

REPORT / RECOMMENDATION



To: MAYOR AND COUNCIL

Agenda Item #: VI. C.

From: Kris Aaker, Assistant Planner

Action

Discussion

Date: October 21, 2014

Information

Subject: PUBLIC HEARING – Conditional Use Permit, Chad and Jennifer Helmer, 5808
Creek Valley Road, Resolution No. 2014-117

Action Requested:

Adopt the attached resolution.

Information/Background:

A Conditional Use Permit is requested to allow the first floor elevation of the new home to exceed the first floor elevation of the existing home by more than one foot. The applicant is proposing a tear-down/ re-build on the property and to raise the first floor elevation 1.5 feet above the existing first floor elevation to conform with the FEMA flood elevations and the Nine Mile Creek Watershed's approval for a new basement elevation with a corresponding ceiling height of slightly over 8 feet.

Planning Commission Recommendation: On October 8, 2014, the Planning Commission unanimously recommended approval of the Conditional Use Permit.

ATTACHMENTS:

- Resolution No. 2014-117
- Planning Commission minutes, October 8, 2014
- Planning Commission staff report dated October 8, 2014



**RESOLUTION NO. 2014-117
APPROVING A CONDITIONAL USE PERMIT
AT 5808 CREEK VALLEY ROAD FOR AND**

BE IT RESOLVED by the City Council of the City of Edina, Minnesota, as follows:

Section 1. BACKGROUND.

- 1.01 The applicant is requesting a Conditional Use Permit to tear down and construct a new home at 5808 Creek Valley Road for Chad and Jennifer Helmer.
- 1.02 A Conditional Use Permit is requested to allow the first floor elevation of the new home to exceed the first floor elevation of the existing home by more than one foot. The applicant is proposing to raise the first floor elevation 1.5 feet above the existing first floor elevation to construct a new home at 5808 Creek Valley Road. The Conditional Use Permit is for .5 feet or 6 inches of additional first floor height above the allowed one foot increase. The new home is a two story home with an attached three car garage
- 1.03 The property is legally described as follows:

Lot 11, Block 2, Creek Valley Addition, Hennepin County, MN
- 1.04 On October 8, 2014, the Planning Commission unanimously recommended approval of the Conditional Use Permit.

Section 2. FINDINGS

- 2.01 Approval is based on the following findings:
 1. The proposed first floor elevation is consistent with the adjacent homes first floor elevation.
 2. The proposal does not have an undue adverse impact on governmental facilities, utilities, services or existing or proposed improvements.
 3. The proposal will generate traffic within the capacity of the streets serving the property.
 4. The proposal does not have an undue adverse impact on the public health, safety or welfare.
 5. The proposal will not impede the normal and orderly development and improvement of other property in the vicinity.
 6. The proposal conforms to the applicable restrictions and special conditions of the district in which it is located as imposed by this Section.
 7. The proposal is consistent with the Comprehensive Plan.

8. The proposed use is permitted in the R-1 Single Dwelling Unit District and complies with all the standards, with exception of the first floor elevation.
9. The home is appropriate in size and scale for the lot and the improvements will enhance the property.
10. The applicant is seeking to accomplish ceiling heights of approximately 8 feet in the basement, which is reasonable for new construction.
11. The proposed home will comply with the FEMA flood protection elevations for lowest floor and according to the builder, satisfy the Nine Mile Creek Watershed lowest floor elevation requirements.
12. Engineering staff finds that the proposed grading plans will not have a negative impact the adjacent homes.

Section 3. APPROVAL

NOW THEREFORE, it is hereby resolved by the City Council of the City of Edina, approves the Conditional Use Permit to increase the first floor elevation over 1-foot to allow construction of a new home at, subject to the following conditions:

1. The site must be developed and maintained in conformance with the following plans:
 - Survey date stamped September 23, 2014.
 - Building plans and elevations date stamped September 23, 2014.
2. Compliance with the conditions and comments listed in the Environmental Engineer's memo dated October 1, 2014.

Adopted by the city council of the City of Edina, Minnesota, on October 7, 2014.

ATTEST: _____
Debra A. Mangen, City Clerk

James B. Hovland, Mayor

STATE OF MINNESOTA)
COUNTY OF HENNEPIN)SS
CITY OF EDINA)

CERTIFICATE OF CITY CLERK

I, the undersigned duly appointed and acting City Clerk for the City of Edina do hereby certify that the attached and foregoing Resolution was duly adopted by the Edina City Council at its Regular Meeting of October 7, 2014, and as recorded in the Minutes of said Regular Meeting.

WITNESS my hand and seal of said City this ____ day of _____, 2014.

City Clerk

P.O.
10/8

VI. PUBLIC HEARINGS

B. Conditional Use Permit. Chad and Jenny Helmer. 5808 Creek Valley Road, Edina, MN

Planner Presentation

Planner Aaker informed the Commission Ted Carlson has submitted a Conditional Use Permit application on behalf of Chad and Jennifer Helmer to increase the first floor elevation 1.5 feet higher than the current first floor elevation in order to construct a new home at 5808 Creek Valley Road. The Conditional Use Permit is for .5 feet or 6 inches of additional first floor height above the allowed one foot increase. The new home is a two story home with an attached three car garage

Aaker further explained that the current home has a basement elevation of 853.2 above sea level and a first floor elevation at 861.8 feet above sea level. The proposal is to tear down the house and re-build, for a total of a 1.5 foot increase in first floor elevation (.5 feet above allowed in code). The new basement elevation will be at 853.7 feet above sea level and the new first floor will be at 863.3 feet above sea level.

Aaker said the basement floor must be raised to comply with required flood protection elevations. The reason for the CUP request is to address a discrepancy between the City of Edina and Nine Mile Creek Watershed's flood protection elevations. The City of Edina uses the FEMA designated elevation of 850.6 above sea level and the Nine Mile Creek Water Shed District uses their own modeling that puts the protection elevation at 852.7 feet above sea level. There is a 2.1 foot discrepancy between FEMA and Nine Mile Creek Water Shed's protection elevations.

The builder has proposed a basement elevation of 853.7 which is between the FEMA designated elevation and Nine Mile Creek's protection elevation. The basement would be raised 6 inches to be 3.1 feet higher than the FEMA flood elevation and 1 foot above the Nine Mile Creek Watershed's flood elevation. Nine Mile requires 2 feet of freeboard, so the basement is one foot lower than Nine Mile Water shed District rules. The builder has indicated that the project has received a variance from Nine Mile Creek Watershed District to allow the basement elevation lower than required based on the Water Shed's flood plain modeling.

Planner Aaker concluded that staff recommends approval of the conditional use permit, as requested subject to the following findings:

1. The proposal does not have an undue adverse impact on governmental facilities, utilities, services or existing or proposed improvements.
2. The proposal will generate traffic within the capacity of the streets serving the property.
3. The proposal does not have an undue adverse impact on the public health, safety or welfare.

4. The proposal will not impede the normal and orderly development and improvement of other property in the vicinity.
5. The proposal conforms to the applicable restrictions and special conditions of the district in which it is located as imposed by this Section.
6. The proposal is consistent with the Comprehensive Plan.
7. Engineering staff finds that the proposed grading plans would not negatively impact the adjacent homes.

Approval is also subject to the following conditions:

1. The site must be developed and maintained in conformance with the following plans:
 - Survey date stamped September 23, 2014.
 - Building plans and elevations date stamped September 23, 2014.
2. Compliance with the conditions and comments listed in the Environmental Engineer's memo dated October 1, 2014.
3. Submission of Nine Mile Creek Watershed District Approval prior to building permit issuance.

Appearing for the Applicant

Steve Sweetzer, representing Chad and Jenny Helmer

Discussion

Chair Staunton questioned the difference between FEMA and 9-Mile requirements. Aaker explained that 9-Mile is a more conservative local view while FEMA is regional.

Commissioner Scherer noted the materials indicate that the project received approval from 9-Mile Creek. Aaker responded in the affirmative. 9-Mile Creek signed off on the plan as proposed.

Commissioner Lee complimented the applicants and their representative on the plans presented. She did note that the proposed building is now two stories and not the original rambler. Mr. Sweetzer responded that's correct, the proposed house is two-story; however, the roof lines were brought down to minimize impact. Lee agreed, adding one issue she has is the sides of the building need more attention, especially the west side; it's a little sparse. Sweetzer said he would look at the sides and if appropriate add some relief.

Chair Staunton opened the public hearing

Public Testimony

No public comment. Chair Staunton asked for a motion to close the public hearing. Commissioner Scherer moved to close the public hearing. Commissioner Lee seconded the motion. All voted aye; public hearing closed.

Discussion

Commissioner Scherer said she agrees with Commissioner Lee's comments that the applicants did a good job on the building design and minimizing impact. Scherer further added the proposed basement height at 8-feet is reasonable.

Chair Staunton said he agrees with comments from Commissioners Lee and Scherer, adding the project is reasonable and he can support it as presented.

Motion

Commissioner Scherer moved Conditional Use Permit approval based on staff findings and subject to staff conditions. Commissioner Lee seconded the motion. All voted aye; motion carried 5-0.

C. Final Rezoning and Final Development Plan. Beacon Interfaith Housing. 3330 West 66th Street, Edina, MN

Planner Presentation

Planner Teague told the Commission they are being asked to consider Final Rezoning and Final Development Plan for a redevelopment request of the existing TCF Bank building, located at 3330 66th Street by Beacon Interfaith Housing Collaborative (Beacon). Teague reported the proposed plans are the same as the plans that were approved in the first phase of this review, including the Comprehensive Plan Amendment.

Teague explained the applicant proposes to remodel and expand the building into 39 units of small studio apartments for young adults (age 18-22) who have experienced homelessness. The size of the units would range from 322-451 square feet. Each unit would contain a full kitchen and bathroom. The building would contain offices for on-site service providers and property management. There would also be a community area for residents; a fitness area; a computer lab and a laundry room. The site is 39,204 square feet in size. The existing bank is 18,179 square feet. The proposed addition would be 10,458 square feet. The building would remain two stories. The remodel of the building would retain the existing brick, and the addition would be brick with metal panels.



PLANNING COMMISSION STAFF REPORT

Originator Kris Aaker, Assistant Planner	Meeting Date October 8, 2014	Agenda # 2014.014
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Recommended Action:

Approve a Conditional Use Permit to allow the construction of a new home to have a new first floor more than one foot above (1.5 feet total) the existing first floor elevation at the property located at 5808 Creek Valley Road for Chad and Jennifer Helmer.

Project Description:

Ted Carlson has submitted a Conditional Use Permit application on behalf of Chad and Jennifer Helmer to increase the first floor elevation 1.5 feet higher than the current first floor elevation in order to construct a new home at 5808 Creek Valley Road. The Conditional Use Permit is for .5 feet or 6 inches of additional first floor height above the allowed one foot increase. The new home is a two story home with an attached three car garage, (see attached surveys, and building plans).

INFORMATION & BACKGROUND

The current home has a basement elevation of 853.2 above sea level and a first floor elevation at 861.8 feet above sea level. The proposal is to tear down the house and re-build, for a total of a 1.5 foot increase in first floor elevation (.5 feet above allowed in code). The new basement elevation will be at 853.7 feet above sea level and the new first floor will be at 863.3 feet above sea level.

The Basement floor must be raised to comply with required flood protection elevations. The reason for the CUP request is to address a discrepancy between the City of Edina and Nine Mile Creek Watershed's flood protection elevations. The City of Edina uses the FEMA designated elevation of 850.6 above sea level and the Nine Mile Creek Water Shed District uses their own modeling that puts the protection elevation at 852.7 feet above sea level. There is a 2.1 foot discrepancy between FEMA and Nine Mile Creek Water Shed's protection elevations.

The builder has proposed a basement elevation of 853.7 which is between the FEMA designated elevation and Nine Mile Creek's protection elevation. The basement would be raised 6 inches to be 3.1 feet higher than the FEMA flood elevation and 1 foot above the Nine Mile Creek Watershed's flood elevation. Nine Mile requires 2 feet of freeboard, so the basement is one foot lower than Nine Mile Water shed District rules. The builder has indicated that the project has received a variance from Nine Mile Creek Watershed District to allow the basement elevation lower than required based on the Water Shed's flood plain modeling.

Eligibility Requirements for Issuance of a Conditional Use Permit

City Code allows for the issuance of a conditional use permit to increase the first floor elevation of a new home over one foot above the existing home under one of the following circumstances:

- 1) ***To elevate the lowest level of the dwelling to an elevation of two feet above the 100-year flood elevation, as established by FEMA;***
- 2) To elevate the lowest level of the dwelling to protect from groundwater intrusion;
- 3) To elevate the first floor elevation to the extent necessary to meet the state building code, city code, or statutory requirements;

Furthermore, a conditional use permit may only be issued if the proposed project fits the character of the neighborhood in height, scale, and mass.

The proposed home is eligible for a conditional use permit under the above requirements because the new home is being raised to elevate out of the floodplain and to avoid groundwater intrusion. The applicant is trying to improve the drainage and elevate the basement out of the FEMA flood protection elevation. The proposed home is a two story home with one story homes on either side of the proposed home. The proposed height of the structure is 35.1 feet. The maximum building height allowed on this site is 37.4 feet given lot width.

Surrounding Land Uses

- Northerly: Single family homes
- Easterly: Single family homes
- Southerly: Single family homes
- Westerly: Single family homes, pond.

Existing Site Features

The lot is located in the middle of a single-family neighborhood on Creek Valley Road. The site backs up to wetland.

Planning

Guide Plan designation: Low-Density Residential
Zoning: R-1, Single-Dwelling District

Grading & Drainage

The grading must not impact adjacent neighbors. The Environmental Engineer has reviewed the application and submitted comments in the attached memo. The Engineer is satisfied with the submission and has stated in the memo that plans as submitted provide more than adequate solutions for the needs of the site.

Conditional Use Permit

Per Section 36-305, the City Council shall not grant a Conditional Use Permit unless it finds that the establishment, maintenance and operation of the use:

1. Does not have an undue adverse impact on governmental facilities, utilities, services or existing or proposed improvements;

The proposal for a tear down and rebuild of a new single-family home will not have an impact on governmental facilities or services. A single-family home is a permitted use on the site.

2. Will generate traffic within the capacity of the streets serving the property;

The proposal to tear down and rebuild a single-family home would not have an impact on traffic or the capacity of the streets serving the property. The use, a single-family home, remains the same on the property.

3. Does not have an undue adverse impact on the public health, safety or welfare;

There would be no impact, as the use of the property remains the same as exists today.

4. Will not impede the normal and orderly development and improvement of other property in the vicinity;

The proposed new home would replace an existing home on the site and would not impede future development of other properties in the vicinity.

5. *Conforms to the applicable restrictions and special conditions of the district in which it is located as imposed by this Section; and*

The new home would meet all applicable zoning ordinance requirements with the exception of the first floor.

6. *Is consistent with the Comprehensive Plan.*

A single-family home is consistent with the low-density residential land use designation within the Comprehensive Plan.

Compliance Table

	City Standard	Proposed
Front – Creek Valley	Average of adjacent	37.6 feet - average
Side - East	10 feet	10 feet
Rear– North	25 feet	90 feet
Side –	10 feet	25.85 feet
1 st Floor Elevation	1 foot	*1.5 feet
Building Coverage	25%	14.9 %
Building Height	37.4 feet	34.1 feet

***Needs a Conditional Use Permit**

PRIMARY ISSUES & STAFF RECOMMENDATION

• Is the proposed development reasonable for this site?

Yes, staff believes the proposal is reasonable for four reasons:

1. The proposed use is permitted in the R-1 Single Dwelling Unit District and complies with all the standards, with exception of the first floor elevation.
2. The home is appropriate in size and scale for the lot and the improvements will enhance the property.

3. The applicant is seeking to accomplish ceiling heights of approximately 8 feet in the basement, which is reasonable for new construction.
4. The proposed home will comply with the FEMA flood protection elevations for lowest floor and according to the builder, satisfy the Nine Mile Creek Watershed lowest floor elevation requirements.

Staff Recommendation

Staff recommends approval of the conditional use permit, as requested subject to the following findings:

1. The proposal does not have an undue adverse impact on governmental facilities, utilities, services or existing or proposed improvements.
2. The proposal will generate traffic within the capacity of the streets serving the property.
3. The proposal does not have an undue adverse impact on the public health, safety or welfare.
4. The proposal will not impede the normal and orderly development and improvement of other property in the vicinity.
5. The proposal conforms to the applicable restrictions and special conditions of the district in which it is located as imposed by this Section.
6. The proposal is consistent with the Comprehensive Plan.
7. Engineering staff finds that the proposed grading plans would not negatively impact the adjacent homes.

Approval is subject to the following conditions:

1. The site must be developed and maintained in conformance with the following plans:
 - Survey date stamped September 23, 2014.
 - Building plans and elevations date stamped September 23, 2014.
2. Compliance with the conditions and comments listed in the Environmental Engineer's memo dated October 1, 2014.
3. Submission of Nine Mile Creek Watershed District Approval prior to building permit issuance.

Deadline for a City decision: November 23, 2014.



DATE: October 1, 2014

TO: Cary Teague – Planning Director

CC: David Fisher – Building Official
Ross Bintner P.E. - Environmental Engineer

FROM: Charles Gerck EIT – Engineering Technician

RE: 5808 Creek Valley Road - Special Review of CUP Application

The Engineering Department has reviewed the subject property for street and utility concerns, grading, storm water, erosion and sediment control and for general adherence to the following ordinance sections:

- Chapter 10, Article 4 – Demolition Permit Stormwater and Erosion Control (10-106 to 10-113)
- Chapter 10, Article 7 – Littering in the Course of Construction Work (10-341 to 10-345)
- Chapter 10 Article 17 – Land Disturbing Activities (10-674 to 10-710)
- Chapter 24, Article 4 Division 2 – Roadway Access (24-129 to 24-133)
- Chapter 36, Article 12 – Drainage, Retaining Walls and Site Access (36-1257)

This review was performed at the request of the Planning Department and assumes the provided documents were submitted for building permit review. A more detailed review will be performed at the time of building permit application.

Land Use/Planning Concerns

1. Engineering supports the proposed plan to raise the current first floor elevation from 861.8' to 863.3' to meet Nine Mile Creek Watershed District flood zone requirements.

General

2. A separate permit is required from Nine Mile Creek Watershed District: www.ninemilecreek.org.
3. Site survey should follow the standard described in policy SP-005-B included in the building [permit application packet](#).
 - a. #10.4. Lowest point of entry (i.e. door sill or top of window well) of proposed and existing construction.
 - b. #10.6. Top of wall and bottom of wall elevations at regular intervals for all retaining walls.

Street and Curb Cut

4. If application proposes relocation or modification of curb cut, Follow standards in curb cut permit application: http://edinamn.gov/edinfiles/files/City_Offices/Public_Works/CurbCutApplication.pdf

Sanitary and Water Utilities

5. Show utility connections.

Storm Water Utility

6. The subject site front yard drains to subwatershed NMC_23. Downstream public system stormwater capacity is limited.
7. The subject site rear yard drains to subwatershed NMC_3. This drainage path is through a rear yard and then into part of Nine Mile Creek.

ENGINEERING DEPARTMENT

7450 Metro Boulevard • Edina, Minnesota 55439
www.EdinaMN.gov • 952-826-0371 • Fax 952-826-0392



-
8. Applicant may review local drainage features at the following links: <https://maps.barr.com/edina/> and http://edinamn.gov/index.php?section=engineering_water_resource.
 9. Required storm water and erosion control precautions are described below.

Site Storm Water

10. No increase in peak rate or volume to private property.
 - a. Plans as submitted provide a more than adequate solution for the needs of this site.
11. No increase in peak rate or volume to NMC_23.
 - a. Plans as submitted provide a more than adequate solution for the needs of this site.

Grading, Erosion and Sediment Control

12. Describe stockpile locations and erosion precautions.

ENGINEERING DEPARTMENT

7450 Metro Boulevard • Edina, Minnesota 55439
www.EdinaMN.gov • 952-826-0371 • Fax 952-826-0392



CONDITIONAL USE PERMIT APPLICATION

CASE NUMBER 2014.014 DATE 9/5/2014
FEE PAID

City of Edina Planning Department * www.cityofedina.com
4801 West Fiftieth Street * Edina, MN 55424 * (952) 826-0369 * fax (952) 826-0389

FEE: \$800.00

APPLICANT:

NAME: Steve Schwieters (Signature required on back page)

ADDRESS: 6117 Blue Circle Drive, Suite 101, Minnetonka, MN PHONE: 952-345-0543

EMAIL: steveo@wooddalebuilders.com, mjvvrud@wooddalebuilders.com

PROPERTY OWNER:

NAME: Chad & Jenny Helmer (Signature required on back page)

ADDRESS: 9481 Abbott Court, Eden Prairie, MN 55347 PHONE: 612-237-5211

LEGAL DESCRIPTION OF PROPERTY (written and electronic form):

LOT 11, Block 2 CREEK VALLEY ADDITION

PROPERTY ADDRESS:

5808 CREEK VALLEY ROAD

PRESENT ZONING: R1 P.I.D.# 05-116-21-31-0010

EXPLANATION OF REQUEST:

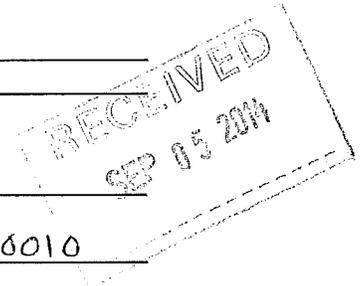
RAISE FIRST FLOOR 1'-6" Above existing floor (see Attached sheet)
(Use reverse side or additional pages if necessary)

ARCHITECT: NAME: Wooddale Builders PHONE: 952-345-0543

EMAIL: mjvvrud@wooddalebuilders.com

SURVEYOR: NAME: Hedlund Engineering PHONE: 651-203-6612

EMAIL: randyh@hedlundeng.com



Detailed Requirements: Unless waived by the Planning Department, you must complete all of the following items with this application. An incomplete application will not be accepted.

- ___ Application fee (not refundable). Make check payable to "City of Edina."
- ___ **Three (3) large** scaleable copies, one (1) electronic copy, and **thirty (30) 11X17** copies for Commission and Council members, of the following drawings or plans:
 - ___ Site plans with dimensions. The plan must include the location, dimensions and other pertinent information as to all proposed and existing buildings, structures and other improvements, streets, alleys, driveways, parking areas, loading areas and sidewalks. **Changes to site plans that are made after City Council approval, require an amended Conditional Use Permit. Amended Conditional Use Permits require a public hearing to be held by both the Planning Commission and City Council. The changes from the approved plan must be specifically listed by the builder or architect.**
 - ___ Floor plan showing location, arrangement and floor area of existing and proposed uses.
 - ___ Landscape plan and schedule in accordance with Sec. 36-1436 through Sec. 36-1457 of the City Code. **Changes to landscape plans that are made after City Council approval, require an amended Conditional Use Permit. Amended Conditional Use Permits require a public hearing to be held by both the Planning Commission and City Council. The changes from the approved plan must be specifically listed by the builder or architect.**
 - ___ A Building material sample board that shows the type of building materials that will be used on the building, including the selection of colors. **Changes to building materials or color that are made after City Council approval, require an amended Conditional Use Permit. Amended Conditional Use Permits require a public hearing to be held by both the Planning Commission and City Council. The changes from the approved plan must be specifically listed by the builder or architect.**
 - ___ Elevation drawings of all new buildings or additions and enlargements to existing buildings including a description of existing and proposed exterior building materials. **For single-family home projects, elevations drawings must include a rendering of the proposed home AND the existing homes on either side as seen from the street. Changes to the elevation drawings that are made after City Council approval, require an amended Conditional Use Permit. Amended Conditional Use Permits require a public hearing to be held by both the Planning Commission and City Council. The changes from the approved plan must be specifically listed by the builder or architect.**
 - ___ Registered survey showing existing and proposed structures, lot lines, pertinent dimensions, lot acreages and wetland delineation per the Wetland Conservation Act and City standards.
 - ___ Grading, drainage, erosion control and stormwater management plan. Grading plan must include existing and proposed two-foot contours, and location and size of

pipes and water storage areas. The grading and erosion control plan along with a stormwater management plan must be signed by a licensed professional engineer. The stormwater management plan must detail how stormwater will be controlled to prevent damage to adjacent property and adverse impacts to the public stormwater drainage system.

All drawings must be to scale with pertinent dimensions shown. Fold jumbo plans in sets no larger than 8 ½" by 14" and with the print side facing out.

___ A written statement describing the intended use of the property and why the City should approve your request. Include a brief description of your company and any similar projects your company has done.

___ sign plan for new or replacement signs: **two 8½" x 11"** copies

CONDITIONAL USE PERMIT GUIDELINES AND APPLICATION INFORMATION

The City of Edina Planning Department encourages healthy development within the city of Edina. Although this document is meant to serve as a guide for the application process for development through the Planning Department it is by no means comprehensive. The Planning Staff recommend that you schedule a meeting to answer any questions or to discuss issues that may accompany your project. It is much easier to tackle problems early on in the process. The office number for the Planning Staff is (952) 826-0465.

Application: Applications are submitted to the Planning Department. Offices are open Monday through Friday, 8 AM to 4:30 PM.*

Sign: The petitioner shall erect, or cause to be erected, at least one sign per street frontage on land described in the petition. Refer to City Code/Zoning Ordinance for specifics.

Meetings and Public Hearings: Applications are first considered by the Planning Commission at their regular monthly meeting (Wednesday prior to the first Tuesday of each month.) The Commission holds a public hearing and adopts a recommendation which is forwarded to the City Council for consideration. The Council also conducts a public hearing typically two and one-half weeks after the Commission meeting, and either approves or disapproves the application. A 3/5th favorable vote is required for approval.

Notice of Public Hearing: Notice of the Planning Commission and City Council hearing is mailed to all property owners (of record at City Hall) that are located within 1000 feet of the site. Notice is mailed ten (10) days prior to the hearing. You are encouraged to contact adjacent or close owners and advise them of your proposal prior to the Planning Commission meeting.

Requirements for Approval:

The Zoning Ordinance provides that a conditional use permit shall not be issued unless the use:

- Will promote and enhance the general public welfare and will not be detrimental to or endanger the public health, safety, morals and general welfare;
- Will not cause undue traffic hazards, congestion, or parking shortages;
- Will not be injurious to the use and enjoyment, or decrease the value, of other property in the vicinity, and will not be a nuisance;
- Will not impede the normal and orderly development and improvement of other property in the vicinity
- Will not create an excessive burden on parks, streets and other public facilities

- Conforms to the applicable restrictions and special conditions of the district in which it is located as imposed by the ordinance
- Is consistent with the Comprehensive Plan.

*Application deadline dates are 31 days prior to the Planning Commission meeting or at the discretion of the City Planner.

Staff Report: Staff prepares a report and recommendation and sends it along with the application materials to the Commission in advance of the meeting. All plans, emails and written information are public information, which may be used in the staff report and distributed to the public.

Conditions and Restrictions: The Council may impose conditions and restrictions in connection with the Conditional Use Permit to protect the public interest.

Legal Fee: It is the policy of the City to charge applicants for the actual cost billed by our attorneys for all legal work associated with the application. An itemized bill will be provided which is due and payable within thirty (30) days.

Initiation of a Traffic Study:*

Generally, the following typical development and zoning applications are intended to define the need for traffic studies to be considered by the Transportation Commission.

- A. Development approvals where an increase in trip generation is anticipated:
 - 1. Development where units are needed
 - 2. Development consisting of complete demolition/redevelopment
 - 3. Development of a site (where increasing floor space by more than 10%)

- B. Development or redevelopment is proposed in an area in which there has been a previous identification of a traffic problem, including but not limited to congestion or safety issues.

In cases where certain applications are received that do not necessitate a traffic study, staff will provide a summary to the Transportation Commission of such.

*please contact the Engineering Department at 952-826-0371 for further information.

APPLICANT'S STATEMENT

This application should be processed in my name, and I am the party whom the City should contact about this application. By signing this application, I certify that all fees, charges, utility bills, taxes, special assessments and other debts or obligations due to the City by me or for this property have been paid. I further certify that I am in compliance with all ordinance requirements and conditions regarding other City approvals that have been granted to me for any matter.

I have completed all of the applicable filing requirements and, to the best of my knowledge, the documents and information I have submitted are true and correct.



Applicant's Signature

9/5/14
Date

OWNER'S STATEMENT

I am the fee title owner of the above described property, and I agree to this application.

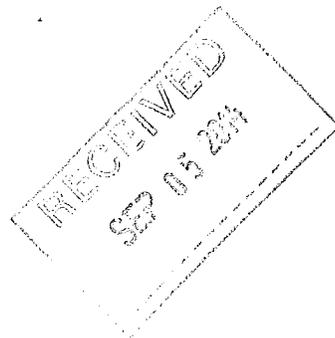
(If a corporation or partnership is the fee title holder, attach a resolution authorizing this application on behalf of the board of directors or partnership.)

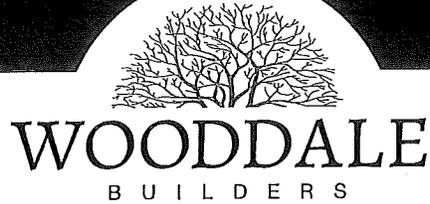


Owner's Signature

9/5/2014
Date

Note. Both signatures are required (if the owner is different than the applicant) before we can process the application, otherwise it is considered incomplete.





Wooddale Builders is representing Chad & Jennifer Helmer, the current homeowners at 5808 Creek Valley Road, Edina, MN. Wooddale Builders is applying for a CUP at 5808 Creek Valley Road, Edina, Mn. for the construction of a new house. The existing lowest floor elevation is 853.2 and we propose to raise it to 853.7. The reason for the CUP request is a result of the discrepancy between the City of Edina and Nine Mile Creek Watershed district's definition of the 100 year flood elevation. According to Laura Adler, CFM, Water Resource Coordinator of the City of Edina, she uses the FEMA flood insurance rate map and flood insurance study 100 year flood is 850.6. But according to Bob Obermeyer at Barr Engineering the 100 year flood is 852.7 M.S.L.

In order to meet Barr Engineering 100 year flood line of 852.7 M.S.L. we would need to raise the first floor 2.5 feet which doesn't meet Edina city code and does not fit in with the neighborhood. So we are "stuck" between Nine Mile Creek wanting us to raise the basement floor 1.5' and the City of Edina only allowing us to raise the first floor 1 foot.

We would like to meet somewhere in the middle and propose to raise the lowest floor elevation 6" to 853.7 which is 3.2 feet above the 100 year flood elevation from FEMA flood insurance rate map and 1 foot above Barr Engineering 100 year flood line of 852.7 M.S.L. This raises the first floor elevation to 863.3 which is 1.5 feet higher than existing first floor elevation.

PERMISSIBILITY
CITY OF EDINA
CIVIL ENGINEER
Free

Kris Aaker

From: Kay Duffney <kduffney@wooddalebuilders.com>
Sent: Wednesday, October 08, 2014 12:38 PM
To: Kris Aaker
Subject: NINE MILE APPROVAL
Attachments: 9 mile creek.pdf

I HAVE ATTACHED A COPY

*RE: 5808 Creek Valley
CUP REQUEST*



Kay Duffney
Administrative Assistant
Construction Loan Manager
Wooddale Builders, Inc.
6117 Blue Circle Drive, Suite 101
Minnetonka, MN 55343
Office: 952-345-0543
Fax: 952-345-0544
kduffney@wooddalebuilders.com

9 Mile Creek

W A T E R S H E D D I S T R I C T

7710 Computer Ave, Suite 135 • Edina, MN 55435 • 952-835-2078 • 952-835-2079 (fax) • www.ninemilecreek.org
September 22, 2014

Steve Schwietens
Wooddale Builders
6117 Blue Circle Drive
Minnetonka, MN 55343

RE: NMCWD Permit 2014-100: Helmer Home Project, 5808 Creek Valley Road, Edina

Dear Mr. Schwietens:

On Wednesday, September 17, 2014, the Nine Mile Creek Watershed District Board of Managers reviewed and approved the permit application for the construction of a single family home located at 5808 Creek Valley Road in Edina. The permit was approved with a variance to the NMCWD low floor elevation requirements in Rules 2.3.1 & 4.3.2. The NMCWD permit was approved with the following conditions.

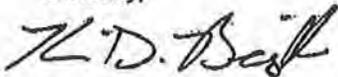
1. General Conditions
2. Provide a financial assurance in the amount of \$9,100. This should be in the form of a Letter of Credit or Performance Bond.
3. Receipt in recordation of a maintenance declaration for the storm water management facilities. A draft must be approved by the District prior to recordation.
4. A Phase I assessment or other documentation showing that the soils on the site where the infiltration area is to be constructed are not contaminated must be submitted to the District.
5. A letter from the property owner acknowledging the risk of flooding due to the low floor elevation variance and indemnifying the Nine Mile Creek Watershed District of any responsibility and/or damages from flooding.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.6, an as-built drawing of the storm water facilities conforming to the design specifications as approved by the District must be submitted.
2. Per Rule 3.4.4 markers identifying the wetland buffer shall be installed as stated.
3. Wetland buffer areas created in compliance with Rule 3.4.5.

The Nine Mile Creek Watershed District will hold the permit until items 2, 3, 4, & 5 are received by the District. Please contact me at (952) 835-2078 if you have any questions.

Sincerely,



Kevin D. Bigalke
District Administrator

c: Chad Helmer, Property Owner

Board of Managers

Steve Kloiber - Edina

Corrine Lynch - Eden Prairie

Louise Segreto - Edina

Jodi Peterson - Bloomington

Maressia Twele - Minnetonka

Interactive Maps

Find a PID or an address on the map

Welcome

Results

Links

- [Tax information](#)
- [View oblique imagery \(Bing maps\)](#)
- [Survey documents](#)
- [About the data](#)

PID: 0511621310010
 5808 Creek Valley Rd
 Edina, MN 55439

Owner/Taxpayer

Owner: L A Hagedorn /C A Zajicek Tr

Taxpayer: CHARLES A ZAJICEK
 5808 CREEK VALLEY RD
 EDINA MN 55439

Tax District

School Dist: 273

Sewer Dist:

Watershed Dist: 1

Parcel

Parcel Area: 0.48 acres
 20,799 sq ft

Torrens/Abstract: Torrens

Addition: Creek Valley Addn

Lot: 011

Block: 002

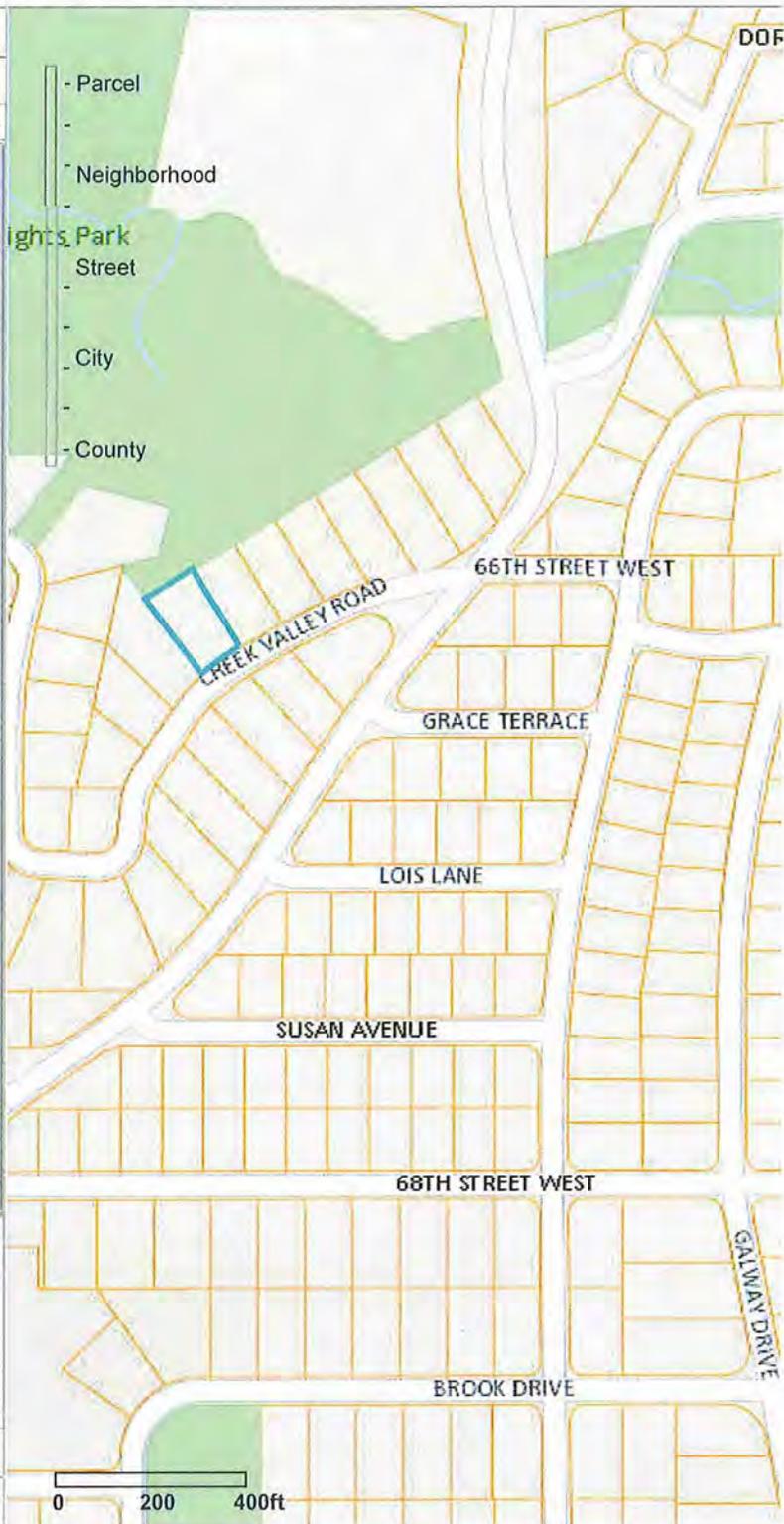
Metes & Bounds:

Tax Data (Payable 2014)

Market Value: ██████████

Legend

Measure



Interactive Maps

Find a PID or an address on the map

Welcome

Results

Links
[Tax information](#)
[View oblique imagery \(Bing maps\)](#)
[Survey documents](#)
[About the data](#)

PID: 0511621310010
 5808 Creek Valley Rd
 Edina, MN 55439

Owner/Taxpayer

Owner: L A Hagedorn /C A Zajicek Tr

Taxpayer: CHARLES A ZAJICEK
 5808 CREEK VALLEY RD
 EDINA MN 55439

Tax District

School Dist: 273

Sewer Dist:

Watershed Dist: 1

Parcel

Parcel Area: 0.48 acres
 20,799 sq ft

Torrens/Abstract: Torrens

Addition: Creek Valley Addn

Lot: 011

Block: 002

Metes & Bounds:

Tax Data (Payable 2014)

Market Value: ██████████

Legend

Measure



Interactive Maps

Find a PID or an address on the map

Welcome

Results

Links

- [Tax information](#)
- [View oblique imagery \(Bing maps\)](#)
- [Survey documents](#)
- [About the data](#)

PID: 0511621310010
 5808 Creek Valley Rd
 Edina, MN 55439

Owner/Taxpayer

Owner: L A Hagedorn /C A Zajicek Tr

Taxpayer: CHARLES A ZAJICEK
 5808 CREEK VALLEY RD
 EDINA MN 55439

Tax District

School Dist: 273

Sewer Dist:

Watershed Dist: 1

Parcel

Parcel Area: 0.48 acres
 20,799 sq ft

Torrens/Abstract: Torrens

Addition: Creek Valley Addn

Lot: 011

Block: 002

Metes & Bounds:

Tax Data (Payable 2014)

Market Value: \$██████

Legend

Measure



SITE ADDRESS: 5808 CREEK VALLEY RD.
EDINA, MN 55439

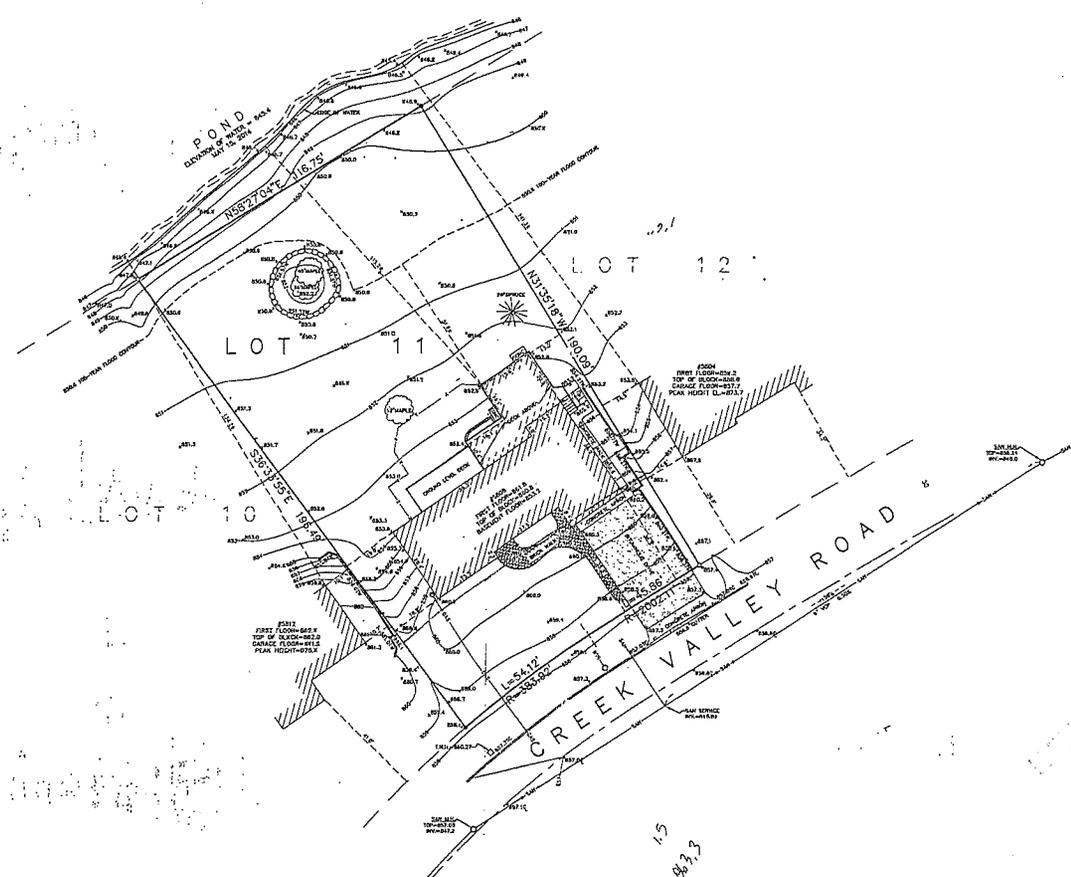
EXISTING CONDITION SURVEY FOR: GREAT NEIGHBORHOOD HOMES

Legend

- Fence
- SAN- Sanitary Sewer
- WTR- Water
- GAS- Underground Gas
- Manhole
- ⊙ Gas Meter
- ⊙ Water Shut Off Valve
- ⊙ Hydrant
- Concrete Curb
- Boulder Retaining Wall
- Timber Retaining Wall
- Keystone Retaining Wall
- x900.0 Existing Elevation
- x900.0TC Top of Curb Elevation
- x900.0TW Top of Wall Elevation
- 900- Existing Centreline
- B50.6- 100-Year Flood Contour
- Denotes Iron Monument Found
- Denotes Set, 1/2" x 14" Iron Pipe w/ Plastic Cap inscribed R.L.S. 15230.



SCALE: 1 INCH = 20 FEET



PROPERTY DESCRIPTION: Lot 11, Block 2, CREEK VALLEY ADDITION,
Hennepin County, Minnesota.

BENCHMARK: T.M. at #5708 Creek Valley Rd.
Elevation = 673.00.

NOTE: No Search Was Made For Any Easements

NOTE: The location of all utilities shown are from plans furnished by the utility companies and are approximate. Utility companies should be notified for exact location before doing any excavation.

I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly registered Land Surveyor under the laws of the State of Minnesota.

W. BROWN LAND SURVEYING, INC.

Woodrow A. Brown
Woodrow A. Brown, R.L.S. MN REG 15230

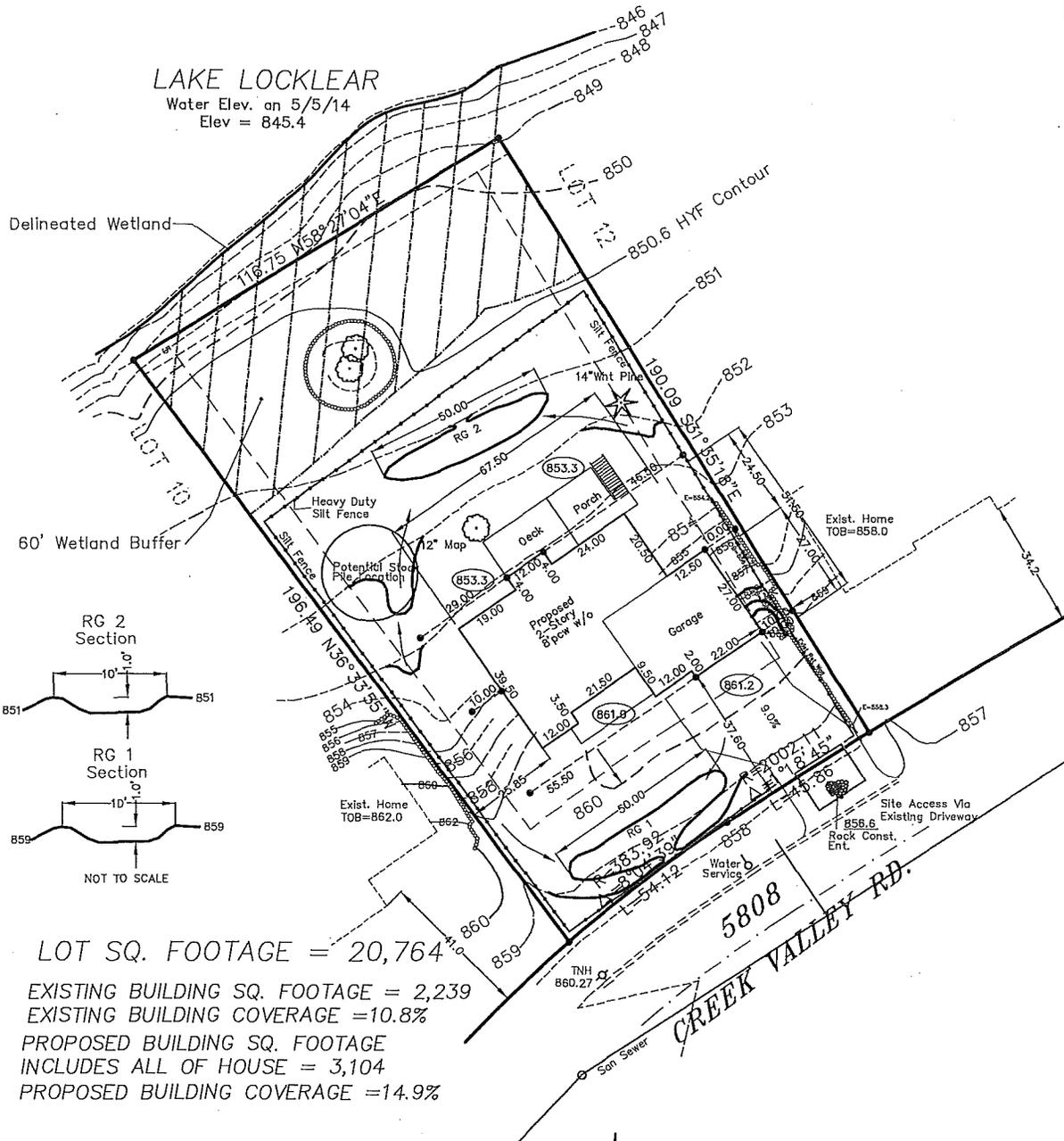
Dated: 05-18-2014

EXISTING AREA CALCULATION:
Lot Area = 20,762 SF
IMPERVIOUS SURFACE:
House (Including Porch Below Deck) = 2,631 SF
Upper Level Deck (Excluding Porch Above House) = 100 SF
Ground Level Deck Less 150 SF Allowance = 116 SF
Total = 3,847 SF
= 14.7%

W. BROWN LAND SURVEYING, INC.
8030 Cedar Avenue Sw, Suite 228.
Boemington, MN 55425
Bus: (952) 854-4955
Fax: (952) 854-4266

Surveyor's Certificate

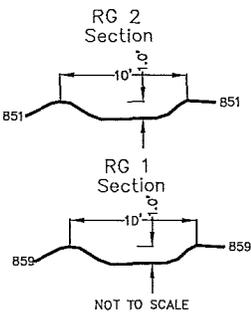
SURVEY FOR : Wooddale
 DESCRIBED AS : Lot 11, Block 2, CREEK VALLEY ADDITION, City of Edina, Hennepin County, Minnesota and reserving easements of record.



LAKE LOCKLEAR
 Water Elev. on 5/5/14
 Elev = 845.4

Delineated Wetland

60' Wetland Buffer



LOT SQ. FOOTAGE = 20,764
 EXISTING BUILDING SQ. FOOTAGE = 2,239
 EXISTING BUILDING COVERAGE = 10.8%
 PROPOSED BUILDING SQ. FOOTAGE
 INCLUDES ALL OF HOUSE = 3,104
 PROPOSED BUILDING COVERAGE = 14.9%

PROPOSED ELEVATIONS

- Top of Foundation = 861.7
- Garage Floor = 861.3
- Basement Floor = 853.7
- Aprox. Sewer Service = Verify
- Proposed Elev. =
- Existing Elev. =
- Drainage Directions =
- Denotes Offset Stake =

BENCHMARK,

MIN. SETBACK REQUIREMENTS

Front - 37.6 House Side -10
 Rear - 60 Garage Side -10
 From 850 Contour

SCALE: 1 Inch = 30 feet



HEDLUND
 PLANNING ENGINEERING SURVEYING
 2005 Pin Oak Drive
 Eagan, MN 55122
 Phone: (651) 405-6600
 Fax : (651) 405-6600

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT REPRESENTATION OF THE BOUNDARIES OF THE ABOVE DESCRIBED PROPERTY AS SURVEYED BY ME OR UNDER MY DIRECT SUPERVISION AND DOES NOT PURPORT TO SHOW IMPROVEMENTS OR ENCROACHMENTS, EXCEPT AS SHOWN.

DATE 9 / 22 / 14

Jeffrey D. Lindgren
 JEFFREY D. LINDGREN, LAND SURVEYOR
 MINNESOTA LICENSE NUMBER 14376

JOB NO:
 14R-113
 BOOK: PAGE:
 CAD FILE:
 Misc-14

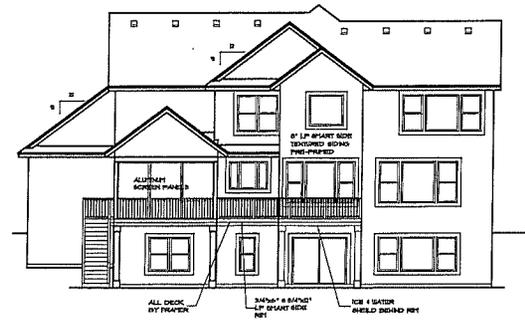
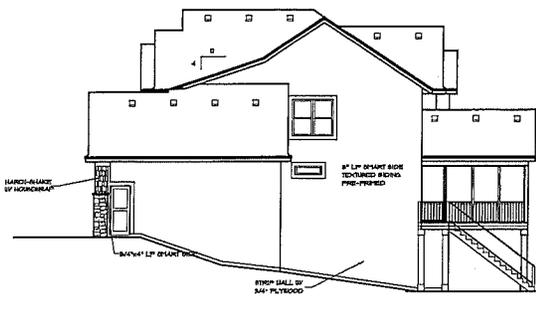
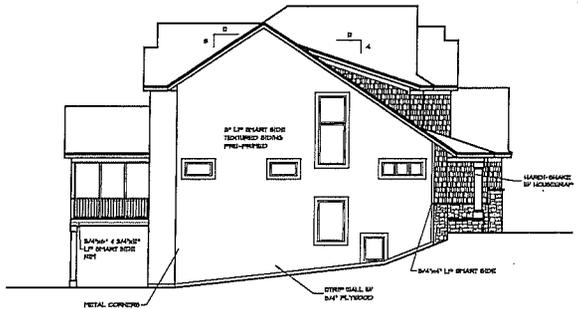
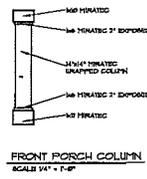
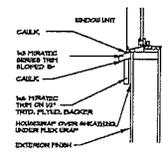
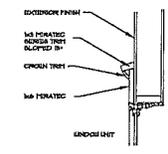
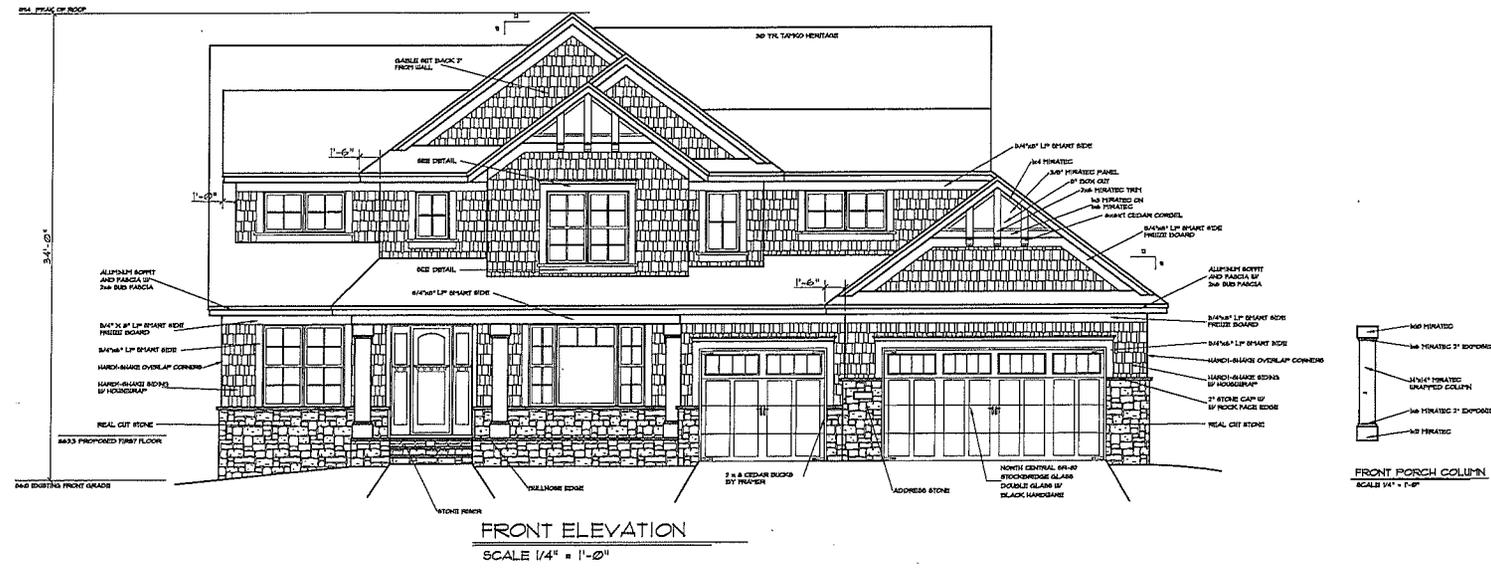
DRAWN BY:	WJT-A
DATE:	6-25-14
REVISIONS	
	7-15-14
	7-23-14
	8-13-14
	8-25-14

CHAD & JENNIFER HELMER
 5808 CREEK VALLEY ROAD
 EDINA, MN

TRADITIONAL SERIES
 WOODDALE BUILDERS, INC.
 6009 BLUE CIRCLE DR.
 MINNETONKA, MN 55343
 PH: 952-345-0543



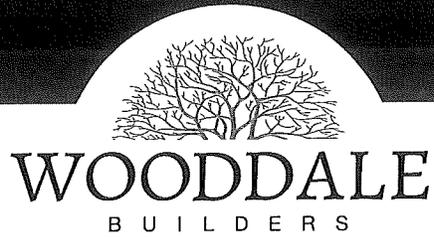
SHEET NO.
A1
 OF
 5



ICE DAM PROTECTION
 1 LAYER OF 1/2" COATED ROOFING OR COATED ISLAND IS SHOWN HERE SHALL BE APPLIED FROM THE EAVES TO A LINE 1/4" INSIDE THE EXTERIOR WALL. LINE WITH ALL LAPS CENTERED TOGETHER.

ATTIC VENTILATION
 PROVIDE ATTIC VENTILATION EQUAL TO VOLUME OF ATTIC AREA.
 ROOF VENTS - 1 SQ. FT.
 GORTY VENTS - 5 SQ. FT.

FLASHING
 FLASHING TO BE INSTALLED UNDER ALL PORCHES, PATIO, JUNCTION OF ROOF AND WALL, GUTTERS, ROOF VALLEY, CHANGE OF ROOF MATERIALS OR SHINGLES BEHIND FEET, A TRIM BOARD AT BOTTOM OF A GABLE.
 PATIO DOORS TO HAVE FLASHING UNDER THRESHOLD AND BEHIND THRESHOLD SUPPORT. ALL OPENINGS TO EXTERIOR MUST BE CALLED & FLASHED.



Color Selections for 5808 Creek Valley, Edina

1. Color: Classic Gray by Benjamin Moore (BM-OC23) Flat
Garage Doors
Overhangs
Soffits
Window Trim
Front Columns
Gable Trim Detail
Deck Posts
Deck Rims
2. Color: Old Monterey -Note Color formula on sample by Mpls CSC #19 612-377-9970
Hardi- Shakes – Front
Hardi Lap 3 Rear Sides
3. Window Color is White
4. Exterior Stone is Dutch Quality Ashen Weather Ledge
5. Roof Shingles are 30 Year Tanko Heritage, Color: Rustic Black

EMERSON
612-431-1314



TAMKO
SHINGLE PRODUCTS
tamko.com

HERITAGE SERIES



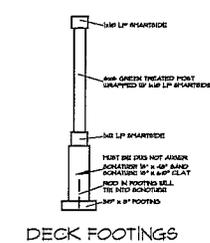
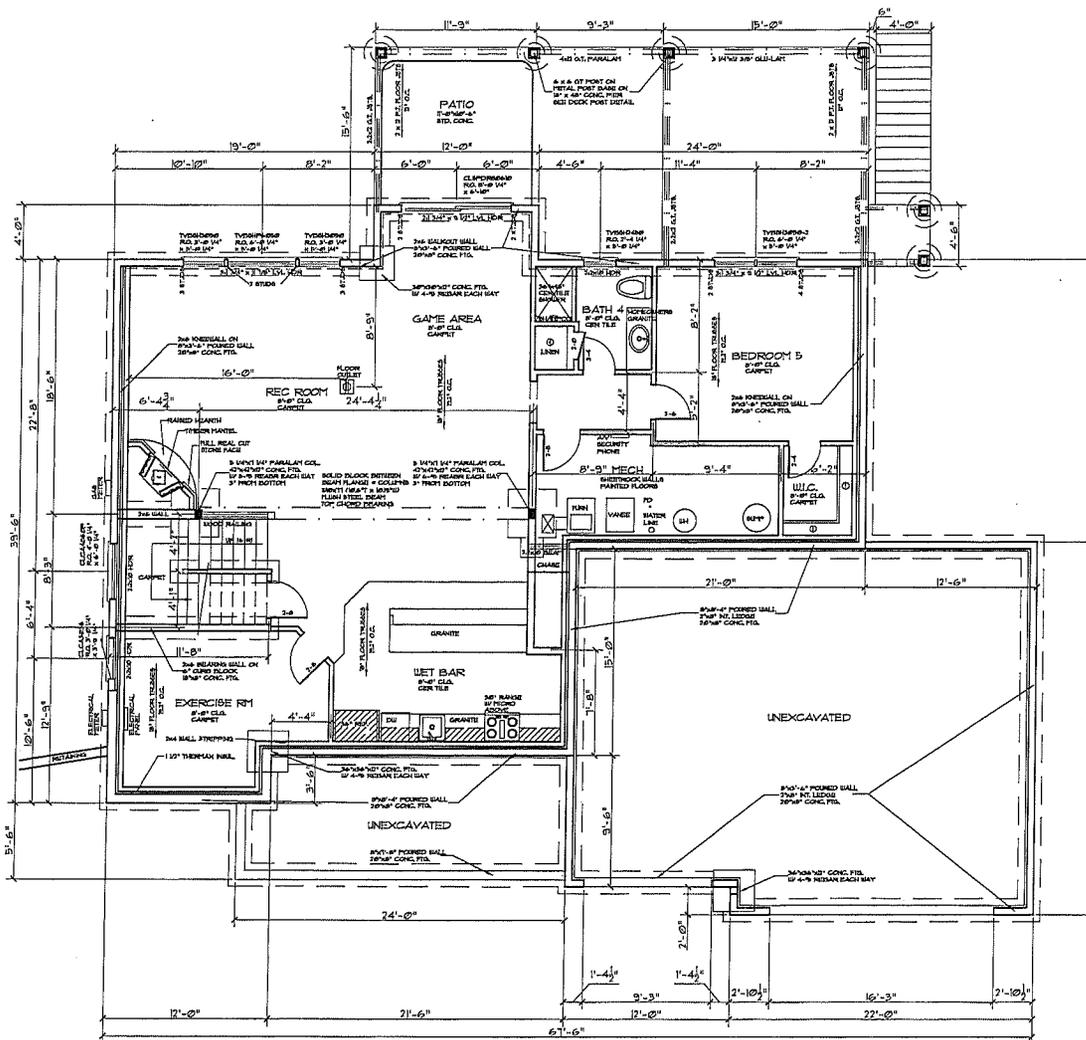
Approved by
CSI
Concrete Slab Institute
Manufactured with
95% Recycled Content



Feature Color:
Black Walnut



© 2011 Tamco Shingle Products, Inc. All rights reserved. This is a sample board and not a representation of the actual product. The actual product may vary in color and texture. The actual product may vary in color and texture. The actual product may vary in color and texture.



DECK FOOTINGS

NOTES:
 - 1 1/2" THERMAX W/ FIBERATED FOIL INSIDE
 - GLUED TO WALL, ALL JOINTS TAPED
 - SPRAYED RIMS 2 1/2" R-16 (ALL RIMS)

MAIN FLOOR	1755 SQ. FT.
SECOND FLOOR	2079 SQ. FT.
1ST & 2ND TOTAL	3834 SQ. FT.
LOWER FLOOR	1594 SQ. FT.
TOTAL FINISHED	5428 SQ. FT.
SCREEN PORCH	233 SQ. FT.
GARAGE	876 SQ. FT.

LOWER LEVEL FOUNDATION:
 Poured Conc. 8'-4"
 Windows and Doors: 6'-10 1/2"
 Top of R.O.: 6'-10 1/2"
 Plygem Windows & Patio Doors
 R.O. 3/4" Larger than Frame Size

FOUNDATION PLAN
 SCALE 1/4" = 1'-0"

DRAWN BY:
 WATT
 DATE:
 9-23-14

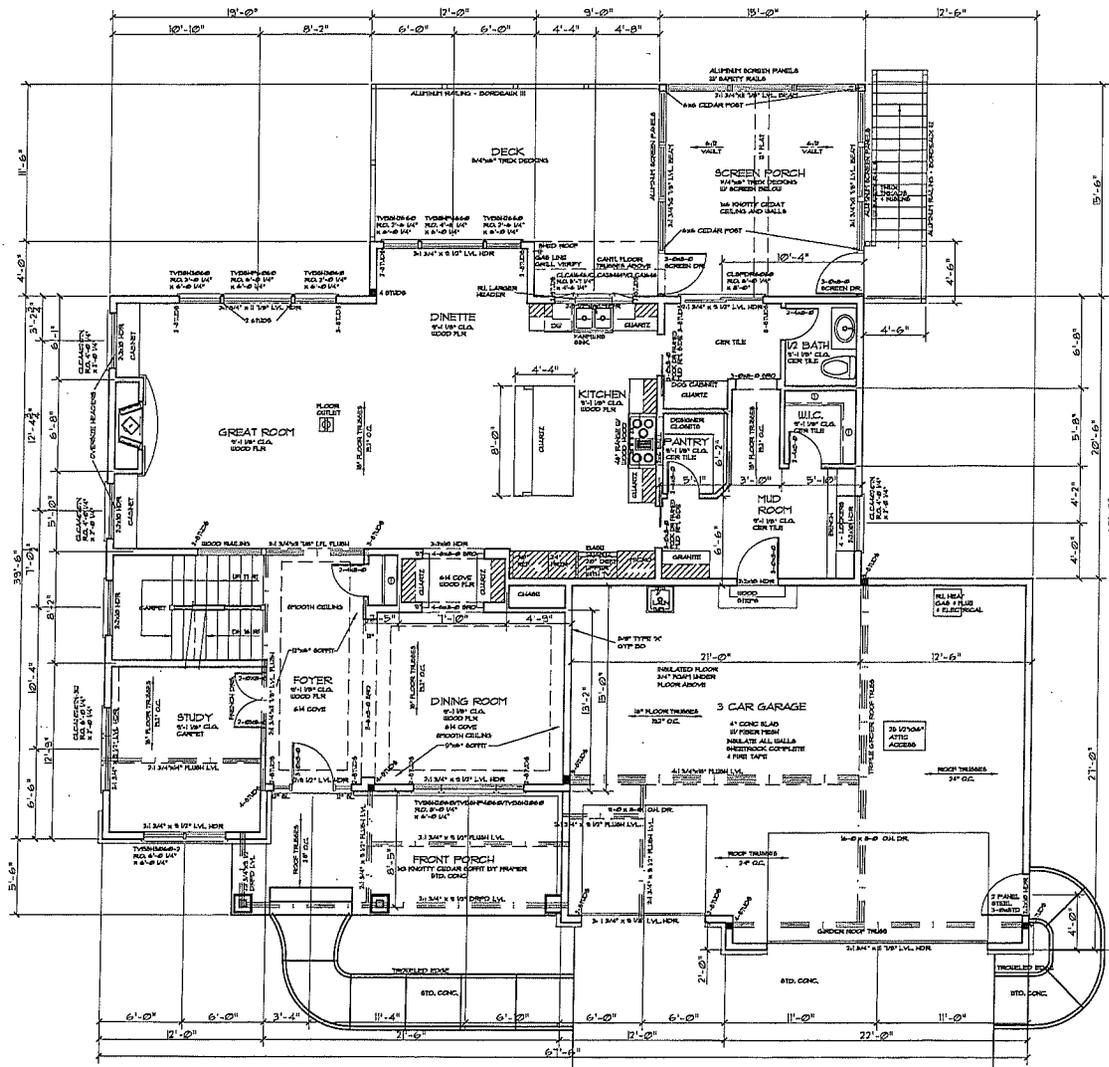
REVISIONS
 1-16-14
 7-25-14
 8-13-14
 8-28-14

CHAD & JENNIFER HELMER
 5808 CREEK VALLEY ROAD
 EDINA, MN

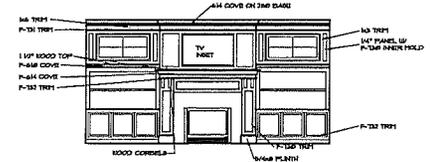
TRADITIONAL SERIES
 WOODDALE BUILDERS, INC.
 6009 BLUE CIRCLE DR.
 MINNETONKA, MN 55343
 PH: 952-385-0951



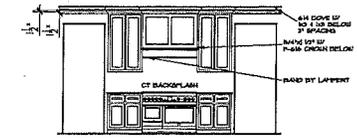
SHEET NO.
A2
 OF
 5



FIRST FLOOR PLAN
SCALE 1/4" = 1'-0"



GREATROOM FIREPLACE
SCALE 1/4" = 1'-0"



KITCHEN HOOD
SCALE 1/4" = 1'-0"

MAIN FLOOR	1755 SQ. FT.
SECOND FLOOR	2073 SQ. FT.
1ST & 2ND TOTAL	3828 SQ. FT.
LOWER FLOOR	1594 SQ. FT.
TOTAL FINISHED	5428 SQ. FT.
SCREEN PORCH	233 SQ. FT.
GARAGE	816 SQ. FT.

MAIN FLOOR:
WALLS: PLATE HEIGHT, 9'-1 1/8"
WINDOWS AND DOORS: TOP OF R.O., 8'-0"
FLYGEN WINDOWS & PATIO DOORS: R.O. 3/4" LARGER THAN FRAME SIZE.

DRAWN BY:
MATT J.

DATE:
8-2-14

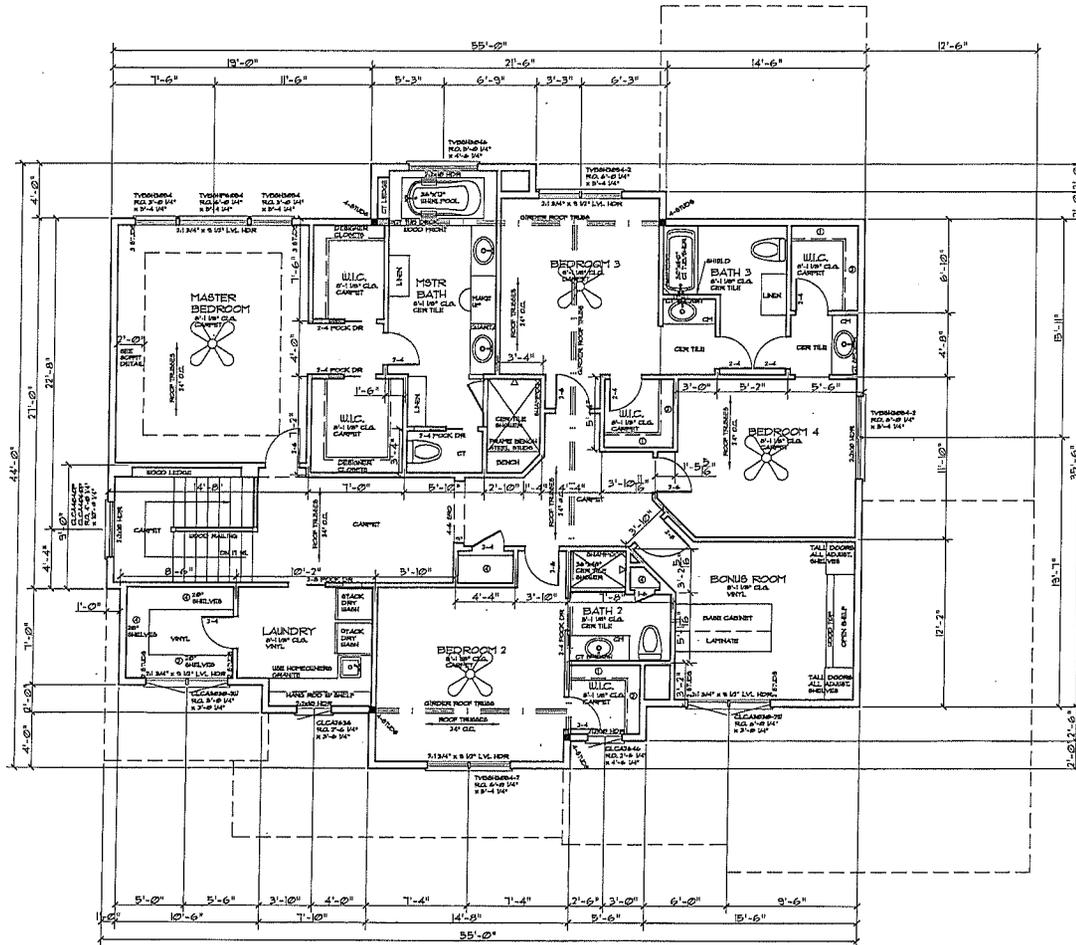
REVISIONS

7-18-14	
7-25-14	
8-13-14	
8-28-14	

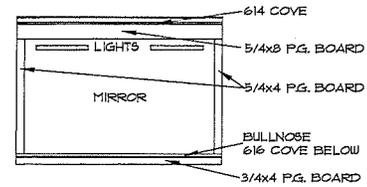
TRADITIONAL SERIES
WOODDALE BUILDERS, INC.
1000 CENTER DR.
MINNETONKA, MN 55345
PH: 952-945-0543



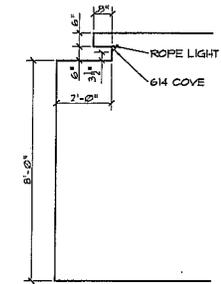
SHEET NO.
A3
OF
5



SECOND FLOOR PLAN
SCALE 1/4" = 1'-0"



MASTER BATH MIRROR FRAME
SCALE 1/2" = 1'-0"



MASTER BEDROOM SOFFIT
SCALE 1/2" = 1'-0"

MAIN FLOOR	1755 SQ. FT.
SECOND FLOOR	2079 SQ. FT.
1ST & 2ND TOTAL	3834 SQ. FT.
LOWER FLOOR	1594 SQ. FT.
TOTAL FINISHED	5429 SQ. FT.
SCREEN PORCH	233 SQ. FT.
GARAGE	876 SQ. FT.

SECOND FLOOR:	
WALLS:	
PLATE HEIGHT:	8'-1 1/8"
WINDOWS AND DOORS:	6'-11 3/8"
TOP OF ROOF:	6'-11 3/8"
FLYER/ WINDOW & PATIO DOORS:	RO-3/4" LARGER THAN FRAME SIZE

DRAWN BY:
WAT 1

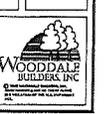
DATE:
8-2-14

REVISIONS

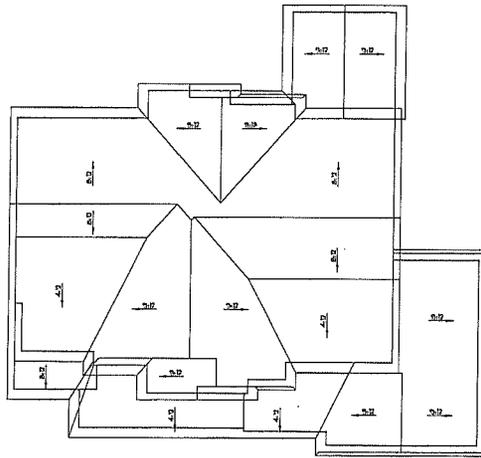
1	11-18-14
2	1-25-14
3	8-13-14
4	8-26-14

TRADITIONAL SERIES
CHAD & JENNIFER HELMER
5808 CREEK VALLEY ROAD
EDINA, MN

WOODDALE BUILDERS, INC.
609 BLUE CIRCLE DR.
MINNETONKA, MN 55345
PH: 952-345-0241

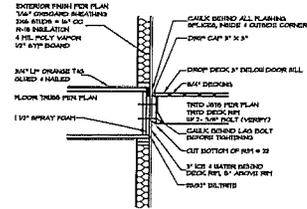


SHEET NO.
A4
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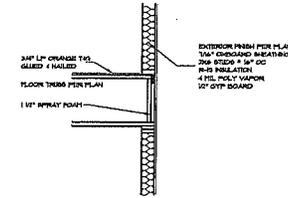


ROOF PLAN
SCALE 1/8" = 1'-0"

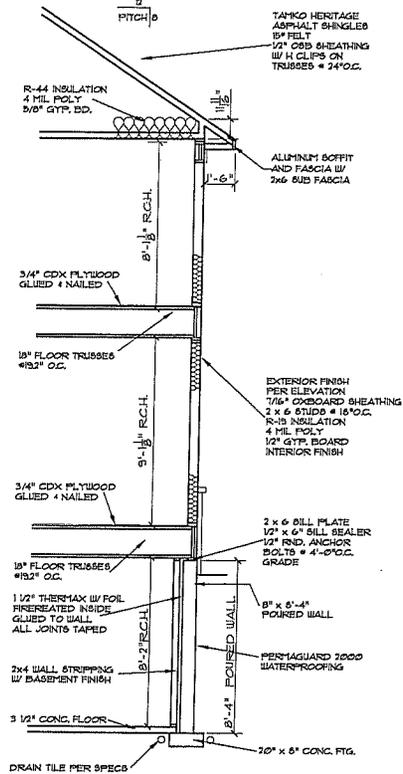
- GENERAL NOTES:**
- TYPICAL OVERHANGS (L.N. O.)
 - 3" AT EAVES
 - 2" AT GABLES
 - VENTILATE ROOF TO VACUUM OF INSULATED CEILING AREA
 - 50% IN EAVES
 - 10% IN UPPER 1/3 ATTIC



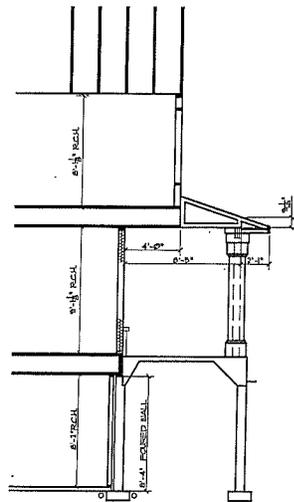
LEDGER DETAIL
SCALE 1/2" = 1'-0"



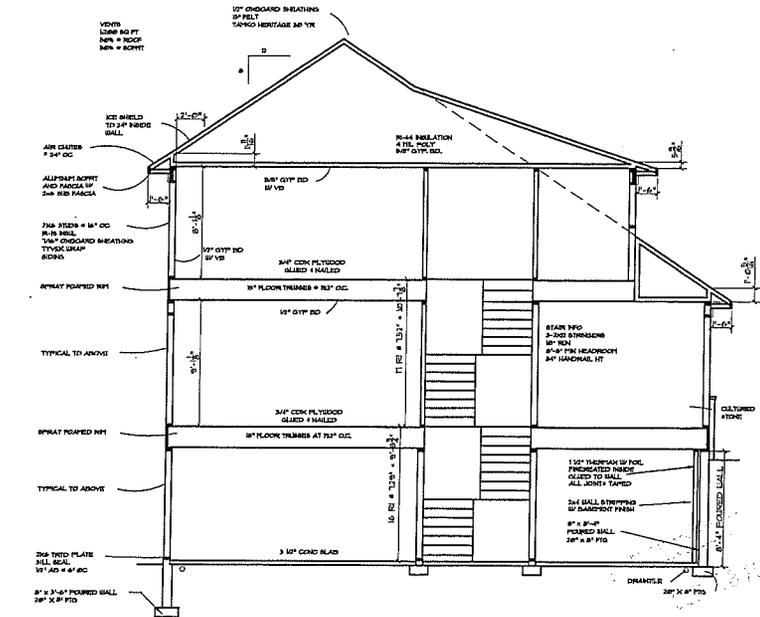
RIM DETAIL
SCALE 1/2" = 1'-0"



TYPICAL CROSS SECTION
SCALE 3/8" = 1'-0"



FRONT PORCH SECTION
SCALE 1/4" = 1'-0"



TYPICAL CROSS SECTION
SCALE 1/4" = 1'-0"

DRAWN BY:
MATT L

DATE:
9-22-14

REVISIONS	DATE
	7-15-14
	7-25-14
	8-22-14
	8-25-14

TRADITIONAL SERIES
CHAD & JENNIFER HELMER
WOODDALE BUILDERS, INC.
5808 CREEK VALLEY ROAD
EDINA, MN

WOODDALE BUILDERS, INC.
8008 BULLOCK AVE
MINNETONKA, MN 55343
PH: 952-345-0943



SHEET NO.
A5
OF
5

5812 CREEK VALLEY ROAD



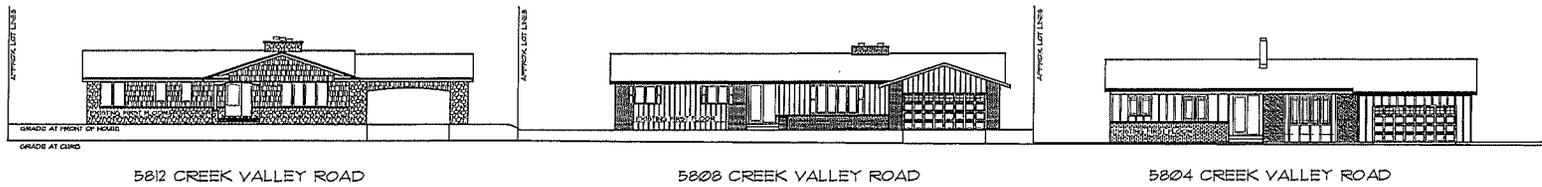


GRASS, TREES & LANDSCAPE
WOODDALE BUILDERS
855 315-0543
City of Edina Commission
City of Edina
855 315-0543

5808 CREEK VALLEY ROAD



5804 CREEK VALLEY ROAD



5812 CREEK VALLEY ROAD

5808 CREEK VALLEY ROAD

5804 CREEK VALLEY ROAD

EXISTING HOMES



5812 CREEK VALLEY ROAD

5808 CREEK VALLEY ROAD

5804 CREEK VALLEY ROAD

PROPOSED HOME

DRAWN BY:
MATT J.

DATE:
8-28-14

REVISIONS

7-16-14	
7-25-14	
8-12-14	

CHAD & JENNIFER HELMER

5808 CREEK VALLEY ROAD
EDINA, MN

TRADITIONAL SERIES

WOODDALE BUILDERS, INC.

6809 BLUE CIRCLE DR.
MINNETONKA, MN 55343
PH. 952-345-0543



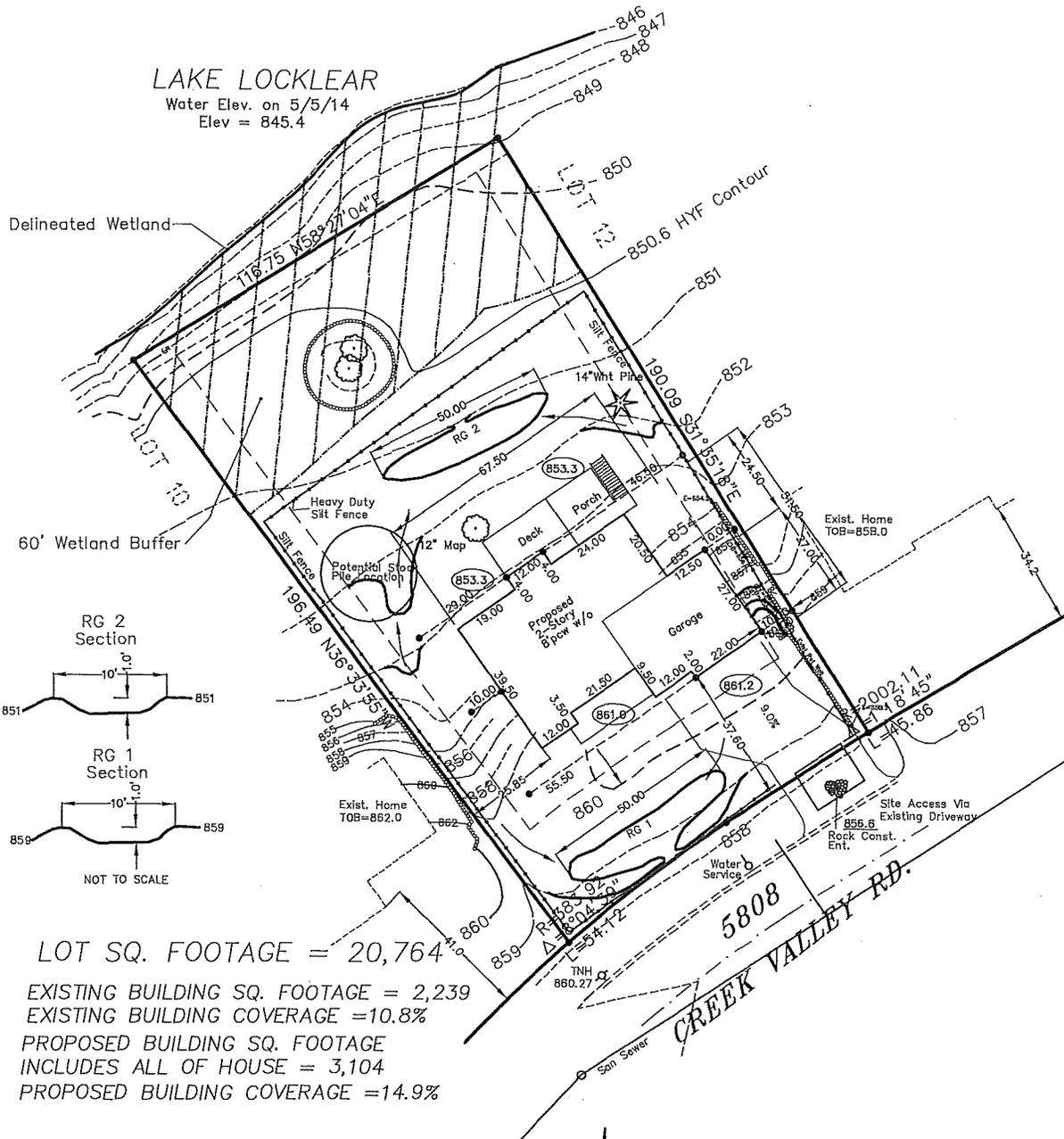
SHEET NO.

5

11/11/14
11/11/14
11/11/14

Stormwater and Erosion Control Plan

SURVEY FOR : Wooddale
 DESCRIBED AS : Lot 11, Block 2, CREEK VALLEY ADDITION, City of Edina, Hennepin County, Minnesota and reserving easements of record.



LOT SQ. FOOTAGE = 20,764
 EXISTING BUILDING SQ. FOOTAGE = 2,239
 EXISTING BUILDING COVERAGE = 10.8%
 PROPOSED BUILDING SQ. FOOTAGE
 INCLUDES ALL OF HOUSE = 3,104
 PROPOSED BUILDING COVERAGE = 14.9%

PROPOSED ELEVATIONS

- Top of Foundation = 861.7
- Garage Floor = 861.3
- Basement Floor = 853.7
- Aprox. Sewer Service = Verify
- Proposed Elev. =
- Existing Elev. =
- Drainage Directions =
- Denotes Offset Stake =

BENCHMARK,

MIN. SETBACK REQUIREMENTS

- Front - 37.6
- House Side - 10
- Rear - 60
- Garage Side - 10
- From 850 Contour

SCALE: 1 inch = 30 feet

HEDLUND
 PLANNING ENGINEERING SURVEYING
 2005 Pin Oak Drive
 Eagan, MN 55122
 Phone: (651) 405-6600
 Fax : (651) 405-6606

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

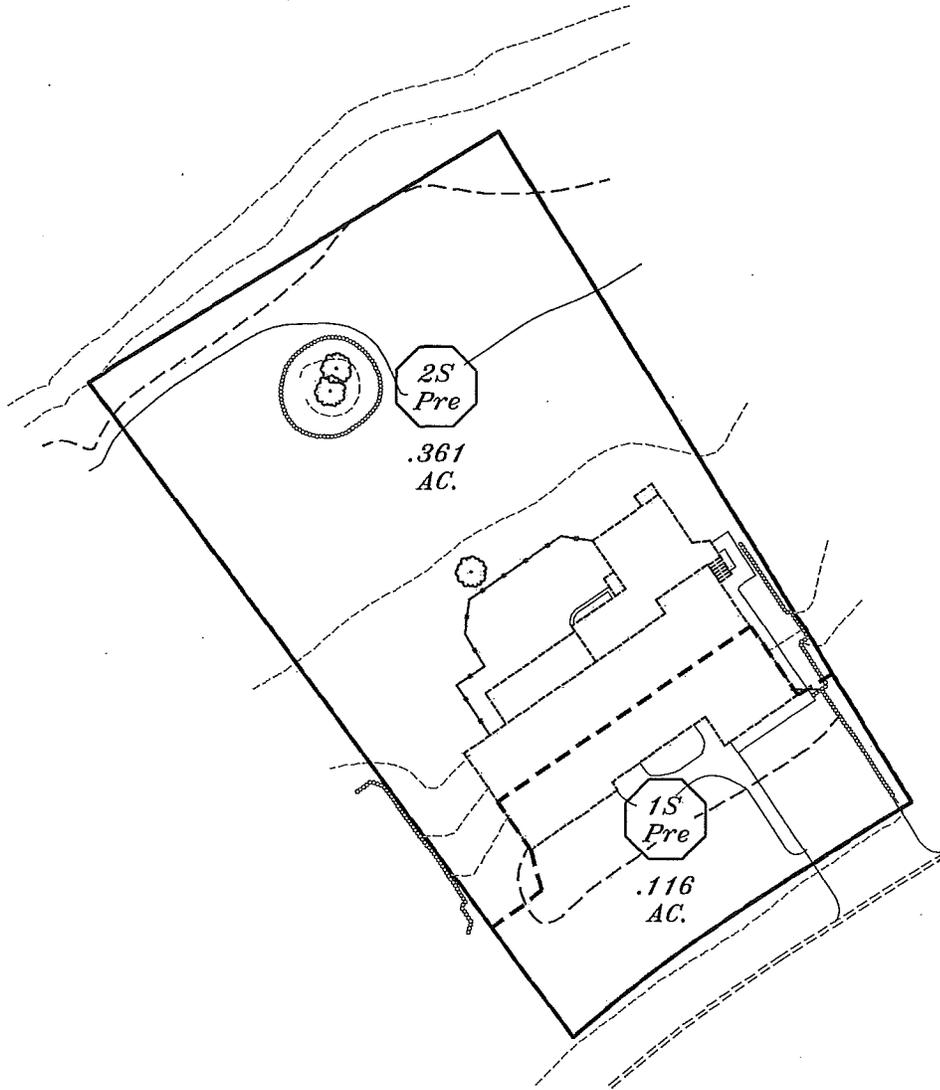
DATE 9 / 17 / 14

RANDALL C. HEDLUND
 MINNESOTA LICENSE NUMBER 19576

JOB NO:	14R-113
PAGE:	1 of 2
CAD FILE:	Misc-14

Surveyor's Certificate

SURVEY FOR :
 DESCRIBED AS : EXISTING HOUSE DRAINAGE MAP



PROPOSED ELEVATIONS

- Top of Foundation =
- Garage Floor =
- Basement Floor =
- Aprox. Sewer Service =
- Proposed Elev. =
- Existing Elev. =
- Drainage Directions =
- Denotes Offset Stake =



SCALE: 1 inch = 30 feet

BENCHMARK,

MIN. SETBACK REQUIREMENTS

- Front - House Side -
- Rear - Garage Side -

HEDLUND

PLANNING ENGINEERING SURVEYING

2005 Pin Oak Drive
 Eagan, MN 55122
 Phone: (651) 405-6600
 Fax : (651) 405-6806

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT REPRESENTATION OF THE BOUNDARIES OF THE ABOVE DESCRIBED PROPERTY AS SURVEYED BY ME OR UNDER MY DIRECT SUPERVISION AND DOES NOT PURPORT TO SHOW IMPROVEMENTS OR ENCROACHMENTS, EXCEPT AS SHOWN.

DATE ___/___/___

JEFFREY D. LINDGREN, LAND SURVEYOR
 MINNESOTA LICENSE NUMBER 14376

JOB NO:

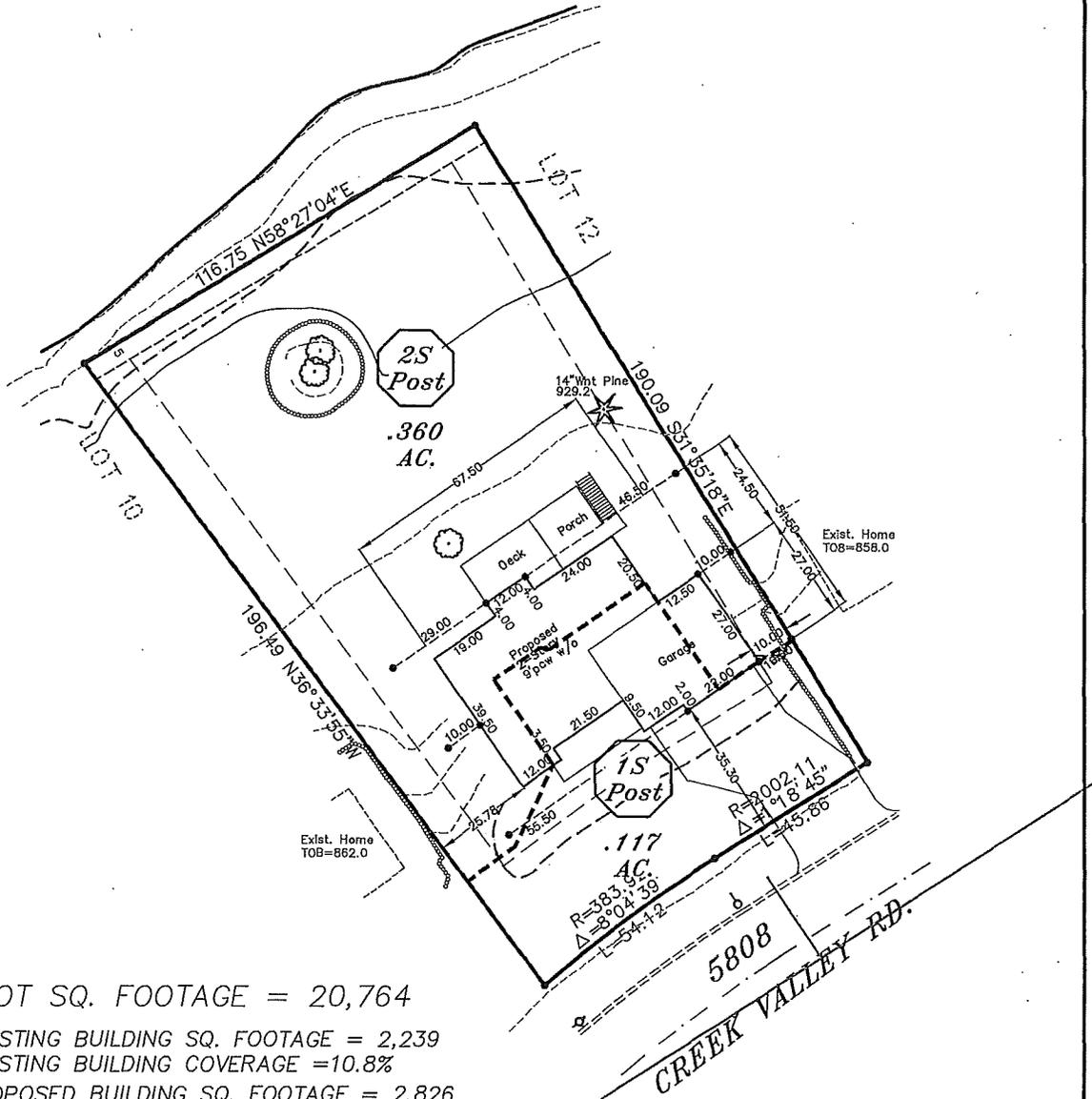
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CAO FILE:

Surveyor's Certificate

SURVEY FOR : Wooddale
 DESCRIBED AS : Lot 11, Block 2, CREEK VALLEY ADDITION, City of Edino, Hennepin County,
 Minnesota and reserving easements of record.
 PROPOSED HOUSE DRAINAGE MAP



LOT SQ. FOOTAGE = 20,764

EXISTING BUILDING SQ. FOOTAGE = 2,239

EXISTING BUILDING COVERAGE = 10.8%

PROPOSED BUILDING SQ. FOOTAGE = 2,826

PROPOSED BUILDING COVERAGE = 13.6%

PROPOSED ELEVATIONS

- Top of Foundation =
- Garage Floor =
- Basement Floor =
- Aprox. Sewer Service =
- Proposed Elev. = 
- Existing Elev. = 
- Drainage Directions = 
- Denotes Offset Stake = 

SCALE: 1 inch = 30 feet

BENCHMARK,

MIN. SETBACK REQUIREMENTS

- Front - House Side -
- Rear - Garage Side -

HEDLUND

PLANNING ENGINEERING SURVEYING

2005 Pin Oak Drive
 Eagan, MN 55122

Phone: (651) 405-6600
 Fax : (651) 405-6606

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT REPRESENTATION OF THE BOUNDARIES OF THE ABOVE DESCRIBED PROPERTY AS SURVEYED BY ME OR UNDER MY DIRECT SUPERVISION AND DOES NOT PURPORT TO SHOW IMPROVEMENTS OR ENCROACHMENTS, EXCEPT AS SHOWN.

DATE 0 / 0 / 0

JEFFREY D. LINDGREN, LAND SURVEYOR
 MINNESOTA LICENSE NUMBER 14376

JOB NO:

14R-113

BOOK:

PAGE:

CAD FILE:

Misc-14

Stormwater and Erosion Control Plan

SURVEY FOR : Wooddale
DESCRIBED AS : Lot 11, Block 2, CREEK VALLEY ADDITION, City of Edina, Hennepin County, Minnesota and reserving easements of record.

SITE MAINTENANCE

- Maintenance for site cleanliness and mainting erosion control will be by Dave Pautz of Pautz Const. Phone (952) 447-1299
- Concrete washout will not be permitted on site unless an approved disposal container is supplied
- No temporary pumping of standing water allowed. Standing water must infiltrate or evaporate

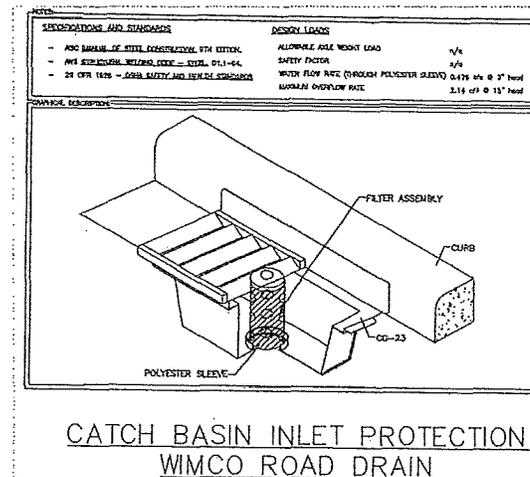
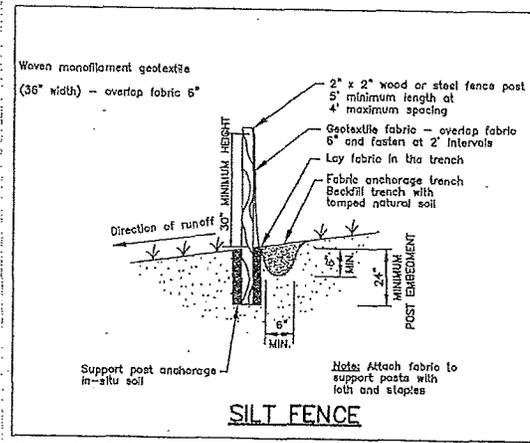
SEDIMENT & EROSION CONTROL NOTES

- All exposed soil areas, including temporary stockpiles, must be stabilizes as soon as possible but in no case later than 14 days after construction activity in that portion of the site has temporarily or permanently ceased. Stabilize with temporary seed and straw mulch applied at 2 tons per acres.
- Silt fence shall be installed and at the locations shown on the plan and around any stockpiles. Silt fence shall be inspected and maintained weekly (and within 24 hrs of a 0.5 inch rainfall) until final seeding and mulching (or sodding) of lot.
- A rock construction entrance shall be installed and maintained at the location shown on the plan.
- Contractor or Permittee shall provide and maintain inlet protection on all storm drain inlets that will receive sediment laden flow as a result of construction. Inlet protection and maintenance shall remain in place until all sources with potential for discharge into the inlet have been stabilized. Inlet protection may be removed from a particular inlet if a specific safety concern (such as flooding) has been identified. The permittee must receive written correspondence from the City of Edina verifying the need for removal. Permittee shall conduct a visual inspection to determine which inlets need protection.
- If down gradient sediment practices are overloaded, additional up gradient erosion control practices will be installed to reduce loading.
- Dust control is the responsibility of the permit holder. The permit holder must eliminate dust problems upon receiving notice from the Building Official that there is a dust problem.
- NINE MILE CREEK WATERSHED DISTRICT.**
 A separate permit may be required, Call (952) 835-2078
- Street cleaning shall occur daily or as needed.

STORMWATER

This Stormwater Management Plan (in narrative form) must detail how stormwater will be controlled to prevent damage to adjacent property and adverse impacts to the public stormwater drainage system.

- Permit holder shall inspect and maintain sediment and erosion control devices (i.e.: silt fence and inlet protection) weekly (or within 24 hrs of a 0.5 inch or more rainfall). Sediment must be removed when it is 1/3 the height of the sediment and erosion control device.
- Final grading on the lot shall minimize concentrated flow. Final drainage patterns shown are similar to the existing conditions of the lot.
- Maintain ten feet of existing vegetation in front of the down slope silt fence for storm water dissipation and cleaning
- No increase in peak flow or volume to private properties to the south will occur with this new construction



HEDLUND

PLANNING ENGINEERING SURVEYING

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 Eagon, MN 55122
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE 9 / 2 / 14

Randall C. Hedlund
 RANDALL C. HEDLUND
 MINNESOTA LICENSE NUMBER 19576

JOB NO:
14R-113

PAGES:
2 of 2

CAD FILE:
Misc-14

**Hydrology Summary and Storm Water
Management Plan for
5808 Creek Valley Road
Edina, Minnesota**

Prepared for Wooddale Builders

By:

Hedlund Engineering, Inc.
2005 Pin Oak Drive
Eagan, MN 55122
August 28, 2014

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2.0 Permit Requirements

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Hydrocad for 2yr, 10yr, and 100yr events and the 2.5 in. storm

Existing house drainage map

Proposed house drainage map

1.0 Proposed Development

Wooddale Builders is proposing to build a new single-family home at 5808 Creek Valley Road in Edina. The legal description is Lot 11, Block 2, Creek Valley Addition. The area of the lot is 20,762 ft.² and is fully sodded. A single-family home that is currently on the lot will be demolished. The current single family home has 2,850 ft.² of house footprint impervious surface and 1,450 ft.² of driveway and sidewalk impervious for a total of 4300 ft.². The proposed home will have a house foot print impervious area of 2,720 ft.² and drives and walks of 1,280 ft.² for a total of 4000 ft.². Deck areas that are open to the ground below are not included in the impervious calculations. The new home cannot exceed the first floor elevation of the existing house by more than one foot without obtaining a conditional use permit from the City. The new home is proposed to have a low floor (basement) elevation 6 inches above the existing house and the first floor will be 1.5 feet above the existing house.

2.0 Permit Requirements

Besides obtaining a building permit from the City of Edina the project will also require a permit from the Nine Mile Creek Watershed District (NMCWD). The following rules that will apply from NMCWD are:

Rule 3 - Wetlands Management

Rule 4 - Storm Water Management

Rule 5 - Erosion and Sediment Control

Rule 10 - Variances and Exceptions

3.0 NMCWD Permit Summary

1.) Rule 3 – Wetlands Management

Lake Locklear shoreline lies just past the rear lot line of the property. This lake is considered a high-value wetland according to the NMCWD and thus requires an average buffer from the shoreline of 60 feet. This buffer is depicted on the site plan and no construction activity will be proposed in the buffer area. The buffer area is currently sodded and will need to be cultivated with native vegetation. The following is criteria that needs to be followed from section 3.4 of Rule 3 from the NMCWD:

3.4 Wetland Buffers

Any activity for which a permit is required under any District rule(s) must provide buffer on all wetlands disturbed by the activity and on all wetlands downgradient from the activity, in accordance with the following criteria:

- 3.4.1** Subject to section 3.4.2, buffers must extend:
- a Average 60 feet from the edge of high-value wetlands, minimum 30 feet;
 - b Average 40 feet from the edge of medium value wetlands, minimum 20 feet;
 - c Average 20 feet from the edge of low value wetlands, minimum 10 feet.

Buffer width averaging calculation will exclude any part of the buffer exceeding 200 percent of the applied buffer width.

- 3.4.2** Where a buffer encompasses all or part of the slope averaging 12 percent or greater over a distance of 50 feet or more upgradient of the wetland, calculated using a reasonably precise topographic surface model, the buffer shall extend to the extent specified under section 3.4.1 or to the top of the slope, whichever is greater. An existing contour alteration or artificial structure on a slope constitutes a break in slope only if it will indefinitely dissipate upgradient velocity and trap upgradient pollutant loadings.

- 3.4.3** The buffer is only required on property that is the subject of District permit, and is required where the wetland is either on or at adjacent to the subject property.

- 3.4.4** A buffer shall be indicated by permanent, free-standing markers at the buffer's upland edge, with a design and text approved by the District in writing. A marker shall be placed along each lot line, with additional markers at an interval of no more than 200 feet. If a District permit is sought for a subdivision, the monumentation requirement may be satisfied by the use of a marker flush to the ground or breakaway markers of durable material.

- 3.4.5** Wetland buffer areas created in compliance with this rule must be planted with native vegetation and maintained to retain natural resources and ecological value. Existing wetland buffer areas preserved in compliance with this rule must be managed in a naturalized condition to encourage growth of native vegetation and eliminate invasive species. Buffer vegetation shall not be cultivated, cropped, pastured, mowed, fertilized, subject to the placement of mulch or yard waste, or otherwise disturbed, except for periodic cutting or burning that promotes the health of the buffer, actions to address disease or invasive species, mowing for purposes of public safety, temporary disturbance for placement or repair of buried utilities, or other actions to maintain or improve buffer quality, each as approved by the District in advance in writing or when implemented pursuant to a written agreement executed with the District. Pesticides and herbicides may be used in accordance with Minnesota Department of Agriculture rules and guidelines. No new structure or hard surface shall be placed with any buffer. No fill, debris or other material shall be excavated from or placed within a buffer. Boardwalks and trails designed for nonmotorized use in stormwater management facilities may be located within a buffer area upon approval of the District.

- 3.4.6** A buffer shall be documented by a declaration or other document approved by the District and recorded in the office of the county recorder or registrar before the permit will be issued. A buffer on public land or right-of-way may be documented in a written agreement executed with the District in lieu of a recorded document; the agreement shall state that if the land containing the buffer is conveyed, the public body shall require the buyer to comply with this subsection.

2.) Rule 4 – Stormwater Management

The subject property is within 500 feet of a public water or wetland so the following criteria from Rule 4 must be demonstrated:

4.3 Criteria

- 4.3.1** An applicant for a permit under this rule must demonstrate, using a model acceptable to the District, that the implementation of its stormwater management plan will:
- a** Provide for the retention on site of one inch of runoff from all impervious surface of the parcel;

Where below-ground infiltration facilities, practices or systems are proposed, pretreatment of runoff must be provided.
 - b** Limit peak runoff flow rates to that from existing conditions for the 2, 10, and 100 year storm events for all points where stormwater discharge leaves a parcel; and
 - c** Provide for all of runoff from the parcel from the 2.5 inch storm event to be treated, through on-site or off-site detention, to at least 60 percent annual removal efficiency or phosphorus, and at least 90 percent annual removal efficiency for total suspended solids. The on-site retention of runoff may be included in demonstrating compliance with the total suspended solids and phosphorus removal requirements.

4.3.2 Low Floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than two feet above the 100 year event flood elevation.

- a** All structures riparian to inundation areas or constructed or natural stormwater management facilities must be located and elevations must be set according to appendix 4a, "Suggested Low Floor Guidance."
- b** **Landlocked Basins.** Any new or reconstructed structure wholly or partially within a landlocked basin must be constructed such that its lowest floor elevation is:
 - 1** 1 ft above the surface overflow of the basin, or
 - 2** 2 ft above the elevation resulting from two concurrent 100 year single rainfall events in a 24-hour period or a 100 year, 10 day snowmelt, whichever is higher.
 - 3** The starting elevation of the basin prior to the runoff event shall be established by one of the following:
 - A** Existing ordinary high water elevation established by the Minnesota Department of Natural Resources;
 - B** Annual water balance calculation approved by the District;
 - C** Local observation well records, as approved by the district; or
 - D** Mottled soil.

From 4.3.1a above it is required that one inch of runoff from runoff from impervious surfaces be retained on-site. This will be accomplished with the use of rain gardens, one in the front yard and one in the backyard. The impervious area flowing toward the street is 2,628 ft.² so 219 cubic ft. of runoff must be retained. The rain garden in the front yard is designed to be 225 cubic ft. It should be noted that this is designed to contain runoff from the driveway even though it is not possible to

direct water that sheet flows down the driveway without getting into storm sewer measures that would be very impractical. The impervious area draining to the backyard is 1362 ft.² so 114 cubic ft. of retention is required. The construction details and landscape plantings for the rain garden still need to be worked out as well as existing soil borings that the builder is planning on submitting with the permit application to the NMCWD.

From 4.3.1b above the proposed runoff rates cannot exceed the existing runoff rates. Hydrocad was used to analyze the flow rates to the front and rear of the lot which are where the discharge points are. The following table summarizes the hydrocad:

STORM EVENT	2yr	10yr	100yr
Pre-Developed to Front	0.24	0.49	1.10
Post Developed to Front	0.03 cfs	0.52	1.13
Pre-Developed to Rear	0.28 cfs	0.83	2.40
Post Developed to Rear	0.06 cfs	0.73	2.24

The flow rates are technically exceeded for the 10yr and 100yr flows to the front but the amount is negligible. Flow rates to the rear are less than the existing.

From 4.3.1c above the requirements for phosphorus and sediment removal are stated. As mentioned previously it is not possible or practical to capture all of the impervious area runoff, namely the driveway, and directed to the rain garden. The volume generated from the 2.5 inch event flowing to the front is 220 cu. Ft. when excluding the driveway. The rain garden volume is 225 ft.³ so basically the entire 2.5 inch storm is captured. Likewise when excluding the wetland buffer area behind the rain garden in the rear the 2.5 in storm generates 260 ft.³ and the rain garden is sized to capture that total event. Theoretically total treatment for phosphorus and sediment would be achieved. It is recommended at the start of construction that the rain gardens be rough graded to be temporary sediment basins and at time of final landscaping be over excavated and filled with filtering media. It is recommended that a minimum of 18 inches of a mix of 50% construction sand and 50% type 2 compost be placed in the rain garden beds.

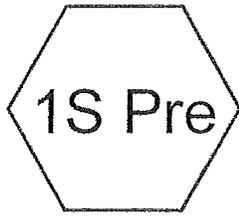
3.) Rule 5 – Erosion and Sediment Control

A storm water and erosion control plan is attached with this report.

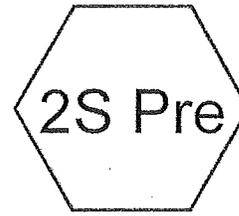
4.) Rule 10 - Variances and Exceptions

The proposed home may require a variance from NMCWD. This is because the proposed low floor elevation is less than 2 ft. above the 100 year flood elevation of Nine Mile Creek per a Flood Study from the Districts engineer.

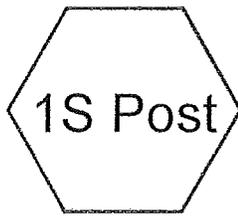
According to the Districts engineering study the 100 year flood elevation of the Creek in the vicinity of the project is 852.7. The 100 year elevation according to the FEMA map recognized by the City is 850.6 and the proposed basement floor elevation is 853.7.



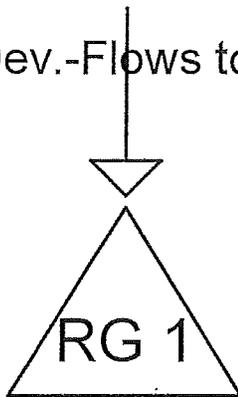
Pre Dev.-Flows to Street



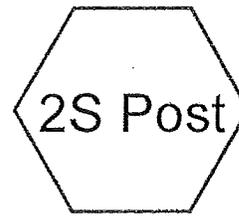
Pre Dev.-Flows to Pond



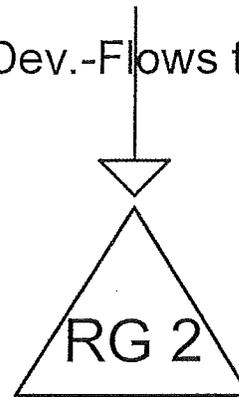
Post Dev.-Flows to Street



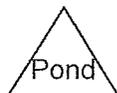
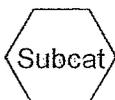
Rain Garden-Front



Post Dev.-Flows to Pond



Rain Garden-Back



Summary for Subcatchment 1S Post: Post Dev.-Flows to Street

Runoff = 0.27 cfs @ 11.94 hrs, Volume= 0.011 af, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2 yr Atlas 14 Rainfall=2.86"

Area (sf)	CN	Description
2,472	61	>75% Grass cover, Good, HSG B
1,358	98	Roofs, HSG B
* 1,050	98	Paved Driveway, HSG B
* 220	98	Brick Paver Walkway, HSG B
5,100	80	Weighted Average
2,472		48.47% Pervious Area
2,628		51.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry, Ex to Street

Summary for Subcatchment 1S Pre: Pre Dev.-Flows to Street

Runoff = 0.24 cfs @ 11.94 hrs, Volume= 0.010 af, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2 yr Atlas 14 Rainfall=2.86"

Area (sf)	CN	Description
2,710	61	>75% Grass cover, Good, HSG B
1,123	98	Roofs, HSG B
* 903	98	Paved Driveway, HSG B
* 318	98	Brick Paver Walkway, HSG B
5,054	78	Weighted Average
2,710		53.62% Pervious Area
2,344		46.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry, Ex to Street

Summary for Subcatchment 2S Post: Post Dev.-Flows to Pond

Runoff = 0.22 cfs @ 11.99 hrs, Volume= 0.012 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2 yr Atlas 14 Rainfall=2.86"

Area (sf)	CN	Description
14,306	61	>75% Grass cover, Good, HSG B
1,362	98	Roofs, HSG B
15,668	64	Weighted Average
14,306		91.31% Pervious Area
1,362		8.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	170	0.0530	0.54		Lag/CN Method, Ex to Pond

Summary for Subcatchment 2S Pre: Pre Dev.-Flows to Pond

Runoff = 0.28 cfs @ 11.98 hrs, Volume= 0.014 af, Depth= 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2 yr Atlas 14 Rainfall=2.86"

Area (sf)	CN	Description
13,775	61	>75% Grass cover, Good, HSG B
1,724	98	Roofs, HSG B
* 216	98	Concrete Surface, HSG B
15,715	66	Weighted Average
13,775		87.66% Pervious Area
1,940		12.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	170	0.0530	0.57		Lag/CN Method, Ex to Pond

Summary for Pond RG 1: Rain Garden-Front

Inflow Area = 0.117 ac, 51.53% Impervious, Inflow Depth = 1.15" for 2 yr Atlas 14 event
 Inflow = 0.27 cfs @ 11.94 hrs, Volume = 0.011 af
 Outflow = 0.03 cfs @ 12.22 hrs, Volume = 0.006 af, Atten = 88%, Lag = 16.8 min
 Primary = 0.03 cfs @ 12.22 hrs, Volume = 0.006 af

Routing by Stor-Ind method, Time Span = 1.00-36.00 hrs, dt = 0.01 hrs
 Peak Elev = 859.00' @ 12.22 hrs Surf.Area = 450 sf Storage = 226 cf

Plug-Flow detention time = 239.5 min calculated for 0.006 af (55% of inflow)
 Center-of-Mass det. time = 112.2 min (954.8 - 842.6)

Volume	Invert	Avail. Storage	Storage Description
#1	858.00'	685 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf. Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)
858.00	0	0	0
859.00	450	225	225
860.00	470	460	685

Device	Routing	Invert	Outlet Devices
#1	Primary	858.99'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max = 0.03 cfs @ 12.22 hrs HW = 859.00' (Free Discharge)
 1 = Broad-Crested Rectangular Weir (Weir Controls 0.03 cfs @ 0.27 fps)

Summary for Pond RG 2: Rain Garden-Back

Inflow Area = 0.360 ac, 8.69% Impervious, Inflow Depth = 0.41" for 2 yr Atlas 14 event
 Inflow = 0.22 cfs @ 11.99 hrs, Volume = 0.012 af
 Outflow = 0.06 cfs @ 12.12 hrs, Volume = 0.010 af, Atten = 74%, Lag = 8.3 min
 Primary = 0.06 cfs @ 12.12 hrs, Volume = 0.010 af

Routing by Stor-Ind method, Time Span = 1.00-36.00 hrs, dt = 0.01 hrs
 Peak Elev = 851.01' @ 12.12 hrs Surf.Area = 240 sf Storage = 122 cf

Plug-Flow detention time = 152.5 min calculated for 0.010 af (78% of inflow)
 Center-of-Mass det. time = 55.7 min (966.2 - 910.5)

Volume	Invert	Avail. Storage	Storage Description
#1	850.00'	370 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf. Area (sq-ft)	Inc. Store (cubic-feet)	Cum. Store (cubic-feet)
850.00	0	0	0
851.00	240	120	120
852.00	260	250	370

5808 Creek Valley Rd HydroCAD

Prepared by Hedlund Engineering

HydroCAD® 10.00 s/n 01713 © 2013 HydroCAD Software Solutions LLC

Type II 24-hr 2 yr Atlas 14 Rainfall=2.86"

Printed 8/28/2014

Page 4

Device	Routing	Invert	Outlet Devices
#1	Primary	850.99'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.05 cfs @ 12.12 hrs HW=851.01' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Weir Controls 0.05 cfs @ 0.32 fps)

Summary for Subcatchment 1S Post: Post Dev.-Flows to Street

Runoff = 0.53 cfs @ 11.94 hrs, Volume= 0.022 af, Depth= 2.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10 yr Atlas 14 Rainfall=4.28"

Area (sf)	CN	Description
2,472	61	>75% Grass cover, Good, HSG B
1,358	98	Roofs, HSG B
* 1,050	98	Paved Driveway, HSG B
* 220	98	Brick Paver Walkway, HSG B
5,100	80	Weighted Average
2,472		48.47% Pervious Area
2,628		51.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry, Ex to Street

Summary for Subcatchment 1S Pre: Pre Dev.-Flows to Street

Runoff = 0.49 cfs @ 11.94 hrs, Volume= 0.020 af, Depth= 2.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10 yr Atlas 14 Rainfall=4.28"

Area (sf)	CN	Description
2,710	61	>75% Grass cover, Good, HSG B
1,123	98	Roofs, HSG B
* 903	98	Paved Driveway, HSG B
* 318	98	Brick Paver Walkway, HSG B
5,054	78	Weighted Average
2,710		53.62% Pervious Area
2,344		46.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry, Ex to Street

Summary for Subcatchment 2S Post: Post Dev.-Flows to Pond

Runoff = 0.73 cfs @ 11.97 hrs, Volume= 0.034 af, Depth= 1.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10 yr Atlas 14 Rainfall=4.28"

Area (sf)	CN	Description
14,306	61	>75% Grass cover, Good, HSG B
1,362	98	Roofs, HSG B
15,668	64	Weighted Average
14,306		91.31% Pervious Area
1,362		8.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	170	0.0530	0.54		Lag/CN Method, Ex to Pond

Summary for Subcatchment 2S Pre: Pre Dev.-Flows to Pond

Runoff = 0.83 cfs @ 11.97 hrs, Volume= 0.038 af, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10 yr Atlas 14 Rainfall=4.28"

Area (sf)	CN	Description
13,775	61	>75% Grass cover, Good, HSG B
1,724	98	Roofs, HSG B
216	98	Concrete Surface, HSG B
15,715	66	Weighted Average
13,775		87.66% Pervious Area
1,940		12.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	170	0.0530	0.57		Lag/CN Method, Ex to Pond

Summary for Pond RG 1: Rain Garden-Front

Inflow Area = 0.117 ac, 51.53% Impervious, Inflow Depth = 2.28" for 10 yr Atlas 14 event
 Inflow = 0.53 cfs @ 11.94 hrs, Volume= 0.022 af
 Outflow = 0.52 cfs @ 11.95 hrs, Volume= 0.017 af, Atten= 2%, Lag= 0.7 min
 Primary = 0.52 cfs @ 11.95 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 859.07' @ 11.95 hrs Surf.Area= 451 sf Storage= 254 cf

Plug-Flow detention time= 132.7 min calculated for 0.017 af (77% of inflow)
 Center-of-Mass det. time= 42.4 min (865.1 - 822.8)

Volume	Invert	Avail.Storage	Storage Description
#1	858.00'	685 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
858.00	0	0	0
859.00	450	225	225
860.00	470	460	685

Device	Routing	Invert	Outlet Devices
#1	Primary	858.99'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.51 cfs @ 11.95 hrs HW=859.07' (Free Discharge)
 1=Broad-Crested Rectangular Weir (Weir Controls 0.51 cfs @ 0.68 fps)

Summary for Pond RG 2: Rain Garden-Back

Inflow Area = 0.360 ac, 8.69% Impervious, Inflow Depth = 1.13" for 10 yr Atlas 14 event
 Inflow = 0.73 cfs @ 11.97 hrs, Volume= 0.034 af
 Outflow = 0.73 cfs @ 11.98 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.3 min
 Primary = 0.73 cfs @ 11.98 hrs, Volume= 0.031 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 851.08' @ 11.98 hrs Surf.Area= 242 sf Storage= 140 cf

Plug-Flow detention time= 56.6 min calculated for 0.031 af (92% of inflow)
 Center-of-Mass det. time= 15.2 min (885.6 - 870.4)

Volume	Invert	Avail.Storage	Storage Description
#1	850.00'	370 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
850.00	0	0	0
851.00	240	120	120
852.00	260	250	370

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Type II 24-hr 10 yr Atlas 14 Rainfall=4.28"

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Device	Routing	Invert	Outlet Devices
#1	Primary	850.99'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.73 cfs @ 11.98 hrs HW=851.08' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Weir Controls 0.73 cfs @ 0.77 fps)

Summary for Subcatchment 1S Post: Post Dev.-Flows to Street

Runoff = 1.15 cfs @ 11.94 hrs, Volume= 0.050 af, Depth= 5.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100 yr Atlas 14 Rainfall=7.48"

Area (sf)	CN	Description
2,472	61	>75% Grass cover, Good, HSG B
1,358	98	Roofs, HSG B
* 1,050	98	Paved Driveway, HSG B
* 220	98	Brick Paver Walkway, HSG B
5,100	80	Weighted Average
2,472		48.47% Pervious Area
2,628		51.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry, Ex to Street

Summary for Subcatchment 1S Pre: Pre Dev.-Flows to Street

Runoff = 1.10 cfs @ 11.94 hrs, Volume= 0.047 af, Depth= 4.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100 yr Atlas 14 Rainfall=7.48"

Area (sf)	CN	Description
2,710	61	>75% Grass cover, Good, HSG B
1,123	98	Roofs, HSG B
* 903	98	Paved Driveway, HSG B
* 318	98	Brick Paver Walkway, HSG B
5,054	78	Weighted Average
2,710		53.62% Pervious Area
2,344		46.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry, Ex to Street

Summary for Subcatchment 2S Post: Post Dev.-Flows to Pond

Runoff = 2.24 cfs @ 11.97 hrs, Volume= 0.101 af, Depth= 3.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100 yr Atlas 14 Rainfall=7.48"

Area (sf)	CN	Description
14,306	61	>75% Grass cover, Good, HSG B
1,362	98	Roofs, HSG B
15,668	64	Weighted Average
14,306		91.31% Pervious Area
1,362		8.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	170	0.0530	0.54		Lag/CN Method, Ex to Pond

Summary for Subcatchment 2S Pre: Pre Dev.-Flows to Pond

Runoff = 2.40 cfs @ 11.96 hrs, Volume= 0.108 af, Depth= 3.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100 yr Atlas 14 Rainfall=7.48"

Area (sf)	CN	Description
13,775	61	>75% Grass cover, Good, HSG B
1,724	98	Roofs, HSG B
* 216	98	Concrete Surface, HSG B
15,715	66	Weighted Average
13,775		87.66% Pervious Area
1,940		12.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	170	0.0530	0.57		Lag/CN Method, Ex to Pond

Summary for Pond RG 1: Rain Garden-Front

Inflow Area = 0.117 ac, 51.53% Impervious, Inflow Depth = 5.14" for 100 yr Atlas 14 event
 Inflow = 1.15 cfs @ 11.94 hrs, Volume= 0.050 af
 Outflow = 1.13 cfs @ 11.94 hrs, Volume= 0.045 af, Atten= 1%, Lag= 0.5 min
 Primary = 1.13 cfs @ 11.94 hrs, Volume= 0.045 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 859.12' @ 11.94 hrs Surf.Area= 452 sf Storage= 278 cf

Plug-Flow detention time= 76.2 min calculated for 0.045 af (90% of inflow)
 Center-of-Mass det. time= 24.8 min (824.3 - 799.6)

Volume	Invert	Avail.Storage	Storage Description
#1	858.00'	685 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
858.00	0	0	0
859.00	450	225	225
860.00	470	460	685

Device	Routing	Invert	Outlet Devices
#1	Primary	858.99'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.13 cfs @ 11.94 hrs HW=859.12' (Free Discharge)
 ↳1=Broad-Crested Rectangular Weir (Weir Controls 1.13 cfs @ 0.89 fps)

Summary for Pond RG 2: Rain Garden-Back

Inflow Area = 0.360 ac, 8.69% Impervious, Inflow Depth = 3.37" for 100 yr Atlas 14 event
 Inflow = 2.24 cfs @ 11.97 hrs, Volume= 0.101 af
 Outflow = 2.24 cfs @ 11.97 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.2 min
 Primary = 2.24 cfs @ 11.97 hrs, Volume= 0.098 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 851.19' @ 11.97 hrs Surf.Area= 244 sf Storage= 166 cf

Plug-Flow detention time= 21.6 min calculated for 0.098 af (97% of inflow)
 Center-of-Mass det. time= 6.1 min (842.9 - 836.8)

Volume	Invert	Avail.Storage	Storage Description
#1	850.00'	370 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
850.00	0	0	0
851.00	240	120	120
852.00	260	250	370

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Type II 24-hr 100 yr Atlas 14 Rainfall=7.48"

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Device	Routing	Invert	Outlet Devices
#1	Primary	850.99'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.23 cfs @ 11.97 hrs HW=851.19' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Weir Controls 2.23 cfs @ 1.11 fps)

Summary for Subcatchment 1S Post: Post Dev.-Flows to Street

Runoff = 0.12 cfs @ 11.94 hrs, Volume= 0.005 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type II 24-hr NURP Rainfall=2.50"

Area (sf)	CN	Description
2,472	61	>75% Grass cover, Good, HSG B
1,358	98	Roofs, HSG B
* 220	98	Brick Paver Walkway, HSG B
4,050	75	Weighted Average
2,472		61.04% Pervious Area
1,578		38.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry, Ex to Street

Summary for Subcatchment 1S Pre: Pre Dev.-Flows to Street

Runoff = 0.18 cfs @ 11.94 hrs, Volume= 0.008 af, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type II 24-hr NURP Rainfall=2.50"

Area (sf)	CN	Description
2,710	61	>75% Grass cover, Good, HSG B
1,123	98	Roofs, HSG B
* 903	98	Paved Driveway, HSG B
* 318	98	Brick Paver Walkway, HSG B
5,054	78	Weighted Average
2,710		53.62% Pervious Area
2,344		46.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0					Direct Entry, Ex to Street

Summary for Subcatchment 2S Post: Post Dev.-Flows to Pond

Runoff = 0.11 cfs @ 11.99 hrs, Volume= 0.006 af, Depth= 0.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type II 24-hr NURP Rainfall=2.50"

Area (sf)	CN	Description
9,000	61	>75% Grass cover, Good, HSG B
1,362	98	Roofs, HSG B
10,362	66	Weighted Average
9,000		86.86% Pervious Area
1,362		13.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	170	0.0530	0.57		Lag/CN Method, Ex to Pond

Summary for Subcatchment 2S Pre: Pre Dev.-Flows to Pond

Runoff = 0.17 cfs @ 11.99 hrs, Volume= 0.010 af, Depth= 0.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type II 24-hr NURP Rainfall=2.50"

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Type II 24-hr NURP Rainfall=2.50"

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Area (sf)	CN	Description
13,775	61	>75% Grass cover, Good, HSG B
1,724	98	Roofs, HSG B
* 216	98	Concrete Surface, HSG B
15,715	66	Weighted Average
13,775		87.66% Pervious Area
1,940		12.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	170	0.0530	0.57		Lag/CN Method, Ex to Pond

Summary for Pond RG 1: Rain Garden-Front

Inflow Area = 0.093 ac, 38.96% Impervious, Inflow Depth = 0.65" for NURP event
 Inflow = 0.12 cfs @ 11.94 hrs, Volume= 0.005 af
 Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 858.99' @ 24.18 hrs Surf.Area= 445 sf Storage= 220 cf

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

Volume #1	Invert	Avail.Storage	Storage Description
	858.00'	685 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
858.00	0	0	0
859.00	450	225	225
860.00	470	460	685

Device #1	Routing	Invert	Outlet Devices
	Primary	858.99'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=858.00' (Free Discharge)
 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond RG 2: Rain Garden-Back

Inflow Area = 0.238 ac, 13.14% Impervious, Inflow Depth = 0.33" for NURP event
 Inflow = 0.11 cfs @ 11.99 hrs, Volume= 0.006 af
 Outflow = 0.01 cfs @ 13.26 hrs, Volume= 0.004 af, Atten= 92%, Lag= 76.5 min
 Primary = 0.01 cfs @ 13.26 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
 Peak Elev= 850.99' @ 13.26 hrs Surf.Area= 239 sf Storage= 119 cf

Plug-Flow detention time= 284.9 min calculated for 0.004 af (58% of inflow)
 Center-of-Mass det. time= 131.8 min (1,048.6 - 916.7)

Volume #1	Invert	Avail.Storage	Storage Description
	850.00'	370 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
850.00	0	0	0
851.00	240	120	120
852.00	260	250	370

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Type II 24-hr NURP Rainfall=2.50"

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Device	Routing	Invert	Outlet Devices
#1	Primary	850.99'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.01 cfs @ 13.26 hrs HW=850.99' (Free Discharge)

↑1=Broad-Crested Rectangular Weir (Weir Controls 0.01 cfs @ 0.15 fps)