Dated 06-08-16

Village of Mukwonago

REGULAR PLAN COMMISSION MEETING

Notice of Meeting and Agenda

Tuesday, June 14, 2016

Time: **6:30 p.m.**
Place: **Mukwonago Municipal Building/Board Room, 440 River Crest Court**

1. Call to Order

2. Roll Call

3. Approval of minutes for the April 12, 2016 regular meeting

4. Public Hearing
   All persons interested in making comments about any of the public hearing items will be heard. Formal petitions and written comments regarding any of the public hearing items may be submitted tonight. During the public hearing(s), if you wish to be heard, the Plan Commission asks that you begin by stating your name and address, speak for no more than three minutes and attempt to avoid duplication. Each person speaking at the public hearing must sign the Public Hearing Appearance sign-in sheet before speaking. The sign-in sheet is available on the table located at the back of the room.

   A. Conditional use permit requested by Pamela L. Turner, Pam's Fine Wines LLC, to allow for the installation of outdoor seating at the property located at 100 Main St., Suite 1, known as MUKV1976109001

5. New Business
   Discussion and Possible Action on the Following Items

   A. Recommendation to Village Board concerning conditional use permit requested by Pamela L. Turner, Pam's Fine Wines LLC, to allow for the installation of outdoor seating at the property located at 100 Main St., Suite 1, known as MUKV1976109001
   B. Recommendation to Village Board concerning Site Plan and Architectural Plan Review for the construction of apartment buildings on the property located at CTH ES and Phantom Woods Rd., known as MUKV2011984
   C. Recommendation to Village Board concerning a minor Site Plan Review for the installation of parking spaces on the property located at 926 Perkins Dr., known as MUKV1969988007
   D. Consideration of an amendment to Chapter 64 (Sign Code) regarding directional sign standards for industrial properties.
   E. Status report on the progress of the Steering Committee of the Comprehensive Plan Update

6. Historic Preservation Commission
   Discussion and Possible Action on the Following Item

   A. Construction of a boat shelter at the property located at 210 Grand Ave., known as MUKV1976085

7. Adjournment

It is possible that members of, and possibly a quorum of, members of other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information. No action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice. Please note that, upon reasonable notice, efforts will be made to accommodate the needs of individuals with disabilities through appropriate aids and services. For additional information or to request this service, contact the Clerk's Office, 440 River Crest Court, (262) 363-6420, Option 4.

MINUTES OF THE REGULAR PLAN COMMISSION MEETING
Tuesday, April 12, 2016

Call to Order
Chairperson Fred Winchowky called the meeting to order at 6:30 p.m. located in the Board Room of the Mukwonago Municipal Building, 440 River Crest Ct.

Roll Call
Commissioners present: Joe Hankovich
Sterling Fairchild
John Meiners
Mark Penzkover
Joe Abruzzo
Fred Winchowky
Commissioner excused: Ken Werner

Also present: Bruce Kaniewski, Village Planner
Judith Taubert, Deputy Clerk-Treasurer

Minutes
Motion by Hankovich/Meiners to approve the March 8, 2016 regular meeting minutes as presented carried.

New Business
214 S. Rochester Street
Motion by Penzkover/Abruzzo to recommend the Village Board approve the Site Plan and Architectural Plan for the construction of a commercial building on the property located at 214 S. Rochester Street as presented subject to the following conditions carried:

1. Approval shall be subject to approval of the requested variances by the Board of Zoning and Building Appeals.
2. Approval of the plans for the redevelopment of 214 S. Rochester Street for a dental office shall be subject to the package of plans dated March 9, 2016 submitted by the applicant to the Village of Mukwonago, and further subject to architectural plans approved by the Plan Commission on April 12, 2016. Prior to commencement of any site demolition, construction or the issuance of any building permit, final plans shall be reviewed and approved by the Supervisor of Inspections/Zoning Administrator, Fire Chief, Village Planner and the Village Engineer. The final plans shall be modified to conform to all applicable Village codes (including landscaping, dumpster enclosure design, external lighting) and other conditions of approval. However, the basic layout of the site as depicted the Site Plan shall remain unchanged, except for potential modifications of the STH 83 driveway and interior sidewalks. Furthermore, the Plan Commission specifically added the following statements:
   a. No sidewalks are to added adjacent to the subject property within the Jefferson and Henry Street right-of-ways; except if in the future the Village adds sidewalk to Jefferson or Henry Streets, the Village may assess the subject property owner for the cost of the adjacent sidewalk.
   b. Four sided architecture shall be applied to the exterior design of the building.

DRAFT

   c. Mechanical equipment may be added to the east elevation of the building within the 10 foot setback, and shall be appropriately screened.
3. Prior to the start of any site demolition, construction or issuance of a building permit, whichever occurs first, the following shall occur:
   a. Conformance with all applicable Village codes and general safety standards for demolition and reconstruction.
   b. Completion of all required approvals as listed in Condition No. 2.
   c. Approval of the building and floor plans by the Fire Chief, which may include, but are not limited to, the internal fire suppression system, external fire department connection location and hydrant locations.
   d. Approval of building plans by the Building Inspector after receipt of approval of building plans by the State of Wisconsin.
   e. Approval of building plans shall include appropriate locations of the external mechanical equipment to be placed hidden from view of neighboring properties.
4. Prior to temporary occupancy issuance, and if needed, prior to final occupancy permit, the following shall occur:
   a. Completion of all site grading in accordance with final approved plans.
   b. Completion of all exterior lighting in accordance with final approved plans.
   c. Completion of the building in accordance with final approved plans and all applicable codes.
   d. Completion of a hard parking surface, including installation of handicapped parking signs and ramp in accordance with final approved plans.
   e. Completion of the dumpster enclosure.
   f. Completion of removal and replacement with grass of all unneeded current driveway openings with adjacent streets, installation of curb and gutter and adjacent paving in accordance with Village standards (and or DOT standards where applicable) where current driveway openings have been removed, and replacement of sidewalk along STH 83 and other curb and gutter along all adjacent right-of-ways that may be damaged during construction.
5. Prior to final occupancy permit, which shall be issued not later than 90 days after any temporary occupancy permit, the following shall occur:
   a. Completion of all items within Condition No. 4.
   b. Completion of paving and striping of the entire parking area, in accordance with approved plans.
   c. Installation of all site landscaping.

Motion made by Hankovich/Abruzzo to support the request for variances for the property located at 214 S. Rochester Street and recommend the Board of Building and Zoning Appeals approve the 10 foot green space on the north side of 214 S. Rochester Street. The reason to approve the variance for a 10 foot variance is the structure will cause drainage problems on the adjacent property located at 204 S. Rochester Street (to the north) as their property sheet drains across this property. The plans for 214 S. Rochester Street has accounted for this additional water in their plan to expel the water to the storm water system. With the drainage from the north, the pavement area on 214 S. Rochester will be used for parking with car stops (bumper) to stop crossing the property line. This is a redevelopment site. Parking is premium and needs as many parking stalls as possible without a negative effect. Mechanical equipment may be added to the east elevation of the building within the 10 foot setback, and shall be appropriately screened. Motion carried.

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Lighthouse Lubes Real Estate
Planning Commission recommends the Village Board set up a Public Hearing concerning the reconsideration of a provision of the conditional use approval for John Theisen, Lighthouse Lubes Real Estate, LLC, Marsh View Drive, MUKV 1962-990-002 regarding shared parking between users on the entire property. *[Editor's note: the applicant will need to apply for an amendment to the conditional use permit, at which point the public hearing will be scheduled.]*

Consideration of an amendment to Chapter 64 (Sign Code) regarding directional sign standards for industrial properties.
Item will remain on the agenda.

Steering Committee of the Comprehensive Plan Update
Village Planner Bruce Kaniewski reported that the Steering Committee of the Comprehensive Plan had two good meetings regarding the goals and objectives that they want to accomplish. The next meetings they will be writing up land uses and planning of specific areas and categories. Information only. No action taken.

Adjournment
Meeting adjourned at 7:47 p.m.

Respectfully Submitted,

Judith A. Taubert
Deputy Clerk-Treasurer

DRAFT

NOTICE OF PUBLIC HEARING BEFORE THE VILLAGE OF MUKWONAGO PLAN COMMISSION TO CONSIDER AN APPLICATION FOR A CONDITIONAL USE PERMIT REQUESTED BY PAMELA L. TURNER, PAM'S FINE WINES LLC, FOR OUTSIDE MERCHANDISE SALES

Please take notice that there will be a public hearing before the Plan Commission of the Village of Mukwonago in the Board Room of the Village Hall, 440 River Crest Court, Mukwonago, Waukesha and Walworth Counties, on Tuesday, June 14, 2016, commencing at 6:30 p.m., to consider the following matter(s):

PUBLIC HEARING:	**Conditional Use Permit – Outside Merchandise Sales**
TAX KEY/ADDRESS:	MUKV1976109001, 100 Main St., Suite 1
LEGAL DESCRIPTION:	LOT 1 BLK 4 ASSESSORS PLAT NO 1 OF THE VILLAGE OF MUKWONAGO PT NE1/4 & SE1/4 SEC 26 T5N R18E 0.574 AC DOC# 3369252
OWNER:	BBG Development LLC
APPLICANT:	Pamela L. Turner, Pam's Fine Wines LLC
MATTER:	Applicant seeks Conditional Use permit to allow for outside merchandise sales by installing outdoor seating at the property located at 100 Main St., Suite 1. The property is zoned "B-2" General Business District. Sec. 100-157. Commercial and Office Uses lists Outdoor merchandise sales as a conditional use.

At this time all interested persons will be afforded a hearing. Information regarding the above noticed hearing(s) may be obtained in the Clerk's Office.

Steven A. Braatz, Jr.
Village Clerk

Pub: May 25 and June 1, 2016

BK PLANNING STRATEGIES
Sustainable Strategies for Community Development

www.bkplanning.com
Ph: 414.339.4105
7719 W Coventry Dr.
Franklin, WI 53132

DATE: June 10, 2016
TO: Village President Fred Winchowky and Plan Commission Members
FROM: Bruce Kaniewski, Village Planner
RE: Pam's Fine Wines/Request for Conditional Use

Pamela Turner of Pam's Fine Wines, 100 East Main Street (downtown), is requesting a Conditional Use for outdoor seating and wine service. Under the B-2, General Business Zoning District of the site, outdoor display and sales require a Conditional use. It has been determined 9 feet, 11 inches of sidewalk in front of the line of stores commonly referred to as "the square" is part of the subject property owned by Jay Campbell. The remaining width of the sidewalk (about 8 feet, 6 inches) is within the STH 83 right-of-way.

The application includes a site plan showing a wood fence supported by planter boxes with the north side opening near the door of the business. The plan shows three tables with seating for 12 patrons.

Please see the attached report from Police Chief Kevin Schmidt. Chief Schmidt asks that lights be added to the corners of the fence and that the outdoor seating and fencing be removed during the cold season months.

Recommendation

Pending the outcome of the public hearing, and pursuant to comments of the public and the information presented by the applicant, if the Commission feels the public health, safety and welfare will be protected (the basic standard for granting of a conditional use), then I encourage the Commission to recommend approval of the conditional use to the Village Board. The proposal supports a healthy and viable downtown.

Suggested findings in support of the proposal and terms of approval are listed below.

Findings:

1. The proposed use is in accordance with the purpose and intent of the B-2, General Business Zoning District.
2. The proposed use is found not to be hazardous, harmful, offensive or adverse to the environment or value of the downtown and the Village of Mukwonago.
3. The proposed use does not change the character of the neighborhood.

Terms of Approval:

1. The outdoor seating area shall be provided and operated in strict conformance with the petitioner's public hearing presentation, and the information submitted on the Request for a Conditional Use Application.

www.bkplanning.com
Ph: 414.339.4105
7719 W Coventry Dr.
Franklin, WI 53132

2. The Conditional Use is granted solely to Pamela Lynn Turner, and is not transferrable. Nothing in this conditional use shall prohibit another owner to petition the Village for a new conditional use should a change in ownership occur.
3. Use of the outdoor seating and serving of alcohol via the Conditional Use is conditioned upon applicant maintaining a valid liquor license from the Village of Mukwonago for outdoor service.
4. Use of the outdoor seating and serving of alcohol via the Conditional Use is limited between April 1st and November 15th of each year.
5. Applicant shall install lighting at the front corners of the enclosure subject to the approval of the Mukwonago Police Department and Village of Mukwonago Building Inspection and/or Zoning Administrator staff.
6. The Conditional Use shall be renewed by the Plan Commission and the Village Board within one (1) year of approval, with a second one (1) year renewal, and then subsequent five (5) year renewals. Renewal of the conditional use shall be granted if the use of the property is found to be operation in accordance with terms of approval of this conditional use. Findings of nonconformance shall be grounds for termination of this conditional use.
7. Use of the outdoor seating and serving of alcohol via the Conditional Use shall at all times conform to building codes, fire safety codes and health codes. The use shall be subject to periodic inspections by the Mukwonago Police Department and Village of Mukwonago Building Inspection and/or Zoning Administrator staff.
8. The use of outdoor seating and serving of alcohol shall at all times conform to federal, state and local laws.

I appreciate the opportunity to assist the Village with this matter. Should any questions arise, please feel free to contact me.

Cc: John Weidl, Village Administrator (via email)
Steve Braatz, Village Clerk (via email)
Joe Hankovich, Supervisor of Inspections/Zoning Administrator (via email)
Bob Harley, Code Officer (via email)
Mark Blum, Village Attorney (via email)
Jeff Stien, Fire Chief (via email)
Kevin Schmidt, Police Chief (via email)
Pam Turner, Applicant (via email)

Village of Mukwonago
440 River Crest Court, P.O. Box 206
Mukwonago, WI 53149
Phone: (262) 363-6420
Fax: (262) 363-6425
www.villageofmukwonago.com

VILLAGE OF MUKWONAGO

CONDITIONAL USE PERMIT APPLICATION

Application Fee: $450

RECEIVED
MAY 13 2016
By

Date Submitted: _____

CONTACTS

Zoning Department
Contact: Joe Hankovich
Phone: (262) 363-6419
Fax: (262) 363-6425
Email: jhankovich@villageofmukwonago.com

Planning Department
Contact: Bruce Kaniewski
Phone: (414) 339-4105
Fax: (262) 363-6425
Email: planner@villageofmukwonago.com

GUIDELINES

The undersigned petition is to consider a request, as stated herein, for the specified parcel(s) of land and will be reviewed by the Plan Commission and Village Board of the Village of Mukwonago.

Conditional use applications require a public hearing. To ensure the public hearing will be properly advertised, the application must be submitted **at least 30 days prior to the meeting** in which the Plan Commission will hold the public hearing. The Plan Commission meets on the second Tuesday of each month at 6:30 p.m.

Materials listed on page 3 must be provided to the Village of Mukwonago in accordance with Village Municipal Code Chapter 100-354 and other pertinent sections of Village ordinances, WI Stats. 62.23, and as necessary to permit review that is consistent with proper planning practice. The Village will strive to accommodate reasonable requests for informal preliminary staff review, however the Village shall not place any items on the agenda for Plan Commission consideration until such time as the application is complete in accordance with all requirements specified on this and other attached application forms.

Mail completed applications to: Village Planner
ATTN: Conditional Use Permits
PO Box 206
Mukwonago, WI 53149

Deliver to: Village Clerk's Office
440 River Crest Court

Email to: planner@villageofmukwonago.com

Complete, accurate and specific information must be entered. Please Print.

APPLICANT *(Full Legal Name)*

Name: Pamela Lynn Turner
Company: Pam's Fine Wines LLC
Address: 100 East Main St. **City:** Mukwonago **State:** WI **Zip:** 53149
Daytime Phone: 363 7166 / cell 262 470 2011 **Fax:** _____
E-Mail: pamsfinewines@ymail.com

APPLICANT IS REPRESENTED BY *(Full Legal Name)*

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

ARCHITECT

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

PROFESSIONAL ENGINEER

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

REGISTERED SURVEYOR

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

CONTRACTOR

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

PROPERTY AND PROJECT INFORMATION

Present Zoning: B-2 **Tax Key No(s).:** MUKV 1976 109 001

Address/Location: 100 Main St.

A. I/We request a conditional use permit for:

outdoor Seating in front of Pam's Fine Wines

B. The property is presently used as:

wine and beer lounge and retail bottle shop.

C. Name of Architect, Professional Engineer, or Contractor: N/A

D. Project Timetable: Start Date: 6-21-16 Completion Date: 6-30-16

E. All of the Proposed Use(s) of the property will be:

Principal Use outdoor Seating for wine bar.

Secondary Use N/A

Accessory Use N/A

F. I/We represent that I/we have a vested interest in this property in the following manner:

- ☐ Owner
- ☒ Leasehold. Length of Lease: Yearly
- ☐ Contractual. Nature of contract:
- ☐ Other. Please explain

PROCEDURAL CHECKLIST FOR CONDITIONAL USE REVIEW AND APPROVAL

This form is designed to be a guide for submitting a complete application for a conditional use.

Application Submittal Packet Requirements for Village and Applicant Use (Check off List)

Application:

- ☐ Completed application form including the procedural checklist and justification of the proposed conditional use.
- ☐ Application fee: $450
- ☐ Agreement for Reimbursable Services (separate application)

Required site drawings:

- ☐ Survey of the property
- ☐ Landscape plan
- ☐ Parking plan (including parking computations)
- ☐ Lighting plan (including photo metrics)
- ☐ Proposed location and connection to the sanitary sewer and water mains
- ☐ Drainage plan (if applicable)
- ☐ All building elevations
- ☐ Floor plans

Other Documents:

- ☐ Plan of operation/proposal
- ☐ Overview of the adjoining lots (including list of parcel identification numbers and names and mailing addresses of the current owners for all properties within 300 feet of the subject property)
- ☐ **Electronic Submittals are required.** Email (or CD ROM) with all plans and submittal materials in Adobe PDF to planner@villageofmukwonago.com.
- ☐ Any additional information as determined by Village staff

JUSTIFICATION OF THE PROPOSED CONDITIONAL USE

The Plan Commission and Village Board of the Village of Mukwonago will base their decisions on the category standards listed below. It is in the best interest of the applicant to base their presentation on the same applicable set of standards when presenting their petition. **Applicant: Please fill out ALL of the questions. Use additional sheets of paper if needed.**

A. How is the proposed conditional use (the use in general, independent of its location) in harmony with the purposes, goals, objectives, policies and standards of the Village of Mukwonago Comprehensive Plan, the Zoning Ordinance, and any other plan, program, or ordinance adopted, or under consideration pursuant to official notice by the Village?

Outdoor Seating will inhance the down town area.

B. How is the proposed conditional use, in its specific location, in harmony with the purposed, goals, objectives, policies and standards of the Village of Mukwonago Comprehensive Plan, the Zoning Ordinance, and any other plan, program, or ordinance adopted, or under consideration pursuant to official notice by the Village?

Outdoor Seating will be within the guide-lines set by the village and with their approval.

C. Does the proposed conditional use, in its proposed location and as depicted on the required site plan (see Section 100-354 (a), (b), and (c)), result in any substantial or undue adverse impact on nearby property, the character of the neighborhood, environmental factors, traffic factors, parking, public improvements, public property or rights-of-way, or other matters affecting the public health, safety, or general welfare, either as they now exist or as they may in the future be developed as a result of the implementation of the provisions of the Zoning Ordinance, the Comprehensive Plan, or any other plan, program, map ordinance adopted or under consideration pursuant to official notice by the Village or other governmental agency having jurisdiction to guide development?

NO, IT DOES NOT.

D. How does the proposed conditional use maintain the desired consistency of land uses, land use intensities, and land use impacts as related to the environs of the subject property?

N/A

E. Is the proposed conditional use located in an area that will be adequately served by and will not impose an undue burden on, any of the improvements, facilities, utilities or services provided by public agencies serving the subject property?

No

F. Do the potential public benefits of the proposed conditional use outweigh all potential adverse impacts of the proposed conditional use (as identified in Sections 100-354 (e)(1) and (2)), after taking into consideration the Applicant's proposal and any requirements recommended by the Applicant to ameliorate such impacts?

No. BENEFITS ALL.

CERTIFICATION

Applicant hereby certifies that:

1. All of the above statements and other information submitted as part of this application are true and correct to the best of his or her knowledge.
2. Affirms that no Village of Mukwonago elected or appointed official or employee has a proprietary interest in the above referenced property for which this applications being filed (except as stated below under "Exceptions").
3. None of the above referenced individuals has been promised or given any contract for consultation, planning or construction in relation to this project (except as stated below under "Exceptions").
4. Applicant has read and understands all information in this packet.

Applicant further understands the policies of the Village regarding change of zonings and property development. Conditions of the resolution regarding all approvals are strictly followed. Certificates of Occupancy are not given until all conditions of approval have been met

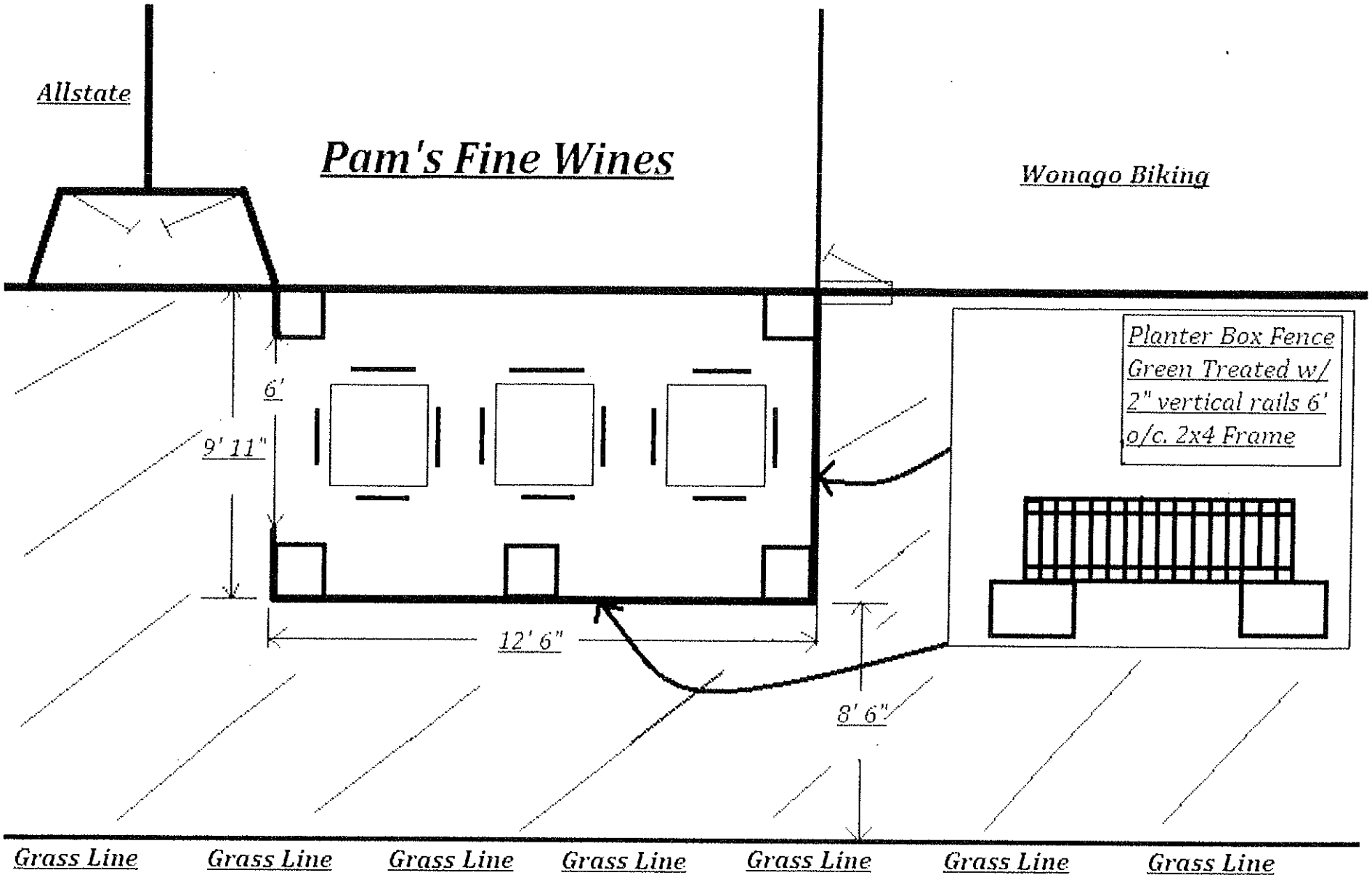
By the execution of this application, applicant hereby authorizes the Village of Mukwonago or its agents to enter upon the property during the hours of 7:00 am to 7:00 pm daily for the purpose of inspection. Applicant grants this authorization to enter even if this land has been posted against trespassing pursuant to Section 943.13 WI Stats.

(The applicant's signature must be from a Managing Member if the business is an LLC, or from the President or Vice President if the business is a corporation. A signed applicant's authorization letter may be provided in lieu of the applicant's signature below, and a signed property owner's authorization letter may be provided in lieu of the property owner's signature[s] below. If more than one, all of the owners of the property must sign this Application).

Signature - Property Owner	Signature - Applicant
owner	Pamela L. Turner
Name & Title (PRINT)	Name & Title (PRINT)
5/26/16	
Date	Date
Signature - Property Owner	Signature – Applicant's Representative
Name & Title (PRINT)	Name & Title (PRINT)
Date	Date

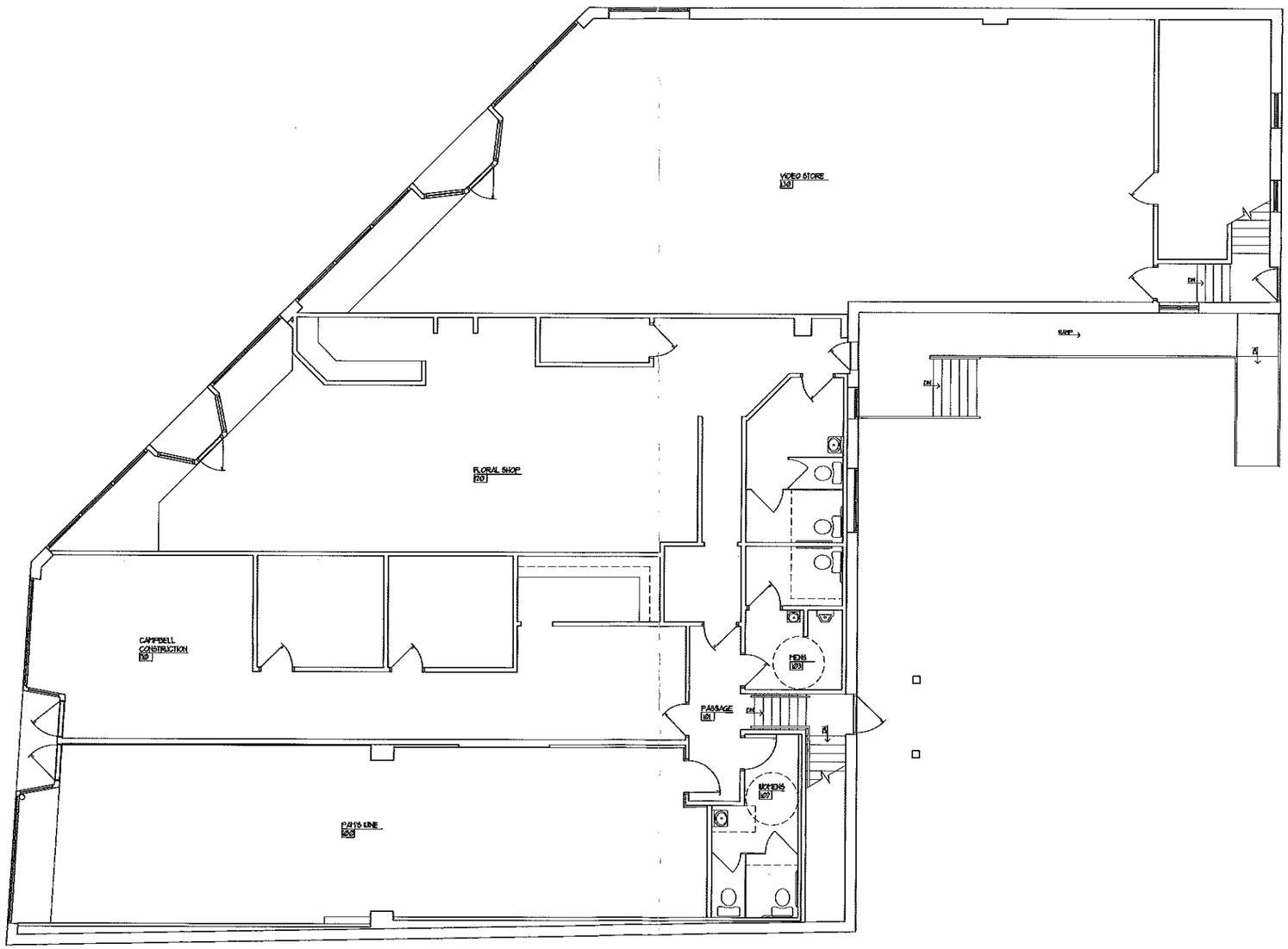
FOR OFFICE USE ONLY

Date Paid: 5/26/16	Receipt #: 6616.726	Date(s) Notice Published:	Date Notice Mailed:
Public Hearing Date:	Plan Commission Date(s):	Village Board Date(s):	Resolution Number:
Escrow Required? ☐ Yes ☐ No		Escrow Amount:	
Plan Commission Disposition:			
Village Board Disposition:			


Allstate
Pam's Fine Wines
Wonago Biking
Planter Box Fence Green Treated w/ 2" vertical rails 6' o/c. 2x4 Frame
6'
9' 11"
12' 6"
8' 6"
Grass Line
Grass Line
Grass Line
Grass Line
Grass Line
Grass Line
Grass Line

Campbell Construction
The Future is Building

100 E. MAIN STREET
MUKWANAGO, WI



FIRST FLOOR PLAN
3/16"=1'-0"

NORTH

MADISEN ARCHITECTS

project title:

AS-BUILT DRAWINGS

100 E. MAIN STREET
MUKWANAGO, WI

date:
03/08/2010

project number:
2010.006

sheet number:
A101

Village of Mukwonago Police Department

627 S. Rochester Street • Mukwonago, Wisconsin 53149

(262) 363-6435 • FAX (262) 363-6438 • Hearing Impaired (262) 363-6453

KEVIN B. SCHMIDT, CHIEF OF POLICE

May 25, 2016

Bruce Kaniewski
Village of Mukwonago Planning Department

REF: Conditional Use Permit Application from Pam's Fine Wines LLC

I have reviewed the conditional use permit application from Pamela Lynn Turner on behalf of Pam's Fine Wines LLC. Pam's Fine Wines requests to place outdoor seating in front of their business located at 100 E. Main Street.

After reviewing the plans, I would have no objection to the Plan Commission approving the submitted plan. I believe this will be a benefit to the downtown area. I would only ask that a couple of restrictions/requirements be added. I have listed my requests below.

As you know, when alcohol is being served at an outdoor setting, I prefer some type of barrier between the seating and the walkway. This helps to prevent anyone, especially juveniles, from removing alcohol from the outdoor tables. The plans submitted shows planter boxes which will support a green treated fence as a barrier on the west and south side of the seating area. With this fencing as shown, the public sidewalk area to the west of the seating will be 8'6" wide.

I would ask the Plan Commission to require some type of lighting on the barriers. My concern is for people jogging or riding a bicycle westbound from the east side of the building. I have attached three Google street view maps to show my concern. While I believe there is plenty of light in that area so that people walking or riding bikes coming from the east/north, I feel additional lighting on the corners will provide more safety. One option may be to install some type of solar lighting in the planter boxes on the outside corners.

I would also ask the Plan Commission to put a date when the planter boxes, fencing and tables must be removed for the winter. I would recommend November 1 or November 15th of each year. I would not object to a later date, possibly the Monday following the Chamber's Midnight Magic event, should Pam's Fine Wine want to utilize the seating for that event.

Should you have any questions, feel free to contact me.

Respectfully,

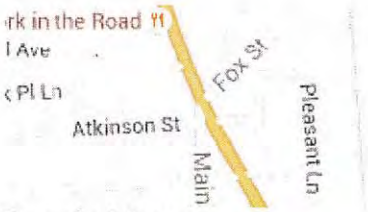
Kevin Schmidt
Chief of Police

Google Maps County Rd ES

Image capture: Aug 2012 © 2016 Google

Mukwonago, Wisconsin

Street View - Aug 2012



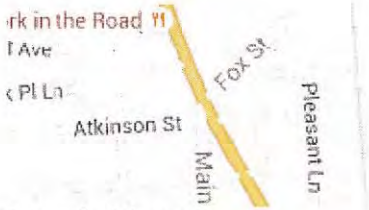
Google Maps

Google Maps County Rd ES

Image capture: Aug 2012 © 2016 Google

Mukwonago, Wisconsin

Street View - Aug 2012



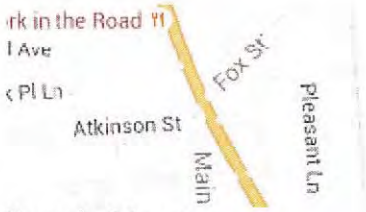
Google Maps

Google Maps County Rd ES

Image capture: Aug 2012 © 2016 Google

Mukwonago, Wisconsin

Street View - Aug 2012



Google Maps

BK PLANNING STRATEGIES
Sustainable Strategies for Community Development

www.bkplanning.com
Ph: 414.339.4105
7719 W Coventry Dr.
Franklin, WI 53132

June 10, 2015

Fred Winchowky, Village President
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Re: Site Plan and Architectural Plan Approval
Premier Woods Phase 2 Proposed 16 Unit Multi-Family Development

Dear President Winchowky and Members of the Plan Commission:

Calvin Akin of Premier Real Estate Management, Inc. requests Site Plan and Architectural Plan consideration to construct 16 multi-family rental units within two buildings on property located at the northwest corner of CTH ES (Main Street) and Phantom Woods Road. The previously approved first phase is under construction and was approved for 68 rental units in six buildings. The property is zoned R-10, Multi-Family Residential.

This second phase was identified on the plan during first phase review, but was not approved. The original second phase was to have larger buildings, but now has been scaled back for 8-unit buildings. The 8-unit buildings are the same as the building nearest to Main Street approved for the first phase.

Pursuant to policy of counting only one-half of the site's wetland area as part of the overall density calculation, the first and second phases combined have a density of 5.5 dwelling units per acre.

Application Summary

Property Size: 17.76 Acres (According to applicant survey of site)
Village Comprehensive Plan Designation: Multi-Family Residential
Zoning District: R-10 Multi-Family Residential
Proposal: Additional 16 rental units in two buildings for a total of 84 rental units on site.

Surrounding Conditions:

North:	Amato Ford; B-2 in Village
East:	Birchrock Senior Living Complex; R-4 in Village
	Large Lot Single-Family; A-1 and AE in Town of Mukwonago
South:	Vacant; B-3 in Village
	Single-Family; B-2 in Town
West:	East Troy Railroad Track
West of Track:	Large Lot Single-Family; R-2, EC and C-1 in Town

www.bkplanning.com
Ph: 414.339.4105
7719 W Coventry Dr.
Franklin, WI 53132

Background

Several quick comments about the proposal:

1. Because a second entrance to the second phase is only 250 west of the CTH ES/Phantom Woods Road intersection, at staff's request a turn lane into the second entrance has been added to the plan.
2. Please see the attached letter from Village Engineer Kurt Peot indicating the preliminary storm water management plan will meet the requirements of Village ordinance.
3. On-site parking meets the new parking standards adopted December, 2015.
4. Documents to provide the Village easements to access on-site utilities were not provided during first phase approvals, but have been provided with this application.

Recommendation

I recommend approval of the requested site plan and architectural plan approval. The proposal is consistent with the first phase, and conforms to R-10 development standards. I further recommend approval of the site and architectural plans subject to the following list of conditions.

1. Approval of the plans for the proposed second phase of Premier Woods Multi-Family development at the northwest corner of Main Street (STH 83) and Phantom Woods Road, for two-8 unit multi-family structures, shall be subject to the package of documents and plans submitted by the applicant to the Village of Mukwonago on April 8, 2016 with a portion of the plans revised with a submittal dated May 19, 2016. The plans may be further modified to conform to other conditions of approval; the building and floor plans may be modified with the approval of the Building Inspector to conform to Building and Fire Safety Codes and all plans may be further modified to conform to Village design standards. However, the basic layout of the site as depicted on Sheet 5, Site Plan, shall remain unchanged.
2. All ingress/egress drives and parking areas shown on Sheet 5 shall remain private and shall be maintained in a usable and passable condition at all times. The private drive parallel to the western property line shall be constructed to Village public residential street standards.
3. Approval shall be subject to approval of a Storm Water Maintenance Agreement and a Developer's Agreement by the Village Board. The Developer's Agreement shall list these conditions of approval, a list of all final plans for the project, and responsibilities for off-site improvements.
4. With approval, the Plan Commission and Village Board grant allowance of multiple principal buildings on one lot.
5. Prior to issuance of the first building permit, a landscape plan shall be submitted for the approval of the Zoning Administrator and Village Planner.

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6. The property shall be maintained in a clean condition, free of debris at all times. No junk, inoperable or abandoned vehicles, or vehicles undergoing repair shall be kept on the property at any time. No vehicles shall be parked in any area not designated for vehicle parking as provided for on Sheet 5.
7. Only signs allowed by the Village Sign Code, and approved by either the Zoning Administrator or Plan Commission, shall be allowed on the property.
8. Prior to the start of any site construction or issuance of a building permit, whichever occurs first, the following shall occur:
    a. The Village Engineer shall approve all site engineering plans and documents, including a complete Storm Water Management Plan.
    b. Village Board approval of a Storm Water Maintenance Agreement and a Developer's Agreement (to include a submitted and Village approved Letter of Credit for any off-site improvements).
    c. Submittal of the signed easements granted to the Village of Mukwonago providing access to maintain on-site sanitary sewer and potable water lines and hydrants.
    d. Completion of all approvals listed in Condition No. 3, and all plans shall be consistent with the plans listed in Condition No. 1 or as modified and identified in the Developer's Agreement.
    e. Approval of the plans by the Fire Chief, which may include, but are not limited to, the internal fire suppression system, external fire department connection location and hydrant locations.
    f. Approval of building plans by the Building Inspector after receipt of approval of building plans by the State of Wisconsin.
    g. Approval of building plans shall include appropriate locations of the external mechanical equipment to be placed hidden from view from neighboring properties.
9. Prior to temporary occupancy issuance for any building, and if needed prior to final occupancy permit, the following shall occur:
    h. Completion of all site grading and storm water management facilities in accordance with approved plans, including landscaping that is a part of the storm water management facilities.
    i. Completion of all exterior lighting for the building in accordance with approved plans.
    j. Completion of the building in accordance with approved plans and all applicable codes.
    k. Completion of a hard drive and parking surfaces from the exterior public right-of-way to the general area surrounding the building, including installation of handicapped parking signs and ramp.
    l. Completion of the dumpster enclosure for the building.

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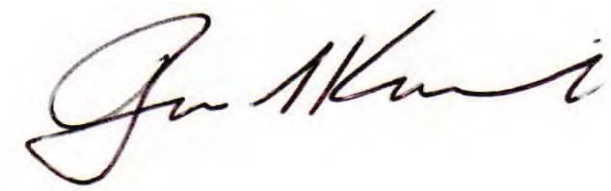
Franklin, WI 53132

10. Prior to final occupancy permit for any building, which shall be issued not later than 120 days after any temporary occupancy permit, the following shall occur:
    m. Completion of all items within Condition No. 9.
    n. Completion of paving and striping of the entire parking area, in accordance with approved plans.
    o. Installation of all site landscaping.
    p. Completion of all required public improvements as specified in the Developer's Agreement.
    q. Completion of any other municipal code requirement in the interest of the health, safety and welfare of the public.

I appreciate the opportunity to assist the Village of Mukwonago with the review of this proposal. Should any questions arise, please feel free to contact me.

Sincerely,



Bruce S. Kaniewski, AICP
Village Planner

Cc: John Weidl, Village Administrator (email only)
Steve Braatz, Deputy Clerk (email and hard copy)
Joe Hankovich, Supervisor of Inspections (email only)
Bob Harley, Codes Official (email only)
Mark Blum, Village Attorney (email only)
Kurt Peot, P.E., Village Engineer (email only)
Kevin Schmidt, Police Chief (email only)
Jeff Stien, Fire Chief (email only)
Dave Brown, Utilities Superintendent (email only)
Ron Bittner, Public Works Director (email only)
Tim Seidel, Architect (email only)
Tim Lynch, Engineer (email only)
Joe Goldberger, Applicant's Representative (email only)

Village of Mukwonago, Post Office Box 206, 440 River Crest Court, Mukwonago, Wisconsin 53149
www.villageofmukwonago.com, (262) 363-6420, (262) 363-6425

FORM 1: STANDARD APPLICATION

Request for Plan Commission Review

- The undersigned petition is to consider a request, as stated herein, for the specified parcel(s) of land and will be reviewed by the Plan Commission and Village Board of the Village of Mukwonago.

(Please Print or Type Information Requested)

Date Submitted	Tax Key (s)
4-8-16	MUKV 2011984

Project Name
PREMIER WOODS - PHASE 2

Location of Project
NW CORNER of CTH "ES" and Phantom WOODS RD.

Request (check all that apply)	Form	Fee Schedule	Fee
☐ Change of Zoning	1	$300.00	$
☐ Extraterritorial Review	1	$200.00	$
☐ Minor Site Plan Review (Buildings less than 600 sq. ft.)	2	$135.00 plus $.02 per sq. ft.	$
☑ Site Plan or Architectural Review (304.00) 15,200 sf.	2	$250.00 plus $.02 per sq. ft.	$ 554.00
☐ Conceptual Site Plan/Architectural Review	2	$200.00 plus $.02 per sq. ft.	$
☐ Planned Unit Development (PUD) Review	2	$185.00 plus $25.00/unit	$
☐ Certified Survey Map (Minor)	3	$150.00	$
☐ Certified Survey Map (3-4 Lots)	3	$250.00 plus $16.00/lot	$
☐ Preliminary Plat Review	4	$250.00 plus $16.00/lot	$
☐ Conceptual Land Division Review	4	$200.00 plus $11.00/lot	$
☐ Final Plat Review	5	$250.00 plus $11.00/lot	$
☐ Annexation Review (up to 10 acres)	6	$200.00	$
☐ Annexation Review (10.01 acres or more)	6	$200.00 plus $20.00/acre	$
☐ Attachment Review (up to 10 acres)	6	$300.00	$
☐ Attachment Review (10.01 acres or more)	6	$300.00 plus $20.00/acre	$
☐ Re-submittal of Any Plans		$200.00	$
☐ Other _____			$
		Fee Total	$

Change of Zoning Property Information

Present Zoning	Requested Zoning	Anticipated Date of Construction

Present Use

Intended Use

Extraterritorial Review Information

Town Property is Located In	Zoning of Property

Town Official Contact Name	Town Official Contact Phone Number

Type of Review ☐ Certified Survey ☐ Preliminary Plat ☐ Final Plat ☐ Other _____

Purpose of Request

Applicant

Name CALVIN AKIN, CHIEF MANAGER			
Company PREMIER MINNESOTA, LLC, a MINNESOTA LIMITED LIABILITY CO.			
Address 19105 W. CAPITOL DR. STE 200	**City** BROOKFIELD	**State** WI	**Zip** 53145
Daytime Phone 262-790-4560	**Fax** 262-790-4570		
E-Mail cal@premier-real-estate.com			

Property Owner

(Note: If not the legal owner of the property, please state name, position, and title in relation to the lot of interest. An Offer to Purchase, with written acknowledgement of the current owner is required with this application.)

Name CALVIN AKIN			
Company PREMIER MINNESOTA, LLC, a MINNESOTA LIMITED LIABILITY CO.			
Address 19105 W. CAPITOL DR. SUITE 200	**City** BROOKFIELD	**State** WI	**Zip** 53145
Daytime Phone 262-790-4560	**Fax** 262-790-4570		
E-Mail cal@premier-real-estate.com			

Secondary Property Owner

Name			
Company			
Address	**City**	**State**	**Zip**
Daytime Phone	**Fax**		
E-Mail			

Agent

(Person representing applicant to be notified of meetings and given copies of reports)

Name CHRIS SLATER			
Company PREMIER MINNESOTA, LLC, a MINNESOTA LIMITED LIABILITY CO.			
Address 19105 W. CAPITOL DR. STE. 200	**City** Brookfield	**State** WI	**Zip** 53145
Daytime Phone 262-790-4564	**Fax** 262-790-4570		
E-Mail chris@premier-real-estate.com			

Applicant hereby certifies that:

1. All of the above statements and other information submitted as part of this application are true and correct to the best of his or her knowledge.
2. Affirms that no Village of Mukwonago elected or appointed official or employee has a proprietary interest in the above referenced property for which this applications being filed (except as stated below under "Exceptions").
3. None of the above referenced individuals has been promised or given any contract for consultation, planning or construction in relation to this project (except as stated below under "Exceptions").
4. Applicant has read and understands all information in this packet.
5. Applicant understands that, pursuant to Section 70-15 of the Municipal Code of the Village of Mukwonago, any discussion or contact with the Village Attorney, Engineer and/or Planner will result in a chargeback of fees incurred.

Applicant further understands the policies of the Village regarding change of zonings and property development. Conditions of the resolution regarding all approvals are strictly followed. Certificates of Occupancy are not given until all conditions of approval have been met

By the execution of this application, applicant hereby authorizes the Village of Mukwonago or its agents to enter upon the property during the hours of 7:00 am to 7:00 pm daily for the purpose of inspection. Applicant grants this authorization to enter even if this land has been posted against trespassing pursuant to Section 943.13 WI Stats.

Signature of Applicant	Signature of Property Owner(s)
[illegible]	
Exceptions	

Office Use Only			
Date Paid 4/14/16	Receipt # 5467.700	Date(s) Notice Published	Date Notices Mailed
Public Hearing Date	Plan Commission Date(s)	Village Board Date(s)	Ordinance Number
Plan Commission Disposition			
Village Board Disposition			

Village of Mukwonago, P.O. Box 206, 440 River Crest Court, Mukwonago, Wisconsin 53149
www.villageofmukwonago.com, (262) 363-6420, (262) 363-6425

FORM 2: SITE PLAN, ARCHITECTURAL AND PLANNED UNIT DEVELOPMENT (PUD) REVIEWS

Date	Project Name
	PREMIER WOODS - PHASE 2

Request:
- ☐ Minor Site Plan Review
- ☒ Architectural Review
- ☐ Planned Unit Development (PUD) Review
- ☒ Site Plan Review
- ☐ Conceptual Review
- ☐ Other _____

SUBMITTAL REQUIREMENTS:

All materials listed below must be provided to the Village of Mukwonago in accordance with Village Municipal Code Chapter 100 Article IX, Section 100-601(f) and other pertinent sections of Village ordinances, and as necessary to permit review that is consistent with proper planning practice. The Village will strive to accommodate reasonable requests for informal preliminary staff review, however the Village shall not place any items on the agenda for Plan Commission consideration until such time as the application is complete in accordance with all requirements specified on this and other attached application forms.

Ten copies of the entire application for staff review, and twelve additional copies as requested for Plan Commission review are required. The complete application packet, including the required number of copies, must be submitted at least 25 days prior to the Plan Commission meeting at which the item will be heard. Plan Commission meets the Monday before the third Tuesday of every month, at 7:00 pm.

I understand the Village policy as stated above.

Date	Signature of Applicant(s)
4-1-16	[illegible] - member

SUPPLEMENTAL INFORMATION:

Additional Required Information

PROPOSAL DESCRIPTION: Please attach a statement detailing the reasons and background for this request including: details of proposal, services provided, wares sold, plans and hours of operation, number of employees, frequency of customer visits, frequency of deliveries to site, description of any interior/exterior modifications or additions to be made to property, any outside storage (dumpsters, trucks, materials...), number of parking stalls, screening/buffer type, any other information available. ***PLEASE EXPLAIN IN DETAIL.***

Office Use Only		
Date Submitted	**Date of Plan Commission**	**Signature of Staff Member**

RECEIVED: *(Staff: Check each individual box as information is confirmed. If not applicable, mark N/A.)*

- ☐ Standard Application and Additional Required Information sheet (Forms 1 and 2) *NOTE: Three official copies to be signed by Plan Commission or Economic Development Committee chair (100-601(f)(22))*
- ☐ Descriptive materials
  - ☐ Description of the subject site by lot, block and recorded subdivision, or metes and bounds
  - ☐ Type of structure
  - ☐ Existing and proposed operation or use of the structure or site
  - ☐ Number of employees
- ☐ Site plan and other supplementary drawings, drawn to scale, to include *all* of the following:
  - ☐ Existing and proposed structures
  - ☐ Existing and proposed easements, streets and other public ways
  - ☐ Existing and proposed street side and rear yards
  - ☐ Required setback lines
  - ☐ Sidewalks, off-street parking, loading areas and driveways (including types of materials)
  - ☐ Utility, refuse and storage areas (including types of materials)
  - ☐ Existing highway access restrictions (or a statement that none exist)
  - ☐ All existing and finished grade levels
  - ☐ Areas of fill and cut
  - ☐ Water impoundments, if any
  - ☐ Storm water drainage plans and facilities, including on/off-site storm water detention facilities
  - ☐ Location, elevation and use of any abutting lands and structures within 40 feet of subject site
  - ☐ Landscape plans
  - ☐ Building exterior façade designs and colored architectural renderings

Architect

Name: TIMOTHY SEIDEL			
Company: TIMOTHY SEIDEL ARCHITECT, LLC			
Address: 530 CYMRIC CT.	City: WALES	State: WI	Zip: 53183
Daytime Phone: 262-968-5580	Fax: 262-968-5581		
E-Mail: tseidelarchitect@wi.rr.com.			

Professional Engineer

Name: TIMOTH C. LYNCH			
Company: LYNCH and ASSOCIATES- ENGINEERING CONSULTANTS, LLC			
Address: 5482 S. WESTRIDGE DRIVE	City: NEW BERLIN	State: WI	Zip: 53151
Daytime Phone: 262-402-5040	Fax: 262-402-5046		
E-Mail: tlynch@lynch-engineering.com.			

Registered Surveyor

Name: KENNETH B. MEHRING			
Company: LYNCH and Associates - ENGINEERING CONSULTANTS. LLC			
Address: 5482 S. WESTRIDGE DRIVE	City: NEW BERLIN	State: WI	Zip: 53151
Daytime Phone: 262-402-5040	Fax: 262-402-5046		
E-Mail: bmehring@lynch-engineering.com			

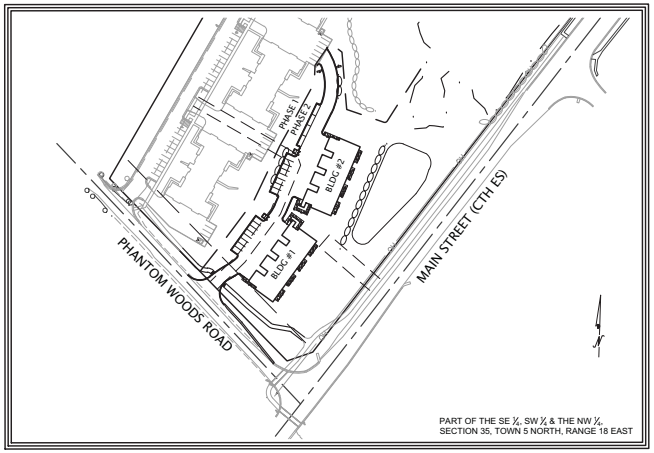
Contractor

Name:			
Company:			
Address:	City:	State:	Zip:
Daytime Phone:	Fax:		
E-Mail:			

SITE IMPROVEMENT PLANS
FOR
PREMIER WOODS - PHASE 2

VILLAGE OF MUKWONAGO, WAUKESHA, WISCONSIN

VICINITY MAP



SITE MAP

OWNER:
PREMIER REAL ESTATE MANAGEMENT, LLC
REPRESENTATIVE: CALVIN AKIN
19105 W. CAPITOL DRIVE, SUITE 200
BROOKFIELD, WI 53045

ENGINEER:
LYNCH & ASSOCIATES -
ENGINEERING CONSULTANTS, LLC
5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151

WISCONSIN DAVID K. VIVIAN E-32210 PROFESSIONAL ENGINEER
5/13/16

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC
5482 S. WESTRIDGE DRIVE, NEW BERLIN, WI 53151 (262) 402-5040

SITE IMPROVEMENT PLANS
FOR
PREMIER WOODS - PHASE 2

SHEET INDEX

1	TITLE SHEET, SHEET INDEX, VICINITY AND SITE MAP
2	DETAIL SHEET
3	DETAIL SHEET
4	DETAIL SHEET
5	SITE PLAN
6	ROADWAY & STORM SEWER PLAN & PROFILE
7	SANITARY & WATER MAIN PLAN & PROFILE
8	GRADING PLAN
9	EROSION CONTROL PLAN

MEMBER ONE CALL SYSTEMS INTERNATIONAL

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE
TOLL FREE
800-242-8511
(414-259-1181 MILWAUKEE METRO)
(TDD: 800-542-2289)
www.diggershotline.com
WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

CAUTION NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

	INITIALS	DATE
DESIGNED	DKV	05/13/16
DRAWN	DKV	05/13/16
CHECKED	TCL	05/13/16

0 NTS
SCALE

PROJECT NO.
14-017

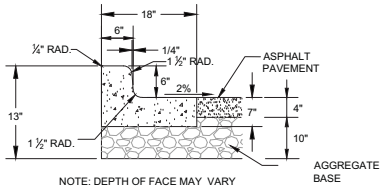
NO.	REVISIONS	BY	DATE

TITLE SHEET, INDEX
VICINITY MAP
SITE MAP

SHEET NO.
1 OF 9

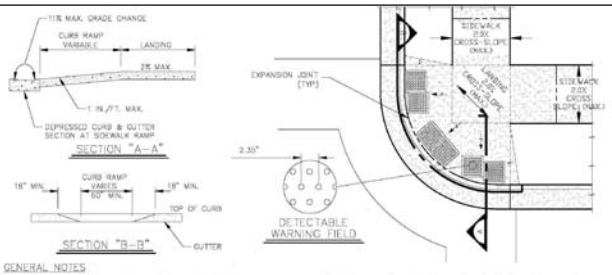
FILENAME: P:\Shared\1 - Projects\2014\14.017 - Tim Seidel Premier Woods\PHASE 2\CAD\Sheets\01-TS.dwg

PLOT DATE: 5/13/2016 12:32 PM



NOTE: DEPTH OF FACE MAY VARY

TYPICAL 18" CURB (1/2)



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12:1 OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP. RAMP OPENING VARIES DEPENDENT ON CURB RADIUS AND RIGHT OF WAY WIDTH. NUMBER OF DETECTABLE WARNING FIELDS VARIES BASED UPON RAMP OPENING. WARNING FIELDS TO BE PLACED ALONG RAMP OPENING SPACING NOT MORE THAN 12-INCHES OR LESS THAN 4-INCHES BETWEEN WARNING FIELDS. CURB RAMP OPENING SHALL BE STAKED IN THE FIELD PRIOR TO CURB AND GUTTER CONSTRUCTION.

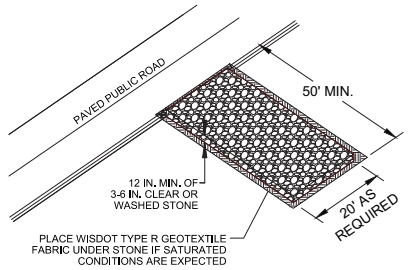
BACK OF CURB RUNNING SLOPE MUST MATCH RAMP RUNNING SLOPE.

CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE ACROSS CURB AND GUTTER SECTION.

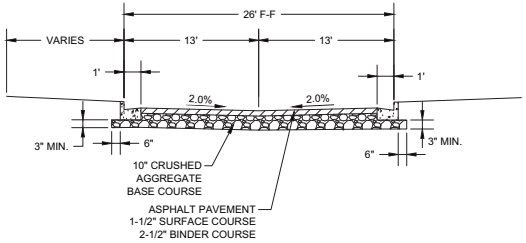
SURFACE TEXTURE SHALL BE OBTAINED BY USING THE DETECTABLE WARNING PLATES BY NEENAH FOUNDRY FOLLOWING THE MANUFACTURERS RECOMMENDATIONS AND FOLLOWING WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL S.D.D. 805-90 AND SECTION 602.0505.5 OF THE 2003 STANDARD SPECIFICATIONS AND 2004 SUPPLEMENTAL SPECIFICATIONS.

TYPICAL SIDEWALK RAMP (3/2)

NTS

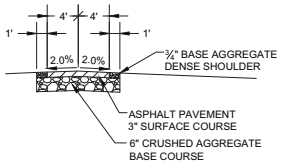


CONSTRUCTION ENTRANCE TRACKING PAD (5/2)

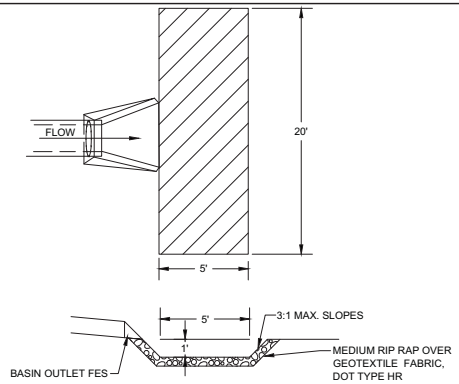


TYPICAL DRIVEWAY CROSS SECTION (6/2)

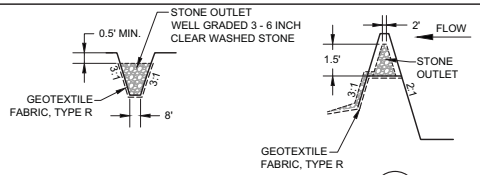
N.T.S.



ASPHALT MULTI-USE TRAIL (2/2)

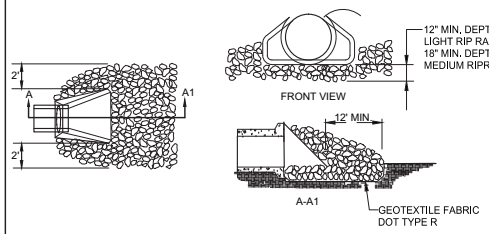


LEVEL SPREADER (4/2)



SEDIMENT TRAP OUTLET (7/2)

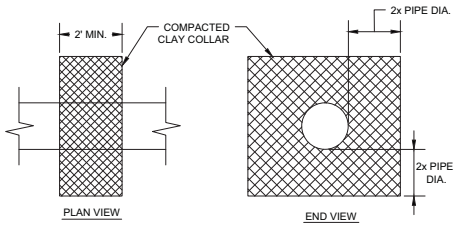
NTS



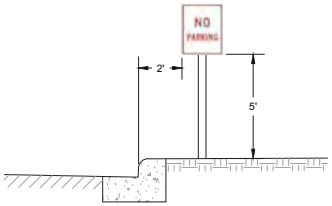
RIPRAP PROTECTION AT OUTLETS (8/2)

NOTES:

1. EXCAVATE TO ONE FOOT BELOW PIPE OUTLET AND WIDEN CHANNEL TO THE REQUIRED RIP RAP THICKNESS FOR EACH APRON. FOUNDATION TO BE CUT TO ZERO GRADE AND SMOOTHED.
2. PLACE FILTER CLOTH ON BOTTOM AND SIDES OF PREPARED FOUNDATION. ALL JOINTS TO OVERLAP A MINIMUM OF ONE FOOT.
3. EXERCISE CARE IN RIPRAP PLACEMENT TO AVOID DAMAGE TO FILTER FABRIC.
4. PLACE RIPRAP ON ZERO GRADE, TOP OF RIPRAP TO BE LEVEL WITH PROPOSED OUTLET, NO OVERFALL AT ENDS.
5. RIPRAP SHALL BE MEDIUM RIPRAP IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
6. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.
7. LINE CHANNEL TO TOP OF BANKS FOR A DISTANCE OF 12' DOWNSTREAM. NO RESTRICTION OF CHANNEL CROSS SECTION SHOULD EXIST.



ANTI SEEP COLLAR (9/2)



12" x 18" NO PARKING SIGN (10/2)

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC
5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151
(262) 402-5040

NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2

DETAIL SHEET

VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

	INITIALS	DATE
DESIGNED	DKV	05/13/16
DRAWN	DKV	05/13/16
CHECKED	TCL	05/13/16

0 NTS

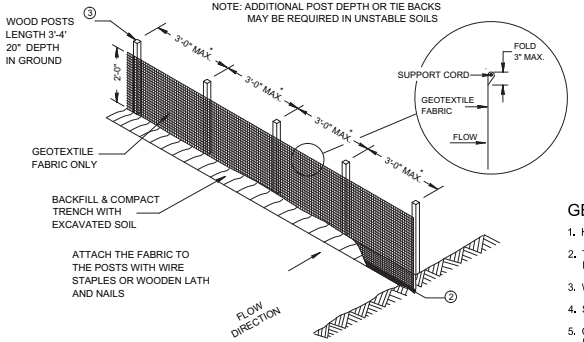
SCALE

PROJECT NO. 14-017

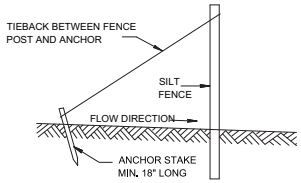
SHEET NO. 2 OF 9

This drawing based on Wisconsin Department of Transportation Standard Detail Drawing 8 E 9-6.

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

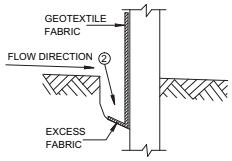


* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

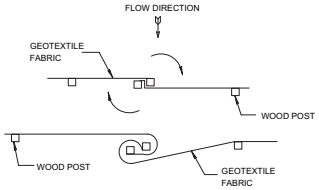


SILT FENCE TIE BACK

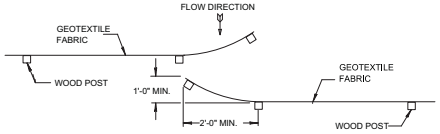
(WHEN ADDITIONAL SUPPORT REQUIRED)



TRENCH DETAIL



TWIST METHOD



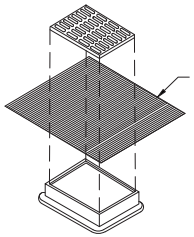
HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE

GENERAL NOTES:

1. HORIZONTAL BRACE REQUIRED WITH 2" x 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1-1/8" x 1-1/8" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS;
   A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180°
   B) HOOK THE END OF EACH SILT FENCE LENGTH.

SILT FENCE 1/3

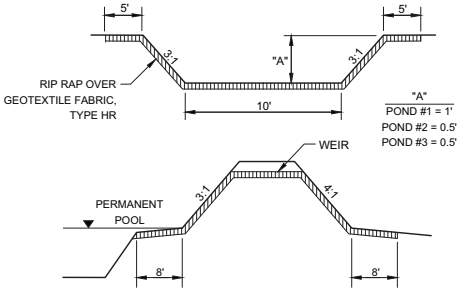


INSTALLATION NOTES:

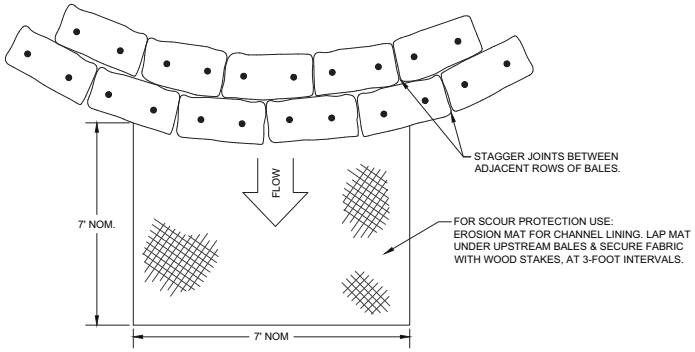
FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

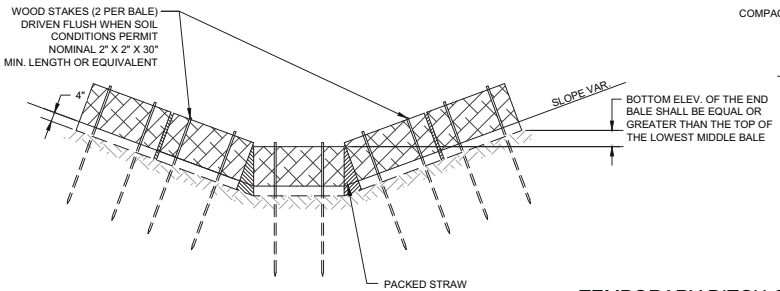
INLET PROTECTION TYPE B 2/3



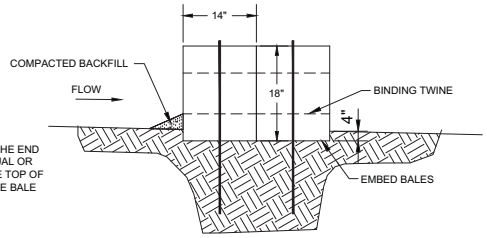
EMERGENCY SPILLWAY 3/3



PLAN



ELEVATION



BACKFILL AND COMPACT THE EXCAVATED SOIL AS SHOWN ON THE UPHILL SIDE OF THE BARRIER TO PREVENT PIPING

SECTION

TEMPORARY DITCH CHECK USING EROSION BALES 4/3

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5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151
(262) 402-5040

NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2

DETAIL SHEET

VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

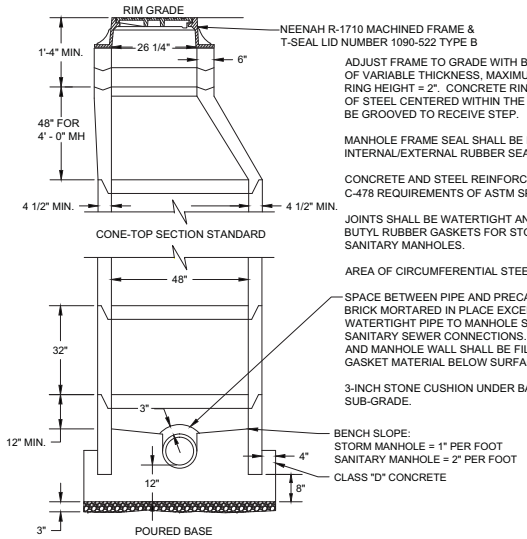
	INITIALS	DATE
DESIGNED	DKV	03/28/16
DRAWN	DKV	03/28/16
CHECKED	TCL	03/28/16

0 NTS

SCALE

PROJECT NO. 14-017

SHEET NO. 3 OF 9



ADJUST FRAME TO GRADE WITH BRICK OR CONCRETE RINGS OF VARIABLE THICKNESS, MAXIMUM RING HEIGHT = 6". MINIMUM RING HEIGHT = 2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY RINGS SHALL BE GROOVED TO RECEIVE STEP.

MANHOLE FRAME SEAL SHALL BE EITHER EXTERNAL OR COMBINATION INTERNAL/EXTERNAL RUBBER SEALS.

CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO DESIGNATION C-478 REQUIREMENTS OF ASTM SPECIFICATIONS.

JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING MORTAR OR BUTYL RUBBER GASKETS FOR STORM AND BUTYL RUBBER GASKETS FOR SANITARY MANHOLES.

AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ. INCH PER LINEAL FOOT.

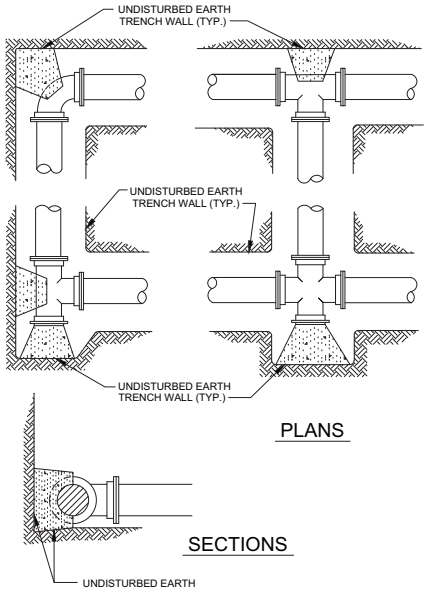
SPACE BETWEEN PIPE AND PRECAST MANHOLE WALL TO BE FILLED WITH BRICK MORTARED IN PLACE EXCEPT THAT AN APPROVED FLEXIBLE WATERTIGHT PIPE TO MANHOLE SEAL IS REQUIRED FOR ALL FLEXIBLE SANITARY SEWER CONNECTIONS. THE ANNULAR SPACE BETWEEN THE PIPE AND MANHOLE WALL SHALL BE FILLED WITH FLEXIBLE BUTYL RUBBER GASKET MATERIAL BELOW SURFACE OF BENCH OR SPRINGLINE.

3-INCH STONE CUSHION UNDER BASE IS REQUIRED ONLY ON WET SUB-GRADE.

BENCH SLOPE:
STORM MANHOLE = 1" PER FOOT
SANITARY MANHOLE = 2" PER FOOT

CLASS "D" CONCRETE

SANITARY SEWER PRECAST MANHOLE (1/4)



PLANS

SECTIONS

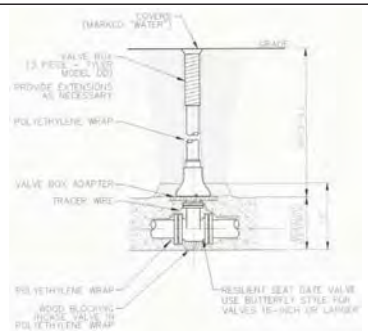
NOTES:

1. PROVIDE PRECAST OR CAST-IN-PLACE CONCRETE THRUST BLOCKS OF ADEQUATE SIZE AND THRUST BEARING SURFACE TO PREVENT MOVEMENT OF PIPELINE UNDER PRESSURE.

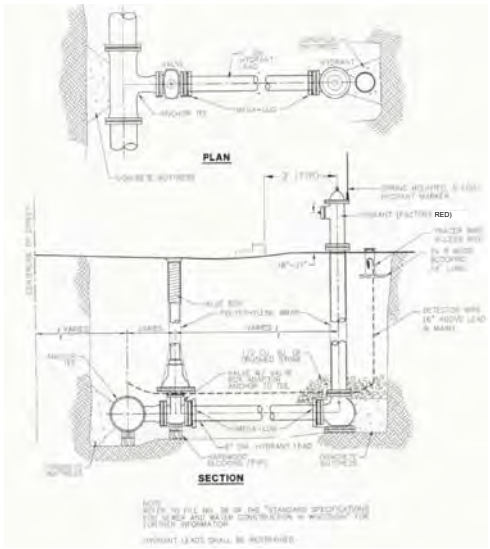
2. PLACE THE BASE AND THRUST BEARING SIDES OF THRUST BLOCK DIRECTLY AGAINST UNDISTURBED EARTH.

3. PLACE THRUST BLOCKING SO THE FITTING JOINTS WILL BE ACCESSIBLE FOR REPAIR.

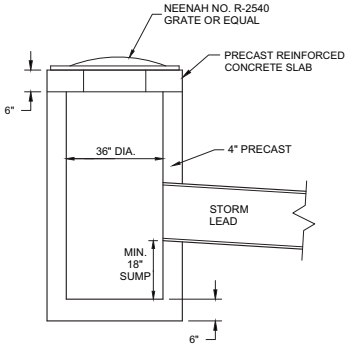
WATER MAIN THRUST BLOCK INSTALLATION (3/4)



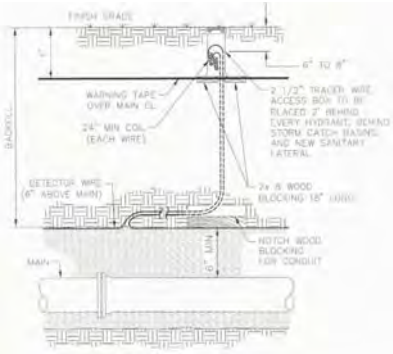
STANDARD GATE VALVE BOX SETTING (4/4)



WATER MAIN HYDRANT INSTALLATION (5/4)



STORM SEWER CATCH BASIN DETAIL (2/4)



DETECTOR WIRE & LOCATION BOX (ON TERRACE)

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NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2
DETAIL SHEET
VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

	INITIALS	DATE
DESIGNED	DKV	03/28/16
DRAWN	DKV	03/28/16
CHECKED	TCL	03/28/16

0 NTS
SCALE

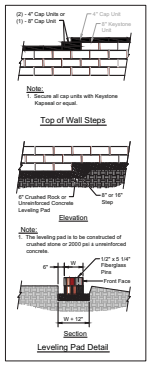
PROJECT NO.
14-017

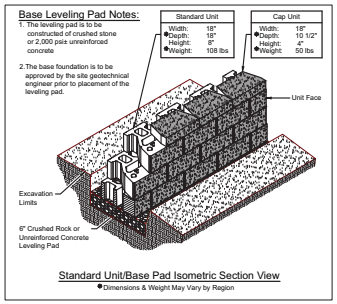
SHEET NO.
4 OF 9

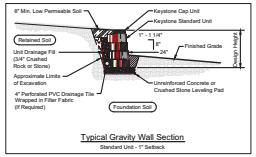
FILENAME: P:\Shared\1 – Projects\2014\14.017 –Tim Seidel Premier Woods\PHASE 2\CAD\Sheets\02-DTL.dwg

PLOT DATE: 3/28/2016 2:10 PM

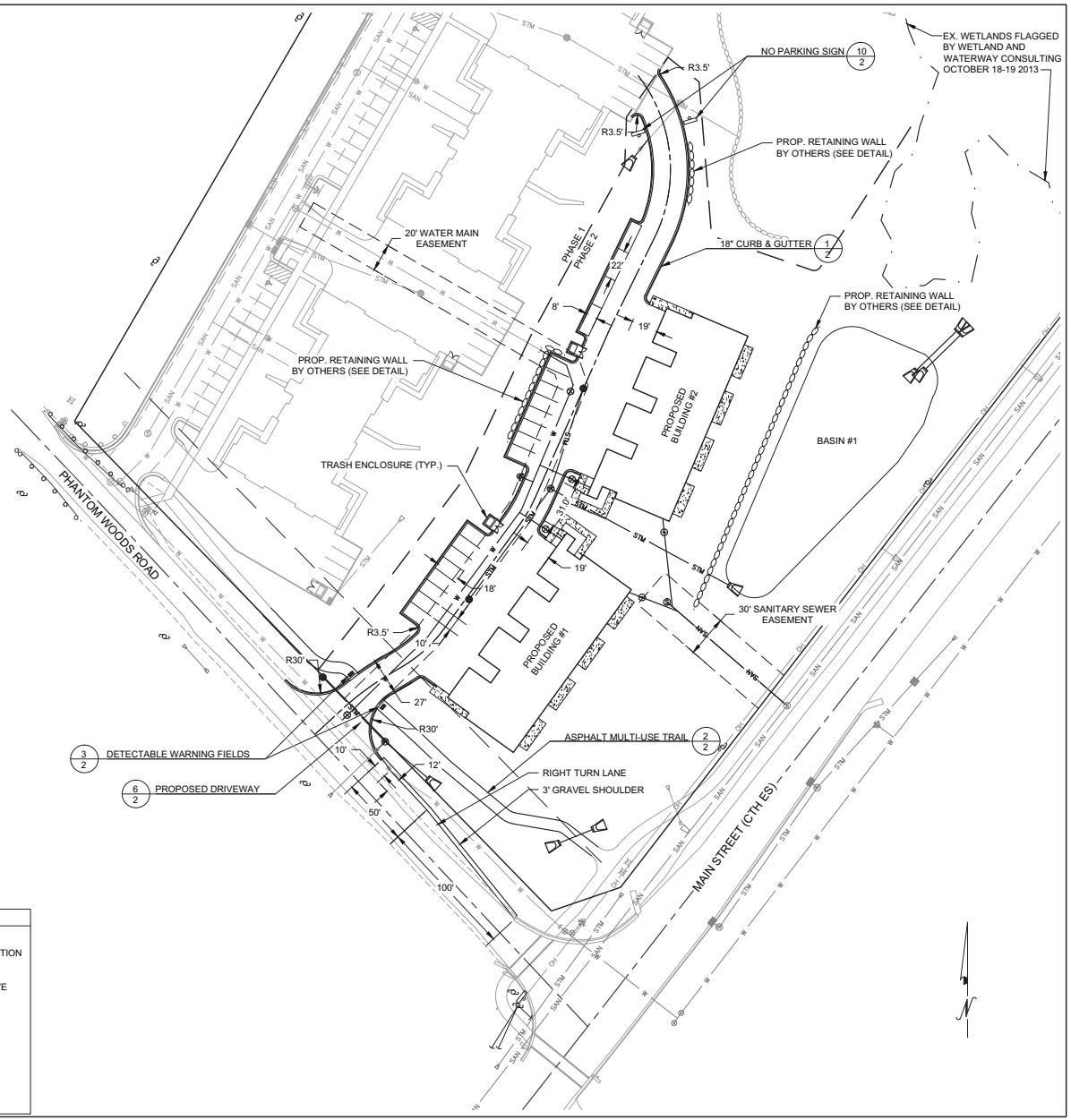
GENERAL NOTES:
1. ALL DRIVEWAY & RADII DIMENSIONS ARE TO THE BACK OF CURB. SEE DETAIL SHEET 2 FOR TYPICAL DRIVEWAY SECTIONS & CURB DETAILS







RETAINING WALL DETAIL
(BY OTHERS)



LEGEND

	EXISTING POWER POLE	STM	PROPOSED STORM SEWER
	EXISTING WATER VALVE & HYDRANT		PROPOSED STORM INLET & END SECTION
W	EXISTING WATER MAIN	W	PROPOSED WATER MAIN
	EXISTING SANITARY MANHOLE		PROPOSED HYDRANT & WATER VALVE
SAN	EXISTING SANITARY SEWER		PROPOSED RETAINING WALL
	EXISTING STORM MANHOLE & INLET		PROPOSED CONCRETE SIDEWALK
STM	EXISTING STORM SEWER		
	EXISTING TELEPHONE PEDESTAL		
SAN	PROPOSED SANITARY SEWER		
	PROPOSED SANITARY MANHOLE		
	PROPOSED SANITARY CLEANOUT		

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NO.	REVISIONS	BY	DATE

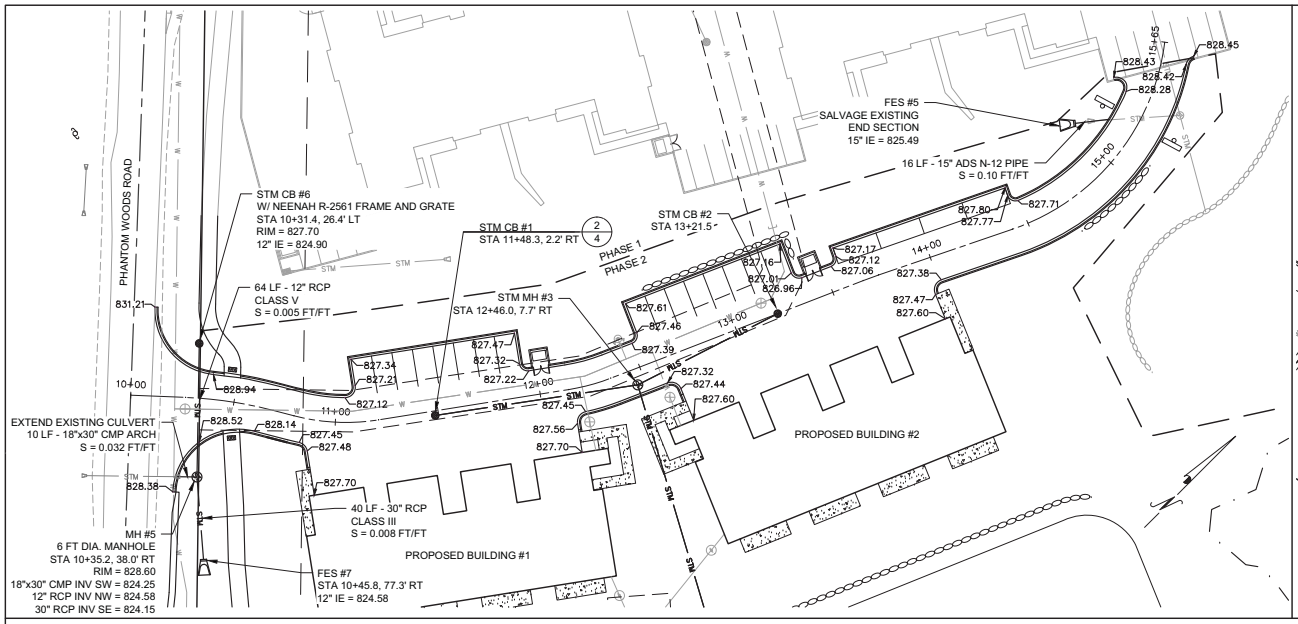
PREMIER WOODS – PHASE 2
SITE PLAN
VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

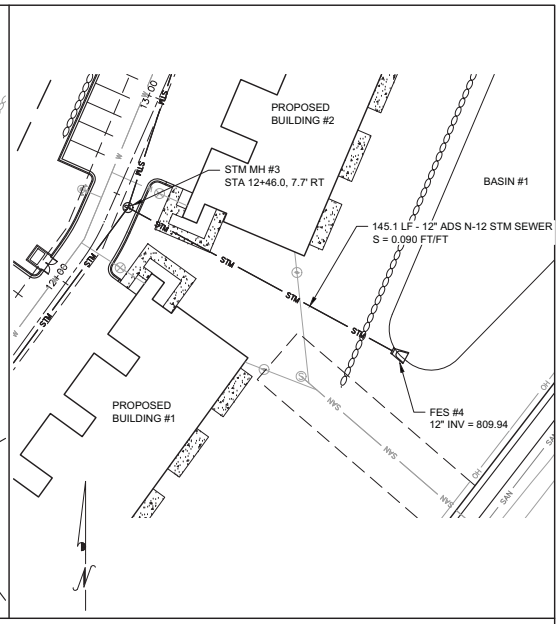
	INITIALS	DATE
DESIGNED	DKV	05/13/16
DRAWN	DKV	05/13/16
CHECKED	TCL	05/13/16

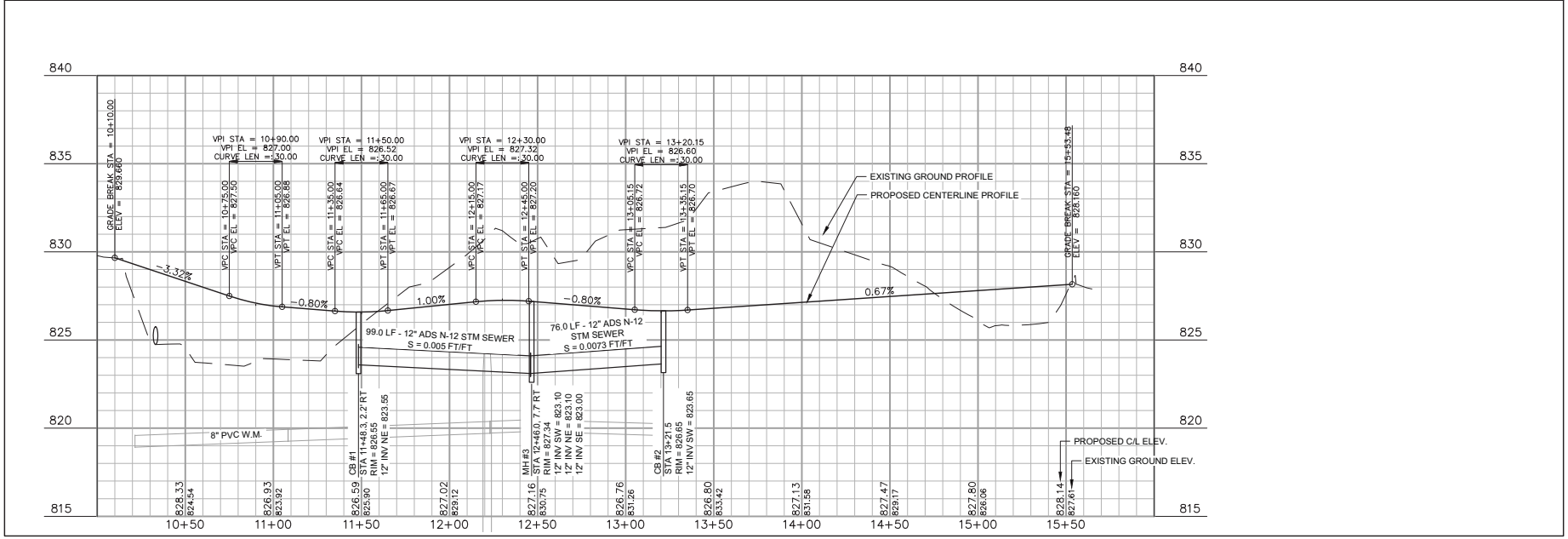
0 40'
SCALE

PROJECT NO. 14-017

SHEET NO. 5 OF 9







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NEW BERLIN, WI 53151
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NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2

ROADWAY & STORM SEWER PLAN & PROFILE

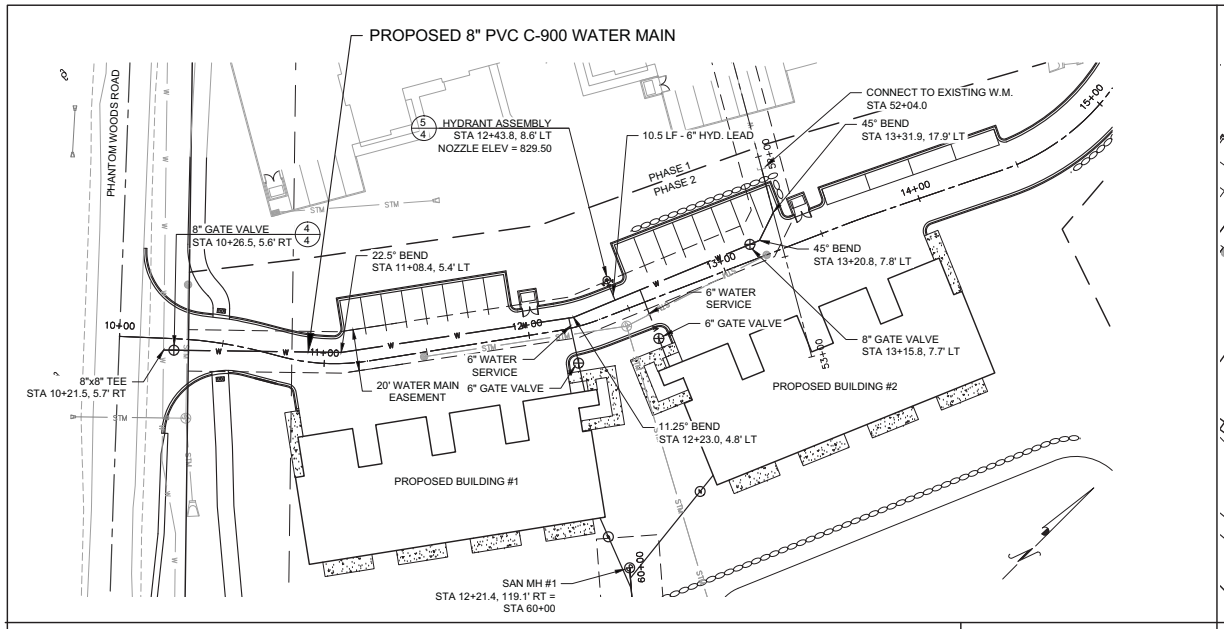
VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

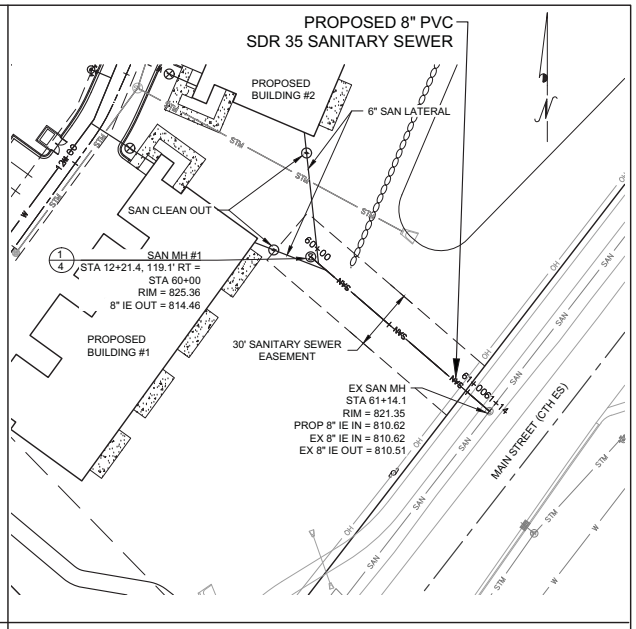
	INITIALS	DATE
DESIGNED	DKV	05/13/16
DRAWN	DKV	05/13/16
CHECKED	TCL	05/13/16

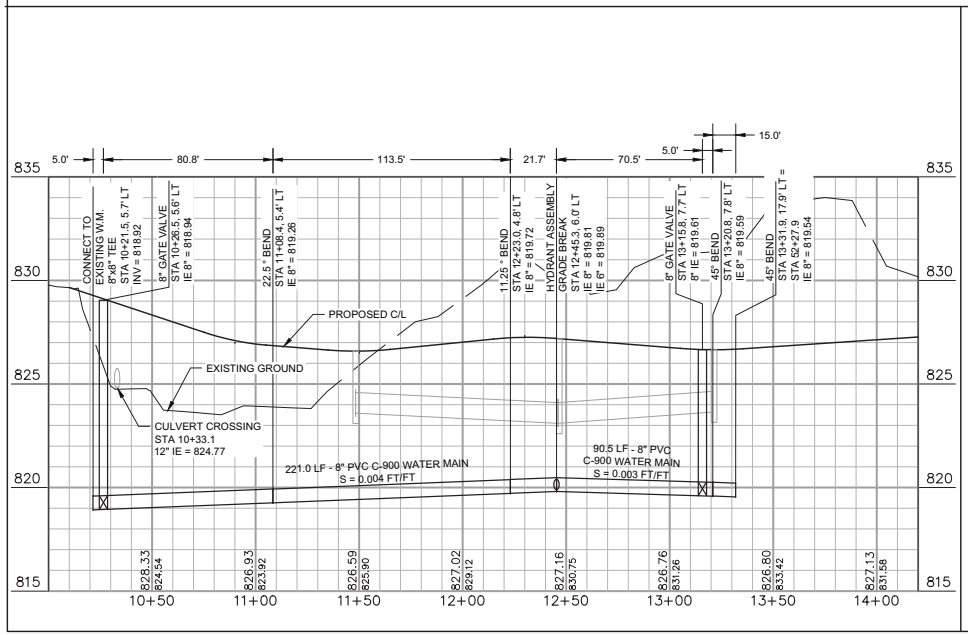
0 30'
SCALE

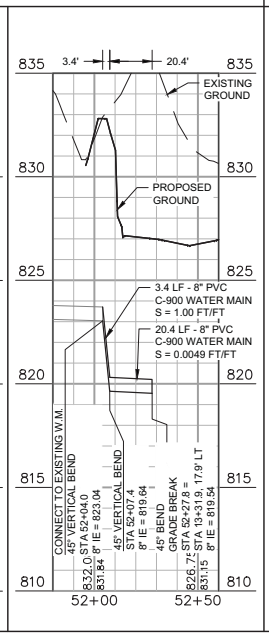
PROJECT NO.
14-017

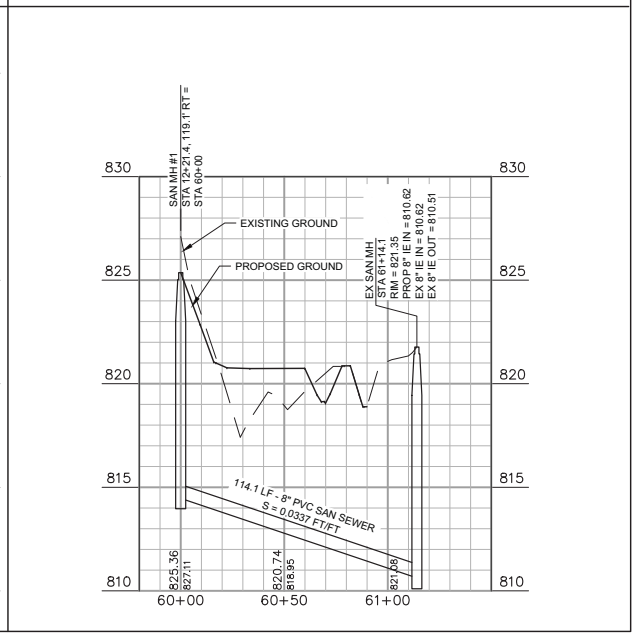
SHEET NO.
6 OF 9











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5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151
(262) 402-5040

NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2

SANITARY SEWER & WATER MAIN PLAN & PROFILE

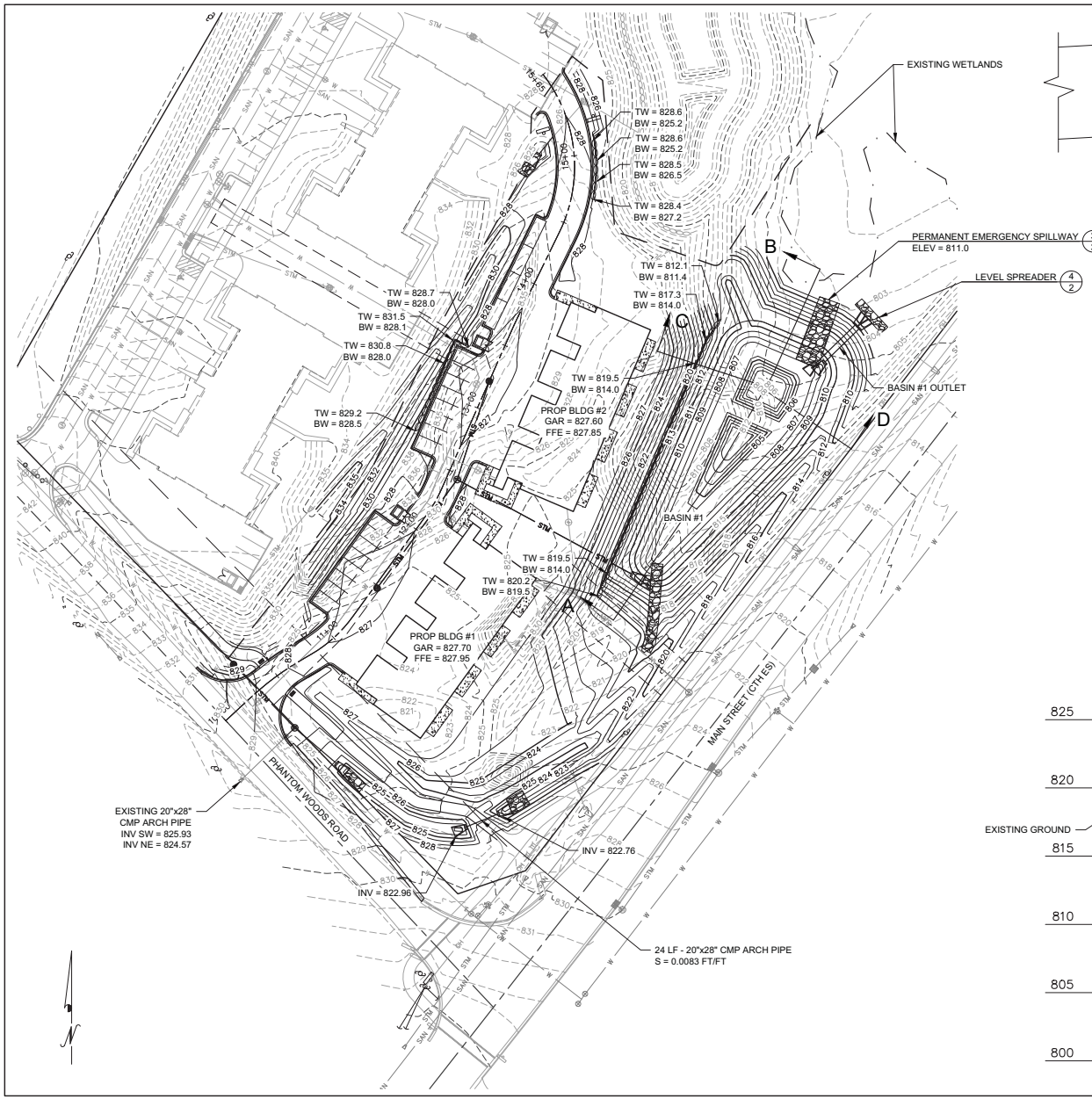
VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

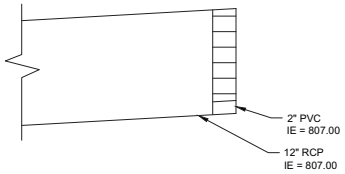
	INITIALS	DATE
DESIGNED	DKV	05/13/16
DRAWN	DKV	05/13/16
CHECKED	TCL	05/13/16

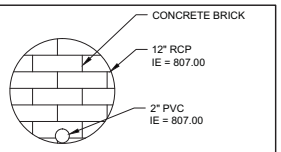
0 30'
SCALE

PROJECT NO. 14-017

SHEET NO. 7 OF 9

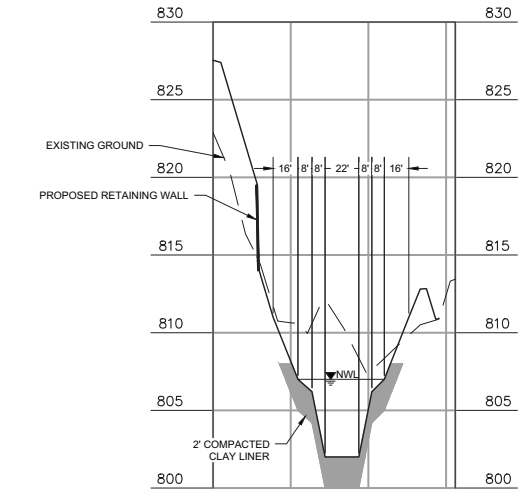


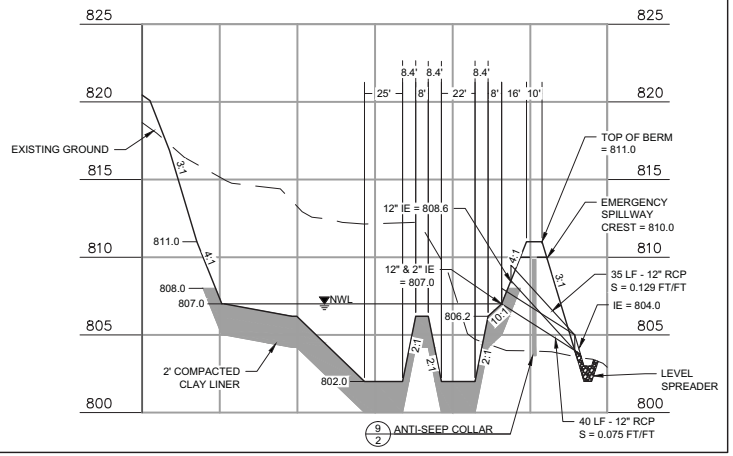




NOTE:
APPLY A PLASTER COAT OF MORTAR TO THE EXTERIOR SURFACE OF CONCRETE BRICK. PLASTER COAT TO BE THE SAME MORTAR USED IN LAYING THE BRICKS AND SHALL BE NOT LESS THAN 1/2-INCH THICK.

OUTLET STRUCTURE DETAIL





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5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151
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NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2
GRADING PLAN
VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

	INITIALS	DATE
DESIGNED	DKV	05/13/16
DRAWN	DKV	05/13/16
CHECKED	TCL	05/13/16

0 40'
SCALE

PROJECT NO.
14-017

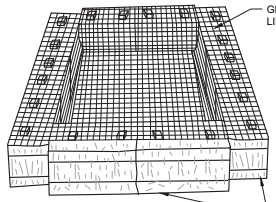
SHEET NO.
8 OF 9

FILENAME: P:\Shared\1 – Projects\2014\14.017 –Tim Seidel Premier Woods\PHASE 2\CAD\Sheets\06-GP EC.dwg

PLOT DATE: 5/19/2016 10:58 AM

CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCE AT THE LOCATIONS NOTED IN THE PLANS. THIS MUST BE DONE BEFORE ANY GRADING ACTIVITIES TAKE PLACE.
2. CONSTRUCT DITCHES AND BASIN #1 TO ACT AS A SEDIMENT TRAP DURING CONSTRUCTION. BASIN #1 IS TO BE CONSTRUCTED TO FINISHED GRADE WITH THE CLAY LINER INSTALLED. THIS WORK IS TO BE DONE PRIOR TO ANY OTHER LAND DISTURBANCE ACTIVITIES. THE SEDIMENT TRAP STONE OUTLET IS TO BE INSTALLED AT THE LOCATION OF THE FINAL OUTLET FOR POND #1. SIDE SLOPES ARE TO BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION.
3. IF DEWATERING IS NECESSARY DURING POND CONSTRUCTION A TEMPORARY SETTLING BASIN IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET. THE BASIN MUST BE PLACED WITHIN THE PERIMETER SILT FENCE ON LEVEL GROUND.
4. CONSTRUCT PROPOSED ENTRANCE. INSTALL STONE TRACKING PAD.
5. TOPSOIL ON THE REMAINDER OF THE SITE IS TO BE STRIPPED AND STOCKPILED. THE STOCKPILE IS TO BE PROTECTED WITH SILT FENCE WITHIN 7 DAYS AND SEEDED WITHIN 14 DAYS OF LAYUP.
7. ROUGH GRADING MAY TAKE PLACE AFTER TOPSOIL STRIPPING.
8. GRADE ROADWAY AND BUILDING PADS. INSTALL STORM SEWER, WATER MAIN AND SANITARY SEWER. ALL CATCH BASINS AND INLETS ARE TO BE PROTECTED IMMEDIATELY AFTER INSTALLATION IN ACCORDANCE WITH THE DETAILS IN THESE PLANS.
9. CONSTRUCT MULTI-USE TRAIL.
10. PERMANENT SEEDING TO BE COMPLETED BY OCTOBER 15TH OF THE YEAR GRADING WORK IS COMPLETED OR BY JUNE 1ST OF THE FOLLOWING YEAR.
11. REMOVE ALL TEMPORARY BMP'S SUCH AS SILT FENCES, DITCH CHECKS AND SEDIMENT TRAPS AS SOON AS ALL DISTURBED AREAS HAVE BEEN STABILIZED. DO NOT REMOVE BMP'S UNTIL DISTURBED AREAS HAVE BEEN STABILIZED. INSTALL PERMANENT OUTLETS FROM THE BASINS IMMEDIATELY AFTER REMOVING THE TEMPORARY STONE OUTLETS.
12. DEWATER AND REMOVE SEDIMENT FROM THE SEDIMENT TRAP. VERIFY BASIN ELEVATIONS TO ENSURE THAT THE CLAY LINER HAS NOT BEEN REMOVED.



IF DEWATERING IS NECESSARY, A PUMP WILL BE PLACED WHERE NEEDED. AT THE POINT OF DISCHARGE THE WATER BEING PUMPED OUT WILL FLOW INTO A TEMPORARY SETTLING BASIN AS SHOWN ON THE PLANS. SIZING OF THE TEMPORARY SETTLING BASIN SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:

STORAGE VOLUME (C.F.) = 16 x GPM (PUMP RATE)

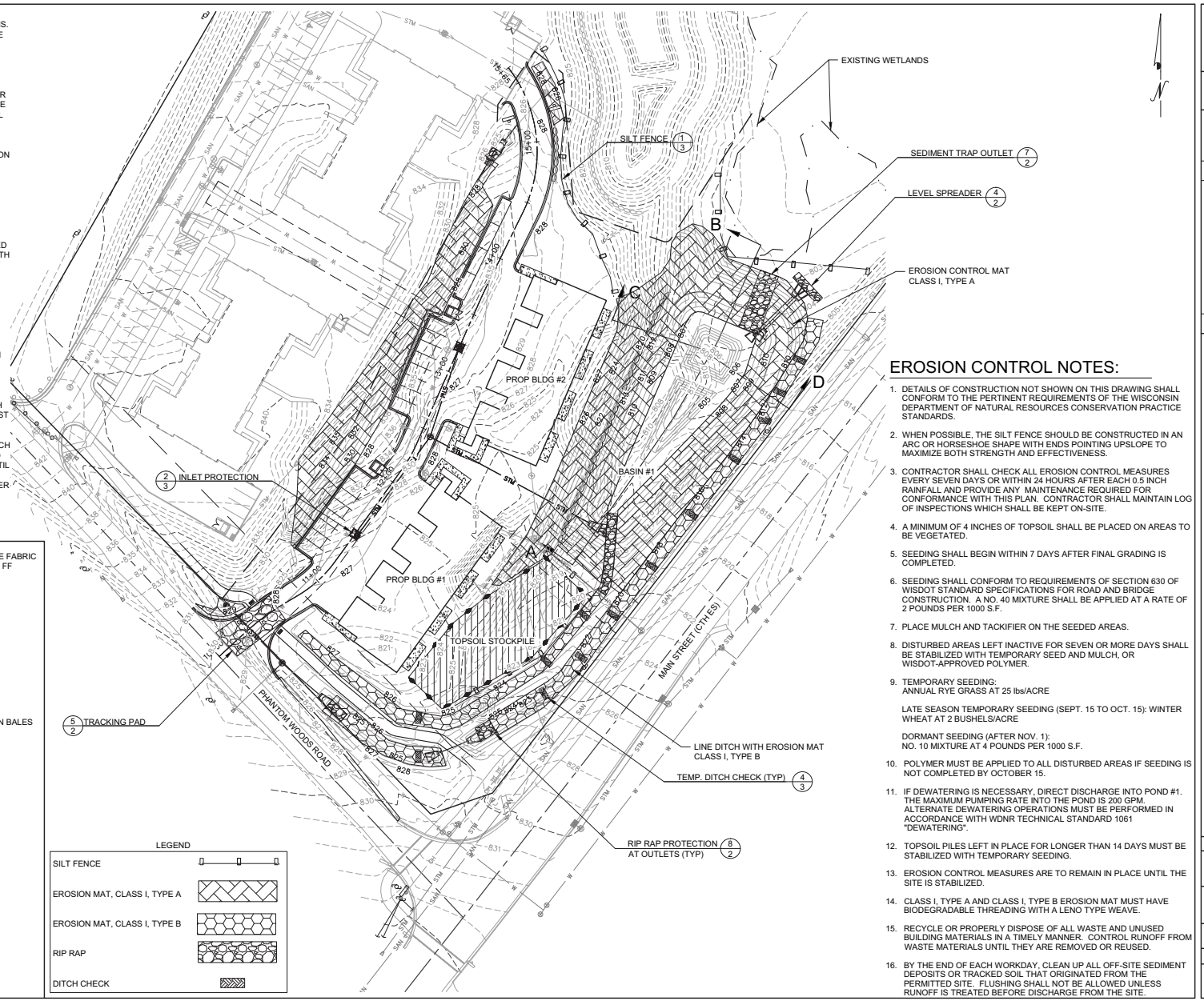
EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT

SOLUTION:
SV(C.F.) = 16 x 50 GPM = 800 C.F.

$\frac{800 \text{ C.F.}}{1.5 \text{ FT.}}$ = 533 S.F.

USE A 20' x 27' BASIN

DEWATERING PLAN



LEGEND

SILT FENCE	
EROSION MAT, CLASS I, TYPE A	
EROSION MAT, CLASS I, TYPE B	
RIP RAP	
DITCH CHECK	

EROSION CONTROL NOTES:

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSERVATION PRACTICE STANDARDS.
2. WHEN POSSIBLE, THE SILT FENCE SHOULD BE CONSTRUCTED IN AN ARC OR HORSESHOE SHAPE WITH ENDS POINTING UPSLOPE TO MAXIMIZE BOTH STRENGTH AND EFFECTIVENESS.
3. CONTRACTOR SHALL CHECK ALL EROSION CONTROL MEASURES EVERY SEVEN DAYS OR WITHIN 24 HOURS AFTER EACH 0.5 INCH RAINFALL AND PROVIDE ANY MAINTENANCE REQUIRED FOR CONFORMANCE WITH THIS PLAN. CONTRACTOR SHALL MAINTAIN LOG OF INSPECTIONS WHICH SHALL BE KEPT ON-SITE.
4. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE PLACED ON AREAS TO BE VEGETATED.
5. SEEDING SHALL BEGIN WITHIN 7 DAYS AFTER FINAL GRADING IS COMPLETED.
6. SEEDING SHALL CONFORM TO REQUIREMENTS OF SECTION 630 OF WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. A NO. 40 MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1000 S.F.
7. PLACE MULCH AND TACKIFIER ON THE SEEDED AREAS.
8. DISTURBED AREAS LEFT INACTIVE FOR SEVEN OR MORE DAYS SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH, OR WISDOT-APPROVED POLYMER.
9. TEMPORARY SEEDING:
   ANNUAL RYE GRASS AT 25 lbs/ACRE

   LATE SEASON TEMPORARY SEEDING (SEPT. 15 TO OCT. 15): WINTER WHEAT AT 2 BUSHELS/ACRE

   DORMANT SEEDING (AFTER NOV. 1):
   NO. 10 MIXTURE AT 4 POUNDS PER 1000 S.F.
10. POLYMER MUST BE APPLIED TO ALL DISTURBED AREAS IF SEEDING IS NOT COMPLETED BY OCTOBER 15.
11. IF DEWATERING IS NECESSARY, DIRECT DISCHARGE INTO POND #1. THE MAXIMUM PUMPING RATE INTO THE POND IS 200 GPM. ALTERNATE DEWATERING OPERATIONS MUST BE PERFORMED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061 "DEWATERING".
12. TOPSOIL PILES LEFT IN PLACE FOR LONGER THAN 14 DAYS MUST BE STABILIZED WITH TEMPORARY SEEDING.
13. EROSION CONTROL MEASURES ARE TO REMAIN IN PLACE UNTIL THE SITE IS STABILIZED.
14. CLASS I, TYPE A AND CLASS I, TYPE B EROSION MAT MUST HAVE BIODEGRADABLE THREADING WITH A LENO TYPE WEAVE.
15. RECYCLE OR PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS IN A TIMELY MANNER. CONTROL RUNOFF FROM WASTE MATERIALS UNTIL THEY ARE REMOVED OR REUSED.
16. BY THE END OF EACH WORKDAY, CLEAN UP ALL OFF-SITE SEDIMENT DEPOSITS OR TRACKED SOIL THAT ORIGINATED FROM THE PERMITTED SITE. FLUSHING SHALL NOT BE ALLOWED UNLESS RUNOFF IS TREATED BEFORE DISCHARGE FROM THE SITE.

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC
5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151
(262) 402-5040

NO.	REVISIONS	BY	DATE

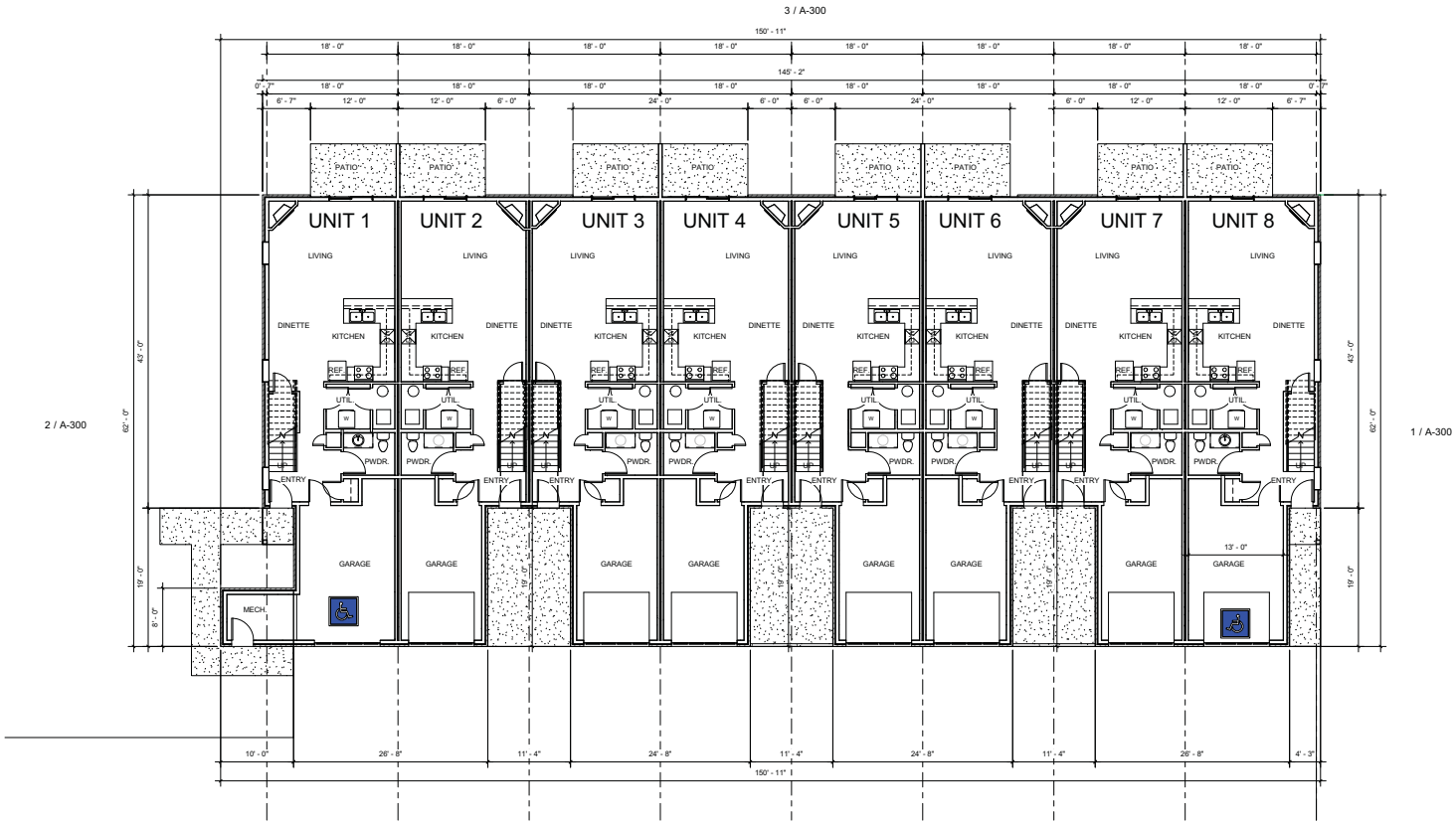
PREMIER WOODS – PHASE 2
EROSION CONTROL PLAN
VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

	INITIALS	DATE
DESIGNED	DKV	05/13/16
DRAWN	DKV	05/13/16
CHECKED	TCL	05/13/16

0 40'
SCALE

PROJECT NO. 14-017

SHEET NO. 9 OF 9



1 First Floor
1/8" = 1'-0"

FLOOR PLAN NOTES:

1. BUILDING SHALL BE SPRINKLERED PER NFPA13R.
2. SEE A120 FOR WALL TYPES.
3. SEE A120 FOR BATH TUB AT UNIT WALL DETAIL.
4. STAIR HANDRAILS: ALL HANDRAILS SHALL WITHSTAND 200# LOAD APPLIED IN ANY DIRECTION. BRACKETS HALL BE 32" O.C. PROVIDE BLOCKING AS REQUIRED.
5. LOCATE ATTIC ACCESS ON SECOND FLOOR AS INDICATED. SEE DETAIL FOR CONSTRUCTION.
6. ALL SECOND FLOOR WATER HEATERS AND WASHERS SHALL BE PROVIDED WITH AN OVERFLOW PAN WITH DRAIN TO PREVENT DISCHARGE WATER FROM ENTERING UNIT.
7. PLUMBER TO INSTALL ½" FIRECODE GYP. BD. ON BOTTOM OF FLOOR SHEATHING BELOW ANY HOLE CUT OUT AT TUB OR SHOWER BEFORE RUNNING DRAIN LINE THRU FLOOR. FIRCAULK OPENING.
8. ALL LUMBER USED IN THE CONSTRUCTION OF SECOND FLOOR DECKS SHALL BE TREATED DECAY RESISTANT LUMBER. VERIFY RAILINGS AND BALLUSTER MATERIALS WITH OWNER. RAILINGS TO WITHSTAND 200# LOAD APPLIED IN ANY DIRECTION. BALLUSTERS DESIGNED TO PREVENT PASSAGE OF OBECT 4" IN DIAMETER.
9. SEE DETAIL AT TUB OR SHOWER. ASSURE 1 HOUR RATING AT WALLS AND SECOND FLOOR BY INSTALLING FIRE RATED GYP. BD. AT WALLS OR PLYWOOD SHEATHING PER UL L550.
10. FIRE WALL PENETRATIONS: NO OPENINGS AROUND PIPE, ELECTRIC BOXES, CONDUITS, DUCTS OR OTHER PENETRATING ITEMS THROUGH A FIRE-PROTECTIVE MEMBRANE(EITHER GYP. BD OR SHEATHING) SHALL BE MORE THAN ¼". IF MORE THAN ¼", SEAL ALL OPENINGS WITH A FIRE-STOP PRODUCT OR DEVICE THAT IS TESTED AND LISTED BY AN APPROVED TESTING LAB UNDER ASTM E814. IN ALL FIRE WALLS, ELECTRICAL BOXES MUST BE CLASSIFIED FOR FIRE RESISTANCE OR "METALIC OUTLET BOXES THAT ARE LISTED BY AN APPROVED TESTING LABORATORY. BOXES MUST NOTT BE MORE THAN 16 SQ.IN. DO NOT INSYALL ON OPPOSITE SIDES OF WALLS. SPACE BOXES 24" MIN. HORIZONTALLY ON OPPOSITE SIDES OF WALLS. TOTAL AGGREGATE OF ALL SUCH OPENINGS SHALL NOT EXCEED 100 SQ.IN. DUCT OPENINGS LARGER THAN 20 SQ.IN. SHALL BE PROTECTED WITH A FIRE DAMPER, A LISTED DUCT OUTLET PENETRATION, OR SIX FEET (6') OF CONTINUOUS STEEL DUCTWORK FROM THE MEMBRANE PRNETRATION TOWARD THE AIR HANDELING UNIT.

FIRE ALARM SYSTEM NOTES:

1. VERIFY ALL LOCAL AND STAE REQUIREMENTS
2. EACH LIVING UNIT SHALL HAVE A FIRE ALARM STATION LOCATED AT THE EXIT OF THE UNIT ON FIRST FLOOR AND AT THE TOP OF THE STAIRS AT SECOND FLOOR UNITS AND A HORN LOCATED IN HALL BY BEDROOMS.
3. ALL SMOKE DETECTORS SHALL BE DIRECTLY AND PERMANENTLY WIRED TO A PROPER UNSWITCHED CIRCUIT AND BE PROVIDED WITH A BACKUP POWER SOURCE.
4. ALL SMOKE DETECTORS SHALL BE LOCATED IN HALL IF BEDROOM DOOR AND IN EACH BEDROOM.
5. SMOKE DETECTORS SHALL BE LOCATED IN THE UTILIY ROOM AND SHALL BE WIRED TO AN UNSWITCHED CIRCUIT W/ EMERGENCY POWER BACKUP.

SD	SMOKE ALARM
F	FIRE ALARM HORN
F	FIRE ALARM PULL STATION
SC	COMBINATION SMOKE & CARBON MONOXIDE DETECTOR.

8 UNIT TOWNHOUSE

Timothy E. Seidel
Architect
530 Cymric Court
Wales, WI 53183-9423
(262) 968-5580
(262) 968-5581 fax
tseidelarchitect@sbcglobal.net

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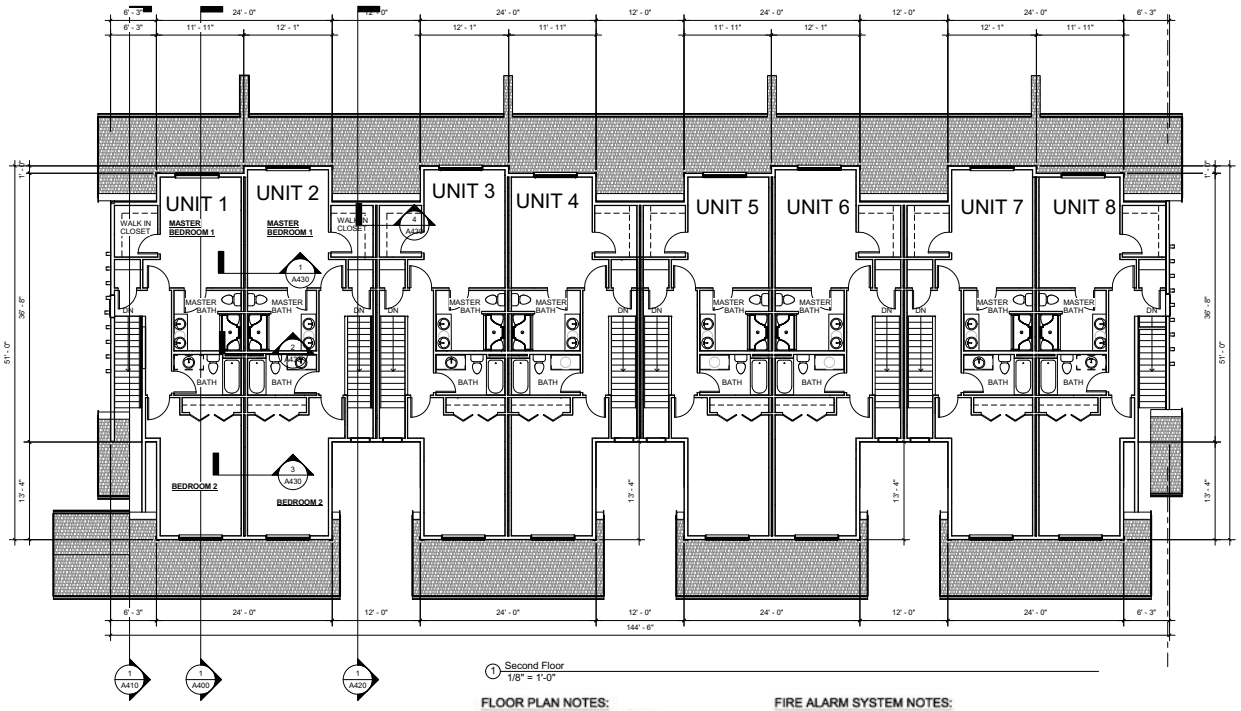
PREMIER WOODS
PREMIER MINNESOTA, LLC
PHANTOM HILLS ROAD & COUNTY "ES"
MUKWONAGO, WISCONSIN

REVISIONS :

No.	Description	Date

Date : 5.21.2015
Scale : As Noted
File Number :
Drawn : TES
Project : 201321
Sheet Number : A-100



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8 UNIT TOWNHOUSE

Timothy E. Seidel
Architect
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tseidelarchitect@gmail.com

PREMIER REAL ESTATE MANAGEMENT, LLC
Premier Real Estate Management, LLC, the underwriting company, is a Wisconsin Limited Liability Company with offices in Kenosha, WI and Waukesha, WI 1999

PREMIER WOODS
PREMIER MINNESOTA, LLC
PHANTOM HILLS ROAD & COUNTY "ES"
MUKWONAGO, WISCONSIN

REVISIONS :		
No.	Description	Date

Date :	5.21.2015
Scale :	As Noted
File Number :	
Drawn :	TES
Project :	201321
Sheet Number :	A-110

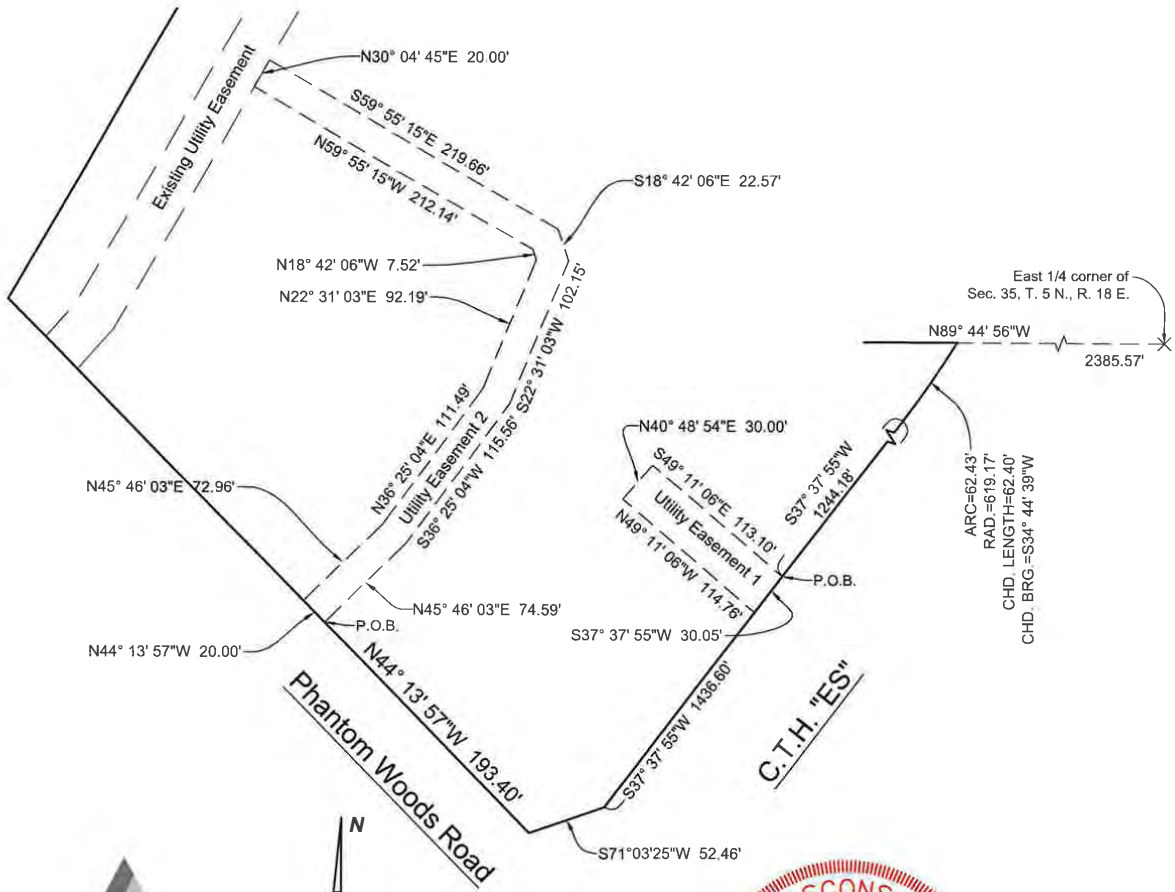
Exhibit A

LEGAL DESCRIPTION OF UTILITY EASEMENT 1:

A 30' wide utility easement located in the NE 1/4 of the SW 1/4 of Section 35, Town 5 North, Range 18 East, Village of Mukwonago, Waukesha County, Wisconsin being more particularly described as follows:
Commencing at the East 1/4 corner of said Section 35; thence with the north line of the the SE 1/4 of said section N89°44'56"W, 2385.57' to the northwesterly line of CTH "ES"; thence along said right of way and with a curve to the right a length of 62.43', said curve having a radius of 619.17', a chord which bears S34°44'39"W, 62.40'; thence S37°37'55"W, continuing along said right of way, 1244.18' to the place of beginning; thence S37°37'55"W, continuing along said right of way, 30.05'; thence N49°11'06"W, 114.76'; thence N40°48'54"E, 30.00'; thence S49°11'06"E, 113.10' to the place of beginning; said easement contains 0.08 acres more or less.

LEGAL DESCRIPTION OF UTILITY EASEMENT 2:

A 20' wide utility easement located in the NE 1/4 of the SW 1/4 of Section 35, Town 5 North, Range 18 East, Village of Mukwonago, Waukesha County, Wisconsin being more particularly described as follows:
Commencing at the East 1/4 corner of said Section 35; thence with the north line of the the SE 1/4 of said section N89°44'56"W, a distance of 2385.57' to the northwesterly line of CTH "ES"; thence along said right of way and with a curve to the right a length of 62.43', said curve having a radius of 619.17', a chord which bears S34°44'39"W, 62.40'; thence S37°37'55"W, continuing along said right of way, 1436.60; thence S71°03'25"W, 52.46'; thence with the east line of Phantom Woods Road N44°13'57"W, 193.40', to the place of beginning; thence N44°13'57"W, 20.00'; thence N45°46'03"E, 72.96'; thence N36°25'04"E, 111.49'; thence N22°31'03"E, 92.19'; thence N18°42'06"W, 7.52'; thence N59°55'15"W, 212.14'; thence N30°04'45"E, 20.00'; thence S59°55'15"E, 219.66'; thence S18°42'06"E, 22.57'; thence S22°31'03"W, 102.15'; thence S36°25'04"W, 115.56'; thence S45°46'03"W, 74.59', to the place of beginning, said easement contains 0.24 acres more or less.



LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, L.C.

5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151

SURVEYOR'S OFFICE:
432 MILWAUKEE AVENUE
BURLINGTON, WI 53105
(262) 248-3697

GRAPHIC SCALE
0' 100' 200'
50' 150'
1 INCH = 100 FEET

WISCONSIN
KENNETH B. MEHRING
S-2838
WATERFORD, WI
LAND SURVEYOR

DATE 5/19/2016
SHEET 1 OF 1
JOB#14-017

Instrument drafted by Kenneth B. Mehring, P.L.S. #2838

P:\Shared\1 - Projects\2014\14.017 - Tim Seidel Premier Woods\PHASE 2\CAD\Sheets\14.017 Phase 2 Easement Exhibits.dwg

Ruekert • Mielke
Your Infrastructure Ally

W233 N2080 Ridgeview Parkway • Waukesha, WI 53188-1020 • Tel. (262) 542-5733

June 8, 2016

Mr. Fred Winchowky
Village President
Village of Mukwonago
P.O. Box 206
Mukwonago, WI 53149

Re: Premier Woods Phase II
Preliminary Storm Water Review Letter

Dear President Winchowky:

We have reviewed a preliminary storm water submittal for the second phase of the Premier Woods development located at the northwest corner of Phantom Woods Road and CTH ES. This review is required by the Village Storm Water ordinance to determine if early site planning has accounted for the requirements of the Ordinance. The intent is to avoid large changes to developments after the Planning Commission and Village Board have approved the concept and site plan.

We believe the preliminary site plan and storm water management plan submitted will meet the requirements of the Village Ordinance. If the Planning Commission and the Village Board would choose to approve these documents we would request that you make approvals subject to our ongoing detailed technical review of the storm water management plan, and construction drawings for the requirements of Department Heads and Village Ordinances. We also request that the permits to allow construction be withheld until this technical review is complete.

If you or any staff member should have any questions, please feel free to contact me.

Very truly yours,

RUEKERT & MIELKE, INC.

Kurt A. Peot, P.E. (WI)
Principal/Senior Project Manager
kpeot@ruekert-mielke.com

KAP:sjs
cc: John Weidl, Village of Mukwonago
Steve Braatz, Village of Mukwonago
Joseph Hankovich, Village of Mukwonago
~12-10016 Premier Woods > 101 Phase II Review > Correspondence > Winchowky-20160608-Preliminary storm water review.docx~

Bruce Kaniewski, Village of Mukwonago
Mark Blum, Village of Mukwonago
Dave Brown, Village of Mukwonago
Ron Bittner, Village of Mukwonago
Chris Slater, Premier Real Estate Management, LLC
Timothy C. Lynch, P.E., Lynch & Associates
David K. Vivian, P.E., Lynch & Associates
Joe Goldberger, North Shore Legal
File

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC

May 19, 2016

Mr. Brennan Fisher, E.I.T.
Ruekert & Mielke
W233 N2080 Ridgeway Parkway
Waukesha, WI 53188

Re: Premier Woods, Phase 2, Village of Mukwonago

Dear Mr. Fischer:

We have received your comments dated 5-13-16 and have made the following revisions and additions as requested:

1. The plans and Storm Water Management plan are stamped by a Professional Engineer.

2. The erosion control notes have been moved to the erosion control plan.

3. The roadway cross section was noted on sheet 2 of 9. Spot grades have been added to sheet 6 of 9 to better illustrate pavement drainage.

4. A deceleration lane has been added on Phantom Woods Road in accordance with the Waukesha County standard detail.

5. Easements for the sanitary sewer and water main have been added to the improvement plans. Supporting documentation is also included with this submittal.

6. The water main has been redesigned to be a minimum of 6 feet from the curb and gutter.

7. The 90 degree bend has been removed and replaced with two 45 degree bends. The gate valve previously located at Sta 12+38.8 has been moved to the 45 degree bend.

8. The comment regarding water meters will be addressed by the architect in a separate submittal.

9. Additional detail for the construction of the outlet structure has been added to the plan.

10. Item #2 has been modified and item #12 has been added to the construction sequence to address the timing of the pond construction and sediment removal.

11. The clay liner has been extended up to an elevation of 808.00. The elevation of the 2-year storm event is 807.78.

5482 S. Westridge Drive
New Berlin, WI 53151
Phone: 262.402.5040 • Fax: 262.402.5046

405 Skyline Drive, Suite C
Lake Geneva, WI 53549
Phone: 262.248.3697 • Fax: 262.402.5046

Website: www.lynch-engineering.com

12. The results of the drainage analysis for the surrounding area has been added to page 7 of the Storm Water Management Plan.

13. The tables in the narrative of the SWMP have been revised to reflect the results of the calculations.

14. The covenants, conditions and restrictions of the SWMP maintenance agreement have been updated with the current Village text.

The parking space requirements for Phase 1 are for 2 spaces/unit
68 units x 2 = 136 spaces (including garages)
There are 92 spaces – 5 spaces (lost from Phase 2 driveway) + 68 spaces (garages) = 155 spaces

The parking space requirements for Phase 2 are 2.2 spaces per unit.
16 units x 2.2 spaces/unit = 35 spaces
There are 36 spaces provide including the garages.

A copy of the P.E. stamped and signed plans; Storm Water Management Plan (SWMP) and utility easement document are enclosed for your review. Please feel free to contact our office if you have any questions or need additional information.

Sincerely,
LYNCH & ASSOCIATES – ENGINEERING CONSULTANTS, LLC

David K. Vivian, P.E.
Project Manager

Encl.

Cc: Joseph Hankovich, Village of Mukwonago
Bruce Kaneiwski, Village of Mukwonago
Timothy Seidel, Architect, LLC
Chris Slater, Premier Real Estate Management, LLC

STORM WATER MANAGEMENT PLAN
FOR
PREMIER WOODS – PHASE 2
VILLAGE OF MUKWONAGO

MAY 13, 2016

PREPARED BY:

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC
5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151

WISCONSIN
DAVID K. VIVIAN
E-32210
Waukesha, WI
PROFESSIONAL ENGINEER

5/13/16

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC

I have reviewed all plans and supporting documentation and certify to the best of my knowledge that the submitted plans comply with the requirements of the Village of Mukwonago Storm Water Ordinance.

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Appendix 6 Storm Sewer Drainage Map & Calculations
Appendix 7 Sediment Trap Calculations
Appendix 8 Storm Water Maintenance Agreement

1.0 INTRODUCTION

The proposed development, Premier Woods, Phase 2, is located in part of the NE ¼ of the SW ¼ of Section 35, T5N, R18E, Village of Mukwonago, Waukesha County, Wisconsin. It is bordered on the northwest by Premier Woods, Phase 1, on the north east by wetlands, on the east by Main Street (CTH ES) and on the south by Phantom Woods Road.

This phase is approximately 3.3 acres in size and consists of a vacant lot consisting mostly of woodlands and wetlands areas. The proposed development consists of 2 multi-family buildings.

2.0 DESIGN CRITERIA

2.1 *Village of Mukwonago*
Village Storm Water Ordinance, Part II - Code of Ordinances, Chapter 34 – Environment, Division 4. Stormwater Management and Erosion Control

Water Quantity: "To minimize downstream bank erosion and the failure of downstream conveyance systems, the calculated post-development peak stormwater discharge rate for the 100-year design storm shall not exceed the calculated predevelopment discharge rates for the ten-year design storm and the calculated post-development peak stormwater discharge rate for the two-year and ten-year design storms shall not exceed the calculated predevelopment discharge rates for the two-year design storm."

Water Quality: "By design, each stormwater management plan shall meet the following post-development total suspended solids reduction targets, based on average annual rainfalls, as compared to no runoff management controls: For new land development, 80 percent reduction in total suspended solids load."

Infiltration: "The infiltration requirements of this subsection do not apply to frozen soil conditions and may be exempted if soils have a measured infiltration rate of less than 0.6 inches per hour and the village engineer determines it would be impracticable to modify existing soil conditions."

2.2 *Wisconsin Department of Natural Resources*
WDNR – Technical Standards (NR 151 & NR 216)

Water Quantity: "By design, BMPs shall be employed to maintain or reduce the 1-year, 24-hour and the 2-year, 24-hour post-construction peak runoff discharge rates to the 1-year, 24-hour and the 2-year 24-hour pre-development peak runoff discharge rates, respectively, or to the maximum extent practicable."

Water Quality: "Best management practices shall be designed, installed, and maintained to control total suspended solids carried in runoff from the post-construction site as follows: For new development, by design, to reduce the maximum extent practicable, the total suspended solids load by 80%, based on an average annual rainfall, as compared to no runoff management controls."

Infiltration: Low imperviousness: Infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 90% of the pre-development infiltration volume, based on an average annual rainfall.

3.0 HYDROLOGIC CALCULATIONS

Hydrology calculations have been performed using HydroCAD, Version 10.00-15 which uses the accepted TR-20 methodology for computing hydrographs and determining peak discharge rates. Peak flow rates have been calculated for the 1, 2, 10 and 100 year storm events with an SCS Type II rainfall distribution, using rainfall depths derived from NRCS publications and extrapolated for the Village of Mukwonago and shown in Table 1:

Table 1: Design Rainfall Values

Storm Recurrence Interval	24-Hour Rainfall Volume (Inches)
1-year	2.30
2-year	2.70
10-year	4.00
100-year	5.60

A drainage path was delineated for each sub area under existing and proposed conditions and was used to determine a time of concentration in accordance with the TR-55 methodology.

The proposed site contains several different soil types. Soils map units and descriptions are listed within Table 2 below. A soils map obtained from the USDA Natural Resources Conservation Service web soil survey is attached in **Appendix 2**.

Table 2: Soils Types on Site

Map Symbol	Map Unit Name	HSG
CeB	Casco Loam, 2 to 6 percent slopes	B
CeC2	Casco Loam, 6 to 12 percent slopes, eroded	B
FsB	Fox Silt Loam, 2 to 6 percent slopes	B
GrB	Grays Silt Loam, 2 to 6 percent slopes	B
MmA	Matherton Silt Loam, 1 to 3 percent slopes	B/D
Ph	Pella Silt Loam	B/D

Soils within the storm water detention area are classified as HSG B/D soils which act as HSG D soils under the poorly drained conditions on this site. For this reason, infiltration practices have not been incorporated into the design.

WinSLAMM (Version 9.3) Source Loading and Management Model (SLAMM) as developed by Robert Pitt and John Voorhees was used to determine the removal rate of total suspended solids on the site.

4.0 EXISTING CONDITIONS

The site consists of mostly of woodlands and wetlands. The drainage area and flow path are shown in the existing conditions drainage map found in **Appendix 3**. The drainage area was delineated using a 1-foot topographic map generated from field survey data. Detailed calculations for peak runoff in the 1-yr, 2-yr, 10-yr and 100-yr storms can also be found in **Appendix 3**. Table 3 summarizes the hydrological analysis for the existing conditions.

Table 3: Hydrologic Analysis of Existing Conditions

Drainage Area	Area (Acres)	Runoff Curve Number	Time of Conc. (Min.)	Peak Flow Rate (cfs)			
				1-year	2-year	10-year	100-year
E1	2.65	61	16.0	0.12	0.42	2.26	5.47

5.0 PROPOSED CONDITIONS

The proposed development consists of 2 multi-family buildings and a driveway between Phase 1 of Premier Woods and Phantom Woods Road. The total disturbed area is 2.9 acres in size.

A combination of storm sewer & swales will direct runoff to the wet detention basin to provide peak flow and water quality control for the site. **Appendix 4** shows the proposed site plan along with the drainage patterns used in the analysis of the site.

The storm sewer system has been designed for the 10-year storm event. See **Appendix 6** for the storm sewer drainage map and calculations.

The proposed site has been broken out into two (2) drainage areas. Area D1 encompasses the majority of the site and will flow to the wet detention basin (Basin 1) located at the northeast corner of this phase. This basin will discharge into the wetlands covering the northeast portion of the property. Area D2 includes the undetained area on the north face of the wet detention basin berm.

Table 4 summarizes the hydrologic analysis for the proposed conditions.

Table 4: Hydrologic Analysis of Proposed Conditions

Drainage Area	**Area (Acres)**	**Runoff Curve Number**	**Time of Conc. (Min.)**	**Peak Flow Rate (cfs)**			
				1-year	**2-year**	**10-year**	**100-year**
D1	2.57	79	5.9	3.12	4.36	8.73	14.59
D2	0.08	80	1.4	0.12	0.16	0.32	0.52
TOTAL AFTER CONTROLS				0.14	0.20	0.39	0.92

Table 5: Basin #1 Summary

Wet Detention Basin INFLOW, OUTFLOW & STORAGE DATA					
Storm Event	Inflow Peak (cfs)	Maximum Outflow Rate (cfs)	Max. Water Elevation (ft)	Storage Volume at Max. Elev. (Acre – feet)	Outflow Control Structures*
1-Year, 24 Hour	3.12	0.07	807.55	0.092	1
2-Year, 24 Hour	4.36	0.09	807.78	0.134	1
10-Year, 24 Hour	8.73	0.13	808.59	0.302	1
100-Year, 24 Hour	14.59	0.89	809.04	0.405	1, 2

*The controlling elements are summarized below:

#1 = 2” Dia. Orifice, Inv = 807.00
#2 = 12” Culvert, Inv. = 808.60
Emergency Spillway, Crest Elev = 810.00

Table 6: Data Summary for Wet Detention Basin

BASIN 1	
DESIGN ELEMENT	**DESIGN DATA**
Contributing drainage area to basin (D1)	2.57 acres
Distance to nearest private well (including off-site wells)	>25 Feet
Distance to municipal well (including off-site wells)	>1200 Feet
Wellhead protection area involved?	No
Ground slope at site of proposed basin	1% - 5%
Any buried or overhead utilities in the area?	None
Proposed outfall conveyance system/discharge (w/distances)	2" Orifice, 12" Culvert, Weir
Any downstream roads or other structures? (Describe)	None
Floodplain, shoreland or wetlands?	Wetlands
Soil Investigation Data (See attached map & soil logs):	
Number of soil investigations completed	None
Do elevations of test holes extend 3 ft. below proposed bottom?	n/a
Average soil texture at bottom elevation (USDA)	Sandy clay loam
Distance from pond bottom to bedrock	>5 Feet
Distance from pond bottom to seasonal water table	n/a
General basin design data (See attached detailed drawings):	
Permanent pool surface area	6839 SF
Design permanent pool water surface elevation	807
Top of berm elevation (after settling) and width	811, 10 ft wide
Length/width (dimensions/ratio)	3:1
Safety shelf design (length, grade, max. depth)	8' Wide, 10:1 slope 0.8' Deep on inside edge
Ave. water depth (minus safety shelf/sediment)	4.2 Feet
Sediment forebay size and depth	0.04 acres/5 feet
Sediment storage depth & design maintenance	2 ft. depth for forebay & pool, 10 year maintenance schedule

An analysis was performed to determine the impact of the Premier Woods development on the headwater of the culverts crossing the access road in Phase 1. The results of this analysis show an existing condition maximum flow of 87.75 cfs during the 100 year storm event with a headwater elevation of 801.84'. The proposed condition maximum flow is 87.15 cfs during the 100 year storm with a headwater elevation of 801.80'.

6.0 STORM WATER QUALITY CONTROL

The proposed site will utilize a wet detention basin to achieve post-construction storm water quality control in accordance with the State of Wisconsin requirements for suspended solids removal. The requirement for this site is 80% removal of the Total Suspended Solids (TSS) based on no controls. SLAMM was used to calculate the water quality impacts as a result of this project. Detailed calculations and SLAMM input can be found in **Appendix 5**.

TABLE 7: WinSLAMM Summary – Total Site - TSS Removals

Source	Particulate Solids Yield without Controls	Particulate Solids Yield with Controls
Basin #1 (Area D1)	543.2	67.71
Area D2	5.951	5.951
Total	549.151	73.661

Total Suspended Solids Removal = 1 – (73.661/549.151) = <u>86.59%</u>

7.0 MAINTENANCE PROGRAM

A storm water maintenance agreement has been prepared (see Appendix 8) for The storm water basin. Annual maintenance measures include inspecting the basin for the accumulation of sediment, checking the outflow structures for debris and identifying and repairing eroded areas on the basin embankments.

8.0 EROSION CONTROL

An erosion control plan has been prepared in accordance with Village of Mukwonago and WDNR requirements. The storm water basin will be modified for use as a temporary sediment trap during construction. Sizing calculations for the sediment trap is located in **Appendix 7**. Other construction erosion control practices such as a tracking pad, silt fence and ditch checks have been incorporated into the plans. Permanent site stabilization includes the use of erosion mat on steep slopes and rip rap at all pipe outlets.

Stabilization for the open channels was determined using the WisDOT *Channel Erosion Control Matrix* (FDM 10-5, Attachment 35.1) included in **Appendix 7**.

9.0 SUMMARY OF RESULTS

The site has been evaluated for the effects of the proposed development. Table 12 summarizes the overall concluding data for the existing and proposed peak flow rates of the site. Table 13 summarizes the concluding data for meeting infiltration requirements.

TABLE 8: Storm Water Discharge Rates for Existing & Proposed Conditions

	1-year (cfs)	2-year (cfs)	10-year (cfs)	100-year (cfs)
Existing Area E1	0.12	0.42	2.26	5.47
Proposed Areas (D1 & D2)	0.14	0.20	0.39	0.92

TABLE 9: Infiltration Volume Summary

Area	Total Loss (in)	Area (ac)	Infiltration Volume (ac-ft)
Pre-Developed	27.56	2.65	6.09

90% of total infiltration volume = 5.48 ac-ft

Area	Total Loss (in)	Area (ac)	Infiltration Volume (ac-ft)
Basin #1 (area D1)	19.67	2.57	4.21
D2	27.56	0.08	0.18

Total infiltration volume = 4.40 ac-ft

Total Suspended Solids Removal = 1 – (73.661/549.151) = 86.59%

In conclusion, the design requirements for both water quality and peak flow control for this site have been met. Infiltration requirements have not been met due the soils not being adequate for infiltration.

Appendix 1

Location Map

Premier Woods

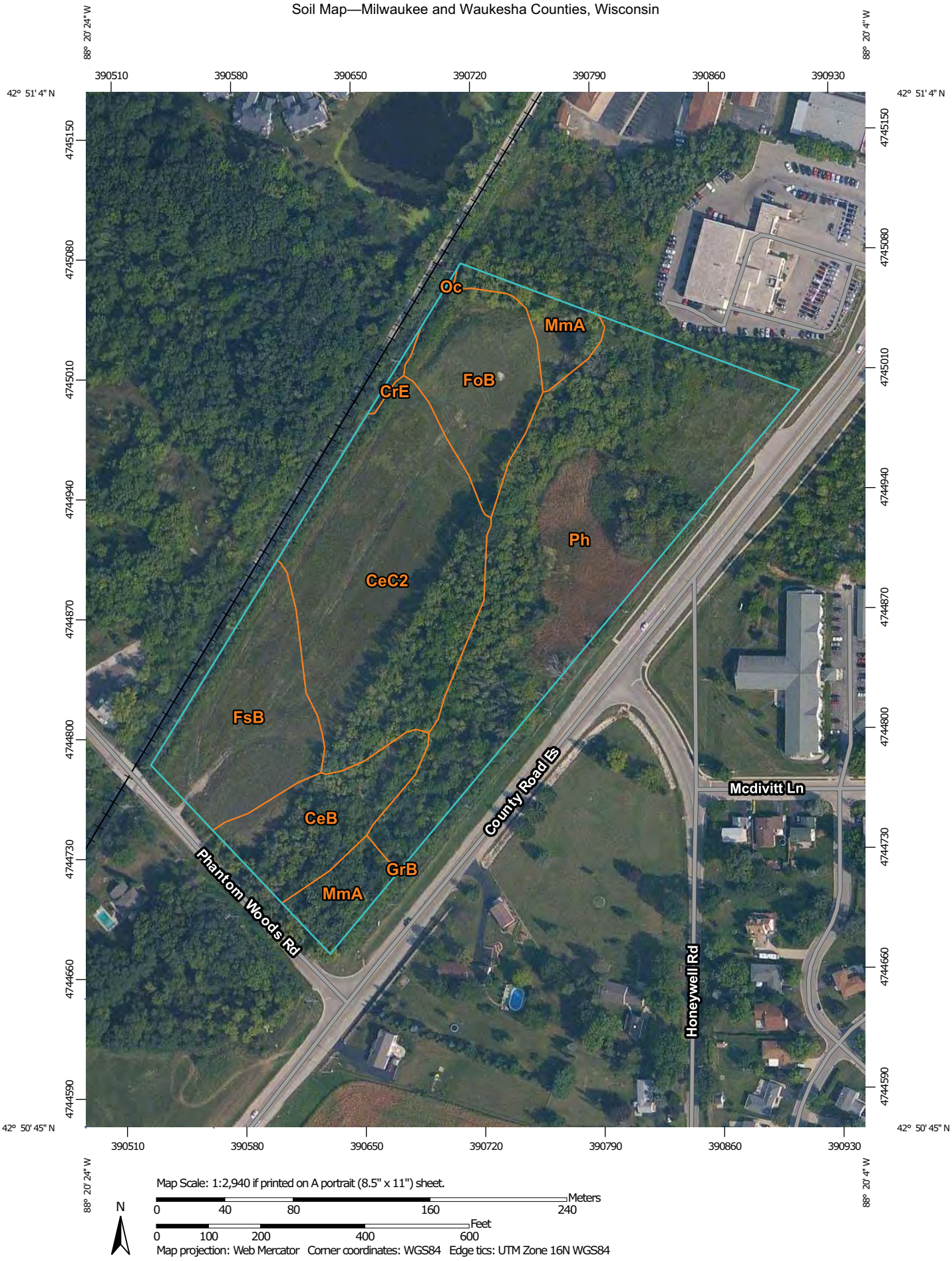
Located in the northeast ¼ of the southwest ¼ of Section 35, Town 5 North, Range 18 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin.

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC

Appendix 2

Soils Map

Soil Map—Milwaukee and Waukesha Counties, Wisconsin



Map Scale: 1:2,940 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 11, Sep 25, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 29, 2011—Mar 28, 2012

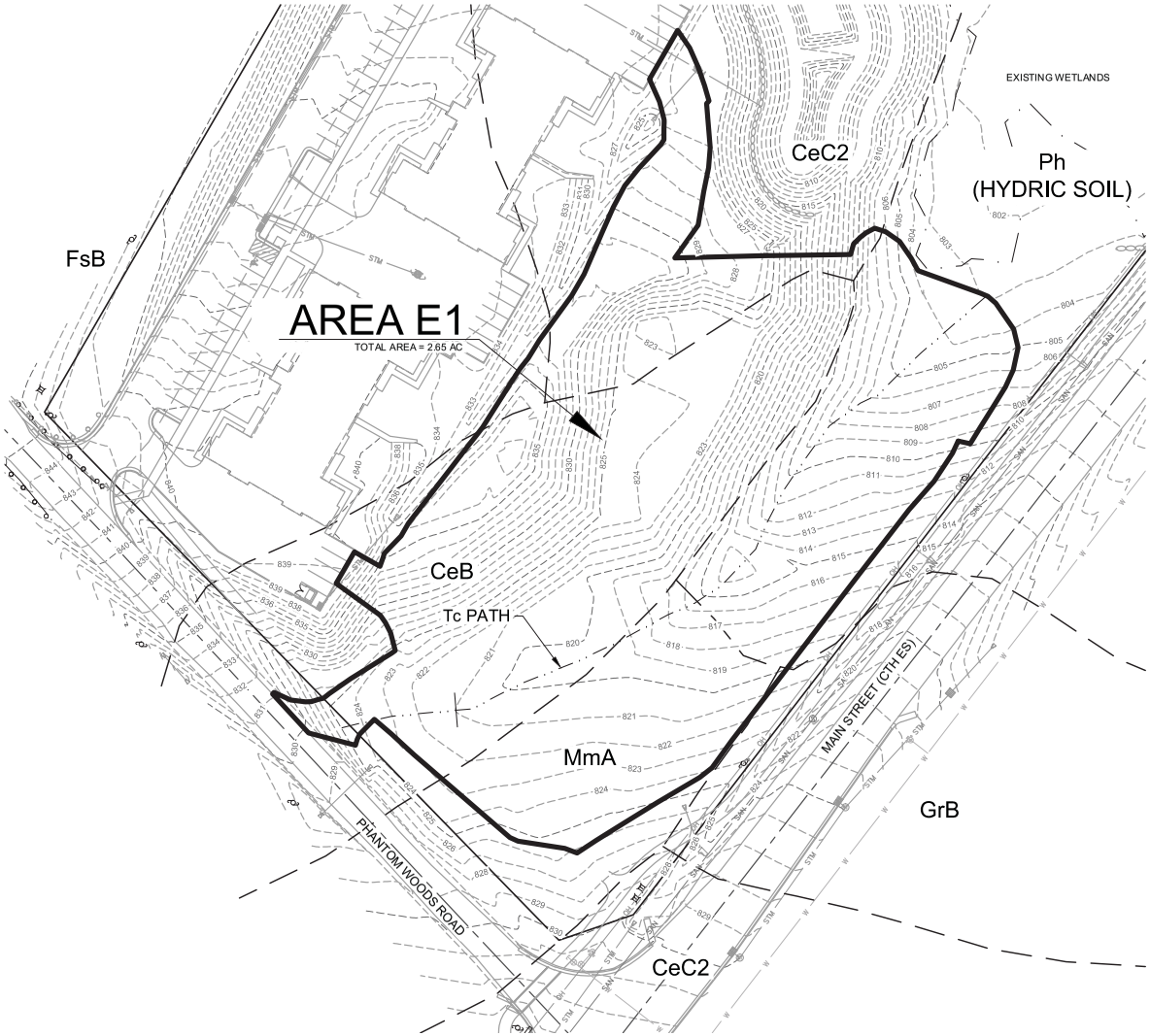
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Milwaukee and Waukesha Counties, Wisconsin (WI602)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CeB	Casco loam, 2 to 6 percent slopes	1.3	7.7%
CeC2	Casco loam, 6 to 12 percent slopes, eroded	4.5	26.5%
CrE	Casco-Rodman complex, 20 to 30 percent slopes	0.0	0.3%
FoB	Fox loam, 2 to 6 percent slopes	1.6	9.5%
FsB	Fox silt loam, 2 to 6 percent slopes	2.1	12.3%
GrB	Grays silt loam, 2 to 6 percent slopes	0.0	0.0%
MmA	Matherton silt loam, 1 to 3 percent slopes	1.0	6.0%
Oc	Ogden muck	0.0	0.0%
Ph	Pella silt loam, 0 to 2 percent slopes	6.4	37.6%
Totals for Area of Interest		**16.9**	**100.0%**

Appendix 3

Existing Conditions Drainage Map
Existing Conditions HydroCAD Output



LEGEND

DRAINAGE AREA BOUNDARY	
Tc PATH	
SOIL BOUNDARY	

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NEW BERLIN, WI 53151
(262) 402-5040

NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2

PRE-DEVELOPED CONDITIONS DRAINAGE MAP

VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

	INITIALS	DATE
DESIGNED	DKV	02/19/16
DRAWN	DKV	02/19/16
CHECKED	TCL	02/19/16

0 60'
SCALE

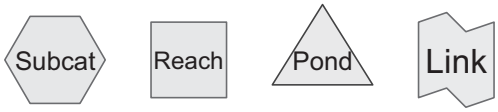
PROJECT NO. 14-017

SHEET NO. 1 OF 1

FILENAME: P:\Shared\1 – Projects\2014\14.017 –Tim Seidel Premier Woods\PHASE 2\CAD\14-017D0.dwg

PLOT DATE: 2/17/2016 2:51 PM

E1



Routing Diagram for 14-017 Phase 2 PRE
Prepared by Lynch & Associates Engineering Consultants, LLC, Printed 2/17/2016
HydroCAD® 10.00-15 s/n 02996 © 2015 HydroCAD Software Solutions LLC

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentE1: E1 Runoff Area=2.650 ac 0.00% Impervious Runoff Depth>0.11"
Flow Length=540' Tc=16.0 min CN=61 Runoff=0.12 cfs 0.025 af

Total Runoff Area = 2.650 ac Runoff Volume = 0.025 af Average Runoff Depth = 0.11"
100.00% Pervious = 2.650 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: E1

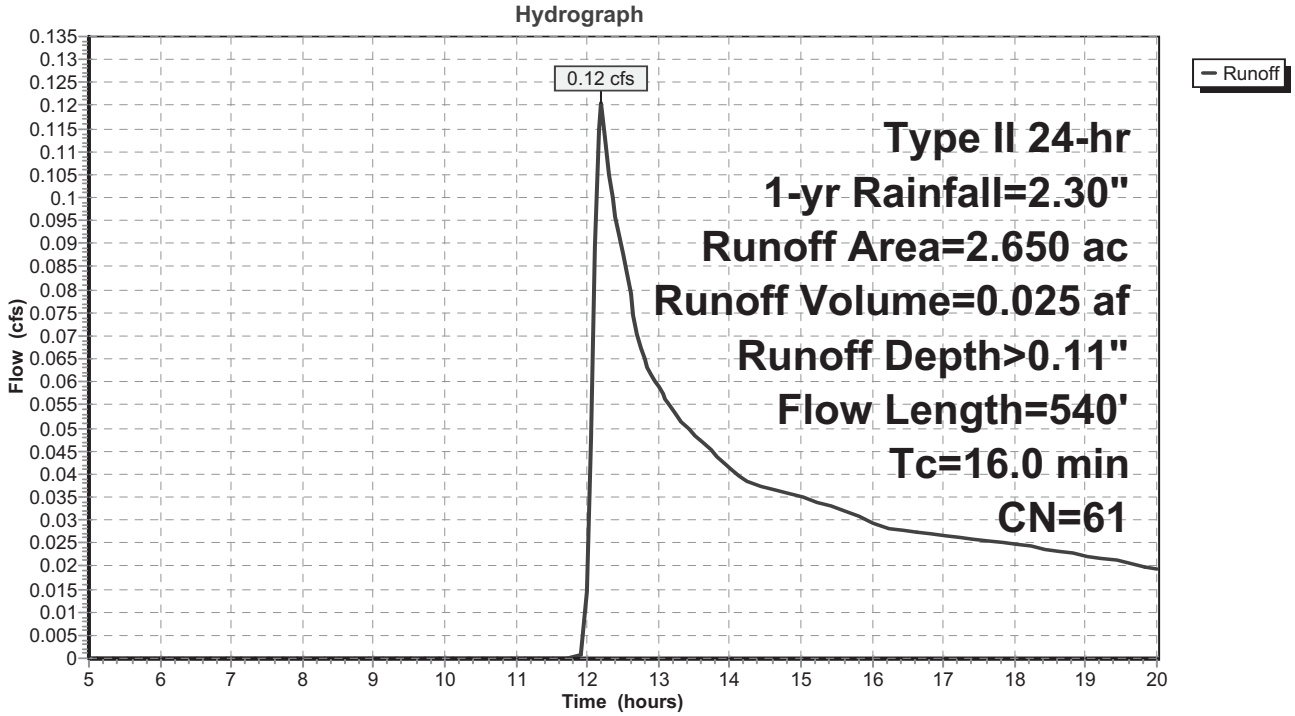
Runoff = 0.12 cfs @ 12.20 hrs, Volume= 0.025 af, Depth> 0.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.30"

Area (ac)	CN	Description
1.970	55	Woods, Good, HSG B
0.680	77	Woods, Good, HSG D
2.650	61	Weighted Average
2.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	80	0.0500	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.70"
2.4	460	0.0400	3.22		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
16.0	540	Total			

Subcatchment E1: E1



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentE1: E1 Runoff Area=2.650 ac 0.00% Impervious Runoff Depth>0.21"
Flow Length=540' Tc=16.0 min CN=61 Runoff=0.42 cfs 0.047 af

Total Runoff Area = 2.650 ac Runoff Volume = 0.047 af Average Runoff Depth = 0.21"
100.00% Pervious = 2.650 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: E1

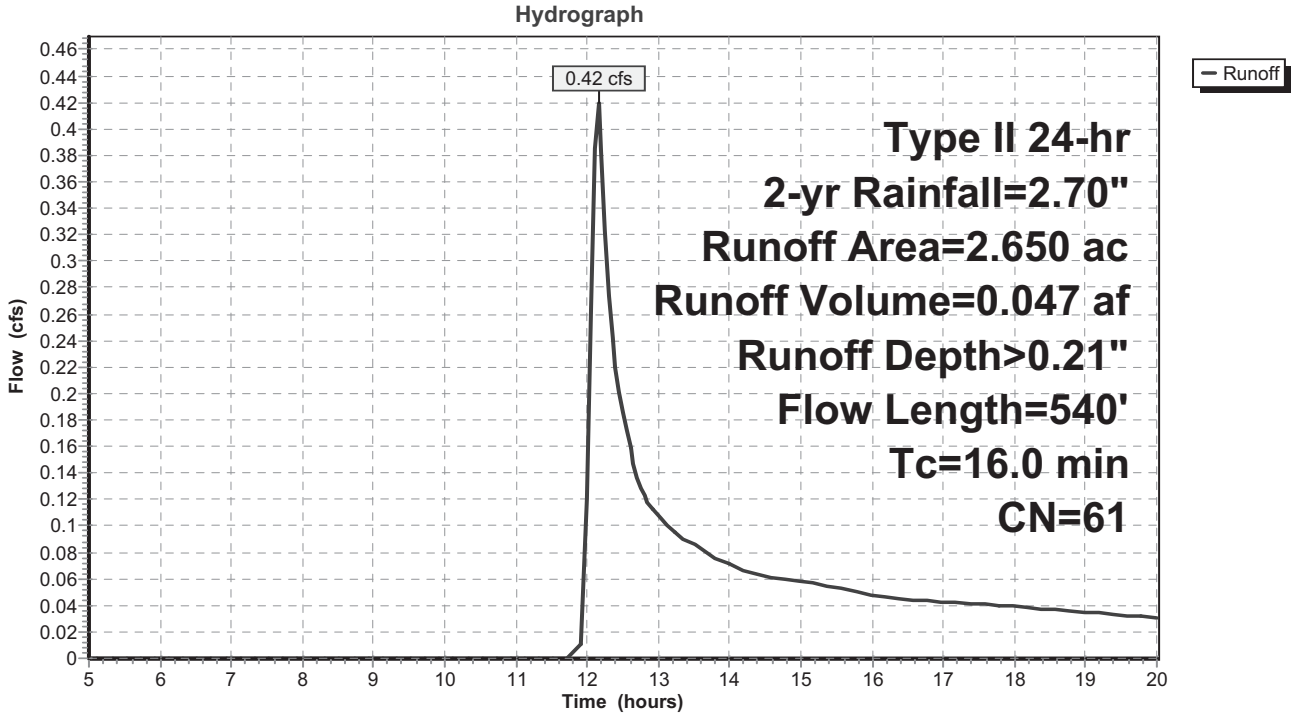
Runoff = 0.42 cfs @ 12.15 hrs, Volume= 0.047 af, Depth> 0.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=2.70"

Area (ac)	CN	Description
1.970	55	Woods, Good, HSG B
0.680	77	Woods, Good, HSG D
2.650	61	Weighted Average
2.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	80	0.0500	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.70"
2.4	460	0.0400	3.22		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
16.0	540	Total			

Subcatchment E1: E1



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentE1: E1 Runoff Area=2.650 ac 0.00% Impervious Runoff Depth>0.71"
Flow Length=540' Tc=16.0 min CN=61 Runoff=2.26 cfs 0.157 af

Total Runoff Area = 2.650 ac Runoff Volume = 0.157 af Average Runoff Depth = 0.71"
100.00% Pervious = 2.650 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: E1

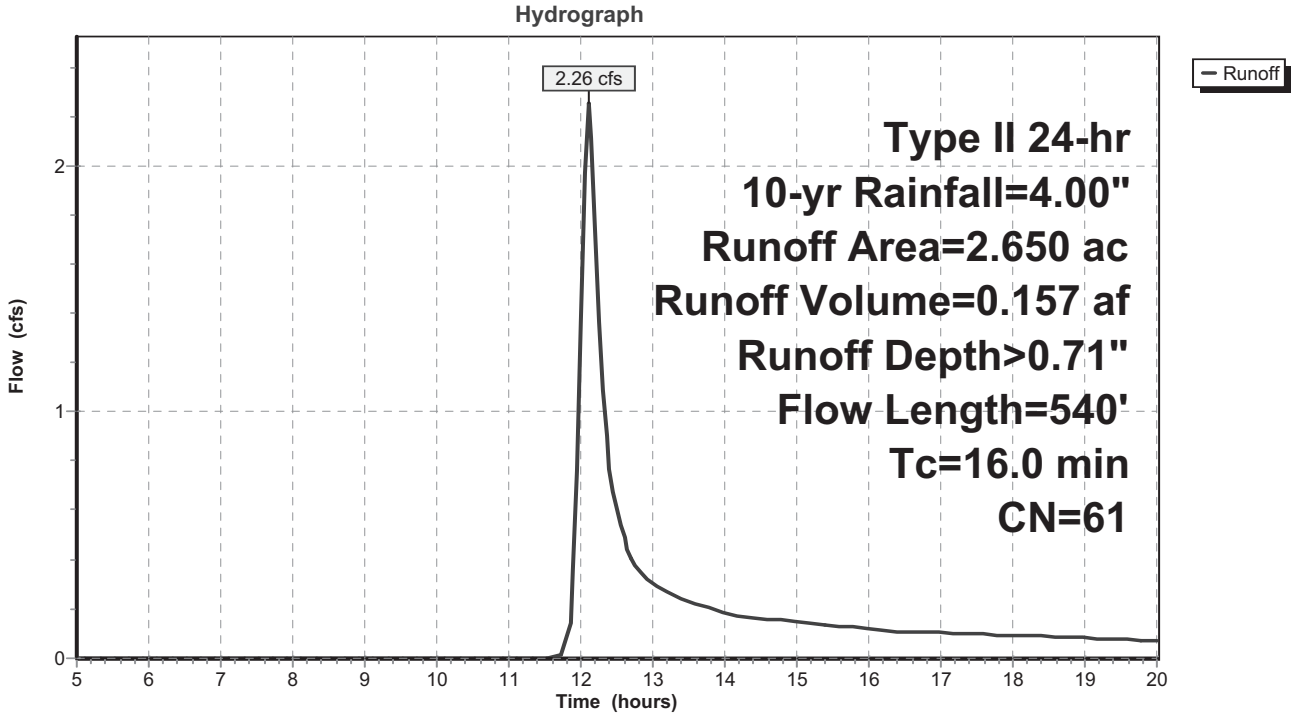
Runoff = 2.26 cfs @ 12.11 hrs, Volume= 0.157 af, Depth> 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.00"

Area (ac)	CN	Description
1.970	55	Woods, Good, HSG B
0.680	77	Woods, Good, HSG D
2.650	61	Weighted Average
2.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	80	0.0500	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.70"
2.4	460	0.0400	3.22		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
16.0	540	Total			

Subcatchment E1: E1



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentE1: E1 Runoff Area=2.650 ac 0.00% Impervious Runoff Depth>1.56"
Flow Length=540' Tc=16.0 min CN=61 Runoff=5.47 cfs 0.345 af

Total Runoff Area = 2.650 ac Runoff Volume = 0.345 af Average Runoff Depth = 1.56"
100.00% Pervious = 2.650 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: E1

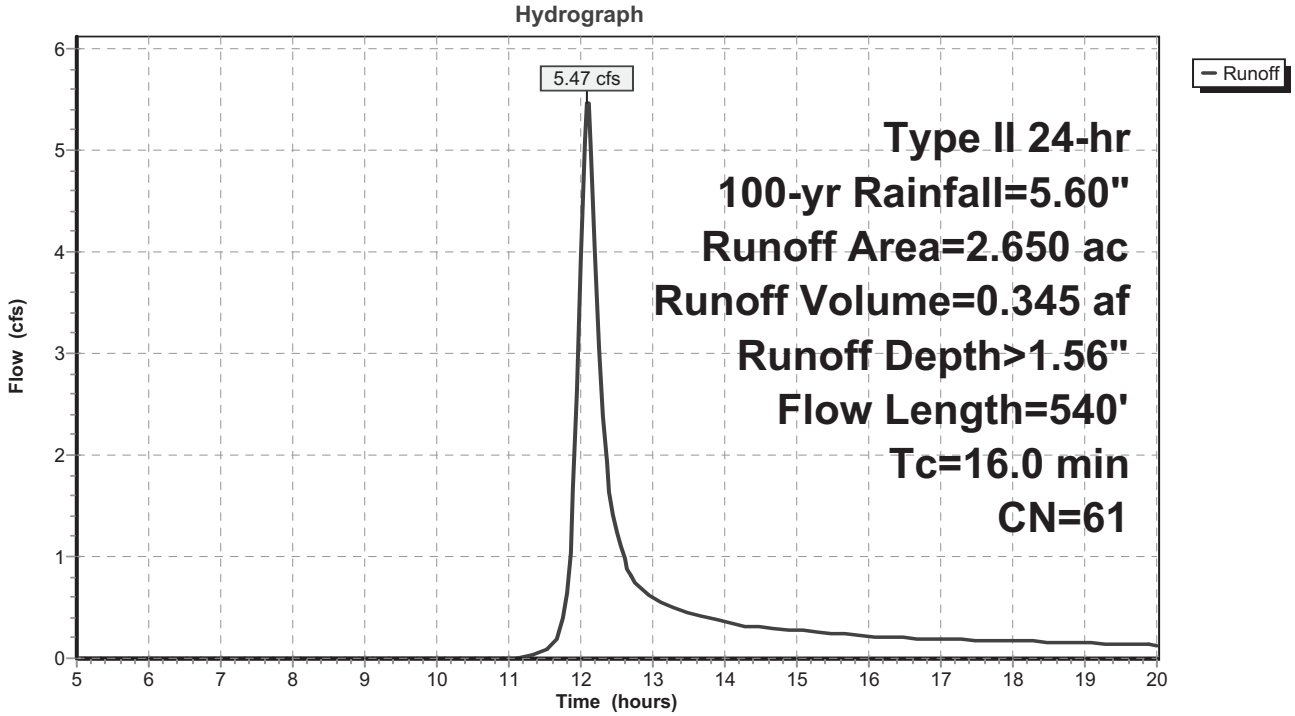
Runoff = 5.47 cfs @ 12.10 hrs, Volume= 0.345 af, Depth> 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=5.60"

Area (ac)	CN	Description
1.970	55	Woods, Good, HSG B
0.680	77	Woods, Good, HSG D
2.650	61	Weighted Average
2.650		100.00% Pervious Area

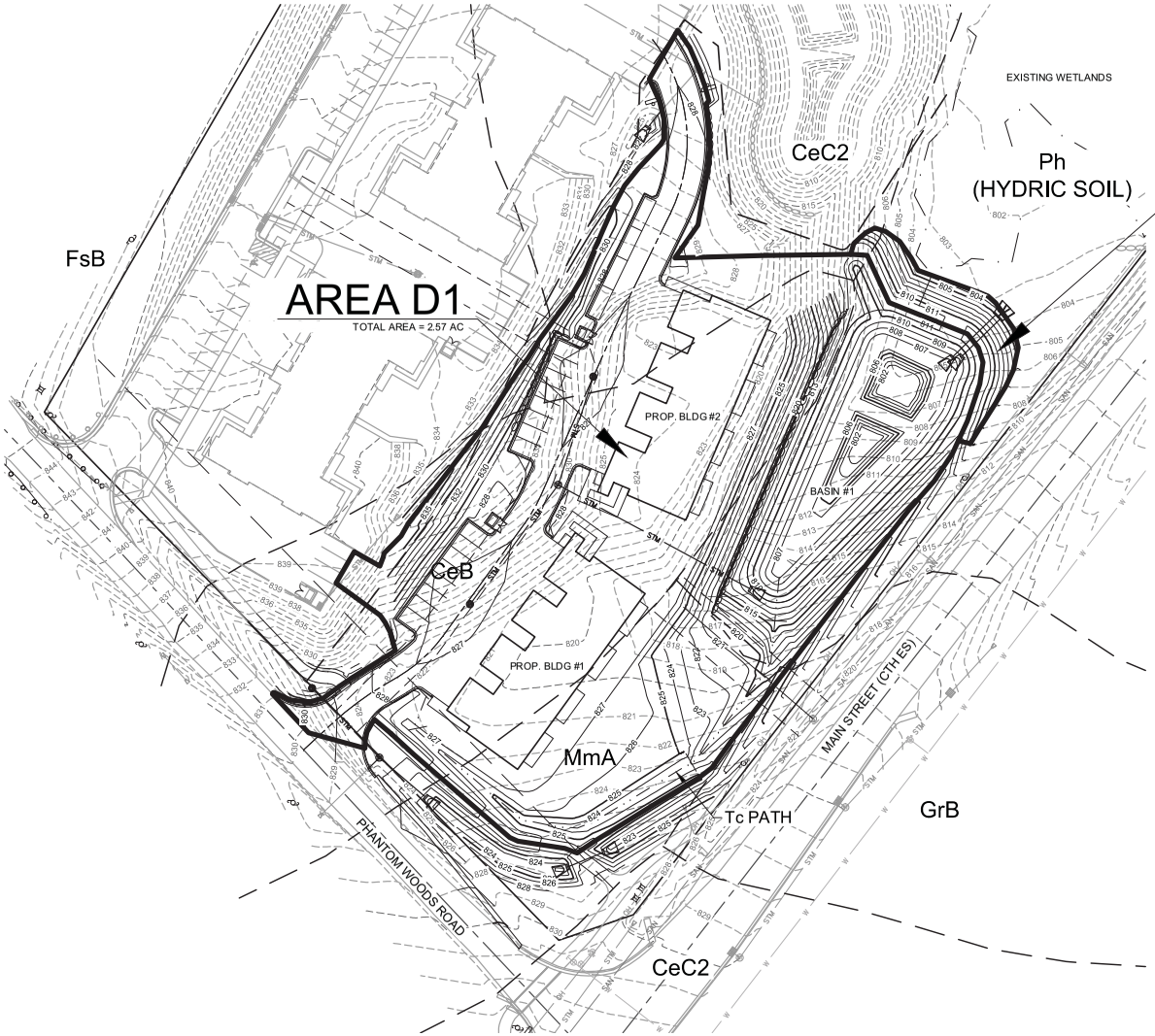
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	80	0.0500	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.70"
2.4	460	0.0400	3.22		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
16.0	540	Total			

Subcatchment E1: E1



Appendix 4

Proposed Conditions Drainage Map
Proposed Conditions HydroCAD Output



LEGEND

DRAINAGE AREA BOUNDARY	
Tc PATH	
SOIL BOUNDARY	

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC

5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151
(262) 402-5040

NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2
PROPOSED CONDITIONS DRAINAGE MAP

VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

	INITIALS	DATE
DESIGNED	DKV	02/19/16
DRAWN	DKV	02/19/16
CHECKED	TCL	02/19/16

0 60'
SCALE

PROJECT NO. 14-017

SHEET NO. 1 OF 1

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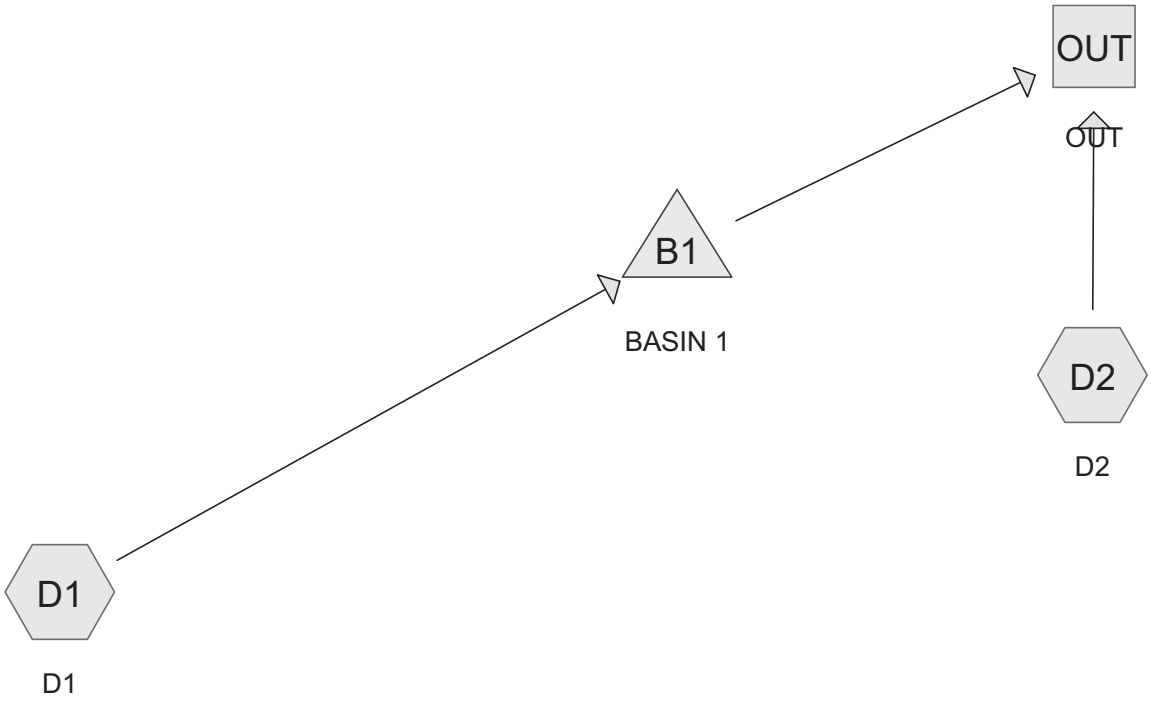
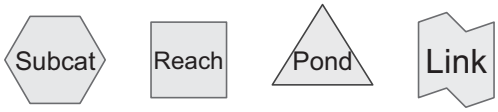




Routing Diagram for 14-017 Phase 2 POST

Prepared by Lynch & Associates Engineering Consultants, LLC, Printed 2/17/2016

HydroCAD® 10.00-15 s/n 02996 © 2015 HydroCAD Software Solutions LLC

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: D1 Runoff Area=2.570 ac 41.25% Impervious Runoff Depth>0.64"
Flow Length=315' Tc=5.9 min CN=79 Runoff=3.12 cfs 0.136 af

Subcatchment D2: D2 Runoff Area=0.080 ac 0.00% Impervious Runoff Depth>0.68"
Flow Length=20' Slope=0.3300 '/' Tc=1.4 min CN=80 Runoff=0.12 cfs 0.005 af

Reach OUT: OUT Inflow=0.14 cfs 0.051 af
Outflow=0.14 cfs 0.051 af

Pond B1: BASIN 1 Peak Elev=807.55' Storage=0.092 af Inflow=3.12 cfs 0.136 af
Outflow=0.07 cfs 0.046 af

Total Runoff Area = 2.650 ac Runoff Volume = 0.141 af Average Runoff Depth = 0.64"
60.00% Pervious = 1.590 ac 40.00% Impervious = 1.060 ac

Summary for Subcatchment D1: D1

[49] Hint: Tc<2dt may require smaller dt

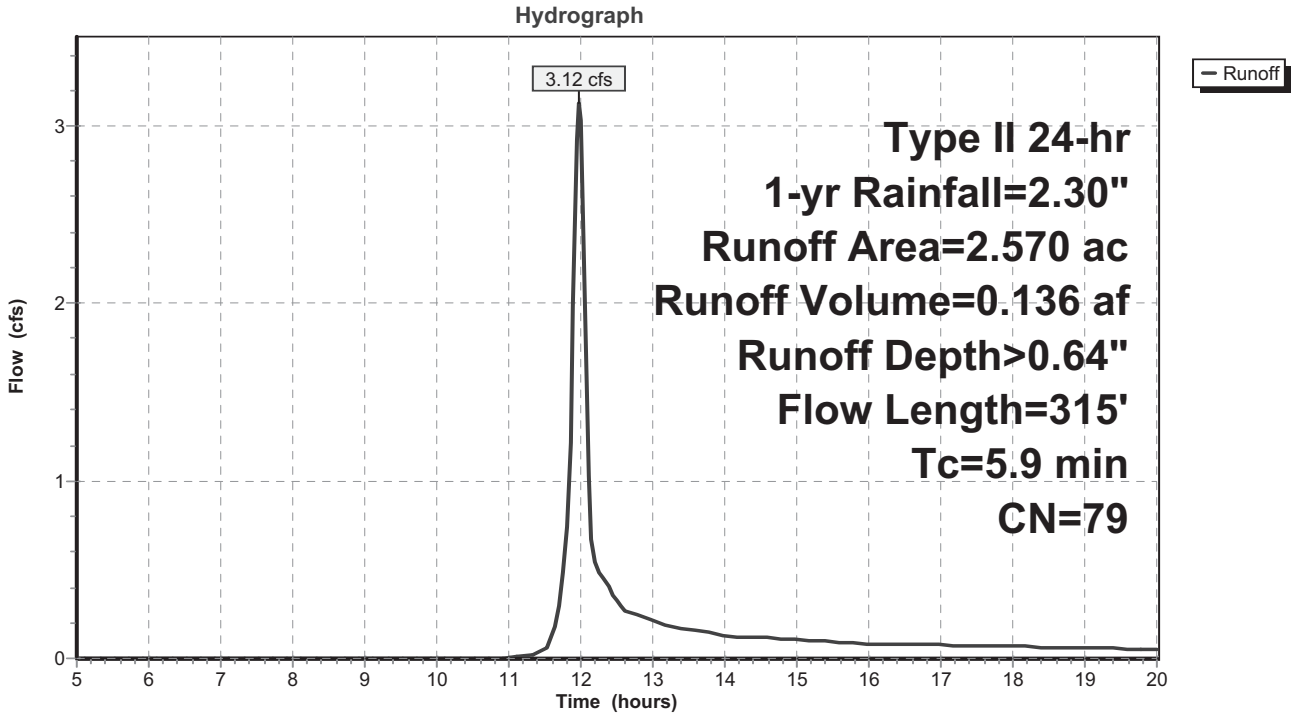
Runoff = 3.12 cfs @ 11.98 hrs, Volume= 0.136 af, Depth> 0.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.30"

Area (ac)	CN	Description
1.060	98	Paved parking, HSG A
1.120	61	>75% Grass cover, Good, HSG B
0.390	80	>75% Grass cover, Good, HSG D
2.570	79	Weighted Average
1.510		58.75% Pervious Area
1.060		41.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	25	0.0200	0.08		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
0.7	220	0.0180	4.92	118.11	**Channel Flow,** Area= 24.0 sf Perim= 20.5' r= 1.17' n= 0.045
0.1	40	0.1250	12.35	197.66	**Channel Flow,** Area= 16.0 sf Perim= 14.7' r= 1.09' n= 0.045
0.0	30	0.2500	17.47	279.53	**Channel Flow,** Area= 16.0 sf Perim= 14.7' r= 1.09' n= 0.045
5.9	315	Total			

Subcatchment D1: D1



Summary for Subcatchment D2: D2

[49] Hint: Tc<2dt may require smaller dt

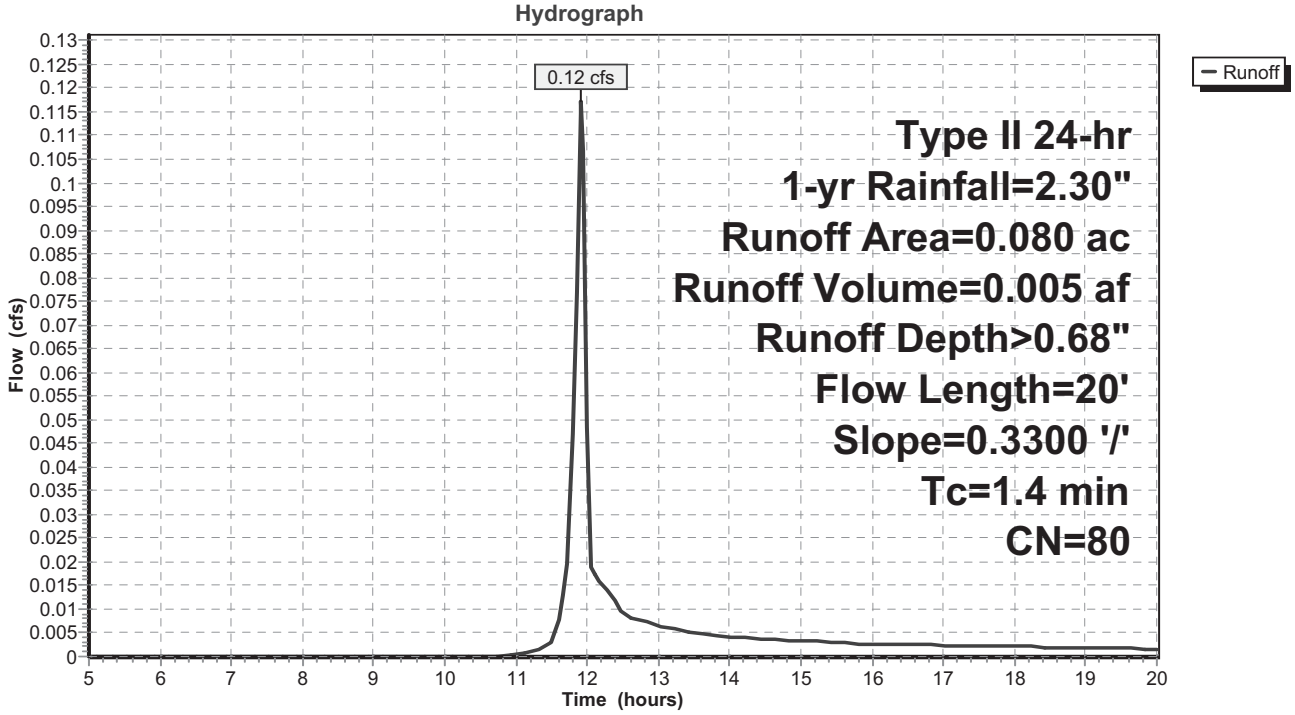
Runoff = 0.12 cfs @ 11.92 hrs, Volume= 0.005 af, Depth> 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.30"

Area (ac)	CN	Description
0.080	80	>75% Grass cover, Good, HSG D
0.080		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	20	0.3300	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment D2: D2



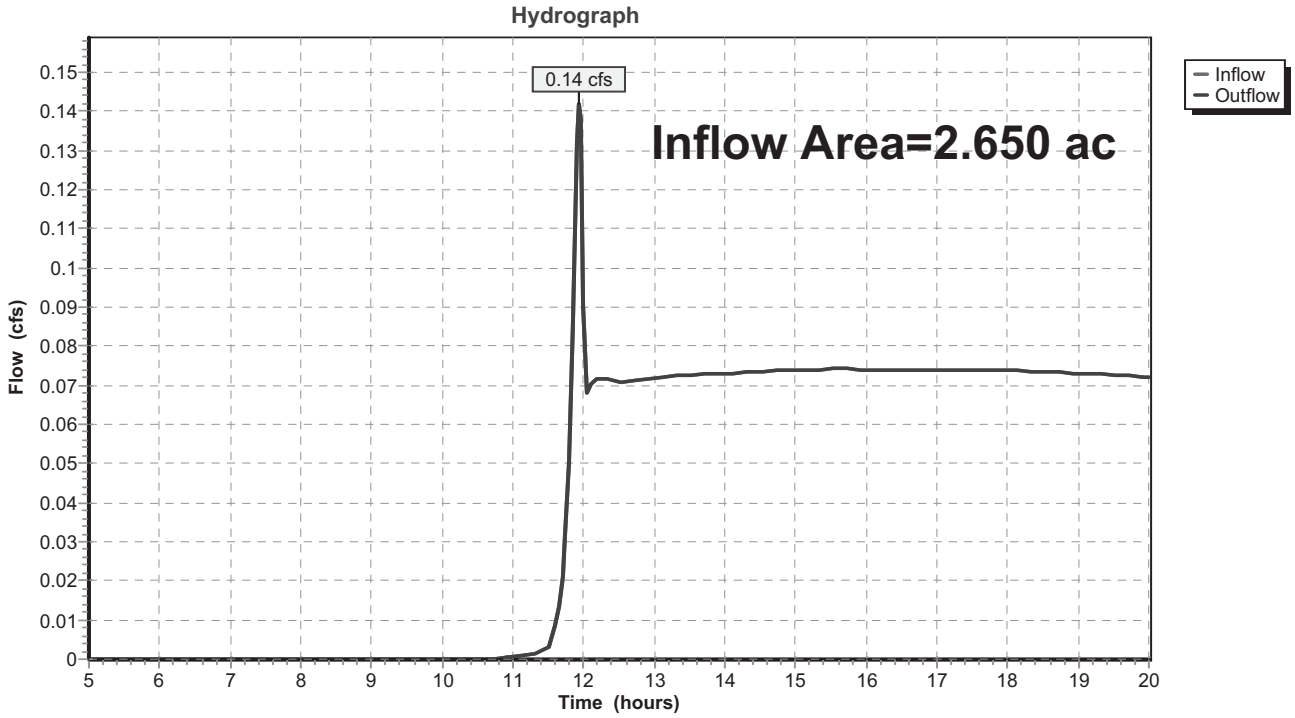
Summary for Reach OUT: OUT

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

Inflow Area = 2.650 ac, 40.00% Impervious, Inflow Depth > 0.23" for 1-yr event
Inflow = 0.14 cfs @ 11.93 hrs, Volume= 0.051 af
Outflow = 0.14 cfs @ 11.93 hrs, Volume= 0.051 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach OUT: OUT



Summary for Pond B1: BASIN 1

Inflow Area = 2.570 ac, 41.25% Impervious, Inflow Depth > 0.64" for 1-yr event
Inflow = 3.12 cfs @ 11.98 hrs, Volume= 0.136 af
Outflow = 0.07 cfs @ 17.29 hrs, Volume= 0.046 af, Atten= 98%, Lag= 318.5 min
Primary = 0.07 cfs @ 17.29 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 807.55' @ 17.29 hrs Surf.Area= 0.179 ac Storage= 0.092 af

Plug-Flow detention time= 249.9 min calculated for 0.046 af (34% of inflow)
Center-of-Mass det. time= 153.8 min (964.6 - 810.9)

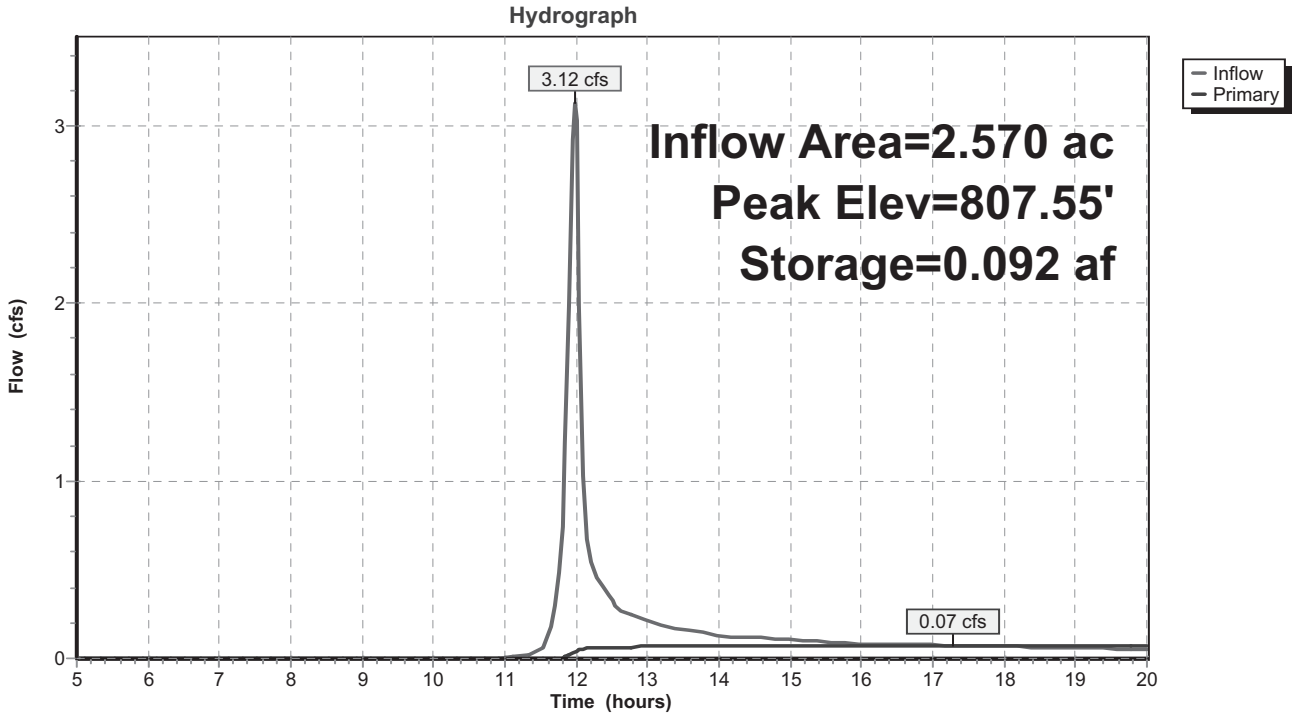
Volume	Invert	Avail.Storage	Storage Description
#1	807.00'	0.976 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
807.00	0.157	0.000	0.000
808.00	0.197	0.177	0.177
809.00	0.240	0.219	0.395
810.00	0.290	0.265	0.660
811.00	0.342	0.316	0.976

Device	Routing	Invert	Outlet Devices
#1	Primary	807.00'	**12.0" Round RCP_Round 12"** L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 807.00' / 804.00' S= 0.0750 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	807.00'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	808.60'	**12.0" Round RCP_Round 12"** L= 35.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 808.60' / 804.00' S= 0.1314 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf

Primary OutFlow Max=0.07 cfs @ 17.29 hrs HW=807.55' (Free Discharge)
- **1=RCP_Round 12"** (Passes 0.07 cfs of 1.12 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.07 cfs @ 3.29 fps)
- **3=RCP_Round 12"** (Controls 0.00 cfs)

Pond B1: BASIN 1



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: D1 Runoff Area=2.570 ac 41.25% Impervious Runoff Depth>0.88"
Flow Length=315' Tc=5.9 min CN=79 Runoff=4.36 cfs 0.189 af

Subcatchment D2: D2 Runoff Area=0.080 ac 0.00% Impervious Runoff Depth>0.94"
Flow Length=20' Slope=0.3300 '/' Tc=1.4 min CN=80 Runoff=0.16 cfs 0.006 af

Reach OUT: OUT Inflow=0.20 cfs 0.063 af
Outflow=0.20 cfs 0.063 af

Pond B1: BASIN 1 Peak Elev=807.78' Storage=0.134 af Inflow=4.36 cfs 0.189 af
Outflow=0.09 cfs 0.057 af

Total Runoff Area = 2.650 ac Runoff Volume = 0.195 af Average Runoff Depth = 0.88"
60.00% Pervious = 1.590 ac 40.00% Impervious = 1.060 ac

Summary for Subcatchment D1: D1

[49] Hint: Tc<2dt may require smaller dt

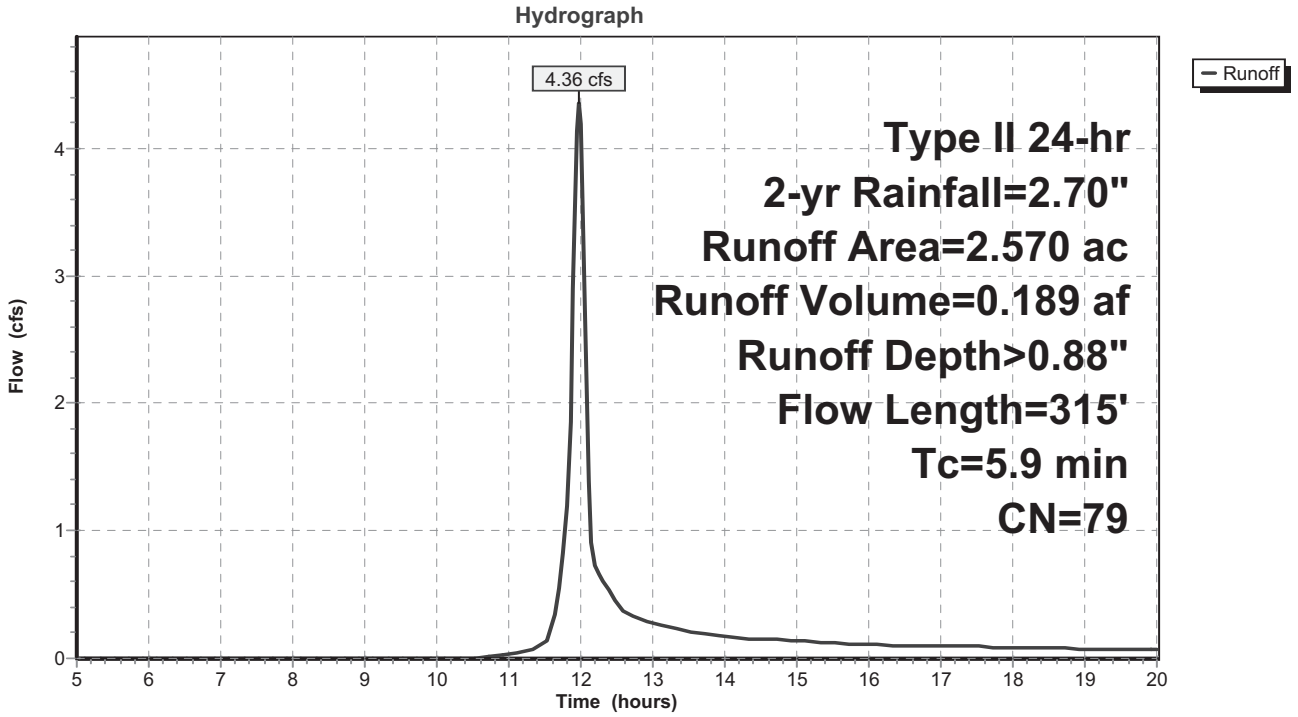
Runoff = 4.36 cfs @ 11.98 hrs, Volume= 0.189 af, Depth> 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=2.70"

Area (ac)	CN	Description
1.060	98	Paved parking, HSG A
1.120	61	>75% Grass cover, Good, HSG B
0.390	80	>75% Grass cover, Good, HSG D
2.570	79	Weighted Average
1.510		58.75% Pervious Area
1.060		41.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	25	0.0200	0.08		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
0.7	220	0.0180	4.92	118.11	**Channel Flow,** Area= 24.0 sf Perim= 20.5' r= 1.17' n= 0.045
0.1	40	0.1250	12.35	197.66	**Channel Flow,** Area= 16.0 sf Perim= 14.7' r= 1.09' n= 0.045
0.0	30	0.2500	17.47	279.53	**Channel Flow,** Area= 16.0 sf Perim= 14.7' r= 1.09' n= 0.045
5.9	315	Total			

Subcatchment D1: D1



Summary for Subcatchment D2: D2

[49] Hint: Tc<2dt may require smaller dt

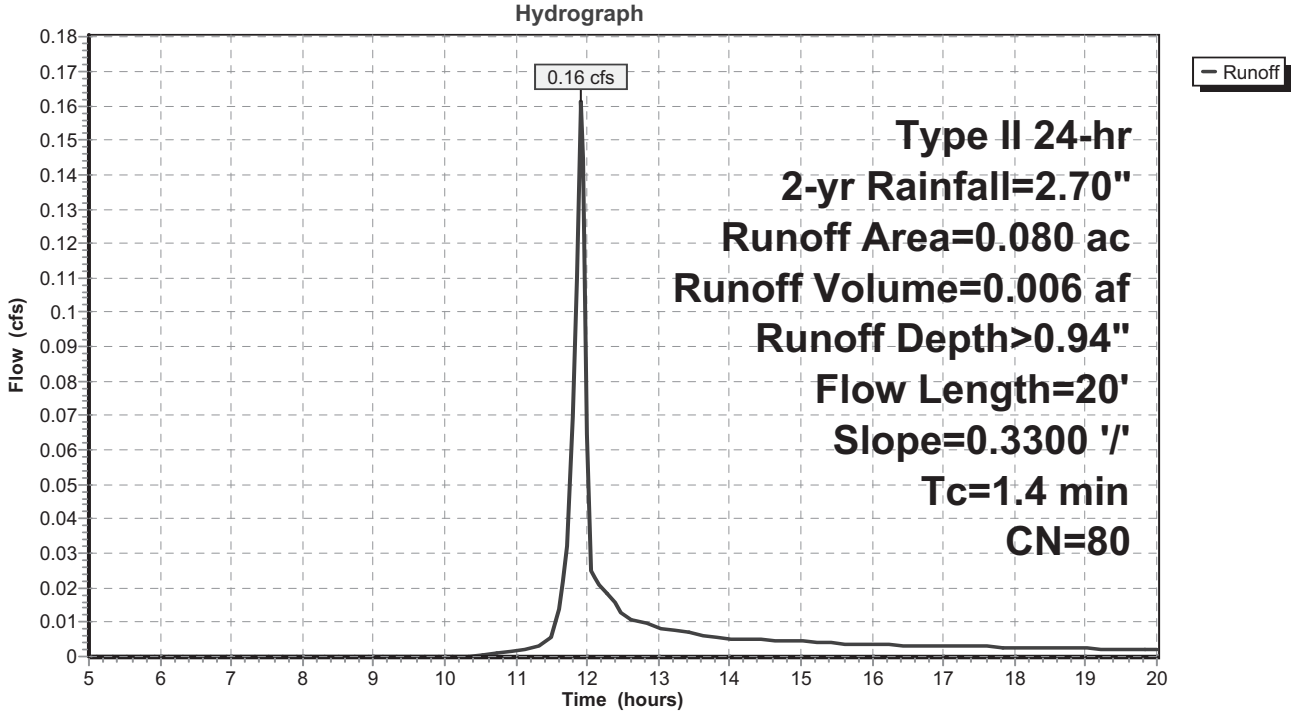
Runoff = 0.16 cfs @ 11.91 hrs, Volume= 0.006 af, Depth> 0.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=2.70"

Area (ac)	CN	Description
0.080	80	>75% Grass cover, Good, HSG D
0.080		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	20	0.3300	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment D2: D2



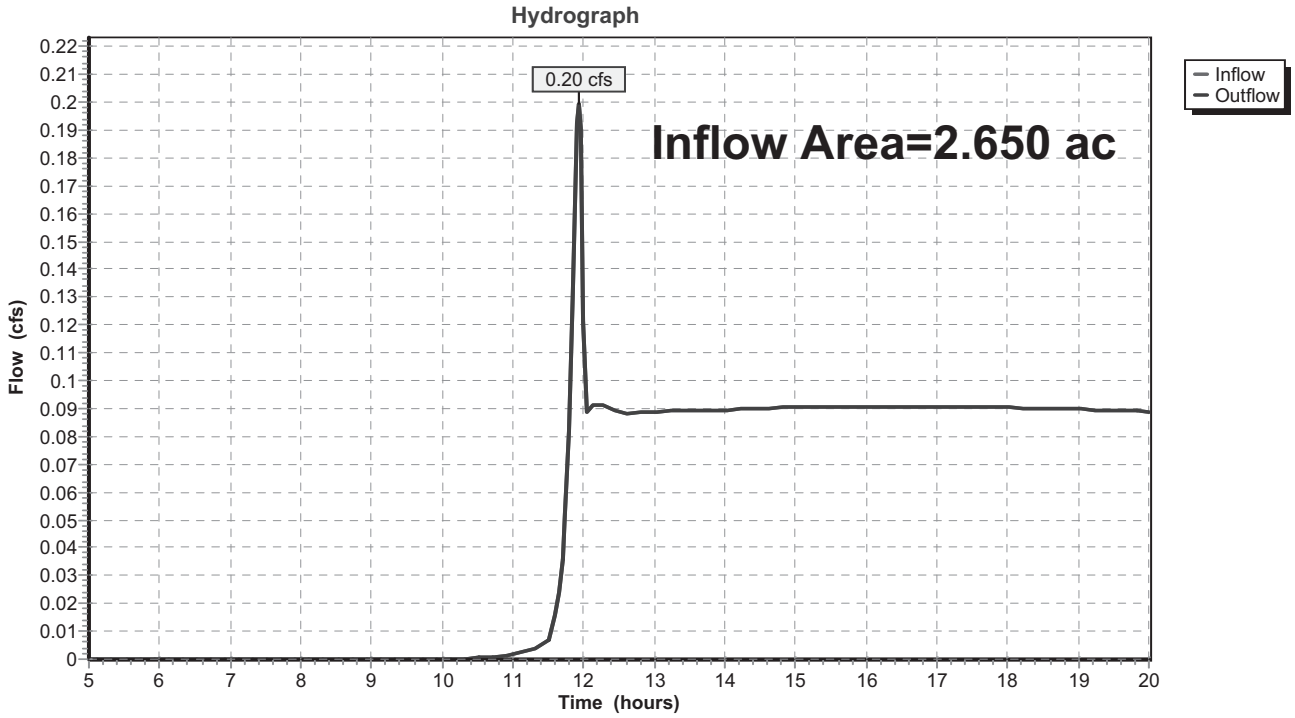
Summary for Reach OUT: OUT

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

Inflow Area = 2.650 ac, 40.00% Impervious, Inflow Depth > 0.29" for 2-yr event
Inflow = 0.20 cfs @ 11.92 hrs, Volume= 0.063 af
Outflow = 0.20 cfs @ 11.92 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach OUT: OUT



Summary for Pond B1: BASIN 1

Inflow Area = 2.570 ac, 41.25% Impervious, Inflow Depth > 0.88" for 2-yr event
Inflow = 4.36 cfs @ 11.98 hrs, Volume= 0.189 af
Outflow = 0.09 cfs @ 17.77 hrs, Volume= 0.057 af, Atten= 98%, Lag= 347.4 min
Primary = 0.09 cfs @ 17.77 hrs, Volume= 0.057 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 807.78' @ 17.77 hrs Surf.Area= 0.188 ac Storage= 0.134 af

Plug-Flow detention time= 252.9 min calculated for 0.057 af (30% of inflow)
Center-of-Mass det. time= 159.3 min (963.1 - 803.8)

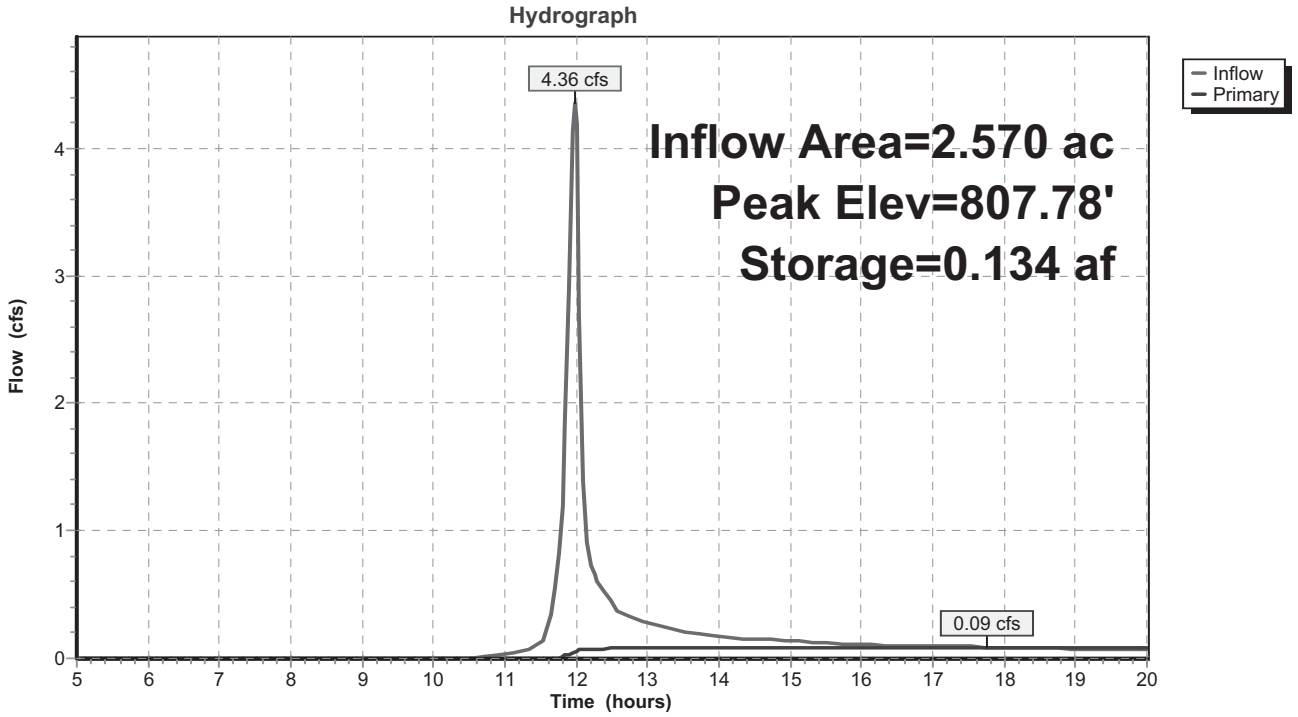
Volume	Invert	Avail.Storage	Storage Description
#1	807.00'	0.976 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
807.00	0.157	0.000	0.000
808.00	0.197	0.177	0.177
809.00	0.240	0.219	0.395
810.00	0.290	0.265	0.660
811.00	0.342	0.316	0.976

Device	Routing	Invert	Outlet Devices
#1	Primary	807.00'	**12.0" Round RCP_Round 12"** L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 807.00' / 804.00' S= 0.0750 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	807.00'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	808.60'	**12.0" Round RCP_Round 12"** L= 35.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 808.60' / 804.00' S= 0.1314 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 17.77 hrs HW=807.78' (Free Discharge)
└─**1=RCP_Round 12"** (Passes 0.09 cfs of 1.97 cfs potential flow)
  └─**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 4.02 fps)
└─**3=RCP_Round 12"** (Controls 0.00 cfs)

Pond B1: BASIN 1



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: D1 Runoff Area=2.570 ac 41.25% Impervious Runoff Depth>1.81"
Flow Length=315' Tc=5.9 min CN=79 Runoff=8.73 cfs 0.387 af

Subcatchment D2: D2 Runoff Area=0.080 ac 0.00% Impervious Runoff Depth>1.88"
Flow Length=20' Slope=0.3300 '/' Tc=1.4 min CN=80 Runoff=0.32 cfs 0.013 af

Reach OUT: OUT Inflow=0.39 cfs 0.098 af
Outflow=0.39 cfs 0.098 af

Pond B1: BASIN 1 Peak Elev=808.59' Storage=0.302 af Inflow=8.73 cfs 0.387 af
Outflow=0.13 cfs 0.086 af

Total Runoff Area = 2.650 ac Runoff Volume = 0.399 af Average Runoff Depth = 1.81"
60.00% Pervious = 1.590 ac 40.00% Impervious = 1.060 ac

Summary for Subcatchment D1: D1

[49] Hint: Tc<2dt may require smaller dt

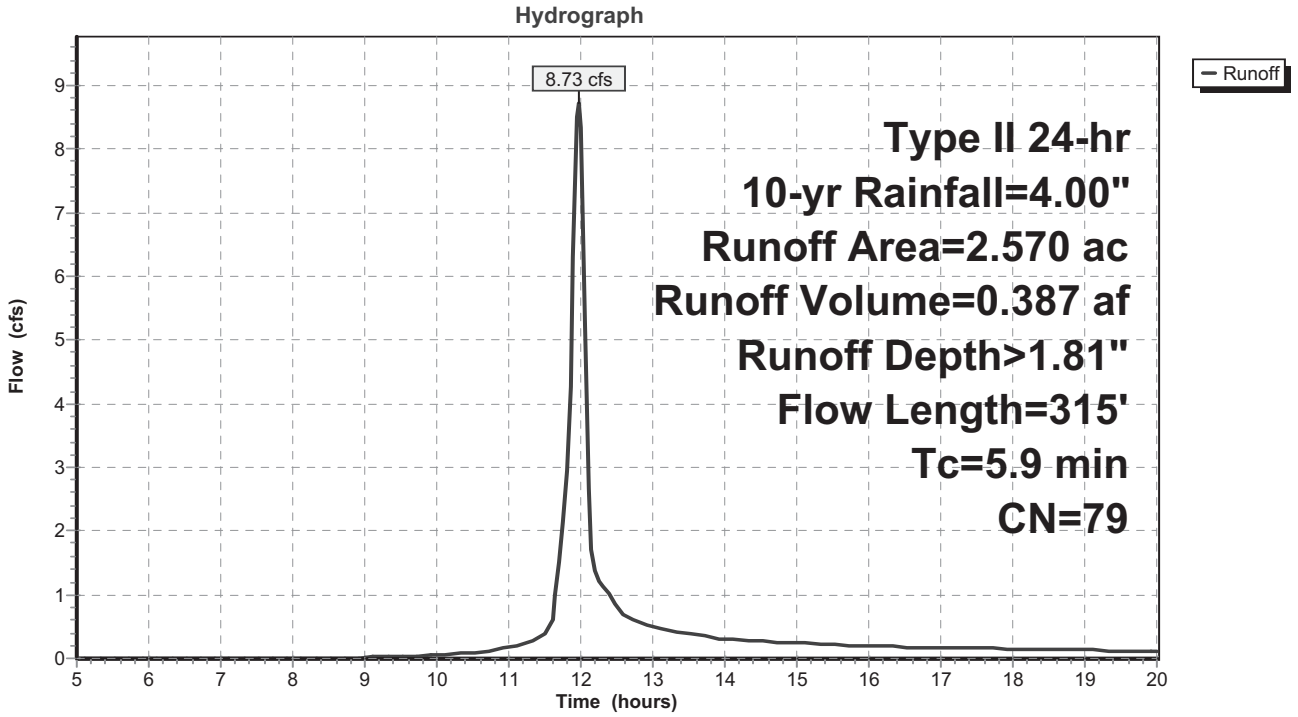
Runoff = 8.73 cfs @ 11.97 hrs, Volume= 0.387 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.00"

Area (ac)	CN	Description
1.060	98	Paved parking, HSG A
1.120	61	>75% Grass cover, Good, HSG B
0.390	80	>75% Grass cover, Good, HSG D
2.570	79	Weighted Average
1.510		58.75% Pervious Area
1.060		41.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	25	0.0200	0.08		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
0.7	220	0.0180	4.92	118.11	**Channel Flow,** Area= 24.0 sf Perim= 20.5' r= 1.17' n= 0.045
0.1	40	0.1250	12.35	197.66	**Channel Flow,** Area= 16.0 sf Perim= 14.7' r= 1.09' n= 0.045
0.0	30	0.2500	17.47	279.53	**Channel Flow,** Area= 16.0 sf Perim= 14.7' r= 1.09' n= 0.045
5.9	315	Total			

Subcatchment D1: D1



Summary for Subcatchment D2: D2

[49] Hint: Tc<2dt may require smaller dt

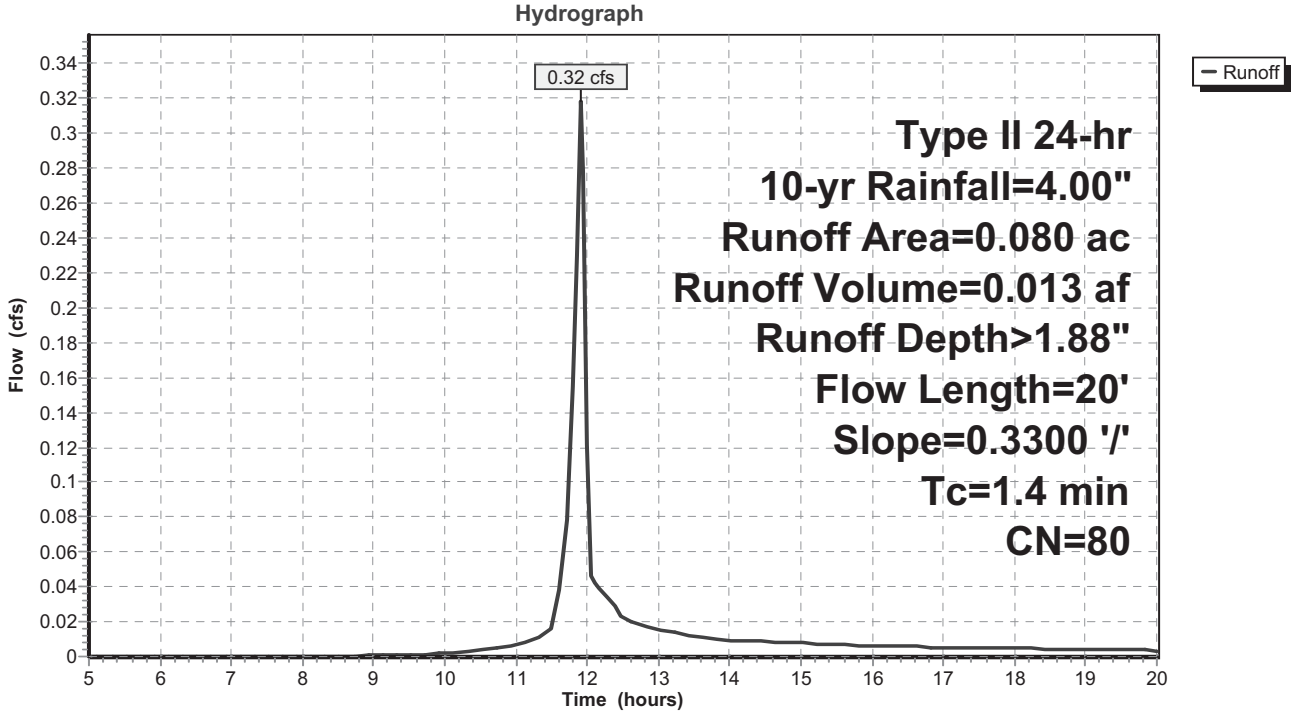
Runoff = 0.32 cfs @ 11.91 hrs, Volume= 0.013 af, Depth> 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.00"

Area (ac)	CN	Description
0.080	80	>75% Grass cover, Good, HSG D
0.080		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	20	0.3300	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment D2: D2



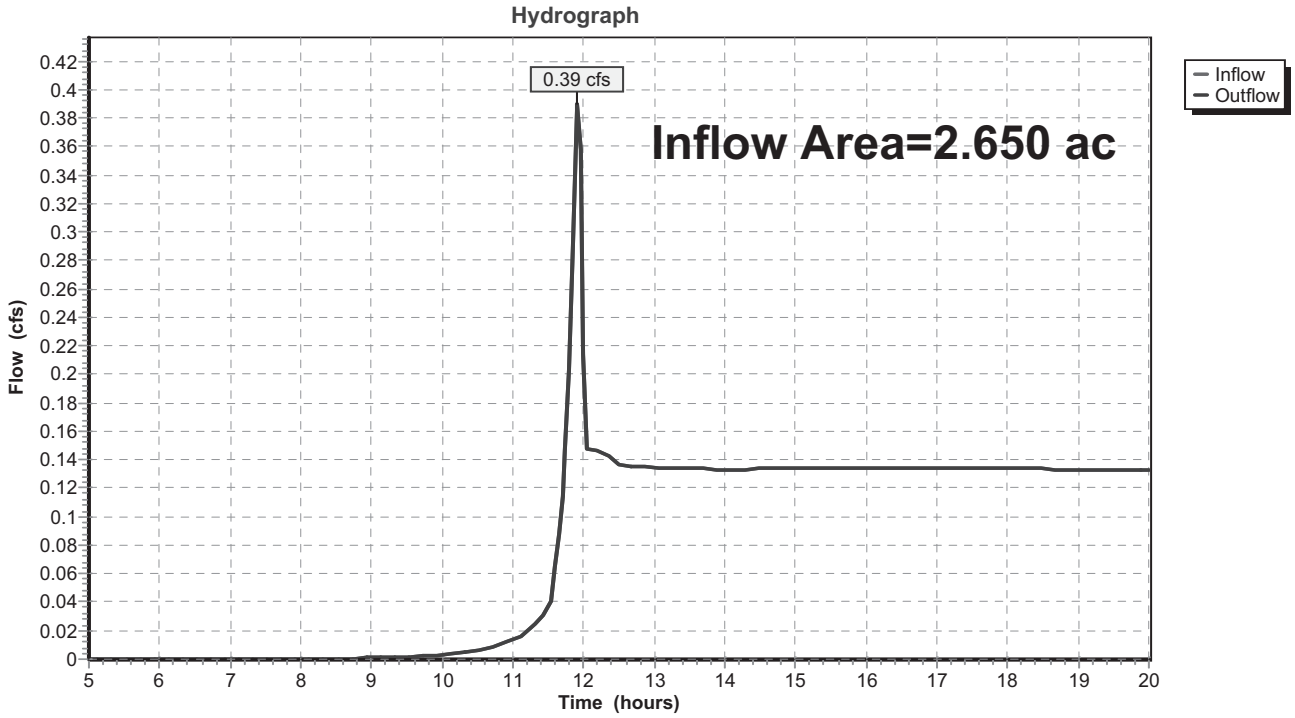
Summary for Reach OUT: OUT

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

Inflow Area = 2.650 ac, 40.00% Impervious, Inflow Depth > 0.45" for 10-yr event
Inflow = 0.39 cfs @ 11.91 hrs, Volume= 0.098 af
Outflow = 0.39 cfs @ 11.91 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach OUT: OUT



Summary for Pond B1: BASIN 1

Inflow Area = 2.570 ac, 41.25% Impervious, Inflow Depth > 1.81" for 10-yr event
Inflow = 8.73 cfs @ 11.97 hrs, Volume= 0.387 af
Outflow = 0.13 cfs @ 19.02 hrs, Volume= 0.086 af, Atten= 99%, Lag= 423.2 min
Primary = 0.13 cfs @ 19.02 hrs, Volume= 0.086 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 808.59' @ 19.02 hrs Surf.Area= 0.223 ac Storage= 0.302 af

Plug-Flow detention time= 263.9 min calculated for 0.086 af (22% of inflow)
Center-of-Mass det. time= 168.3 min (957.1 - 788.8)

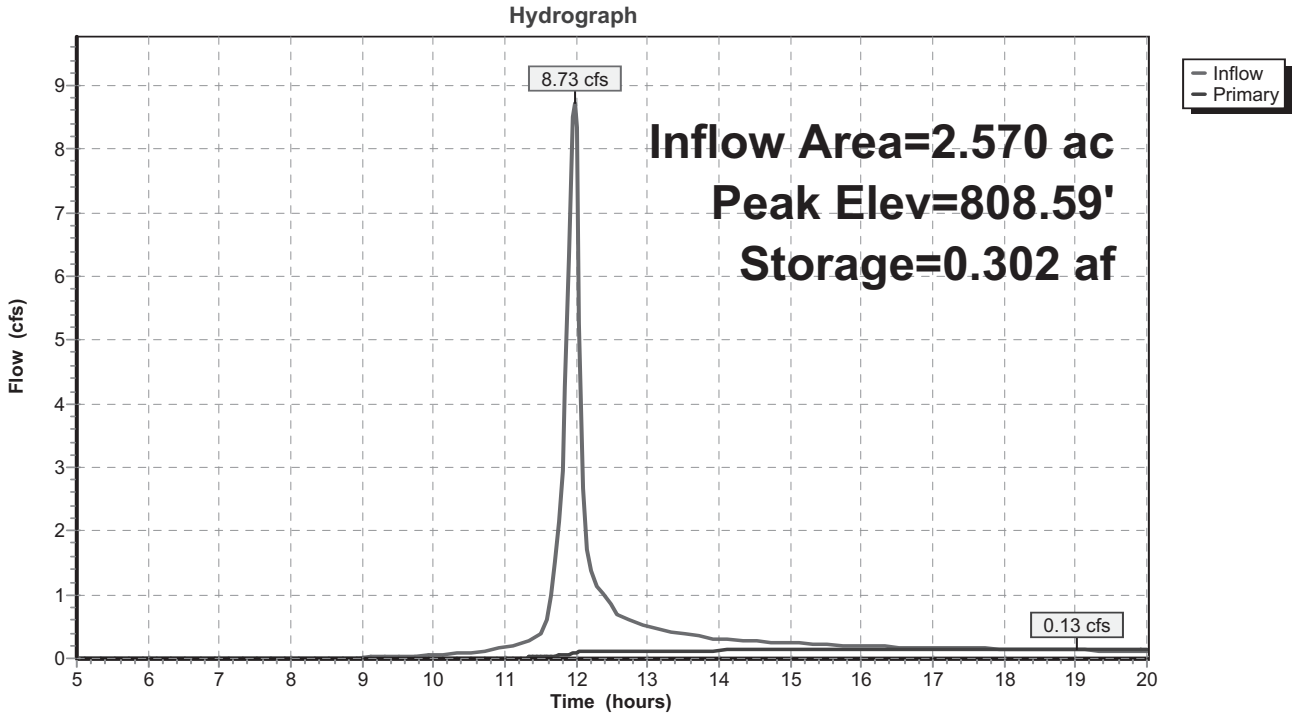
Volume	Invert	Avail.Storage	Storage Description
#1	807.00'	0.976 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
807.00	0.157	0.000	0.000
808.00	0.197	0.177	0.177
809.00	0.240	0.219	0.395
810.00	0.290	0.265	0.660
811.00	0.342	0.316	0.976

Device	Routing	Invert	Outlet Devices
#1	Primary	807.00'	**12.0" Round RCP_Round 12"** L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 807.00' / 804.00' S= 0.0750 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	807.00'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	808.60'	**12.0" Round RCP_Round 12"** L= 35.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 808.60' / 804.00' S= 0.1314 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf

Primary OutFlow Max=0.13 cfs @ 19.02 hrs HW=808.59' (Free Discharge)
└─**1=RCP_Round 12"** (Passes 0.13 cfs of 3.96 cfs potential flow)
  └─**2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 5.92 fps)
└─**3=RCP_Round 12"** (Controls 0.00 cfs)

Pond B1: BASIN 1



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: D1 Runoff Area=2.570 ac 41.25% Impervious Runoff Depth>3.08"
Flow Length=315' Tc=5.9 min CN=79 Runoff=14.59 cfs 0.661 af

Subcatchment D2: D2 Runoff Area=0.080 ac 0.00% Impervious Runoff Depth>3.18"
Flow Length=20' Slope=0.3300 '/' Tc=1.4 min CN=80 Runoff=0.52 cfs 0.021 af

Reach OUT: OUT Inflow=0.92 cfs 0.346 af
Outflow=0.92 cfs 0.346 af

Pond B1: BASIN 1 Peak Elev=809.04' Storage=0.405 af Inflow=14.59 cfs 0.661 af
Outflow=0.89 cfs 0.324 af

Total Runoff Area = 2.650 ac Runoff Volume = 0.682 af Average Runoff Depth = 3.09"
60.00% Pervious = 1.590 ac 40.00% Impervious = 1.060 ac

Summary for Subcatchment D1: D1

[49] Hint: Tc<2dt may require smaller dt

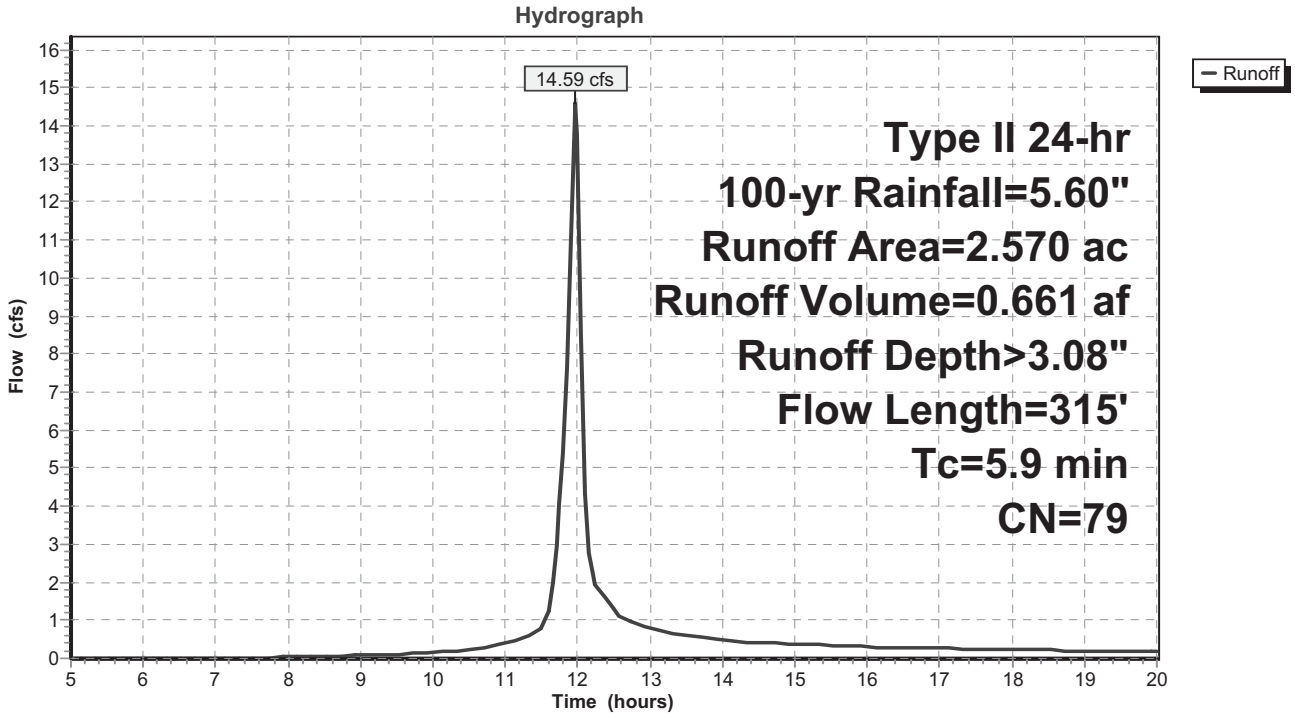
Runoff = 14.59 cfs @ 11.97 hrs, Volume= 0.661 af, Depth> 3.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=5.60"

Area (ac)	CN	Description
1.060	98	Paved parking, HSG A
1.120	61	>75% Grass cover, Good, HSG B
0.390	80	>75% Grass cover, Good, HSG D
2.570	79	Weighted Average
1.510		58.75% Pervious Area
1.060		41.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	25	0.0200	0.08		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
0.7	220	0.0180	4.92	118.11	**Channel Flow,** Area= 24.0 sf Perim= 20.5' r= 1.17' n= 0.045
0.1	40	0.1250	12.35	197.66	**Channel Flow,** Area= 16.0 sf Perim= 14.7' r= 1.09' n= 0.045
0.0	30	0.2500	17.47	279.53	**Channel Flow,** Area= 16.0 sf Perim= 14.7' r= 1.09' n= 0.045
5.9	315	Total			

Subcatchment D1: D1



Summary for Subcatchment D2: D2

[49] Hint: Tc<2dt may require smaller dt

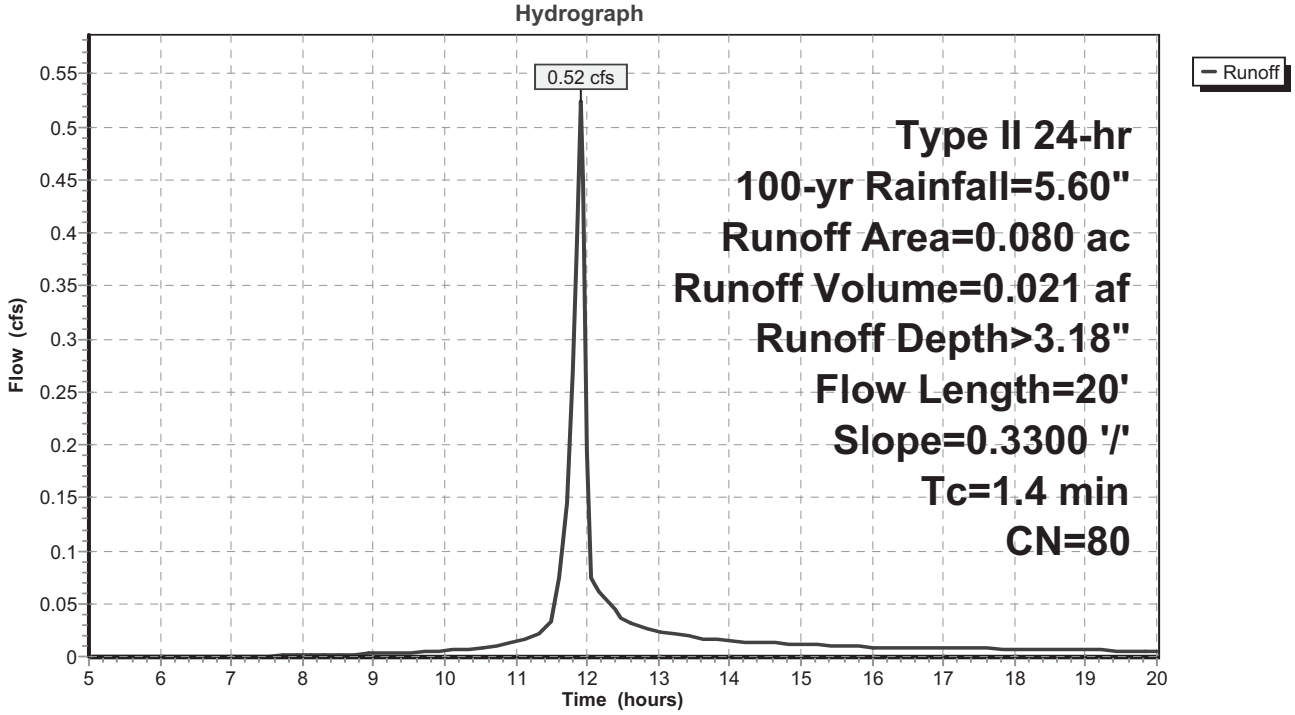
Runoff = 0.52 cfs @ 11.91 hrs, Volume= 0.021 af, Depth> 3.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=5.60"

Area (ac)	CN	Description
0.080	80	>75% Grass cover, Good, HSG D
0.080		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	20	0.3300	0.24		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment D2: D2



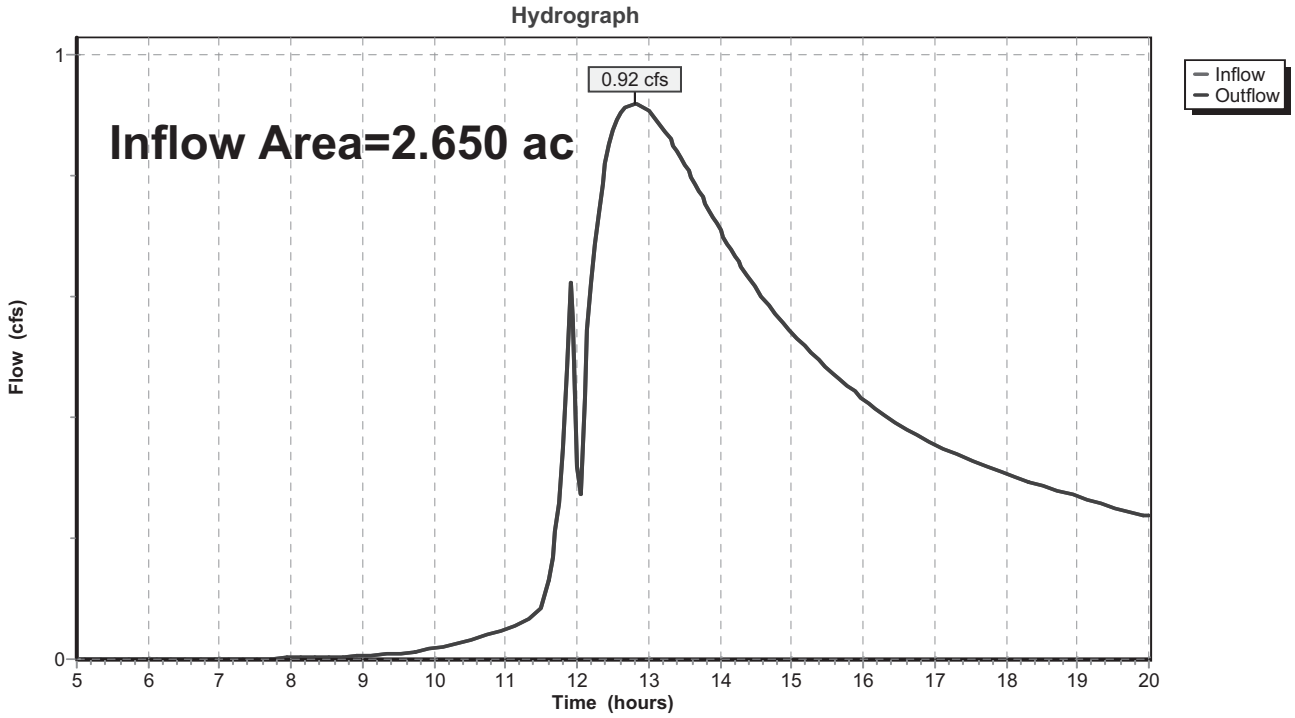
Summary for Reach OUT: OUT

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

Inflow Area = 2.650 ac, 40.00% Impervious, Inflow Depth > 1.57" for 100-yr event
Inflow = 0.92 cfs @ 12.80 hrs, Volume= 0.346 af
Outflow = 0.92 cfs @ 12.80 hrs, Volume= 0.346 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach OUT: OUT



Summary for Pond B1: BASIN 1

Inflow Area = 2.570 ac, 41.25% Impervious, Inflow Depth > 3.08" for 100-yr event
Inflow = 14.59 cfs @ 11.97 hrs, Volume= 0.661 af
Outflow = 0.89 cfs @ 12.83 hrs, Volume= 0.324 af, Atten= 94%, Lag= 51.9 min
Primary = 0.89 cfs @ 12.83 hrs, Volume= 0.324 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 809.04' @ 12.83 hrs Surf.Area= 0.242 ac Storage= 0.405 af

Plug-Flow detention time= 202.0 min calculated for 0.323 af (49% of inflow)
Center-of-Mass det. time= 123.8 min (900.9 - 777.2)

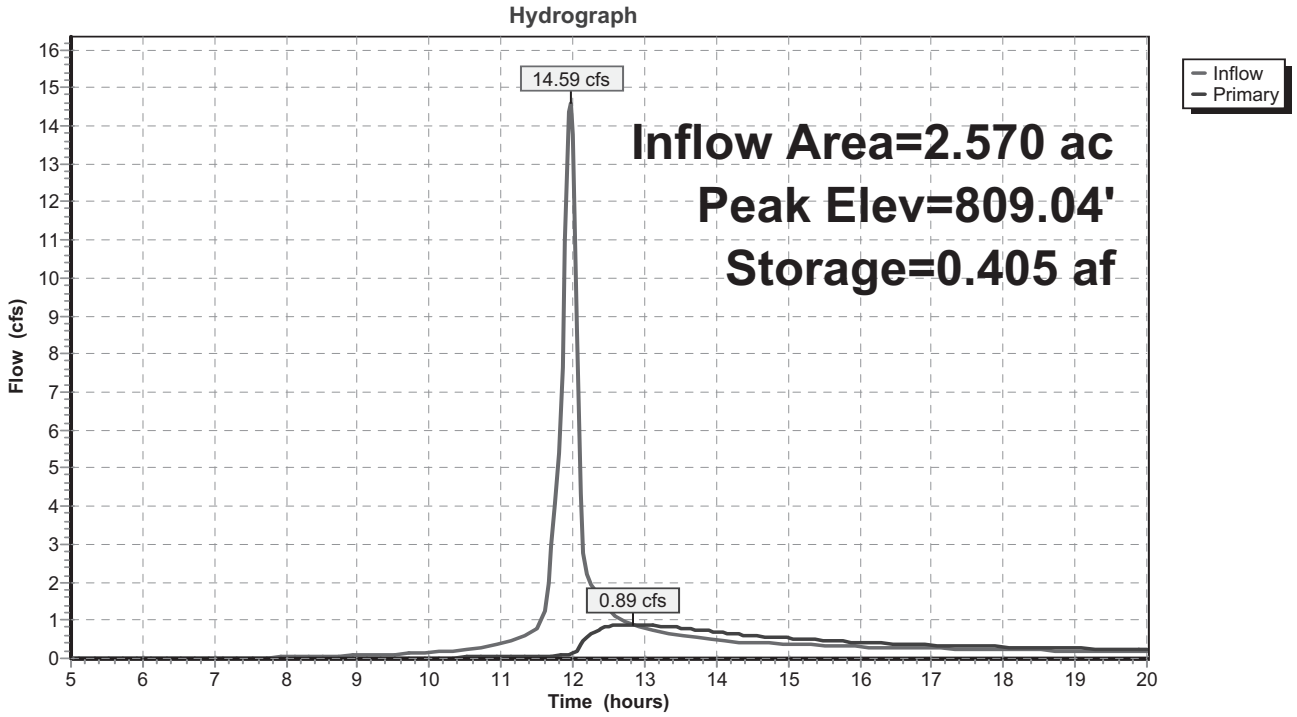
Volume	Invert	Avail.Storage	Storage Description
#1	807.00'	0.976 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
807.00	0.157	0.000	0.000
808.00	0.197	0.177	0.177
809.00	0.240	0.219	0.395
810.00	0.290	0.265	0.660
811.00	0.342	0.316	0.976

Device	Routing	Invert	Outlet Devices
#1	Primary	807.00'	**12.0" Round RCP_Round 12"** L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 807.00' / 804.00' S= 0.0750 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	807.00'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	808.60'	**12.0" Round RCP_Round 12"** L= 35.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 808.60' / 804.00' S= 0.1314 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf

Primary OutFlow Max=0.89 cfs @ 12.83 hrs HW=809.04' (Free Discharge)
└─**1=RCP_Round 12"** (Passes 0.15 cfs of 4.69 cfs potential flow)
  └─**2=Orifice/Grate** (Orifice Controls 0.15 cfs @ 6.73 fps)
└─**3=RCP_Round 12"** (Inlet Controls 0.74 cfs @ 2.25 fps)

Pond B1: BASIN 1



Appendix 5

WinSLAMM Input/Output

Data file name: \\tsclient\P\Shared\1 - Projects\2014\14.017 -Tim Seidel Premier Woods\PHASE 2\Hydrology\Slamm\BASIN 1.dat
SLAMM Version 9.3.3
Rain file name: C:\Program Files\WinSLAMM\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\Program Files\WinSLAMM\WI_AVG01.psc
Runoff Coefficient file name: C:\Program Files\WinSLAMM\WI_SL06 Dec06.rsv
Particulate Residue Delivery file name: C:\Program Files\WinSLAMM\WI_DLV01.prr
Residential Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Commercial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Industrial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Other Urban Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\Program Files\WinSLAMM\WI_GEO01.ppd
Seed for random number generator: -42
Study period starting date: 03/28/69 Study period ending date: 12/06/69
Date: 02-17-2016 Time: 13:45:05
Fraction of each type of Drainage System serving study area:

1. Grass Swales 0
2. Undeveloped roadside 1
   Curb and Gutters, `valleys', or sealed swales in:
   3. Poor condition (or very flat) 0
   4. Fair condition 0
   5. Good condition (or very steep) 0

Site information: BASIN 1 (AREA D1)

Source Area	|<===== Areas for each Source (acres) =====>| Residential Areas	Institutional Areas	Commercial Areas	Industrial Areas	Other Urban Areas
Roofs 1	0.19	0.00	0.00	0.00	0.00
Roofs 2	0.19	0.00	0.00	0.00	0.00
Roofs 3	0.00	0.00	0.00	0.00	0.00
Roofs 4	0.00	0.00	0.00	0.00	0.00
Roofs 5	0.00	0.00	0.00	0.00	0.00
Paved Parking/Storage 1	0.24	0.00	0.00	0.00	0.00
Paved Parking/Storage 2	0.00	0.00	0.00	0.00	0.00
Paved Parking/Storage 3	0.00	0.00	0.00	0.00	0.00
Unpaved Prkng/Storage 1	0.00	0.00	0.00	0.00	0.00
Unpaved Prkng/Storage 2	0.00	0.00	0.00	0.00	0.00
Playground 1	0.00	0.00	0.00	0.00	0.00
Playground 2	0.00	0.00	0.00	0.00	0.00
Driveways 1	0.28	0.00	0.00	0.00	0.00
Driveways 2	0.00	0.00	0.00	0.00	0.00
Driveways 3	0.00	0.00	0.00	0.00	0.00
Sidewalks/Walks 1	0.00	0.00	0.00	0.00	0.00
Sidewalks/Walks 2	0.00	0.00	0.00	0.00	0.00
Street Area 1	0.00	0.00	0.00	0.00	0.00
Street Area 2	0.00	0.00	0.00	0.00	0.00
Street Area 3	0.00	0.00	0.00	0.00	0.00
Large Landscaped Area 1	0.00	0.00	0.00	0.00	0.00
Large Landscaped Area 2	0.00	0.00	0.00	0.00	0.00
Undeveloped Area	0.00	0.00	0.00	0.00	0.00
Small Landscaped Area 1	1.51	0.00	0.00	0.00	0.00

	BASIN 1				
Small Landscaped Area 2	0.00	0.00	0.00	0.00	0.00
Small Landscaped Area 3	0.00	0.00	0.00	0.00	0.00
Isolated/Water Body Area	0.16	0.00	0.00	0.00	0.00
Other Pervious Area	0.00	0.00	0.00	0.00	0.00
Other Dir Cnctd Imp Area	0.00	0.00	0.00	0.00	0.00
Other Part Cnctd Imp Area	0.00	0.00	0.00	0.00	0.00
Total	2.57	0.00	0.00	0.00	0.00

Freeway Source Area	Area (acres)
Pavd Lane & Shldr Area 1	0.00
Pavd Lane & Shldr Area 2	0.00
Pavd Lane & Shldr Area 3	0.00
Pavd Lane & Shldr Area 4	0.00
Pavd Lane & Shldr Area 5	0.00
Large Turf Areas	0.00
Undeveloped Areas	0.00
Other Pervious Areas	0.00
Other Directly Conctd Imp	0.00
Other Partially Conctd Imp	0.00
Total	0.00

Total of All Source Areas	2.57
Total of All Source Areas less All Isolated Areas	2.41

Source Area Control Practice Information

Land Use: Residential

Roofs 1 Source area number: 1

The roof is pitched

The Source Area is draining to a pervious area (partially connected impervious area)

The SCS Hydrologic Soil Type is Silty

Roofs 2 Source area number: 2

The roof is pitched

The Source Area is directly connected or draining to a directly connected area

Paved Parking/Storage 1 Source area number: 6

The Source Area is directly connected or draining to a directly connected area

Driveways 1 Source area number: 13

The Source Area is directly connected or draining to a directly connected area

Small Landscaped Area 1 Source area number: 24

The SCS Hydrologic Soil Type is Silty

Isolated/Water Body Area Source area number: 27

The source area is a water body where all rainfall is considered to be runoff, with no particulate solids loading

Drainage System

Outfall

Control Practice 1 : Wet Detention Ponds

1. Area served by detention ponds (acres)= 2.57
2. Particle Size Distribution file name: C:\PROGRAM FILES\WINSLAMM_933\NURP.CPZ
3. Initial stage elevation (ft): 5
4. Peak to Average Flow Ratio: 3.8
5. Maximum flow allowed into pond (cfs): No maximum value entered
6. Outlet Characteristics:

Outlet number 1

BASIN 1

Outlet type: Orifice
1. Orifice diameter (ft): 0.25
2. Invert elevation above datum (ft): 5

Outlet number 2
Outlet type: Broad Crested Weir
1. Weir crest length (ft): 10
2. Weir crest width (ft): 17
3. Discharge Coefficient (ft): 3.1
4. Height of weir opening (cfs): 1
5. Height from datum to bottom of weir opening: 8

Outlet number 3
Outlet type: Orifice
1. Orifice diameter (ft): 1
2. Invert elevation above datum (ft): 6.5

7. Pond stage and surface area

Entry Number	Stage (ft)	Pond Area (acres)	Natural Seepage (in/hr)	Other Outflow (cfs)
0	0.00	0.0000	0.00	0.00
1	0.10	0.0180	0.00	0.00
2	4.20	0.0820	0.00	0.00
3	5.00	0.1580	0.00	0.00
4	6.00	0.2020	0.00	0.00
5	9.00	0.3650	0.00	0.00

Pollutants to be Analyzed and Printed:

Pollutant Name	Pollutant Type
Solids	Particulate

♀

BASIN 1 - Output Summary

SLAMM for Windows Version 9.3.3
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Data file name: \\tsclient\P\Shared\1 - Projects\2014\14.017 -Tim Seidel Premier Woods\PHASE 2\Hydrology\Slamm\BASIN 1.dat
Data file description: BASIN 1 (AREA D1)
Rain file name: C:\Program Files\WinSLAMM\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\Program Files\WinSLAMM\WI_AVG01.psc
Runoff Coefficient file name: C:\Program Files\WinSLAMM\WI_SL06 Dec06.rsv
Particulate Residue Delivery file name: C:\Program Files\WinSLAMM\WI_DLV01.prr
Residential Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Commercial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Industrial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Other Urban Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Pollutant Relative Concentration file name: C:\Program Files\WinSLAMM\WI_GEO01.ppd
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Model Run Start Date: 03/28/69 Model Run End Date: 12/06/69
Date of run: 02-17-2016 Time of run: 13:45:09
Total Area Modeled (acres): 2.57
Years in Model Run: 0.67

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Source Area Total without Controls:	87259	0 %	99.72	543.2	0 %
Total Before Drainage System:	87257	0.00%	99.81	543.2	0.00%
Total After Drainage System:	87257	0.00%	99.81	543.7	-0.09%
Total After Outfall Controls:	87257	0.00%	12.43	67.71	87.53%
Annualized Total After Outfall Controls:	131066			101.7	

Data file name: \\tsclient\P\Shared\1 - Projects\2014\14.017 -Tim Seidel Premier Woods\PHASE 2\Hydrology\Slamm\AREA D2.dat
SLAMM Version 9.3.3
Rain file name: C:\Program Files\WinSLAMM\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\Program Files\WinSLAMM\WI_AVG01.psc
Runoff Coefficient file name: C:\Program Files\WinSLAMM\WI_SL06 Dec06.rsv
Particulate Residue Delivery file name: C:\Program Files\WinSLAMM\WI_DLV01.prr
Residential Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Commercial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Industrial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Other Urban Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\Program Files\WinSLAMM\WI_GEO01.ppd
Seed for random number generator: -42
Study period starting date: 03/28/69 Study period ending date: 12/06/69
Date: 02-17-2016 Time: 13:45:50
Fraction of each type of Drainage System serving study area:
1. Grass Swales 0
2. Undeveloped roadside 1
Curb and Gutters, `valleys', or sealed swales in:
3. Poor condition (or very flat) 0
4. Fair condition 0
5. Good condition (or very steep) 0
Site information: AREA D2

Source Area	Resi-dential Areas	Institu-tional Areas	Commercial Areas	Industrial Areas	Other Urban Areas
	|<===== Areas for each Source (acres) =====>|				
Roofs 1	0.00	0.00	0.00	0.00	0.00
Roofs 2	0.00	0.00	0.00	0.00	0.00
Roofs 3	0.00	0.00	0.00	0.00	0.00
Roofs 4	0.00	0.00	0.00	0.00	0.00
Roofs 5	0.00	0.00	0.00	0.00	0.00
Paved Parking/Storage 1	0.00	0.00	0.00	0.00	0.00
Paved Parking/Storage 2	0.00	0.00	0.00	0.00	0.00
Paved Parking/Storage 3	0.00	0.00	0.00	0.00	0.00
Unpaved Prkng/Storage 1	0.00	0.00	0.00	0.00	0.00
Unpaved Prkng/Storage 2	0.00	0.00	0.00	0.00	0.00
Playground 1	0.00	0.00	0.00	0.00	0.00
Playground 2	0.00	0.00	0.00	0.00	0.00
Driveways 1	0.00	0.00	0.00	0.00	0.00
Driveways 2	0.00	0.00	0.00	0.00	0.00
Driveways 3	0.00	0.00	0.00	0.00	0.00
Sidewalks/Walks 1	0.00	0.00	0.00	0.00	0.00
Sidewalks/Walks 2	0.00	0.00	0.00	0.00	0.00
Street Area 1	0.00	0.00	0.00	0.00	0.00
Street Area 2	0.00	0.00	0.00	0.00	0.00
Street Area 3	0.00	0.00	0.00	0.00	0.00
Large Landscaped Area 1	0.00	0.00	0.00	0.00	0.00
Large Landscaped Area 2	0.00	0.00	0.00	0.00	0.00
Undeveloped Area	0.00	0.00	0.00	0.00	0.00
Small Landscaped Area 1	0.08	0.00	0.00	0.00	0.00

	AREA D2				
Small Landscaped Area 2	0.00	0.00	0.00	0.00	0.00
Small Landscaped Area 3	0.00	0.00	0.00	0.00	0.00
Isolated/Water Body Area	0.00	0.00	0.00	0.00	0.00
Other Pervious Area	0.00	0.00	0.00	0.00	0.00
Other Dir Cnctd Imp Area	0.00	0.00	0.00	0.00	0.00
Other Part Cnctd Imp Area	0.00	0.00	0.00	0.00	0.00
Total	0.08	0.00	0.00	0.00	0.00

Freeway Source Area	Area (acres)
Pavd Lane & Shldr Area 1	0.00
Pavd Lane & Shldr Area 2	0.00
Pavd Lane & Shldr Area 3	0.00
Pavd Lane & Shldr Area 4	0.00
Pavd Lane & Shldr Area 5	0.00
Large Turf Areas	0.00
Undeveloped Areas	0.00
Other Pervious Areas	0.00
Other Directly Conctd Imp	0.00
Other Partially Conctd Imp	0.00
Total	0.00

Total of All Source Areas	0.08
Total of All Source Areas less All Isolated Areas	0.08

Source Area Control Practice Information

Land Use: Residential

Small Landscaped Area 1 Source area number: 24

The SCS Hydrologic Soil Type is Silty

Drainage System

Outfall

Pollutants to be Analyzed and Printed:

Pollutant Name	Pollutant Type
Solids	Particulate

♀

AREA D2 - Output Summary

SLAMM for Windows Version 9.3.3
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Data file name: \\tsclient\P\Shared\1 - Projects\2014\14.017 -Tim Seidel Premier Woods\PHASE 2\Hydrology\Slamm\AREA D2.dat
Data file description: AREA D2
Rain file name: C:\Program Files\WinSLAMM\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\Program Files\WinSLAMM\WI_AVG01.psc
Runoff Coefficient file name: C:\Program Files\WinSLAMM\WI_SL06 Dec06.rsv
Particulate Residue Delivery file name: C:\Program Files\WinSLAMM\WI_DLV01.prr
Residential Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Commercial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Industrial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Other Urban Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Pollutant Relative Concentration file name: C:\Program Files\WinSLAMM\WI_GEO01.ppd
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Model Run Start Date: 03/28/69 Model Run End Date: 12/06/69
Date of run: 02-17-2016 Time of run: 13:46:12
Total Area Modeled (acres): 0.08
Years in Model Run: 0.67

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Source Area Total without Controls:	419.6	0 %	227.0	5.946	0 %
Total Before Drainage System:	419.5	0.02%	227.2	5.946	0.00%
Total After Drainage System:	419.5	0.02%	227.2	5.951	-0.08%
Total After Outfall Controls:	419.5	0.02%	227.2	5.951	-0.08%
Annualized Total After Outfall Controls:	630.2			8.939	

Data file name: \\tsclient\P\Shared\1 - Projects\2014\14.017 -Tim Seidel Premier Woods\PHASE 2\Hydrology\Slamm\AREA E1.dat
SLAMM Version 9.3.3
Rain file name: C:\Program Files\WinSLAMM\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\Program Files\WinSLAMM\WI_AVG01.psc
Runoff Coefficient file name: C:\Program Files\WinSLAMM\WI_SL06 Dec06.rsv
Particulate Residue Delivery file name: C:\Program Files\WinSLAMM\WI_DLV01.prr
Residential Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Commercial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Industrial Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Other Urban Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\Program Files\WinSLAMM\WI_Res and Other Urban Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\Program Files\WinSLAMM\WI_GEO01.ppd
Seed for random number generator: -42
Study period starting date: 03/28/69 Study period ending date: 12/06/69
Date: 02-17-2016 Time: 13:59:54
Fraction of each type of Drainage System serving study area:
1. Grass Swales 0
2. Undeveloped roadside 1
Curb and Gutters, `valleys', or sealed swales in:
3. Poor condition (or very flat) 0
4. Fair condition 0
5. Good condition (or very steep) 0
Site information: AREA E1

Source Area	|<===== Areas for each Source (acres) =====>| Residential Areas	Institutional Areas	Commercial Areas	Industrial Areas	Other Urban Areas
Roofs 1	0.00	0.00	0.00	0.00	0.00
Roofs 2	0.00	0.00	0.00	0.00	0.00
Roofs 3	0.00	0.00	0.00	0.00	0.00
Roofs 4	0.00	0.00	0.00	0.00	0.00
Roofs 5	0.00	0.00	0.00	0.00	0.00
Paved Parking/Storage 1	0.00	0.00	0.00	0.00	0.00
Paved Parking/Storage 2	0.00	0.00	0.00	0.00	0.00
Paved Parking/Storage 3	0.00	0.00	0.00	0.00	0.00
Unpaved Prkng/Storage 1	0.00	0.00	0.00	0.00	0.00
Unpaved Prkng/Storage 2	0.00	0.00	0.00	0.00	0.00
Playground 1	0.00	0.00	0.00	0.00	0.00
Playground 2	0.00	0.00	0.00	0.00	0.00
Driveways 1	0.00	0.00	0.00	0.00	0.00
Driveways 2	0.00	0.00	0.00	0.00	0.00
Driveways 3	0.00	0.00	0.00	0.00	0.00
Sidewalks/Walks 1	0.00	0.00	0.00	0.00	0.00
Sidewalks/Walks 2	0.00	0.00	0.00	0.00	0.00
Street Area 1	0.00	0.00	0.00	0.00	0.00
Street Area 2	0.00	0.00	0.00	0.00	0.00
Street Area 3	0.00	0.00	0.00	0.00	0.00
Large Landscaped Area 1	0.00	0.00	0.00	0.00	0.00
Large Landscaped Area 2	0.00	0.00	0.00	0.00	0.00
Undeveloped Area	2.65	0.00	0.00	0.00	0.00
Small Landscaped Area 1	0.00	0.00	0.00	0.00	0.00

	AREA E1				
Small Landscaped Area 2	0.00	0.00	0.00	0.00	0.00
Small Landscaped Area 3	0.00	0.00	0.00	0.00	0.00
Isolated/Water Body Area	0.00	0.00	0.00	0.00	0.00
Other Pervious Area	0.00	0.00	0.00	0.00	0.00
Other Dir Cnctd Imp Area	0.00	0.00	0.00	0.00	0.00
Other Part Cnctd Imp Area	0.00	0.00	0.00	0.00	0.00
Total	2.65	0.00	0.00	0.00	0.00

Freeway Source Area	Area (acres)
Pavd Lane & Shldr Area 1	0.00
Pavd Lane & Shldr Area 2	0.00
Pavd Lane & Shldr Area 3	0.00
Pavd Lane & Shldr Area 4	0.00
Pavd Lane & Shldr Area 5	0.00
Large Turf Areas	0.00
Undeveloped Areas	0.00
Other Pervious Areas	0.00
Other Directly Conctd Imp	0.00
Other Partially Conctd Imp	0.00
Total	0.00

Total of All Source Areas	2.65
Total of All Source Areas less All Isolated Areas	2.65

Source Area Control Practice Information

Land Use: Residential

Undeveloped Area Source area number: 23

The SCS Hydrologic Soil Type is Silty

Drainage System

Outfall

Pollutants to be Analyzed and Printed:

Pollutant Name	Pollutant Type
Solids	Particulate

♀

PREMIER WOODS PHASE 2
WinSLAMM VOLUME OUTPUT

Data File: AREA E1.DAT
Rain File: WI Milwaukee 69.RAN
Date: 02-17-16 Time: 1:59:58 PM
Site Description: AREA E1

	Rain Total	Undeveloped Area	Land Use Totals	Rv	Total Losses (in.)	Calculated CN*		
Summary for All Events								
Minimum:	0.01	0	0	0	0.01	N/A		
Maximum:	1.96	3711	3711	0.2	1.57	90.3		
Average:	0.33	157.9	157.9	0.05	0.31	91.2		
Total:	29.02	13899	13898		27.56			

Data File: BASIN 1.DAT
Rain File: WI Milwaukee 69.RAN
Date: 02-17-16 Time: 1:55:28 PM
Site Description: BASIN 1 (AREA D1)

	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Driveways 1	Small Landscaped Area 1	Total Losses (in.)	Calculated CN*
Summary for All Events								
Minimum:	0.01	0	0	1	0	0	0.01	86.3
Maximum:	1.96	266	1338	1519	1852	2115	1.08	99.7
Average:	0.33	11.34	209.2	209.5	280.1	90.01	0.22	96.6
Total:	29.02	998	18408	18436	24645	7921	19.67	

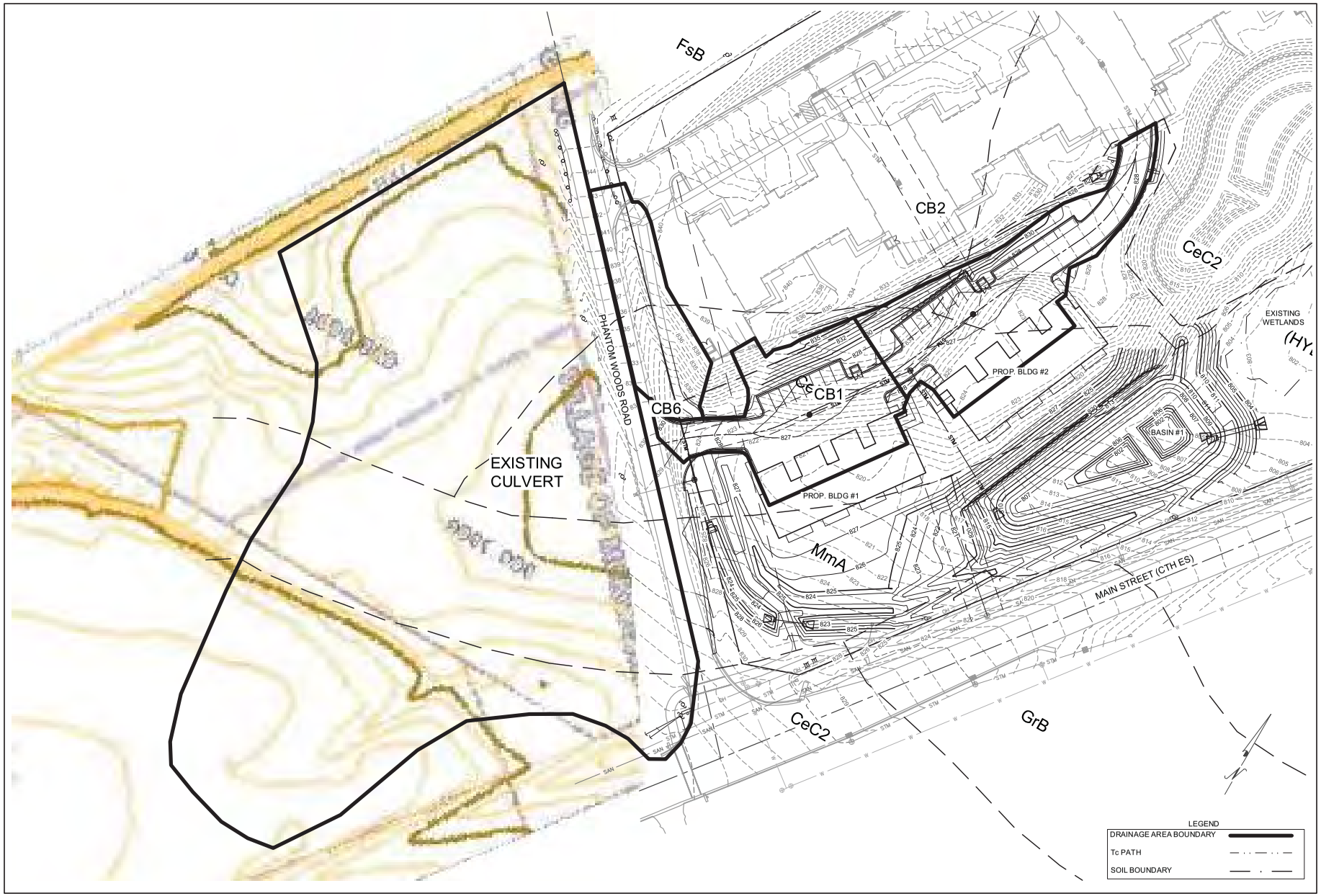
Data File: AREA D2.DAT
Rain File: WI Milwaukee 69.RAN
Date: 02-17-16 Time: 2:01:22 PM
Site Description: AREA D2

	Rain Total	Small Landscaped Area 1	Land Use Totals	Rv	Total Losses (in.)	Calculated CN*		
Summary for All Events								
Minimum:	0.01	0	0	0	0.01	N/A		
Maximum:	1.96	112	112	0.2	1.57	90.3		
Average:	0.33	4.739	4.767	0.05	0.31	91.2		
Total:	29.02	417	419.5		27.56			

Appendix 6

Storm Sewer Calculations

LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC



LYNCH & ASSOCIATES
ENGINEERING CONSULTANTS, LLC

5482 S. WESTRIDGE DRIVE
NEW BERLIN, WI 53151
(262) 402-5040

NO.	REVISIONS	BY	DATE

PREMIER WOODS – PHASE 2
STORM SEWER DRAINAGE MAP

VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

	INITIALS	DATE
DESIGNED	DKV	02/19/16
DRAWN	DKV	02/19/16
CHECKED	TCL	02/19/16

0 60'
SCALE

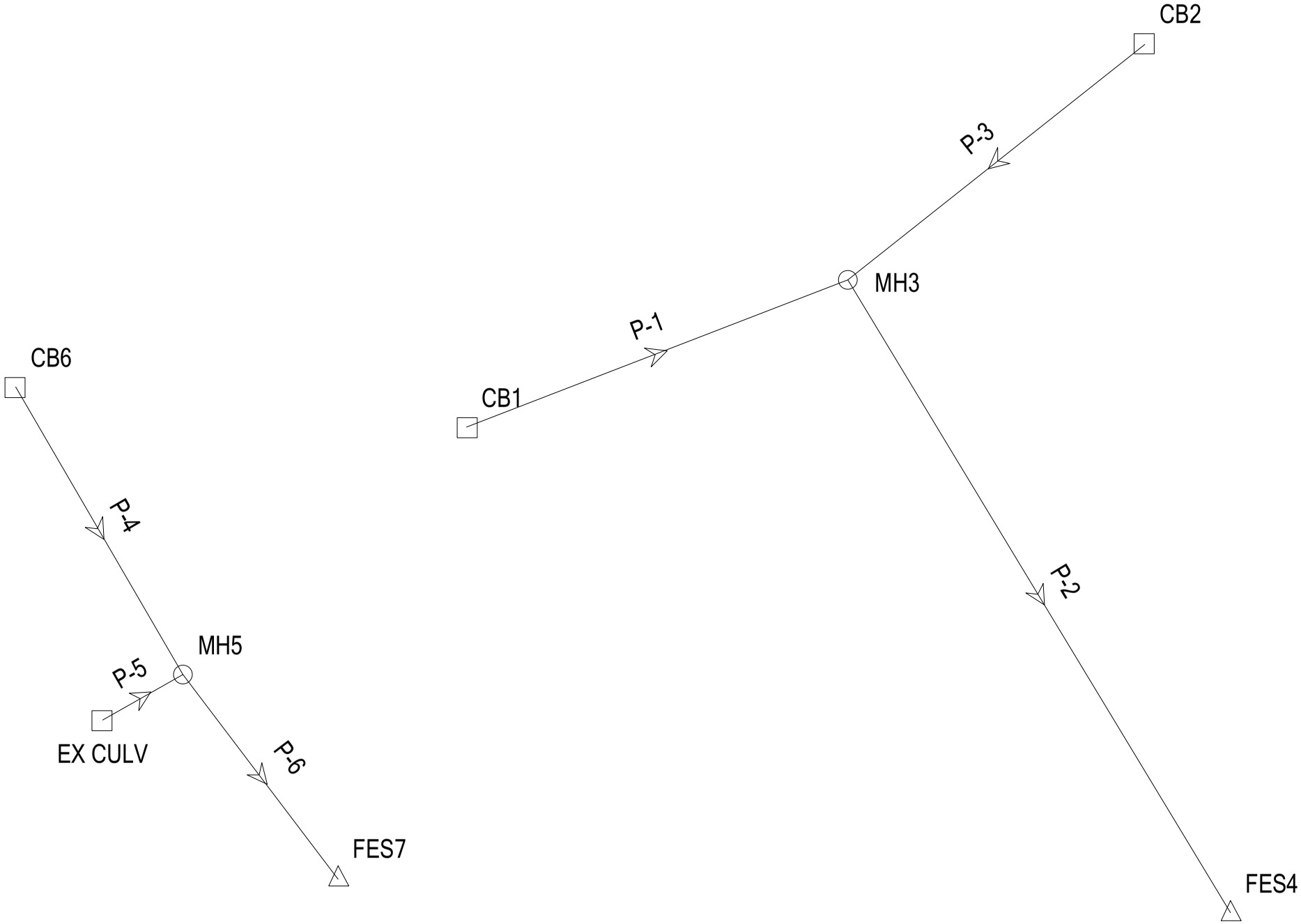
PROJECT NO. 14-017

SHEET NO. 1 OF 1

FILENAME: P:\Shared\1 – Projects\2014\14.017 –Tim Seidel Premier Woods\PHASE 2\CAD\14-017D0.dwg

PLOT DATE: 5/13/2016 12:25 PM

Scenario: Base



Title: Premier Woods Phase 2
c:\...\14-017 phase 2 storm.stm
05/12/16 09:34:03 AM

© Bentley Systems, Inc. Haestad Methods Solution Center Watertown, CT 06795 USA +1-203-755-1666

Project Engineer: DKV
StormCAD v5.6 [05.06.012.00]

Scenario: Base

Storm Sewer Worksheet 10 year storm

Label	Up. Node	Dn. Node	Upstream Inlet Area (acres)	Upstream Inlet Rational Coefficient	Upstream Inlet CA (acres)	Pipe Flow Time (min)	Upstream Calculated System CA (acres)	System Tc (min)	I (in/hr)	Upstream Inlet Rational Q (cfs)	Total Flow (cfs)	Avg. v (ft/s)	Q Full (cfs)	L (ft)	S (ft/ft)	Size	Up. Invert Elev. (ft)	Dn. Invert Elev. (ft)	Up. Rim Elev. (ft)	Dn. Rim Elev. (ft)
P-1	CB1	MH3	0.45	0.58	0.26	0.45	0.26	5.00	6.30	1.66	1.66	2.79	2.72	99.00	0.005	12 inch	823.59	823.10	826.55	827.34
P-3	CB2	MH3	0.54	0.58	0.31	0.29	0.31	5.00	6.30	1.99	1.99	3.34	3.28	76.00	0.007	12 inch	823.65	823.10	826.65	827.34
P-2	MH3	FES4	N/A	N/A	N/A	0.20	0.58	5.45	6.20	N/A	3.60	12.74	11.25	153.00	0.085	12 inch	823.00	810.00	827.34	811.25
P-4	CB6	MH5	0.25	0.38	0.10	0.38	0.10	5.00	6.30	0.60	0.60	2.71	2.73	64.00	0.005	12 inch	824.90	824.58	827.70	828.60
P-5	EX CUL	MH5	4.37	0.19	0.83	0.02	0.83	8.00	5.67	4.72	4.72	3.46	33.73	10.00	0.032	28.5 x 18.	824.57	824.25	826.07	828.60
P-6	MH5	FES7	N/A	N/A	N/A	0.13	0.92	8.02	5.67	N/A	5.26	5.26	36.68	40.00	0.008	30 inch	824.15	823.83	828.60	825.33

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Detailed Report for Inlet: CB1

Note:
The input data may have been modified since the last calculation was performed.
The calculated results may be outdated.

Scenario Summary	
Scenario	Base
Physical Properties Alternat	Base-Physical Properties
Catchments Alternative	Base-Catchments
System Flows Alternative	Base-System Flows
Structure Headlosses Alterr	Base-Structure Headlosses
Boundary Conditions Altern	Base-Boundary Conditions
Design Constraints Alternat	Base-Design Constraints
Capital Cost Alternative	Base-Capital Cost
User Data Alternative	Base-User Data

Geometric Summary					
X	9,884.96	ft	Calculated Station	2+52	ft
Y	9,988.80	ft			

Elevations					
Ground Elevation	826.55	ft	Hydraulic Grade Line In	824.16	ft
Rim Elevation	826.55	ft	Hydraulic Grade Line Out	824.16	ft
Sump Elevation	823.59	ft			

Headlosses					
Gravity Element Headloss	0.00	ft	Depth Out	0.57	ft
Headloss Method	Absolute		Velocity Out	3.63	ft/s
Absolute Headloss	0.00	ft	Velocity Head Out	0.20	ft

System Flow Summary					
Total System Flow	1.66	cfs	System Rational Flow	1.66	cfs
System Flow Time	5.00	min	System Additional Flow	0.00	cfs
System Intensity	6.30	in/hr	System Known Flow	0.00	cfs
System CA	0.26	acres	Total Diverted Flow In	0.00	cfs

Incoming Diverted Flow					
Local Diverted Flow In	0.00	cfs	Global Diverted Flow In	0.00	cfs
Total Diverted Flow In	0.00	cfs			

Inlet Flow Summary					
Area	0.45	acres	Composite Rational C	0.58	
Inlet CA	0.26	acres	Carryover CA	0.00	acres
Total Inlet CA	0.26	acres	Total Inlet Intensity	6.30	in/hr
Total Inlet Rational Flow	1.66	cfs	Total Inlet Time of Concentr	5.00	min
Total Inlet Additional Flow	0.00	cfs	Total Inlet Known Flow	0.00	cfs
Total Flow To Inlet	1.66	cfs			

Inlet Characteristics					
Inlet Type	Generic Inlet		Inlet Location	In Sag	
Inlet	Generic Default 100%		Inlet Section Properties	Gutter Section	
Road Cross Slope	0.020	ft/ft	Depressed Gutter?	false	
Gutter Cross Slope	0.020	ft/ft	Gutter Width	0.00	ft

Detailed Report for Inlet: CB1

External Pipe Flow					
External CA	0.00	acres	External Time of Concentra	0.00	min

Intercepted Flow Summary					
Intercepted Rational Flow	1.66	cfs	Intercepted CA	0.26	acres
Intercepted Additional Flow	0.00	cfs	Intercepted Intensity	6.30	in/hr
Intercepted Known Flow	0.00	cfs	Intercepted Tc	5.00	min
Total Intercepted Flow	1.66	cfs	Capture Efficiency	100.0	%

Upstream Piped Flow Summary					
Upstream Rational Flow	0.00	cfs	Upstream CA	0.00	acres
Upstream Additional Flow	0.00	cfs	Upstream Intensity	0.00	in/hr
Upstream Known Flow	0.00	cfs	Upstream Time Of Concent	0.00	min
Total Upstream Flow	0.00	cfs			

Design Constraints Summary					
Pipe Matching	Inverts		Allow Drop Structure?	true	
Matchline Offset	0.00	ft	Local Pipe Matching Constr	false	
Design Structure Elevation?	true		Desired Sump Depth	0.00	ft

Subwatershed Information

Area (acres)	Inlet C
0.10	0.13
0.08	0.75
0.27	0.70

User Data
Date Installed

Detailed Report for Inlet: CB2

Note:
The input data may have been modified since the last calculation was performed.
The calculated results may be outdated.

Scenario Summary	
Scenario	Base
Physical Properties Alternat	Base-Physical Properties
Catchments Alternative	Base-Catchments
System Flows Alternative	Base-System Flows
Structure Headlosses Alterr	Base-Structure Headlosses
Boundary Conditions Altern	Base-Boundary Conditions
Design Constraints Alternat	Base-Design Constraints
Capital Cost Alternative	Base-Capital Cost
User Data Alternative	Base-User Data

Geometric Summary					
X	10,020.64	ft	Calculated Station	2+29	ft
Y	10,065.60	ft			

Elevations					
Ground Elevation	826.65	ft	Hydraulic Grade Line In	824.25	ft
Rim Elevation	826.65	ft	Hydraulic Grade Line Out	824.25	ft
Sump Elevation	823.65	ft			

Headlosses					
Gravity Element Headloss	0.00	ft	Depth Out	0.60	ft
Headloss Method	Absolute		Velocity Out	4.03	ft/s
Absolute Headloss	0.00	ft	Velocity Head Out	0.25	ft

System Flow Summary					
Total System Flow	1.99	cfs	System Rational Flow	1.99	cfs
System Flow Time	5.00	min	System Additional Flow	0.00	cfs
System Intensity	6.30	in/hr	System Known Flow	0.00	cfs
System CA	0.31	acres	Total Diverted Flow In	0.00	cfs

Incoming Diverted Flow					
Local Diverted Flow In	0.00	cfs	Global Diverted Flow In	0.00	cfs
Total Diverted Flow In	0.00	cfs			

Inlet Flow Summary					
Area	0.54	acres	Composite Rational C	0.58	
Inlet CA	0.31	acres	Carryover CA	0.00	acres
Total Inlet CA	0.31	acres	Total Inlet Intensity	6.30	in/hr
Total Inlet Rational Flow	1.99	cfs	Total Inlet Time of Concentr	5.00	min
Total Inlet Additional Flow	0.00	cfs	Total Inlet Known Flow	0.00	cfs
Total Flow To Inlet	1.99	cfs			

Inlet Characteristics					
Inlet Type	Generic Inlet		Inlet Location	In Sag	
Inlet	Generic Default 100%		Inlet Section Properties	Gutter Section	
Road Cross Slope	0.020	ft/ft	Depressed Gutter?	false	
Gutter Cross Slope	0.020	ft/ft	Gutter Width	0.00	ft

Detailed Report for Inlet: CB2

External Pipe Flow					
External CA	0.00	acres	External Time of Concentra	0.00	min

Intercepted Flow Summary					
Intercepted Rational Flow	1.99	cfs	Intercepted CA	0.31	acres
Intercepted Additional Flow	0.00	cfs	Intercepted Intensity	6.30	in/hr
Intercepted Known Flow	0.00	cfs	Intercepted Tc	5.00	min
Total Intercepted Flow	1.99	cfs	Capture Efficiency	100.0	%

Upstream Piped Flow Summary					
Upstream Rational Flow	0.00	cfs	Upstream CA	0.00	acres
Upstream Additional Flow	0.00	cfs	Upstream Intensity	0.00	in/hr
Upstream Known Flow	0.00	cfs	Upstream Time Of Concent	0.00	min
Total Upstream Flow	0.00	cfs			

Design Constraints Summary					
Pipe Matching	Inverts		Allow Drop Structure?	true	
Matchline Offset	0.00	ft	Local Pipe Matching Constr	false	
Design Structure Elevation?	true		Desired Sump Depth	0.00	ft

Subwatershed Information

Area (acres)	Inlet C
0.12	0.13
0.08	0.75
0.34	0.70

User Data
Date Installed

Detailed Report for Inlet: CB6

Note:
The input data may have been modified since the last calculation was performed.
The calculated results may be outdated.

Scenario Summary	
Scenario	Base
Physical Properties Alternat	Base-Physical Properties
Catchments Alternative	Base-Catchments
System Flows Alternative	Base-System Flows
Structure Headlosses Alterr	Base-Structure Headlosses
Boundary Conditions Altern	Base-Boundary Conditions
Design Constraints Alternat	Base-Design Constraints
Capital Cost Alternative	Base-Capital Cost
User Data Alternative	Base-User Data

Geometric Summary					
X	9,794.57	ft	Calculated Station	1+04	ft
Y	9,996.90	ft			

Elevations					
Ground Elevation	827.70	ft	Hydraulic Grade Line In	825.22	ft
Rim Elevation	827.70	ft	Hydraulic Grade Line Out	825.22	ft
Sump Elevation	824.90	ft			

Headlosses					
Gravity Element Headloss	0.00	ft	Depth Out	0.32	ft
Headloss Method	Absolute		Velocity Out	2.75	ft/s
Absolute Headloss	0.00	ft	Velocity Head Out	0.12	ft

System Flow Summary					
Total System Flow	0.60	cfs	System Rational Flow	0.60	cfs
System Flow Time	5.00	min	System Additional Flow	0.00	cfs
System Intensity	6.30	in/hr	System Known Flow	0.00	cfs
System CA	0.10	acres	Total Diverted Flow In	0.00	cfs

Incoming Diverted Flow					
Local Diverted Flow In	0.00	cfs	Global Diverted Flow In	0.00	cfs
Total Diverted Flow In	0.00	cfs			

Inlet Flow Summary					
Area	0.25	acres	Composite Rational C	0.38	
Inlet CA	0.10	acres	Carryover CA	0.00	acres
Total Inlet CA	0.10	acres	Total Inlet Intensity	6.30	in/hr
Total Inlet Rational Flow	0.60	cfs	Total Inlet Time of Concentr	5.00	min
Total Inlet Additional Flow	0.00	cfs	Total Inlet Known Flow	0.00	cfs
Total Flow To Inlet	0.60	cfs			

Inlet Characteristics					
Inlet Type	Generic Inlet		Inlet Location	In Sag	
Inlet	Generic Default 100%		Inlet Section Properties	Gutter Section	
Road Cross Slope	0.020	ft/ft	Depressed Gutter?	false	
Gutter Cross Slope	0.020	ft/ft	Gutter Width	0.00	ft

Detailed Report for Inlet: CB6

External Pipe Flow					
External CA	0.00	acres	External Time of Concentra	0.00	min

Intercepted Flow Summary					
Intercepted Rational Flow	0.60	cfs	Intercepted CA	0.10	acres
Intercepted Additional Flow	0.00	cfs	Intercepted Intensity	6.30	in/hr
Intercepted Known Flow	0.00	cfs	Intercepted Tc	5.00	min
Total Intercepted Flow	0.60	cfs	Capture Efficiency	100.0	%

Upstream Piped Flow Summary					
Upstream Rational Flow	0.00	cfs	Upstream CA	0.00	acres
Upstream Additional Flow	0.00	cfs	Upstream Intensity	0.00	in/hr
Upstream Known Flow	0.00	cfs	Upstream Time Of Concent	0.00	min
Total Upstream Flow	0.00	cfs			

Design Constraints Summary					
Pipe Matching	Inverts		Allow Drop Structure?	true	
Matchline Offset	0.00	ft	Local Pipe Matching Constr	false	
Design Structure Elevation?	true		Desired Sump Depth	0.00	ft

Subwatershed Information

Area (acres)	Inlet C
0.11	0.70
0.14	0.13

User Data
Date Installed

Appendix 7

Erosion Control Calculations

CHANNEL EROSION CONTROL MATRIX
(Concentrated Flow Application)

TYPE OF EROSION CONTROL DEVICE	PERMISSIBLE SHEAR LB/S.F.	DITCH GRADE															REMARKS
		< 2%			2% - 4%			4% - 6%			6% - 9%*			9% - 12%*			
		Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			Max. Length (ft.)			
		300	600	1200	300	600	1200	300	600	1200	300	600	1200	300	600	1200	
Seed with properly anchored mulch	0.6	▬	▬														Anchor mulch per specifications.
Sod ditch checks with seed and mulch	N/A	▬	▬	▬	▬	C											Install one ditch check for every 1 foot of drop. Sod stakes required.
Temporary ditch checks (hay bales or approved manufactured alternatives lisited in the WisDOT PAL)	N/A	▬	▬	▬	▬	▬	▬										Install one ditch check for every 2 feet of drop. Maximum 200' spacing. Not recommended for slopes less than 1%.
Sod ditch liner	1.0	▬	▬	▬													Upstream end must be buried. Additional sod stakes required.
Double netted light duty (WisDOT Class I Type B) erosion mat	1.5	▬	▬	▬	▬	▬	▬	▬									Only mat type products allowed.
Sod reinforced with a double netted jute (WisDOT Class II Type A) erosion mat	1.5	▬	▬	▬	▬	▬											Upstream end must be buried. Additional sod stakes required. Two bid items needed.
Stone or rock ditch checks, or Rock-Filled Filter Bags	N/A	▪	▪	▪	▬	▬	▬	▬	▬	▬							Use No. 2 coarse aggregate, railroad ballast, or breaker run. Install one ditch check for every 2 feet of drop. Use in conjunction with a channel lining.
Medium duty coconut erosion mat (WisDOT Class II Type B or C)	2.0	▪	▪	▪	▬	▬	▬	▬	▬	⊗	▬						
Heavy duty synthetic (WisDOT Class III Type A) erosion mat or turf reinforcement mat (WisDOT Class III Type B)	2.0	▪	▪	▪	▪	▪	▪	▬	▬	▬	▬						Germinaton may be a problem with Class III Type A mats. An ECRM is required for initial erosion protection for Class III Type B mats.
Heavy duty synthetic turf reinforcement (WisDOT Class III Type C) mat	3.5	▪	▪	▪	▪	▪	▪	▪	▪	▪	▬	▬	▬	▬			An ECRM is required for initial erosion protection. Contact manufacturer if higher shears are needed.
Riprap ditch checks	N/A	▪	▪	▪	▪	▪	▪	▪	▪	▪	▬	▬	▬	▬	▬		Place top of downstream ditch check level with bottom of upstream ditch check. Use in conjunction with a channel lining.
Heavy duty synthetic turf reinforcement (Class III Type D) mat	5	▪	▪	▪	▪	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	An ECRM is required for initial erosion protection. Contact manufacturer if higher shears are needed.
Light riprap	4	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▬	▬	▬	▬		Outfalling, overtopping and scour need to be addressed. Use 2' minimum ditch depth.
Medium riprap	5	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▬	
Heavy riprap	8	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	
Riprap measures apply to all ditch types. Use of these measure requires engineering judgement and design.																	

Appendix 8

Storm Water Maintenance Agreement

Storm Water Management Practice Maintenance Agreement

Premier Woods, as "Owner" of the property described in Exhibit A, in accordance with Chapter 34 of the Village of Mukwonago Municipal Code, agrees to install and maintain storm water best management practices (referred to herein as or BMP) [1] on the subject property in accordance with approved plans and Storm Water Permit conditions. The owner further agrees to the terms stated in this document to ensure that the storm water BMP's continue serving the intended functions in perpetuity.
This Agreement includes the following exhibits:[2]

Exhibit A: Legal Description of the real estate for which this Agreement applies ("Property").
Exhibit B: Location Map - shows an accurate location of each storm water management practice affected by this Agreement.
Exhibit C: Maintenance Plan - prescribes those activities that must be carried out to maintain compliance with this Agreement.
Exhibit D: Design Summary - contains a summary of key Engineering calculations and other data used to design the BMP's.
Exhibit E: As-built survey - shows a detailed "as-built" cross section and plan view of the BMP's.
Exhibit F: Engineering/Construction Verification - provides verification from the project engineer that the design and construction of the wet detention basin complies with all applicable technical standards and the village's requirements.

Through this Agreement, the Owner hereby subjects the Property to the following covenants, conditions and restrictions:

1. The Owner shall construct, maintain and if necessary reconstruct the storm water BMPs so as to maintain their compliance with applicable governmental, statutes, ordinances of rules. The Owner shall be responsible for the routine and extraordinary maintenance and repair of the storm water BMP's identified in Exhibit B in accordance with the maintenance plan contained in Exhibit C.

2. Upon written notification by Village of Mukwonago or its designee and not less than biannually, the Owner shall, at their own cost and within a reasonable time period determined by the Village of Mukwonago, have an inspection of the storm water management BMP's conducted by a qualified professional, who shall then file a report with the Village of Mukwonago and the Owner shall thereafter timely complete any maintenance or repair work recommended in the report. The Owner shall be liable for the failure to undertake any maintenance or repairs.

---

[1]Best management practices or BMP are defined as structural and nonstructural measures, practices, techniques or devices employed to avoid or minimize sediment or other pollutants carried in runoff.
[2]In the event this Agreement is required to be recorded by the Village in order for an Occupancy Permit to be issued prior to all construction of the Storm Water Management Practices being completed or verification being accepted by the Village, then the Village may require an addendum(s) to this agreement to be recorded by the Owner showing design and construction details. The addendum may contain several additional exhibits, as described in Exhibit E and Exhibit F.

3. In addition, and independent of the requirements under paragraph 2 above, the Village of Mukwonago, or its designee, is authorized but not required to access the property as necessary to conduct inspections of the storm water management BMP's to ascertain compliance with the terms and intent of this Agreement and the activities prescribed in Exhibit C. The Village of Mukwonago may require work to be done which differs from the report described in paragraph 2 above, if the Village of Mukwonago reasonably concludes that such work is necessary and consistent with the intent of this agreement. Upon notification by the Village of Mukwonago of required maintenance or repairs, the Owner shall complete the specified maintenance or repairs within a reasonable time frame, as determined by the Village of Mukwonago.

4. If the Owner does not complete an inspection under 2 above or complete the required maintenance or repairs under 3. above within the specified time period, the Village of Mukwonago is authorized, but not required, to perform the specified inspections, maintenance or repairs. In the case of an emergency situation, as determined by the Village of Mukwonago, no notice shall be required prior to the Village of Mukwonago performing emergency maintenance or repairs.

   The cost of inspections or measures undertaken by the Village pursuant to this agreement shall be first paid from the proceeds of any surety maintained to secure the performance by the Owner/Developer of its obligations under this agreement and the conditions of the use, site and architectural approval. In the event that the costs of said measures shall exceed the value of the surety or the surety has expired or been terminated, then in that event the cost of said measures shall be assessed as a special charge for current services pursuant to Wis Stat Sec. 66.0627. Any such assessment which is not paid within 60 days after billing shall be deemed a delinquent special charge and shall become a lien upon the parcel against which such charge has been assessed. Such delinquent charges shall be extended upon the current or next tax roll as a delinquent tax against the parcels for which payment has not been received by the Village and all proceedings in relation to the collection, return and sale of property for delinquent real estate taxes shall apply to such special charges. The Developer hereby consents to the levy of such charge and waives notice and the right to hearing.

5. This Agreement shall run with the property and be binding upon all heirs, successors and assigns. After the Owner records this document, the Village of Mukwonago shall have the sole authority to modify this agreement contingent upon the Village of Mukwonago providing a 30 day written notice to the current Owner. Any modifications shall conform to the minimum requirements of Chapter 34 (or its successor) and be written so as to ensure the long-term maintenance of the stormwater BMP's.

6. The Owner/Developer agrees to pledge a surety in a form acceptable to the Village of Mukwonago to secure performance of the obligations arising from the construction and maintenance of the storm water BMPs provided for under this Agreement in the amount of 120% of the actual cost of the storm water BMPs. Said surety shall remain in effect for a period of three (3) years from the date of the execution of this Agreement or until drawn upon in full by the Village or one year(1) from the date of the certification of the storm water improvements whichever occurs first. Release of the surety prior to the deadlines stated herein shall be governed by Mukwonago Village code section 34-108(c) as amended

7. This Agreement shall be governed and construed in accordance with the laws of the State of Wisconsin.

Dated this ____ day of _____, 201____

Owner:
_____

Authorized Representative of _____

_____
(Printed Name of Authorized Representative)

State of Wisconsin:
County of Waukesha

Personally came before me this ____ day of _____, 201___, the above named _____ _____, as the authorized Representative of _____ for the purpose of signing this document, to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
[Name]
Notary Public, Waukesha County, WI
My commission expires: _____

Accepted by the Village of Mukwonago this ____ day of _____, 201__.

_____
Fred Winchowky, Village President

_____
Steven Braatz, Jr., Village Clerk

This document was drafted by:
Attorney Shawn N. Reilly
Hippenmeyer, Reilly, Moodie & Blum, S.C.
P.O. Box 766
Waukesha, WI 53187-0766
Telephone: (262) 549-8181
Facsimile: (262) 549-8191
Email: sreilly@hrmblawfirm.com

Exhibit A - Legal Description

The following description and reduced copy map identifies the land parcel(s) affected by this Agreement. For a larger scale view of the referenced document, contact the Waukesha County Register of Deeds office.

Surveyed Legal Description

All that part of the NE 1/4 of the SW 1/4, the SE 1/4 of the NW 1/4 and part of the NW 1/4 of the SE 1/4 of Section 35, Town 5 North, Range 18 East, Village of Mukwonago, Waukesha County, Wisconsin being more particularly described as follows:

Beginning at the East 1/4 corner of said Section 35; thence with the north line of the SE 1/4 of said section S90°44'56"W, a distance of 2385.57' to the point of beginning; said point also being on the northwesterly line of CTH "ES"; thence with a curve to the right a length of 62.43', said curve having a radius of 619.17', a chord which bears S34°44'39"W, 62.40' to a point; thence S37°37'55"W, 1436.60' to a point; thence S71°03'25"W, a distance of 52.46' to a point; thence with the east line of Phantom Woods Road N44°13'57"W, a distance of 491.66' to a point; thence leaving said east line and with the south line of the Friends of East Troy Rail Road N307°04'45"E, 1101.79' to a point; thence leaving said south line of said Rail Road S78°21'07"E, a distance of 487.70' to a concrete monument marking the center of said section 35; thence with the north line of the SE 1/4 of said section S90°44'56"E, a distance of 275.45' to the point of beginning. Said parcel containing 17.76 acres more or less.

Exhibit A continued
Survey map of property showing legal boundaries

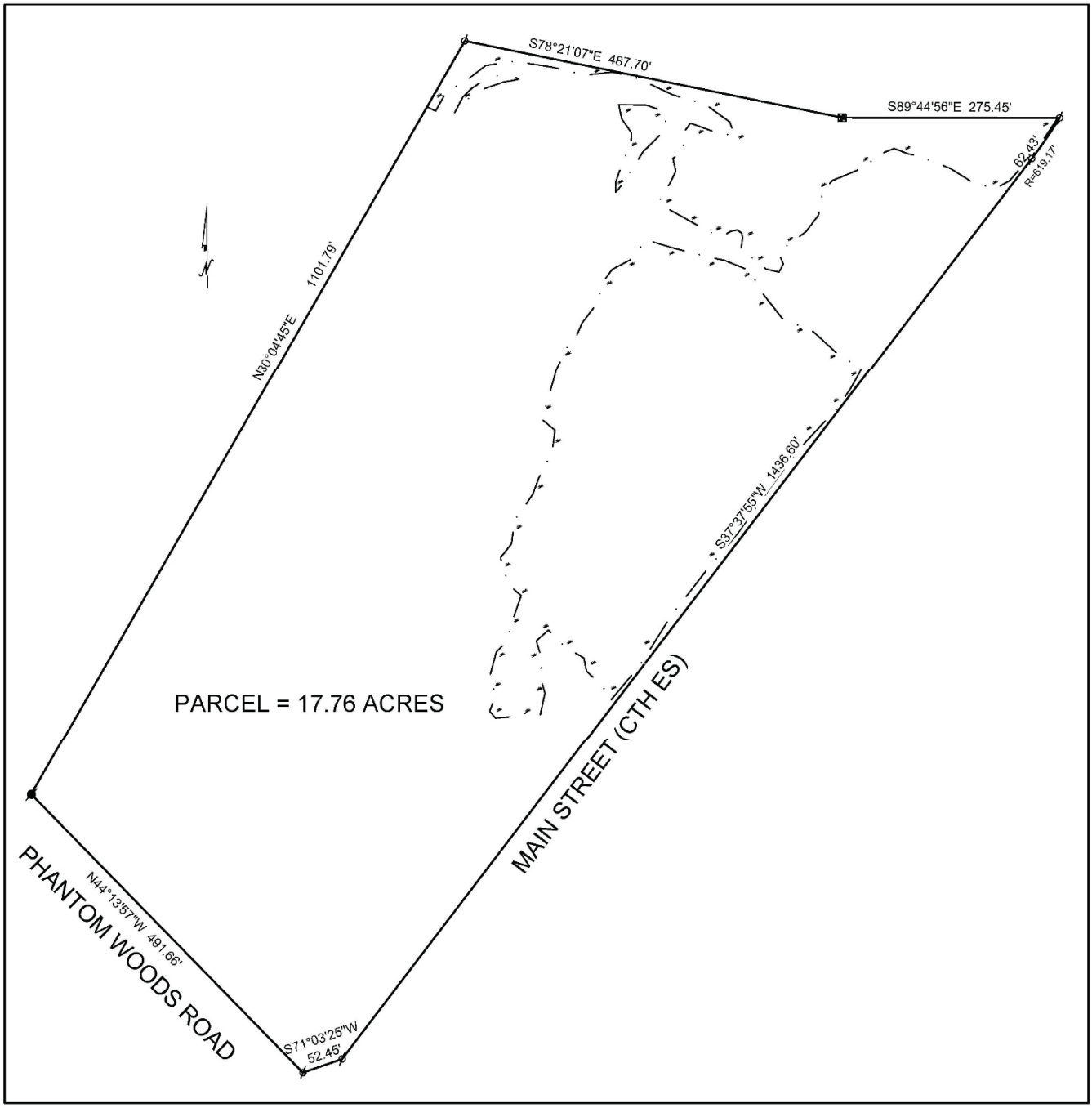


Exhibit B - Location Map

Storm Water Management Practices Covered by this Agreement

The storm water management practices covered by this Agreement are depicted in the reduced copy of a portion of the construction plans, as shown below.

Storm Water Practices: Wet Detention Basin #1;

Figure 1

Plan View of Storm Water Practices

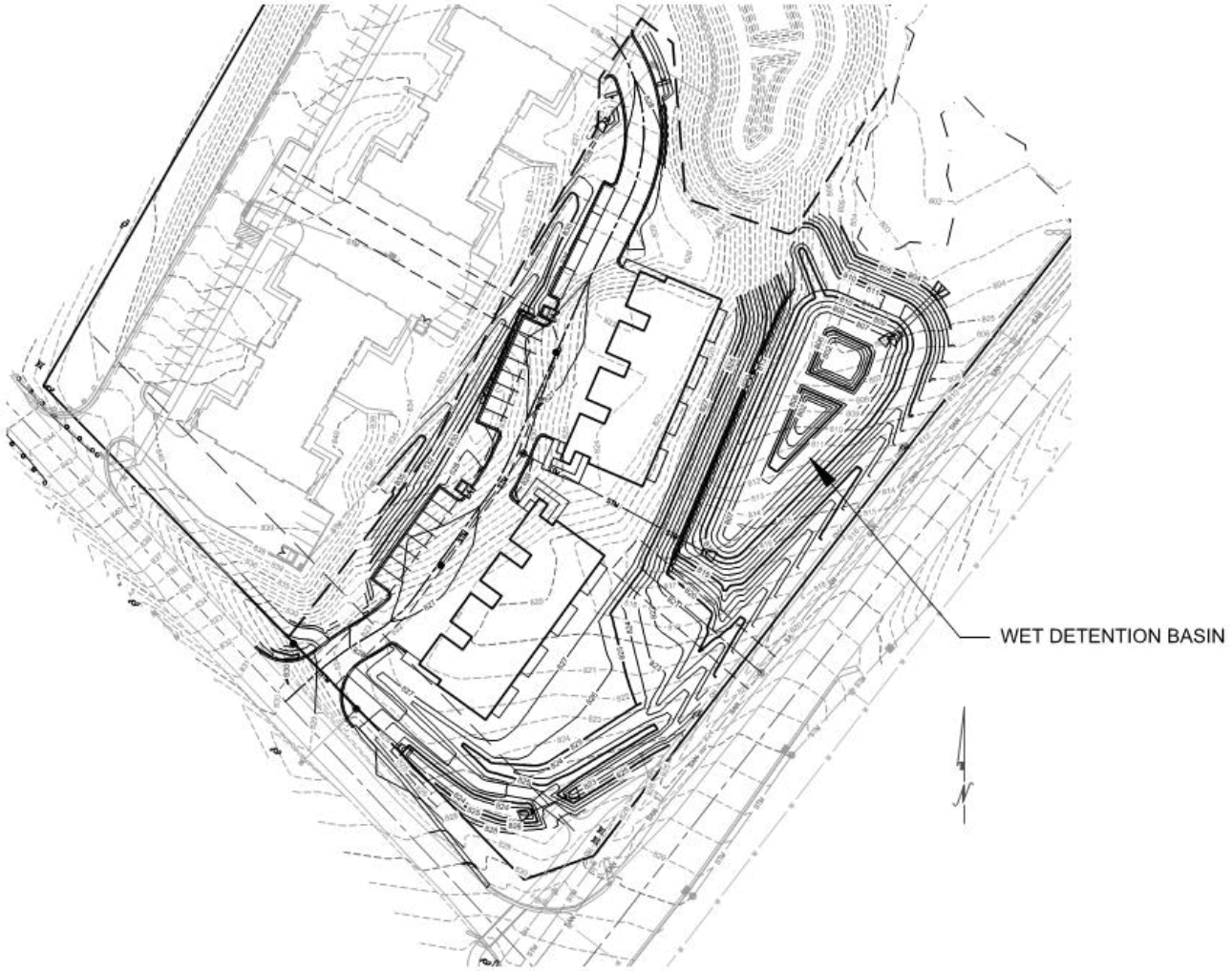


Exhibit C - Storm Water Practice Maintenance Plan

This exhibit explains the basic function of each of the storm water practices listed in Exhibit B and prescribes the minimum maintenance requirements to remain compliant with this Agreement. The maintenance activities listed below are aimed to ensure these practices continue serving their intended functions in perpetuity. The list of activities is not all inclusive, but rather indicates the minimum type of maintenance that can be expected for this particular site. Access to the stormwater practices for maintenance vehicles is shown in Exhibit B. Any failure of a storm water practice that is caused by a lack of maintenance will subject the Owner(s) to enforcement of the provisions listed on page 1 of this Agreement by the Village of Mukwonago.

System Description:
Wet Detention Basin #1 will receive runoff by a drainage swale to the south of the basin and directly from two storm sewer outfalls. The basin will serve the purpose of peak flow and water quality control. The wet basin receives runoff from a 2.57 acre drainage area. Storm water runoff will drain through the basin and outfall to the wetland on site and then to the north of the site. The basin has a 5 foot deep forebay. The forebay will trap coarse sediment in runoff thus reducing maintenance of the main basin. The main pool will trap the finer sediment. To do this the pond size, water level and outlet structures must be maintained as specified in this agreement.

All elevations in the figures represent planned values and are presented in feet above mean sea level (NAD1929). These are required to be field verified upon construction. Actual elevations (and more detailed information on the designs) can be obtained by contacting the Village of Mukwonago and can be used as a reference point during maintenance inspections.

Minimum Maintenance Requirements:
To ensure the proper long-term function of the storm water management practices described above, the following activities must be completed:
1. All outlet pipes must be checked monthly to ensure there is no blockage from floating debris or ice. Any blockage must be removed immediately.
2. Grass swales shall be preserved to allow free flowing of surface runoff in accordance with approved grading plans. No buildings or other structures are allowed in these areas. No grading or filling is allowed that may interrupt flows in any way.
3. Grass swales, inlets and outlets must be checked after heavy rains (minimum of annually) for signs of erosion. Any eroding areas must be repaired immediately to prevent premature sediment build-up in the downstream forebay or basin. Erosion matting is recommended for repairing grassed areas.
4. NO trees are to be planted or allowed to grow on the earthen berms. Tree root systems can reduce soil compaction and cause berm failure. The berms must be inspected annually and any woody vegetation removed.
5. Invasive plant and animal species shall be managed in compliance with Wisconsin Administrative Code Chapter NR 40. This may require eradication of invasive species in some cases.
6. If the permanent pool falls below the safety shelf, a review shall be performed to determine whether the cause is liner leakage or an insufficient water budget. If the cause is leakage, the liner shall be repaired. Leakage due to muskrat burrows may require removal of the animals, repair of the liner with clay, and embedding wire mesh in the liner to deter further burrowing. If the permanent pool cannot be sustained at the design elevation, benching of the safety shelf may be necessary.

7. If floating algae or weed growth becomes a nuisance (decay odors, etc.), it must be removed from the basin or the forebay and deposited where it cannot drain back into the basin. Removal of the vegetation from the water reduces regrowth the following season (by harvesting the nutrients). Wetland vegetation must be maintained along the waters edge for safety and pollutant removal purposes.
8. If mosquitoes become a nuisance, the use of mosquito larvicide containing naturally-occurring Bti soil bacteria is recommended.
9. When sediment in the forebay or the basin has accumulated to an elevation of three feet below the outlet elevation, it must be removed (see Exhibit D). All removed sediment must be placed in an appropriate upland disposal site and stabilized (grass cover) to prevent sediment from washing back into the basin. The forebay will likely need sediment removal first. Failure to remove sediment from the forebay will cause resuspension of previously trapped sediments and increase downstream deposition.
10. No grading or filling of the basin or berm other than for sediment removal is allowed, unless otherwise approved by the Village of Mukwonago.
11. Periodic mowing of the grass swales will encourage vigorous grass cover and allow better inspections for erosion. Waiting until after August 1 will avoid disturbing nesting wildlife. Mowing around the basin or the forebays may attract nuisance populations of geese to the property and is not necessary or recommended.
12. Any other repair or maintenance needed to ensure the continued function of the storm water practices or as ordered by the Village of Mukwonago under the provisions listed on page 1 of this Agreement.
13. Aerators/Fountains – If an aerator or fountain is desired for visual and other aesthetic effects (aerators designed to mix the contents of the pond are prohibited) they must meet all of the items below:

- Use an aerator/fountain that does not have a depth of influence that extends into the sediment storage depth (i.e. more than three feet below the normal water surface).
- If the water surface drops due to drought or leakage, the aerator / fountain may not be operated until the water rises enough for the depth of influence to be above the sediment storage layer. Therefore, if the depth of influence of the aerator / fountain is two feet, the water surface must be within one foot or less of the lowest pond outlet.
- Provide an automatic shut-off of the aerator/fountain as the pond starts to rise during a storm event. The aerator/fountain must remain off while the pond depth returns to the permanent pool elevation and, further, shall remain off for an additional 48 hours, as required for the design micron particle size to settle to below the draw depth of the pump.
- Configure the pump intake to draw water primarily from a horizontal plane so as to minimize the creation of a circulatory pattern from bottom to top throughout the pond.

Exhibit D - Design Summary

Wet Detention Basin INFLOW, OUTFLOW & STORAGE DATA					
Storm Event	Inflow Peak (cfs)	Maximum Outflow Rate (cfs)	Max. Water Elevation (ft)	Storage Volume at Max. Elev. (Acre – feet)	Outflow Control Structures*
1-Year, 24 Hour	3.12	0.07	807.55	0.092	1
2-Year, 24 Hour	4.36	0.09	807.78	0.134	1
10-Year, 24 Hour	8.73	0.13	808.59	0.302	1
100-Year, 24 Hour	14.59	0.89	809.04	0.405	1, 2

*The controlling elements are summarized below:

#1 = 2” Dia. Orifice, Inv = 807.00
#2 = 12” Culvert, Inv. = 808.60
Emergency Spillway, Crest Elev = 810.00

Data Summary for Wet Detention Basin

BASIN 1	
DESIGN ELEMENT	**DESIGN DATA**
Contributing drainage area to basin (D1)	2.57 acres
Distance to nearest private well (including off-site wells)	>25 Feet
Distance to municipal well (including off-site wells)	>1200 Feet
Wellhead protection area involved?	No
Ground slope at site of proposed basin	1% - 5%
Any buried or overhead utilities in the area?	None
Proposed outfall conveyance system/discharge (w/distances)	2" Orifice, 12" Culvert, Weir
Any downstream roads or other structures? (Describe)	None
Floodplain, shoreland or wetlands?	Wetlands
Soil Investigation Data (See attached map & soil logs):	
Number of soil investigations completed	None
Do elevations of test holes extend 3 ft. below proposed bottom?	n/a
Average soil texture at bottom elevation (USDA)	Sandy clay loam
Distance from pond bottom to bedrock	>5 Feet
Distance from pond bottom to seasonal water table	n/a
General basin design data (See attached detailed drawings):	
Permanent pool surface area	6839 SF
Design permanent pool water surface elevation	807
Top of berm elevation (after settling) and width	811, 10 ft wide
Length/width (dimensions/ratio)	3:1
Safety shelf design (length, grade, max. depth)	8' Wide, 10:1 slope 0.8' Deep on inside edge
Ave. water depth (minus safety shelf/sediment)	4.2 Feet
Sediment forebay size and depth	0.04 acres/5 feet
Sediment storage depth & design maintenance	2 ft. depth for forebay & pool, 10 year maintenance schedule

BK PLANNING STRATEGIES
Sustainable Strategies for Community Development

www.bkplanning.com
Ph: 414.339.4105
7719 W Coventry Dr.
Franklin, WI 53132

DATE: June 10, 2016
TO: Village President Fred Winchowky and Members of the
FROM: Bruce Kaniewski, Village Planner
RE: Add Parking Spaces/GS Global

GS Global at 926 Perkins Drive requests site plan approval to add 14 parking spaces to the north end of their parking lot. The parking lot is located east of the building. The property is zoned M-4, Medium/Heavy Industrial District.

GS Global purchased the property several years ago from Empire Level. When the entire complex of buildings was divided to facilitate the purchase, storm water management on the site was approved by the Village and the work completed. In addition, an asphalt drive from the north providing access to the connection between the two buildings was removed (see attached aerial photos). Therefore, Supervisor of Inspections/Zoning Administrator Joe Hankovich has determined no additional storm water management measures are needed for the additional parking since the pavement of the 14 additional spaces is less than the pavement previously removed. The additional pavement is 2,460 square feet in area.

Recommendation

I recommend approval of the site plan for 14 additional parking spaces with the following conditions:

1. Site plan approval is subject to the drawing submitted by GS Global.
2. During construction, applicant shall adhere to proper erosion control measures.
3. Applicant shall replace the trees to be removed for the additional parking.

I appreciate the opportunity to assist with this matter. Should questions arise, please feel free to contact me.

Cc: John Weidl, Village Administrator (via email)
Steve Braatz, Jr., Village Clerk (via email)
Joe Hankovich, Supervisor of Inspections (via email)
Bob Harley, Code Official (via email)
Kurt Peot, P.E., Village Engineer (via email)
John Thornton, GS Global (via email)

BK PLANNING STRATEGIES
Sustainable Strategies for Community Development

www.bkplanning.com
Ph: 414.339.4105
7719 W Coventry Dr.
Franklin, WI 53132

2010 Aerial Photo

2015 Aerial Photo with driveway removed

Village of Mukwonago
440 River Crest Court, P.O. Box 206
Mukwonago, WI 53149
Phone: (262) 363-6420
Fax: (262) 363-6425
www.villageofmukwonago.com

VILLAGE OF MUKWONAGO

SITE PLAN, ARCHITECTURAL, AND PLANNED UNIT DEVELOPMENT (PUD) APPLICATION

Application Fee: Below

Date Submitted: 6/3/16

FEES

(Please check one)

- ☐ Minor Site Plan (Buildings less than 600 sq. ft.): $135.00 plus $.02 per sq. ft.
- ☒ Site Plan and/or Architectural Review: $250.00 plus $.02 per sq. ft.
- ☐ Conceptual Site Plan and/or Architectural Review: $200.00 plus $.02 per sq. ft.
- ☐ Planned Unit Development (PUD) Review: $185.00 plus $25.00/unit

CONTACTS

Zoning Department
Contact: Joe Hankovich
Phone: (262) 363-6419
Fax: (262) 363-6425
Email: jhankovich@villageofmukwonago.com

Planning Department
Contact: Bruce Kaniewski
Phone: (414) 339-4105
Fax: (262) 363-6425
Email: planner@villageofmukwonago.com

GUIDELINES

The undersigned petition is to consider a request, as stated herein, for the specified parcel(s) of land and will be reviewed by the Plan Commission and Village Board of the Village of Mukwonago. The application packet must be filed with the Village Clerk **at least 30 days prior to the meeting** of the Planning Commission at which action is desired. The Plan Commission meets on the second Tuesday of each month at 6:30 p.m.

Materials listed below must be provided to the Village of Mukwonago in accordance with Village Municipal Code Chapter 100 Article IX. Section 100-601(f) and other pertinent sections of Village ordinances, and, as necessary, to permit review that is consistent with proper planning practice. The Village will strive to accommodate reasonable requests for informal preliminary staff review, however the Village shall not place any items on the agenda for Plan Commission consideration until such time as the application is complete in accordance with all requirements specified on this and other attached application forms.

Mail completed applications to:	Village Planner ATTN: Site Plan/Architectural Plan/Planned Unit Development PO Box 206 Mukwonago, WI 53149
Deliver to:	Village Clerk's Office 440 River Crest Court
Email to:	planner@villageofmukwonago.com

Complete, accurate and specific information must be entered. Please Print.

APPLICANT *(Full Legal Name)*

Name: John Thornton
Company: GS Global Resources, Inc.
Address: 926 Perkins DR. **City:** Mukwonago **State:** WI **Zip:** 53149
Daytime Phone: 262-378-5200 **Fax:**
E-Mail: jthornton@gsgr.com

APPLICANT IS REPRESENTED BY *(Full Legal Name)*

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

ARCHITECT

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

PROFESSIONAL ENGINEER

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

REGISTERED SURVEYOR

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

CONTRACTOR

Name: Wolf Paving Company

Company: Michelle Growel

Address: 612 N. Sawyer Rd. City: Oconomowoc State: WI Zip: 53066

Daytime Phone: 414-881-3323 Fax: _____

E-Mail: michelle@trasphalt.com

PROPERTY INFORMATION

Property Owner (s) *(if different from applicant)*: John Thornton, 929 Properties

Address: 926 Perkins DR. **City:** Mukwonago **State:** WI **Zip:** 53149

Daytime Phone: 262-378-5200 **Fax:**

E-Mail: jthornton@gsgr.com

Present Zoning: **Tax Key No(s).:** MUKV196988007

Location/Address: Same

Present Use: **Intended Use:** Same

PROCEDURAL CHECKLIST FOR SITE PLAN/ARCHITECTURAL PLAN/PUD REVIEW AND APPROVAL

Submittals for review must include and be accompanied by the following:

Application:

- ❑ Completed application form including the procedural checklist.
- ❑ Application fee: See page 1.
- ❑ Agreement for Reimbursable Services (separate application).

Other Documents:

- ❑ Five(5) complete sets of Application and materials, in addition to the original, for Village of Mukwonago review.
- ❑ Project Summary: Please attach a statement detailing the reasons and background for this request including: details of proposal, services provided, wares sold, plans and hours of operation, number of employees, frequency of customer visits, frequency of deliveries to site, description of any interior/exterior modifications or additions to be made to property, any outside storage (dumpsters, trucks, materials…), number of parking stalls, screening/buffer type, any other information available. ***PLEASE EXPLAIN IN DETAIL.***
- ❑ **Electronic Submittals are required.** Email (or CD ROM) with all plans and submittal materials in Adobe PDF to planner@villageofmukwonago.com.
- ❑ Any additional information as determined by Village staff.

- **Upon receipt of a complete submittal, staff review will be conducted within ten business days.**
- **All Site Plan, Architectural, and Planned Unit Development review requests require Plan Commission review and Village Board approval.**

CERTIFICATION

Applicant hereby certifies that:

1. All of the above statements and other information submitted as part of this application are true and correct to the best of his or her knowledge.
2. Affirms that no Village of Mukwonago elected or appointed official or employee has a proprietary interest in the above referenced property for which this applications being filed (except as stated below under "Exceptions").
3. None of the above referenced individuals has been promised or given any contract for consultation, planning or construction in relation to this project (except as stated below under "Exceptions").
4. Applicant has read and understands all information in this packet.

Applicant further understands the policies of the Village regarding change of zonings and property development. Conditions of the resolution regarding all approvals are strictly followed. Certificates of Occupancy are not given until all conditions of approval have been met

By the execution of this application, applicant hereby authorizes the Village of Mukwonago or its agents to enter upon the property during the hours of 7:00 am to 7:00 pm daily for the purpose of inspection. Applicant grants this authorization to enter even if this land has been posted against trespassing pursuant to Section 943.13 WI Stats.

(The applicant's signature must be from a Managing Member if the business is an LLC, or from the President or Vice President if the business is a corporation. A signed applicant's authorization letter may be provided in lieu of the applicant's signature below, and a signed property owner's authorization letter may be provided in lieu of the property owner's signature[s] below. If more than one, all of the owners of the property must sign this Application).

John Thornton	John Thornton
Signature - Property Owner	Signature - Applicant
John Thornton, Managing Member	John Thornton, President
Name & Title (PRINT)	Name & Title (PRINT)
5/24/16	5/24/16
Date	Date
Signature - Property Owner	Signature – Applicant's Representative
Name & Title (PRINT)	Name & Title (PRINT)
Date	Date

FOR OFFICE USE ONLY	
Date Paid	**Receipt #**
Plan Commission Date(s)	**Village Board Date(s)**
Escrow Required? ☐ Yes ☐No	**Escrow Amount**
Plan Commission Disposition	
Village Board Disposition	

Village of Mukwonago, Post Office Box 206, 440 River Crest Court, Mukwonago, Wisconsin 53149
www.villageofmukwonago.com, (262) 363-6420, (262) 363-6425

Agreement for Reimbursable Services
Petitioner/Applicant/Property Owner

In accordance with Village Ordinance 70-15, the Village may retain the services of professional consultants (including planners, engineers, architects, attorneys, environmental specialists, recreation specialists, and other experts) to assist in its review of a proposal coming before the Plan Commission/Board of Building and Zoning Appeals. The Village reserves the right to apply the charges for these services as well as for staff time expended in the administration, investigation and processing of applications to the Applicant.

The Applicant is required to provide the Village with an executed copy of this agreement as a prerequisite to the processing of the development application. The submittal of a development proposal application or petition shall be construed as an agreement to pay for such professional review services applicable to the proposal. The Village may delay acceptance of the application or petition as complete, or may delay final approval of the proposal, until such fees are paid by the Applicant. The Property Owner acknowledges that review fees which are applied to an Applicant, but which are not paid by such Applicant, may be charged by the Village as an assessment against the subject property for current services provided the property.

Note: Consultant services (e.g. engineering, planning, surveying, legal, etc.) and Village administrative time may be charged in addition to the normal costs payable by the Applicant/Petitioner/Property Owner (e.g. application filing fees, permit fees, publication expenses, recording fees, impact fees, etc.)

926 Perkins - Parking Lot Expansion
(Project Name/Nature of Application)

MUKV 1969988007
(Property Tax Key Numbers Involved in Project)

John Thornton
(Print Name of Applicant/Petitioner)

John Thornton
(Signature of Applicant/Petitioner)

5/24/16
(Date)

John Thornton
(Print Name of Property Owner)

John Thornton
(Signature of Property Owner)

(Date)

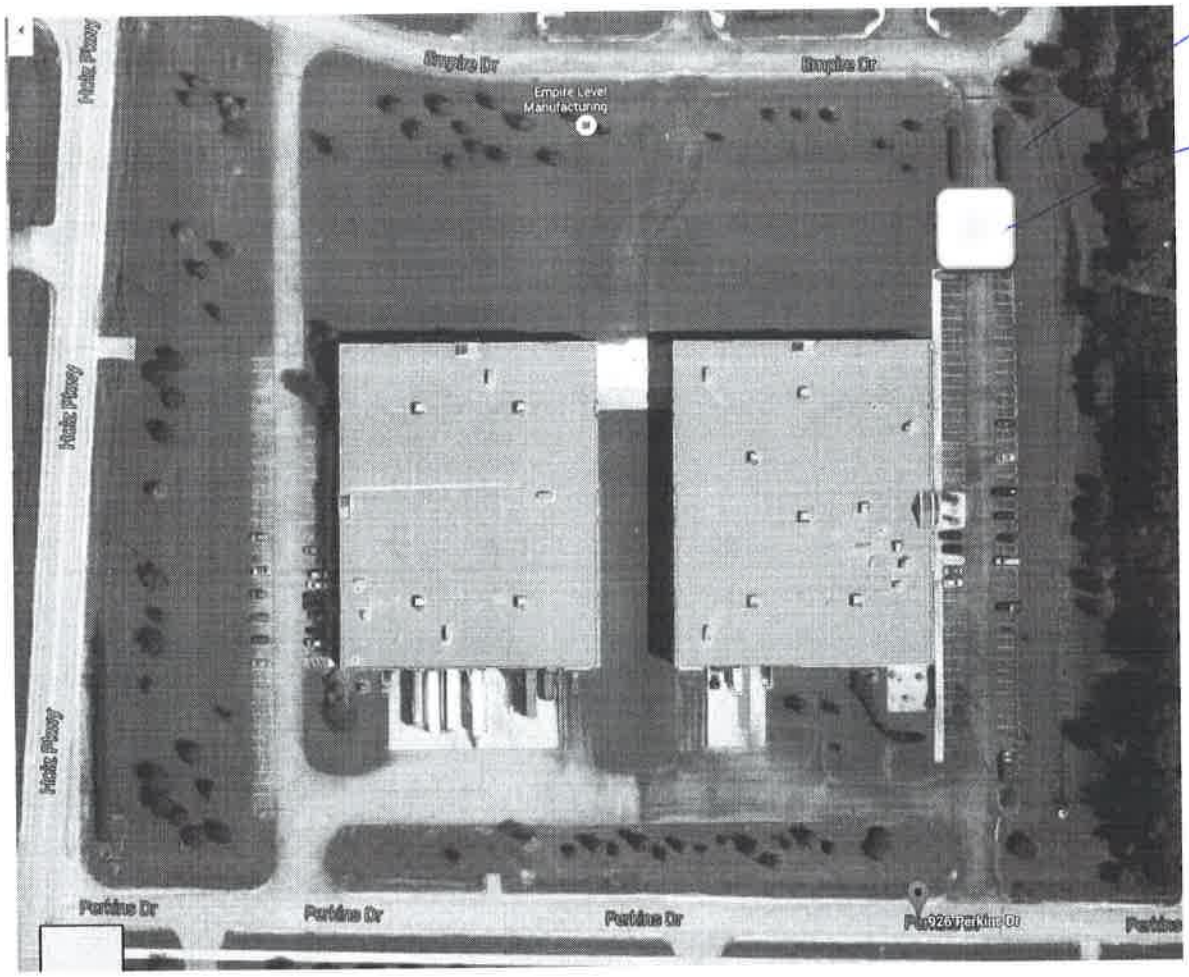
926 Perkins Dr.
(Mailing Address)

Mukwonago, WI 53149
(City, ST Zip)

GS GLOBAL RESOURCES

926 Perkins Dr. – Parking Lot Expansion

We are looking to add 14 parking spaces to our existing parking area on the East side of the 926 Perkins Drive building for our office professionals working in this building. We are retaining the existing landscaping in the area to maintain the current aesthetic appearance of the area. This parking addition covers approximately 2,460 square feet, which is a minimal amount of the total area of the parcel (approximately .6%).

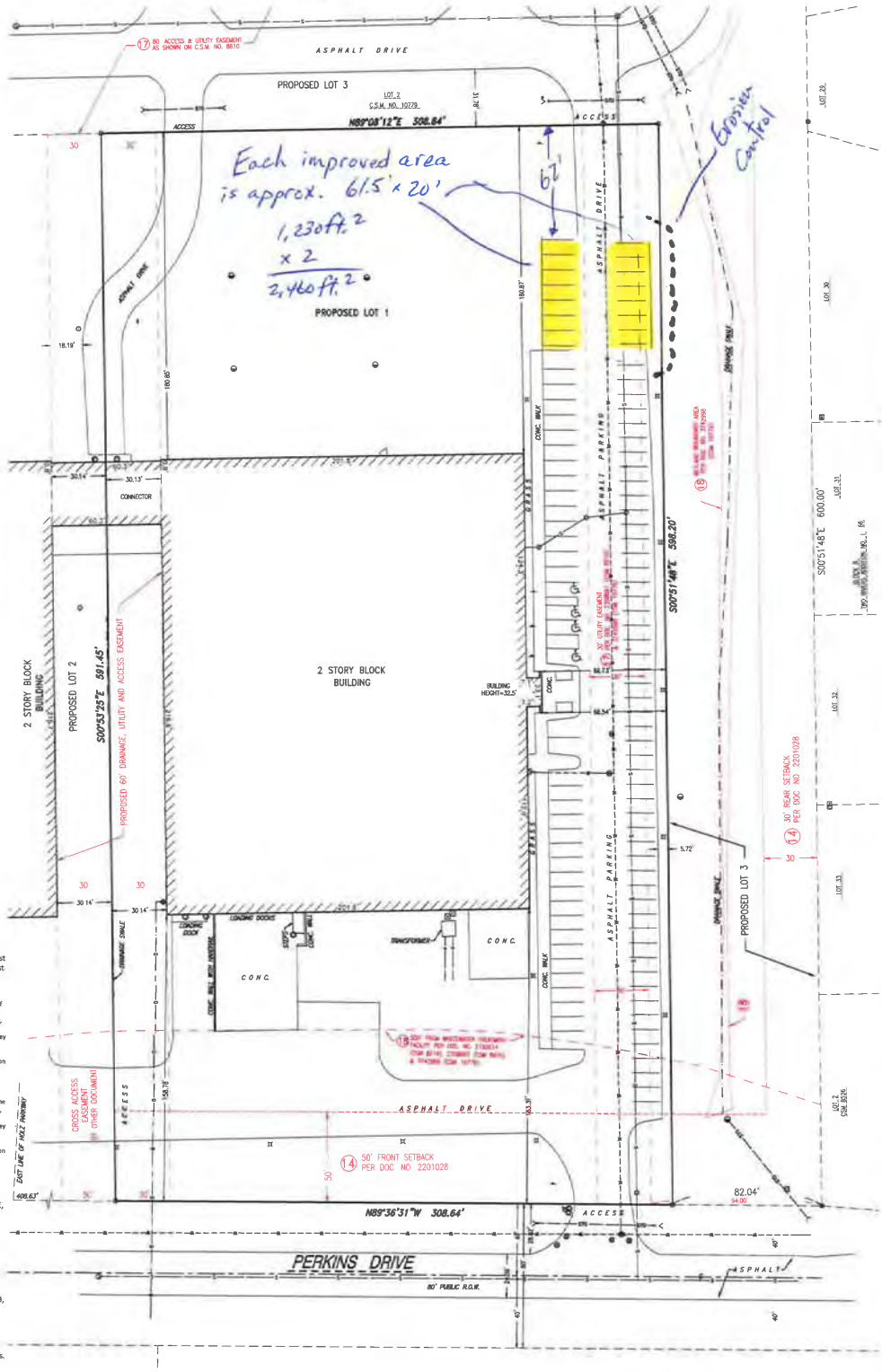


926 Perkins Drive • Mukwonago, WI 53149 • 262-378-5200 • FAX: 262-378-5400 • 800-261-8735 • www.gsglobalresources.com

ALTA/ACSM LAND TITLE SURVEY

LEGEND

- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- INDICATES FOUND CHISELED CROSS
- SANITARY MANHOLE
- SANITARY CLEANOUT OR VENT
- M.I.S. MANHOLE
- UNKNOWN MANHOLE
- STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- STORM SEWER END SECTION
- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER MANHOLE
- WATER SERVICE CURB STOP
- WELL HEAD
- STAND PIPE
- WALL INDICATOR VALVE
- POST INDICATOR VALVE
- LIGHT POLE
- SPOT/YARD LIGHT
- UTILITY POLE
- GUY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC SIGN
- TRAFFIC LIGHT
- COMMUNICATION MANHOLE
- BOLLARD
- SOIL BORING/MONITORING WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- FLAGPOLE
- PARKING METER
- SIGN
- MAILBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE
- SANITARY SEWER
- STORM SEWER
- WATERLINE
- MARKED GAS MAIN
- MARKED ELECTRIC
- OVERHEAD WIRES
- MARKED TELEPHONE
- MARKED CABLE TV LINE
- MARKED FIBER OPTIC
- FENCE



CLIENT

GS Hydraulics Inc.

SITE ADDRESS

929 Empire Drive, Village of Mukwonago,
Waukesha County, Wisconsin.

BASIS OF BEARINGS

Bearings are referenced to the West line of the Northeast 1/4 of Section 25-5-18 which bears North 00°52'48" West

LEGAL DESCRIPTION

Parcel 1:
Lot 1 of (Proposed) Certified Survey No. ____ being a part of Lot 3 of Certified Survey Map No. 10779, recorded in the Office of the Register of Deeds for Waukesha County, Wisconsin, on May 7, 2010, in Volume 104 of Certified Survey Maps, Pages 174 to 175, as Document No. 3742998, being a redivision of Lot 1 of Certified Survey Map No. 8610 recorded in Volume 76 Pages 14 thru 19 of Certified Survey Maps as Document No. 2358097, located in part of the Northwest 1/4 and the Southwest 1/4 of the Northeast 1/4 of Section 25, Township 5 North, Range 18 East, in the Village of Mukwonago, Waukesha County, Wisconsin.

Parcel 2:
Lot 1 of Certified Survey Map No 10779, recorded in the Office of the Register of Deeds for Waukesha County, Wisconsin, on May 7, 2010, in Volume 104 of Certified Survey Maps, Pages 174 to 175, as Document No. 3742998, being a redivision of Lot 1 of Certified Survey Map No. 8610 recorded in Volume 76 Pages 14 thru 19 of Certified Survey Maps as Document No 2358097, located in part of the Northwest 1/4 and the Southwest 1/4 of the Northeast 1/4 of Section 25, Township 5 North, Range 18 East, in the Village of Mukwonago, Waukesha County, Wisconsin.

TITLE COMMITMENT

This survey was prepared based on First American Title Insurance Company Commitment No. NCS-570011-MKE, effective date of September 19, 2012 which lists the following easements and/or restrictions from schedule B-II:

1, 2, 3, 9 visible evidence shown, if any.
4, 5, 6, 7, 8, 10 & 20 not survey related.

11. Utility easement granted to Wisconsin Electric Power Company by instrument dated April 12, 1980 and recorded on May 2, 1980, in Reel 406, Image 913, as Document No. 1125976. Does not affect site by location

12. Provisions set forth on Certified Survey Map No. 7041 recorded as Document No. 1851657, as to Access to Holz Drive and Septic System Requirements. Parcel 1 is unbuildable until a State approved Septic System can be installed

13. Deed Restriction set forth in Warranty Deed dated September 6, 1996 and recorded on September 11, 1996, as Document No. 2155976. Affects site by location, Blanket Restriction

14. Covenants and Restrictions set Forth in Mukwonago Industrial Park Restrictions recorded on March 31, 1997, as Document No. 2201028 Affects site by location, shown

15. Repurchase rights set forth in Mukwonago Industrial Park Restrictions recorded on March 31, 1997, as Document No. 2201028. Affects site by location, Blanket Easement

16. Wetland Boundary area as set forth on Certified Survey Map No. 8214 recorded as Document No. 2192614 and Certified Survey Map No. 8610 recorded as Document No. 2358097. Affects site by location, shown

17. Utility easements, easements of record and Access and Utility Easement as set forth on Certified Survey Map No. 8214 recorded as Document No. 2152614, Certified Survey Map No. 8610 recorded as Document No. 2358097 and Certified Survey Map No 10779 recorded as Document No. 3742998. Affects site by location, shown

18. Wetland areas and 500' from W"T Per NR 100.15 Wisconsin Administrative Code as set forth on Certified Survey Map No 8214 recorded as Document No. 2192614, Certified Survey Map No. 8610 recorded as Document No. 2358097 and Certified Survey Map No 10779 recorded as Document No. 3742998. Affects site by location, shown

19. Terms and provisions of Agreement Not to Convey or Encumber dated August 1, 1999 and recorded on September 8, 1999, in Reel 2974, Image 772, as Document No. 2500921 Affects site by location, Blanket Agreement

PARKING SPACES

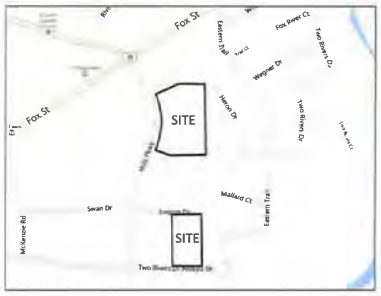
There are 88 regular parking spaces and 4 handicap spaces marked on Proposed Lot 1.
There are no parking spaces marked on Parcel 2.

LAND AREA

The Land Area of the Proposed Lot 1 is 183,622 square feet or 4.2154 acres.
The Land Area of the Parcel 2 is 419,144 square feet or 9.6222 acres.

REVISED
December 4, 2012
December 17, 2012
January 2, 2013
March 18, 2013

VICINITY MAP



CHAPUT LAND SURVEYS LLC
231 W. FLORIDA STREET
MILWAUKEE, WI 53204
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Drawing No. 1376-tjn

Sheet 1 of 2

CHAPUT LAND SURVEYS LLC

Ordinance No. ____

AN ORDINANCE TO AMEND SECTION 62-20 (d) OF CHAPTER 64 OF THE VILLAGE OF MUKWONAGO MUNICIPAL CODE, KNOWN AS THE SIGN CODE, PERTAINING TO DIRECTIONAL SIGNS IN MANUFACTURING ZONING DISTRICTS

Whereas, the Plan Commission of the Village of Mukwonago from time to time reviews regulations pertaining to the Sign Code; and

Whereas, the Plan Commission with recommendation from Village staff has determined that in the interest of orderly development and public safety in the Village that the regulation to allow on-site directional signs should be amended to allow larger directional signs in manufacturing zoning districts to assist with the orderly and safe flow of truck traffic on a site separate from other vehicle and pedestrian flow; and

Whereas, the Plan Commission at a regularly scheduled meeting of June 14, 2016 recommended to the Village Board that the Section 62-20 (d) pertaining to directional signs be amended as provided here-in; and

Whereas, as the amendment is minor and does not affect the whole Village, the Plan Commission recommends the Village Board does not need to conduct a public hearing before consideration in accordance with Section 64-40 (c) of the Sign Code.

Now, Therefore, the Village Board of Trustees of the Village of Mukwonago, Waukesha and Walworth Counties, Wisconsin, DOES HEREBY ORDAIN AS FOLLOWS:

Section I. Section 64-20 (d) of the Sign Code shall be replaced with the following: (changes shown in red for purposes of this draft).

(d) *Traffic directional signs, off-street on private property.*
(1) Off-street traffic directional signs on private property that direct traffic from public right-of-way shall require permits.
(2) No more than one single-faced or double-faced freestanding off-street traffic directional sign shall be permitted for each driveway; except that multiple signs may be allowed for orderly traffic flow within manufacturing zoning districts, with approval of the Zoning Administrator.
(3) The traffic directional sign shall be installed on a durable base of at least 12 inches in height, and at least as wide as the sign. The sign base shall be in a color and material consistent with the sign. The traffic directional sign shall not be placed on a pole.
(4) The traffic directional sign shall not exceed two square feet per side; except shall not exceed nine square feet per side within manufacturing zoning districts.
(5) The traffic directional sign shall not exceed three feet in height; except shall not exceed five feet in height within manufacturing zoning districts.
(6) The traffic directional sign shall be setback a minimum of five feet from any property line and shall be located so as not to impede vehicular or pedestrian traffic flow.
(7) If a driveway is shared by two or more businesses or other premises the size and height maximums remain as above.
(8) A traffic directional sign shall not identify any business or organization name, logo or advertising; except within manufacturing zoning districts with approval of the Zoning Administrator.
(9) Notwithstanding procedures elsewhere in this chapter 64, any traffic directional sign permit may be approved by the building inspector after approval by the zoning administrator; however, review assistance by the plan commission may be requested.

Section II: Severability. The several sections of this ordinance are declared to be severable. If any section shall be declared by a Court of competent jurisdiction to be invalid, such decisions shall not affect the validity of other portions of the ordinance.

Section III: Effective Date. This ordinance shall take effect upon publication. Passed and adopted this ___ day of _____, 2016.

_____
Fred H. Winchowky, Village President

Attest: _____
Steven A. Braatz, Jr., Village Clerk

Date Adopted:
Date Published:
Date Effective:

Land Use Category Descriptions Approved By Steering Committee
June 2, 2016

Business Mixed Use Overlay (new)

Where undeveloped land or land with redevelopment potential in the Village is within the Interstate Planning District or the Main Street/River South Planning District that with the addition of residential dwelling units or a combination of uses (commercial, retail, office or other related uses) will enhance the business/commercial environment, efficiently utilizes land, provides housing choices to enhance an active and growing economic base and improves aesthetics of the built environment. Mixed-use development may be within a single building or within a unified development blending a combination of business with dwelling units on upper floors or in a separate building where the mix of uses are physically and functionally integrated. Sites designated with this land use category may be solely residential if compatible with existing or planned and approved adjacent business/commercial uses in terms of pedestrian friendly, good traffic flow and proper utilities to provide for the greater intensity of land use. A density of up to 20 dwelling units per acre should be allowed in business mixed use with appropriate height and design standards, although densities exceeding 20 dwelling units per acre may be allowed if on-site and off-site amenities (such as dedicated open space) completed with the development are provided, and the site is part of a Village designated redevelopment plan or tax incremental financing district. Furthermore, this Business Mixed Use Overlay land use category is solely to be applied as an optional development style to specific properties or areas only within the Interstate Planning District or the Main Street/River South Planning District.

Recommend Zoning District: *New Planned Unit Development standards to allow for mixed use as an overlay district with appropriate base zoning district for business.*

High Density Multi-Family (new)

Where land in the Village or planned to be in the Village located only solely within the Interstate Planning District near existing or planned higher intensity non-residential land use areas with good access to utilities and arterial streets with the purpose to provide high density and potentially taller multi-family (3 or more dwellings per building). A density to a maximum of 15 dwelling units per acre should be allowed in high density multi-family.

Recommended Zoning District: *New R-15, High Density Multi-Family District.*

Medium Density Multi-Family (new)

Where land in the Village or planned to be in the Village is at an appropriate location with good access to utilities and arterial streets to provide for moderate density and low level multi-family buildings (3 or more dwellings per building). Furthermore, this land use category is intended to be located as a transition between more intense and less intense land use districts. A density of between five (5) and 10 dwelling units per acre should be allowed in medium density multi-family at a maximum of two (2) stories. This land use category is intended to be applied to existing and built multi-family sites with density levels over 10 dwellings per acre with no more density/dwelling units added to those existing developments.

Recommended Zoning District: *Amended R-10, Medium Density Multi-Family District for existing or new multi-family development.*

Low Density Multi-Family (new description)

Where land in the Village or planned to be in the Village, with good access to utilities and arterial streets, can serve as transitional land use been land uses of varying intensities serving the purpose of providing an alternative quality housing choice from traditional single family detached housing. Two-family detached dwellings (duplexes) either on individual lots or in a unified complex; or one multi-family building or a unified complex of multi-family buildings (3 or more dwellings per building) should be allowed in low density multi-family at a density of no more than five (5) dwelling units per acre at a maximum of two (2) stories. Housing dedicated to senior citizens may exceed five (5) dwelling units per acre, up to 20 dwelling units per acre and exceed stated building height restriction.

Recommended Zoning District: *New R-5, Low Density Multi-Family District for existing or new multi-family development (current R-5 Planned Mobile Home District to be eliminated).*

Village of Mukwonago Comprehensive Plan Update
Goals and Objectives Statement
As approved by Steering Committee; May 19, 2016

The foundation of a comprehensive plan is goals and objectives. They provide overall policy guidance as the plan is prepared, adopted and implemented. Goals are statements to provide a long term end result desired by the Village. Objectives are specific and sometime measurable statements that mark progress to a goal, while policies are principles creating a course of action, or a task to achieve a goal or objective.

Comprehensive Plan 2035 for the Village of Mukwonago adopted in 2009 listed 13 overall goals, and then listed detailed goals, objectives and policies for each separate plan element. The overall goals were as follows:

1. To preserve and enhance the Village's quality of life including its historical identity, its small town atmosphere, its community events, and its traditional downtown.
2. To protect and preserve the Village's sensitive ecosystems and cooperatively support environmental quality of the surrounding region.
3. To provide outdoor recreation opportunities for Village residents of all ages through the development and maintenance of Village parks, recreational areas, trails and open space.
4. To provide health and recreational programming for youth and adults and encourage private facilities to provide such programming.
5. To maintain the accepted levels of public services for residents and business owners in a fiscally conservative manner being able to withstand the ever-fluctuating economic marketplace.
6. To develop a land use plan that provides ample new development opportunities and identifies redevelopment opportunities.
7. To provide a variety of housing options in the Village that are affordable for residents of various socioeconomic income levels including first-time homebuyers and public servants.
8. To attract and retain high quality development that enhances and diversifies the Village's economic base.
9. To support the long-term economic vitality and viability of the Village's downtown.
10. To promote and provide multi-modal transportation including public transportation throughout the Village and its neighboring communities.
11. To promote a sustainable downtown that balances the need for public investment and a revitalized atmosphere of economic development taking advantage of opportunities to attract new businesses to underutilized storefronts.
12. To track desirable development throughout the Village with a focus on the Gateway District and beyond.
13. To maintain and improve intergovernmental cooperation efforts with neighboring municipalities to provide efficient and cost-effective community services, infrastructure and facilities.

With the above goal statements in mind, a review of the progress the Village has achieved from 2009 to today yields a generally positive result, but plenty remains left to achieve toward community betterment. Some of the progress toward the goals since 2009 includes the following:

- Dialogue between the Village and downtown business owners and property owners resulting in shared solutions of traffic flow, parking and business expansion. Today the downtown is healthier than it has been in the past 30 years.
- Village officials regularly meet with local industries and businesses to understand their needs resulting in improved communications that has enhanced business expansion and relocation within the Village (with new job creation).
- A local industry, a local property owner and the Village working together to begin development of a new business park.
- The Mukwonago Area School District working together with local industries and businesses toward improved work force development and training.
- The Village supporting property owners and developers toward new retail development at both the north and south side business hubs of the Village.
- A steady level of new single family housing starts, along with several new high-quality multi-family developments.
- Entire community support of a new YMCA providing health and recreation to the community, along with support of an expanded public library.
- Community support of expanded medical services with a 24 hour/7 days a week fully staffed emergency department.

The above points highlight several of the many advances made in the community by following the goals of the Comprehensive Plan 2035. Yet, in 2016, precipitated by a regional shift of housing demand and proposed new developments to fill the local demand, and external economic factors dictating the need for continued growth through development, the Village has reached a critical crossroads regarding how the Village will look and feel in the future. The Village Board decided the land use element and policies associated with land use needed an update. A Steering Committee representing a cross-section of residents and community leaders was appointed to assist the Village Plan Commission and Village Board to determine the future look and feel of the Village through land use.

The Steering Committee was asked to respond to a question with the purpose of gauging their individual and initial thoughts of where the Village has been and should be. While there was no right or wrong answers, the responses provided great insight toward the overall direction the committee will pursue.

The Question: What Type of Community are we and should we be, pertaining to the future look and feel?

The Individual Responses were:

- (We are a) bedroom community.
- (Must have) growth that responds to demand.

- Need multi-family.
- (Need) focused senior housing.
- (Continue) sense of community.
- (Need) more industrial.
- (Need) business (that) supports good paying jobs.
- (Should be) like Oconomowoc (with downtown redevelopment and perimeter quality business)
- (Must have) sustainable and responsible growth.
- (Need) senior housing and flexible housing (that can be converted over the years to fit housing need) for future use.
- (Need to be) desirable, exciting and family (oriented).
- Need to be forward thinking.
- (Maintain) romantic, community atmosphere.
- (Must be) fiscally wise.
- (Need) land use plan to enhance sustainability and livable (community).
- (Need to advance) community through start of modern era.
- Need to address (maintaining) a healthy downtown.
- (Need to address development) projects that don't pan out.
- (Need to address) vacant buildings (that) look terrible.
- (Need to address) downtown (that) doesn't look great.
- (Should pursue) burying of power lines.
- (Need) middle of the road growth.
- (Village is a) good hometown.
- (Retain and attract) locally (owned) business.
- (Need) more multi-family.
- (Need to address) downtown parking versus keep buildings—(do we need a) parking structure?
- (Need to identify) redevelopment (opportunities) and where?

The overall conclusion drawn from the responses and subsequent comments shared between committee members is that the committee desires to steer the community in a similar direction as approved in 2009. At the same time, the responses recognize the need to adjust policy for community improvement.

Therefore, the committee created the following goal and objectives to guide the preparation and implementation of the plan update focusing on land use.

Goal: The land use goal of the Village of Mukwonago is to maintain the atmosphere of a village life style that maintains a healthy and prosperous downtown, that provides support for well-maintained and an aesthetically appealing built environment, that provides sustainability through moderate growth of all land uses and that recognizes the need to continually provide quality life cycle housing; while developing specific opportunities for more intensive use of the land to serve the community with quality jobs and housing without impacting the overall village life style.

The objectives to meet the land use goal are as follows:

- To continually work with business owners, property owners and community organizations toward policies that enhance the continuous prosperity of Village.
- To provide land uses and redevelopment opportunities in and around the downtown that is complementary to and supports a strong business community.
- To safeguard that new development or redevelopment protects the livability of existing Village neighborhoods.
- To create opportunities for land conservation promoting developments that create quality jobs, provide goods and services to the community, and provides life-cycle housing.
- To seek land uses that allow for a variety of housing types for a growing and diverse population meeting the needs of all age groups while sustaining a suitable ratio of single family detached homes.
- To encourage alternative styles of new housing development or redevelopment that can be adjustable to meet future housing demands.
- To evaluate all new development or redevelopment in conjunction with the goals and objectives of other comprehensive plan elements, especially with the needs and capacities of local schools, public utilities, local streets, storm water management and water quality, and the provision of proper police and fire protection.
- To evaluate all new development or redevelopment with quality architectural, site and landscaping design principles.
- To ensure open spaces and recreational opportunities are provided for existing and new residents, along with the protection and integration of the many local environmental features into new developments or redevelopments for the enjoyment of residents.
- To coordinate with property owners and business owners toward a well maintained and aesthetically pleasing built environment.

It is with the overall land use goal, objectives and policies that the Village of Mukwonago has the available tools to advance the quality of life for all citizens and businesses.

Village of Mukwonago Comprehensive Plan Update
Land Use Categories
As approved by the Steering Committee; May 19, 2006

DESCRIPTIONS OF LAND USE CATEGORIES

The foundation of the any land use element of a Comprehensive Plan are the descriptions of the land use categories to be assigned to individual properties or a grouping of properties shown on the future land use map. The categories are generally listed from least intense to most intense use of land. Each description outlines the form that the land use category will undertake in the built environment to guide decision makers with plan implementation; mainly through application of zoning districts and standards and other land use policies and regulations.

Each land use category is followed by a recommendation for implementation via a specific zoning district or a variety of zoning districts depending upon the circumstance. Many of the zoning district recommendations apply to Village zoning code districts in use in 2016, while others suggest a new zoning district with accompanying standards.

To further define several categories, two special planning districts are established: the Interstate Planning District and the Main Street/River South Planning District. Each district may contain multiple land use categories, but certain categories may apply only to the special planning districts for the purpose of direct specific plan implementation. Descriptions and a map of the special planning districts are provided at the end of this section. *(Please note this paragraph will be part of the update text if the planning districts are approved by the committee).*

<u>Agriculture/Large Lot Single Family</u>
Where continued agriculture will likely occur or where land already developed for large lot single family outside of Village but within the extraterritorial planning area. The minimum lot size is generally around one acre, but should not be less than 37,500 square feet.

Recommended Zoning Districts: *A-1, Agricultural for annexed or attached lands that will remain in an agricultural use; R-8 Single Family Estate Residential District for new single family subdivisions, or the R-9 Single Family Rural Residential District for two-family and multi-family existing at time of annexation or attachment.*

<u>Executive Style Large Lot Single Family</u>
Where land in the Village or planned to be in the Village is at the perimeter of the community, and site conditions, such as environmental features, and location dictate a larger lot size to serve the needs of the population desiring a larger home size. The minimum lot size should not be less than 37,500 square feet.

Recommended Zoning District: *R-8, Single Family Estate Residential District for new single family subdivisions.*

Medium Lot Single Family I

Where land in the Village or planned to be in the Village has site conditions, such as environmental features, and has a location to provide a step down in density from larger lots to smaller lots. The minimum lot size should not be less than 25,000 square feet.

Recommended Zoning District: *R-7, Single Family Intermediate Residential District for new single family subdivisions.*

Medium Lot Single Family II

Where land in the Village or planned to be in the Village is adjacent to existing subdivisions with similar lot sizes or is at the appropriate location with access to utilities and adjoining arterial streets. The minimum lot size should not be less than 15,000 square feet. This category also applies to existing subdivisions with similar lot sizes.

Recommended Zoning District: *R-1, Single Family Community Residential District for new and existing single family subdivisions.*

Small Lot Single Family

Where land in the Village or planned to be in the Village has good access to utilities and adjoining arterial streets, which is an appropriate location for a step down in land use intensity between more intense land uses and larger lot sizes, and can serve the purpose of providing moderately valued and quality single family housing. The minimum lot size should be in the range of 10,000 to 12,000 square feet.

Recommended Zoning District: *R-2, Single Family Village Residential District for new single family subdivisions.*

Conservation Subdivision Design

Where unique site features promote the design of open space in common ownership in return for a cluster of smaller lots, but at the same density of the underlying recommended single family land use category. The Village benefits from preservation of natural resources, such as steep slopes and woodlands, and from the efficient design of less length of public streets and utilities to maintain. This land use category is intended to be an optional design within each of the single family land use categories.

Recommended Zoning District: Create new overlay criteria and standards to allow for conservation subdivision design.

Historical Residential

Where single family and two-family homes exist within the long established residential neighborhoods of the Village near downtown. Lot sizes in this land use typically range from 8,000 to 12,000 square feet. The minimum lot size of any new lot in a redevelopment activity should not be less than 12,000 square feet. This land use also applies to long established residential areas within the Town of Mukwonago along the south and west shore of Lower Phantom Lake, which areas have the potential of ultimately being part of the Village.

Recommended Zoning Districts: *R-2, Single Family Village Residential District for existing single family subdivision in the Village; new R-5, Low Density Multi-Family District for existing two-family properties; or the R-9, Single Family Rural Residential District for small lots existing at time of annexation or attachment.*

Village Center/Downtown

Where unified standards would support the continuance of a prosperous downtown core and surrounding area that has been the Village's historical center of commerce and residential; with the residential dwellings either intermixed with the commerce or existing neighborhoods preserved surrounding the downtown core. The intermixing of commercial/business with dwellings can be either in a single building or with dwellings in a separate building. The integrity of street level commerce activity along the main traffic and pedestrian corridors should be maintained.

Recommended Zoning District: *New overlay standards for the R-2, Single Family Village Residential District; new R-5, Low Density Multi-Family District; B-1, Neighborhood Business District or the B-2, General Business District.*

Low Intensity Commercial/Business

Where land in the Village or planned to be in the Village is near to or currently exists with commerce along major arterial corridors or at intersections of major arterials. Sites within this land use category are typically designed with low level buildings, with a floor area ratio of 35% or less and with surrounding surface parking. The types of commercial and/or business establishments within this land use category tend to provide goods and services to residents of the Village and surrounding service area.

Recommended Zoning Districts: *B-2, General Business District; or B-3, Community Business District.*

High Intensity Commercial/Business

Where land in the Village or planned to be in the Village is appropriately located in an area with a surrounding street and highway system that can effectively handle higher traffic volumes, with adequate existing or planned utility capacity, ~~and located~~ and only located in the Interstate Planning District. Sites within this land use category may be designed with taller buildings, with floor area ratios above 35% and with either or a combination of surface parking, parking structures or shared parking with neighboring uses. The types of commercial and/or business

establishments within this land use category tend to provide goods and services to residents of the Village and surrounding service area, and to residents of the greater region beyond a 15 minute travel time from the Village.

Recommended Zoning District: *B-4, Commercial Business Design District.*

Business Park

Where land in the Village or planned to be in the Village can support a mixture of larger buildings with commerce and light industrial uses that is appropriately located in an area with a surrounding street and highway system that can effectively handle higher traffic volumes, with adequate existing or planned utility capacity, and located away from residential unless appropriately buffered through unified layout of the area and individual site design. Businesses in this land use category benefit from proximately to good transportation routes but do not need direct visibility from adjoining streets and highways to remain successful. Sites within this land use category may be designed with low level or taller buildings and with floor area ratios above 35%. This land use category promotes a wide range of sustainable employment for residents of the Village and surrounding service area, and to residents of the greater region.

Recommended Zoning Districts: *B-5, Planned Business and Light Industrial District or any of the manufacturing districts (M-1 through M-5) that is appropriate for the level of intensity within the design of the business park.*

Industrial

Where land in the Village or planned to be in the Village is near good transportation corridors to support truck traffic, has adequate existing or planned utility capacity and is located in areas not detrimental to the enjoyment and use of other existing or planned land uses. Proximity to other forms of transportation, such as rail, is also important to this land use category. The type of businesses located within this land use category can range from light to heavy industrial, with light industrial placed at the perimeter of the industrial area. Sites within this land use category may be designed with low level or taller buildings and with floor area ratios above 35%. This land use category promotes a wide range of sustainable entry level to career employment for residents of the Village and surrounding service area, and to residents of the greater region.

Recommended Zoning Districts: *Any of the manufacturing districts (M-1 through M-5) that is appropriate for the level of intensity within the design of the industrial area.*

Government and Institutional

Where land in the Village or planned to be in the Village is utilized for a public purpose or a quasi-public purpose. Properties in this category may be publicly owned by the Village, Waukesha or Walworth County, the State of Wisconsin, or the Mukwonago Area School District or the East Troy School District. Quasi-public properties may include churches and religious institutions and non-profit organizations.

Recommended Zoning Districts: *P-1, Public and Semi-Public District.*

Open Space/Recreational

Where land or portions of land in the Village or planned to be in the Village is planned for active or passive park space, or the land is covered by an environmental feature to be preserved. An environmental feature may include a regulated floodplain, or designated wetland or environmental corridor. Storm water management features also may be within this category.

Recommended Zoning Districts: *P-1, Public and Semi-Public District; the FW Floodway, FC Floodplain Conservancy or the GDP General Floodplain Districts, or the SW Shoreland Overlay District.*

Extractive

Where land or portions within the extraterritorial planning jurisdiction of the Village has subsurface potential for non-metallic mining, as defined by the State of Wisconsin. Common names for uses in this category include quarries, gravel pit or sand pit. This category is considered to be an overlay land use option.

Recommended Zoning District: *No zoning district needed unless land with extraction potential is annexed or attached to the Village.*

MINUTES OF THE STEERING COMMITTEE OF THE COMPREHENSIVE MASTER PLAN UPDATE
Thursday, April 21, 2016

Call to Order

Chairperson Tom Karthausser called the meeting to order at 6:33 p.m. located in the Committee Room of the Mukwonago Municipal Building, 440 River Crest Court

Roll Call

Committee Members present:	Roger Walsh
	Joe McAdams
	Mary Patz
	Linda Burg
	Klaus Heitmann
	Jason Wamser
	Suzie Bauer
	Jean Schultz
	Tom Karthausser
	John Meiners
	Shelly Yergens
	April Reszka
	Fred Winchowky, Village President
Also present:	Bruce Kaniewski, Planner
	John Weidl, Village Administrator

Approval of Minutes

Motion made by F. Winchowky to approve the April 7, 2016 meeting minutes; seconded by J. Wamser. Motion to approve the minutes carried.

In deference to the ambitious meeting agenda, Chair T. Karthausser called upon Committee members to exercise efficiency in language, keeping comments succinct and on-topic.

Review, discussion and consideration of Draft Goal and Objectives statement to guide Comprehensive Plan Update

B. Kaniewski presented a document which lists comments made by the Committee at the 4/7/16 meeting and reflects those comments in a draft goal/objective document.

The Committee first focused on the language of the draft Goal statement, making redline revisions based upon discussion. It was suggested that “small town” be stricken and that the term “village” be used in place of “downtown”.

A review of the ten draft objectives prompted further suggestions:

- On points one and two, the term "downtown" be replaced with "village"
- On point ten, strike the work "all" preceding property owners
- Point four prompted much discussion, particularly with the built and natural environment. Staff will review and likely split this point into two separate objective statements

Village staff will edit the document based upon Committee feedback and present it for further discussion at the next meeting.

Staff presentation of General background of 2009 plan, current land use, potential growth areas within the village and outside village per boundary agreements and examples of new developments

The Committee reviewed numerous documents and witnessed a demonstration of the GIS (graphic information system) which portrays village features, boundaries, current zoning designations, streets and other information.

A graphic representation of relative lot sizes, buildable lot areas and current and proposed developments in the village, including housing density was presented to the Committee for informational purposes.

For planning purposes, the Village is permitted to consider land that is 1.5 miles beyond our borders, including those with boundary agreements. This planning area has been divided into five general zones; each of which will be the subject of a future Committee meeting. The zones are:

- North: north of Highway NN, including State Highway 83
- Mid: north boundary of Highway NN south to County trunk ES. This includes the St. James property
- East: east of the Fox river/County trunk ES towards Vernon
- RiverSouth/Waterfront: South of Phantom Lake, west of State Highway 83. This includes the former Lynch dealership property.
- Gateway: The TID (tax incremental district) south of US Interstate 43, surrounding State Highway 83. This extends south to County trunk L in the town of East Troy and includes the new industrial park and developments east of Highway 83.

Review, discussion and potential action regarding specific land use categories and zoning recommendations

A comprehensive list of sixteen existing, revised and/or new potential categories of land use was presented. The first eleven such categories were read and discussed by the Committee. It was questioned whether there is need for the category "high density multi-family". The Committee additionally wondered if removing same would have a financial impact on the Village. The remainder of the proposed land use categories will be reviewed at the next Committee meeting.

Public comment

P. Pion expressed concern about removing the reference to "small town" from the Goal statement. Further, he expressed concern about removing "all" from reference to property owners in point ten of the draft objectives.

Review of upcoming meeting schedule

There was suggestion that Committee meetings be extended to 9:00 p.m.
There was suggestion that the first hour of Committee meeting be devoted to the general tenets of the Plan and land use category discussion while the second hour be devoted to discussion of one of the five zones within the Village. Recognizing the enormity of the work that lies ahead, Village staff and the Committee Chair will develop a reasonable plan for future meetings.

Village staff are charged with six tasks:

1. Edit/reword Goal statement
2. Edit/reword/split objective number four
3. Develop a map indicating high density bubbles
4. Research the impact of removing the land category "high density multi-family"
5. Provide information …… high density…..
6. Research feasibility/logistics of a tour of multi-family developments in the village of Delafield

Adjourn

Motion to adjourn made by A. Reszka; seconded by R. Walsh. Motion carried.
Meeting adjourned at 8:54 p.m.

Respectfully submitted,

Jean Schultz
Secretary

MINUTES OF THE STEERING COMMITTEE OF THE COMPREHENSIVE MASTER PLAN UPDATE

Thursday, May 5, 2016

Bus Tour of Village

Members of the Steering Committee convened at 6:30 P.M. at Village Hall for a bus tour of the community. Key locations were visited involving land use recommendations to be determined by the committee during future meetings; mainly the Gateway Neighborhood surrounding the I-43 interchange, the north side area along STH 83, the northeast side area along CTH ES and the South Main Street area surrounding Village Hall. The tour ended at 8:00 P.M., upon returning to Village Hall.

Members present:	Suzie Bauer
	Linda Burg
	Klaus Heitman
	Tom Karthausser
	Mary Patz
	Jean Schultz
	Roger Walsh
	Jason Wamser
	Fred Winchowky
	Shelly Yergens
Excused:	Joe McAdams
	John Meiners
	April Reszka

Also present:	John Weidl, Village Administrator
	Bruce Kaniewski, Village Planner
	Kevin Schmidt, Police Chief
	Ron Bittner, Public Works Director
	Dave Brown, Utilities Superintendent
	Diana Doherty, Finance Director

MINUTES OF THE STEERING COMMITTEE OF THE COMPREHENSIVE MASTER PLAN UPDATE

Saturday, May 14, 2016

Tour of Honey Creek Apartments

Members of the Steering Committee convened at 10:00 A.M. in the clubhouse of Honey Creek apartments in the Village of East Troy for a tour of the complex. Committee members present visited a two bedroom and a three bedroom unit and the underground parking garage in a building. Committee members asked questions of the two representatives from Teronomy Builders. The tour ended in the clubhouse at approximately 11:15 A.M.

Members present: Tom Karthausser
Mary Patz
Jason Wamser
Fred Winchowky

Also present: Bruce Kaniewski, Village Planner
Ray Goodden

Meeting Minutes for Thursday, May 19, 2016
Village of Mukwonago Steering Committee of the Comprehensive Master Plan Update

Call to Order
Meeting called to order at 6:34 pm by Tom Karthausser.

Roll Call

Committee members in attendance:

- Susie Bauer
- Klaus Heitmann
- Tom Karthausser
- Joe McAdams
- John Meiners
- Mary Patz
- Roger Walsh
- Jason Wamser
- Fred Winchowky
- Shelly Yergens

Excused:

- Linda Burg
- April Reska
- Jean Schultz
- Shelly Yergens

Approval of Minutes

- **Motion** by Mary Patz to approve the minutes of April 21, 2016. 2nd by Joe McAdams. Motion approved.
- **Motion** by Susie Bauer to approve the minutes of May 5th, 2016. 2nd by Fred Winchowky. Motion approved.

Goals and Objective Statement
Motion by Susie Bauer to approve the Draft Goals and Objectives Statement to Guide the Comprehensive Plan as read and reviewed aloud at the meeting. 2nd by Roger Walsh. Motion approved.

Review & Discussion of Interstate Planning District & Main Street/River South Planning District
The Committee reviewed and discussed the Interstate Planning District and the Main Street/River South Planning District. The Committee will hold off on voting until specific land use categories are reviewed. Public comments were accepted by Tom Karthausser at this time.

Review and Discussion of Specific Land Use Categories

- **Motion** by Fred Winchowky to approve the Agriculture/Large Lot Single Family land use category as read and reviewed aloud at the meeting. 2nd by Joe McAdams. Motion approved.
- **Motion** by Mary Patz to approve the Executive Style Large Lot Single Family land use category as read and reviewed aloud at the meeting. 2nd by Susie Bauer. Motion approved.

- **Motion** by Joe McAdams to approve the Medium Lot Single Family I land use category as read and reviewed aloud at the meeting. 2nd by Jason Wamser. Motion approved.
- **Motion** by John Meiners to approve the Medium Lot Single Family II land use category as read and reviewed aloud at the meeting. 2nd by Susie Bauer. Motion approved.
- **Motion** by Fred Winchowky to approve the Small Lot Single Family land use category as read and reviewed aloud at the meeting. 2nd by Mary Patz. Motion approved.
- **Motion** by Joe McAdams to approve the Conservation Subdivision Design land use category as read and reviewed aloud at the meeting. 2nd by John Meiners. Motion approved.
- **Motion** by Joe McAdams to approve the Historical Residential land use category as read and reviewed aloud at the meeting. 2nd by Mary Patz. Motion approved.
- **Motion** by Roger Walsh to approve the Village Center/Downtown land use category as read and reviewed aloud at the meeting. 2nd by Fred Winchowky. Motion approved.
- **Motion** by Roger Walsh to approve the Low Intensity Commercial/Business land use category as read and reviewed aloud at the meeting. 2nd by Jason Wamser. Motion approved.
- **Motion** by Joe McAdams to approve the High Intensity Commercial/Business land use category as read and reviewed aloud at the meeting. 2nd by Roger Walsh. Motion approved.
- **Motion** by Fred Winchowky to approve the Business Park land use category as read and reviewed aloud at the meeting. 2nd by Joe McAdams. Motion approved.
- **Motion** by Jason Wamser to approve the Industrial land use category as read and reviewed aloud at the meeting. 2nd by Joe McAdams. Motion approved.
- **Motion** by Mary Patz to approve the Government and Institutional land use category as read and reviewed aloud at the meeting. 2nd by Joe McAdams. Motion approved.
- **Motion** by Susie Bauer to approve the Open Space/Recreational land use category as read and reviewed aloud at the meeting. 2nd by Jason Wamser. Motion approved.
- **Motion** by Joe McAdams to approve the Extractive land use category as read and reviewed aloud at the meeting. 2nd by Fred Winchowky. Motion approved.

Public Comments

Public comments were made regarding the Tracy-Cross study that the Village can only handle about 300 apartment units over the next five years, equaling about 60 per year. Concerns were also expressed regarding 20 units per acre, and that the feeling is this is quite a large number. A concern was also expressed about the Committee approving land-use categories with words like “taller”; the concern is the Committee shouldn’t approve vague language. It was noted that definition can be amended as we move forward.

Next Meetings

- June 2
- June 16
- July 7
- July 21

Adjournment

- Motion by Mary Patz to adjourn at 8:56 pm. 2nd by Joe McAdams. Motion approved.

MINUTES OF THE STEERING COMMITTEE OF THE COMPREHENSIVE MASTER PLAN UPDATE
Thursday, June 2, 2016

Call to order

Chairperson Tom Karthausser called the meeting to order at 6:31 p.m. located in the Committee Room of the Mukwonago Municipal Building, 440 River Crest Court

Roll call

Committee Members present:	Roger Walsh
	Joe McAdams
	Mary Patz
	Linda Burg
	Klaus Heitmann
	Jason Wamser
	Suzie Bauer
	Jean Schultz
	Tom Karthausser
	John Meiners
	Shelly Yergens
	April Reszka
	Fred Winchowky, Village President
Also present:	Bruce Kaniewski, Planner
	John Weidl, Village Administrator

Approval of minutes

Motion made by T. Karthausser to approve the May 14, 2016 meeting minutes; seconded by F. Winchowky. Motion to approve the minutes carried unanimously.

Motion made by J. McAdams to approve the May 19, 2016 meeting minutes; seconded by J. Meiners. Motion to approve the minutes carried unanimously.

Public comment

- M. McCarthy expressed concern about traffic on Highway 83, making turns from side roads onto the highway difficult. Concern was also raised about growth's impact on the need for more police and fire protection and higher taxes.
- C. Ketner expressed issue with the 'Business Mixed Use Overlay' relative to the use of the phrase "solely residential" and densities exceeding 20 dwelling units per acre.
- B. Bailey indicated that other communities in Waukesha County use densities in the 8-10 DU/Acre range and worries about the proposed 20 DU/Acre proposal

Village staff presentation of recommendation of land use intensities

- B. Kaniewski indicated that total units in non-village developments may be determined based upon the total acreage of the project, not the actual foot print of the development.
- B. Kaniewski recommended the committee consider higher density and higher intensity developments, but only in certain areas
- Concern was expressed regarding compliance with the Fair Housing Act and other governmental regulations coming from Madison
- B. Kaniewski reviewed DU/Acre (dwelling units) data from a variety of local communities

Review, discussion and consideration of the Interstate Planning District and Main Street/River South Planning District

B. Kaniewski presented a document which defines the parameters of these districts.

Motion to approve the definition of the "Interstate Planning District and Main Street/River South Planning District" as presented made by J. Schultz. Seconded by J. Meiner. Motion carried unanimously.

Review, discussion and consideration of specific descriptions of land use categories involving Multi-Family land uses

J. Wamser presented a multi-page document he prepared addressing land use designation amendments for the group to consider.

Each section of the Draft Land Use Categories document was read aloud with real-time editing as agreed upon by the committee.

- Regarding the "Mixed Use Overlay", R. Walsh motioned to replace the word "intended" with the word "solely" within the Business Mixed Use Overlay. Seconded by S. Yergens. Motion carried unanimously.

Discussion ensued regarding building height restrictions and the density recommendations for Mixed Use Business category.

- J. Meiners motioned to approve the Mixed Use business recommendations, retaining language as written in the 6/2/16 proposal. Seconded by L. Berg. Motion approved with 12 aye and 1 no.

Continued discussion about Mixed Use definition and density limits with minor grammatical adjustments made in real-time.

- Motion to approve the Business Mixed Use definition as amended made by A. Reszka. Seconded by J. Meiners. Motion approved with 11 aye and 2 no.

The proposal for high density multi-family definition and density limits was reviewed and discussed. Minor grammatical adjustments made in real-time.

- Motion to approve the High Density Multi-Family proposal as amended made by J. Schultz. Seconded by M. Patz. Motion approved with 12 aye and 1 no.

The proposal for medium density multi-family definition and density limits was reviewed and discussed. Language was amended real-time to include a two story height limit.

- Motion to approve the Medium Density Multi-Family proposal as amended made by J. Meiners. Seconded by A. Reszka. Motion approved with 12 aye and 1 no.

The proposal for low density multi-family definition and density limits was reviewed and discussed. Language amending building height for multi-family was inserted but did not restrict building height for senior housing was made real-time.

- Motion to approve Low Density Multi-Family proposal as amended made by J. McAdams. Seconded by S. Yergens. Motion approved unanimously.

Public comment

- C. Ketner expressed belief that members of the committee voted affirmatively on the Mixed Use Overlay proposal without understanding the clause about "exceeding 20 dwelling units per acre".
- B. Bailey indicated concern that the voice of the developer and not the citizen was heard
- T. Sisk reminded the committee that fire department capabilities have changed and may no longer be capped by the 7 story limit of years past.

J. Weidl explained that if any voting member of the committee felt they voted in error, a "motion to reconsider methodology" could be raised at the next committee meeting.

Review of upcoming meeting schedule

- June 16, 2016 - Review of the South and SouthWest portions of the Village. Citizen notification will be sent to affected residences.
- July 7, 2016 – Note: meeting to be held in downstairs meeting room
- August 4, 2016
- Schedule for first public information session – to be determined

Adjourn

Motion to adjourn made by T.Karthausser; seconded by S.Yergens. Motion carried unanimously.
Meeting adjourned at 9:28 p.m.

Respectfully submitted,

Jean Schultz
Secretary

Village of Mukwonago
440 River Crest Court, P.O. Box 206
Mukwonago, WI 53149
Phone: (262) 363-6420
Fax: (262) 363-6425
www.villageofmukwonago.com

VILLAGE OF MUKWONAGO

HISTORIC PRESERVATION REVIEW APPLICATION

Application Fee: $20

Date Submitted: 6/2/16

CONTACTS

Zoning Department
Contact: Joe Hankovich
Phone: (262) 363-6419
Fax: (262) 363-6425
Email: jhankovich@villageofmukwonago.com

Planning Department
Contact: Bruce Kaniewski
Phone: (414) 339-4105
Fax: (262) 363-6425
Email: planner@villageofmukwonago.com

GUIDELINES

The undersigned petition is to consider a request, as stated herein, for the specified parcel(s) of land and will be reviewed by the Historic Preservation Commission of the Village of Mukwonago. The Plan Commission currently serves the role of the Historic Preservation Commission.

To ensure the proposal will be properly reviewed, the application must be submitted **at least 10 days prior to the meeting** in which the Historic Preservation Commission will consider the matter. The Historic Preservation Commission meets on the second Tuesday of each month at 6:30 p.m.

Materials listed on page 2 must be provided to the Village of Mukwonago in accordance with Village Municipal Code Chapter 100, Article III and other pertinent sections of Village ordinances and State Statutes, and as necessary to permit review that is consistent with proper planning practice. The Village will strive to accommodate reasonable requests for informal preliminary staff review, however the Village shall not place any items on the agenda for Historic Preservation Commission consideration until such time as the application is complete in accordance with all requirements specified on this and other attached application forms.

Mail completed applications to: Village Zoning Administrator
ATTN: Historic Preservation Review
PO Box 206
Mukwonago, WI 53149

Deliver to: Village Clerk's Office
440 River Crest Court

Email to: jhankovich@villageofmukwonago.com

Complete, accurate and specific information must be entered. Please Print.

APPLICANT *(Full Legal Name)*

Name: Steven M. Plochocki

Company:

Address: 210 GRAND Ave. City: Mukwonago State: WI Zip: 53149

Daytime Phone: 262-470-7682 Fax:

E-Mail: SPLOCHOCKI1@wi.RR.COM

one

APPLICANT IS REPRESENTED BY *(Full Legal Name)*

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

ARCHITECT

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

PROFESSIONAL ENGINEER

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

REGISTERED SURVEYOR

Name: _____

Company: _____

Address: _____ City: _____ State: ____ Zip: _____

Daytime Phone: _____ Fax: _____

E-Mail: _____

CONTRACTOR

Name: Tony Fendryk

Company: Fendryk Bros. fencing co.

Address: S64W27656 River Rd. City: Mukwonago State: WI Zip: 53149

Daytime Phone: 414 254 9333 Fax: _____

E-Mail: _____

PROPERTY AND PROJECT INFORMATION

Present Zoning: Residential **Tax Key No(s).:** _____

Address/Location: 210 GRAND Ave. Mukwonago, WI 53149

Year Built: 1954 **Style:** Two story

Present Use: Home **Intended Use:** _____

Project Start Date: _____ **Project Completion Date:** _____

Other Information about the Property: _____

A. I/We represent that I/we have a vested interest in this property in the following manner:
☒ Owner

☐ Leasehold. Length of Lease: _____

☐ Contractual. Nature of contract: _____

☐ Other. Please explain

PROCEDURAL CHECKLIST FOR HISTORIC PRESERVATION REVIEW AND APPROVAL

Application Submittal Packet Requirements for Village and Applicant Use (Check off List). This form is designed to be a guide for submitting a complete application for a historic preservation review.

Application:

- ☐ Completed application form including the procedural checklist and justification of the proposal
- ☐ Application fee: $20
- ☐ Agreement for Reimbursable Services (separate application)

Other information (when applicable):

- ☐ Accurate photographs/pictures of the property showing existing appearance and proposed improvements, including building elevations and signage
- ☐ Materials and colors to be used on the project, including manufacturer names, product numbers, as well as exact sample and color board.
- ☐ Heating and air conditioning unit location and size if outside the structure.
- ☐ Outside storage, lighting fixtures, light isometrics plan.
- ☐ Existing signage along with proposed new sizes, colors and location (on the building, pole or ground mounted).
- ☐ **Electronic Submittals are required.** Email (or CD ROM) with all plans and submittal materials in Adobe PDF to planner@villageofmukwonago.com.
- ☐ Any additional information as determined by Village staff.

Please be aware that a permit from the Village Inspection Office may be necessary

CERTIFICATION

Applicant hereby certifies that:

1. All of the above statements and other information submitted as part of this application are true and correct to the best of his or her knowledge.
2. Affirms that no Village of Mukwonago elected or appointed official or employee has a proprietary interest in the above referenced property for which this applications being filed (except as stated below under "Exceptions").
3. None of the above referenced individuals has been promised or given any contract for consultation, planning or construction in relation to this project (except as stated below under "Exceptions").
4. Applicant has read and understands all information in this packet.

Applicant further understands the policies of the Village regarding change of zonings and property development. Conditions of the resolution regarding all approvals are strictly followed. Certificates of Occupancy are not given until all conditions of approval have been met

By the execution of this application, applicant hereby authorizes the Village of Mukwonago or its agents to enter upon the property during the hours of 7:00 am to 7:00 pm daily for the purpose of inspection. Applicant grants this authorization to enter even if this land has been posted against trespassing pursuant to Section 943.13 WI Stats.

(The applicant's signature must be from a Managing Member if the business is an LLC, or from the President or Vice President if the business is a corporation. A signed applicant's authorization letter may be provided in lieu of the applicant's signature below, and a signed property owner's authorization letter may be provided in lieu of the property owner's signoture[s] below. If more than one, all of the owners of the property must sign this Application).

Signature - Property Owner

Name & Title (PRINT)

Date

Steven M. Plochocki

Signature - Applicant

STEVEN M. PLOCHOCKI owner

Name & Title (PRINT)

6/2/16

Date

Steven M. Plochocki

Signature - Property Owner

STEVEN M. PLOCHOCKI

Name & Title (PRINT)

6/2/16

Date

Signature – Applicant's Representative

Name & Title (PRINT)

Date

FOR OFFICE USE ONLY		
Date Paid	**Receipt #**	**Meeting Date(s)**
Comments/Conditions of Approval		
Chair Signature		

6/2/18

I WOULD LIKE TO BUILD A SHELTER FOR MY BOAT IN The CORNER OF MY LOT. IT IS A KIT Purchased from MENARDS. I DON'T WANT ANYTHING FANCY, JUST something to Protect my Boat from the elements.

STEVEN M. PLOCHOCK!
Steven M. Plochocki
210 GRAND AVE.
MUKWONAGO, WIS. 53149

VersaTube® BUILDING SYSTEM

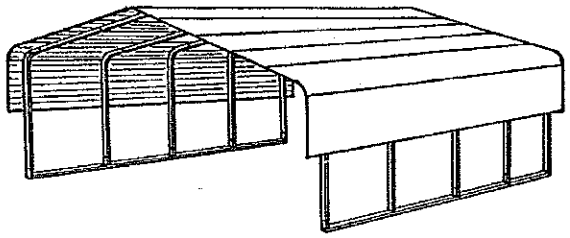
MENARDS®

INSTALLATION INSTRUCTIONS

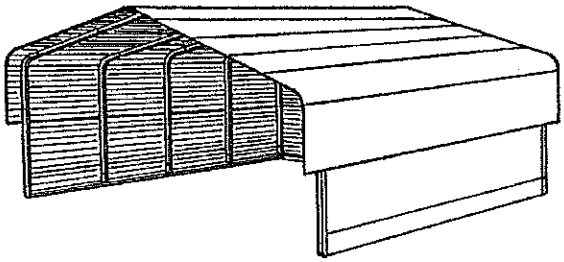
20' WIDE FRAME

ACTUAL FRAME SIZE 20' X 18' X 7'-4 3/4"

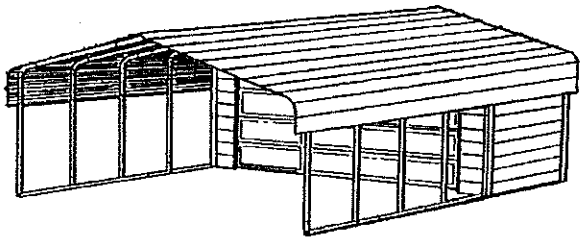
CARPORT/STORAGE SHELTER/STOR-PORT/GARAGE



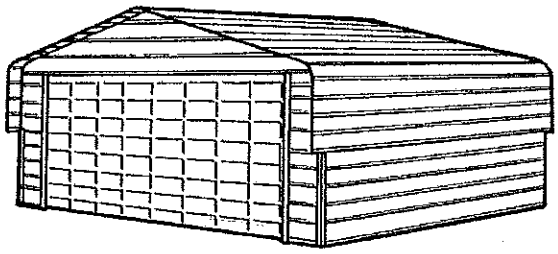
CARPORT



STORAGE SHELTER



STOR-PORT



GARAGE

Our unique assembly process quickly transforms the individual pieces into a finished structure that will give you years of service. Great care has been taken to ensure complete satisfaction with your purchase. In the unlikely event that there are any missing or damaged parts or if you simply need technical assistance, please call our Toll Free Hotline at 1-800-900-7222 and your questions will be addressed promptly. Thank you for choosing the Versatube Building System.

MATERIALS LIST Back Enclosure for 20'W x 7.5'H Shelter

VersaTube® BUILDING SYSTEM

QUANTITY	DESCRIPTION	USAGE
1	SKU# 193-8728 Back Enclosure Frame Kit	Frame
	----- BACK ENCLOSURE SHEET METAL, TRIM & SCREWS -----	
7	144" Pro-Rib Sheet Metal Panel	Back
1	12'-3" Eave Trim	Back Corners
1	12' Corner/Gable Trim	Back Corners
150	#12 x 1" Painted Self-Drilling Screws	Back
80	#12 x ¾" Painted Stitch Screws	Back

----- SIDE ENCLOSURE SHEET METAL & SCREWS -----

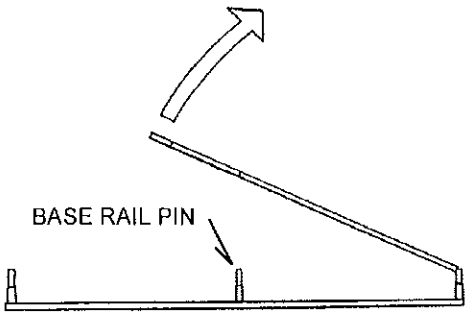
FRAME LENGTH	QUANTITY	DESCRIPTION	USAGE
18' Long	12	120" Pro-Rib Sheet Metal Panel	Sides
	240	#12 x 1" Painted Self-Drilling Screws	
22.5' Long	6	168" Pro-Rib Sheet Metal Panel	Sides
	6	120" Pro-Rib Sheet Metal Panel	
	288	#12 x 1" Painted Self-Drilling Screws	
27' Long	18	120" Pro-Rib Sheet Metal Panel	Sides
	336	#12 x 1" Painted Self-Drilling Screws	
31.5' Long	6	168" Pro-Rib Sheet Metal Panel	Sides
	12	120" Pro-Rib Sheet Metal Panel	
	384	#12 x 1" Painted Self-Drilling Screws	
36' Long	12	168" Pro-Rib Sheet Metal Panel	Sides
	6	120" Pro-Rib Sheet Metal Panel	
	432	#12 x 1" Painted Self-Drilling Screws	
40.5' Long	18	168" Pro-Rib Sheet Metal Panel	Sides
	480	#12 x 1" Painted Self-Drilling Screws	

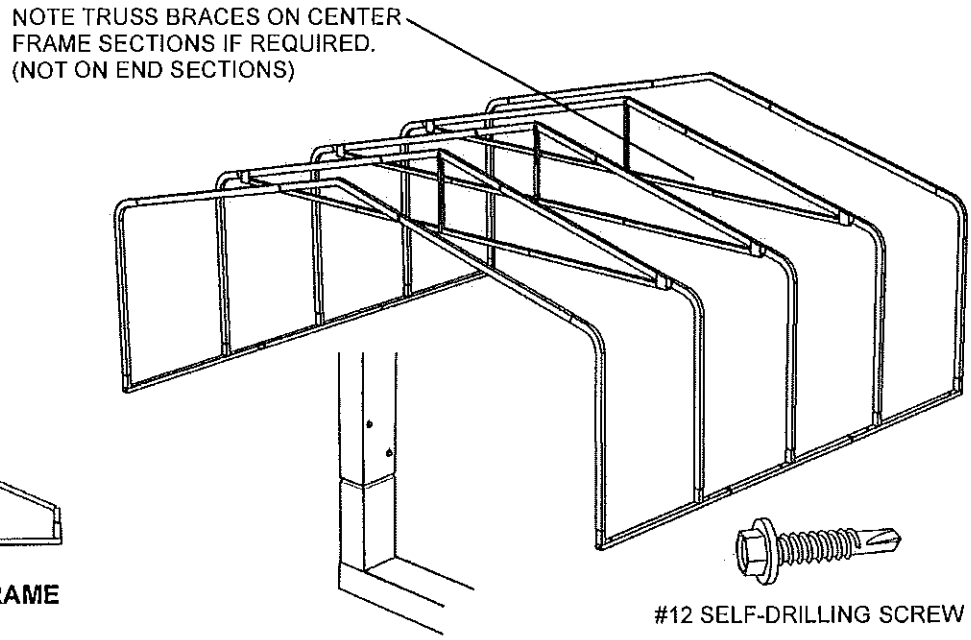
Note: These are the suggested items required to add a back enclosure (with side enclosures) to a 20'W x 7.5'H Storage Shelter.

INSTALLING ROOF/WALL FRAMES SECTIONS TO BASE RAILS

NOTE: This assembly will require at least two people. When raising a taller frame a third person can walk the center of the frame up a ladder placed inside the carport.
Start at one end of the building and place a Roof/Wall frame assembly **(one with no truss brace)** on the first base rail vertical pins. Fasten joints with two screws each. Keep the screw heads away from the outside of the building where sheet metal may be installed. Check the bottom ends of the side posts or height extensions for dimples that might interfere with assembly to base rail pins. Dimples must be removed. (See page 3.)
Repeat this assembly until all Roof/Wall frame assemblies are installed. (Remember, the end frames have no truss brace.) (Your frame may not require truss braces) If truss braces are required on a **stor-port**, there will be no truss brace on the frame that creates the front wall of the storage area at the rear of the stor-port.

Place bottom of side posts on base rail pins at an angle. Raise frame section and drop It onto pins at the same time on both sides of the carport. Tap lightly on the side post with a hammer if parts do not drop into place.

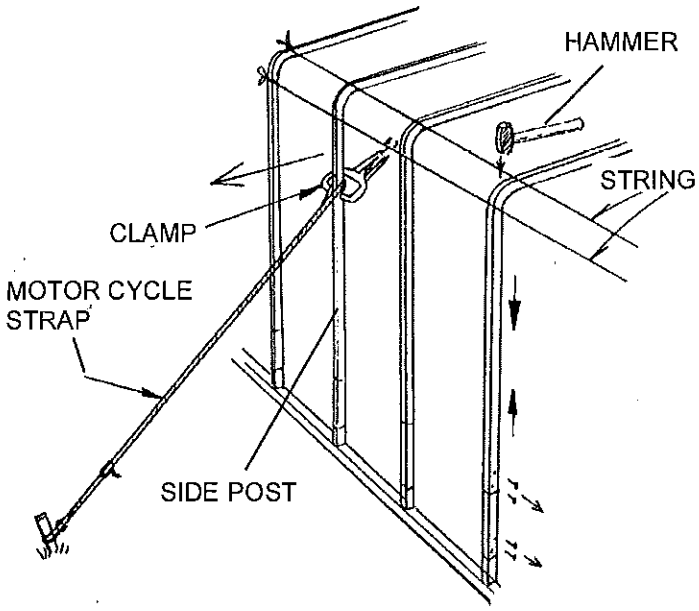




SQUARING UP YOUR FRAME

Before you install sheet metal, you may want to check the Roof/Wall assemblies to make sure that the side post heights are equal.
To do this, first check the front and back Roof/Wall sections to make sure that they are plum side to side. Check the outside of the side post. If adjustments must be made, you can drive a wooden or metal stake into the ground about 8' from the building and use a Motor Cycle strap or Ratchet strap to pull the side post into plumb. Place a clamp on the side post as shown and attach the strap above the clamp.

When the front and back sections are plumb (side to side), tie two strings from the front side post to the back side post at the bottom and top of the bend radius as shown. These strings will let you see which sections are high, low or out of plumb. If the side posts are high or low, remove the joint screws and raise the low posts and hammer down the higher posts as much as possible. Reinstall the screws in a new location. Check the height of the side posts on both sides of the building. The straps should remain in place until several runs of roof metal have been installed.



Note: This is not a critical step, but it may improve the appearance of your building. If side posts are out of plane with the other side posts more than 1/4", it may be visible.

IF YOU ARE NOT INSTALLING A FRONT OR BACK ENCLOSURE, PROCEED TO PAGE 23.

© MSMP INC. 1-4-05

℄ FOX STREET
℄ MILL STREET
℄ GRAND AVENUE
N45°06'23"E
125.38'
68.30'
N87°04'13"E
S14°27'42"W
74.30'
S21°58'31"W
98.51'
N03°53'30"W
182.75'
S86°00'00"W
45.80'
214.80'
S21°58'
126.3'
PLANTER ENCROACHES 0.3'
EXIST. DWL.
EXIST. GARAGE
EXIST. DWELLING
0.270 AC.
0.300 AC.
1.53' ENCROACHMENT
1.45' ENCROACHMENT
N44°41'24"W
18.77'
N66°40'05"W
58.38'
N 56°25'09"W
46.27'
7 FT
17 FT
20 FT
9 FT
33'
218-212 Grand