SECTION 14)
7. CLEAR AND GRUB REMAINDER OF SITE
8. STRIP AND STOCKPILE TOPSOIL
9. ROUGH GRADING OF SITE
10. STABILIZE DENuded AREAS AND STOCKPILES
11. INSTALL SANITARY SEWER, WATER MAIN STORM SEWER AND SERVICES
12. INSTALL SILT FENCE / INLET PROTECTION AROUND CBS
13. INSTALL STREET SECTION
14. INSTALL CURB AND GUTTER
15. BITUMINOUS ON STREETS
16. FINAL GRADE BOULEVARD, INSTALL SEED AND MULCH
17. REMOVE ACCUMULATED SEDIMENT FROM BASIN / POND
18. FINAL GRADE POND / INFILTRATION BASINS (DO NOT COMPACT SOILS IN INFILTRATION AREAS.)
19. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED BY EITHER SEED OR SOD/LANDSCAPING, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.

RECORDS RETENTION:

THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITEE WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.

ALL OWNER(S) MUST KEEP THE SWPPP, ALONG WITH THE FOLLOWING ADDITIONAL RECORDS, ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT AS OUTLINED IN SECTION 4. THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.

1. THE FINAL SWPPP.
2. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT.
3. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION (SEE SECTION 11, INSPECTIONS AND MAINTENANCE).
4. ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE; AND
5. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

SWPPP IMPLEMENTATION RESPONSIBILITIES:

1. THE OWNER AND CONTRACTOR ARE PERMITEE(S) AS IDENTIFIED BY THE NPDES PERMIT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP, INCLUDING THE ACTIVITIES OF ALL OF THE CONTRACTOR'S SUBCONTRACTORS.
3. CONTRACTOR SHALL PROVIDE A PERSON(S) KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S TO OVERSEE ALL INSTALLATION AND MAINTENANCE OF BMP'S AND IMPLEMENTATION OF THE SWPPP.
4. CONTRACTOR SHALL PROVIDE PERSON(S) MEETING THE TRAINING REQUIREMENTS OF THE NPDES PERMIT TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. ONE OF THESE INDIVIDUAL(S) MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY MPCA. CONTRACTOR SHALL PROVIDE TRAINING DOCUMENTATION FOR THESE INDIVIDUAL(S) AS REQUIRED BY THE NPDES PERMIT. THIS TRAINING DOCUMENTATION SHALL BE RECORDED IN OR WITH THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. DOCUMENTATION SHALL INCLUDE:
 - 4.1. NAMES OF THE PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED PER SECTION 21.1 OF THE PERMIT.
 - 4.2. DATES OF TRAINING AND NAME OF INSTRUCTOR AND ENTITY PROVIDING TRAINING.
 - 4.3. CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.
5. FOLLOWING FINAL STABILIZATION AND THE TERMINATION OF COVERAGE FOR THE NPDES PERMIT, THE OWNER IS EXPECTED TO FURNISH LONG TERM OPERATION AND MAINTENANCE (O & M) OF THE PERMANENT STORM WATER MANAGEMENT SYSTEM.

CONSTRUCTION ACTIVITY REQUIREMENTS

SWPPP AMENDMENTS (SECTION 6):

1. ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2 A OR ITEM 21.2 B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.
2. PERMITEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMP'S AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.
3. PERMITEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMP'S AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL.

BMP SELECTION AND INSTALLATION (SECTION 7):

1. PERMITEES MUST SELECT, INSTALL, AND MAINTAIN THE BMP'S IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES.

EROSION PREVENTION (SECTION 8):

1. BEFORE WORK BEGINS, PERMITEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED.
2. PERMITEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING).
3. PERMITEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE.
4. FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROHIBITED WORK IN WATER RESTRICTIONS DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.
5. PERMITEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES.
6. TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES.
7. PERMITEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION

- PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.
8. PERMITEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM.
 9. PERMITEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11.

SEDIMENT CONTROL (SECTION 9):

1. PERMITEES MUST ESTABLISH SEDIMENT CONTROL BMP'S ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER.
2. IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMP'S TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3.
3. TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHARGE DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS.
4. A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITEES MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER.
5. PERMITEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETED. PERMITEES MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
6. PERMITEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET.
7. PERMITEES MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G. STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITEES OR THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP.
8. PERMITEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER.
9. PERMITEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
10. PERMITEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE.
11. PERMITEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMP'S ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET.
12. PERMITEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14.
13. IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION.
14. PERMITEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE.
15. PERMITEES MUST DIRECT DISCHARGES FROM STOCKPILES TO VEGETATED AREAS UNLESS INFEASIBLE.
16. PERMITEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITEES MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITEES MUST DOCUMENT THE REASONS IN THE SWPPP. SHEET PILING IS A REDUNDANT PERIMETER CONTROL IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER.
17. PERMITEES MUST USE POLYMERS, FLOCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES. IF POLYMERS OR FLOCULANTS ARE USED, REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.

DEWATERING AND BASIN DRAINING (SECTION 10):

1. PERMITEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITEES MUST TREAT IT WITH APPROPRIATE BMP'S SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES.
2. IF PERMITEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGE.
3. PERMITEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR RUINATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
4. IF PERMITEES USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION.

INSPECTIONS AND MAINTENANCE (SECTION 11):

1. PERMITEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER EACH EVENT GREATER THAN 1/2 INCH OF RAINFALL.
2. PERMITEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMP'S.
3. PERMITEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. PERMITEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMP'S WITH FUNCTIONAL BMP'S BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA.
4. DURING EACH INSPECTION, PERMITEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING SURFACE WATERS INSPECTIONS.
5. PERMITEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS.
6. PERMITEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.
7. PERMITEES MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.
8. PERMITEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE (OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS) IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 21.2.B.
9. PERMITEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:
 - a. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
 - b. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT; OR
 - c. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
10. PERMITEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
 - a. DATE AND TIME OF INSPECTIONS; AND

- b. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
- c. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED; AND
- d. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND
- e. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES; AND
- f. IF PERMITEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E. COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS); AND
- g. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS.

POLLUTION PREVENTION MANAGEMENT (SECTION 12):

1. PERMITEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER.
2. PERMITEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
3. PERMITEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
4. PERMITEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035.
5. PERMITEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041.
6. PERMITEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.
7. PERMITEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS.
8. PERMITEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY.

PERMIT TERMINATION (SECTION 4 AND SECTION 13):

1. PERMITEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE.
2. PERMITEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT.
3. PERMITEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM, PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER.
4. PERMITEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATIONAL AS DESIGNED.
5. PERMITEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT.
6. PERMITEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMP'S PRIOR TO SUBMITTING THE NOT. PERMITEES MAY LEAVE BMP'S DESIGNED TO DECOMPOSE ON-SITE IN PLACE.
7. FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERIMETER CONTROL IS COMPLETE. THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER.
8. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND), PERMITEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT.

SEED NOTES:

ALL SEED MIXES AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MNDOT SEEDING MANUAL.

GENERAL RECOMMENDATIONS:

THE CONTRACTOR IS RESPONSIBLE TO SALVAGE AND PRESERVE EXISTING TOPSOIL NECESSARY FOR FINAL STABILIZATION AND TO ALSO MINIMIZE COMPACTION IN ALL LANDSCAPE AREAS. IMMEDIATELY BEFORE SEEDING THE SOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 3 INCHES.

TEMPORARY EROSION CONTROL SEEDING, MULCHING & BLANKET.

SEED

- TEMPORARY SEED SHALL BE MNDOT SEED MIX 21-112 (WINTER WHEAT COVER CROP) FOR WINTER AND 21-111 (OATS COVER CROP) FOR SPRING/SUMMER APPLICATIONS. BOTH SEED MIXES SHALL BE APPLIED AT A SEEDING RATE OF 100 LBS/ACRE.

MULCH

- IMMEDIATELY AFTER SEEDING, WITHIN 24 HOURS, MNDOT TYPE 1 MULCH SHOULD BE APPLIED TO PROTECT AND ENHANCE SEED GERMINATION. MULCH SHALL BE APPLIED AT 90% COVERAGE (2 TONS PER ACRE OF STRAW MULCH)

SLOPES

- 3:1 (HORIZ:VERT.) OR FLATTER MUCH SHALL BE COVERED WITH MULCH
- SLOPES STEEPER THAN 3:1 OR DITCH BOTTOMS SHALL BE COVERED WITH EROSION CONTROL BLANKET.
- SEE PLAN FOR MORE DETAILED DITCH AND STEEP SLOPE EROSION CONTROL TREATMENTS.

TRAINING SECTION 21

DESIGN ENGINEER: ROBERT A LATTA P.E.
TRAINING COURSE: DESIGN OF SWPPP
TRAINING ENTITY: UNIVERSITY OF MINNESOTA
INSTRUCTOR: JOHN CHAPMAN
DATES OF TRAINING COURSE: 8/22/2012- 8/23/2012
TOTAL TRAINING HOURS: 12
DATE OF RECERTIFICATION: 4/22/22
EXPIRATION: 5/31/2025

AREAS AND QUANTITIES:

OWNER INFORMATION

SYNSTELIEN
925 WAYZATA BLVD
LONG LAKE, MN 55391
RORY'S YNSTELIEN
612-615-3222
RORY@CIVILSITEGROUP.COM

CivilSite
GROUP
Civil Engineering • Surveying • Landscape Architecture
5000 Glenwood Avenue
Golden Valley, MN 55422
civilsitegroup.com 612-615-0060

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION.

SWPPP CONTACT PERSON

CONTRACTOR:

TBD

SWPPP INSPECTOR TRAINING:
ALL SWPPP INSPECTIONS MUST BE PERFORMED BY A PERSON THAT MEETS THE TRAINING REQUIREMENTS OF THE NPDES CONSTRUCTION SITE PERMIT. TRAINING CREDENTIALS SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON SITE WITH THE SWPPP

PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORM WATER MANAGEMENT SYSTEM

PERMANENT STORMWATER MANAGEMENT IS **NOT** REQUIRED AS PART OF THIS PROJECT TO MEET NPDES PERMIT REQUIREMENTS. THE PROPERTY OWNER IS RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PROPOSED STORMWATER SYSTEM.

SWPPP ATTACHMENTS (ONLY APPLICABLE IF SITE IS 1 ACRE OR GREATER):

CONTRACTOR SHALL OBTAIN A COPY OF THE FOLLOWING SWPPP ATTACHMENTS WHICH ARE A PART OF THE OVERALL SWPPP PACKAGE:
ATTACHMENT A. CONSTRUCTION SWPPP TEMPLATE - SITE SPECIFIC SWPPP DOCUMENT
ATTACHMENT B. CONSTRUCTION STORMWATER INSPECTION CHECKLIST
ATTACHMENT C. MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEMS
ATTACHMENT D. STORMWATER MANAGEMENT REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILABLE UPON REQUEST.
ATTACHMENT E: GEOTECHNICAL EVALUATION REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILABLE UPON REQUEST.

SUPPLEMENTARY SITE SPECIFIC EROSION CONTROL NOTES:

THESE NOTES SUPERCEDE ANY GENERAL SWPPP NOTES.

THIS PROJECT IS **GREATER THAN 1.0 ACRES** SO AN NPDES PERMIT IS REQUIRED AND NEEDS TO BE SUBMITTED TO THE MPCA. THE CONTRACTOR IS REQUIRED TO FOLLOW THE GUIDELINES IN THE NPDES PERMIT THROUGHOUT CONSTRUCTION.

PROJECT NARRATIVE:

PROJECT IS A REDEVELOPMENT OF AN EXISTING **SINGLE FAMILY HOME SITE INTO A 4-LOT HOME SITE. SITE, GRADING, UTILITY AND LANDSCAPE** IMPROVEMENTS WILL OCCUR.

NATIVE BUFFER NARRATIVE:

PRESERVING A 50 FOOT NATURAL BUFFER AROUND WATER BODIES **IS NOT** PROVIDED IN THESE PLANS.

INFILTRATION NARRATIVE:

INFILTRATION **IS NOT** PROVIDED AS PART OF THE PROJECT'S PERMANENT STORM WATER MANAGEMENT SYSTEM **FOR PERMIT BY THE LGU.**

SOIL CONTAMINATION NARRATIVE:

SOILS ONSITE **HAVE NOT BEEN** IDENTIFIED AS CONTAMINATED.

SPECIAL TMDL BMP REQUIREMENTS SITE SPECIFIC (IF REQUIRED):

THIS PROJECT IS WITHIN ONE MILE AND DISCHARGES TO **LONG LAKE CREEK, WHICH** IS IDENTIFIED AS AN IMPAIRED WATER BODY PER THE MPCA'S 303(D) IMPAIRED WATERS LIST. **LONG LAKE CREEK** IS IMPAIRED FOR BENTHIC MACROINVERTEBRATES BIOASSESSMENTS AND DISSOLVED OXYGEN. BECAUSE THIS WATER BODY IS LOCATED WITHIN ONE MILE OF THE SITE, BMP'S AS DEFINED IN THE NPDES PERMIT ITEMS 23.9 AND 23.10 APPLY. THESE ARE AS FOLLOWS:

1. DURING CONSTRUCTION:
 - a. STABILIZATION OF ALL EXPOSED SOIL AREAS MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN **SEVEN (7)** DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
 - b. TEMPORARY SEDIMENT BASIN REQUIREMENTS DESCRIBED IN SECTION 14. MUST BE USED FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

PERMANENT STABILIZATION NOTES SITE SPECIFIC:

PERMANENT SEED MIX

- FOR THIS PROJECT ALL AREAS THAT ARE NOT TO BE SODDED OR LANDSCAPED SHALL RECEIVE A NATIVE PERMANENT SEED MIX.
 - AREAS IN BUFFERS AND ADJACENT TO - IN WET AREAS MNDOT SEED MIX 33-261 (STORMWATER SOUTH AND WEST) AT 35 LBS PER ACRE.
 - DRY AREAS MNDOT SEED MIX 35-221 (DRY PRAIRIE GENERAL) AT 40 LBS PER ACRE.
- MAINTENANCE SHALL BE IN ACCORDANCE TO THE MNDOT SEEDING MANUAL.

PROJECT

CLIENT

Blue Sky Group

Long Lake, Hennepin County, MN 55391

1161 E Wayzata Blvd #154, Wayzata, MN 55391

QA/QC
FIELD CREW
DRAWN BY: SIW
REVIEWED BY: RS
UPDATED BY: .
REVISION SUMMARY
DATE DESCRIPTION
7-7-23 Added Labels
PROJECT NO. - 20163

EROSION CONTROL PLAN DETAILS

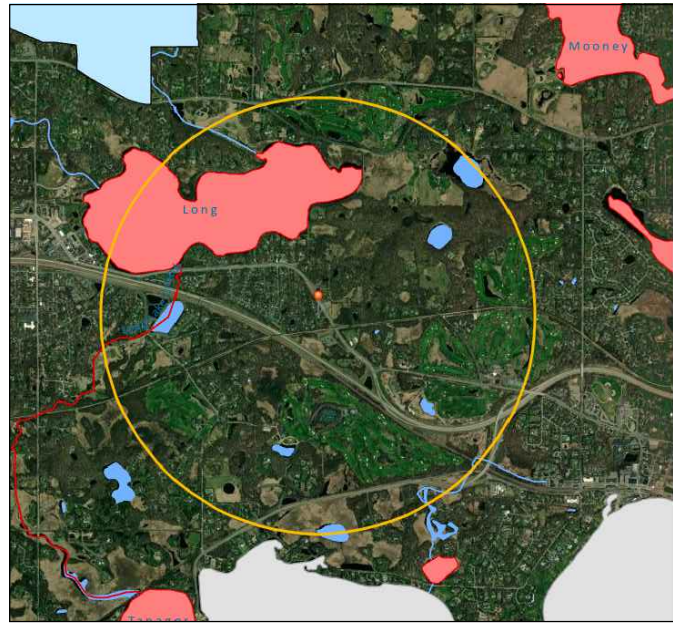
C6.1

ATTACHMENT A: SITE SPECIFIC SWPPP DOCUMENT

PROJECT LOCATION			
ADDRESS	925 WAYZATA BLVD	CITY/TOWNSHIP	LONG LAKE
STATE	MN	COUNTY	HENNEPIN
ZIP CODE	55391	PROJECT SIZE	1.2 ACRES
LATITUDE/LONGITUDE OF APPROX. CENTROID OF PROJECT		44°58'54.0"N 93°32'49.4"W	
METHOD OF LAT/LONG COLLECTION		ONLINE TOOL	
PROJECT TYPE		RESIDENTIAL	
IMPERVIOUS SURFACES (ACRES)			
EXISTING		0.1	
PROPOSED		0.5	
DIFFERENCE		0.4	
ESTIMATED CONSTRUCTION TIMELINE			
START	08 2024	END	10 2025
CONSTRUCTION ACTIVITY		RESIDENTIAL CONSTRUCTION, GRADING	
SOIL TYPES			

RECEIVING WATER BODIES				
	WATER BODY ID	NAME OF WATER BODY	WATER BODY TYPE	SPECIAL WATER (Y/N)
1		LONG LAKE CREEK	CREEK	N
2		LONG LAKE	LAKE	Y
3				
4				

SITE LOCATION MAP - ATTACH MAPS (U.S. GEOLOGIC SURVEY 7.5 MINUTE QUADRANGLE, NATIONAL WETLAND INVENTORY MAPS OR EQUIVALENT) SHOWING THE LOCATION AND TYPE OF ALL RECEIVING WATERS, INCLUDING WETLANDS, DRAINAGE DITCHES, STORMWATER PONDS, OR BASINS, ETC. THAT WILL RECEIVE RUNOFF FROM THE PROJECT. USE ARROWS SHOWING THE DIRECTION OF FLOW AND DISTANCE TO THE WATER BODY.



GENERAL SITE INFORMATION (5.1)
1. DESCRIBE THE LOCATION AND TYPE OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S). INCLUDE THE TIMING FOR INSTALLATION AND PROCEDURES USED TO ESTABLISH ADDITIONAL TEMPORARY BMP'S AS NECESSARY. (5.5)
THE PROJECT IS PROTECTED BY TWO (W) MAIN BMP'S. SILT FENCE AND INLET PROTECTION DEVICES. THE SILT FENCE WILL BE INSTALLED AT THE DOWNHILL LOCATIONS OF THE SITE AND MONITORED AS NECESSARY. INLET PROTECTION DEVICES WILL BE INSTALLED IN ALL CATCH BASINS ON THE SITE AND ANY OFF SITE THAT WILL RECEIVE STORMWATER RUNOFF FROM THIS SITE. AS THE PROJECT PROGRESSES ADDITIONAL BMP'S SUCH AS EROSION CONTROL BLANKET MAY BE UTILIZED.
2. ATTACH TO THIS SWPPP A TABLE WITH THE ANTICIPATED QUANTITIES FOR THE LIFE OF THE PROJECT FOR ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S (5.7). SEE PAGE SW1.3
3. ATTACH TO THIS SWPPP A SITE MAP THAT INCLUDES THE FOLLOWING FEATURES (5.9):
EXIST AND FINAL GRADES, INCLUDING DIVIDING LINES AND DIRECTION OF FLOW FOR ALL PRE AND POST-CONSTRUCTION STORMWATER RUNOFF DRAINAGE AREAS LOCATED WITHIN THE PROJECT LIMITS.

LOCATIONS OF IMPERVIOUS SURFACES AND SOIL TYPES.
• EXISTING AND FINAL GRADES, INCLUDING DIVIDING LINES AND DIRECTION OF FLOW FOR ALL PRE AND POST-CONSTRUCTION STORMWATER RUNOFF DRAINAGE AREAS LOCATED WITHIN PROJECT LIMITS.
• LOCATIONS OF AREAS NOT TO BE DISTURBED.
• LOCATION OF AREAS OF PHASED CONSTRUCTION.
• ALL SURFACE WATERS AND EXISTING WETLANDS WITHIN ONE MILE FROM THE PROJECT BOUNDARIES THAT WILL RECEIVE STORMWATER RUNOFF FROM THE SITE (IDENTIFIABLE ON MAPS SUCH AS USGS 7.5 MINUTE QUADRANGLE MAPS OR EQUIVALENT. WHERE SURFACE WATERS RECEIVING RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY WILL NOT FIT ON THE PLAN SHEET, THEY MUST BE IDENTIFIED WITH AN ARROW, INDICATING BOTH DIRECTION AND DISTANCE TO THE SURFACE WATER.
• METHODS TO BE USED FOR FINAL STABILIZATION OF ALL EXPOSED SOIL AREA

4. WERE STORMWATER MITIGATION MEASURES REQUIRED AS THE RESULT OF AN ENVIRONMENTAL, ARCHAEOLOGICAL, OR OTHER REQUIRED LOCAL, STATE OR FEDERAL REVIEW OF THE PROJECT? NO
IF YES, DESCRIBE HOW THESE MEASURES WERE ADDRESSED IN THE SWPPP. (5.16)
N/A
5. IS THE PROJECT LOCATED IN A KARST AREA SUCH THAT ADDITIONAL MEASURES WOULD BE NECESSARY TO PROJECT DRINKING WATER SUPPLY MANAGEMENT AREAS AS DESCRIBED IN MINN. R. CHAPTERS 7050 AND 7060? NO
IF YES, DESCRIBE THE ADDITIONAL MEASURES TO BE USED. (SECTION 23)
N/A
6. DOES THE SITE DISCHARGE TO A CALCREOUS FEN LISTED IN MINN. R. 7050.0180, SUBP. 6.B?
NO
IF YES, A LETTER OF APPROVAL FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES MUST BE OBTAINED PRIOR TO APPLICATION FOR THIS PERMIT.
7. DOES THE SITE DISCHARGE TO A WATER THAT IS LISTED AS IMPAIRED FOR THE FOLLOWING POLLUTANT(S) OR STRESSOR(S): PHOSPHORUS, TURBIDITY, DISSOLVED OXYGEN OR BIOTIC IMPAIRMENT? USE THE SPECIAL AND IMPAIRED WATERS SEARCH TOOL AT: WWW.PCA.STATE.MN.US/WATER/STORMWATER/STORMWATER-C.HTML.
YES
IF NO, SKIP TO TRAINING
DOES THE IMPAIRED WATER HAVE AN APPROVED TOTAL MAXIMUM DAILY LOADS (TMDL) WITH AN APPROVED WASTE LOAD ALLOCATION FOR CONSTRUCTION ACTIVITY?
YES

IF YES:
A. LIST THE RECEIVING WATER, THE AREAS OF THE SITE DISCHARGING TO IT, AND THE POLLUTANT(S) IDENTIFIED IN THE TMDL.
B. LIST THE BMP'S AND ANY OTHER SPECIFIC CONSTRUCTION STORMWATER RELATED IMPLEMENTATION ACTIVITIES IDENTIFIED IN THE TMDL.
IF THE SITE HAS A DISCHARGE POINT WITHIN ONE MILE OF THE IMPAIRED WATER AND THE WATER FLOWS TO THE IMPAIRED WATER BUT NO SPECIFIC BMP'S FOR CONSTRUCTION ARE IDENTIFIED IN THE TMDL, THE ADDITIONAL BMP'S IN SECTION 23 MUST BE ADDED TO THE SWPPP AND IMPLEMENTED (15.19). THE ADDITIONAL BMP'S ONLY APPLY TO THOSE PORTIONS OF THE PROJECT THAT DRAIN TO ONE OF THE IDENTIFIED DISCHARGE POINTS. N/A

8. IDENTIFY ADJACENT PUBLIC WATERS WHERE THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES (DNR) HAS DECLARED "WORK IN WATER RESTRICTIONS" DURING FISH SPAWNING TIMEFRAMES. N/A

SELECTION OF A PERMANENT STORMWATER MANAGEMENT SYSTEM (SECTION 15)
1. WILL THE PROJECT CREATE A NEW CUMULATIVE IMPERVIOUS SURFACE GREATER THAN OR EQUAL TO ONE ACRE?
YES
IF YES, A WATER QUALITY VOLUME OF ONE INCH OF RUNOFF FROM THE CUMULATIVE NEW IMPERVIOUS SURFACES MUST BE RETAINED ON SITE (SEE 16.7 OF THE PERMIT) THROUGH INFILTRATION UNLESS PROHIBITED DUE TO ONE OF THE REASONS IN ITEMS 16.4 THROUGH 16.21. IF INFILTRATION IS PROHIBITED IDENTIFY OTHER METHOD OF MEETING WATER QUALITY REQUIREMENTS (E.G., FILTRATION SYSTEM, WET SEDIMENTATION BASIN, REGIONAL PONDING OR EQUIVALENT METHOD
2. DESCRIBE WHICH METHOD WILL BE USED TO TREAT RUNOFF FROM THE NEW IMPERVIOUS SURFACES CREATED BY THE PROJECT:

INCLUDE ALL CALCULATIONS AND DESIGN INFORMATION FOR THE METHOD SELECTED. SEE SECTION 23 OF THE PERMIT FOR SPECIFIC REQUIREMENTS ASSOCIATED WITH EACH METHOD.
FILTRATION
CALCULATIONS ARE WITHIN THE SITE STORM WATER MANAGEMENT REPORT AND PART OF THIS SWPPP AS ATTACHMENT D.

3. IF IT IS NOT FEASIBLE TO MEET THE TREATMENT REQUIREMENT FOR THE WATER QUALITY VOLUME, DESCRIBE WHY. THIS CAN INCLUDE PROXIMITY TO BEDROCK OR ROAD PROJECTS WHERE THE LACK OF RIGHT OF WAY PRECLUDES THE INSTALLATION OF ANY PERMANENT STORMWATER MANAGEMENT PRACTICES. DESCRIBE WHAT OTHER TREATMENT, SUCH AS GRASS SWALES, SMALLER PONDS, OR GRIT CHAMBERS, WILL BE IMPLEMENTED TO TREAT RUNOFF PRIOR TO DISCHARGE TO SURFACE WATERS. (15.8)

IT IS NOT FEASIBLE TO MEET REQUIREMENT FOR WATER QUALITY VOLUME.
4. FOR PROJECTS THAT DISCHARGE TO TROUT STREAMS, INCLUDING TRIBUTARIES TO TROUT STREAMS, IDENTIFY METHOD OF INCORPORATING TEMPERATURE CONTROLS INTO THE PERMANENT STORMWATER MANAGEMENT SYSTEM.

N/A

SOILS INFORMATION



MAP UNIT SYMBOL	MAP UNIT NAME
L22C2	LESTER LOAM
L22D2	LESTER LOAM
L132A	HAMEL-GLENCOE

EROSION PREVENTION PRACTICES (SECTION 8.1)
DESCRIBE THE TYPES OF TEMPORARY EROSION PREVENTION BMP'S EXPECTED TO BE IMPLEMENTED ON THIS SITE DURING CONSTRUCTION:
1. DESCRIBE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES TO MINIMIZE EROSION. DELINEATE AREAS NOT TO BE DISTURBED (E.G., WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) BEFORE WORK BEGINS.
SILT FENCE WILL BE INSTALLED AT THE DOWNHILL LOCATIONS OF THE SITE.
2. DESCRIBE METHODS OF TEMPORARILY STABILIZING SOILS AND SOIL STOCKPILES (E.G., MULCHES, HYDRAULIC TACKIFIERS, EROSION BLANKETS, ETC.):
TEMPORARY EROSION PROTECTION WILL BE SEED AND MULCH AND EROSION BLANKETS WHERE REQUIRED, WITH PERMANENT COVER BEING EITHER SOD OR LANDSCAPE FEATURES.
3. DESCRIBE METHODS OF DISSIPATING VELOCITY ALONG STORMWATER CONVEYANCE CHANNELS AND AT CHANNEL OUTLETS (E.G., CHECK DAMS, SEDIMENT TRAPS, RIP RAP, ETC.):
SOD WILL BE UTILIZED ALONG CHANNELS AND RIP RAP AT CHANNEL.
4. DESCRIBE METHODS TO BE USED FOR STABILIZATION OF DITCH AND SWALE WETTED PERIMETERS (NOTE THAT MULCH, HYDRAULIC SOIL TACKIFIERS, HYDROMULCHES, ETC. ARE NOT ACCEPTABLE SOIL STABILIZATION METHODS FOR ANY PART OF A DRAINAGE DITCH OR SWALE)
FINAL STABILIZATION OF SWALES WILL BE SOD.
5. DESCRIBE METHODS TO BE USED FOR ENERGY DISSIPATION AT PIPE OUTLETS (E.G., RIP RAP, SPLASH PADS, GABIONS, ETC.)
RIP RAP WILL BE UTILIZED AT PIPE OUTLETS
6. DESCRIBE METHODS TO BE USED TO PROMOTE INFILTRATION AND SEDIMENT REMOVAL ON THE SITE PRIOR TO OFFSITE DISCHARGE, UNLESS INFEASIBLE (E.G., DIRECT STORMWATER FLOW TO VEGETATED AREAS):
DISCONNECTED IMPERVIOUS AREA AND INFILTRATION AREAS WILL BE UTILIZED
7. FOR DRAINAGE OR DIVERSION DITCHES, DESCRIBE PRACTICES TO STABILIZE THE NORMAL WETTED PERIMETER WITHIN 200 LINEAL FEET OF THE PROPERTY EDGE OR POINT OF DISCHARGE TO SURFACE WATER. THE LAST 200 LINEAL FEET MUST BE STABILIZED WITHIN 24 HOURS AFTER CONNECTING TO SURFACE WATERS AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED FOR ALL DISCHARGES TO SPECIAL. IMPAIRED OR "WORK IN WATER RESTRICTIONS". ALL OTHER REMAINING PORTIONS OF THE TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER, PROPERTY EDGE AND CONSTRUCTION IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED.
N/A, NO DITCHES ON SITE
8. DESCRIBE ADDITIONAL EROSION PREVENTION MEASURES THAT WILL BE IMPLEMENTED AT THE SITE DURING CONSTRUCTION (E.G., CONSTRUCTION PHASING, MINIMIZING SOIL DISTURBANCE, VEGETATIVE BUFFERS, HORIZONTAL SLOPE GRADING, SLOPE DRAINING/TERRACING, ETC.):
OTHER EROSION CONTROL PRACTICES INCLUDE BUT ARE NOT LIMITED TO: MINIMIZING SITE EXPOSURE WHEN POSSIBLE.
9. IF APPLICABLE, INCLUDE ADDITIONAL REQUIREMENTS IN APPENDIX A PART C.3 REGARDING MAINTAINING A 100-FOOT BUFFER ZONE OR INSTALLING REDUNDANT BMP'S FOR PORTIONS OF THE SITE THAT DRAIN TO SPECIAL WATERS).
N/A
10. IF APPLICABLE, DESCRIBE ADDITIONAL EROSION PREVENTION BMP'S TO BE IMPLEMENTED AT THE SITE TO PROTECT PLANNED FILTRATION AREAS
MINIMIZE SITE EXPOSURE IN AREAS ADJACENT TO FILTRATION AREAS.

SEDIMENT CONTROL PRACTICES (SECTION 9.1)
DESCRIBE THE METHODS OF SEDIMENT CONTROL BMP'S TO BE IMPLEMENTED AT THIS SITE DURING CONSTRUCTION TO MINIMIZE SEDIMENT IMPACTS TO SURFACE WATERS, INCLUDING CURB AND CUTTER SYSTEMS
1. DESCRIBE METHODS TO BE USED FOR DOWN GRADIENT PERIMETER CONTROL:
SILT FENCE WILL BE INSTALLED AROUND THE ENTIRE PERIMETER OF THE SITE
2. DESCRIBE METHODS TO BE USED TO CONTAIN SOIL STOCKPILES:
SEED AND MULCH AS WELL AS EROSION CONTROL BLANKETS WILL BE UTILIZED AS NECESSARY
3. DESCRIBE METHODS TO BE USED FOR STORM DRAIN INLET PROTECTION:
SEE INLET PROTECTION DETAILS
4. DESCRIBE METHODS TO MINIMIZE VEHICLE TRACKING AT CONSTRUCTION EXITS AND STREET SWEEPING ACTIVITIES:
THE PROJECT WILL UTILIZE A ROCK CONSTRUCTION ENTRANCE
5. DESCRIBE METHODS, IF APPLICABLE, ADDITIONAL SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO BE INSTALLED TO KEEP RUNOFF AWAY FROM PLANNED INFILTRATION AREAS WHEN EXCAVATED PRIOR TO FINAL STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA:
SILT FENCE TO BE INSTALLED IMMEDIATELY AFTER GRADING TO PROTECT INFILTRATION AREAS.
6. DESCRIBE METHODS TO BE USED TO MINIMIZE SOIL COMPACTION AND PRESERVE TOP SOIL (UNLESS INFEASIBLE) AT THIS SITE:
LIGHT TRACKED EQUIPMENT WILL BE USED, TOPSOIL WILL BE STRIPPED AND STOCKPILED
7. DESCRIBE PLANS TO PRESERVE A 50-FOOT NATURAL BUFFER BETWEEN THE PROJECT'S SOIL DISTURBANCE AND A SURFACE WATER OR PLANS FOR REDUNDANT SEDIMENT CONTROLS IF A BUFFER IS INFEASIBLE:
DOUBLE ROW OF SILT FENCE WILL BE INSTALLED ALONG WETLAND. PROJECT WILL NOT DISTURB WITHIN 200 FEET OF WETLAND.
8. DESCRIBE PLANS FOR USE OF SEDIMENTATION TREATMENT CHEMICALS (E.G., POLYMERS, FLOCCULANTS, ETC.) SEE PART 9.18 OF THE PERMIT:
N/A
9. IS THE PROJECT REQUIRED TO INSTALL A TEMPORARY SEDIMENT BASIN DUE TO 10 OR MORE ACRES DRAINING TO A COMMON LOCATION OR 5 ACRES OR MORE IF THE SITE IS WITHIN 1 MILE OF A SPECIAL OR IMPAIRED WATER?
YES
IF YES, DESCRIBE (OR ATTACH PLANS) SHOWING HOW THE BASIN WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH SECTION 14.
PROPOSED FILTRATION BASINS WILL SERVE AS TEMPORARY SEDIMENTS BASINS THAT WILL THEN BE CONVERTED TO PERMANENT FILTRATIONS BASINS.

DEWATERING AND BASIN DRAINING (SECTION 10.1)
1. WILL THE PROJECT INCLUDE DEWATERING OR BASIN DRAINING?
NO
IF YES, DESCRIBE MEASURES TO BE USED TO TREAT/DISPOSE OF TURBID OR SEDIMENT-LADEN WATER AND METHOD TO PREVENT EROSION OR SCOUR OF DISCHARGE POINTS (SEE 10.2 THROUGH 10.5 OF THE PERMIT):
N/A
2. WILL THE PROJECT INCLUDE USE OF FILTERS FOR BACKWASH WATER?
NO
IF YES, DESCRIBE HOW FILTER BACKWASH WATER WILL BE MANAGED ON THE SITE OR PROPERLY DISPOSED (10.6):
N/A

ADDITIONAL BMP'S FOR SPECIAL WATERS AND DISCHARGES TO WETLANDS (SECTION 23.1)
1. SPECIAL WATERS. DOES YOUR PROJECT DISCHARGE TO SPECIAL WATERS?
YES
IF PROXIMITY TO BEDROCK OR ROAD PROJECTS WHERE THE LACK OF RIGHT OF WAY PRECLUDES THE INSTALLATION OF ANY OF THE PERMANENT STORMWATER MANAGEMENT PRACTICES, THEN OTHER TREATMENT SUCH AS GRASSED SWALES, SMALLER PONDS, OR GRIT CHAMBERS IS REQUIRED PRIOR TO DISCHARGE TO SURFACE WATERS. DESCRIBE WHAT OTHER TREATMENT WILL BE PROVIDED.
N/A
3. DESCRIBE EROSION AND SEDIMENT CONTROLS FOR EXPOSED SOIL AREAS WITH A CONTINUOUS POSITIVE SLOPE TO A SPECIAL WATERS, AND TEMPORARY SEDIMENT BASINS FOR AREAS THAT DRAIN FIVE OR MORE ACRES DISTURBED AT ONE TIME.
N/A
4. DESCRIBE THE UNDISTURBED BUFFER ZONE TO BE USED (NOT LESS THAN 100 LINEAR FEET FROM THE SPECIAL WATER).
N/A
5. DESCRIBE HOW THE PERMANENT STORMWATER MANAGEMENT SYSTEM WILL ENSURE THAT THE PRE AND POST PROJECT RUNOFF RATE AND VOLUME FROM THE 1, AND 2-YEAR 24-HOUR PRECIPITATION EVENTS REMAINS THE SAME.
N/A
6. DESCRIBE HOW THE PERMANENT STORMWATER MANAGEMENT SYSTEM WILL MINIMIZE ANY INCREASE IN THE TEMPERATURE OF TROUT STREAM RECEIVING WATERS RESULTING IN THE 1, AND 2-YEAR 24-HOUR PRECIPITATION EVENTS.
N/A
7. **WETLANDS.** DOES YOUR PROJECT DISCHARGE STORMWATER WITH THE POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS TO A WETLAND (E.G., CONVERSION OF A NATURAL WETLAND TO A STORMWATER POND)?
YES OR NO
IF YES, DESCRIBE THE WETLAND MITIGATION SEQUENCE THAT WILL BE FOLLOWED IN ACCORDANCE WITH SECTION 22 OF THE PERMIT.
N/A

INSPECTIONS AND MAINTENANCE (SECTION 11.1)
DESCRIBE PROCEDURES TO ROUTINELY INSPECT THE CONSTRUCTION SITE:
• ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND
• WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS, AND WITHIN (7) DAYS AFTER THAT

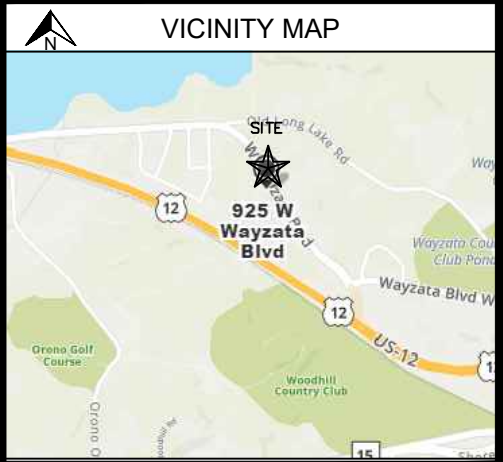
INSPECTIONS MUST INCLUDE STABILIZED AREAS, EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AND INFILTRATION AREAS.
INSPECTOR WILL FOLLOW REQUIREMENTS SPECIFIED ABOVE AND FILL OUT "ATTACHMENT B - CONSTRUCTION STORMWATER INSPECTION CHECKLIST"
1. DESCRIBE PRACTICES FOR STORAGE OF BUILDING PRODUCTS WITH A POTENTIAL TO LEACH POLLUTANTS TO MINIMIZE EXPOSURE TO STORMWATER:
ALL BUILDING PRODUCTS WILL BE SEALED AND STORED IN A MANNER TO MINIMIZE EXPOSURE
2. DESCRIBE PRACTICES FOR STORAGE OF PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICAL, AND LANDSCAPE MATERIALS:
ALL LANDSCAPE TREATMENT CHEMICALS WILL BE SEALED AND STORED IN A MANNER TO MINIMIZE EXPOSURE
3. DESCRIBE PRACTICES FOR STORAGE AND DISPOSAL OF HAZARDOUS MATERIALS OR TOXIC WASTE (E.G., OIL, FUEL, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVE, ADDITIVES, CURING COMPOUNDS, AND ACIDS) ACCORDING TO MINN. R. CH. 7045, INCLUDING RESTRICTED ACCESS AND SECONDARY CONTAINMENT:
ALL HAZARDOUS WASTE WILL BE APPROPRIATELY DISPOSED OF OFF SITE ACCORDING TO LOCAL AND STATE LAWS.
4. DESCRIBE COLLECTION, STORAGE AND DISPOSAL OF SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035:
ALL CONSTRUCTION DEBRIS AND SOLID WASTE WILL BE APPROPRIATELY DISPOSED OF OFF SITE ACCORDING TO LOCAL AND STATE LAWS
5. DESCRIBE MANAGEMENT OF PORTABLE TOILETS TO PREVENT TIPPING AND DISPOSAL OF SANITARY WASTES IN ACCORDANCE WITH MINN. R. CH. 7040:
SANITARY AND SEWAGE SERVICES WILL BE PROVIDED TO WORKERS WITH PORTABLE FACILITIES MAINTAINED AS NEEDED BY THE PROVIDER.
6. DESCRIBE SPILL PREVENTION AND RESPONSE FOR FUELING AND EQUIPMENT OR VEHICLE MAINTENANCE:
EMPLOYEES WILL BE TRAINED IN TECHNIQUES DESIGNED TO MINIMIZE SPILLS. VEHICLES AND EQUIPMENT SHALL BE CHECKED FOR LEAKS.
7. DESCRIBE CONTAINMENT AND DISPOSAL OF VEHICLE AND EQUIPMENT WASH WATER AND PROHIBITING ENGINE DEGREASING ON THE SITE:
ALL CONSTRUCTION VEHICLES SHALL BE WASHED OFF SITE
8. DESCRIBE STORAGE AND DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES SO THAT WASTES DO NOT CONTACT THE GROUND:
ALL CONCRETE WASHOUT SHALL OCCUR OFF SITE.

FINAL STABILIZATION (25.22)
1. DESCRIBE METHOD OF FINAL STABILIZATION (PERMANENT COVER) OF ALL DISTURBED AREAS:
FINAL STABILIZATION WILL BE ACCOMPLISHED WITH PAVEMENT, SOD AND LANDSCAPE MATERIALS.
2. DESCRIBE METHODS USED TO CLEAN ALL STORMWATER TREATMENT SYSTEMS AND STORMWATER CONVEYANCE SYSTEMS OF ACCUMULATED SEDIMENT (25.22):
CLEANING OF STORMWATER TREATMENT SYSTEMS SHALL BE DONE BY HAND SUCH AS THE USE OF A SHOVEL.
3. DESCRIBE METHODS FOR REMOVING ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMP'S:
REMOVAL OF TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMP'S CAN BE DONE BY HAND AND PROPERLY DISPOSED OF.

925 Wayzata Blvd W
Long Lake, Hennepin County, MN 55391
Blue Sky Group
1161 E Wayzata Blvd #154, Wayzata, MN 55391

PROJECT
CLIENT

QA/QC	
FIELD CREW	
DRAWN BY	SIW
REVIEWED BY	RS
UPDATED BY	.



REVISION SUMMARY	
DATE	DESCRIPTION
7-7-23	Added Labels

PROJECT NO. - 20163

SWPPP

C7.0

ATTACHMENT B: SWPPP INSPECTION FORM

NOTE: THIS INSPECTION REPORT DOES NOT ADDRESS ALL ASPECTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) CONSTRUCTION STORMWATER PERMIT (PERMIT) ISSUED ON AUGUST 1, 2018. THE COMPLETION OF THIS CHECKLIST DOES NOT GUARANTEE THAT ALL PERMIT REQUIREMENTS ARE IN COMPLIANCE; IT IS THE RESPONSIBILITY OF THE PERMITTEE(S) TO READ AND UNDERSTAND THE PERMIT REQUIREMENTS.

FACILITY INFORMATION

SITE NAME: _____ PERMIT NUMBER: _____
SITE ADDRESS: _____ CITY: _____ STATE: _____ ZIP CODE: _____

INSPECTION INFORMATION

INSPECTOR NAME: _____ PHONE NUMBER: _____
ORGANIZATION/COMPANY MAN: _____ DATE (MM/DD/YYYY): _____ TIME: _____ AM / PM
IS THE INSPECTOR CERTIFIED IN SEDIMENT AND EROSION CONTROL AND IS IT DOCUMENTED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP)? ☐ Y ☐ N
IS THIS INSPECTION ROUTINE OR IN RESPONSE TO A STORM EVENT?
7 DAY ☐ RAIN ☐

RAINFALL AMOUNT (IF APPLICABLE): _____ Y ☐ N ☐
IS SITE WITHIN ONE AERIAL MILE OF SPECIAL OR IMPAIRED WATER THAT CAN POTENTIALLY RECEIVE DISCHARGE FROM THE SITE? ☐
IF YES, FOLLOW SECTION 23 AND OTHER APPLICABLE PERMIT REQUIREMENTS

NOTE: IF N/A IS SELECTED AT ANY TIME, SPECIFY WHY IN THE COMMENT AREA FOR THAT SECTION.

EROSION CONTROL REQUIREMENT (SECTION 8.1)

	Y	N	N/A
1. ARE SOILS STABILIZED WHERE NO CONSTRUCTION ACTIVITY HAS OCCURRED FOR 14 DAYS (INCLUDING STOCKPILES)? (7 DAYS WHERE APPLICABLE, OR 24 HOURS DURING MINNESOTA DEPARTMENT OF NATURAL RESOURCES [DNR] FISH SPAWNING RESTRICTIONS)	☐	☐	☐
2. HAS THE NEED TO DISTURB STEEP SLOPES BEEN MINIMIZED?	☐	☐	☐
3. IF STEEP SLOPES ARE DISTURBED, ARE STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES USED?	☐	☐	☐
4. ALL DITCHES/SWALES STABILIZED 200' BACK FROM POINT OF DISCHARGE OR PROPERTY EDGE WITHIN 24 HOURS? (MULCH, HYDROMULCH, TACKIFIER, OR SIMILAR BEST MANAGEMENT PRACTICES [BMPs] ARE NOT ACCEPTABLE IN DITCHES/SWALES IF THE SLOPE IS GREATER THAN 2%; ARE APPROPRIATE BMPs INSTALLED PROTECTING INLETS/OUTLETS?)	☐	☐	☐
5. DO PIPE OUTLETS HAVE ENERGY DISSIPATION (WITHIN 24 HOURS OF CONNECTION)?	☐	☐	☐
6. IS CONSTRUCTION PHASING BEING FOLLOWED IN ACCORDANCE WITH THE SWPPP?	☐	☐	☐
7. ARE AREAS NOT TO BE DISTURBED MARKED OFF (FLAGS, SIGNS, ETC.)?	☐	☐	☐

COMMENTS:

SEDIMENT CONTROL REQUIREMENTS (SECTION 9.1)

	Y	N	N/A
1. ARE PERIMETER SEDIMENT CONTROLS INSTALLED PROPERLY ON ALL DOWN GRADIENT PERIMETERS?	☐	☐	☐
2. ARE APPROPRIATE BMPs INSTALLED PROTECTING INLETS, CATCH BASINS, AND CULVERT INLETS?	☐	☐	☐
3. IS A 50 FOOT NATURAL BUFFER PRESERVED AROUND ALL SURFACE WATERS DURING CONSTRUCTION?	☐	☐	☐
3.1. IF NO, HAVE REDUNDANT SEDIMENT CONTROLS BEEN INSTALLED?	☐	☐	☐
4. DO ALL ERODIBLE STOCKPILES HAVE PERIMETER CONTROL IN PLACE?	☐	☐	☐
5. IS THERE A TEMPORARY SEDIMENT BASIN ON SITE, AND IS IT BUILT AS REQUIRED IN SECTION 14 OF THE PERMIT?	☐	☐	☐
6. IS SOIL COMPACTION BEING MINIMIZED WHERE NOT DESIGNED FOR COMPACTION?	☐	☐	☐
7. IS TOPSOIL BEING PRESERVED UNLESS INFEASIBLE?	☐	☐	☐
8. IF CHEMICAL FLOCCULANTS ARE USED, IS THERE A CHEMICAL FLOCCULANT PLAN IN PLACE?	☐	☐	☐

COMMENTS:

MAINTENANCE AND INSPECTIONS (SECTION 11)

	Y	N	N/A
1. ARE ALL PREVIOUSLY STABILIZED AREAS MAINTAINING GROUND COVER?	☐	☐	☐
2. ARE PERIMETER CONTROLS MAINTAINED AND FUNCTIONING PROPERLY, SEDIMENT REMOVED WHEN ONE-HALF FULL?	☐	☐	☐
3. ARE INLET PROTECTION DEVICES MAINTAINED AND ADEQUATELY PROTECTING INLETS?	☐	☐	☐
4. ARE THE TEMPORARY SEDIMENT BASINS BEING MAINTAINED AND FUNCTIONING PROPERLY?	☐	☐	☐
5. ARE VEHICLE TRACKING BMPs AT SITE EXISTS IN PLACE AND MAINTAINED AND FUNCTIONING PROPERLY?	☐	☐	☐
6. IS ALL TRACKED SEDIMENT BEING REMOVED WITHIN 24 HOURS?	☐	☐	☐
7. HAVE ALL SURFACE WATERS, DITCHES, CONVEYANCES, AND DISCHARGE POINTS BEEN INSPECTED?	☐	☐	☐
8. WERE ANY DISCHARGES SEEN DURING THIS INSPECTION (I.E., SEDIMENT, TURBID WATER, OR OTHERWISE)?	☐	☐	☐

IF YES, RECORD THE LOCATION OF ALL POINTS OF DISCHARGE. PHOTOGRAPH AND DESCRIBE THE DISCHARGE (SIZE, COLOR, ODOR, FOAM, OIL SHEEN, TIME, ETC.). DESCRIBE HOW THE DISCHARGE WILL BE ADDRESSED. WAS THE DISCHARGE A SEDIMENT DELTA? IF YES, WILL THE DELTA BE RECOVERED WITHIN SEVEN DAYS AND IN ACCORDANCE WITH ITEM 11.5 OF THE PERMIT?

COMMENTS:

POLLUTION PREVENTION (SECTION 12)

	Y	N	N/A
1. ARE ALL CONSTRUCTION MATERIALS THAT CAN LEACH POLLUTANTS UNDER COVER OR PROTECTED?	☐	☐	☐
2. ARE HAZARDOUS MATERIALS BEING PROPERLY STORED?	☐	☐	☐
3. ARE APPROPRIATE BMPs BEING USED TO PREVENT DISCHARGES ASSOCIATED WITH FUELING AND MAINTENANCE OF EQUIPMENT OR VEHICLES?	☐	☐	☐
4. ARE ALL SOLID WASTES BEING PROPERLY CONTAINED AND DISPOSED OF?	☐	☐	☐
5. IS THERE A CONCRETE/OTHER MATERIAL WASHOUT AREA ON SITE AND IS IT BEING USED?	☐	☐	☐
6. IS THE CONCRETE WASHOUT AREA MARKED WITH A SIGN?	☐	☐	☐
7. ARE THE CONCRETE/OTHER MATERIAL WASHOUT AREAS PROPERLY MAINTAINED?	☐	☐	☐

COMMENTS:

OTHER

	Y	N	N/A
1. IS A COPY OF THE SWPPP, INSPECTION RECORDS, AND TRAINING DOCUMENTATION LOCATED ON THE CONSTRUCTION SITE, OR CAN IT BE MADE AVAILABLE WITHIN 72 HOURS?	☐	☐	☐
2. HAS THE SWPPP BEEN FOLLOWED AND IMPLEMENTED ON SITE, AND AMENDED AS NEEDED?	☐	☐	☐
3. IS ANY DEWATERING OCCURRING ON SITE?	☐	☐	☐
IF YES, WHAT BMPs ARE BEING USED TO ENSURE THAT CLEAN WATER IS LEAVING THE SITE AND THE DISCHARGE IS NOT CAUSING EROSION OR SCOUR?	☐	☐	☐
4. WILL A PERMANENT STORMWATER MANAGEMENT SYSTEM BE CREATED FOR THIS PROJECT IF REQUIRED AND IN ACCORDANCE WITH SECTION 15 OF THE PERMIT (IF ADDING AN ACRE OR MORE OF NEW IMPERVIOUS SURFACE)? IF YES, DESCRIBE:	☐	☐	☐
5. IF INFILTRATION/FILTRATION SYSTEMS ARE BEING CONSTRUCTED, ARE THEY MARKED AND PROTECTED FROM COMPACTION AND SEDIMENTATION?	☐	☐	☐
6. DESCRIPTION OF AREAS OF NON-COMPLIANCE NOTED DURING THE INSPECTION, REQUIRED CORRECTIVE ACTIONS, AND RECOMMENDED DATE OF COMPLETION OF CORRECTIVE ACTIONS:			
7. PROPOSED AMENDMENTS TO THE SWPPP:			
8. POTENTIAL AREAS OF FUTURE CONCERN:			
9. ADDITIONAL COMMENTS			

DISCLOSURES:

- AFTER DISCOVERY, THE PERMIT REQUIRES MANY OF THE DEFICIENCIES THAT MAY BE FOUND ON SITE BE CORRECTED WITHIN A SPECIFIED PERIOD OF TIME. SEE PERMIT FOR MORE DETAILS.
- THE PERMITTEE(S) IS/ARE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPs AS WELL AS EROSION PREVENTION AND SEDIMENT CONTROL BMPs UNTIL ANOTHER PERMITTEE HAS OBTAINED COVERAGE UNDER THIS PERMIT ACCORDING TO SECTION 3. OR THE PROJECT HAS MET THE TERMINATION CONDITIONS OF THE PERMIT AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MINNESOTA POLLUTION CONTROL AGENCY.

ATTACHMENT C: MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEM

925 Wayzata Blvd W

Long Lake, Hennepin County, MN 55391

Blue Sky Group

1161 E Wayzata Blvd #154, Wayzata, MN 55391

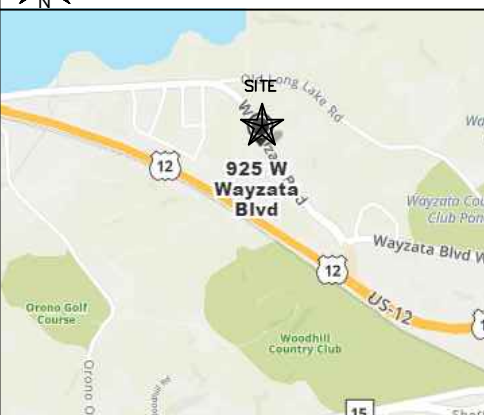
PROJECT

CLIENT

QA/QC

FIELD CREW	
DRAWN BY	SIW
REVIEWED BY	RS
UPDATED BY	.

VICINITY MAP



REVISION SUMMARY

DATE	DESCRIPTION
7-7-23	Added Labels

PROJECT NO. - 20163

SWPPP

C7.1

Stormwater Management Report

Owner:

Rory Synstelien
925 Wayzata Blvd
Long Lake, MN 55391

Project:

Wilds on Wayzata
925 Wayzata Blvd
Long Lake, MN 55391

Engineer's Certification:

All plans and supporting Documentation contained in this report have been reviewed by me and it is hereby certified that to the best of my knowledge the plans comply with the requirements of the ordinance.

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.



Robert A. Latta P.E.

Registration Number: 59612

Date:

06/26/2024

Table of Contents:

- 1.0 Cover Sheet, Engineer's Certification
- 2.0 Summary Analysis / Narrative
 - 2.1 Introduction
 - 2.2 Existing Site Conditions
 - 2.3 Proposed Site Conditions
 - 2.4 Stormwater Requirements – City
 - 2.5 Stormwater Requirements – Watershed
 - 2.6 Stormwater Requirements – MPCA / NPDES
- 3.0 Stormwater Calculations
 - 3.1 Proposed Stormwater Management Strategy & Facilities Description
 - 3.2 Rate Control
 - 3.3 Water Quality
 - 3.4 Volume Control
- 4.0 Conclusions

Figures:

- Figure 1 – Drainage Calculations Summary Table
- Figure 2 – Existing Conditions Drainage Area Map
- Figure 3 – Proposed Conditions Drainage Area Map

Appendices:

- HydroCAD
 - Existing Conditions HydroCAD Modeling
 - Proposed Conditions HydroCAD Modeling

2.0 Summary Analysis / Narrative:

2.1 Introduction:

This stormwater management report accompanies the Civil Engineering Plans prepared by Civil Site Group for the subject project and serves as attachment D to the storm water pollution prevention plan (SWPPP). This report includes a summary of the existing and proposed site conditions, the stormwater requirements of relevant regulatory agencies, and proposed design calculations and data to meet the requirements.

2.2 Existing Site Conditions:

Site Description:

The existing site is currently one single family home. The existing site surface coverage areas are shown in the table below:

Existing Conditions						
Drainage Area	Impervious Area		Pervious Area		Total Area	
	Area [SF]	CN Value	Area [SF]	CN Value	Area [SF]	CN Value
EX1 TO ROAD	5991	98	33663	74	39654	78
EX2 TO ADJACENT PROPERTY TO WEST	0	98	13009	74	13009	74

Existing Soils:

A geotechnical evaluation is not available at this time. USDA Web Soil Survey shows Lester Loam with an HSG 'C' designation, and Hamel-Glencoe Complex with HSG 'C/D' designation. Soils are poor for infiltration and filtration basins with draintile will be utilized for stormwater treatment.

Groundwater:

Groundwater observations are not available at this time.

2.3 Proposed Site Conditions:

Site Description:

The proposed site is a development of the parcel into four single-family homes with parking, landscaping, and aboveground stormwater management. The proposed site surface coverage areas are shown in the table below:

Proposed Conditions						
Drainage Area	Impervious Area		Pervious Area		Total Area	
	Area [SF]	CN Value	Area [SF]	CN Value	Area [SF]	CN Value
2S TO RAIN GARDEN 1	7572	98	11823	74	19395	83
4S TO RAIN GARDEN 2	11156	98	17847	74	29003	83
7S TO ADJACENT PROPERTY TO WEST	0	98	2641	74	2641	74
8S TO ROAD	1032	98	592	74	1624	89

2.4 Stormwater Requirements City (Long Lake):

The City of Long Lake defers to Minnehaha Creek Watershed District requirements.

2.5 Stormwater Requirements Watershed (Minnehaha Creek Watershed District):

Requirement threshold – Redevelopment Projects that are >1 acre, result in an increase in impervious surface and disturb >40% of the site.

Rate Control – Runoff rate may not exceed existing conditions for the 2, 10, 100-yr storm events. Utilize Atlas-14 rainfall data.

Water Quality – Stormwater must be treated prior to discharge to result in no net increase of total phosphorus. If volume control requirements are met, it can be assumed that water quality requirements are satisfied

Volume Control – Stormwater runoff volume must be infiltrated/abstracted onsite in the amount equivalent to one inch (1") of runoff generated from the new or reconstructed impervious surface. If infiltration is infeasible onsite, volume control requirements double to 2.2" of runoff generated from the new or reconstructed impervious surface.

2.6 Stormwater Requirements - Minnesota Pollution Control Agency – NPDES permit (MPCA):

Requirement threshold - A permit is required for projects with a disturbed area over 1 acre in size, Stormwater management is required for a project adding 1-acre of more of NEW impervious surface (reconstructed impervious is not included).

Rate Control – No specific regulation, may not degrade downstream facilities.

Water Quality – Stormwater water quality treatment volume must be provided equal to 1.0" over all new impervious surfaces (includes all newly constructed impervious surfaces only, re-constructed impervious surfaces are not included).

Volume Control – Must consider volume reduction if feasible and not prohibited on site. The required infiltration volume is equal to the water quality volume described above.

3.0 Stormwater Calculations:

3.1 Proposed Stormwater Management Strategy & Facilities Description

Stormwater Management is provided for this site by two aboveground filtration basins. Filtration Rain Garden 1 drains by draintile and overflow outlet to Filtration Rain Garden 2, which drains by draintile and overflow to the catch basin structure in the ROW.

3.2 Rate Control

Rate control per the requirement is provided by live storage within the proposed filtration basins. This information was derived using HydroCAD stormwater modeling software. The existing and proposed runoff rates are shown in the summary table below.

Overall Stormwater Rate Summary		
	Existing Conditions Rate (cfs)	Proposed Conditions Rate (cfs)
2-Year Event	2.09	0.24
10-Year Event	4.26	0.63
100-Year Event	9.59	5.47
Stormwater Rate Summary - To Road		
	Existing Conditions Rate (cfs) (EX1)	Proposed Conditions Rate (cfs) (9R)
2-Year Event	1.66	0.19
10-Year Event	3.31	0.61
100-Year Event	7.32	5.06
Stormwater Rate Summary - To Adjacent Property		
	Existing Conditions Rate (cfs) (EX2)	Proposed Conditions Rate (cfs) (7S)
2-Year Event	0.43	0.09
10-Year Event	0.96	0.19
100-Year Event	2.28	0.46

3.3 Water Quality

The proposed stormwater BMP's are designed to capture the prescribed water quality volume meeting the watershed requirements.

3.4 Volume Control

Water quality and volume control requirements are met by providing filtration onsite in the amount equal to 2.2 inches of runoff from the new or reconstructed impervious surfaces. The proposed aboveground filtration basins will be utilized to meet these requirements. Filtration is being provided in lieu of infiltration due to poorly draining soils.

The calculations are shown below:

Stormwater Water Quality and Volume Summary				
Drainage Area	Required Infiltration Vol. Summary		Filtration Volume = 2.2"*Dist. Impv. Area	
	New Impv. Area (sf)	Required Volume (cf)		
2S TO RAIN GARDEN 1	7572	1388		
4S TO RAIN GARDEN 2	11156	2045		
7S TO ADJACENT PROPERTY TO WEST	0	0		
8S TO ROAD	1032	189		
TOTAL	19760	3623		
Proposed BMP Area	Provided Vol (cf)	Drawdown Time Calculations (0.8"/Hour)		
		Inf. Area (sf)	Assoc. Inf. Height (ft)	Drawdown Time (h)
Rain Garden 1	987	822	1.20	9.01
Rain Garden 2	3920	1368	2.87	21.49
Total	4907			

4.0 Conclusions:

To the best of our knowledge, this project meets all State, City, and Watershed stormwater management requirements.

Wilds on Wayzata
Civil Site Group - Stormwater Calculations

Existing Conditions

Drainage Area	Impervious Area		Pervious Area		Total Area	
	Area [SF]	CN Value	Area [SF]	CN Value	Area [SF]	CN Value
EX1 TO ROAD	5991	98	33663	74	39654	78
EX2 TO ADJACENT PROPERTY TO WEST	0	98	13009	74	13009	74

Proposed Conditions

Drainage Area	Impervious Area		Pervious Area		Total Area	
	Area [SF]	CN Value	Area [SF]	CN Value	Area [SF]	CN Value
2S TO RAIN GARDEN 1	7572	98	11823	74	19395	83
4S TO RAIN GARDEN 2	11156	98	17847	74	29003	83
7S TO ADJACENT PROPERTY TO WEST	0	98	2641	74	2641	74
8S TO ROAD	1032	98	592	74	1624	89

Site Area Summary

	Impervious [SF]	Impervious [AC]	Pervious [SF]	Pervious [AC]	Total [SF]	Total [AC]
Existing Site	5991	0.14	46672	1.07	52663	1.21
Proposed Site	19760	0.45	32903	0.76	52663	1.21

Stormwater Rate Summary

Drainage Area	Existing Rate (cfs)		
	2-YR [2.94"]	10-YR [4.47"]	100-YR [7.81"]
EX1 TO ROAD	1.66	3.31	7.32
EX2 TO ADJACENT PROPERTY TO WEST	0.43	0.96	2.28
TOTAL (REACH)	2.09	4.26	9.59

Drainage Area	Proposed Conditions Rate (cfs)		
	2-YR [2.94"]	10-YR [4.47"]	100-YR [7.81"]
Rain Garden 1	0.24	1.73	3.68
Rain Garden 2	0.07	0.59	4.71
7S TO ADJACENT PROPERTY	0.09	0.19	0.46
8S TO ROAD	0.14	0.22	0.42
TOTAL (REACH)	0.24	0.63	5.47

Overall Stormwater Rate Summary

	Existing Conditions Rate (cfs)	Proposed Conditions Rate (cfs)
2-Year Event	2.09	0.24
10-Year Event	4.26	0.63
100-Year Event	9.59	5.47

Stormwater Rate Summary - To Road

	Existing Conditions Rate (cfs) (EX1)	Proposed Conditions Rate (cfs) (9R)
2-Year Event	1.66	0.19
10-Year Event	3.31	0.61
100-Year Event	7.32	5.06

Stormwater Rate Summary - To Adjacent Property

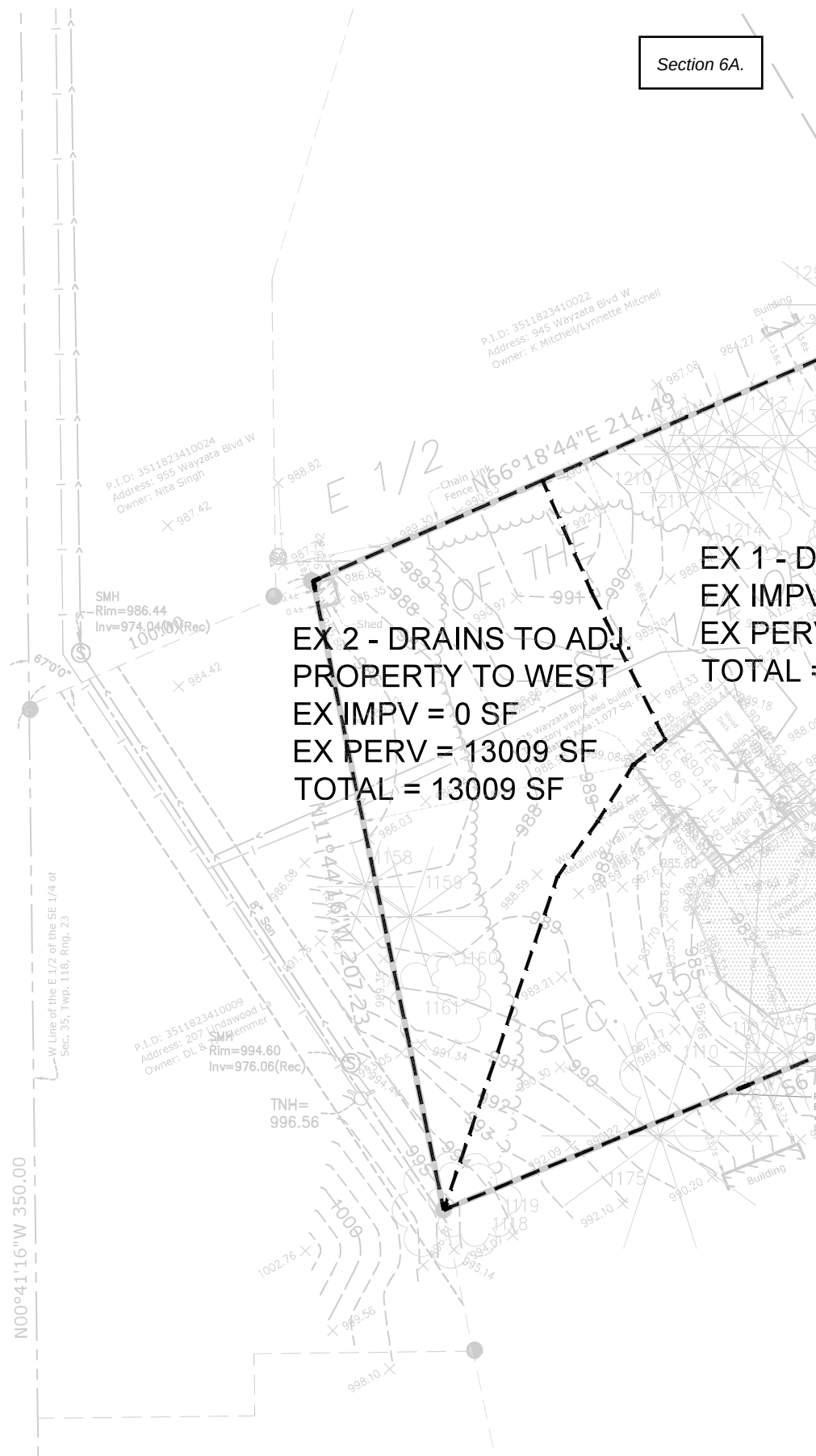
	Existing Conditions Rate (cfs) (EX2)	Proposed Conditions Rate (cfs) (7S)
2-Year Event	0.43	0.09
10-Year Event	0.96	0.19
100-Year Event	2.28	0.46

Stormwater Water Quality and Volume Summary

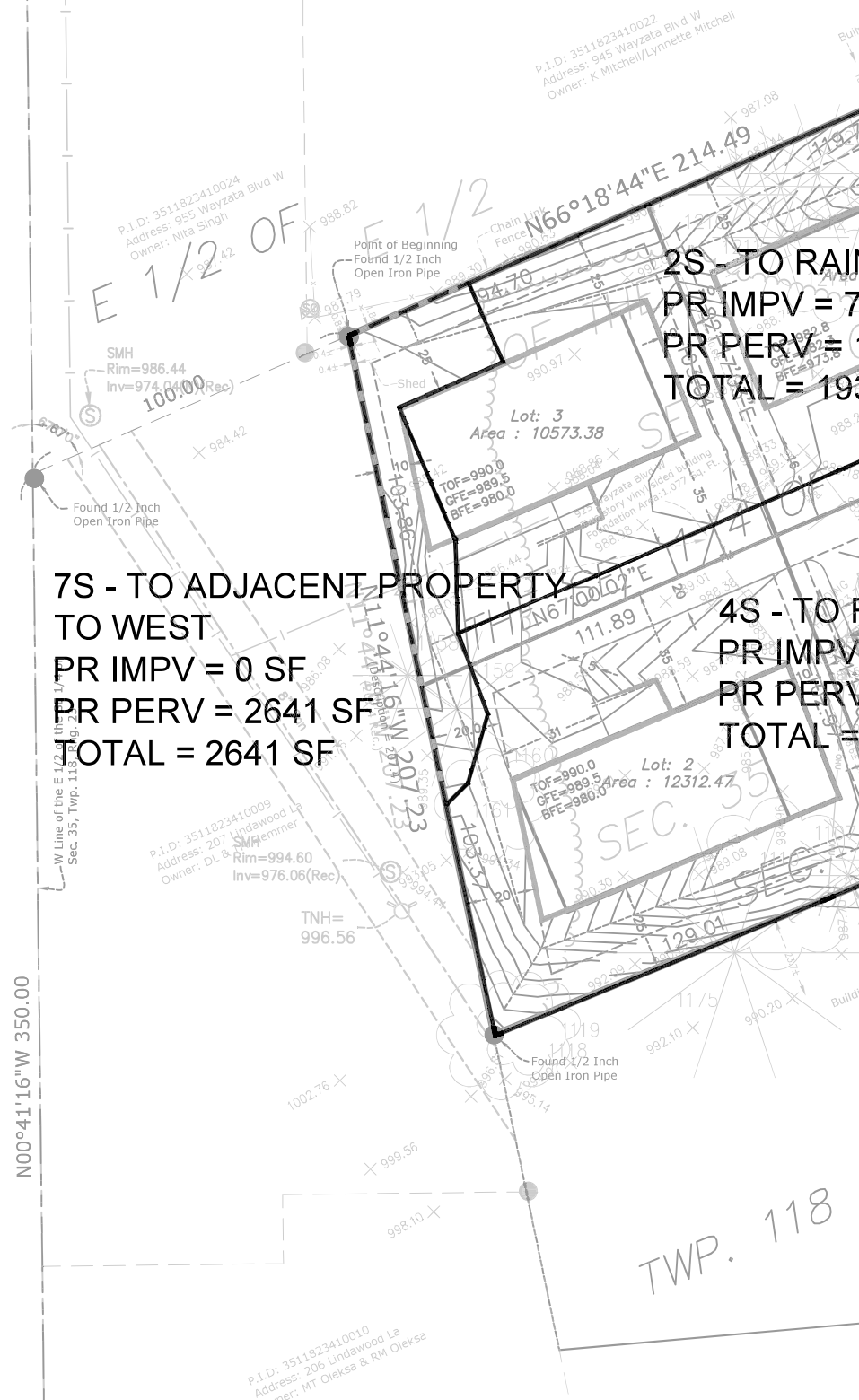
Drainage Area	Required Infiltration Vol. Summary	
	New Impv. Area (sf)	Required Volume (cf)
2S TO RAIN GARDEN 1	7572	1388
4S TO RAIN GARDEN 2	11156	2045
7S TO ADJACENT PROPERTY TO WEST	0	0
8S TO ROAD	1032	189
TOTAL	19760	3623

Filtration Volume =
2.2" Dist. Impv. Area

Proposed BMP Area	Provided Vol (cf)	Drawdown Time Calculations (0.8"/Hour)		
		Inf. Area (sf)	Assoc. Inf. Height (ft)	Drawdown Time (h)
Rain Garden 1	987	822	1.20	9.01
Rain Garden 2	3920	1368	2.87	21.49
Total	4907			



WILDS ON WAYZATA - 925 WAYZATA BLVD, LONG LAKE, MN

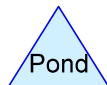
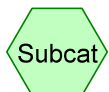
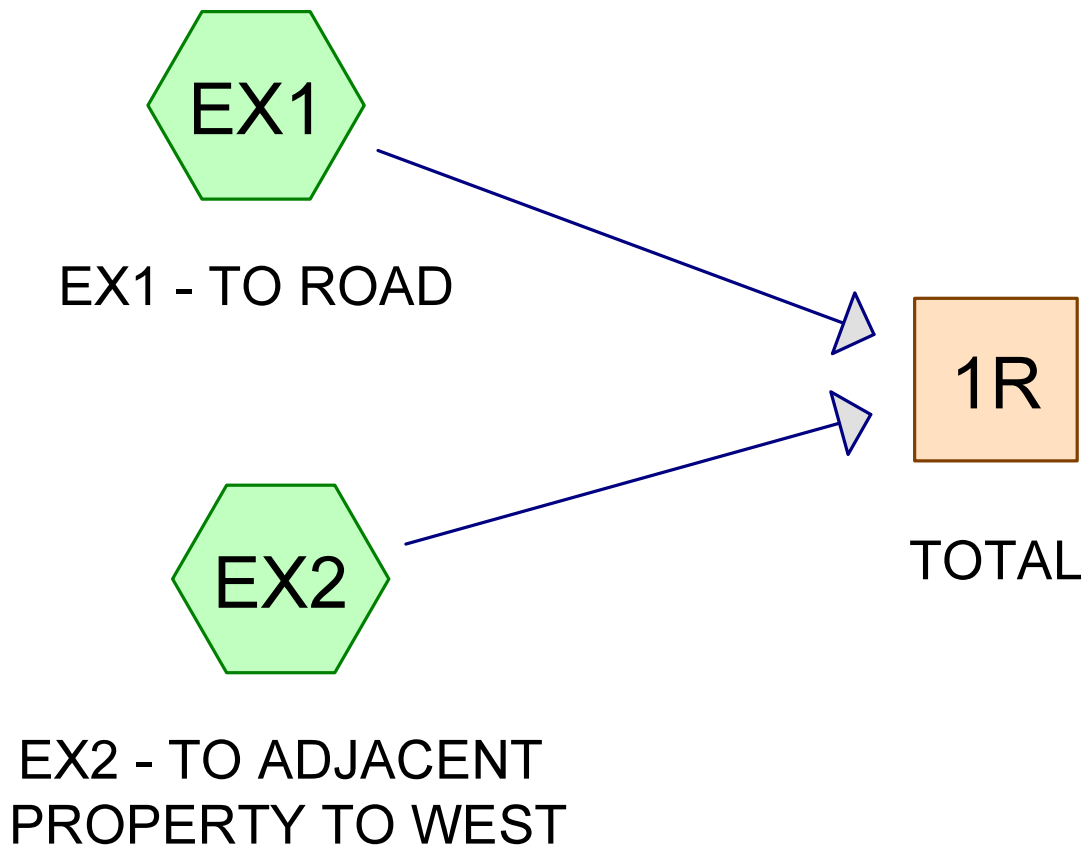


WILDS ON WAYZATA - 925 WAYZATA BLVD, LONG LAKE, MN



5000 Glenwood Avenue
Golden Valley, MN 55422
612-615-0060
www.CivilSiteGroup.com

PROPOSED D



20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Printed 6/26/2024

Page 2

Project Notes

Rainfall events imported from "20163 PROPOSED.hcp"

Rainfall events imported from "20163 PROPOSED.hcp"

20163 EXISTING

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 3

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	Type II 24-hr		Default	24.00	1	2.86	2
2	10-Year	Type II 24-hr		Default	24.00	1	4.26	2
3	100-Year	Type II 24-hr		Default	24.00	1	7.32	2

20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Printed 6/26/2024

Page 4

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.071	74	>75% Grass cover, Good, HSG C (EX1, EX2)
0.138	98	Paved parking, HSG C (EX1)
1.208	77	TOTAL AREA

20163 EXISTING

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 5

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.208	HSG C	EX1, EX2
0.000	HSG D	
0.000	Other	
1.208		TOTAL AREA

20163 EXISTING

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 6

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	1.071	0.000	0.000	1.071	>75% Grass cover, Good	EX1, EX2
0.000	0.000	0.138	0.000	0.000	0.138	Paved parking	EX1
0.000	0.000	1.208	0.000	0.000	1.208	TOTAL AREA	

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 7

Time span=0.00-240.00 hrs, dt=0.01 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment EX1: EX1 - TO ROAD

Runoff Area=39,624 sf 15.12% Impervious Runoff Depth=1.09"
Tc=6.0 min CN=WQ Runoff=1.66 cfs 0.083 af

Subcatchment EX2: EX2 - TO ADJACENT

Runoff Area=13,009 sf 0.00% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=74 Runoff=0.43 cfs 0.020 af

Reach 1R: TOTAL

Inflow=2.09 cfs 0.103 af
Outflow=2.09 cfs 0.103 af

Total Runoff Area = 1.208 ac Runoff Volume = 0.103 af Average Runoff Depth = 1.03"
88.62% Pervious = 1.071 ac 11.38% Impervious = 0.138 ac

20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 8

Summary for Subcatchment EX1: EX1 - TO ROAD

Runoff = 1.66 cfs @ 11.98 hrs, Volume= 0.083 af, Depth= 1.09"
 Routed to Reach 1R : TOTAL

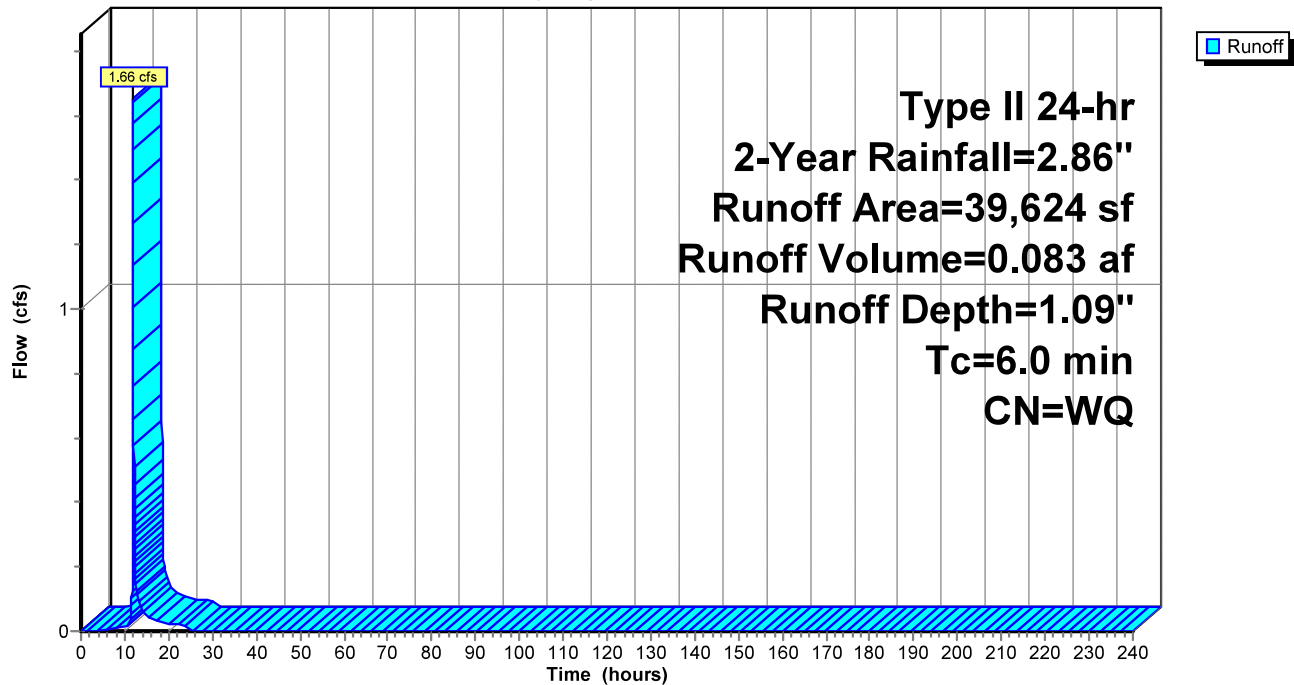
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.86"

Area (sf)	CN	Description
5,991	98	Paved parking, HSG C
33,633	74	>75% Grass cover, Good, HSG C
39,624		Weighted Average
33,633		84.88% Pervious Area
5,991		15.12% Impervious Area

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

Subcatchment EX1: EX1 - TO ROAD

Hydrograph



20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 9

Summary for Subcatchment EX2: EX2 - TO ADJACENT PROPERTY TO WEST

Runoff = 0.43 cfs @ 11.98 hrs, Volume= 0.020 af, Depth= 0.82"
 Routed to Reach 1R : TOTAL

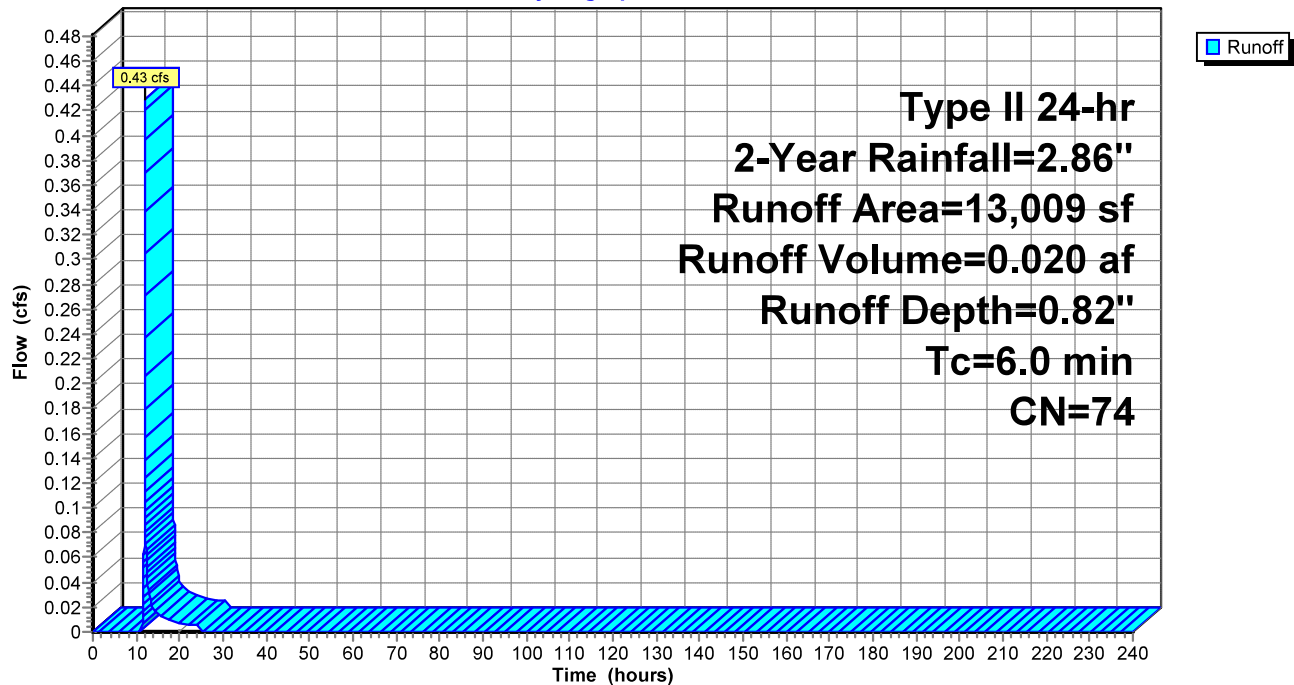
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.86"

Area (sf)	CN	Description
13,009	74	>75% Grass cover, Good, HSG C
13,009		100.00% Pervious Area

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

Subcatchment EX2: EX2 - TO ADJACENT PROPERTY TO WEST

Hydrograph



20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 10

Summary for Reach 1R: TOTAL

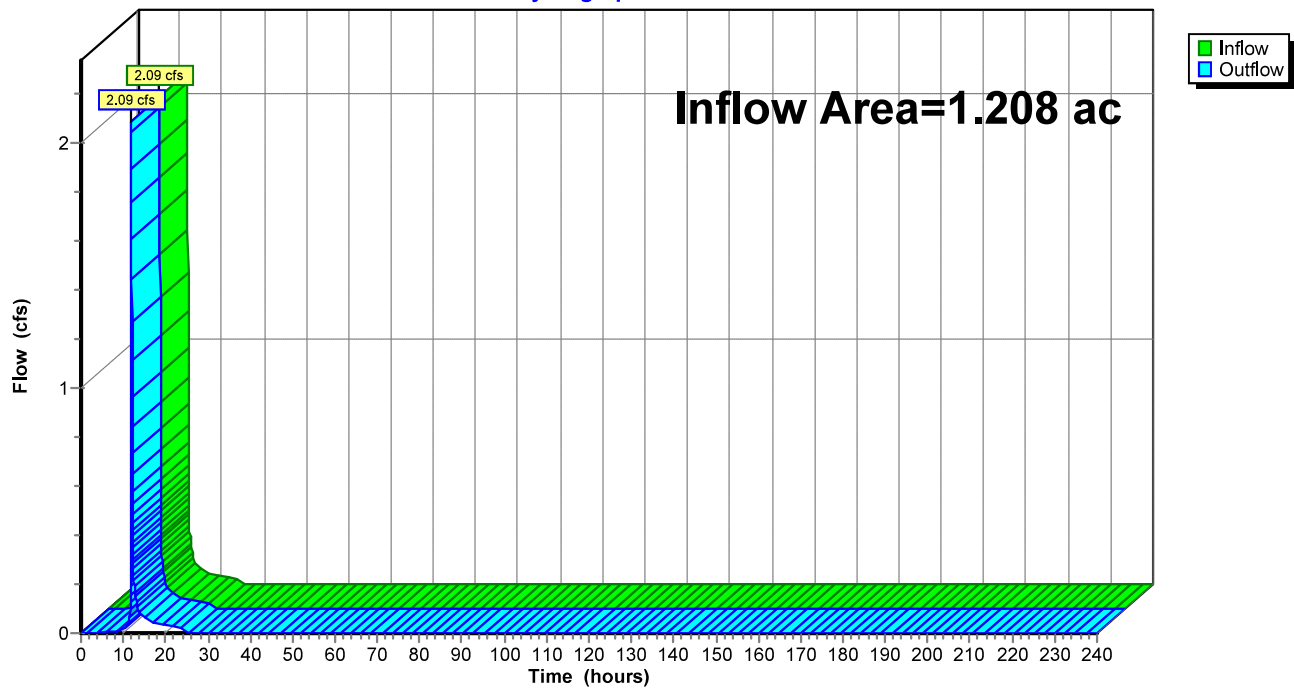
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.208 ac, 11.38% Impervious, Inflow Depth = 1.03" for 2-Year event
 Inflow = 2.09 cfs @ 11.98 hrs, Volume= 0.103 af
 Outflow = 2.09 cfs @ 11.98 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 1R: TOTAL

Hydrograph



20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 12

Summary for Subcatchment EX1: EX1 - TO ROAD

Runoff = 3.31 cfs @ 11.97 hrs, Volume= 0.161 af, Depth= 2.13"
 Routed to Reach 1R : TOTAL

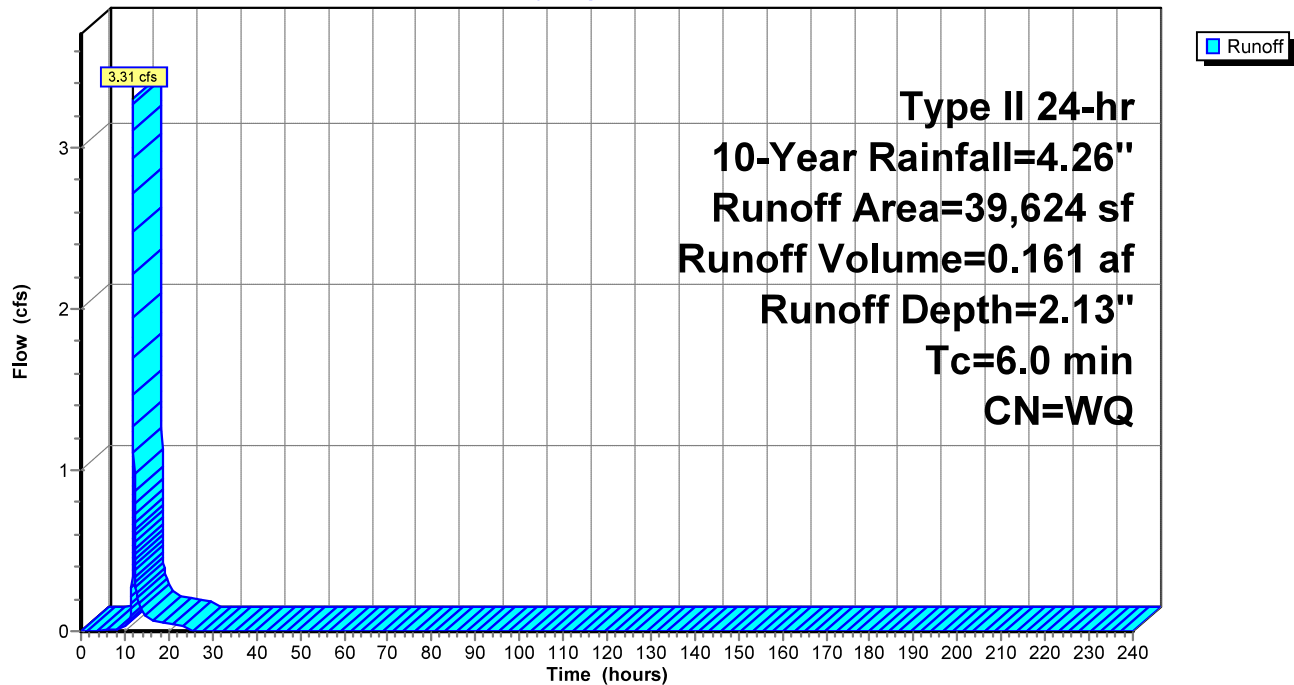
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=4.26"

Area (sf)	CN	Description
5,991	98	Paved parking, HSG C
33,633	74	>75% Grass cover, Good, HSG C
39,624		Weighted Average
33,633		84.88% Pervious Area
5,991		15.12% Impervious Area

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

Subcatchment EX1: EX1 - TO ROAD

Hydrograph



20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 13

Summary for Subcatchment EX2: EX2 - TO ADJACENT PROPERTY TO WEST

Runoff = 0.96 cfs @ 11.98 hrs, Volume= 0.045 af, Depth= 1.79"
 Routed to Reach 1R : TOTAL

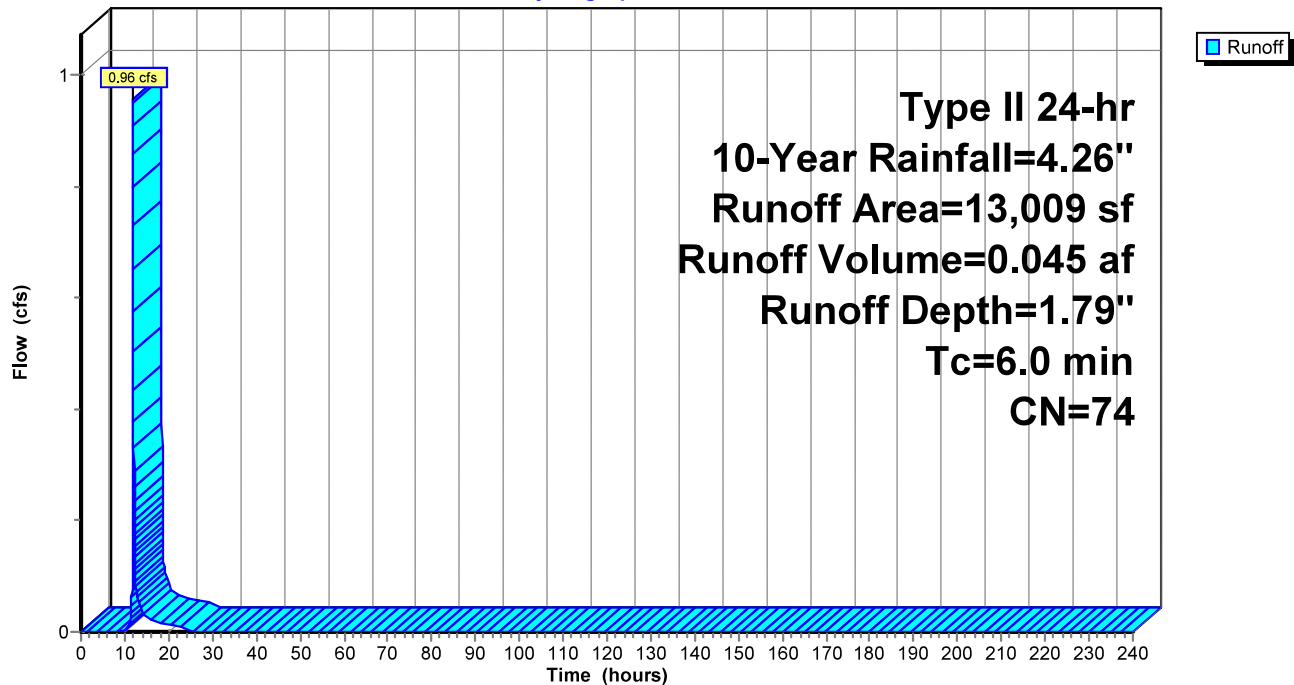
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=4.26"

Area (sf)	CN	Description
13,009	74	>75% Grass cover, Good, HSG C
13,009		100.00% Pervious Area

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

Subcatchment EX2: EX2 - TO ADJACENT PROPERTY TO WEST

Hydrograph



20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 14

Summary for Reach 1R: TOTAL

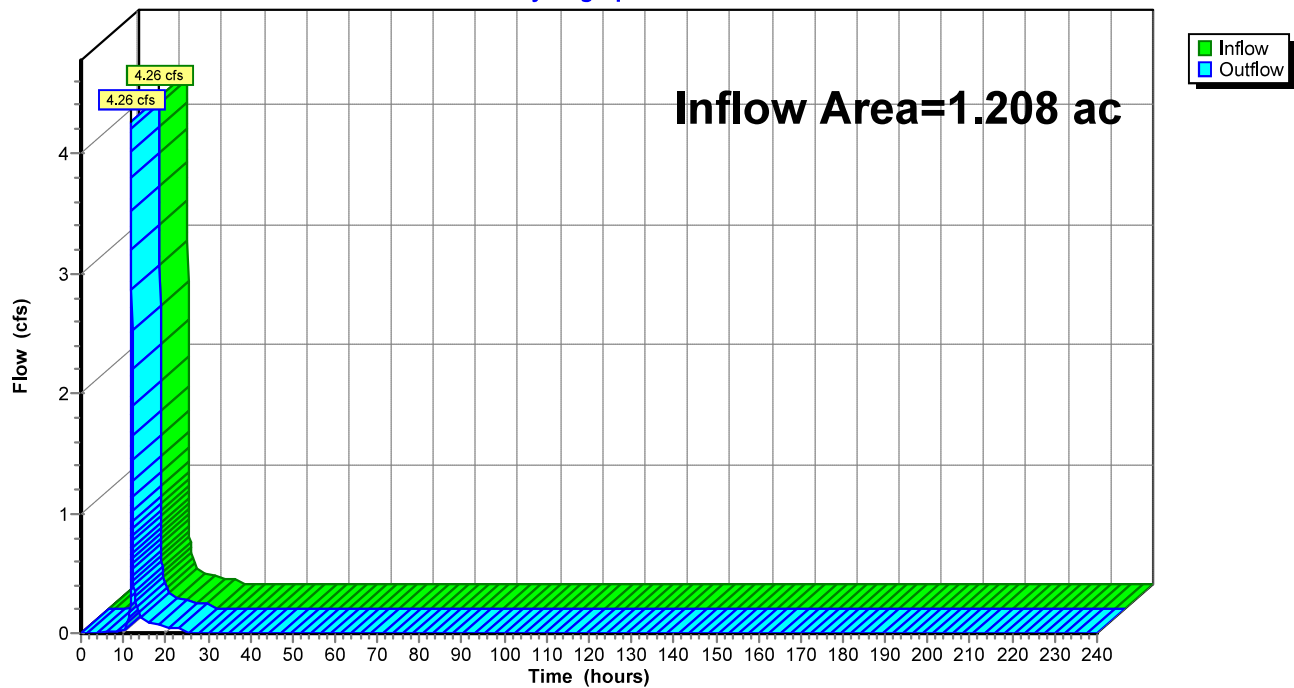
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.208 ac, 11.38% Impervious, Inflow Depth = 2.04" for 10-Year event
 Inflow = 4.26 cfs @ 11.97 hrs, Volume= 0.206 af
 Outflow = 4.26 cfs @ 11.97 hrs, Volume= 0.206 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 1R: TOTAL

Hydrograph



20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 16

Summary for Subcatchment EX1: EX1 - TO ROAD

Runoff = 7.32 cfs @ 11.97 hrs, Volume= 0.359 af, Depth= 4.74"
 Routed to Reach 1R : TOTAL

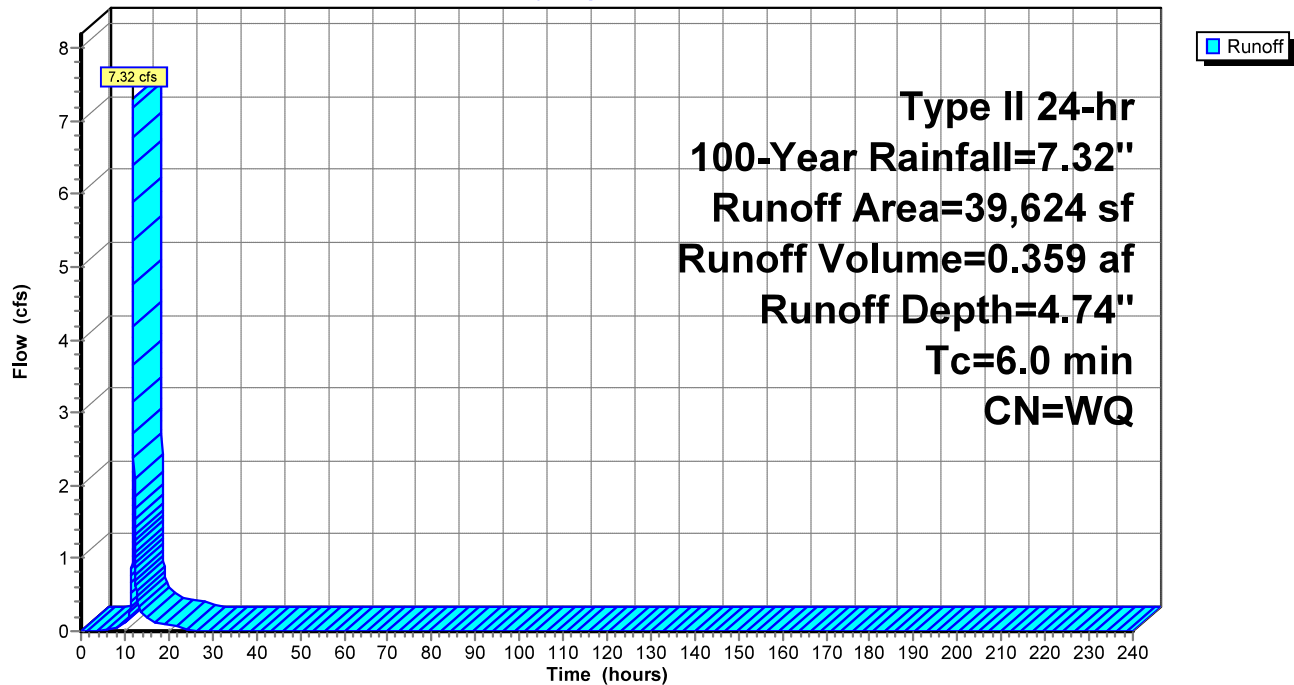
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=7.32"

Area (sf)	CN	Description
5,991	98	Paved parking, HSG C
33,633	74	>75% Grass cover, Good, HSG C
39,624		Weighted Average
33,633		84.88% Pervious Area
5,991		15.12% Impervious Area

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

Subcatchment EX1: EX1 - TO ROAD

Hydrograph



20163 EXISTING

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 17

Summary for Subcatchment EX2: EX2 - TO ADJACENT PROPERTY TO WEST

Runoff = 2.28 cfs @ 11.97 hrs, Volume= 0.108 af, Depth= 4.32"
 Routed to Reach 1R : TOTAL

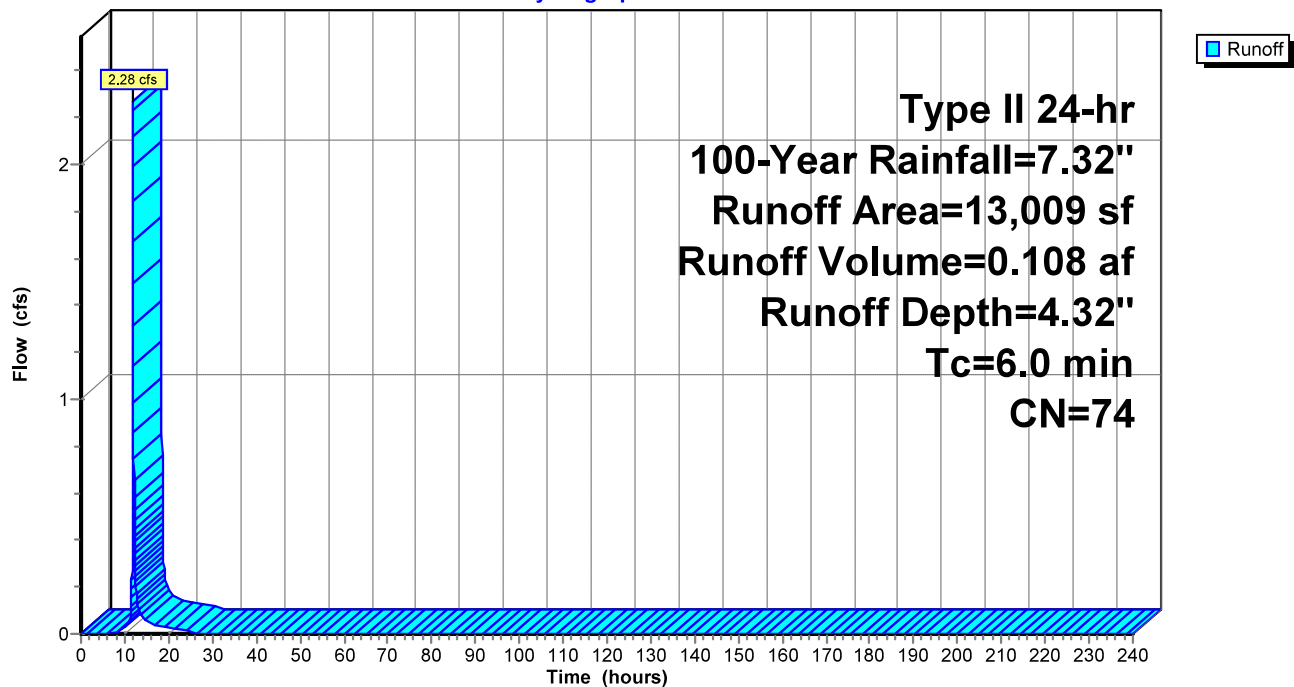
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=7.32"

Area (sf)	CN	Description
13,009	74	>75% Grass cover, Good, HSG C
13,009		100.00% Pervious Area

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

Subcatchment EX2: EX2 - TO ADJACENT PROPERTY TO WEST

Hydrograph



20163 EXISTING

Type II 24-hr 100-Year Rainfall=7.32"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 18

Summary for Reach 1R: TOTAL

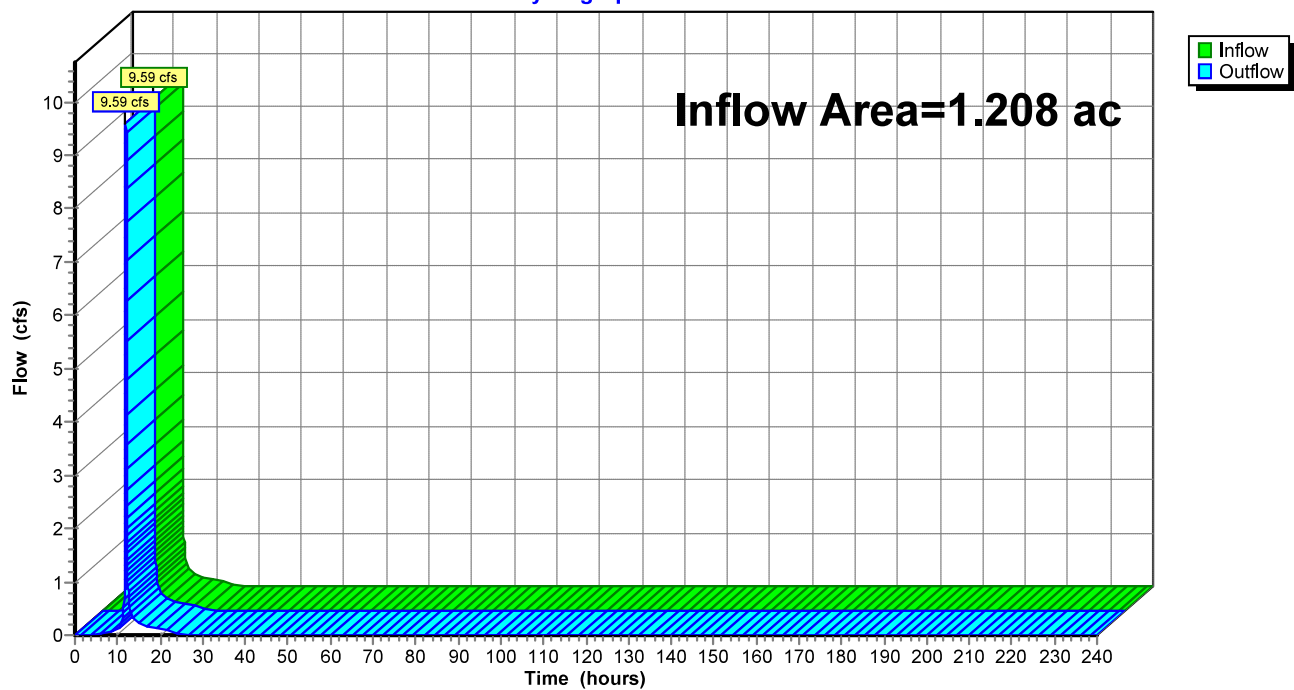
[40] Hint: Not Described (Outflow=Inflow)

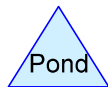
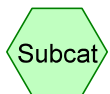
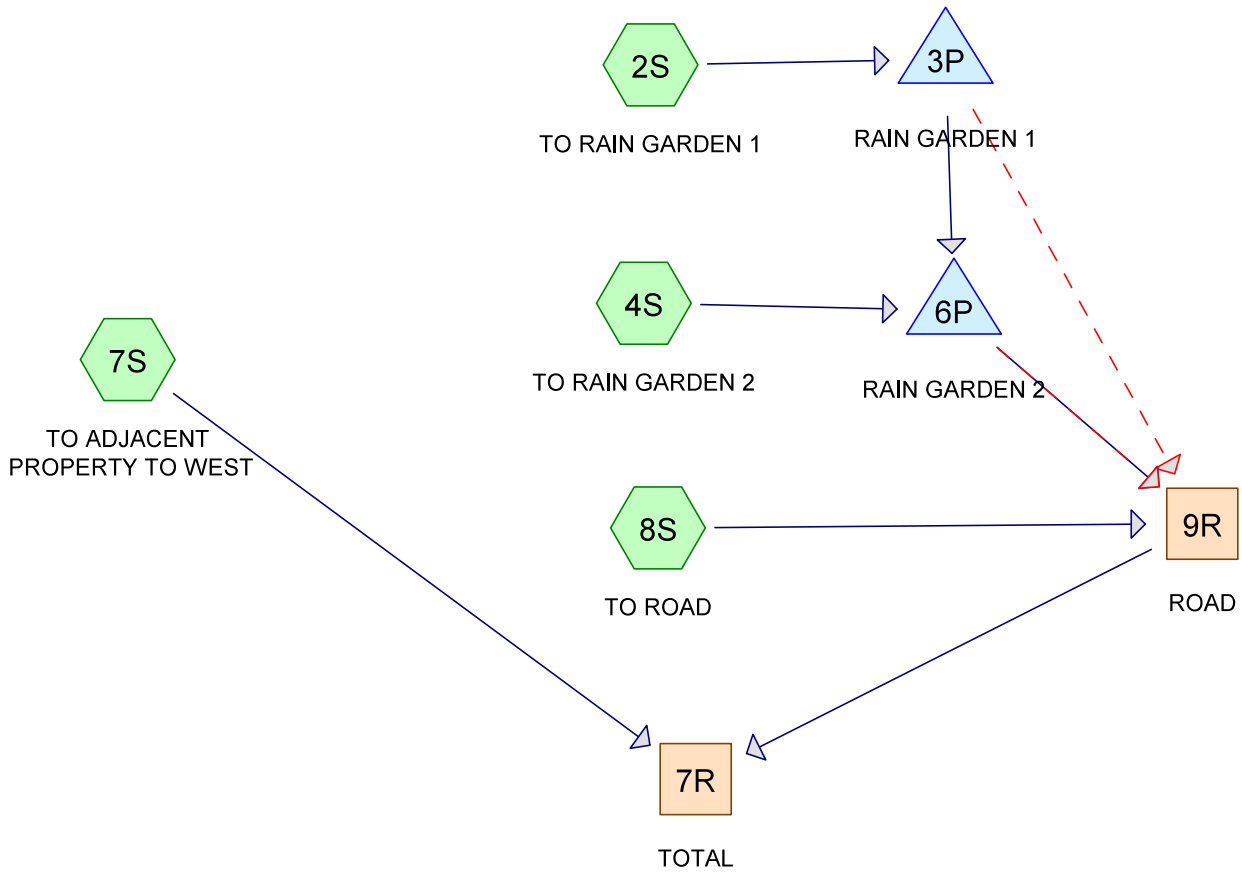
Inflow Area = 1.208 ac, 11.38% Impervious, Inflow Depth = 4.64" for 100-Year event
 Inflow = 9.59 cfs @ 11.97 hrs, Volume= 0.467 af
 Outflow = 9.59 cfs @ 11.97 hrs, Volume= 0.467 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 1R: TOTAL

Hydrograph





Routing Diagram for 20163 PROPOSED
 Prepared by Civil Site Group, Printed 6/26/2024
 HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Printed 6/26/2024

Page 2

Project Notes

Rainfall events imported from "Atlas-14-Rain.txt" for 543 MN Hennepin

Rainfall events imported from "Atlas-14-Rain.txt" for 543 MN Hennepin

Rainfall events imported from "Atlas-14-Rain.txt" for 543 MN Hennepin

Rainfall events imported from "Atlas-14-Rain.txt" for 543 MN Hennepin

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Printed 6/26/2024

Page 3

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	Type II 24-hr		Default	24.00	1	2.86	2
2	10-Year	Type II 24-hr		Default	24.00	1	4.26	2
3	100-Year	Type II 24-hr		Default	24.00	1	7.32	2

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Printed 6/26/2024

Page 4

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.755	74	>75% Grass cover, Good, HSG C (2S, 4S, 7S, 8S)
0.454	98	Paved parking, HSG C (2S, 4S, 8S)
1.209	83	TOTAL AREA

20163 PROPOSED

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 5

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.209	HSG C	2S, 4S, 7S, 8S
0.000	HSG D	
0.000	Other	
1.209		TOTAL AREA

20163 PROPOSED

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 6

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.755	0.000	0.000	0.755	>75% Grass cover, Good	2S, 4S, 7S, 8S
0.000	0.000	0.454	0.000	0.000	0.454	Paved parking	2S, 4S, 8S
0.000	0.000	1.209	0.000	0.000	1.209	TOTAL AREA	

Type II 24-hr 2-Year Rainfall=2.86"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 7

Time span=0.00-240.00 hrs, dt=0.01 hrs, 24001 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q

Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 2S: TO RAIN GARDEN 1 Runoff Area=19,395 sf 39.04% Impervious Runoff Depth=1.53"
Tc=6.0 min CN=WQ Runoff=1.09 cfs 0.057 af

Subcatchment 4S: TO RAIN GARDEN 2 Runoff Area=29,003 sf 38.46% Impervious Runoff Depth=1.52"
Tc=6.0 min CN=WQ Runoff=1.61 cfs 0.084 af

Subcatchment 7S: TO ADJACENT Runoff Area=2,641 sf 0.00% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=74 Runoff=0.09 cfs 0.004 af

Subcatchment 8S: TO ROAD Runoff Area=1,624 sf 63.55% Impervious Runoff Depth=1.97"
Tc=0.0 min CN=WQ Runoff=0.14 cfs 0.006 af

Reach 7R: TOTAL Inflow=0.24 cfs 0.151 af
Outflow=0.24 cfs 0.151 af

Reach 9R: ROAD Inflow=0.19 cfs 0.147 af
Outflow=0.19 cfs 0.147 af

Pond 3P: RAIN GARDEN 1 Peak Elev=970.07' Storage=1,049 cf Inflow=1.09 cfs 0.057 af
Primary=0.24 cfs 0.057 af Secondary=0.00 cfs 0.000 af Outflow=0.24 cfs 0.057 af

Pond 6P: RAIN GARDEN 2 Peak Elev=966.72' Storage=2,446 cf Inflow=1.64 cfs 0.141 af
Primary=0.07 cfs 0.141 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.141 af

Total Runoff Area = 1.209 ac Runoff Volume = 0.151 af Average Runoff Depth = 1.50"
62.48% Pervious = 0.755 ac 37.52% Impervious = 0.454 ac

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 8

Summary for Subcatchment 2S: TO RAIN GARDEN 1

Runoff = 1.09 cfs @ 11.97 hrs, Volume= 0.057 af, Depth= 1.53"
 Routed to Pond 3P : RAIN GARDEN 1

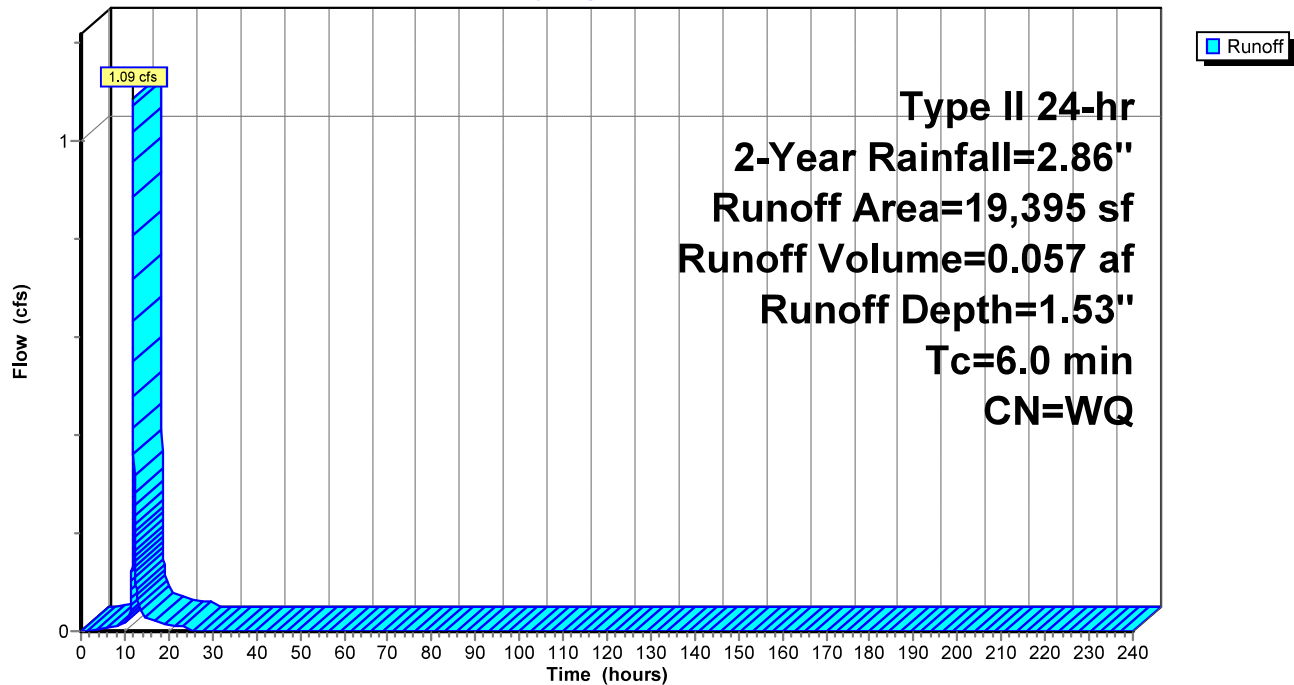
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.86"

Area (sf)	CN	Description
7,572	98	Paved parking, HSG C
11,823	74	>75% Grass cover, Good, HSG C
19,395		Weighted Average
11,823		60.96% Pervious Area
7,572		39.04% Impervious Area

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

Subcatchment 2S: TO RAIN GARDEN 1

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 9

Summary for Subcatchment 4S: TO RAIN GARDEN 2

Runoff = 1.61 cfs @ 11.97 hrs, Volume= 0.084 af, Depth= 1.52"
 Routed to Pond 6P : RAIN GARDEN 2

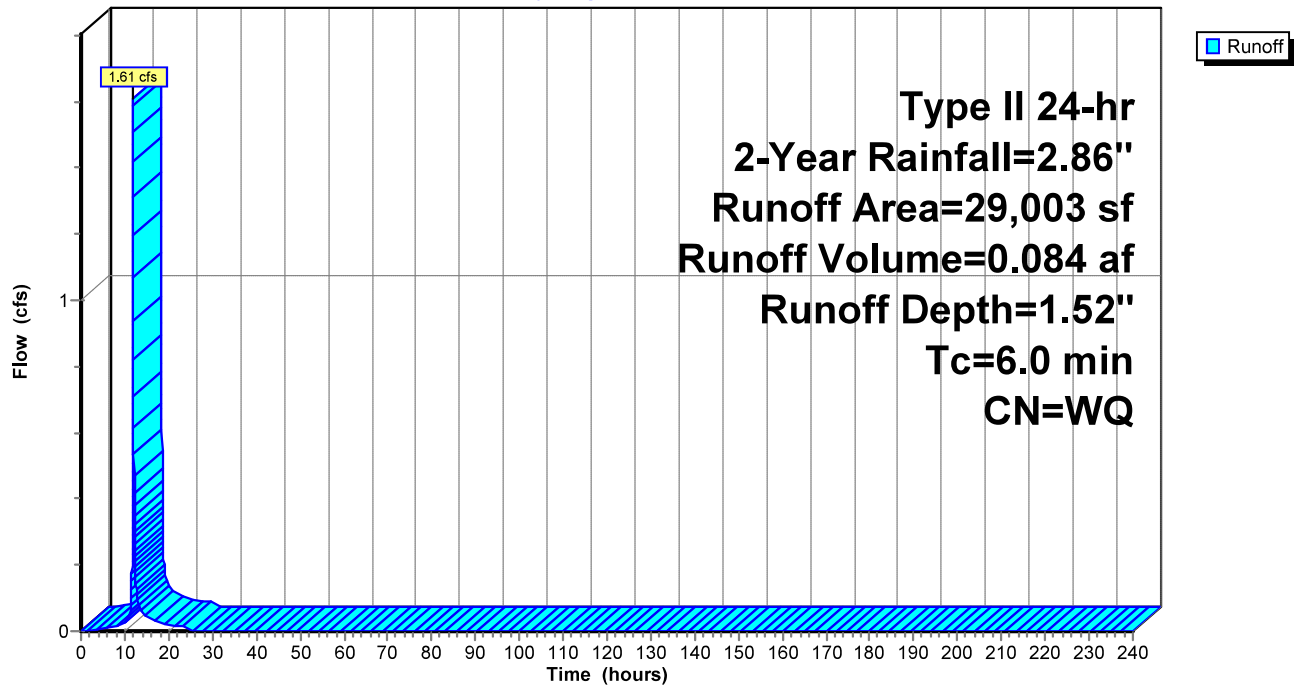
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.86"

Area (sf)	CN	Description
11,156	98	Paved parking, HSG C
17,847	74	>75% Grass cover, Good, HSG C
29,003		Weighted Average
17,847		61.54% Pervious Area
11,156		38.46% Impervious Area

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

Subcatchment 4S: TO RAIN GARDEN 2

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 10

Summary for Subcatchment 7S: TO ADJACENT PROPERTY TO WEST

Runoff = 0.09 cfs @ 11.98 hrs, Volume= 0.004 af, Depth= 0.82"
 Routed to Reach 7R : TOTAL

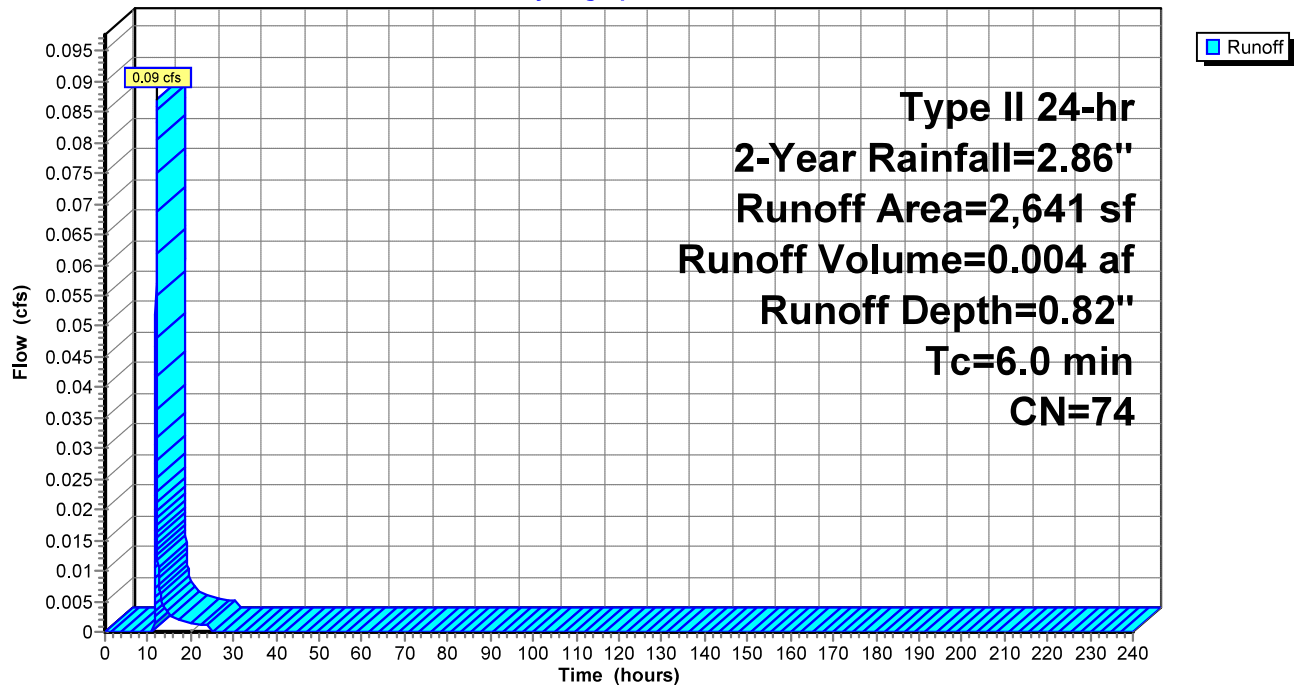
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.86"

Area (sf)	CN	Description
2,641	74	>75% Grass cover, Good, HSG C
2,641		100.00% Pervious Area

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

Subcatchment 7S: TO ADJACENT PROPERTY TO WEST

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 11

Summary for Subcatchment 8S: TO ROAD[46] Hint: $T_c=0$ (Instant runoff peak depends on dt)

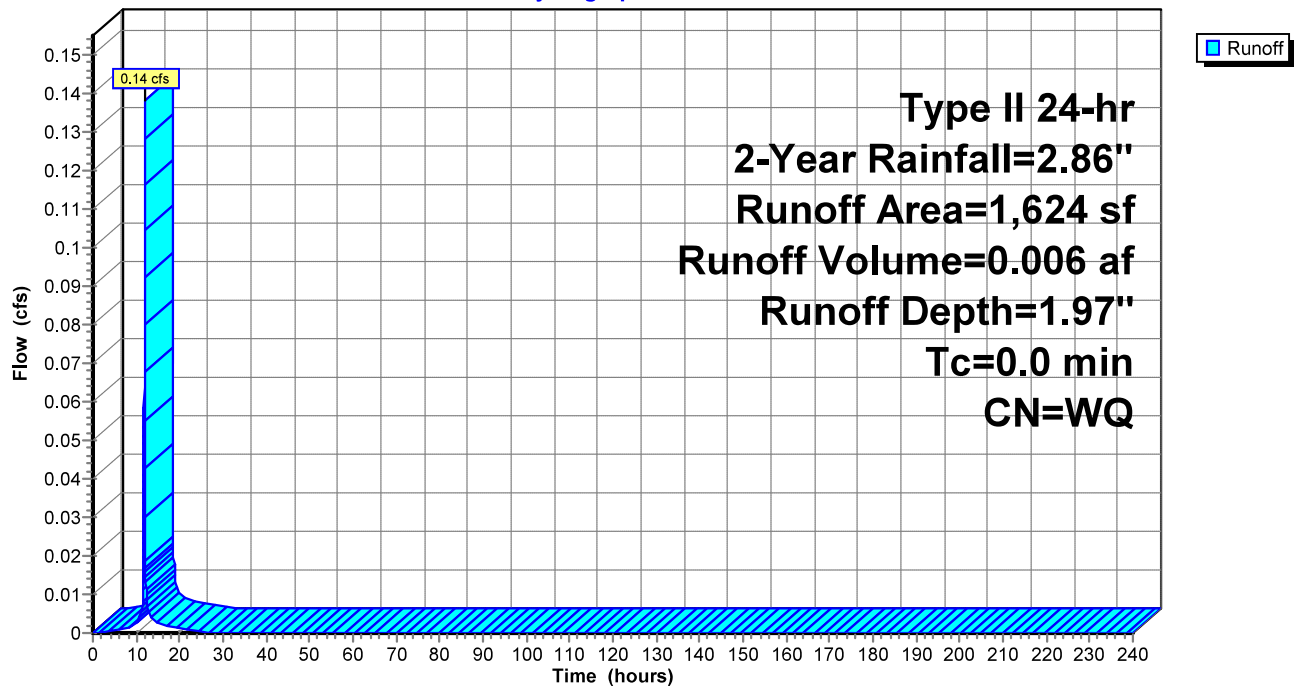
Runoff = 0.14 cfs @ 11.90 hrs, Volume= 0.006 af, Depth= 1.97"
 Routed to Reach 9R : ROAD

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.86"

Area (sf)	CN	Description
1,032	98	Paved parking, HSG C
592	74	>75% Grass cover, Good, HSG C
1,624		Weighted Average
592		36.45% Pervious Area
1,032		63.55% Impervious Area

Subcatchment 8S: TO ROAD

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 12

Summary for Reach 7R: TOTAL

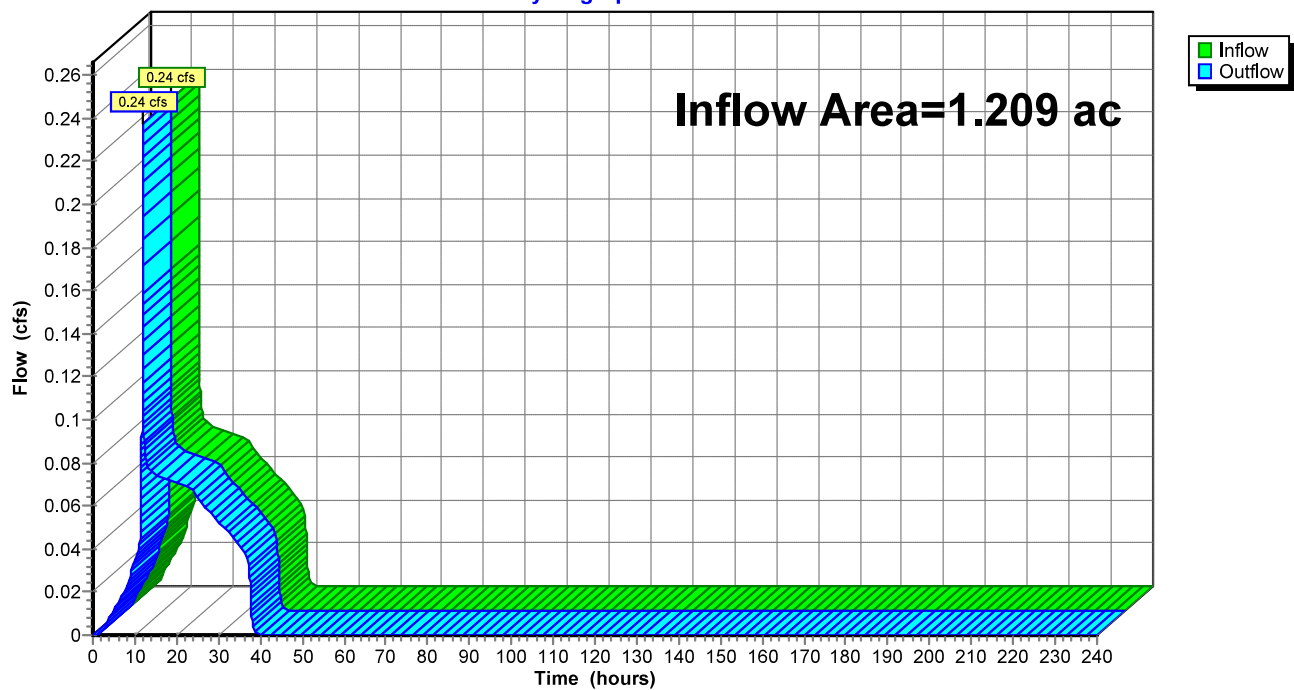
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.209 ac, 37.52% Impervious, Inflow Depth = 1.50" for 2-Year event
 Inflow = 0.24 cfs @ 11.90 hrs, Volume= 0.151 af
 Outflow = 0.24 cfs @ 11.90 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 7R: TOTAL

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 13

Summary for Reach 9R: ROAD

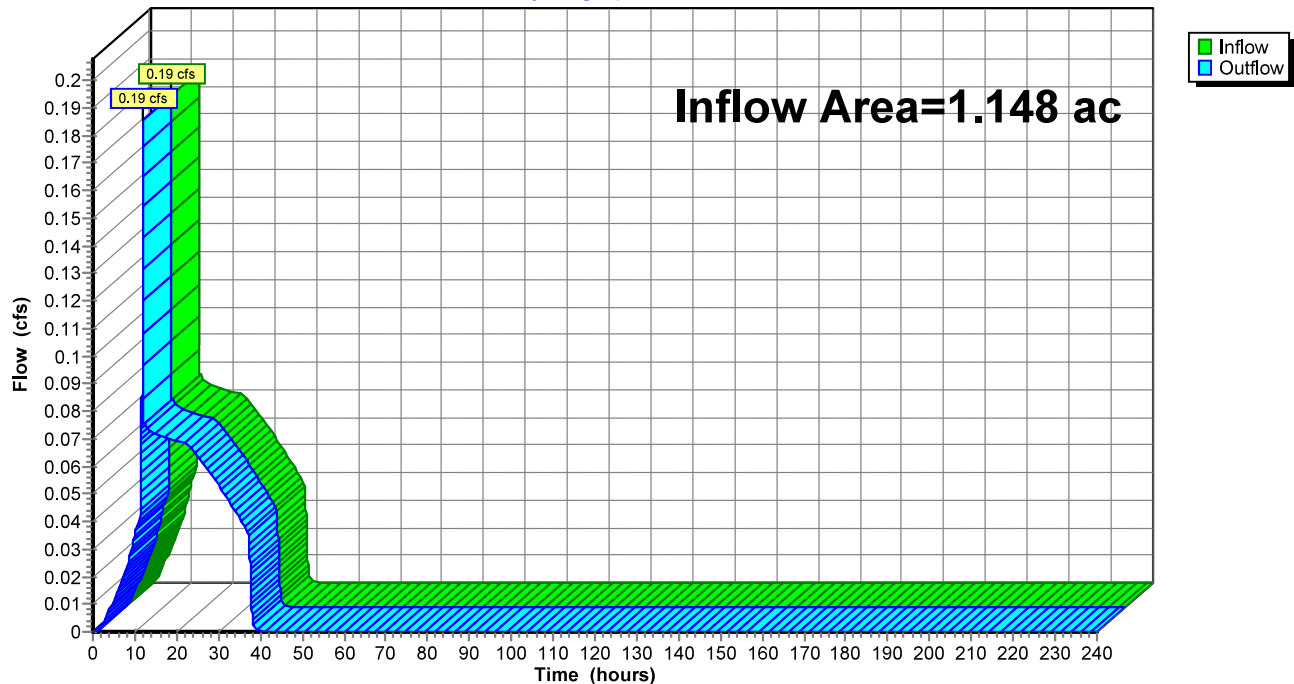
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.148 ac, 39.50% Impervious, Inflow Depth = 1.53" for 2-Year event
 Inflow = 0.19 cfs @ 11.90 hrs, Volume= 0.147 af
 Outflow = 0.19 cfs @ 11.90 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min
 Routed to Reach 7R : TOTAL

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 9R: ROAD

Hydrograph



20163 PROPOSED

Type II 24-hr 2-Year Rainfall=2.86"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 14

Summary for Pond 3P: RAIN GARDEN 1

Inflow Area = 0.445 ac, 39.04% Impervious, Inflow Depth = 1.53" for 2-Year event
 Inflow = 1.09 cfs @ 11.97 hrs, Volume= 0.057 af
 Outflow = 0.24 cfs @ 12.13 hrs, Volume= 0.057 af, Atten= 78%, Lag= 9.3 min
 Primary = 0.24 cfs @ 12.13 hrs, Volume= 0.057 af
 Routed to Pond 6P : RAIN GARDEN 2
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach 9R : ROAD

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Peak Elev= 970.07' @ 12.13 hrs Surf.Area= 850 sf Storage= 1,049 cf

Plug-Flow detention time= 329.9 min calculated for 0.057 af (100% of inflow)
 Center-of-Mass det. time= 329.9 min (1,121.3 - 791.4)

Volume	Invert	Avail.Storage	Storage Description
#1	968.00'	1,998 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
968.00	236	0	0
969.00	458	347	347
970.00	822	640	987
971.00	1,200	1,011	1,998

Device	Routing	Invert	Outlet Devices
#1	Device 2	968.00'	1.600 in/hr Exfiltration over Surface area
#2	Device 4	966.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 4	970.00'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	966.00'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	970.50'	10.0' 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

Primary OutFlow Max=0.24 cfs @ 12.13 hrs HW=970.07' (Free Discharge)

↑ **4=Orifice/Grate** (Passes 0.24 cfs of 7.15 cfs potential flow)
 ↑ **2=Orifice/Grate** (Passes 0.03 cfs of 1.85 cfs potential flow)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.03 cfs)
 ↑ **3=Orifice/Grate** (Weir Controls 0.21 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=968.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

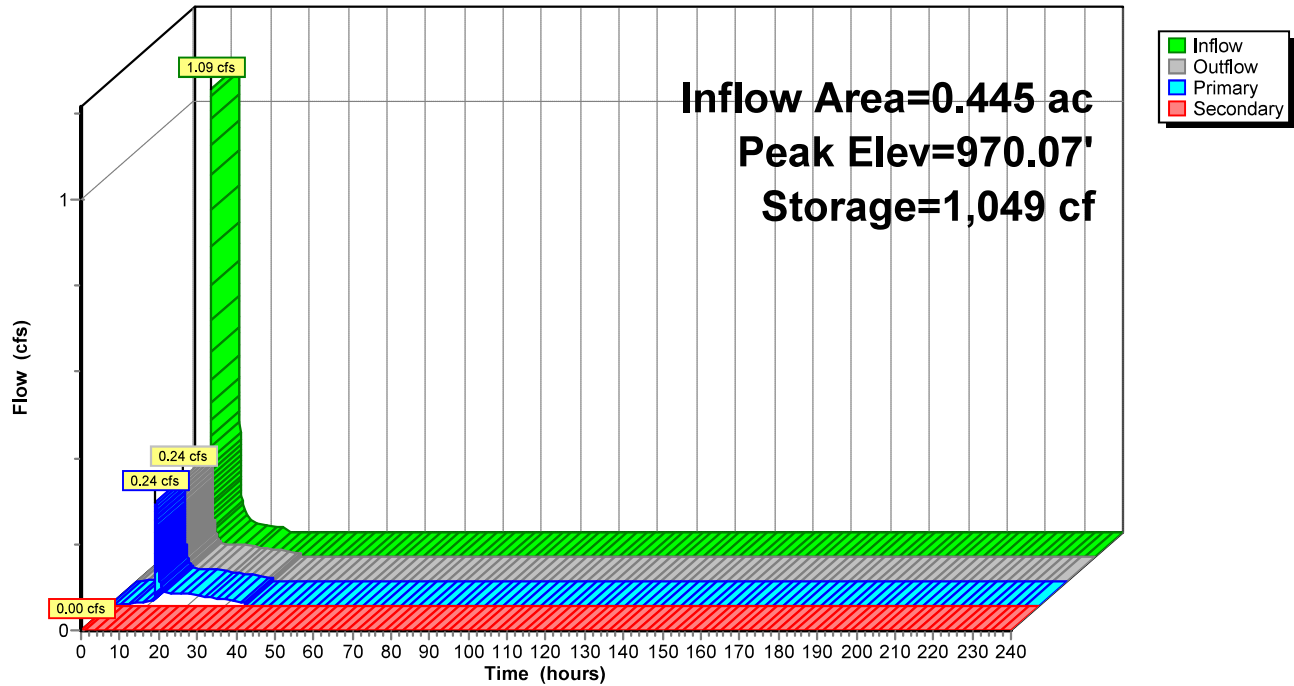
Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 15

Pond 3P: RAIN GARDEN 1

Hydrograph



20163 PROPOSED

Type II 24-hr 2-Year Rainfall=2.86"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 16

Stage-Area-Storage for Pond 3P: RAIN GARDEN 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
968.00	236	0	970.60	1,049	1,548
968.05	247	12	970.65	1,068	1,601
968.10	258	25	970.70	1,087	1,655
968.15	269	38	970.75	1,106	1,710
968.20	280	52	970.80	1,124	1,766
968.25	292	66	970.85	1,143	1,822
968.30	303	81	970.90	1,162	1,880
968.35	314	96	970.95	1,181	1,938
968.40	325	112	971.00	1,200	1,998
968.45	336	129			
968.50	347	146			
968.55	358	163			
968.60	369	182			
968.65	380	200			
968.70	391	220			
968.75	403	239			
968.80	414	260			
968.85	425	281			
968.90	436	302			
968.95	447	324			
969.00	458	347			
969.05	476	370			
969.10	494	395			
969.15	513	420			
969.20	531	446			
969.25	549	473			
969.30	567	501			
969.35	585	530			
969.40	604	559			
969.45	622	590			
969.50	640	622			
969.55	658	654			
969.60	676	687			
969.65	695	722			
969.70	713	757			
969.75	731	793			
969.80	749	830			
969.85	767	868			
969.90	786	907			
969.95	804	946			
970.00	822	987			
970.05	841	1,029			
970.10	860	1,071			
970.15	879	1,115			
970.20	898	1,159			
970.25	917	1,204			
970.30	935	1,251			
970.35	954	1,298			
970.40	973	1,346			
970.45	992	1,395			
970.50	1,011	1,445			
970.55	1,030	1,496			

20163 PROPOSED

Type II 24-hr 2-Year Rainfall=2.86"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 17

Summary for Pond 6P: RAIN GARDEN 2

[79] Warning: Submerged Pond 3P Primary device # 4 by 0.72'

Inflow Area = 1.111 ac, 38.70% Impervious, Inflow Depth = 1.52" for 2-Year event
 Inflow = 1.64 cfs @ 11.97 hrs, Volume= 0.141 af
 Outflow = 0.07 cfs @ 15.46 hrs, Volume= 0.141 af, Atten= 96%, Lag= 209.0 min
 Primary = 0.07 cfs @ 15.46 hrs, Volume= 0.141 af
 Routed to Reach 9R : ROAD
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach 9R : ROAD

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Peak Elev= 966.72' @ 15.46 hrs Surf.Area= 1,852 sf Storage= 2,446 cf

Plug-Flow detention time= 391.9 min calculated for 0.141 af (100% of inflow)
 Center-of-Mass det. time= 391.9 min (1,316.4 - 924.5)

Volume	Invert	Avail.Storage	Storage Description
#1	965.00'	9,067 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
965.00	901	0	0
966.50	1,813	2,036	2,036
967.00	1,900	928	2,964
968.00	1,951	1,926	4,889
969.00	1,952	1,952	6,841
970.00	2,500	2,226	9,067

Device	Routing	Invert	Outlet Devices
#1	Device 2	965.00'	1.600 in/hr Exfiltration over Surface area
#2	Device 4	963.50'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 4	967.50'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	963.50'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	969.00'	10.0' 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

Primary OutFlow Max=0.07 cfs @ 15.46 hrs HW=966.72' (Free Discharge)

↑ **4=Orifice/Grate** (Passes 0.07 cfs of 6.24 cfs potential flow)
 ↑ **2=Orifice/Grate** (Passes 0.07 cfs of 1.63 cfs potential flow)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.07 cfs)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=965.00' (Free Discharge)↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

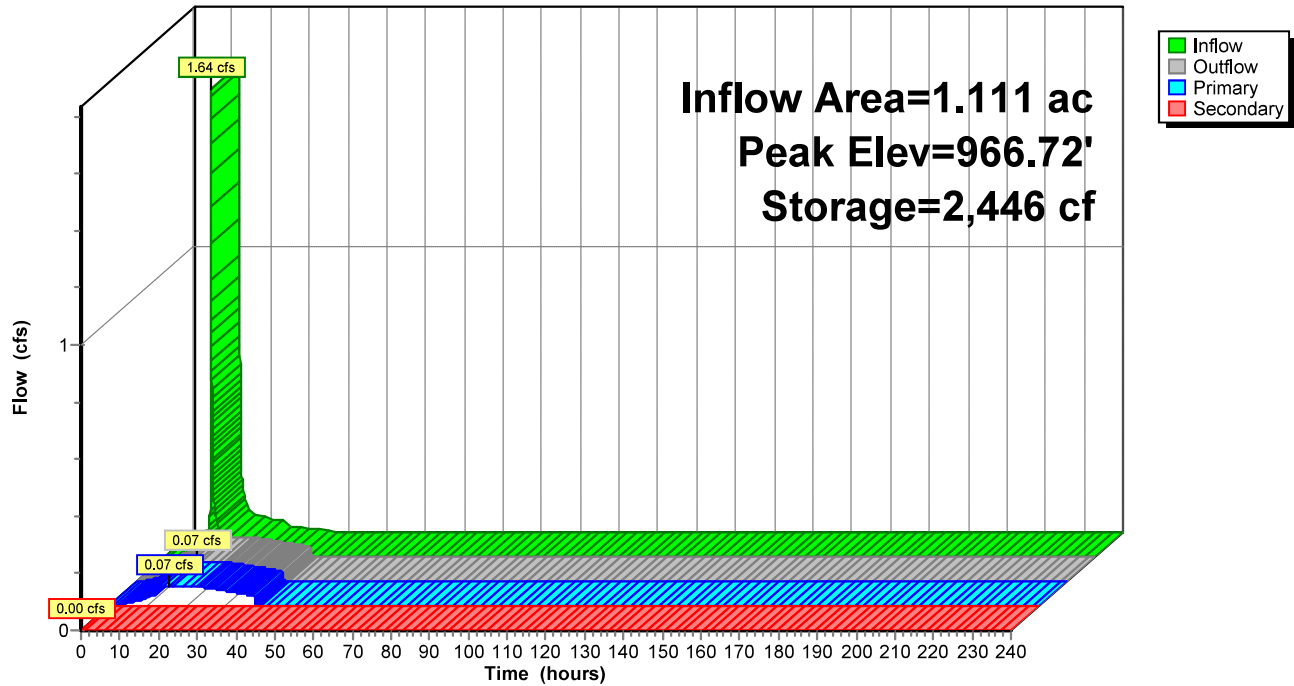
Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 18

Pond 6P: RAIN GARDEN 2

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 2-Year Rainfall=2.86"

Printed 6/26/2024

Page 19

Stage-Area-Storage for Pond 6P: RAIN GARDEN 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
965.00	901	0	967.60	1,931	4,113
965.05	931	46	967.65	1,933	4,210
965.10	962	93	967.70	1,936	4,306
965.15	992	142	967.75	1,938	4,403
965.20	1,023	192	967.80	1,941	4,500
965.25	1,053	244	967.85	1,943	4,597
965.30	1,083	298	967.90	1,946	4,694
965.35	1,114	353	967.95	1,948	4,792
965.40	1,144	409	968.00	1,951	4,889
965.45	1,175	467	968.05	1,951	4,987
965.50	1,205	527	968.10	1,951	5,084
965.55	1,235	588	968.15	1,951	5,182
965.60	1,266	650	968.20	1,951	5,279
965.65	1,296	714	968.25	1,951	5,377
965.70	1,327	780	968.30	1,951	5,475
965.75	1,357	847	968.35	1,951	5,572
965.80	1,387	915	968.40	1,951	5,670
965.85	1,418	985	968.45	1,951	5,767
965.90	1,448	1,057	968.50	1,952	5,865
965.95	1,479	1,130	968.55	1,952	5,962
966.00	1,509	1,205	968.60	1,952	6,060
966.05	1,539	1,281	968.65	1,952	6,158
966.10	1,570	1,359	968.70	1,952	6,255
966.15	1,600	1,438	968.75	1,952	6,353
966.20	1,631	1,519	968.80	1,952	6,450
966.25	1,661	1,601	968.85	1,952	6,548
966.30	1,691	1,685	968.90	1,952	6,646
966.35	1,722	1,770	968.95	1,952	6,743
966.40	1,752	1,857	969.00	1,952	6,841
966.45	1,783	1,946	969.05	1,979	6,939
966.50	1,813	2,036	969.10	2,007	7,039
966.55	1,822	2,126	969.15	2,034	7,140
966.60	1,830	2,218	969.20	2,062	7,242
966.65	1,839	2,309	969.25	2,089	7,346
966.70	1,848	2,402	969.30	2,116	7,451
966.75	1,857	2,494	969.35	2,144	7,558
966.80	1,865	2,587	969.40	2,171	7,665
966.85	1,874	2,681	969.45	2,199	7,775
966.90	1,883	2,775	969.50	2,226	7,885
966.95	1,891	2,869	969.55	2,253	7,997
967.00	1,900	2,964	969.60	2,281	8,111
967.05	1,903	3,059	969.65	2,308	8,225
967.10	1,905	3,154	969.70	2,336	8,341
967.15	1,908	3,249	969.75	2,363	8,459
967.20	1,910	3,345	969.80	2,390	8,578
967.25	1,913	3,440	969.85	2,418	8,698
967.30	1,915	3,536	969.90	2,445	8,819
967.35	1,918	3,632	969.95	2,473	8,942
967.40	1,920	3,728	970.00	2,500	9,067
967.45	1,923	3,824			
967.50	1,926	3,920			
967.55	1,928	4,016			

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 20

Time span=0.00-240.00 hrs, dt=0.01 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 2S: TO RAIN GARDEN 1 Runoff Area=19,395 sf 39.04% Impervious Runoff Depth=2.66"
Tc=6.0 min CN=WQ Runoff=1.92 cfs 0.099 af

Subcatchment 4S: TO RAIN GARDEN 2 Runoff Area=29,003 sf 38.46% Impervious Runoff Depth=2.65"
Tc=6.0 min CN=WQ Runoff=2.86 cfs 0.147 af

Subcatchment 7S: TO ADJACENT Runoff Area=2,641 sf 0.00% Impervious Runoff Depth=1.79"
Tc=6.0 min CN=74 Runoff=0.19 cfs 0.009 af

Subcatchment 8S: TO ROAD Runoff Area=1,624 sf 63.55% Impervious Runoff Depth=3.21"
Tc=0.0 min CN=WQ Runoff=0.22 cfs 0.010 af

Reach 7R: TOTAL Inflow=0.63 cfs 0.265 af
Outflow=0.63 cfs 0.265 af

Reach 9R: ROAD Inflow=0.61 cfs 0.256 af
Outflow=0.61 cfs 0.256 af

Pond 3P: RAIN GARDEN 1 Peak Elev=970.30' Storage=1,252 cf Inflow=1.92 cfs 0.099 af
Primary=1.73 cfs 0.099 af Secondary=0.00 cfs 0.000 af Outflow=1.73 cfs 0.099 af

Pond 6P: RAIN GARDEN 2 Peak Elev=967.64' Storage=4,182 cf Inflow=4.47 cfs 0.246 af
Primary=0.59 cfs 0.246 af Secondary=0.00 cfs 0.000 af Outflow=0.59 cfs 0.246 af

Total Runoff Area = 1.209 ac Runoff Volume = 0.265 af Average Runoff Depth = 2.63"
62.48% Pervious = 0.755 ac 37.52% Impervious = 0.454 ac

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 21

Summary for Subcatchment 2S: TO RAIN GARDEN 1

Runoff = 1.92 cfs @ 11.97 hrs, Volume= 0.099 af, Depth= 2.66"
 Routed to Pond 3P : RAIN GARDEN 1

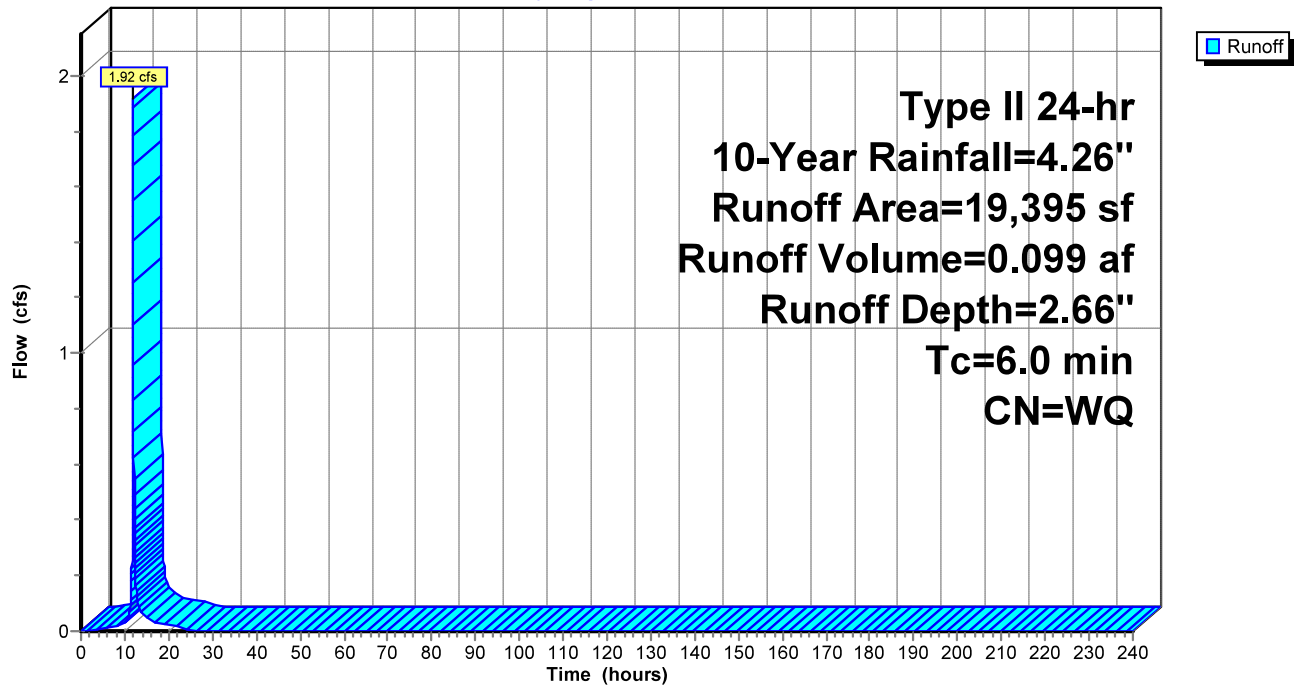
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=4.26"

Area (sf)	CN	Description
7,572	98	Paved parking, HSG C
11,823	74	>75% Grass cover, Good, HSG C
19,395		Weighted Average
11,823		60.96% Pervious Area
7,572		39.04% Impervious Area

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

Subcatchment 2S: TO RAIN GARDEN 1

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 22

Summary for Subcatchment 4S: TO RAIN GARDEN 2

Runoff = 2.86 cfs @ 11.97 hrs, Volume= 0.147 af, Depth= 2.65"
 Routed to Pond 6P : RAIN GARDEN 2

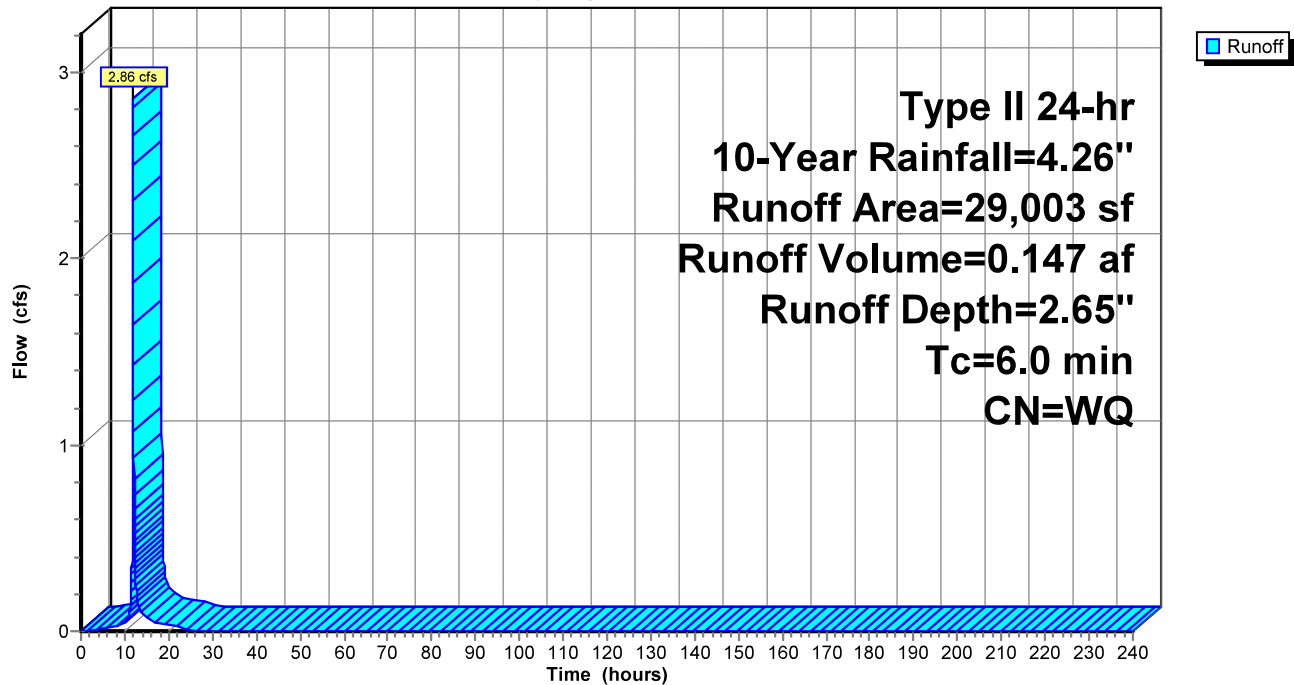
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=4.26"

Area (sf)	CN	Description
11,156	98	Paved parking, HSG C
17,847	74	>75% Grass cover, Good, HSG C
29,003		Weighted Average
17,847		61.54% Pervious Area
11,156		38.46% Impervious Area

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

Subcatchment 4S: TO RAIN GARDEN 2

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 23

Summary for Subcatchment 7S: TO ADJACENT PROPERTY TO WEST

Runoff = 0.19 cfs @ 11.98 hrs, Volume= 0.009 af, Depth= 1.79"
 Routed to Reach 7R : TOTAL

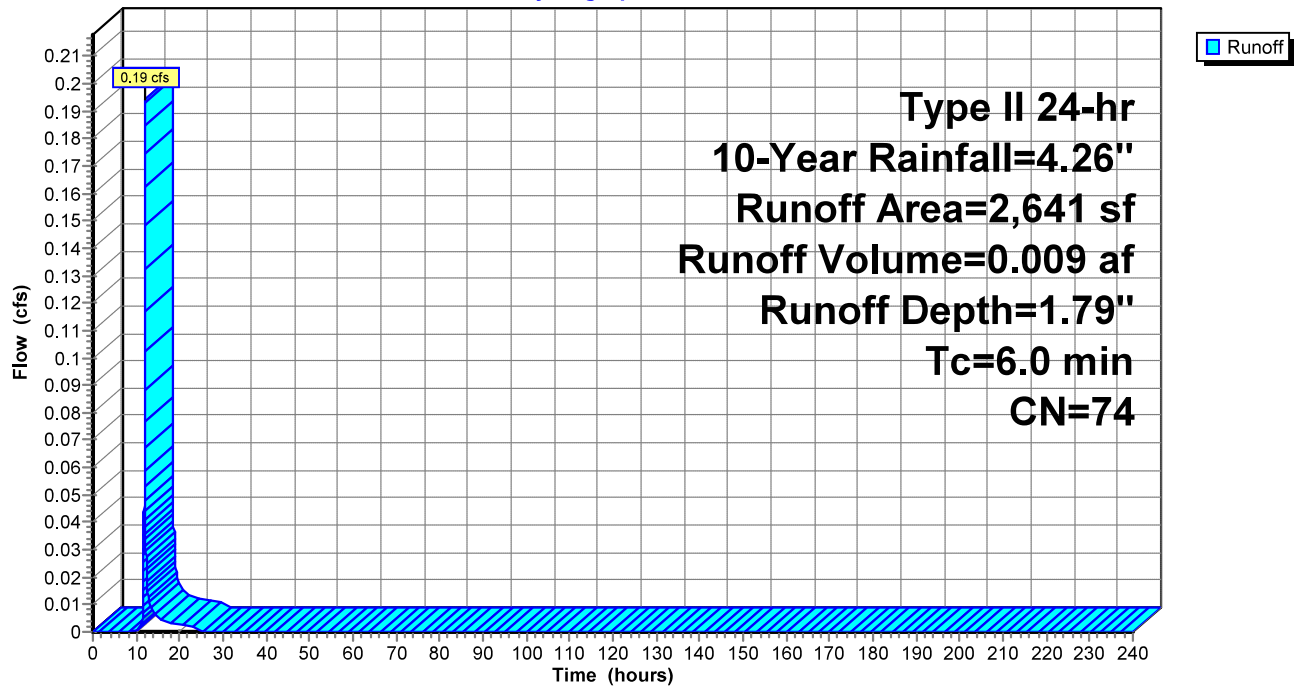
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=4.26"

Area (sf)	CN	Description
2,641	74	>75% Grass cover, Good, HSG C
2,641		100.00% Pervious Area

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

Subcatchment 7S: TO ADJACENT PROPERTY TO WEST

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 24

Summary for Subcatchment 8S: TO ROAD[46] Hint: $T_c=0$ (Instant runoff peak depends on dt)

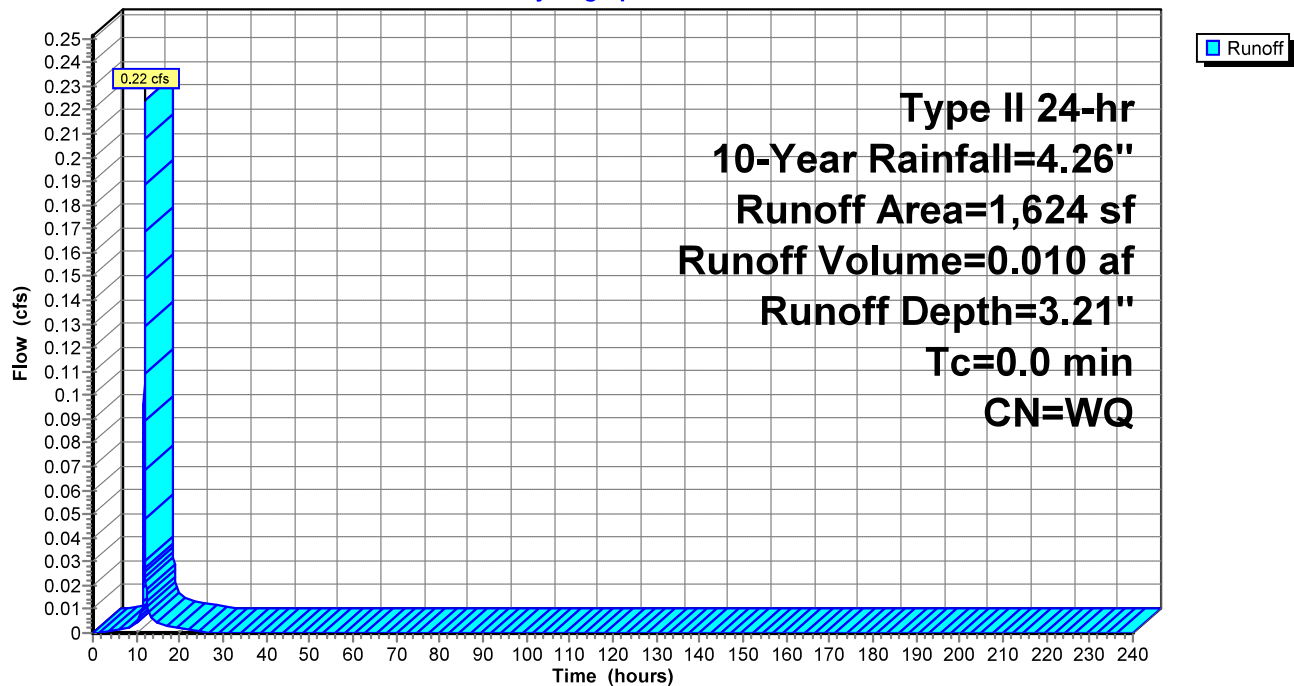
Runoff = 0.22 cfs @ 11.90 hrs, Volume= 0.010 af, Depth= 3.21"
 Routed to Reach 9R : ROAD

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=4.26"

Area (sf)	CN	Description
1,032	98	Paved parking, HSG C
592	74	>75% Grass cover, Good, HSG C
1,624		Weighted Average
592		36.45% Pervious Area
1,032		63.55% Impervious Area

Subcatchment 8S: TO ROAD

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 25

Summary for Reach 7R: TOTAL

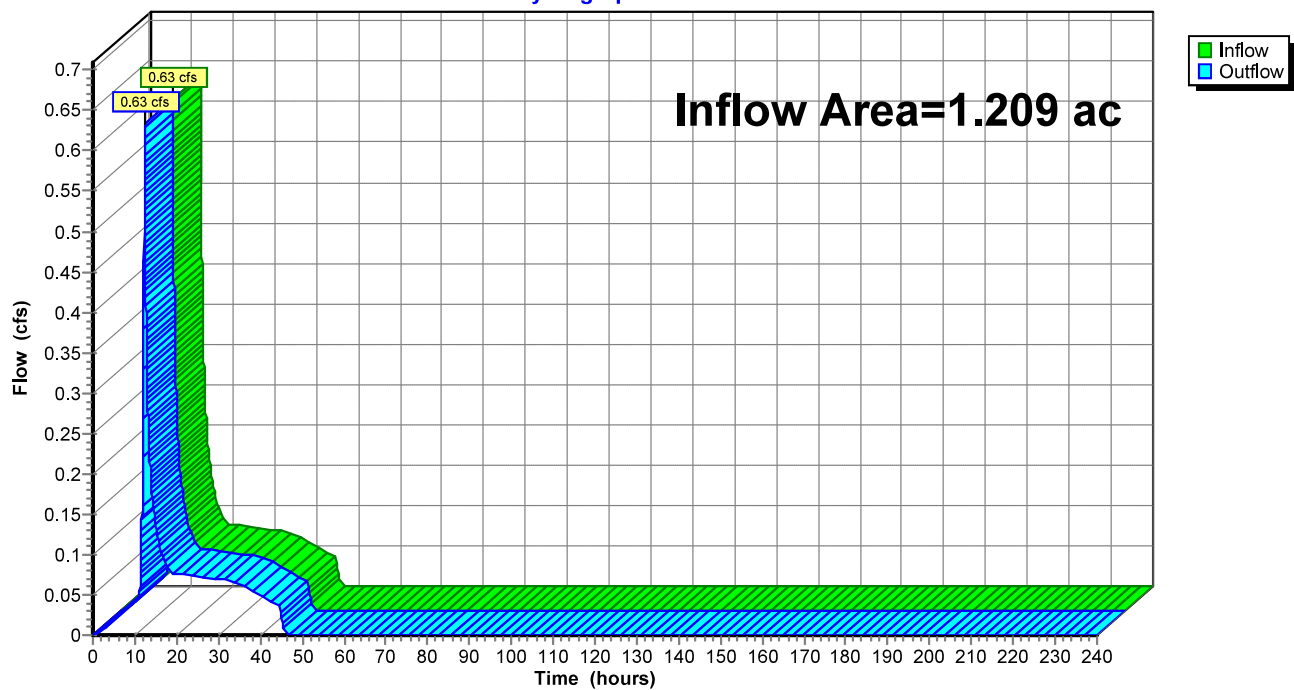
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.209 ac, 37.52% Impervious, Inflow Depth = 2.63" for 10-Year event
 Inflow = 0.63 cfs @ 12.31 hrs, Volume= 0.265 af
 Outflow = 0.63 cfs @ 12.31 hrs, Volume= 0.265 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 7R: TOTAL

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 26

Summary for Reach 9R: ROAD

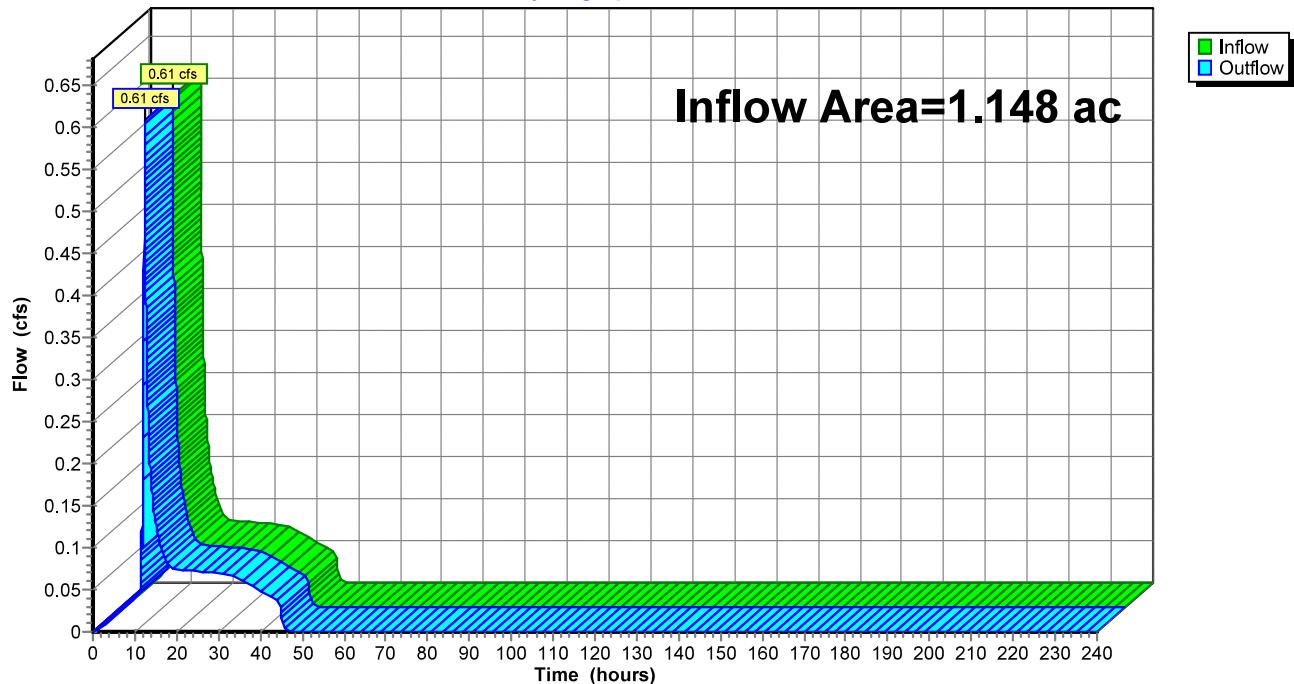
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.148 ac, 39.50% Impervious, Inflow Depth = 2.67" for 10-Year event
 Inflow = 0.61 cfs @ 12.31 hrs, Volume= 0.256 af
 Outflow = 0.61 cfs @ 12.31 hrs, Volume= 0.256 af, Atten= 0%, Lag= 0.0 min
 Routed to Reach 7R : TOTAL

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 9R: ROAD

Hydrograph



20163 PROPOSED

Type II 24-hr 10-Year Rainfall=4.26"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 27

Summary for Pond 3P: RAIN GARDEN 1

Inflow Area = 0.445 ac, 39.04% Impervious, Inflow Depth = 2.66" for 10-Year event
 Inflow = 1.92 cfs @ 11.97 hrs, Volume= 0.099 af
 Outflow = 1.73 cfs @ 12.01 hrs, Volume= 0.099 af, Atten= 10%, Lag= 2.0 min
 Primary = 1.73 cfs @ 12.01 hrs, Volume= 0.099 af
 Routed to Pond 6P : RAIN GARDEN 2
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach 9R : ROAD

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Peak Elev= 970.30' @ 12.01 hrs Surf.Area= 936 sf Storage= 1,252 cf

Plug-Flow detention time= 235.0 min calculated for 0.099 af (100% of inflow)
 Center-of-Mass det. time= 235.0 min (1,020.9 - 785.9)

Volume	Invert	Avail.Storage	Storage Description
#1	968.00'	1,998 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
968.00	236	0	0
969.00	458	347	347
970.00	822	640	987
971.00	1,200	1,011	1,998

Device	Routing	Invert	Outlet Devices
#1	Device 2	968.00'	1.600 in/hr Exfiltration over Surface area
#2	Device 4	966.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 4	970.00'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	966.00'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	970.50'	10.0' 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

Primary OutFlow Max=1.73 cfs @ 12.01 hrs HW=970.30' (Free Discharge)

↑ **4=Orifice/Grate** (Passes 1.73 cfs of 7.37 cfs potential flow)
 ↑ **2=Orifice/Grate** (Passes 0.03 cfs of 1.90 cfs potential flow)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.03 cfs)
 ↑ **3=Orifice/Grate** (Weir Controls 1.69 cfs @ 1.79 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=968.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

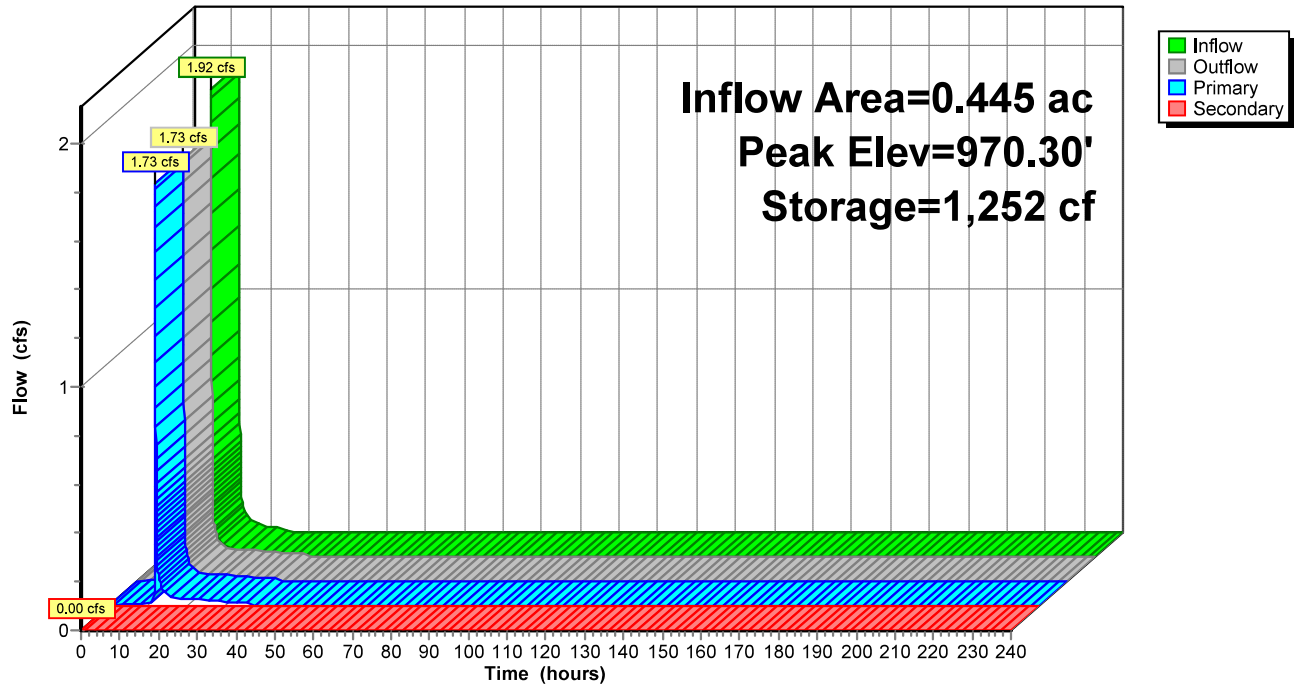
Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 28

Pond 3P: RAIN GARDEN 1

Hydrograph



20163 PROPOSED

Type II 24-hr 10-Year Rainfall=4.26"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 29

Stage-Area-Storage for Pond 3P: RAIN GARDEN 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
968.00	236	0	970.60	1,049	1,548
968.05	247	12	970.65	1,068	1,601
968.10	258	25	970.70	1,087	1,655
968.15	269	38	970.75	1,106	1,710
968.20	280	52	970.80	1,124	1,766
968.25	292	66	970.85	1,143	1,822
968.30	303	81	970.90	1,162	1,880
968.35	314	96	970.95	1,181	1,938
968.40	325	112	971.00	1,200	1,998
968.45	336	129			
968.50	347	146			
968.55	358	163			
968.60	369	182			
968.65	380	200			
968.70	391	220			
968.75	403	239			
968.80	414	260			
968.85	425	281			
968.90	436	302			
968.95	447	324			
969.00	458	347			
969.05	476	370			
969.10	494	395			
969.15	513	420			
969.20	531	446			
969.25	549	473			
969.30	567	501			
969.35	585	530			
969.40	604	559			
969.45	622	590			
969.50	640	622			
969.55	658	654			
969.60	676	687			
969.65	695	722			
969.70	713	757			
969.75	731	793			
969.80	749	830			
969.85	767	868			
969.90	786	907			
969.95	804	946			
970.00	822	987			
970.05	841	1,029			
970.10	860	1,071			
970.15	879	1,115			
970.20	898	1,159			
970.25	917	1,204			
970.30	935	1,251			
970.35	954	1,298			
970.40	973	1,346			
970.45	992	1,395			
970.50	1,011	1,445			
970.55	1,030	1,496			

20163 PROPOSED

Type II 24-hr 10-Year Rainfall=4.26"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 30

Summary for Pond 6P: RAIN GARDEN 2

[79] Warning: Submerged Pond 3P Primary device # 4 by 1.64'

Inflow Area = 1.111 ac, 38.70% Impervious, Inflow Depth = 2.65" for 10-Year event
 Inflow = 4.47 cfs @ 11.99 hrs, Volume= 0.246 af
 Outflow = 0.59 cfs @ 12.31 hrs, Volume= 0.246 af, Atten= 87%, Lag= 19.6 min
 Primary = 0.59 cfs @ 12.31 hrs, Volume= 0.246 af
 Routed to Reach 9R : ROAD
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach 9R : ROAD

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Peak Elev= 967.64' @ 12.31 hrs Surf.Area= 1,932 sf Storage= 4,182 cf

Plug-Flow detention time= 483.7 min calculated for 0.246 af (100% of inflow)
 Center-of-Mass det. time= 483.7 min (1,364.4 - 880.7)

Volume	Invert	Avail.Storage	Storage Description
#1	965.00'	9,067 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
965.00	901	0	0
966.50	1,813	2,036	2,036
967.00	1,900	928	2,964
968.00	1,951	1,926	4,889
969.00	1,952	1,952	6,841
970.00	2,500	2,226	9,067

Device	Routing	Invert	Outlet Devices
#1	Device 2	965.00'	1.600 in/hr Exfiltration over Surface area
#2	Device 4	963.50'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 4	967.50'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	963.50'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	969.00'	10.0' 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

Primary OutFlow Max=0.58 cfs @ 12.31 hrs HW=967.64' (Free Discharge)

↑ **4=Orifice/Grate** (Passes 0.58 cfs of 7.21 cfs potential flow)
 ↑ **2=Orifice/Grate** (Passes 0.07 cfs of 1.86 cfs potential flow)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.07 cfs)
 ↑ **3=Orifice/Grate** (Weir Controls 0.51 cfs @ 1.20 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=965.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

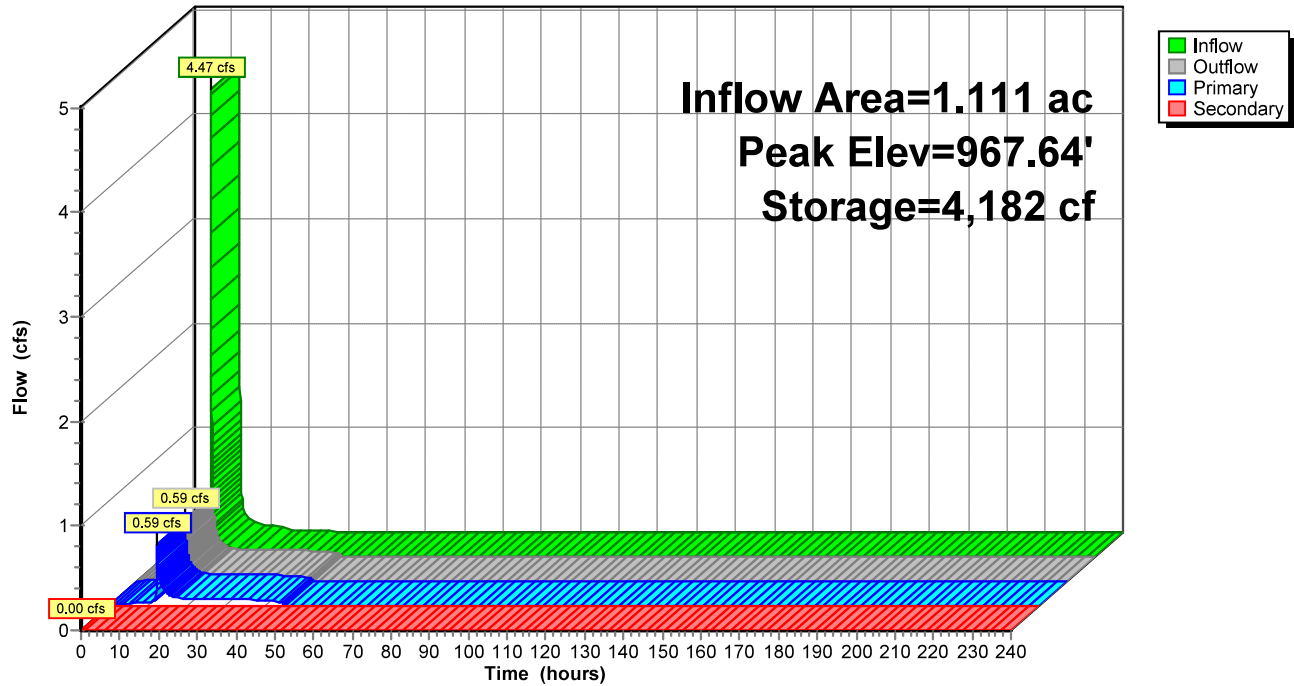
Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 31

Pond 6P: RAIN GARDEN 2

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.26"

Printed 6/26/2024

Page 32

Stage-Area-Storage for Pond 6P: RAIN GARDEN 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
965.00	901	0	967.60	1,931	4,113
965.05	931	46	967.65	1,933	4,210
965.10	962	93	967.70	1,936	4,306
965.15	992	142	967.75	1,938	4,403
965.20	1,023	192	967.80	1,941	4,500
965.25	1,053	244	967.85	1,943	4,597
965.30	1,083	298	967.90	1,946	4,694
965.35	1,114	353	967.95	1,948	4,792
965.40	1,144	409	968.00	1,951	4,889
965.45	1,175	467	968.05	1,951	4,987
965.50	1,205	527	968.10	1,951	5,084
965.55	1,235	588	968.15	1,951	5,182
965.60	1,266	650	968.20	1,951	5,279
965.65	1,296	714	968.25	1,951	5,377
965.70	1,327	780	968.30	1,951	5,475
965.75	1,357	847	968.35	1,951	5,572
965.80	1,387	915	968.40	1,951	5,670
965.85	1,418	985	968.45	1,951	5,767
965.90	1,448	1,057	968.50	1,952	5,865
965.95	1,479	1,130	968.55	1,952	5,962
966.00	1,509	1,205	968.60	1,952	6,060
966.05	1,539	1,281	968.65	1,952	6,158
966.10	1,570	1,359	968.70	1,952	6,255
966.15	1,600	1,438	968.75	1,952	6,353
966.20	1,631	1,519	968.80	1,952	6,450
966.25	1,661	1,601	968.85	1,952	6,548
966.30	1,691	1,685	968.90	1,952	6,646
966.35	1,722	1,770	968.95	1,952	6,743
966.40	1,752	1,857	969.00	1,952	6,841
966.45	1,783	1,946	969.05	1,979	6,939
966.50	1,813	2,036	969.10	2,007	7,039
966.55	1,822	2,126	969.15	2,034	7,140
966.60	1,830	2,218	969.20	2,062	7,242
966.65	1,839	2,309	969.25	2,089	7,346
966.70	1,848	2,402	969.30	2,116	7,451
966.75	1,857	2,494	969.35	2,144	7,558
966.80	1,865	2,587	969.40	2,171	7,665
966.85	1,874	2,681	969.45	2,199	7,775
966.90	1,883	2,775	969.50	2,226	7,885
966.95	1,891	2,869	969.55	2,253	7,997
967.00	1,900	2,964	969.60	2,281	8,111
967.05	1,903	3,059	969.65	2,308	8,225
967.10	1,905	3,154	969.70	2,336	8,341
967.15	1,908	3,249	969.75	2,363	8,459
967.20	1,910	3,345	969.80	2,390	8,578
967.25	1,913	3,440	969.85	2,418	8,698
967.30	1,915	3,536	969.90	2,445	8,819
967.35	1,918	3,632	969.95	2,473	8,942
967.40	1,920	3,728	970.00	2,500	9,067
967.45	1,923	3,824			
967.50	1,926	3,920			
967.55	1,928	4,016			

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 33

Time span=0.00-240.00 hrs, dt=0.01 hrs, 24001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 2S: TO RAIN GARDEN 1 Runoff Area=19,395 sf 39.04% Impervious Runoff Depth=5.40"
Tc=6.0 min CN=WQ Runoff=3.88 cfs 0.200 af

Subcatchment 4S: TO RAIN GARDEN 2 Runoff Area=29,003 sf 38.46% Impervious Runoff Depth=5.38"
Tc=6.0 min CN=WQ Runoff=5.79 cfs 0.299 af

Subcatchment 7S: TO ADJACENT Runoff Area=2,641 sf 0.00% Impervious Runoff Depth=4.32"
Tc=6.0 min CN=74 Runoff=0.46 cfs 0.022 af

Subcatchment 8S: TO ROAD Runoff Area=1,624 sf 63.55% Impervious Runoff Depth=6.08"
Tc=0.0 min CN=WQ Runoff=0.42 cfs 0.019 af

Reach 7R: TOTAL Inflow=5.47 cfs 0.540 af
Outflow=5.47 cfs 0.540 af

Reach 9R: ROAD

Pond 3P: RAIN GARDEN 1 Peak Elev=970.59' Storage=1,538 cf Inflow=3.88 cfs 0.200 af
Primary=2.94 cfs 0.196 af Secondary=0.73 cfs 0.004 af Outflow=3.68 cfs 0.200 af

Pond 6P: RAIN GARDEN 2 Peak Elev=969.00' Storage=6,843 cf Inflow=8.69 cfs 0.495 af
Primary=4.71 cfs 0.495 af Secondary=0.01 cfs 0.000 af Outflow=4.71 cfs 0.495 af

Total Runoff Area = 1.209 ac Runoff Volume = 0.540 af Average Runoff Depth = 5.36"
62.48% Pervious = 0.755 ac 37.52% Impervious = 0.454 ac

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 34

Summary for Subcatchment 2S: TO RAIN GARDEN 1

Runoff = 3.88 cfs @ 11.97 hrs, Volume= 0.200 af, Depth= 5.40"
 Routed to Pond 3P : RAIN GARDEN 1

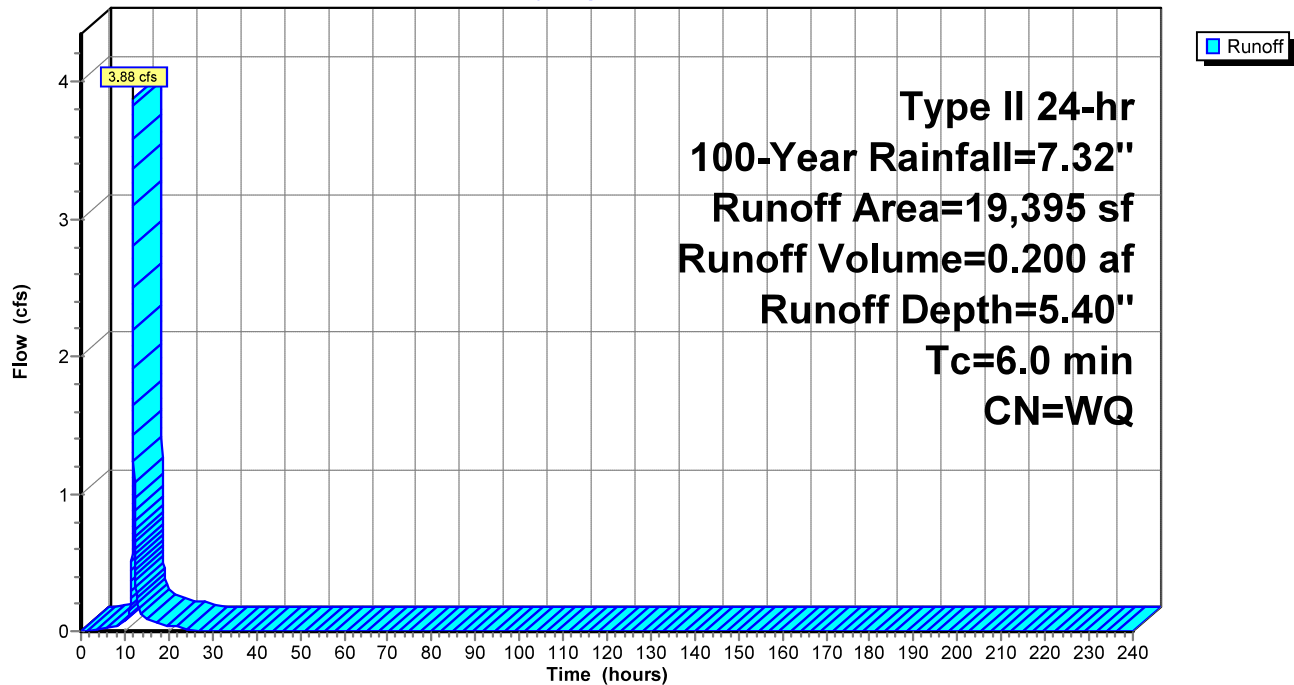
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=7.32"

Area (sf)	CN	Description
7,572	98	Paved parking, HSG C
11,823	74	>75% Grass cover, Good, HSG C
19,395		Weighted Average
11,823		60.96% Pervious Area
7,572		39.04% Impervious Area

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

Subcatchment 2S: TO RAIN GARDEN 1

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 35

Summary for Subcatchment 4S: TO RAIN GARDEN 2

Runoff = 5.79 cfs @ 11.97 hrs, Volume= 0.299 af, Depth= 5.38"
 Routed to Pond 6P : RAIN GARDEN 2

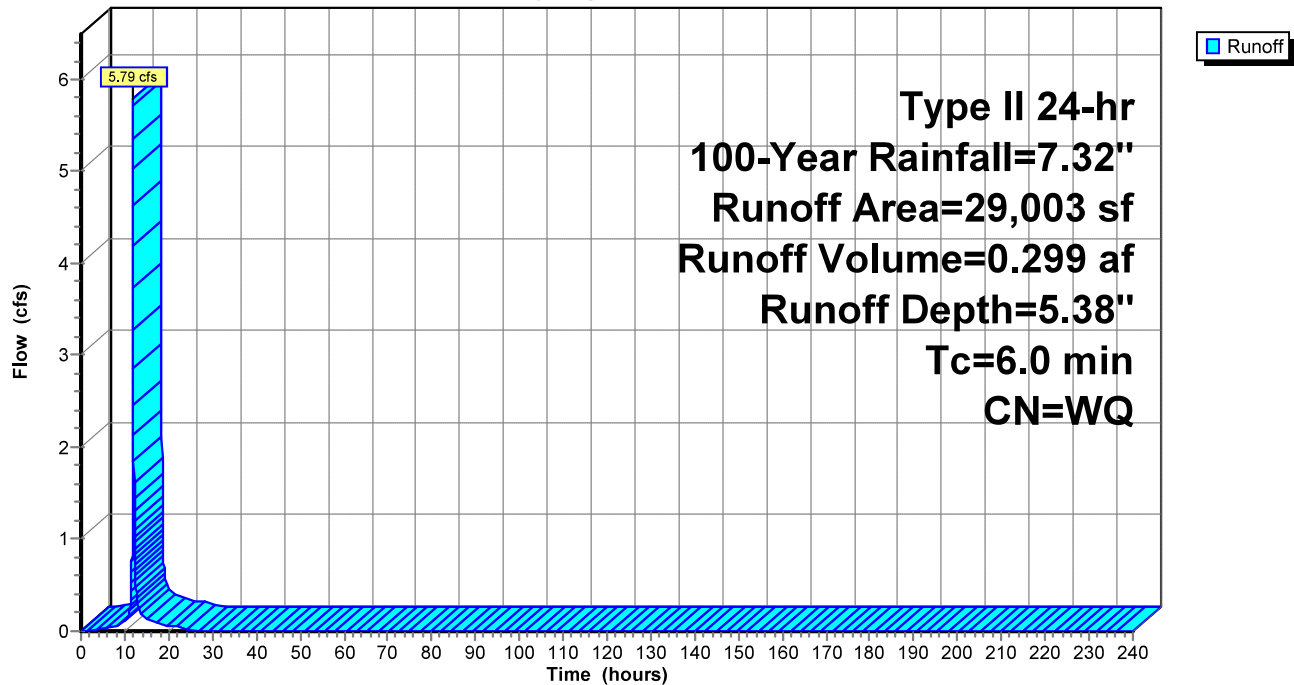
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=7.32"

Area (sf)	CN	Description
11,156	98	Paved parking, HSG C
17,847	74	>75% Grass cover, Good, HSG C
29,003		Weighted Average
17,847		61.54% Pervious Area
11,156		38.46% Impervious Area

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

Subcatchment 4S: TO RAIN GARDEN 2

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 36

Summary for Subcatchment 7S: TO ADJACENT PROPERTY TO WEST

Runoff = 0.46 cfs @ 11.97 hrs, Volume= 0.022 af, Depth= 4.32"
 Routed to Reach 7R : TOTAL

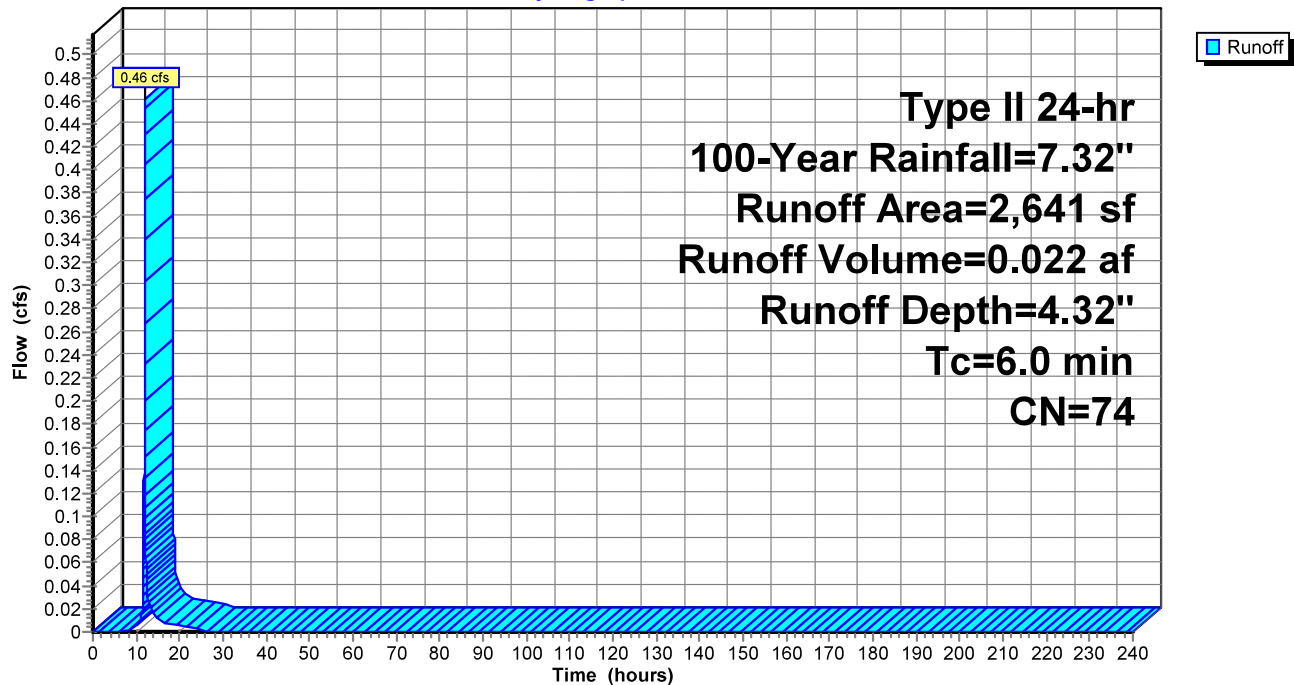
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=7.32"

Area (sf)	CN	Description
2,641	74	>75% Grass cover, Good, HSG C
2,641		100.00% Pervious Area

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

Subcatchment 7S: TO ADJACENT PROPERTY TO WEST

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 37

Summary for Subcatchment 8S: TO ROAD[46] Hint: $T_c=0$ (Instant runoff peak depends on dt)

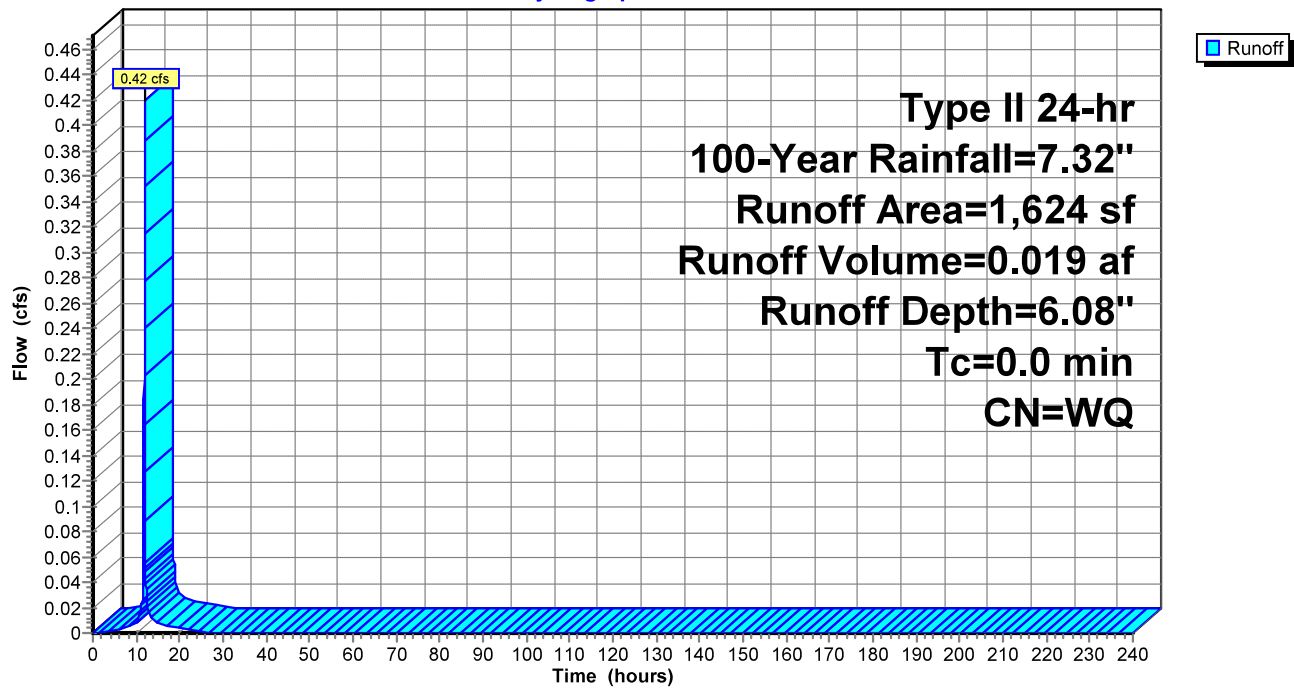
Runoff = 0.42 cfs @ 11.90 hrs, Volume= 0.019 af, Depth= 6.08"
 Routed to Reach 9R : ROAD

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-240.00 hrs, $dt=0.01$ hrs
 Type II 24-hr 100-Year Rainfall=7.32"

Area (sf)	CN	Description
1,032	98	Paved parking, HSG C
592	74	>75% Grass cover, Good, HSG C
1,624		Weighted Average
592		36.45% Pervious Area
1,032		63.55% Impervious Area

Subcatchment 8S: TO ROAD

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 38

Summary for Reach 7R: TOTAL

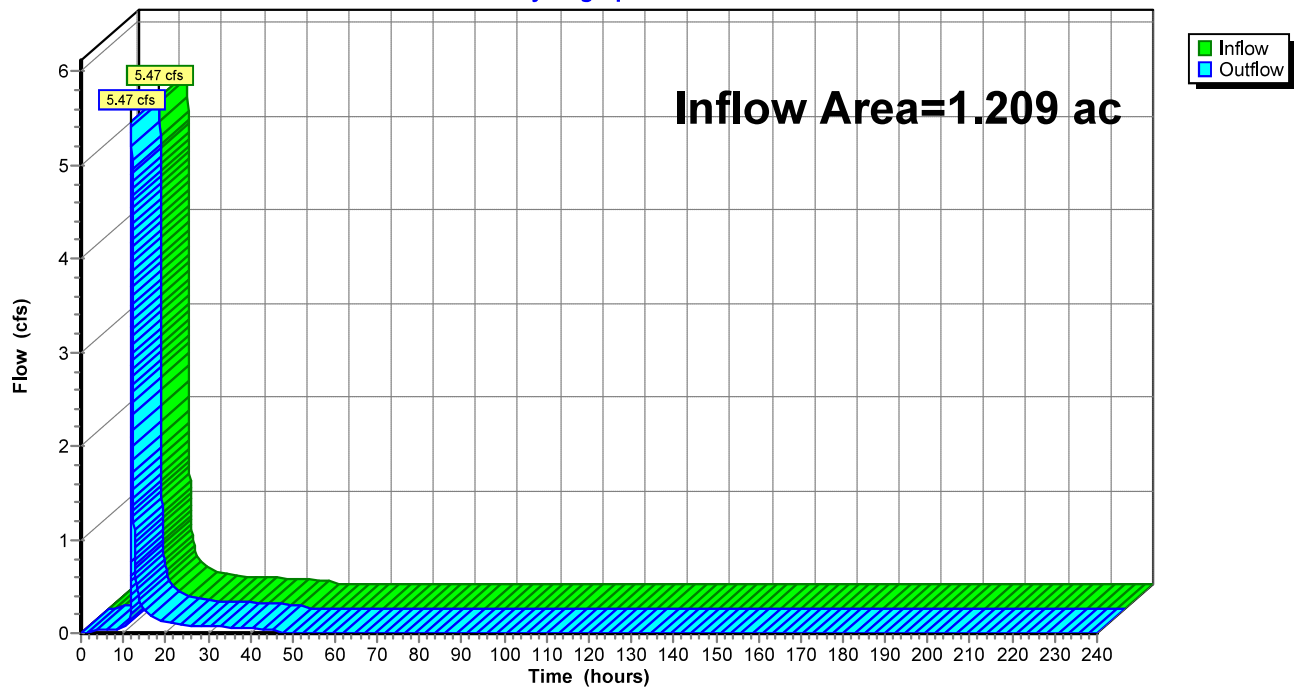
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.209 ac, 37.52% Impervious, Inflow Depth = 5.36" for 100-Year event
 Inflow = 5.47 cfs @ 12.01 hrs, Volume= 0.540 af
 Outflow = 5.47 cfs @ 12.01 hrs, Volume= 0.540 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 7R: TOTAL

Hydrograph



20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 39

Summary for Reach 9R: ROAD

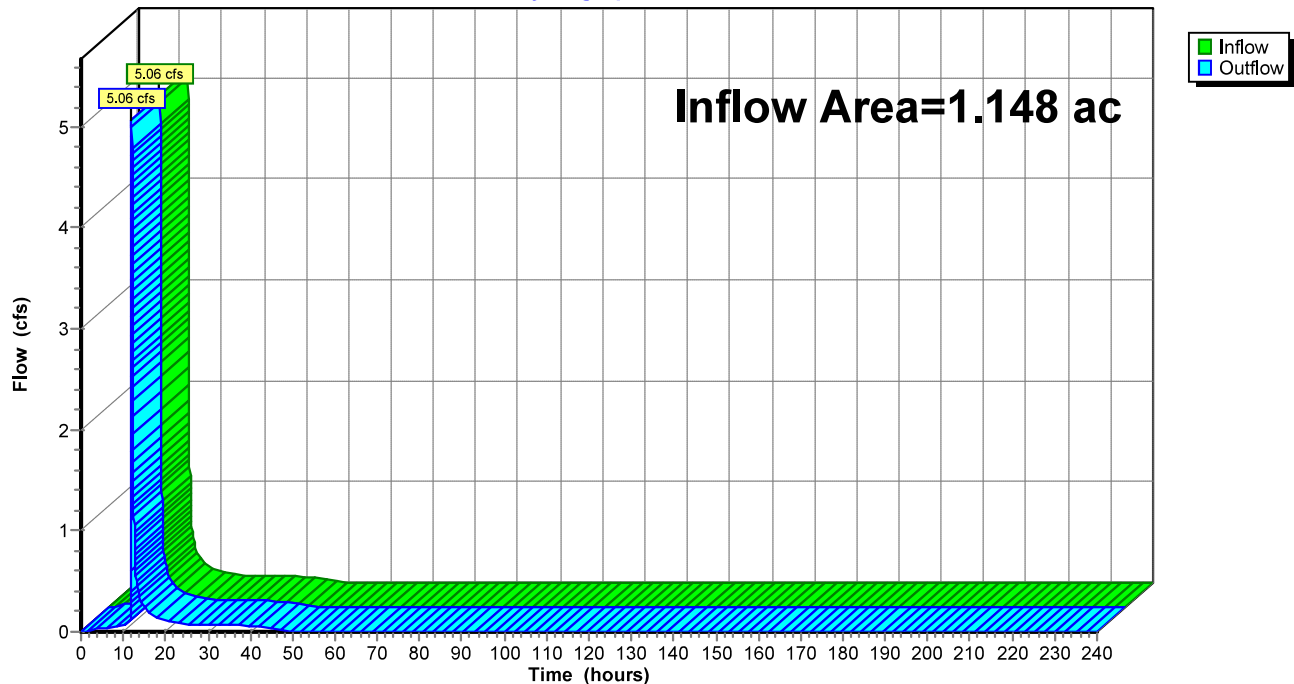
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.148 ac, 39.50% Impervious, Inflow Depth = 5.41" for 100-Year event
 Inflow = 5.06 cfs @ 12.01 hrs, Volume= 0.518 af
 Outflow = 5.06 cfs @ 12.01 hrs, Volume= 0.518 af, Atten= 0%, Lag= 0.0 min
 Routed to Reach 7R : TOTAL

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs

Reach 9R: ROAD

Hydrograph



20163 PROPOSED

Type II 24-hr 100-Year Rainfall=7.32"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 40

Summary for Pond 3P: RAIN GARDEN 1

Inflow Area = 0.445 ac, 39.04% Impervious, Inflow Depth = 5.40" for 100-Year event
 Inflow = 3.88 cfs @ 11.97 hrs, Volume= 0.200 af
 Outflow = 3.68 cfs @ 11.99 hrs, Volume= 0.200 af, Atten= 5%, Lag= 1.5 min
 Primary = 2.94 cfs @ 11.99 hrs, Volume= 0.196 af
 Routed to Pond 6P : RAIN GARDEN 2
 Secondary = 0.73 cfs @ 11.99 hrs, Volume= 0.004 af
 Routed to Reach 9R : ROAD

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Peak Elev= 970.59' @ 11.99 hrs Surf.Area= 1,045 sf Storage= 1,538 cf

Plug-Flow detention time= 142.0 min calculated for 0.200 af (100% of inflow)
 Center-of-Mass det. time= 142.0 min (918.6 - 776.6)

Volume	Invert	Avail.Storage	Storage Description
#1	968.00'	1,998 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
968.00	236	0	0
969.00	458	347	347
970.00	822	640	987
971.00	1,200	1,011	1,998

Device	Routing	Invert	Outlet Devices
#1	Device 2	968.00'	1.600 in/hr Exfiltration over Surface area
#2	Device 4	966.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 4	970.00'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	966.00'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	970.50'	10.0' 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

Primary OutFlow Max=2.94 cfs @ 11.99 hrs HW=970.59' (Free Discharge)

↑ **4=Orifice/Grate** (Passes 2.94 cfs of 7.65 cfs potential flow)
 ↑ **2=Orifice/Grate** (Passes 0.04 cfs of 1.97 cfs potential flow)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.04 cfs)
 ↑ **3=Orifice/Grate** (Orifice Controls 2.90 cfs @ 3.70 fps)

Secondary OutFlow Max=0.72 cfs @ 11.99 hrs HW=970.59' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 0.72 cfs @ 0.80 fps)

20163 PROPOSED

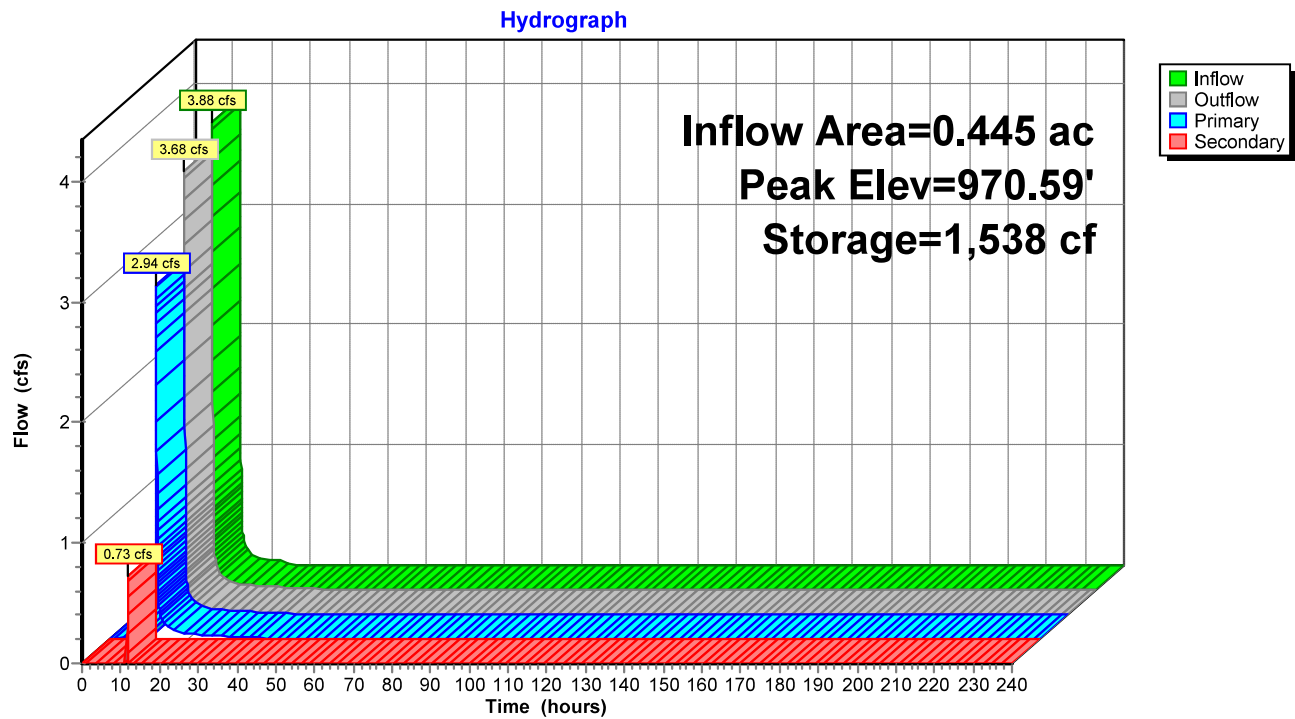
Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 41

Pond 3P: RAIN GARDEN 1

20163 PROPOSED

Type II 24-hr 100-Year Rainfall=7.32"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 42

Stage-Area-Storage for Pond 3P: RAIN GARDEN 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
968.00	236	0	970.60	1,049	1,548
968.05	247	12	970.65	1,068	1,601
968.10	258	25	970.70	1,087	1,655
968.15	269	38	970.75	1,106	1,710
968.20	280	52	970.80	1,124	1,766
968.25	292	66	970.85	1,143	1,822
968.30	303	81	970.90	1,162	1,880
968.35	314	96	970.95	1,181	1,938
968.40	325	112	971.00	1,200	1,998
968.45	336	129			
968.50	347	146			
968.55	358	163			
968.60	369	182			
968.65	380	200			
968.70	391	220			
968.75	403	239			
968.80	414	260			
968.85	425	281			
968.90	436	302			
968.95	447	324			
969.00	458	347			
969.05	476	370			
969.10	494	395			
969.15	513	420			
969.20	531	446			
969.25	549	473			
969.30	567	501			
969.35	585	530			
969.40	604	559			
969.45	622	590			
969.50	640	622			
969.55	658	654			
969.60	676	687			
969.65	695	722			
969.70	713	757			
969.75	731	793			
969.80	749	830			
969.85	767	868			
969.90	786	907			
969.95	804	946			
970.00	822	987			
970.05	841	1,029			
970.10	860	1,071			
970.15	879	1,115			
970.20	898	1,159			
970.25	917	1,204			
970.30	935	1,251			
970.35	954	1,298			
970.40	973	1,346			
970.45	992	1,395			
970.50	1,011	1,445			
970.55	1,030	1,496			

20163 PROPOSED

Type II 24-hr 100-Year Rainfall=7.32"

Prepared by Civil Site Group

Printed 6/26/2024

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Page 43

Summary for Pond 6P: RAIN GARDEN 2

[79] Warning: Submerged Pond 3P Primary device # 4 by 3.00'

Inflow Area = 1.111 ac, 38.70% Impervious, Inflow Depth = 5.35" for 100-Year event
 Inflow = 8.69 cfs @ 11.97 hrs, Volume= 0.495 af
 Outflow = 4.71 cfs @ 12.08 hrs, Volume= 0.495 af, Atten= 46%, Lag= 6.3 min
 Primary = 4.71 cfs @ 12.08 hrs, Volume= 0.495 af
 Routed to Reach 9R : ROAD
 Secondary = 0.01 cfs @ 12.08 hrs, Volume= 0.000 af
 Routed to Reach 9R : ROAD

Routing by Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.01 hrs
 Peak Elev= 969.00' @ 12.08 hrs Surf.Area= 1,953 sf Storage= 6,843 cf

Plug-Flow detention time= 269.8 min calculated for 0.495 af (100% of inflow)
 Center-of-Mass det. time= 269.8 min (1,104.6 - 834.8)

Volume	Invert	Avail.Storage	Storage Description
#1	965.00'	9,067 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
965.00	901	0	0
966.50	1,813	2,036	2,036
967.00	1,900	928	2,964
968.00	1,951	1,926	4,889
969.00	1,952	1,952	6,841
970.00	2,500	2,226	9,067

Device	Routing	Invert	Outlet Devices
#1	Device 2	965.00'	1.600 in/hr Exfiltration over Surface area
#2	Device 4	963.50'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 4	967.50'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	963.50'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	969.00'	10.0' 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

Primary OutFlow Max=4.70 cfs @ 12.08 hrs HW=969.00' (Free Discharge)

↑ **4=Orifice/Grate** (Passes 4.70 cfs of 8.46 cfs potential flow)
 ↑ **2=Orifice/Grate** (Passes 0.07 cfs of 2.17 cfs potential flow)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.07 cfs)
 ↑ **3=Orifice/Grate** (Orifice Controls 4.63 cfs @ 5.90 fps)

Secondary OutFlow Max=0.00 cfs @ 12.08 hrs HW=969.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 0.00 cfs @ 0.08 fps)

20163 PROPOSED

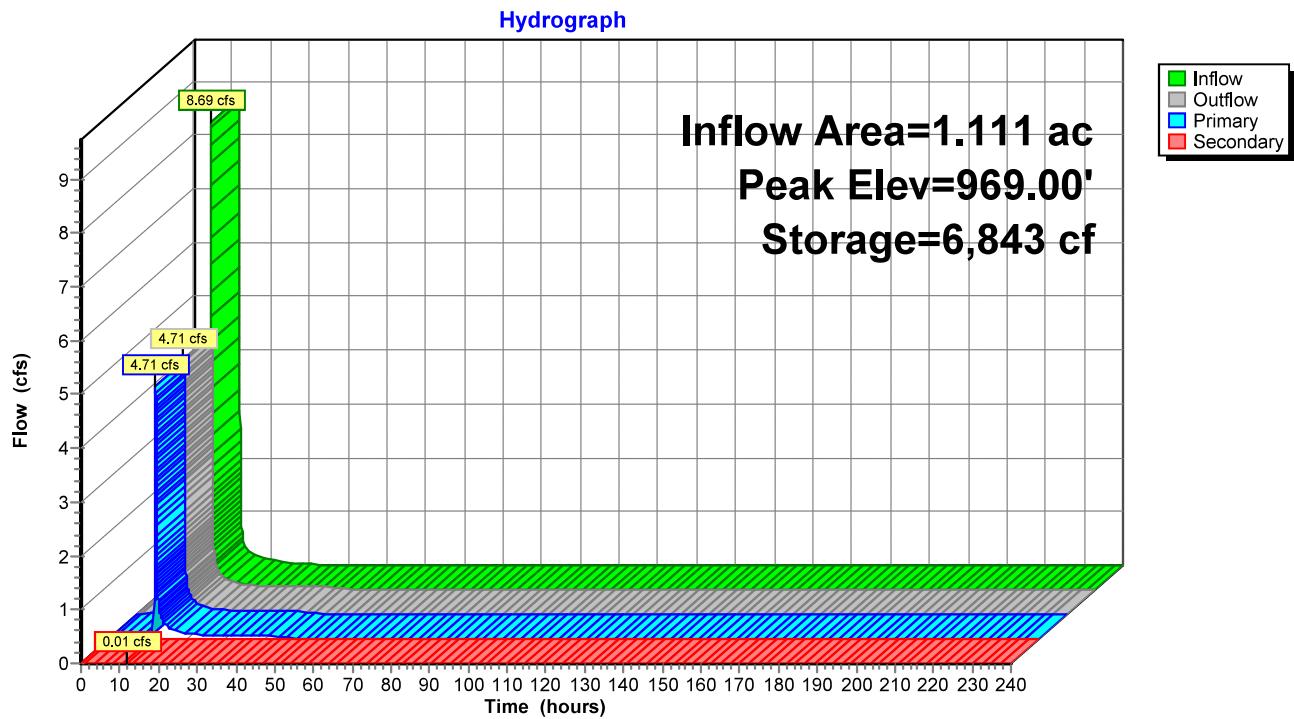
Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 44

Pond 6P: RAIN GARDEN 2

20163 PROPOSED

Prepared by Civil Site Group

HydroCAD® 10.20-4a s/n 02202 © 2023 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=7.32"

Printed 6/26/2024

Page 45

Stage-Area-Storage for Pond 6P: RAIN GARDEN 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
965.00	901	0	967.60	1,931	4,113
965.05	931	46	967.65	1,933	4,210
965.10	962	93	967.70	1,936	4,306
965.15	992	142	967.75	1,938	4,403
965.20	1,023	192	967.80	1,941	4,500
965.25	1,053	244	967.85	1,943	4,597
965.30	1,083	298	967.90	1,946	4,694
965.35	1,114	353	967.95	1,948	4,792
965.40	1,144	409	968.00	1,951	4,889
965.45	1,175	467	968.05	1,951	4,987
965.50	1,205	527	968.10	1,951	5,084
965.55	1,235	588	968.15	1,951	5,182
965.60	1,266	650	968.20	1,951	5,279
965.65	1,296	714	968.25	1,951	5,377
965.70	1,327	780	968.30	1,951	5,475
965.75	1,357	847	968.35	1,951	5,572
965.80	1,387	915	968.40	1,951	5,670
965.85	1,418	985	968.45	1,951	5,767
965.90	1,448	1,057	968.50	1,952	5,865
965.95	1,479	1,130	968.55	1,952	5,962
966.00	1,509	1,205	968.60	1,952	6,060
966.05	1,539	1,281	968.65	1,952	6,158
966.10	1,570	1,359	968.70	1,952	6,255
966.15	1,600	1,438	968.75	1,952	6,353
966.20	1,631	1,519	968.80	1,952	6,450
966.25	1,661	1,601	968.85	1,952	6,548
966.30	1,691	1,685	968.90	1,952	6,646
966.35	1,722	1,770	968.95	1,952	6,743
966.40	1,752	1,857	969.00	1,952	6,841
966.45	1,783	1,946	969.05	1,979	6,939
966.50	1,813	2,036	969.10	2,007	7,039
966.55	1,822	2,126	969.15	2,034	7,140
966.60	1,830	2,218	969.20	2,062	7,242
966.65	1,839	2,309	969.25	2,089	7,346
966.70	1,848	2,402	969.30	2,116	7,451
966.75	1,857	2,494	969.35	2,144	7,558
966.80	1,865	2,587	969.40	2,171	7,665
966.85	1,874	2,681	969.45	2,199	7,775
966.90	1,883	2,775	969.50	2,226	7,885
966.95	1,891	2,869	969.55	2,253	7,997
967.00	1,900	2,964	969.60	2,281	8,111
967.05	1,903	3,059	969.65	2,308	8,225
967.10	1,905	3,154	969.70	2,336	8,341
967.15	1,908	3,249	969.75	2,363	8,459
967.20	1,910	3,345	969.80	2,390	8,578
967.25	1,913	3,440	969.85	2,418	8,698
967.30	1,915	3,536	969.90	2,445	8,819
967.35	1,918	3,632	969.95	2,473	8,942
967.40	1,920	3,728	970.00	2,500	9,067
967.45	1,923	3,824			
967.50	1,926	3,920			
967.55	1,928	4,016			

ACCESS EASEMENT

AGREEMENT made this _____ day of _____, 20____ by and between **Wilds on Wayzata LLC** ("Grantor") and the City of Long Lake, a municipal corporation under the laws of the State of Minnesota, and **Wilds on Wayzata Homeowners, LLC**. ("Grantee").

WHEREAS, Grantors are the owners of the tract of land in the county of Hennepin, State of Minnesota, ("Grantor Tract") legally described as:

Addition name: UNPLATTED 35 118 23

Lot:

Block:

Approximate parcel size: IRREGULAR

Metes & Bounds: Common abbreviations

COM AT THE PT OF INTERSEC OF THE
NLY LINE OF MINN WESTERN R R R&W
WITH THE W LINE OF E 1/2 OF SE 1/4
TH N ALONG SAID W LINE 350 FT TH
DEFLECTING 67 DEG TO THE RIGHT 100
FT TO ACTUAL PT OF BEG TH CONT ALONG
LAST DESC COURSE TO THE SWLY LINE OF
STATE HWY NO 12 TH SELY ALONG SAID
HWY LINE TO A PT DIST 271.5 FT
NWLY MEAS ALONG SAID HWY LINE FROM
ITS INTERSEC WITH THE NLY LINE OF
SAID R R R&W TH DEFLECTING 98 DEG
35 MIN TO THE RIGHT 304.7 FT TH
NLY 207.4 TO BEG

Abstract or Torrens: ABSTRACT

Property Identification Number: **35-118-23-44-0001**

WHEREAS, for the benefit of the Grantee Tract, Grantee, and the City desire to obtain, and Grantor desires to grant, a permanent easement for access, ingress and egress purposes over, upon and across that part of the Grantor Tract legally described as:

An easement for ingress and egress purposes over, under and across the properties as required by the City of Long Lake (property easement area description to follow).

PID.: **35-118-23-44-0001** (the Easement Area").

NOW WHEREFORE, in consideration of the above recitals and the terms and covenants of this agreement, the parties agree as follows:

1. Conveyance of Easement – Grantor hereby grants to Grantee and the City, their respective successors and assigns, a permanent easement (the “Easement”) over, across and upon the Easement Area for access, ingress, and egress purposes and use, including but not limited to a full and free right and authority (but not the obligation) of the City to enter upon and use the Easement Area to construct, install, maintain and repair improvements related to such access rights, which Easement shall benefit shall benefit Grantee Tract and the City. If the City damages any sod on the Easement Area, excluding any road or driveway area as the same is paved or otherwise laid-out and travelled, and excluding the area of any related curb, gutter, ditch or other related improvements, then the City shall have the obligation to repair or restore such sod to its condition existing prior to the occurrence of the damage caused by the City.
2. Duration. The Easement shall be permanent and perpetual and shall inure to the benefit of and binding upon the parties hereto and their successors and assigns, and the Easement shall run with the land.
3. Restrictive Covenant. Grantor hereby agrees that it will not perform or allow or cause the construction of any improvements on the Easement Area or use the Easement Area in any way which could damage or obstruct the improvements made to the Easement Area by or for Grantee or interfere with Grantee’s use of the Easement Area or with Grantee’s access to the Easement Area or any other right of Grantee hereunder.
4. Miscellaneous. The headings of this Agreement are inserted for convenience only and shall not affect the meaning or interpretation of this Agreement or any provision or paragraph hereof. The Agreement shall be governed by and construed in accordance with the laws of the State of Minnesota. If any provision of the Agreement is invalid or unenforceable, such provision shall be deemed to be modified to be within the limits of enforceability or validity, if feasible; however, if the offending provision cannot be so modified, it shall be stricken and all other provisions of this Agreement in all other respects shall remain valid and enforceable.

IN WITNESS WHEREOF, Grantors have executed this Agreement effective the day first stated above.

GRANTORS

Wilds on Wayzata

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

The forgoing instrument was acknowledged before me this _____ day of _____, 20____, by Wilds on Wayzata LLC.

Notary Public

DRAINAGE AND UTILITY EASEMENT

AGREEMENT made this _____ day of _____, 20____ by and between **Wilds on Wayzata LLC** ("Grantor") and the City of Long Lake, a municipal corporation under the laws of the State of Minnesota, and **Wilds on Wayzata Homeowners, LLC** ("Grantee").

WHEREAS, Grantors are the owners of the tract of land in the county of Hennepin, State of Minnesota, ("Grantor Tract") legally described as:

Addition name: UNPLATTED 35 118 23

Lot:

Block:

Approximate parcel size: IRREGULAR

Metes & Bounds: Common abbreviations

COM AT THE PT OF INTERSEC OF THE
NLY LINE OF MINN WESTERN R R R&W
WITH THE W LINE OF E 1/2 OF SE 1/4
TH N ALONG SAID W LINE 350 FT TH
DEFLECTING 67 DEG TO THE RIGHT 100
FT TO ACTUAL PT OF BEG TH CONT ALONG
LAST DESC COURSE TO THE SWLY LINE OF
STATE HWY NO 12 TH SELY ALONG SAID
HWY LINE TO A PT DIST 271.5 FT
NWLY MEAS ALONG SAID HWY LINE FROM
ITS INTERSEC WITH THE NLY LINE OF
SAID R R R&W TH DEFLECTING 98 DEG
35 MIN TO THE RIGHT 304.7 FT TH
NLY 207.4 TO BEG

Abstract or Torrens: ABSTRACT

Property Identification Number: **35-118-23-44-0001**

WHEREAS, for the benefit of the Grantee Tract, Grantee, and the City desire to obtain, and Grantor desires to grant, a permanent easement for drainage and utilities, ingress and egress purposes over, upon and across that part of the Grantor Tract legally described as:

An easement for ingress and egress purposes over, under and across the properties as required by the City of Long Lake (property easement area description).

PID.: **35-118-23-44-0001** (the Easement Area").

It is expressly understood that this is an underground easement for drainage, sewer, water, gas, internet, cable and electric service lines, and that no public utility facilities, structures or other improvements of any kind shall be located above grade, as said grade is now or hereafter established.

NOW WHEREFORE, in consideration of the above recitals and the terms and covenants of this agreement, the parties agree as follows:

1. Conveyance of Easement – Grantor hereby grants to Grantee and the City, their respective successors and assigns, a permanent easement (the “Easement”) over, across and upon the Easement Area for access, ingress, and egress purposes and use, including but not limited to a full and free right and authority (but not the obligation) of the City to enter upon and use the Easement Area to construct, install, maintain and repair improvements related to such drainage and utility rights, which Easement shall benefit Grantee Tract and the City. If the City damages any sod on the Easement Area, excluding any road or driveway area as the same is paved or otherwise laid-out and travelled, and excluding the area of any related curb, gutter, ditch or other related improvements, then the City shall have the obligation to repair or restore such sod to its condition existing prior to the occurrence of the damage caused by the City.
2. Duration. The Easement shall be permanent and perpetual and shall inure to the benefit of and binding upon the parties hereto and their successors and assigns, and the Easement shall run with the land.
3. Restrictive Covenant. Grantor hereby agrees that it will not perform or allow or cause the construction of any improvements on the Easement Area or use the Easement Area in any way which could damage or obstruct the improvements made to the Easement Area by or for Grantee or interfere with Grantee’s use of the Easement Area or with Grantee’s access to the Easement Area or any other right of Grantee hereunder.
4. Miscellaneous. The headings of this Agreement are inserted for convenience only and shall not affect the meaning or interpretation of this Agreement or any provision or paragraph hereof. The Agreement shall be governed by and construed in accordance with the laws of the State of Minnesota. If any provision of the Agreement is invalid or unenforceable, such provision shall be deemed to be modified to be within the limits of enforceability or validity, if feasible; however, if the offending provision cannot be so modified, it shall be stricken and all other provisions of this Agreement in all other respects shall remain valid and enforceable.

IN WITNESS WHEREOF, Grantors have executed this Agreement effective the day first stated above.

GRANTORS

Wilds on Wayzata

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

The forgoing instrument was acknowledged before me this _____ day of _____, 20____, by Wilds on Wayzata LLC.

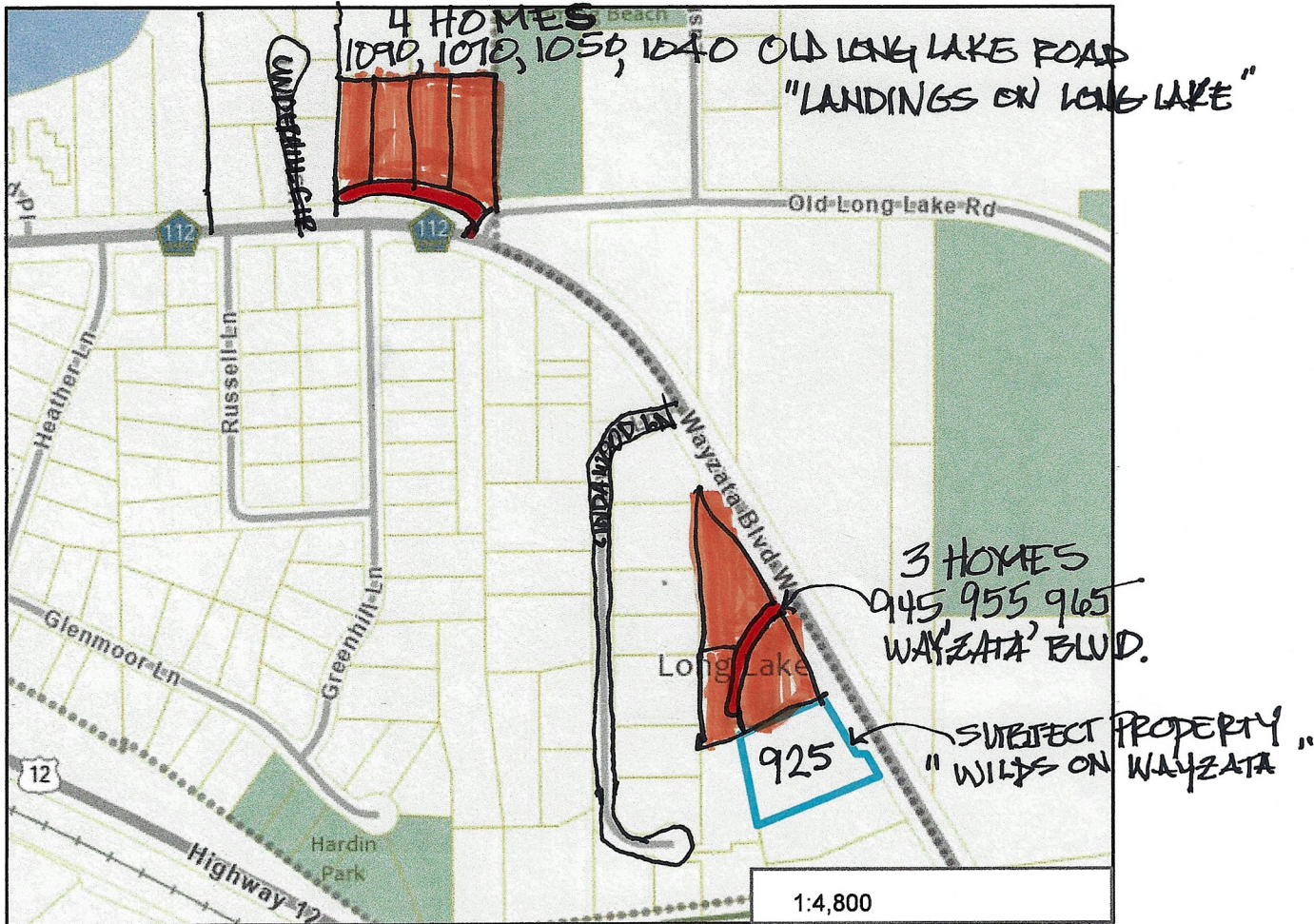
Notary Public

1D.C



Hennepin County Property Map

Date: 8/7/2024



PARCEL ID: 3511823440001

OWNER NAME: D Carlson & A D Martinez

PARCEL ADDRESS: 925 Wayzata Blvd W, Long Lake MN 55391

PARCEL AREA: 1.24 acres, 53,920 sq ft

A-T-B: Abstract

SALE PRICE: \$285,000

SALE DATE: 01/2020

SALE CODE: Warranty Deed

ASSESSED 2023, PAYABLE 2024
 PROPERTY TYPE: Residential
 HOMESTEAD: Homestead
 MARKET VALUE: \$340,300
 TAX TOTAL: \$3,789.00

ASSESSED 2024, PAYABLE 2025
 PROPERTY TYPE: Residential
 HOMESTEAD: Homestead
 MARKET VALUE: \$338,900

Comments:

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

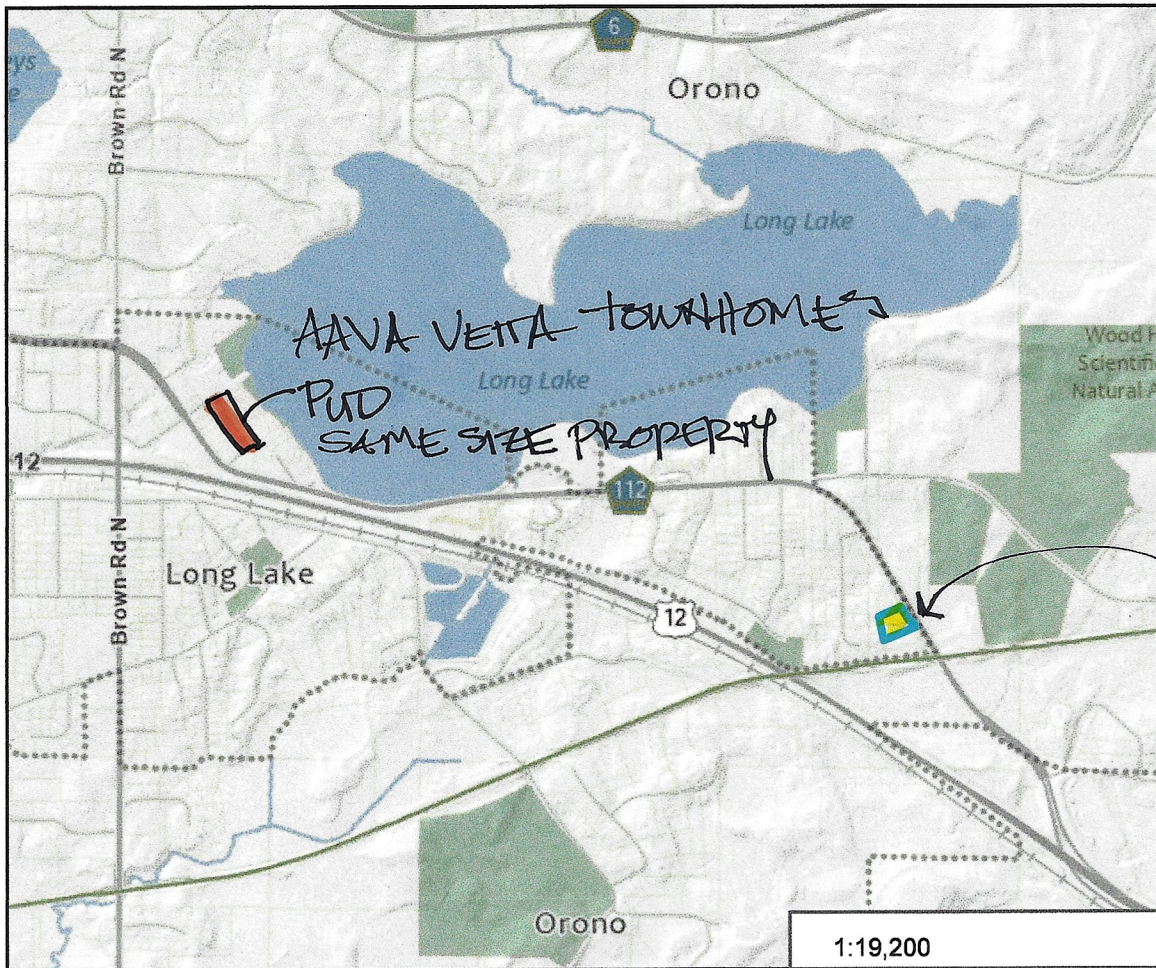
COPYRIGHT © HENNEPIN
 COUNTY 2024

10.D



Hennepin County Property Map

Date: 8/7/2024



PARCEL ID: 3511823440001

OWNER NAME: D Carlson & A D Martinez

PARCEL ADDRESS: 925 Wayzata Blvd W, Long Lake MN 55391

PARCEL AREA: 1.24 acres, 53,920 sq ft

A-T-B: Abstract

SALE PRICE: \$285,000

SALE DATE: 01/2020

SALE CODE: Warranty Deed

ASSESSED 2023, PAYABLE 2024
PROPERTY TYPE: Residential
HOMESTEAD: Homestead
MARKET VALUE: \$340,300
TAX TOTAL: \$3,789.00

ASSESSED 2024, PAYABLE 2025
PROPERTY TYPE: Residential
HOMESTEAD: Homestead
MARKET VALUE: \$338,900

Comments:

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

COPYRIGHT © HENNEPIN
COUNTY 2024

HENNEPIN COUNTY

MINNESOTA

Section 6A.

June 6, 2024

Mr. Scott Weske
City Administrator
City of Long Lake
450 Virginia Avenue, PO Box 606
Long Lake, MN 55356

Re: Preliminary Plat Review – Wilds on Wayzata (Received 05/10/24)
County State Aid Highway (CSAH) 112 (Wayzata Boulevard)
Hennepin County Plat Review ID #4039 (Reviewed 05/14/24)

Mr. Weske:

Please consider the following county comments for the proposed development of four single-family homes at 925 Wayzata Boulevard.

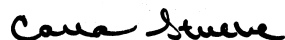
Access and Right-of-Way: County staff support the proposed access to Wayzata Boulevard. A 60-foot half right-of-way is requested along the entirety of the site to accommodate future public needs.

Storm Water/Drainage: Per County Ordinance 22, the existing drainage patterns shall not be altered unless approved by Hennepin County. Watershed District approval and drainage calculations are required if the work alters existing drainage patterns. Post-construction flow rates entering Hennepin County's drainage system, overland or through pipes, shall not exceed pre-construction rates for the two, 10 and 100-year events. *Contact: Jordan Labat at 612-596-0703 or jordan.Labat@hennepin.us*

Permits: Please inform the developer that all construction within county right of way requires an approved Hennepin County permit prior to beginning construction. This includes, but is not limited to, driveway and street access, drainage and utility construction, trail development, and landscaping. *Contact: Douglas Heidemann, Permits Coordinator at 612-596-0336 or douglas.heidemann@hennepin.us*

Please contact Ashley Morello: 612-596-0359, ashley.morello@hennepin.us with any questions.

Sincerely,



Carla Stueve, PE
County Highway Engineer

Hennepin County Transportation Project Delivery
Public Works Facility, 1600 Prairie Drive, Medina, MN 55340
612-596-0300 | hennepin.us





Date: 2/28/2024



PARCEL ID: 3511823440001

OWNER NAME: D Carlson & A D Martinez

PARCEL ADDRESS: 925 Wayzata Blvd W, Long Lake MN 55391

PARCEL AREA: 1.24 acres, 53,920 sq ft

A-T-B: Abstract

SALE PRICE: \$285,000

SALE DATE: 01/2020

SALE CODE: Warranty Deed

ASSESSED 2022, PAYABLE 2023
PROPERTY TYPE: Residential
HOMESTEAD: Homestead
MARKET VALUE: \$315,000
TAX TOTAL: \$3,540.52

ASSESSED 2023, PAYABLE 2024
PROPERTY TYPE: Residential
HOMESTEAD: Homestead
MARKET VALUE: \$340,300

Comments:

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

COPYRIGHT © HENNEPIN
COUNTY 2024



August 30, 2024

City of Long Lake
ATTN: Hannah Rybak
450 Virginia Ave
Long Lake, MN

RE: Proposed Subdivision in Long Lake – Wilds on Wayzata

Dear Hannah,

The Minnehaha Creek Watershed District (MCWD or District) received a notice of a proposed subdivision on August 19, 2024, with the proposal to go to the City of Long Lake's Planning Commission. The application is for a 4-lot, single family residential subdivision located at 925 Wayzata Blvd W in Long Lake.

Based on the information provided, the following MCWD rules are anticipated to be triggered by the proposed development and would require subsequent permits:

Erosion Control:

The proposed development will disturb more than 5,000 square feet of land and have an excavation volume greater than 50 cubic yards and will therefore require an Erosion Control permit.

Stormwater Management:

Given that the proposed development plans to increase site impervious surface by over 50%, a Stormwater Management permit will be necessary. The project will need to treat the entire site's impervious surface for volume and provide rate control.

We encourage the applicant to reach out to the District for discussion regarding rule triggers and their proposed project in greater detail.

Thank you for your ongoing coordination with MCWD. Please do not hesitate to reach out with any questions.

Veronica Sannes
Permitting Technician
vsannes@minnehahacreek.org
(952) 641-4580

We collaborate with public and private partners to protect and improve land and water for current and future generations.