#

VILLAGE OF GERMANTOWN
N112 W17001 MEQUON ROAD
GERMANTOWN, WI 53022

MEETING:	**PLAN COMMISSION**
DATE AND TIME:	**MONDAY, JULY 9, 2018 6:30 p.m.**
LOCATION:	**Germantown Village Hall Board Room**

I. **CALL TO ORDER:** This meeting has been given public notice in accordance with Wisconsin Statutes, Section 19.83 and 19.84 in such form that will apprise the general public and news media of subject matter that is intended for discussion and action.

II. **ROLL CALL**

III. **PUBLIC INPUT/PUBLIC APPEARANCE:** Please be advised per §19.84(2) that information will be received from the public, however, no action will be taken at this time.

IV. **APPROVAL OF MINUTES**: June 25, 2018

V. **NEW BUSINESS**

A. David Leszczynski, Agent for Germantown Acquisitions LLC, Property Owner – W124 N11749 Wasaukee Road. Rezoning & Planned Development District (PDD) Application (A-1: Agricultural to Rs-3: Single-Family Residential) for a 17-Lot Single-Family Residential Subdivision.

B. Baudhuin Surveying & Engineering, Agent for Top Leaf Development, LLC and Alan & Lynda Luther, Property Owners of 107 Acres South of Freistadt Road, North of Elm Lane and West of Wasaukee Road. Preliminary Subdivision Plat for a 37-Lot Single-Family Residential Subdivision, and, a Conditional Use Application (CUP) for Encroachment into a 25' Wetland Setback.

VI. **ANNOUNCEMENTS**:

VII. **ADJOURNMENT**:

The next Plan Commission Meeting will be on July 23, 2018 at 6:30 p.m.

UPON REASONABLE NOTICE, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service please contact the Village Clerk at (262)250-4740 at least 2 days prior to the meeting. Notice is given that a majority of the Village Board may attend this meeting to gather information about an item over which they have decision making responsibility. This may constitute a meeting of the Village Board per State ex rel. Badke v. Greendale Village Board, even though the Village Board will not take formal action at this meeting.

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PLAN COMMISSION MINUTES
June 25, 2018

CALL TO ORDER: Planning Assistant Lori Johnson called the meeting to order at 6:40 p.m.

ROLL CALL: Trustee Rep. David Baum, Commissioners Tony Laszewski, Bob Williams, Peter Nilles and Matt Kimmler were present. Also present were Community Development Director/Village Planner Jeff Retzlaff.

MOTION Laszewski second Kimmler to appoint Trustee Rep. David Baum as Chairman Pro-Tem.
MOTION carried unanimously.

PUBLIC INPUT: None

APPROVAL OF MINUTES: ***MOTION Laszewski second Williams to Approve the minutes from 6-11-18.***
MOTION carried unanimously.

Ryan Companies US. Inc., Agent and Property Owner, N102 W19300 Willow Creek Way.
The property owner is seeking approval of site development and building plans for a 186,830 sqft industrial building located on Lot 3 in Germantown's Willow Creek Business Park. Planner Retzlaff summarized the proposal and added an additional condition to his recommendation stating the maximum light fixture height should not exceed 25 feet.

Chairman Wolter arrived at 6:45 p.m.

MOTION Baum second Nilles to Approve the site development and building plans submitted by Ryan Companies for the proposed 186,830 sqft warehouse located on Lot 3 in the Willow Creek Business Park subject to the following conditions:

1. ***This approval is subject to all the conditions and requirements set forth herein and adopted by the Plan Commission. Approval is granted for the architectural & engineering plan sheets dated 5-7-18, the landscaping plan sheets dated 5-4-18, and the electrical plans dated 5-3-18 unless said plan sheets are revised pursuant to revisions required under the specific conditions of approval included by the Plan Commission.***
2. ***All landscaping, screening, grading, and paving improvements shown on the approved site plans shall be installed as proposed prior to issuance of an occupancy permit unless a cash bond or letter of credit in an amount equal to 120 percent of the estimated installation and material costs reviewed and approved by the Village is submitted to the Village as necessary to ensure that installation of the proposed features and improvements will be completed within one (1) year after issuance of the occupancy permit.***
3. ***The following items shall be provided as required by the Village Fire Department: (a) State approved fire sprinkler and fire alarm systems are required to be installed in compliance with the requirements for each specific tenant occupancy***

class; and (b) Locations of all water distribution system and hydrants shall be determined in cooperation with the Germantown Fire Department and utility standards.

4. ***All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.***
5. ***All technical issues and plan corrections identified by the Village Engineer and Public Works Department staff (see June 7 and June 22, 2018 Village Engineer memos) shall be addressed and reflected in revised plans and/or supplemental information reviewed and approved by Village staff prior to issuance of a building permit.***
6. ***The Property Owner/Developer shall be responsible for obtaining DNR and MMSD approval of a revised master storm water master plan that incorporates the additional on-site storm water basin and/or modifications to the existing regional basin prior to issuance of a building permit and prior to commencing any early start construction activities on the site.***
7. ***The Property Owner/Developer shall be responsible for perpetual maintenance of the on-site storm water basin (if constructed).***
8. ***The Property Owner/Developer shall be responsible for revising the site plan as necessary to accommodate TransCanada's ANR Pipeline easement requirements and providing the Village a final approval letter or other documentation from TransCanada prior to issuance of a building permit.***
9. ***All proposed exterior signage, including monument and wall-mounted signs, shall be reviewed and approved under a separate application by the Plan Commission.***
10. ***State approved plans and a $20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application.***
11. ***The maximum height for light fixtures shall not exceed 25 feet.***

MOTION carried unanimously.

J.W. Speaker Corporation – N120 W19434 Freistadt Road. The request is for approval of site development and building plans for a 56,890 sqft office/assembly facility located on a 54.8 acre parcel within the 144-acre Speaker Corporation campus on Freistadt Road, and two (2) Certified Survey Maps (CSM) to combine parcels. Planner Retzlaff summarized the proposal.

MOTION Baum second Laszewski to Approve the site development and building plans for a 56,890 sqft office/assembly facility located within the 144-acre Speaker Corporation PDD, and, the Goldendale Road driveway monument sign subject to the following conditions:

1. ***This approval is subject to all the conditions and requirements set forth herein and adopted by the Plan Commission. Approval is granted for the architectural and engineering plans dated May 18 and May 21, 2018, and the landscaping and lighting plans dated May 21 and June 19, 2018, unless superseded by subsequent plan sheets approved by the Village Planner or Engineer pursuant***

to revisions required herein and/or by the Plan Commission.

2. ***All landscaping, screening, grading, and paving improvements shown on the approved site plans shall be installed as proposed prior to issuance of an occupancy permit unless a cash bond or letter of credit in an amount equal to 120 percent of the estimated installation and material costs reviewed and approved by the Village is submitted to the Village as necessary to ensure that installation of the proposed features and improvements will be completed within one (1) year after issuance of the occupancy permit.***
3. ***The following items shall be provided as required by the Village Fire Department: (a) State approved fire sprinkler and fire alarm systems are required; and (b) Locations of all water distribution system and hydrants shall be determined in cooperation with the Germantown Fire Department and utility standards.***
4. ***All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access as required by the Police Department.***
5. ***The Type "A" and Type "B" exterior light fixtures shall be replaced with a cut-off fixture that hides the light source to reduce the impact of its visibility while casting light directly and only onto the feature or areas needing to be made visible by the light. Detail specifications for said cut-off fixtures shall be submitted to the Village Plan Commission for review and approval prior to issuance of a building/electrical permit for installation of the street and parking lot lighting.***
6. ***The Speaker Corp shall be responsible for providing a final approval letter or other documentation from TransCanada approving the site development plan as it affects the pipeline easement prior to issuance of a building permit.***
7. ***All technical issues and plan corrections identified by the Village Engineer and Public Works Department staff (see May 24, 2018 Village Engineer memo) shall be addressed and reflected in revised plans and/or supplemental information reviewed and approved by Village staff prior to issuance of a building permit (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS).***
8. ***State approved plans and a $20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application.***

MOTION to Amend Condition #5 Laszewski second Williams that Village Planning and Zoning staff shall review and approve the revised detail specifications for cut-off fixtures.

MOTION to Amend carried unanimously.

Commissioner Laszewski said he liked the addition of the pollinator area on the plans. Chairman Wolter commented that the building looks nice and is very modern and fits into the area well. He appreciates the plans that came later with more buffering put in between the residents to the south and east and also to the north with more tree lines.

DRAFT

MOTION carried unanimously.

MOTION Baum second Laszewski to Approve the two (2) Certified Survey Maps (CSM) to combine parcels for the Speaker campus subject to the following conditions:

1. ***The CSM's shall be revised to contain and/or refer to appropriate cross-access and storm water management easements to be recorded prior to or concurrent with recording the CSM's.***
2. ***The CSM's shall be revised to show the parking, building and other setbacks specifically created for the Speaker PDD.***

MOTION carried unanimously.

Gehl Foods, LLC, N116 W16076 Main Street & N116 W16060 Main Street. Consultation for possible rezoning and creation of a Planned Development District (PDD) for the Gehl Foods Main Street Campus. Planner Retzlaff summarized the proposal. He said Gehl's Foods has acquired two residential lots on Main Street adjacent to the primary parcel. They want to combine them with the primary parcel and rezone them from the B-3 General Business District to the M-1 Limited Industrial Zoning District to further expand the plant. However, the expansion proposal puts the site over the 80 percent maximum impervious area allowed in the M-1 district. Gehl's is proposing to create a Planned Develop District to help accommodate the additional impervious area by pulling all the Gehl properties along Main Street together into the Planned Development District which could then shift open space percentages around so the plant could expand in exchange for some other benefit for the Main Street. Gehl's has supplied a Master Plan for their facility on Main Street which includes adding a parking area for an additional 50 parking stalls and expanding the plant where the residential buildings were acquired. A lengthy discussion followed.

Trustee Baum said he has been working on a plan with Gehl's and stated they are willing to improve the Main Street area. Their intent is to remove the residential houses for further expansion. He asked what the vision is for Main Street and questioned what's left to improve.

Chairman Wolter and Planner Retzlaff were concerned because last year Gehl's had a strong commitment to preserve the residential houses and keep a house face to Main Street, but now they're going to take the house down. Trustee Baum said based on what they want to build there is no room for anything else except the warehouse. Chairman Wolter asked if the other historic buildings Gehls owns be taken down next. Discussion continued if there was anywhere left for an entertainment district on Main Street. Stacy Cooke, Gehl's, offered to remove the glass block windows and replace them with aluminum frosted windows and also improve the front façade on Main Street to make it more architecturally pleasing. She said they could make the addition look similar to the historic part of the building to make look like it was constructed at the same time. She said Gehls is willing to work with the Village.

Planner Retzlaff commented that we need to either draw a line in the sand or abandon the idea of an entertainment district. Chairman Wolter said he would appreciate anything Gehls can to

do to replicate the style of the original building and he'd like to see a couple renditions of what it could look like. Trustee Baum said they are willing to enhance the entire street façade of that block. Commissioner Kimmler said there needs to be something to break up the view point with trees and landscaping. He added that Main Street is the only area in Germantown that has any character.

Discussion continued. Chairman Wolter said the neighborhood will be involved in the process. He added there should be some provision for parking on the weekend and a better façade either an old-style replication or a new distinctly different look. A corner park would be appreciated. Planner Retzlaff stated he didn't like the incremental approach for expanding. Trustee Baum said they're willing to dress up the building to make it more pleasant in order to reduce the greenspace requirement. Chairman Wolter said they need to show what they're giving compared to what they are getting. What will the amenities look like? He's not willing to give up the residential feel for the area. How will the site look in the next 10 to 15 years? Ms. Cooke said she will find out what the future plans are for the Main Street facility. This item was for discussion only. No action was taken.

ANNOUNCEMENTS: Chairman Wolter stated there is a special Village Board meeting after the Public Works meeting tomorrow night. He added the 4th of July festivities will be held Fireman's Park with fireworks at dusk.

ADJOURNMENT: There being no further business, the meeting was adjourned at 8:21 p.m.

Respectfully submitted,

Lori Johnson
Planning Assistant

DRAFT

PLANNED DEVELOPMENT DISTRICT (PDD) REZONING

7/9/18 Plan Commission Meeting

David Leszczynski / Germantown Acquisitions LLC

Village Planner Report **Germantown, Wisconsin**

Summary

David Leszczynski, agent for Germantown Acquisitions LLC, property owner, is requesting approval of a rezoning application to create a Planned Development District (PDD) for purposes of developing a 17-lot, 29.7-acre single-family residential development north of Elm Lane and west of Wasaukee Road.

Property Location: Elm Lane @ Wasaukee Road

Applicant/
Property Owner: David Leszczynski, Germantown Acquisitions LLC
3223 Fleur Da Lis Drive
Mequon, WI

Current Zoning: A-1: Agricultural
Proposed Zoning: Rs-3 w/ Planned Development District (PDD)

Adjacent Land Uses		Zoning
North	Residential	Rs-3
South	Residential/Agricultural	Rs-2/A-2
East	Residential/Agricultural (Mequon)	Ag
West	Residential (Harvest Hills)	Rs-3

Background/Proposal

David Leszczynski, agent for Germantown Acquisitions LLC, property owner, is requesting approval of a rezoning application to create a Planned Development District (PDD) for purposes of developing a 17-lot, 29.7-acre single-family residential development north of Elm Lane and west of Wasaukee Road.

As summarized in the Applicant's narrative description and presented in the concept plan (see attached), the property contains a significant amount of wetland (approximately 4.2 acres) that effectively bisects the property into two developable areas; one to the north and the other to the south. As a result, the developer intends to develop the land in two (2) distinct phases, and, is proposing the creation of an Rs-3: Single-Family Planned Development District (PDD) to off-set the impact of the size and location of the wetlands on these developable areas.

Phase I development (north of the large wetland) will include 8 lots served by an extension of Forest Hill Road from the Woodland Ponds subdivision located to the north (ending with a permanent cul-de-sac). Phase II development (south of the large wetland) will include the remaining lots with 5 lots on a street extension from the Harvest Hills development to the west (also ending with a cul-de-sac) and 4 lots on a new street and cul-de-sac off Elm Lane to the south. A series of small, isolated storm water basins are proposed throughout the development adjacent to the wetland areas. All lots will be served by individual wells and private on-site wastewater treatment systems ("POWTS" a.k.a. "septic systems").

As shown in the concept plan, 6 of the 8 lots in the Phase I development area contain less than the 1.0 acre minimum lot area required under the Rs-3: Single-Family Zoning District (having a range of .9 to .97 acres). Consequently, the Developer is requesting approval of a rezoning application to change the zoning from A-1: Agricultural to Rs-3: Single-family with a Planned Development District (PDD) overlay for the 29.7-acre property. The purpose for the PDD is to enable a smaller lot area for six lots (#1, #2, #3, #4, #7and #8) in the Phase I development area.

As summarized below, the development is proposed with the following characteristics:

TABLE 1.

Gross Area (Ac)	29.68
Wetland Area (Ac)	4.2
Right-of-Way (Ac)	4.53
Net Density Area (Ac)	20.95
# Single-Family Lots/DU's	17
Density (DU/net acre)	0.81
Open Space (Ac)	7.93
Avg Lot Size (ac)	1.01
Lot Size Range (Ac)	.90 to 1.23

The PDD District will be created to take advantage of the "flexibility" available to provide a more creative layout that contains many "conservation design" features, e.g. large contiguous tracts of open space with clustered lots. However, as noted in the project narrative and Table 1 above, the proposed density will only be .81 DU/ net acre (.57 DU/gross acre). This is significantly less than the maximum allowed in the underlying Rs-3 District (1.0 DU/acre).

To facilitate development, the Developer is proposing to create a Planned Development District (PDD) for the entire property to modify some of the underlying Rs-3 Zoning District and other development requirements that would ordinarily apply, e.g. lot width, lot size, etc., including the following:

- Lot Area Requirements:
    - Rs-3: Reduce min. lot area from 1.0 to .9 acres;
- Wetland Setback Requirement:
    - Reduce min. setback from 25 feet to 20 feet;
- Private Street Design Standards:
    - Reduce min. shared driveway easement width from 30 feet to 20 feet;
- Public Street Design Standards:
    - Max. cul-de-sac length >500 feet (1,050 feet proposed for Forest Hill Road)

Other features and amenities of the proposed PDD development are described in the Applicant's narrative, including:

- Preservation of 4.2 acres of wetland;
- 7.93 acres of open space or 26.7% of total parcel area (3.7 acres of open space outside of wetlands);
- Pedestrian trail linking the north and south development areas through Outlot 3 from the Forest Hill Road cul-de-sac to the Harvest Hills cul-de-sac;

[NOTE: A separate PDD Conditions & Restrictions resolution containing these development-specific allowances, references to a detailed general development plan, and any other conditions of approval deemed appropriate by the Village, will be prepared by Village staff at the time the PDD is considered by the Village Board].

Staff Comments

Like the Harvest Hills subdivision proposal to the west, the property lies north of and adjacent (but outside) of the Village's Sanitary Sewer Area (SSA) and in an area designated on the 2020 Land Use Plan (LUP) as "Rural Residential". For those currently undeveloped areas designated as "Rural Residential", the Village intended such areas to develop at a density of one (1) dwelling unit per acre with a minimum 1-acre lot size. The land is currently zoned A-1: Agricultural and is proposed to be rezoned into the Rs-3: Single-family District. The proposed rezoning is consistent with the 2020 LUP map.

Soil evaluation reports for all lots will be required prior to or concurrent with the submittal of a preliminary plat to ensure all proposed lots are deemed suitable for installation of an on-site sanitary system. Also, a letter of confirmation is required from the WisDNR regarding the wetland delineation that was conducted by Stantec Consulting Services Inc. for the property in May 2018. As we recently learned from the Harvest Hills development, it is possible that the DNR may "discover" more wetland area than delineated and reported on by the consultant which can affect proposed lots, streets and storm water basin locations, sizes, etc. Consequently, approval of the rezoning and concept plan does not guarantee development can/will occur in the same amount or form as proposed therein until items such as (but not limited to) wetland boundaries and storm water management requirements have been finalized.

As discussed, a significant amount of wetland (4.2 acres or approximately 14% of the property) is in four (4) separate areas across the property. As discussed above and as shown on the concept plan, the lot and road layout is affected by the wetlands on the property. Despite the amount of wetland, the required "net area" density calculation (gross area less wetlands and right-of-way) does not increase the proposed development density (.81 DU's per net acre) above the maximum density allowed in the Rs-3 District (not to exceed 1.0 DU's per net acre).

However, one of the "standard" zoning district requirements requested to be reduced is the 25' wetland setback. As was discussed by the Plan Commission at length during the many meetings for the Harvest Hills development proposal, the Village's Shoreland-Wetland Zoning Code establishes a 25' setback from all wetlands, and, the Subdivision Code provides that all wetlands and the respective 25' setback be in open space outlots and not in or across developable residential lots. The Shoreland-Wetland Code does, however, provide that a conditional use permit (CUP) can be obtained that would allow encroachment into the 25' wetland setback if a compensation plan is drawn up and approved that provides additional protection to the wetland, typically in the form of wetland-friendly plantings in the remaining setback area adjacent to the wetland(s). In this case, the Developer is seeking to reduce the 25' wetland setback from 25 to 20 feet.

In doing so, the size or area of those lots abutting wetland can be larger than what might ordinarily result if a 25' setback was enforced. Arguably, if the standard 25' wetland setback were enforced, then the Developer would simply propose reducing the minimum lot area requirement under the PDD request (sort of a "six of one, half a dozen of the other" type of an argument). In support of this proposal, the Developer points out that, between the proposed 20' wetland setback and the standard 35' building setback, a total of 55' of setback area from the wetland boundary to the nearest point of any building would be maintained regardless (and presumably a sufficient amount of setback to protect the adjacent wetlands).

Because it is possible for the Developer to apply for and obtain a conditional use permit (CUP) that would enable encroachment into the 25' wetland setback, the Plan Commission may consider approving the proposed reduction in the 25' wetland setback provided that the Developer is required to install the same sort of wetland protection buffer that would typically be required when a CUP is granted for a similar encroachment. This buffer requirement should be installed in the area of all of the lots abutting the wetland where the proposed setback is only 20 feet, and, take the form of a continuous vegetated buffer of wetland-friendly plantings within a minimum 5' wide "buffer easement" adjacent to the wetland (or running across the yard abutting the wetland if applicable). Arguably, the installation and maintenance of a min. 5' wide buffer yard intended to protect a wetland that is 20' away is likely to provide greater protection than no buffer setback 25' away from the wetland.

Another standard requirement requested to be reduced under the proposed PDD is the public street cul-de-sac length. Section 18.07 (Subdivision Code) establishes a maximum cul-de-sac street length of 500 feet, except that streets greater than 500 feet but not exceeding 1,200 feet can be allowed depending on zoning of the development, no. of lots, served, etc. Forest Hill Road, an existing street approximately 450 feet in length with a temporary closure, is proposed to be extended an additional 600 feet with a permanent cul-de-sac. Staff supports the proposed extension despite the modest increase in length (under the max. 1,200 feet allowance) given the larger-size lots and desire to not add another street intersection onto Wasaukee Road when access from an internal street already planned for extension is available.

As shown in the concept plan, the proposed lots and cul-de-sac extension from the Harvest Hills development, are affected by the wetland location and 10-acre platted lot to the south. Arguably, the number of lots should probably not exceed more than three (#9, #10 & #11) given limited developable area at the end of this cul-de-sac. The Developer is proposing two additional lots (#12 & #13) that would not abut the street right-of-way, but be served by a private shared driveway within a 20' wide easement running across the north side (front yards?) of Lots #11 and #12. While 18.07 of the Subdivision code does provide for private shared driveways, the min. requirements for a driveway shared by up to three lots is a 30' wide easement and a 16' wide travel surface. Although this appears to be the only alternative to create and provide access to Lot #13, Staff does not support the proposed arrangement of Lots #11, #12 & #13 nor the reduction in the shared driveway easement width from 30 to 20 feet. Although Lot #11 and #12 is at least 1.12 acres in area where a 20' wide easement across the top of each reduces the lot area that is not encumbered by the easement to 1.01 acres per lot, the notion of a driveway easement running across what is effectively the front yards of each of these lots does not appear a desirable layout. A different arrangement that does not rely on a shared driveway for three lots across the front yards of each should be developed, or, Lot #12 & #13 should be combined into one lot with additional lot line adjustments to increase the size of Lot #10, #11 & #12.

Finally, as was the case with Harvest Hills, the issue of the condition of Elm Lane and need for re-construction is further impacted by this development. It is expected that the

Developer will be required to either pay for re-construction of Elm Lane adjacent to the property (for approximately 635 feet), or, make a proportionate-share financial contribution to the Village.

Village Planner Recommendation

APRROVE the A-1: Agricultural to Rs-3: Single-Family rezoning as proposed and the creation of a PDD for the entire 29.7-acre property subject to the following conditions, and, the Developer incorporating the following requirements and/or changes to the proposed development into the general development plan and conditions & restrictions resolution:

1. Prepare a separate "General Development Plan" sheet presenting the general road and lot layout, open space areas, proposed trail, etc. for attachment to the PDD ordinance and conditions resolution;
2. Allow a reduced minimum lot area requirement from 1.0 to .9 acres;
3. Allow a reduced wetland setback requirement from 25 to 20 feet with a requirement that the Developer is required to install and property owners required to maintain a minimum 5' wide wetland protection buffer adjacent to the wetland in the area of the lots abutting a wetland where the proposed setback is only 20 feet, and, where said buffer is comprised of a continuous 5' wide vegetated buffer of wetland-friendly plantings adjacent to the wetland (in the vicinity of Lots #3-#9, #13, #15 & #16).
4. Provide a detailed landscaping plan (type, amount, location, etc. plantings and methods to maintain) for the 5' wide vegetated buffer required under #3 above, and, a detailed plan for the proposed pedestrian trail and other amenities discussed in the Developers PDD application. Said plans to be prepared and submitted for review and approval by the Village concurrent with preliminary plat approval.
5. Allow the maximum cul-de-sac street length to exceed 500 feet pursuant to Section 18.07(3) of the Municipal Code;
6. This approval does NOT include any modification to the private street design requirements proposed by the Developer;
7. The Developer shall submit soil evaluation reports reviewed and approved by Washington County indicating that all proposed lots can support a POWTS;
8. The Developer shall submit a copy of the wetland delineation confirmation letter from the WisDNR. Any changes to the size or location of wetlands approved by the DNR shall be reflected in a revised General Development Plan and subdivision preliminary plat.
9. All Village of Germantown development Code requirements, including but not limited to the General Zoning Code, Shoreland-Wetland Zoning Code and Subdivision Code shall be met prior to approval of the required subdivision plat by the Village.

Village of Germantown
Willkommen

FEES MUST BE PAID AT TIME OF APPLICATION

- ☐ $200 Plan Commission Consultation
- ☐ $1,085 Rezoning
- ☐ $1,240 PDD < 5 acres
- ☐ $2,095 PDD 5-20 acre site
- ☑ $3,460 PDD > 20 acre site

Date Paid: _____ Received by: _____

REZONING & PDD APPLICATION

Pursuant to Section 17.51 of the Municipal Code

Please read and complete this application carefully. All applications must be signed and dated.

1 APPLICANT OR AGENT

LAVID LESZCZYNSKI
3223 Fleur De Lis DR.
MEQUON, WI 53092

Phone (414) 550-8087
Fax ( )
E-Mail dlesz2000@YAHOO.Com

PROPERTY OWNER

GERMANTOWN ACQUISTIONS LLC
3223 Fleur De Lis Dr.
MEQUON, WI 53092

Phone (414) 550 8087

2 PROPERTY ADDRESS OR GENERAL LOCATION

W124 N11749 WASAUKEE ROAD

TAX KEY NUMBER

241999

3 REZONING REQUEST

FROM

TO

Rs-3 PDD

4 METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY – REQUIRED

Attach pages as necessary

TAX Bill ATTACHED WITH LEGAL
METES AND BOUNDS ON SURVEY

5

PURPOSE OF REZONING REQUEST

Briefly describe why the applicant is rezoning the property. Include a description of the proposed use, including any new construction and number of employees, if applicable.

Attached Letter

6 SUPPORTING DOCUMENTATION:

- ☐ Plat of Survey (1:100)
- ☐ Site Plan and elevations for new construction (can be conceptual)
- ☒ WETLAND DELINEATION REPORT (NOT CONCURRED)
- ☒ NAVIGABLE WATERWAY DETERMINATION LETTER
- ☒ TAX ID BILL / LEGAL

7 READ AND INITIAL THE FOLLOWING:

_____ I understand that the Village is under no obligation to rezone property and that density and lot coverages provided in the Zoning Code are maximums. Actual build out will depend on myriad factors including topography and other natural conditions, surrounding neighborhood context and the detailed design of a project.

_____ I understand that Village Staff, Plan Commission and/or Village Board may request additional information to properly evaluate this request and failure to provide such information may in itself by sufficient cause to deny the petition.

_____ I am aware that this rezoning shall go into effect immediately upon the final approval of the Village Board and its execution of the rezoning ordinance

8 SIGNATURES – ALL APPLICATIONS MUST BE SIGNED BY OWNER!

David Leggyel 6/6/18

Applicant Date

Owner Date

For Germantown Acquisitions LLC

PURPOSE OF RE-ZONING REQUEST

Attached is a Plat of Survey with a conceptual layout to develop 17 home-sites on what is now a 29.68 acre parcel consisting of farmland, wetland, upland woods, an older home, barn and pole shed.

The property is outside of the SSA boundary, and must be served by on-site well and septic and is limited to the Rs-3 Single Family Zoning District which allows for a maximum density of 1.0 unit per net acre. Included in the concept plan is a net acre calculation confirming the maximum home-sites allowed.

It is our intention to develop the property in two phases. Phase I would be a 700 foot extension of Forest Hill Road and the Woodland Ponds subdivision. Phase II would be the development of home lots south of the property's intersecting wetland. The two phases are clearly shown on the concept layout.

PHASE I - WOODLAND PONDS

Consists of 8 lots total, Lots 1 - 8 in the Conceptual Layout, and would be an extension of the nicely subdivided Woodland Ponds. Some of the lots would be marginally smaller than the one acre minimum set in the Rs-3 zoning, and we have applied for a PDD for relief from the one acre requirement. Six (6) of the eight (8) lots of Phase I are between .90 - .98 acres, with the remaining two (2) being 1.05 and 1.23 respectively. It is our intent to match the look and feel of the beautiful Woodland Ponds subdivision and will incorporate most of the covenants of Woodland Ponds to Phase I.

Phase I will have a 6.92 acre Outlot (3) creating a wetland buffer along its southern lot lines and 4 of the 8 lots will back up to this buffer. The lot lines for each of these lots will be 20 feet from the mapped wetlands in the wetland delineation performed by Stantec. The building setback lines will be another 35 feet from the lot line, giving a total setback from the mapped wetland of 55 feet, which is consistent with the Village of Germantown requirements regarding setbacks from wetlands, and rear setback requirements for building under the Rs-3 guidelines.

There is an existing agricultural wetland crossing in Outlot 3, at the rear of Lot 6. We intend to create a walking easement from the end of the cul de sac in Phase I to the proposed cul du sac on the very west end of the property in Phase II. That easement will encourage walking throughout the area, and interconnect Woodland Ponds to the newly proposed 40 home Top Leaf subdivision through our proposed subdivision, connecting Freistadt Road to Elm Lane and creating an approximate 3 mile walking or bike riding loop.

PHASE II

Consists of 9 lots total, Lots 9-17 in the conceptual Layout. All of the lots in Phase II would meet the Village of Germantown Rs-3 zoning without any relief from lot size, as all of the lots are 1 acre or more in size. Lots 9 - 13 would extend from the newly proposed road in the Top Leaf subdivision to the west. We will probably incorporate the covenants of the Top Leaf Development for these 5 lots to keep the look from the road consistent. We are proposing a 20 foot right of way ingress and egress access from the end of the cul du sac for lots 12 & 13 as drawn on the Conceptual Layout.

Lots 14 - 17 would be divided off of a newly proposed cul de sac off of the current Elm Lane. Three (3) of the four (4) lots would back up to Outlot 3 which consists of 6.92 acres in total. Lots 14 - 17 would use the same covenants as Phase I and Woodland Ponds to keep the look from Wasaukee Road consistent.

PROJECT PERAMETERS

We are submitting this in Phases in an attempt to have the Phase I approval move forward without delay as it is straightforward and an extension of an existing subdivision. We recognize there are complexities in connecting a newly proposed subdivision vs. the existing Woodland Ponds. We also understand through meetings with the Village that the Village of Germantown would like to reconstruct Elm Lane in the future. Those two realities create an uncertainty regarding Phase II, that do not exist regarding Phase I.

So we have proposed a Phase I and a Phase II in the Conceptual Layout for PDD, and we are asking the Village of Germantown to approve the rezoning of the entire parcel.

COMMITMENT

File No. **GA-266213-8**

SCHEDULE A - CONTINUATION SHEET

- LEGAL DESCRIPTION EXHIBIT-

The Southeast 1/4 of the Northeast 1/4 of Section 24, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin. Excepting therefrom those portions platted as Certified Survey Map No. 4134.

Tax Key No.: GTNV 241999

Subject: RE: Navigable Waterway Determination

From: Kramasz, Kathleen M - DNR (Kathleen.Kramasz@wisconsin.gov)

To: dlesz2000@yahoo.com; Elaine.Johnson@wisconsin.gov;

Date: Tuesday, May 22, 2018 8:12 AM

Dave, I do not see any waterways on this property but there are mapped wetlands that will need to be delineated prior to any wetland or stormwater permitting can be done.

We are committed to service excellence.

Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Kathi Kramasz

Phone: (920) 893-8531

Kathleen.kramasz@wisconsin.gov

From: Dave Leszczynski [mailto:dlesz2000@yahoo.com]
Sent: Tuesday, May 22, 2018 7:06 AM
To: Kramasz, Kathleen M - DNR <Kathleen.Kramasz@wisconsin.gov>
Subject: Navigable Waterway Determination

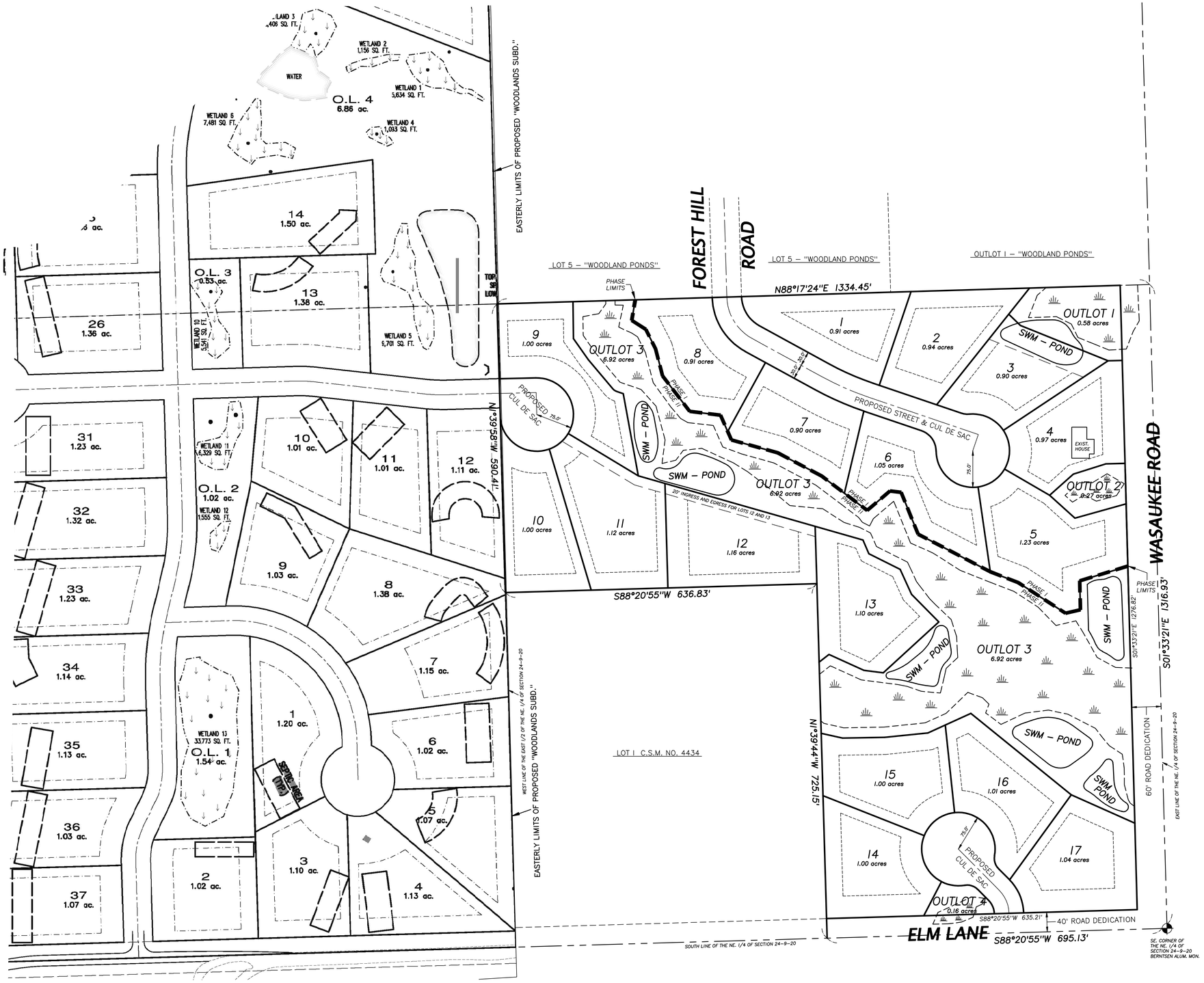
Ms. Kramasz:

I purchased a property at W124 N11749 Wasaukee Road in Germantown. The property consists of 29 acres and I am currently working with engineers, delineators and the Village of Germantown to develop a small subdivision on the property.

The Village of Germantown Engineer, Eric Nitschke, suggested I contact the DNR for a navigable waterway determination, and more specifically you.

I am reaching out to you in hopes of starting the process, whatever that may be.

Thank you, and I look forward to hearing from you.



LEGAL DESCRIPTION :

The Southeast 1/4 of the Northeast 1/4 of Section 24, Township 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin.

Excepting Therefrom; Lot 1 of Certified Survey Map No. 4434, being that part of the Northeast 1/4 of Section 24, Township 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin.

Said Parcel containing 1,292,977 sq. ft/29.683 acres of land, more or less.

Property Statistics:

Total Property Area = 29.68 acres (100%)
Total Outlots (1–4) Area = 7.93 acres (26.7%)
Total Dedicated Road Right of Way Area = 4.53 acres (15.3%)
Average Lot Area = 1.01 acres x 17 =17.22 acres (58.0%)

Lot Counts:

17 – Single Family Lots
4 – Outlots

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

MARK	DATE	REVISION	BY	APV'D
4				
3				
2	6-6-18	FINALIZE FOR SUBMITTAL	J.G.S.	J.W.H.
1	6-4-18	[redacted]	J.G.S.	J.W.H.

Single Family Conceptual Layout (PDD)

for
Dave Leszczynski

Elm Lane & Wasaukee Road
Germantown, WI

FIELD CREW:	E.A.J. & S.F.Z.	APPROVED:	
DATE:	JUNE 2, 2018		
DWN. BY:	J.G.S.	Contract No.:	
CHKD. BY:	J.W.H.	Plat No. :	LS-4315-18 DPP - CONCEPT

NORTH SHORE ENGINEERING, INC.
Consulting Engineers & Land Surveyors
11433 N. Port Washington Rd., Mequon, Wisconsin, 53092
(262) 241-9400 ● FAX: (262) 241-5337
www.northshoreengineering.net

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(IN FEET)
1 inch = 100 ft.

MARK	DATE	REVISION	BY	APVD
4				
3				
2	6-6-18	FINALIZE FOR SUBMITTAL	J.G.S.	J.W.H.
1	6-4-18	[redacted]	J.G.S.	J.W.H.

Single Family Conceptual Layout (PDD)

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FIELD CREW:	E.A.J. & S.F.Z.	APPROVED:	
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Wetland Delineation Report

29-Acre Parcel
Village of Germantown,
Washington County, Wisconsin

Lead Delineator: Brian Lennie

Prepared for:
Dave Leszczynski
3223 Fleur De Lis Drive
Mequon, WI 53092

Prepared by:
Stantec Consulting Services Inc.
12075 North Corporate Parkway,
Suite 200
Mequon, Wisconsin 53092

Stantec Project #: 193706107

June 5, 2018

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1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) completed a wetland investigation on a 29.41-acre Parcel (the "Property") located on Wasaukee Road, in the Village of Germantown, Wisconsin. The Property is comprised of one parcel with the parcel ID number GTNV241999, more specifically located in Section 24, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin. The Property location is shown on Figure 1 (Appendix A).

The purpose and objective of this investigation was to identify the extent and spatial arrangement of wetlands within the Property for development. The investigation was completed by Brian Lennie and Jacob Eeling of Stantec on May 17, 2018. Four wetland areas were identified on the Property.

Wetlands and waterways that are considered Waters of the U.S. are subject to regulation under Section 404 of the Clean Water Act (CWA) and the jurisdictional regulatory authority lies with the USACE. Additionally, the WDNR has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapters 30 and 281 Wisconsin State Statutes and Wisconsin Administrative Codes NR 103, 299, 350, and 353. Finally, counties, townships, and municipalities may have local zoning authority over certain types of wetlands and waterways. Stantec recommends this report be submitted to local authorities, WDNR, and USACE for final jurisdictional review and concurrence.

2.0 METHODS

2.1 WETLANDS

Wetland determinations were based on the criteria and methods outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual,* Technical Report Y-87-1 (1987) and subsequent guidance documents (USACE 1991, 1992), and the applicable Regional Supplement to the *Corps of Engineers Wetland Delineation Manual*.

The wetland determination involved the use of available resources to assist in the assessment such as U.S. Geological Survey (USGS) topographic maps, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey, WDNR Surface Water Web Viewer Wisconsin Wetland Inventory (WWI) mapping, and aerial photography.

On-site wetland determinations were made using the three criteria (vegetation, soil, and hydrology) and the technical approach defined in the USACE 1987 Manual and applicable Regional Supplement. According to procedures described in the 1987 Manual and applicable Regional Supplement areas that, under normal circumstances, reflect a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology (e.g., inundated or saturated soils) are considered wetlands.

Additionally, as climate plays an important role in the formation and identification of wetlands, the antecedent precipitation in the months leading up to the field investigation was reviewed. The current year's precipitation data were compared to long-term (30-year) precipitation averages and standard deviation to determine if precipitation was normal, wet, or dry for the area using a WETS analysis, as developed by the NRCS (Appendix D).

A review of U.S. Department of Agriculture Farm Service Agency (FSA) annual aerial slides and other available aerial imagery was conducted for the Property to assist in the wetland determination because farmed areas with mapped poorly drained or somewhat poorly drained soils are present within the Property. The aerial imagery was reviewed for the appearance of wetland signatures. A wetland signature is field evidence, recorded by aerial imagery, of ponding, flooding, or impacts of saturation for sufficient duration, which meets wetland hydrology and possibly wetland vegetation criteria. Wetland signatures may vary based on the type and seasonal date of the aerial imagery. Signatures visible on FSA annual aerial slides in cropland for Wisconsin have been categorized as follows (USDA, NRCS 1998):

1. Hydrophytic vegetation (seen as a different color of green)
2. Surface water (usually black or white)
3. Drowned-out crops (bare soil or mud flats)
4. Differences in color due to different planting dates or isolated areas not farmed with the rest of the field
5. Inclusions of wet areas in set-aside program
6. Patches of greener color in "dry" years
7. Crop stress (yellow) or sparse canopy (light green)
8. Saturated soil visible on infrared (IR) slides or photos

The antecedent precipitation in the months leading up to each aerial image was reviewed and compared to long-term (30-year) precipitation averages and standard deviation to determine if each year was normal, wet, or dry using a WETS analysis (Appendix E).

Mapped poorly and somewhat poorly drained soils were identified within the Property and available aerial imagery was analyzed for signatures of wetness consistency in these areas (Off-Site Aerial Imagery Analysis in Appendix E). Areas within agricultural fields are typically identified as suspect wetland if they contain hydric soils and 50% or more of the aerial images taken in the five (or more) most recent normal precipitation years show any of the wetland signatures listed above. However, while the focus of the analysis is on wetland signatures visible in normal precipitation years, years considered wet or dry for received precipitation were also analyzed. Wetland determinations and wetland boundaries are identified based on the aerial image having the largest wetland boundary during a "normal" rainfall year if signatures were apparent in at least 50% of the years (USDA, NRCS 1998) and must be confirmed in the field.

Wetland determination sample points were identified and surveyed using a Global Positioning System (GPS) capable of sub-meter accuracy and mapped using Geographical Information System (GIS) software.

2.2 WATERWAYS

Prior to field work, waterways in the vicinity of the Property were reviewed on existing maps and available aerial photographs. During the field work, evidence of channels, ditches, streams, ponds, or other water bodies that may be regulated by the USACE or WDNR within the parcel, were investigated as they relate to the wetlands mapped.

3.0 RESULTS

3.1 SITE DESCRIPTION

The Property that was investigated is comprised of a residence, barn, and agricultural fields, with scattered upland hardwoods and mowed lawn. The Property is bordered to the north and south by developed residential properties, to the west by a planned residential development, and to the east by a wooded parcel and Christmas tree farm. The Property is relatively steeply sloped from west to east, with over sixty feet of grade difference. The wetlands on the Property have an elevation of approximately 875-850 feet above mean sea level (msl). The Property is approximately 905 feet above msl near the west edge of the property, sloping down to 845 feet above msl in the eastern edge of the Property.

According to the NRCS Web Soil Survey, (Appendix A, Figures 2 and 3), six soil types are present within the Property: Mequon silt loam, 1 to 3 percent slopes; Ozaukee silty loam, high carbonate substratum, 2 to 6 percent slopes; Ozaukee silty loam, high carbonate substratum, 2 to 6 percent slopes, eroded; Ozaukee silty loam, high carbonate substratum, 6 to 12 percent slopes, eroded; Ozaukee silty loam, high carbonate substratum 12 to 20 percent slopes, eroded, and Radford silt loam, 0 to 3 percent slopes. Of these soil series, none are considered hydric. However, the Mequon silt loam may have hydric inclusions of wetter soils in till depressions, the Ozaukee silt loam may have hydric inclusions of Ashkum, drained soils in end and ground moraines, and the Radford silt loam may have hydric inclusions of Otter, Sable, Sebewa or Drummer soils in depressions. Soil types are also described in the table below.

Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status
MtA: Mequon silt loam, 1 to 3 percent slopes	Mequon	90	Till plains	No
	Wetter soils	10	Depressions on till plains	Yes
OuB: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes	Ozaukee-High carbonate substratum	92-100	End moraines,ground moraines	No
	Ashkum-Drained	0-5	End moraines,ground moraines	Yes
	Orthents, clayey	0-3	Ground moraines	No
	Urban land	0-3	Ground moraines	No
OuB2: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	92-100	End moraines,ground moraines	No
	Ashkum-Drained	0-5	End moraines,ground moraines	Yes
	Urban land	0-3	Ground moraines	No
	Orthents, clayey	0-3	Ground moraines	No
OuC2: Ozaukee silt loam, high carbonate substratum, 6 to 12 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	88-100	End moraines,ground moraines	No
	Urban land	0-5	Ground moraines	No
	Mequon	0-5	Ground moraines	No
	Ozaukee-Severely eroded	0-5	End moraines,ground moraines	No
OuD2: Ozaukee silt loam, high carbonate substratum, 12 to 20 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	88-100	End moraines,ground moraines	No
	Urban land	0-5	Ground moraines	No
	Mequon	0-5	Ground moraines	No
	Ozaukee-Severely eroded	0-5	End moraines,ground moraines	No
RaA: Radford silt loam, 0 to 3 percent slopes	Radford	80-95	Depressions,flood plains	No
	Otter	2-8	Depressions,flood plains	Yes
	Sable	2-5	Depressions	Yes
	Sebewa	1-4	Depressions	Yes
	Drummer	0-3	Depressions	Yes

The WWI Map identifies wetlands on the Property (Appendix A, Figure 4) in the same general size and location as field delineated wetlands W1 and W3; wetlands W2 and W4 are not identified on the WWI map. The largest field delineated wetland W1 (Appendix A, Figure 5) is located in the central portion of the Property.

One area (Area A) in the cropped fields was identified as an area with wetness signatures in normal precipitation years; Area A was identified as having wetness signatures in more than 50% of normal precipitation years (Appendix E).

Average precipitation for the investigation area was obtained from the Germantown National Weather Service (NWS) weather station (GERW3) and used for the WETS analysis. A total of 4.18 inches of precipitation occurred in the three-month time period from February to April 2018, compared to 30-year average of 7.06 inches. Based on the WETS analysis, conditions were considered "dry" (Appendix D). However, 1.84 inches of rain had fallen in May prior to field work.

3.2 WETLANDS

Four wetlands were identified within the Property. Eleven wetland determination data forms were completed for the wetland and adjacent upland area and are included in Appendix B. The wetland and sample point locations are shown on Figure 5 (Appendix A).

Wetland W1

Wetland W1 is approximately 3.61 acres in size and consists of a disturbed fresh wet meadow wetland located in the central portion of the Property, as shown in Figure 5. The wetland is identified on the WWI Map as forested broad-leaved deciduous, wet soil/palustrine and scrub/shrub broad-leaved deciduous/emergent persistent, wet soils/palustrine (T3K and S3/E1K) wetlands. Soils at the wetland sample point P2 met the Redox Dark Surface (F6) and Hydrogen Sulfide (A4) hydric soil indicators. Hydrophytic vegetation was dominated by sandbar willow (*Salix interior*, FACW), reed canary grass (*Phalaris arundinacea*, FACW), and yellow marsh-marigold (*Caltha palustris*, OBL). The hydrology indicators of Surface Water (A1), High Water Table (A2), Saturation (A3), Hydrogen Sulfide Odor (C1), Geomorphic Position (D2), and the FAC Neutral Test (D5) were observed, which met the wetland hydrology criterion. Soils at the wetland sample point P7 met the Thick Dark Surface (A12) hydric soil indicator. Hydrophytic vegetation at that sample point was dominated by swamp white oak (*Quercus bicolor*, FACW), green ash (*Fraxinus pennsylvanica*, FACW), honeysuckle (*Lonicera X bella,* FACU), feathery false Solomon's-seal (*Maianthemum racemosum,* FACU), and Virginia waterleaf (*Hydrophyllum virginianum*, FAC). The hydrology indicators of Geomorphic Position (D2), and the FAC Neutral Test (D5) were observed, which met the wetland hydrology criterion at sample point P7. Because all three wetland criteria were met at sample points P2 and P7, W1 was determined to be wetland.

Wetland W2

Wetland W2 is approximately 0.06 acres in size and consists of a disturbed fresh wet meadow wetland located in the southern edge of the Property, as shown in Figure 5. The wetland is not identified on the WWI Map as wetland. Soils at the wetland sample point P5 met the Redox Dark Surface (F6) hydric soil indicator. Hydrophytic vegetation was dominated by reed canary grass (*Phalaris arundinacea*, FACW). The hydrology indicators of Saturation (A3), Crayfish Burrows (C8), Geomorphic Position (D2), and the FAC Neutral Test (D5) were observed, which met the wetland hydrology criterion. Because all three wetland criteria were met at sample points P5, W2 was determined to be wetland.

Wetland W3

Wetland W3 is approximately 0.46 acres in size and consists of a disturbed fresh wet meadow wetland located in the northeast corner of the Property, as shown in Figure 5. The wetland is identified on the WWI Map as emergent, narrow-leaved persistent, wet soil/palustrine (E2K) wetland. Soils at the wetland sample point P9 met the Redox Dark Surface (F6) hydric soil indicator. Hydrophytic vegetation was dominated by black willow (*Salix nigra*, OBL), pussy willow (*Salix discolor*, FACW), reed canary grass, and narrow-leaf cattail (*Typha angustifolia*, OBL). The

hydrology indicators of Saturation (A3), Water-Stained Leaves (B9), Geomorphic Position (D2), and the FAC Neutral Test (D5) were observed, which met the wetland hydrology criterion. Because all three wetland criteria were met at sample points P9, W3 was determined to be wetland.

Wetland W4

Wetland W4 is approximately 0.07 acres in size and consists of a scattered lowland hardwood wetland located in the northeastern portion of the Property, as shown in Figure 5. The wetland is not identified on the WWI Map as wetland. Soils at the wetland sample point P10 met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) hydric soil indicators. Hydrophytic vegetation was dominated by green ash (*Fraxinus pennsylvanica*, FACW), common buckthorn (*Rhamnus cathartica,* FAC), Virginia creeper (*Parthenocissus quinquefolia,* FACU), and stalk-grain sedge (*Carex stipata*, FACW). The hydrology indicators of High Water Table (A2), Saturation (A3), Geomorphic Position (D2), and the FAC Neutral Test (D5) were observed, which met the wetland hydrology criterion. Because all three wetland criteria were met at sample points P10, W4 was determined to be wetland.

3.3 UPLANDS

Uplands within the Property consisted of a residence, barn, and cropped farmlands (soybeans and corn) with mowed upland lawn and some planted trees and shrubs. Dominant species present included, American basswood (*Tilia americana,* FACU), multiflora rose (*Rosa multiflora*, FACU), hybrid honeysuckle (*Lonicera x bella*, FACU), Virginia waterleaf, spotted crane's bill geranium (*Geranium maculatum,* FACU), swamp white oak, common dandelion (*Taraxacum officianale,* Queen Anne's lace (*Daucus carota*, FACU), and Kentucky bluegrass (*Poa pratensis*, FAC), and crabapple (*Malus pumila*, UPL).

3.4 WATERWAYS

No waterways are identified by the WDNR Surface Water Web Viewer on the on the Property; and thus, no boundaries were marked in the field.

3.5 OTHER ENVIRONMENTAL CONSIDERATIONS

This report is limited to the identification of state and/or federally regulated wetlands within the Property. However, there may be other regulated environmental features within the Property, including, but not limited to, historical or archeological features, endangered or threatened species, jurisdictional waterways and/or floodplains, etc. Federal, state, and local units of government and regional planning organizations may have regulatory authority to control or restrict land uses within or in close proximity to these features. Stantec can assist with identification and/or assessment of additional regulated resources at your request, to the extent that the work is within our range of expertise.

4.0 CONCLUSION

Stantec completed a wetland investigation on a 29.41-acre Parcel (the "Property") located on Wasaukee Road, in the Village of Germantown, Wisconsin. The Property is comprised of one parcel with the parcel ID number GTNV241999, more specifically located in Section 24, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin. The purpose and objective of the investigation was to determine if wetlands exist within the Property, and if so, to delineate and map them.

The investigation was completed by Brian Lennie and Jacob Eeling of Stantec on May 17, 2018. Four wetlands were identified on the Property totaling 4.2 acres. Adjacent uplands were comprised of steeply sloped uplands, with multiple agricultural fields, scattered upland hardwoods and shrubs, and mowed lawn with some planted landscape trees.

The USACE has regulatory authority over Waters of the U.S., including adjacent wetlands, and the WDNR has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapters 30 and 281 Wisconsin State Statutes and Wisconsin Administrative Codes NR 103, 299, 350, and 353. Finally, counties, townships, and municipalities may have local zoning authority over certain types of wetlands and waterways.

Prior to beginning work at this Property or disturbing or altering wetlands, waterways, or adjacent lands in any way, Stantec recommends that the owner obtain the necessary permits or other agency regulatory review and concurrence with regard to the proposed work to comply with applicable regulations. Stantec can assist with identification and/or assessment of additional regulated resources at your request, to the extent that the work is within our range of expertise.

The information provided by Stantec regarding wetland boundaries is a scientific-based analysis of the wetland and upland conditions present within the Study Area at the time of the fieldwork. The delineation was performed by experienced and qualified professionals using standard practices and sound professional judgment. The ultimate decision on wetland boundaries rests with the USACE and, in some cases, the WDNR or a local unit of government. As a result, there may be adjustments to boundaries based upon review by a regulatory agency. An agency determination can vary from time to time depending on various factors including, but not limited to, recent precipitation patterns and the season of the year. In addition, the physical characteristics of the Property can change over time depending on the weather, vegetation patterns, drainage activities on adjacent parcels, or other events. Any of these factors can change the nature and extent of wetlands within the Property.

5.0 REFERENCES

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Appendix A – Figures

Figure 1. Project Location and Topography

Figure 2. NRCS Soil Survey Data – Hydric Ratings

Figure 3. NRCS Soil Survey Data – Wetland Indicator Soils

Figure 4. Wisconsin Wetland Inventory

Figure 5. Field Collected Data

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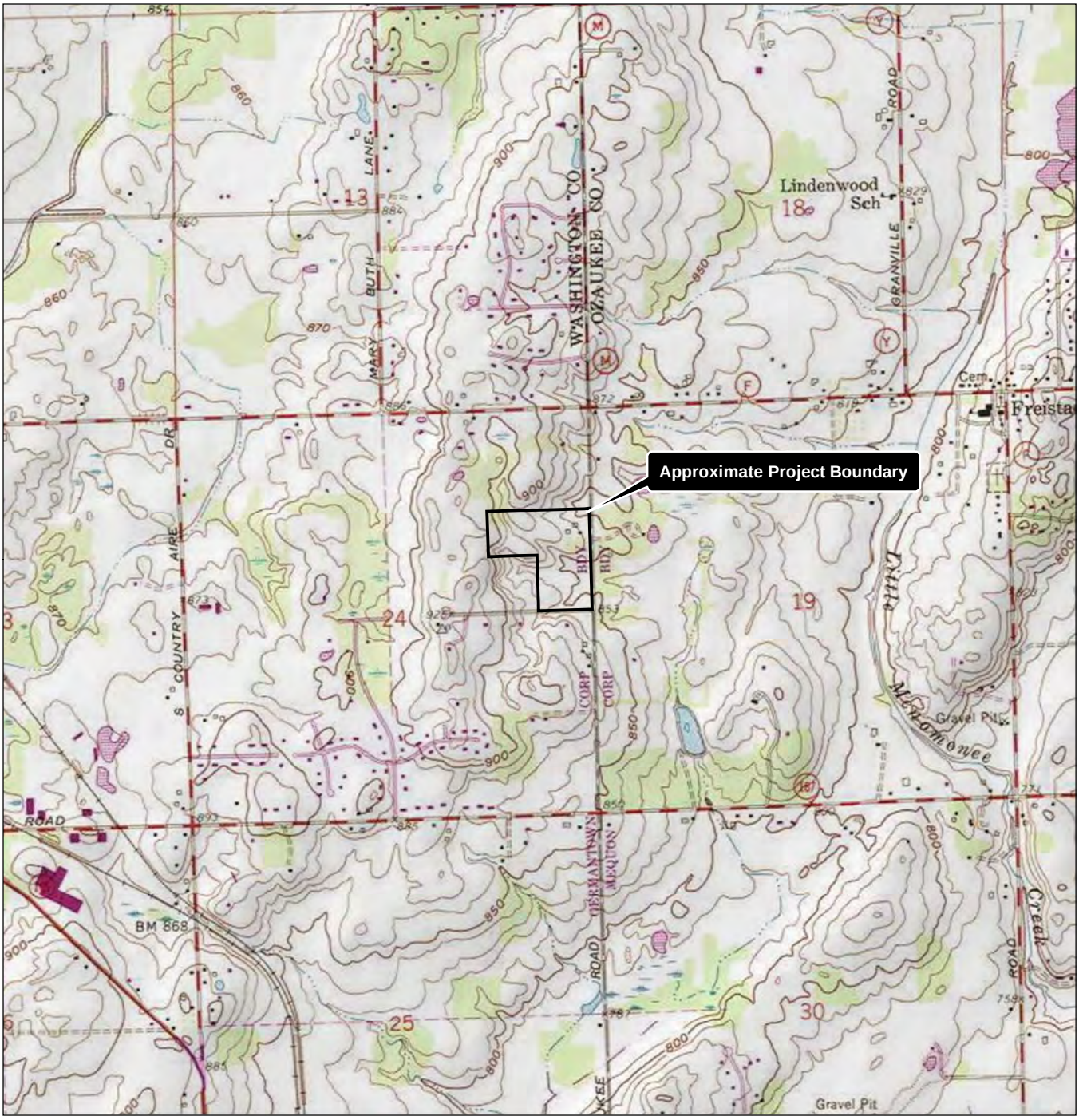

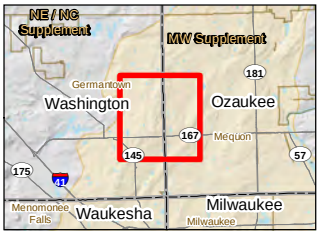

Legend

Approximate Project Boundary

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Background: USGS 7.5' Topographic Quadrangles

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Figure No.
1

Title
Project Location and Topography

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-15
Technical Review by DG on 2018-05-16
Independent Review by BSL on 2018-05-22

0 1,000 2,000 Feet
1:24,000 (at original document size of 8.5x11)

N

Stantec

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Legend

- Approximate Project Boundary
- NRCS Soil Survey Data
- Hydric Ratings
  - Predominantly Hydric Soil
  - Partially Hydric Soil
  - Non-Hydric Soil
- DNR 24k Hydrography
  - Perennial Stream
  - Intermittent Stream
  - Waterbody

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, NRCS, WisDOT, WDNR
3. Orthophotography: NAIP 2017

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.
2

Title
NRSC Soil Survey Data
Hydric Ratings

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-15
Technical Review by DG on 2018-05-16
Independent Review by BSL on 2018-05-22

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec

V:\1937\Active\193706107\03_data\gis_cad\gis\mxds\fig3_nrcs_drainage_193706107.mxd Revised: 2018-05-22 By: aswain

Legend

- Approximate Project Boundary
- NRCS Soil Survey Data
- Wetland Indicator Soils
  - Very Poorly Drained
  - Poorly Drained
  - Somewhat Poorly Drained
- DNR 24k Hydrography
  - Perennial Stream
  - Intermittent Stream
  - Waterbody

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, NRCS, WisDOT, WDNR
3. Orthophotography: NAIP 2017

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.
3

Title
NRSC Soil Survey Data
Wetland Indicator Soils

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-15
Technical Review by DG on 2018-05-16
Independent Review by BSL on 2018-05-22

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec

Figure 4: Wisconsin Wetland Inventory

Legend

- Wetland Identifications and Confirmations
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
- Filled Points
- Wetland Class Areas
  - Wetland
  - Upland
- Filled Areas
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams

0.1 0 0.06 0.1 Miles

1: 3,960

NAD_1983_HARN_Wisconsin_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/legal/

Notes

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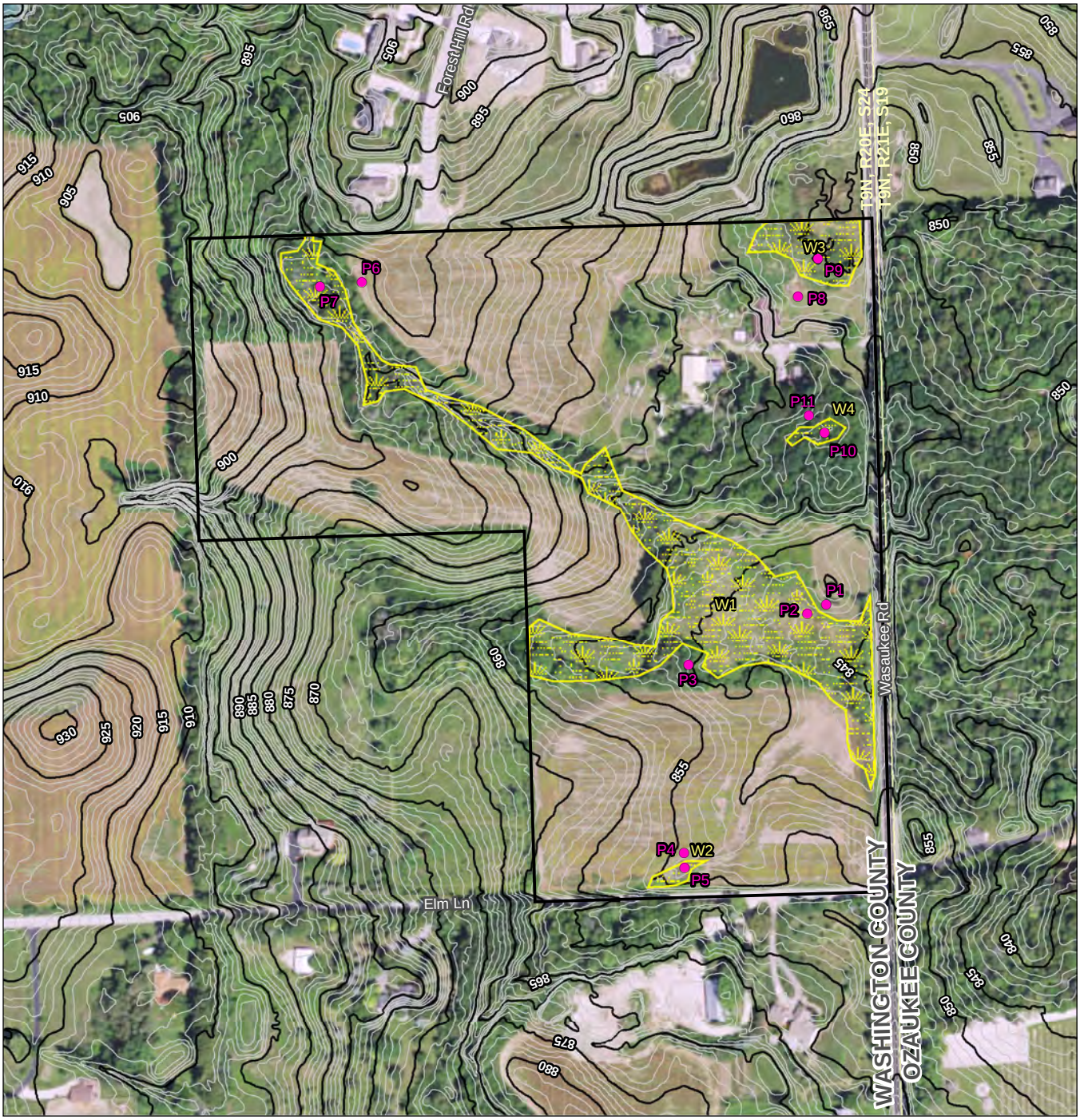


Legend

- Approximate Project Boundary
- 5ft Elevation Contour
- 1ft Elevation Contour
- Sample Point
- Field Delineated Wetland

DNR 24k Hydrography

- Perennial Stream
- Intermittent Stream
- Waterbody

Figure No.
5

Title
Field Collected Data

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-15
Technical Review by DG on 2018-05-16
Independent Review by BSL on 2018-05-22

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Orthophotography: NAIP 2017

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Appendix B – Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P1

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): backslope Local relief (concave, convex, none): none

Slope (%): 2-3 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Radford silt loam, 0 to 3 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Malus pumila*	10	Yes	UPL
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	60	Yes	FAC
2. *Solidago altissima*	20	No	FACU
3. *Daucus carota*	10	No	UPL
4. *Plantago major*	5	No	FAC
5. *Taraxacum officinale*	5	No	FACU
6. *Pastinaca sativa*	5	No	UPL
7. *Symphyotrichum lateriflorum*	5	No	FACW
8.			
9.			
10.			
	110	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	65	x 3 =	195
FACU species	25	x 4 =	100
UPL species	25	x 5 =	125
Column Totals:	120 (A)		430 (B)

Prevalence Index = B/A = 3.58

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/3	100					Loamy/Clayey	
9-17	10YR 3/3	99	7.5YR 4/4	1	C	M	Loamy/Clayey	Faint redox concentrations
17-22	10YR 3/6	100					Sandy	cobble present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P2

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): footslope Local relief (concave, convex, none): concave

Slope (%): 1 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Radford silt loam, 0 to 3 percent slopes NWI classification: S3/E1K

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ___	**Is the Sampled Area within a Wetland?** **Yes** X **No** ___
Hydric Soil Present?	Yes X	No ___	
Wetland Hydrology Present?	Yes X	No ___	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Salix interior*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	60	Yes	FACW
2. *Caltha palustris*	20	Yes	OBL
3. *Solidago gigantea*	10	No	FACW
4. *Equisetum arvense*	5	No	FAC
5. *Mentha arvensis*	5	No	FACW
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	85	x 2 =	170
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		205 (B)

Prevalence Index = B/A = 1.86

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
10-22	10YR 3/1	80	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 5/2	10	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- X Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 3
Water Table Present?	Yes X	No ___	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P3

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): backslope Local relief (concave, convex, none): none

Slope (%): 3-5 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Ozaukee silt loam, high carbonate substratum, 6 to 12 percent slopes, eroded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tilia americana*	40	Yes	FACU
2. *Quercus bicolor*	20	Yes	FACW
3. *Fraxinus pennsylvanica*	10	No	FACW
4.			
5.			
	70	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Rosa multiflora*	10	Yes	FACU
2. *Lonicera X bella*	10	Yes	FACU
3.			
4.			
5.			
	20	=Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Geranium maculatum*	30	Yes	FACU
2. *Hydrophyllum virginianum*	25	Yes	FAC
3. *Lonicera X bella*	10	No	FACU
4. *Parthenocissus quinquefolia*	1	No	FACU
5. *Carex blanda*	1	No	FAC
6.			
7.			
8.			
9.			
10.			
	67	=Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	26	x 3 =	78
FACU species	101	x 4 =	404
UPL species	0	x 5 =	0
Column Totals:	157 (A)		542 (B)

Prevalence Index = B/A = 3.45

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/2	100						
11-21	10YR 4/2	60						mixed matrix
	10YR 3/2	40						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P4

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): shoulder Local relief (concave, convex, none): convex

Slope (%): 2-3 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation X , Soil X , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal. Vegetation and soils are disturbed from agricultural activity.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		=Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Ambrosia artemisiifolia*	20	Yes	FACU
2. *Ambrosia trifida*	15	Yes	FAC
3. *Daucus carota*	5	No	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40	=Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	20	x 4 =	80
UPL species	5	x 5 =	25
Column Totals:	40 (A)		150 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/2	100					Loamy/Clayey	
13-20	10YR 3/6	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P5

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): footslope Local relief (concave, convex, none): concave

Slope (%): 1-2 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No 0	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		=Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	70	Yes	FACW
2. *Solidago gigantea*	10	No	FACW
3. *Scirpus atrovirens*	10	No	OBL
4. *Carex vulpinoidea*	5	No	FACW
5. *Barbarea vulgaris*	5	No	FAC
6. *Equisetum arvense*	1	No	FAC
7.			
8.			
9.			
10.			
	101	=Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	85	x 2 =	170
FAC species	6	x 3 =	18
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	101 (A)		198 (B)

Prevalence Index = B/A = 1.96

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 3/2	92	7.5YR 4/6	8	C	M	Loamy/Clayey	Prominent redox concentrations
13-22	10YR 3/2	90	7.5YR 5/8	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- X Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 19
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 10

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P6

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): backslope Local relief (concave, convex, none): none

Slope (%): 3-4 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation X , Soil X , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal. Soil and vegetation are disturbed due to agricultural activity.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Rosa multiflora*	20	Yes	FACU
2. *Fraxinus pennsylvanica*	10	Yes	FACW
3.			
4.			
5.			
	30	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Ambrosia artemisiifolia*	25	Yes	FACU
2. *Taraxacum officinale*	20	Yes	FACU
3. *Poa pratensis*	10	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	55	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	10	x 3 =	30
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	85 (A)		310 (B)

Prevalence Index = B/A = 3.65

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/3	100					Loamy/Clayey	gravel in the bottom 3 inches

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: rock

Depth (inches): 16

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P7

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): footslope Local relief (concave, convex, none): concave

Slope (%): 3-5 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Mequon silt loam, 1 to 3 percent slopes NWI classification: T3K

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus bicolor*	40	Yes	FACW
2. *Fraxinus pennsylvanica*	25	Yes	FACW
3. *Tilia americana*	10	No	FACU
4.			
5.			
	75	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Lonicera X bella*	5	Yes	FACU
2.			
3.			
4.			
5.			
	5	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Maianthemum racemosum*	20	Yes	FACU
2. *Hydrophyllum virginianum*	20	Yes	FAC
3. *Solidago gigantea*	15	Yes	FACW
4. *Arisaema triphyllum*	15	Yes	FACW
5. *Galium aparine*	15	Yes	FACU
6. *Caltha palustris*	10	No	OBL
7. *Parthenocissus quinquefolia*	10	No	FACU
8. *Carex stipata*	5	No	OBL
9.			
10.			
	110	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 62.5% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	95	x 2 =	190
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	190 (A)		505 (B)

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1	100					Loamy/Clayey	
15-24	10YR 4/2	80	10YR 5/8	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 15
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 13

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P8

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): sideslope Local relief (concave, convex, none): none

Slope (%): 1-2 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Radford silt loam, 0 to 3 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		=Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Poa pratensis*	40	Yes	FAC
2. *Taraxacum officinale*	30	Yes	FACU
3. *Barbarea vulgaris*	15	No	FAC
4. *Daucus carota*	10	No	UPL
5. *Glechoma hederacea*	5	No	FACU
6. *Cerastium fontanum*	5	No	FACU
7.			
8.			
9.			
10.			
	105	=Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	55	x 3 =	165
FACU species	40	x 4 =	160
UPL species	10	x 5 =	50
Column Totals:	105 (A)		375 (B)

Prevalence Index = B/A = 3.57

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 3/2	100					Loamy/Clayey	
15-21	10YR 4/3	70	10YR 5/6	10	C	M	Loamy/Clayey	Distinct redox concentrations
			7.5YR 3/4	20	C	M		Faint redox concentrations
21-24	10YR 4/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P9

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): toeslope Local relief (concave, convex, none): concave

Slope (%): 2 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Radford silt loam, 0 to 3 percent slopes NWI classification: E2K

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix nigra*	25	Yes	OBL
2.			
3.			
4.			
5.			
	25	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Salix discolor*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	70	Yes	FACW
2. *Typha angustifolia*	35	Yes	OBL
3. *Solidago gigantea*	15	No	FACW
4. *Symphyotrichum lanceolatum*	10	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	130	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	95	x 2 =	190
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	165 (A)		280 (B)

Prevalence Index = B/A = 1.70

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					Loamy/Clayey	
8-17	10YR 2/1	98	10YR 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
17-20	10YR 3/1	96	10YR 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 4/1	2	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 18
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 2

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P10

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): footslope Local relief (concave, convex, none): concave

Slope (%): 1-2 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	65	Yes	FACW
2.			
3.			
4.			
5.			
	65	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Fraxinus pennsylvanica*	20	Yes	FACW
2. *Rhamnus cathartica*	10	Yes	FAC
3.			
4.			
5.			
	30	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Carex stipata*	40	Yes	OBL
2. *Parthenocissus quinquefolia*	20	Yes	FACU
3. *Fraxinus pennsylvanica*	20	Yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	80	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	105	x 2 =	210
FAC species	10	x 3 =	30
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	175 (A)		360 (B)

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 2/1	100					Loamy/Clayey	
9-22	10YR 4/2	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 10
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 8

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 29 Acre Parcel City/County: Germantown, Washington Co. Sampling Date: 5/17/2018

Applicant/Owner: Dave Leszcynski State: WI Sampling Point: P11

Investigator(s): Brian Lennie and Jacob Eeling Section, Township, Range: S24, T9N, R20E

Landform (hillside, terrace, etc.): backslope Local relief (concave, convex, none): none

Slope (%): 3-4 Lat: N/A Long: N/A Datum: N/A

Soil Map Unit Name: Radford silt loam, 0 to 3 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
WETS analysis indicates that antecedent precipitation is drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Gleditsia triacanthos*	30	Yes	FACU
2.			
3.			
4.			
5.			
	30	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Rhamnus cathartica*	10	Yes	FAC
2. *Viburnum lentago*	5	Yes	FAC
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Hemerocallis lilioasphodelus*	80	Yes	UPL
2. *Arisaema triphyllum*	5	No	FACW
3. *Impatiens capensis*	5	No	FACW
4. *Taraxacum officinale*	5	No	FACU
5. *Scrophularia nodosa*	5	No	UPL
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	15	x 3 =	45
FACU species	35	x 4 =	140
UPL species	85	x 5 =	425
Column Totals:	145 (A)		630 (B)

Prevalence Index = B/A = 4.34

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

____ 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1	100					Loamy/Clayey	
15-21	10YR 4/6	90	10YR 4/3	10	D	M	Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C – Site Photographs

Photo 1. Sample Point P1

Photo 2. Sample Point P1, view looking east

Photo 3. Sample Point P2

Photo 4. Sample Point P2, view looking south

Photo 5. Sample Point P3

Photo 6. Sample Point P3, looking northwest

Photo 7. Sample Point P4

Photo 8. Sample Point P4, view looking east

Photo 9. Sample Point P5

Photo 10. Sample Point P5, view looking north

Photo 11. Sample Point P6

Photo 12. Sample Point P6, looking southeast

Photo 13. Sample Point P7

Photo 14. Sample Point P7, view looking south

Photo 15. Sample Point P8

Photo 16. Sample Point P8, view looking west

Photo 17. Sample Point P9

Photo 18. Sample Point P9, looking northeast

Photo 19. Sample Point P10

Photo 20. Sample Point P10, view looking west

Photo 21. Sample Point P11

Photo 22. Sample Point P11, looking southwest

Appendix D – WETS Analysis

WETS Analysis Worksheet

Project Name: 29 Acre Parcel
Project Number: 193706107
Period of interest: February - April
Station: Germantown (NWS LI: GERW3)
County: Washington County, WI

Long-term rainfall records (from WETS table)

	Month	3 years in 10 less than	Normal	3 years in 10 greater than
1st month prior:	April	2.65	3.85	4.59
2nd month prior:	March	1.23	1.96	2.36
3rd month prior:	February	0.73	1.25	1.51
			Sum =	**7.06**

Site determination

	Site Rainfall (in)	Condition Dry/Normal*/Wet	Condition** Value	Month Weight	Product
	1.40	Dry	1	3	3
	0.56	Dry	1	2	2
	2.22	Wet	3	1	3
Sum =	**4.18**			Sum*** =	**8**

*Normal precipitation with 30% to 70% probability of occurrence

Determination:

	Wet
X	Dry
	Normal

**Condition value:

Dry =	1
Normal =	2
Wet =	3

***If sum is:

6 to 9	then period has been drier than normal
10 to 14	then period has been normal
15 to 18	then period has been wetter than normal

Precipitation data source: http://agacis.rcc-acis.org/?fips=55131

Reference: Donald E.Woodward, ed. 1997. *Hydrology Tools for Wetland Determination* , Chapter 19. Engineering Field Handbook. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, TX.

WETS Table

WETS Station: SULLIVAN 3SE, WI								
Requested years: 1987 - 2017								
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall
Jan	27.5	11.6	19.6	1.62	1.03	1.96	4	13.2
Feb	31.7	14.7	23.2	1.73	0.99	2.11	4	10.9
Mar	43.9	24.4	34.1	2.18	1.35	2.64	5	6.6
Apr	57.6	35.8	46.7	3.98	2.96	4.66	8	1.8
May	68.7	46.6	57.6	4.44	3.32	5.19	8	0.0
Jun	78.7	56.6	67.7	5.12	3.01	6.22	8	-
Jul	83.0	60.6	71.8	3.90	2.74	4.63	6	-
Aug	81.1	59.3	70.2	4.01	2.65	4.81	7	-
Sep	74.5	51.2	62.8	2.99	1.68	3.64	5	-
Oct	61.1	40.3	50.7	2.91	1.83	3.51	6	0.1
Nov	46.3	28.6	37.4	2.22	1.36	2.68	5	2.9
Dec	32.2	17.0	24.6	2.16	1.35	2.61	6	14.0
Annual:					34.09	40.00		
Average	57.2	37.2	47.2	-	-	-	-	-
Total	-	-	-	37.26			72	-

GROWING SEASON DATES			
Years with missing data:	24 deg = 8	28 deg = 8	32 deg = 8
Years with no occurrence:	24 deg = 0	28 deg = 0	32 deg = 0
Data years used:	24 deg = 23	28 deg = 23	32 deg = 23
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent *	4/4 to 11/2: 212 days	4/18 to 10/20: 185 days	5/3 to 10/8: 158 days
70 percent *	3/31 to 11/6: 220 days	4/14 to 10/25: 194 days	4/30 to 10/12: 165 days
* Percent chance of the growing season occurring between the Beginning and Ending dates.			

STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1995	1.74	0.11	1.81	3.88	3.78	1.42	4.42	10.42	1.51	5.69	3.15	0.52	38.45
1996	1.95	0.46	0.52	2.87	2.51	8.26	2.76	2.93	1.48	4.02	0.97	1.71	30.44
1997	2.05	3.30	1.13	2.07	3.28	5.32	4.85	4.83	1.24	1.07	1.19	1.51	31.84
1998	2.93	2.10	4.31	4.05	4.66	4.61	2.83	4.65	2.19	3.68	1.47	1.17	38.65
1999	3.10	0.96	0.65	6.17	4.91	6.43	4.30	1.98	3.53	0.66	1.56	1.80	36.05
2000	M0.70	2.18	1.39	3.24	7.66	4.24	3.72	3.79	5.92	0.89	2.52	2.29	38.54
2001	1.17	3.17	0.58	4.30	5.20	3.55	2.27	3.76	6.88	3.68	1.95	M1.54	38.05
2002	0.86	1.98	1.71	4.23	2.74	5.95	2.46	5.33	2.85	2.87	0.72	0.71	32.41
2003	0.24	0.60	1.72	1.26	5.86	2.50	3.41	2.24	2.	1.	4.	2.55	30.

									96	89	84		07
2004	0.85	0.90	3.63	2.56	9.67	5.39	2.17	3.93	0.29	2.15	2.19	1.34	35.07
2005	2.49	2.04	1.15	1.57	2.84	2.09	4.91	3.25	3.16	0.53	5.43	1.14	30.60
2006	3.14	1.32	3.31	4.28	5.72	4.12	1.70	4.02	3.99	5.30	2.66	2.95	42.51
2007	1.42	2.53	2.66	5.10	1.62	3.50	3.48	12.78	2.37	3.02	0.33	4.28	43.09
2008	2.20	4.00	2.95	6.24	2.62	12.08	5.40	0.98	5.31	2.10	1.56	5.14	50.58
2009	0.85	1.84	4.77	5.13	3.51	4.93	1.68	4.69	2.28	4.56	1.58	3.45	39.27
2010	0.60	0.99	1.16	3.91	3.71	12.75	11.70	1.99	2.27	2.80	1.51	1.68	45.07
2011	1.23	2.73	2.96	3.72	3.52	2.81	4.82	2.32	3.96	1.54	3.45	2.78	35.84
2012	M1.54	1.22	2.94	2.62	4.50	0.19	3.53	2.36	1.76	M4.11	0.69	2.89	28.35
2013	3.57	3.07	2.01	6.97	6.92	7.85	3.29	2.47	2.15	3.17	2.24	1.65	45.36
2014	0.86	1.05	1.08	4.12	6.22	4.65	2.34	2.82	1.40	1.78	2.32	0.97	29.61
2015	0.95	0.67	0.74	3.91	4.07	3.23	3.09	3.79	6.36	1.43	5.34	4.95	38.53
2016	0.85	0.60	4.19	2.00	2.03	5.96	2.11	4.75	4.57	4.52	2.20	2.30	36.08
2017	2.04	2.04	2.81	7.33	4.53	5.85	8.50	2.19	0.23	5.38	1.09	0.42	42.41
2018	2.34	3.67	0.99	3.38	M4.49								14.87

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2016-07-22

Appendix E – OFF-SITE AERIAL IMAGERY ANALYSIS

Off-Site Aerial Imagery Review

29 Acre Parcel - Germantown, Washington County, WI

Project Location: Township 9N, Range 20E, Section 24

Investigators: Brian Lennie and Jacob Eeling

Image Date[1] (M-D-Y)	Image Source	Climate Condition	Image Interpretation(s)	Additional Notes
			Area A	
7-2017	NAIP	**Normal**	**WS, NC**	
9-2015	NAIP	**Dry**		
6-2013	NAIP	**Wet**		
6-2010	NAIP	**Normal**	**WS, NC**	
7-2008	NAIP	**Normal**	**WS**	
6-2006	NAIP	**Wet**		
6-2005	NAIP	**Dry**		
7-2002	FSA	**Normal**	**WS**	
6-2001	FSA	**Normal**	**WS**	

Normal Climate Condition		Area A
Number of years with normal climate conditions		5
Number with wet signatures		5
Percent with wet signatures		100

KEY	
WS - wetland signature	SS - soil wetness signature
NC - not cropped	AP - altered pattern
DO - Drowned out	SW - standing water

Other labels or comments:

[1]If only the year is known, assumption is made that FSA slides are taken in July; as a result, climate condition analysis focuses on three months prior to July

Off-Site Aerial Photography Review[1]

29 Acre Parcel - Germantown, Washington County, WI

Project Location: Township 9N, Range 20E, Section 24

Year	Monthly Rainfall in Inches [2]			Relative Wetness
	March	April	May	
2001	0.58	4.30	5.20	**Normal**
2005	1.15	1.57	2.84	**Dry**
2006	3.31	4.28	5.72	**Wet**
2010	1.16	3.91	3.71	**Normal**
2013	2.01	6.97	6.92	**Wet**
30% chance less than	1.35	2.96	3.32	
30 Year Average	2.18	3.98	4.44	
30% chance more than	2.64	4.66	5.19	

DRY
NORMAL
WET

[2] Precipitation data from NWS weather station GERW3 - Germantown, WI

Off-Site Aerial Photography Review[1]

29 Acre Parcel - Germantown, Washington County, WI

Project Location: Township 9N, Range 20E, Section 24

Year	Monthly Rainfall in Inches [2]			Relative Wetness
	April	May	June	
2002	4.23	2.74	5.95	**Normal**
2008	6.24	2.62	12.08	**Normal**
2017	7.33	4.53	5.85	**Normal**
30% chance less than	2.96	3.32	3.01	
30 Year Average	3.98	4.44	5.12	
30% chance more than	4.66	5.19	6.22	

DRY
NORMAL
WET

[2] Precipitation data from NWS weather station GERW3 - Germantown, WI

Off-Site Aerial Photography Review[1]

29 Acre Parcel - Germantown, Washington County, WI

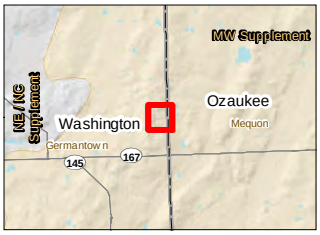
Project Location: Township 9N, Range 20E, Section 24

Year	Monthly Rainfall in Inches [2]			Relative Wetness
	June	July	August	
2015	3.23	3.09	3.79	**Dry**
30% chance less than	3.01	2.74	42.64	
30 Year Average	5.12	3.90	4.01	
30% chance more than	6.22	4.63	4.81	

DRY
NORMAL
WET

[2] Precipitation data from NWS weather station GERW3 - Germantown, WI

V:\1937\Active\193706107\03 data\gis cad\gis\mxds\fig X NAIP FSA 193706107.mxd Revised: 2018-05-29 By: aswain



Legend

Approximate Project Boundary

Wetness Signature Area

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Orthophotography: NAIP

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.
X

Title
Historic Orthophotography
NAIP 7/30/2017

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-29
Technical Review by JM on 2018-05-29
Independent Review by BSL on 2018-05-29

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Stantec

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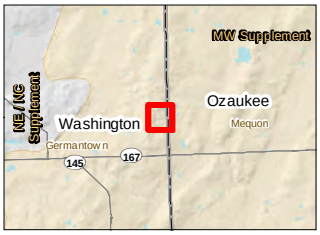

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Orthophotography: NAIP

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Legend

Approximate Project Boundary

Wetness Signature Area

Figure No.
X

Title
Historic Orthophotography
NAIP 6/28/2010

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-29
Technical Review by JM on 2018-05-29
Independent Review by BSL on 2018-05-29

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

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Stantec

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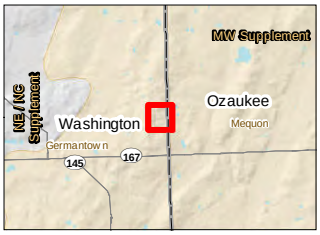

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Orthophotography: NAIP

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Legend

Approximate Project Boundary

Wetness Signature Area

Figure No.
X

Title
Historic Orthophotography
NAIP 7/5/2008

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-29
Technical Review by JM on 2018-05-29
Independent Review by BSL on 2018-05-29

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

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Stantec

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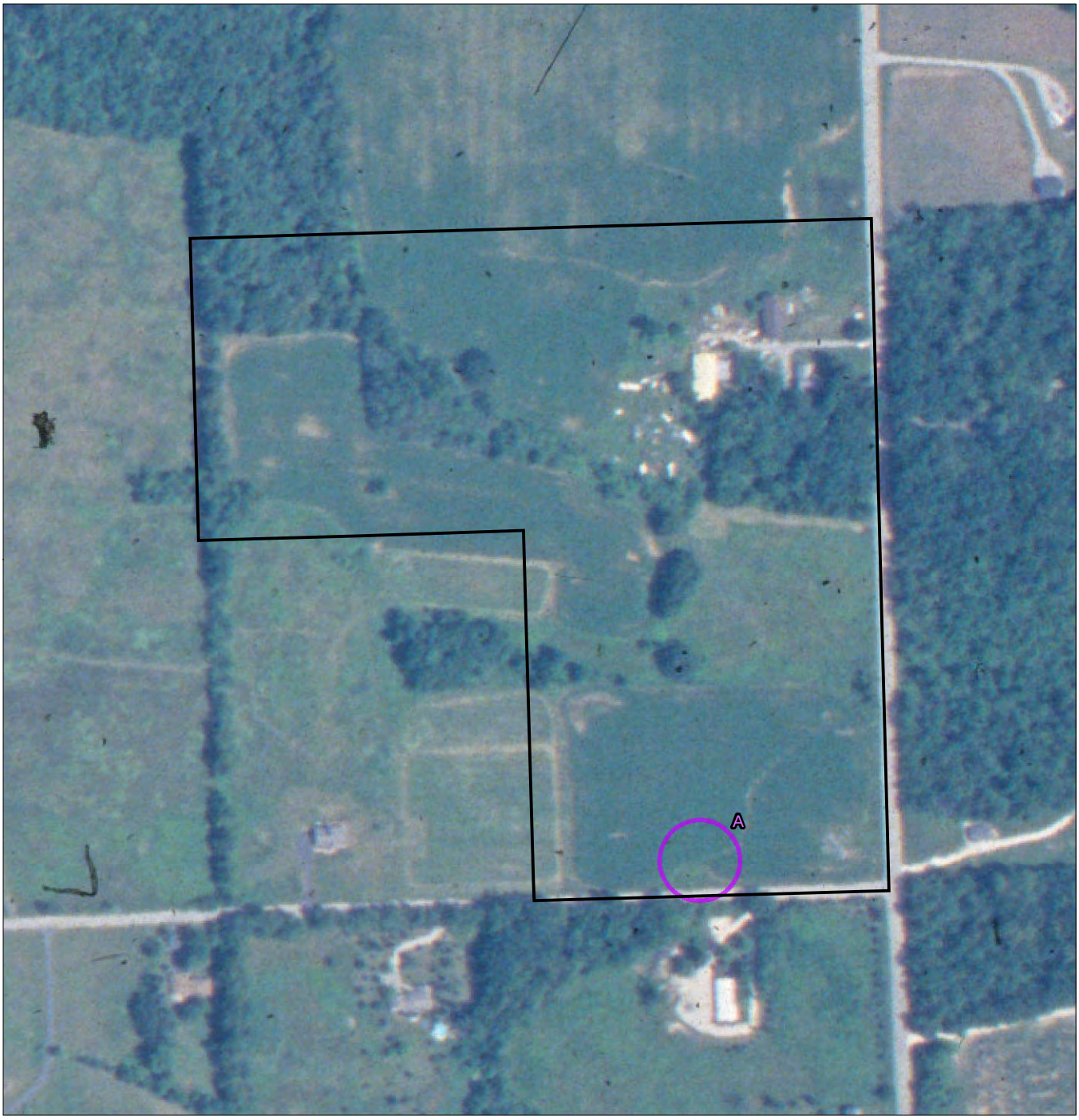

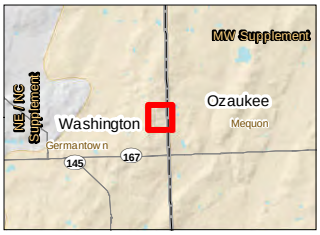

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Orthophotography: FSA

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Legend

Approximate Project Boundary

Wetness Signature Area

Figure No.
X

Title
Historic Orthophotography
FSA July 2002

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-29
Technical Review by JM on 2018-05-29
Independent Review by BSL on 2018-05-29

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec

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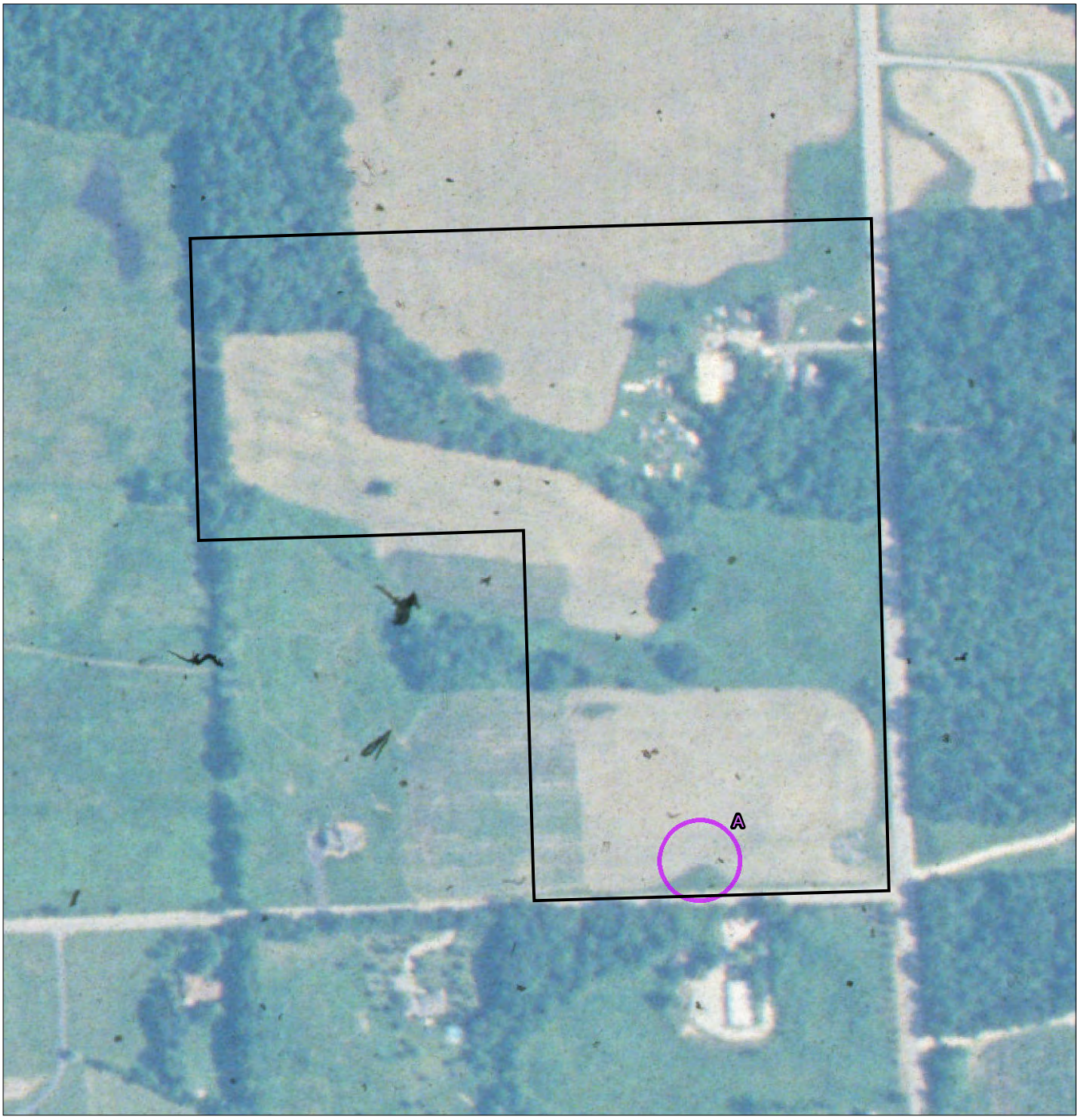

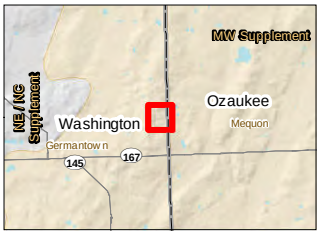

Legend

Approximate Project Boundary

Wetness Signature Area

Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Orthophotography: FSA

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.
X

Title
Historic Orthophotography
FSA June 2001

Client/Project
Dave Leszczynski
29 Acre Parcel
Wetland Delineation

Project Location
T9N, R20E, S24,
V. of Germantown,
Washington Co., WI

193706107
Prepared by AJS on 2018-05-29
Technical Review by JM on 2018-05-29
Independent Review by BSL on 2018-05-29

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec

Appendix F – Qualifications

Environmental Technology Center

certifies that

Brian Lennie

has successfully completed the

U.S. Army Corps of Engineers
Wetland Delineation Certification Training Program

Issued Certificate No. 291 on this sixteenth day of August, 1996, in Oakbrook Terrace, Illinois

---

Richard Chinn, C.E.T., Director of Training
USACOE Certified Wetland Delineator

Environmental Technology Center
8413 Laurel Fair Circle, Suite 200, Tampa, FL 33610-7355
Ph: 813-621-8848 Fax: 813-621-0153

This training has been based in part on the U.S. Army Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1 (1987 Manual), as provided for in the training materials developed in conjunction with Section 307(e) of the Water Resources Development Act of 1990 for the Wetland Delineator Certification Program.

Certificate of Attendance

University of Wisconsin-La Crosse

Brian Lennie

Has Completed: 19 Hours of

Advanced Wetland Delineation Training on this 31st day of August, 2001

Sponsored by

UW-La Crosse River Studies Center

and UW-La Crosse Continuing Education/Extension

in cooperation with

State of Wisconsin Department of Administration, Wisconsin Coastal Management Program

Southeastern Wisconsin Regional Planning Commission

United States Geological Survey

USDA-Natural Resources Conservation Service

Wisconsin Department of Natural Resources

Certificate of Attendance

University of Wisconsin-La Crosse

Brian Lennie

has completed 16 hours of advanced wetland delineation training sponsored by the River Studies Center and Continuing Education and Extension in cooperation with the Wisconsin Department of Administration, Wisconsin Coastal Management Council, Wisconsin Department of Natural Resources and UW-Extension, on this 18th day of August, 2000.

Mark Sandheinrich, Director
UW-La Crosse, River Studies Center

M. Donald Campbell, Director
UW-La Crosse, Continuing Education and Extension

Dea Larsen Converse, Program Manager
Wisconsin Coastal Management Program

Donald M. Reed, Chief Biologist
S.E. Wisconsin Regional Planning Commission

B. Dale Simon, Chief Biologist, Regulations Section
Wisconsin Department of Natural Resources

STORMWATER MANAGEMENT COMMISSION

Lake County Stormwater Management Commission

grants the designation of

Certified Wetland Specialist #C-010

to

Brian Lennie

In fulfillment of the professional requirements approved by the Lake County Stormwater Management Commission under the Lake County Watershed Development Ordinance (rev. 8-14-02).

Michael D. Warner, Chief Engineer

April 30, 2002

Glenn H. Westman, CWS Administrator

STORMWATER MANAGEMENT COMMISSION

August 24, 2017

Mr. Brian Lennie
Stantec
12075 Corporate Parkway, Suite 200
Mequon, WI 53092

RE: Lake County Certified Wetland Specialist # C-010– *Re-Certification*

Dear Brian:

The Lake County Stormwater Management Commission (SMC) is pleased to approve your re-certification as a *Certified Wetland Specialist* (CWS), in accordance with the Lake County Watershed Development Ordinance (WDO). Your CWS certification is valid until September 17, 2020.

To maintain your certification, you will need to obtain a minimum of 24 hours of wetland-related training before the expiration date, including any designated SMC-mandatory training courses. If you are considering attending a training course and are not sure if will qualify as "wetland-related" training for your CWS certification, please provide us with information on the course (e.g., flyer, brochure, agenda, etc.) and we will advise you accordingly.

If you have any questions regarding your CWS certification, please call me at (847)377-7718 or e-mail me at gwestman@lakecountyil.gov.

Sincerely,

Lake County Stormwater Management Commission

Glenn H. Westman, P.W.S., CWS
Principal Wetland Specialist/CWS Program Administrator

McHenry County Certified Wetland Specialists

The following is a list of persons that have met the minimum requirements for being a Certified Wetland Specialist (CWS) as specified in the McHenry County Stormwater Management Ordinance (SMO). This list is provided as a courtesy for persons seeking Certified Wetland Specialist consulting expertise. The inclusion of a firm or person on this list does not constitute a recommendation, endorsement, or certification of performance. It is the responsibility of consultants to be knowledgeable of the professional qualifications necessary to provide such services and to obtain the requisite expertise. McHenry County personnel will not provide any recommendations. Those seeking professional services are advised to utilize independent judgment in evaluating the credentials of any firm or person appearing on this list.

FIRST NAME	LAST NAME	COMPANY	ADDRESS	PHONE	E-MAIL ADDRESS
Cheryl	Nash	AECOM	303 E. Wacker Dr., Suite 1400, Chicago, IL 60601	(312) 373-6808	cheryl.nash@aecom.com
Bryce	Pewonka	AECOM	207 N. Broadway, Suite 315, Billings, MT 59101	(406) 652-7481	
Teri	Radke	AECOM	303 E. Wacker Dr., Suite 1400, Chicago, IL 60601	(312) 373-7086	teri.radke@aecom.com
John	Larson	Applied Ecological Services	17921 Smith Rd., PO Box 256, Brodhead, WI 53520	(608) 897-8641	john@appliedeco.com
William	Stoll	Applied Ecological Services	120 W. Main St., #201, West Dundee, IL 60118	(847) 844-9385	
Steve	Zimmerman	Applied Ecological Services	120 W. Main St., #201, West Dundee, IL 60118	(847) 844-9385	stevez@appliedeco.com
Thomas	Ganfield	Baxter & Woodman, Inc.	256 S. Pine St., Burlington, WI 53105	(262) 763-7834	tganfield@baxterwoodman.com
Valerie	Jakobi	Bollinger Environmental, Inc.	4901 Forest Ave., Suite C, Downers Grove, IL 60515	(630) 968-1960	val.jakobi@gmail.com
Justin	Bailey	Burns & McDonnell	9400 Ward Pkwy., Kansas City, MO 64114	(816) 333-9400	jbailey@burnsmcd.com
Edward	Belmonte	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3393	ebelmonte@burnsmcd.com
Sarah	Gutman	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3200	slgutman@burnsmcd.com
Amy	Moon	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3200	amoon@burnsmcd.com
Marie	Russo	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3200	kmrusso@burnsmcd.com
Sarah	Soard	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3200	ssoard@burnsmcd.com
Kari	Harris	Canadian National	17641 S. Ashland Ave., Homewood, IL 60403	(708) 332-4543	kari.harris@cn.ca
Greg	Quartucci	Cardno, Inc.	6605 Steger Rd., Unit A, Monee, IL 60449	(708) 534-3450	gregquartucci@cardno.com
Dan	Salas	Cardno, Inc.	6140 Cottonwood Dr., Suite A, Fitchburg, WI 53719	(608) 661-2955	dan.salas@cardno.com
Nicole	Staskowski	Cardno, Inc.	6140 Cottonwood Dr., Suite A, Fitchburg, WI 53719	(608) 661-2955	nicole.staskowski@cardno.com
Joseph	Von Wahlde	Cardno, Inc.	6605 Steger Rd., Unit A, Monee, IL 60449	(708) 534-3450	joe.vonwahlde@cardno.com
Michele	Martzke	CB&I	1607 E. Main St., Suite E, St. Charles, IL 60174	(630) 762-1400	michele.martzke@cbi.com
Stephen	Chu	CH2M Hill, Inc.	135 South 84th St., Suite 400, Milwaukee, WI 53214	(414) 847-0265 x40265	stephen.chu@ch2m.com
Jedd	Anderson	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	jedd@cbbel.com
Megan	Briggs	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	mbriggs@cbbel.com
Julie	Gangloff	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	jgangloff@cbbel.com
Elizabeth	Gilson	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	egilson@cbbel.com
Eric	Japsen	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	ejapsen@cbbel.com
Thomas	Kehoe	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	tkehoe@cbbel.com
Travis	Kessler	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	tkessler@cbbel.com
Thomas	McArdle	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	tmcardle@cbbel.com
Ken	Fiske	Conservation Services	9313 Bull Valley Rd., Woodstock, IL 60098	(815) 338-0592	conserveone@aol.com
Alicia	Douglass	Davey Resource Group	700 McHenry Ave., Woodstock, IL 60098	(815) 334-8266	alicia.douglass@davey.com
Daniel	Krill	DK Environmental Services, Inc.	1422 Sunflower Ct., Grayslake, IL 60030	(847) 548-7458	dkenvserv@sbcglobal.net
Jason	Doland	Doland Engineering, LLC	334 E. Colfax St., Unit C-1, Palatine, IL 60067	(847) 991-5088	jdoland@dolandengineering.com
Susan	Rowley	ENCAP, Inc.	2585 Wagner Ct., DeKalb, IL 60115	(815) 748-4500	srowley@encapinc.net
Valerie	Scola	Enbridge	1409 Hammond Ave., Superior, WI 54880	(715) 398-4638	valerie.scola@enbridge.com
Erin	Pande	Engineering Resource Associates, Inc.	3S701 West Ave., Suite 150, Warrenville, IL 60555	(630) 393-3060	epande@eraconsultants.com
Carl	Peterson	Gary R. Weber Associates, Inc.	212 S. Main St., Wheaton, IL 60187	(630) 668-7197	cpeterson@grwainc.com
Irma	Terry	Gewalt Hamilton Associates, Inc.	625 Forest Edge Dr., Vernon Hills, IL 60061	(847) 478-9700	iterry@gha-engineers.com
William	Santelik	GSG Consultants, Inc.	855 W. Adams St., Suite 200, Chicago, IL 60607	(312) 733-6262	wsantelik@gsg-consultants.com
Christina	Curry	Hampton, Lenzini and Renwick, Inc.	380 Shepard Dr., Elgin, IL 60123-7010	(847) 697-6700	ccurry@hlreng.com
Alicia	Dyner	Hampton, Lenzini and Renwick, Inc.	380 Shepard Dr., Elgin, IL 60123-7010	(847) 697-6700	adyner@hlreng.com
Karen	Kase	Hampton, Lenzini and Renwick, Inc.	380 Shepard Dr., Elgin, IL 60123-7010	(847) 697-6700	kkase@hlreng.com
Randal	Newkirk	Hampton, Lenzini and Renwick, Inc.	380 Shepard Dr., Elgin, IL 60123-7010	(847) 697-6700	rnewkirk@hlreng.com
Erica	Spolar	Hampton, Lenzini and Renwick, Inc.	13335 Lakeside Dr., Unit 4, Romeoville, IL 60446	(847) 697-6700	espolar@hlreng.com
Sara	Paniagua	HDR	8550 W. Bryn Mawr Ave., Suite 900, Chicago, IL 60631	(773) 867-7217	sara.merchanpaniagua@hdrinc.com
Kelly	Burdick	Hey and Associates, Inc.	26575 W. Commerce Dr., Suite 601, Volo, IL 60073	(847) 740-0888	kburdick@heyassoc.com
Bob	Kerpec	Hey and Associates, Inc.	26575 W. Commerce Dr., Suite 601, Volo, IL 60073	(847) 740-0888	bkerpec@heyassoc.com
Jeff	Mengler	Hey and Associates, Inc.	26575 W. Commerce Dr., Suite 601, Volo, IL 60073	(847) 740-0888	jmengler@heyassoc.com
Vince	Mosca	Hey and Associates, Inc.	26575 W. Commerce Dr., Suite 601, Volo, IL 60073	(847) 740-0888	vmosca@heyassoc.com
Steve	Rauch	Hey and Associates, Inc.	26575 W. Commerce Dr., Suite 601, Volo, IL 60073	(847) 740-0888	srauch@heyassoc.com
Ted	McCaslin	HR Green, Inc.	2550 University Ave. West, Suite 400N, St. Paul, MN 55114	(651) 644-4389	tmccaslin@hrgreen.com

FIRST NAME	LAST NAME	COMPANY	ADDRESS	PHONE	E-MAIL ADDRESS
Alycia	Kluenenberg	Huff & Huff, Inc.	915 Harger Rd., Suite 330, Oak Brook, IL 60523	(630) 684-9100	akluenenberg@huffnhuff.com
Evan	Markowitz	Huff & Huff, Inc.	915 Harger Rd., Suite 330, Oak Brook, IL 60523	(630) 684-9100	emarkowitz@huffnhuff.com
Jim	Novak	Huff & Huff, Inc.	915 Harger Rd., Suite 330, Oak Brook, IL 60523	(630) 684-9100	jnovak@huffnhuff.com
Nikki	Pisula	Huff & Huff, Inc.	915 Harger Rd., Suite 330, Oak Brook, IL 60523	(630) 684-9100	npisula@huffnhuff.com
Lailah	Reich	Huff & Huff, Inc.	915 Harger Rd., Suite 330, Oak Brook, IL 60523	(630) 684-9100	lreich@huffnhuff.com
Sandy	Kubillus	Integrated Lakes Management, Inc.	120 LeBaron St., Waukegan, IL 60085	(847) 244-6662	skubillus@lakesmanagement.com
David	Koldoff	James J. Benes and Associates, Inc.	950 Warrenville Rd., Suite 101, Lisle, IL 60532	(630) 719-7570	dkoldoff@jjbenes.com
Joe	Hmieleski	JH Wetco	1924 Elmwood Dr., Highland Park, IL 60035	(847) 681-1828	jhmieleski@jhwetco.com
Coilin	McConnell	McConnell Environmental	8608 W. Sunset Dr., Wonder Lake, IL 60097	(815) 728-7281	coilinmcconnell@yahoo.com
Randolph	Stowe	Natural Areas Ecosystem Management	10015 Wright Rd., Harvard, IL 60033	(815) 648-2252	rjstowe@gmail.com
Julie	Paschal	Nicor Gas	1844 Ferry Rd., Naperville, IL 60563	(630) 388-3057	jpascha@aglresources.com
Rebecca	Olson	Olson Ecological Solutions, LLC	P.O. Box 4631, Rockford, IL 61110	(815) 985-2689	rebecca@olsonecosolutions.com
Patrick	Hickey	Planning Resources, Inc.	402 W. Liberty Dr., Wheaton, IL 60187	(630) 668-3788	phickey@planres.com
Scott	Kuykendall	Planning Resources, Inc.	402 W. Liberty Dr., Wheaton, IL 60187	(630) 668-3788	scott@planres.com
Tina	Myers	R. A. Smith National, Inc.	16745 W. Bluemound Rd., Suite 200, Brookfield, WI 53005-5938	(262) 317-3389	tina.myers@rasmithnational.com
Donald	Raisanen	Raisanen & Associates, Inc.	3250 N. Arlington Heights Rd., Suite 106, Arlington Heights, IL 60004	(847) 870-7762 x12	draisanen@raisanen.com
Rick	Gundlach	SCI Engineering, Inc.	130 Point West Blvd., St. Charles, MO 63301	(636) 949-8200	
Susan	Knabe	Stantec, Inc.	954 Circle Dr., Green Bay, WI 54304	(920) 592-8440	susan.knabe@stantec.com
Brad	Kuykendall	Stantec, Inc.	209 Commerce Pkwy., PO Box 128, Cottage Grove, WI 53527	(608) 839-1998	brad.kuykendall@stantec.com
Brian	Lennie	Stantec, Inc.	12075 Corporate Pkwy., Suite 300, Mequon, WI 53092	(262) 643-9061	brian.lennie@stantec.com
Kate	Lund	Stantec, Inc.	209 Commerce Pkwy., PO Box 128, Cottage Grove, WI 53527	(608) 839-2036	kate.lund@stantec.com
Baron	Stuedemann	Stuedemann Environmental Consulting, LLC	0N419 Taylor Dr., Geneva, IL 60134	(331) 588-1805	bstuedemann@stuedenv.com
Kevin	Hammann	Tierra Ecological Consultants	4911 N. Keystone Ave., Chicago, IL 60630	(773) 685-6460	tierraecological@tierraecological.com
Laura	Giese	TRC Environmental Corporation	150 N. Patrick Blvd., Brookfield, WI 53045	(262) 227-6405	lgiese@trcsolutions.com
Marcy	Knysz	TRC Environmental Corporation	230 W. Monroe St., Suite 2300, Chicago, IL 60606	(312) 800-5909	mknysz@trcsolutions.com
Ron	Londre	TRC Environmental Corporation	150 N. Patrick Blvd., Brookfield, WI 53045	(262) 901-2139	rlondre@trcsolutions.com
E.J.	Varga	Varga & Associates	3806 IL Route 173, PO Box F, Richmond, IL 60071	(815) 678-2521	ejvarga@e-varga.com
Scott	Brejcha	V3 Companies	7325 Janes Ave., Woodridge, IL 60517	(630) 724-9200	sbrejcha@v3co.com
Alicia	Metzger	V3 Companies	7325 Janes Ave., Woodridge, IL 60517	(630) 724-9200	ametzger@v3co.com
George	Milner	V3 Companies	7325 Janes Ave., Woodridge, IL 60517	(630) 724-9200	gmilner@v3co.com
Thomas	Slowinski	V3 Companies	7325 Janes Ave., Woodridge, IL 60517	(630) 724-9200	tslowinski@v3co.com
Carl	Dawes	Weaver Consultants Group	1813 N. Mill St., Suite A, Naperville, IL 60563	(630) 717-4848	cdawes@wcgrp.com
Brent	Solinsky	Weaver Consultants Group	1813 N. Mill St., Suite A, Naperville, IL 60563	(630) 717-4848	bsolinsky@wcgrp.com
Jeff	Moody	Williams Creek Consulting, Inc.	1530 S. Second St., St. Louis, MO 63104	(314) 644-5518	jmoody@williamscreek.net
Natalie	Paver	Wills Burke Kelsey Associates, Ltd.	8 E. Galena Blvd., Suite 402, Aurora, IL 60506	(630) 701-2245	npaver@wbkengineering.com
Robert	Vanni	Wills Burke Kelsey Associates, Ltd.	116 W. Main St., Suite 201, St. Charles, IL 60174	(630) 443-7755	rvanni@wbkengineering.com
AGENCY/NO CONTACT INFORMATION					
Patrick	VerHalen	Kane County Division of Transportation		(630) 208-3138	verhalenpatrick@co.kane.il.us
Juli	Crane	Lake County SMC	500 W. Winchester Rd., Suite 201, Libertyville, IL 60048	(847) 377-7700	jcrane@lakecountyil.gov
Gabe	Powers	McHenry County Conservation District	18410 US Highway 14, Woodstock, IL 60098	(815) 338-6223	gpowers@mccdistrict.org
Spring	Duffey	McHenry-Lake SWCD	1648 S. Eastwood Dr., Woodstock, IL 60098	(815) 338-0099 x3	spring.duffey@il.nacdnet.net
Bob	Oja	McHenry-Lake SWCD	1648 S. Eastwood Dr., Woodstock, IL 60098	(815) 338-0099 x3	bob.oja@mchenryswcd.org
Andrew	Blackburn	USACE - Chicago District	231 LaSalle St., Suite 1500, Chicago, IL 60604-1437	(312) 846-5543	andrew.j.blackburn@usace.army.mil
Walter	Karla	RETIRED			
Rachel	Lang				
Joyce	Marzano				
Melissa	Skyer				
Renee	Wilde				

University of Wisconsin-La Crosse
Office of Continuing Education and Extension
Professional Transcript

For: Brian Lennie
12075 N. Corporate Parkway
Mequon WI 53092

Event Date(s)	Event	Location	CE units	Contact hours	Type
3/7/2018 - 3/7/2018	Critical Methods 2018	Radisson Hotel, Madison, Wis.	0.65	6.5000	UW-Ex CEUs

Continuing Education Units (CEUs) are a means of recognizing and recording satisfactory participation in non-degree programs. University of Wisconsin-Extension (UW-Ex) awards one CEU for each 10 contact hours in a continuing education experience. Actual contact hours are recorded.

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Penny Tiedt

University of Wisconsin-La Crosse
Office of Continuing Education and Extension
Professional Transcript

For: Brian Lennie
12075 N. Corporate Parkway
Mequon WI 53092

Event Date(s)	Event	Location	CE units	Contact hours	Type
3/8/2017 - 3/8/2017	Critical Methods 2017	Crowne Plaza, Madison, Wis.	0.65	6.5000	CEU

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University of Wisconsin-La Crosse

Office of Continuing Education and Extension

Professional Transcript

Angie Coenen

Angie Coenen
Outreach Specialist
University of Wisconsin-La Crosse
Continuing Education & Extension

Brian Lennie, Stantec
12075 N. Corporate Parkway
Mequon WI 53092

Event Date(s)	Event	CE units	Contact hours	Type
3/9/2016 - 3/9/2016	Critical Methods Wetland Delineation, Madison, Wis.	0.65	6.5000	CEU

University of Wisconsin-La Crosse
Office of Continuing Education and Extension
Professional Transcript

For: brian lennie
12075 corporate parkway
mequon WI 53092

Event Date(s)	Event	Location	Credits	Type
3/11/2015 - 3/11/2015	Critical Methods	Crowne Plaza, Madison, Wis.	0.65	CEU

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Tracy Noyes, Outreach Specialist
Office of Continuing Education & Extension
University of Wisconsin-La Crosse

608.785.6504
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The University of Wisconsin-La Crosse
Continuing Education and Extension
In Partnership with UW-Extension

Certify that:

Brian Lennie

has completed

Critical Methods in Wetland Delineation
March 12, 2014
Madison, Wisconsin

CEUs: 0.65 Contact Hours: 6.5

Sponsored by

UW-La Crosse River Studies Center and
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in cooperation with

State of Wisconsin Department of Administration, Wisconsin Coastal Management Program
Southeastern Wisconsin Regional Planning Commission
United States Geological Survey
USDA-Natural Resources Conservation Service
Wisconsin Department of Natural Resources
U.S. Army Corps of Engineers

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Certify that:

Brian Lennie

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Critical Methods in Wetland Delineation
March 13, 2013
Madison, Wisconsin

CEUs: 0.65 Contact Hours: 6.5

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Southeastern Wisconsin Regional Planning Commission
United States Geological Survey
USDA-Natural Resources Conservation Service
Wisconsin Department of Natural Resources
U.S. Army Corps of Engineers

PRELIMINARY SUBDIVISION PLAT & CONDITIONAL USE PERMIT (CUP)

7/9/18 Plan Commission Meeting

Baudhuin Surveying & Engineering / Top Leaf Development LLC

Village Planner Report **Germantown, Wisconsin**

Summary

Baudhuin Surveying & Engineering, agent for Top Leaf Development LLC, property owner, is requesting approval of a conditional use permit (CUP) and preliminary subdivision plat for Harvest Hills, a 107-acre, 37-lot residential development located south of Freistadt Road, north of Elm Lane and west of Wasaukee Road.

Property Location: Freistadt Road, Elm Lane and Wasaukee Road

Applicant/
Property Owner:

Pete Hurth	Shari Waggoner
Baudhuin Survey & Eng	Alan & Lynda Luther
312 N 5th Ave	Top Leaf Development LLC
Sturgeon Bay, WI	Colgate, WI

Zoning: Rs-3: Single-family Residential

Adjacent Land Uses		**Zoning**
North	Residential/Agricultural	Rs-1/A-1
South	Residential/Institutional	Rs-1 & 2/I
East	Residential/Agricultural	A-1/Rs-3
West	Agricultural	A-1/A-2

Proposal/Background

Baudhuin Surveying & Engineering, agent for Top Leaf Development LLC, property owner, is requesting approval of a conditional use permit (CUP) and preliminary subdivision plat for Harvest Hills, a 107-acre, 37-lot residential development located south of Freistadt Road, north of Elm Lane and west of Wasaukee Road.

As presented in the preliminary plat and summarized in Table 1, Harvest Hills has the following characteristics:

TABLE 1.
Harvest Hills Preliminary Plat

Gross Area (Ac)	107.74
Wetland Area (Ac)	10.86
Right-of-Way (Ac)	8.63
Net Density Area (Ac)	88.25
# Single-Family Lots/DU's	37
Gross Density (DU/gross acre)	0.34
Net Density (DU/net acre)	0.42
Open Space Outlots (Ac)	54.77
Avg Lot Size (ac)	1.20
Lot Size Range (Ac)	1.0 to 1.86

As noted in Table 1, the proposed density will only be .42 DU/ net acre (.34 DU/gross acre). This is significantly less than the maximum allowed in the underlying Rs-3 District (1.0 DU/acre).

The preliminary plat is different than the approved concept plan approved in February. As shown in the February 26 concept plan (copy attached); specifically, the west side of the site. Because of the extensive network of connected and isolated wetlands, the original plan for the west 35+ acres was to create five (5) larger lots served by a shared private driveway connected to the west segment of Elm Lane north of Forest Drive. However, subsequent to concept plan approval, the WisDNR field-checked the Developer's wetland delineation and found additional wetlands that make the original lot and driveway layout difficult, if not impossible, to carry out as planned without making further changes (see DNR letter dated June 18). Also, the original plan for the private shared driveway involved the crossing and possible filling of a small wetland area north of Lot 38 (see attached). However, the Army Corp of Engineers (ACOE) and WisDNR have not yet determined if that wetland is a federally-regulated wetland. If so, the permitting process needed to fill that wetland will be significantly different, more difficult and not necessarily a guaranteed approval. Finally, comments from the Southeastern Wisconsin Regional Planning Commission (SEWRPC), indicate that the west side of the site contains both Primary and Secondary Environmental Corridor (PEC) features, including an 18-acre "natural area of local significance" (Class NA-3) known as the

Schoessow Woods. SEWRPC recommends that these areas be protected from development and/or conveyed to a public agency or subject of a conservation easement under private ownership to provide the recommended level of protection (see SEWRPC letter dated April 27). For these reasons, the Developer is requesting that that 33.2 acres of the west side of the site be designated as an "outlot" on the preliminary plat with the intention of possibly platting this area into lots at a later date.

Conditional Use Permit (CUP): 25' Wetland Setback Encroachment

The applicant has submitted a conditional use permit (CUP) application under the Village's Shoreland-Wetland Zoning Code because of proposed development activity within portions of the 25' wetland setback areas throughout the development.

Although the Village's Shoreland-Wetland Code requires a 25' setback from all DNR-approved delineated wetlands (regardless of size or location), the Village may allow development within the 25' setback with a CUP. Section 24.04 of the Code permits development in the required 25' and 75' setbacks to provide additional buffering and/or compensation for the affected area(s) at a 1:1 ratio (for "horizontal" development) and a 2:1 ratio (for "vertical" development having impervious surface or a grade change greater than 3' height).

As detailed in the Mitigation Plan (dated July 3, 2018), all of the proposed development activity within the 25' setback areas is grading associated with the storm water management basins and internal road construction (see exhibits in Section 2 of the Mitigation Plan). Detailed in the narrative and exhibits, the total amount of setback area encroachment is approximately 51,033 sqft (1.17 acres), including:

- 40,627 sqft with < 3' of grade change (horizontal development)
- 10,406 sqft with > 3' of grade change (vertical development)

Due to some of the encroachment being "vertical" development (> 3' grade change) with a compensation ratio of 2:1, the total amount of area requiring compensation totals 61,429 sqft (1.41 acres).

Compensation will be provided in an area totaling 19,500 sqft lying along the east property line within and around portions of the setback areas. Compensation will be provided in the form of: (1) invasive species removal/eradication (min. 2 acres of Buckthorn removal)); and (2) planting native wetland grass seed mix (min. 1 acre) as shown in Exhibit 4 in the Mitigation Plan.

Comments: Preliminary Plat

Village Planner/Zoning Administrator

In accordance with the Village's Subdivision Code, the Plan Commission is responsible for reviewing the preliminary plat application and forwarding a recommendation to the Village Board along with comments received from the official "objecting agencies" (i.e. Department of Administration, WisDOT and Washington County), as well as, all other review agencies to whom the plat has been submitted (e.g. Southeastern Wisconsin Regional Planning Commission/SEWRPC, Germantown School District, all utility

companies, etc).

The proposed landscaping and monument sign at the Freistadt Road entrance are located in the vision triangle on Lot 18 and will need to be moved; ideally into a landscape easement area on Lot 18 outside the vision triangle. Also, the street tree landscape plan needs final approval from the Village Forester. With all of the proposed streets having a rural cross-section (open ditches vs. curb & gutter), the street trees will need to be installed close to the front/street yard property line.

With respect to existing trees, a tree removal and protection plan has been prepared (copy attached). A significant number of large trees (>6" dia.) are proposed to be removed to make room for the streets and storm water basins, including Basswood (American Linden), Beech, Cherry, Hawthorn, Maple, Pine and Poplar. A large number of Pine, Boxelder and dead/dying Ash trees are also proposed to be removed.

Although the Developer is now proposing to leave the west side of the property in open space outlots, including a 6.9-acre outlot containing the large storm water basin (Outlot 7) and a 33.2-acre outlot (Outlot 8) that will likely be platted into additional lots the future, staff supports the SEWRPC recommendation that any platted lots in this area be located outside the primary environmental corridor area (PEC). Future plans to re-plat Outlot 8 should reflect this recommendation. Also, in order to avoid any wetland filling, the proposed private, shared driveway may need to be relocated (with one alternative being an extension of Elm Lane further west and north of the Village park with access to the north via a separate street as was originally proposed).

The Developer's Agreement should include a requirement that subdivision deed restrictions and covenants be submitted to the Village prior to final plat submittal that include a requirement that each individual lot contain the minimum landscaping required under Section 17.43(5).

In an April 20 email from Park & Recreation Director Mark Schroeder, the Village's Park & Recreation Commission is on record as being in favor of the proposed Harvest Hills development provided that a paved pedestrian path is provided (as proposed) along and within the unimproved Elm Lane right-of-way to provide access to Friedenfeld Park.

<u>Village Engineer/Public Works</u>
The developer has submitted construction plans for the road improvements, storm water management facilities, and landscaping (street trees) for the development. Those plans are currently being reviewed and not yet approved by the Village Engineer and Public Works Department staff.

In a series of review memos dated May 4 and June 13, (copies attached), the Village Director of Public Works identifies a series of issues and plan details and corrections that will need to be addressed in the construction plans submitted or in additional/supplemental plans required prior to the Village executing a Development Agreement with the Developer and/or commencing construction. A couple of significant

issues include storm water management and the need for a mass grading plan for the site.

Also, the Village Surveyor has identified a series of minor preliminary plat details in a May 1, 2018 review memo that need to be made/corrected prior to approval of the preliminary plat by the Village Board.

Fire Department
The Fire Department has reviewed the preliminary plat and is recommending approval provided the temporary "T" road closure at the end of Taylor Trail be designed to accommodate emergency vehicles. With regard to the previously proposed shared driveway, the Department recommends a minimum driveway width of 22 feet and a permanent cul-de-sac type (min. 65' radius) closure designed to accommodate emergency vehicles.

Washington County
On April 17, the Washington County Public Works Committee went on record stating their objection to the preliminary plat for reasons related to a lack of soil tests not having been submitted (since resolved by the Developer), lack of approval for the proposed CTH F access driveway (since resolved as stated in a June 7 Highway Department letter), the primary and secondary environmental corridors not being shown on the plat. Washington County is an "objecting agency" (vs. an "approving agency") for subdivision plats proposed in the Village. The Village Plan Commission and Village Board are not obligated, but encouraged, to consider Washington County's objections when deciding what action to take.

Wisconsin Dept of Administration
In an April 26, 2018 letter, the Department of Administration (DOA) indicates that they are withholding certification of the preliminary plat due to the objections filed by Washington County. DOA also identifies a series of corrections that will need to be made to the final plat in order to comply with the platting requirements under Wis. Stats. Chapter 236. *[NOTE: The DOA does not require re-submittal of a preliminary plat, but looks for any objections to be addressed and reflected in the final plat prior to DOA certification]*

Southeastern Wisconsin Regional Planning Commission (SEWRPC)
In an April 27, 2018 letter, SWERPC provides a series of comments and recommendations regarding the property and proposed development. As discussed previously, SEWRPC recommends that the west side of the site containing both Primary and Secondary Environmental Corridor (PEC) features, including an 18-acre "natural area of local significance" (Class NA-3) known as the Schoessow Woods, be protected from development and/or conveyed to a public agency or subject of a conservation easement under private ownership to provide the recommended level of protection.

WisDOT
Harvest Hills does not abut any highway under WisDOT jurisdiction. Therefore, no comments or objections have been filed.

Germantown School District
No comments or objections have been filed.

Staff Comments: 25' Wetland Setback CUP
With regard to the CUP for development within the 25' wetland setback areas, staff supports the proposed mitigation plan that includes the removal of invasive species and the planting/restoration of wetland grasses near the disturbed setback areas. However, success of the native grass plantings and invasive plant removal depends on monitoring of the actions taken. Consequently, the owner should be required to prepare and submit an annual monitoring report to the Village documenting all management activities, the success of those management activities, and any corrective actions needed to ensure success of the mitigation plan for a minimum of three (3) years after initial implementation.

Village Planner Recommendation

APPROVE the Harvest Hills preliminary subdivision plat subject to the following conditions:

1. Developer shall enter into a Development Agreement with the Village pursuant to Section 18 of the Village Code (Subdivision and Platting), as well as, the preparation of detailed plans for the installation of public utilities and improvements including, but not limited to public street and intersection improvements, sanitary sewer, storm sewer & storm water management facilities, master grading plan and erosion control, trails, landscaping & street trees, open space, lighting and signage.
2. The street tree landscape plan dated June 21, 2018 (revision date) shall be approved by the Village Forester prior to installation of any street trees within the development. Street trees shall be installed close to the front/street yard property line. The timing of installation of the street trees and common open space landscaping shall be determined as set forth in the Development Agreement.
3. All of the comments, outstanding issues, construction plan details and corrections, and plat preliminary corrections identified by the Director of Public Works in a May 4 and June 13, 2018 review memos, and by the Village Surveyor in a May 1, 2018 review memo, shall be addressed prior to executing the Development agreement and/or commencement of construction.
4. The Development Agreement shall include a requirement that subdivision deed restrictions and covenants be submitted to the Village prior to final plat submittal that include a requirement that each individual lot contain the minimum landscaping required under Section 17.43(5).
5. The proposed landscaping and monument sign at the Freistadt Road shall be located outside of the vision triangle and within a landscape easement on Lot 18.

VILLAGE PLANNER RECOMMENDATION

APPROVE a Conditional Use Permit to allow development within the 25' wetland setback areas and proposed compensation as presented in the Wetland Mitigation Plan pursuant to Section 24.04 of the Shoreland-Wetland Zoning Code and subject to the following conditions:

1. The Developer shall prepare and submit an annual monitoring report to the Village and local DNR staff concerning the various management activities proposed in the plan, including the invasive species removal and wetland grass planting/restoration. Said report shall, at a minimum, detail the type and amount of plantings, all activities carried out in the previous year and the observed success of all previous activities, recommendations for new or different activities needed to ensure success of the mitigation measures and management activities to be carried out, and a list of planned activities for the upcoming year. Said report shall be submitted annually at the end of each year beginning in 2018 for a period of three (3) years.

Engineering Department Memorandum

To : Jeffrey W. Retzlaff, AICP, Planning Director/Zoning Administrator

From : Lawrence Ratayczak, P.E., Director of Public Works

Date : June 13th , 2018

Re : Harvest Hills Subdivision: Site Plan Review

Items Reviewed:

1. Civil Plan Set (21 pages) Dated: 05-18-18
2. Stormwater Management Report/Calcs Dated: 05-18-18

General Comments:

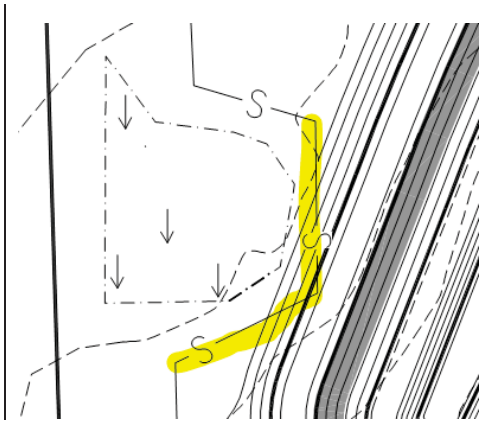
1. Please respond to each item below. **A written response addressing each item shall be included in your submittal**.
2. The submitted plans have been reviewed for general conformance with State and Village design guidelines.The items listed below will need to be fully resolved before the Engineering Dept. can recommend a formal approval of the plans and permit for construction.
3. This project will require an NOI from the DNR. Please submit a copy of the approved permit prior to final approval.
4. Septic system review and approval is handled by Washington County. The County is currently reviewing the plat and may have additional comments on the plat and septic system design.
5. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
6. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
7. Contact Frank Rosecky, 262-250-4722 for a utility permit.
8. As a guide to the review response: Items in *italics* are resolved or acknowledged, items in regular font are to be addressed yet, items in **Bold** are additional feedback to remaining original comment.
9. Submit a copy of the approved wetland fill permit, for the shared driveway on the southwest portion of the site.

EC-1 Erosion Control Plan

1. *Please update plan to show existing and proposed contours.*
2. *Adjust plan to a smaller scale. 1" = 120' does not show adequate detail for an erosion control plan.*
3. *Move erosion control and stabilization notes from the detail sheet to the erosion control plan.*

Update notes to include WDNR standard notes. At minimum the following should be included.
- *Construction Sequence. Update to include likely dates. A 60 day construction schedule is likely not appropriate for a 120 acre site.*
- *Winter stabilization dates and requirements. (update to match current wdnr standards)*
- *Requirement that all areas be topsoiled and seeded within 7 days of reaching final grade or when inactive for more than 14 days (this includes stockpiles)*

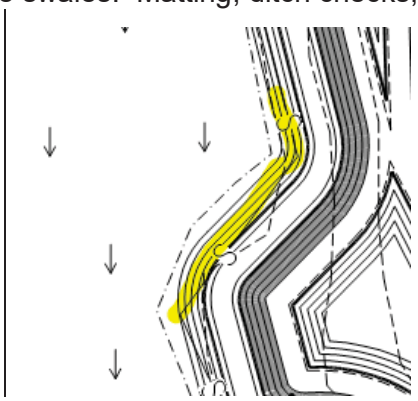
4. *Please include a legend.*
5. *Show temporary swales as needed to convey runoff to sediment basins.*
6. Add ditch checks as required by WDNR technical standards. **Revise ditch check spacing to match WDNR technical standards or provide documentation that the current plan meets the spacing requirements.**
7. Show erosion control measures for CTH F intersection and roadway improvements.
8. Update silt fence to contain all runoff from the site. Specifically the areas around lots 16, 17 and 18.
9. Adjust silt fence to be outside of proposed grading.



10. Show erosion control measures for the roadside swales. Matting, ditch checks, etc.
11. Show erosion matting on all slopes of 4:1 or steeper.

<u>EC-2 Erosion Control Plan</u>

1. Show erosion control measures for the roadside swales. Matting, ditch checks, etc.
2. Adjust silt fence to be outside of proposed grading.



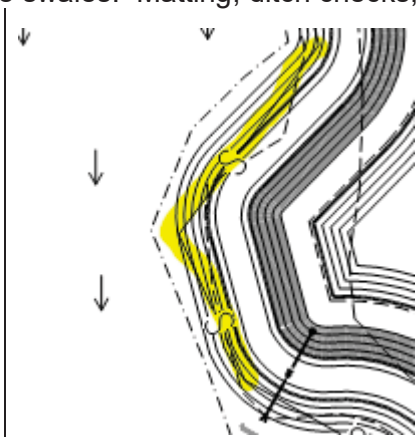
3. Add silt fence to contain runoff from all portions of the site. Specifically along the east side of

the site.

4. Show erosion matting on all slope 4:1 and steeper

EC-3 Erosion Control Plan

1. Show erosion control measures for the roadside swales. Matting, ditch checks, etc.
2. Adjust silt fence to be outside of proposed grading.



3. Add silt fence to contain runoff from all portions of the site.
4. Show erosion matting on all slope 4:1 and steeper.
5. Label erosion matting types.

EC-4 Erosion Control Plan

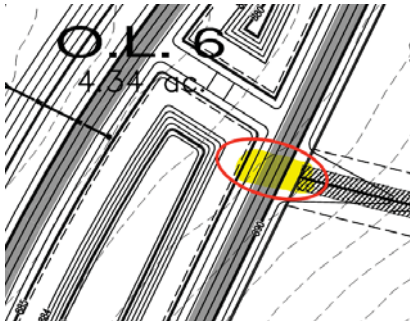
1. Show erosion control measures for construction of the driveway.

General Comments GP-1 – GP-3

1. *Label slopes in areas of 3:1 or 4:1 slopes*
2. Village requires trapezoidal shaped swales. Revised all swales to have a trapezoidal shape not a 'V' shape. **Roadside swales are still shown with a 'V' shape. Revise to trapezoidal.**
3. *Show a building pad with finished floor elevation and yard grade for each lot.* Show grading for each lot to allow for proper drainage and a building a pad for the building. **Building pads and elevations are now shown however many of these pads will not be able to be constructed to the elevation shown without grading over the lot lines. A mass grading plan for the site is required. The grading plan should show proposed/anticipated building pads and site grading to construct those building pads and driveways. The grading plan should create swales along side lot lines and rear lot lines to convey runoff. Building pad areas can be left lower when constructed to account for basement spoils, but the mass grading plan should show the site in its final condition. This plan will then be available for the village to reference when individual lots are constructed. This will ensure all lots are buildable and there will be no drainage issues once lots are built out. Should the homebuyer decide to alter from the proposed mass**

grading plan, they can submit an alternative/acceptable grading solution at the time of building permit.

4. Provide spot elevations at each lot corner and additional spot elevations as needed at high and low points. **Spot elevation have been added at lot corners. Add spot elevations at high and low points as needed for the mass grading plan.**
5. *Show and label all easements on the plans.*
6. Revise plans to show Village required wetland setbacks and or buffer mitigation plans. **Wetland setback is now shown however the setback area is being disturbed in many places. A conditional use permit and buffer mitigation plan are required per Village code. It is understood the developer is currently working with the village to prepare this. Mitigation plan will need to be approved prior to engineering approval of the plans.**
7. *Add level spreaders to all pond outlets.* Include a detail for the level spreader. **Add additional detail to the level spreader detail. Increase width to 20', show a depressed area at the pipe outfall and then a berm for the level spreader. The entire area between the berm and pipe outlet shall be stoned. Show height and width of the rock berm.**
8. Add additional contour labels for both the existing and proposed contours. Many of the contours are not labeled or are spaced far apart making the plan difficult to review.
9. Continue drainage swales/grading into all the stormwater basins and show permanent erosion control methods in these areas.



GP-1 Grading Plan

1. *Swale between lots 19 and 20 is very narrow and will be difficult to construct. Revise to widen the swale with a trapezoidal shape.*
2. *Lots 15 and 20 appear to have the septic area blocking access to the site. Demonstrate how driveway access will work for these sites.*
3. *Storm sewer at the rear of lot 22. Adjust to be a minimum of 10' from the property line to allow room for an easement.*
4. *Adjust limits of plan to show connection to CTH F.*
5. Culvert at lot 17 has less than 2' of cover. Adjust to provide a minimum of 2' of cover.
6. Culvert between lot 23 and 24 has less than 2' of cover. Adjust to provide a minimum of 2' of cover.

GP-2 Grading Plan

1. *Basin near wetland #5 is in the ROW. Adjust grading so the 909 contour (top of berm) is outside the ROW.*
2. *The ditches along Hazel lane are very steep and will likely cause ongoing erosion issues. Provide calculations showing grass cover is adequate protection for these ditches. Provide additional controls (permanent ditch checks, widen the swale, etc) as needed to provide on erosive flow in the ditches.*
3. Label all storm sewer with length, size, material, slope and invert elevations. **Slopes are not shown. Please label slopes.**
4. Provide additional details for the grading on the street side of lot 12. Show how runoff will be directed into the culvert and not just run by it. **Response indicates driveway will be a high point, show spot elevations showing a high point at the driveway and at all high points in swales.**
5. Culvert in Hazel lane north of lot 12 only has 0.70' of cover. Adjust to provide a minimum of 2'
6. All three culverts at the intersection of Sunrise Circle and Taylor Trail have less than 2' of cover. Adjust to provide a minimum of 2' of cover.
7. Address drainage for lots 8-12 as a part of the mass grading plan. Create swales along lot lines with drainage easements to allow proper drainage without drainage for upstream lots having to flow through downstream lots.

GP-3 Grading Plan

1. *Wetland 13 appears to be taking drainage from a portion of the roadway and from lots 1, 2, and 3. Show that runoff is properly pre-treated before discharging to the wetlands and show how runoff that enters this wetland makes it to the stormwater management basin as shown on the stormwater management report.*
2. *Swale between lots 33 and 34 is very narrow and will be difficult to construct. Widen swale to have a trapezoid shape and be constructible.*

GP-4 and GP-5 Grading Plan

1. Update grading plan to show how proposed shared driveway will be graded. Provide details on culverts shown.

PP-1 – PP-5

1. *Four different elevations are shown at the bottom of the profile. Please label what these elevations refer to.*

Pond 1 Detail

1. *Provide calculations showing a 6' wide overflow spillway can safely pass the 100 year storm event if the outlet structure is plugged.*

2. *Southeast corner of the basin (near the property line) has an area where the top of berm elevation will be less than 909. Adjust so the entire basin has a 10' berm of at least elevation 909.*
3. Label size of rip rap or fieldstone cobbles on the spillway detail.
4. Provide more detail on the anti-clog cage. What will it be constructed of? How will it be fastened to the structure?
5. Provide additional detail on the 'Safety Grate' called out for the top of the outlet structure. What will this be made of and how will it be constructed?
6. Adjust the spillway detail to show the bottom of the stone at elevation 908.10 or adjust the calculations to have the spillway elevation at 907.10. Water will begin to discharge over the spillway once it reaches the bottom of the stone elevation not the top.

Pond 2 Detail

1. *Provide calculations showing a 6' wide overflow spillway can safely pass the 100 year storm event if the outlet structure is plugged.*
2. Consider lowering spillway between the two basins to the safety shelf elevation of 884. This would eliminate the need for all the water entering the basin from the north to flow through the 6' wide spillway and reduce future maintenance.
3. Label size of rip rap or fieldstone cobbles on the spillway detail.
4. Provide more detail on the anti-clog cage. What will it be constructed of? How will it be fastened to the structure?
5. Provide additional detail on the 'Safety Grate' called out for the top of the outlet structure. What will this be made of and how will it be constructed?
6. Adjust the spillway detail to show the bottom of the stone at elevation 890.00 or adjust the calculations to have the spillway elevation at 889.00. Water will begin to discharge over the spillway once it reaches the bottom of the stone elevation not the top.

Pond 3 Detail

1. *Provide calculations showing a 6' wide overflow spillway can safely pass the 100 year storm event if the outlet structure is plugged.*
2. Label size of rip rap or fieldstone cobbles on the spillway detail.
3. Provide more detail on the anti-clog cage. What will it be constructed of? How will it be fastened to the structure?
4. Provide additional detail on the 'Safety Grate' called out for the top of the outlet structure. What will this be made of and how will it be constructed?
5. Adjust the spillway detail to show the bottom of the stone at elevation 890.25 or adjust the calculations to have the spillway elevation at 889.25. Water will begin to discharge over the spillway once it reaches the bottom of the stone elevation not the top.
6. This basin will really function as two separate interconnected basins. Adjust the stormwater

management calcs to reflect this. Split the drainage area up into two areas (area to the portion south of the wetland being one area and area to the main pond north of the wetland being the other) Model the south pond as a separate pond that discharges to the north via a weir. Model them as interconnected so tailwater effects are accounted for.

7. Add permanent erosion measures to the spillway route between the two basins. All the water from the south basin will need to flow over this route and it will likely be a source of ongoing erosion.

DET1 Construction Details

1. Provide a pavement design by a geotechnical engineer as listed under design requirements. (pavement detail was noted, just ensure the thickness' are appropriate for the roadways)
2. Provide HMA pavement specifications. All HMA pavement should utilize the new DOT system. **Revise specs on plans to match the specs provided in exhibit B.**
3. Asphalt path detail: Revise to utilize new DOT pavement system designation.
4. Revise roadway cross section to trapezoidal ditches.

DET2 Construction Details

1. *Swale detail, revise to trapezoidal shape.*
2. Culvert Rip Rap detail. Call out size of rip rap required.

ENT1

1. *Show existing and proposed grades.*
2. *Show lane and taper width dimensions.*
3. Label radii.
4. *Provide additional detail on how the bypass lane will interface with the existing retaining wall.*
5. *Provide additional detail on what will be used as protection from vehicles driving off the wall. A guardrail may be needed here.*
6. Understand you are working with the county on review and approval of the intersection improvements. Provide the approval letter from the county and include the final approved plan in the final stamped plan set provided to the Village.

Stormwater Management Plan

1. *Stormwater management plan references lots 38-42 however those do not appear on the plans.*

2. *Drainage maps are very small and difficult to read. Please adjust to be at a smaller scale. Use a larger sheet size if needed. Please show proposed contours on the proposed drainage map.*

3. Proposed drainage boundaries should represent the actual final grading. For example lot 14 will likely not have the drainage boundary as currently shown when that lot is developed.
   i) **Update proposed drainage boundaries to match final grading plan required for the site.**
   ii) **Revise proposed drainage boundaries to account for portions of the site that will be undetained and not tributary to the basins. For example, Outlot 5 will flow offsite to the west and not to the basin. The backside of the pond berms will be released undetained. Remove these areas from the basin tributary areas and include them as undetained areas.**
   iii) **The post developed boundary for the west side of basin 6 does not appear to match the predeveloped boundary. The overall boundary and total area should match between pre and post developed conditions.**

4. Include discussion on what is being proposed for the 35.5 acre Westside area in the stormwater summary. Also include this area in the SLAMM calculations. Updated the SLAMM model and peak rate summaries to account for this area. **Understand that there will be minimal impervious added to this area, but Village and DNR ordinances require it to meet peak rate and water quality requirements. If BMP's are not desired in this area then current proposed basins could be enlarged to account for this area. Provide one SLAMM model showing the site as a whole meets the 80% TSS reduction requirement.**

5. *It's not clear why the site was split into so many drainage basins for the pre-developed condition. There appear to be three discharge points from the site. Runoff leaving the site to the North and West, runoff leaving to the East and runoff tributary to the large wetland complex in Outlot 7. Either clarify why there are so many drainage watersheds or revise to represent the three discharge points from the site.*

6. It's not clear how the peak flow summaries are tabulated. Include tables that clearly show the pre and post developed runoff for the drainage basins and for the site as a whole. **Please add a table that shows the pre and post developed peak release rate for the site as a whole. Include the West Side area in the total peak release rate for the site.**

7. *The north basin appears to be two interconnected ponds, but it doesn't appear to be modeled as two separate ponds in the Hydroflow model. Adjust the calcs to accurately model this as two basins. Include an outlet control structure between the two basins, instead of having all the flow overtop a weir.*

8. *Many of the practices modeled in SLAMM are in series. The DNR generally does not allow practices to be modeled in series. Refer to WinSLAMM document titled 'Modeling Practices in Series Using WinSLAMM' and adjust the model to comply with this or provide additional documentation that the version of WinSLAMM used can accurately model the practices in series.*

9. *The WinSLAMM model has driveways modeled as disconnected. Please provide documentation showing all of the requirements to model them as disconnected are met. Refer to item number 38 of the WDNR guidance found at the following link.*

https://dnr.wi.gov/topic/stormwater/documents/Modeling_Post-Construction_Guidance_2011.pdf

10. *Grass swales are modeled with a bottom width of two feet however the plans show a V shaped swale. Update the plans and model to match each other.*

11. Include swale calculations showing the swales can handle the flow from the required storm event with the freeboard as required by Village standards. **Please update the swale calcs to use a more appropriate 'C' value. 0.25 would be appropriate for lawns areas however it does not account for the roadway. Many of the swale drainage areas shown contain close to a 50% impervious coverage.**

12. Swale calcs show flow depth in most of these swales is between 4-6" deep, but many of these swales are shown at only 6" deep on the plans. Update swales to be a minimum of 1' deep to allow some freeboard between the top of the swale and calculated depth to ensure the flow stays in the swale.

Water Quality Comments

1. The SLAMM calcs include a number of swales and the tributary area to the swales does not appear to be accurately accounted for. If swales will be used to meet that water quality requirement update the model to include separate drainage areas for each swale section and include an exhibit showing the areas. For example ditch 4/5 has the entire 19 acres of drainage area 4/5 being routed through the roadside ditch when only a small portion of that drainage area will flow through the roadside ditch.

2. Land use #1 includes 0.34 acres of driveways and 0.32 acres of roadway. Please show how this was calculated as this basin appears to have very little roadway and driveway area.

3. Land use #3 includes 0.5 acres of driveways and 0.5 acres of roadway. However Basin #3 as shown on the post developed map has no roadway area and likely has very little driveway area. Please show how this was calculated.

4. SLAMM calcs use filter strips in a number of areas, however most of these areas do not meet the requirements for filter strips. In talking with Pete Wood at the WDNR, in order to utilize an area as a filter strip it must take runoff from a source area in a sheet flow manner and the filter strip should be less than 8% slope. Please revise the filter strips to only the areas that meet those parameters. Provide an exhibit showing the filter strip and tributary area to the filter strip and adjust the model to match the areas.

5. South pond shows an initial stage elevation of 6', however the south portion of the pond only has a 5' depth and has a different NWL elevation. How was this accounted for in the SLAMM model?

Engineering Department Memorandum

To: Jeff Retzlaff Village Planner

CC:

From: Bob Beilfuss, PLS, Village Surveyor

Date: May 1, 2018

Re: Harvest Hills Subdivision-Preliminary Plat Review

Jeff,

Here are my review comments for the preliminary subdivision plat received 3-29-2018. Revised plat received 7-3-2018

Harvest Hills Subdivision-Preliminary Plat Review

Applicant or Owner Shari Waggoner /Top Leaf Development LLC
Land Surveyor/Firm: Mike McCarty, PLS, Baudhuin Surveying and Engineering

1. There will be a 60' road right of way dedication to the public along the Freistadt Road-CTH F frontage. This width is also concurrent with a Washington County requirement. The lot size for Lots 18 and 19 need to be adjusted. Dimensions showing dedicated R/W indicate 60' and also 50'. If the 50' dimension is existing/ old, it needs to be removed. Leader lines could improve limits od the dimension

2. There will be a 40' road right of way dedication to the public along the subdivision fronting Elm Lane. The lot size for Lots 2, 3, 4, 37, 38 and Outlot's 7, 9 and 11 need to be adjusted. Dimensions showing dedicated R/W indicate 40' and also 33'. If the 33' dimension is existing/ old, it needs to be removed. Leader lines could improve limits od the dimension

3. There are existing buildings located on the property that need to be mapped and shown as well as the location of any wells and septic tanks or fields serving these buildings. Buildings were razed and removed. What is the current status of the existing septic fields and has the well been abandoned?

4. It appears Lots 39-42 are being served by way of Outlot 10. I assume there will be a shared driveway/access easement over Outlot 10 for shared maintenance of the road. No typical cross section for this road was provided, but based on the dimensions provided on the plat, it appears emergency vehicles are going to have a challenging time getting to the lots.

   Specifically, the Fire Department. As this area has no public water main, the fire department will have to run relays for water in the event of a fire and the road/driveway layout does not allow for a water relay to be established. NA Comment no longer valid due to platting OL-8

5. The private access roads along the west side of the subdivision with access to Elm Lane should be a consistent width. NA Comment no longer valid due to platting OL-8

6. There is a 25' wetland setback that is not shown on the preliminary plat or the grading plan. No earthmoving activities are to be done within the 25' setback. 25' setback line still not shown or dimensioned and labeled.

7. The detention pond located on the east side of Outlot 4 is located within the road R/W of Hazel Lane and needs to be relocated outside of the R/W. NA Comment addressed

8. The power poles on Elm Lane need to be relocated to the new north R/W line to allow for the reconstruction of Elm Lane as directed by the Village Public Works Committee.

9. The south exit from the subdivision onto Elm Lane should be made based on the re-alignment and reconstruction of Elm Lane

10. Map scale shall use standard engineering scales. (1"=100', 200', 300') NA Comment addressed.
11. Existing and proposed contours at vertical intervals of not more than 2 feet where the slope of the ground surface is less than 10% and of not more than 4 feet where the slope of the ground surface is 10% or more. Elevations shall be marked on such contours based on National Geodetic Datum of 1929 (mean sea level). NA Comment addressed

12. Water elevations of adjoining lakes, ponds and streams at the date of the survey and approximate high and low water elevations, all referred to mean sea level (1929) datum. NA Comment addressed.

13. Add right-of-way width and names of all existing streets. Forest Heights Drive still missing on Sheet 2 of 3 and 3 of 3.

14. Type, width and elevation of any existing street pavements within the exterior boundaries of the plat or immediately adjacent thereto together with any legally established centerline elevations, all to mean sea level (1929) datum. NA Comment addressed

15. Location and names of any adjacent subdivision, parks and cemeteries and owners of record of abutting unplatted lands. (Still missing)

16. Location, width and names of all proposed streets and public rights-of-way such as alleys and easements. NA Comment addressed

17. Existing zoning on and adjacent to the proposed plat. NA Comment addressed

18. Location of soil boring tests, where required by Wis. Adm. Code H 65.06(2), made to a depth of 6 feet, unless bedrock is at a lesser depth. The number of such tests shall be adequate to portray the character of the soil and the depths of bedrock and ground water from the natural undisturbed surface. To accommodate this purpose, a minimum of one test per 3 acres shall be made. Two copies of all test results shall accompany the preliminary plat.

    Location of soil percolation tests, as required by and conducted in accordance with Wis. Adm. Code H 65.06(3), taken at the location and depth in which on-site soil absorption sanitary sewerage disposal systems are to be installed. The number of such tests shall not

be less than one test per 3 acres or one test per lot, whichever is greater. Two copies of all test results shall accompany the preliminary plat. NA Comment addressed

19. The surveyor preparing the preliminary plat shall certify on the face of the plat that it is a correct representation of all existing land divisions and features and that he has fully complied with the provisions of this chapter and Chapter 236 of the Wisconsin Statute.

    NA Comment addressed

No further review comments.

Document Submittals and Data Conversion

As of October 2005, the Village of Germantown requires a digital copy of all Certified Survey Maps, Condominium Plats and Subdivision Plats in addition to the documents as required by Wisconsin Statute and Village Ordinances as part of the land division approval.

Prior to Recording the Certified Survey Map, the professional land surveyor is responsible for submitting a copy of the AutoCad drawing file (.dwg) of the document in version 2016 on compact disk (CD) or via email to the Village Surveyor.

All digital professional land surveyor seals and signatures will be purged from the digital copy prior to submittal.

The model space of the drawing will be done in Wisconsin State Plane Coordinate System, South Zone (NAD 1927 datum) and the Grid Bearing basis.

Prior to Recording the Certified Survey Map, the Village Engineering Department will verify that the boundary markers have been installed as described on the submitted map. All boundary corners are to be clearly marked in the field by the professional land surveyor of record.

STATE OF WISCONSIN
DEPARTMENT OF ADMINISTRATION
Scott Walker, Governor
Ellen E. Nowak, Secretary
Dawn Vick, Division Administrator

017

April 26,2018

PERMANENT FILE NO. 27819

RECEIVED
APR 30 2018
OFFICE OF THE VILLAGE PLANNER
VILLAGE OF GERMANTOWN

MICHAEL G. MCCARTY
BAUDHUIN INCORPORATED
PO BOX 105
STURGEON BAY WI 54130

Subject: HARVEST HILLS
NE1/4 & NW1/4 S24 T9N R20E
VILLAGE OF GERMANTOWN, WASHINGTON COUNTY

Dear Mr. McCarty:

You have submitted the preliminary plat of HARVEST HILLS for review. The Department of Administration must withhold certification of this preliminary plat due to objections filed by the Washington County Planning & Parks Department.

DEPARTMENT OF ADMINISTRATION COMMENTS:
We have examined and find that, with the exceptions noted below, this preliminary plat appears to conform with the applicable layout requirements of ss. 236.16 and 236.20, Wis. Stats.

s. 236.16 (2) The overall width of SUNRISE CIRCLE, TAYLOR TRAIL and HAZEL LANE scales and are assumed to be 60' wide. On the final plat, the right of way width must be shown.

It appears that ELM LANE does not extend along the entire south line of the plat. If the final plat is only dedicating 33' of new right of way, "Future 66' Street" must be included within the partial street dedication.

s. 236.20 (4) (b) On the final plat, all of the right of way that is being dedicated must be labeled "Dedicated to the Public" within the right of way.

s. 236.20 (4) (d) This section provides that lots shall have public street access unless otherwise permitted by local ordinance. It appears that access to Lots 39-42 will be Outlot 10? The final plat must clearly indicate how access is being provided. Also, we must receive a letter from the clerk stating that such access complies with the local ordinance.

s. 236.20 (5) (a) Our reference maps indicate that there are building on the northern portion of this plat. If they still exist, they must be shown on the final plat.

NOTE TO SURVEYOR:
-It appears that additional right of way will be dedicated for C.T.H. F on the final plat. Please make sure this is shown clearly on the final plat.

COUNTY PLANNING AGENCY:
The Washington County Planning & Parks Department is an objecting agency on this plat. On March 21, 2018 we transmitted copies to them for review. On April 25, 2018 they notified us that they have objections to the preliminary plat.

Local government units, during their review of the plat, will resolve, when applicable, that the plat:
- complies with local comprehensive plans, official map or subdivision control ordinances;
- conforms with areawide water quality management plans, if sewered;
- complies with Wisconsin shoreland management regulations;
- resolves possible problems with storm water runoff;
- fits the design to the topography;
- displays well designed lot and street layout;
- includes service or is serviceable by necessary utilities.

If there are any questions concerning this review or preparation and submittal of the final plat, please contact our office, at the number listed below. If there are any questions regarding private sewerage system review, please contact Mark Finger, Department of Safety and Professional Services, at (608) 574-1189.

Sincerely,

Renee M. Powers

Renee Powers, PLS
Plat Review
Phone: (608) 266-3200

Enc: Print

cc: Top Leaf Development, Owner
Clerk, Village of Germantown
Washington County Planning & Parks Department
Department of Safety and Professional Services

ORIGINAL RECEIVED FROM SURVEYOR ON 03/21/2018; REVIEWED ON 04/17/2018

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
W239 N1812 ROCKWOOD DRIVE • PO BOX 1607 • WAUKESHA, WI 53187-1607• TELEPHONE (262) 547-6721
FAX (262) 547-1103

Serving the Counties of: KENOSHA MILWAUKEE OZAUKEE RACINE WALWORTH WASHINGTON WAUKESHA

RECEIVED
APR 30 2018
OFFICE OF THE VILLAGE PLANNER
VILLAGE OF GERMANTOWN

April 27, 2018

Ms. Lori Johnson
Planning Assistant
Village of Germantown
P. O. Box 337
Germantown, WI 53022

RE: Preliminary Plat/Harvest Hills Subdivision,
NE ¼ and NW ¼, Section 24, T 9 N, R 20 E, Village of Germantown
SEWRPC No. CA-606-240

Dear Ms. Johnson:

This is to acknowledge receipt of your letter of April 2, 2018, concerning the above-captioned matter and to advise of the following Commission staff findings and recommendations relative thereto:

1. The proposed subdivision would create 42 single-family urban residential lots (i.e., residential density of less than five acres per dwelling unit) with 38 of the lots ranging in size from one to 1.5 acres. The plat is proposed to be developed with onsite sewage disposal systems and not with centralized sanitary sewer service. While the area of the proposed subdivision is located outside of the planned sewer service area for Germantown, it abuts upon the current planned sewer service area. Consequently, the Commission would suggest that consideration be given to adding the area of the plat to the sewer service area and 1) developing the site with public sanitary sewers, or 2) requiring that the lot owners connect to sanitary sewers at such future time that sewers are extended to the property.

2. The subject subdivision plat abuts upon CTH F which is identified in the transportation element of VISION 2050 as a two-lane arterial along the development site. The existing right-of-way is adequate for the maintenance and improvement of this arterial facility.

3. The subject plat contains land delineated by the Commission as primary environmental corridor (PEC) which consists of wetlands, woodlands, and significant wildlife habitat. Commission adopted plans recommend that PEC lands be preserved in essentially natural, open use. The PEC is contained within Lots 39-41 and Outlots 7,8,10, and 11. To be consistent with plan recommendations, building envelopes for Lots 39-41 should be located outside of the primary environmental corridor. We would also recommend that the corridor boundary, along with deed restrictions against the filling, disturbance, or development of the corridor, be shown on the face of the plat.

   The subject plat also contains secondary environmental corridor (SEC) which consists of wetlands, woodlands, significant wildlife habitat, and steep slopes. The regional plan recommends that

County and local government consider preserving and protecting such resources. As shown on the plat, the SEC is located within Lots 14-16 and Outlot 4. The wetland portions of the SEC are located within Outlot 4.

In addition, the developer has appropriately identified the locations of wetland areas outside both the PEC and SEC. As proposed, these wetland areas would be contained within the Outlots 1-4 and Outlots 6-11. We would recommend that deed restrictions against the disturbance or development of all identified wetland areas within the subject subdivision be placed on the face of the plat.

4. The aforementioned PEC also contains a portion (18 acres) of a larger area as identified in the regional natural areas and critical species habitat protection and management plan as a natural area of local significance (NA-3) known as the Schoessow Woods. The Washington County park and open space plan and the regional natural area plan recommend that this natural area be preserved and protected with ownership of this NA-3 being conveyed to an appropriate public agency, namely the Village of Germantown. While consideration should be given to conveying ownership of this area to the Village during the platting process, preservation of this natural area through a conservation easement in private ownership would not be in conflict with those plans.

5. The subject plat is not located within an identified one-percent-annual-probability (100-year recurrence interval) flood hazard area as delineated in the Federal Flood Insurance Study (FIS) for Washington County.

6. The subject plat is located in the Menomonee River watershed. Runoff from the subject plat drains to the Upper Menomonee River, Little Menomonee Creek, and Nor-x-way Channel. The regional water quality management plan recommends that nonpoint source pollution in this area be reduced. Adequate erosion control is necessary to reduce pollutant runoff from construction sites, and post-construction stormwater management would be needed to meet the nonpoint source pollution reduction requirements of the Village stormwater management ordinance. We would suggest that the subdivider call upon the Village Engineer for technical guidance in the attainment of sound erosion control management practices in connection with the development process, and that the post-construction stormwater management plan for the site comply with the requirements of the Village ordinance.

Should you have any questions concerning the foregoing, please do not hesitate to call.

Sincerely,

Michael G. Hahn

Michael G. Hahn, P.E., P.H.
Executive Director

MGH/DAS/FGF/mid
#242175 - HARVEST HILLS PRELIMINARY PLAT

Washington County
Planning and Parks Department

NOTIFICATION OF ACTION ON PROPOSED SUBDIVISION PLAT
WASHINGTON COUNTY PUBLIC WORKS COMMITTEE

April 17, 2018

COPY

Department of Administration
Plat Review Unit
P O Box 1645
Madison WI 53701-1645

To Whom it May Concern:

This letter is to inform you that the Washington County Public Works Committee has considered the following subdivision plat pursuant to Wisconsin Statutes and applicable local Ordinances:

Date of Meeting: April 17, 2018

Subdivision Name: HARVEST HILLS

/ / Pre-Preliminary Plat /X/ Preliminary Plat / / Final Plat

Location: NW ¼ OF THE NE ¼, THE SW ¼ OF THE NE ¼, AND THE SE ¼ OF THE NW ¼ - SECTION, 24
Municipality: VILLAGE OF GERMANTOWN
Subdivider: TOP LEAF DEVELOPMENT, LLC – C/O SHARI WAGGONER
Surveyor: BAUDHUIN SURVEYING & ENGINEERING

Action taken: Washington County Planning & Parks Department and Highway Department staff voiced their concerns identifying the following reasons for their objections to the preliminary plat review:

1) Soil tests have not been submitted for review to determine if a suitable soil absorption site exists on each proposed lot for a Private Onsite Wastewater Treatment System.
2) Approval for access to CTH F has not been obtained from the County Highway Department.
3) Wetland delineation needs to be approved by the Department of Natural Resources in order to determine if proposed road/driveway can be placed in currently mapped wetland area.
4) Environmental corridors should be clearly identified on plat and protected from any building or development.

Moved by Mr. Miller, seconded by Mr. Schieif to object to the Preliminary Plat of Harvest Hills in the Village of Germantown, due to the reasons presented by Washington County staff as noted above.

If you have any questions regarding this subdivision plat, please do not hesitate to contact me.

Sincerely,

Jamie Ludovic, Central Services Director
JL:PG:ff

RECEIVED
APR 23 2018
OFFICE OF THE VILLAGE PLANNER
VILLAGE OF GERMANTOWN

RECEIVED
APR 23 2018
VILLAGE OF GERMANTOWN
CLERK'S OFFICE

cc: Municipal Clerk
Subdivider
Surveyor
Land & Water Conservation Division

Washington County Highway Department

Commissioner: Scott M. Schmidt, PE, PLS

June 7, 2018

Attn: Pete Hurth
Baudhuin Surveying & Engineering
312 N. 5th Ave
P.O. Box 105
Sturgeon Bay, WI 54235

Dear Mr. Hurth,

On May 30, 2018, the Washington County Highway Department emailed a list of items to you to address on your plan set for the Harvest Hills Subdivision access on County Trunk Highway F in the Village of Germantown. You emailed a revised plan set back to the Highway Department dated 5/31/18. The Highway Department has reviewed that plan set (dated 5/31/18) and does not see any additional concerns or issues to address at this point in time.

This letter is not stating the Washington County Highway Department's official approval of your access project. That would be in the form of an approved access permit after a financial deposit is in place for the project. This letter is being sent to you per your request and is intended to assist you with obtaining other levels of approval for your project.

If you have any questions, please contact the Highway Department at (262)335-4435.

Sincerely,

Joshua Glass
Project Technician

Washington County Highway Department
900 Lang Street, West Bend, WI 53090-2666
PHONE (262)335-4435 FAX (262)335-4439 WEB www.co.washington.wi.us/hwy EMAIL webhwy@co.washington.wi.us

Lori Johnson

Subject: FW: Harvest Hills Preliminary Plat

From: Mark Schroeder
Sent: Friday, April 20, 2018 3:17 PM
To: Jeff Retzlaff <jretzlaff@village.germantown.wi.us>
Cc: Scott Coulthurst <scott.coulthurst@olympusgrp.com>
Subject: Harvest Hills Preliminary Plat

Hello Jeff,

In response to the April 2nd letter from Planning Assistant Lori Johnson, the Park & Recreation Commission reviewed the preliminary plat for the Harvest Hills Subdivision at the April 18th commission meeting. Based on the meeting discussion, the commission affirmed the direction that the developer provide improved (paved) pedestrian access along the Elm Lane public right-of-way to maintain connectivity from the area of planned improvements to the current section of Elm Lane to the west. This pedestrian access will insure public access to Friedenfeld Park by future residents of the Harvest Hills Subdivision as well as existing residents of the area.

Thanks,

Mark Schroeder, CPRP
Park & Recreation Director
Germantown Park & Recreation Department
Ph: (262) 250-4710 Fax: (262) 255-2920

GERMANTOWN PARK & RECREATION

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Village of Germantown ...Willkommen

Fee must accompany application
Preliminary & Final Plat Fees Combined

- Under 10 lots $4,575 ☐
- 11-25 lots $5,600 ☐
- 26-50 lots $6,625 ☒
- Over 51 lots $7,650 ☐

PAID 3-28-17 L.

SUBDIVISION PLAT APPLICATION

Pursuant to Section 18.04 and 18.05 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1

APPLICANT OR AGENT

PETE HURTH, P.E.
BAUDHUIN SURVEYING & ENGINEERING
312 N. 5TH AVE
STURGEON BAY, WI 54235
Phone (920) 743-8211
~~Fax~~ Cell (920) 495-9101
E-Mail phurth@baudhuin.com

PROPERTY OWNER

SHARI WAGLOWER OF TOPLEAF DEVELOPMENT, LLC
FOR ALAN & LYNDA LUTHER
342 HILLSIDE ROAD
COLGATE, WI 53033
Phone (262) 923-0469
topleafdevelopment@gmail.com

2

PROPERTY ADDRESS OR GENERAL LOCATION	TAX KEY NUMBER(S)
107 ACRES SOUTH OF CTH F, NORTH OF ELM LANE, 1/4 MILE WEST OF WAUSAUKEE RD.	241997, 241998 242999

3

READ AND INITIAL THE FOLLOWING:

LL ✓ I understand that the Subdivision Plat is not valid until recorded at the Washington County Register of Deeds. The Village will record the document and charge the applicant all applicable recording fees.

LL ✓ If technical corrections to the Plat are required, I understand that the document will not be recorded until all corrections are made and approved by the Village.

LL ✓ I understand that all applicable impact fees must be paid prior to recording. Failure to pay fees will delay recording and may ultimately result in the revocation of Village approval. I understand that parcels created outside the Sewer Service Area will require a soil test. I also understand that all properties abutting a State Highway will require DOT approval and I will be responsible for securing such approval prior to recording.

LL ✓ I understand all delinquent property taxes on any of the properties involved shall be paid prior to recording.

LL ✓ I understand that a Developer's Agreement will be required prior to recording of the plat.

4

SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

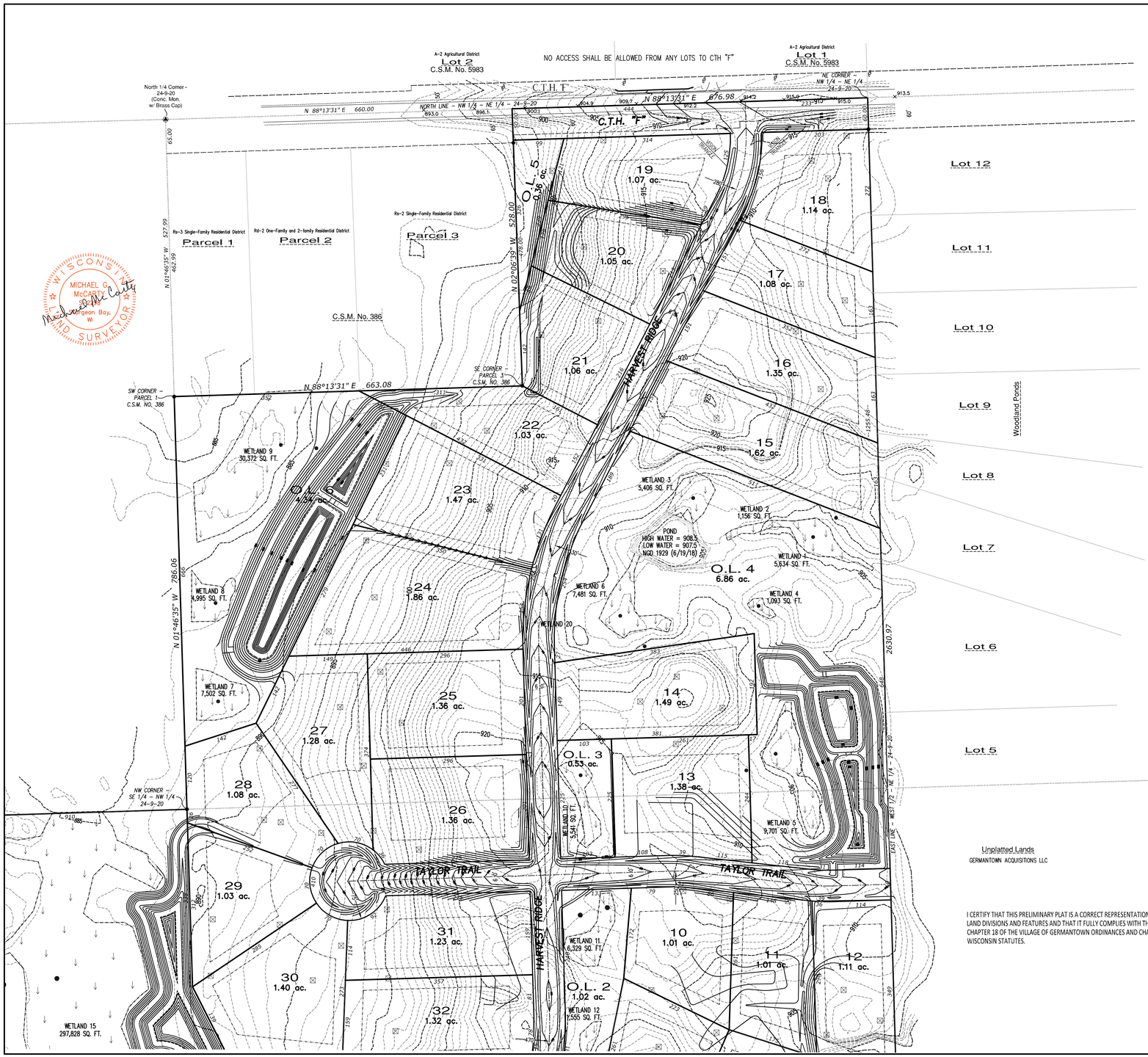
Applicant — Date 3/26/18

Owner — Date 3-26-2018

PRELIMINARY PLAT

HARVEST HILLS

LOCATED IN:
THE NW 1/4 OF THE NE 1/4, THE SW 1/4 OF THE NE 1/4,
AND THE SE 1/4 OF THE NW 1/4
ALL IN:
SECTION 24, TOWNSHIP 9 NORTH, RANGE 20 EAST,
VILLAGE OF GERMANTOWN,
WASHINGTON COUNTY,
WISCONSIN.



Unplatted Lands
GERMANTOWN ACQUISITIONS LLC

I CERTIFY THAT THIS PRELIMINARY PLAT IS A CORRECT REPRESENTATION OF ALL EXISTING LAND DIVISIONS AND FEATURES AND THAT IT FULLY COMPLIES WITH THE PROVISION OF CHAPTER 18 OF THE VILLAGE OF GERMANTOWN ORDINANCES AND CHAPTER 236 OF THE WISCONSIN STATUTES.

NORTH
1" = 100'

0 50 100 200 300 400
FEET

⊠ – SOIL BORING
♣ – WASHINGTON COUNTY MONUMENT (6"X6" CONCRETE W/ BRASS CAP)
● – FOUND 1.27" STEEL PIPE

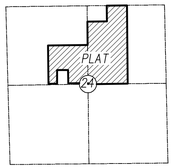
OWNER:
TOP LEAF DEVELOPMENT LLC
SHARI WAGGONER, PRESIDENT
3955 HAWKS RIDGE DR
HUBERTUS, WI 53033

SURVEYOR/ENGINEER:
BAUDHUIN SURVEYING & ENGINEERING
312 N. 5TH AVENUE
STURGEON BAY, WI 54235

OBJECTING AUTHORITIES:
DEPARTMENT OF ADMINISTRATION
WASHINGTON COUNTY

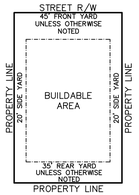
APPROVING AUTHORITIES:
VILLAGE OF GERMANTOWN

LOCATION SKETCH
SECTION 24–9–20
SCALE: 1" = 2000'



BEARINGS ARE BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM GRID, SOUTH ZONE, AND THE WEST LINE OF THE NE 1/4 OF SECTION 24 (ASSUMED N 01°46'35" W)

TYPICAL
SUBDIVISION LOT
(RS-3 ZONING)



ALL LOTS SHALL HAVE AN EQUAL INTEREST IN THE OWNERSHIP OF ALL OUTLOTS.

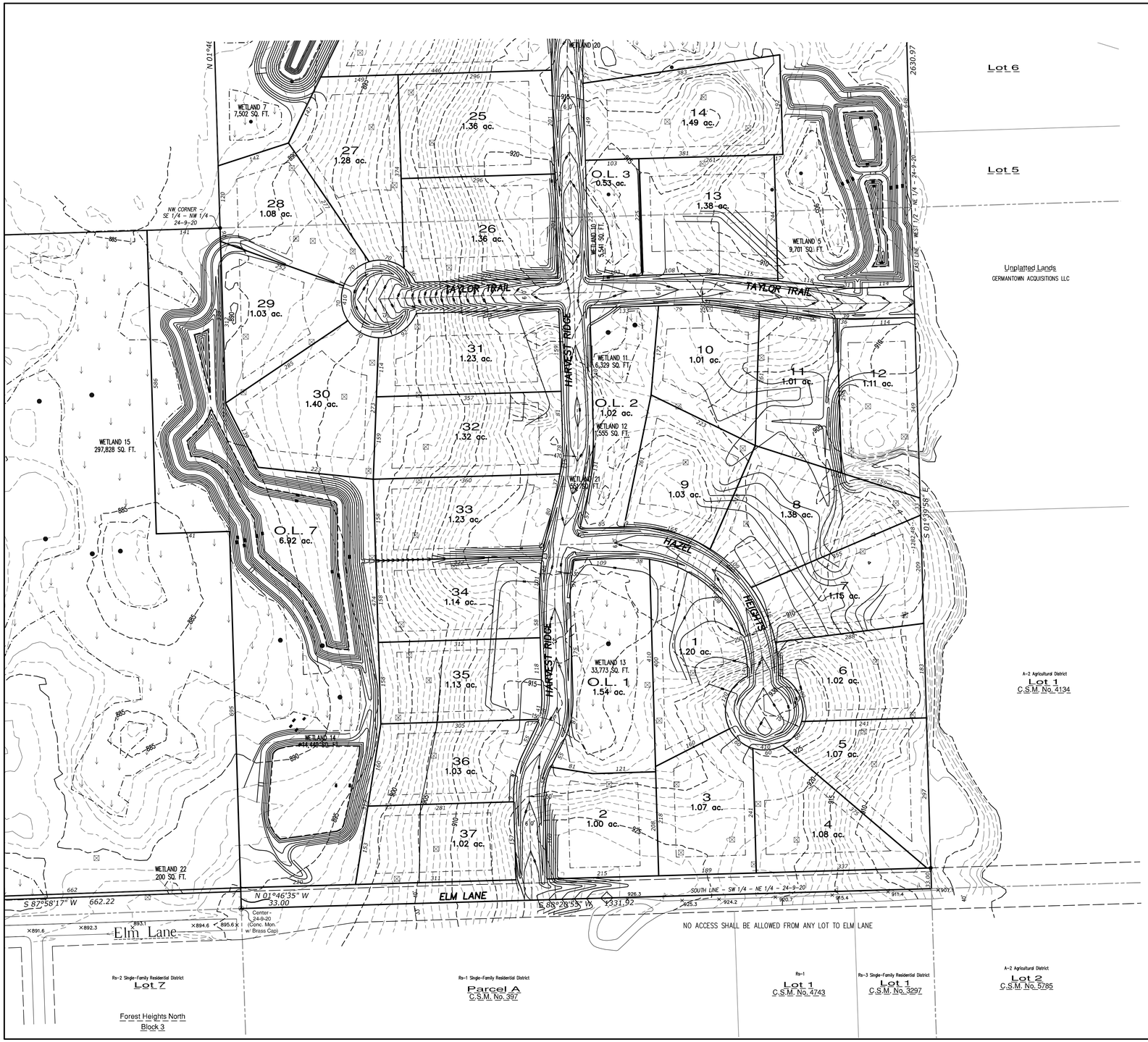
THIS PRELIMINARY PLAT COMPLIES WITH THE LAND DIVISION ORDINACE OF THE VILLAGE OF GERMANTOWN.

PLAT ZONING – Rs-3 Single-Family Residential District

REVISED: 6-21-18

PATH: DWB PROJ: LUTHER 23000 DRAWING: 000-PRE
JOB NO: 23000 3-20-18

SHEET 1 OF 3



PRELIMINARY PLAT

HARVEST HILLS

LOCATED IN:
THE NW 1/4 OF THE NE 1/4, THE SW 1/4 OF THE NE 1/4, AND THE SE 1/4 OF THE NW 1/4
ALL IN:
SECTION 24, TOWNSHIP 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

NORTH
1" = 100'

0 50 100 200 300 400
FEET

⊠ – SOIL BORING
⊛ – WASHINGTON COUNTY MONUMENT (6"X6" CONCRETE W/ BRASS CAP)
● – FOUND 1.27" STEEL PIPE

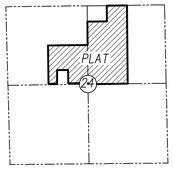
OWNER:
TOP LEAF DEVELOPMENT LLC
SHARI WAGGONER, PRESIDENT
3955 HAWKS RIDGE DR
HUBERTUS, WI 53033

SURVEYOR/ENGINEER:
BAUDHUIN SURVEYING & ENGINEERING
312 N. 5TH AVENUE
STURGEON BAY, WI 54235

OBJECTING AUTHORITIES:
DEPARTMENT OF ADMINISTRATION
WASHINGTON COUNTY

APPROVING AUTHORITIES:
VILLAGE OF GERMANTOWN

LOCATION SKETCH
SECTION 24–9–20
SCALE: 1" = 2000'



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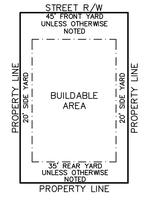
TYPICAL SUBDIVISION LOT
(RS-3 ZONING)



ALL LOTS SHALL HAVE AN EQUAL INTEREST IN THE OWNERSHIP OF ALL OUTLOTS.

THIS PRELIMINARY PLAT COMPLIES WITH THE LAND DIVISION ORDINACE OF THE VILLAGE OF GERMANTOWN.

REVISED: 6–25–18

PATH: DWB PROJ: LUTHER 23000 DRAWING: 000–PREALT JOB NO. 23000 3–20–18

SHEET 2 OF 3

PRELIMINARY PLAT

HARVEST HILLS

LOCATED IN:
THE NW 1/4 OF THE NE 1/4, THE SW 1/4 OF THE NE 1/4,
AND THE SE 1/4 OF THE NW 1/4
ALL IN:
SECTION 24, TOWNSHIP 9 NORTH, RANGE 20 EAST,
VILLAGE OF GERMANTOWN,
WASHINGTON COUNTY,
WISCONSIN.

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LOCATION SKETCH
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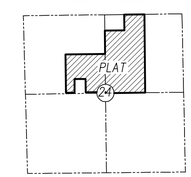
SCALE: 1" = 2000'



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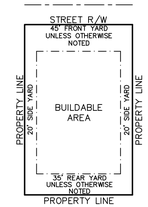

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REVISED: 6-25-18

PATH: DVB PROJ: LUTHER 23000 DRAWING: 000-PREALT
SHEET 3 OF 3 JOB NO: 23000 3-20-18

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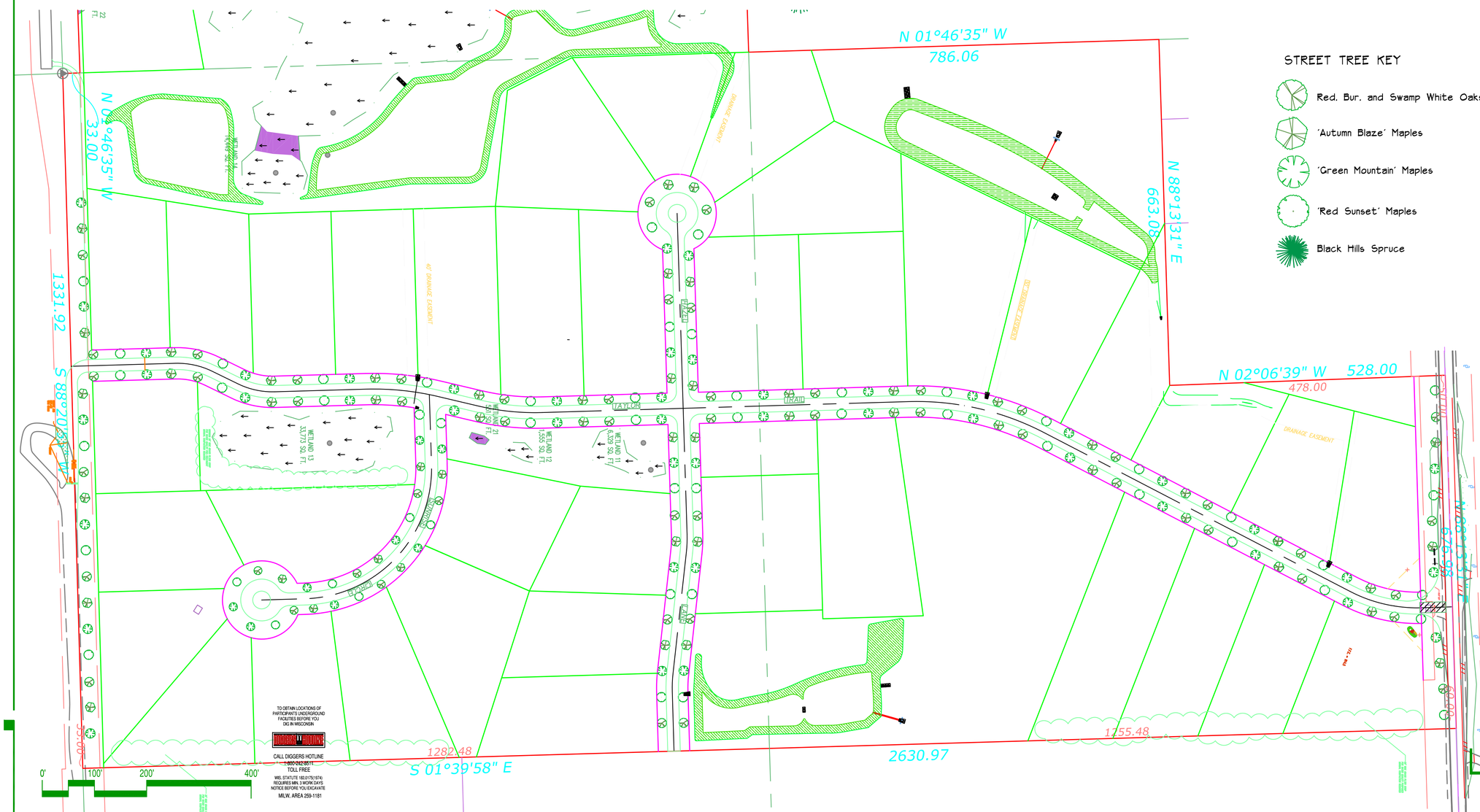
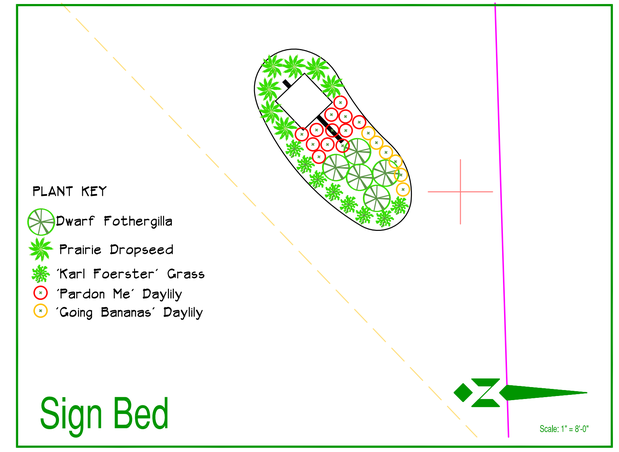


TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

CALL DIGGERS HOTLINE
~~1-800-242-8511~~
TOLL FREE
WIS. STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE
MILW. AREA 259-1181



STREET TREE KEY

- Red. Bur. and Swamp White Oaks (Equal Mix of Each)
- 'Autumn Blaze' Maples
- 'Green Mountain' Maples
- 'Red Sunset' Maples
- Black Hills Spruce

WISCONSIN
MICHAEL R. SEAMAN
687
HARTLAND
WIS.
LANDSCAPE ARCHITECT

Landscape Plan

Scale: 1" = 100'-0"

NATIONAL ASSOCIATION OF LANDSCAPE PROFESSIONALS

ASLA American Society of Landscape Architects

Landscape Development for

Harvest Hills

David J. Frank Design Group
N120 W21350 Freistadt Road
P.O. Box 70
Germantown, WI 53022
U.S.A.
Tel: (262) 255-4888
Fax: (262) 628-4729
Email: mail@davidjfrank.com
www.davidjfrank.com

Landscape Development by
Michael Seaman, PLA

Drawn By

Sheet 1 of 2

Date: 6/20/18

Revision: 6/21/18

Harvest Hills

PLANTINGS, STRUCTURES AND OTHER REPRESENTATIONS SHOWN ON THIS PLAN ARE FOR THE PURPOSE OF CONVEYING LANDSCAPE DESIGN FEATURES. REFER TO PREPARED CONTRACT DOCUMENTS FOR SPECIFIC ITEMS INCLUDED IN ANY PARTICULAR PHASE OF LANDSCAPE CONSTRUCTION.

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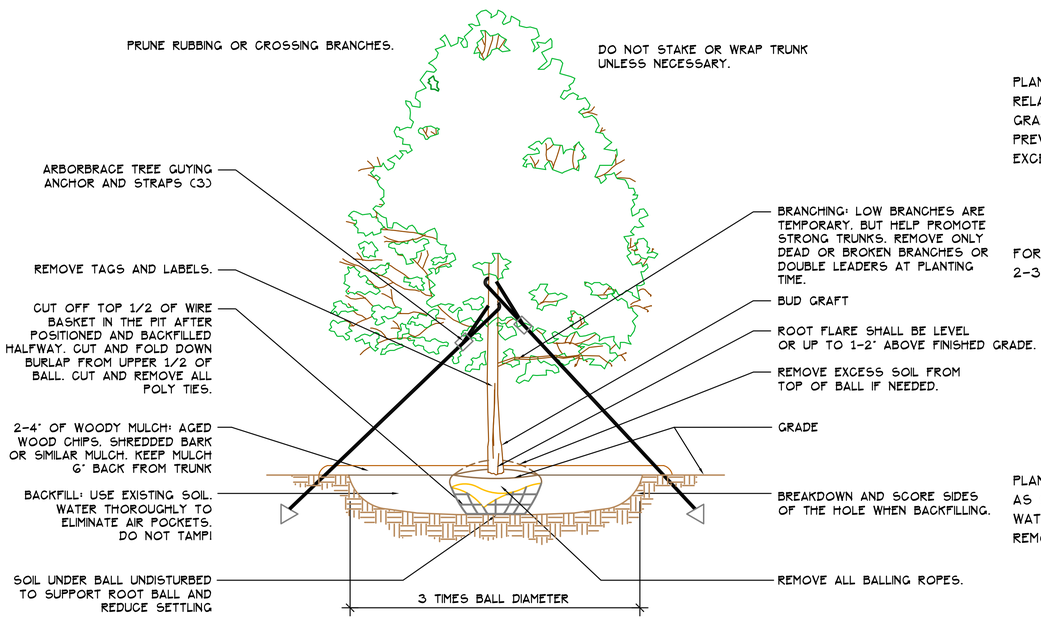
Plant Key	Qty	Botanical Name	Common Name	Size	Root	Specifications/Notes
Deciduous Trees						
ABM	52	Acer x freemanii 'Jeffsred'	Autumn Blaze Maple	2" CAL	BB	Evenly Shaped Tree; No Trunk Scars
GSM	53	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	2" CAL	BB	Evenly Shaped Tree; No Trunk Scars
RSM	52	Acer rubrum 'Franksred'	Red Sunset Maple	2" CAL	BB	Evenly Shaped Tree; No Trunk Scars
BO	17	Quercus macrocarpa	Bur Oak	2" CAL	BB	Evenly Shaped Tree; Rotate Planting Location
RO	17	Quercus rubra	Red Oak	2" CAL	BB	Evenly Shaped Tree; Rotate Planting Location
SWO	17	Quercus bicolor	Swamp White Oak	2" CAL	BB	Evenly Shaped Tree; Rotate Planting Location
Deciduous Shrubs						
DFG	5	Fothergilla gardenii	Dwarf Fothergilla	#5	CONT	Full, Well Rooted Plant, Evenly Spaced
Perennials						
PDS	7	Sporobolus heterolepis	Prairie Dropseed Grass	#1	CONT	Full, Well Rooted Plant
KFG	8	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Grass	#1	CONT	Full, Well Rooted Plant
PMD	12	Hemerocallis 'Pardon Me'	Pardon Me Daylily	#1	CONT	Full, Well Rooted Plant
GBD	6	Hemerocallis 'Going Bananas'	Going Bananas Daylily	#1	CONT	Full, Well Rooted Plant

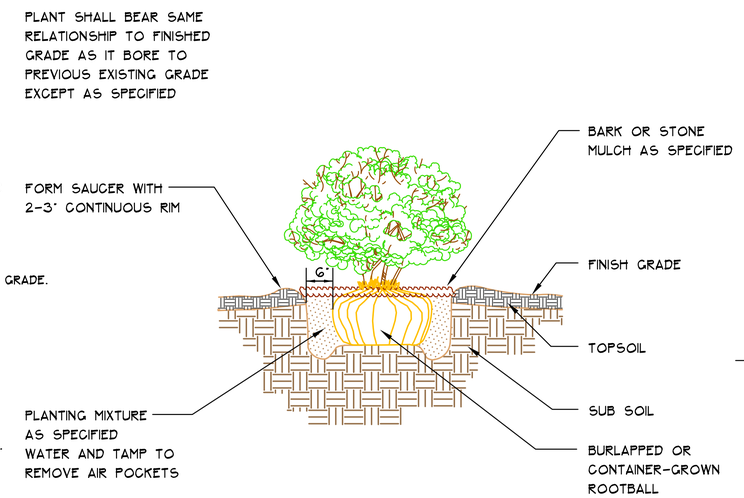
Notes:

1. The contractor is required to notify Diggers Hotline (811 or 800-242-8511) to have site marked at least 2 business days prior to digging.
2. Contractor is required to confirm all plant quantities shown on Plant & Material List and landscape planting symbols and list any inconsistencies/concerns to Landscape Architect.
3. Plantings must comply with standards as defined in American Standard of Nursery Stock - Z60.1 ANSI. The Landscape Architect reserves the right to inspect, and potentially reject any plants that are inferior, compromised, undersized, and diseased, improperly transported, installed incorrectly or damaged. Any potential plant substitutions that are "B Grade" or "Park Grade" plant material must be approved by Landscape Architect.
4. Plantings must be planted as per sizes indicated on Plant & Material Schedule, unless approved by Landscape Architect. Any deviations to sizes shown on plan must be submitted in writing to the Landscape Architect prior to installation
5. Plantings are to be watered comprehensively at the time of planting, through construction and upon completion of project as required.
6. Topsoil ought to be placed to within 3" of finish grade by general / grading contractor during rough grading procedures. All parking lot islands if (applicable) to be backfilled with topsoil to a minimum depth of 18" and crown all planting islands and beds a minimum of 6" to allow proper drainage (unless otherwise specified).
7. Mulching: All tree and shrub planting beds to receive a 3" deep layer of shredded hardwood bark mulch.
8. Mulching: perennial planting areas (groupings) shall receive a 3" layer of shredded hardwood bark mulch, and groundcover areas a 1-2" layer of the same mulch.
9. Manual Edging: All planting beds will be bordered with a 3" deep spade edge using a flat landscape spade or a mechanical edger. A clean definition between landscape beds and lawn is required, Bed lines are to be cut crisp, smooth.
10. Plant bed amendment composition: All perennial, groundcover and annual areas are required to receive a blend of soil amendments before installation consisting of mushroom compost.
11. Seeded areas: remove/kill off any existing unwanted vegetation prior to seeding. Formulate the topsoil (if adequate or provide as in item #6 above) and seed bed by removing all surface stones 1" or larger. Erosion control actions are to be used in swales and on slopes in excess of 1:3 and where applicable as seen in () Drawings. Means of installation may differ and are at the discretion of the Landscape Contractor on his/her responsibility to establish and warranty a smooth, uniform, quality turf.
12. The Landscape Contractor is accountable for the watering and maintenance of all landscape areas for a period of 60 days after the substantial completion of the landscape installation. This shall include all trees, shrubs, evergreens, perennials, ornamental grasses, turf grass, no-mow grass, and native prairie seed. Work also includes weeding, edging, mulching fertilizing, and trimming, sweeping up grass clippings, pruning and deadheading.
13. Project Completion: Landscape Contractor is accountable to conduct a final review of the project, upon completion, with the Landscape Architect, Client or Owner / Client Representative.



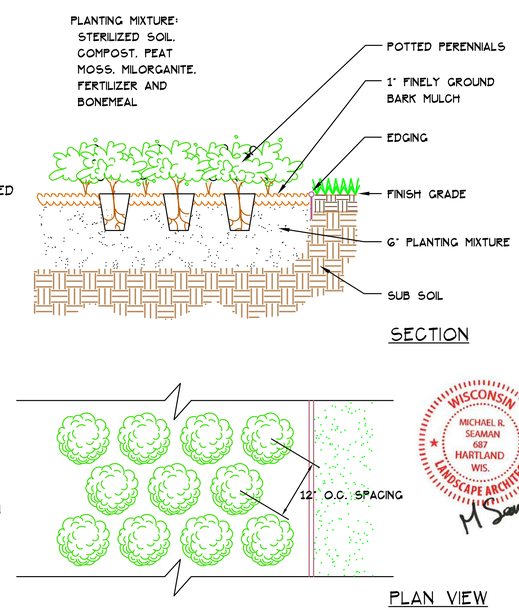
TREE PLANTING

Scale: Not To scale



SHRUB PLANTING

Scale: Not To Scale



PERENNIAL PLANTING

Scale: Not To Scale

WISCONSIN MICHAEL R. SEAMAN 687 HARTLAND WIS. LANDSCAPE ARCHITECT

Details

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Tel: (262) 255-4888
Fax: (262) 628-4729
Email: mail@davidjfrank.com
www.davidjfrank.com

Landscape Development by

Michael Seaman, PLA

Drawn By

Sheet 2 of 2

Date: 6/20/18

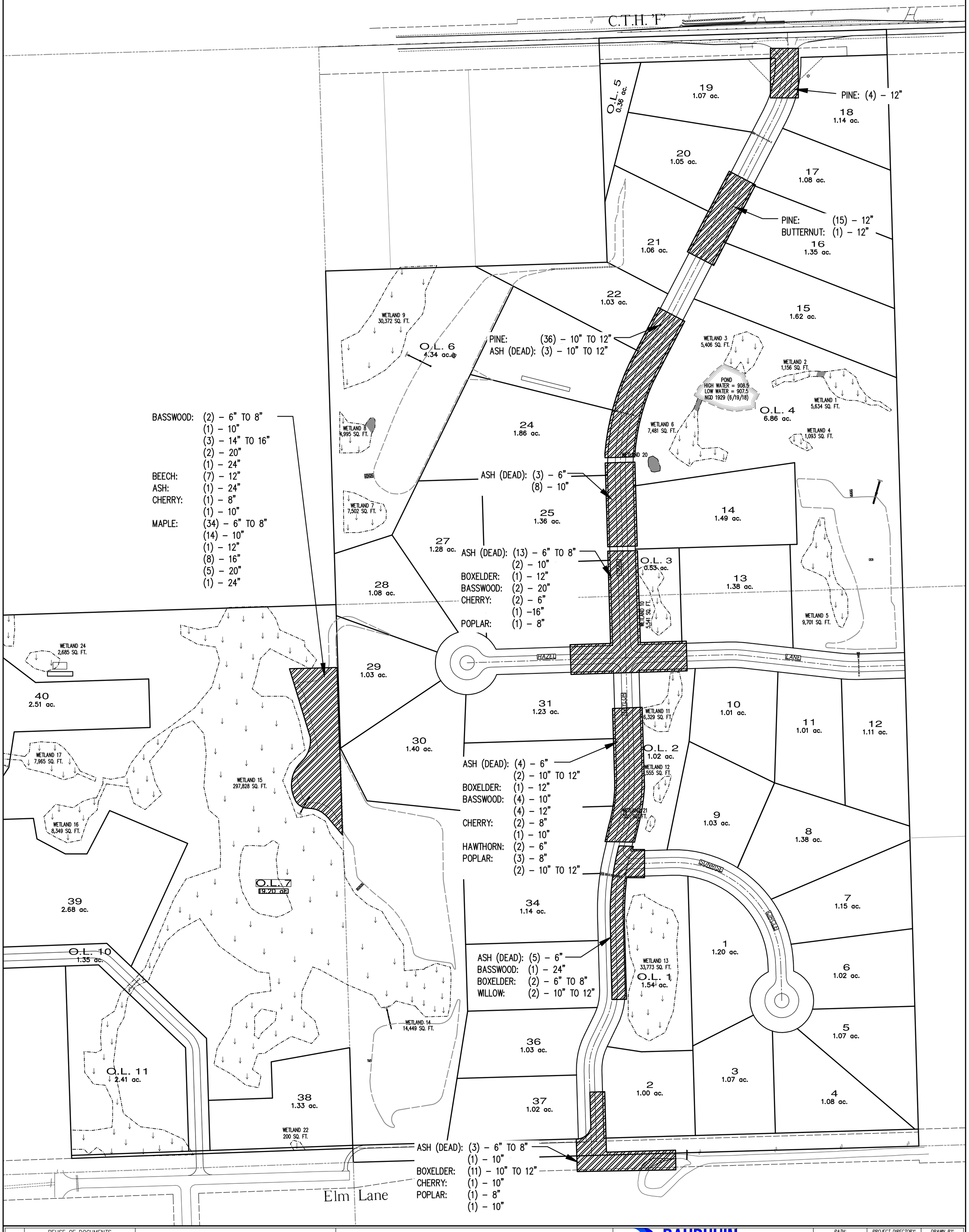
Revision: 6/21/18

Harvest Hills

NORTH
1" = 100'
0 50 100 200
FEET

TREE PROTECTION PLAN

FOR TREES CLOSE TO THE CONSTRUCTION AREA THAT ARE TO BE SAVED, CONTRACTORS SHALL AVOID DAMAGE TO TREES' ROOTS, TRUNK, AND CROWN. CONTRACTORS SHALL AVOID ANY DISTURBANCE OR HARMFUL ACTIVITY WITHIN A MINIMUM OF 8 FEET OF THE TREE. IF POSSIBLE, AVOID DISTURBANCE WITHIN THE TREES' DRIPLINE. AN ORANGE SNOW FENCE MAY BE INSTALLED AROUND THE TREES TO BE SAVED FOR VISIBLE ADDED PROTECTION, AS NEEDED.



TC1

REUSE OF DOCUMENTS

THIS DOCUMENT HAS BEEN DEVELOPED FOR A SPECIFIC APPLICATION AND NOT FOR GENERAL USE. THEREFORE IT MAY NOT BE USED WITHOUT THE WRITTEN APPROVAL OF BAUDHUIN INCORPORATED. UNAPPROVED USE IS THE SOLE RESPONSIBILITY OF THE UNAUTHORIZED USER.

EXISTING TREE REMOVAL
TREE COUNT

Harvest Hills

BAUDHUIN SURVEYING & ENGINEERING
312 N. 5TH AVE.
P.O. BOX 105
STURGEON BAY, WI.
54235
PHONE: (920)743-8211

PATH: \DVB\LDWG\	PROJECT DIRECTORY: LUTHER 23000	DRAWN BY: RMB
PLAN NAME: 000-ERO		DESIGNED BY: P.J.H.
REVISED DATE:		DATE: 6-21-18
SCALE: 1" = 100'		JOB NUMBER: 23000

WETLAND DELINEATION REPORT

A COPY OF THE WETLAND DELINEATION REPORT FOR THE TOP LEAF DEVELOPMENT PROPOSAL IS AVAILABLE IN THE PLANNING DEPARTMENT.

THE REPORT WAS COMPLETED BY BAY ENVIRONMENTAL STRATEGIES, INC. ON NOVEMBER 29, 2017.

STORMWATER MANAGEMENT PLAN

A COPY OF THE STORMWATER MANAGEMENT SUMMARY COMPLETED BY BAUDHUIN SURVEYING AND ENGINEERING IS ALSO AVAILABLE IN THE PLANNING DEPARTMENT.

FEBRUARY 26, 2018

SITE PLAN

LOCATED IN:
THE NW 1/4 OF THE NE 1/4, THE SW 1/4 OF THE NE 1/4,
AND THE SE 1/4 OF THE NW 1/4
ALL IN:
SECTION 24, TOWNSHIP 9 NORTH, RANGE 20 EAST,
TOWN OF GERMANTOWN,
WASHINGTON COUNTY,
WISCONSIN.

N

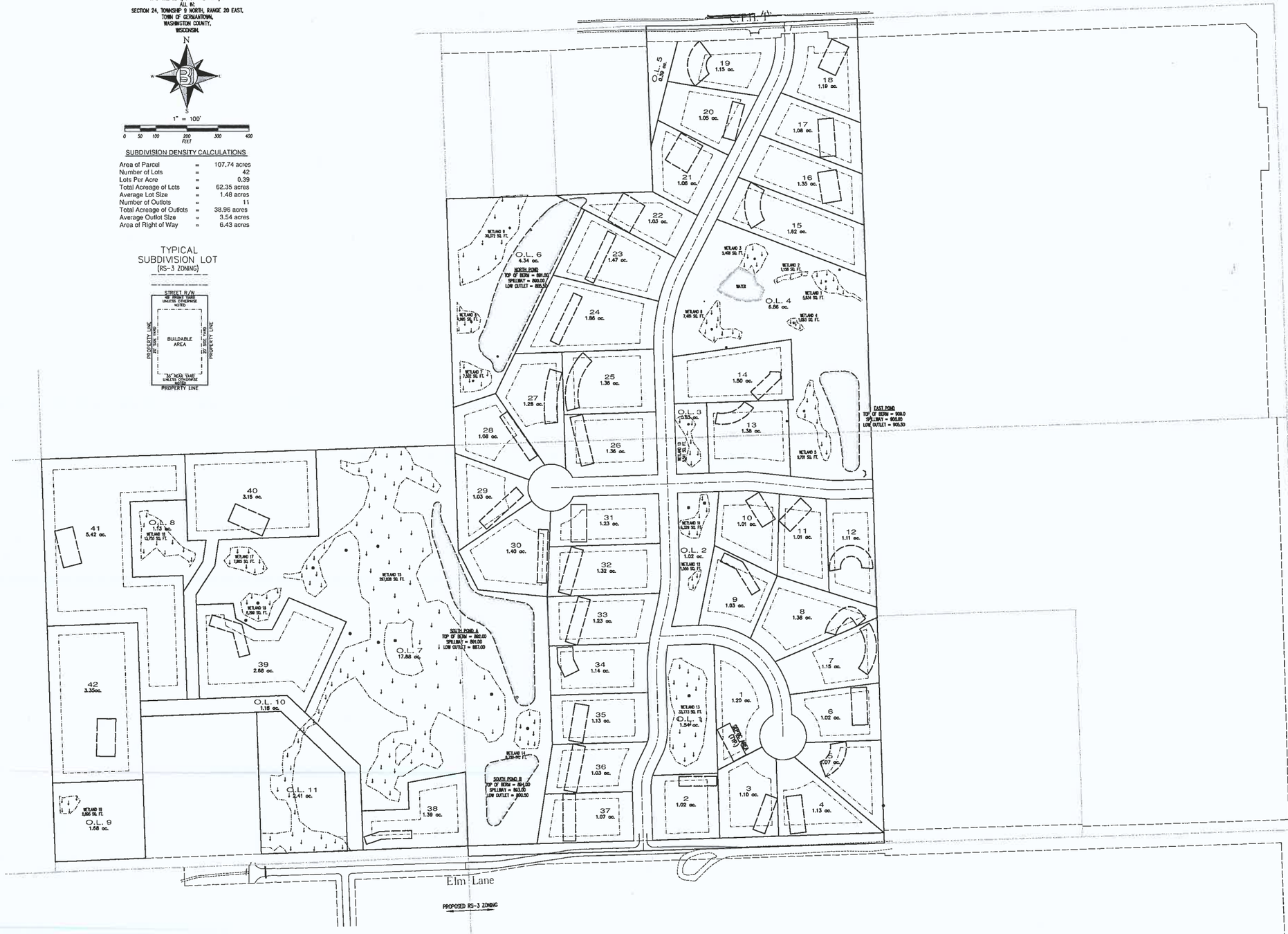
1" = 100'

0 50 100 200 300 400
FEET

SUBDIVISION DENSITY CALCULATIONS

Area of Parcel	=	107.74 acres
Number of Lots	=	42
Lots Per Acre	=	0.39
Total Acreage of Lots	=	62.35 acres
Average Lot Size	=	1.48 acres
Number of Outlots	=	11
Total Acreage of Outlots	=	38.96 acres
Average Outlot Size	=	3.54 acres
Area of Right of Way	=	6.43 acres

TYPICAL
SUBDIVISION LOT
(RS-3 ZONING)



CAD : \DWG\LOWE\LUTHER 23000\LUTHER-LAYOUT.DWG JOB NO. 23000
SHEET 1 OF 1 2-21-18

Village of Germantown
...Willkommen

Fee must accompany application

☒ $1460 Paid [illegible] Date 6-6-18

CONDITIONAL USE PERMIT APPLICATION

Pursuant to Section 17.42 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Shari Waggoner
Top Leaf Development
3955 Hawks Ridge Dr
Hubertus WI 53033

Phone (262) 923-0469

Fax ( )

E-Mail topleafdevelopment@gmail.com

PROPERTY OWNER

Harvest Hills Subdivision LLC
3955 Hawks Ridge Dr
Hubertus WI 53033

Phone (262) 923-0469

2 TO WHOM SHOULD THE PERMIT BE ISSUED?

Harvest Hills Subdivision LLC

3 PROPERTY ADDRESS / TAX KEY NUMBER

PROPERTY ADDRESS	TAX KEY NUMBER
107 acres South of CTH F, North of Elm Ln 1/4 mile west of Wausaukee road	241997, 241998, 242999

4 DESCRIPTION OF EXISTING OPERATION

Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant." Use additional pages as necessary.

Existing agricultural fields bordering wetlands

5 DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code.

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations.

Proposed grading associated with stormwater ponds and road construction. No grading or filling shall occur within wetlands, only within 25' setback to wetlands. Grading required to allow ponds to properly drain while maintaining sufficient storm detention for peak flow reduction.

METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY — REQUIRED

6

Attach pages as necessary.

NW & SW 1/4 of NE 1/4 Section 24 and SE 1/4 of NW 1/4 Section 24

SUPPORTING DOCUMENTATION:

7

- ☐ Site plan and elevations for new construction (can be conceptual)
- ☐ Photos of existing use and/or proposed use operating elsewhere
- ☒ 3pg document outlining proposed grading in
- ☐ relation to the 25' setback to wetlands

READ AND INITIAL THE FOLLOWING:

8

SW I understand that the Village is under no obligation to issue a Conditional Use Permit and will do so only if the applicant successfully demonstrates that the proposed use is harmonious with the neighborhood and the long range goals of the Village.

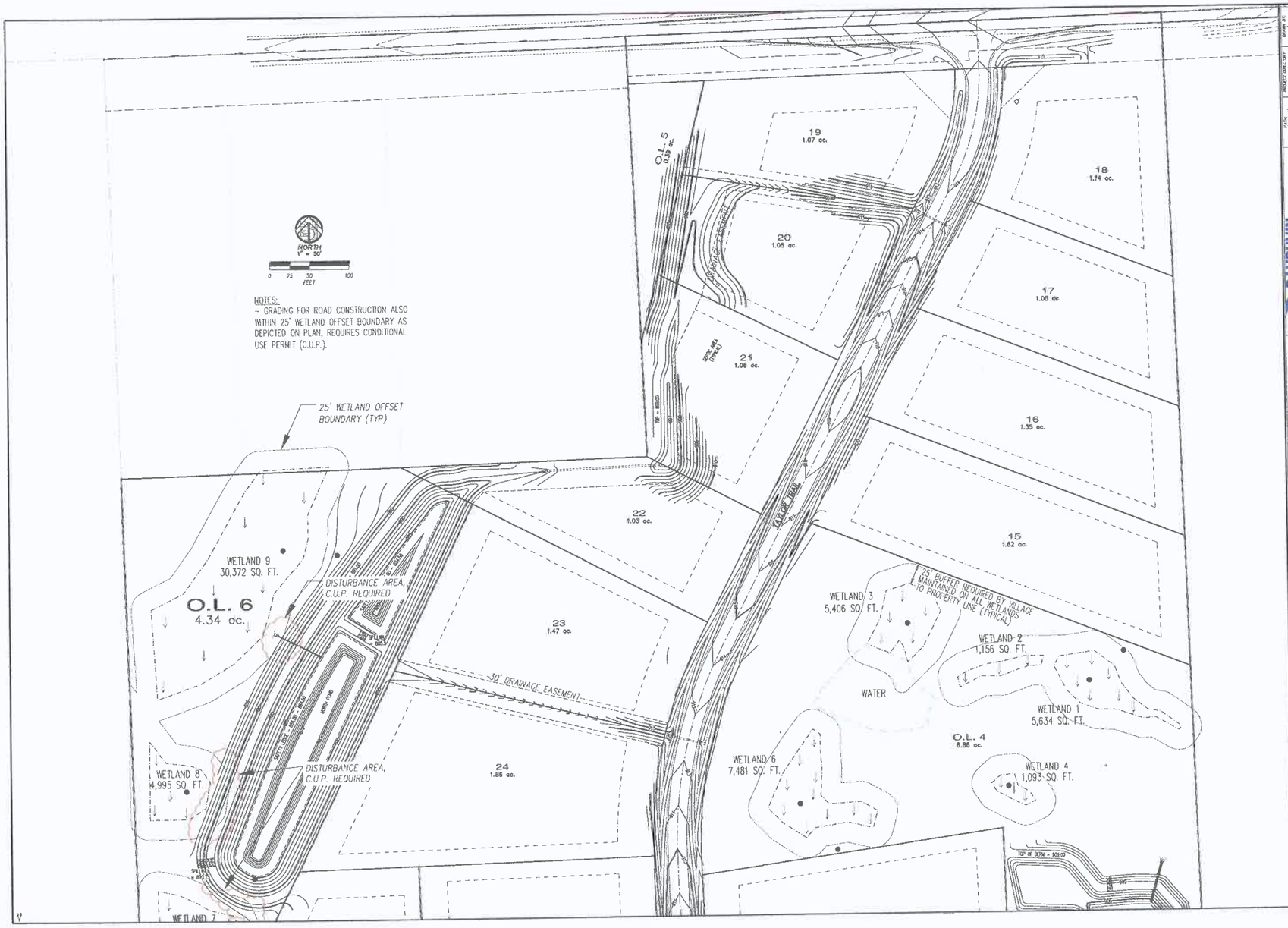
SW I will notify the Village if any aspect of the conditional use changes. I understand that failure to do so may result in the revocation of the CUP.

SW I understand that a Conditional Use Permit is valid only if the conditions and restrictions of the permit are met. I understand that failure to comply with any aspect of the permit may result in revocation.

SIGNATURES — ALL APPLICATIONS MUST BE SIGNED BY OWNER!

9

Applicant	Date	Owner	Date
Shari Waggoner	6/6/18	Shari Waggoner	6/6/18



BAUDHUIN
SURVEYING & ENGINEERING
312 N. 5TH AVE.
P.O. BOX 105
STURGEON BAY, WI. 54235
PHONE: (920)743-8271

Harvest Hills

GRADING PLAN (NEAR WETLANDS)
NORTHERLY PORTION

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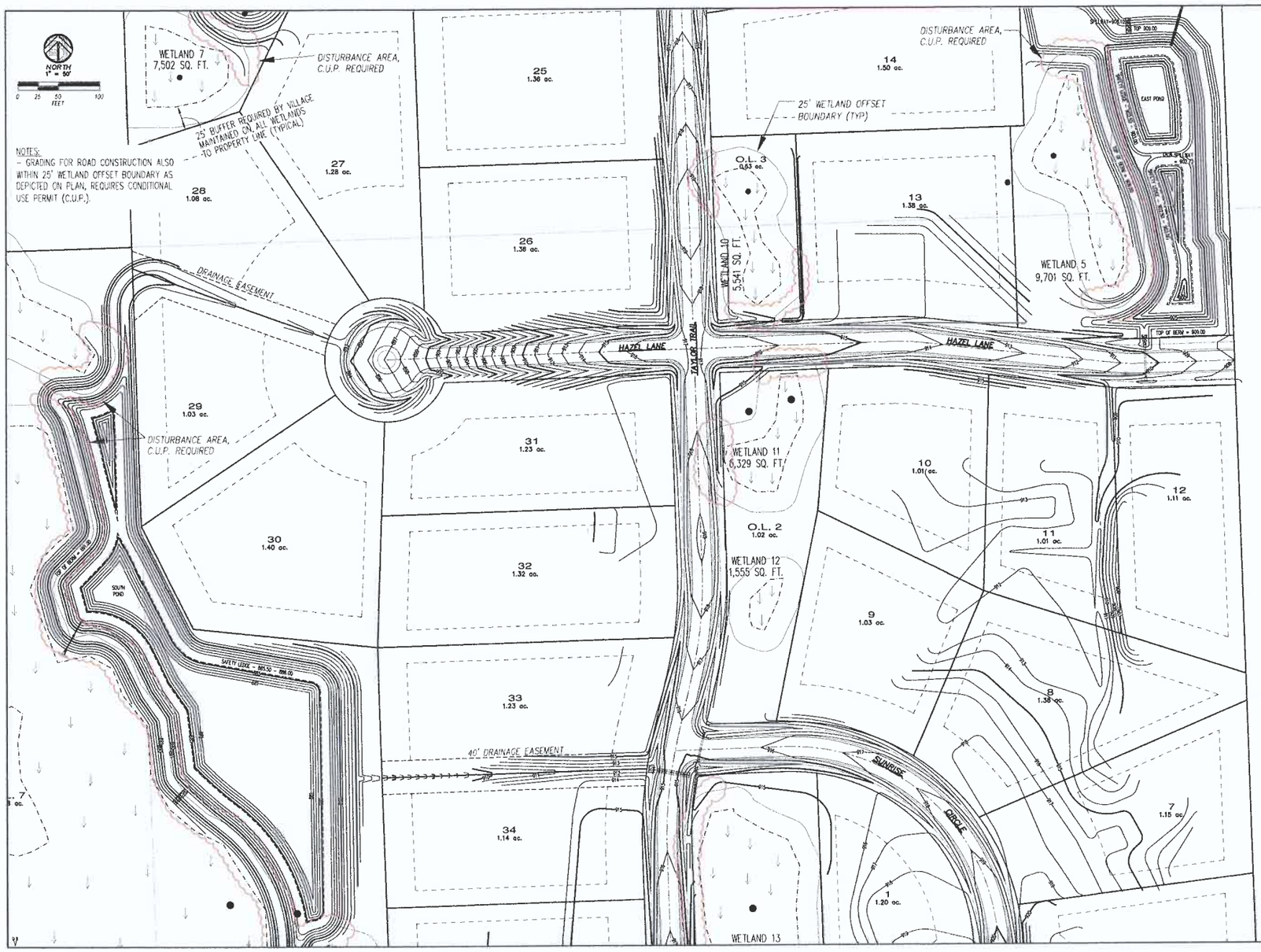
GP1.1



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PROJECT DIRECTOR	DRAWN BY
JAMES T. BAUDHUIN	D. SCHOLTEN
PROJ. ENGINEER	P.J.H.
LAND SURVEYOR	DATE
000-325	6-6-18
4-FIELD DATE	SCALE
	1" = 50'

Harvest Hills

GRADING PLAN (NEAR WETLANDS) CENTRAL PORTION

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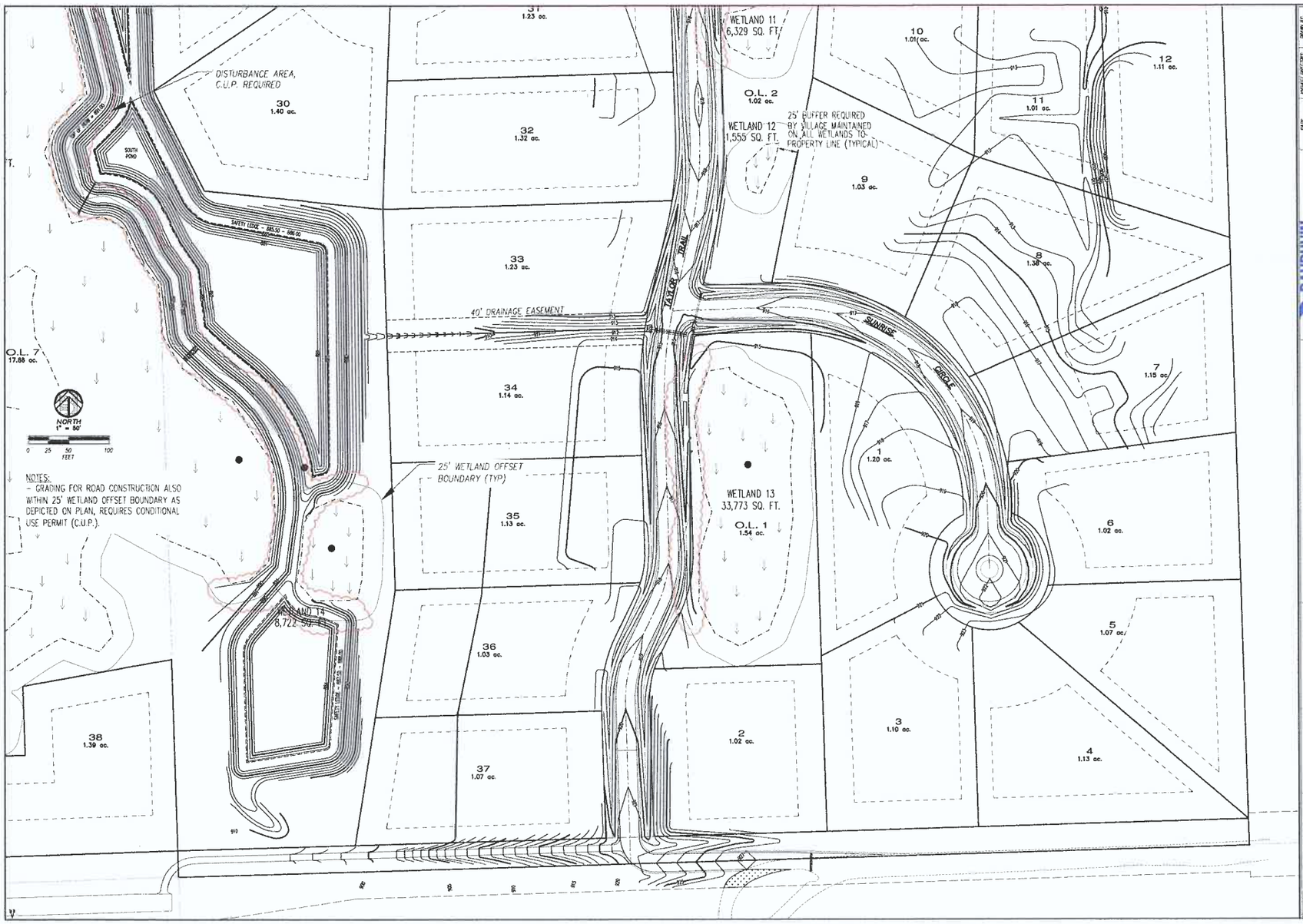
GP2.1



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FIELD WORK: LYNN LEMKE, DOUG SEE	PROJECT DIRECTOR: LYNN LEMKE
REVISED DATE:	SCALE: 1" = 50'
DRAWN BY: D.J.S.	CHECKED BY: D.J.S.
DATE: 6-6-18	JOB NUMBER: 18-0005

Harvest Hills

GRADING PLAN (NEAR WETLANDS) SOUTHERLY PORTION

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GP3.1

BAUDHUIN
SURVEYING &
ENGINEERING

Harvest Hills Residential Development
Wetland Setback Mitigation Plan

Location
Village of Germantown, Washington County, Wisconsin

Prepared for:

Top Leaf Development, LLC
c/o Shari Waggoner
3955 Hawks Ridge Drive
Hubertus, WI 53033

Prepared by:

Peter J. Hurth, P.E., LEED AP
Baudhuin Surveying and Engineering
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Section	Description
1	Mitigation Summary
2	Plan Exhibits

SECTION #1

Mitigation Summary

Mitigation Plan

I. Summary

The following summarizes the wetland setback mitigation plan for the Harvest Hills Residential Development site located in the Village of Germantown, Wisconsin. Baudhuin Surveying and Engineering has developed this mitigation plan in accordance with the Village of Germantown Municipal Code, Chapter 24 - Shoreland-Wetland Zoning Code. The proposed mitigation for encroachments on the 25' wetland setback includeS planting a native species vegetative buffer and removing the invasive species buckthorn. These two mitigation techniques will promote an indigenous environment and provide a more livable community for the surrounding homes.

Horizontal development affects 0.94 acres of the 25' wetland setback and will be mitigated using a 1:1 ratio. Vertical development affects 0.24 acres and will be mitigated using a 2:1 ratio. The summary of the proposed encroachments and mitigation ratios are provided in the following table. Refer to Exhibits 1 through 3 which present the locations and types of all encroachments.

Encroachment Type	Encroachment Area		Mitigation Ratio	Minimum Mitigation Area	
	SF	Acre		SF	Acre
Green Space (native species) Horizontal Development	40,403	0.93	1:1	40,403	0.93
Green Space (native species) Vertical Development	10,346	0.24	2:1	20,692	0.48
Impervious Surface (Road) Horizontal Development	224	0.01	1:1	224	0.01
Impervious Surface (Road) Vertical Development	60	0.00	2:1	120	0.00
				Total	**1.42**

II. Native Species Buffer

A native wetland grass seed mix will be sown as a vegetative buffer between wetland areas and new development. The selected seed mix is recommended by and available for purchase from the Washington County Land and Water Conservation Department. The seed mix is presented in Exhibit 4. The buffer will cover a minimum of one acre. This buffer is presented on Exhibit 4.

To promote growth of native species and minimize the growth of annual, biennial, and perennial weeds, the area will be mowed to a height of approximately 6" early in the first year and at 12" later in the year if the native grasses grow taller than 6". The areas should be mowed 2-3 times the first year.

In early June of the second year, the planted areas will be mowed at 12" to mitigate annual, biennial, and perennial weeds. If weeds persist, an herbicide may be used to control broadleaf weeds.

III. Buckthorn Removal

Approximately two acres of surrounding wetlands will be targeted for buckthorn removal. The areas are presented on Exhibit 4. Cutting and chemically treating the stumps is the

most appropriate method of removal for this area. This procedure will be most effective in the late summer and fall.

The procedure is as follows:

- Buckthorn larger than 1" diameter at the base will be cut and immediately treated with 30% triclopyr based herbicide approved for use in aquatic environments.
- Saplings 1" or smaller in diameter will be cut but not treated to reduce environmental impact of the herbicide.
- Seedlings will be removed by pulling.
- All brush will be left on site to minimize dispersal of seed.

To minimize resurgence of buckthorn in the treated area, the following measures will be taken:

- In the year after the initial removal of the large buckthorn, the new seedlings will be removed and left on site to dry.
- The following year, the treated area will be revisited, and the same procedure repeated as needed.

IV. Conclusion

The total wetland setback mitigation area required is 1.42 acres based on encroachment type and mitigation ratios. This mitigation will be achieved by providing a minimum of one acre of native species buffer and a minimum of two acres of buckthorn management in the surrounding wetlands. The total proposed three acres of mitigation exceeds the minimum 1.42 acres required by the Village of Germantown.

SECTION #2

Plan Exhibits

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PROJECT DIRECTORY: LATEST FILE
REVISED DATE:
SCALE:
DRAWING PART NO.
REVISED BY: P.J.H.
DATE: 6-25-18
JOB NUMBER: 22030

Harvest Hills

WETLAND SETBACK MITIGATION EXHIBIT

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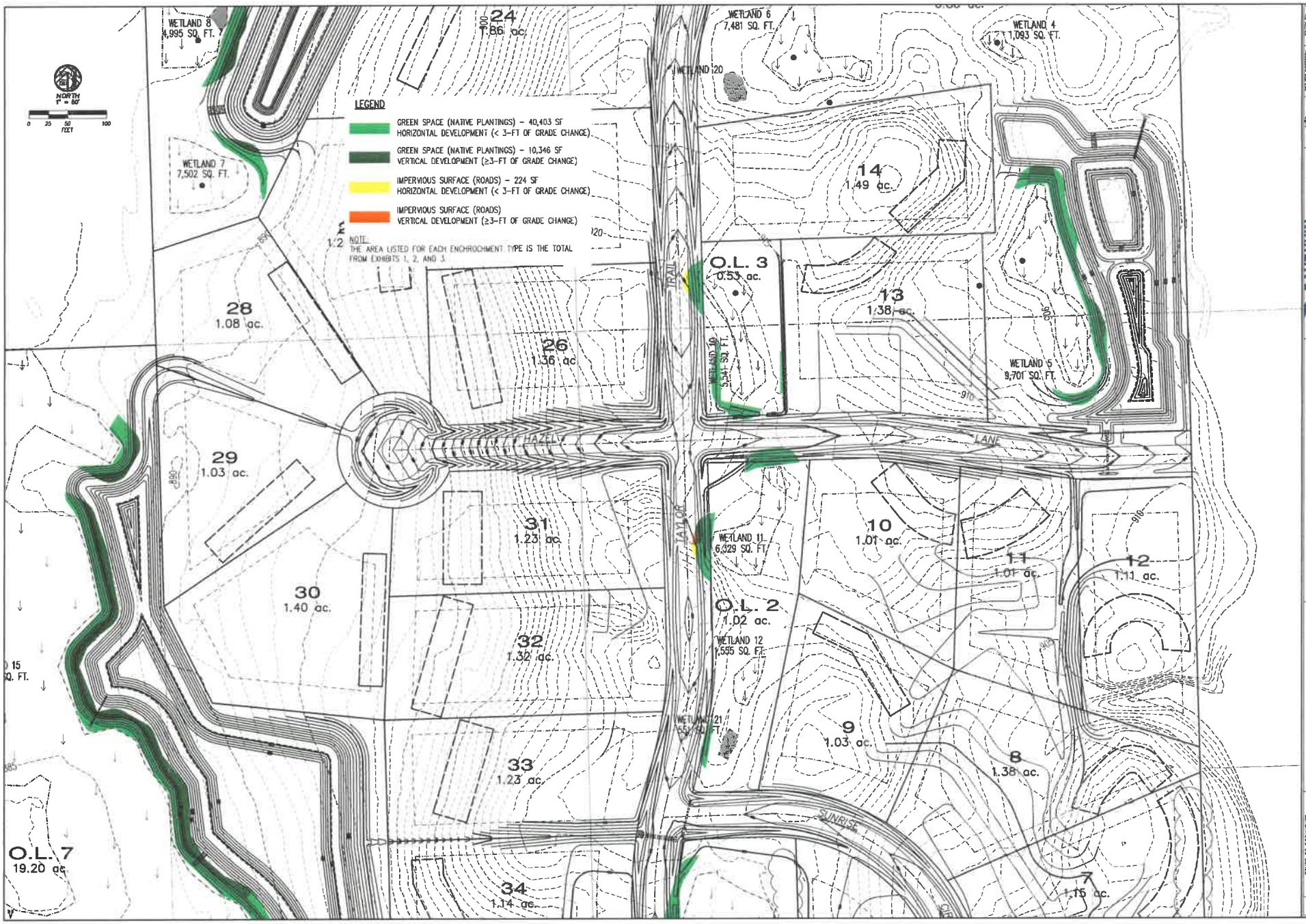
EX1



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REVISED DATE:
SCALE:
DRAWN BY: P.J.H.
REVIEWED BY: P.J.H.
DATE: 6-20-18
JOB NUMBER: 03-3003

Harvest Hills

WETLAND SETBACK MITIGATION EXHIBIT

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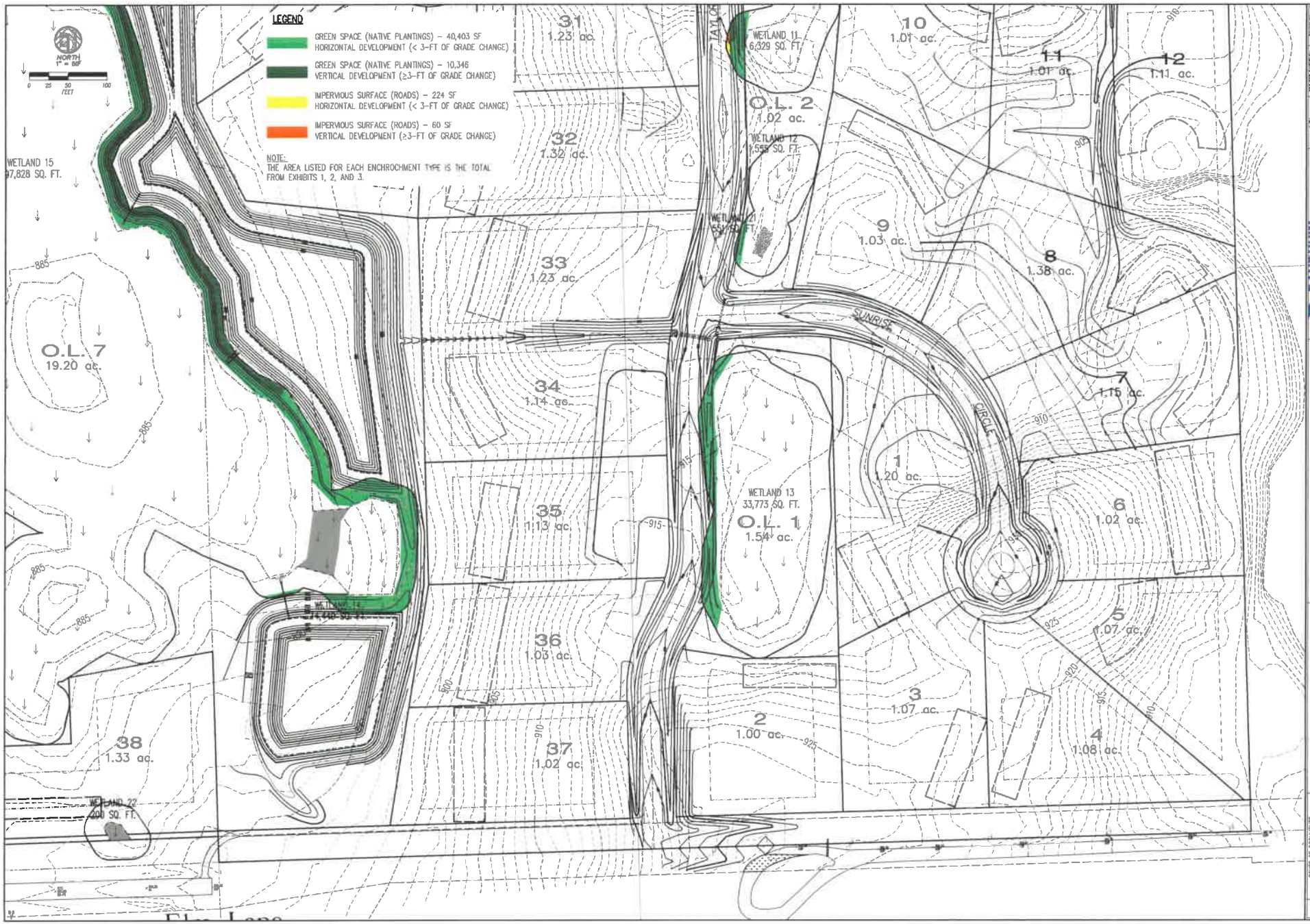
EX2



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DWG. DATE: 03/01/2018
DWG. NAME: 030-EXC
PROJECT DIRECTOR: DAVID TIMO
REVISED DATE:
SCALE:
DRAWN BY: WB
REVISED BY: P.J.H.
DATE: 6-20-18
JOB NUMBER: 23000

Harvest Hills

WETLAND SETBACK MITIGATION EXHIBIT

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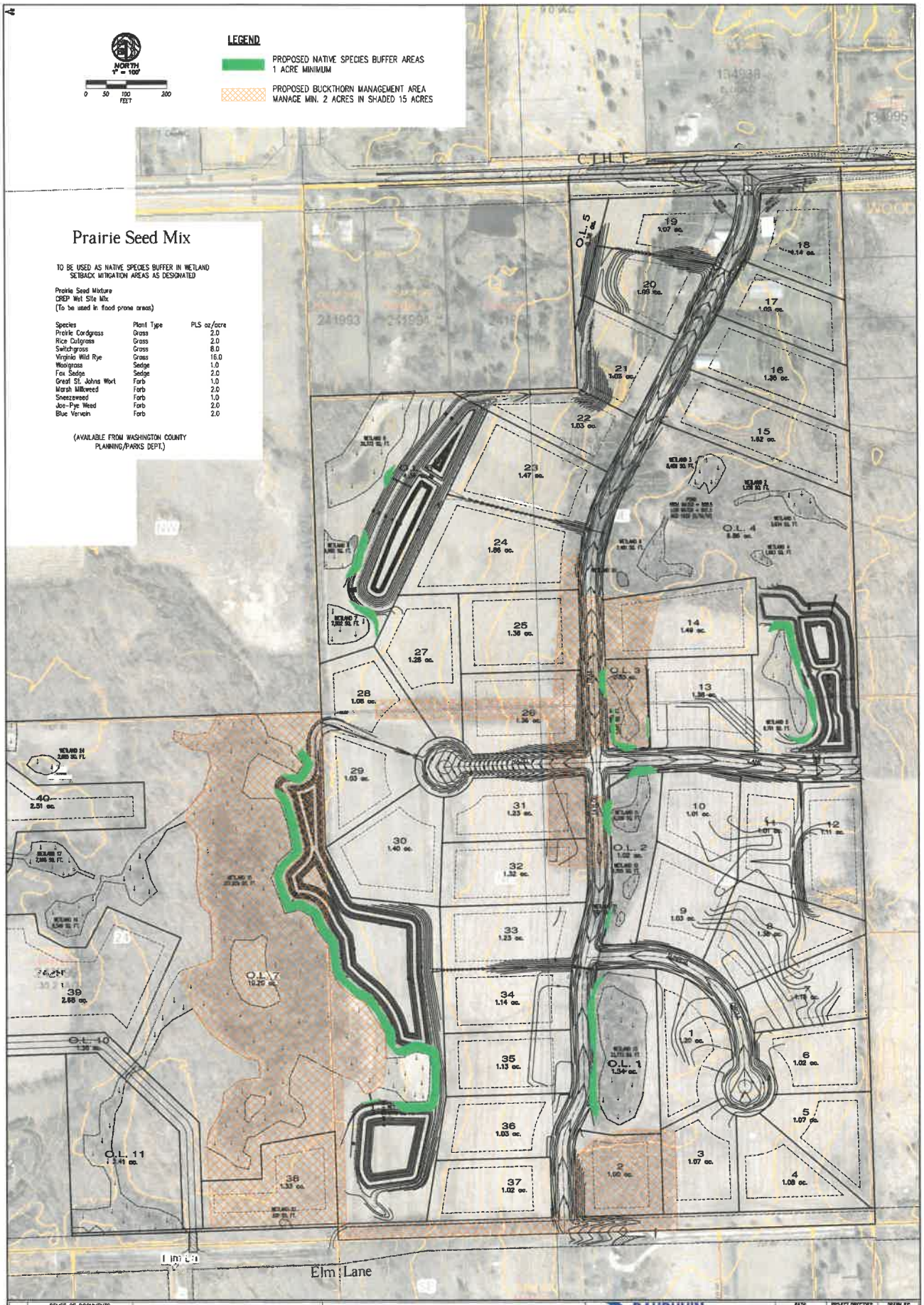
EX3



EX4

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WETLAND SETBACK MITIGATION EXHIBIT

Harvest Hills

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DATE: 10/08/2018	PROJECT DIRECTOR: LUTHER TODD	DRAWN BY: vb
PLAN NAME: 000-EXO		DESIGNED BY: PJH
REVISED DATE:		DATE: 6-20-18
SCALE:		JOB NUMBER: 23000

HARVEST HILLS

CONSTRUCTION PLANS

JOB NUMBER
23000

LOCATED IN:
THE NW 1/4 OF THE NE 1/4, THE SW 1/4 OF THE NE 1/4,
AND THE SE 1/4 OF THE NW 1/4
ALL IN:
SECTION 24, TOWNSHIP 9 NORTH, RANGE 20 EAST,
VILLAGE OF GERMANTOWN,
WASHINGTON COUNTY,
WISCONSIN.

NOTES:

1) PLACEMENT OF ELECTRIC/GAS/CATV TO BE DETERMINED BY WE-ENERGIES (EASEMENTS TO BE SHOWN ON PLAT).

2) DRAINAGE SWALES SHOWN ENCROACHING ON RESIDENTIAL LOTS TO BE ADDRESSED BY DRAINAGE EASEMENTS TO BE SHOWN ON PLAT.

PREPARED FOR:
TOP LEAF DEVELOPMENT, LLC
c/o SHARI WAGGONER
3955 HAWKS RIDGE DRIVE
HUBERTUS, WI
53033
(262)923-0469
topleafdevelopment@gmail.com

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
COV1	COVER & INDEX SHEET
EC1-EC4	EROSION CONTROL PLAN
GP1	GRADING PLAN - NORTHERLY PORTION
GP2	GRADING PLAN - CENTRAL PORTION
GP3	GRADING PLAN - SOUTHERLY PORTION
GP4	GRADING PLAN - WEST SIDE SOUTHERLY PORTION
GP5	GRADING PLAN - WEST SIDE NORTHERLY PORTION
PP1	PLAN & PROFILE - TAYLOR TRAIL - 0+00.00 - 12+50.00
PP2	PLAN & PROFILE - TAYLOR TRAIL - 12+00.00 - 24+00.00
PP3	PLAN & PROFILE - TAYLOR TRAIL - 15+00.00 - 27+48.78
PP4	PLAN & PROFILE - HAZEL LANE - 0+00 - 4+48.78 & 6+58.53
PP5	PLAN & PROFILE - SUNRISE CIRCLE - 0+00 - 6+84.52
POND1	EAST POND DETAIL
POND2	NORTH POND DETAIL
POND3	SOUTH A POND DETAIL
POND4	SOUTH B POND DETAIL
ENT1-ENT2	WASHINGTON COUNTY TYPE C ENTRANCE DETAIL
DET1	CONSTRUCTION DETAILS
DET2	CONSTRUCTION DETAILS

WISCONSIN
PETER J. HUTCH
Sturgeon Bay, WI
PROFESSIONAL ENGINEER

6-25-18

DRAWN BY: VD
DESIGNED BY: P.J.H.
DATE: 5-10-18
JOB NUMBER: 23000

PROJECT DIRECTORY: (LINKED 23000)
PATH: \DVB\LD\WG\
PLAN NAME: 000-ERO
REVISED DATE: 6-25-18
SCALE: NONE

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Harvest Hills

COVER & INDEX SHEET

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COV1

Erosion Control Notes

1. IN ACCORDANCE WITH NR 216.46(9) AND NR 216.48(4), THE LANDOWNER, OR THE LANDOWNER'S REPRESENTATIVE, SHALL INSPECT EROSION AND SEDIMENT CONTROL PRACTICES WEEKLY, AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER. WRITTEN DOCUMENTATION OF EACH INSPECTION SHALL BE MAINTAINED AT THE CONSTRUCTION SITE AND SHALL INCLUDE THE TIME, DATE AND LOCATION OF INSPECTION, THE PHASE OF LAND DISTURBANCE AT THE CONSTRUCTION SITE, PERSON CONDUCTING THE INSPECTION, ASSESSMENT OF CONTROL PRACTICES, AND A DESCRIPTION OF ANY EROSION OR SEDIMENT CONTROL MEASURE INSTALLATION OR MAINTENANCE PERFORMED IN RESPONSE TO THE INSPECTION.
2. ANY SOIL STOCKPILE THAT REMAINS FOR MORE THAN 7 DAYS SHALL BE COVERED OR TREATED WITH STABILIZATION PRACTICES SUCH AS TEMPORARY OR PERMANENT SEEDING AND MULCHING. SEEDING SHALL FOLLOW THE REQUIREMENTS OF WDNR TECHNICAL STANDARDS 1058 AND 1059 AND WIS. DOT STANDARD SPECIFICATIONS, SECTION 630.
3. A MINIMUM OF 4 TO 6 INCHES OF TOPSOIL MUST BE APPLIED TO ALL AREAS TO BE SEEDED OR SODDED ACCORDING TO WDNR TECHNICAL STANDARD 1059.
4. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH DAY. FLUSHING SHALL NOT BE ALLOWED. IMPLEMENT TEMPORARY GRADING PRACTICES AS DESCRIBED IN WDNR TECHNICAL STANDARDS 1066 AND 1067 TO PREVENT SEDIMENT FROM LEAVING THE SITE.
5. ALL DISTURBED AREAS SHALL BE TREATED WITH STABILIZATION MEASURES, AS SPECIFIED, WITHIN 3 WORKING DAYS OF FINAL GRADING.
6. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR THE APPLICATION OF STABILIZATION MEASURES MUST BE REPAIRED AND STABILIZATION WORK REDONE.
7. TREAT ANY DISTURBED AREA THAT REMAINS INACTIVE FOR GREATER THAN 7 WORKING DAYS OR WHERE GRADING WORK EXTENDS BEYOND THE PERMANENT SEEDING DEADLINES WITH TEMPORARY BEST MANAGEMENT PRACTICES SUCH AS LAND APPLICATION OF ANIONIC POLYACRYLAMIDE, STRAW BALES, SILT FENCE, MULCHING, TEMPORARY SEEDING, AND SEDIMENT TRAPS AS RESPECTIVELY REQUIRED BY WDNR TECHNICAL STANDARDS 1050, 1055, 1056, 1058, 1059, AND 1063.
8. ALL TEMPORARY BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED.
9. WIND EROSION SHALL BE KEPT TO A MINIMUM DURING CONSTRUCTION. WATERING, MULCHING, OR A TACKING AGENT MAY NEED TO BE UTILIZED TO PROTECT NEARBY RESIDENTS AND WATER RESOURCES. DUST CONTROL MEASURES SHALL BE IMPLEMENTED ACCORDING TO WDNR TECHNICAL STANDARD 1068.
10. WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY BEST MANAGEMENT PRACTICES SUCH AS SILT FENCE, STRAW BALES, AND SEDIMENT TRAPS SHALL BE REMOVED.
11. ALL REMAINING TOPSOIL STOCKPILES SHALL BE SEEDED OR HAULED OFF-SITE WITHIN 60 DAYS OF CONSTRUCTION COMPLETION.
12. <u>WINTER STABILIZATION</u>: ALL AREAS REQUIRING SEED AFTER OCTOBER 15TH SHALL BE STABILIZED BY AN APPROVED WINTER STABILIZATION METHOD. THE RECOMMENDED METHOD IS UTILIZING A HYDROSEEDER CONTAINING ADEQUATE TACKIFIER POLYMER MIXED WITH WINTER WHEAT OR RYE SEED. ANOTHER ACCEPTABLE EROSION CONTROL METHOD IS THE LAND APPLICATION OF ANIONIC POLYACRYLAMIDE IN CONFORMANCE WITH WDNR TECHNICAL STANDARD 1050. POLYMER CANNOT BE USED TO STABILZE ROADSIDE SWALES. THESE AREAS MEST BE MATTED.
13. ADDITIONAL EROSION CONTROL METHODS SUCH AS SILT FENCE, BALE CHECKS, EROSION MAT, (ABOVE AND BEYOND THE QUANTITIES LISTED IN THE BID PROPOSAL) AS NEEDED TO PREVENT WASHOUT OR SILT TRANSFER PROBLEMS WITHIN THE CONSTRUCTION AREA OR DOWNSTREAM SHALL BE CONSIDERED INCIDENTAL TO THIS PROPOSAL.

Stabilization Specifications

(REFER TO EROSION CONTROL PLAN FOR APPLICABLE AREAS)

MULCH: MATERIAL SHALL CONSIST OF ANY STRAW, HAY, WOOD EXCELSIOR FIBER OR OTHER SUITABLE MATERIAL OF A SIMILAR NATURE WHICH IS SUBSTANTIALLY FREE OF NOXIOUS WEED SEEDS AND OBJECTIONABLE FOREIGN MATTER. MULCH SHALL CONFORM TO WDNR TECHNICAL STANDARD 1058.

STANDARD BIODEGRADABLE MAT: CLASS 1, TYPE A, AS LISTED IN THE LATEST EDITION OF THE WIS. DOT EROSION CONTROL P.A.L. PRODUCTS WITH UV DEGRADABLE NETTING SHALL NOT BE INSTALLED AFTER SEPTEMBER 1ST. TYPE B MAT MAY BE USED IN REPLACEMENT FOR TYPE A MAT AT THE OPTION OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. EROSION MAT SHALL ALSO MEET THE REQUIREMENTS OF WDNR TECHNICAL STANDARD 1053.

HIGH VELOCITY EROSION MAT: CLASS 1, TYPE B, AS LISTED IN THE LATEST EDITION OF THE WIS. DOT EROSION CONTROL P.A.L. PRODUCTS WITH UV DEGRADABLE NETTING SHALL NOT BE INSTALLED AFTER SEPTEMBER 1ST. EROSION MAT SHALL ALSO MEET THE REQUIREMENTS OF WDNR TECHNICAL STANDARD 1053.

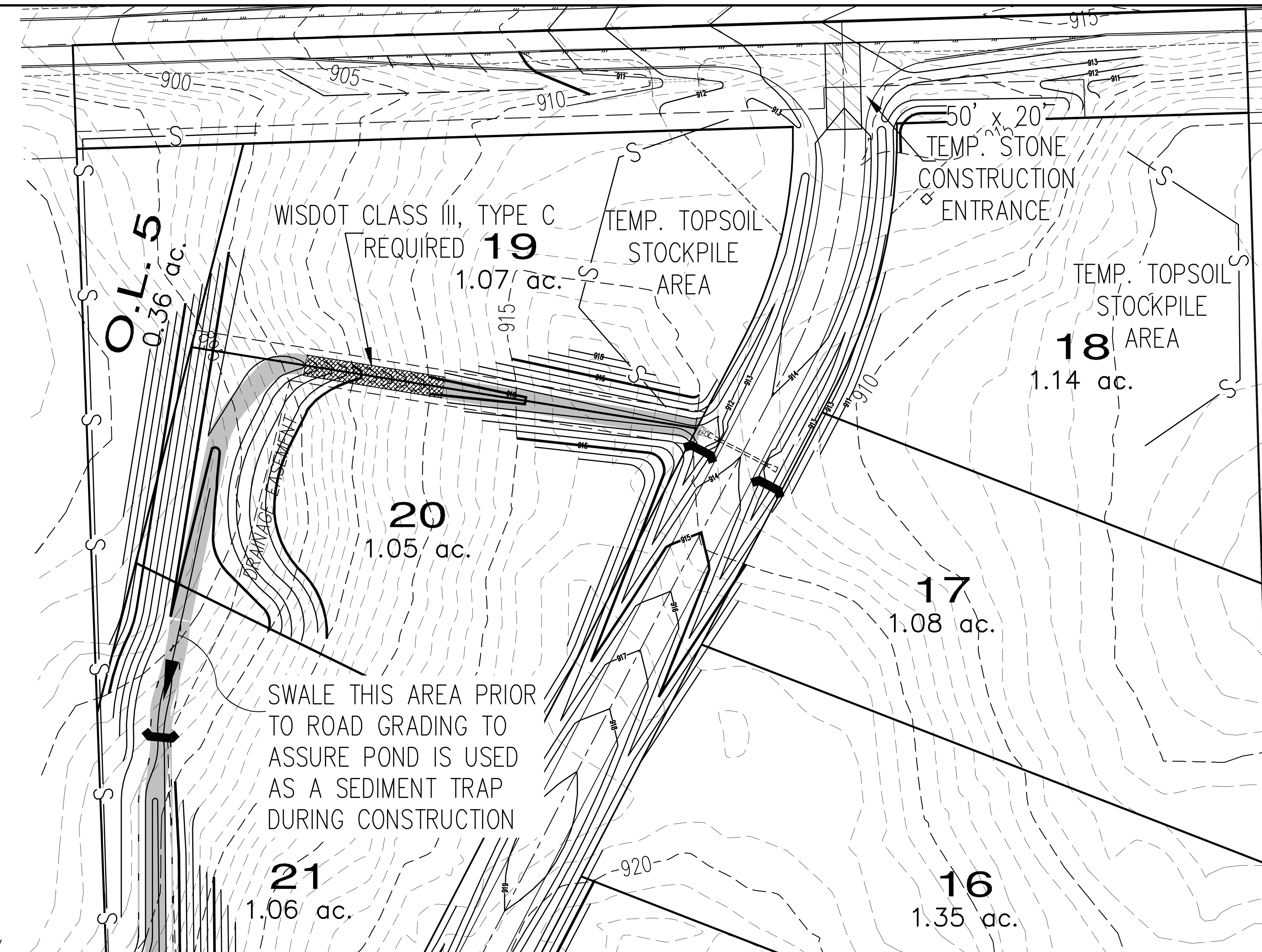
STEEP DITCH EROSION MAT: CLASS III, TYPE C, AS LISTED IN THE LATEST EDITION OF THE WIS. DOT EROSION CONTROL P.A.L. PRODUCTS WITH UV DEGRADABLE NETTING SHALL NOT BE INSTALLED AFTER SEPTEMBER 1ST. EROSION MAT SHALL ALSO MEET THE REQUIREMENTS OF WDNR TECHNICAL STANDARD 1053.

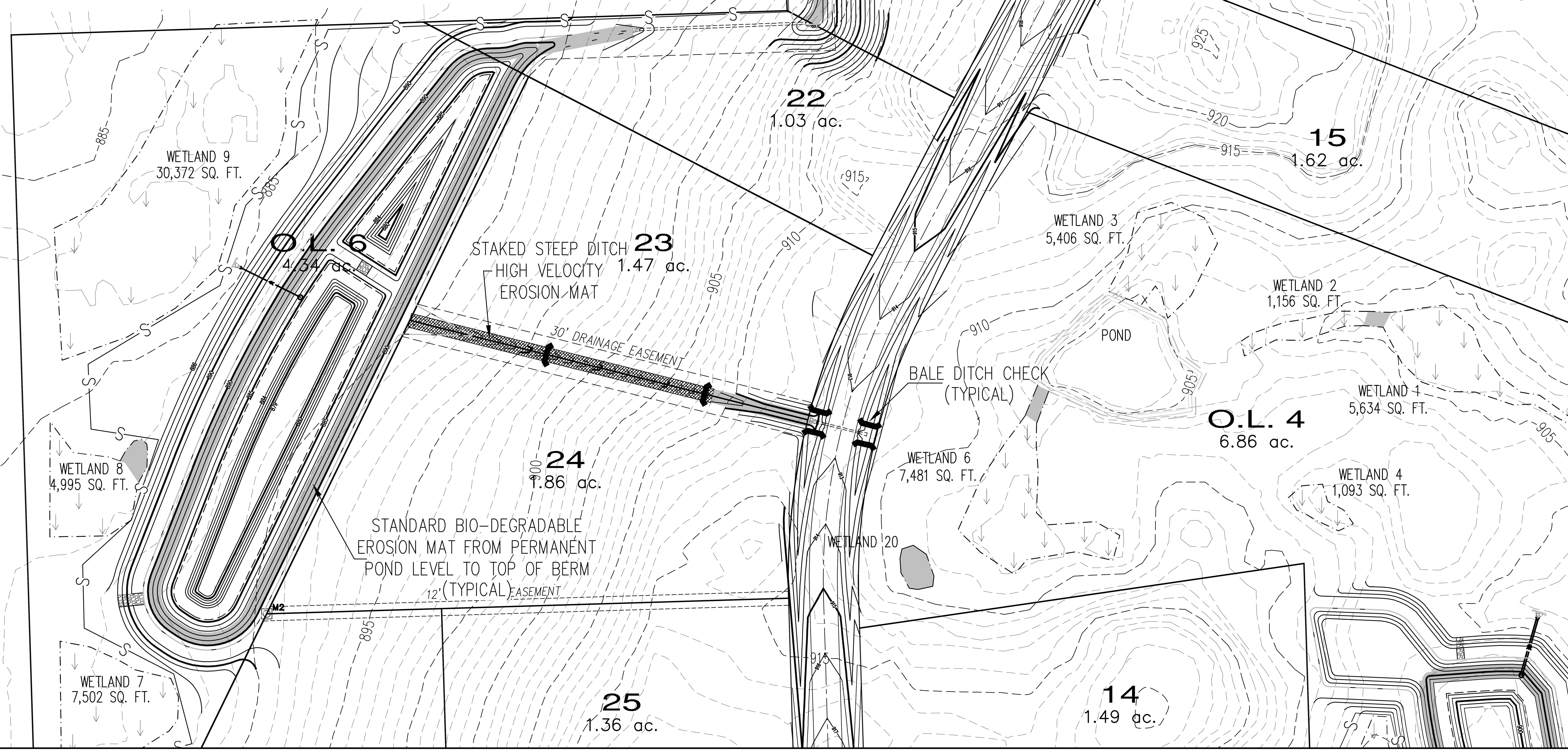
STAPLES: USE U-SHAPED STAPLES NO. 11 GAUGE OR HEAVIER STEEL WIRE OR OTHER APPROVED MATERIALS, WITH A WIDTH OF ONE TO TWO INCHES, AND A LENGTH NOT LESS THAN 6 INCHES FOR FIRM SOILS AND NOT LESS THAN 12 INCHES FOR LOOSE SOILS.

INSTALLATION: ALL EROSION MATTING SHALL BE INSTALLED WITH DOWNSLOPE EDGE BURIED OR OVERLAPPED A MINIMUM OF 3 INCHES BY UPSLOPE MATTING TO PREVENT UNDERFLOWS.

RIP-RAP : 4-12" ROCK, 50% > 6", 10-20% < 2" (OVER 8 OZ. GEOTEXTILE) DECORATIVE STONE MAY BE USED AS LONG AS IT MEETS SPECIFICATIONS.

- BALE DITCH CHECK
- EROSION MAT
- STEEP DITCH EROSION MAT
- SILT FENCE
- 20' x 50' CONSTRUCTION ENTRANCE





NORTH
1" = 50'

0 25 50 100
FEET

NOTES:

1) CONTRACTOR HAS OPTION TO RELOCATE TOPSOIL STOCKPILE AREAS AS LONG AS SILT FENCE SURROUNDS LOW END.

2) ALL POND DISCHARGE POINTS INCLUDING SPILLWAYS AND PIPE OUTFLOWS SHALL BE STABILIZED WITH RIP-RAP.

3) WHEN MASS GRADING SITE, RE-TOPSOIL AND SEED COMPLETED AREAS AS SOON AS PRACTICAL UPON REACHING SUBGRADE.

4) CONTRACTOR SHALL ABIDE BY WEIGHT LIMITS ON ADJOINING ROADS.

5) ADDITIONAL DITCH CHECKS SHALL BE PLACED AS NEEDED DURING CONSTRUCTION TO MINIMIZE SEDIMENT TRANSFER & SWALE WASHOUT.

6) ALL REMAINING DISTURBED AREAS ON THE SITE SHALL BE RESTORED WITH 6" THICK TOPSOIL, SEED, AND MULCH PER SPECIFICATIONS.

7) HATCHED AREAS IN DITCH LINES INDICATE EROSION MAT SHALL BE PLACED A MINIMUM OF 6' WIDE AND AT LEAST AS WIDE AS THE BASE OF SWALE AND CENTERED IN THE BASE OF THE DITCH. HATCHED AREAS AT ENDS OF CULVERTS INDICATES RIP RAP PER DETAIL.

8) TEMPORARY BEST MANAGEMENT PRACTICES SUCH AS SILT FENCE, STRAW BALES, AND SEDIMENT TRAPS SHALL BE REMOVED WHEN DISTURBED AREAS HAVE BEEN SATISFACTORILY RESTORED AND STABILIZED.

9) DITCH CHECKS IN ROAD DITCHES SHALL BE REMOVED WHEN SEEDING & FINAL STABILIZATION MEASURES ARE IN PLACE.

10) RIP-RAP AND EROSION MATTING SHALL BE TERMINATED AT OBSERVED WATER LEVEL IN PONDS.

11) STORM PONDS SHALL BE CONSTRUCTED PRIOR TO ROADS TO ALLOW USE AS TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION.

12) ADDITIONAL TEMPORARY STONE CONSTRUCTION ENTRANCE REQUIRED AT ANY POINT USED FOR CONSTRUCTION EQUIPMENT ACCESS.

13) <u>CONTRACTOR RESPONSIBLE FOR AVOIDING ALL SEPTIC AREAS SHOWN ON CONSTRUCTION PLANS.</u>

Procedures of Construction

(BASED ON A 90 DAY SCHEDULE, ANTICIPATED START: AUG. 1, 2018)

1. INSTALL EROSION CONTROL MEASURES PER PLAN FOR PHASE PLANNED FOR CONSTRUCTION. (COMPLETED DAY 1)
2. STRIP TOPSOIL IN STORM WATER PONDS AREAS AND STOCKPILE. (COMPLETED DAY 7)
3. EXCAVATE STORM WATER PONDS, INSTALL OUTLET STRUCTURES, SEED, FERTILIZE AND MULCH AND EROSION MATTING AS SPECIFIED ON EROSION CONTROL PLAN. (COMPLETED DAY 15)
4. UTILIZE PONDS AS SEDIMENT TRAPS DURING CONSTRUCTION. USE TEMPORARY SWALES AS NEEDED TO DIRECT WATER TO POND. USE DITCH CHECKS AND COMPLETE SITE GRADING WITHIN 30 DAYS OF TEMPORARY SWALES.
5. STRIP TOPSOIL IN ROADWAY AREAS AND FILL AREAS AND STOCKPILE. (COMPLETED DAY 20)
6. GRADE ROADWAY TO SUB GRADE. (COMPLETED DAY 35)
7. INSTALL CULVERTS WITH DITCH CHECKS (ROCK, SEDIMENT LOGS, BALES, ETC..) AROUND UPSLOPE END. (COMPLETED DAY 40)
8. PLACE GRAVEL IN ROADWAY. (COMPLETED DAY 60)
9. TOPSOIL, SEED, FERTILIZE AND MULCH ALL DISTURBED AREAS, INSTALL ELECTRIC/GAS/CATV. (COMPLETED DAY 70)
10. INSTALL STABILIZATION MEASURES (EROSION NETTING/MATTING PER PLAN). (COMPLETED DAY 75)
11. INSTALL BINDER COURSE ON ROADWAY. (COMPLETED DAY 80)
12. PLACE GRAVEL SHOULDERS. (COMPLETED DAY 90)
13. EXCAVATE SEDIMENT FROM CONSTRUCTION SITE RUNOFF OUT OF POND TO MATCH PLAN GRADE AFTER AT LEAST 75% OF THE PERMANENT VEGETATION HAS BEEN ESTABLISHED. (AS NEEDED)
14. TOPSOIL, SEED, FERTILIZE AND MULCH ALL DISTURBED AREAS.
15. REMOVE EROSION CONTROL MEASURES WHEN GRASS HAS BEEN WELL ESTABLISHED.
16. STABILIZE ANY DISTURBED AREAS DURING UTILITY INSTALLATION IMMEDIATELY UPON COMPLETION OF TRENCH WORK.

<u>NOTE:</u>
SURFACE COURSE PAVING AND RE-SHOULDERING TO OCCUR FOLLOWING YEAR OR AS ESTABLISHED IN DEVELOPER'S AGREEMENT.

<u>6-25-18 REVISION</u>
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)
- AERATOR METER AND ELECTRICAL EASEMENT

DRAWN BY: vb	DESIGNED BY: P.J.H.
PROJECT DIRECTORY: LUTHER 23000	DATE: 5-18-18
	JOB NUMBER: 23000
PATH: \DVB\LDWG\	PLAN NAME: 000-ERO
REVISED DATE: 6-25-18	SCALE: 1" = 50'

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P.O. BOX 105
STURGEON BAY, WI. 54235
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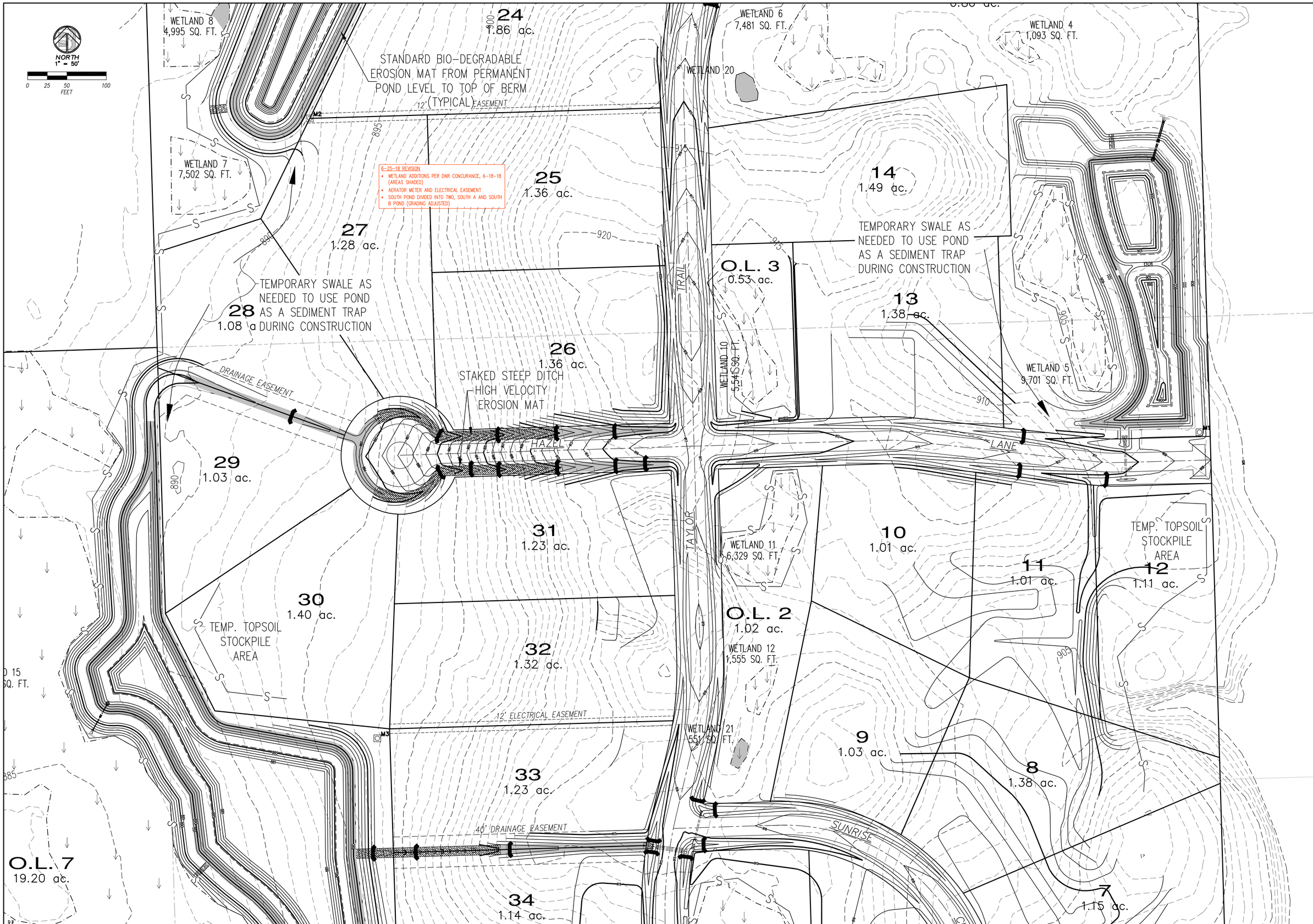
EC1



DRAWN BY: VD
DESIGNED BY: P.J.H.
DATE: 5-31-18
JOB NUMBER: 23000

PROJECT DIRECTORY: (LINKED 23000)

PATH: \DWG\LDWG\
PLAN NAME: 000-ERO

REVISED DATE: 6-25-18
SCALE: 1" = 50'

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SURVEYING & ENGINEERING
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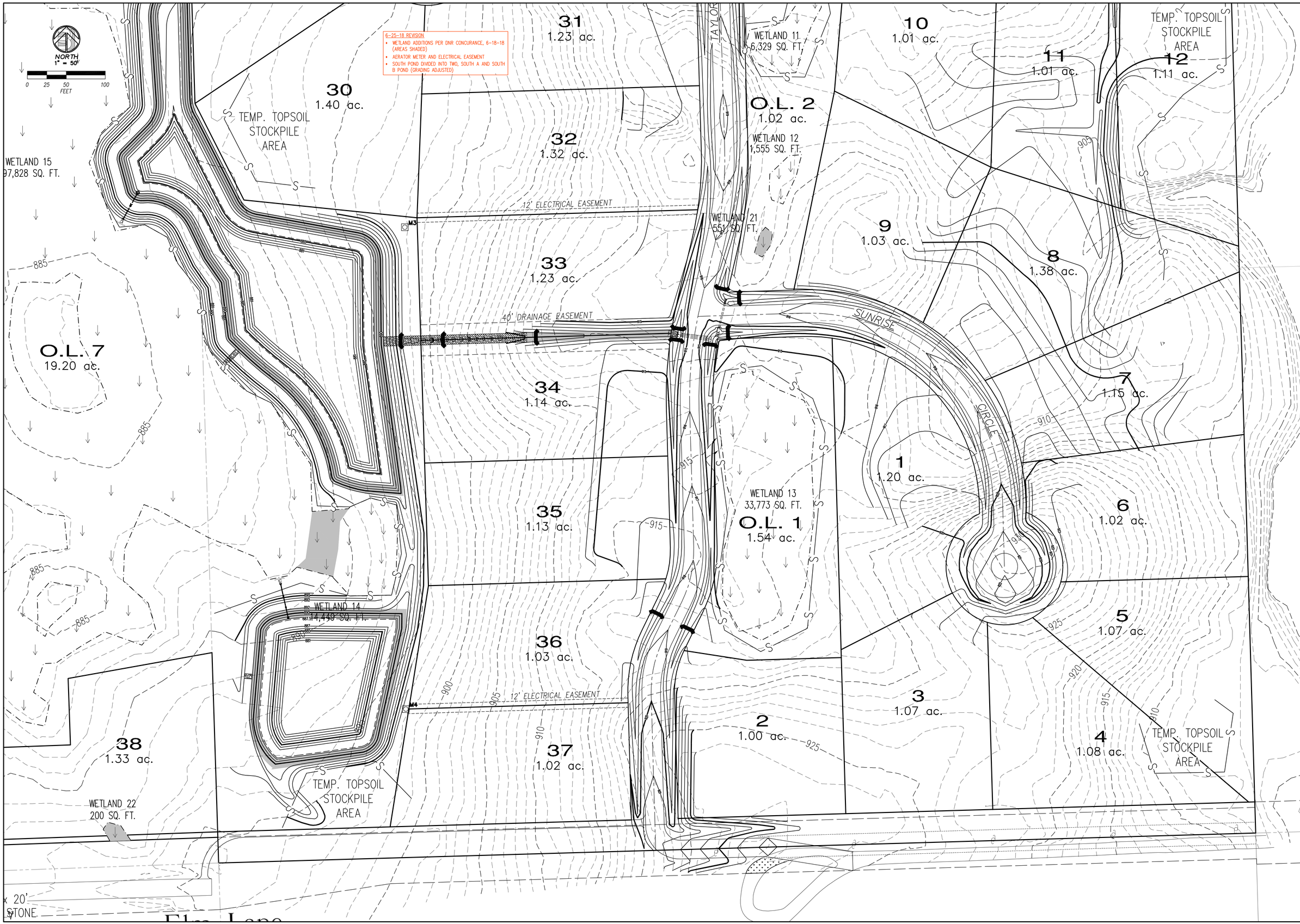
EC2



DRAWN BY: VD	DESIGNED BY: P.J.H.
PROJECT DIRECTORY: (LATEST 23000)	DATE: 5-9-18
PATH: \DWG\LD\WG\	REVISED DATE: 6-25-18
PLAN NAME: 000-EKO	JOB NUMBER: 23000
	SCALE: 1" = 50'

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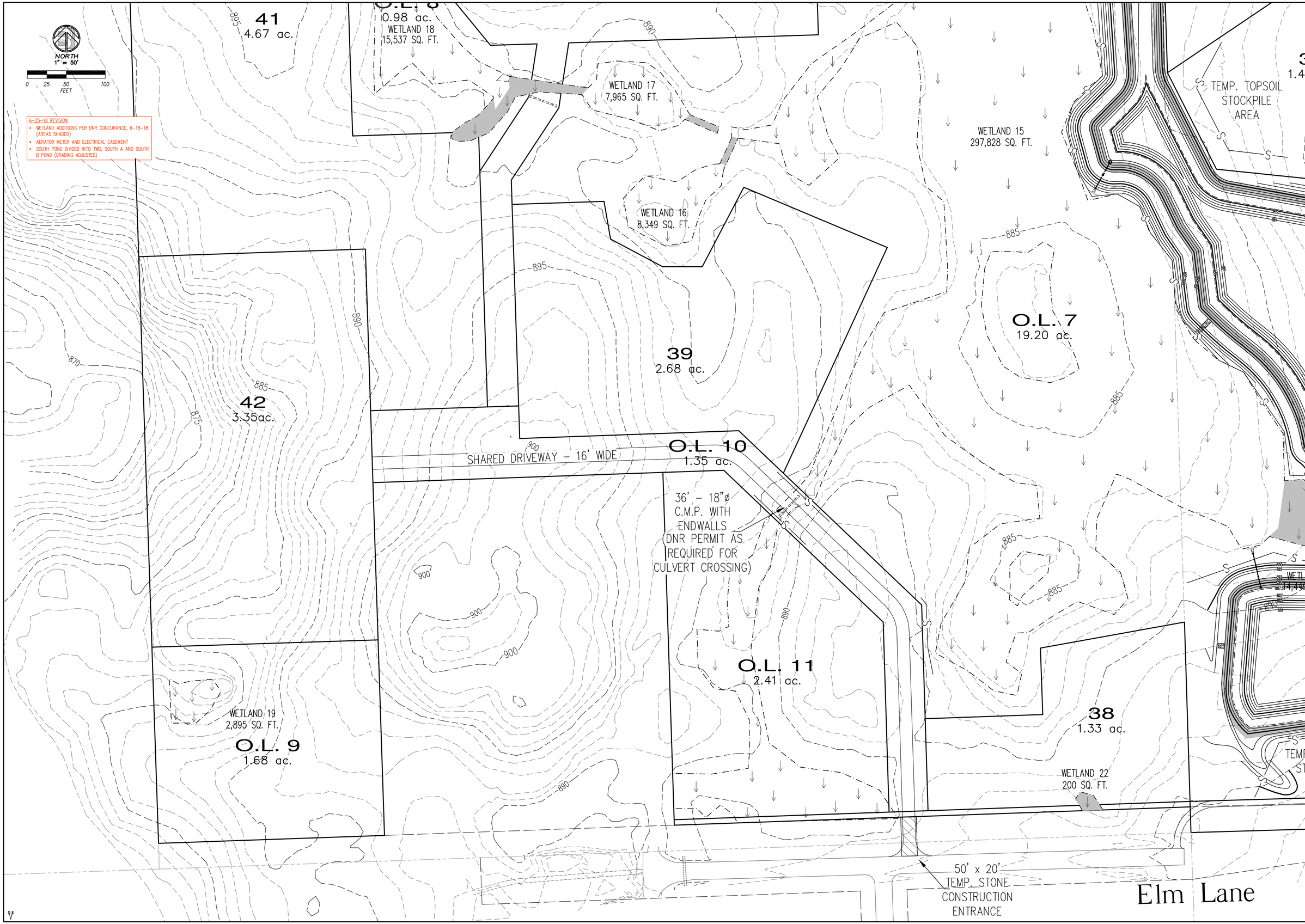
EC3



DRAWN BY: VD
DESIGNED BY: P.J.H.
DATE: 5-31-18
JOB NUMBER: 23000
PROJECT DIRECTORY: (LINKED 23000)
PATH: \DWG\LD\WG\
PLAN NAME: 000-ERO
REVISED DATE: 6-25-18
SCALE: 1" = 50'

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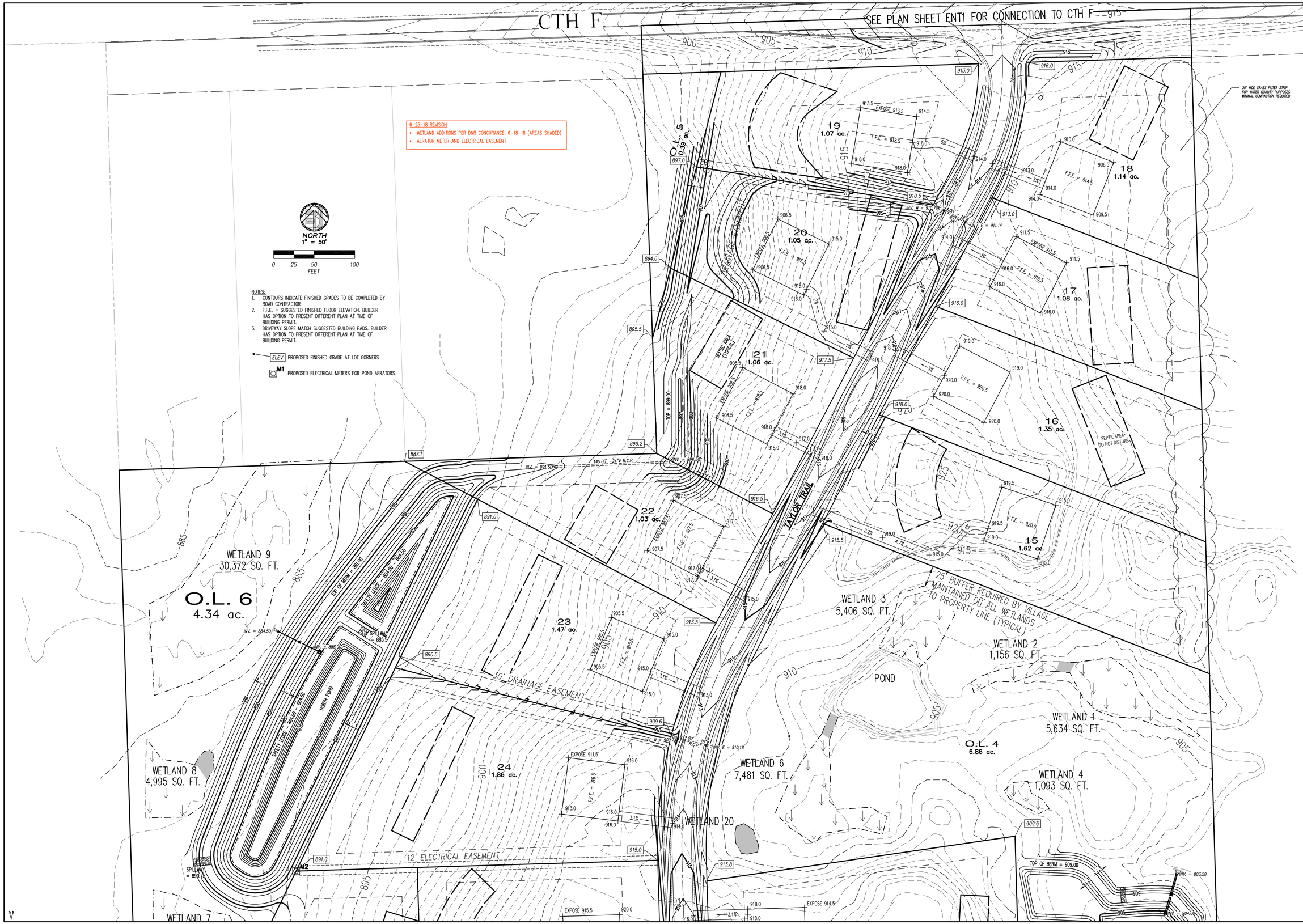
EC4



DRAWN BY: KD
RESIGNED BY: J.J.H.
DATE: 5-18-18
JOB NUMBER: 20300
PROJECT DIRECTORY: LUTHER 23000
PATH: \DVE\LIWG\ PLAN NAME: ROAD SHEET
REVISED DATE: 6-25-18
SCALE: 1" = 50'

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GRADING PLAN
NORTHERLY PORTION

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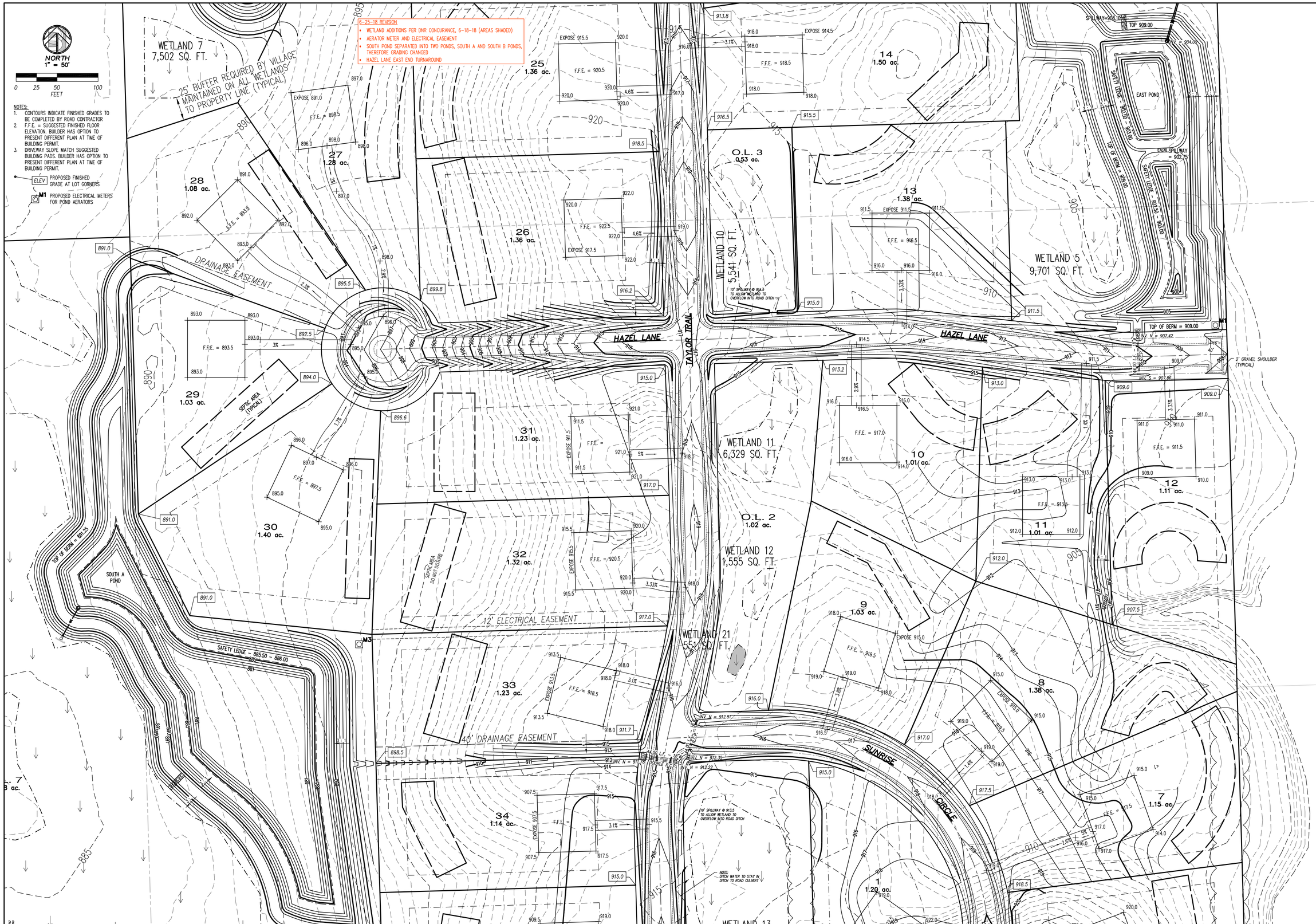
GP1



DRAWN BY: VD
RESIGNED BY: J.H.
DATE: 5-18-18
JOB NUMBER: 20300
PROJECT DIRECTORY: LUTHER 23000
PATH: \DVE\LUWG\
PLAN NAME: ROUGH GRADE
REVISED DATE: 6-25-18
SCALE: 1" = 50'

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GRADING PLAN
CENTRAL PORTION

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GP2

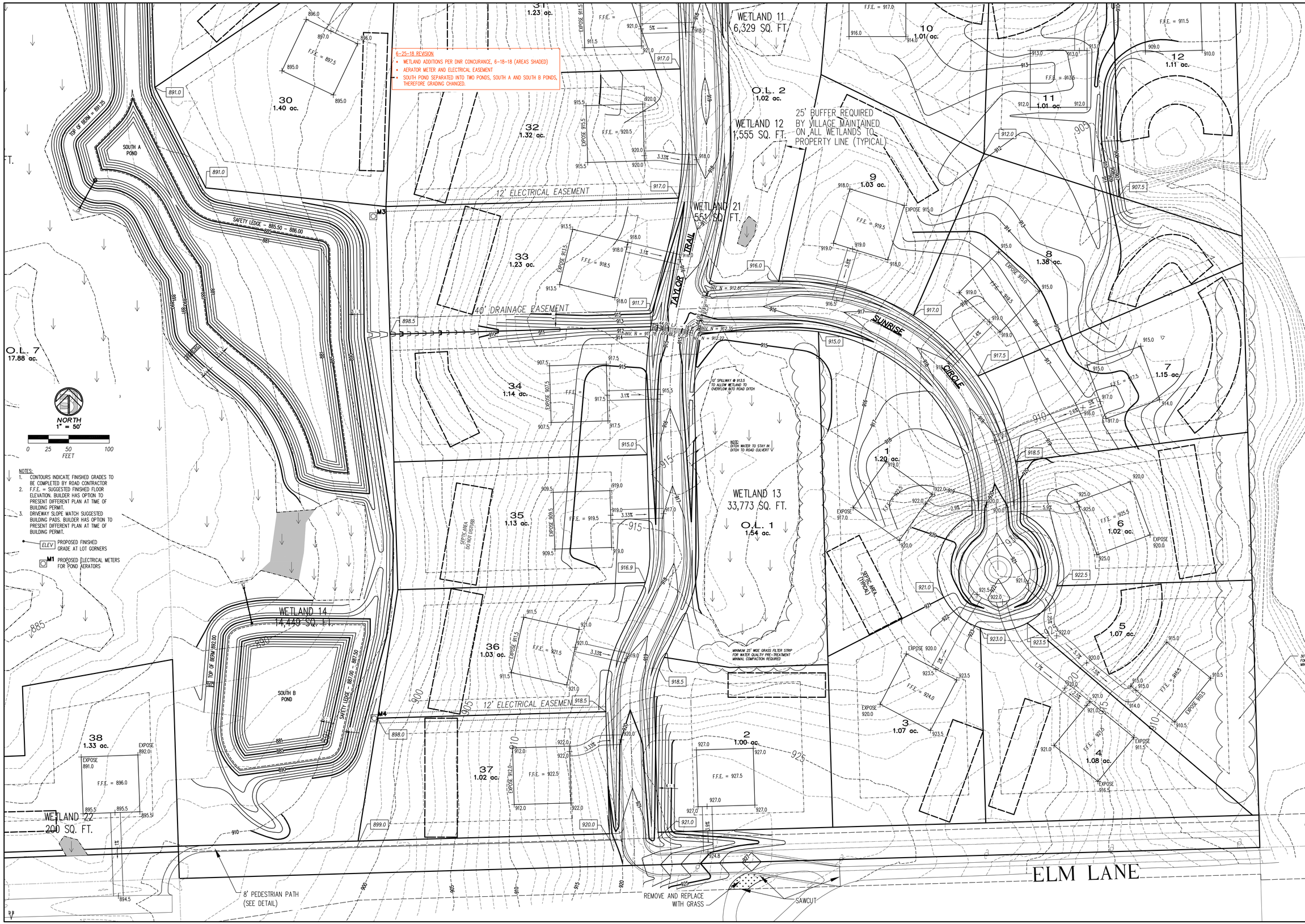
6-25-18 REVISION
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)
- AERATOR METER AND ELECTRICAL EASEMENT
- SOUTH POND SEPARATED INTO TWO PONDS, SOUTH A AND SOUTH B PONDS, THEREFORE GRADING CHANGED.

NOTES:
1. CONTOURS INDICATE FINISHED GRADES TO BE COMPLETED BY ROAD CONTRACTOR
2. F.F.E. = SUGGESTED FINISHED FLOOR ELEVATION. BUILDER HAS OPTION TO PRESENT DIFFERENT PLAN AT TIME OF BUILDING PERMIT.
3. DRIVEWAY SLOPE MATCH SUGGESTED BUILDING PADS. BUILDER HAS OPTION TO PRESENT DIFFERENT PLAN AT TIME OF BUILDING PERMIT.

ELEV — PROPOSED FINISHED GRADE AT LOT CORNERS

M1 — PROPOSED ELECTRICAL METERS FOR POND AERATORS

NORTH
1" = 50'
0 25 50 100
FEET



DRAWN BY: KD
DESIGNED BY: J.J.L.
DATE: 5-18-18
JOB NUMBER: 20300
PROJECT DIRECTORY: LUTHER 23000
PATH: \DVE\LUWG\
PLOT FILE:
PLOT SCALE:
REVISED DATE: 6-25-18
SCALE: 1" = 50'

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GRADING PLAN SOUTHERLY PORTION

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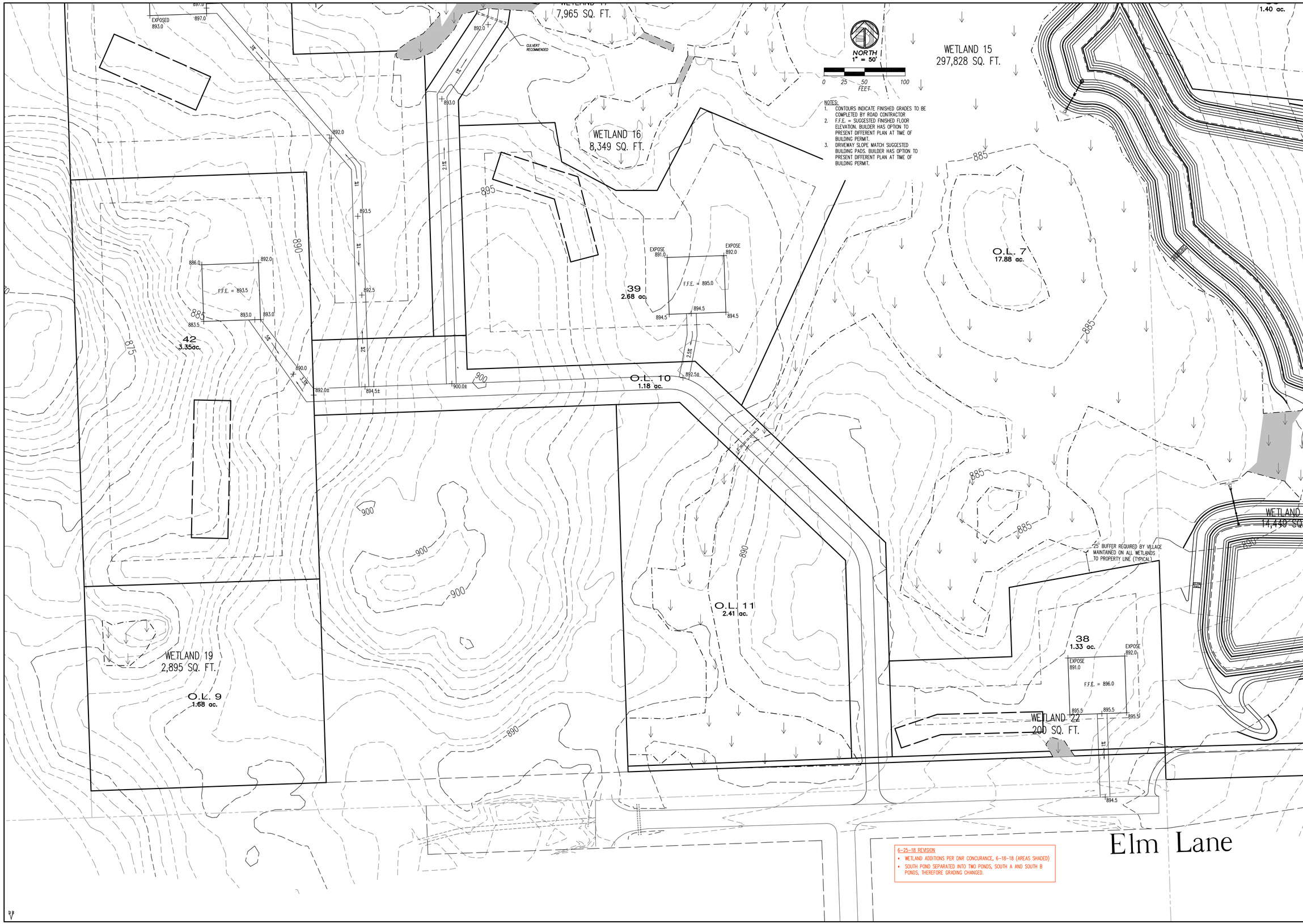
GP3



NOTES:
1. CONTOURS INDICATE FINISHED GRADES TO BE COMPLETED BY ROAD CONTRACTOR
2. F.F.E. = SUGGESTED FINISHED FLOOR ELEVATION. BUILDER HAS OPTION TO PRESENT DIFFERENT PLAN AT TIME OF BUILDING PERMIT.
3. DRIVEWAY SLOPE MATCH SUGGESTED BUILDING PADS. BUILDER HAS OPTION TO PRESENT DIFFERENT PLAN AT TIME OF BUILDING PERMIT.

6-25-18 REVISION
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)
- SOUTH POND SEPARATED INTO TWO PONDS, SOUTH A AND SOUTH B PONDS, THEREFORE GRADING CHANGED.

DRAWN BY: KD
DESIGNED BY: KD
DATE: 5-18-18
JOB NUMBER: 203303

PROJECT DIRECTORY: LUTHER 23000

PATH: \DVE\LIWG\
PLAN NAME:
PLOT DATE:
REVISED DATE: 6-25-18
SCALE: 1" = 50'

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GRADING PLAN
WEST SIDE SOUTHERLAY PORTION

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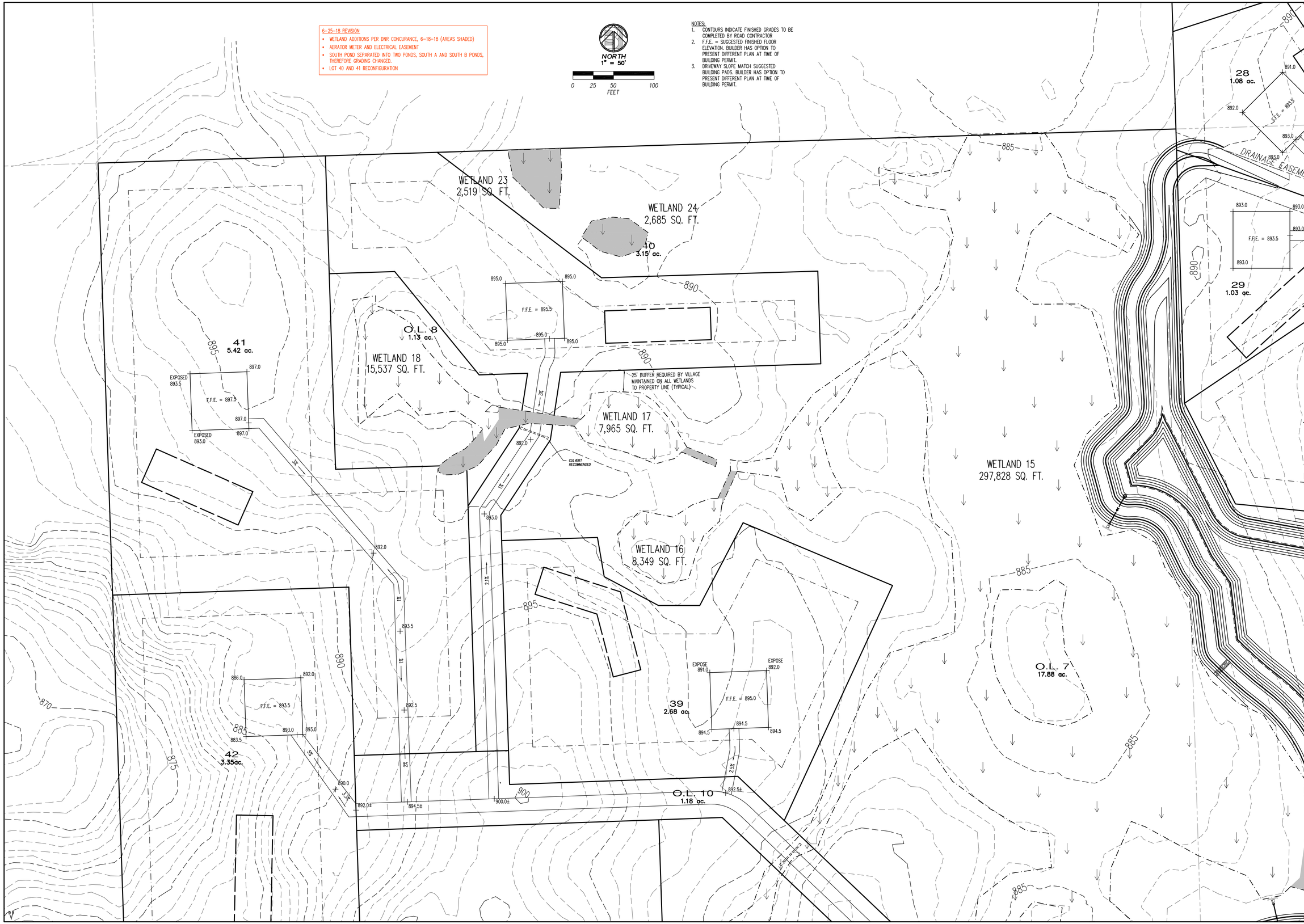
GP4

6-25-18 REVISION
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)
- AERATOR METER AND ELECTRICAL EASEMENT
- SOUTH POND SEPARATED INTO TWO PONDS, SOUTH A AND SOUTH B PONDS, THEREFORE GRADING CHANGED.
- LOT 40 AND 41 RECONFIGURATION

NORTH
1" = 50'
0 25 50 100
FEET

NOTES:
1. CONTOURS INDICATE FINISHED GRADES TO BE COMPLETED BY ROAD CONTRACTOR
2. F.F.E. = SUGGESTED FINISHED FLOOR ELEVATION. BUILDER HAS OPTION TO PRESENT DIFFERENT PLAN AT TIME OF BUILDING PERMIT.
3. DRIVEWAY SLOPE MATCH SUGGESTED BUILDING PADS. BUILDER HAS OPTION TO PRESENT DIFFERENT PLAN AT TIME OF BUILDING PERMIT.



DRAWN BY: KD
RESIGNED BY: KD
DATE: 5-18-18
JOB NUMBER: 20300
PROJECT DIRECTORY: LUTHER 23000
PATH: \DVE\LUWG\
PLAN NAME: ROAD SHEET
REVISED DATE: 6-25-18
SCALE: 1" = 50'

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GRADING PLAN
WEST SIDE NORTHERLY PORTION

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GP5

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PP2

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PLAN & PROFILE–TAYLOR TRAIL
12+00.00 – 24+50.00

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PATH: Y:\dvb\LDWG\	PROJECT DIRECTORY: LUTHER 23000	DRAWN BY: vb
PLAN NAME: 000–DES		DESIGNED BY: P.J.H.
REVISED DATE: 6–25–18		DATE: 5–18–18
SCALE: HORIZ. – 1" = 40' VERT. – 1" = 4'		JOB NUMBER: 23000

923.2 EXIST. GRADE – WESTERLY R/W – TYP.	917.5 EXIST. GRADE – EASTERLY R/W – TYP.	15+00	920.9 **918.15**
921.6	917.5		920.1 **917.69** PROP. C/L GRADE – TYP.
919.6	916.6	15+50	918.5 **917.35**
918.0	915.8		917.1 **917.24**
917.1	914.7	16+00	916.0 **917.38**
915.9	914.0		915.3 EXIST. GRADE – PROP. C/L – TYP.
914.2	913.4	16+50	914.7 **917.88**
917.1	912.6		914.6
918.1	913.1	17+00	915.9 **918.38**
919.2	915.2		918.7
919.5	917.4	17+50	919.5 **918.88**
918.9	918.2		919.1 **919.10**
919.3	917.6	18+00	918.7 **919.14**
919.0	915.9		917.7 **918.96**
919.4	915.2	18+50	917.5 **918.59**
919.1	914.7		917.0
918.0	914.3	19+00	916.9 **917.81**
916.8	913.9		916.3
915.7	913.9	19+50	915.2 **917.02**
915.7	914.6		915.5
915.9	915.5	20+00	916.0 **916.23**
916.2	916.4		916.5
916.3	916.7	20+50	916.6 **915.46**
916.1	915.9		916.0 **915.26**
915.6	915.1	21+00	915.2 **915.27**
914.4	914.1		914.5
913.5	913.5	21+50	913.4 **915.75**
912.8	913.0		913.1
913.6	914.4	22+00	913.9 **916.27**
914.5	915.0		914.7
914.8	915.0	22+50	915.1 **916.79**
914.7	914.9		915.1
914.8	914.3	23+00	914.7 **917.31**
915.1	914.3		914.9
915.7	914.2	23+50	915.2 **917.84**
915.6	914.2		915.1
915.6	914.6	24+00	915.1 **918.36**
915.9	916.0		915.9
916.8	917.0	24+50	917.2 **918.88**
917.2	917.5		917.6
916.8	918.1	25+00	917.5 **919.40**
916.7	919.0		918.2
918.2	920.6	25+50	920.1 **919.92**
919.9	922.7		922.0
920.8	925.4	26+00	923.5 **920.45**
920.5	925.7		923.8
919.9	925.3	26+50	923.2 **920.97**
919.3	924.8		922.3
918.9	924.3	27+00	921.8 **921.49**
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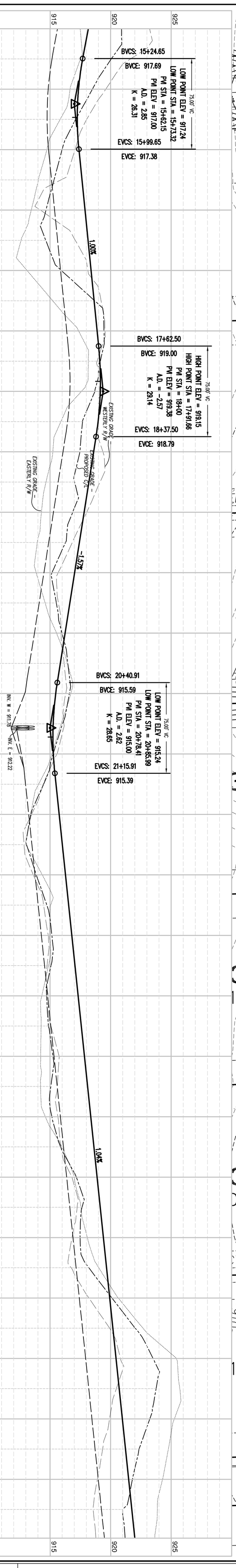
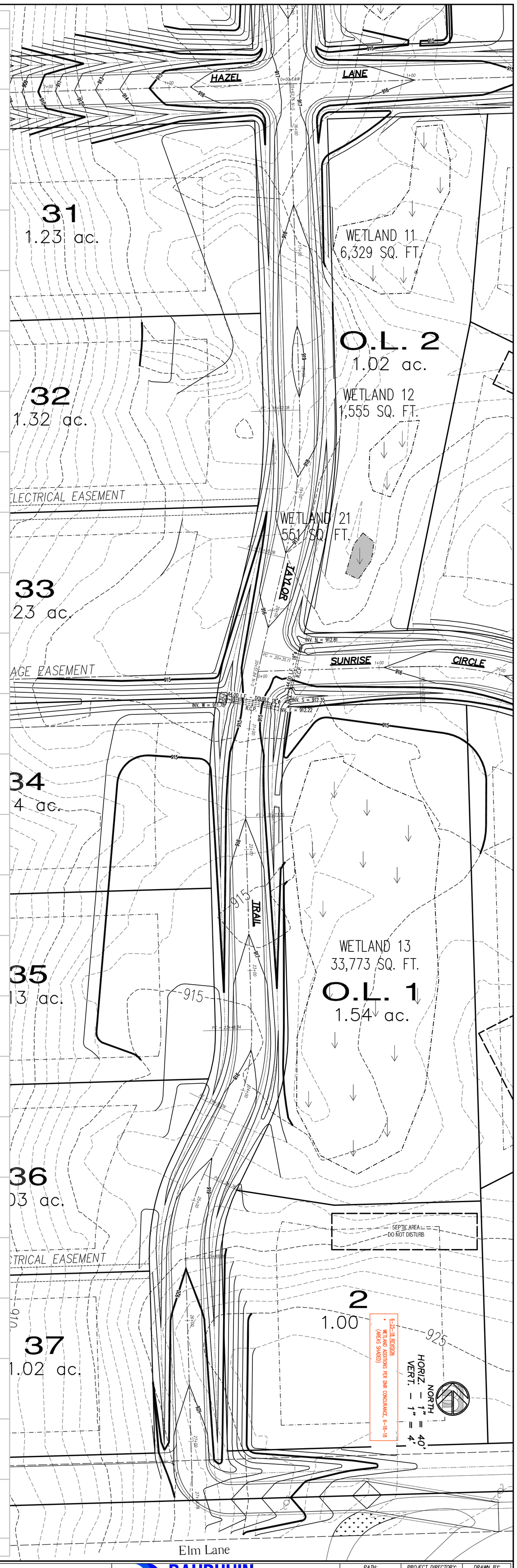
918.8	923.6	27+48.78	921.2





PP3

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PLAN & PROFILE–TAYLOR TRAIL
15+00.00 – 27+48.78

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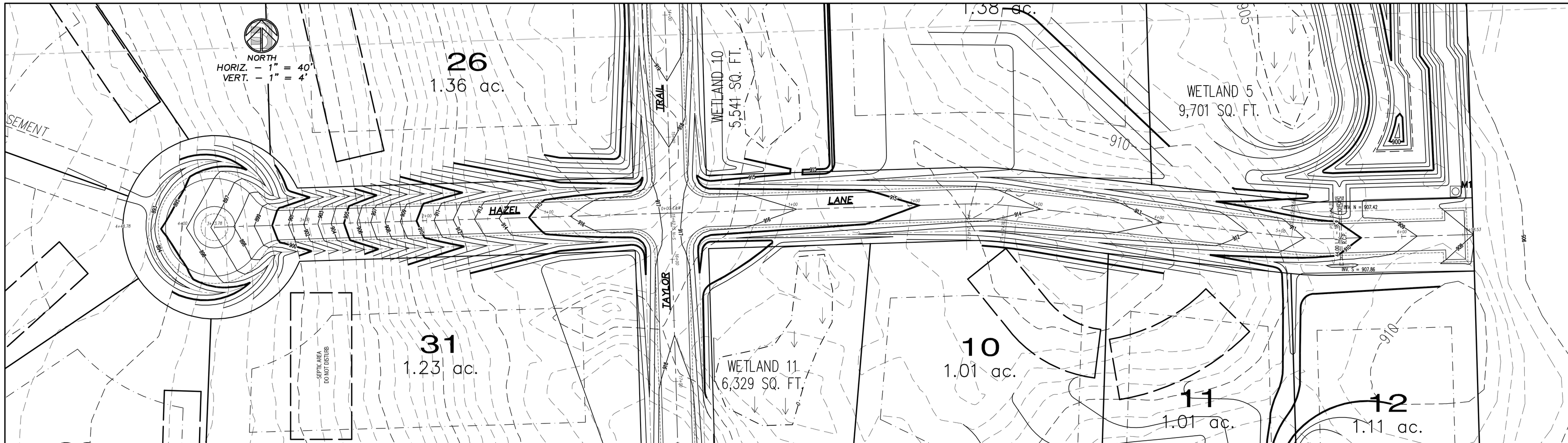
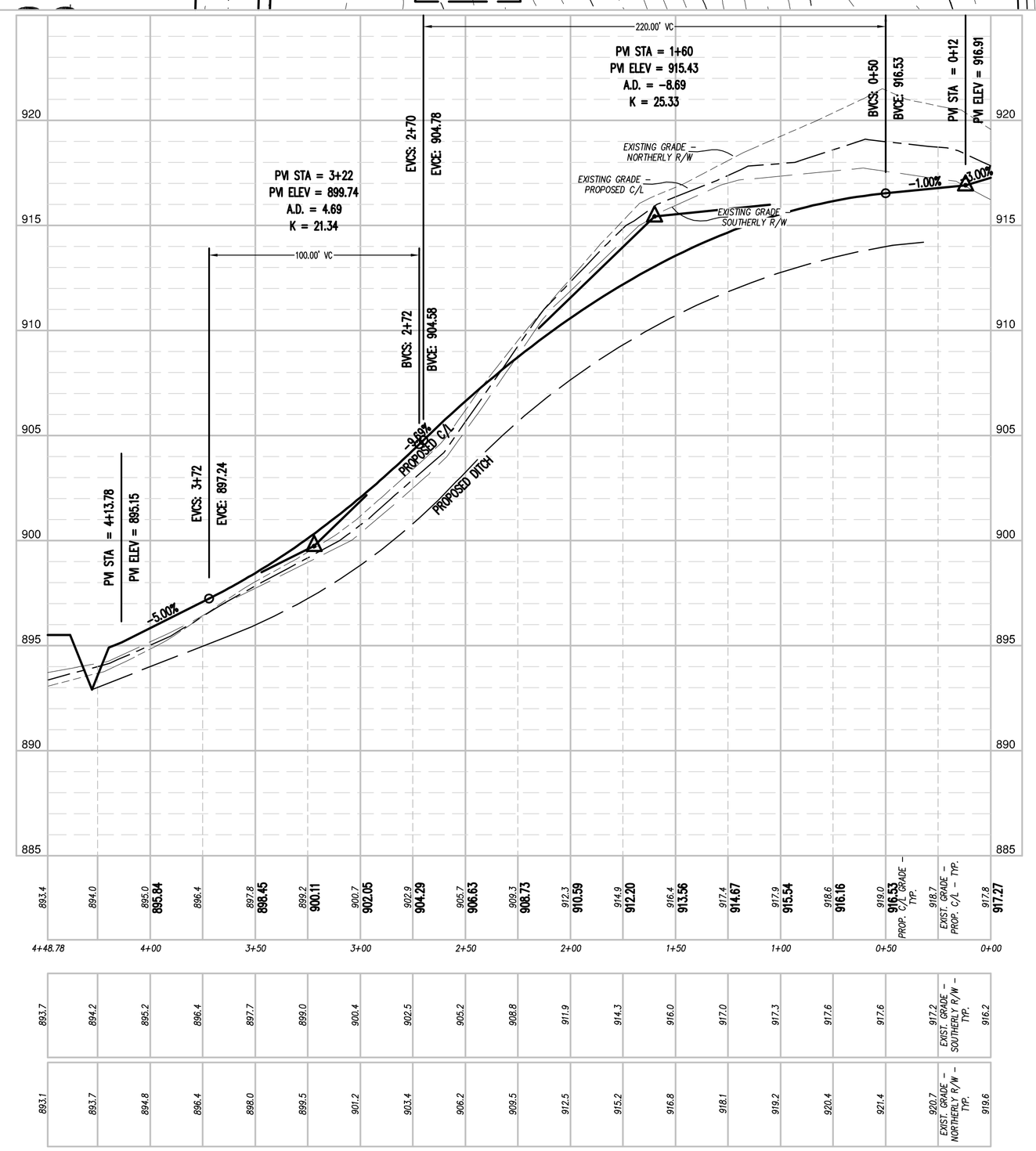
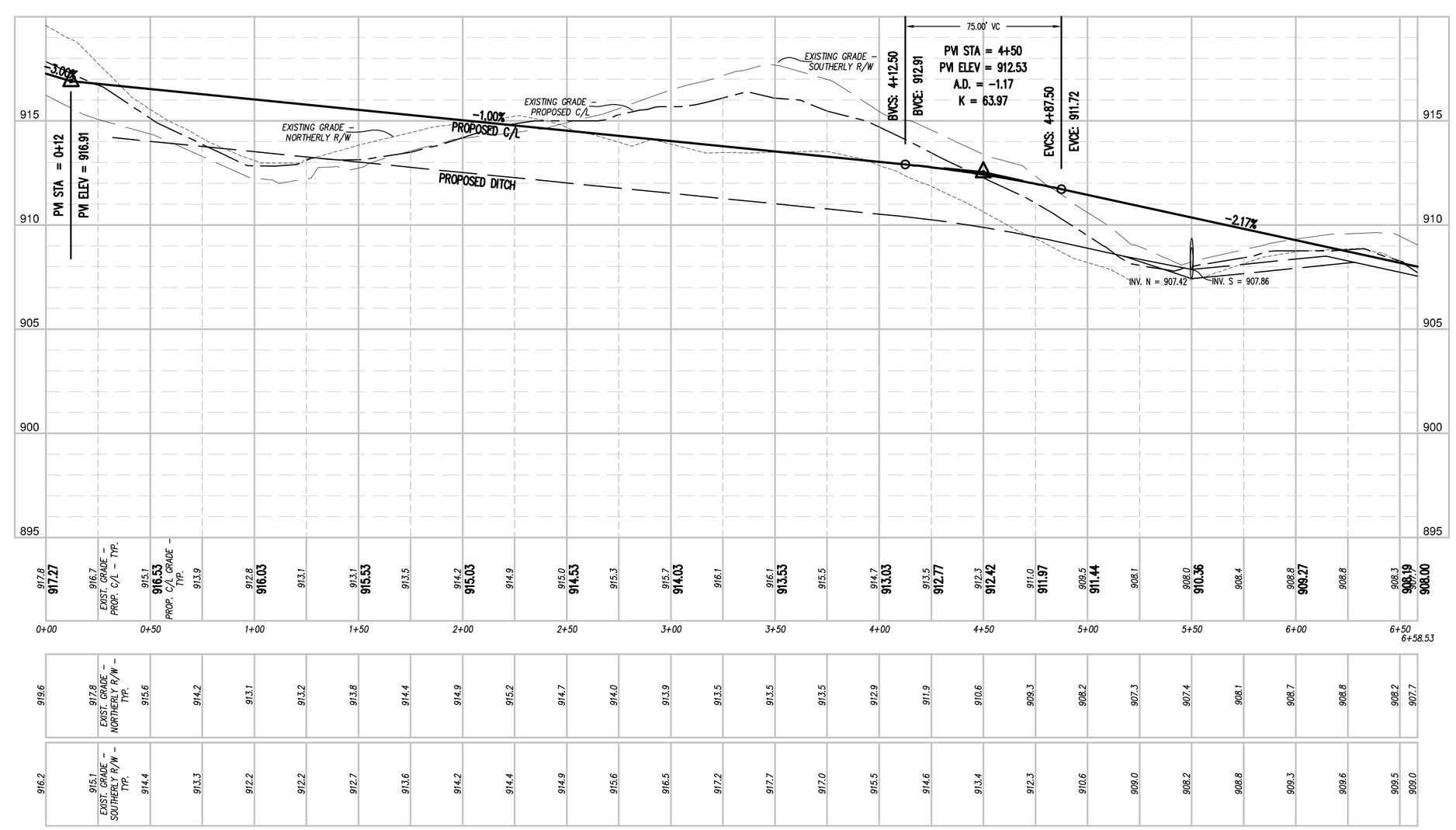
PHONE: (920)743–8211

PATH: \DVB\LDWG\	PROJECT DIRECTORY: LUTHER 23000	DRAWN BY: vb
PLAN NAME: 000–DES		DESIGNED BY: P.J.H.
REVISED DATE: 6–25–18		DATE: 5–18–18
SCALE: HORIZ. – 1" = 40' VERT. – 1" = 4'		JOB NUMBER: 23000







6-25-18 REVISION
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)

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PHONE: (920)743-8211

PATH: \DVE\LINKS\ PLAN NAME: PLAN SHEET	PROJECT DIRECTORY: LUTHER 23000
REVISED DATE: 6-25-18	DRAWN BY: VD
SCALE: HORIZ. – 1" = 40' VERT. – 1" = 4'	REVISED BY: VD
	DATE: 5-18-18
	JOB NUMBER: 23000

Harvest Hills

PLAN & PROFILE–HAZEL LANE
0+00–4+48.78 & 0+00–6+58.53

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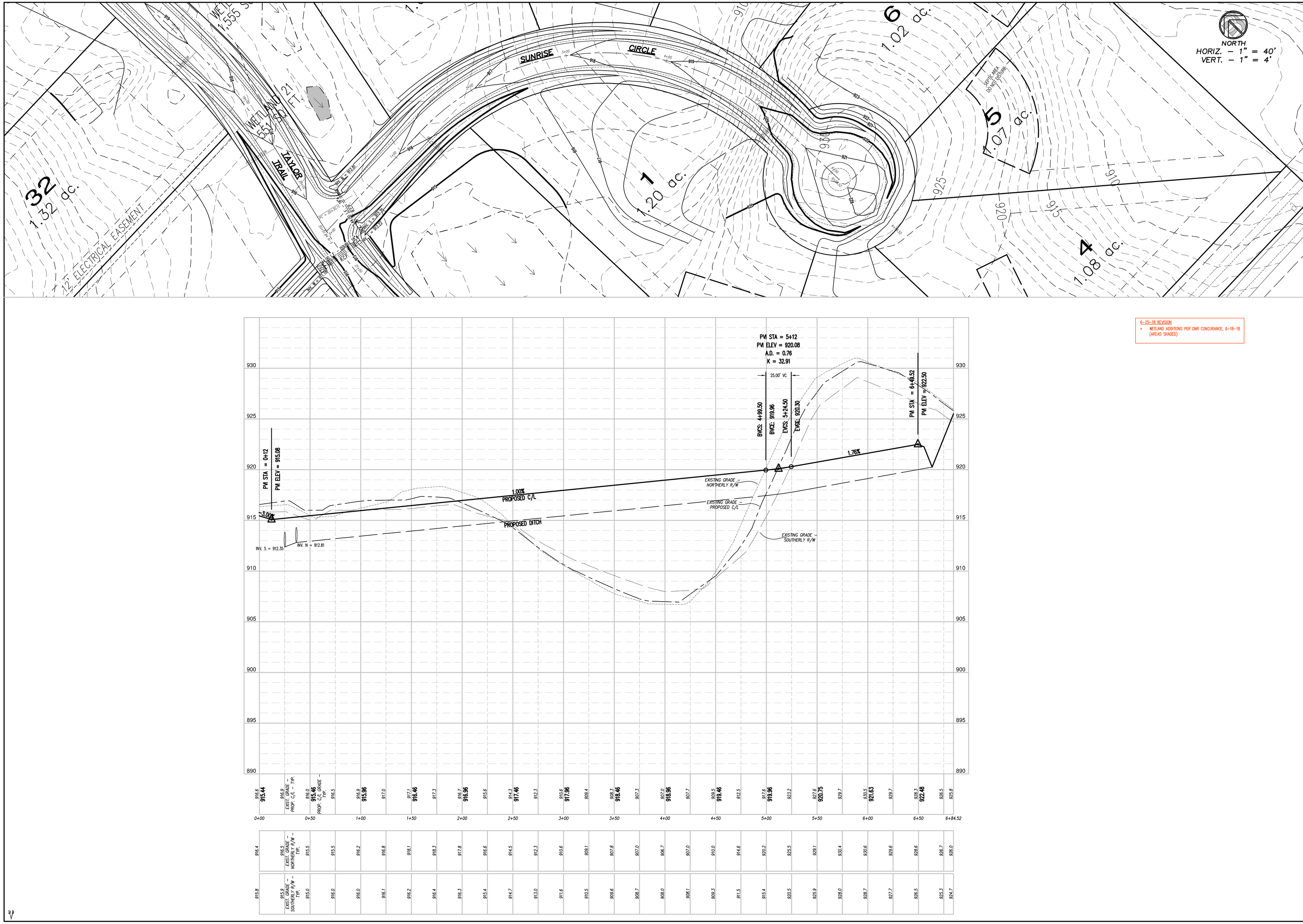
PP4



6-25-18 REVISION
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)

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PATH: \DVE\LIVING\	DRAWN BY: VD
PLAN SHEET: PLAN SHEET	PROJECT DIRECTORY: LUTHER 23000
REVISED DATE: 6-25-18	REVISED BY: VD
SCALE: HORIZ. – 1" = 40' VERT. – 1" = 4'	DATE: 5-18-18
	JOB NUMBER: 23000

Harvest Hills

PLAN & PROFILE–SUNRISE CIRCLE
0+00 – 6+84.52

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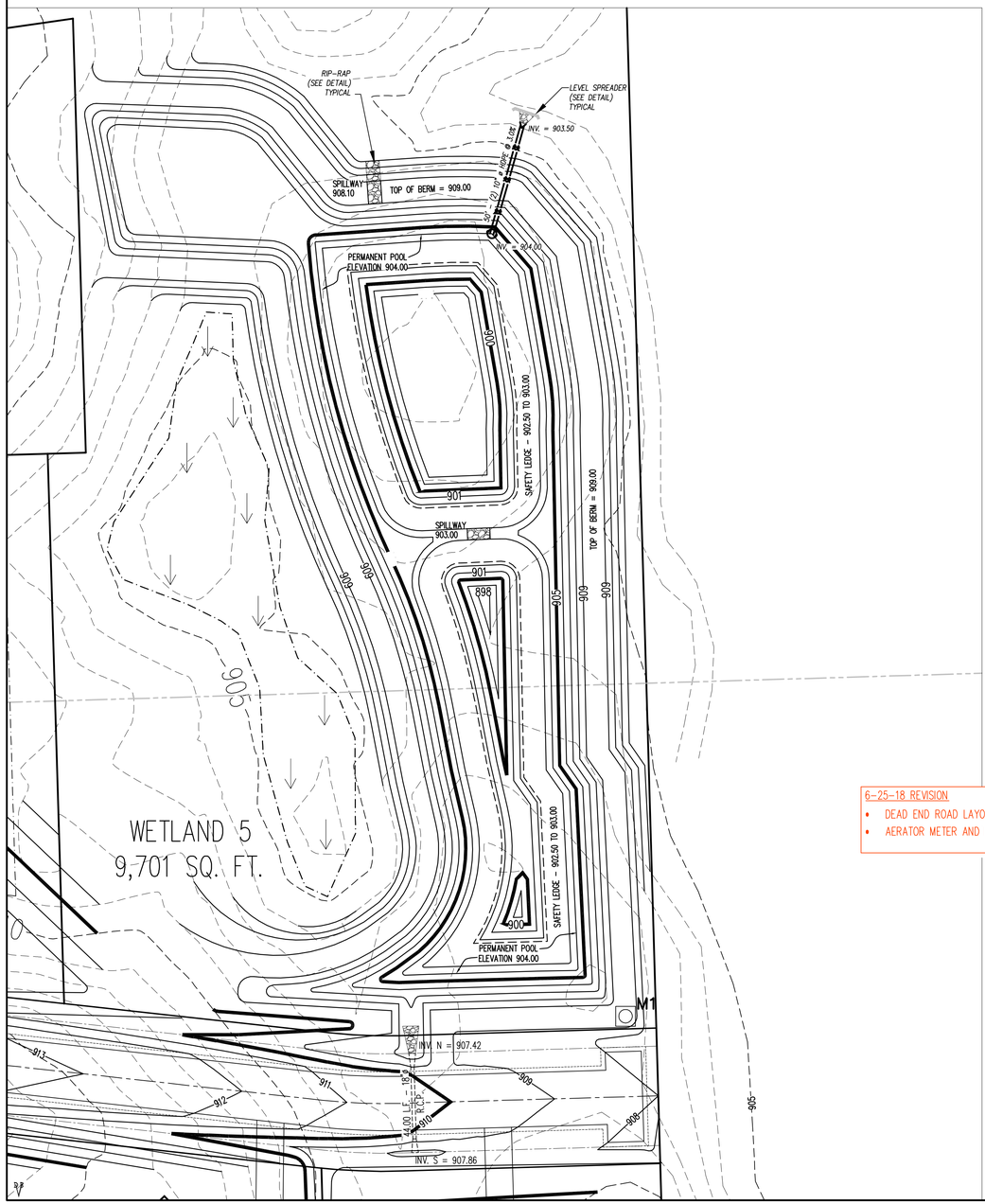
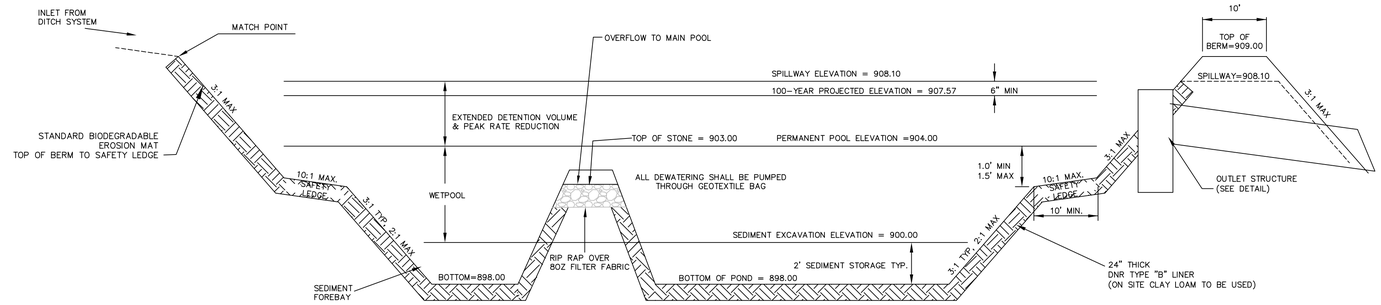
PP5

NORTH
1" = 30'

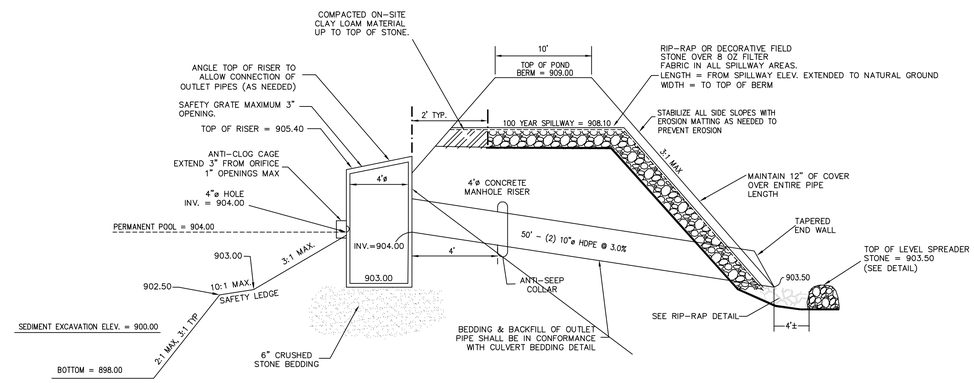
0 15 30 60 90 120
FEET

NOTES:
- EACH POND REQUIRED TO HAVE AN AERATOR PER VILLAGE
- SELECTED AERATOR TO CONFORM WITH DNR TECHNICAL STANDARD 1001 WET DETENTION POND
- PROPOSED METER BOXES, AS SHOWN, AVAILABLE FOR AERATOR ELECTRICAL CONNECTION
- SPECIFIC AERATOR TO BE PROVIDED BY VILLAGE

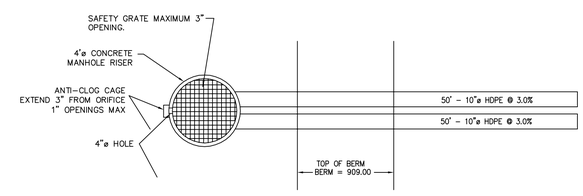




EAST STORM POND DETAIL



CROSS-SECTION



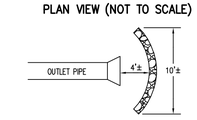
PLAN (OUTLET RISER AND PIPES)

EAST POND OUTLET STRUCTURE DETAIL

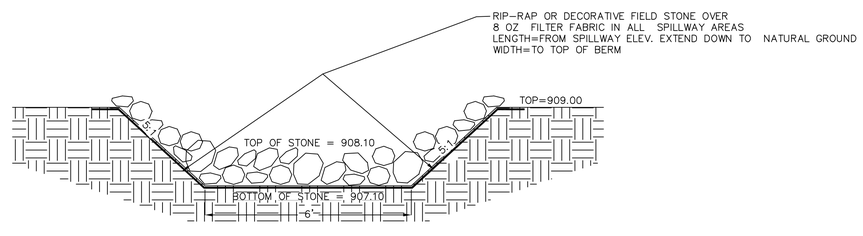
Level Spreader Detail

SPECIFICATIONS:
4-12" ROCK, 50% > 8", 10-20% < 2" (OVER 8 OZ. GEOTEXTILE).
DECORATIVE STONE MAY BE USED AS LONG AS IT MEETS SPECIFICATIONS.

PLAN VIEW (NOT TO SCALE)



6-25-18 REVISION
- DEAD END ROAD LAYOUT (SEE ALSO GRADING PLAN)
- AERATOR METER AND NOTES



EAST POND SPILLWAY DETAIL

Pond Liner

PER WET DETENTION POND DNR TECHNICAL STANDARD 1001

Type B Liners—for sites with medium potential for groundwater pollution or where need for a full pool level is high. They include:
- All liners meeting Type A criteria
- Clay
- HDPE
- Polyethylene Pond Liner (PPL)

1. Clay liner criteria:
   a. 50% fines (200 sieve) or more.
   b. An in-place hydraulic conductivity of 1×10^{-6} cm./sec. or less.
   c. Average liquid limit value of 16 or greater, with no value less than 14.
   d. Average PI of 7 or more with no values less than 5.
   e. Clay compaction and documentation as specified in NRCS Wisconsin Construction Specification 204, Earthfill for Waste Storage Facilities.
   f. Minimum thickness of two feet.
   g. Specify method for keeping the pool full or use of composite soils below liner.
2. HDPE liner criteria:
   a. Minimum thickness shall be 40 mils.
   b. All other criteria same as for Type A HDPE liner.
3. PPL liner criteria:
   a. Minimum thickness shall be 30 mils.
   b. All other criteria same as for Type A HDPE liner.

REUSE OF DOCUMENTS
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BAUDHUIN SURVEYING & ENGINEERING
312 N. 5TH AVE.
P.O. BOX 105
STURGEON BAY, WI.
54235
PHONE: (920)743-8211

DRAWN BY: RMB	DESIGNED BY: RMB
PROJECT DIRECTORY: LUTHER 23000	DATE: 5-18-18
PATH: Y:\JOB\LDWG\	REVISED DATE: 6-25-18
FILE NAME: POND 1.DWG	SCALE: AS NOTED
JOB NUMBER: 23000	

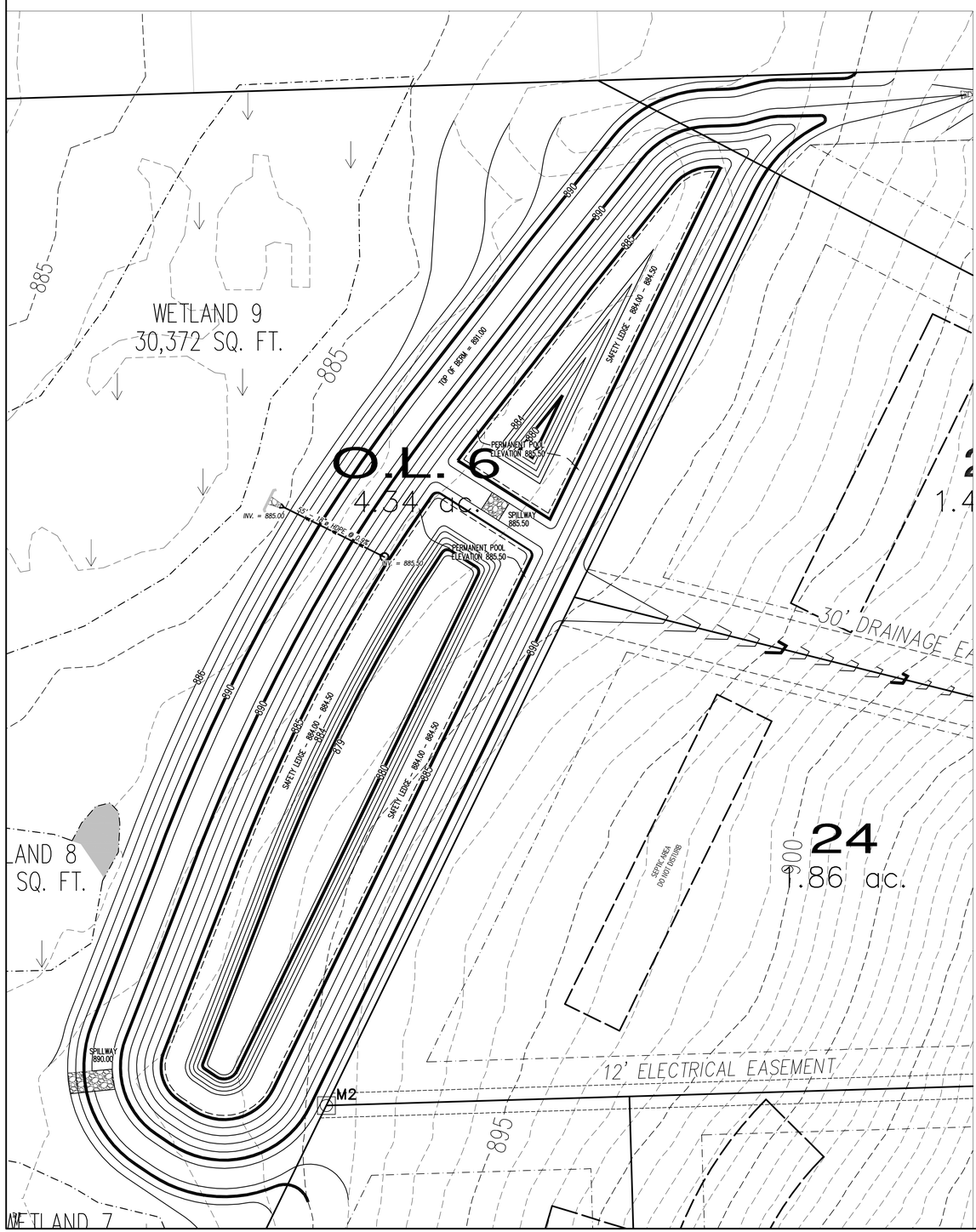
Harvest Hills

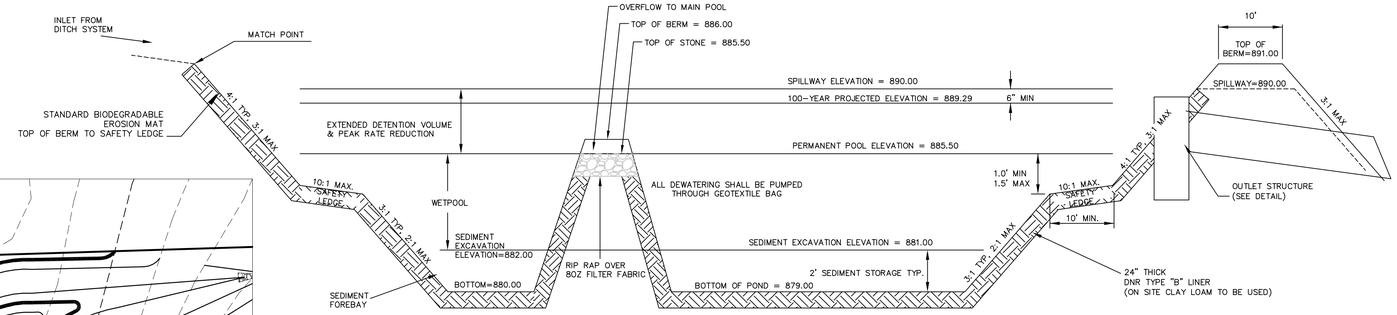
EAST POND DETAIL

POND 1

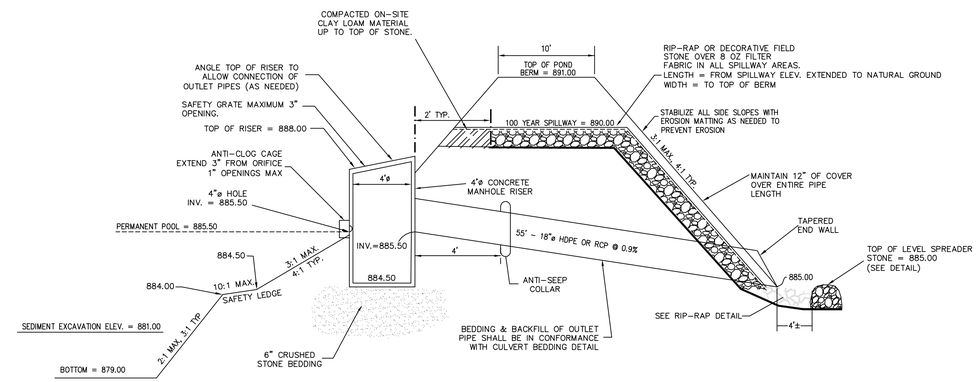
NOTES:
- EACH POND REQUIRED TO HAVE AN AERATOR PER VILLAGE
- SELECTED AERATOR TO CONFORM WITH DNR TECHNICAL STANDARD 1001 WET DETENTION POND
- PROPOSED METER BOXES, AS SHOWN, AVAILABLE FOR AERATOR ELECTRICAL CONNECTION
- SPECIFIC AERATOR TO BE PROVIDED BY VILLAGE

NORTH
1" = 30'
0 15 30 60 90 120
FEET





NORTH STORM POND DETAIL



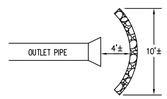
NORTH POND OUTLET STRUCTURE DETAIL

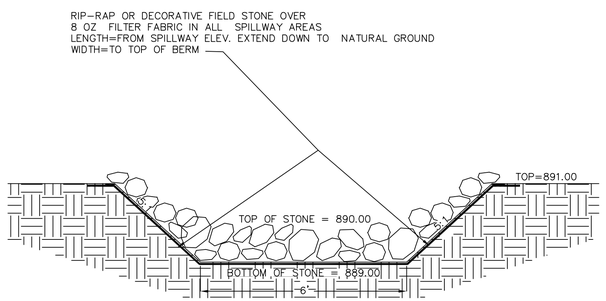
6-25-18 REVISION
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)
- AERATOR METER, NOTES, AND ELECTRICAL EASEMENT

Level Spreader Detail

SPECIFICATIONS:
4-12" ROCK, 50% > 6", 10-20% < 2" (OVER 8 OZ. GEOTEXTILE).
DECORATIVE STONE MAY BE USED AS LONG AS IT MEETS SPECIFICATIONS.

PLAN VIEW (NOT TO SCALE)





NORTH POND SPILLWAY DETAIL

Pond Liner

PER WET DETENTION POND DNR TECHNICAL STANDARD 1001

Type B Liners—for sites with medium potential for groundwater pollution or where need for a full pool level is high. They include:
- All liners meeting Type A criteria
- Clay
- HDPE
- Polyethylene Pond Liner (PPL)

1. Clay liner criteria:
   a. 50% fines (200 sieve) or more.
   b. An in-place hydraulic conductivity of 1×10^{-6} cm./sec. or less.
   c. Average liquid limit value of 16 or greater, with no value less than 14.
   d. Average PI of 7 or more with no values less than 5.
   e. Clay compaction and documentation as specified in NRCS Wisconsin Construction Specification 204, Earthfill for Waste Storage Facilities.
   f. Minimum thickness of two feet.
   g. Specify method for keeping the pool full or use of composite soils below liner.
2. HDPE liner criteria:
   a. Minimum thickness shall be 40 mils.
   b. All other criteria same as for Type A HDPE liner.
3. PPL liner criteria:
   a. Minimum thickness shall be 30 mils.
   b. All other criteria same as for Type A HDPE liner.

REUSE OF DOCUMENTS
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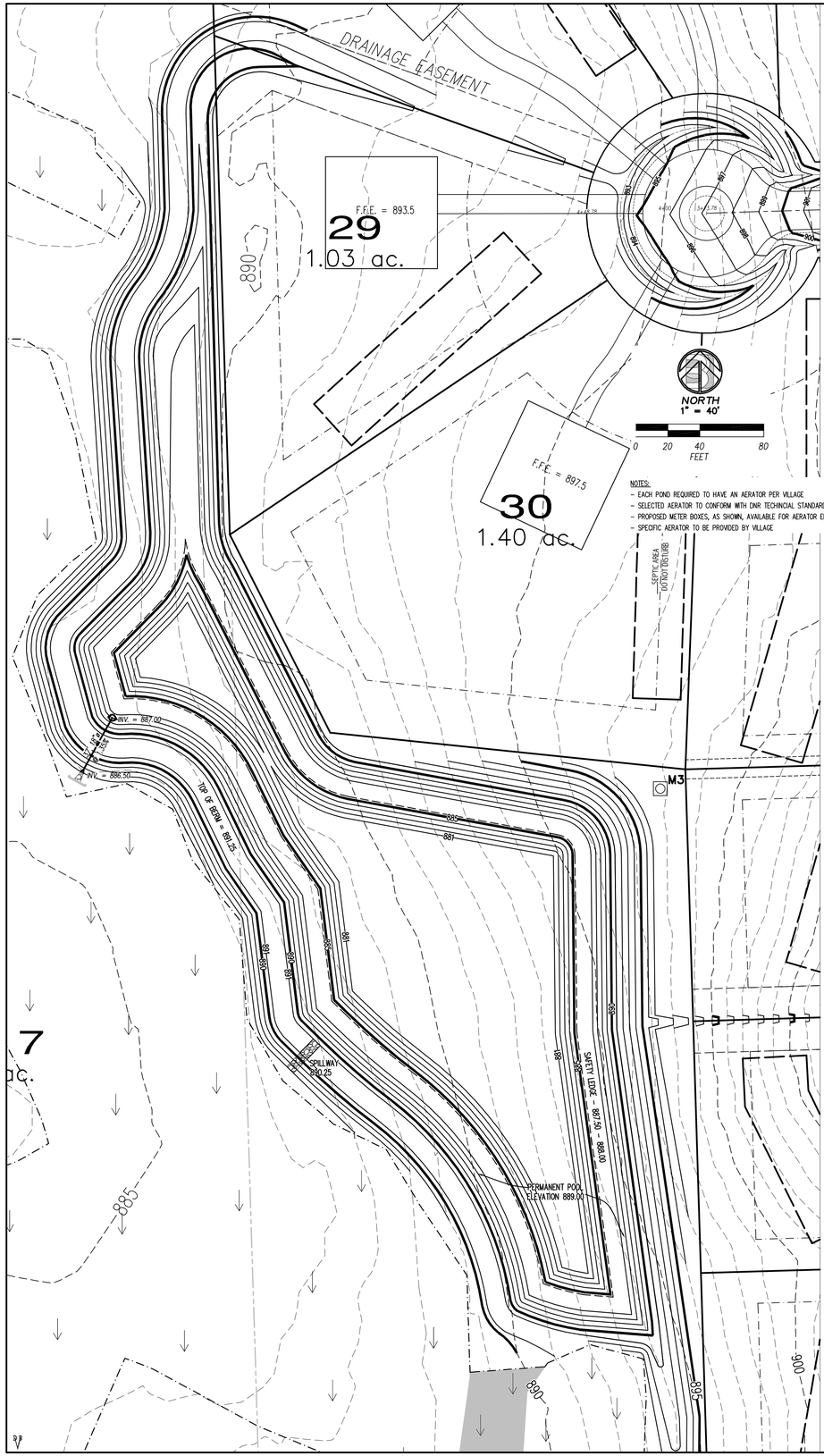
POND 2

DRAWN BY: RMB
DESIGNED BY: RMB
DATE: 5-18-18
JOB NUMBER: 20300
PROJECT DIRECTORY: LUTHER 23000
REVISED DATE: 6-25-18
SCALE: AS NOTED
PATH: Y:\JOB\LDWG\FOOT SHEET\
FOOT SHEET: POND 2

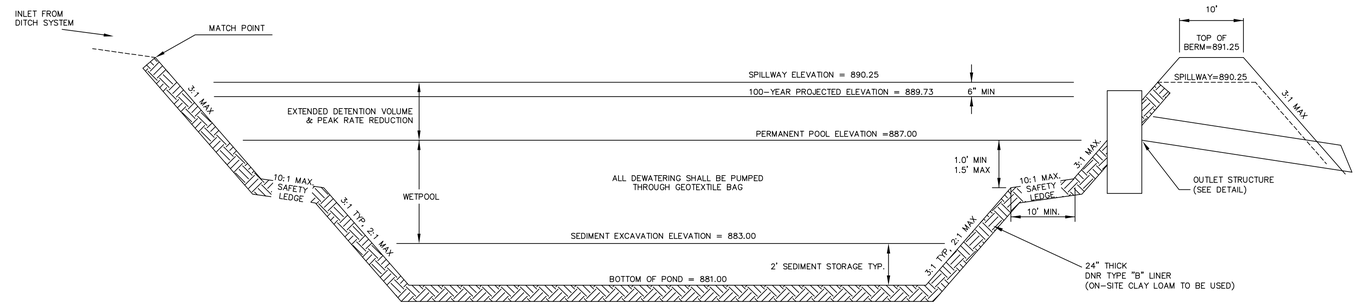
BAUDHUIN SURVEYING & ENGINEERING
312 N. 5TH AVE.
P.O. BOX 105
STURGEON BAY, WI. 54235
PHONE: (920)743-8211

Harvest Hills

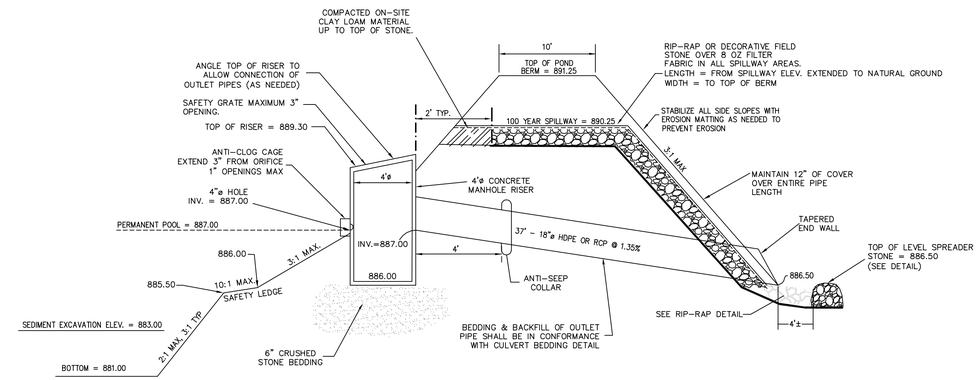
NORTH POND DETAIL



NOTES:
- EACH POND REQUIRED TO HAVE AN AERATOR PER VILLAGE
- SELECTED AERATOR TO CONFORM WITH DNR TECHINCIAL STANDARD 1001 WET DETENTION POND
- PROPOSED METER BOXES, AS SHOWN, AVAILABLE FOR AERATOR ELECTRICAL CONNECTION
- SPECIFIC AERATOR TO BE PROVIDED BY VILLAGE



SOUTH STORM POND DETAIL



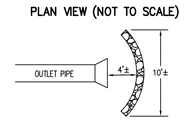
SOUTH POND OUTLET STRUCTURE DETAIL

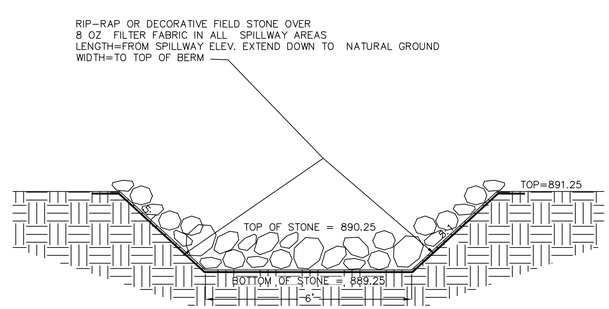
6-25-18 REVISION
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)
- AERATOR METER, NOTES, AND ELECTRICAL EASEMENT
- SOUTH POND SEPARATED INTO TWO PONDS, SOUTH A (SEE SHEET POND 3) AND SOUTH B (SEE SHEET POND 4) PONDS, THEREFORE GRADING CHANGED.
- SOUTH A POND 100-YEAR STORM ELEVATION

Level Spreader Detail

SPECIFICATIONS:
4-12" ROCK, 50% > 6", 10-20% < 2" (OVER 8 OZ. GEOTEXTILE).
DECORATIVE STONE MAY BE USED AS LONG AS IT MEETS SPECIFICATIONS.

PLAN VIEW (NOT TO SCALE)





SOUTH POND SPILLWAY DETAIL

Pond Liner

PER WET DETENTION POND DNR TECHNICAL STANDARD 1001

Type B Liners—for sites with medium potential for groundwater pollution or where need for a full pool level is high. They include:
- All liners meeting Type A criteria
- Clay
- HDPE
- Polyethylene Pond Liner (PPL)

1. Clay liner criteria:
   a. 50% fines (200 sieve) or more.
   b. An in-place hydraulic conductivity of 1×10^{-6} cm./sec. or less.
   c. Average liquid limit value of 16 or greater, with no value less than 14.
   d. Average PI of 7 or more with no values less than 5.
   e. Clay compaction and documentation as specified in NRCS Wisconsin Construction Specification 204, Earthfill for Waste Storage Facilities.
   f. Minimum thickness of two feet.
   g. Specify method for keeping the pool full or use of composite soils below liner.
2. HDPE liner criteria:
   a. Minimum thickness shall be 40 mils.
   b. All other criteria same as for Type A HDPE liner.
3. PPL liner criteria:
   a. Minimum thickness shall be 30 mils.
   b. All other criteria same as for Type A HDPE liner.

DRAWN BY:	RMB
REVISED BY:	RMB
DATE:	5-18-18
JOB NUMBER:	203030
PROJECT DIRECTORY:	LUTHER 23000
REVISED DATE:	6-25-18
SCALE:	AS NOTED
PATH:	Y:\JOB\LDWG\
PLAN NAME:	POND 3

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P.O. BOX 105
STURGEON BAY, WI.
54235
PHONE: (920)743-8211

Harvest Hills

SOUTH A POND DETAIL

REUSE OF DOCUMENTS
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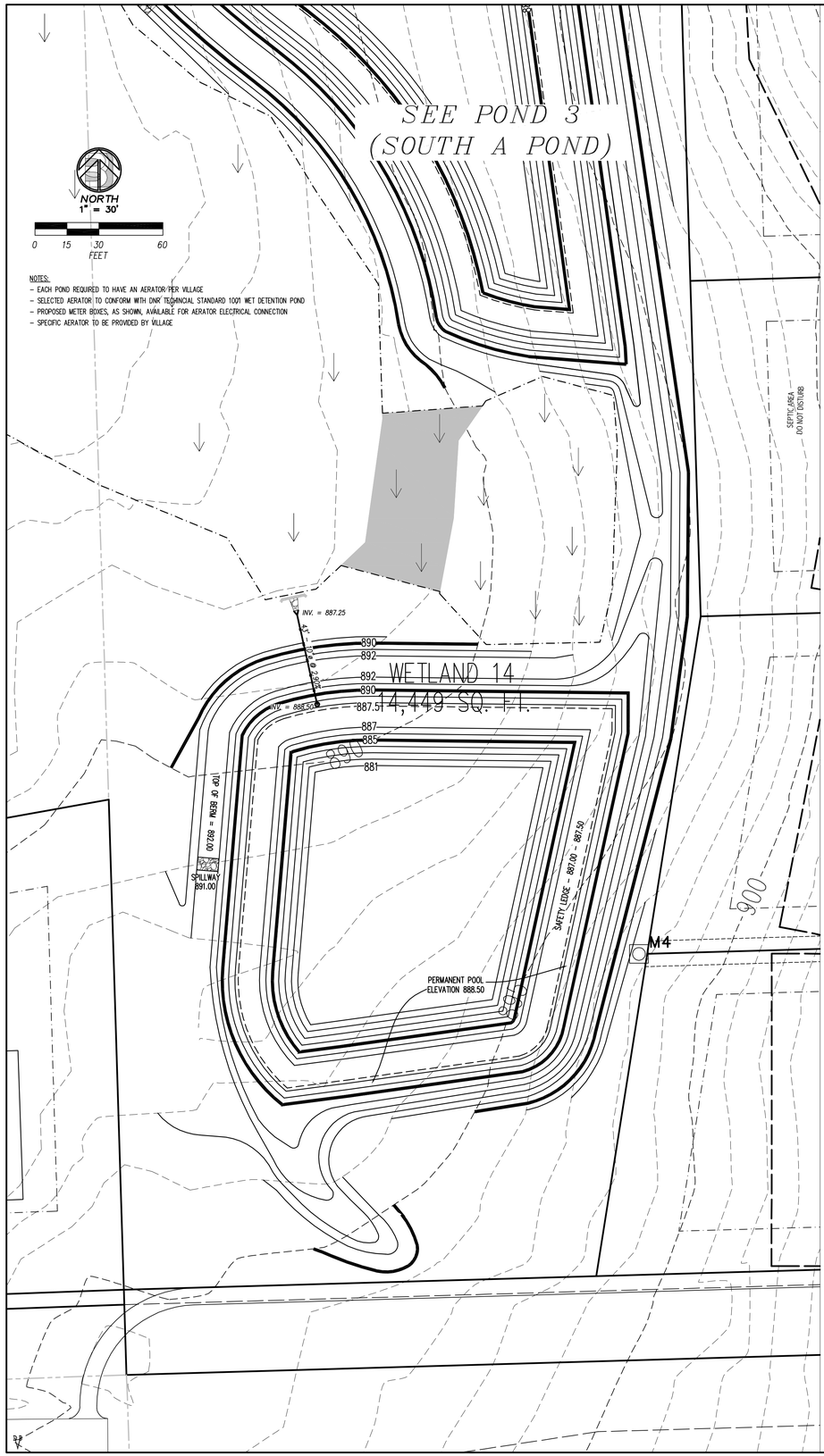
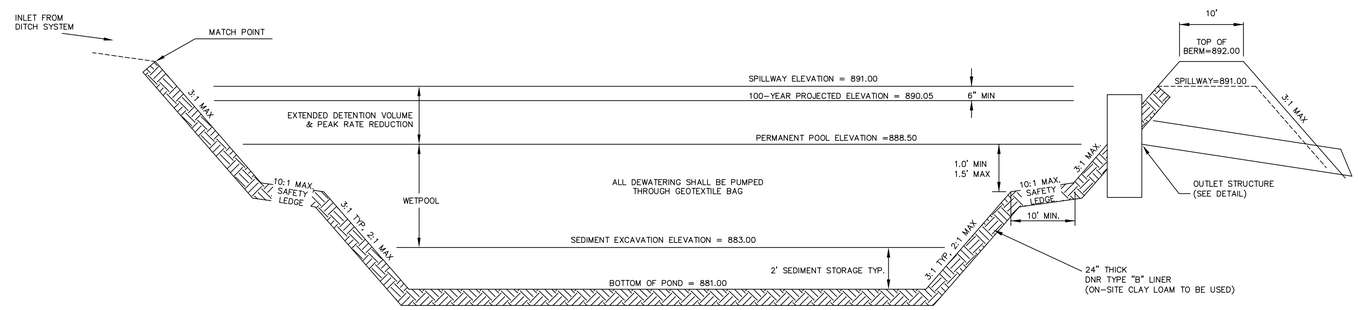
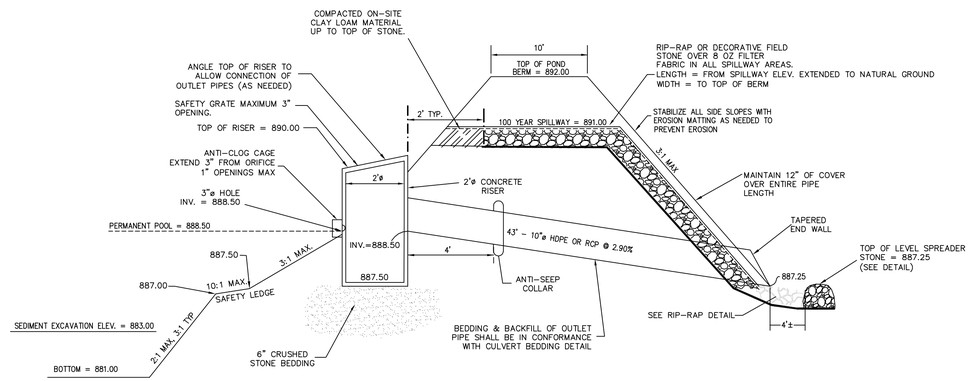
POND 3





SOUTH STORM POND DETAIL



SOUTH POND OUTLET STRUCTURE DETAIL

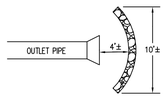
6-25-18 REVISION

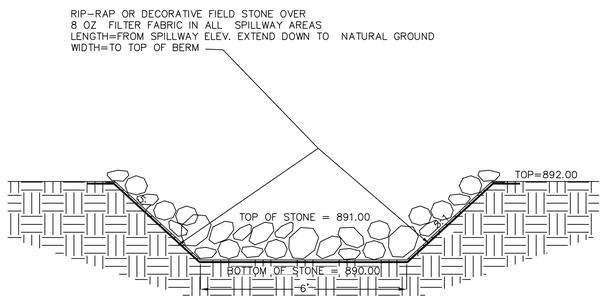
- WETLAND ADDITIONS PER DNR CONCURANCE, 6-18-18 (AREAS SHADED)
- AERATOR METER, NOTES, AND ELECTRICAL EASEMENT
- SOUTH POND SEPARATED INTO TWO PONDS, SOUTH A (SEE SHEET POND 3) AND SOUTH B (SEE SHEET POND 4) PONDS, THEREFORE GRADING CHANGED.
- SOUTH B POND DESIGN AND OUTLET STRUCTURES

Level Spreader Detail

SPECIFICATIONS:
4-12" ROCK, 50% > 6", 10-20% < 2" (OVER 8 OZ. GEOTEXTILE).
DECORATIVE STONE MAY BE USED AS LONG AS IT MEETS SPECIFICATIONS.

PLAN VIEW (NOT TO SCALE)





SOUTH B POND SPILLWAY DETAIL

Pond Liner

PER WET DETENTION POND DNR TECHNICAL STANDARD 1001

Type B Liners—for sites with medium potential for groundwater pollution or where need for a full pool level is high. They include:

- All liners meeting Type A criteria
- Clay
- HDPE
- Polyethylene Pond Liner (PPL)

1. Clay liner criteria:
   a. 50% fines (200 sieve) or more.
   b. An in-place hydraulic conductivity of 1×10^{-6} cm./sec. or less.
   c. Average liquid limit value of 16 or greater, with no value less than 14.
   d. Average PI of 7 or more with no values less than 5.
   e. Clay compaction and documentation as specified in NRCS Wisconsin Construction Specification 204, Earthfill for Waste Storage Facilities.
   f. Minimum thickness of two feet.
   g. Specify method for keeping the pool full or use of composite soils below liner.
2. HDPE liner criteria:
   a. Minimum thickness shall be 40 mils.
   b. All other criteria same as for Type A HDPE liner.
3. PPL liner criteria:
   a. Minimum thickness shall be 30 mils.
   b. All other criteria same as for Type A HDPE liner.

DRAWN BY: RMB	DESIGNED BY: RMB
PROJECT DIRECTORY: LUTHER 23000	DATE: 5-18-18
PATH: Y:\JOB\LDWG\	REVISED DATE: 6-25-18
FILE NAME: POND 3.DWG	SCALE: AS NOTED
	JOB NUMBER: 23000

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54235
PHONE: (920)743-8211

Harvest Hills

SOUTH B POND DETAIL

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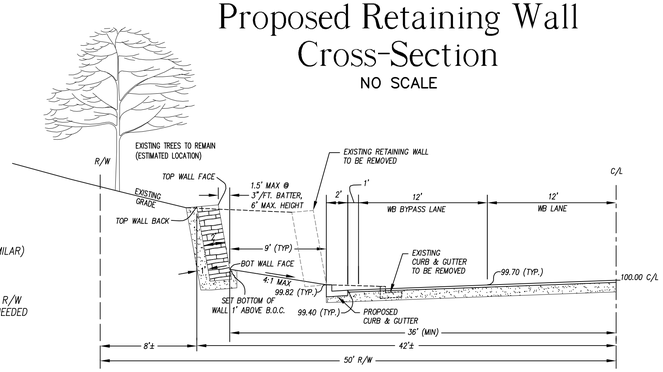
POND 4

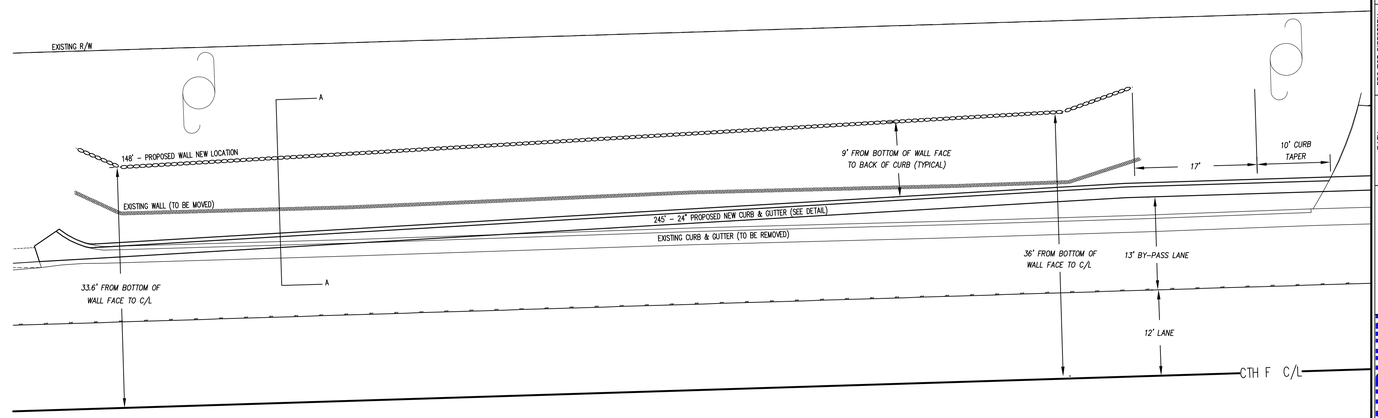
A - A
Proposed Retaining Wall Cross-Section
NO SCALE

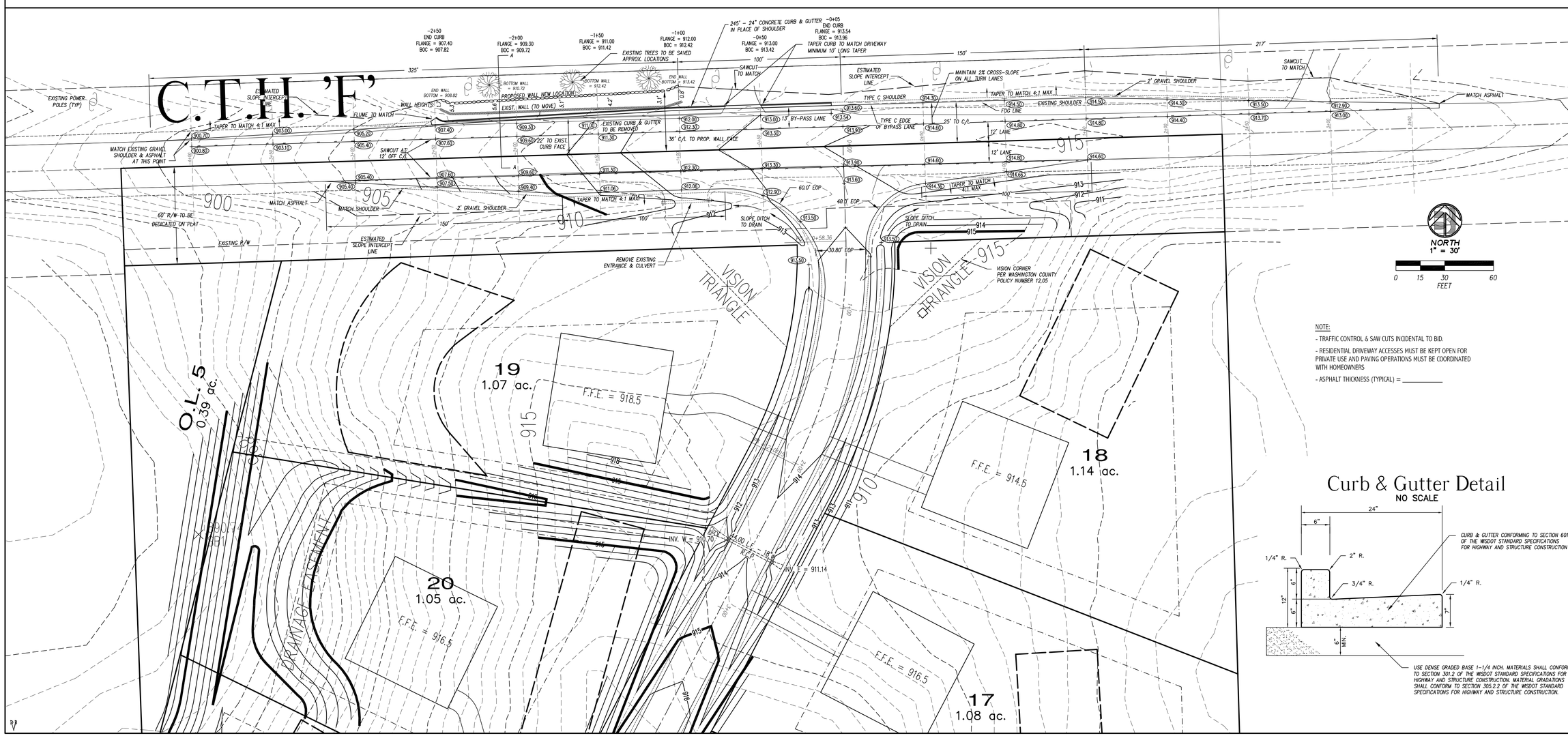


RETAINING WALL MATERIAL
RE-USE EXISTING STONE WALL PIECES
GROUT JOINTS
BACKFILL WITH #2 CRUSHED STONE (OR SIMILAR)

TO BE VERIFIED:
LOCATE EXISTING TREES WITH RELATION TO R/W
LOCATE EXISTING UTILITIES AND MOVE AS NEEDED
MAX. DESIGN WALL HEIGHT (APPROX. 6')
MIN. WALL EMBEDMENT (PER DESIGN)

Retaining Wall Blowup Detail
NO SCALE





NOTE:
- TRAFFIC CONTROL & SAW CUTS INCIDENTAL TO BID.
- RESIDENTIAL DRIVEWAY ACCESSES MUST BE KEPT OPEN FOR PRIVATE USE AND PAVING OPERATIONS MUST BE COORDINATED WITH HOMEOWNERS
- ASPHALT THICKNESS (TYPICAL) = _____

Curb & Gutter Detail
NO SCALE

BAUDHUIN SURVEYING & ENGINEERING
312 N. 5TH AVE.
P.O. BOX 105
STURGEON BAY, WI. 54235
PHONE: (920)743-8211

DRAWN BY: KD
RESCRIBED BY: J.L.H.
DATE: 5-18-18
JOB NUMBER: 203303
PROJECT DIRECTORY: LUTHER 23000
REVISED DATE: 5-31-18
SCALE: 1" = 30'
PATH: \DVE\LINKS\
FLOW TIMES:
FLOW DATES:

Harvest Hills

WASHINGTON COUNTY
TYPE C ENTRANCE DETAIL

REUSE OF DOCUMENTS
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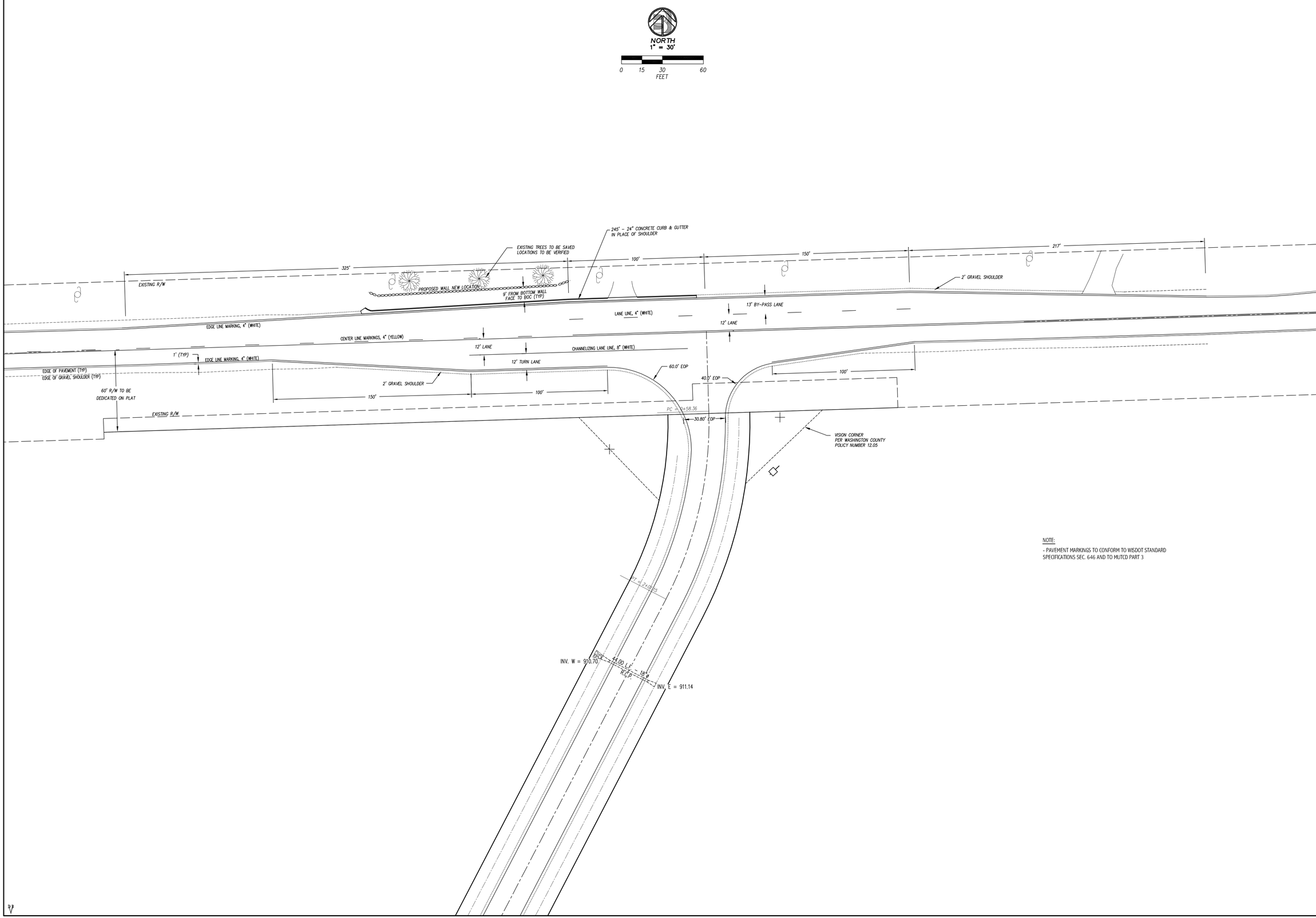
ENT1



NOTE:

- PAVEMENT MARKINGS TO CONFORM TO WISDOT STANDARD SPECIFICATIONS SEC. 646 AND TO MUTCD PART 3

BAUDHUIN SURVEYING & ENGINEERING
312 N. 5TH AVE.
P.O. BOX 105
STURGEON BAY, WI.
54235
PHONE: (920)743-8211

PATH: \DVE\LIWG\
PLAN NAME: ROW-TREE
PROJECT DIRECTORY: LUTHER 23000
REVISED DATE:
SCALE: 1" = 30'
DRAWN BY: VD
DESIGNED BY: J. LUTHER
DATE: 5-31-18
JOB NUMBER: 23000

Harvest Hills

WASHINGTON COUNTY
TYPE C ENTRANCE PAINTING DETAIL

REUSE OF DOCUMENTS
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ENT2

WIS DOT Standard Specifications
Section 630
Permanent Seed Mixtures

SPECIES	% MINIMUM PURITY	% MINIMUM GERMINATION	MIXTURE PROPORTIONS in percent			
			NO. 10	NO. 20	NO. 30	NO. 40
KENTUCKY BLUEGRASS	98	85	40	6	10	35
RED FESCUE	97	85	25		30	20
HARD FESCUE	97	85		24	25	20
TALL FESCUE	98	85		40		
SALT GRASS	98	85			10	
REDTOP	92	85	5			
PERENNIAL RYEGRASS	97	90	20	30		
IMPROVED FINE PERENNIAL RYEGRASS	96	85			15	25
WHITE CLOVER	95	90	10			
BIRDSFOOT TREFOIL	95	80			10	

1. USE SEED MIXTURE NO. 10 WHERE AVERAGE LOAM, HEAVY CLAY, OR MOIST SOILS PREDOMINATE.
2. USE SEED MIXTURE NO. 20 WHERE LIGHT, DRY, WELL-DRAINED, SANDY, OR GRAVELLY SOILS PREDOMINATE AND FOR ALL HIGH CUT AND FILL SLOPES GENERALLY EXCEEDING 6 TO 8 FEET (1.8 TO 2.4 m).
3. USE SEED MIXTURE NO. 10 OR NO. 20 ON ALL DITCHES, INSLOPES, MEDIAN AREAS, AND LOW FILLS, EXCEPT WHERE USING NO. 30.
4. USE SEED MIXTURE NO. 30 FOR MEDIANS AND ON SLOPES OR DITCHES GENERALLY WITHIN 15 FEET (4.5 m) OF THE SHOULDER WHERE A SALT-TOLERANT TURF IS PREFERRED.
5. USE SEED MIXTURE NO. 40 IN URBAN OR OTHER AREAS WHERE A LAWN TYPE TURF IS PREFERRED.

USE THE FOLLOWING SOWING RATE FOR SEEDS IN POUNDS (kg) PER 1000 SQUARE FEET (100 SQUARE METERS) OF AREA:

- SEED MIXTURE NO. 10 AT 1.5 POUNDS (0.7 kg)
- SEED MIXTURE NO. 20 AT 3.0 POUNDS (1.5 kg)
- SEED MIXTURE NO. 30 AT 2.0 POUNDS (1.0 kg)
- SEED MIXTURE NO. 40 AT 2.0 POUNDS (1.0 kg)

Site Dewatering
(IF NEEDED)

1. DEWATERING FOR POND & UTILITY CONSTRUCTION SHALL CONFORM TO REQUIREMENTS SET FORTH IN WDNR TECHNICAL STANDARD 1061.
2. THE CONTRACTOR HAS THE OPTION TO UTILIZE WDNR APPROVED METHODS INCLUDING:
   - GEOTEXTILE BAGS (SEE TECHNICAL STANDARD 1061)
   - SEDIMENT TRAPS (SEE TECHNICAL STANDARD 1063)
   - SEDIMENT BASINS (SEE TECHNICAL STANDARD 1064)
3. CONTRACTOR HAS OPTION TO UTILIZE STORM PONDS CONSTRUCTED ON THIS SITE AS SEDIMENT BASINS FOR DEWATERING.
4. CONTRACTOR SHALL LIMIT PUMP RATE TO BE LESS THAN 70 G.P.M. TO PREVENT NEED FOR WDNR WELL PERMIT.
5. IN NO EVENT SHALL UNTREATED DISCHARGE BE ALLOWED TO FLOW DIRECTLY INTO WETLANDS OR WATERWAYS.

Temporary Seeding

SPECIES	% MINIMUM PURITY	% MINIMUM GERMINATION
ANNUAL OATS	98	90
AGRICULTURAL RYE	97	85
WINTER WHEAT	95	90
ANNUAL RYEGRASS	97	90

1. USE OATS IN SPRING AND SUMMER PLANTINGS.
2. USE WINTER WHEAT OR RYE FOR FALL PLANTINGS STARTED AFTER SEPTEMBER 1.
3. APPLY TEMPORARY SEEDING AT 3 POUNDS PER 1000 SQUARE FEET OF AREA, EXCEPT ANNUAL RYEGRASS WHICH MAY BE APPLIED AT 2 POUNDS PER 1000 SQUARE FEET OF AREA.

Prairie Seed Mix
(OPTIONAL IF SELECTED BY OWNER AROUND POND PERIMETERS)

Prairie Seed Mixture
CREP Wet Site Mix
(To be used in flood prone areas)

Species	Plant Type	PLS oz/acre
Prairie Cordgrass	Grass	2.0
Rice Cutgrass	Grass	2.0
Switchgrass	Grass	8.0
Virginia Wild Rye	Grass	16.0
Woolgrass	Sedge	1.0
Fox Sedge	Sedge	2.0
Great St. Johns Wort	Forb	1.0
Marsh Milkweed	Forb	2.0
Sneezeweed	Forb	1.0
Joe-Pye Weed	Forb	2.0
Blue Vervain	Forb	2.0

(AVAILABLE FROM WASHINGTON COUNTY PLANNING/PARKS DEPT.)

Typical Road Cross Section
NO SCALE

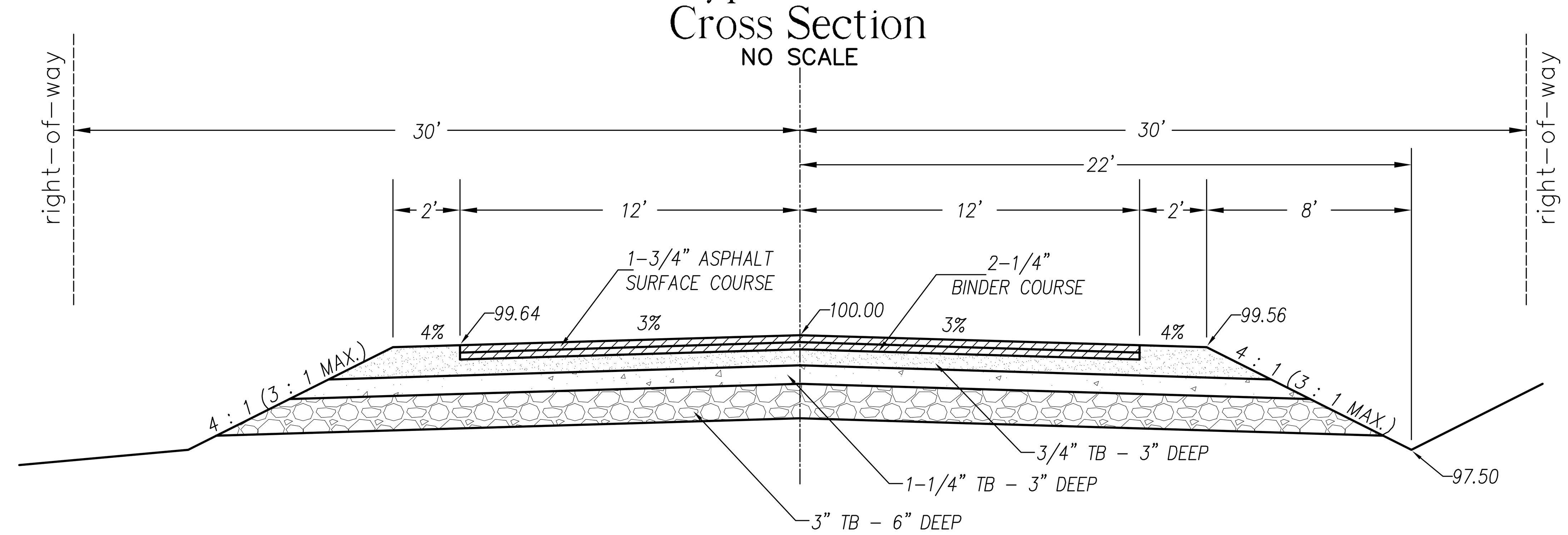


TABLE 1.0: GOVERNING AGENCIES AND APPLICABLE CODES/GUIDELINES/REGULATIONS (Most stringent shall apply)	
State of Wisconsin Department of Transportation (WisDOT)	• WisDOT Standard Specifications for Highway and Structure Construction (WisDOT Standard Specifications) • WisDOT Facility Development Manual (FDM) • WisDOT Construction and Materials Manual • WisDOT Approved Product List
Village of Germantown	• Municipal Code • Design, Drafting & Construction Standards & Specifications (Sec. 1-9) • Village Board and Committee actions • DPW Director, Village Engineer, Highway Superintendent discretion
Other	• American Association of State Highway and Transportation Officials (AASHTO) Geometric Design of Highways and Streets (latest ed.) • AASHTO) Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT<400) (latest ed.) • Manual of Uniform Traffic Control Devices (MUTCD) • Wisconsin Asphalt Pavement Association (WAPA) Design Guide • 28 CFR Part 36, "ADA Standards for Accessible Design" • Southeast Wisconsin Regional Planning Commission (SEWRPC) • Manufacturer specifications

TABLE 2.0: DESIGN CRITERIA	
Geotechnical Services Report	• A geotechnical engineer shall be retained to assess and evaluate site conditions and subsurface conditions, and to recommend pavement structures • The report shall be prepared, sealed and signed by a Wisconsin P.E.
HMA Pavements	• Design Life = 20 years • Terminal Serviceability = 2.0 • Reliability = 85% • Initial Serviceability = 4.2 • Standard Deviation = 0.45
Geometrics	• Conform to WisDOT FDM Sec. 11-10
Local Roads	• ADT>400: Conform to AASHTO Geometric Design of Highways and Streets Ch. 5 • ADT<400: Conform to AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads • Conform to Municipal Code Sec. 18.07 Tables 2, 2a, and 3; Definitions in Municipal Code Sec. 18.07(1)
Collector Roads	• Conform to AASHTO Geometric Design of Highways and Streets Ch. 6 • Conform to Municipal Code Sec. 18.07 Tables 2, 2a, and 3; Definitions in Municipal Code Sec. 18.07(1)
Arterials	• Conform to AASHTO Geometric Design of Highways and Streets Ch. 7 • Conform to Municipal Code Sec. 18.07 Tables 2, 2a, and 3; Definitions in Municipal Code Sec. 18.07(1)

Intersections	• ADT>400:
	  ○ Conform to AASHTO Geometric Design of Highways and Streets Ch. 9
	  ○ Conform to WisDOT FDM Sec. 11-25
	• ADT<400: Conform to AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads
	• Acceleration, Deceleration and By-pass Lanes are required at all residential subdivision, commercial center and retail center entrances

Longitudinal Slope	• 1% min.; 10% max.

TABLE 3.0: SUBGRADE	
Earth Subgrade	• Conform to WisDOT Standard Specification Sec. 211.3.2
Surface Elev. Tolerance	• ±0.10'
Compaction	• 95% Modified Proctor
Weather Constraints	• Compaction prohibited during rainfall and on wet surfaces
Geotechnical Fabric	• In event of proof-roll failure, place Type SR to overlay utility crossings; Conform to WisDOT Standard Specifications Sec. 645

TABLE 4.0: BASE COURSE	

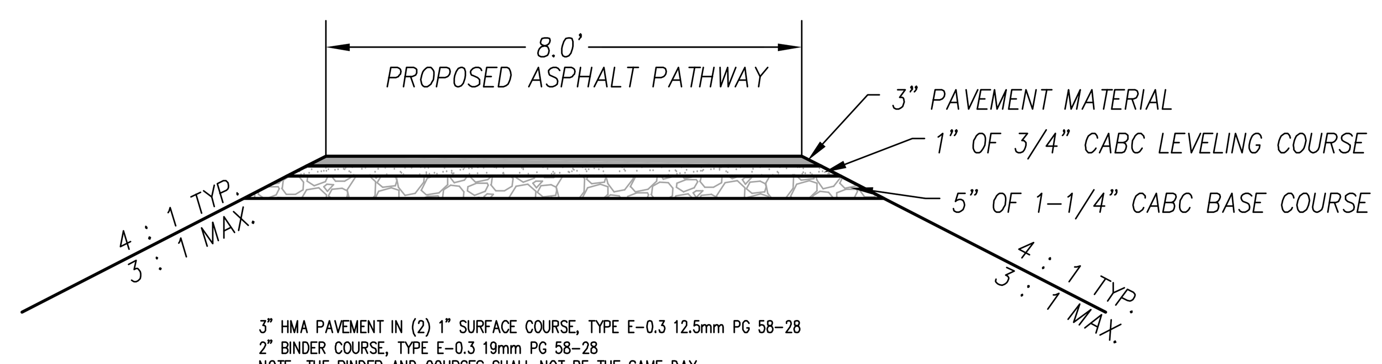
Materials	• New Construction or Reconstruction:
	  ○ Bottom Layer: 3" gradation crushed interlocking limestone aggregate from a quarry source PLAN TO USE 6"
	  ○ Middle Layer: 1-¼" gradation crushed interlocking limestone aggregate from a quarry source PLAN TO USE 3"
	  ○ Top Layer: ¾" gradation crushed interlocking limestone aggregate from a quarry source PLAN TO USE 3"
	  ○ Quarry Source: Quarry source shall be listed on the WisDOT Pit and Quarry Listing [latest edition]
	  ○ Gradations: Gradations shall conform to WisDOT Standard Specifications Sec. 305
	• Pulverize & Overlay: Pulverized pavement acceptable when recommended by Geotechnical Services Report
	• Conform to WisDOT Standard Specifications Sec. 301 and 305

Thicknesses	• Comply with Geotechnical Services Report accepted by Village Engineer
Surface Elev. Tolerance	• ±0.05'
Compaction	• 95% Modified Proctor • Conform to WisDOT Standard Specification Sec. 305.3.2
Weather Constraints	• Compaction prohibited during rainfall and on wet surfaces

NOTES:
- PAVING PROHIBITED OCT. 15 – MAY 1 UNLESS AUTHORIZED BY VILLAGE ENGINEER.
- PAVING PROHIBITED DURING RAIN AND ON WET SURFACES.
- PROOF ROLL ON SUB-GRADE AND BASE COURSE REQUIRED PRIOR TO GRAVELLING/PAVING . CONTACT ENGINEERING DEPARTMENT (262)250-4721 TWO BUSINESS DAYS IN ADVANCE TO SCHEDULE.

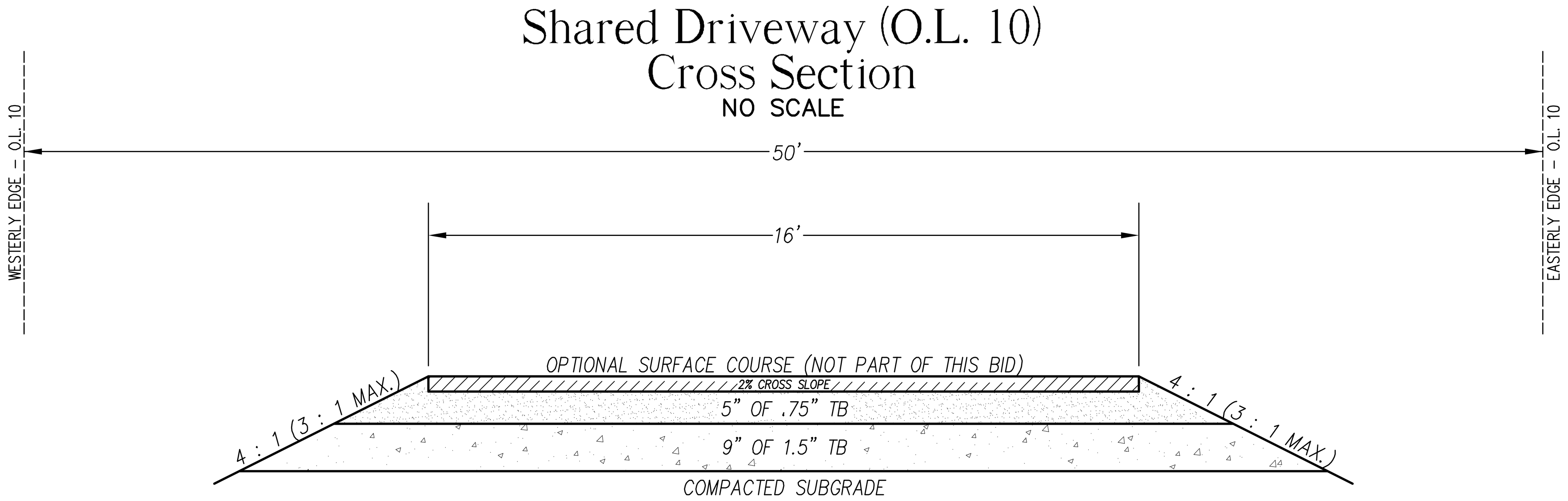
ASPHALT SPECIFICATION
- MIX LT 58-28 S
- BINDER 2-1/4" THICK LIFT
- SURFACE 1-3/4" THICK LIFT
- HMA TEMPERATURES 250° – 300° F
- MAXIMUM DENSITY = 91.5%

Pedestrian Path Cross Section
NO SCALE



3" HMA PAVEMENT IN (2) 1" SURFACE COURSE, TYPE E-0.3 12.5mm PG 58-28
2" BINDER COURSE, TYPE E-0.3 19mm PG 58-28
NOTE: THE BINDER AND COURSES SHALL NOT BE THE SAME DAY

Shared Driveway (O.L. 10)
Cross Section
NO SCALE



CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND DOCUMENTATION OF EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION PHASE. OWNER IS RESPONSIBLE FOR MAINTENANCE AFTER CONTRACTOR LEAVES THE SITE.

DRAWN BY: vb
DESIGNED BY: P.J.H.
DATE: 5-18-18
JOB NUMBER: 23000
PROJECT DIRECTORY: LUTHER 23000
PATH: \DVB\LDWG\
PLAN NAME: 000-ERO
REVISED DATE:
SCALE: NONE

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Harvest Hills

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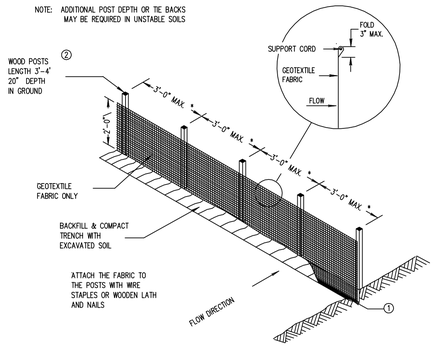
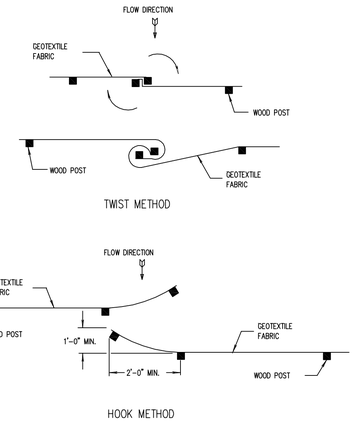
DET1

Silt Fence Detail

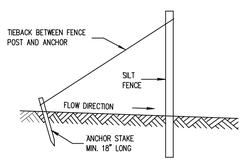
NO SCALE



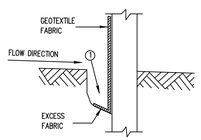
SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ③



SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)



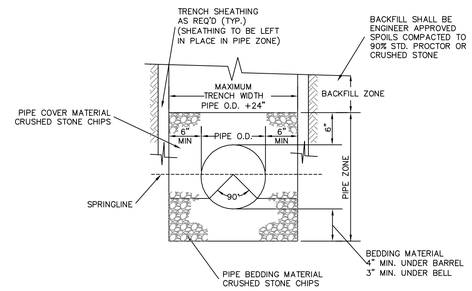
TRENCH DETAIL

GENERAL NOTES

1. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
2. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1-1/8" x 1-1/8" OF OAK OR HICKORY.
3. 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 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.
4. SILT FENCE SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.

Culvert Bedding Detail

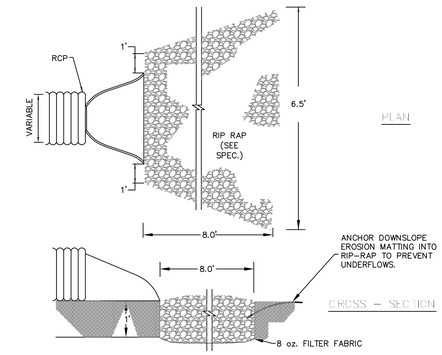
NO SCALE



NOTE: 3" OF ADDITIONAL CRUSHED STONE REQUIRED IN WET TRENCH AT NO ADDITIONAL COST.

Culvert Rip-rap Detail

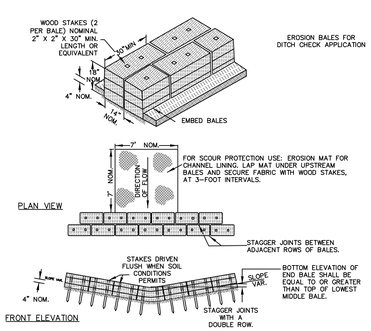
NO SCALE



(ALL DOWNSLOPE ENDS OF CULVERTS)

Channel Ditch Check Detail

NO SCALE



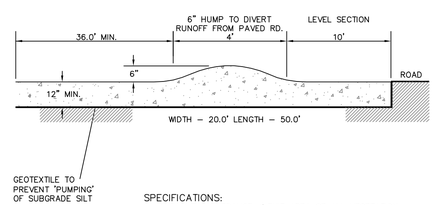
TEMPORARY DITCH CHECK USING EROSION BALES
(MAY BE INTERCHANGED WITH SILT FENCE DITCH CHECK)

NOTES:

1. INSTALLATION OF EROSION BALES / TEMPORARY DITCH CHECKS SHALL CONFORM TO WDNR TECHNICAL STANDARD 1062.
2. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE WSDOT EROSION CONTROL P.A.L. MAY BE SUBSTITUTED

Temporary Stone Construction Entrance Detail

NO SCALE



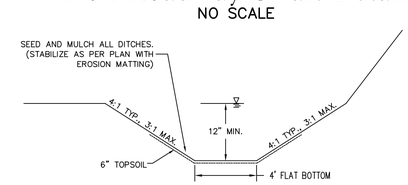
SPECIFICATIONS:

1. CLEAR THE ENTRANCE / EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
2. GRADE THE ROAD FOUNDATION SO THAT THE ENTRANCE / EXIT WILL HAVE A CROSS SLOPE.
3. PLACE STONE TO THE DIMENSIONS, GRADE AND ELEVATION SHOWN.
4. USE WASHED STONE 3" TO 6" IN SIZE.

NOTE:
MAINTAIN THE STONE PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. SHOULD MUD BE TRACKED OR WASHED ONTO ROAD, IT MUST BE REMOVED IMMEDIATELY.

Non-Roadway Swale Detail

NO SCALE



– MIN. LONGITUDINAL SLOPE = 1.0%

– FLATTEN OUT SIDE SLOPES IF CUT EXCEEDS 3 FEET.

– WHERE SPECIFIED, EROSION MATTING, STAKED SOD OR RIP-RAP SHALL BE A MINIMUM OF 6' WIDE CENTERED IN THE SWALE

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PLAN NAME: 000-EKO
PROJECT DIRECTORY: (LINES 23000)
REVISED DATE:
SCALE: NONE
DRAWN BY: VD
DESIGNED BY: P.J.H.
DATE: 5-15-18
JOB NUMBER: 23000

Harvest Hills

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DET2