#

VILLAGE OF GERMANTOWN
N112 W17001 MEQUON ROAD, GERMANTOWN, WI 53022

MEETING:	**PLAN COMMISSION**
DATE AND TIME:	**MONDAY, March 13, 2023 6:30 p.m.**
LOCATION:	**Germantown Village Hall Board Room, N112 W17001 Mequon Road**

NOTICE: Due to technology issues, this meeting will not be broadcast on Channel 25, Spectrum Cable, Webex or live streamed on You Tube. It is unknown at the time of posting whether a video recording of the meeting will be available on the Village You Tube Channel. Citizens may submit written comments by sending an email to comments@germantownwi.gov before 4:00 p.m. on the day of the meeting so that it can be provided to the members of the body for their consideration.

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 and comment will be received from the public. It is the policy of this municipality that public input be limited to a three (3) minute period per person with a time extension granted at the discretion of the Chairperson. Be advised that there may be limited discussion of the information received but no action will be taken.

IV. **APPROVAL OF MINUTES:** February 27, 2023

V. **NEW BUSINESS:**

A. Pinnacle Engineering Group, Agent for ZPG Development LLC and TI Investors of Germantown LLC, Property Owner - Lot 8 of CSM 7262 Gateway Crossing (Germantown Gateway Corporate Park). Site Plan application for a 233,282 sqft Industrial Building (Zilber 6). **(ACTION)**

B. Innovative Signs, Inc., Agent for Goldendale III LLC, Property Owner – W204 N13055 Goldendale Road. Sign Permit application for Daikin Comfort Technologies. **(ACTION)**

C. Village of Germantown, Property Owner of W210 N13180 Gateway Crossing. Site Plan application for Well Station No. 12. **(ACTION)**

D. Briohn Building Corporation, Agent for TDC Willow Creek LLC for BV Ryan Willow Creek II Owner LLC, Property Owner – N102 W19200 Willow Creek Way (Willow Creek Business Park). Site Plan application for a 209,329 sqft Industrial Building. **(ACTION)**

E. Village of Germantown 2050 Comprehensive Plan: Implementation Objectives & Action Steps– **(DISCUSSION & ACTION)**

VI. **ANNOUNCEMENTS:**

VII. **ADJOURNMENT:**

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
February 27, 2023

CALL TO ORDER: Chairman Wolter called the meeting to order at 6:30 pm.

ROLL CALL: Chairman Dean Wolter, Trustee Representative David Baum, Commissioners Peter Nilles, Tony Laszewski, Bill Shadid and Josh Tarantino were present. Commissioner Bob Williams was absent and excused. Also present were Community Development Director Jeff Retzlaff and Planning Assistant Lori Johnson.

PUBLIC INPUT:

- Melanie Smythe, N140 W17938 Cedar Lane, commented that public engagement is needed when conducting any development meetings related to the 2050 Implementation Plans.
- Scott Hefle, W159 N10514 Old Farm Road, said he was excited for the potential of the Village Center District, asked for transparency, engage the people of this community, have workshops and listening sessions.
- Jan Miller, W151 N10297 Windsong Circle W, she was looking forward to hearing more about the Plan and reviewed several department and Village updates.
- Steven Weslolowski, W169 N10427 Pheasant Run, commented on his concern regarding added sewage to the Old Farm wastewater lift station.

APPROVAL OF MINUTES:

MOTION Baum second Nilles to Approve the minutes from February 13, 2023
MOTION carried unanimously.

F Street Germantown, LLC, Applicant for the Village of Germantown, Property Owner – N104 W12667 Donges Bay Road. Site Plan Review for a 374,950 sqft industrial/warehouse/distribution facility in the Town 9 Business Park. Director Retzlaff summarized the proposal. Chris Manske, Keller, commented on the revisions made to the plan. Discussion followed.

Commissioner Tarantino said he liked the revised plan, the colors and landscaping. Commissioner Laszewski agreed it was a nice looking plan. Chairman Wolter said he appreciated the effort that went into the revisions. He liked the corner of the building that has more prominence and shows that it's an entry and the color scheme. Commissioner Shadid said he appreciated the time it took to make the building standout. Trustee Baum appreciated the changes but commented that some landscaping could be removed. He suggested taking some landscaping from around the building to accentuate the trees, with Staff approval.

MOTION Baum second Shadid to Approve the F Street Group site development and building plans for a 374,950 sqft industrial/warehouse/distribution facility located on a 37.7-acre parcel on Donges Bay Road in the Town 9 Business Park (TID#9) subject to the following conditions:

1. ***This approval is for Phase 1 development only and subject to all the conditions and requirements set forth herein and adopted by the Plan Commission. Approval is granted for the following plans unless superseded by subsequent plan sheets approved by Village Staff pursuant to revisions required herein and/or by the Plan Commission:***
   a. ***Architectural plans dated February 23 ~~January 3~~, 2023;***
   b. ***Civil Engineering plans dated October 3, 2022;***
   c. ***Landscaping plans dated February 23, 2023 ~~October 3, 2022~~;***

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d. Lighting plans (photometric plan) dated October 3, 2022;
e. Storm Water Management Report dated January 5, 2023

If revised plan sheets are necessary, each revised sheet shall contain the date of said revision clearly stamped in the lower right corner.

2. ***Separate site development and building plans for any future Phase 2 development will require Plan Commission review and approval.***
3. ***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 for the shell building.***
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. ***Because the final design of the Donges Bay Road re-construction project has not yet been completed, the Owner shall coordinate with the Village's engineering consultant regarding the Donges Bay Road and Town 9 Parkway design plans to ensure those plans are compatible with the site development plans approved herein. Site adjustments that may be necessary shall be presented in revised plans submitted for review and approval by Village Staff as necessary.***
6. ***All outstanding items and issues identified by Village Staff in the following review memos shall be resolved and reflected in additional information and/or revised plans submitted to Staff for further review, comment and approval prior to commencing construction or issuance of building permits (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS):***
   a. January 11, 2023, memo from Larry Ratayczak, Public Works Director
   b. February 24, 2023 memo from Nathan Schuettpelz, Village Forester
7. ***The 30' public water lateral easement shown on Sheets C7.0 to C7.4 shall be recorded prior to issuance of an occupancy permit.***
8. ***State agency (DSPS) approved plans and a $20,000 occupancy bond are required by Inspection Services at the time of building permit application. The Village of Germantown is an authorized delegated agent of DSPS to provide all commercial plan review and inspection services through SAFEBuilt of WI and the Village of Germantown.***
9. ***Dumpster enclosures shall be designed to meet the Village's dumpster enclosure guidelines. Future tenants shall be required to provide proposed dumpster enclosure plans for review and approval by the Village Planner prior to issuance of an occupancy permit for the tenant.***
10. ***The height of all exterior lighting fixtures shall not exceed a mounted height of 25 feet above the surrounding finished grade elevation. Light fixtures shall not be tilted and side and/or back shields shall be installed on those wall and pole-mounted fixtures in locations that will be visible from the property north of Donges Bay Road.***
11. ***Future tenants shall provide a roof plan with the location of all roof-mounted HVAC units and any other roof-mounted equipment along with sightline diagrams as part of all future building "build out" plans. RTU's shall be screened from view by line of sight***

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at 5' above grade from all property lines around the building and the centerline of the adjacent roadways (Donges Bay Road, Wasaukee Road and Town 9 Parkway). If RTU's cannot be hidden from view, screen walls or other mutually acceptable features intended to shield the view of said RTU's shall be submitted to the Village Planner (or Plan Commission if determined necessary by the Village Planner) for review and approval prior to build out construction and tenant occupancy.

12. ***The Village's minimum street tree requirements (1 per 50 feet of road frontage) call for at least (24) street trees (i.e. deciduous canopy) along Donges Bay Road and (26) along Wasaukee Road. The landscape plan proposes a total of (5) street trees along Donges Bay Road and (17) along Wasaukee Road. Additional street trees shall be added to meet the minimum requirement. Staff recommends the landscape plan be revised with a more balanced approach that combines deciduous canopy trees (meeting the minimum street tree requirements), evergreen trees to provide year-round visual buffer, and understory deciduous trees and a mix of evergreen and deciduous shrubs along both Donges Bay and Wasaukee Road comprised of the following:***
    a. ***2-3 deciduous canopy trees per 100 linear feet (25'-30' spacing)***
    b. ***5-8 understory trees per 100 linear feet (10'-20' spacing)***
    c. ***5-8 evergreen trees per 100 linear feet (10'-20' spacing)***
    d. ***25 evergreen shrubs per 100 linear feet (equally spaced)***
13. ***The steep slope along the entire west side of the property shall be enhanced with additional landscaping. ~~The 2' flat area proposed behind the curb is insufficient and should be wider, e.g. 4'-5' with the same evergreen shrubs.~~ In addition, there should be at least one prominent hardscape/landscape feature comprised of a cluster of trees & shrubs installed into the side slope at the northwest corner of the site and three to five similar features installed into the side slope along the west side of the site to break up the monotony of the symmetrical slope and expansiveness of the prairie grass.***
14. ***A revised landscape plan reviewed and approved by the Plan Commission should be submitted prior to final site grading or issuance of an occupancy permit. Said plan shall reflect the recommendations of the Village Forester cited herein and the February 24, 2023 review memo.***
15. ***The Planting Schedule on Sheet L9.0 of the landscape plan shall be revised to include the size of plantings at the time of installation. The minimum sizes shall be not less than the following: 2" caliper for deciduous canopy trees; 1.5" for ornamental understory trees; 6'-8' for evergreen trees; and 5 gal. for shrubs.***
16. ***~~The building architecture is plain and without significant articulation or human scale. The proposed 2" outset for selected wall panels as a means of articulating the extensive walls is minimal. Additional reveals, articulation and/or textures should be included in the design. Entry features and glazing are insignificant and could be enhanced to help reduce the massive scale of the building.~~***
17. ***Right-of-way permits are required for any/all construction conducted in the Donges Bay, Wasaukee Road and Town 9 Parkway rights-of-way. Contact the Public Works Department/Highway Superintendent for permit submittal requirements.***
18. ***All permanent signage, including any wall signage and monument/ground signage will require separate sign permit review and approval by the Plan Commission.***
19. ***To satisfy the DNR's wetland fill mitigation requirements, the DNR has determined that F Street will have to purchase "wetland mitigation bank credits" at a 1.2 credit ratio or .73***

wetland credits. DNR has recommended that the credits be purchased from the Barnes Prairie Wetland Mitigation Bank. Final DNR permit approval will be withheld until proof has been provided that the credits have been purchased. F Street shall provide proof that the required wetland bank credits have been purchased and the DNR's final permit approval to the Village prior to issuance of a building permit.

MOTION carried unanimously.

Status of Richfield Wastewater & Water Utility Extension Intergovernmental Agreement – Director Retzlaff provided the history and update on the status of implementing the Intergovernmental Agreement for the provision of municipal wastewater and municipal water utility service between the Village of Richfield and the Village of Germantown. He explained Plan Commission will be required to take formal action by amending the 2050 Plan to extend the sewer and water boundary and recommend a route for the water and sewer lines to the Village of Richfield. He reviewed the potential internal road map and said the Village had reached out to the property owners that will be touched by the expansion boundary.

Discussion followed. Commissioner Shadid questioned how the Village will manage the amount of water that is used. Director Retzlaff said Richfield is required to report to the Village and will include review and approval of development plans and will be metered. Administrator Kreklow said on the sewer side, there will be a lift station in Richfield that will transmit sewage flow to the Village of Germantown and will be limited in capacity. Discussion continued. Trustee Baum explained the Plan Commission is not involved in the discussion of how much sewer or water is used. Director Retzlaff explained they are involved in making a formal recommendation to the Board on new roads and sewer locations in the Village. Trustee Baum asked when we will start dealing with residents in the area to discuss the master plan. He wants to make sure we keep the residents informed that are north and east of Goldendale and south of Freistadt that will be impacted and keep them engaged and aware. Director Retzlaff said we need to decide a sequence for which area will come first. This item was for discussion only.

2050 Comprehensive Plan: Implementation Objectives & Action Steps: Director Retzlaff summarized the implementation steps of the 2050 Plan in Chapter 8. He said the focus now is on the ongoing and short-term action steps and what our priorities are. Plan Commission will identify the department program going forward that will be addressed with staff, Plan Commission, Economic Development Commission, Village Board, School District or other departments. He reviewed the breakdown of what he feels is the priority list for Community Development staff and wants Plan Commission to rank the action steps so we can begin the process to embark on those efforts. He asked Plan Commission members to provide their rankings before the March meeting so we can go through the list fairly quickly and identify what they feel are the priorities for the implementation steps for the 2050 Plan. Director Retzlaff read through the priority list by category, objective description and action step.

Discussion followed. Director Retzlaff advised Commission members to look at the other objectives and pull in any they feel are appropriate. But the list he provided is what we have been talking about doing since the plan was adopted and we need to figure out what we will tackle first and how we will go about it. He spoke about execution and who will play a role in the various action steps in the Plan. There are many things that need to be done and they cannot be done by Village staff alone.

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Consulting services will also play a role. Director Retzlaff asked that some of the “parking lot” money be put back into the Planning budget for contractual service so we can do more than just one master plan in 2023. Discussion continued.

Director Retzlaff suggested Commission members use an informal ranking district by district. He would like a short list and then a priority list could be created at the next meeting. Chairman Wolter envisioned looking at areas of activity. The Freistadt District has a higher priority now because of the extension of sewer and water followed by the Village Center. He does not want too many meetings up front and wants to get into the specifics and get input from the residents. Director Retzlaff asked to talk about the master plans for the Willow Creek, Freistadt, Holy Hill Gateway and Village Center Districts. Commissioner Laszewski said now is the time to discuss the master plan for trails. Chairman Wolter said we need figure out where to begin first. He looks at the initial activity and the Richfield water extension that will drive action to happen first. Next one could be the Village Center, and downtown. Trustee Baum said his top two priorities are the Village Center and the Holy Hill/Freistadt District corridor. But he wants the Economic Development Committee, utilities and school board components involved. And asked if we can get the other departments to jump on board with their plans. Trustee Miller said the EDC is setup to include someone from the School District. It doesn’t need to be written in. 563
5Commissioner Tarantino also prioritized the Freistadt District and Village Center.

This item was for discussion. No formal action was taken.

ANNOUNCEMENTS: None

ADJOURNMENT: There being no further business the meeting was adjourned at 8:42 pm.

Respectfully submitted,

Lori Johnson
Planning Assistant

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SITE PLAN REVIEW

3/13/23 Plan Commission Meeting

Zilber Property Group / Germantown Gateway Corporate Park

Village Planner Report **Germantown, Wisconsin**

Summary

Andrew Shoaf, Pinnacle Engineering, and Frank Dekan, agents for the Zilber Property Group and ZPG Development, LLC, property owner, is requesting approval of site development and building plans for a 233,482 sqft multi-tenant industrial building (Zilber 6) in the Germantown Gateway Corporate Park.

Location: W210 N13035 Gateway Crossing

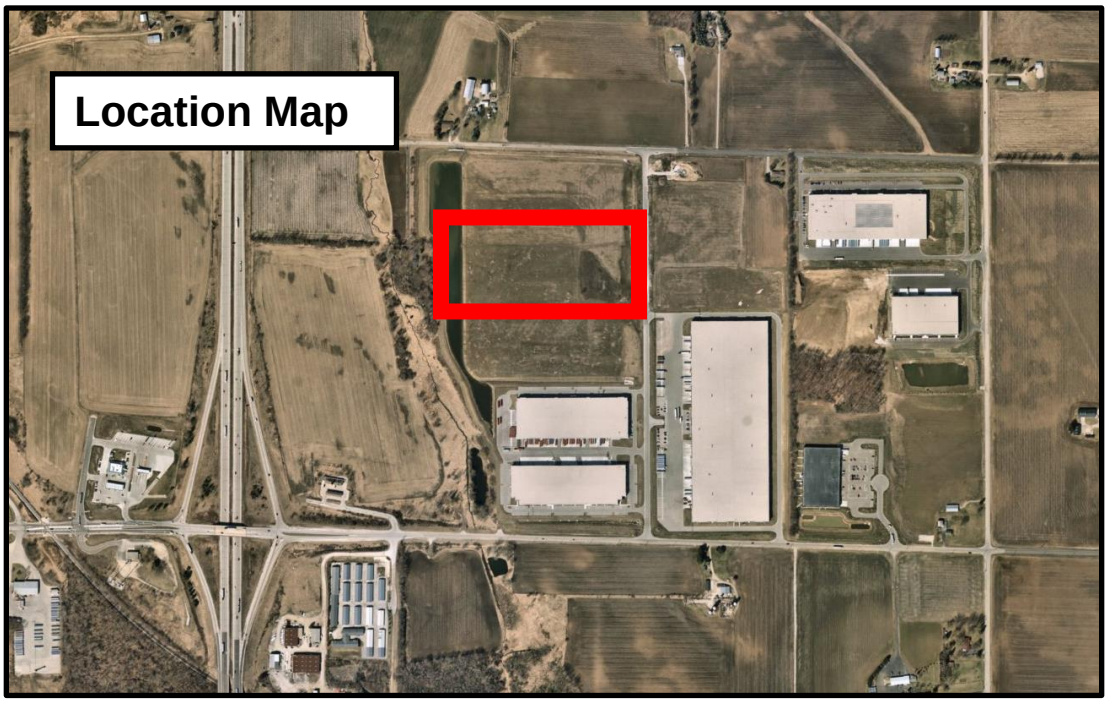
Applicant/ Property Owner:

Andrew Shoaf
Pinnacle Engineering
20725 Watertown Road
Brookfield, WI

Frank Dekan
ZPG Development LLC
Zilber Property Group
710 N. Plankinton Ave
Milwaukee, WI

Current Zoning: M-1: Limited Industrial/PDD

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial	M-1
West	Agricultural	A-1



Background

In March, 2022, the Zilber Property Group and ZPG Development, LLC, property owner, received approval to amend/expand the Germantown Gateway Corporate Park Planned Development District (M-1/PDD) to add 55.9 acres to the Germantown Gateway Corporate Park PDD on the west side of Gateway Crossing, and, approval of site development and building plans for a 233,327 sqft industrial building (Zilber 5).

At this time, the Zilber Property Group is requesting approval of site development and building plans for another 233,482 sqft multi-tenant industrial building (Zilber 6) in the Germantown Gateway Corporate Park (north of Zilber 5 west of Gateway Crossing).

As detailed in the plans, development of the 233,482 "Zilber 6" multi-tenant building will have the following characteristics:

Site Improvements:

- Two (2) access driveways onto Gateway Crossing (one main access driveway for employees and visitors on the north side of the lot and another access shared with Zilber 5 for trucks on the south side of the proposed building);
- On-site sanitary sewer and water facilities with connections to the public utilities being extended to the site and installed in the Gateway Crossing public right-of-way;
- Install underground storm sewer for storm water management with connections to the "regional" storm water ponds already constructed on the west side of Zilber 6;
- Parking along the south side of the site with a total of 240 employee/visitor parking stalls (9'x20')
- Truck parking along the north side of the site with 53 truck/trailer stalls (12'x55') and 26 total dock bays to the building (w/ "knockout" wall panels for an addition 32).
- Perimeter plantings on all four sides of the property, building foundation landscaping along the west, and north sides of the building; street trees along Gateway Crossing

Building Improvements:

- 233,482 total square foot industrial building
- 10' & 14' wide x 37'2" & 40' painted pre-cast insulated wall panels providing an interior 32' clear height with multiple reveals, painted white, to grey, tan and dark grey colors and stepped elevation to create shadow lines and reduce scale;
- Aluminum storefront window systems with clearstory windows

Storm Water Management. A total of 425,935 sqft (9.8 acres) of impervious surfaces are proposed as part of the Zilber 6 site development or 61% of the total 16.02-acre site leaving 39% in open/green space. All on-site storm sewer is connected to the corporate park "regional" storm water ponds constructed across all the lots on the west side of Gateway Crossing.

Landscaping & Buffering. A significant amount of landscaping is proposed along the perimeter of the site and foundations of the building. Overall, plantings consist of a variety of deciduous street and shade trees, ornamental trees, evergreen trees, deciduous and evergreen shrubs, perennial plantings and ornamental grasses.

Lighting. Exterior lighting for the site includes:

- (14) 109W LED cut-off style building-mounted fixtures at a height of 35' on all building elevations;
- (8) 72W LED cut-off style pole-mounted fixtures mounted on a 20' pole and 3' base (23' fixture height) along the west and south sides of the truck parking area

Signage. No signage is proposed at this time. A sign permit will need to be reviewed and approved by the Plan Commission prior to any sign installation.

Staff Comments

No roof-top HVAC units are proposed at this time and no roof plan showing potential RTU locations has been provided at this time given the speculative nature of the building being constructed. Depending on future tenants, roof-mounted HVAC mechanicals may be installed in the future; While there is a modest 2' high parapet proposed along portions of the roof line, no roof plan showing the actual location and possible sight lines has been provided. No screening is proposed at this time either. A sight-line diagram was prepared for the nearly identical Zilber 5 building that indicates a minimum setback distance of 14 feet would be required from the edge of the parapet wall to not be visible from Gateway Crossing. Therefore, future tenants should be required to provide a roof plan with RTU location and sightline diagrams as part of any building "build out" plans. RTU's should be screened from view by line of sight and setback a minimum 14 feet from the outer wall edge. If RTU's cannot be hidden from view, screen walls or other mutually acceptable features intended to shield the view of said RTU's should be submitted to the Village Planner (or Plan Commission if determined necessary by the Village Planner) for review and approval prior to build out construction and tenant occupancy (determined at the time a Zoning Permit is applied for by the prospective tenant).

No details regarding the size, location and materials for any dumpster enclosure(s) has been provided. Dumpster enclosures should be designed to meet the Village's dumpster enclosure guidelines. Future tenants should be required to provide proposed dumpster enclosure plans to be reviewed by staff prior to occupancy.

Fire Department/Police Department
No comment.

Public Works/Village Engineer
A few technical requirements have been identified in a March 8, 2023, memo from the Public Works Director. These items should be addressed in a revised set of plans prior to commencing construction and issuance of a building permit.

Village Forester
No comment.

Building Inspection Services
State agency (DSPS) approved plans and a $20,000 occupancy bond are required by Inspection Services at the time of building permit application. The Village of Germantown is an authorized delegated agent of DSPS to provide all commercial plan review and inspection services through SAFEBuilt of WI and the Village of Germantown.

VILLAGE STAFF RECOMMENDATION

APPROVE the site development and building plans for the 233,482 sqft "Zilber 6" industrial building located at W210 N13035 Gateway Crossing in the Germantown Gateway Corporate 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 following architectural and engineering plans unless superseded by subsequent plan sheets approved by Village Staff pursuant to revisions required herein and/or by the Plan Commission:
    a. "Onsite Civil Engineering and Infrastructure Plans for the Zilber Industrial 6 at Germantown Corporate Park" dated January 9, 2023;
    b. Architectural plans labeled "Zilber Industrial 6" dated January 9, 2023;
    c. Exterior lighting plans dated January 9, 2023;
    d. Landscaping Plans dated January 9, 2023

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. 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.

4. All outstanding items and issues identified by Village Staff in the following review memos shall be resolved and reflected in additional information and/or revised plans submitted to Staff for further review, comment and approval prior to issuance of a building permit for the Zilber 6 building (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS):
    a. March 8, 2023, memo from Public Works Director, Larry Ratayczak

5. State agency (DSPS) approved plans and a $20,000 occupancy bond are required by Inspection Services at the time of building permit application. The Village of Germantown is an authorized delegated agent of DSPS to provide all commercial plan review and inspection services through SAFEBuilt of WI and the Village of Germantown.

6. The Zilber Property Group shall notify prospective tenants that said tenants are responsible for providing a roof plan with the location of all roof-mounted HVAC units and any other roof-mounted equipment along with sightline diagrams as part of all future building "build out" plans at the time a Zoning/Occupancy Permit is obtained. RTU's shall be setback a minimum of 14 feet from the perimeter roof/wall edge to obscure the view of all RTU's from property lines around the building and the centerline of the Gateway Crossing. If RTU's cannot be hidden

from view, screen walls or other mutually acceptable features intended to shield the view of said RTU's shall be submitted to the Village Planner (or Plan Commission if determined necessary by the Village Planner) for review and approval prior to build out construction and issuance of an occupancy permit.

7. Dumpster enclosures shall be designed to meet the Village's dumpster enclosure guidelines. Future tenants shall be required to provide proposed dumpster enclosure plans for review and approval by the Village Planner prior to issuance of an occupancy permit.
8. A cross access easement agreement between the Zilber 5 and Zilber 6 parcels shall be recorded prior to the issuance of occupancy for any tenant for the Zilber 6 building.

Village of Germantown
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Fee must accompany application

- ☐ $700 Minor Addition
- ☐ $1,240 Construction <10,000 SF
- ☐ $2,095 Construction 10,000 SF to 50,000
- ☒ $3,460 Industrial Construction >50,000 SF
- ☐ $3,460 Commercial Construction >50,000
- ☐ $200 Plan Commission Consultation
- ☐ $125 Fire Department Plan Review

PAID_____ DATE_____

SITE PLAN REVIEW APPLICATION

Pursuant to Section 17.43 of the Municipal Code

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

1 APPLICANT OR AGENT

Andrew Shoaf, P.E.
Pinnacle Engineering Group
20725 Watertown Road, Suite 100
Brookfield, WI 53186

Phone (262) 754-8888
E-Mail andrew.shoaf@pinnacle-engr.com

PROPERTY OWNER

Frank Dekan
ZPG Development LLC
710 N. Plankinton Avenue
Milwaukee, WI 53203

Phone (414) 234-1100
E-Mail frank.dekan@zilber.com

2 PROPERTY ADDRESS

Located within Lot 8 of the Germantown Gateway Corporate Park in Germantown WI
Actual address TBD

3 NEIGHBORING USES – Specify name and type of use, e.g. Enviro Tech – Industrial, Smith – Residential, etc.

North Undeveloped Lot 9 of Germantown Gateway Corporate Park - Undeveloped	South Zilber Industrial Building 5	East Gateway Crossing public Road / Gateway Crossing Business Park	West Brian A Kazmierczak Undeveloped

4 READ AND INITIAL THE FOLLOWING:

X I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.

X I understand that all new development is subject to Impact and/or Connection Fees that must be paid before building permits will be issued.

X I understand that an incomplete application will be withdrawn from the Plan Commission agenda and that all resubmissions to the Plan Commission are subject to a new application fee.

5 SIGNATURES – ALL APPLICATION MUST BE SIGNED BY OWNER!

1/9/2023
Applicant Date

1/9/23
Owner Date

ZILBER
PROPERTY GROUP℠

January 09, 2023

Re: Statement of Design Intent
Site Plan Review Application Submitted January 6th, 2022

The proposed Zilber Industrial VI at Germantown Gateway Corporate Park project is a 233,282 square foot industrial building that will be developed in a manner consistent with other institutional-quality industrial development projects recently completed by Zilber Property Group including the adjacent 706,840 sf industrial build to suit for Briggs & Stratton Corp., the 233,682 square foot Zilber Industrial 5 (currently under construction), the 146,000 sf Zilber Industrial IV building, the 204,373 sf Zilber Industrial III building and the 198,342 sf Zilber Industrial II building. The Zilber Industrial VI building will be located in the newly developed Germantown Gateway Corporate Park, which is generally located at the intersection of Holy Hill Road and Gateway Crossing in the northeast quadrant of the US 41 and Holy Hill Road interchange.

As currently proposed, the building will feature stepped/recessed corner conditions and an intermediate employee entrance. The building will consist of 12ft & 14ft wide and 32ft clear height painted and insulated precast wall panels that have multiple reveals and will be painted in tones between white, grey, tan and dark grey colors to help reduce the overall scale of the building. Additionally, the building elevation is stepped to further break the scale down and panels are recessed to create additional shadow lines. Around the building, the project includes clearstory windows to provide natural daylight within the building. The precast panel steps/recesses, paint and glazing are continued around the building to create four-sided architecture. The colors and the articulation of the building will help to differentiate this building from others within the park

CORPORATE
710 North Plankinton Avenue
Milwaukee, WI 53203

KENOSHA
9560 58th Place, Suite 350
Kenosha, WI 53144

www.zilberpropertygroup.com

SITE PLAN REVIEW CHECKLIST

Pursuant to Section 17.43 of the Municipal Code

This checklist provides a summary of requirements found in the Municipal Code. It is intended purely as a guide for developers and should not substitute for a full review of the Code and applicable regulations. (Revised 1/02)

GENERAL INFORMATION

- [X] Provide Completed Checklist with submittal
- [X] Names and addresses of owner/developer/designer
- [X] Graphic scale, north arrow
- [X] Location sketch
- [X] Size of site (gross and net acreage)
- [X] Existing zoning
- [X] Adjacent zoning and uses
- [X] Number of residents (subdivisions)
- [X] Number of employees

EXISTING SITE INFORMATION

- [X] Dimensions of site and lot lines (pipes found, pipes set, monuments)
- [X] Existing grades (2' contours minimum)
- [X] Adjacent property grades (within 10' minimum of property lines)
- [X] Adjacent structures (within 20' minimum of property lines)
- [X] Drainage systems and structures
- [X] Natural features (woods, streams, lakes, ponds, outcroppings)
- [X] Wetland boundaries (provide date of staking)
- [X] Floodplain elevation and boundaries
- [X] Environmental concerns (underground tanks, etc)
- [X] Roads, curbs, parking lots, pavement areas
- [X] Structures (location, size)
- [X] Rights-of-Way (existing/ultimate)
- [X] Easements (drainage, utility)
- [X] Existing utilities (sanitary, water, electric, gas, telephone)
- [X] Benchmark locations and elevations
- [X] Location of fences, wells, borings, etc.

ARCHITECTURAL PLANS

- N/A [ ] Existing building location
- N/A [ ] Existing building elevations/materials
- [X] Proposed use (use list from Section 17.45)
- [X] Statement of design intent (narrative)
- [X] Proposed floor plans (dimension)
- [X] Square footage (total and individual rooms/stores)
- [X] Proposed elevations (dimension)
- [X] Proposed building height
- [X] Proposed materials and colors (material sample board required for new construction)
- N/A [ ] Proposed signage (elevations, color, square footage, height, construction material, lighting)
- [X] Details of any special features

PROPOSED SITE PLAN

- [X] Grading and spot elevations
- [X] Erosion control measures (silt fencing, hay bales, rip-rap, tracking mat, stockpile locations)
- [X] Stormwater management
  - stormwater management design report
  - general drainage pattern
  - swales w/ arrows for direction of flow
  - pond design with outfalls
  - culverts (location/size)
- [X] Utilities (size, invert elevations, length, slope, etc.)
  - sanitary
  - water
  - stormsewer
- [X] Building location (dimension)
- [X] Building elevation (finished grade)
- [X] Location of proposed signage
- [X] Details of outside storage (including trash receptacles)
- [X] Setbacks (clearly marked and dimensioned)
- [X] Vehicular entrances (dimension to centerline of nearest intersection)
- [X] Streets (dimension and direction for one-ways)
- [X] Curve radii
- [X] Sidewalks (dimension)
- [X] Parking areas (show striping/spot elevations)
- [X] Parking setback from property line
- [X] Loading areas (dimension)
- [X] Lot coverage
  - Square footage total
  - Impervious surfaces total (%)
  - Green space total (%)
  - Percent permitted (over/under %)
- [X] Municipal utility connections
  - Sanitary sewer (pipe size/elevations)
  - Water (size, valve location, elevations)
  - Location of hydrants
- [X] Easement for public water mains

LIGHTING PLAN

- [X] Major improvements for context
- [X] Location/nature of existing fixtures
- [X] Location of proposed fixtures
- [X] Photometric report (to scale on plan)
- [X] Manufacturers cut-sheets of all fixtures
- [X] Lighting schedule
  - key to plan
  - number/type of fixtures
  - output (wattage)
- [X] Installation details as appropriate

LANDSCAPING PLAN

- [X] Major improvements for context (building, drives, walks)
- [X] Proposed outdoor amenities (benches, paths, etc.)
- [X] Existing vegetation
  - Species
  - Size
  - Approximate canopy in plan
- [X] Vegetation to be destroyed
  - List and show location
- [X] Proposed method of saving existing vegetation during construction

- [X] Proposed landscape features (berms, fountains)
- [X] Existing/proposed lighting
- [X] Irrigation/watering systems (locate outlets)
- [X] Plant lists or schedules
  - Keyed to plan
  - Number of each species
  - Size when planted (caliper)
- [X] Installation details/staking

REFER TO ARCHITECTIAL PLANS FOR WATER OUTLETS

MODEL SUBMITTAL INCLUDES THE FOLLOWING PLANS:

1. Cover / Title Page
2. Existing Conditions Survey
3. General Site Plan
4. Grading, Paving & Erosion Control Plan
5. Utility Plan
6. Site Details (curbing, catch basins, detention ponds, pavement, erosion control and sign details)
7. Landscape Plan
8. Landscape details (planting schedule, berming cross-sections, method of installation)
9. Lighting Plan
10. Floor Plan
11. Exterior Building Elevations
12. Building Material Sample Board

In addition to the items on this list, Village Staff and/or the Plan Commission may require additional drawings and data to be submitted for approval.

If any public improvements or work is to be done in the Public Right-of-Way, the Village will require that a Developer's Agreement be submitted and approved by the Village Board.



ZILBER
PROPERTY GROUP℠

ZILBER INDUSTRIAL 6

GERMANTOWN, WISCONSIN

STEPHEN PERRY SMITH
ARCHITECTS, INC.



ZILBER
PROPERTY GROUP SM

ZILBER INDUSTRIAL 6

GERMANTOWN, WISCONSIN

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ARCHITECTS, INC.



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PROPERTY GROUP℠

ZILBER INDUSTRIAL 6

GERMANTOWN, WISCONSIN

STEPHEN PERRY SMITH
ARCHITECTS, INC.

PROJECT:

ZILBER INDUSTRIAL 6

GERMANTOWN GATEWAY CORPORATE PARK

GERMANTOWN, WISCONSIN



ISSUED FOR: **MUNICIPAL REVIEW**

ARCHITECT:

STEPHEN PERRY SMITH ARCHITECTS, INC.

MILWAUKEE, WISCONSIN

DRAWING INDEX

	G0	TITLE SHEET	LANDSCAPE		
				L-1	VEGITATION RELOCATION PLAN
CIVIL				L-2	LANDSCAPE OVERVIEW & TREE PLAN
	C-1	COVER SHEET		L-3	LANDSCAPE ENLARGEMENT
	C-2	EXISTING CONDITIONS		L-4	LANDSCAPE ENLARGEMENT
	C-3	DEMOLITION PLAN		L-5	LANDSCAPE GENERAL NOTES & DETAILS
	C-4	SITE DIMENSIONAL & PAVING PLAN			
	C-5	GRADING PLAN	ARCHITECTURAL		
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	C-10	CONSTRUCTION DETAILS		A402	BUILDING ELEVATIONS
			ELECTRICAL		
				E1	SITE PHOTOMETRIC PLAN

STEPHEN PERRY SMITH ARCHITECTS, INC.

215 N. WATER STREET, SUITE 250
MILWAUKEE, WI 53202

T 414.277.9700 | F 414.277.9705
spsarchitects.com

PINNACLE ENGINEERING GROUP

raSmith
CREATIVITY BEYOND ENGINEERING

PROJECT

PROPOSED BUILDING FOR:

ZILBER INDUSTRIAL 6

GERMANTOWN GATEWAY
CORPORATE PARK
GATEWAY CROSSING & ROCKFIELD ROAD
GERMANTOWN, WISCONSIN

OWNER

ZILBER PROPERTY GROUP SM

CONTRACTOR

RILEY CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE

INFORMATION

PROJECT ARCHITECT	SPS
PROJECT MANAGER	MAM
PROJECT NUMBER	221110
ISSUED FOR	MUNICIPAL REVIEW
DATE	JANUARY 9, 2023

SHEET

TITLE PAGE

G0

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ONSITE CIVIL ENGINEERING INFRASTRUCTURE PLANS

FOR

ZILBER INDUSTRIAL 6 AT GERMANTOWN GATEWAY CORPORATE PARK

GERMANTOWN, WI

PLANS PREPARED FOR

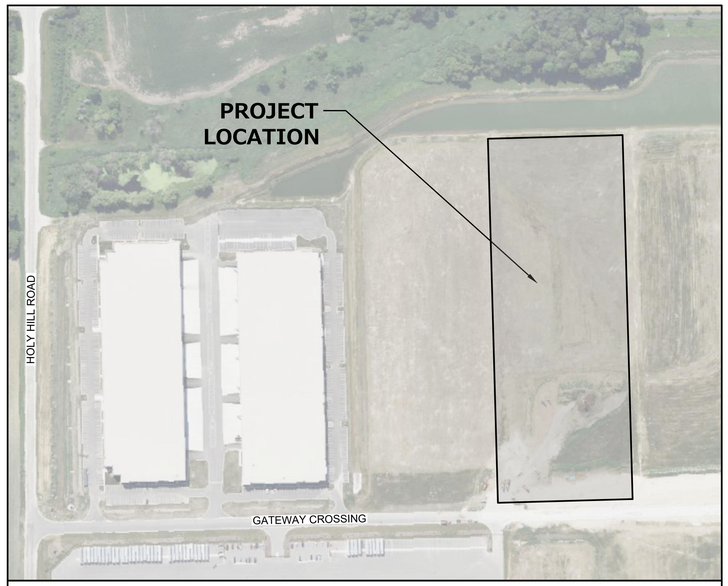
ZILBER PROPERTY GROUP SM

LEGEND

	EXISTING	PROPOSED
SANITARY SEWER MANHOLE	S	
STORM SEWER MANHOLE	D	
STORM SEWER CATCH BASIN (ROUND CASTING)	D	
STORM SEWER CATCH BASIN (RECTANGULAR CASTING)		
PRECAST FLARED END SECTION		
CONCRETE HEADWALL		
VALVE BOX		
FIRE HYDRANT		
CLEANOUT		
SANITARY SEWER		
FORCE MAIN		
STORM SEWER		
DRAIN TILE		
WATER MAIN	W	W
FIRE PROTECTION		FP
ELECTRICAL CABLE	E	E
OVERHEAD WIRES	OHW	OHW
GAS MAIN	G	G
TELEPHONE LINE	T	T
UTILITY CROSSING		X
CAUTION EXISTING UTILITIES NEARBY		CAUTION
GRANULAR TRENCH BACKFILL		
LIGHTING		
ELECTRICAL TRANSFORMER OR PEDESTAL	TF	
POWER POLE		
POWER POLE WITH LIGHT		
GUY WIRE		
STREET SIGN		
CONTOUR	749	749
SPOT ELEVATION	×(750.00)	+750.00
WETLANDS	WET	
PRIMARY ENVIRONMENTAL CORRIDOR	PEC	
FLOODWAY		
FLOODPLAIN		
HIGH WATER LEVEL (HWL)		
NORMAL WATER LEVEL (NWL)		
DIRECTION OF SURFACE FLOW		GRADE PAVEMENT
DITCH OR SWALE		
DIVERSION SWALE		
OVERFLOW RELIEF ROUTING		
TREE WITH TRUNK SIZE	6"	
SOIL BORING		
TOPSOIL PROBE		
FENCE LINE, TEMPORARY SILT	SF	SF
FENCE LINE, WIRE		
FENCE LINE, CHAIN LINK OR IRON		
FENCE LINE, WOOD OR PLASTIC		
CONCRETE SIDEWALK		
CURB AND GUTTER		
DEPRESSED CURB		
REVERSE PITCH CURB & GUTTER		
EASEMENT LINE		

ABBREVIATIONS

BL	BASE LINE	NWL	NORMAL WATER LEVEL
C	LONG CHORD OF CURVE	PC	POINT OF CURVATURE
C & G	CURB AND GUTTER	PT	POINT OF TANGENCY
CB	CATCH BASIN	PVI	POINT OF VERTICAL INTERSECTION
CL	CENTERLINE		
D	DEGREE OF CURVE	R	RADIUS
EP	EDGE OF PAVEMENT	ROW	RIGHT-OF-WAY
FF	FINISHED FLOOR	SAN	SANITARY SEWER
FG	FINISHED GRADE	ST	STORM SEWER
FL	FLOW LINE	T	TANGENCY OF CURVE
FP	FLOODPLAIN	TB	TOP OF BANK
FR	FRAME	TC	TOP OF CURB
FW	FLOODWAY	TF	TOP OF FOUNDATION
HWL	HIGH WATER LEVEL	TP	TOP OF PIPE
INV	INVERT	TS	TOP OF SIDEWALK
L	LENGTH OF CURVE	TW	TOP OF WALK
MH	MANHOLE	WM	WATER MAIN
		Δ	INTERSECTION ANGLE



LOCATION MAP
SCALE: 1" = 200'

GENERAL NOTES

1. THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
2. A GEOTECHNICAL REPORT HAS BEEN PREPARED BY GILES ENGINEERING ASSOCIATES, INC. JUNE 28TH, 2018. THE DATA ON SUB-SURFACE SOIL CONDITIONS IS NOT INTENDED AS A REPRESENTATION OR WARRANTY OF THE CONTINUITY OF SUCH CONDITIONS BETWEEN BORINGS OR INDICATED SAMPLING LOCATIONS. IT SHALL BE EXPRESSLY UNDERSTOOD THAT OWNER WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN THERE FROM BY THE CONTRACTOR. DATA IS MADE AVAILABLE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
4. THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.
6. QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
7. PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
8. COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT. WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
9. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
10. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
11. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGER'S HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
12. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
13. CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
14. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.

PROJECT TEAM CONTACTS

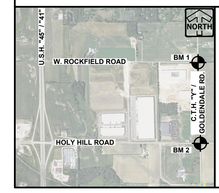
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(262) 754-8888

SURVEYOR:
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VICE PRESIDENT, PE LEED-AP
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(414) 277-9700

APPLICANT:
FRANK DEKAN
ZILBER PROPERTY GROUP
710 N. PLANKINGTON AVENUE
MILWAUKEE, WI 53202
(414) 234-1100

BENCHMARKS



VERTICAL DATUM: NGVD 29
HORIZONTAL DATUM: NAD 1927

BM 1: CONCRETE MONUMENT WITH BRASS CAP AT THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 SECTION 7, TOWN 9 NORTH, RANGE 20 EAST, ELEVATION = 933.82.

BM 2: CONCRETE MONUMENT WITH BRASS CAP AT THE NORTHEAST CORNER OF THE SOUTHEAST 1/4 SECTION 7, TOWN 9 NORTH, RANGE 20 EAST, ELEVATION = 945.69.

INDEX OF SHEETS

C-1	COVER SHEET
C-2	EXISTING CONDITIONS
C-3	DEMOLITION PLAN
C-4	SITE DIMENSIONAL & PAVING PLAN
C-5	GRADING PLAN
C-6	UTILITY PLAN
C-7	SITE STABILIZATION PLAN
C-8 - C-10	CONSTRUCTION DETAILS
L-1 - L-5	LANDSCAPE PLAN

REQUIRED SUBMITTALS FOR APPROVAL

1. **HOT MIX ASPHALT** - MIX DESIGN
2. **CONCRETE PAVEMENTS (EXTERIOR)** - MIX DESIGN & JOINT PLAN
3. **PAVEMENT STONE BASE COURSE** - GRADATION
4. **PIPE BEDDING & TRENCH BACKFILL** - GRADATION
5. **MANHOLE BACKFILL** - GRADATION
6. **PAVEMENT MARKING PAINT**

REQUIRED SUBMITTALS FOR RECORDS

1. **WATER MAIN PIPES, VALVES, HYDRANTS & FITTINGS**
2. **SANITARY SEWER PIPE & FITTINGS**
3. **STORM SEWER PIPE, STRUCTURES, & FITTINGS**
4. **TRACER WIRE**
5. **UNDERGROUND UTILITY LOCATION RECORD DRAWINGS**
6. **ADA SIGN, PAINT & STENCILS**
7. **CHEMICAL SOIL STABILIZATION MIX DESIGN (IF APPLICABLE)**

DIGGERS HOTLINE
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

EXPIRATION DATE: JULY 31, 2024

PINNACLE ENGINEERING GROUP, LLC - ENGINEER'S LIMITATION

PINNACLE ENGINEERING GROUP, LLC AND THEIR CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED PRIOR TO BID SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

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REVIEWED: A.JS
DESIGNED: A.JS
DRAWN: EP

PLAN | DESIGN | DELIVER
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PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
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BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO | MILWAUKEE : NATIONWIDE

ZILBER INDUSTRIAL 6 AT GERMANTOWN GATEWAY CORPORATE PARK
GERMANTOWN, WI

COVER SHEET

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23			

PEG JOB No. 1296.00F
PEG PM AJS
START DATE 11/16/22
SCALE N.T.S

SHEET C-1 OF C-10

Z:\PROJECTS\2018\1296.00F-WI\CAD\SHEETS\1296.00F-WI COVER SHEET.DWG

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WEST ROCKFIELD ROAD

NORTH

GRAPHICAL SCALE (FEET)
0 1" = 100' 200'

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EXISTING CONDITIONS

STORM WATER AND DETENTION POND EASEMENT PER DOC. 1532995

EDGE OF WATER 12/07/2021 EL.=907.0

LOT 9

LOT 8

LOT 7

LOT 6
C.S.M. NO. 6898

EXISTING BUILDING
LOT 5
C.S.M. NO. 6898

(REMNANT)
LOT 1
C.S.M. NO. 51

TAX KEY #
GTNV 073992
OWNER: KLUMB

TAX KEY #
GTNV 073994
UNPLATTED LANDS
OWNER:
KAZMIERCZAK

TAX KEY #
GTNV 073995
UNPLATTED LANDS
OWNER: KAZMIERCZAK

25' WETLAND SETBACK

CROSS ACCESS EASEMENT

STORM WATER DRAINAGE EASEMENT

EXISTING POND
NWL = 907.00

CENTERLINE CREEK

WETLANDS DELINEATED BY EVERGREEN CONSULTANTS, LLC - JUNE 2018

EXISTING BUILDING
LOT 7

EXISTING BUILDING
LOT 3
C.S.M. NO. 6944

EXISTING BUILDING
LOT 2
C.S.M. NO. 6944

EXISTING BUILDING
LOT 1
C.S.M. NO. 6824

GATEWAY CROSSING
(80' PUBLIC R.O.W.)

HOLY HILL ROAD

REVIEWED: AJS
DESIGNED: AJS
DRAFTED: EP

PLAN I DESIGN I DELIVER
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ZILBER INDUSTRIAL 6 AT GERMANTOWN
GATEWAY CORPORATE PARK
GERMANTOWN, WI

EXISTING CONDITIONS

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23	

PEG JOB No. 1296.00F
PEG PM AJS
START DATE 11/16/22
SCALE 1" = 100'

SHEET
C-2
OF
C-10

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Z:\PROJECTS\2018\1296.00F-WI\CAD\SHEETS\1296.00F-WI EXISTING CONDITIONS.DWG

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LEGEND

- SAWCUT & REMOVE ASPHALT PAVEMENT
- REMOVE EXISTING LIGHT POLE BASE
- REMOVE UNDERGROUND UTILITY
- SAW CUT
- REMOVE CONCRETE CURB & GUTTER / CURB

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

PROPOSED BUILDING

PROPERTY LINE

10.0' SETBACK

80.0' R.O.W.

128 L.F. SAWCUT

REMOVE 124 L.F. CONCRETE CURB & GUTTER

REMOVE 89 L.F. CONCRETE CURB & GUTTER

REMOVE 63,645 SQ. FT. ASPHALT PAVEMENT

REMOVE 40 L.F. 15" HDPE

REMOVE 50 L.F. 15" HDPE

REMOVE LIGHT POLE & BASE (TYP.)

REMOVE 55 L.F. 15" HDPE

REMOVE 1,019 SQ. FT. ¾" DENSE GRAVEL EDGE

REMOVE 40 L.F. 15" HDPE

REMOVE 22 L.F. 15" HDPE

REMOVE 172 L.F. CONCRETE CURB & GUTTER

1,175 L.F. SAWCUT

60.0' CROSS ACCESS EASEMENT

PROPERTY LINE

EXISTING POND
NWL = 907.00

STORM WATER DRAINAGE EASEMENT

30.0' SETBACK

GATEWAY CROSSING

PROPERTY LINE

FOR REVIEW ONLY

DEMOLITION PLAN

REVIEWED: AJS
DESIGNED: AJS
DRAFTED: EP

PINNACLE ENGINEERING GROUP
PLAN | DESIGN | DELIVER
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ZILBER INDUSTRIAL 6 AT GERMANTOWN
GATEWAY CORPORATE PARK
GERMANTOWN, WI

DEMOLITION PLAN

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23	

PEC JOB No. 1296.00F
PEC PM AJS
START DATE 11/16/22
SCALE 1" = 40'

SHEET C-3 & C-10

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Z:\PROJECTS\2018\1296.00F-WI\CAD\SHEETS\1296.00F-WI DEMOLITION PLAN.DWG

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SITE AND DIMENSIONAL PLAN NOTES

1. ALL DIMENSIONS ARE EDGE OF PAVEMENT, FACE OF CURB, SHOULDER, OR CENTER OF LANE LINE UNLESS NOTED OTHERWISE. ALL UTILITY DIMENSIONS ARE TO OUTSIDE OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL PROPOSED CURB AND GUTTER SHALL BE 18" STANDARD CURB AND GUTTER (SEE DETAIL). UNLESS OTHERWISE NOTED, CURB AND GUTTER DRAINING AWAY FROM THE FACE OF CURB IS NOTED AS REVERSE CURB AND GUTTER.
3. BUILDING DIMENSIONS AND ADJACENT PARKING AND UTILITY LAYOUT HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL CONTACT DIGGERS HOTLINE (1-800-242-8511) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
5. IMPROVEMENTS ADJACENT TO BUILDING IF SHOWN SUCH AS TRUCK DOCK, RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, AND TRANSFORMERS ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS, AND DETAILS.
6. REFER TO ELECTRICAL PLANS FOR LIGHTING LOCATIONS, SPECIFICATIONS, AND DETAILS.
7. SEE ADDITIONAL NOTES AND DETAILS ON SITE DIMENSIONAL PLANS AND CONSTRUCTION DETAILS.
8. ALL PAVING SHALL CONFORM TO STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION AND APPLICABLE VILLAGE OF GERMANTOWN ORDINANCES, AND SPECIFICATIONS CONTAINED WITHIN THIS PLAN SET.
9. CONTRACTOR SHALL CONSULT STRIPING COLOR WITH OWNER PRIOR TO CONSTRUCTION.
10. PROVIDE CONTRACTOR GRADE ACRYLIC, STRIPING PAINT FOR NEW ASPHALT OR COATED ASPHALT. APPLY MARKING PAINT AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300-400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES OR TO MANUFACTURER'S SPECIFICATION, WHICHEVER IS GREATER.
11. THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT EXISTING PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.
12. DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.
13. LAYOUT MARKINGS USING GUIDE LINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.
14. PROTECT ADJACENT CURBS, WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING PAINT.
15. BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING PAINT IS DRIED AND READY FOR TRAFFIC.
16. ASPHALTIC CONCRETE PAVING SPECIFICATIONS-

    CODES AND STANDARDS: THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS THE STATE HIGHWAY SPECIFICATIONS.

    WEATHER LIMITATIONS: APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° (4°C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (-1° C).

    GRADE CONTROL: ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.

    CRUSHED AGGREGATE BASE COURSE: THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. BINDER COURSE AGGREGATE: THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 315, STATE HIGHWAY SPECIFICATIONS.

    SURFACE COURSE AGGREGATE: THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 465, STATE HIGHWAY SPECIFICATIONS.

    ASPHALTIC MATERIALS: THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.

    SURFACE PREPARATION: NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
17. TRAFFIC CONTROL SHALL BE PER M.U.T.C.D.
18. PUBLIC CURB & GUTTER REPLACEMENT SHALL BE TIED TO EXISTING CURB & GUTTER WITH #4 TIE BARS. PUBLIC CURB & GUTTER SHALL BE A 6-BAG MIX.

SITE DATA

SITE AREA:	**697,816 S.F./16.02 AC**
ZONING CLASSIFICATION:	**M2**
BUILDING FOOTPRINT AREA:	**233,326 S.F./5.36 AC/33.4%**
PAVING AREA:	**192,609 S.F./4.42 AC/27.6%**
GREEN SPACE:	**271,880 S.F./6.24 AC/39.0%**
PARKING PROVIDED (9'x20')	**230 (8 ADA)**

ALL WORK WITHIN PUBLIC R.O.W. SHALL CONFORM TO VILLAGE OF GERMANTOWN STANDARDS.

LEGEND

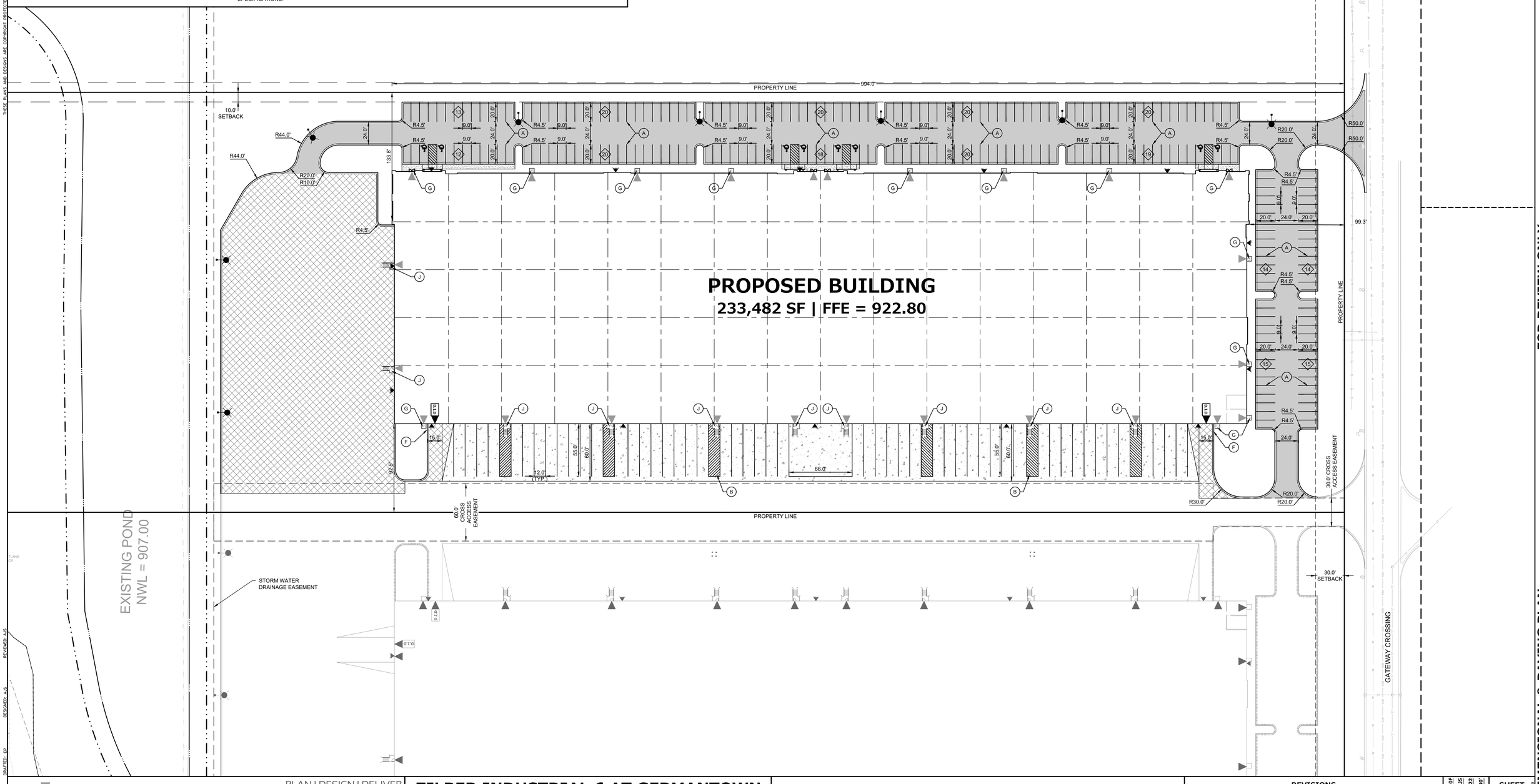
- (A) 4" SOLID WHITE STRIPE
- (B) 4" DIAGONAL AT 45° SPACED 2' O.C.
- (C) ADA PARKING STALL SIGNAGE (SEE DETAIL)
- (D) 18" CURB & GUTTER (SEE DETAIL)
- (E) 18" REVERSE CURB & GUTTER (SEE DETAIL)
- (F) TAPER CURB HEAD (SEE DETAIL)
- (G) BUILDING DOOR SLAB (2% MAX SLOPE WITHIN 5-FT OF DRIVE IN OR MAN DOOR)
- (H) ADA STALL INSIGNIA
- (I) ADA CURB RAMP (SEE DETAIL)
- (J) STEEL STAIRS (SEE ARCHITECTURAL PLANS)
- (K) BOLLARD (SEE DETAIL)
- (◇) PARKING COUNT (FOR INFORMATION ONLY, NOT TO BE PAINTED)
- MAN DOOR
- O.H.D. OVERHEAD DOOR

LIGHT DUTY PAVEMENT
- 8" CRUSHED AGGREGATE BASE COURSE (1-½" DENSE GRADED VIRGIN LIMESTONE)
- 3½" ASPHALTIC CONC. (1 LIFT) (5MT 58-28 S)

HEAVY DUTY PAVEMENT
- 10" CRUSHED AGGREGATE BASE COURSE (1-¾" DENSE GRADED VIRGIN LIMESTONE)
- 4½" ASPHALTIC CONC. (2 LIFTS) 2.75" LOWER LAYER (3MT 58-28 S) 1.75" UPPER LAYER (5MT 58-28 S)

CONCRETE PAVEMENT (TRUCK COURT)
- 6" CRUSHED AGGREGATE BASE COURSE (1-1/4" DENSE GRADED LIMESTONE)
- 8" PCC (4000 PSI AIR ENTRAINED CONCRETE WITH 6x6x6 GAUGE STEEL MESH)

CONCRETE SIDEWALK
- 4" CRUSHED AGGREGATE BASE COURSE (1-1/2" DENSE GRADED LIMESTONE)
- 5" PCC (4000 PSI AIR ENTRAINED CONCRETE WITH 6x6 WELDED WIRE FABRIC PER ACI 315-92)



NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

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SITE DIMENSIONAL & PAVING PLAN

REVIEWED: AJS
DESIGNED: AJS
DRAFTED: EP

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ZILBER INDUSTRIAL 6 AT GERMANTOWN
GATEWAY CORPORATE PARK
GERMANTOWN, WI

SITE DIMENSIONAL & PAVING PLAN

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23	

PEG JOB No. 1296.00F | AJS
PEG PM | 11/16/22
START DATE | 1" = 40'
SCALE

SHEET C-4 OF C-10

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Z:\PROJECTS\2018\1296.00F-WI\CAD\SHEETS\1296.00F-WI SITE DIMENSIONAL & PAVING PLAN.DWG

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GRADING NOTES

1. CONTRACTOR SHALL VERIFY ALL GRADES, ENSURE ALL AREAS DRAIN PROPERLY AND REPORT ANY DISCREPANCIES TO PINNACLE ENGINEERING GROUP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
2. ALL EXISTING CONTOURS REPRESENT EXISTING SURFACE GRADES UNLESS OTHERWISE NOTED. ALL PROPOSED GRADES SHOWN ARE FINISH SURFACE GRADES UNLESS OTHERWISE NOTED.
3. SPOT ELEVATIONS REPRESENT THE GRADE ALONG THE CURB AND GUTTER FLOWLINE UNLESS OTHERWISE NOTED.
4. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.

   CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATION(S) OF ALL GRADING QUANTITIES. WHILE PEG ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARD OF CARE, THEREFORE NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.

   THE CONTRACTOR MAY SOLICIT APPROVAL FROM ENGINEER/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
5. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
6. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
7. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
8. WITH THE AUTHORIZATION OF THE ENGINEER/OWNER, MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION MAY BE SPREAD ON FILL AREAS IN AN EFFORT TO DRY. CONTRACTOR SHALL CLEARLY FIELD MARK THE EXTERIOR LIMITS OF SPREAD MATERIAL WITH PAINTED LATH AND SUBMIT A PLAN TO THE ENGINEER/OWNER THAT IDENTIFIES THE LIMITS. UNDER NO CONDITION SHALL THE SPREAD MATERIAL DEPTH EXCEED THE MOST RESTRICTIVE OF: THE EFFECTIVE TREATMENT DEPTH OF MACHINERY THAT WILL BE USED TO TURNOVER THE SPREAD MATERIAL; OR THE MAXIMUM COMPACTION LIFT DEPTH.
9. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
10. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
11. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
12. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
13. CONTRACTOR SHALL PROTECT INLETS AND ADJACENT PROPERTIES WITH SILT FENCING OR APPROVED EROSION CONTROL METHODS UNTIL CONSTRUCTION IS COMPLETED. CONTRACTOR SHALL PLACE SILT FENCING AT DOWN SLOPE SIDE OF GRADING LIMITS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING FACILITIES OR UTILITIES. ANY DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
15. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPAL OFFICIAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
16. CONTRACTOR SHALL COMPLY WITH ALL VILLAGE OF GERMANTOWN CONSTRUCTION STANDARDS/ORDINANCES.
17. LANDSCAPE AND TURF AREAS SHALL HAVE A MINIMUM OF 4-INCH TOPSOIL REPLACEMENT.
18. TOPSOIL BERMING SHALL ACHIEVE 90% STANDARD PROCTOR DENSITY AT 3%(±) OPTIMUM MOISTURE CONTENT.
19. SURVEY BENCHMARKS AND MAPPING HAS BEEN PROVIDED BY PINNACLE ENGINEERING GROUP. IN NO WAY DOES PEG WARRANT THE BASEMAP IS ALL INCLUSIVE OR REPRESENTATIVE OF ACTUAL CONDITIONS. CONTRACTOR SHALL PROVIDE CHECKS AS NECESSARY TO VERIFY THE BASEMAP CONTENT AND ACCURACY.

LEGEND

- SANITARY MANHOLE STORM
- CATCH BASIN
- CURB CATCH BASIN
- 749 — CONTOUR
- 750.00 — SPOT ELEVATION
- DIRECTION OF SURFACE FLOW
- DITCH OR SWALE
- FLOODPLAIN
- OVERFLOW RELIEF ROUTING
- CONCRETE SIDEWALK
- CURB AND GUTTER
- REVERSE PITCH CURB & GUTTER

ALL WORK WITHIN PUBLIC R.O.W. SHALL CONFORM TO VILLAGE OF GERMANTOWN STANDARDS.

THE VILLAGE OF GERMANTOWN SHALL NOT APPROVE ANY GRADE CHANGE I EXCESS OF 0.25 FEET UNLESS AUTHORIZED TO DO SO BY THE VILLAGE ENGINEER.

CONSTRUCTION SITE SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
3. CONDUCT ROUGH GRADING EFFORTS AND INSTALL CHECK DAMS AND SEDIMENT TRAPS/BASINS AS NEEDED.
4. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
5. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
6. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROLS.
7. EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER.

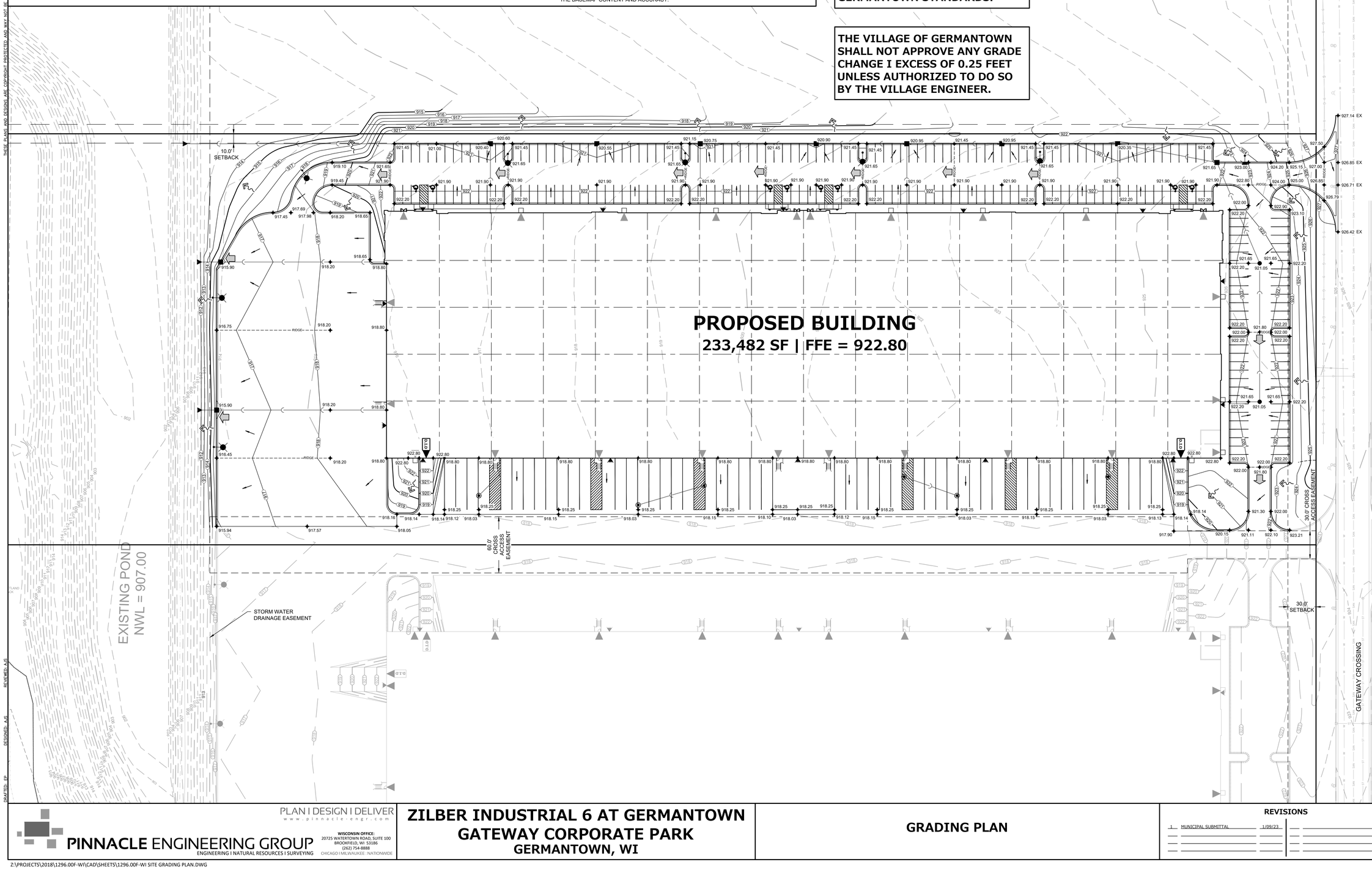
   CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

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GRADING PLAN

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GATEWAY CORPORATE PARK
GERMANTOWN, WI

GRADING PLAN

REVISIONS		
1	MUNICIPAL SUBMITTAL	1/09/23

DESIGNED: AJS
DRAWN: EP
REVIEWED: AJS

PEG JOB No. 1296.00F
PEG PM AJS
START DATE 11/16/22
SCALE 1" = 40'

SHEET C-5 OF C-10

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Z:\PROJECTS\2018\1296.00F-WI\CAD\SHEETS\1296.00F-WI SITE GRADING PLAN.DWG

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UTILITY NOTES

1. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND/OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
3. UTILITY CONSTRUCTION AND SPECIFICATIONS SHALL COMPLY WITH THE VILLAGE OF GERMANTOWN SPECIAL PROVISIONS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES SPS 382.
4. LENGTHS OF PROPOSED UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
5. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT EXISTING UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH FINISHED GRADES OF THE AREAS DISTURBED DURING CONSTRUCTION.
6. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
7. ALL NEW ON-SITE SANITARY, STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.
8. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF GERMANTOWN PUBLIC WORKS DEPARTMENT 48-HOURS IN ADVANCE OF SANITARY, WATER AND STORM CONNECTIONS TO THE VILLAGE-OWNED SYSTEM TO SCHEDULE INSPECTIONS.
9. ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES ARE SHOWN ON THE ARCHITECTURAL PLANS AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPER AUTHORITIES FOR ANY REQUIRED PERMITS, AUTHORIZATIONS, TRAFFIC CONTROL AND ANY PERMIT FEES REQUIRED.
11. FIELD TILE CONNECTION - ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE SIZE, TYPE AND NUMBER OF WATER MAIN BENDS, HORIZONTAL AND VERTICAL, REQUIRED TO COMPLETE CONSTRUCTION. COST FOR BENDS, HORIZONTAL AND VERTICAL, SHALL BE INCIDENTAL AND INCLUDED IN THE OVERALL COST OF THE CONTRACT.
13. STORM SEWER SPECIFICATIONS -

    PIPE - REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM CLASS C-76 WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C-443. STRENGTH CLASSIFICATIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

HEIGHT OF COVER (FEET):	0-2	2-3	3-6	6-15	15-25	25+
MINIMUM CONCRETE PIPE CLASSIFICATION:	IV	III	II	III	IV	ENGINEER TO SPECIFY

    HIGH DENSITY DUAL-WALL POLYETHYLENE N-12 CORRUGATED PIPE (HDPE) SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE "S", OR POLYVINYL CHLORIDE (PVC) - CLASS PS46 MEETING AASHTO M278, AS NOTED. IF HDPE PIPE IS USED FOR POND OUTFALLS, A MINIMUM OF THREE (3) SECTIONS (2 STRAPS) SHALL BE STRAPPED TOGETHER.

    INLETS/CATCH BASINS - INLETS/CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NO. 25 OF THE "STANDARD SPECIFICATIONS" WITH A 1'-8" X 2'-6" MAXIMUM OPENING. FRAME & GRATE SHALL BE NEENAH R-2502 WITH TYPE D GRATE, OR EQUAL. CURB FRAME & GRATE SHALL BE NEENAH R-3067, OR EQUAL. THE SUMP DEPTH (VERTICAL DISTANCE FROM THE BASE OF THE STRUCTURE TO OUTFALL INVERT OF THE PIPE) SHALL BE 18" MIN. STRUCTURE SHOP DRAWINGS SHALL BE SUBMITTED TO PINNACLE ENGINEERING GROUP FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION.

    BACKFILL AND BEDDING - STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. SLURRY BACK FILL UNDER PUBLIC ROAD PAVEMENT. SLURRY LIMITS: FROM TOP OF COVER STONE TO PAVEMENT. SLURRY TO BE 1-BAG PORTLAND MIX. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
    MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1661 W/ NEENAH R-1660-0003 ROCKING COVER W/ 2 PICK HOLES AND 8 VENT HOLES
14. WATER MAIN SPECIFICATIONS -

    PIPE - WATER MAIN SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 235, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. VALVES AND VALVE BOXES - GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

    HYDRANTS - HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE AND IN ACCORDANCE WITH FILE NO. 38 OF THE "STANDARD SPECIFICATIONS." THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 24-INCHES. HYDRANT MANUFACTURE: KENNEDY GUARDIAN. HYDRANT AND TAP VALES: TRAFFIC MODEL W/ BREAKAWAY FLANGES, TWO 2-1/2" HOSE NOZZLES (7-12" NST0 AND ONE 5-1/4" PUMPER OR STEAMER NOZZLE (4 NST), A 1-1/2" PENTAGON OPERATING NUT AND CCW OPENING, 6" MECHANICAL JOINT INLET CONNECTION.

    BEDDING AND COVER MATERIAL - PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

    BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. SLURRY BACK FILL UNDER PUBLIC ROAD PAVEMENT. SLURRY LIMITS: FROM TOP OF COVER STONE TO PAVEMENT. SLURRY TO BE 1-BAG PORTLAND MIX. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
15. SANITARY SEWER SPECIFICATIONS -

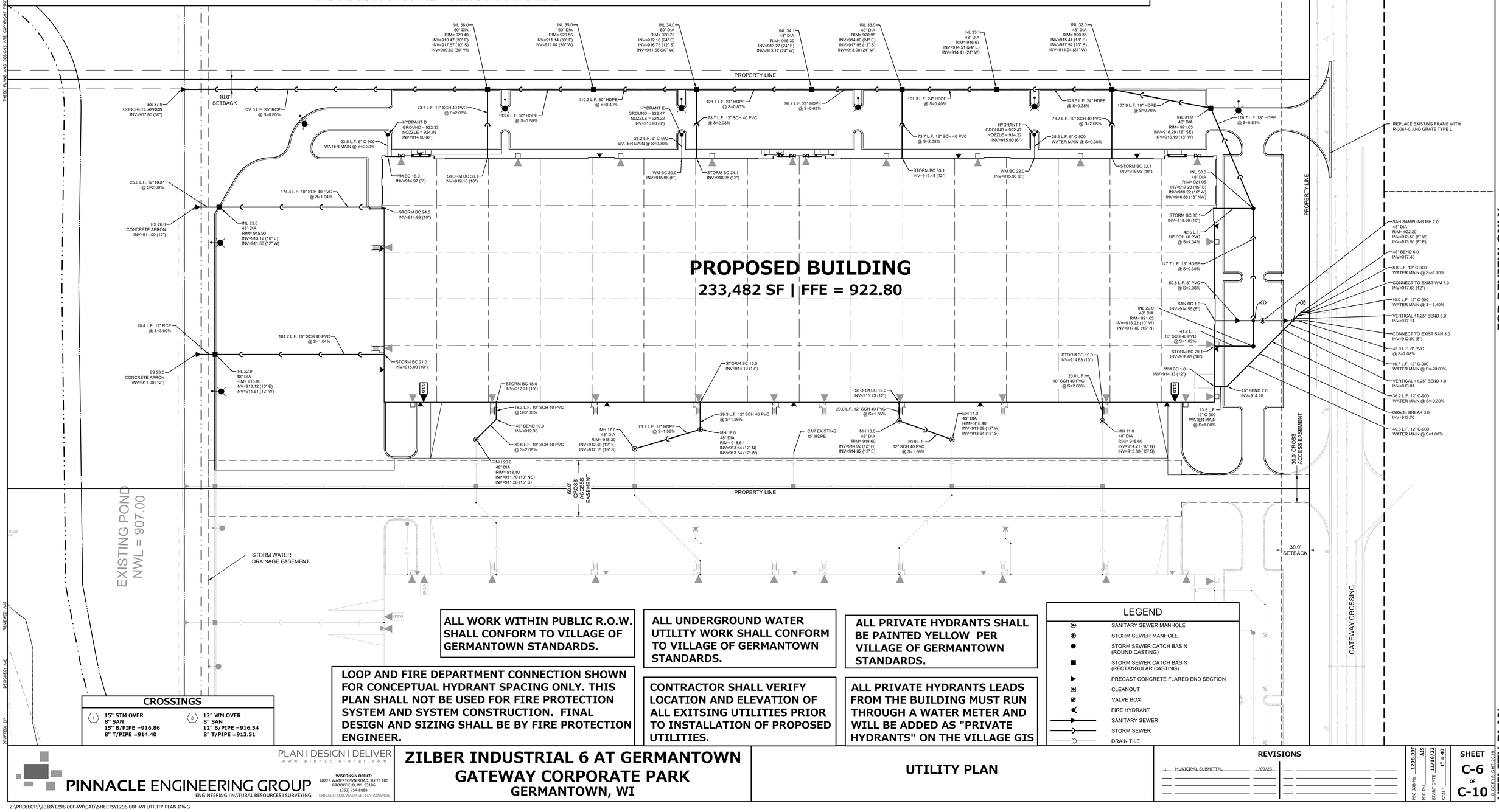
    PIPE - SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.

    BEDDING AND COVER MATERIAL - BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."

    BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS." SLURRY BACK FILL UNDER PUBLIC ROAD PAVEMENT. SLURRY LIMITS: FROM TOP OF COVER STONE TO PAVEMENT. SLURRY TO BE 1-BAG PORTLAND MIX. GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."

    MANHOLES - MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE VILLAGE OF GERMANTOWN. STRUCTURE SHOP DRAWINGS SHALL BE SUBMITTED TO PINNACLE ENGINEERING GROUP FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION.

    MANHOLE FRAMES AND COVERS - NEENAH R-1661 FRAME W/ SOLID GASKETED LID AND 2 CONCEALED PICK HOLES. CONFORM TO STANDARD SPECIFICATIONS CH. 3.5.0
16. WATER MAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND PLACING OF INSULATION SHALL CONFORM TO CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).
17. TRACER WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THESE CODE SECTIONS AS PER 182.0715(2R) OF THE STATUTES. TRACER WIRE: COPPERHEAD TRACERWIRE #10 SOLID CCS SUPERFLEX (BLUE). WIRE CONNECTORS SHALL BE SNAKEBITE (BLUE) MADE BYCOPPERHEAD INDUSTRIES, LLC. THE TRACER WIRE FOR THE SANITARY SEWER LATERAL SHALL BE CONTINUOUS AND SHALL BE EXTENDED ABOVE GRADE VIA A 4-INCH PVC PIPE WITH SCREW-ON CAP ADJACENT TO THE PROPOSED TERMINATION POINT OF THE LATERAL FOR THE PROPOSED BUILDING.
18. SEE UTILITY PLANS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.



CROSSINGS

1. 15" STM OVER 8" SAN — 15" B/PIPE =916.86 — 8" T/PIPE =914.40
2. 12" WM OVER 8" SAN — 12" B/PIPE =916.54 — 8" T/PIPE =913.51

ALL WORK WITHIN PUBLIC R.O.W. SHALL CONFORM TO VILLAGE OF GERMANTOWN STANDARDS.

ALL UNDERGROUND WATER UTILITY WORK SHALL CONFORM TO VILLAGE OF GERMANTOWN STANDARDS.

ALL PRIVATE HYDRANTS SHALL BE PAINTED YELLOW PER VILLAGE OF GERMANTOWN STANDARDS.

LOOP AND FIRE DEPARTMENT CONNECTION SHOWN FOR CONCEPTUAL HYDRANT SPACING ONLY. THIS PLAN SHALL NOT BE USED FOR FIRE PROTECTION SYSTEM AND SYSTEM CONSTRUCTION. FINAL DESIGN AND SIZING SHALL BE BY FIRE PROTECTION ENGINEER.

CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXITSING UTILITIES PRIOR TO INSTALLATION OF PROPOSED UTILITIES.

ALL PRIVATE HYDRANTS LEADS FROM THE BUILDING MUST RUN THROUGH A WATER METER AND WILL BE ADDED AS "PRIVATE HYDRANTS" ON THE VILLAGE GIS

LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM SEWER CATCH BASIN (ROUND CASTING)
- STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
- PRECAST CONCRETE FLARED END SECTION
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- SANITARY SEWER
- STORM SEWER
- DRAIN TILE

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

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FOR REVIEW ONLY

UTILITY PLAN

REVIEWED: AJS
DESIGNED: AJS
DRAFTED: EP

PLAN | DESIGN | DELIVER
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PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

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ZILBER INDUSTRIAL 6 AT GERMANTOWN
GATEWAY CORPORATE PARK
GERMANTOWN, WI

UTILITY PLAN

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23	

PES JOB No. 1296.00F
PES PM AJS
START DATE 11/16/22
SCALE 1" = 40'

SHEET C-6 OF C-10

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GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMP'S). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMP'S PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY OWNER/ENGINEER OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED SWPPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST IMMEDIATELY AND AS REQUESTED BY THE GOVERNING AGENCIES.
7. ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND SILT FENCE SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS . ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:

   PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.

   BACKFILL, COMPACT AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.

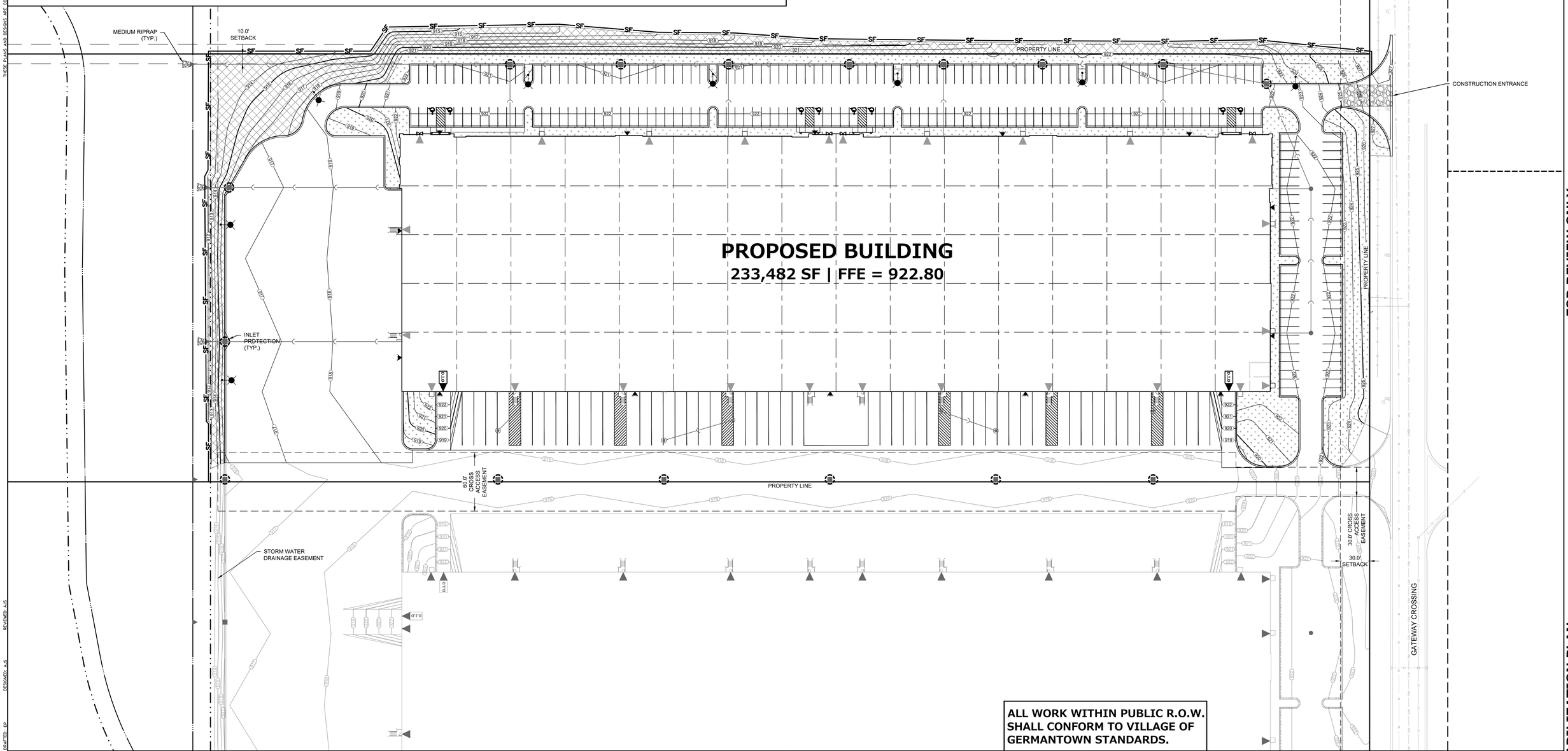
   DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMP'S PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
9. AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
10. ALL WATERCOURSES AND WETLANDS SHALL BE PROTECTED WITH SILT FENCE TO PREVENT ANY DIRECT DISCHARGE FROM DISTURBED SOILS.
11. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
12. TOPSOIL STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE AND PERIMETER SILT FENCE TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
13. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER IMMEDIATELY FOLLOWING COMPLETION OF SUCH ACTIVITIES OR PRIOR TO THE COMPLETION OF EACH WORK DAY, WHICH EVER OCCURS FIRST.
14. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
15. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS. PUMP DISCHARGE SHALL BE DIRECTED INTO AN APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
16. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
17. ALL DISTURBED SLOPES EXCEEDING 4:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN. EROSION MATTING (OR APPROVED EQUAL) AND ALL CHANNELS SHALL BE STABILIZED WITH CLASS I TYPE B (SEE WISCONSIN DOT PRODUCT ACCEPTABILITY LISTS) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
18. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE.THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE.
19. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
20. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH OF THE GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
21. SEE ADDITIONAL DETAILS AND NOTES ON SITE STABILIZATION AND CONSTRUCTION DETAILS.

LEGEND

- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM STORM CATCH BASIN (ROUND CASTING)
- STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
- RISER
- PRECAST FLARED END SECTION
- CLEANOUT
- VALVE BOX
- FIRE HYDRANT
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- WETLANDS
- HIGH WATER LEVEL (HWL)
- NORMAL WATER LEVEL (NWL)
- DIRECTION OF SURFACE FLOW
- DIVERSION SWALE
- DIVERSION DITCH
- OVERFLOW RELIEF ROUTING
- SILT FENCE
- INLET PROTECTION
- STRAW WATTLE
- CONSTRUCTION ENTRANCE
- HYDROSEED (PER MANUFACTURER SPECIFICATIONS)
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S75 OR EQUAL)

EXISTING CONDITIONS SURVEY:

EXISTING CONDITIONS SURVEY PROVIDED BY PINNACLE ENGINEERING GROUP. ALTHOUGH PEG HAS NO REASON TO BELIEVE THE SURVEY IS INACCURATE, PEG MAKES NO WARRANTS THAT EXISTING INFORMATION CONTAINED WITHIN THESE PLANS IS ALL-INCLUSIVE OR ACCURATE. CONTRACTOR SHALL UNDERTAKE NECESSARY EFFORTS TO VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF MATERIAL PROCUREMENT AND CONSTRUCTION EFFORTS/ACTIVITIES.



ALL WORK WITHIN PUBLIC R.O.W. SHALL CONFORM TO VILLAGE OF GERMANTOWN STANDARDS.

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

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SITE STABILIZATION PLAN

REVIEWED: AJS
DESIGNED: AJS
DRAFTED: EP

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GATEWAY CORPORATE PARK
GERMANTOWN, WI

SITE STABILIZATION PLAN

REVISIONS			
1	MUNICIPAL SUBMITTAL	1/09/23	

PEG JOB No. 1296.00F
PEG PM AJS
START DATE 11/16/22
SCALE 1" = 40'

SHEET C-7 OF C-10

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1.0 POTENTIAL POLLUTANT SOURCES

GIVEN THE PROPOSED ACTIVITY ON THE PROJECT SITE, THE PRIMARY POTENTIAL POLLUTANT SOURCE ASSOCIATED WITH THIS CONSTRUCTION PROJECT IS SOIL EROSION AND TRANSPORTATION; REFER TO SECTION 4 OF THIS PLAN. ADDITIONAL POTENTIAL SOURCES OF POLLUTION MAY INCLUDE: FUEL TANKS, WASTE CONTAINERS, OIL OR OTHER PETROLEUM PRODUCTS, DETERGENTS, PAINTS, CONSTRUCTION DEBRIS, SANITARY STATIONS, FERTILIZERS, AND DUST; REFER TO SECTION 5 OF THIS PLAN.

2.0 EROSION AND SEDIMENT CONTROL IMPLEMENTATION

THE FOLLOWING ARE DESCRIPTIONS OF THE EROSION AND SEDIMENT CONTROL PRACTICES THAT SHALL BE IMPLEMENTED DURING CONSTRUCTION OF THIS PROJECT. IN ADDITION TO THESE MEASURES, CONTRACTOR SHALL DISTURB ONLY AREAS NECESSARY TO COMPLETE THE CONSTRUCTION PROJECT. ALL PRACTICES SHALL BE CONDUCTED IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES (BMP).

2.1 CONSTRUCTION AND EROSION CONTROL SEQUENCING

CONSTRUCTION SEQUENCING WILL BE UTILIZED AS A MEANS OF CONTROLLING EROSION AND LIMITING SEDIMENT TRANSPORT. SEQUENCING AS LISTED BELOW IS GENERAL IN NATURE AND MAY VARY DEPENDING ON WEATHER CONDITIONS AND/OR PHASING OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED SITE SEQUENCING PLAN TO OWNER FOR APPROVAL AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 6 AS NEEDED TO COMPLETE CONSTRUCTION ONLY IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL REQUIREMENTS.

1. INSTALL TEMPORARY CONSTRUCTION ENTRANCES, INLET PROTECTION ON EXISTING STORM SEWER AND CULVERT INLET LOCATIONS SEDIMENT TRAPS, DIVERSION BERMS, DITCH CHECKS, AND PERIMETER SILT FENCING.
2. INSTALL SILT FENCING ALONG THE PERIMETER OF PROPOSED TOPSOIL STOCKPILE LOCATIONS. THE FIRST TOPSOIL DEPOSITED WITHIN THE STOCKPILE LIMITS SHALL BE PLACED TO CREATE TEMPORARY BERMING ALONG THE SILT FENCE TO PREVENT DIRECT STORMWATER RUNOFF AGAINST SILT FENCING. CONTRACTOR SHALL LIMIT LAND DISTURBING ACTIVITIES ASSOCIATED WITH TEMPORARY BERMING TO A MINIMUM.
3. CONDUCT ROUGH GRADING OPERATIONS AND UTILITY PIPING INSTALLATION. DRAIN TILE SHALL NOT BE INSTALLED UNTIL UPLAND AREAS CONTRIBUTING STORMWATER RUNOFF ARE STABILIZED. DITCH CHECKS SHALL BE INSTALLED WITHIN DRAINAGE DITCHES IMMEDIATELY FOLLOWING CREATION OF DITCHES AND INLET PROTECTION SHALL BE INSTALLED TO PROTECT ANY STORM SEWER OR CULVERTS THAT WILL FUNCTION DURING CONSTRUCTION.
4. FINE GRADE SUB-GRADE SOILS WITHIN PAVEMENT AND BUILDING LIMITS. PLACE STONE BASE MATERIAL AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
5. FINE GRADE REMAINING DISTURBED AREAS. PLACE SALVAGED TOPSOIL, EROSION BLANKETS/MATTING, AND SEED/MULCH AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
6. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF SILT FENCE, TEMPORARY FENCING/PRETECTION, DITCH CHECKS, AND OTHER TEMPORARY CONTROLS, AND RESTORATION PRACTICES AS NECESSARY, TO THE SATISFACTION OF THE OWNER.

2.2 STABILIZATION PRACTICES

THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED, SHALL BE RECORDED ON THE STABILIZATION SCHEDULE FOR MAJOR GRADING ACTIVITIES.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED UNLESS:

THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION MEASURE SHALL BE INITIATED AS SOON AS PRACTICABLE.

CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITIES CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS). IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED. SEE THE SOIL PROTECTION CHART PRESENTED IN THE CONSTRUCTION DOCUMENTS FOR RATES OF PERMANENT AND TEMPORARY VEGETATION.

STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES.

PERMANENT SEEDING: IN ACCORDANCE WITH APPROVED LANDSCAPING PLAN
TEMPORARY SEEDING MAY CONSIST OF SPRING OATS (100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LBS/ACRE)
HYDRO-MULCHING WITH A TACKIFIER
GEOTEXTILE EROSION MATTING
SODDING

2.3 STRUCTURAL PRACTICES

THE FOLLOWING ARE DESCRIPTIONS OF STRUCTURAL PRACTICES TO BE IMPLEMENTED TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, OR OTHERWISE LIMIT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE INCLUDING THE PROPOSED AND EXISTING WETLAND AREAS. SUCH PRACTICES COULD INCLUDE SILT FENCE, PROTECTION FENCE, CONSTRUCTION ENTRANCE, DITCH CHECK, EROSION CONTROL MATTING, DIVERSION BERM/SWALE, SEDIMENT TRAP, LEVEL SPREADER, INLET PROTECTION, OUTLET PROTECTION, AND TEMPORARY OR PERMANENT SEDIMENT BASIN. THE FOLLOWING STRUCTURAL PRACTICES ARE TO BE UTILIZED DURING THIS PROJECT.

SILT FENCE SHALL BE PLACED DOWN SLOPE OF DISTURBED AREAS OF THE CONSTRUCTION SITE AND AROUND THE PERIMETER OF THE TOPSOIL STOCKPILE. THIS INCLUDES PROTECTION OF EXISTING WETLAND AREAS TO BE MAINTAINED. SILT FENCE MAY ALSO BE USED AS A TEMPORARY CONTROL DEVICE WHERE SEDIMENTATION RUNOFF IS DISCOVERED.

CONSTRUCTION ENTRANCE SHALL BE INSTALLED TO REDUCE SOIL EROSION POLLUTANTS FROM LEAVING THE SITE DURING CONSTRUCTION ACTIVITIES. IF THE CRUSHED STONE DOES NOT ADEQUATELY REMOVE MUD FROM VEHICLE TIRES, THEY SHALL BE HOSED OFF BEFORE ENTERING A PAVED ROADWAY. ANY SOIL DEPOSITED ON THE PUBLIC PAVED ROAD WAY SHALL BE REMOVED IMMEDIATELY.

DITCH CHECK SHALL BE INSTALLED IN DRAINAGE CHANNELS AS NEEDED.

EROSION CONTROL MATTING SHALL BE PLACED ON AREAS OR EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, BEFORE VEGETATION IS ESTABLISHED.

INLET PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE INLETS TO REDUCE SEDIMENT WITHIN STORM SEWER CONVEYANCE FEATURES.

OUTLET SCOUR PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE OUTLETS TO DIFFUSE FLOWS.

3.0 ADDITIONAL PRACTICES

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING.

CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.

DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:

COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.

ROUGHENING (EQUIPMENT TRACKING) THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.

FREQUENT WATERING OF EXCAVATION AND FILL AREAS.

PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.

STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

4.0 EROSION AND SEDIMENT STRUCTURAL PRACTICE MAINTENANCE

THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THE BELOW.

SILT FENCE - REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

CONSTRUCTION ENTRANCE - AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.

DITCH CHECK - RE-SECURE STAKES; ADJUST OR REPOSITION BALES TO ADDRESS PROPER FLOW OF STORMWATER; AND REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE HEIGHT OF THE BALE.

EROSION CONTROL MATTING - REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.

INLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE ONE-HALF FULL OF SEDIMENT.

OUTLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC, TURF REINFORCEMENT MATTING AND/OR STONE WHEN CONTROL MEASURE IS ONE-HALF FULL OF SEDIMENT.

5.0 INSPECTION

INSPECTIONS SHALL BE COMPLETED WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A RAINFALL EVENT THAT IS ONE-HALF INCH OR GREATER OR EQUIVALENT SNOWFALL, OR AT A MINIMUM ONCE EVERY SEVEN (7) CALENDAR DAYS. INSPECTIONS SHALL BE UNDERTAKEN BY QUALIFIED PERSONNEL PROVIDED BY THE CONTRACTOR, AND SHALL INCLUDE: DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. A STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT SHALL BE COMPLETED AND ADDED TO THE SWPPP. RAINFALL SHALL BE RECORDED ON THE SWPPP RAINFALL LOG. CONTRACTOR SHALL IMMEDIATELY ARRANGE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED OR DEFICIENT CONTROL MEASURES OBSERVED DURING THE INSPECTION.

QUALIFIED PERSONNEL MEANS A PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS A LICENSED PROFESSIONAL ENGINEER, A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL, A CERTIFIED EROSION SEDIMENT OR STORMWATER INSPECTOR, OR OTHER TRAINED INDIVIDUAL.

6.0 SPILL PREVENTION

6.1 GENERAL MATERIAL MANAGEMENT PRACTICES

THE GOOD HOUSEKEEPING PRACTICES LISTED BELOW SHALL BE FOLLOWED THROUGHOUT THE CONSTRUCTION PROJECT.

1. CONTRACTOR SHALL STORE ONLY ENOUGH PRODUCTS REQUIRED TO COMPLETE THIS PROJECT.
2. ALL MATERIAL SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR ORIGINAL CONTAINERS CONTAINING MANUFACTURER'S LABEL.
3. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
4. MATERIALS REQUIRED TO HAVE A MATERIAL SAFETY DATA SHEET (MSDS) SHALL HAVE A COPY STORED IN THE PROJECT'S MSDS DATABASE.

6.2 SPILL CONTROL PRACTICES

THE PRACTICES LISTED BELOW SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP.

1. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE MAINTAINED ONSITE.
2. IMMEDIATELY UPON DISCOVERY ALL SPILLS SHALL BE CLEANED UP ACCORDING TO THE MANUFACTURERS' RECOMMENDED METHODS.
3. PERSONNEL CLEANING UP A SPILL SHALL USE PERSONAL PROTECTIVE EQUIPMENT.
4. IMMEDIATELY UPON DISCOVERY, SPILLS OF TOXIC OR HAZARDOUS MATERIALS SHALL BE REPORTED TO THE OWNER AND GENERAL CONTRACTOR.
5. NOTIFICATION AND REPORTING TO THE APPROPRIATE FEDERAL, STATE, AND LOCAL GOVERNMENT AGENCIES SHALL BE MADE AS REQUIRED.

GENERAL INFORMATION:

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO FULFILL ONE OF THE REQUIREMENTS OF THE GENERAL ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (WISCONSIN POLLUTION DISCHARGE ELIMINATION SYSTEM "WPDES") FOR THE DISCHARGE OF STORMWATER ASSOCIATED WITH CONSTRUCTION PROJECTS DISTURBING ONE ACRE OR MORE. THE OWNER AND CONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE WPDES FOR ALL SUCH CONSTRUCTION PROJECTS. THE STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY FROM THIS SITE ARE SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE PERMITS.

THE EXECUTED OWNER CERTIFICATION AND THE CONTRACTOR CERTIFICATIONS SHALL BE KEPT ONSITE WITH THE APPROVED PLANS.

SWPPP AVAILABILITY:

THE OWNER SHALL RETAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF THE PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

KEEPING PLANS CURRENT:

THE CONTRACTOR SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE PLAN OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SITE ACTIVITY. IN ADDITION, THE THE PLAN SHALL BE AMENDED TO IDENTIFY ANY NEW CONTRACTOR AND/OR SUBCONTRACTOR THAT WILL IMPLEMENT A MEASURE OF THE PLAN. AMENDMENTS TO THE PLAN MAY BE REQUIRED BY THE MUNICIPALITY, OWNER, OR OTHER REVIEWING AGENCY. COPIES OF THE AMENDMENTS SHALL BE KEPT ONSITE AS PART OF THE SWPPP.

RETENTION OF RECORDS:

THE OWNER SHALL RETAIN COPIES OF THIS AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THIS PERIOD MAY BE EXTENDED BY THE REQUEST OF THE AGENCY AT ANY TIME. IN ADDITION, THE OWNER SHALL RETAIN A COPY OF THE PLAN REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

A NOTICE OF INTENT (NOI) APPLICATION MUST BE COMPLETED AND INCORPORATED INTO THE SWPPP.

WPDES NOTICE OF TERMINATION GUIDANCE:

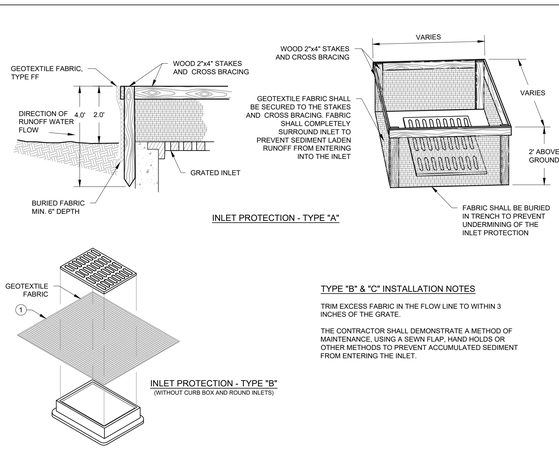
WHEN A SITE HAS BEEN FINALLY STABILIZED AND ALL STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED, THE OWNER OF THE FACILITY MUST SUBMIT A COMPLETED NOTICE OF TERMINATION THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT. CONTRACTOR SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION TO OWNER FOR EXECUTION PRIOR TO THEIR FINAL PAY APPLICATION REQUEST.

CONTROL MEASURE GROUP	CONTROL MEASURE	CONTROL MEASURE CHARACTERISTICS
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.
	PERMANENT SEEDING	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER, MAY BE PART OF FINAL LANDSCAPE PLAN.
NON VEGETATIVE SOIL COVER	AGGREGATE COVER	PROVIDES TEMPORARY COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.
	PAVING	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.
DIVERSIONS	DIVERSION BERM / SWALE	DIVERTS RUNOFF TO A SEDIMENT TRAP OR OTHER CONTROL.
ENCLOSED DRAINAGE	STORM SEWER	CONVEYS SEDIMENT LADEN WATER TO A SEDIMENT BASIN.
OUTLETS	APRON ENDWALL OR RIPRAP	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURE.
SEDIMENT BASINS	TEMPORARY SEDIMENT TRAP	CONSTRUCTED TO REMOVE SILTATION FROM RUNOFF FROM SITE DIVERSION BERMS/SWALES AND IN OVERLAND FLOOD ROUTE. CAN BE CONVERTED TO PERMANENT SEDIMENT BASIN.
SEDIMENT FILTERS	SILT FENCE	PLACED DOWN SLOPE OF DISTURBED AREA TO KEEP RUNOFF CONTAINED ON-SITE.
	INLET PROTECTION	INSTALLED IN OPEN GRATE STRUCTURES TO COLLECT SEDIMENT.
	DITCH CHECK	PLACED IN DRAINAGE CHANNELS TO FILTER SEDIMENT FROM RUNOFF.
MUD AND DUST CONTROL	CONSTRUCTION ENTRANCE	REDUCES SOIL EROSION POLLUTANTS BEING TRANSPORTED OFF-SITE.
	STREET SWEEPING	REDUCES POLLUTANTS TRACKED FROM CONSTRUCTION SITE.
	DUST CONTROL	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.

STABILIZATION EFFECTIVENESS (TIME OF YEAR)

STABILIZATION TYPE	STABILIZATION UTILIZATION PERIODS											
	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A	*	*	*	*	*	*			
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C	*	*	*	D *	*				
SODDING			E	*	*	*	*	*	*			

A. KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE.
B. KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE.
C. SPRING OATS 100 LBS/ACRE.
D. WHEAT OR CEREAL RYE 150 LBS/ACRE.
E. SOD.
F. STRAW MULCH 2 TONS/ACRE.
* IRRIGATION/WATERING REQUIRED TO SUPPORT ESTABLISHMENT AS NEEDED.



INLET PROTECTION - TYPE "A"

NOTES:

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, WITH AN EOS OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

(1) FINISHED SIZE, INCLUDING FLAP POCKET WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

(2) FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18 INCHES OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

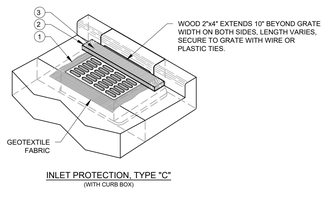
(3) FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

INLET PROTECTION - TYPE "B"
(WITHOUT CURB BOX AND ROUND INLETS)

TYPE "B" & "C" INSTALLATION NOTES

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

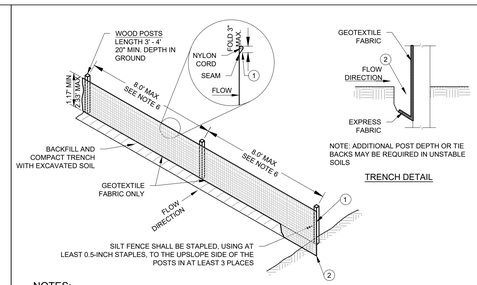
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.



INLET PROTECTION, TYPE "C"
(WITH CURB BOX)

INLET PROTECTION

#104_04-05-21



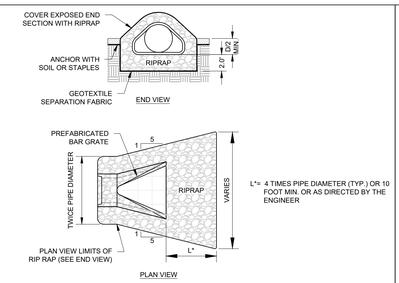
TRENCH DETAIL

NOTES:

1. ALL SILT FENCE MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH WI DNR TECHNICAL STANDARD 1056.
2. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
3. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
4. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
5. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
6. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE, WHERE APPLICABLE.
7. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN AND 3-FEET FOR NON-WOVEN).

SILT FENCE

#104_04-05-21

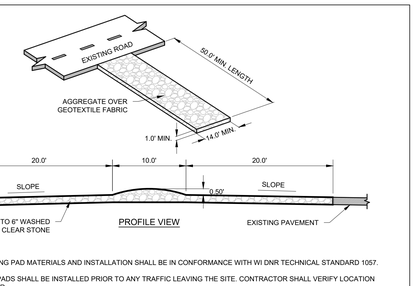


NOTES:

1. RIP RAP AND GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS FOR STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

RIP RAP AT END SECTIONS

#124_12/28/15



NOTES:

1. ALL TRACKING PAD MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH WI DNR TECHNICAL STANDARD 1057.
2. TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE. CONTRACTOR SHALL VERIFY LOCATION WITH OWNER.
3. THE AGGREGATE FOR TRACKING PADS SHALL BE 3 TO 6 INCH CLEAR OR WASHED STONE. ALL MATERIALS TO BE RETAINED ON A 3-INCH SIEVE
4. THE AGGREGATE SHALL BE PLACED IN A LAYER AT LEAST 12-INCHES THICK. ON SITES WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PAD, THE PAD SHALL BE UNDERLAIN WITH GEOTEXTILE FABRIC WHICH MEETS MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1 OR 2, CLASS I, II OR IV, TO PREVENT MIGRATION OF UNDERLYING SOILS INTO THE STONE LAYER.
5. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT. MINIMUM WIDTH IS 14 FEET FOR ONE-WAY TRAFFIC AND 20 FEET FOR TWO-WAY TRAFFIC, WITH AN ADDITIONAL INCREASE OF 4 FEET FOR TRAILER TRAFFIC. THE TRACKING PAD SHALL BE A MINIMUM 50-FEET LONG.
6. ANY SEDIMENT TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHOULD BE REMOVED BY STREET CLEANING, NOT FLUSHING, AT THE END OF EACH WORKING DAY.
7. TRACKING PADS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24-HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5-INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
8. THE TRACKING PAD PERFORMANCE SHALL BE MAINTAINED BY SCRAPING OR TOP-DRESSING WITH ADDITIONAL AGGREGATE.

CONSTRUCTION ENTRANCE

#107-NR 05-02-13

ENTRENCHMENT DETAIL

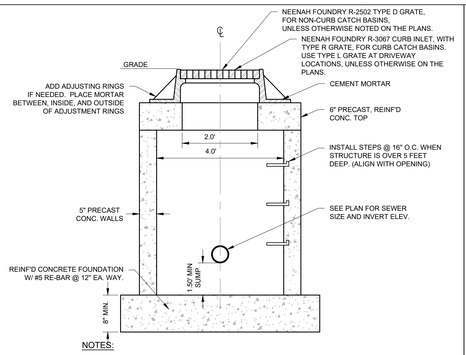
STRAW WATTLE DITCH CHECK

#138_05/21/2013

DRAFTED: EP
DESIGNED: AJS
REVIEWED: AJS

PLAN | DESIGN | DELIVER
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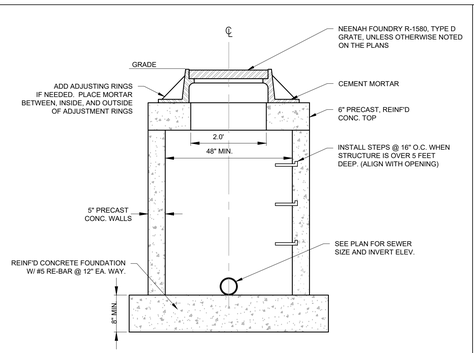


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4.0' DIA. OR AS INDICATED ON THE PLANS.

CATCH BASIN

#302_10-04-13

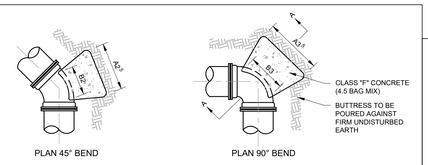


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4.0' DIA. OR AS INDICATED ON THE PLANS.

STORM SEWER MANHOLE

#322_10-04-13



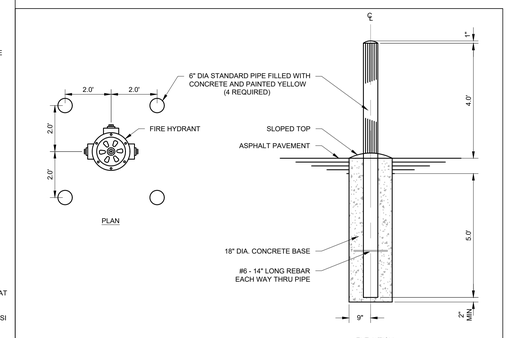
PIPE	22 1/2° BENDS		45° BENDS		90° BENDS	
SIZE	A1	B1	A2	B2	A3	B3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

NOTES:

1. PROVIDE THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, AND AT POINTS SPECIFIED BY THE ENGINEER
2. ALL BLOCKING SHALL BE WITH POURED CLASS SI CONCRETE AGAINST UNDISTURBED VERTICAL EARTH SURFACE
3. THRUST BLOCKS TO BE AT ALL BENDS 11½° OR GREATER
4. THE COST OF INSTALLING THE THRUST BLOCK SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE WATER
5. DIMENSION A2 & A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH M.J BOLTS

THRUST BLOCK

#502_10-10-13

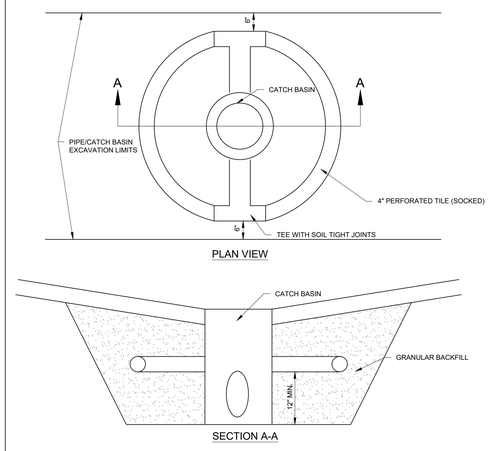


NOTES:

1. USE WHERE HYDRANT IS LOCATED WITHIN PAVED AREAS, COST INCIDENTAL.

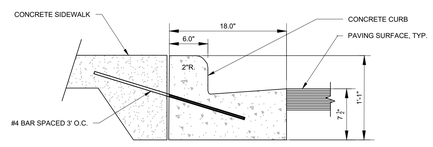
HYDRANT BOLLARD

#501_10-05-13



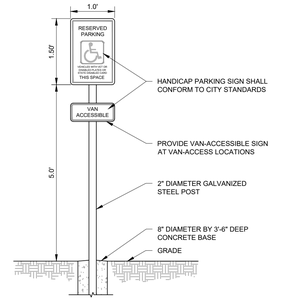
CATCH BASIN - UNDERDRAIN

#515_09/19



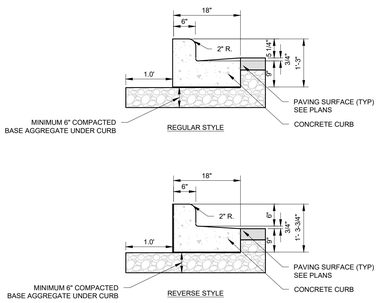
18" CURB ADJACENT TO SIDEWALK

#618_2006



ADA SIGN

#700_10-11-13

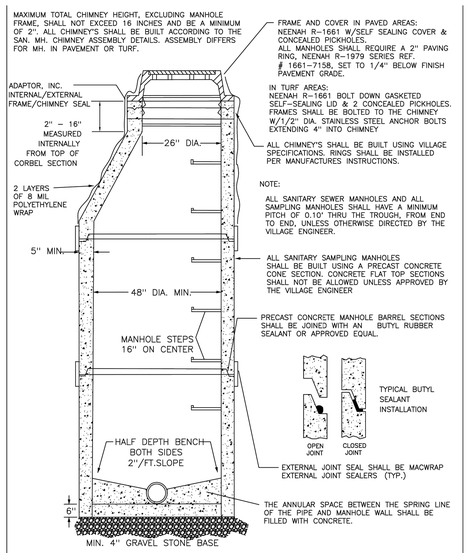


NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 10 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT ALL PT'S AND PC'S, 3 FEET EITHER SIDE OF THE CATCH BASINS IN THE CURB LINE, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINTS FILLER SHALL BE A ONE PIECE FIBERBOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
4. REVERSE STYLE CURB LOCATIONS ARE NOTED ON THE PLANS.

18" VERTICAL FACE CURB

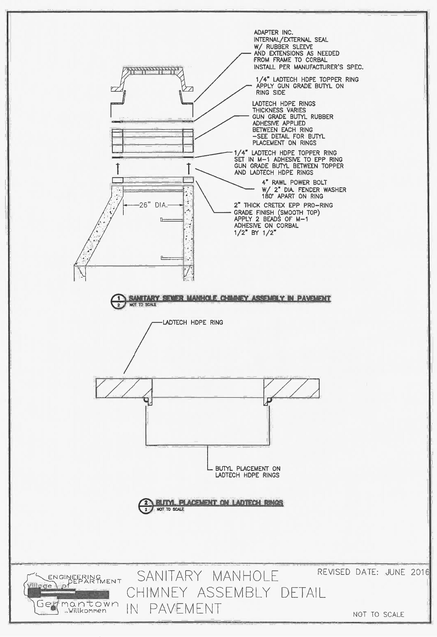
#602.06_10-14-13



SPRAY EPOXY COATINGS — MH EXTERIOR: 2 COATS (BLACK) OF AMERON INTERNATIONAL, AMERCOAT 78 HB AT 8-10 MILS EA. MH INTERIOR: 2 COATS (WHITE) OF PERMITE PICS-9043 TYPE II PERMOX PIPE GLAZE AT 20 MILS EA. COATINGS SHALL BE APPLIED BY SUPPLIERS AT THE PLANT.

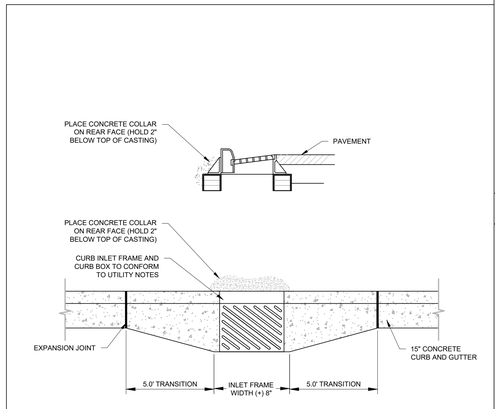
REVISED DATE: 10/11/2019 FJR

STANDARD SANITARY MANHOLE & SAMPLING MANHOLE DETAIL — NOT TO SCALE



ENGINEERING DEPARTMENT Village of Germantown Willkommen

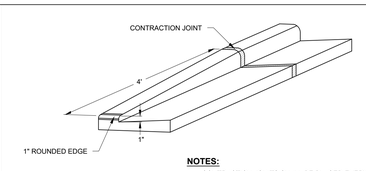
SANITARY MANHOLE CHIMNEY ASSEMBLY DETAIL IN PAVEMENT — REVISED DATE: JUNE 2016 — NOT TO SCALE



NOTE : CURB CONTRACTOR TO VERIFY POSITION AND ELEVATION OF FRAME AND GRATE PRIOR TO POUR IF NOT CORRECT, FIVE (5) FOOT TRANSITION AREA TO BE LEFT UNPOURED UNTIL SITUATION IS CORRECTED BY CONTRACTOR.

CURB AND GUTTER BUMP OUT

#622_10-10-13

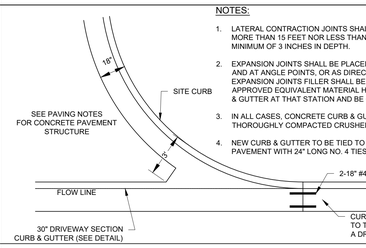


NOTES:

1. CONTRACTION JOINTS SHALL BE PLACED EVERY 10 FEET
2. EXPANSION JOINTS (3/4" EXPANSION FIBER MATERIAL) SHALL BE PLACED EVERY 300 FEET AND AT EVERY PC/PT AND 3 FEET FROM STRUCTURES

TAPER CURB HEAD

#622_10-11-13



NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT ALL PT'S AND PC'S, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINTS FILLER SHALL BE A ONE PIECE FIBERBOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
4. NEW CURB & GUTTER TO BE TIED TO EXISTING CURB & GUTTER AND PAVEMENT WITH 24" LONG NO. 4 TIES @ 3' O.C.

DRIVEWAY ENTRANCE

#633_2/20/13

REVIEWED: AJS
DESIGNED: AJS
DRAFTED: EP

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ZILBER INDUSTRIAL 6 AT GERMANTOWN GATEWAY CORPORATE PARK
GERMANTOWN, WI

CONSTRUCTION DETAILS

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23			

PEG JOB No. 1296.00F | AJS
PEG PM | START DATE 11/16/22
SCALE N.T.S

SHEET C-9 OF C-10

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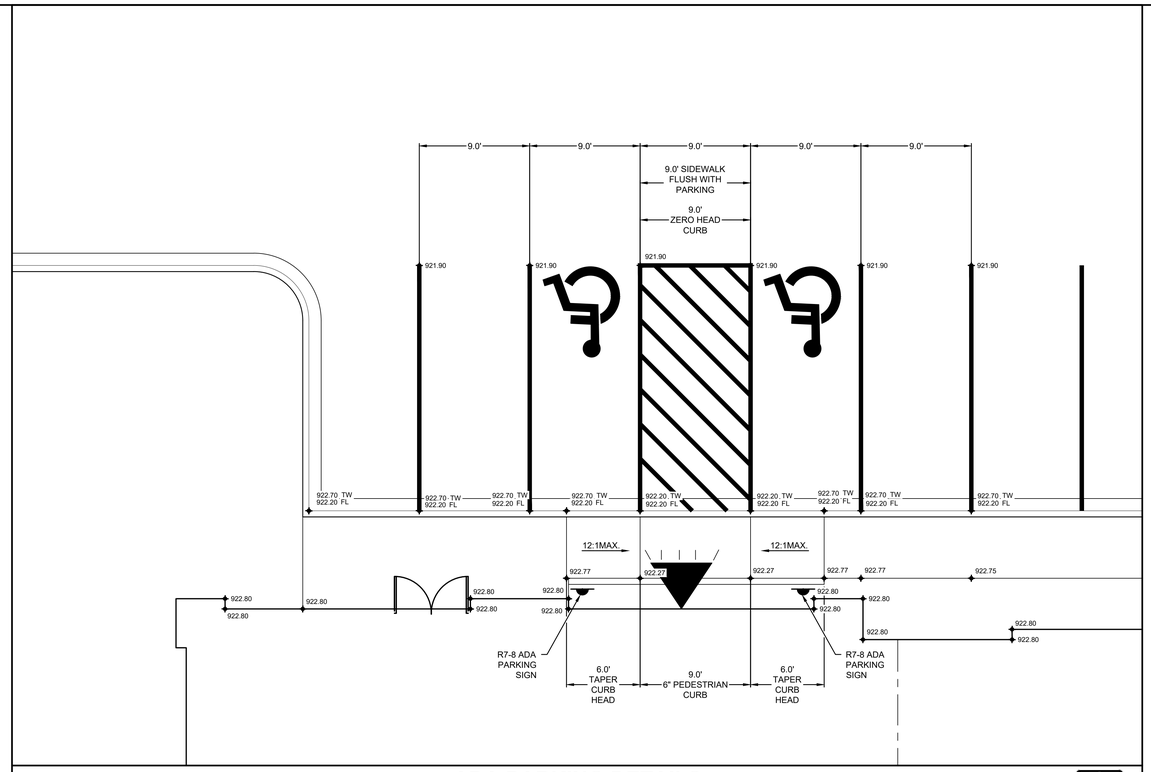
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CONSTRUCTION DETAILS

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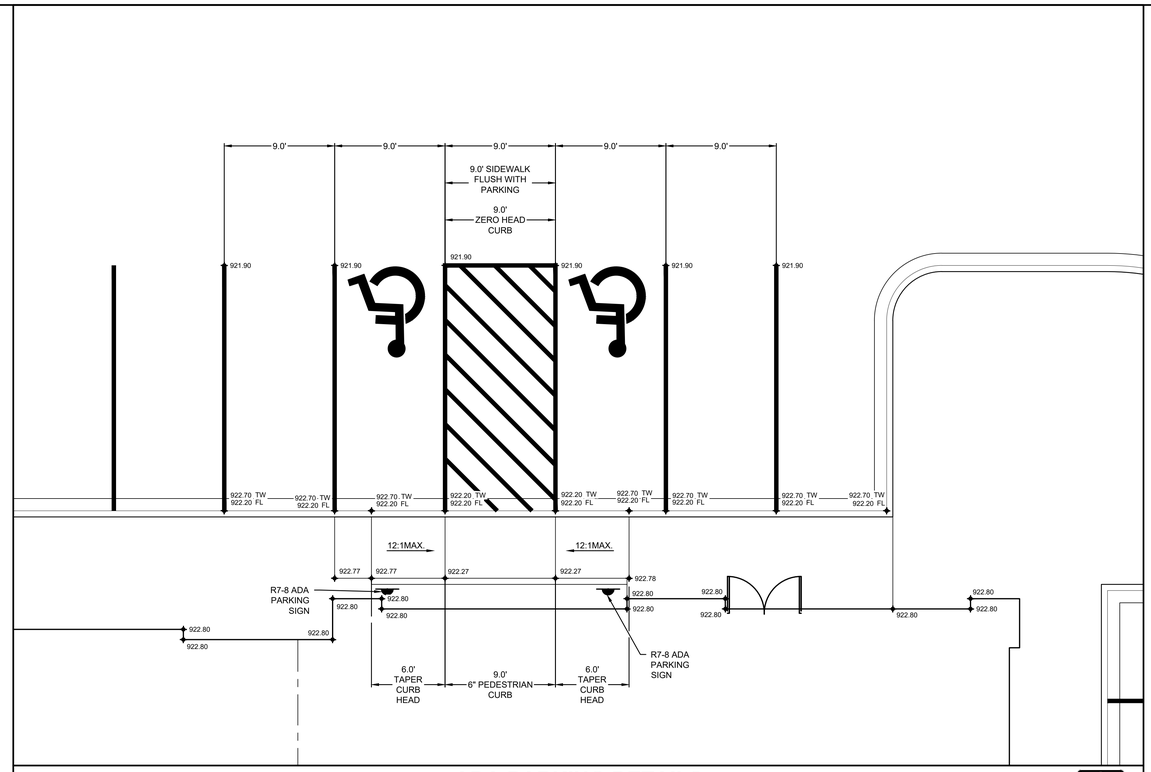
Z:\PROJECTS\2018\1296.00F-WI\CAD\SHEETS\1296.00F-WI CONSTRUCTION DETAILS.DWG

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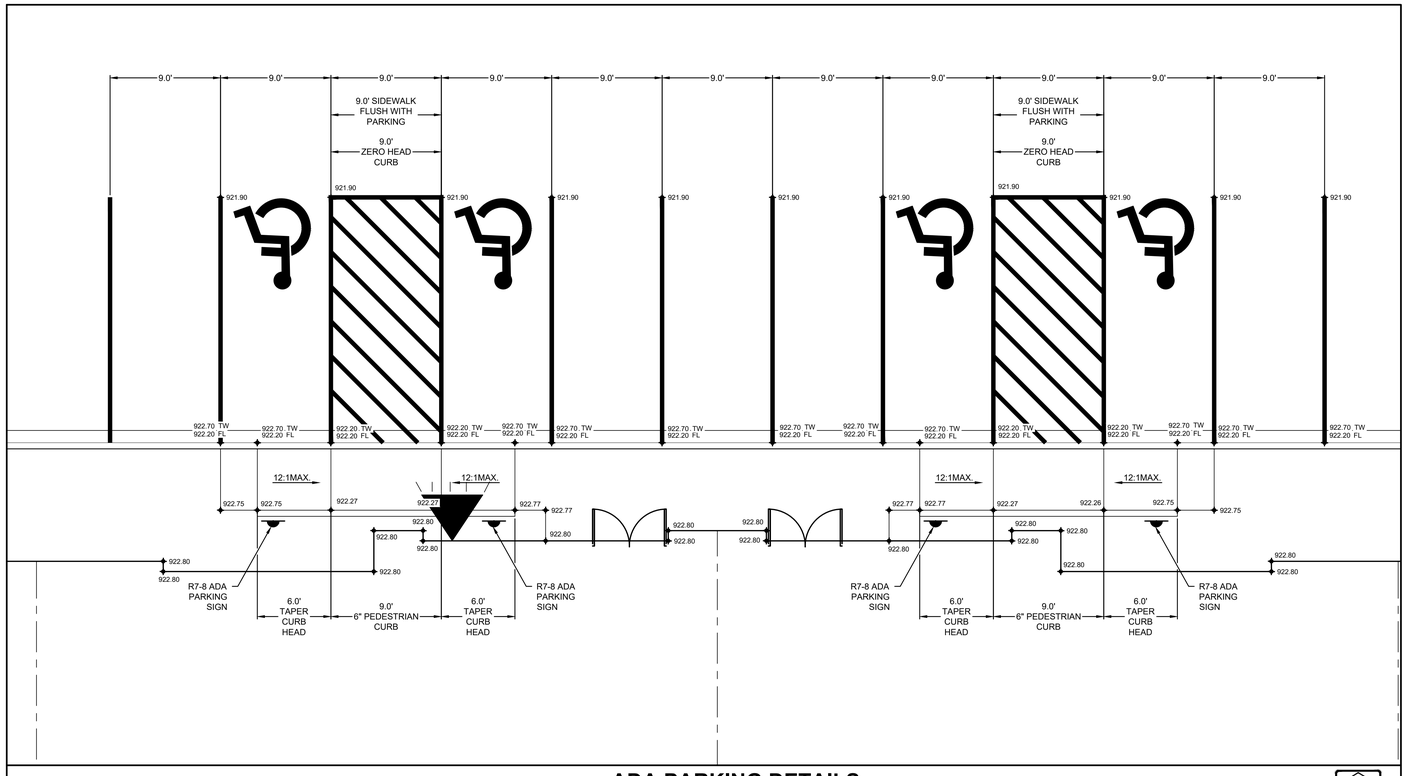
ADA PARKING DETAILS
NORTHWEST BUILDING CORNER

SCALE: 1" = 5'



ADA PARKING DETAILS
NORTHEAST BUILDING CORNER

SCALE: 1" = 5'



ADA PARKING DETAILS
NORTH BUILDING CENTER

SCALE: 1" = 5'

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CONSTRUCTION DETAILS

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DESIGNED: A.S
DRAFTED: EP

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GERMANTOWN, WI

CONSTRUCTION DETAILS

REVISIONS

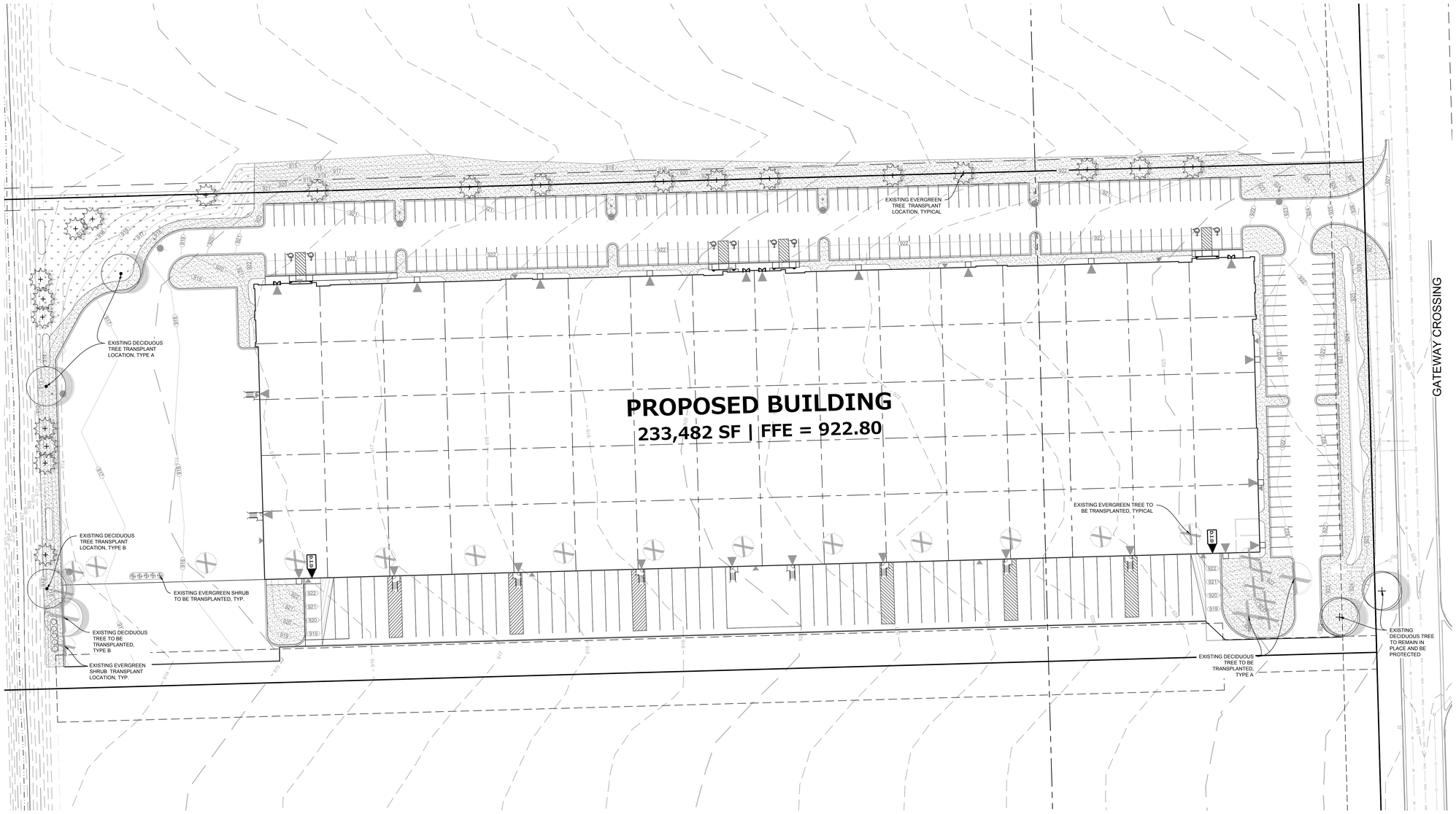
1	MUNICIPAL SUBMITTAL	1/09/23	

PEG JOB No.: 1296.00F
PEG PM: AJS
START DATE: 11/16/22
SCALE: N.T.S

SHEET
C-10
&
C-10

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PLANT KEY

TREES	BOTANICAL / COMMON NAME
	EXISTING DECIDUOUS TREE
	EXISTING TREE DECIDUOUS / PRESERVE & PROTECT
	EXISTING DECIDUOUS TREE TRANSPLANT
	TRANSPLANTED DECIDUOUS / EXISTING TREE
	EXISTING EVERGREEN TREE TRANSPLANT
	TRANSPLANTED EVERGREEN / EXISTING TREE
EXISTING	BOTANICAL / COMMON NAME
	TRANSPLANTED DECIDUOUS / EXISTING TREE
	TRANSPLANTED EVERGREEN / EXISTING TREE
SHRUBS	BOTANICAL / COMMON NAME
	EXISTING EVERGREEN SHRUBS TRANSPLANT
	EXISTING SHRUB
EXISTING	BOTANICAL / COMMON NAME
	EXISTING SHRUB

EXISTING VEGETATION NOTES

1. FOR EXISTING TREES AND EXISTING SHRUBS FROM PREVIOUSLY INSTALLED LANDSCAPE TO BE TRANSPLANTED ONCE FINAL GRADE IS COMPLETED IN RELOCATION AREAS.
2. EXISTING VEGETATION INSTALLED AS PART OF OVERALL PARK LANDSCAPING TO BE PRESERVED AND PROTECTED EXCEPT FOR GROUND COVER AND TURF IMPACTED BY CONSTRUCTION WHICH SHALL BE RESTORED AS SHOWN ON LANDSCAPE PLAN.

RELOCATION PLANT SCHEDULE

EXISTING	QTY	BOTANICAL / COMMON NAME
	2	EXISTING TREE DECIDUOUS / PRESERVE & PROTECT FROM PREVIOUS 1296.00E PLAN
	3	TRANSPLANTED DECIDUOUS / EXISTING TREE FROM PREVIOUS 1296.00E PLAN
	21	TRANSPLANTED EVERGREEN / EXISTING TREE FROM PREVIOUS 1296.00E PLAN
EXISTING	QTY	BOTANICAL / COMMON NAME
	5	EXISTING SHRUB TRANSPLANT THESE TREE FROM PREVIOUS 1296.00E PLAN

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

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VEGETATION RELOCATION PLAN

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23	

PEC JOB No. 1296.00F
PEC PM AJS
START DATE 11/16/22
SCALE 1" = 40'

SHEET L-1 OF L-5

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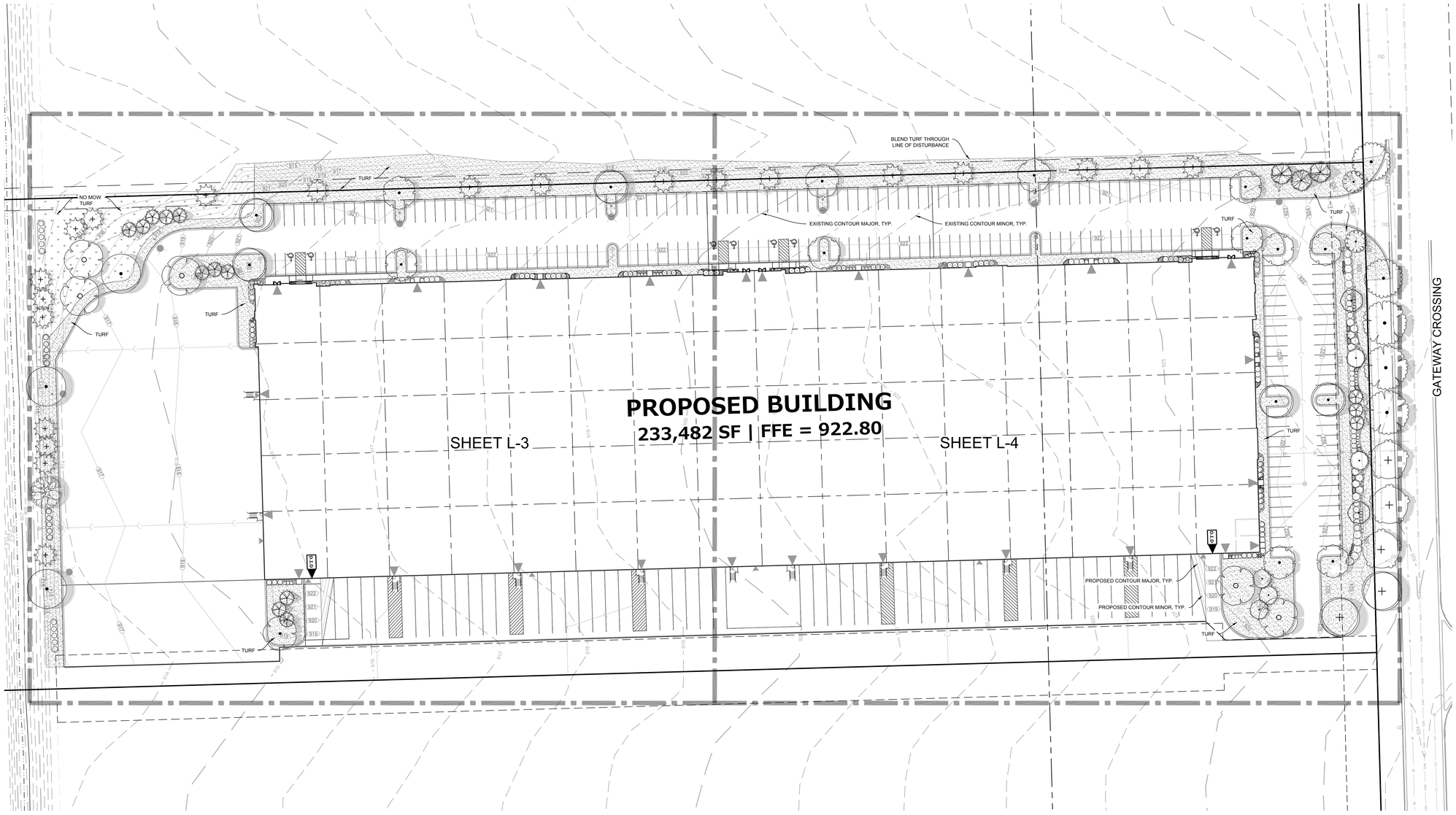
VEGETATION RELOCATION PLAN

www.pinnacle-engr.com

REVIEWED: DJB
DESIGNED: JSJ
DRAFTED: JSJ

Z:\PROJECTS\2018\1296.00F-WI\CAD\SHEETS\1296.00F-WI LANDSCAPE PLAN.DWG

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TREE & GROUND COVER KEY

DECIDUOUS TREES	BOTANICAL / COMMON NAME
	Acer freemanii `Autumn Fantasy` Autumn Fantasy Maple 50' T x 40' W
	Celtis occidentalis `Prairie Pride` Prairie Pride Hackberry 50' T x 40' W
	Gleditsia triacanthos `Shademaster` Shademaster Honeylocust 50' T x 35' W
	Gymnocladus dioica Kentucky Coffee Tree 60' T x 50' W
	Quercus x schuetti Swamp Bur Oak 70' T x 65' W
	Tilia americana `Redmond` Redmond American Linden 60' T x 35' W

EVERGREEN TREES	BOTANICAL / COMMON NAME
	Juniperus virginiana Eastern Red Cedar 30' T x 15' W
	Picea abies Norway Spruce 50' T x 25' W
	Picea glauca `Densata` Black Hills Spruce 30' T x 20' W

EXISTING	BOTANICAL / COMMON NAME
	EXISTING TREE DECIDUOUS PRESERVE & PROTECT FROM PREVIOUS 1296.00E PLAN
	TRANSPLANTED DECIDUOUS EXISTING TREE FROM PREVIOUS 1296.00E PLAN
	TRANSPLANTED EVERGREEN EXISTING TREE FROM PREVIOUS 1296.00E PLAN

ORNAMENTAL TREES	BOTANICAL / COMMON NAME
	Amelanchier grandiflora `Autumn Brilliance` `Autumn Brilliance` Serviceberry 25' T x 25' W
	Malus x `Shotizam` Showtime Crabapple 25' T x 20' W

STREET TREES	BOTANICAL / COMMON NAME
	Acer miyabei `State Street` Miyabei Maple 50' T x 40' W
	Celtis occidentalis `Prairie Pride` Prairie Pride Hackberry 50' T x 40' W
	Quercus bicolor Swamp White Oak 75' T x 65' W

TURF	BOTANICAL / COMMON NAME
	Turf Hydroseed Reinders - Cadet 70/30 Fescue/Blue Mix
	Turf Hydroseed Low Grow Reinders No Mow/Low Grow Mix

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 40' 80'

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LANDSCAPE OVERVIEW & TREE PLAN

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LANDSCAPE OVERVIEW & TREE PLAN

REVISIONS			
1	MUNICIPAL SUBMITTAL	1/09/23	

PEG JOB No. 1296.00E
PEG PM AJS
START DATE 11/16/22
SCALE 1" = 40'

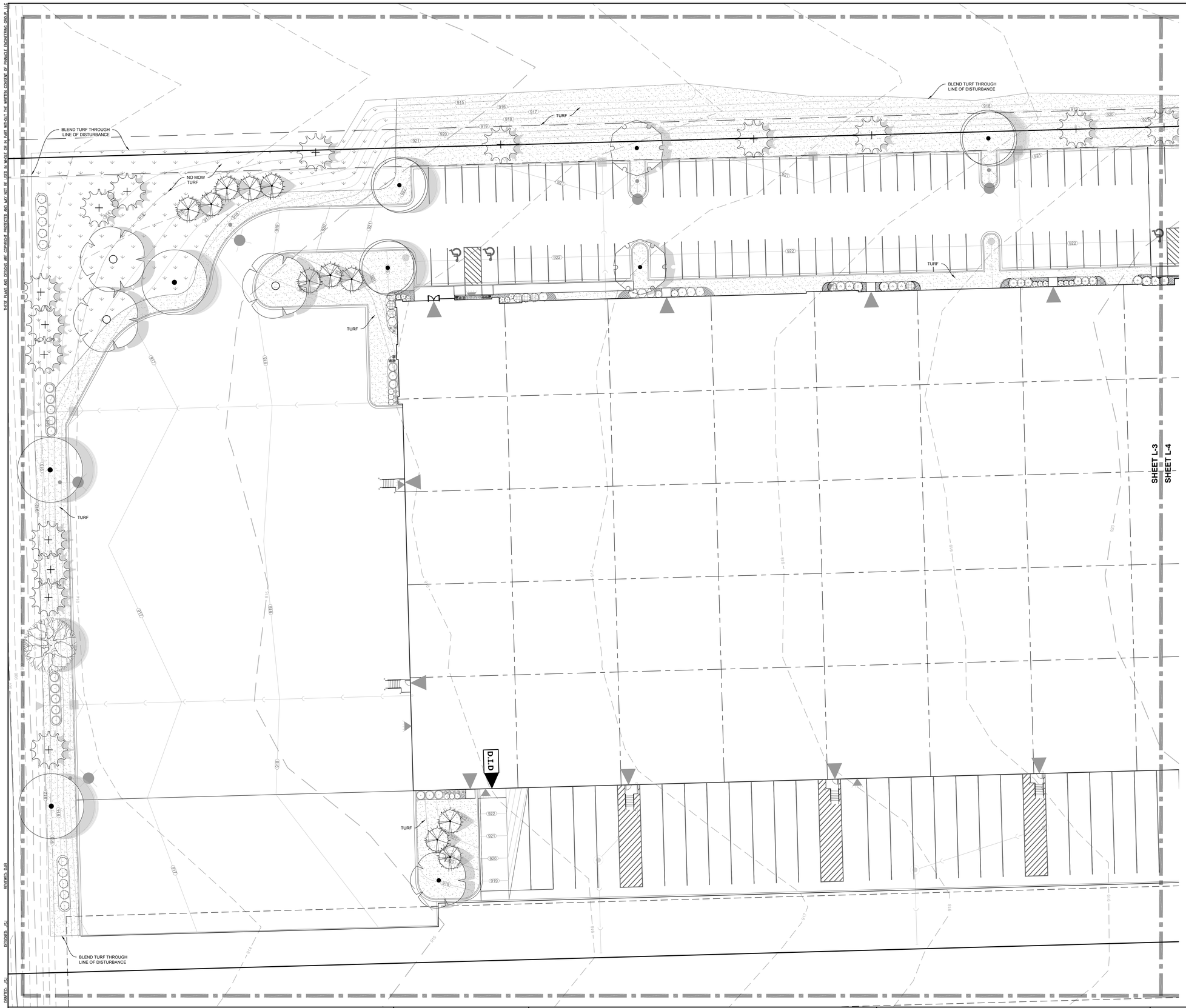
SHEET L-2 OF L-5

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REVISED: DJB
DESIGNED: AJS
DRAWN: AJS

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SHRUB & PERENNIAL KEY

SHRUBS	BOTANICAL / COMMON NAME
	Aronia melanocarpa `Elata` / Glossy Black Chokeberry
	Cephalanthus occidentalis `Ping Pong` / Ping Pong Buttonbush
	Cornus stolonifera `Arctic Fire` / Arctic Fire Dogwood
	Hydrangea arborescens `Annabelle` / Annabelle Smooth Hydrangea
	Hydrangea p `Vanilla Strawberry` / Vanilla Strawberry Hydrangea
	Hydrangea paniculata `Bobo` / Bobo Hydrangea
	Physocarpus opulifolius `Center Glow` / Center Glow Ninebark
	Potentilla fruticosa `McKay`s White` / McKay`s White Bush Cinquefoil
	Spiraea japonica `Magic Carpet` / Magic Carpet Spirea
	Syringa meyeri `Palibin` / Dwarf Korean Lilac

EVERGREEN SHRUBS	BOTANICAL / COMMON NAME
	Euonymus fortunei 'Vegetus Low' / Low Bigleaf Wintercreeper
	Juniperus chinensis `Pfitzeriana Kallays` / Kallay Compact Juniper
	Juniperus chinensis `Sea Green` / Sea Green Juniper
	Juniperus sabina `Buffalo` / Buffalo Juniper
	Juniperus squamata `Blue Star` / Blue Star Juniper
	Juniperus virginiana `Grey Owl` / Eastern Redcedar Juniper
	Taxus x media `Everlow` / Everlow Yew
	Taxus x media `Hicksii` / Hicks Yew
	Taxus x media `Tauntonii` / Tauton Yew

EXISTING	BOTANICAL / COMMON NAME
	EXISTING EVERGREEN / TRANSPLANTED SHRUB

ORNAMENTAL GRASSES	BOTANICAL / COMMON NAME
	Andropogon gerardii `Dancing Wind` / Dancing Wind Big Blue Stem
	Calamagrostis x a `Overdam` / Overdam Reed Grass
	Eragrostis spectabilis / Purple Love Grass
	Panicum virgatum `Northwind` / Northwind Switch Grass
	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem Grass
	Sporobolus heterolepis `Tara` / Prairie Dropseed

PERENNIALS	BOTANICAL / COMMON NAME
	Astilbe chinensis `Vision in Red` / Vision in Red Astilbe
	Brunnera macrophylla 'Sea Heart' / Sea Heart Siberian Bugloss
	Calamintha nepeta / Calamint
	Coreopsis verticillata `Zagreb` / Zagreb Coreopsis
	Heuchera m `Palace Purple` / Palace Purple Coral Bells
	Hosta x `Gold Standard` / Gold Standard Hosta
	Hosta x `Patriot` / Patriot Hosta
	Hosta x `Sum and Substance` / Sum and Substance Hosta
	Leucanthemum x `Becky` / Becky Shasta Daisy
	Nepeta x `Walker`s Low` / Walker`s Low Catmint
	Perovskia atriplicifolia `Little Spire` / Little Spire Russian Sage
	Salvia nemorosa `May Night` / May Night Sage

TURF	BOTANICAL / COMMON NAME
	Turf Hydroseed / Reinders - Cadet 70/30 Fescue/Blue Mix
	Turf Hydroseed Low Grow / Reinders No Mow/Low Grow Mix

NOTE
- TREE SYMBOLS SHOWN ON SHEET L-2.

NORTH

GRAPHICAL SCALE (FEET)
0 1" = 20' 40'

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LANDSCAPE ENLARGEMENT

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GERMANTOWN, WI

LANDSCAPE ENLARGEMENT

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23	

PEG JOB No. 1296.00F
PEG PM. ASS
START DATE 11/16/22
SCALE 1" = 20'

SHEET L-3 OF L-5

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EXISTING CONTOUR MAJOR, TYP.

EXISTING CONTOUR MINOR, TYP.

BLEND TURF THROUGH LINE OF DISTURBANCE

TURF

SHEET L-3
SHEET L-4

PROPOSED CONTOUR MINOR, TYP.

PROPOSED CONTOUR MAJOR, TYP.

D.I.D.

EX. HYDRANT
INV = 914.05

EXISTING DECIDUOUS TREE TO BE PROTECTED, TYP.

SHRUB & PERENNIAL KEY

SHRUBS	BOTANICAL / COMMON NAME
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	Hydrangea arborescens `Annabelle` / Annabelle Smooth Hydrangea
	Hydrangea p `Vanilla Strawberry` / Vanilla Strawberry Hydrangea
	Hydrangea paniculata `Bobo` / Bobo Hydrangea
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	Potentilla fruticosa `McKay`s White` / McKay`s White Bush Cinquefoil
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EVERGREEN SHRUBS	BOTANICAL / COMMON NAME
	Euonymus fortunei 'Vegetus Low' / Low Bigleaf Wintercreeper
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	Juniperus chinensis `Sea Green` / Sea Green Juniper
	Juniperus sabina `Buffalo` / Buffalo Juniper
	Juniperus squamata `Blue Star` / Blue Star Juniper
	Juniperus virginiana `Grey Owl` / Eastern Redcedar Juniper
	Taxus x media `Everlow` / Everlow Yew
	Taxus x media `Hicksii` / Hicks Yew
	Taxus x media `Tauntonii` / Tauton Yew

EXISTING	BOTANICAL / COMMON NAME
	EXISTING EVERGREEN / TRANSPLANTED SHRUB

ORNAMENTAL GRASSES	BOTANICAL / COMMON NAME
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	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem Grass
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	Hosta x `Sum and Substance` / Sum and Substance Hosta
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	Nepeta x `Walker`s Low` / Walker`s Low Catmint
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	Salvia nemorosa `May Night` / May Night Sage

TURF	BOTANICAL / COMMON NAME
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	Turf Hydroseed Low Grow / Reinders No Mow/Low Grow Mix

NOTE
- TREE SYMBOLS SHOWN ON SHEET L-2.

NORTH

GRAPHICAL SCALE (FEET)
0 1" = 20' 40'

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GERMANTOWN, WI

LANDSCAPE ENLARGEMENT

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23			

PEC JOB No. 1296.00F
PEC PM AJS
START DATE 11/16/22
SCALE 1" = 20'

SHEET L-4 OF L-5

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GENERAL PLANTING NOTES

1. THE LAYOUT OF ALL PLANTING BEDS AND INDIVIDUAL TREES AND SHRUBS SHALL BE STAKED BY THE CONTRACTOR IN ADVANCE OF INSTALLATION. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. AN APPROVED REPRESENTATIVE WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAKE MINOR ADJUSTMENTS AS NECESSARY. BED LAYOUT SHALL ALSO INCLUDE PERENNIAL GROUPINGS BY SPECIES.
2. THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING THE PLANT MATERIAL QUANTITIES REQUIRED BY THE LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
3. NO PLANT MATERIAL OR PLANT SIZE SUBSTITUTIONS WILL BE ACCEPTED WITHOUT APPROVAL BY THE LANDSCAPE ARCHITECT. ANY CHANGES SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO INSTALLATION.
4. ALL BNB STOCK SHALL BE NURSERY GROWN IN A CLAY LOAM SOIL FOR A MINIMUM OF THREE GROWING SEASONS WITHIN 200 MILES OF PROJECT LOCATION, IN A ZONE COMPATIBLE WITH USDA HARDINESS ZONE 5A. SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION. EXISTING SOIL SHALL BE AMENDED PER SOIL ANALYSIS REPORT TO ENSURE A PROPER GROWING MEDIUM IS ACHIEVED.
5. ALL PLANT MATERIAL SHALL COMPLY WITH STANDARDS DESCRIBED IN AMERICAN STANDARD OF NURSERY STOCK - Z60.1 ANSI. LANDSCAPE ARCHITECT OR OWNERS AUTHORIZED REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND POTENTIALLY REJECT ANY PLANT MATERIAL DEEMED TO NOT MEET THE REQUIRED STANDARDS.
6. ALL STOCK SHALL BE FREE OF DISEASES AND HARMFUL INSECTS, DAMAGE, DISORDERS AND DEFORMITIES.
7. TREES SHALL HAVE SINGLE, STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. MUTLI-STEM TREES SHALL HAVE 3-4 STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. HEIGHT-TO-CALIPER RATIOS SHALL BE CONSISTENT WITH THE LATEST EDITION OF ANSI Z60.1.
8. ROOT SYSTEMS SHALL BE LARGE ENOUGH TO ALLOW FOR FULL RECOVERY OF THE TREE, AND SHALL CONFORM TO STANDARDS AS THEY APPEAR IN THE MOST CURRENT REVISION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD OF NURSERY STOCK ANSI Z60.1.
9. BNB TREES SHALL BE DUG WITH A BALL OF SOIL, NOT SOFT BALLED OR POTTED AND SHALL BE FIRM IN THEIR ROOTBALL. ROOT BALL SHALL BE WRAPPED (WITH BIODEGRADABLE MATERIAL). THE TREE ROOT FLARE, OR COLLAR, SHALL BE AT OR WITHIN THE TOP THREE INCHES OF GRADE.
10. ALL SPRING TREES MUST BE FRESHLY DUG IN THE MOST RECENT SPRING.
11. ALL AUTUMN TREES MUST BE FRESHLY DUG IN THE MOST RECENT AUTUMN.
12. TREES SHALL BE ALIVE, HEALTHY AND APPROPRIATELY MOIST, AT TIME OF DELIVERY. TREES SHALL BE SUBJECT TO INSPECTION FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AND APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY TREES THAT DO NOT MEET THE SPECIFICATIONS OR THAT HAVE BEEN DAMAGED DURING SHIPMENT. THE LANDSCAPE INSTALLER MUST RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT FOR ANY SUBSTITUTIONS OR ALTERATIONS.
13. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH PLANTING DETAILS. FOR STREET TREE PLANTINGS, REFER TO TREE PLANTING DETAIL AND TO THE VILLAGE OF GERMANTOWN SPECIFICATIONS FOR PLANTING STREET TREES.
14. ALL PLANTING BEDS SHALL HAVE A MINIMUM 10" DEPTH OF PREPARED SOIL. WITH APPROVAL, EXISTING SOIL MAY BE UTILIZED PROVIDED THE PROPER SOIL AMENDMENTS ARE TILLED THOROUGHLY INTO THE TOP 10" OF SOIL. REFER TO SOIL PLACEMENT NOTES.
15. WHILE PLANTING TREES AND SHRUBS, BACKFILL ⅔ OF PLANTING HOLE AND WATER TREE THOROUGHLY BEFORE INSTALLING THE REMAINDER OF SOIL MIXTURE. AFTER ALL SOIL HAS BEEN PLACED INTO THE PLANTING HOLE WATER THOROUGHLY AGAIN.
16. THE CONTRACTOR MUST LABEL ALL TREES WITH THE COMMON AND BOTANICAL NAMES PRIOR TO FINAL INSPECTION.
17. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" DEEP SHREDDED HARDWOOD MULCH, AND ALL TREES PLANTED IN TURF AREAS SHALL RECEIVE A 3" DEEP SHREDDED HARDWOOD MULCHED RING AS SHOWN IN PLANTING DETAILS.
18. ALL PLANTING BEDS AND TREE RINGS SHALL HAVE A 4" DEEP TRENCHED BED EDGE CREATED BY EITHER A FLAT LANDSCAPE SPADE OR MECHANICAL EDGER. BED EDGES ARE TO BE CUT CLEAN AND SMOOTH AS SHOWN ON LANDSCAPE PLANS WITH A CLEAN DEFINITION BETWEEN TURF AND PLANTING AREAS.
19. ALL TURF SEED AREAS SHALL HAVE A MINIMUM DEPTH OF 6" OF TOPSOIL. WITH APPROVAL, EXISTING SOIL MAY BE UTILIZED PROVIDED THE PROPER SOIL AMENDMENTS ARE TILLED THOROUGHLY INTO THE TOP 6" OF SOIL AS INDICATED IN THE SOIL PLACEMENT NOTES. REQUIRED AMENDMENTS SHALL BE DETERMINED BASED ON A SOIL ANALYSIS TO BE PERFORMED. ALL TOPSOIL AMENDMENT SHALL BE AGED WEED FREE MANURE OR CLASS 1 ORGANIC MATTER.
20. FOR LAWN SEEDING, APPLY A STARTER FERTILIZER AND SEED UNIFORMLY AT THE RATE RECOMMENDED BY MANUFACTURER, AND PROVIDE A MULCH COVERING THAT IS SUITABLE TO PROMOTE SEED GERMINATION AND TURF ESTABLISHMENT. CONTRACTOR TO PROVIDE FERTILIZER, SEED, AND MULCH SPECIFICATIONS TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. EROSION CONTROL MEASURES ARE TO BE INSTALLED IN THOSE AREAS REQUIRING STABILIZATION (SWALES, SLOPES EXCEEDING 1:3, AND THOSE LOCATIONS INDICATED IN CIVIL DRAWINGS).
21. THE CONTRACTOR TO ENSURE A SMOOTH, UNIFORM QUALITY TURF IS ACHIEVED WITH NO BARE SPOTS LARGER THAN 6" X 6". ANY BARE SPOTS LARGER THAN 6" X6" AT THE END OF ESTABLISHMENT PERIOD SHALL BE RESEEDED AT THE CONTRACTORS EXPENSE TO OBTAIN A DENSE, UNIFORM LAWN.
22. ALL FINISH GRADING AND LAWN AREAS TO BE INSTALLED BY LANDSCAPE CONTRACTOR.
23. ALL DISTURBED AREAS WITHIN THE PROJECT SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
24. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
25. THE CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS
26. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INCLUDING ANY IRRIGATION LINES, PRIOR TO DIGGING. CONSULT DIGGERS HOTLINE.
27. TREES SHALL BE INSTALLED A MINIMUM OF 25' FROM STREET CORNERS OF MINOR ROADS, AND 50' FROM STREET CORNERS OF ARTERIAL ROADS.
28. TREES SHALL BE INSTALLED A MINIMUM DISTANCE OF 5' FROM ANY SEWER AND WATER LINES, 10' FROM DRIVEWAYS, LIGHT POLES, AND FIRE HYDRANTS.
29. THE CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS
30. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, AND LICENSES NECESSARY FOR THE INSTALLATION OF THIS PLAN.
31. THE CONTRACTOR IS TO REVIEW ALL SITE ENGINEERING DOCUMENTS PRIOR TO INSTALLATION. ANY CONFLICTS MUST BE REPORTED TO THE LANDSCAPE ARCHITECT. THESE LANDSCAPE DRAWINGS ARE FOR THE INSTALLATION OF PLANT MATERIALS ONLY UNLESS OTHERWISE STATED.
32. THE CONTRACTOR SHALL PROVIDE WATERING AND MAINTENANCE SERVICES FOR A PERIOD OF 60 DAYS TO ENSURE VEGETATIVE ESTABLISHMENT. UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL SUPPLY THE OWNER IN WRITING WITH ONGOING WATERING AND MAINTENANCE INSTRUCTIONS.
33. PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM TIME OF OWNER ACCEPTANCE. ONLY ONE REPLACEMENT PER PLANT WILL BE REQUIRED DURING THE WARRANTY PERIOD EXCEPT IN THE EVENT OF FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.
34. THE CONTRACTOR IS RESPONSIBLE TO CONDUCT A FINAL WALK THROUGH WITH THE LANDSCAPE ARCHITECT, VILLAGE FORESTER, AND OR OWNERS REPRESENTATIVE TO ANSWER QUESTIONS, PROVIDE INSTRUCTIONS, AND ENSURE THAT PROJECT REQUIREMENTS HAVE BEEN MET.

SOIL PLACEMENT NOTES

1. LOOSEN SUBGRADE TO A MINIMUM DEPTH INDICATED IN PLANTING NOTES USING A CULTI-MULCHER OR SIMILAR EQUIPMENT, AND REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION, STICKS, RUBBISH AND OTHER EXTRANEOUS MATTER. INTERNAL PARKING ISLANDS SHALL BE LOOSENED TO A DEPTH OF 30".
2. THOROUGHLY BLEND PLANTING SOIL MIX FOR PLANTING BED AREAS. (1 PART EXISTING SOIL, 1 PART TOPSOIL, 1 PART ORGANIC SOIL AMENDMENT, 2.9 POUNDS PER CUBIC YARD OF 4-4-4 ANALYSIS SLOW-RELEASE FERTILIZER)
3. TREE AND SHRUB HOLES SHALL BE FILLED WITH A PREPARED PLANTING MIXTURE OF 1 PART TOPSOIL, 2 PARTS PLANTING SOIL MIX.
4. SPREAD SOIL AND SOIL AMENDMENTS TO DEPTH INDICATED ON DRAWINGS, BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT. (FINISH GRADE OF PLANTING BEDS SHALL BE 3" BELOW ALL ADJACENT SURFACES. FINISH GRADE OF TURF SEEDING AREAS SHALL BE 1" BELOW ALL ADJACENT HARD SURFACES, WALKS, AND CURBS.)
5. PLACE APPROXIMATELY 1/2 OF TOTAL AMOUNT OF SOIL REQUIRED. WORK INTO TOP OF LOOSENED SUBGRADE TO CREATE A TRANSITION LAYER, THEN PLACE REMAINDER OF THE SOIL. SOIL TRANSITION LAYER SHALL BE TILLED TO A MINIMUM DEPTH OF 6" BELOW THE DEPTH OF NEWLY PLACED SOIL. PARKING LOT ISLANDS SHALL BE CROWNED TO A HEIGHT OF 6" TO PROVIDE PROPER DRAINAGE UNLESS OTHERWISE NOTED.
6. DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
7. FINISH GRADING: GRADE SOIL TO A SMOOTH, UNIFORM SURFACE PLANE WITH A LOOSE, UNIFORMLY FINE TEXTURE.
8. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
9. RESTORE PLANTING BEDS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING AND BEFORE PLANTING.

PLANT SCHEDULE

DECIDUOUS TREES	BOTANICAL / COMMON NAME	SIZE
8	Acer freemanii `Autumn Fantasy` / Autumn Fantasy Maple 50' T x 40' W	2.5" Cal.
1	Celtis occidentalis `Prairie Pride` / Prairie Pride Hackberry 50' T x 40' W	2.5" Cal.
5	Gleditsia triacanthos `Shademaster` / Shademaster Honeylocust 50' T x 35' W	2.5" Cal.
1	Gymnocladus dioica / Kentucky Coffee Tree 60' T x 50' W	2.5" Cal.
5	Quercus x schuetti / Swamp Bur Oak 70' T x 65' W	2.5" Cal.
3	Tilia americana `Redmond` / Redmond American Linden 60' T x 35' W	2.5" Cal.

EVERGREEN TREES	BOTANICAL / COMMON NAME	SIZE
14	Juniperus virginiana / Eastern Red Cedar 30' T x 15' W	5` Ht.
3	Picea abies / Norway Spruce 50' T x 25' W	5` Ht.
5	Picea glauca `Densata` / Black Hills Spruce 30' T x 20' W	5` Ht.

EXISTING	BOTANICAL / COMMON NAME	SIZE
2	EXISTING TREE DECIDUOUS / PRESERVE & PROTECT FROM PREVIOUS 1296.00E PLAN	---
3	TRANSPLANTED DECIDUOUS / EXISTING TREE FROM PREVIOUS 1296.00E PLAN	---
21	TRANSPLANTED EVERGREEN / EXISTING TREE FROM PREVIOUS 1296.00E PLAN	---

ORNAMENTAL TREES	BOTANICAL / COMMON NAME	SIZE
2	Amelanchier grandiflora `Autumn Brilliance` / `Autumn Brilliance` Serviceberry 25' T x 25' W	1.5" Cal.
2	Malus x `Shotizam` / Showtime Crabapple 25' T x 20' W	1.5" Cal.

STREET TREES	BOTANICAL / COMMON NAME	SIZE
3	Acer miyabei `State Street` / Miyabei Maple 50' T x 40' W	3" Cal.
2	Celtis occidentalis `Prairie Pride` / Prairie Pride Hackberry 50' T x 40' W	3" Cal.
3	Quercus bicolor / Swamp White Oak 75' T x 65' W	3" Cal.

SHRUBS	BOTANICAL / COMMON NAME	SIZE
6	Aronia melanocarpa `Elata` / Glossy Black Chokeberry 5` T x 5` W	3 gal.
10	Cephalanthus occidentalis `Ping Pong` / Ping Pong Buttonbush 8` T x 8` W	3 gal.
24	Cornus stolonifera `Arctic Fire` / Arctic Fire Dogwood 3` T x 3` W	2 gal.
18	Hydrangea arborescens `Annabelle` / Annabelle Smooth Hydrangea 5` T x 5` W	2 gal.
6	Hydrangea p `Vanilla Strawberry` / Vanilla Strawberry Hydrangea 6` T x 5` W	3 gal.
16	Hydrangea paniculata `Bobo` / Bobo Hydrangea 3` T x 4` W	2 gal.
10	Physocarpus opulifolius `Center Glow` / Center Glow Ninebark 8` T x 8` W	3 gal.
9	Potentilla fruticosa `McKay`s White` / McKay`s White Bush Cinquefoil 3` T x 3` W	2 gal.
10	Spiraea japonica `Magic Carpet` / Magic Carpet Spirea 2` T x 3` W	2 gal.
28	Syringa meyeri `Palibin` / Dwarf Korean Lilac 5` T x 5` W	3 gal.

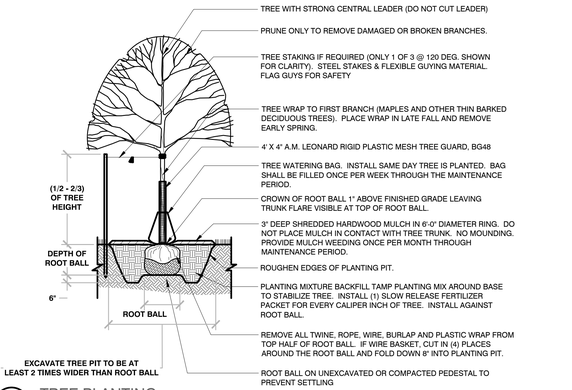
EVERGREEN SHRUBS	BOTANICAL / COMMON NAME	SIZE
12	Euonymus fortunei 'Vegetus Low' / Low Bigleaf Wintercreeper 4'T x 5' W	2 gal.
10	Juniperus chinensis `Pfitzeriana Kallays` / Kallay Compact Juniper 3` T x 7` W	3 gal.
5	Juniperus chinensis `Sea Green` / Sea Green Juniper 5` T x 5` W	3 gal.
2	Juniperus sabina `Buffalo` / Buffalo Juniper 1` T x 7` W	3 gal.
2	Juniperus squamata `Blue Star` / Blue Star Juniper 3` T x 4` W	2 gal.
22	Juniperus virginiana `Grey Owl` / Eastern Redcedar Juniper 3` T x 5` W	2 gal.
4	Taxus x media `Everlow` / Everlow Yew 3` T x 5` W	3 gal.
2	Taxus x media `Hicksii` / Hicks Yew 10` T x 5` W	4` Ht.
16	Taxus x media `Tauntonii` / Tauton Yew 4` T x 5` W	3 gal.

EXISTING	BOTANICAL / COMMON NAME	SIZE
5	EXISTING EVERGREEN / TRANSPLANTED SHRUB FROM PREVIOUS 1296.00E PLAN	---

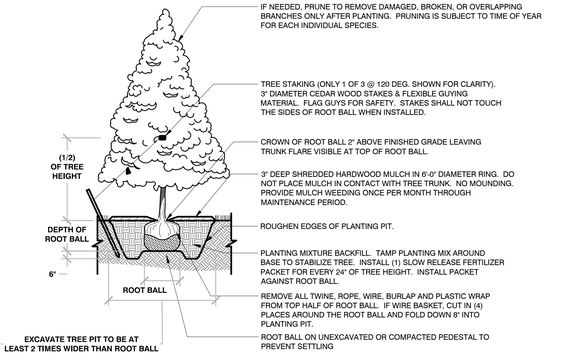
ORNAMENTAL GRASSES	BOTANICAL / COMMON NAME	SIZE
28	Andropogon gerardii `Dancing Wind` / Dancing Wind Big Blue Stem 36" T x 30" W	1 gal.
24	Calamagrostis x a `Overdam` / Overdam Reed Grass 24" T x 24" W	1 gal.
6	Eragrostis spectabilis / Purple Love Grass 24" T x 18" W	1 gal.
10	Panicum virgatum `Northwind` / Northwind Switch Grass 42" T x 28" W	1 gal.
26	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem Grass 30" T x 28" W	1 gal.
6	Sporobolus heterolepis `Tara` / Prairie Dropseed 15" T x 20" W	1 gal.

PERENNIALS	BOTANICAL / COMMON NAME	SIZE
22	Astilbe chinensis `Vision in Red` / Vision in Red Astilbe 15" T x 18" W	4.5" cont.
12	Brunnera macrophylla 'Sea Heart' / Sea Heart Siberian Bugloss 12" T x 24" W	4.5" cont.
8	Calamintha nepeta / Calamint 12" T x 18" W	4.5" cont.
31	Coreopsis verticillata `Zagreb` / Zagreb Coreopsis 20" T x 16" W	4.5" cont.
22	Heuchera m `Palace Purple` / Palace Purple Coral Bells 18" T x 18" W	4.5" cont.
12	Hosta x `Gold Standard` / Gold Standard Hosta 20" T x 50" W	4.5" cont.
19	Hosta x `Patriot` / Patriot Hosta 20" T x 38" W	4.5" cont.
12	Hosta x `Sum and Substance` / Sum and Substance Hosta 36" T x 36" W	4.5" cont.
22	Leucanthemum x `Becky` / Becky Shasta Daisy 15" T x 15" W	4.5" cont.
12	Nepeta x `Walker`s Low` / Walker`s Low Catmint 20" T x 28" W	4.5" cont.
20	Perovskia atriplicifolia `Little Spire` / Little Spire Russian Sage 18" T x 20" W	4.5" cont.
8	Salvia nemorosa `May Night` / May Night Sage 18" T x 18" W	4.5" cont.

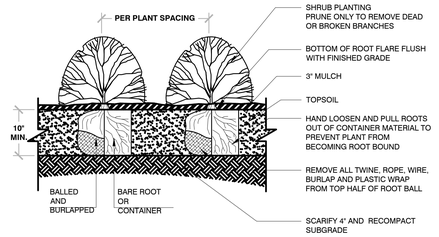
TURF	BOTANICAL / COMMON NAME
63,787 sf	Turf Hydroseed / Reinders - Cadet 70/30 Fescue/Blue Mix
12,162 sf	Turf Hydroseed Low Grow / Reinders No Mow/Low Grow Mix



1 TREE PLANTING
1/4" = 1'-0" 329343-01

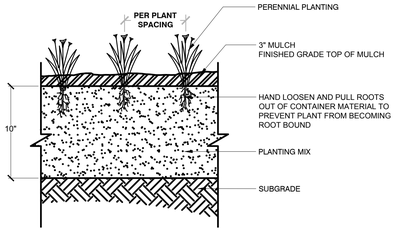


2 EVERGREEN TREE PLANTING
1/4" = 1'-0" 329343-03

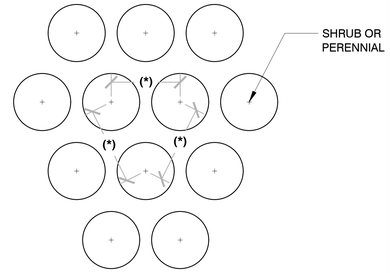


BAREROOT PLANTING NOTES:
1. SOAK ROOTS IN WATER FOR AT LEAST ONE HOUR BUT NOT MORE THAN 24 HOURS PRIOR TO PLANTING.
2. SCARIFY SIDES AND BOTTOMS OF HOLE.
3. PROCEED WITH CORRECTIVE PRUNING OF THE TOP AND BOTTOM ROOTS.
4. TRANSFER PLANT DIRECTLY FROM WATER TO HOLE. SET PLANT SO THE ROOT FLARE IS APPROXIMATELY AT THE FINISHED SOIL ELEVATION. SPREAD ROOTS OUT EVENLY. PLUMB AND IMMEDIATELY BACKFILL WITH PLANTING SOIL MIX.
5. WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
6. BACKFILL VOIDS AND WATER SECOND TIME.
7. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

3 SHRUB PLANTING
1/2" = 1'-0" 329333-02

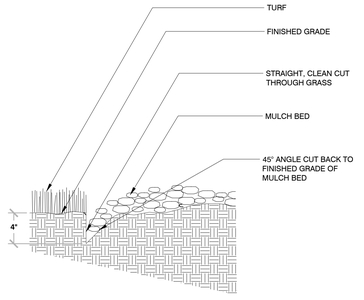


4 PERENNIAL PLANTING
1" = 1'-0" 3293-01



(*) = SPECIFIED PLANT SPACING PER PLANTING LIST

5 PLANT SPACING
3/4" = 1'-0" 3293-02



6 TRENCHED BED EDGE
3/4" = 1'-0" 3293-03

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FOR REVIEW ONLY

LANDSCAPE GENERAL NOTES & DETAILS

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REVIEWED: DJB
DESIGNED: JSJ
DRAWN: JSJ

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ZILBER PROPERTY GROUP SM

ZILBER INDUSTRIAL 6 AT GERMANTOWN GATEWAY CORPORATE PARK
GERMANTOWN, WI

LANDSCAPE GENERAL NOTES & DETAILS

REVISIONS

1	MUNICIPAL SUBMITTAL	1/09/23			

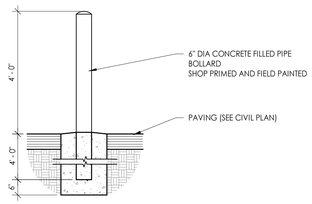
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PROJ PM AJS
START DATE 11/16/22
SCALE VARIES

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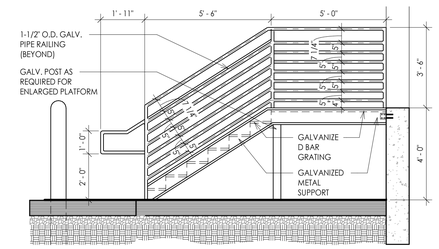
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SHEET KEYNOTES

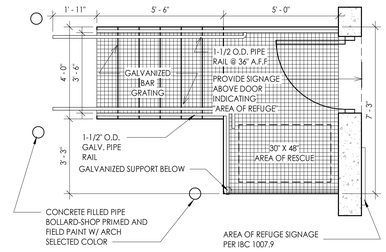
03-01	CONCRETE FILLED PIPE BOLLARD W/ YELLOW PLASTIC SLEEVE
03-02	CONCRETE STOOP
03-03	CONCRETE SIDEWALK W/ INTEGRAL CURB
03-05	FUTURE PRECAST KNOCKOUT FOR 14X16 DRIVE IN
05-01	DOCK STAIR - HOT DIPPED GALVANIZED METAL (AM8)



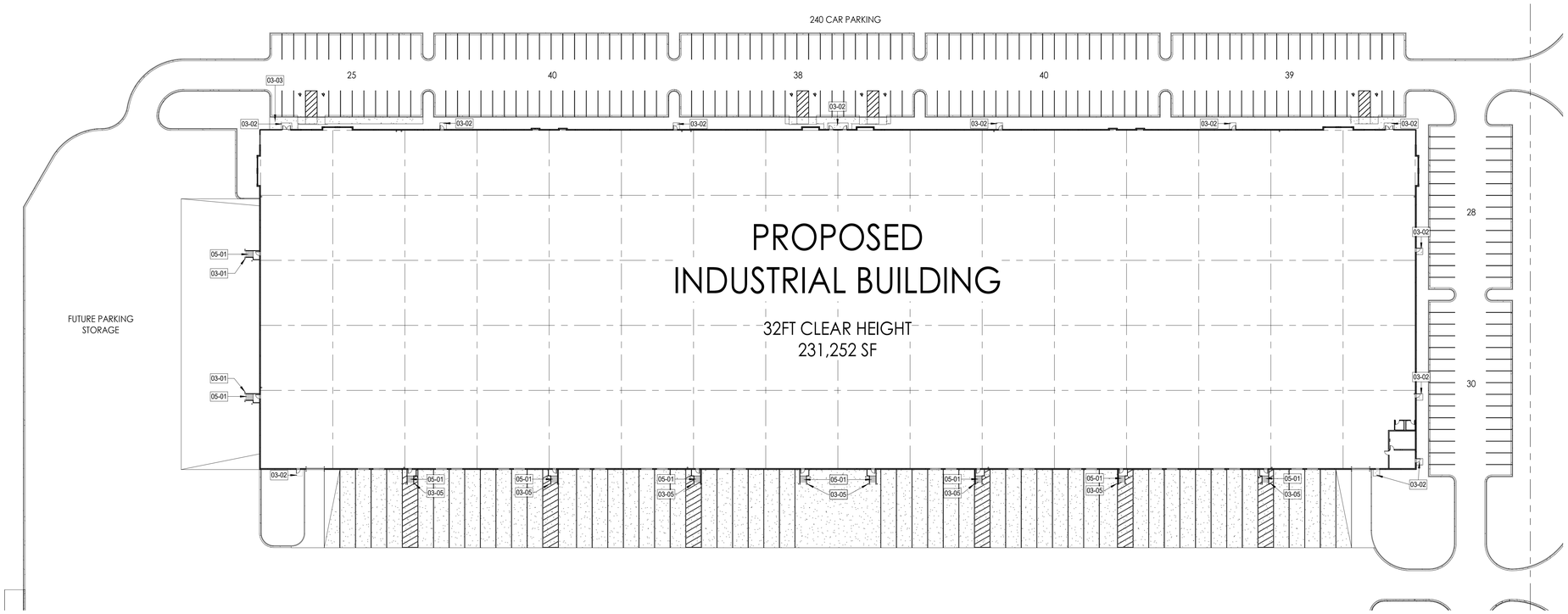
4 CONCRETE FILLED PIPE BOLLARD
SCALE 1/2" = 1'-0"



3 DOCK STAIR - ELEVATION
SCALE 3/8" = 1'-0"



2 DOCK STAIR - ENLARGED PLAN
SCALE 3/8" = 1'-0"



1 ARCHITECTURAL SITE PLAN
SCALE 1" = 40'-0"

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PINNACLE ENGINEERING GROUP

raSmith
CREATIVITY BEYOND ENGINEERING

PROJECT

PROPOSED BUILDING FOR:

ZILBER INDUSTRIAL 6

GERMANTOWN GATEWAY
CORPORATE PARK
GATEWAY CROSSING & ROCKFIELD ROAD
GERMANTOWN, WISCONSIN

OWNER

ZILBER PROPERTY GROUP SM

CONTRACTOR

RILEY CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE

INFORMATION

PROJECT ARCHITECT	SPS
PROJECT MANAGER	MAM
PROJECT NUMBER	221110
ISSUED FOR	MUNICIPAL REVIEW
DATE	JANUARY 9, 2023

SHEET

ARCHITECTURAL SITE PLAN

A050

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CORPORATE PARK
GATEWAY CROSSING & ROCKFIELD ROAD
GERMANTOWN, WISCONSIN

OWNER

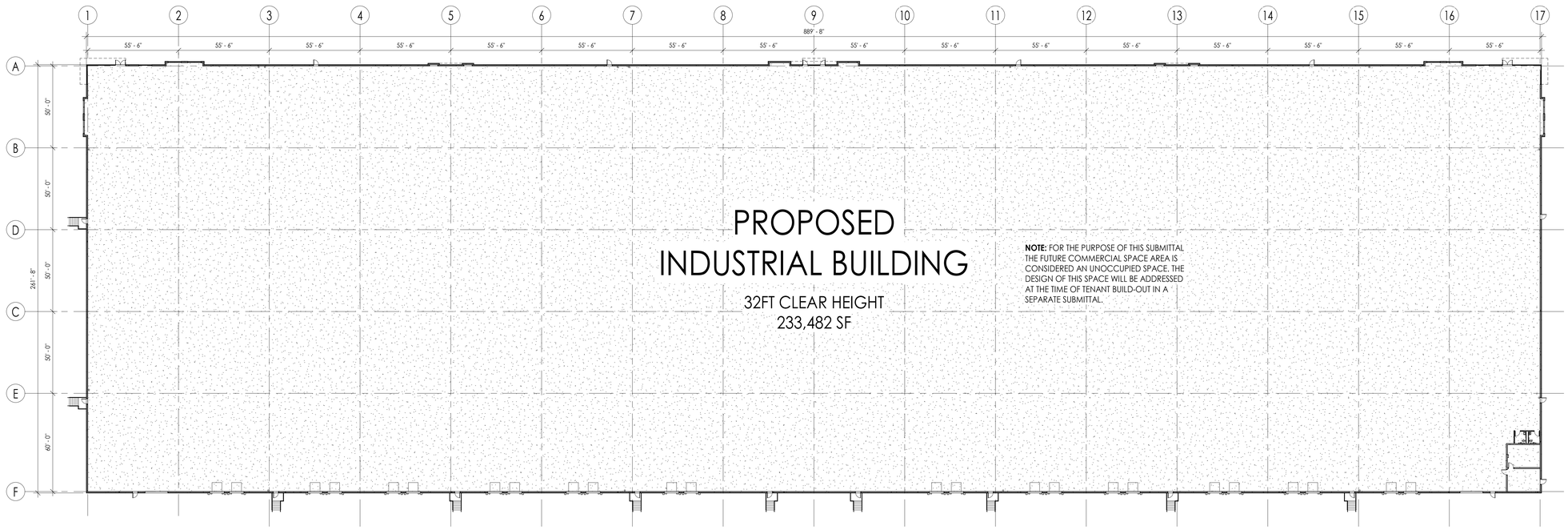
ZILBER PROPERTY GROUP SM

CONTRACTOR

RILEY CONSTRUCTION

REVISIONS

NO.	DESCRIPTION	DATE



1 **FACILITY PLAN - OVERALL**
SCALE 1" = 30'-0"

INFORMATION

PROJECT ARCHITECT	SPS
PROJECT MANAGER	MAM
PROJECT NUMBER	221110
ISSUED FOR	MUNICIPAL REVIEW
DATE	JANUARY 9, 2023

SHEET

FACILITY PLAN

A100

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SHEET KEYNOTES

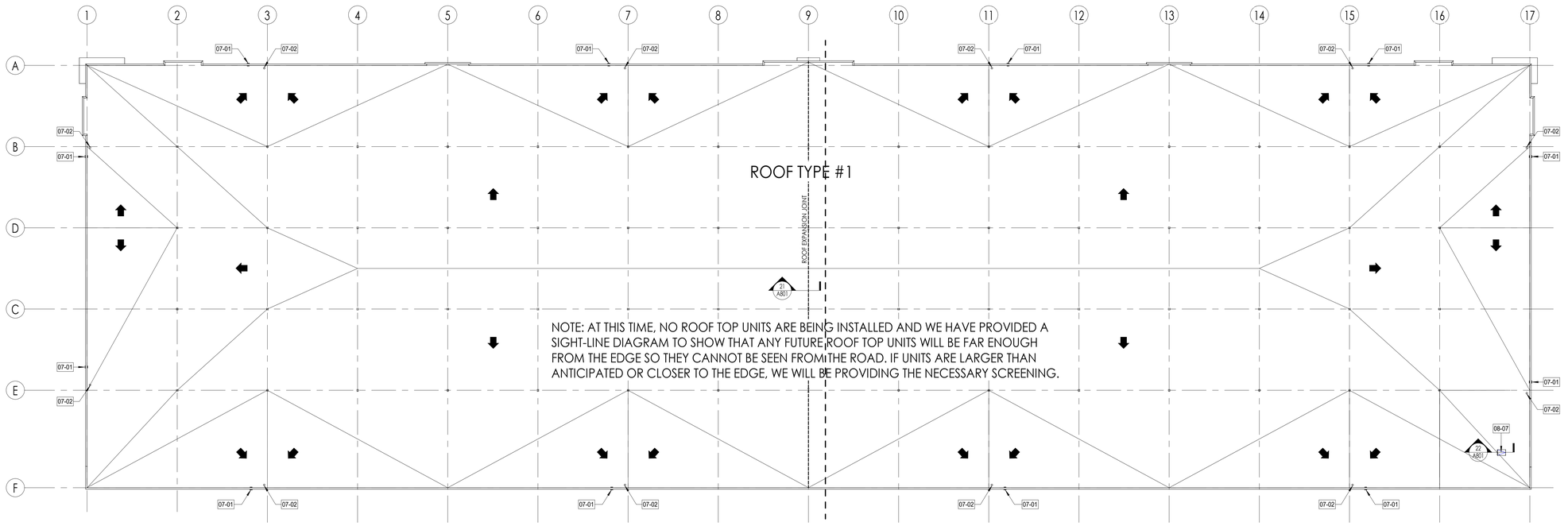
07-01	PREFINISHED METAL THRU-WALL SCUPPER
07-02	PRIMARY ROOF DRAIN W/ INTEGRAL DOWNSPOUT. SEE DETAILS 18 & 20/A801
08-07	INSULATED 30"X36" ROOF SCUTTLE W/ LADDER AND CAGE BELOW -GC TO COORDINATE LOCATION WITH STRUCTURAL FRAMING ABOVE. SEE DETAIL 22/A801

ROOF TYPES

ROOF TYPE #1 - TYPICAL BUILDING ROOF
SINGLE PLY 40 MIL. BALLASTED EPDM ROOF
2 LAYERS OF POLYISOCYANURATE W/ STAGGERED JOINTS IN BOTH DIRECTIONS (R-20)
1-1/2" METAL DECKING

ROOF TYPE #2 - LOWER CANOPY ROOF
SINGLE PLY 40MIL. BALLASTED EPDM ROOF
SLOPED POLYISOCYANURATE BOARD (AT 1/4" PER FOOT)
1-1/2" METAL DECKING

NOTE:
1. PITCH TO ROOF DRAIN AT 1/8" PER FOOT MINIMUM.
2. MINIMUM 20 YEAR WARRANTY ON ROOF TO BE CERTIFIED BY SUPPLIER



1 **CONSTRUCTION PLAN - ROOF**
SCALE 1" = 30'-0"

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PINNACLE ENGINEERING GROUP

raSmith
CREATIVITY BEYOND ENGINEERING

PROJECT

PROPOSED BUILDING FOR:

ZILBER INDUSTRIAL 6

GERMANTOWN GATEWAY
CORPORATE PARK
GATEWAY CROSSING & ROCKFIELD ROAD
GERMANTOWN, WISCONSIN

OWNER

ZILBER PROPERTY GROUP SM

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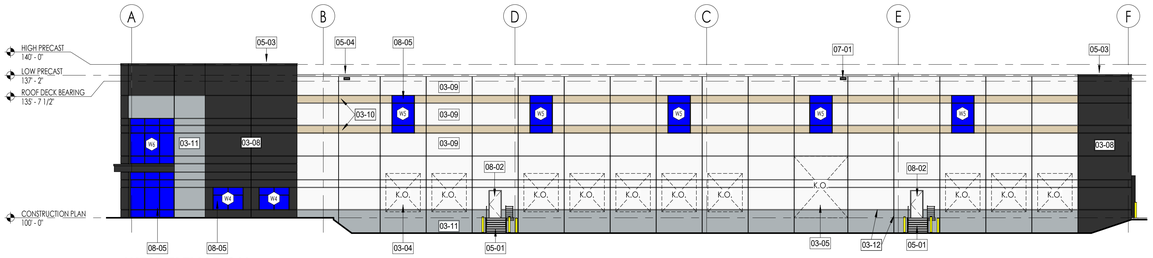
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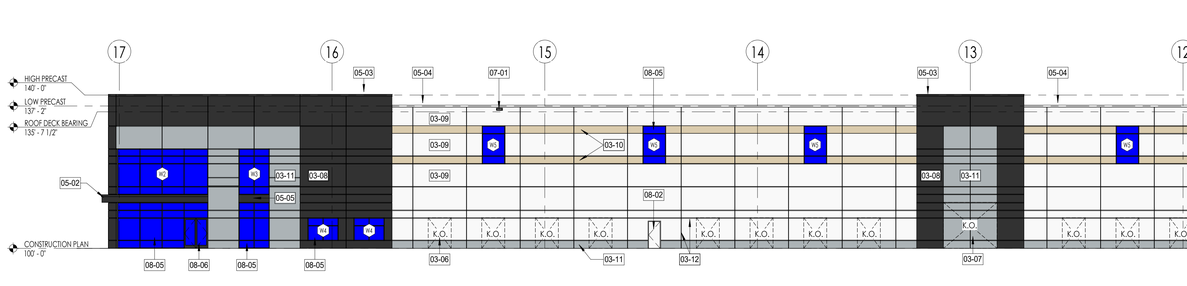
CONSTRUCTION PLAN - ROOF

A102

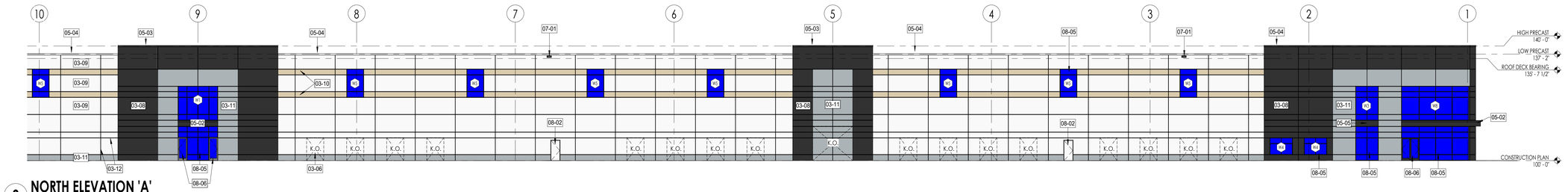
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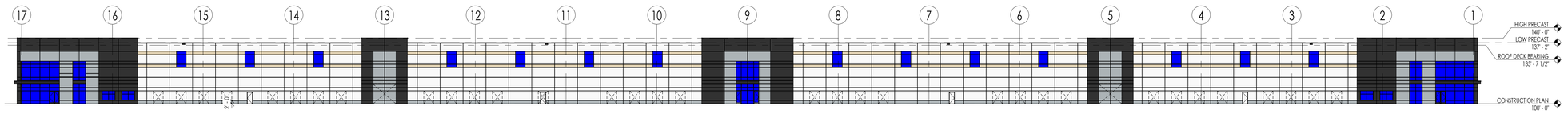
4 WEST ELEVATION
SCALE 1/16" = 1'-0"



3 NORTH ELEVATION 'B'
SCALE 1/16" = 1'-0"



2 NORTH ELEVATION 'A'
SCALE 1/16" = 1'-0"



1 NORTH ELEVATION - OVERALL
SCALE 1" = 30'-0"

SHEET KEYNOTES

03-04	FUTURE PRECAST KNOCKOUT FOR 9X10 DOCK DOOR
03-05	FUTURE PRECAST KNOCKOUT FOR 14X16 DRIVE IN
03-06	FUTURE PRECAST KNOCKOUT FOR 6X8 WINDOW
03-07	FUTURE PRECAST KNOCKOUT FOR 14X12 DOOR
03-08	10" INSULATED PRECAST WALL PANEL ACCENT COLOR (EPT4) - SHERWIN WILLIAMS COLOR: SW6237 DARK KNIGHT
03-09	10" INSULATED PRECAST WALL PANEL FIELD COLOR ((EPT1) - SHERWIN WILLIAMS COLOR: SW6196 FROSTY WHITE
03-10	10" INSULATED PRECAST WALL PANEL ACCENT BAND COLOR (EPT3) - SHERWIN WILLIAMS COLOR: SW7513 SANDERLING
03-11	10" INSULATED PRECAST WALL PANEL ENTRANCE/BAND COLOR (EPT2) - SHERWIN WILLIAMS COLOR: SW6248 JUBILEE
03-12	HORIZONTAL AND VERTICAL PRECAST REVEALS
05-01	DOCK STAIR - HOT DIPPED GALVANIZED METAL (AM8)
05-02	ALUMINUM WRAPPED CANOPY (AM5) - STONEWOOD ARCHITECTURAL PANEL COLOR: MATCH EPT4
05-03	PREFINISHED METAL COPING (AM2) - PAC-CLAD COLOR: STONE WHITE
05-04	PREFINISHED METAL COPING (AM1) - PAC-CLAD COLOR: MATCH EPT4
05-05	PREFINISHED METAL WALL PANEL (AM9) - STONEWOOD ARCHITECTURAL PANEL COLOR: BLACK 6905-CB
07-01	PREFINISHED METAL THRU-WALL SCUPPER
08-02	INSULATED STEEL DOOR & FRAME (EPT5) - SHERWIN WILLIAMS COLOR: SW 6196 FROSTY WHITE
08-05	ALUMINUM STOREFRONT WINDOW SYSTEM (AM3, GL1, GL11)
08-06	ALUMINUM STOREFRONT DOOR SYSTEM WITH FULL GLASS (AM4, GL11)

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PINNACLE ENGINEERING GROUP

raSmith
CREATIVITY BEYOND ENGINEERING

PROJECT

PROPOSED BUILDING FOR:

ZILBER INDUSTRIAL 6

GERMANTOWN GATEWAY
CORPORATE PARK
GATEWAY CROSSING & ROCKFIELD ROAD
GERMANTOWN, WISCONSIN

OWNER

ZILBER PROPERTY GROUP SM

CONTRACTOR

RILEY CONSTRUCTION

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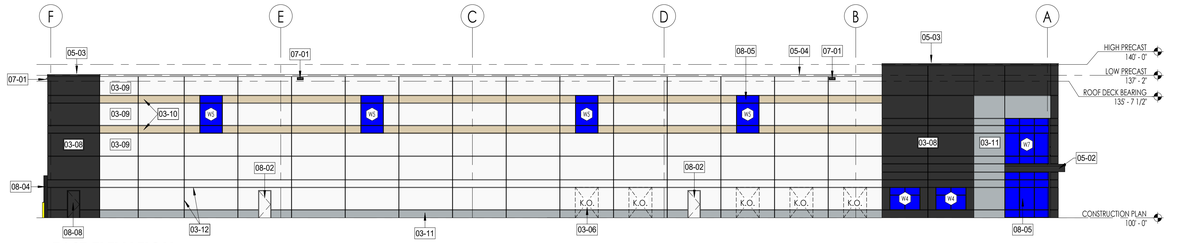
PROJECT ARCHITECT	SPS
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SHEET

BUILDING ELEVATIONS

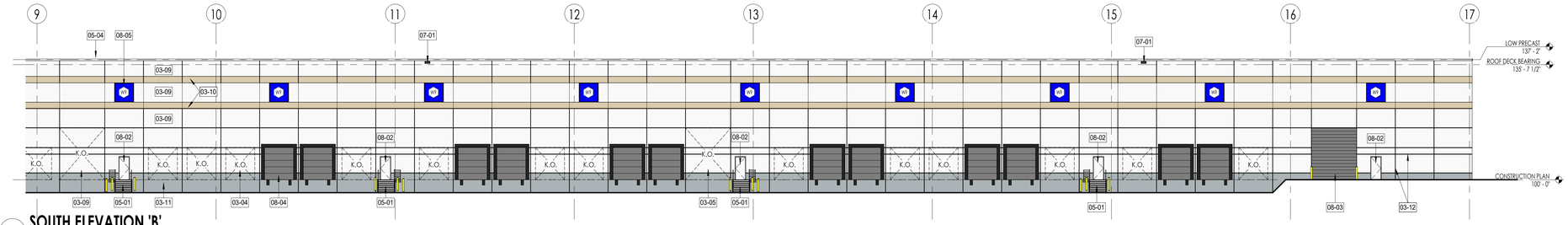
A401

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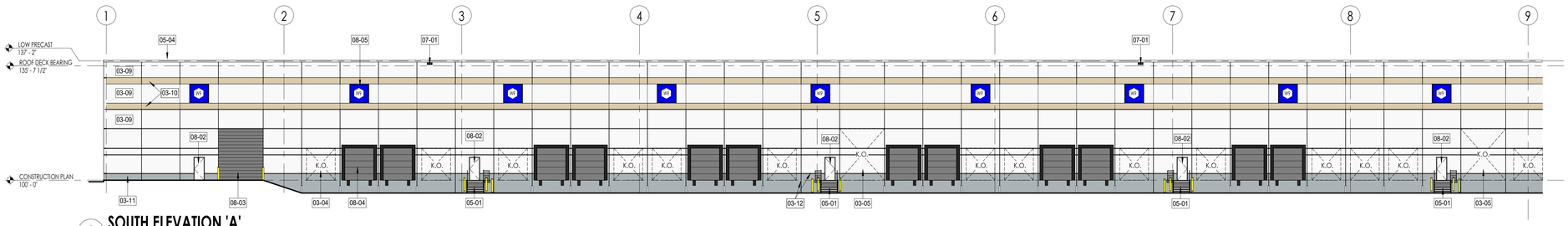
4 EAST ELEVATION

SCALE 1/16" = 1'-0"



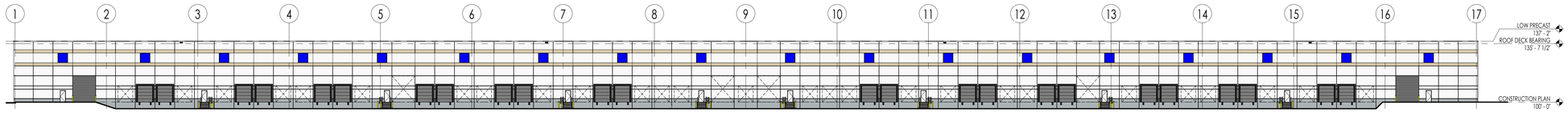
3 SOUTH ELEVATION 'B'

SCALE 1/16" = 1'-0"



2 SOUTH ELEVATION 'A'

SCALE 1/16" = 1'-0"



1 SOUTH ELEVATION - OVERALL

SCALE 1" = 30'-0"

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08-02	INSULATED STEEL DOOR & FRAME (EPT5) - SHERWIN WILLIAMS COLOR: SW 6196 FROSTY WHITE
08-03	INSULATED OVERHEAD DRIVE-IN DOOR (AM6) - CLOPAY COLOR: STANDARD WHITE
08-04	INSULATED OVERHEAD DOCK DOOR W/ DOCK SEAL (AM7) - CLOPAY COLOR: STANDARD WHITE
08-05	ALUMINUM STOREFRONT WINDOW SYSTEM (AM3, GL1, GL1T)
08-08	INSULATED STEEL DOOR & FRAME EPT6) - SHERWIN WILLIAMS COLOR: SW 6237 DARK KNIGHT

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PINNACLE ENGINEERING GROUP

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CREATIVITY BEYOND ENGINEERING

PROJECT

PROPOSED BUILDING FOR:

ZILBER INDUSTRIAL 6

GERMANTOWN GATEWAY
CORPORATE PARK
GATEWAY CROSSING & ROCKFIELD ROAD
GERMANTOWN, WISCONSIN

OWNER

ZILBER PROPERTY GROUP SM

CONTRACTOR

RILEY CONSTRUCTION

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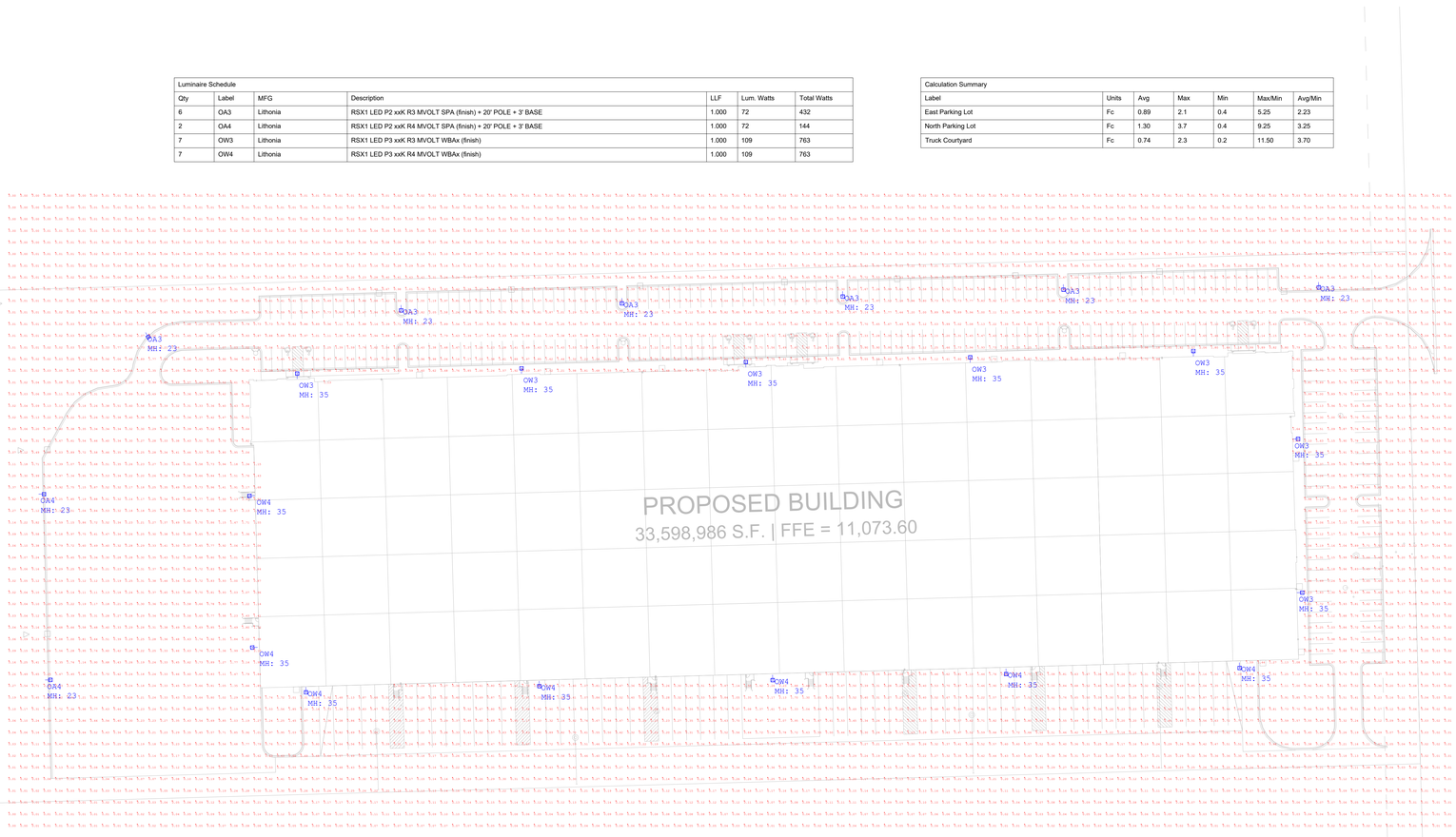
BUILDING ELEVATIONS

A402

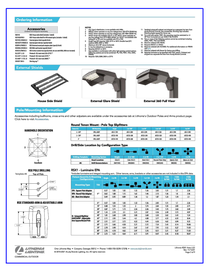
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Luminaire Schedule						
Qty	Label	MFG	Description	LLF	Lum. Watts	Total Watts
6	OA3	Lithonia	RSX1 LED P2 xxK R3 MVOLT SPA (finish) + 20' POLE + 3' BASE	1.000	72	432
2	OA4	Lithonia	RSX1 LED P2 xxK R4 MVOLT SPA (finish) + 20' POLE + 3' BASE	1.000	72	144
7	OW3	Lithonia	RSX1 LED P3 xxK R3 MVOLT WBAx (finish)	1.000	109	763
7	OW4	Lithonia	RSX1 LED P3 xxK R4 MVOLT WBAx (finish)	1.000	109	763

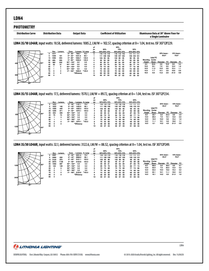
Calculation Summary						
Label	Units	Avg	Max	Min	Max/Min	Avg/Min
East Parking Lot	Fc	0.89	2.1	0.4	5.25	2.23
North Parking Lot	Fc	1.30	3.7	0.4	9.25	3.25
Truck Courtyard	Fc	0.74	2.3	0.2	11.50	3.70

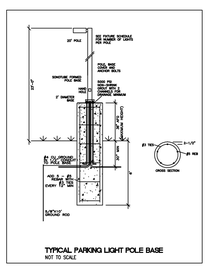












REVISIONS		
#	DATE	COMMENTS

DRAWN BY : JT

DATE : 12-20-2022

SCALE : 1" = 50'

ZILBER

GERMANTOWN, WI

Z6 SITE LIGHTING PLAN

STEPHEN PERRY SMITH ARCHITECTS, INC.

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SITE PHOTOMETRIC PLAN

E1

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From: Pinnacle Engineering Group
20725 Watertown Rd. Suite 100
Brookfield, WI 53186

Date: January 4, 2023

Subject: Zilber Industrial 6

This memo summarizes the proposed stormwater management for the Zilber Industrial 6 Project.

The project consists of construction of a new building with concrete and asphalt pavement, landscaping, and storm sewer. The project is located within lot 8 the Germantown Gateway Corporate Park in Germantown Wi and is part of an approved stormwater management report for the business park. The storm sewer was designed per the Village of Germantown 8.09 of the Village ordinances.

Proposed Conditions

The proposed building will consist of 233,326 square foot building, parking, trailer docks, and trailer parking. A stormwater management plan dated September 14, 2018 was created for the Germantown Gateway Corporate Park. The project site is located within the PR-2 drainage basin, see attached exhibit. The area of Lot 8 that lies within PR-2 is 48.84 acres. Per the report the drainage basin has a curve number of 92, however, this is a typo, the hydroCAD report found within the appendix show a curve number of 94 for PR-2, a copy of the results is attached to this memo. A curve number 94 is equal to a 85% impervious value for the site with type C soils. The table below shows the area and curve number of the Building 5, current proposed Building 6, and future conditions of the lot.

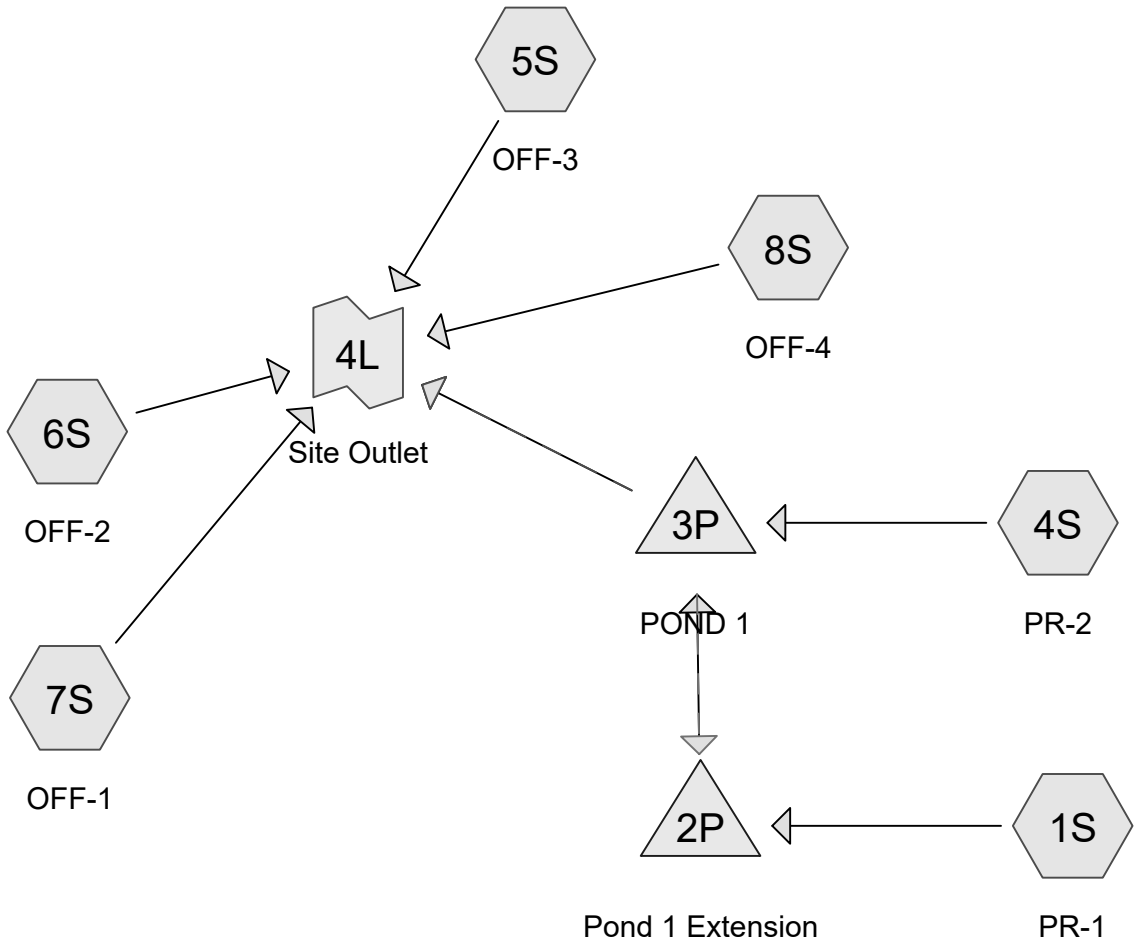
Proposed Areas and Curve Number Table for PR-2

Area	Area (Ac)	CN
Proposed Building 5, Sidewalks, and Pavement	**11.55**	**98**
Proposed Building 6, Sidewalks, and Pavement	**9.66**	**98**
Future Buildings, Sidewalks, and Pavement	**11.92**	**98**
Pond	**4.72**	**98**
Green Space	**10.99**	**76**
TOTAL	**48.84**	**93**

The site will be drained by an underground storm sewer system and discharge into the existing pond located to the west of the building.

Runoff Water Quality

During construction silt fencing, inlet protection, erosion blankets will be used for water quality. The storm runoff will also use the existing pond as a sediment basin. Post-development water quality will be obtained using the existing wet pond located to the west of the building.



Subcat Reach Pond Link

Routing Diagram for 2018-07-12 Germantown Corporate Park
Prepared by {enter your company name here}, Printed 9/23/2018
HydroCAD® 10.00-15 s/n 07894 © 2015 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.170	74	>75% Grass cover, Good, HSG C (5S, 6S, 7S)
3.780	76	Row crops, straight row, Poor, HSG C (8S)
120.513	94	Urban commercial, 85% imp, HSG C (1S, 4S)
5.407	98	Water Surface, HSG D (4S)
133.870	**93**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
128.463	HSG C	1S, 4S, 5S, 6S, 7S, 8S
5.407	HSG D	4S
0.000	Other	
133.870		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	4.170	0.000	0.000	4.170	>75% Grass cover, Good	5S, 6S, 7S
0.000	0.000	3.780	0.000	0.000	3.780	Row crops, straight row, Poor	8S
0.000	0.000	120.513	0.000	0.000	120.513	Urban commercial, 85% imp	1S, 4S
0.000	0.000	0.000	5.407	0.000	5.407	Water Surface	4S
0.000	**0.000**	**128.463**	**5.407**	**0.000**	**133.870**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	909.00	908.00	677.9	0.0015	0.013	24.0	0.0	0.0
2	3P	907.00	906.00	53.3	0.0188	0.013	36.0	0.0	0.0
3	3P	908.00	909.00	616.0	-0.0016	0.013	24.0	0.0	0.0

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment1S: PR-1 Runoff Area=7.560 ac 85.00% Impervious Runoff Depth=5.68"
Tc=0.0 min CN=94 Runoff=78.39 cfs 3.580 af

Subcatchment4S: PR-2 Runoff Area=118.360 ac 85.69% Impervious Runoff Depth=5.68"
Tc=6.0 min CN=94 Runoff=1,061.52 cfs 56.054 af

Subcatchment5S: OFF-3 Runoff Area=2.140 ac 0.00% Impervious Runoff Depth=3.52"
Tc=6.0 min CN=74 Runoff=13.41 cfs 0.627 af

Subcatchment6S: OFF-2 Runoff Area=0.730 ac 0.00% Impervious Runoff Depth=3.52"
Tc=6.0 min CN=74 Runoff=4.57 cfs 0.214 af

Subcatchment7S: OFF-1 Runoff Area=1.300 ac 0.00% Impervious Runoff Depth=3.52"
Tc=0.0 min CN=74 Runoff=9.49 cfs 0.381 af

Subcatchment8S: OFF-4 Runoff Area=3.780 ac 0.00% Impervious Runoff Depth=3.72"
Flow Length=207' Slope=0.0082 '/' Tc=32.2 min CN=76 Runoff=12.05 cfs 1.171 af

Pond 2P: Pond 1 Extension Peak Elev=913.35' Storage=2.476 af Inflow=78.39 cfs 3.842 af
24.0" Round Culvert n=0.013 L=677.9' S=0.0015 '/' Outflow=10.53 cfs 3.063 af

Pond 3P: POND 1 Peak Elev=913.25' Storage=2,651,024 cf Inflow=1,071.47 cfs 59.117 af
Primary=74.19 cfs 35.964 af Secondary=0.00 cfs 0.000 af Tertiary=5.49 cfs 0.262 af Outflow=78.83 cfs 36.226 af

Link 4L: Site Outlet Inflow=87.11 cfs 38.350 af
Primary=87.11 cfs 38.350 af

Total Runoff Area = 133.870 ac Runoff Volume = 62.028 af Average Runoff Depth = 5.56"
19.44% Pervious = 26.027 ac 80.56% Impervious = 107.843 ac

Summary for Subcatchment 1S: PR-1

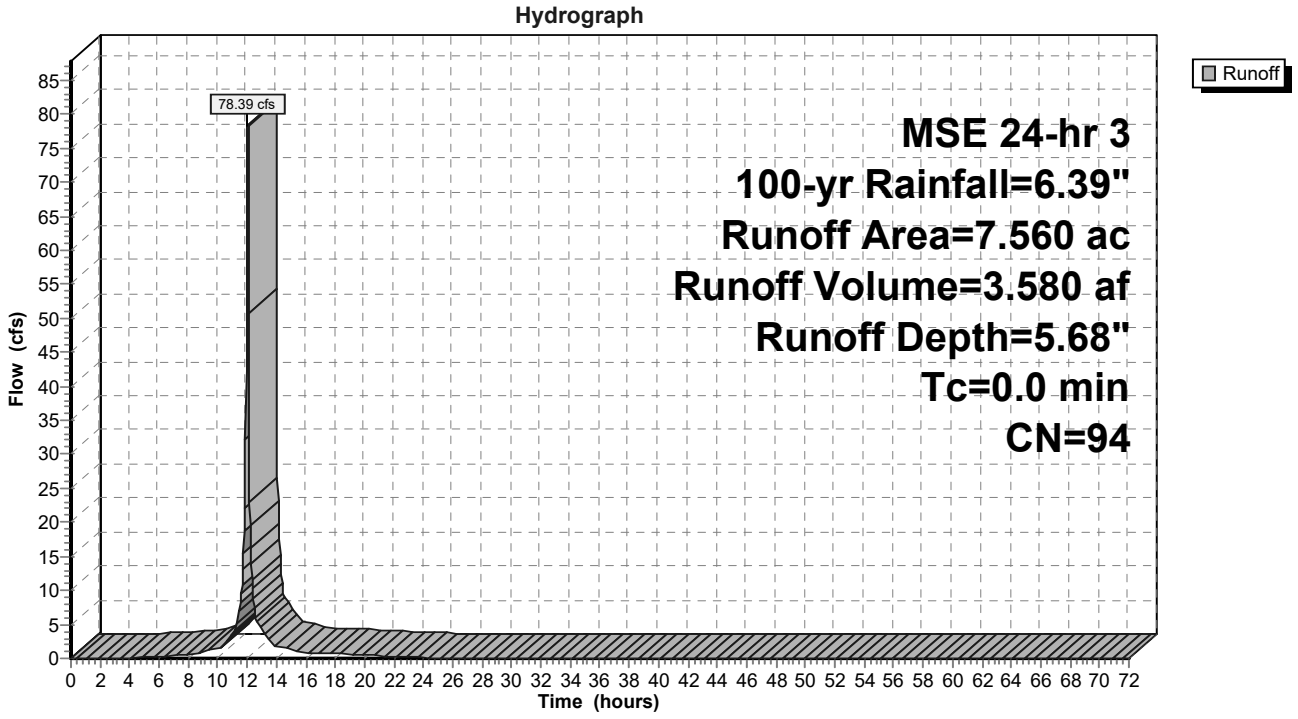
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 78.39 cfs @ 12.04 hrs, Volume= 3.580 af, Depth= 5.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.39"

Area (ac)	CN	Description
7.560	94	Urban commercial, 85% imp, HSG C
1.134		15.00% Pervious Area
6.426		85.00% Impervious Area

Subcatchment 1S: PR-1



Summary for Subcatchment 4S: PR-2

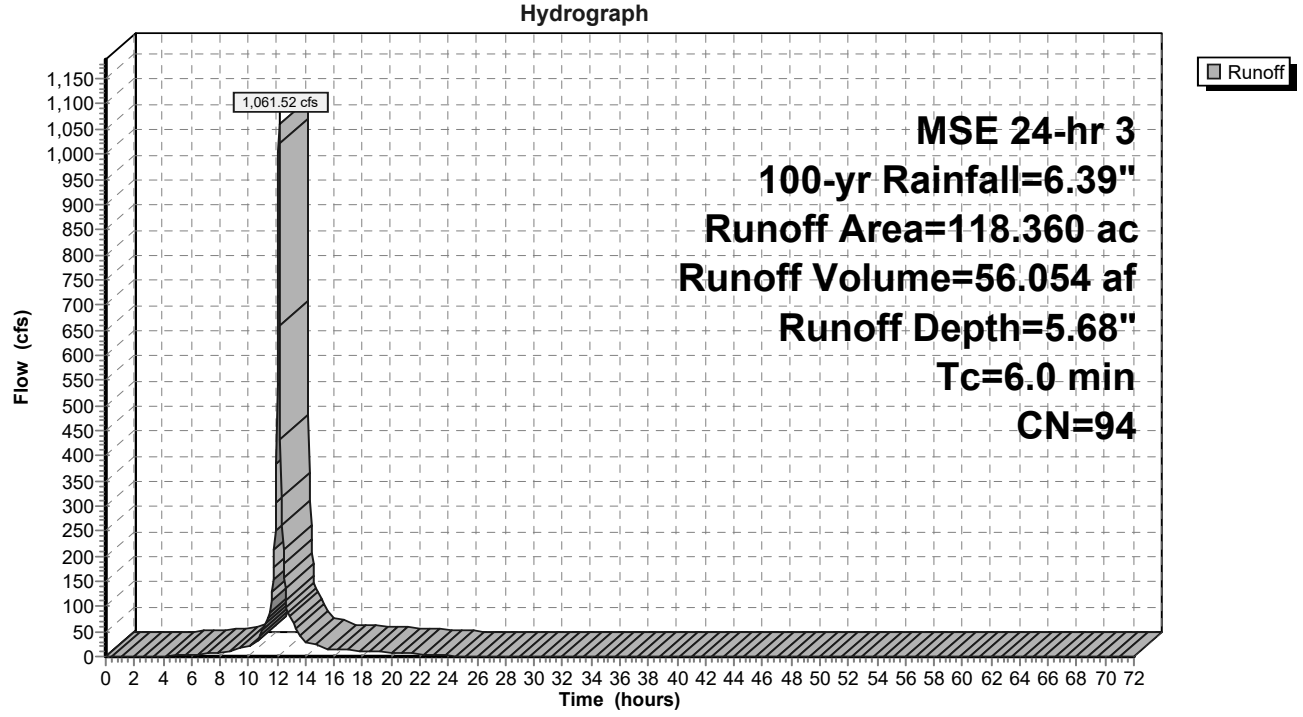
Runoff = 1,061.52 cfs @ 12.13 hrs, Volume= 56.054 af, Depth= 5.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.39"

Area (ac)	CN	Description
112.953	94	Urban commercial, 85% imp, HSG C
5.407	98	Water Surface, HSG D
118.360	94	Weighted Average
16.943		14.31% Pervious Area
101.417		85.69% Impervious Area

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

Subcatchment 4S: PR-2



Summary for Subcatchment 5S: OFF-3

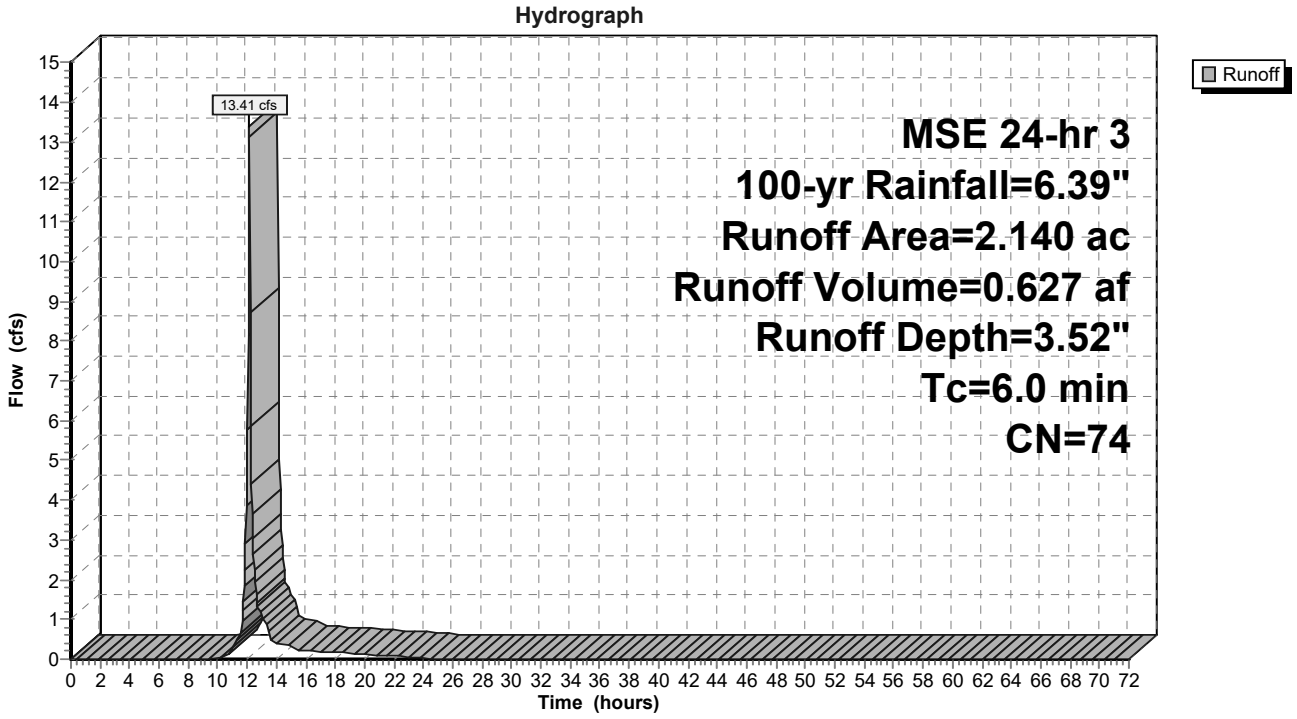
Runoff = 13.41 cfs @ 12.13 hrs, Volume= 0.627 af, Depth= 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.39"

Area (ac)	CN	Description
2.140	74	>75% Grass cover, Good, HSG C
2.140		100.00% Pervious Area

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

Subcatchment 5S: OFF-3



Summary for Subcatchment 6S: OFF-2

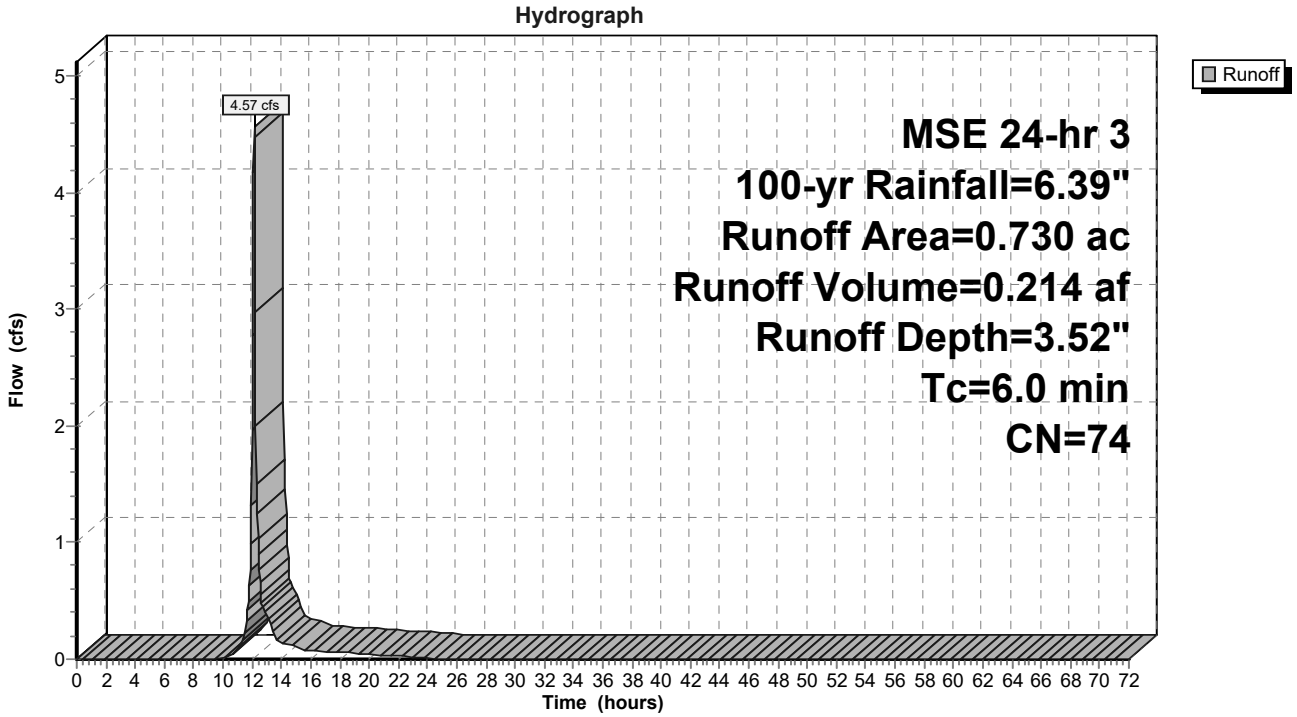
Runoff = 4.57 cfs @ 12.13 hrs, Volume= 0.214 af, Depth= 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.39"

Area (ac)	CN	Description
0.730	74	>75% Grass cover, Good, HSG C
0.730		100.00% Pervious Area

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

Subcatchment 6S: OFF-2



Summary for Subcatchment 7S: OFF-1

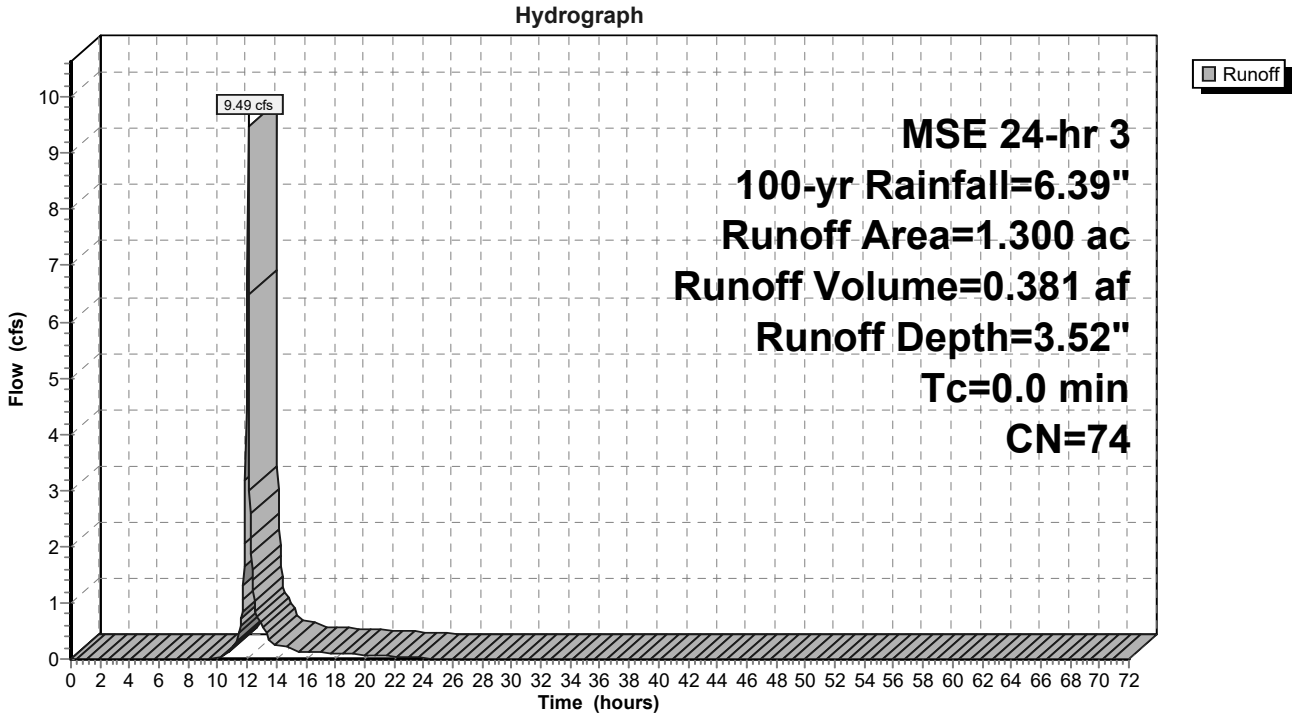
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 9.49 cfs @ 12.05 hrs, Volume= 0.381 af, Depth= 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.39"

Area (ac)	CN	Description
1.300	74	>75% Grass cover, Good, HSG C
1.300		100.00% Pervious Area

Subcatchment 7S: OFF-1



Summary for Subcatchment 8S: OFF-4

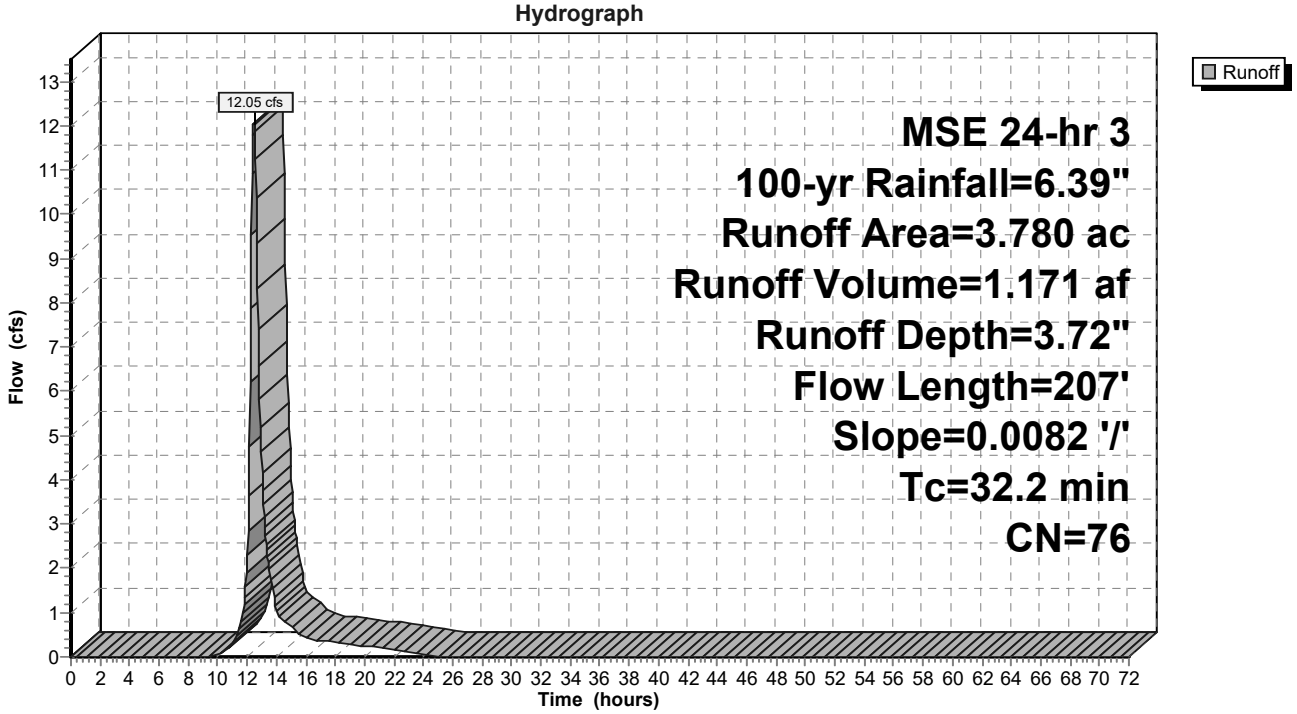
Runoff = 12.05 cfs @ 12.45 hrs, Volume= 1.171 af, Depth= 3.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.39"

	Area (ac)	CN	Description
*	3.780	76	Row crops, straight row, Poor, HSG C
	3.780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.2	207	0.0082	0.11		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.37"

Subcatchment 8S: OFF-4



Summary for Pond 2P: Pond 1 Extension

Inflow	=	78.39 cfs @	12.04 hrs, Volume=	3.842 af
Outflow	=	10.53 cfs @	12.07 hrs, Volume=	3.063 af, Atten= 87%, Lag= 1.3 min
Primary	=	10.53 cfs @	12.07 hrs, Volume=	3.063 af

Routing by Sim-Route method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 913.35' @ 13.45 hrs Surf.Area= 0.825 ac Storage= 2.476 af

Plug-Flow detention time= 608.8 min calculated for 3.061 af (80% of inflow)
Center-of-Mass det. time= 555.6 min (1,309.9 - 754.3)

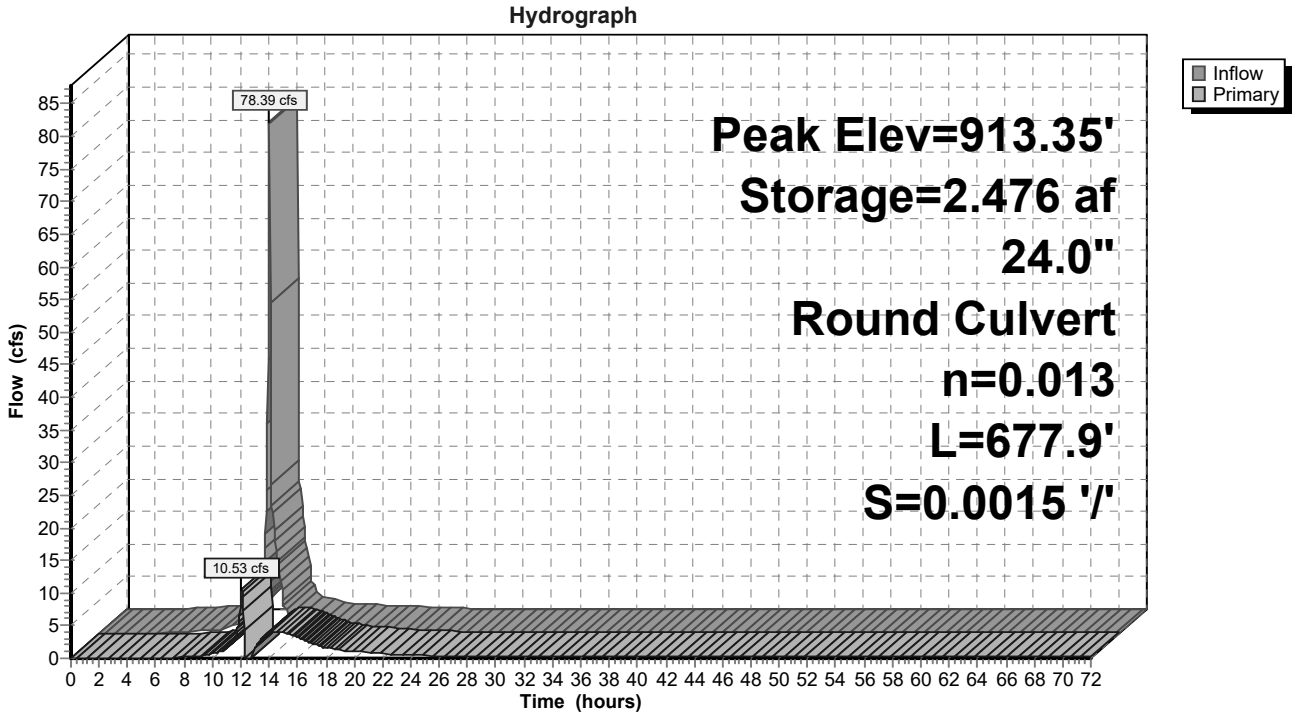
Volume	Invert	Avail.Storage	Storage Description
#1	909.00'	3.038 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
909.00	0.318	0.000	0.000
910.00	0.432	0.375	0.375
911.00	0.548	0.490	0.865
912.00	0.665	0.606	1.471
913.00	0.783	0.724	2.196
914.00	0.903	0.843	3.038

Device	Routing	Invert	Outlet Devices
#1	Primary	909.00'	**24.0" Round Culvert** L= 677.9' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 909.00' / 908.00' S= 0.0015 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=8.98 cfs @ 12.07 hrs HW=911.63' TW=910.46' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 8.98 cfs @ 2.87 fps)

Pond 2P: Pond 1 Extension



Summary for Pond 3P: POND 1

Inflow	=	1,071.47 cfs @	12.13 hrs,	Volume=	59.117 af
Outflow	=	78.83 cfs @	12.62 hrs,	Volume=	36.226 af, Atten= 93%, Lag= 29.7 min
Primary	=	74.19 cfs @	13.05 hrs,	Volume=	35.964 af
Secondary	=	0.00 cfs @	0.00 hrs,	Volume=	0.000 af
Tertiary	=	5.49 cfs @	12.41 hrs,	Volume=	0.262 af

Routing by Sim-Route method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 907.00' Surf.Area= 235,860 sf Storage= 933,590 cf
Peak Elev= 913.25' @ 13.05 hrs Surf.Area= 313,540 sf Storage= 2,651,024 cf (1,717,434 cf above start)

Plug-Flow detention time= 1,440.5 min calculated for 14.783 af (25% of inflow)
Center-of-Mass det. time= 565.4 min (1,353.8 - 788.4)

Volume	Invert	Avail.Storage	Storage Description
#1	902.00'	2,887,921 cf	**Custom Stage Data (Prismatic)** Listed below

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
902.00	164,870	0	0
903.00	172,093	168,482	168,482
904.00	179,093	175,593	344,075
905.00	187,064	183,079	527,153
906.00	194,975	191,020	718,173
907.00	235,860	215,418	933,590
908.00	248,130	241,995	1,175,585
909.00	260,464	254,297	1,429,882
910.00	272,853	266,659	1,696,541
911.00	285,300	279,077	1,975,617
912.00	297,803	291,552	2,267,169
913.00	310,362	304,083	2,571,251
914.00	322,978	316,670	2,887,921

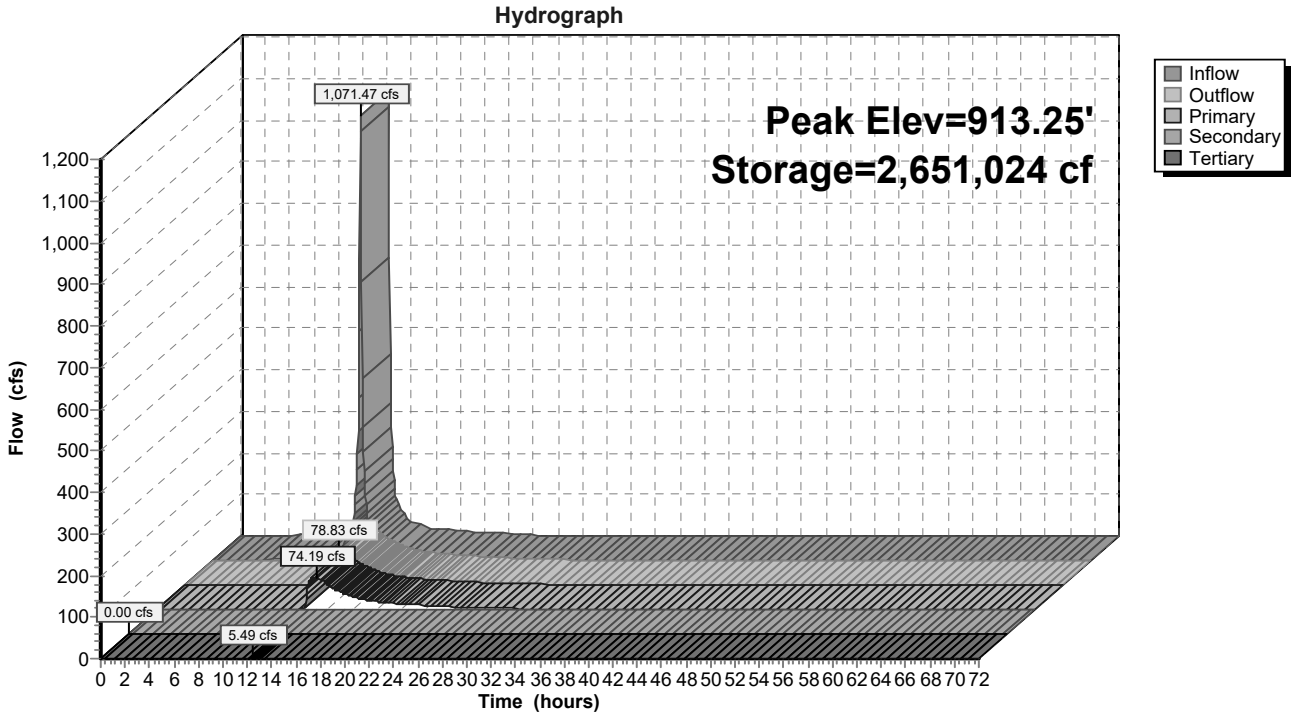
Device	Routing	Invert	Outlet Devices
#1	Primary	907.00'	**36.0" Round Culvert** L= 53.3' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 907.00' / 906.00' S= 0.0188 '/' Cc= 0.900 n= 0.013, Flow Area= 7.07 sf
#2	Secondary	913.55'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#3	Device 1	907.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	911.75'	**48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Tertiary	909.00'	**24.0" Round Culvert** L= 616.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 908.00' / 909.00' S= -0.0016 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=74.19 cfs @ 13.05 hrs HW=913.25' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 74.19 cfs @ 10.50 fps)
  └─**3=Orifice/Grate** (Passes < 2.32 cfs potential flow)
  └─**4=Orifice/Grate** (Passes < 74.15 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=907.00' TW=0.00' (Dynamic Tailwater)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=4.85 cfs @ 12.41 hrs HW=912.97' TW=912.63' (Dynamic Tailwater)
└─**5=Culvert** (Outlet Controls 4.85 cfs @ 1.54 fps)

Pond 3P: POND 1



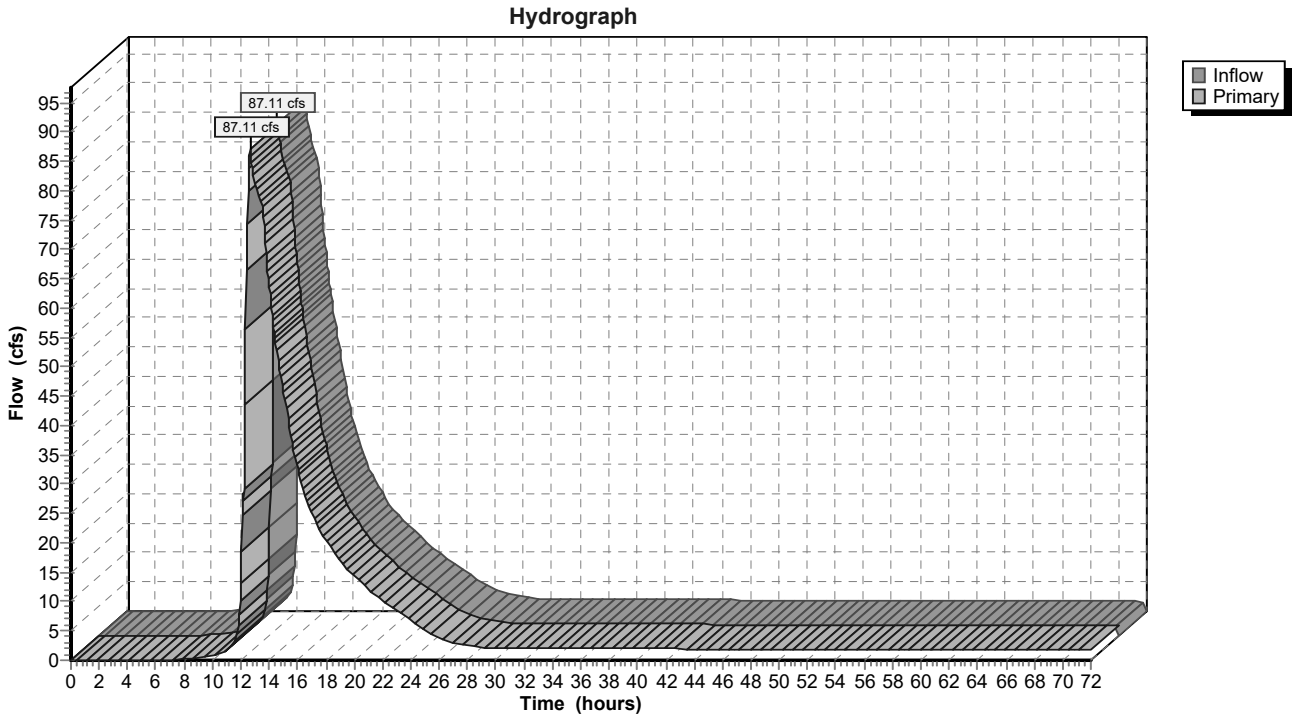
Summary for Link 4L: Site Outlet

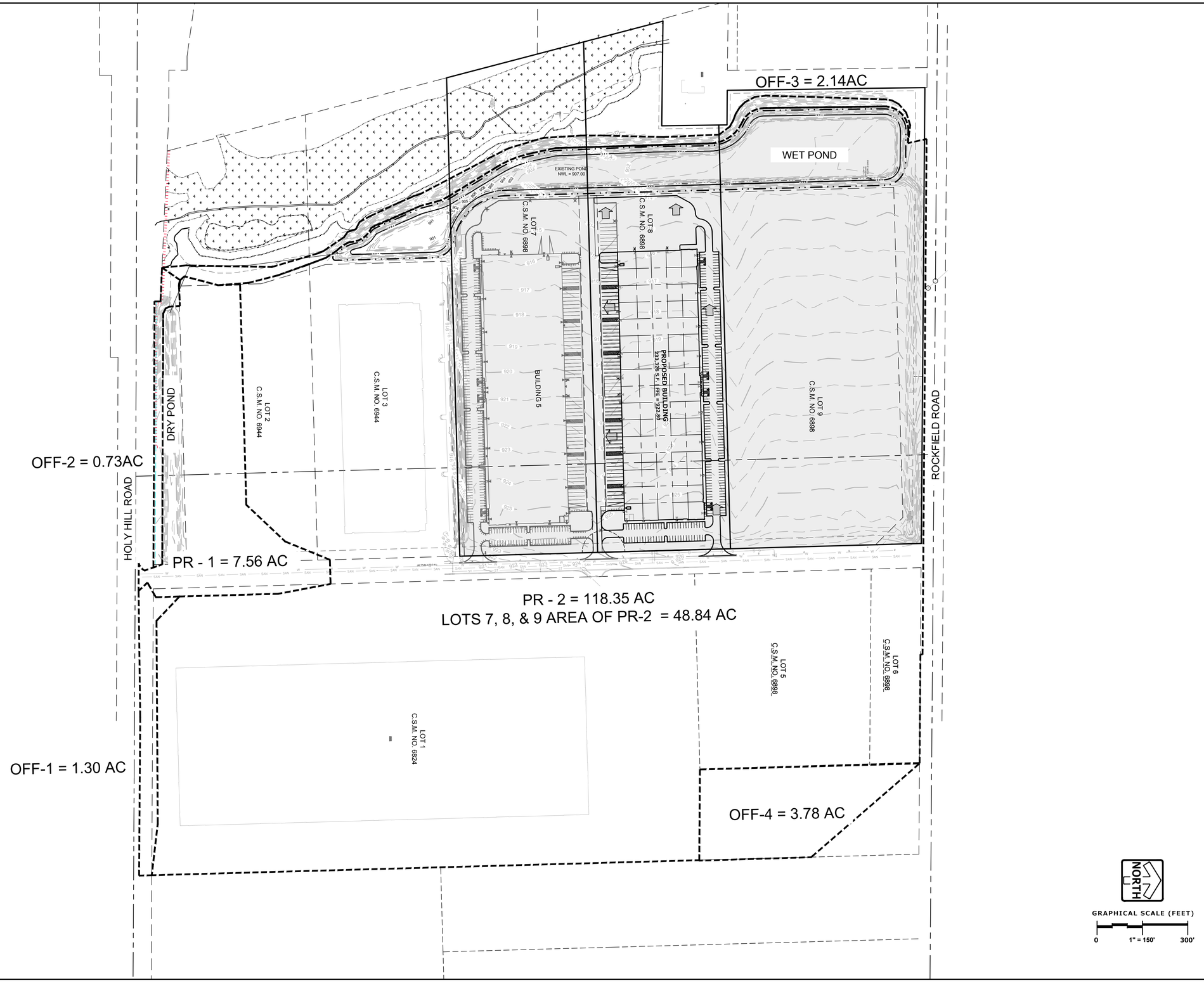
2-year max = 18.94
100 year max = 63.13

Inflow	=	87.11 cfs @	12.60 hrs, Volume=	38.350 af
Primary	=	87.11 cfs @	12.65 hrs, Volume=	38.350 af, Atten= 0%, Lag= 3.0 min

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

Link 4L: Site Outlet





ZILBER INDUSTRIAL 6 - PROPOSED HYDROLOGY EXHIBIT

01/04/2023

PINNACLE ENGINEERING GROUP
15850 W. BLUEMOUND ROAD | SUITE 210 | BROOKFIELD, WI 53005 | WWW.PINNACLE-ENGR.COM |

PLAN | DESIGN | DELIVER

PEGJOB# 1296.00F

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 100' 200'

INL 36.0
10,644 SQ. FT
0.24 ACRES

INL 35.0
16,073 SQ. FT
0.37 ACRES

INL 34.0
7,286 SQ. FT
0.17 ACRES

INL 34.1
8,733 SQ. FT
0.20 ACRES

INL 33.0
8,332 SQ. FT
0.19 ACRES

INL 33.1
7,741 SQ. FT
0.18 ACRES

INL 32.0
16,010 SQ. FT
0.37 ACRES

INL 31.0
11,586 SQ. FT
0.27 ACRES

INL 30.0
13,076 SQ. FT
0.30 ACRES

INL 29.0
16,628 SQ. FT
0.38 ACRES

INL 25.0
26,854 SQ. FT
0.62 ACRES

INL 22.0
24,782 SQ. FT
0.57 ACRES

INL 7.0
37,248 SQ. FT
0.86 ACRES

INL 6.0
30,289 SQ. FT
0.70 ACRES

INL 5.0
31,450 SQ. FT
0.72 ACRES

INL 4.0
31,450 SQ. FT
0.72 ACRES

INL 3.0
31,450 SQ. FT
0.72 ACRES

INL 2.0
51,818 SQ. FT
1.19 ACRES

BC 24.0
5,756 SQ. FT
0.13 ACRES

BC 36.1
19,001 SQ. FT
0.44 ACRES

BC 34.1
28,037 SQ. FT
0.64 ACRES

BC 33.1
28,037 SQ. FT
0.64 ACRES

BC 32.1
19,011 SQ. FT
0.44 ACRES

BC 30.1
5,744 SQ. FT
0.13 ACRES

BC 29.1
13,200 SQ. FT
0.30 ACRES

BC 21.0
14,854 SQ. FT
0.34 ACRES

BC 18.0
18,898 SQ. FT
0.43 ACRES

BC 15.0
30,112 SQ. FT
0.69 ACRES

STUB 12.0
30,112 SQ. FT
0.69 ACRES

BC 10.0
20,565 SQ. FT
0.47 ACRES

EXISTING POND
NWL = 907.00

ZILBUR INDUSTRIAL 5

ZILBER INDUSTRIAL 6 - STORM SEWER DRAINAGE EXHIBIT

01/04/2023

PINNACLE ENGINEERING GROUP

20725 WATERTOWN ROAD | SUITE 100 | BROOKFIELD, WI 53186 | WWW.PINNACLE-ENGR.COM |

PLAN | DESIGN | DELIVER **PEG JOB#** 1296.00F

Z:\PROJECTS\2018\1296.00F-WI\CAD\EXHIBITS\1296.00F STORM DRAINAGE EXHIBIT.DWG 1/4/2023 9:39 AM

PINNACLE ENGINEERING GROUP
Plan | Design | Deliver
www.pinnacle-engr.com

STORM SEWER COMPUTATIONS
Z6 AT GERMANTOWN CORP. PARK

WASHINGTON COUNTY, WI

SHEET 1 OF 1
DESIGN BY: JMS
PROJECT NUMBER: 1296.00F
DATE: 1/4/2023

DESIGN DATA

County: Washington | **Design Storm:** 10 yr | **Storm Duration:** 6 min | **DESIGN INTENSITY (I):** 6.77 in/hr | Intensity calculated using SEWRPC IDF equations.

STRUCTURE DATA			DRAINAGE AREA AND FLOW DATA (Flow is determined by Rational Method Q = CIA)				PIPE DATA				PIPE CAPACITY INFORMATION (Pipe capacity is determined by Manning's Equation $Q = 1.486/n\ AR^{2/3} S^{1/2}$)					ELEVATIONS		
Notes	Upstream Structure	Downstream Structure	Individual Acres A	Individual Coefficient C	Individual Flow Q (cfs)	Cumulative Flow (cfs)	Length (ft)	Diameter (in)	Slope (%)	Manning Coefficient	Required Drop (ft)	Actual Drop (ft)	Percent Full (%)	Actual Velocity (fps)	Max. Capacity (cfs)	Rim/Toc Up	Invert Up	Invert Down
	BC 10.0	MH 11.0	0.47	0.90	2.86	2.86	20.00	10	2.08	0.011	0.24	0.42	70%	7.55	4.02	918.80	914.63	914.21
	BC 12.0	MH 13.0	0.69	0.90	4.20	4.20	20.00	12	1.56	0.011	0.20	0.31	72%	7.44	5.66	918.80	915.24	914.92
	MH 13.0	MH 14.0				4.20	59.90	12	1.56	0.012	0.71	0.93	77%	6.92	5.19	918.60	914.82	913.89
	BC 15.0	MH 16.0	0.69	0.90	4.20	4.20	29.30	12	1.56	0.011	0.29	0.46	72%	7.44	5.66	918.80	914.10	913.64
	MH 16.0	MH 17.0				4.20	73.20	12	1.56	0.012	0.87	1.14	77%	6.92	5.19	918.51	913.54	912.40
	BC 18.0	BEND 19.0	0.43	0.90	2.62	2.62	18.30	10	2.08	0.011	0.19	0.38	65%	7.41	4.02	918.80	912.71	912.33
	BEND 19.0	MH 20.0				2.62	30.60	10	2.08	0.011	0.31	0.64	65%	7.41	4.02	918.62	912.33	911.70
	BC 21.0	INL 22.0	0.34	0.90	2.07	2.07	181.20	10	1.04	0.011	1.16	1.88	71%	5.36	2.84	918.80	915.00	913.12
	INL 22.0	ES 23.0	0.57	0.90	3.47	5.54	20.40	12	3.00	0.013	0.49	0.61	79%	8.89	6.64	915.95	911.61	911.00
	BC 24.0	INL 25.0	0.13	0.90	0.79	0.79	174.40	10	1.04	0.011	0.16	1.81	34%	4.23	2.84	918.80	914.93	913.12
	INL 25.0	ES 26.0	0.62	0.90	3.78	4.57	25.00	12	2.00	0.013	0.41	0.50	80%	7.27	5.42	915.95	911.50	911.00
	BC 30.1	INL 30.0	0.13	0.90	0.79	0.79	42.50	10	1.04	0.011	0.04	0.44	34%	4.23	2.84	922.80	918.66	918.22
	BC 32.1	INL 32.0	0.44	0.90	2.68	2.68	73.70	10	2.08	0.011	0.79	1.53	66%	7.45	4.02	922.80	919.05	917.52
	BC 33.1	INL 33.0	0.64	0.90	3.90	3.90	73.70	12	2.08	0.011	0.63	1.53	60%	8.21	6.53	922.80	919.48	917.95
	BC 34.1	INL 34.0	0.64	0.90	3.90	3.90	73.70	12	2.08	0.011	0.63	1.53	60%	8.21	6.53	922.80	918.28	916.75
	BC 36.1	INL 36.0	0.44	0.90	2.68	2.68	73.70	10	2.08	0.011	0.79	1.53	66%	7.45	4.02	922.80	919.10	917.57
	BC 29.1	INL 29.0	0.30	0.90	1.83	1.83	41.70	10	1.04	0.011	0.21	0.43	64%	5.23	2.84	922.80	918.65	918.22
	INL 29.0	INL 30.0	0.38	0.90	2.32	4.14	114.70	15	0.50	0.012	0.40	0.57	75%	4.52	5.32	921.05	917.80	917.23
	INL 30.0	INL 31.0	0.30	0.90	1.83	6.76	116.70	18	0.50	0.012	0.41	0.58	75%	5.10	8.66	921.05	916.88	916.29
	INL 31.0	INL 32.0	0.27	0.90	1.65	8.41	107.90	18	0.70	0.012	0.59	0.76	78%	6.08	10.24	921.65	916.19	915.44
	INL 32.0	INL 33.1	0.37	0.90	2.25	13.34	123.50	24	0.35	0.012	0.37	0.43	81%	5.24	15.60	920.35	914.94	914.51
	INL 33.1	INL 33.0	0.18	0.90	1.10	14.44	101.3	24	0.40	0.012	0.35	0.41	82%	5.61	16.67	920.95	914.41	914.00
	INL 33.0	INL 34.1	0.19	0.90	1.16	19.50	96.70	24	0.65	0.012	0.61	0.63	87%	7.17	21.25	920.95	913.90	913.27
	INL 34.1	INL 34.0	0.20	0.90	1.22	20.72	123.7	24	0.80	0.012	0.88	0.99	83%	7.94	23.58	920.90	913.17	912.18
	INL 34.0	INL 35.0	0.17	0.90	1.04	25.65	110.30	30	0.40	0.012	0.37	0.44	81%	6.49	30.23	919.75	911.58	911.14
	INL 35.0	INL 36.0	0.37	0.90	2.25	27.91	113.50	30	0.50	0.012	0.45	0.57	79%	7.23	33.80	919.65	911.04	910.47
	INL 36.0	ES 37.0	0.24	0.90	1.46	32.05	328.00	30	0.80	0.013	2.00	2.62	78%	8.42	39.46	920.40	909.62	907.00

Engineering Department Memorandum

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

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

Date : March 08, 2023

Re : Zilber Building 6

Items Reviewed:

1. Civil Plan Set Dated: 01-09-23

General Comments:

1. The submitted plans have been reviewed for general conformance with State and Village design guidelines. Additional comments could arise as a result of the plan completion and modifications. 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.
2. This project will require a WRAPP/NOI from the DNR. Please submit a copy of the approved permit prior to final approval.
3. As-builts prepared to Village standards shall be prepared and provided to the Village post-construction (for all applicable items).
4. A professional engineer's original seal is to be affixed, signed and dated on the final set of construction plans.
5. Utility permits and permits for work within the ROW are required. Contact the Village engineering department to obtain permits.
6. Recommend utilizing a sediment trap prior to draining construction site runoff to the existing stormwater basin. Utilizing a sediment trap will avoid filling the basin with construction sediment and extend the time before the basin needs to be dredged out.

SIGN REVIEW

3/13/23 Plan Commission Meeting

Innovative Signs Inc. / Goldendale 3 / Dickman Company Inc.

Planning & Zoning Report **Germantown, Wisconsin**

Summary

Innovative Signs Inc, agent for Goldendale 3 and the Dickman Company Inc, property owners, and Daikin-Goodman is requesting approval for a new wall sign for the multi-tenant building located at W204 N13055 Goldendale Road.

Location: W204 N13055 Goldendale Road

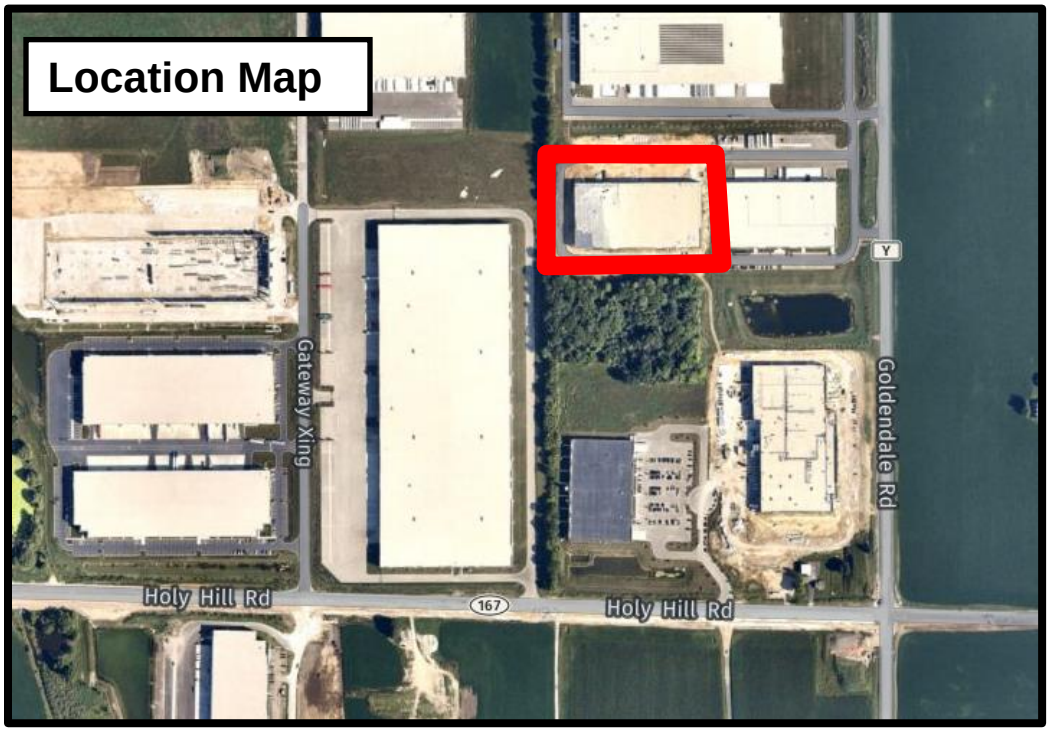
Agent/
Property Owners:

Innovative Signs Inc.
21700 Doral Road
Waukesha, WI 53186

Goldendale 3 / Dickman Company
626 East Wisconsin Ave, Suite 1200
Milwaukee, WI 53202

Zoning: M-1: Limited Industrial District

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Agricultural	A-1
West	Industrial	M-1



Background/Proposal

Innovative Signs Inc, agent for Goldendale 3 and the Dickman Company Inc, property owners, and Daikin-Goodman is requesting approval for a new wall sign for the multi-tenant building located at W204 N13055 Goldendale Road.

Wall Sign

- 3’6” x 17’9” (59 square feet), flat acrylic letters/logos stud-mounted flush to the south wall elevation. This sign is not illuminated.

Staff Comments

All requirements of the Village Sign Code have been met.

Village Staff Recommendation

APPROVE the proposed wall sign for Daikin-Goodman manufacturing facility located at W204 N13055 Goldendale Road as proposed.

Village of Germantown ...Willkommen

Fee must accompany application

$275 Sign Review Fee

$ 75 Sign Face Replacement

Paid JL Date 1/24/23

SIGN REVIEW APPLICATION

Pursuant to Section 17.46 of the Municipal Code

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

1 APPLICANT OR AGENT

Innovative Signs, Inc.
21700 Doral Road - Waukesha, WI 53186

Phone ( ) 262-432-1330
Fax ( )
E-Mail Shaun@Innovative-Signs.com

PROPERTY OWNER

Goldendale 3
c/o The Dickman Company, Inc
626 East Wisconsin Ave, Suite 1200
Milwaukee, WI 53202

Phone ( ) 262-710-0501 ext.301
mbyrne@briohn.com

2 PROPERTY ADDRESS OR GENERAL LOCATION

W204 N13055 GOLDENDALE ROAD - GERMANTOWN, WISCONSIN 53022

3 SIGN INFORMATION

Sign Dimensions 40" height x 213" width Single/Multi Tenant (circle one)
Number of Sides 1 Building Frontage SF _____
Total Square Footage of Sign (include all sides) 59.17
Total height of the Sign 40"
Is the Sign to be illuminated _____ yes ✓ no
Type of Sign Construction Materials Acrylic
Distance to Closest Property Line 400ft

Are there any existing signs on the property No
If yes, what is the total Square Footage of existing signs N/A

What are the intentions for the existing signs: Take down _____ Remain _____

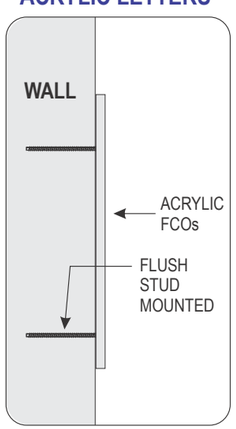
4 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

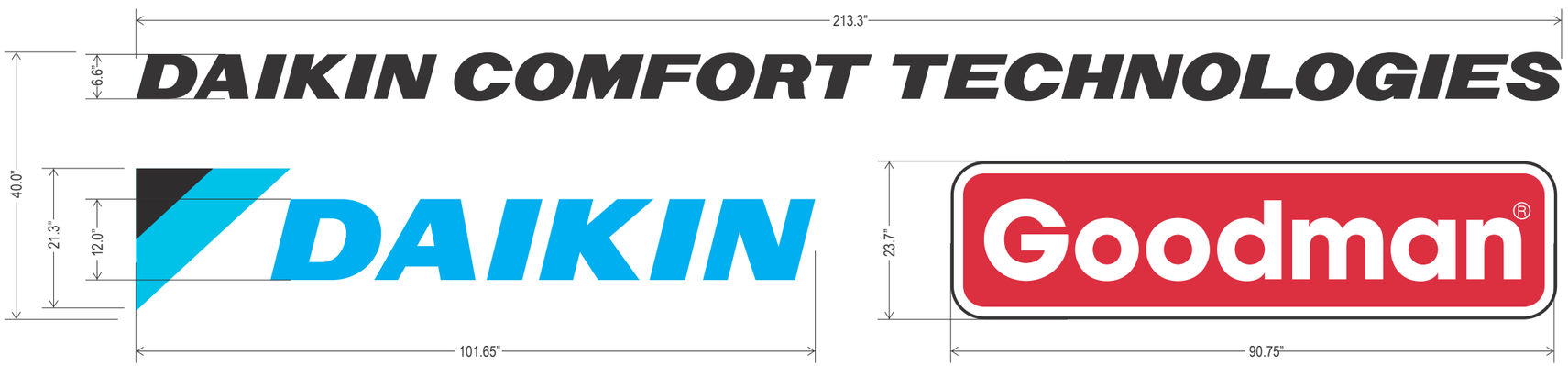
Shaun Relken 12/09/2022
Applicant Date

Joseph A Zanotti Jan 18, 2023
Joseph A Zanotti (Jan 18, 2023 15:38 CST)
Owner Date



FLAT CUT OUT (FCO) ACRYLIC LETTERS





INNOVATIVE SIGNS

www.Innovative-Signs.com

Customer

BRIOHN Building Corp.
Dimensional Logos

Date	Project Manager
11/30/2022	Shaun R.
Order #	**Designer**
ISI - 10864	Brian H.

Materials & Specifics

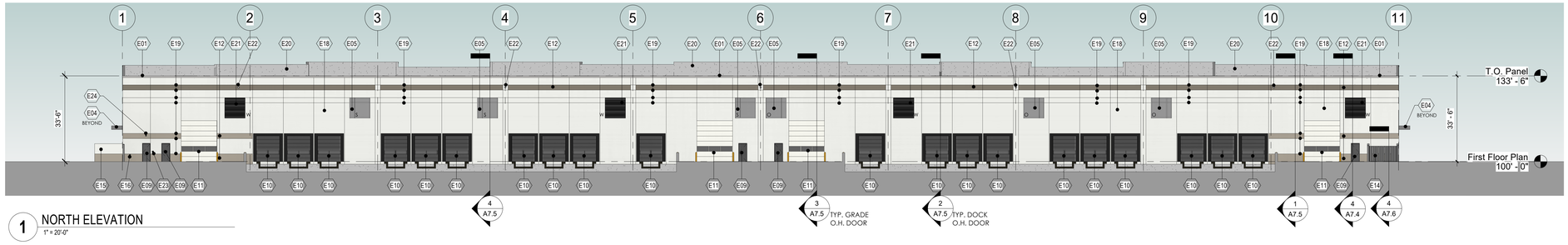
Non Lit Dimensional Letters

- "DAIKIN COMFORT..."
  1/2" Black Dimensional Letters
  + Stud Mounted Flush To Wall
- "DAIKIN" & "Goodman"
  1/2" White Acrylic
  + Blue & Black Vinyl First Surface
  + Stud Mounted Flush to Wall

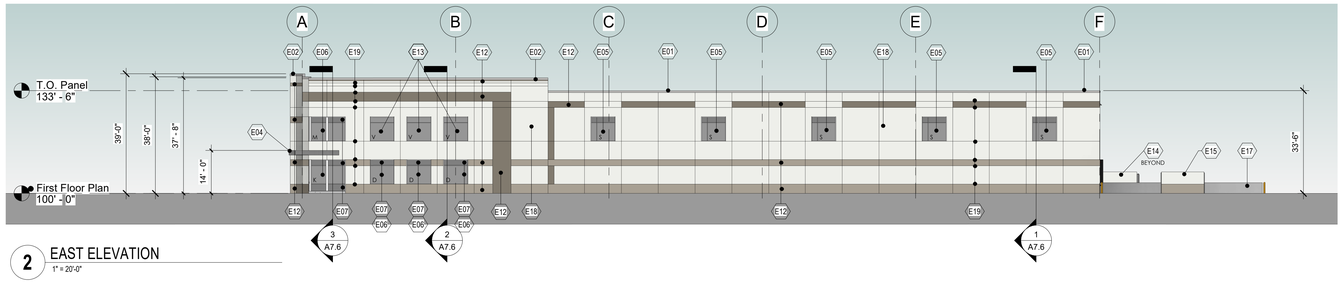
Colors

- Pantone 1797c
- Pantone 311c
- Pantone 801c
- Black Acrylic
- White Acrylic

Approval
Signature: _____



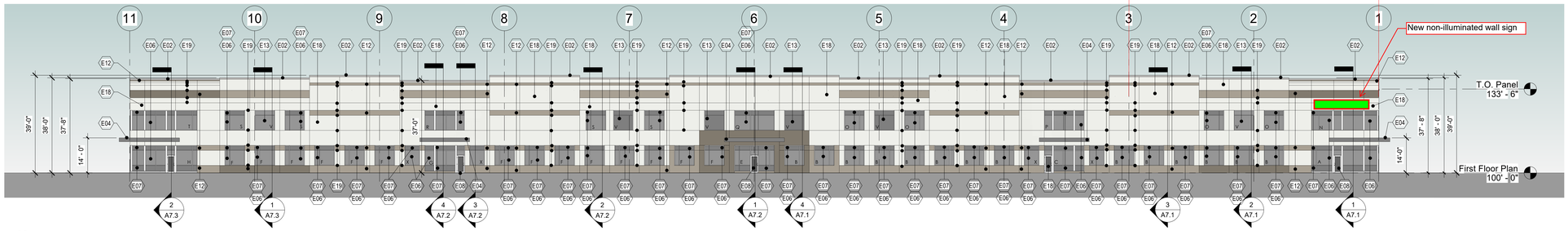
1 NORTH ELEVATION
1" = 20'-0"



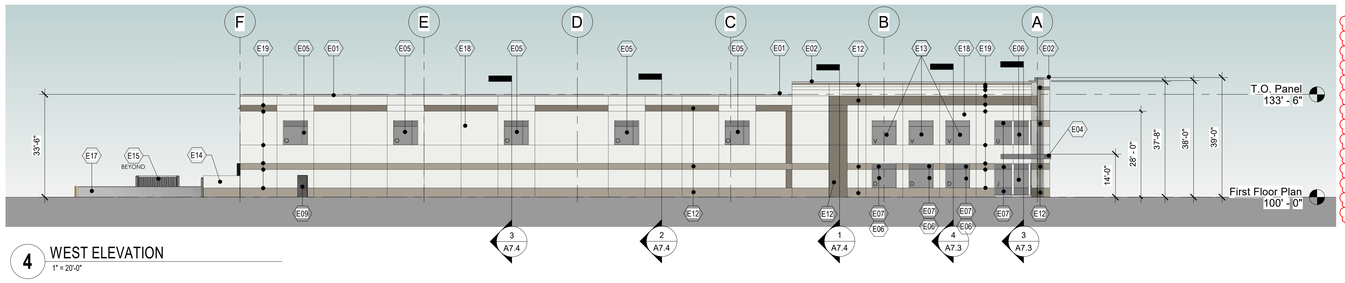
2 EAST ELEVATION
1" = 20'-0"

SAFETY GLAZING :
PER IBC 2406.4 PROVIDE SAFETY GLAZING IN HAZARDOUS LOCATIONS AS REQUIRED DEFINED IN THIS CODE SECTION. GLAZING SHALL MEET CPSC SAFETY GLAZING TEST.

NOTE: ALL SPANDREL GLAZING SHALL BE TEMPERED/SAFETY GLAZING.



3 SOUTH ELEVATION
1" = 20'-0"



4 WEST ELEVATION
1" = 20'-0"

ELEVATION PAINT COLOR KEY:

PAINT COLOR 1: SHERWIN WILLIAMS "SW" 7006 EXTRA WHITE - BASE FIELD COLOR

PAINT COLOR 2: SHERWIN WILLIAMS "SW" 7045 INTELLECTUAL GRAY - MEDIUM ACCENT COLOR

PAINT COLOR 3: SHERWIN WILLIAMS "SW" 7046 ANONYMOUS - MEDIUM SECONDARY ACCENT COLOR

NOTE:
ALL EXTERIOR DOORS SHALL BE NUMBERED ON EXTERIOR SIDE REQUIRED BY THE VILLAGE OF GERMANTOWN FIRE DEPARTMENT.

NOTE:
ALL WINDOWS SHALL BE LOW "E" COATED BRONZE-GREY TINTED 1" INSULATED GLAZING SET IN THERMALLY BROKEN "CLEAR" ANODIZED ALUMINUM WINDOW FRAMES WITH ACCENT METAL WHERE REFERENCED ON THE ELEVATIONS SHALL MATCH "CLEAR" COLOR. SPANDREL GLASS SHALL BE "BRONZE" TO COMPLIMENT VISION GLASS. U - VALUE / FACTOR - .29 WITH SH GC - .41

WINDOW TYPE NOTES:

SEE WINDOW TYPES ON SHEET A5.2 FOR INFORMATION ON SPECIFIED WINDOWS.

THE PROPOSED COMMERCIAL NON-RESIDENTIAL BUILDING TO BE LOCATED IN CLIMATE ZONE 6 (PER IECC SECTION 502) PER TABLE 502.2 (1) BUILDING ENVELOPE REQUIREMENTS - OPAQUE ASSEMBLIES.

ROOFS - PROPOSED ROOF INSULATION ENTIRELY ABOVE DECK R-20ci REQUIRED AND R-25ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

WALLS ABOVE GRADE PROPOSED EXTERIOR WALL - MASS (PRECAST INSULATED CONCRETE) R-13.3ci REQUIRED AND R-15.37ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

SLAB-ON-GRADE FLOORS - PROPOSED UNHEATED SLABS R-10 FOR 24 INCHES BELOW REQUIRED AND R-10 FOR 24 INCHES OR MORE PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

PER TABLE 502.3 BUILDING ENVELOPE REQUIREMENTS: FENESTRATION
VERTICAL FENESTRATION (40% MAXIMUM ALLOWED ABOVE GRADE) 10.32% ACTUAL PROVIDED. REQUIRED U- FACTOR .40; ACTUAL PROVIDED .29 AND SHGC .41

PER 2015 IECC:

C402.5 AIR LEAKAGE THERMAL ENVELOPE.
PROPOSED BUILDING COMPLIES.

C402.5.1 AIR BARRIER PER C402.5.1.2.1 MATERIALS SEE EXCEPTION 13 CAST-IN-PLACE AND PRECAST CONCRETE.
PROPOSED BUILDING COMPLIES.

C402.5.2 AIR LEAKAGE FENESTRATION SEE EXCEPTION 1. FIELD FABRICATED FENESTRATION ASSEMBLIES THAT ARE SEALED IN ACCORDANCE WITH SECTION C402.5.1.
PROPOSED BUILDING COMPLIES.

C402.5.3 ROOMS CONTAINING FUEL - BURNING APPLIANCES EXCEPTION 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO OUTSIDE.
PROPOSED BUILDING COMPLIES.

C402.5.4 DOORS AND ACCESS OPENINGS TO SHAFTS, CHUTES, STAIRWAYS AND ELEVATOR LOBBIES.
NOT APPLICABLE TO PROPOSED BUILDING.

C402.5.5 AIR INTAKES, EXHAUST OPENINGS, STAIRWAYS AND SHAFTS. IF REQUIRED TO BE DAMPERED.
PROPOSED BUILDING COMPLIES.

C402.5.6 LOADING DOCK WEATHER SEALS TO BE PROVIDED FOR LOADING DOCK DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.7 VESTIBULES EXCEPTION 2. DOORS NOT INTENDED TO BE USED BY THE PUBLIC, SUCH AS DOORS TO MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, ON INTENDED SOLELY FOR EMPLOYEE USE. EXCEPTION 4 DOORS THAT OPEN DIRECTLY FROM A SPACE LESS THAN 3,000 SQUARE FEET IN AREA. EXCEPTION 6 DOORS USED PRIMARILY TO FACILITATE VEHICULAR MOVEMENT OR MATERIAL AND ADJACENT PERSONNEL DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.8 RECESSED LIGHTING.
NOT APPLICABLE TO PROPOSED BUILDING.

KEYNOTE LEGEND ELEVATION

MARK	ELEVATION CODED NOTES
E01	PRE FINISHED METAL 24 GA. GRAVEL STOP COLOR SHALL BE "CLEAR ANODIZED FINISH".
E02	PRE FINISHED METAL 24 GA. METAL CAP/COPING FINISH COLOR SHALL BE "CLEAR ANODIZED FINISH".
E04	PRE FINISHED METAL 24 GA. METAL CANOPY AND SOFFIT FINISH COLOR SHALL BE "GREY FINISH" AS INDICATED ON ELEVATIONS.
E05	FIXED AND THERMALLY BROKEN PRE FINISHED ALUMINUM FRAMED AND 1" INSULATED LOW-E TINTED CLERSTORY WINDOWS UNITS.
E06	FIXED AND THERMALLY BROKEN PRE FINISHED ALUMINUM FRAMED AND 1" INSULATED LOW-E TINTED STANDARD WINDOWS UNITS - VISION.
E07	FIXED AND THERMALLY BROKEN PRE FINISHED ALUMINUM FRAMED AND 1" INSULATED LOW-E TINTED STANDARD WINDOWS UNITS - SPANDREL.
E08	FIXED AND THERMALLY BROKEN PRE FINISHED ALUMINUM FRAMED AND 1" INSULATED LOW-E TINTED STANDARD WINDOW AND ENTRY UNITS.
E09	3'-0" x 7'-0" INSULATED AND PAINTED GALVANIZED HOLLOW METAL DOOR AND FRAME WITH ADA HARDWARE - PAINTED TO MATCH ADJACENT WALL COLOR (PROVIDE HEAD RAIN TRIM).
E10	9'-0" x 10'-0" INSULATED FACTORY PRE FINISHED "WHITE" STEEL OVERHEAD DOOR AND FRAME WITH WEATHER-SEAL - PRE FINISHED COLOR TO COMPLIMENT OFF WHITE COLOR OF WALL COLOR. NOTE PROVIDE FULL PANEL VISION LITES. PROVIDE 6" DIA x 3'-6" H PAINTED STEEL BOLLARDS. DOCKSEALS AND SHELTERS TO BE CONFIRMED BY BRIOHN BASED ON TENANTS REQUIREMENTS PRIOR TO INSTALLATION (PROVIDE RAIN GUARD).
E11	14'-0" x 16'-0" INSULATED FACTORY PRE FINISHED "WHITE" STEEL OVERHEAD DOOR AND FRAME WITH WEATHER-SEAL - PRE FINISHED COLOR TO COMPLIMENT OFF WHITE COLOR OF WALL COLOR. NOTE PROVIDE FULL PANEL VISION LITES. PROVIDE 6" DIA x 3'-6" H PAINTED STEEL BOLLARDS.
E12	PRE FINISHED METAL ACCENT BAND "COLOR TO MATCH COLOR KEY".
E13	PAINTED WINDOW ACCENT - LIGHT GREY.
E14	TRASH ENCLOSURE SIDEWALLS TO BE CONSTRUCTED OF PAINTED POURED AND REINFORCED 12" CONCRETE WALLS OR PAINTED PRE-CAST CONCRETE 10" WALLS "PAINT FINISH TO MATCH OFF WHITE OF MAIN BUILDING WALLS AS INDICATED ON ELEVATIONS".
E15	FREE STANDING TRASH ENCLOSURE SIDEWALLS TO BE CONSTRUCTED OF PAINTED POURED AND REINFORCED 12" CONCRETE WALLS OR PAINTED PRE-CAST CONCRETE 10" WALLS "PAINT FINISH TO MATCH OFF WHITE OF MAIN BUILDING WALLS AS INDICATED ON ELEVATIONS". REFER TO STRUCTURAL DRAWINGS AND DETAIL 5/A5.1.
E16	FDC FIRE DEPARTMENT CONNECTION AND ALARM AS REQUIRED BY GERMANTOWN FIRE DEPARTMENT.
E17	FREE STANDING POURED IN PLACE AND REINFORCED 12" CONCRETE WALLS EXTENDS TO 3'-6" OFF THE FINISH FLOOR FLANKING LOADING DOCK AREA WHERE SHOWN ON FLOOR PLAN.
E18	TYPICAL FOR - BUILDING WALLS SHALL BE CONSTRUCTED OF 10" INSULATED AND PAINTED PRE-CAST CONCRETE WALL PANELS "PAINT FINISH SHALL BE THREE COLORS WITH THE MAIN FIELD COLOR - OFF WHITE WITH THREE ACCENT COLORS AS INDICATED ON ELEVATIONS.
E19	TYPICAL FOR - BUILDING WALLS SHALL BE CONSTRUCTED OF 10" INSULATED AND PAINTED PRE-CAST CONCRETE WITH 1 1/2" REVEALS AS INDICATED ON ELEVATIONS".
E20	PARAPET WALLS LOCATED BEYOND. (FULL HEIGHT RUBBER MEMBRANE FLASHING REFER TO SECTIONS / DETAILS REFERENCED).
E21	MECHANICAL LOUVER (SIZE TO FIT IN TYP. WINDOW ROUGH OPENING) - COORDINATE WITH MECHANICAL LOUVERS TO BE SELF DRAINING.
E22	APPROXIMATE LOCATIONS OF PRE-FINISHED METAL ESCUTCHEON (LAMBS TONGUE STYLE) SECONDARY ROOF DRAINS AND COVERS.
E23	PROVIDE KNOX BOX - VERIFY LOCATION WITH FIRE INSPECTOR PRIOR TO INSTALLATION..
E24	PROVIDE ALARM (HORN / STROBE).

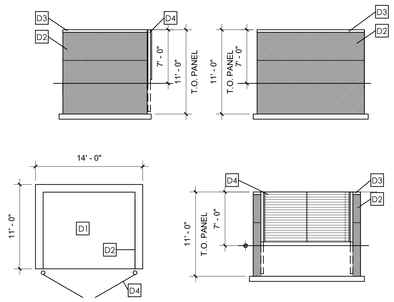
DUMPSTER ENCLOSURE CODED NOTES:

D1 6" THICK CONCRETE REINFORCED FLOOR SLAB ON COMPACTED GRAVEL BASE.

D2 PRECAST WALL PANELS DOWN TO FOOTING, FINISH AND COLOR TO MATCH BUILDING

D3 PREFINISHED METAL COPING. (24 GA.) COLOR: TO MATCH WALL COLOR

D4 HORIZONTAL COMPOSITE SLATS ON GALVANIZED STEEL GATE FRAME. SLAT COLOR: GREY TO MATCH WALL COLOR. PROVIDE GALVANIZED SUPPORT POSTS.



5 TRASH ENCLOSURE
1/8" = 1'-0"

BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

SHEET TITLE
SOUTHWEST BUILDING
ELEVATIONS & NOTES

PROPOSED SOUTHWEST BUILDING:
DICKMAN GERMANTOWN 3
W204 N13055 GOLDENDALE ROAD
GERMANTOWN, WISCONSIN 53022

Date	Revision
FEBRUARY 2022	REVISION 1 - REVISED PRECAST WALL PANEL CONNECTION, COLUMN & PIER SIZES.
March 22, 2022	REVISION 3 - REVISED EXTERIOR BUILDING COLORS

JOB: 3290
DRAWN: CK
CHECKED: DF / KJ
DATE: 12/09/2021
SHEET:
A5.1

SITE PLAN REVIEW
3/13/23 Plan Commission Meeting

Village of Germantown

Village Planner Report **Germantown, Wisconsin**

Summary

The Germantown Public Works Department, agent for the Village of Germantown, property owner, is requesting approval for site development and building plans for a 2,560 sqft potable water well station on the 2.5-acre water tower parcel located at W210 N13180 Gateway Crossing in the Germantown Gateway Corporate Park.

Location: W210 N13180 Gateway Crossing
(Gateway Crossing @ Rockfield Road

Agent/
Property Owner: Larry Ratayczak, Director, Public Works Department
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI

Existing Zoning: M-1: Limited Industrial

Adjacent Land Uses		Zoning
North	Agricultural	A-1
South	Industrial	M-1
East	Residential	Rs-1
West	Industrial	M-1



Proposal

The Germantown Public Works Department, agent for the Village of Germantown, property owner, is requesting approval for site development and building plans for a 2,560 sqft potable water well station on the 2.5-acre water tower parcel located in the Germantown Gateway Corporate Park.

Well Station #12 is located on the same parcel as Water Tower #4, a 177 feet high, 500,000-gal elevated storage tank. Well Station #12 will house pumping equipment, generator, and other necessary equipment. The well is approximately 420 feet deep and will be serviced by a pump capable of pumping up to 800 gals/minute with a maximum runtime of 14 hours/day. Well Station #12 is inter-connected to the overall water system through existing pipe with pressure regulated by reducing valves at the Goldendale Road booster station (south of the railroad). Well Station #12 expected to be operational in 2024 at the same time as Water Tower #4 becomes operational.

As presented in the attached plans and elevations, the building and site design are intended to be compatible with the contemporary architecture and masonry materials that comprise all of the industrial buildings in the Germantown Gateway Corporate Park. The building has a flat roof and is comprised of split-face CMU, utility brick, and cast stone wall coping in an earth tone color scheme.

Access & Parking. Two access driveways are proposed; one each to Gateway Crossing and the other to Rockfield Road. The configuration of the two driveways provides a through route to accommodate heavy truck and cranes that may be needed to service equipment in the well station and water tower.

Storm Water Management. In addition, to temporary construction site erosion control measures during construction, permanent storm water management facilities include on-site storm sewer connected to existing storm sewer in Gateway Crossing and the overall regional storm water facilities in the Corporate Park.

Landscaping & Buffering. Landscaping on the site includes groupings of plantings comprised of deciduous and evergreen trees and ornamental grasses and shrubs around the site perimeter on the west and north property lines.

Lighting. No exterior site lighting is proposed.

Staff Comments

Community Development: Planning & Zoning

Despite the relatively narrow depth of the parcel, the landscaped berms along Rockfield Road should be increased in height and width to more closely match the existing pattern of landscaped berms the Village required of the other existing industrial buildings along Rockfield Road (e.g., Illing Company) and future buildings to the west (e.g., Zilber #7). If possible, the driveway onto Rockfield should be eliminated to better accommodate the taller/wider berms and landscaping. Similarly, while the landscaping proposed is a good start, additional deciduous and evergreen trees and shrubs should be installed in an amount per 100 linear feet of road frontage equal to that which was required of the other industrial buildings along Rockfield Road (.e.g., Illing Company).

VILLAGE STAFF RECOMMENDATIONS

APPROVE the site development and building plans for the proposed 2,560 sqft Well Station #12 located at W210 N13180 Gateway Crossing in the Germantown Gateway Corporate 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 following plans unless superseded by subsequent plan sheets approved by Village Staff pursuant to revisions required herein and/or by the Plan Commission:
    a. Architectural plans dated October 20, 2022;
    b. Civil Engineering plans dated October 17, 2022;
    c. Landscaping plans dated October 17, 2022;

2. All landscaping, screening, grading, and paving improvements shown on the approved site plans shall be installed within one (1) year after issuance of the occupancy permit for the shell building.

3. The landscape plan shall be revised to include a more continuous area of plantings along the entire Rockfield Road frontage with higher & wider berms. The revised plan shall be submitted to the Village Planner & Public Works Director for review and approval prior to issuance of an occupancy permit.

CONSTRUCTION DRAWINGS
FOR
WELL STATION NO. 12

Village of Germantown

WASHINGTON COUNTY, WISCONSIN
OCTOBER 2022

WDNR REVIEW SET

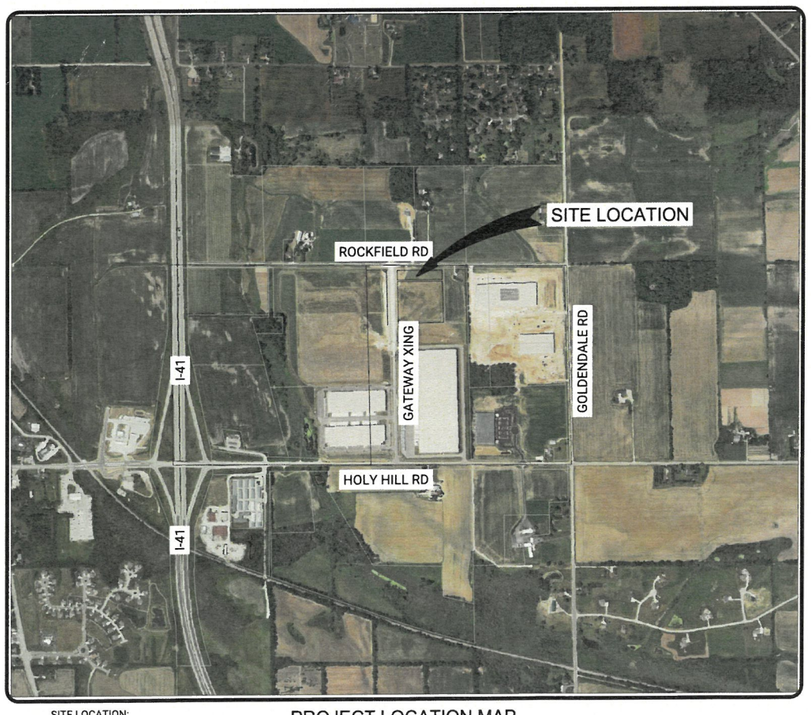
DRAFT FOR REVIEW

TO OBTAIN LOCATION OF
PARTICIPANTS' UNDERGROUND
FACILITIES BEFORE YOU
DIG IN WISCONSIN

DIGGERS HOTLINE

Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.



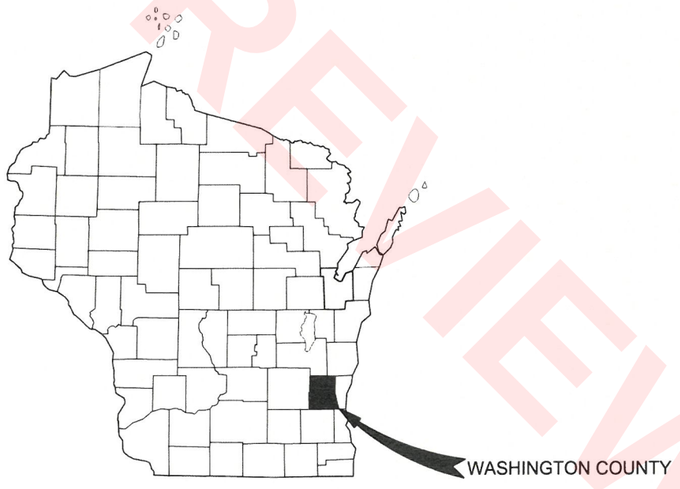
SITE LOCATION:
W210 N13180 GATEWAY CROSSING
GERMANTOWN, WI 53076

PROJECT LOCATION MAP

Prepared By

Foth

PROJECT I.D. 19G018.02



COUNTY LOCATION MAP

STAMPS		
PROJECT MANAGER	C - CIVIL	A - ARCHITECTURAL
S - STRUCTURAL	D - PROCESS	P - PLUMBING
M - MECHANICAL	E - ELECTRICAL	E - INSTRUMENTATION

TITLE SHEET **00G0.01**

© 2022 Foth Infrastructure & Environment, LLC

Oct 17, 2022 - 10:17am pcg C:\pw workdir\pw ie\Fvol pcg\d0379431\00G0.01 TITLE SHEET.dwg

DRAFT FOR REVIEW

PR CURB INLET 1
GUTTER = 931.39
FL=927.85 (12" S)
SEE DETAILS 100C5.04 06
100C5.04 07

PR CURB INLET 2
GUTTER = 932.61
FL=929.32 (12" S)

10' - 12" RCP @ 1.17%

PR STORM MH 2
RIM = 934.43
FL=928.96 (15" W)
FL=929.06 (15" E)
FL=929.21 (12" N)
SEE DETAIL 100C5.04 05

103' - 15" RCP @ 1.48%

13' - 12" RCP @ 2.00%

59' - 15" RCP @ 3.66%

RCP FES 2
FL=931.20 (15" W)

RIPRAP APRON,
SEE DETAIL 100C5.01 04

WEST ROCKFIELD ROAD

MATTHEW STEPHAN, MICHELLE STEPHAN
N163W20135 ASH DR
GTNV 071957

GLENN P GUENTHER TRUST, BEVERLY V GUENTHER TRUST
N132W21188 ROCKFIELD RD
GTNV 071998

EXST RCP FES 2
FL=927.34 (15" W)

EXST RCP FES 1
FL=926.43 (15" E)

PR STORM MH 1
RIM = 933.82
FL=927.34 (EX 15" W)
FL=927.44 (15" E)
FL=927.59 (12" N)
FL=927.59 (12" SE)
REMOVE END SECTION
AND CONNECT TO
EXISTING CULVERT

33' - 12" RCP @ 2.00%

PR FIELD INLET 1
RIM = 933.40
FL=928.24 (12" NW)

10
WELL STATION
F.F.E. =935.50

WELL NO. 12

GATEWAY CROSSING

EXISTING 500,000 GALLON
ELEVATED STORAGE TANK
F.F.E.=937.00

EXISTING
FLOOR DRAIN
GRAVEL POCKET

CONSTRUCTION LIMITS

931.23 931.05 932 933 934 935 936 936 935 934 933.71 933.40 934 936 932.25 932.50 932.66 933.02 933.18 933.55 931.20 932.19 933.53 933.85 933.58 933.74 933.55 931.95 933.14 933.92 934.27 934.04 934.14 934.28 934.25 932.00 933.92 934.90 930.11 935.40 935.10 934.66 935.40 934.70 935.40 934.90 935.38 934.90 934.86 934.75 934.60 934.90 934.90 934.40 934.40 934.80 935.40 936.26 936.26 929.79 931.60 934.39 929.71 930.07 930.05 930.22 932.16 933.00 934.12 934.50 934.40 936.20 934.90 936.00 935.87 936.00 936.26 936.50 936.15 936.04 936.50 936.27 936.50 936.26 937 938 939 940 941 942 943 944 941 940 939 938 937 936 943 942 941 940 939 938 -1.36% -1.43% -6.70% -9.93% -3.00% -2.79% -2.42% -2.32% -1.78% -0.63% -0.61% -1.36% -0.51% -2.11% -3.30% -5.02%

PRELIMINARY

Foth
Foth Infrastructure & Environment, LLC
7044 S. Ballard Drive, Suite 200
Appleton, WI 54915
Phone: 414-336-7900 Fax: 414-336-7901

REUSE OF DOCUMENTS
THIS DOCUMENT HAS BEEN PREPARED FOR A SPECIFIC APPLICATION AND NOT FOR GENERAL USE. THEREFORE IT MAY NOT BE USED WITHOUT THE WRITTEN APPROVAL OF FOTH INFRASTRUCTURE AND ENVIRONMENT, LLC. UNAUTHORIZED USE IS THE SOLE RESPONSIBILITY OF THE UNAUTHORIZED USER

WELL STATION NO. 12

WDNR REVIEW SET
NOT FOR CONSTRUCTION
VILLAGE OF GERMANTOWN

GERMANTOWN, WISCONSIN
WASHINGTON COUNTY

NO.	BY	DATE	REVISION / ISSUE DESCRIPTION
1	.	.	
2	.	.	
3	.	.	
4	.	.	

RECORD DRAWING OF COMPLETED CONSTRUCTION
RECORD DRAWINGS OF COMPLETED CONSTRUCTION CONFORMING TO CONTRACTOR AND/OR OWNERS RECORDS.
BY DATE

DATE OF PREPARATION

	BY	DATE
SURVEYED	AJM	12/17/2020
DRAWN	PCG	10/17/2022
DESIGNED	PCG	10/17/2022
CHECKED	.	10/17/2022

GRADING AND DRAINAGE PLAN

SITE

0 20 40
scale feet

PROJECT ID 19G018.02

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SHEET 13 OF 67

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DRAFT FOR REVIEW

ROCKFIELD ROAD

GLENN P. GUENTHER TRUST, BEVERLY V. GUENTHER TRUST
N132W21128 ROCKFIELD RD
GTNV 071995

TIMOTHY T WIEDMEYER REVOCABLE TRUST,
ROSEMARIE A WIEDMEYER REVOCABLE TRUST
N132W20807 ROCKFIELD RD
GTNV 074985

LOT 6
CSM NO 6598

W/L

937 938 939 940 941 942 943 944 945 946

CONSTRUCTION LIMITS

Foth Infrastructure & Environment, LLC
7044 S. Ballpark Drive, Suite 200
Franklin, WI 53132
Phone: 414-336-7900 Fax: 414-336-7901

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WELL STATION NO. 12

WDNR REVIEW SET
NOT FOR CONSTRUCTION
VILLAGE OF GERMANTOWN

WASHINGTON COUNTY — GERMANTOWN, WISCONSIN

REVISION / ISSUE NO.	BY	DATE	DESCRIPTION
1	.	.	.
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	BY	DATE
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GRADING AND DRAINAGE PLAN

SITE

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scale feet

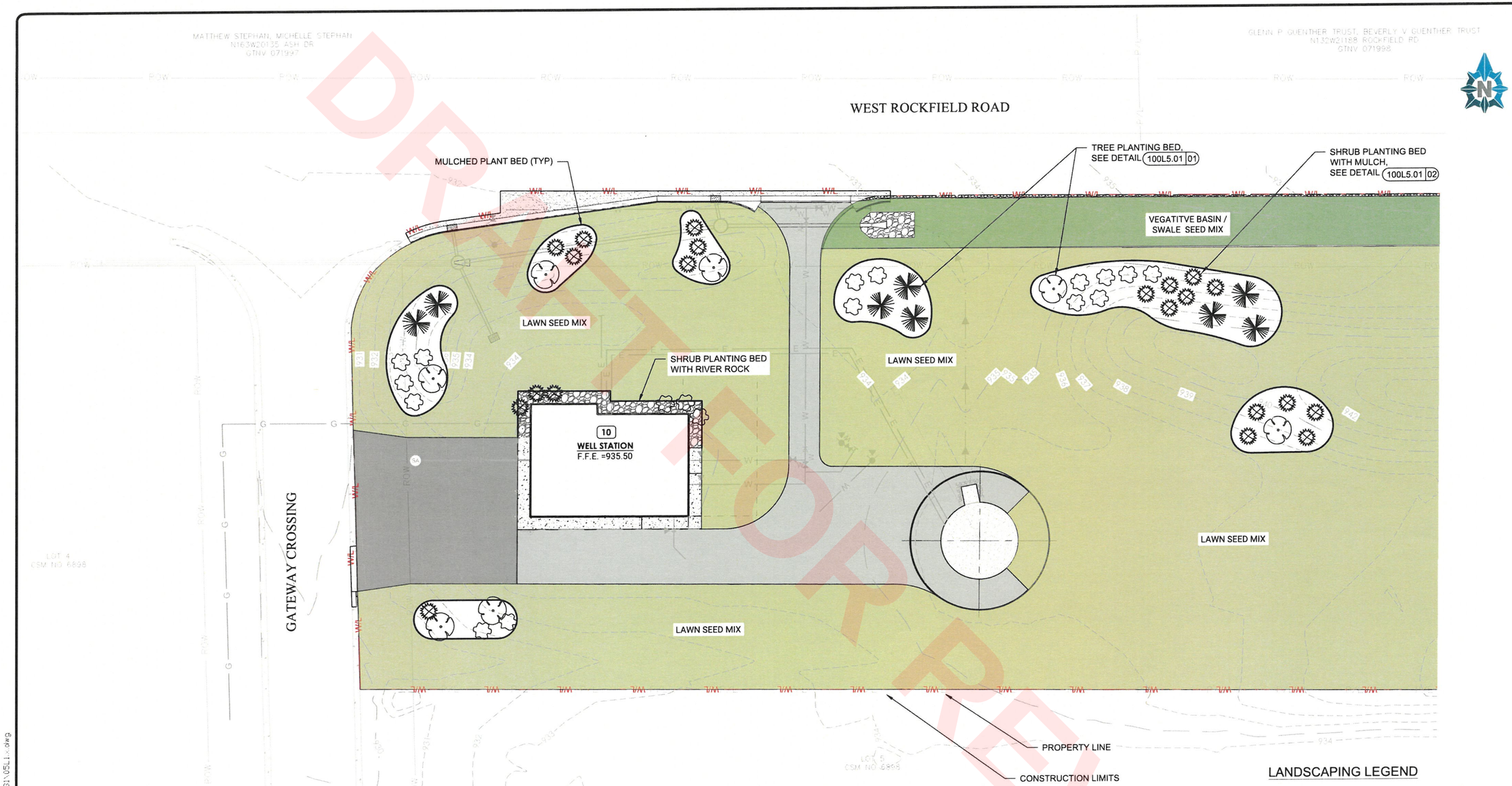
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SHEET 14 OF 67

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LANDSCAPING LEGEND

- VEGETATIVE BASIN / SWALE SEED MIX
- LAWN SEED MIX
- RIVER ROCK (1-3" ROCK AT 3" DEPTH) WITH COMMERCIAL GRADE LANDSCAPE FABRIC
- MULCHED PLANT BED
- AUTUMN BLAZE MAPLE
- COLORADO GREEN SPRUCE
- BEAVER CREEK DWARF FOTHERGILLA
- POTENTILLA FRUTICOSA

PLANTING SCHEDULE

KEY	QTY	NAME	MIN. SIZE	COMMENTS
AM	9	AUTUMN BLAZE MAPLE	3" DIA.	SEE TREE PLANTING DETAIL ON 100L5.01
CS	14	COLORADO GREEN SPRUCE	8' TALL	SEE TREE PLANTING DETAIL ON 100L5.01
CF	24	BEAVER CREEK DWARF FOTHERGILLA	5 GAL	SEE SHRUB PLANTING DETAIL ON 100L5.01
PF	26	POTENTILLA FRUTICOSA	5 GAL	SEE SHRUB PLANTING DETAIL ON 100L5.01

PLANTING SCHEDULE - GROUNDCOVERS

QTY	UNIT	TYPE	COMMENTS
1,290	FEET	LANDSCAPE EDGING	SEE DETAIL ON 100L5.01
GROUNDCOVERS			
510	SQ FT	RIVER ROCK	MISSISSIPPI MEDIUM DECORATIVE STONE
8,910	SQ FT	MULCH	
SEED MIXES			
9,210	SQ FT	VEGETATIVE BASIN / SWALE SEED MIX	
93,240	SQ FT	LAWN SEED MIX	

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LANDSCAPE PLAN

SITE

0 20 40
scale feet

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SHEET 18 OF 67

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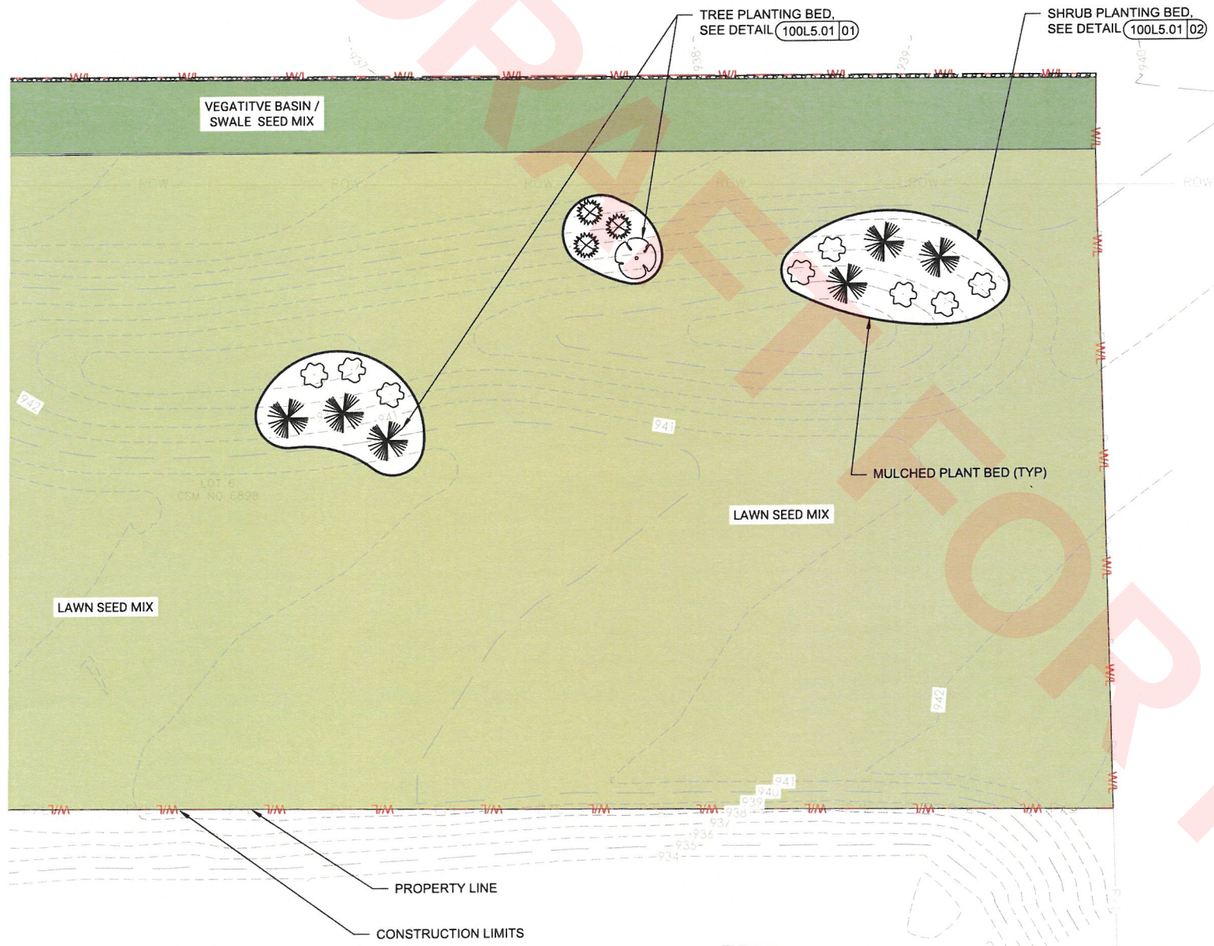
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DRAFT FOR REVIEW

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GTNV 071995

TIMOTHY T. WIEDMEYER REVOCABLE TRUST,
ROSEMARE A. WIEDMEYER REVOCABLE TRUST
N132W20807 ROCKFIELD RD
GTNV 074985

WEST ROCKFIELD ROAD



LANDSCAPING LEGEND

- VEGETATIVE BASIN / SWALE SEED MIX
- LAWN SEED MIX
- RIVER ROCK (1-3" ROCK AT 3" DEPTH) WITH COMMERCIAL GRADE LANDSCAPE FABRIC
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LANDSCAPE PLAN

SITE

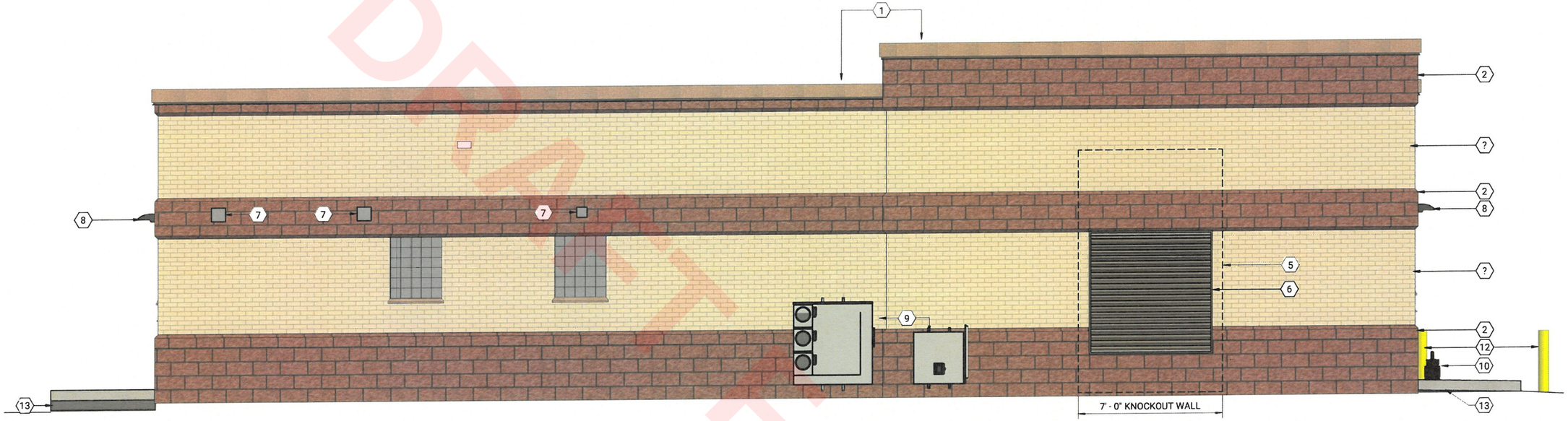
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SHEET 19 OF 67

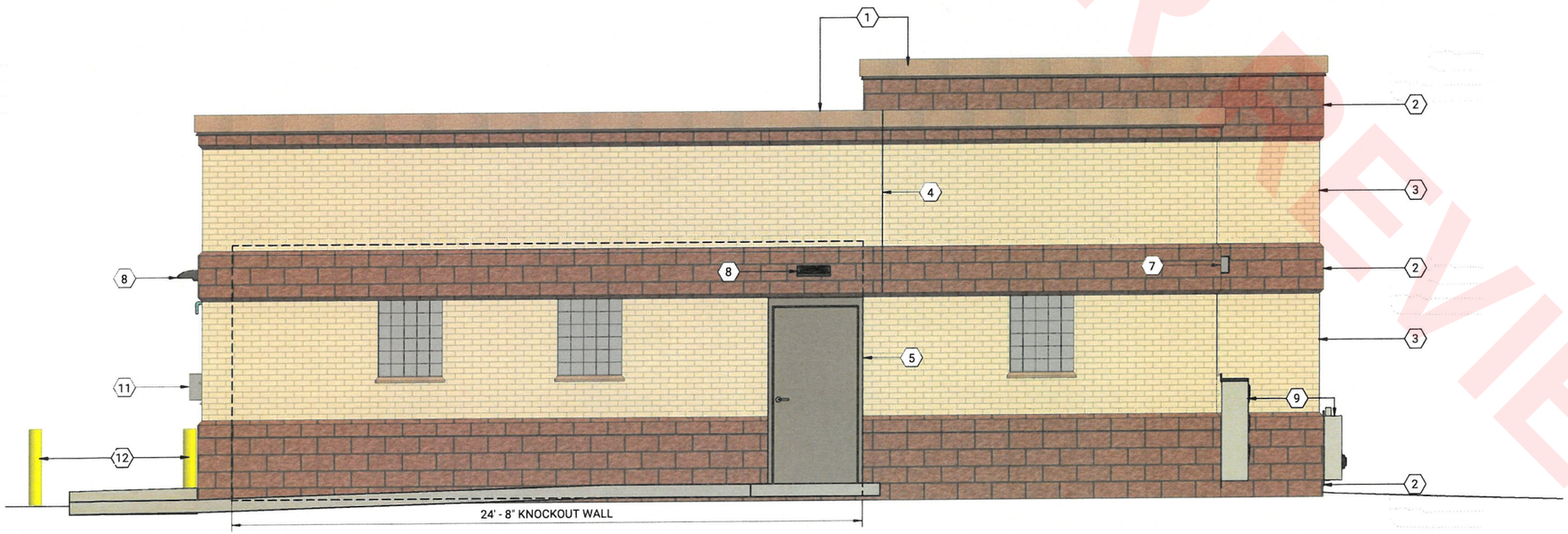
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01 NORTH ELEVATION

0 2'-0" 4'-0"



02 EAST ELEVATION

0 2'-0" 4'-0"

KEYED NOTES (ELEVATIONS)

1. CAST STONE SILL WALL COPING
2. SPLIT-FACE CMU
3. UTILITY BRICK
4. CONTROL JOINT
5. LINTEL
6. LOUVER - SEE MECHANICAL PLANS
7. WALL CAP - SEE MECHANICAL PLANS
8. LIGHT FIXTURE SEE ELECTRICAL PLANS
9. ELECTRIC SERVICE METER
10. GAS METER SEE MECHANICAL PLANS
11. VENTILATION CONTROL PANEL SEE MECHANICAL PLANS
12. PIPE BOLLARD SEE SITE PLANS
13. SUSPENDED SLAB

DRAFT FOR REVIEW

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WELL STATION NO. 12

PRELIMINARY

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VILLAGE OF GERMANTOWN

GERMANTOWN, WISCONSIN

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DESIGNED	JGF	10/20/2022
CHECKED	Checker	10/20/2022

ARCHITECTURAL ELEVATIONS

WELL STATION

PROJECT ID 19G018.02

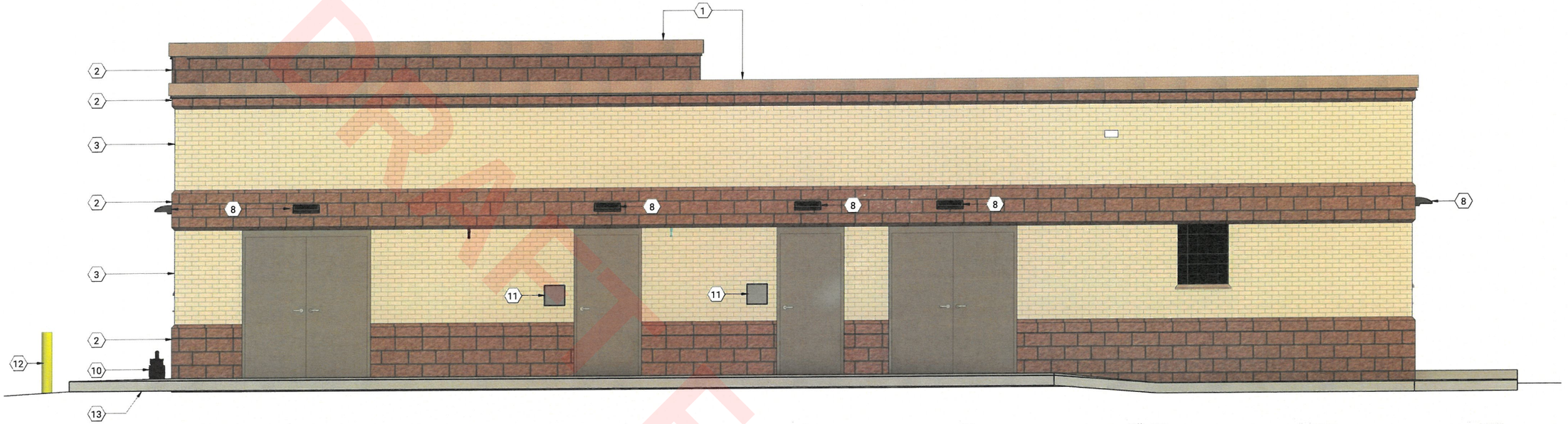
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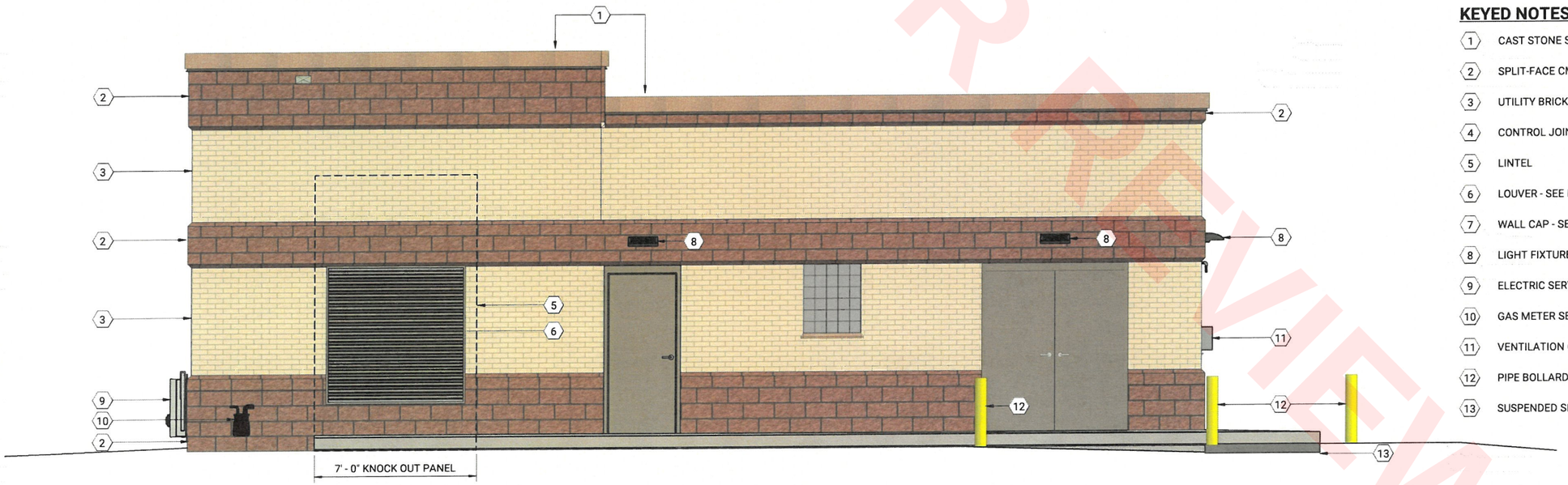
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10/20/22



01 **SOUTH ELEVATION**

0 2'-0" 4'-0"



02 **WEST ELEVATION**

0 2'-0" 4'-0"

KEYED NOTES (ELEVATIONS)

1. CAST STONE SILL WALL COPING
2. SPLIT-FACE CMU
3. UTILITY BRICK
4. CONTROL JOINT
5. LINTEL
6. LOUVER - SEE MECHANICAL PLANS
7. WALL CAP - SEE MECHANICAL PLANS
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11. VENTILATION CONTROL PANEL SEE MECHANICAL PLANS
12. PIPE BOLLARD SEE SITE PLANS
13. SUSPENDED SLAB

DRAFT FOR REVIEW

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GERMANTOWN, WISCONSIN

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			BY

DATE OF PREPARATION

	BY	DATE
SURVEYED		
DRAWN	LKR	10/20/2022
DESIGNED	JGF	10/20/2022
CHECKED	Checker	10/20/2022

ARCHITECTURAL ELEVATIONS

WELL STATION

PROJECT ID 19G018.02

10A2.02

Sheet 28 of 67

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10/20/22

SITE PLAN REVIEW

3/13/23 Plan Commission Meeting

BV Ryan Willow Creek II LLC / Dickman Development LLC

Village Planner Report **Germantown, Wisconsin**

Summary

Caitlin LaJoie, Briohn Building Corp, agent for BV Ryan Willow Creek II LLC, property owner, and Dickman Development LLC, is seeking approval of site development and building plans for a 209,329 sqft industrial building located at N102 W19200 Willow Creek Way in the Germantown Willow Creek Business Park.

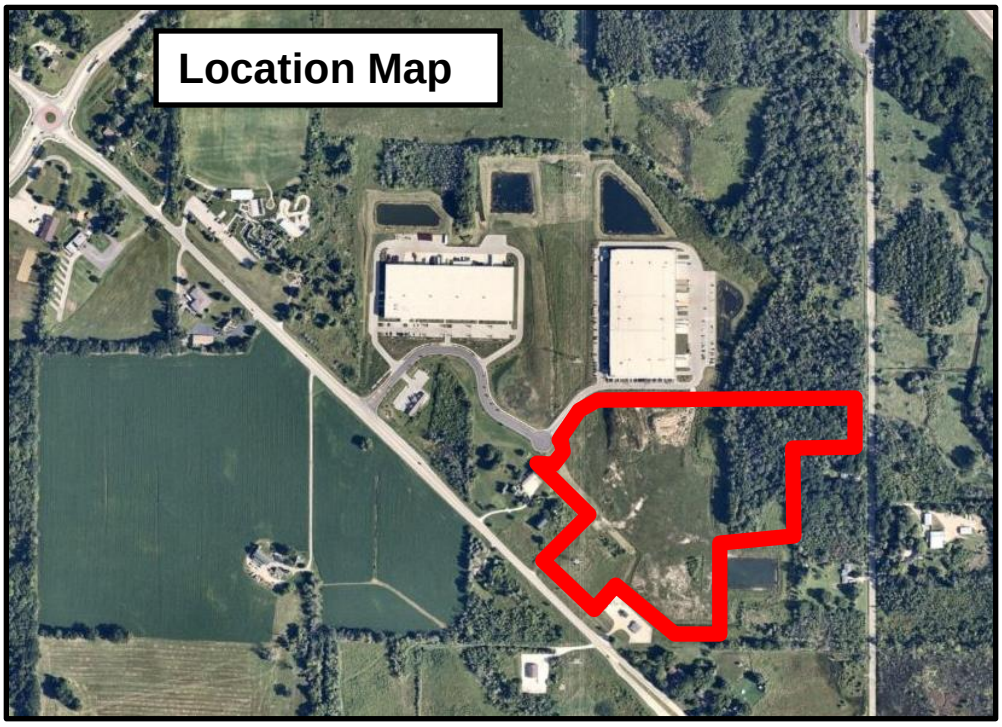
Location: N102 W19200 Willow Creek Way

Applicant/ Property Owner:

Caitlin LaJoie	Sam Dickman
Briohn Building Corp	Dickman Development LLC
3885 Brookfield Road	625 E Wisconsin Ave
Brookfield, WI	Milwaukee, WI

Current Zoning: M-1: Limited Industrial

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial / Residential	M-1 / Rs-3
East	Agricultural / Residential	A-1 / Rs-3
West	Industrial	M-1



Proposal/Background

Caitlin LaJoie, Briohn Building Corp, agent for BV Ryan Willow Creek II LLC, property owner, and Dickman Development LLC, is seeking approval of site development and building plans for a 209,329 sqft industrial building located at N102 W19200 Willow Creek Way in the Germantown Willow Creek Business Park. In August, 2019, similar site development & building plans were approved for a 243,400 sqft industrial building for Ryan Companies US Inc. but that project was never completed.

As detailed in the site and building plans, development of the 209,000 multi-tenant building will have the following characteristics:

Site Improvements

- One (1) primary access driveway from Willow Creek Way providing access to the employee and visitor parking lot on the west side of the building serving a total of 139 vehicle parking stalls (9'x20')
- 20' wide gravel "emergency vehicle" access driveway to Appleton Ave w/ security fence & gate
- Truck/trailer parking along the east side of the site with 53 truck/trailer stalls (12'x55')
- Landscaping around site perimeter & foundation plantings
- Realignment of existing sewer & water easement and laterals in southwest corner of building & proposed parking area

Building Improvements

- 209,329 sqft single-story "spec" building
- Painted, insulated pre-cast concrete wall panels w/ white & multiple gray accent color scheme (wall height w/ 39' & 41' parapet wall height)
- aluminum storefront windows
- (46) shipping & receiving loading dock bays (28 installed w/ "knockout" wall panels for additional 18 dock bays)

Access & Parking. The development will be served by a new driveway from the end of the Willow Creek Way cul-de-sac. A secondary 20' wide gravel "emergency vehicle only" access driveway w/ security fence/gate is proposed to Appleton Avenue directly from the southwest corner of the parking lot. A total of 134 vehicle parking stalls (plus 5 ADA compliant stalls) are proposed along the west side and (53) truck/trailer stalls along the east side. The Village code recommends approximately 418 parking spaces for a building of this size (1 stall per 500 square feet). Although not proposed at this time, area is available on the south side of the property suitable for future parking stall construction. Access to the loading/dock area on the east side of the building is provided by access drives/fire lanes that encircle the building.

At the request of the Village Fire Chief, the developer will work with the Fire Department & Public Works Department on the final design and accessibility requirements for the secondary "emergency vehicles only" access drive off Appleton Avenue. This emergency access drive should be installed within 1 year of occupancy of the building.

Storm Water Management. A total of 10.3 acres or 450,209 sqft (37.1%) of impervious surfaces are proposed for the 26.6-acre site leaving 61.3% in open space. The site is served by a series of regional storm water basins located north, south and east of the building site. The storm water management plan indicates that on-site storm sewer has

been designed to direct all storm water to the regional basin southeast of the proposed building.

Landscaping. An extensive landscaping plan is proposed consistent with the overall landscaping requirements of the Willow Creek covenants. Landscaping is comprised of deciduous shade and ornamental trees, evergreen trees, and deciduous and evergreen shrubs, and ornamental grasses. No street trees are proposed given the narrow frontage at the Willow Creek Way cul-de-sac. The west parking area is heavily landscaped with additional landscaping along the south perimeter of the site and foundations plantings along the north, south, and west building elevations. The site is not easily visible from Maple Road given the heavily wooded wetland area that acts as a buffer or screening between the two.

Lighting. Exterior lighting of the building and site will include:

- (13) 97W LED 4000K “neutral white” cut-off fixtures mounted at a height of 24’ on the west building elevation;
- (8) 149W LED 4000K “neutral white” cut-off fixtures mounted at a height of 24’ on the east building elevation;
- (10) 70W LED 4000K “neutral white” cut-off fixtures mounted at a height of 24’ on the north & south building elevation;
- (4) 149W LED 4000K “neutral white” exterior lights mounted at a height of 22’ (20’ pole w/ 2’ base) located in the east trailer parking area;
- (2) 97W LED 4000K “neutral white” exterior lights mounted at a height of 22’ (20’ pole w/ 2’ base) located in the south trailer parking area;
- (2) 149W LED 4000K “neutral white” exterior lights mounted at a height of 22’ (20’ pole w/ 2’ base) located along the primary driveway

Signage. No signage is proposed at this time. All signage will need to be consistent with the Willow Creek Business Park covenants and Village regulations.

Staff Comments

Planning & Zoning

Wetland Impacts. As shown on Sheet CS-1, there is a small, approximately 3,140 sqft wetland that was delineated on the property in the vicinity of the southeast corner of the building and trailer/truck parking area. Back in 2018, this wetland was determined to be exempt from regulation by the DNR and permitted to be filled. This is the only wetland area on the property that will be impacted by the development.

Natural Gas Pipeline & Electricity Transmission Easements. As shown on the site plans, the 26.6-acre property is traversed by two (2) regional utility easements and infrastructure:

1. 125’ wide Wisconsin Electric Power Co. easement now owned by American Transmission Company (ATC) that provides electricity transmission through overhead lines; and
2. 100’ wide ANR Pipeline easement now owned by TC Energy that provides interstate underground natural gas pipeline service

Proposed development on the property impacts portion of both easements and requires approval from both entities, including installation of the primary (paved) driveway from Willow Creek Way, the secondary (gravel) emergency access driveway from Appleton Avenue, and realignment of the sewer & water utilities (laterals and easements) along the southwest side of the proposed parking lot. At this time, both ATC and TC Energy have given preliminary approval of the proposed development; however, final written approval is required prior to commencement of any construction within the ATC and TC Energy easements.

As discussed above, a secondary access drive is required by the Fire Department to serve the proposed building. The developer has agreed to work with the Village to install a 20' wide "emergency vehicle only" access drive directly to Appleton Avenue with a security fence & gate. Because ATC has indicated that the fence and security gate cannot be located in their 125' easement, the final location and design of the fence, security gate and design components of the gravel driveway will need to be finalized with the Fire and Public Works Department prior to construction. This emergency access drive should be installed within 1 year of occupancy of the building.

While a roof plan has been provided, the location and size of potential roof-top HVAC or other mechanicals (RTU's) is not known at this time given the speculative nature of the building being constructed. Depending on future tenants, roof-mounted HVAC mechanicals may be installed in the future; While there is a 1-2' high parapet proposed along the roof line, screening of future RTU's may be required. Future tenants should be required to provide a roof plan with RTU location and sightline diagrams as part of any building "build out" plans. RTU's should be screened from view by line of sight at 5' above grade from the adjacent public roadways of Willow Creek Way and Appleton Avenue. If RTU's cannot be hidden from view, screen walls or other mutually acceptable features intended to shield the view of said RTU's should be submitted to the Village Planner (or Plan Commission if determined necessary by the Village Planner) for review and approval prior to build out construction and tenant occupancy.

Each future tenant of the proposed industrial building will be required to obtain a zoning permit prior to occupancy. This has been included as a condition of approval.

Public Works Department/Engineering

The Village Engineer and Public Works Department has not completed its review of the civil plans, sewer & water easement utility realignment or storm water management plan and report (copy enclosed dated March 9, 2023). Consequently, no building permits shall be issued until such time as Public Works & engineering staff have reviewed and approved the civil engineering, utility, and storm water management plans and reports for Village and other applicable code compliance.

Fire & Police Departments

The proposed emergency fire lane connecting to Appleton Avenue is acceptable; however, final design, including the security gate & fence, will need to be reviewed and approved by the Fire and Public Works Department so that it can adequately support the weight and dimensions of emergency vehicles.

VILLAGE STAFF RECOMMENDATION

APPROVE the site development and building plans for a 209,329 sqft industrial building located at N102 W19200 Willow Creek Way in the Germantown 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 following architectural and engineering plans unless superseded by subsequent plan sheets approved by Village Staff pursuant to revisions required herein and/or by the Plan Commission:
    a. Civil engineering, utility, erosion control, and storm water management plans dated February 13, 2023;
    b. Architectural plans dated February 13, 2023;
    c. Exterior lighting plans dated February 13, 2023;
    d. Landscaping plans dated February 13, 2023

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. 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.

4. The Developer shall coordinate with the Village Public Works and Fire Department to design and install the secondary “emergency vehicle” access driveway to Appleton Avenue. In the event said emergency access driveway is not installed within one (1) year after issuance of the first occupancy permit, or, not allowed as planned within the ATC 125’ transmission line easement or the ANR-TC Energy 100’ pipeline easement, the Developer shall cooperate with the Village to identify a mutually acceptable alternative location and design for the required emergency access driveway. Once final details for the location and design, including the security fence and gate, have been determined, the Developer shall prepare and submit a revised site plan indicating how the emergency drive will interface with the parking lot to the Village Fire and Public Works Departments for review and approval.

5. The Developer shall be responsible for ongoing and regular maintenance of the emergency access driveway as needed to keep the driveway accessible at all times of the day and through the year.

6. The Village Engineer and Public Works Department has not completed its review of the civil plans, sewer & water easement utility realignment or storm water management plan and report (copy enclosed dated March 9, 2023). Consequently, no permits shall be issued by the Village for construction of the building until such time as Public Works & engineering staff have reviewed and approved the civil engineering, utility, and storm water management plans and reports for Village and other applicable code compliance (excluding "early start" site clearing and footing/foundation work approved by the Village and/or WI DSPS).

7. State agency (DSPS) approved plans and a $20,000 occupancy bond are required by Inspection Services at the time of building permit application. The Village of Germantown is an authorized delegated agent of DSPS to provide all commercial plan review and inspection services through SAFEBuilt of WI and the Village of Germantown.

8. The Developer/Owner shall notify prospective tenants that said tenants are responsible for providing a roof plan with the location of all roof-mounted HVAC units and any other roof-mounted equipment along with sightline diagrams as part of all future building "build out" plans at the time a Zoning/Occupancy Permit is obtained. If RTU's cannot be hidden from view, screen walls or other mutually acceptable features intended to shield the view of said RTU's shall be submitted to the Village Planner (or Plan Commission if determined necessary by the Village Planner) for review and approval prior to build out construction and issuance of an occupancy permit.

9. All proposed exterior signage, including temporary, monument and wall-mounted signs, require review and approval by the Village staff or the Plan Commission.

10. Copies of any/all final approval by American Transmission Company (ATC) and TC Energy (ANR Pipeline) shall be provided to the Village prior to commencement of any construction or other development activity within the ATC and TC Energy utility easements.

11. The Developer/Owner shall notify all prospective tenants of the proposed industrial building that they are required to obtain a Zoning Compliance/Occupancy permit from the Village prior to occupancy of the building.

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Village of Germantown ...Willkommen

Fee must accompany application

- ☐ $700 Minor Addition
- ☐ $1,240 Construction <10,000 SF
- ☐ $2,095 Construction 10,000 SF to 50,000
- ☑ $3,460 Industrial Construction >50,000 SF
- ☐ $3,460 Commercial Construction >50,000
- ☐ $200 Plan Commission Consultation
- ☐ $125 Fire Department Plan Review

PAID_____ DATE_____

SITE PLAN REVIEW APPLICATION

Pursuant to Section 17.43 of the Municipal Code

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

1 APPLICANT OR AGENT

Caitlin LaJoie, Director of Land Development
Briohn Building Corporation
3885 N Brookfield Rd, Suite 200
Brookfield, WI 53045

Phone ( ) 262-790-0500
E-Mail clajoie@briohn.com

PROPERTY OWNER

BV Ryan Willow Creek II Owner LLC

Land under contract by TDC Willow Creek, LLC.
Property Owner provided permission for Buyer to sign
the Site Plan Review Application

Phone ( )
E-Mail

2 PROPERTY ADDRESS

CSM 6782 Lot 4 per Doc 1466153

3 NEIGHBORING USES – Specify name and type of use, e.g. Enviro Tech – Industrial, Smith – Residential, etc.

North	South	East	West
M1	M1	RS3 and RS4	B5 and I

4 READ AND INITIAL THE FOLLOWING:

X_____ I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.

X_____ I understand that all new development is subject to Impact and/or Connection Fees that must be paid before building permits will be issued.

X_____ I understand that an incomplete application will be withdrawn from the Plan Commission agenda and that all resubmissions to the Plan Commission are subject to a new application fee.

5 SIGNATURES – ALL APPLICATION MUST BE SIGNED BY OWNER!

DocuSigned by: Caitlin LaJoie AB31E8AA9F1E48E... 2/13/2023
Applicant Date

DocuSigned by: Samuel D. Dickman, Sr 3B30A9E09F42416... 2/13/2023
Owner Date

BRIOHN BUILDING CORPORATION

DESIGN / BUILD CONSTRUCTION

ARCHITECTURAL DESIGN

DEVELOPMENT

PROPERTY MANAGEMENT

Caitlin LaJoie
Briohn Building Corporation
3885 N Brookfield Rd, Suite 200
Brookfield, WI 53045

February 13, 2023

Village of Germantown
N112W17001 Mequon Road
Germantown, WI 53022

VIA Email: Jeff Retzlaff (jretzlaff@germantownwi.gov)

Dear Village Staff,

Briohn Building Corporation is pleased to present the following proposal on behalf of TDC Willow Creek, LLC ("Developer") to the Village of Germantown ("Village") for the proposed development ("Development") at the northwest corner of Appleton Ave and Maple Rd.

Subject Site

The subject site ("Site") is Lot 4 of CSM 6782 (Tax Key GTNV_321973) and approximately 26.68 acres. The Site is currently zoned M-1 (Limited Industrial) and in the Willow Creek Business Park future land use district.

Vision of Development

The Developer is seeking site plan approval from Plan Commission. Additional coordination and/or approvals from the county, state, and utility companies will be obtained as needed. The Development will be fully, sprinkled, Type 2B construction with primary occupancy as B (business – office) and secondary occupancy as S-1 (storage moderate hazard). The Development will meet all M-1 bulk zoning requirements, summary below:

	M-1 Standard	Development
Front Setback	30'	150.9'
Side Setback	10'	74.8' (south) & 68.4' (north)
Rear Setback	25'	197'
Max Building Height	45'	41'
Min Open Space	20%	61.3%
Max Lot Coverage	80%	38.7%

The Development is being designed and built to attract local, regional, and global users, with the option for multitenant occupancy. The flexibility will allow the Developer to market available square footage to prospects for warehousing, storage, and light manufacturing with accompanying offices.

Anticipated trucking activity will be moderate with an estimated maximum of 60 trucks entering/leaving the Development per day, to be verified upon tenant negotiations. Trucks or trailers utilizing the parking would be on-site for brief periods of time such as daily, or weekly. There will be no long-term parking by the intended tenants.

The proposed landscape plan has been prepared by a professional landscape architect. The design will meet or exceed Village ordinance and provide adequate screening.

Materials and Image

The Developer has reviewed and understands the architectural design elements required by the Village. The preliminary design meets or exceeds the code while being aesthetically pleasing. Please reference Exhibit B attached hereto for proposed renderings; full size hard copies and electronic plans provided.

Development Benefits to the Village and Surrounding Community

The Development will provide an attractive home in Germantown to attract reputable companies ensuring additional employment opportunities in the local community. It will be constructed using high-quality materials to raise the quality and appearance of industrial development in the area. The Developer is a family business and long-term holder of similar properties ensuring a high degree of care and maintenance of the building and grounds. The Development represents a significant financial commitment to the Village.

Contact Information

Samuel D. Dickman
Dickman Development, LLC
626 East Wisconsin Avenue, Suite 1020
Milwaukee, WI 53202
sam@dickmanrealestate.com
414-305-8111

Samuel M. Dickman, Jr.
Dickman Development, LLC
626 East Wisconsin Avenue, Suite 1020
Milwaukee, WI 53202
sam-jr@dickmanrealestate.com
414-405-8514

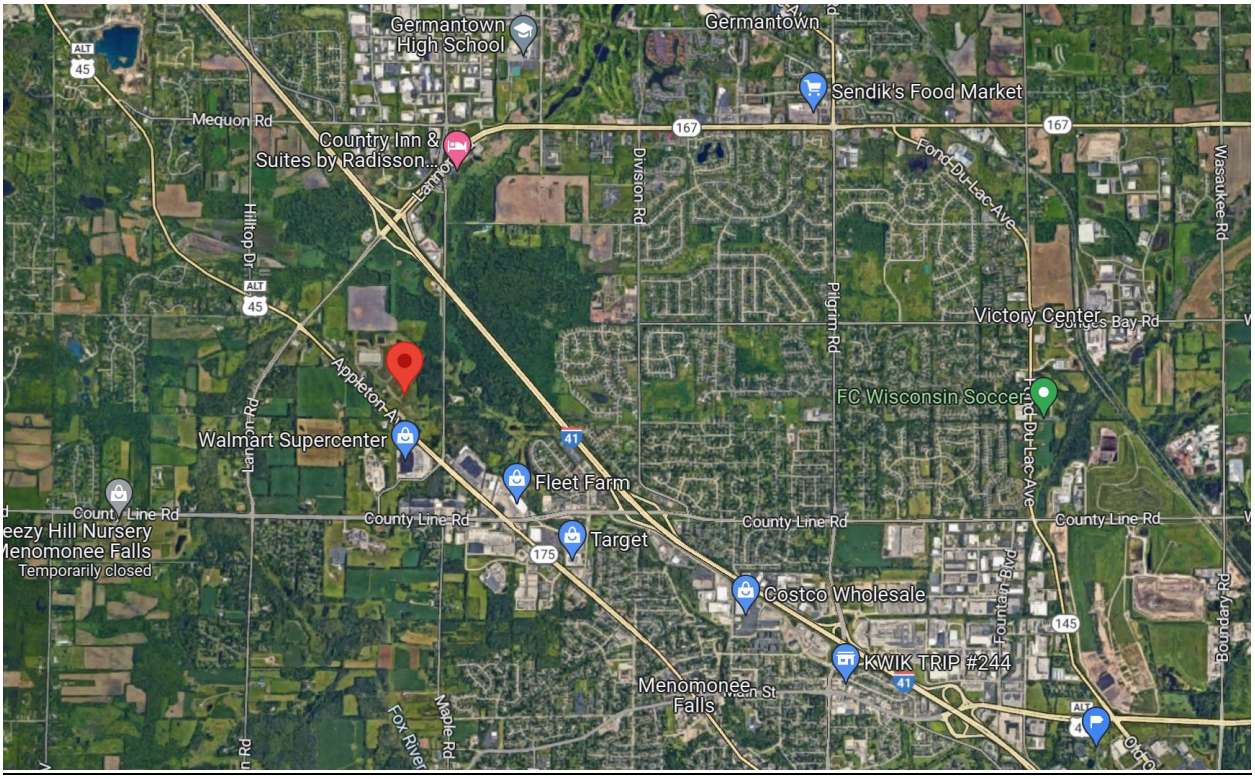
Conclusion

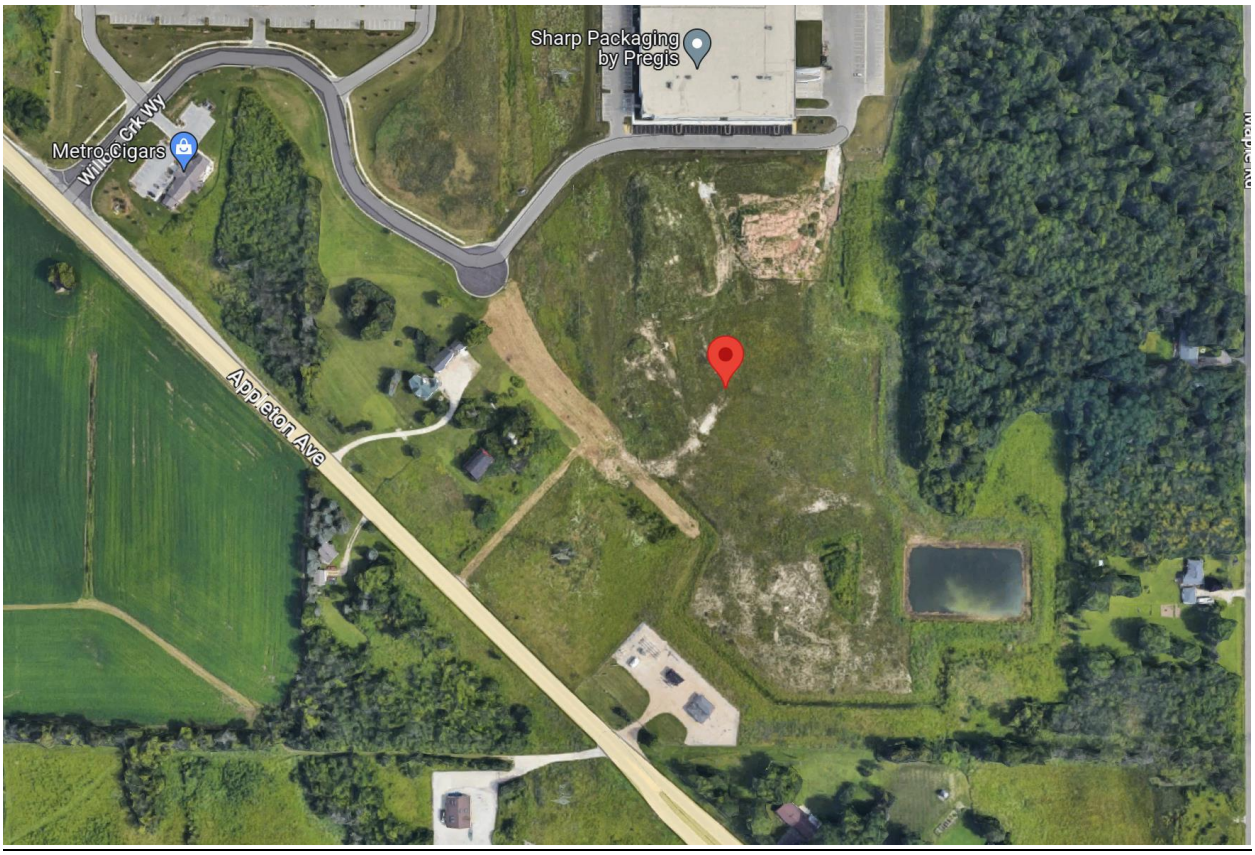
Thank you for reviewing and discussing the proposed development with our design team. We look forward to continuing the conversation with the Village. Should you have any further questions, please do not hesitate to contact me.

Sincerely,

Caitlin LaJoie, Director of Land Development
Briohn Building Corporation
clajoie@briohn.com
262-790-0500

Exhibit A – Aerial and Street View



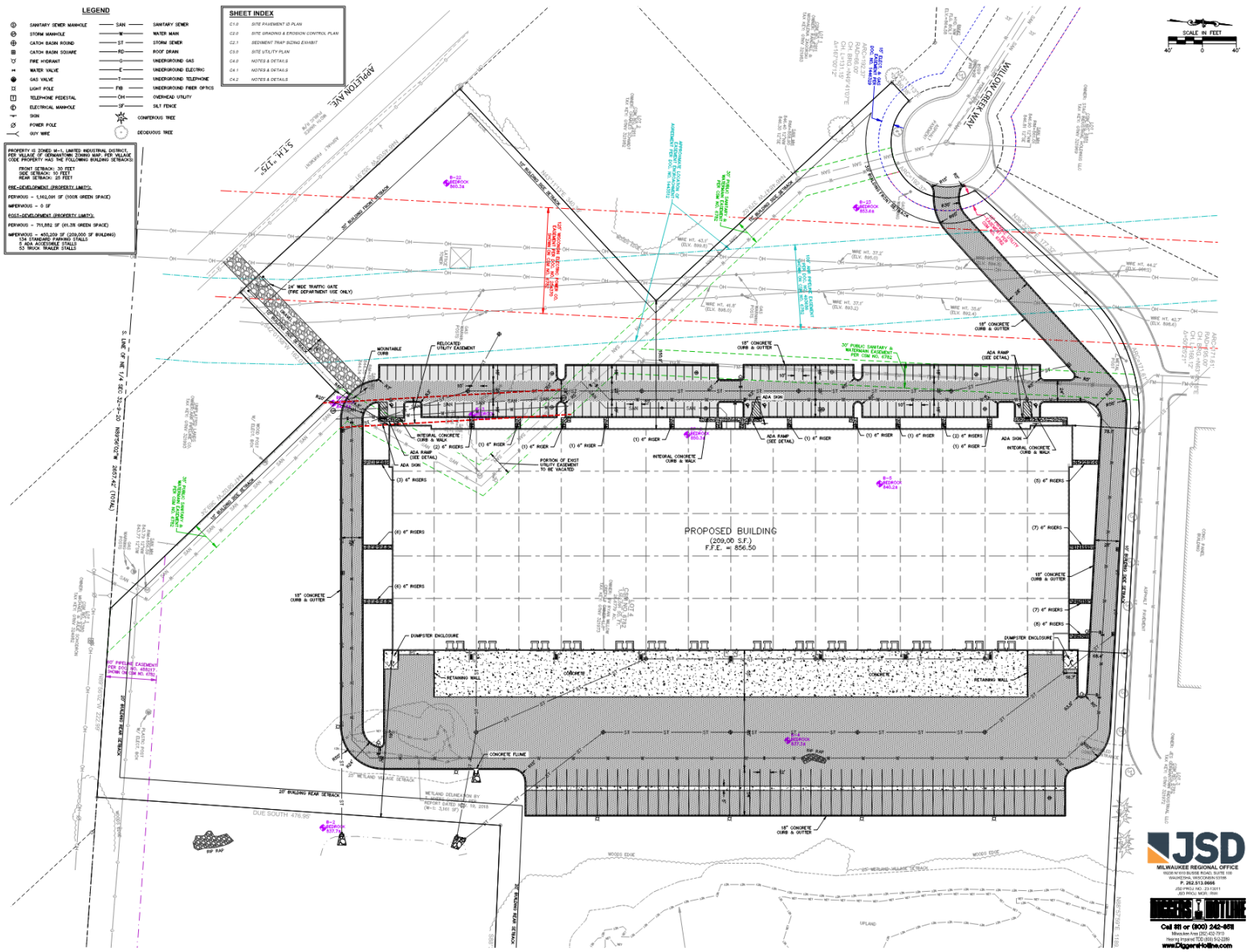




Subject Site facing northeast from Appleton Avenue (Google Earth)

Exhibit B – Preliminary Site Plan, Elevations, and Renderings

INTENTIONALLY LEFT BLANK



PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PARKWAY
VILLAGE OF GERMANTOWN, WI

SHEET TITLE
SITE PAVEMENT ID PLAN

JOB:	3447
DRAWN:	
CHECKED:	
DATE:	02-13-2023
SHEET:	C1.0

DRAFT - NOT FOR CONSTRUCTION

PAINTERS NOTE:

PAINTING OF EXTERIOR PRECAST WALL PANELS: CHOOSE ONE SUPPLIER FOR BOTH BASE COLOR AND ACCENT COLORS. PRECAST WALL PANELS SHALL WEATHER FOR 90 DAYS PRIOR TO PAINT APPLICATION. PAINT SHALL NOT BE APPLIED WHEN SURFACE AND AIR TEMPERATURE IS UNDER 45 DEGREES FAHRENHEIT AND TEMPERATURES SHALL BE RISING.

1. **ACRYLIC CONCRETE STAIN (BASE COLOR):**
   A. (2) COATS OF HALLMAN LINDSAY #167 GRIP CRETE ACRYLIC STAIN OR
   B. (2) COATS SHERWIN WILLIAMS LOXON VERTICAL STAIN OR
   C. (2) COATS BENJAMIN MOORE TURFCRETE WB CONCRETE STAIN.

2. **ACCENT COLOR:**
   A. (2) COATS OF HALLMAN LINDSAY #174 WEATHER GUARD SATIN 100% ACRYLIC HOUSE PAINT OR
   B. (2) COATS SHERWIN WILLIAMS SUPER PAINT SATIN HOUSE PAINT OR
   C. (2) COATS BENJAMIN AURA SATIN 100% ACRYLIC HOUSE PAINT.

PRECASTER NOTE:

PRECASTER TO PROVIDE COVERS FOR ALL ROUND RECESSED POCKETS AND PROVIDE CLOSED CELL SPRAY FOAM INSULATION IN ALL STRUCTURAL PRECAST PANELS FOR ALL OTHER POCKETS SHAPES INCLUDING OR RECESSED AREAS (BEAM, LINTEL, JOIST, GIRDER, BEARING OR OTHER POCKETED CONDITIONS) ON INTERIOR SIDE OF THE PRECAST WALL PANELS

EXTERIOR BLDG SYSTEMS

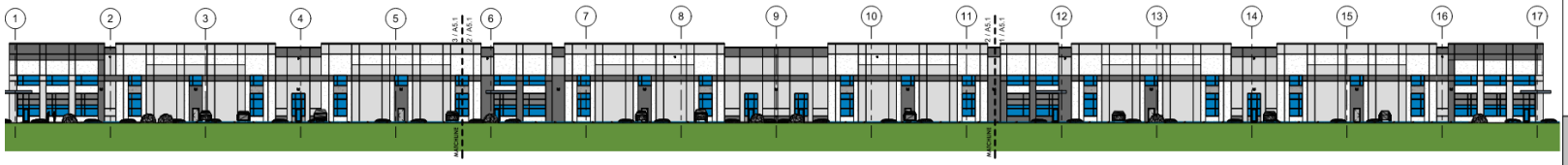
ROOF ASSEMBLY (BALLASTED): BALLASTED SINGLE PLAY 60 MIL EPDM ROOF MEMBRANE ON 5.75" DIRECT TO DECK APPROVED EPS INSULATION (R20 - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

ROOF ASSEMBLY (CANOPY): FULLY ARERED EPDM ROOF MEMBRANE ON TAPERED INSULATION TAPERED TO GUTTERS AS DETAILED.

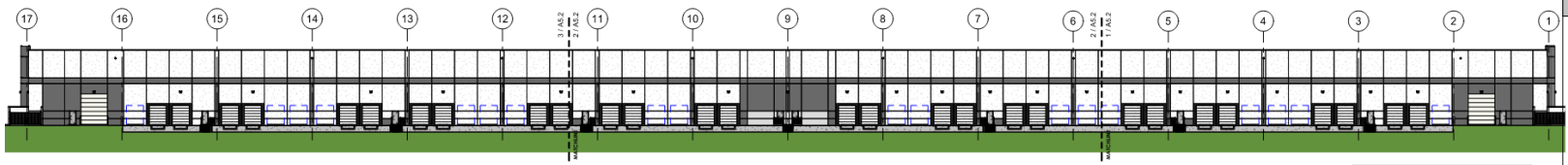
INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

ELEVATION PAINT COLOR KEY:

- PAINT COLOR 1: SHERWIN WILLIAMS - FIELD COLOR
- PAINT COLOR 2: SHERWIN WILLIAMS "SW 6203 SPARE WHITE" - LIGHT ACCENT
- PAINT COLOR 3: SHERWIN WILLIAMS "SW 2850 CHELSEA GRAY" - MEDIUM ACCENT
- PAINT COLOR 4: SHERWIN WILLIAMS "SW 7019 GAUNLET GRAY" - DARK ACCENT

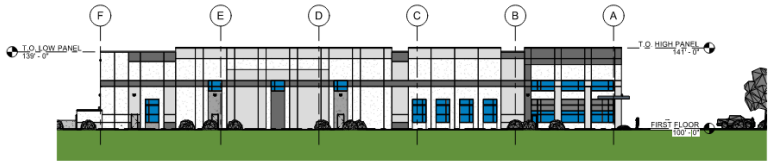


4 OVERALL WEST EXTERIOR ELEVATION
3/64" = 1'-0"

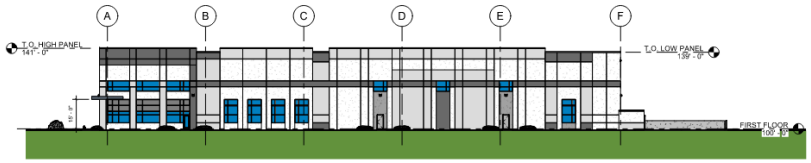


1 OVERALL EAST EXTERIOR ELEVATION
3/64" = 1'-0"

KEYNOTE LEGEND



2 NORTH EXTERIOR ELEVATION
3/64" = 1'-0"



3 SOUTH EXTERIOR ELEVATION
3/64" = 1'-0"

THE PROPOSED COMMERCIAL NON-RESIDENTIAL BUILDING TO BE LOCATED IN CLIMATE ZONE 6 (PER IECC SECTION 502) PER TABLE 502.2 (1) BUILDING ENVELOPE REQUIREMENTS - OPAQUE ASSEMBLIES.

ROOFS - PROPOSED ROOF INSULATION ENTIRELY ABOVE DECK R-20ci REQUIRED AND R-20ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

WALLS ABOVE GRADE PROPOSED EXTERIOR WALL - MASS (PRECAST INSULATED CONCRETE) R-13.3ci REQUIRED AND R-14ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

SLAB-ON-GRADE FLOORS - PROPOSED UNHEATED SLABS R-10 FOR 24 INCHES BELOW REQUIRED AND R-10 FOR 24 INCHES OR MORE PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

PER TABLE 502.3 BUILDING ENVELOPE REQUIREMENTS: FENESTRATION
VERTICAL FENESTRATION (40% MAXIMUM ALLOWED ABOVE GRADE) 5% ACTUAL PROVIDE REQUIRED U - FACTOR .40 ACTUAL PROVIDED .29 AND SHGC .41

PER 201.5 IECC:

C402.5 AIR LEAKAGE THERMAL ENVELOPE.
PROPOSED BUILDING COMPLIES.

C402.5.1 AIR BARRIER PER C402.5.1.2.1 MATERIALS SEE EXCEPTION 13 CAST-IN-PLACE AND PRECAST CONCRETE.
PROPOSED BUILDING COMPLIES.

C402.5.2 AIR LEAKAGE FENESTRATION SEE EXCEPTION 1. FIELD FABRICATED FENESTRATION ASSEMBLIES THAT ARE SEALED IN ACCORDANCE WITH SECTION C402.5.1.
PROPOSED BUILDING COMPLIES.

C402.5.3 ROOMS CONTAINING FUEL - BURNING APPLIANCES EXCEPTION 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO OUTSIDE.
PROPOSED BUILDING COMPLIES.

C402.5.4 DOORS AND ACCESS OPENINGS TO SHAFTS, CHUTES, STAIRWAYS AND ELEVATOR LOBBIES.
NOT APPLICABLE TO PROPOSED BUILDING.

C402.5.5 AIR INTAKES, EXHAUST OPENINGS, STAIRWAYS AND SHAFTS. IF REQUIRED TO BE DAMPERED.
PROPOSED BUILDING COMPLIES.

C402.5.6 LOADING DOCK WEATHER SEALS TO BE PROVIDED FOR LOADING DOCK DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.7 VESTIBULES EXCEPTION 2. DOORS NOT INTENDED TO BE USED BY THE PUBLIC, SUCH AS DOORS TO MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, ON INTENDED SOLELY FOR EMPLOYEE USE. EXCEPTION 4 DOORS
THAT OPEN DIRECTLY FROM A SPACE LESS THAN 3,000 SQUARE FEET IN AREA. EXCEPTION 6 DOORS USED PRIMARILY TO FACILITATE VEHICULAR MOVEMENT OR MATERIAL HAND LINE AND ADJACENT PERSONAL DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.8 RECESSED LIGHTING.
NOT APPLICABLE TO PROPOSED BUILDING.

BRIOHN DESIGN GROUP

SHEET TITLE: EXTERIOR OVERALL ELEVATIONS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision	Date

JOB: 223462
DRAWN: CW
CHECKED: CW
DATE: 2023-02-13
SHEET:
A5.0



BRIOHN
DESIGN GROUP

SHEET TITLE
ENLARGED PERSPECTIVE

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
Not for Construction

Revisions

Date

JOB:	223462
DRAWN:	CW
CHECKED:	CW
DATE:	2023-02-15

SHEET:
A5.4



BRIOHN

DESIGN GROUP

SHEET TITLE

AERIAL PERSPECTIVE

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB: 223462
DRAWN: CW
CHECKED: CW
DATE: 2023-02-13
SHEET:
A5.7

PROPOSED ADDITION FOR :

DICKMAN WILLOW CREEK

WILLOW CREEK PARKWAY
GERMANTOWN, WISCONSIN



SHEET INDEX

Sheet Number	Sheet Name
T1.0	TITLE SHEET
CS-1	SURVEY
C1.0	SITE PAVING PLAN
C2.0	SITE GRADING PLAN
C2.1	SEDIMENT TRAP SIZING EXHIBIT
C3.0	SITE UTILITY PLAN
C4.0	NOTES & DETAILS
C4.1	NOTES & DETAILS
C4.2	NOTES & DETAILS
L1.0	LANDSCAPE PLAN
L1.1	LANDSCAPE PLAN
L1.2	LANDSCAPE PLAN
L2.0	LANDSCAPE PLAN
A0.3	ARCHITECTURAL SITE PLAN
A1.0	OVERALL FLOOR PLAN
A1.1	PARTIAL ENLARGED FLOOR PLAN
A1.2	PARTIAL ENLARGED FLOOR PLAN
A1.3	PARTIAL ENLARGED FLOOR PLAN
A4.0	ROOF AND CLERESTORY PLANS
A5.0	EXTERIOR OVERALL ELEVATIONS
A5.1	ENLARGED PARTIAL EXTERIOR WEST ELEVATIONS
A5.2	ENLARGED PARTIAL EXTERIOR EAST ELEVATIONS
A5.3	ENLARGED NORTH & SOUTH EXTERIOR ELEVATIONS
A5.4	ENLARGED PERSPECTIVE
A5.5	ENLARGED PERSPECTIVE
A5.6	EXTERIOR PERSPECTIVE
A5.7	AERIAL PERSPECTIVE
E1.0	PHOTOMETRIC PLAN
E2.0	LIGHT FIXTURE CUT SHEETS
E2.1	LIGHT FIXTURE CUT SHEETS
E2.2	LIGHT FIXTURE CUT SHEETS

PLAN COMMISSION SUBMITTAL SET
FEBRUARY 13, 2023

OWNER :

TDC Willow Creek, LLC
SAM DICKMAN JR.

626 E. WISCONSIN AVE., SUITE 1200
MILWAUKEE, WI 53202

(414) 271-6100 PHONE
(414) 271-5125 FAX
Sam-jr@dickmanrealestate.com

GENERAL CONTRACTOR :

BRIOHN BUILDING CORPORATION
MIKE MIKISICH

3885 N. BROOKFIELD RD., SUITE 200
BROOKFIELD, WISCONSIN 53045
(262) 790-0500 PHONE
(262) 790-0505 FAX
mmikisich@briohn.com

ARCHITECT :

BRIOHN DESIGN GROUP LLC
CHRISTOPHER WENZLER, AIA

3885 N. BROOKFIELD RD., SUITE 200
BROOKFIELD, WISCONSIN 53045
(262) 790-0500 PHONE
(262) 790-0505 FAX
cwenzler@briohn.com

CIVIL ENGINEER:

JSD PROFESSIONAL SERVICES, INC.
RIZAL W. ISKANDARSJACH, P.E., P.L.S.

W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
(262) 513-0666 PHONE
(414) 313-9932 CELL
riz@jsdinc.com

LANDSCAPE DESIGNER:

JSD PROFESSIONAL SERVICES, INC.
KEVIN BYRNE, PLA & LEED AP BD+C

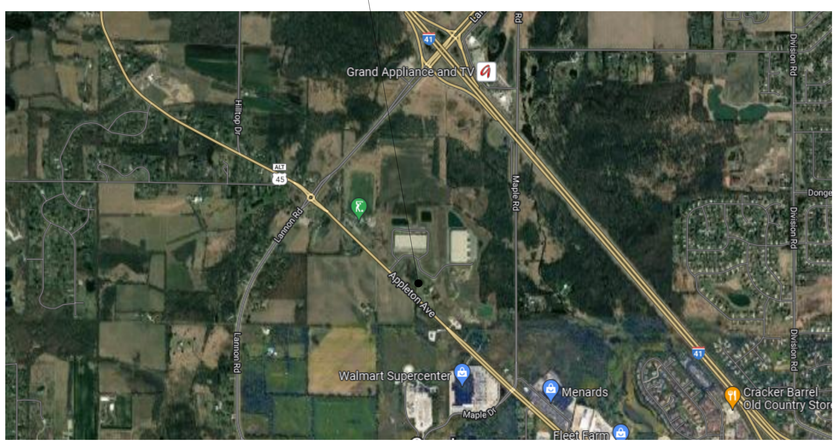
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
(262) 513-0666 PHONE

STRUCTURAL ENGINEER:

KEVIN JANKOWSKI, PE
CHRISTOPHER CLINE, PE

3885 N. BROOKFIELD RD., SUITE 200
BROOKFIELD, WISCONSIN 53045
(262) 790-0500 PHONE
(262) 790-0505 FAX
ccline@briohn.com

PROJECT LOCATION:



PROJECT BUILDING INFORMATION:

CODE:	**BUILDING CODE: 2015 IBC -** INTERNATIONAL BUILDING CODE WITH WISCONSIN AMENDMENTS SPS 362 **EXISTING BUILDING CODE: 2015 IEBC -** INTERNATIONAL EXISTING BUILDING CODE WITH WISCONSIN AMENDMENTS SPS 366 **ACCESSIBILITY CODE: 2009 ICC**/ANSI A117.1 ACCESSIBLE AND USABLE **BUILDINGS AND FACILITIES ENERGY CODE: 2015 IECC -** INTERNATIONAL ENERGY CONSERVATION CODE WITH WISCONSIN AMENDMENTS SPS 363 **MECHANICAL CODE: 2015 IMC -** INTERNATIONAL MECHANICAL CODE WITH WISCONSIN AMENDMENTS SPS 364 **PLUMBING CODE:** 2018 WISCONSIN PLUMBING CODE SPS 381-387 **ELECTRICAL CODE:** 2017 NFPA 70 NATIONAL ELECTRICAL CODE WITH WISCONSIN AMENDMENTS SPS316 **FIRE CODE:** SPS 314 FIRE PREVENTION	
OCCUPANCY:	PRIMARY	B (OFFICE/BUSINESS)
	SECONDARY	S-1 (MODERATE HAZARD STORAGE)
CLASS OF CONSTRUCTION:	TYPE 2B	
SPRINKLER SYSTEM:	NFPA 13 AUTOMATIC SPRINKLER SYSTEM	
FLOOR LEVELS:	1	
NUMBER OF STORIES	1	
BUILDING FOOTPRINT:	209,329 SF	NOTE:
BUILDING AREA:	207,537 SF	ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SPRINKLER ENGINEERING BY DESIGN-BUILD CONTRACTORS
ZONING:	M-1	LIMITED BUSINESS & INDUSTRIAL PARK
SETBACKS:	30' 10' 25'	STREET SIDE REAR
PARKING:	133 6	STANDARD STALLS HC STALLS
TOTAL PARKING (TOTAL ON-SITE):	139 TOTAL PARKING STALLS	

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
TITLE SHEET

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

Revision
PROGRESS SET
NOT FOR CONSTRUCTION
Date

JOB: 223462
DRAWN: CJR
CHECKED: CW
DATE: 2023-02-13
SHEET:
T1.0

north
SCALE IN FEET
50' 0 50'

LEGEND

SANITARY MANHOLE	GAS VALVE	SAN — SANITARY SEWER	OH — OVERHEAD LINE
STORM MANHOLE	LIGHT POLE	W — WATER MAIN	FM — SANITARY FORCE MAIN
UTILITY MANHOLE	MAIL BOX	ST — STORM SEWER	WET — WET — WETLAND
CATCH BASIN ROUND	TELEPHONE PEDESTAL	C — UNDERGROUND GAS	SF — SILT FENCE
CURB INLET	ELECTRICAL MANHOLE	E — UNDERGROUND ELECTRIC	(15.) MAPPED SCHEDULE B-II EXCEPTION
FIRE HYDRANT	SIGN	T — UNDERGROUND TELEPHONE	
WATER VALVE		FIB — UNDERGROUND FIBER OPTICS	

NE CORNER OF NE 1/4 OF SEC. 32-9-20 CONC. MON. W/ BRASS CAP

ARC=171.61'
RAD=195.00'
CH. BRG.=N63°45'18"E
CH. L=166.12'
Δ=50°25'21"

CONC. PANEL BUILDING

LOT 3
CSM NO. 5782
OWNER: JES GERMANTOWN INDUSTRIAL LLC
TAX KEY: GTNV 321972

N88°57'59"E 1189.10'

1" IRON PIPE FOUND

100-YR FLOODPLAIN SHOWN CSM NO. 6782 ELEV.:842.7 (NGVD29)

WETLAND DELINEATION BY T. MYERS (raSMITH) PER REPORT DATED NOV. 19, 2018 (W-2: 3,401 SF)

FEMA ZONE "X"

FEMA ZONE "AE"

25' WETLAND VILLAGE SETBACK

S01°29'48"E 260.40'

MAPLE RD.

MDTH VARIES PUBLIC R/W

ASPHALT PAVEMENT

S88°30'12"W 313.50'

3/4" IRON REBAR FOUND

LOT 1
CSM NO. 5851
OWNER: STAG INDUSTRIAL HOLDINGS LLC
TAX KEY: GTNV 321969

WILLOW CREEK WAY
PUBLIC R/W

N38°53'36"E 177.32'

3/4" IRON REBAR FOUND

3/4" METAL POST

SAN. MH
RIM=861.01
846.90 12"NW
846.81 12"SE

RIM=860.93

1" IRON PIPE FOUND

RIM=861.06

SMH
HYD. NW
FLG. BOLT
ELV.=864.58

ARC=192.37'
RAD=66.00'
CH. BRG.=N49°41'07"E
CH. L=131.15'
Δ=167°00'12"

ARC=192.37'

15' ELECT. & GAS EASEMENT PER DOC. NO. 1446329

1" IRON PIPE FOUND

N48°46'47"W 576.02'

LOT 1
CSM NO. 2911
OWNER: RANDALL & MSHALENA ZAGORSKI
TAX KEY: GTNV 321983

SAN. MH
RIM=858.90
846.40 12"NW
846.30 12"SE

APPROXIMATE LOCATION OF EASEMENT ENCROACHMENT AGREEMENT PER DOC. NO. 1443512

1" IRON PIPE FOUND

LOT 2
CSM NO. 2911
OWNER: CHARLES SCHMIDT
TAX KEY: GTNV 321982

N43°11'17"E 300.39'

125' WISCONSIN ELECTRIC POWER CO. EASEMENT PER DOC. NO. 254370 SHOWN ON CSM NO. 6782

1" IRON PIPE FOUND

APPLETON AVE.
MDTH VARIES PUBLIC R/W

S.T.H. "175"

N46°45'03"W 362.81'

SOIL PILE
TOP ELEVATION NOT SURVEYED
AS OF DEC. 20, 2023

SOIL PILE
TOP E.L.E.V.
NOT SURVEYED
AS OF DEC. 20, 2023

SOIL PILE
TOP ELEV.
NOT SURVEYED
AS OF DEC. 20, 2023

30' PUBLIC SANITARY & WATERMAIN EASEMENT PER CSM NO. 6782

10' JOINT PIPELINE EASEMENT PER DOC. NO. 403638 SHOWN ON CSM NO. 6782

30' PUBLIC SANITARY & WATERMAIN EASEMENT PER CSM NO. 6782

B-23 BENCHMARK 845.38

B-24 BENCHMARK 845.34

B-25 BENCHMARK 850.33

B-26 BENCHMARK 845.49

B-27 BENCHMARK 845.36

B-28 BENCHMARK 845.56

B-29 BENCHMARK 845.54

B-30 BENCHMARK 845.51

B-31 BENCHMARK 845.51

B-32 BENCHMARK 845.53

B-33 BENCHMARK 845.58

GAS WARNING POSTS

WIRE HT. 44.2' (ELV. 888.6)

WIRE HT. 42.7' (ELV. 888.6)

WIRE HT. 41.7' (ELV. 894.8)

WIRE HT. 33.6' (ELV. 892.0)

WIRE HT. 41.7' (ELV. 893.2)

WIRE HT. 37.1' (ELV. 893.0)

WIRE HT. 41.8' (ELV. 894.0)

WIRE HT. 41.6' (ELV. 894.0)

WIRE HT. 41.8' (ELV. 894.0)

LOT 4
CSM NO. 6782
1,162,091 SQ. FT.
26.6779 AC.
OWNER: BV RYAN WILLOW CREEK II OWNER LLC
TAX KEY: GTNV 321973

ASPHALT PAVEMENT

GRAVELED CONST. ENTRANCE

WETLAND

UPLAND

WOODS EDGE

25' WETLAND VILLAGE SETBACK

WETLAND DELINEATION BY T. MYERS (raSMITH) PER REPORT DATED NOV. 19, 2018 (W-1: 1,184 SF)

WETLAND DELINEATION BY T. MYERS (raSMITH) PER REPORT DATED NOV. 19, 2018 (W-4: 1,164 SF)

WETLAND DELINEATION BY T. MYERS (raSMITH) PER REPORT DATED NOV. 19, 2018 (W-3: 1,401 SF)

UNPLATTED LANDS
OWNER: ANR PIPELINE CO.
TAX KEY: GTNV 321993

UNPLATTED LANDS
OWNER: ANR PIPELINE CO.
TAX KEY: GTNV 321995

UNPLATTED LANDS
OWNER: ANR PIPELINE CO.
TAX KEY: GTNV 321996

UNPLATTED LANDS
OWNER: ANR PIPELINE CO.
TAX KEY: GTNV 321994

LOT 2
CSM NO. 3727
OWNER: VILLAGE OF GERMANTOWN
TAX KEY: GTNV 321976

OUTLOT 2
CSM NO. 3782
OWNER: VILLAGE OF GERMANTOWN
TAX KEY: GTNV 321976

S88°30'12"W 368.41'

1" IRON PIPE FOUND

1" IRON PIPE FOUND

S01°29'48"E 2688.29' (TOTAL)

E. LINE OF NE 1/4 SEC. 32-9-20

DUE SOUTH 476.95'

S42°01'58"W 160.07'

N41°58'02"W 369.24'

CH. LINE FENCE

WOOD POST W/ ELECT. BOX

35' PUBLIC SANITARY & WATERMAIN EASEMENT PER CSM NO. 6782

SAN. MH
RIM=856.59
843.79 12"NW
843.77 12"SW

GAS WARNING POSTS

50' PIPELINE EASEMENT PER DOC. NO. 483217 SHOWN ON CSM NO. 6782

PLASTIC POST W/ ELECT. BOX

WOOD POST

S. LINE OF NE 1/4 SEC 32-9-20 N89°56'02"W 2657.42' (TOTAL)

N89°56'02"W 222.99'

N89°56'02"W 744.65'

1" IRON PIPE FOUND

1" IRON PIPE FOUND

SW CORNER OF NE 1/4 OF SEC. 32-9-20 CONC. MON. W/ BRASS CAP

LOT 1
CSM NO. 3380
OWNER: MICHAEL & JULIE SCHODRON
TAX KEY: GTNV 324982

LOT 2
CSM NO. 3380
OWNER: ROBERT WELAND
TAX KEY: GTNV 324998

SE CORNER OF NE 1/4 OF SEC. 32-9-20 CONC. MON. W/ BRASS CAP ELEV: 845.17

TABLE A ITEMS:

2 At the time of the survey there are no posted address number.

3 At the time of this survey this majority of the property is located within Zone X (Areas determined to be outside the 0.2% annual chance floodplain) and the northeasterly portion is located within Zone AE (Areas determined to be within special flood hazard areas with a Base Flood Elevation) per FEMA map panel numbers 55131C0359D, map effective date: November 20, 2013.

4 Gross Land Area of Lot 4 of CSM No. 6782: 1,163,091 Sq Ft. (26.6779 ac.)

6 At the time of this survey, zoning letter was not provided by owner/client. Property is zoned M-1, Limited Industrial District, per Village of Germantown Zoning Map.
Per Village Code property has the following building setbacks:
Front Setback: 30 feet
Side Setback: 10 feet
Rear Setback: 25 feet

9 At the time of this survey, the property is vacant and contains no striped parking stalls.

11 Underground utility locations shown are based on field location markings and utility mapping by "Digger's Hotline", Ticket Nos. 20230400630 and 20230400634 with a start date of February 2, 2023. Underground utility information is shown for informational purposes only, and is not guaranteed to be accurate or all inclusive. The Contractor/Owner is responsible for making his own determination as to the type and location of underground utilities as may be necessary to avoid damage thereto. Contractor/Owner shall call "Digger's Hotline" prior to the start of any construction activities.

16 At the time of this survey there was no observed evidence of current earth moving work, building construction or building.

17 At the time of this survey there was no proposed changes in street right of way lines or observed evidence of recent street or sidewalk construction or repair.

SCHEDULE B - PART II EXCEPTIONS

1, 5, 6, 7, 8, 11, 12, 13 Shown on map, if any.

2, 3, 4, 9, 10 Not survey related.

14. Easement granted to Wisconsin Telephone Company and other matters contained in the instrument recorded August 24, 1915 as Document No. 110450. **(BLANKET EASEMENT AND NOT MAPPABLE)**

15. Easement granted to Wisconsin Gas and Electric Company and other matters contained in the instrument recorded December 28, 1916 as Document No. 113433. **(BLANKET EASEMENT AND NOT MAPPABLE)**

16. Easement granted to Wisconsin Gas & Electric Co. and other matters contained in the instrument recorded July 29, 1921 as Document No. 125009. **(BLANKET EASEMENT AND NOT MAPPABLE)**

(17.) Right of Way Contract granted to Michigan-Wisconsin Pipe Line Company and other matters contained in the instrument recorded December 30, 1949 as Document No. 207197, affected by Partial Release of Easement recorded June 24, 1986 as Document No. 493686, further affected by Easement Encroachment Agreement recorded December 14, 2017 as Document No. 1443512.

(18.) Pipe Line Easement granted to Milwaukee Gas Light Company and other matters contained in the instrument recorded June 8, 1953 as Document No. 219413, affected by Declaration of Location of Underground Facilities Installed Pursuant to Previously Recorded Easement recorded February 14, 1986 as Document No. 488217, further affected by Transfer of Easement-Rights recorded July 28, 2004 as Document No. 1057612.

(19.) Easement granted to Wisconsin Electric Power Company and other matters contained in the instrument recorded November 2, 1960 as Document No. 254370, assigned by Easement Assignment recorded January 2, 2001 as Document No. 873216.

20. Permit for Access Driveway to State Trunk Highway and other matters contained in the instrument recorded September 13, 1985 as Document No. 483012. **(RESIDENTIAL ACCESS NOT LOCATED WITHIN SUBJECT PROPERTY)**

21. TID #6 Business Park Development Agreement and other matters contained in the instrument recorded February 26, 2015 as Document No. 1376237.

(22.) Easements, restrictions and other matters shown on Certified Survey Map No. 6782 recorded September 28, 2017 as Document No. 1438853.

23. Declaration of Protective Covenants for Willow Creek Business Park of Germantown and other matters contained in the instrument recorded October 4, 2017 as Document No. 1439286, affected by Waiver and Agreement recorded August 10, 2018 as Document No. 1457201.

NOTE: Above described Declaration contains Repurchase Rights and / or a Right of First Refusal.

(24.) Distribution Easement Electric and Gas granted to Wisconsin Electric Power Company, a Wisconsin corporation and Wisconsin Gas LLC, a Wisconsin limited liability company, both doing business as We Energies and other matters contained in the instrument recorded February 9, 2018 as Document No. 1446329.

GENERAL NOTES:

1. Bearings are referenced to the Wisconsin State Plane Coordinate System, South Zone (NAD 27 datum). The South line of the Northeast 1/4 of Section 32, Township 9 North, Range 20 East, was used as North 89°56'02" West.
2. Vertical Datum: NGVD1929
   Reference Benchmark: Southeast corner of the Northeast 1/4 of Section 32, Township 9 North, Range 20 East, Concrete monument w/ SEWRPC brass cap, Elevation=906.62
3. Site Benchmark:
   Benchmark #2 SW flange bolt on hydrant, south side of Willow Creek Way, northwest of the cul-de-sac. Elevation=845.17
4. Field survey by JSD Professional Services, Inc on January 19, 20 and 24, 2023.
5. Wetland on map based on delineation by Tina Meyers (raSmith) delineation report dated November 19, 2018. Wetland shown on CSM No. 6782 refers to wetland delineation by Wetland & Waterway Consulting, llc, dated May 14, 2014. The 5 year delineation valid period for the wetland shown on CSM has lapsed.
6. This ALTA/NSPS Land Title Survey was prepared and based on Knight Barry Title Group, Commitment for Title Insurance File No. 2191354, with a Commitment Date January 5, 2023.

LEGAL DESCRIPTION:

(Based on Knight Barry Title Group, Commitment for Title Insurance File No. 2191354, with a Commitment Date January 5, 2023)

Lot 4 of Certified Survey Map No. 6782, recorded in the Office of the Register of Deeds for Washington County, Wisconsin, on September 28, 2017 in Volume 52 of Certified Survey Maps, Pages 160-171, as Document No. 1438853, being part of the Northwest 1/4, Northeast 1/4, Southwest 1/4 and Southeast 1/4 of the Northeast 1/4 of Section 32, and part of the Southeast 1/4 of the Southeast 1/4 of Section 29, all in Town 9 North, Range 20 East, in the Village of Germantown, County of Washington, State of Wisconsin.

For informational purposes only:
Property Address: N102 W19200 Willow Creek Way, Germantown, WI 53022
Tax Key Number: GTNV 321973

SURVEYOR'S CERTIFICATE:

To Central Land Company III, LLC, a Wisconsin limited liability company, BV Ryan Willow Creek II Owner, LLC, a Delaware limited liability company and Knight Barry Title, Inc., their respective successors and assigns:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6(a), 6(b), 7(a), 7(b)(1), 7(c), 8, 9, 11(a), 11(b), 13, 16, 17, and 18 of Table A thereof. The field work was completed on January 24, 2023.

Date of Map: _____

_____
Rizal W. Iskandarsjach, P.L.S.
Professional Land Surveyor, S-2738
JSD Professional Services, Inc.
W238N1610 Busse Road, Suite 100
Waukesha, WI 53188
262-513-0666

File: R:\2022\23101\11\DWG\23-13011 Basemap.dwg Layout: ALTA User: rskandarsjach Plotted: Feb 13, 2023 - 10:18am XrefPath:

JSD
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jsdinc.com
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666

CLIENT:
BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1900
(262) 790-0500 PHONE
(262) 790-0555 FAX

PROJECT:
LOT 4 OF CERTIFIED SURVEY MAP NO. 6782

PROJECT LOCATION:
VILLAGE OF GERMANTOWN WASHINGTON CO. WISCONSIN

DIGGERS HOTLINE

PLAN MODIFICATIONS:

#	Date:	Description:
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Surveyed By:	JFA/DDN 01-24-2023
Drafted By:	DLC/RWI 01-30-2023
Reviewed By:	RWI 02-02-2023

SHEET TITLE:
ALTA/NSPS LAND TITLE SURVEY

SHEET NUMBER:
CS-1

JSD PROJECT NO: 23-13011

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF JSD PROFESSIONAL SERVICES, INC.

LEGEND

SANITARY SEWER MANHOLE	SAN	SANITARY SEWER
STORM MANHOLE	W	WATER MAIN
CATCH BASIN ROUND	ST	STORM SEWER
CATCH BASIN SQUARE	RD	ROOF DRAIN
FIRE HYDRANT	G	UNDERGROUND GAS
WATER VALVE	E	UNDERGROUND ELECTRIC
GAS VALVE	T	UNDERGROUND TELEPHONE
LIGHT POLE	FIB	UNDERGROUND FIBER OPTICS
TELEPHONE PEDESTAL	OH	OVERHEAD UTILITY
ELECTRICAL MANHOLE	SF	SILT FENCE
SIGN		CONIFEROUS TREE
POWER POLE		DECIDUOUS TREE
GUY WIRE		

SHEET INDEX

C1.0	SITE PAVEMENT ID PLAN
C2.0	SITE GRADING & EROSION CONTROL PLAN
C2.1	SEDIMENT TRAP SIZING EXHIBIT
C3.0	SITE UTILITY PLAN
C4.0	NOTES & DETAILS
C4.1	NOTES & DETAILS
C4.2	NOTES & DETAILS

PROPERTY IS ZONED M-1, LIMITED INDUSTRIAL DISTRICT. PER VILLAGE OF GERMANTOWN ZONING MAP. PER VILLAGE CODE PROPERTY HAS THE FOLLOWING BUILDING SETBACKS:

FRONT SETBACK: 30 FEET
SIDE SETBACK: 10 FEET
REAR SETBACK: 25 FEET

PRE-DEVELOPMENT (PROPERTY LIMIT*):

PERVIOUS – 1,162,091 SF (100% GREEN SPACE)

IMPERVIOUS – 0 SF

POST-DEVELOPMENT (PROPERTY LIMIT*):

PERVIOUS – 711,882 SF (61.3% GREEN SPACE)

IMPERVIOUS – 450,209 SF (209,000 SF BUILDING)
134 STANDARD PARKING STALLS
5 ADA ACCESSIBLE STALLS
53 TRUCK TRAILER STALLS

SCALE IN FEET
40' 0 40'

PROPOSED BUILDING
(209,00 S.F.)
F.F.E. = 856.50

DUE SOUTH 476.95'

N89°59'02"W 2657.42' (TOTAL)

S. LINE OF NE 1/4 SEC. 32-9-20

N89°59'02"W 222.26'

N43°11'13"E 340.36'

N45°45'08"W 332.97'

N41°20'57"W 359.24'

N38°32'39"E 177.32'

N45°40'47"W 207.62'

S42°01'08"W 102.07'

ARC=192.37'
RAD=66.00'
CH BRG=N89°41'07"E
CH L=131.15'
Δ=167°00'12"

ARC=171.61'
RAD=195.00'
CH BRG=N63°35'16"E
CH L=166.12'
Δ=50°25'21"

N89°58'57"E 1189.

S89°59'02"E 1189.

BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
SITE PAVEMENT ID PLAN

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PARKWAY
VILLAGE OF GERMANTOWN, WI

DRAFT - NOT FOR CONSTRUCTION

JSD
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666
JSD PROJ. NO.: 23-13011
JSD PROJ. MGR.: RWI

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www.DiggersHotline.com

JOB:	3447
DRAWN:	
CHECKED:	
DATE:	02-13-2023
SHEET:	C1.0

LEGEND

SANITARY SEWER MANHOLE	SAN	SANITARY SEWER
STORM MANHOLE	W	WATER MAIN
CATCH BASIN ROUND	ST	STORM SEWER
CATCH BASIN SQUARE	RD	ROOF DRAIN
FIRE HYDRANT	G	UNDERGROUND GAS
WATER VALVE	E	UNDERGROUND ELECTRIC
GAS VALVE	T	UNDERGROUND TELEPHONE
LIGHT POLE	FIB	UNDERGROUND FIBER OPTICS
TELEPHONE PEDESTAL	OH	OVERHEAD UTILITY
ELECTRICAL MANHOLE	SF	SILT FENCE
SIGN		CONIFEROUS TREE
POWER POLE		DECIDUOUS TREE
GUY WIRE		

SCALE IN FEET
40' 0 40'

PROPOSED BUILDING
(209,00 S.F.)
F.F.E. = 856.50

APPLETON AVE.
S.I.H. "175"
WILLOW CREEK WAY
S. LINE OF NE 1/4 SEC. 32-9-20
N89°56'02"W 2657.42' (TOTAL)
N89°56'02"W 222.26'
DUE SOUTH 476.95'
N89°57'50"E 1189.
CONSTRUCTION ENTRANCE
SEE DETAIL FOR GRADING OF ADA RAMP
SIDEWALK GRADES REPRESENT ELEVATION AT TOP OF 6" STEP
INLET PROTECTION, TYP.
EROSION MAT
DITCH CHECK
SILT FENCE
RIPRAP
B-22 BEDROCK 860.3±
B-23 BEDROCK 853.6±
B-5 BEDROCK 840.2±
B-2 BEDROCK 837.7±
B-3 BEDROCK 848.9±
BEDROCK 850.3±
BEDROCK 837.3±
LOT 4 CSM NO. 6782
LOT 2 CSM NO. 2811
LOT 1 CSM NO. 6782
LOT 3 CSM NO. 6782
20' BUILDING REAR SETBACK
10' BUILDING SIDE SETBACK
30' BUILDING FRONT SETBACK
25' WETLAND VILLAGE SETBACK
WOODS EDGE
ASPHALT PAVEMENT
CONC. PANEL BUILDING

BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
SITE GRADING & EROSION CONTROL PLAN

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PARKWAY
VILLAGE OF GERMANTOWN, WI

JSD
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666
JSD PROJ. NO.: 23-13011
JSD PROJ. MGR.: RWI

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JOB:	3447
DRAWN:	
CHECKED:	
DATE:	02-13-2023
SHEET:	C2.0

DRAFT - NOT FOR CONSTRUCTION

LEGEND

(S)	SANITARY SEWER MANHOLE	SAN	SANITARY SEWER
(ST)	STORM MANHOLE	W	WATER MAIN
⊕	CATCH BASIN ROUND	ST	STORM SEWER
⊞	CATCH BASIN SQUARE	RD	ROOF DRAIN
	FIRE HYDRANT	G	UNDERGROUND GAS
⋈	WATER VALVE	E	UNDERGROUND ELECTRIC
	GAS VALVE	T	UNDERGROUND TELEPHONE
	LIGHT POLE	FIB	UNDERGROUND FIBER OPTICS
T	TELEPHONE PEDESTAL	OH	OVERHEAD UTILITY
(E)	ELECTRICAL MANHOLE	SF	SILT FENCE
	SIGN		CONIFEROUS TREE
	POWER POLE		DECIDUOUS TREE
	GUY WIRE		

NORTH SEDIMENT TRAP	
DISTURBED CONTRIBUTORY AREA (ACRES)	4.10
MULTIPLIER FOR COARSE TEXTURED SOILS (SILT LOAM)	1560
REQUIRED SURFACE AREA (SQUARE FEET)	6,402
OUTLET WEIR LENGTH	10.0'

CENTRAL SEDIMENT TRAP	
DISTURBED CONTRIBUTORY AREA (ACRES)	4.68
MULTIPLIER FOR COARSE TEXTURED SOILS (SILT LOAM)	1560
REQUIRED SURFACE AREA (SQUARE FEET)	7,302
OUTLET WEIR LENGTH	11.0'

SOUTH SEDIMENT TRAP	
DISTURBED CONTRIBUTORY AREA (ACRES)	3.03
MULTIPLIER FOR COARSE TEXTURED SOILS (SILT LOAM)	1560
REQUIRED SURFACE AREA (SQUARE FEET)	4,723
OUTLET WEIR LENGTH	8.0'

NOTES:

1. CONSTRUCT SEDIMENT TRAPS IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1063.
2. PRIOR TO FINAL SITE STABILIZATION, OUTLET STRUCTURES SHALL BE REMOVED AND SEDIMENT TRAPS RE-GRADED TO ESTABLISH FINAL GRADES AS SHOWN.

SCALE IN FEET
40' 0 40'

PROPOSED BUILDING
(209,00 S.F.)
F.F.E. = 856.50

CONTRIBUTORY DRAINAGE AREA TO TEMPORARY SEDIMENT TRAP

TEMPORARY SOUTH SEDIMENT TRAP

TEMPORARY CENTRAL SEDIMENT TRAP

TEMPORARY NORTH SEDIMENT TRAP

TEMPORARY STONE OUTLET (SEE SEDIMENT TRAP DETAIL)

APPLETON AVE.

S.I.H. "175"

WILLOW CREEK WAY

N43°11'13"E 300.39'

10' BUILDING SIDE SETBACK

35' BUILDING FRONT SETBACK

ARC=192.37'
RAD=66.00'
CH BRG=N9°41'07"E
CH L=131.15'
Δ=167°00'12"

ARC=171.61'
RAD=195.00'
CH BRG=N63°35'18"E
CH L=166.12'
Δ=50°25'21"

N38°22'38"E 177.32'

S42°01'38"W 162.01'

N47°40'47"W 207.05'

N89°56'02"W 222.99'

DUE SOUTH 476.95'

S89°58'50"E 1189

20' BUILDING REAR SETBACK

25' WETLAND VILLAGE SETBACK

S. LINE OF NE 1/4 SEC 32-9-20 N89°56'02"W 2657.42' (TOTAL)

B-1 BEDROCK 848.8±
B-2 BEDROCK 837.7±
B-3 BEDROCK 848.0±
B-4 BEDROCK 837.3±
B-5 BEDROCK 840.2±
B-22 BEDROCK 860.3±
B-23 BEDROCK 853.6±
BEDROCK 850.3±

LOT 4 CSM NO. 6782 1.84 ACRES 80,291 SQ. FT. OWNER: BY RYAN WILLOW CREEK OWNER LLC TAX KEY: GTNV 321973

LOT 2 CSM NO. 2811 OWNER: RANDALL & MONICA ROSS TAX KEY: GTNV 321983

LOT 1 CSM NO. 2811 OWNER: STAC INDUSTRIAL HOLDINGS LLC TAX KEY: GTNV 321969

LOT 3 CSM NO. 6782 OWNER: ICE CROWN INDUSTRIAL LLC TAX KEY: GTNV 321972

OWNER: WISCONSIN ELECTRIC POWER CO. TAX KEY: GTNV 321993

OWNER: MARSHALL & ILSLEY TRUST CO. TAX KEY: GTNV 321982

OWNER: CITY OF SCHERON TAX KEY: GTNV 321982

BRIOHN
DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SEDIMENT TRAP SIZING EXHIBIT

SHEET TITLE

PROPOSED BUILDING FOR:
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VILLAGE OF GERMANTOWN, WI

JSD
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DRAWN:	
CHECKED:	
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SHEET:	C2.1

DRAFT - NOT FOR CONSTRUCTION

LEGEND

SANITARY SEWER MANHOLE	SAN	SANITARY SEWER
STORM MANHOLE	W	WATER MAIN
CATCH BASIN ROUND	ST	STORM SEWER
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TELEPHONE PEDESTAL	OH	OVERHEAD UTILITY
ELECTRICAL MANHOLE	SF	SILT FENCE
SIGN		CONIFEROUS TREE
POWER POLE		DECIDUOUS TREE
GUY WIRE		

SCALE IN FEET
40' 0 40'

PROPOSED BUILDING
(209,00 S.F.)
F.F.E. = 856.50

BRIOHN
DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
SITE UTILITY PLAN

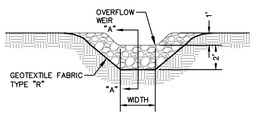
PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PARKWAY
VILLAGE OF GERMANTOWN, WI

DRAFT - NOT FOR CONSTRUCTION

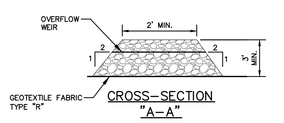
JSD
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WAUKESHA, WISCONSIN 53188
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JSD PROJ. NO.: 23-13011
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JOB:	3447
DRAWN:	
CHECKED:	
DATE:	02-13-2023
SHEET:	C3.0



ELEVATION



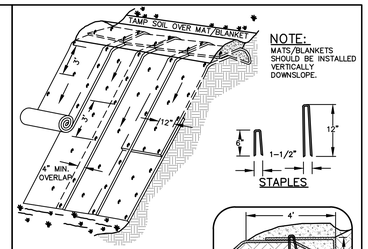
CROSS-SECTION "A-A"

GENERAL NOTES:

1. STONE DITCH CHECKS SHALL BE CONSTRUCTED OF A WELL-GRADED ANGULAR STONE, A D50 OF 3 INCH DIAMETER OR GREATER, SOMETIMES REFERRED TO AS BREAKER RUN OR SHOT ROCK.
2. EXTEND DITCH CHECK ACROSS CHANNEL OPENING TO MEET SWALE/DITCH SIDE SLOPES. WHERE CHANNEL IS LESS THAN 3 FEET DEEP, REDUCE WEIR HEIGHT TO 1 FOOT AND INCREASE THE TOP OF DITCH CHECK FROM 2 FEET TO 4 FEET.

STONE DITCH CHECK

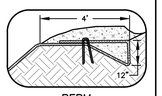
REV. 7-31-2018



ISOMETRIC VIEW
TYPICAL SLOPE SOIL STABILIZATION

NOTE:
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.

STAPLES



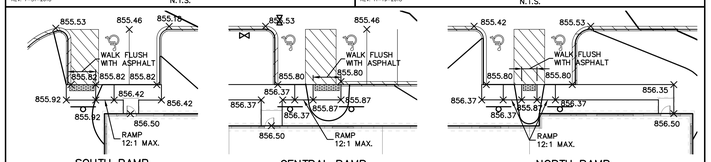
BERM

GENERAL NOTES:

1. EROSION MAT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON-CHANNEL EROSION MAT".
2. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.
3. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

EROSION MATTING

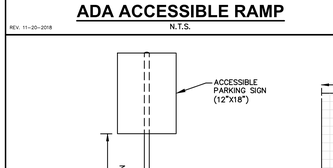
REV. 11-19-2018



SOUTH RAMP | CENTRAL RAMP | NORTH RAMP

ADA RAMP GRADING DETAIL

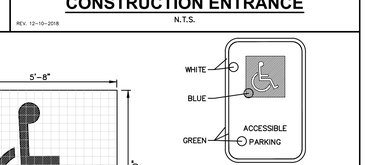
SCALE: 1"=20'



ADA ACCESSIBLE RAMP

REV. 11-20-2018

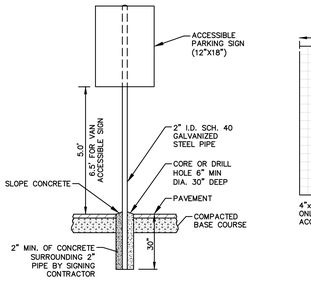
N.T.S.



NOTE:
CONTRACTOR TO VERIFY LOCATION WITH OWNER.

CONSTRUCTION ENTRANCE

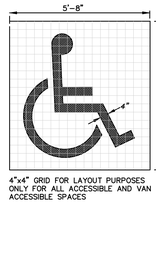
N.T.S.



NOTE:
SIGNAGE DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

ACCESSIBLE PARKING SIGN AND POST INSTALLATION

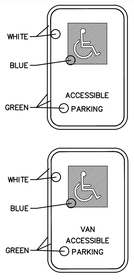
N.T.S.



NOTE:
SYMBOL DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

PAINTED SYMBOL

N.T.S.



NOTE:
SIGNAGE AND SYMBOL DETAILS ARE SHOWN FOR INTENT ONLY. CONTRACTOR SHALL VERIFY EXACT REQUIREMENTS PRIOR TO CONSTRUCTION.

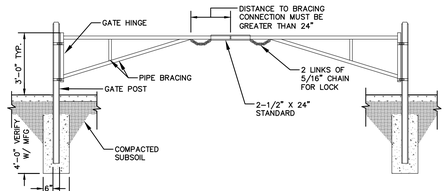
SIGN DETAILS

N.T.S.

ADA PARKING

REV. 11-19-2018

N.T.S.



20' TO 40' GATE			
FRAMEWORK	O.D.	WALL	WT. PER FT.
GATE POST	4"	.226	9.11
LATCH POST	4"	.226	9.11
PIPE RAIL	2"	.090	1.7
PIPE BRACING	1-5/8"	.090	1.4

TRAFFIC GATE DETAIL

REV. 8-22-2018

N.T.S.

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
3. ROUGH GRADE TEMPORARY SEDIMENT TRAPS AND INSTALL OUTLETS.
4. CONDUCT ROUGH GRADING EFFORTS AND INSTALL CHECK DAMS WITHIN DRAINAGE DITCHES AS NEEDED.
5. CONSTRUCT BUILDING FOOTINGS.
6. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
7. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
8. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
9. REMOVE TEMPORARY SEDIMENT TRAPS AND FINAL GRADE AREA PER PLAN.
10. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

DEMOLITION NOTES

1. THIS PLAN INDICATES ITEMS ON THE PROPERTY INTENDED FOR DEMOLITION BASED ON THE CURRENT SITE DESIGN THAT HAVE BEEN IDENTIFIED BY A REASONABLE OBSERVATION OF THE EXISTING CONDITIONS THROUGH FIELD SURVEY RECONNAISSANCE, "DIGGER'S HOTLINE" LOCATION, AND GENERAL "STANDARD OF CARE". THERE MAY BE ADDITIONAL ITEMS THAT CAN NOT BE IDENTIFIED BY A REASONABLE ABOVE GROUND OBSERVATION, OF WHICH THE ENGINEER WOULD HAVE NO KNOWLEDGE OR MAY BE A PART OF ANOTHER DESIGN DISCIPLINE. IT IS THE CONTRACTOR/BIDDER'S RESPONSIBILITY TO REVIEW THE PLANS, INSPECT THE SITE AND PROVIDE THEIR OWN DUE DILIGENCE TO INCLUDE IN THEIR BID WHAT ADDITIONAL ITEMS, IN THEIR OPINION, MAY BE NECESSARY FOR DEMOLITION. ANY ADDITIONAL ITEMS IDENTIFIED BY THE CONTRACTOR/BIDDER SHALL BE IDENTIFIED IN THE BID AND REPORTED TO THE ENGINEER OF RECORD. JSD TAKES NO RESPONSIBILITY FOR ITEMS ON THE PROPERTY THAT COULD NOT BE LOCATED BY A REASONABLE OBSERVATION OF THE PROPERTY OR OF WHICH THEY WOULD HAVE NO KNOWLEDGE.
2. ALL TREES WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNLESS SPECIFICALLY CALLED OUT FOR PROTECTION. ALL TREES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY AND STUMPS SHALL BE GROUND TO PROPOSED SUBGRADE.
3. ABANDONED/REMOVED ITEMS SHALL BE DISPOSED OF OFF SITE UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO REPLACE ALL SIDEWALK AND CURB AND GUTTER ABUTTING THE PROPERTIES, WHICH IS DAMAGED BY THE CONSTRUCTION, OR ANY SIDEWALK AND CURB AND GUTTER THAT THE CITY ENGINEER DETERMINES NEEDS TO BE REPLACED BECAUSE IT IS NOT AT A DESIRABLE GRADE REGARDLESS OF WHETHER THE CONDITION EXISTED PRIOR TO BEGINNING CONSTRUCTION.
5. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR:
   - 5.1. EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - 5.2. VERIFYING UTILITY ELEVATIONS AND NOTIFYING ENGINEER OF ANY DISCREPANCIES. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCIES ARE RESOLVED.
   - 5.3. NOTIFYING ALL UTILITIES PRIOR TO THE REMOVAL OF ANY UNDERGROUND UTILITIES.
   - 5.4. NOTIFYING THE DESIGN ENGINEER AND LOCAL CONTROLLING MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
6. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF THESE IMPROVEMENTS.
7. CONTRACTOR TO COORDINATE PRIVATE UTILITY REMOVAL / ABANDONMENT AND NECESSARY RELOCATION WITH RESPECTIVE UTILITY COMPANY. COORDINATION REQUIRED PRIOR TO CONSTRUCTION.
8. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE APPROVED MUNICIPALITY RECYCLING PLAN.
9. ANY CONTAMINATED SOILS SHALL BE REMOVED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS TO AN APPROVED LANDFILL.
10. ALL EXISTING UTILITIES TO BE FIELD LOCATED AND FLAGGED BY CONTRACTOR.
11. SEWER ABANDONMENT SHALL BE IN ACCORDANCE WITH SECTION 3.2.24, OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN, LATEST ADDITION, AND VILLAGE OF GERMANTOWN SPECIFICATIONS.
12. WATER ABANDONMENT SHALL BE IN ACCORDANCE WITH SECTION 4.14.0 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN, LATEST ADDITION, AND VILLAGE OF GERMANTOWN SPECIFICATIONS.
13. ALL PERIMETER EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF DEMOLITION ACTIVITIES. CONTRACTOR SHALL KEEP ALL STREETS AND PAVEMENT FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
14. CONTRACTOR TO REMOVE EXISTING UTILITY PIPE OR PROVIDE PIPE BACK-FILLING AFTER REMOVAL OF EXISTING UTILITIES WITHIN BUILDING FOOTPRINT USING "LOW DENSITY CONCRETE/FLOWABLE FILL".
15. RESTORATION OF THE EXISTING ROADWAY RIGHT-OF-WAYS ARE CONSIDERED INCIDENTAL AND SHOULD BE PART OF THE COST OF THE UNDERGROUND IMPROVEMENTS, DEMOLITION AND REMOVAL. THIS INCLUDES CURB & GUTTER, SIDEWALK, TOPSOIL, SEEDING AND MULCHING.

PAVING NOTES

1. GENERAL
   - 1.1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION", LATEST EDITION, APPLICABLE VILLAGE OF GERMANTOWN ORDINANCES AND RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER OF RECORD.
   - 1.2. ALL PAVING DIMENSIONS ARE TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.
   - 1.3. SURFACE PREPARATION – NOTIFY ENGINEER/OWNER OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
   - 1.4. ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET MUNICIPALITY REQUIREMENTS.
2. ASPHALTIC CONCRETE PAVING SPECIFICATIONS
   - 2.1. CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACE COURSE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.
   - 2.2. WEATHER LIMITATIONS – APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (−1° C).
   - 2.3. GRADE CONTROL – ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.
   - 2.4. CRUSHED AGGREGATE BASE COURSE – THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS.
   - 2.5. BINDER COURSE AGGREGATE – THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460 AND 315, STATE HIGHWAY SPECIFICATIONS.
   - 2.6. SURFACE COURSE AGGREGATE – THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460 AND 465, STATE HIGHWAY SPECIFICATIONS.
   - 2.7. ASPHALTIC MATERIALS – THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.
3. CONCRETE PAVING SPECIFICATIONS
   - 3.1. CONCRETE PAVING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 415 AND 416 OF THE STATE HIGHWAY SPECIFICATIONS.
   - 3.2. CONCRETE PAVEMENT SHALL BE REINFORCED WITH NOVOMESH 950 (OR EQUAL) FIBER REINFORCEMENT AT A RATE OF 5 LBS/CUBIC YARD.
   - 3.3. CURING COMPOUNDS SHALL CONFORM TO SECTION 415 OF THE STATE HIGHWAY SPECIFICATIONS.
   - 3.4. CONTRACTOR SHALL PROVIDE CONTROL JOINTS AND CONSTRUCTION JOINTS OF ONE-QUARTER CONCRETE THICKNESS AT AN EQUAL RATIO OF LENGTH TO WIDTH WHEREVER POSSIBLE WITH A MAXIMUM LENGTH BETWEEN JOINTS OF 8' ON CENTER.
   - 3.5. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS IN SIDEWALKS AT A MAXIMUM 24' ON CENTER.
   - 3.6. EXTERIOR CONCRETE SURFACES SHALL BE BROOM FINISHED.
   - 3.7. ALL CONCRETE SURFACES TO BE SEALED WITH TYPE TK-26UV CONCRETE SEALANT.
4. PAVEMENT MARKING SPECIFICATIONS
   - 4.1. USE 4" WIDE, HIGH VISIBILITY YELLOW LATEX PAINT FOR STALL LINES.
   - 4.2. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY.
   - 4.3. 2' x 4' TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.

PAVING THICKNESS NOTES

**** FINAL PAVEMENT DESIGN TO BE DETERMINED BY OWNER BASED ON GEOTECHNICAL ENGINEER OF RECORD RECOMMENDATIONS. ALL PAVING SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER OF RECORDS RECOMMENDATIONS AS SPECIFIED IN THE SAID GEOTECHNICAL REPORT.**

MINIMUM PAVEMENT STRUCTURE

CONCRETE PAVEMENT (TRUCK DOCK, DOLLY PAD, APRON DRIVE-IN ENTRANCE, TRASH PAD)
- 8" CONCRETE W/ MESH REINFORCEMENT
- 6" CRUSHED AGGREGATE BASE COURSE (1-1/4" DENSE GRADED LIMESTONE)
- CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

HEAVY DUTY ASPHALT PAVEMENT
- 5" ASPHALTIC CONCRETE (2 LIFTS, 3" BINDER, 2" SURFACE)
  - LOWER LAYER (3" BINDER, 4LT 58.28 S)
  - UPPER LAYER (2" SURFACE, 5LT 58.28 S)
- 12" CRUSHED AGGREGATE BASE COURSE (1-1/4" DENSE GRADED LIMESTONE)
- CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

LIGHT DUTY ASPHALT PAVEMENT
- 3-1/2" ASPHALTIC CONCRETE (2 LIFTS, 2" BINDER, 1-1/2" SURFACE)
  - LOWER LAYER (2" BINDER, 4LT 58.28 S)
  - UPPER LAYER (1.5" SURFACE, 5LT 58.28 S)
- 8" CRUSHED AGGREGATE BASE COURSE (1-1/4" DENSE GRADED LIMESTONE)
- CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

CONCRETE SIDEWALK AND STOOPS
- 5" CONCRETE
- 6" CRUSHED AGGREGATE BASE COURSE
- CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

UTILITY NOTES

1. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
   - EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
   - VERIFYING ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND STUBS, ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
   - NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
   - NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
   - COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
3. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN – AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
4. SPECIFICATIONS SHALL COMPLY WITH THE VILLAGE OF GERMANTOWN SPECIAL PROVISIONS.
5. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION.
6. CONTRACTOR SHALL INSTALL A PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVER NIGHT AS REQUIRED IN CONSTRUCTION SITES WHERE THE POTENTIAL FOR PEDESTRIAN INJURY EXISTS.
7. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
8. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
9. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE ENGINEER WITH AS-BUILT CONDITIONS OF THE DESIGNATED IMPROVEMENTS IN ORDER THAT THE APPROPRIATE DRAWINGS CAN BE PREPARED, IF REQUIRED. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE ENGINEER AS WORK PROGRESSES.
11. STORM SEWER SPECIFICATIONS –

PIPE – HIGH DENSITY DUAL-WALL POLYETHYLENE CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE "S".

INLETS – INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NO. 28 OF THE "STANDARD SPECIFICATIONS", OR APPROVED EQUAL WITH A 1'-8" X 2'-6" MAXIMUM OPENING. FRAME & GRATE SHALL BE NEENAH R-2501 WITH TYPE G GRATE, OR EQUAL. INLETS LOCATED IN LANDSCAPED AREAS SHALL USE NEENAH R-2501-G BEEHIVE FRAME & GRATE, OR EQUAL. CURB FRAME & GRATE SHALL BE NEENAH R-3067 WITH TYPE R GRATE, OR EQUAL.

BACKFILL AND BEDDING – STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

FIELD TILE CONNECTION – ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.

12. WATER MAIN SPECIFICATIONS –

PIPE – POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(k).

VALVES AND VALVE BOXES – GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

HYDRANTS – HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE VILLAGE OF GERMANTOWN. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES (SEE DETAIL).

BEDDING AND COVER MATERIAL – PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

13. SANITARY SEWER SPECIFICATIONS –

PIPE – SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.

BEDDING AND COVER MATERIAL – BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."

BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS." GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."

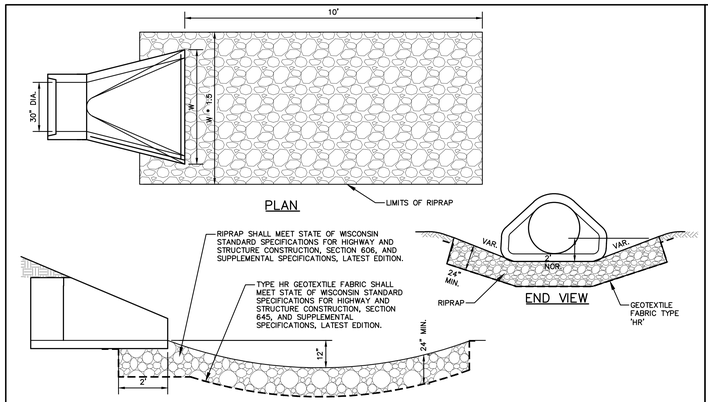
MANHOLES – MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE VILLAGE OF GERMANTOWN.

MANHOLE FRAMES AND COVERS – MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1642 WITH TYPE "B" SELF SEALING LIDS, NON-ROCKING OR EQUAL.

14. WATERMAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALLATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).

GRADING AND SEEDING NOTES

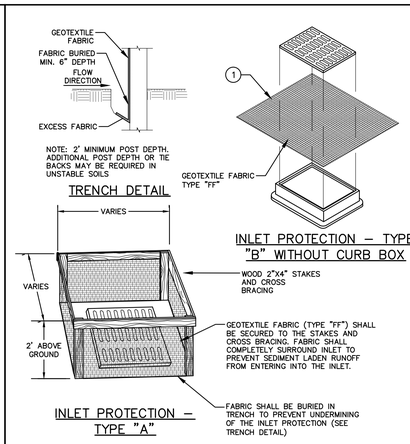
1. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY ALL GRADES. MAKE SURE ALL AREAS DRAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPUTATIONS OF ALL GRADING QUANTITIES. WHILE JSD PROFESSIONAL SERVICES, INC. ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARDS OF CARE. THEREFORE, NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
3. PARKING LOT AND DRIVEWAY ELEVATIONS ARE PAVEMENT GRADES, NOT TOP OF CURB GRADES, UNLESS OTHERWISE NOTED.
4. ANY WORK WITHIN RIGHT-OF-WAY SHALL BE PROPERLY PERMITTED AND COORDINATED WITH THE APPROPRIATE OFFICIALS PRIO



REV. 12-7-2018

APRON ENDWALL - RIPRAP

N.T.S.



GENERAL NOTES:

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

1. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER OF FACILITATE MAINTENANCE OR REMOVAL.
2. FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT A WOOD 2X4

INSTALLATION NOTES:

TYPE "B" & "C"

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

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

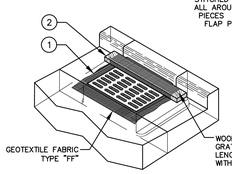
INSTALLATION NOTES:

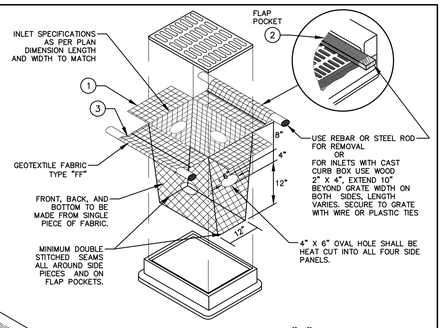
TYPE "D"

DO NOT INSTALL INLET PROTECTION TYPE "D" IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3 INCHES. WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCHES CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4 INCHES FROM THE BOTTOM OF THE BAG.

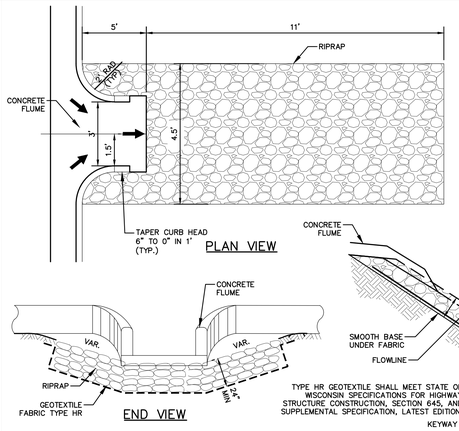




INLET PROTECTION

N.T.S.

REV. 11-19-2018



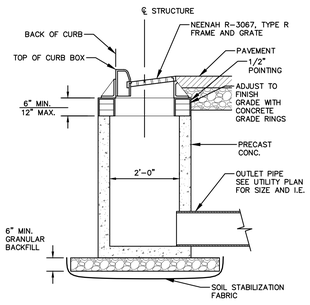
GENERAL NOTES:

1. PITCH CONCRETE AT 2% FROM FLOW LINE OF GUTTER SECTION TO C/L OF FLUME

REV. 12-24-2020

FLUME DETAIL

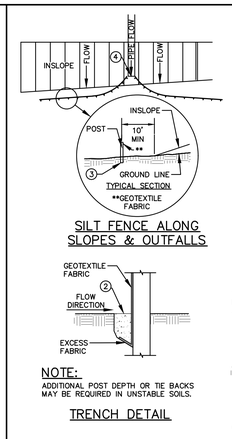
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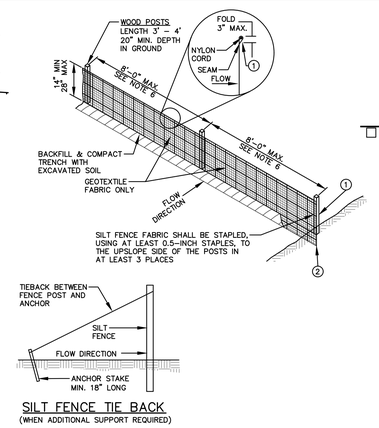


REV. 11-26-2018

STORM INLET

N.T.S.





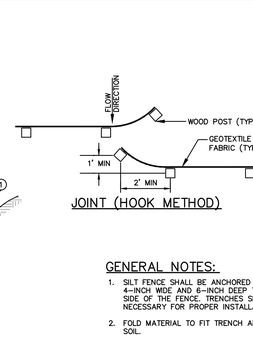
GENERAL NOTES:

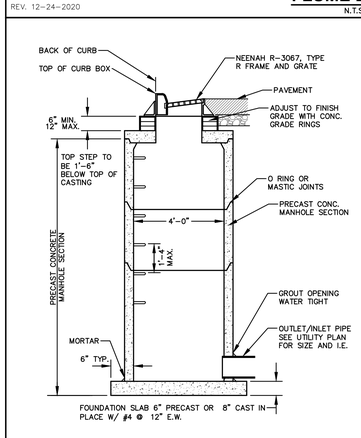
1. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
2. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
4. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
5. SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN & 3-FEET FOR NON-WOVEN)

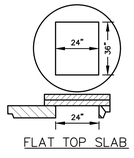
REV. 7-01-2019

SILT FENCE

N.T.S.







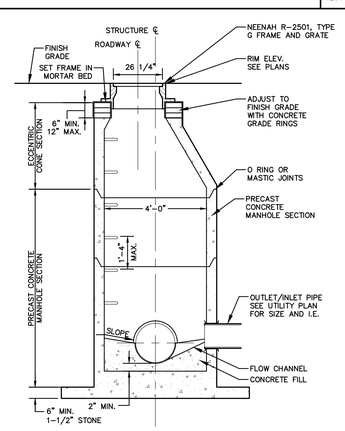
GENERAL NOTES:

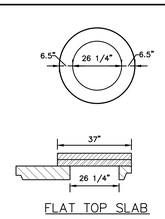
1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.

REV. 12-7-2018

4' DIA. CURB INLET

N.T.S.





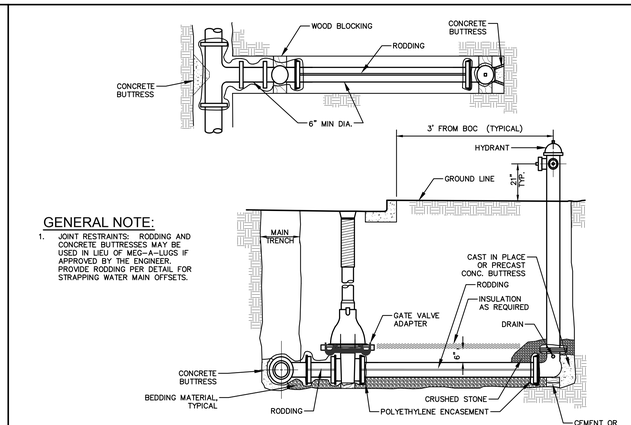
GENERAL NOTES:

1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. PROVIDE FLAT TOP SLAB FOR MANHOLES 5' OR LESS IN DEPTH. FLAT TOP SLABS TO BE IN-BELL TYPE.
3. JOINTS SHALL BE WATERTIGHT. USE BUTYL RUBBER GASKET.
4. USE MORTAR FOR PIPE CONNECTIONS.
5. ECCENTRIC CONE SECTION OF MANHOLE TO BE SET OUTSIDE OF VEHICULAR WHEEL PATH NEAR ℄ ROADWAY.
6. USE NEENAH R-2501-G BEEHIVE FRAME AND GRATE WHEN IN LANDSCAPE AREAS.

REV. 12-07-2018

STORM SEWER MANHOLE

N.T.S.



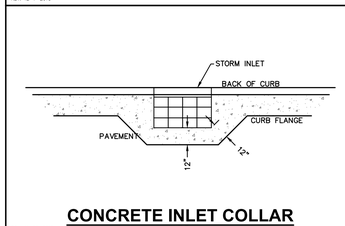
GENERAL NOTE:

1. JOINT RESTRAINTS: RODDING AND CONCRETE BUTTRESSES MAY BE USED IN LIEU OF MEG-A-LUGS IF APPROVED BY THE ENGINEER. PROVIDE RODDING PER DETAIL FOR STRAPPING WATER MAIN OFFSETS.

REV. 12-03-2018

FIRE HYDRANT AND VALVE ASSEMBLY

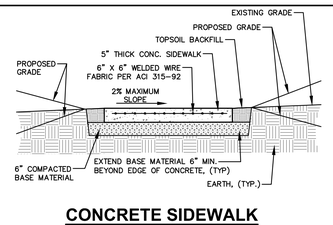
N.T.S.



REV. 11-20-2018

CONCRETE INLET COLLAR

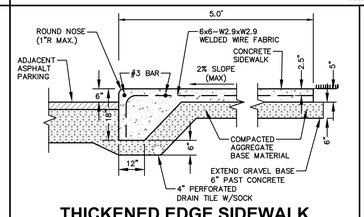
N.T.S.



REV. 7-01-2019

CONCRETE SIDEWALK

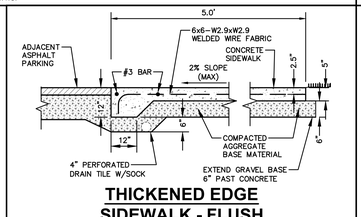
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REV. 07-14-2020

THICKENED EDGE SIDEWALK

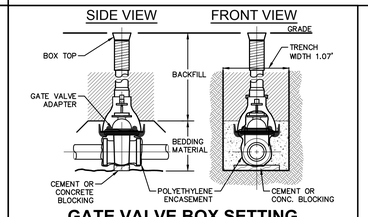
N.T.S.



REV. 07-14-2020

THICKENED EDGE SIDEWALK - FLUSH

N.T.S.



REV. 12-04-2018

GATE VALVE BOX SETTING

N.T.S.

BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE: NOTES & DETAILS

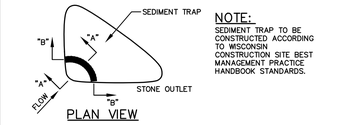
PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PARKWAY
VILLAGE OF GERMANTOWN, WI

JSD
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666
JSD PROJ. NO.: 23-13011
JSD PROJ. MGR.: RWI

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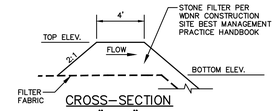
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SHEET:	C4.1

DRAFT - NOT FOR CONSTRUCTION

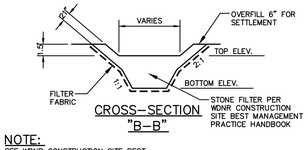


PLAN VIEW

NOTE:
SEDIMENT TRAP TO BE CONSTRUCTED ACCORDING TO WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK STANDARDS.



CROSS-SECTION "A-A"



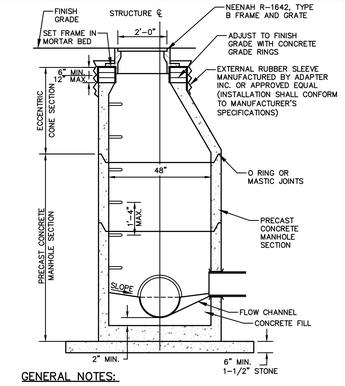
CROSS-SECTION "B-B"

NOTE:
SEE WDNR CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK FOR DETAILS.

SEDIMENT TRAP

N.T.S.

REV. 11-19-2018



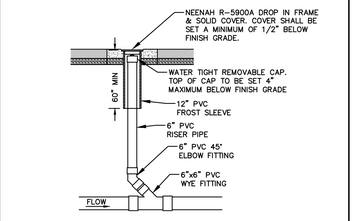
GENERAL NOTES:

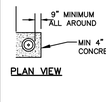
1. MANHOLE CONSTRUCTION TO MEET REQUIREMENTS OF ASTM C478.
2. JOINTS SHALL BE WATERTIGHT, USE BUTYL RUBBER GASKET.
3. USE MORTAR FOR PIPE CONNECTIONS.
4. ALL MANHOLES SHALL HAVE RUBBER CHIMNEY BOOT SEALS.

SANITARY SEWER MANHOLE

N.T.S.

REV. 12-6-2018





PLAN VIEW

Comm Table 82.35		
Dia of Lateral	Min Dia of Cleanout Riser	Min Dia of Riser Cap
1.5	1.5	1.5
2	1.5	1.5
3	3	2.5
4	4	3.5
5	5	4
6	6	5
8+	6	6

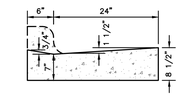
Neenah Grates
R-5900A 12-inch Pipe

NOTE:
CLEANOUT PIPING AND FITTINGS SHALL MATCH SANITARY SEWER LATERAL MATERIAL

SANITARY SEWER CLEANOUT

N.T.S.

REV. 12-6-2018



DRIVEWAY SECTION TYPE 'A'
CONCRETE CURB & GUTTER

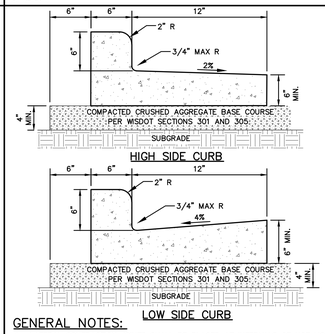
GENERAL NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15' NOR LESS THAN 6' IN LENGTH. THE JOINTS SHALL BE A MINIMUM OF 3" IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200' OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER. THE EXPANSION JOINT SHALL BE A ONE PIECE ASPHALTIC MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 1/2" THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

30" DRIVEWAY SECTION CURB & GUTTER

N.T.S.

REV. 11-20-2018



HIGH SIDE CURB

LOW SIDE CURB

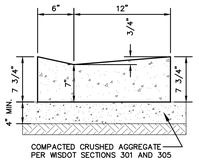
GENERAL NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT RADIUS POINTS ON CURVES OF RADIUS 200 FEET OR LESS, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINT FILLER SHALL BE A ONE PIECE FIBER BOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.

18" STANDARD CURB & GUTTER

N.T.S.

REV. 12-24-2020



18" MOUNTABLE CURB & GUTTER

N.T.S.

REV. 11-19-2018

BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
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JSD
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666
JSD PROJ. NO.: 23-13011
JSD PROJ. MGR.: RWI

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Milwaukee Area (262) 432-7910
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

SHEET TITLE
NOTES & DETAILS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PARKWAY
VILLAGE OF GERMANTOWN, WI

JOB:	3447
DRAWN:	
CHECKED:	
DATE:	02-13-2023
SHEET:	C4.2

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LEGEND

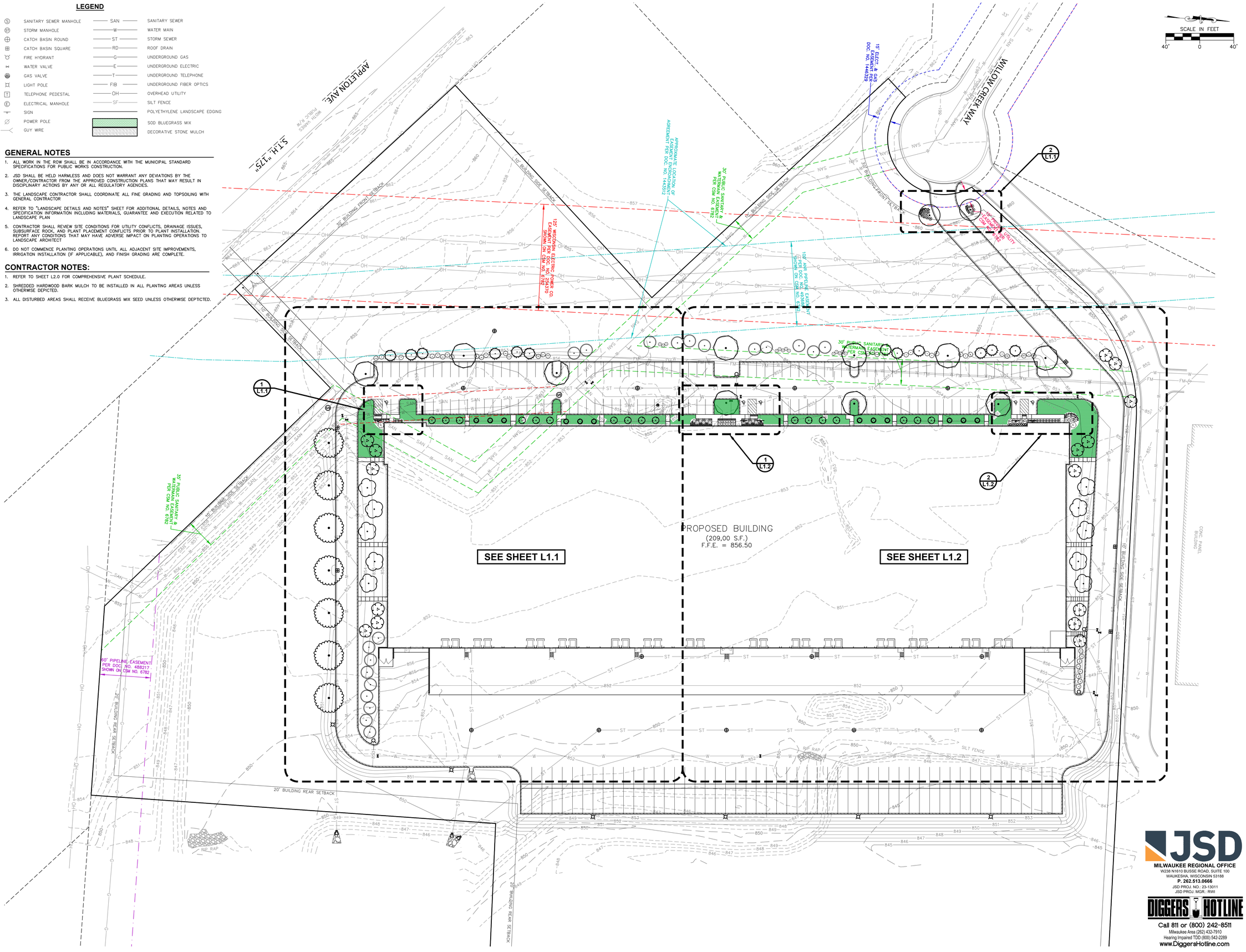
(S)	SANITARY SEWER MANHOLE	SAN	SANITARY SEWER
(ST)	STORM MANHOLE	W	WATER MAIN
⊕	CATCH BASIN ROUND	ST	STORM SEWER
⊞	CATCH BASIN SQUARE	RD	ROOF DRAIN
	FIRE HYDRANT	G	UNDERGROUND GAS
	WATER VALVE	E	UNDERGROUND ELECTRIC
	GAS VALVE	T	UNDERGROUND TELEPHONE
	LIGHT POLE	FIB	UNDERGROUND FIBER OPTICS
T	TELEPHONE PEDESTAL	OH	OVERHEAD UTILITY
E	ELECTRICAL MANHOLE	SF	SILT FENCE
	SIGN		POLYETHYLENE LANDSCAPE EDGING
	POWER POLE		SOD BLUEGRASS MIX
	GUY WIRE		DECORATIVE STONE MULCH

GENERAL NOTES

1. ALL WORK IN THE ROW SHALL BE IN ACCORDANCE WITH THE MUNICIPAL STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.
3. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL FINE GRADING AND TOPSOILING WITH GENERAL CONTRACTOR
4. REFER TO "LANDSCAPE DETAILS AND NOTES" SHEET FOR ADDITIONAL DETAILS, NOTES AND SPECIFICATION INFORMATION INCLUDING MATERIALS, GUARANTEE AND EXECUTION RELATED TO LANDSCAPE PLAN
5. CONTRACTOR SHALL REVIEW SITE CONDITIONS FOR UTILITY CONFLICTS, DRAINAGE ISSUES, SUBSURFACE ROCK, AND PLANT PLACEMENT CONFLICTS PRIOR TO PLANT INSTALLATION. REPORT ANY CONDITIONS THAT MAY HAVE ADVERSE IMPACT ON PLANTING OPERATIONS TO LANDSCAPE ARCHITECT
6. DO NOT COMMENCE PLANTING OPERATIONS UNTIL ALL ADJACENT SITE IMPROVEMENTS, IRRIGATION INSTALLATION (IF APPLICABLE), AND FINISH GRADING ARE COMPLETE.

CONTRACTOR NOTES:

1. REFER TO SHEET L2.0 FOR COMPREHENSIVE PLANT SCHEDULE.
2. SHREDDED HARDWOOD BARK MULCH TO BE INSTALLED IN ALL PLANTING AREAS UNLESS OTHERWISE DEPICTED.
3. ALL DISTURBED AREAS SHALL RECEIVE BLUEGRASS MIX SEED UNLESS OTHERWISE DEPTICTED.



BRIOHN DESIGN GROUP
3885 N.BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE

LANDSCAPE PLAN

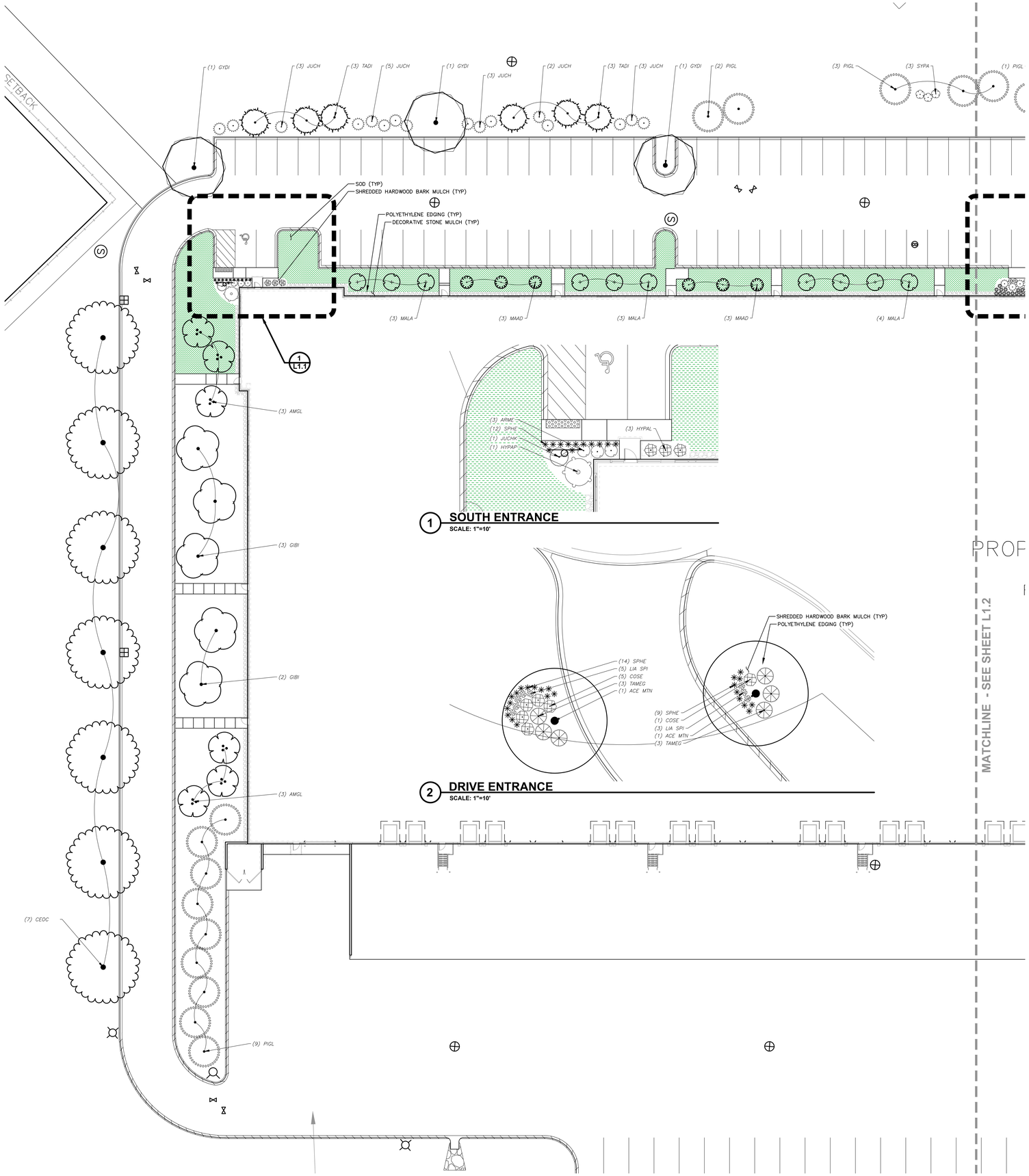
PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PARKWAY
VILLAGE OF GERMANTOWN, WI

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JSD
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666
JSD PROJ. NO.: 23-13011
JSD PROJ. MGR.: RWI

DIGGERS HOTLINE
Call 811 or (800) 242-8511
Milwaukee Area (262) 432-7910
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JOB:	3447
DRAWN:	
CHECKED:	
DATE:	02-13-2023
SHEET:	L1.0



SCALE IN FEET
20' 0 20'

PLANT LIST

REFER TO SHEET L2.0 FOR COMPREHENSIVE PLANT SCHEDULE

EVERGREEN TREE	CODE	BOTANICAL / COMMON NAME
	PIGL	Picea glauca / White Spruce
	TADI	Taxodium distichum 'Mickelson' TM / Shawnee Brave Bald Cypress
ORNAMENTAL TREES	**CODE**	**BOTANICAL / COMMON NAME**
	AMGL	Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Serviceberry
	MALA	Malus x 'Lanzam' / Lancelot™ Dwarf Crabapple
	MAAD	Malus x adstringens 'Jefgreen' / Emerald Spire® Flowering Crabapple
OVERSTORY DECIDUOUS TREES	**CODE**	**BOTANICAL / COMMON NAME**
	ACE MTN	Acer miyabei 'Morton' / State Street™ Miyabe Maple
	CEOC	Celtis occidentalis 'Prairie Pride' / Prairie Pride Hackberry
	GIBI	Ginkgo biloba 'Autumn Gold' TM / Autumn Gold Maidenhair Tree
	GYDI	Gymnocladus dioica 'Espresso' / Kentucky Coffeetree
DECIDUOUS SHRUBS	**CODE**	**BOTANICAL / COMMON NAME**
	ARME	Aronia melanocarpa 'Morton' TM / Iroquis Beauty Black Chokeberry
	COSE	Cornus sericea 'Farrow' / Arctic Fire® Red Twig Dogwood
	HYPAP	Hydrangea paniculata 'Dvp Pinky' TM / Pinky Winky Panicle Hydrangea
	HYPAL	Hydrangea paniculata 'Little Quick Fire' / Little Quick Fire Hydrangea
	SPJA	Spiraea japonica 'SMNSJMFR' TM / Double Play Red Spirea
	SYPA	Syringa x 'SMNJRPI' TM / Bloomerang Dwarf Pink Lilac
EVERGREEN SHRUBS	**CODE**	**BOTANICAL / COMMON NAME**
	JUCHK	Juniperus chinensis 'Pfitzerana Kallays Compacta' / Kally Pfitzer Compact Juniper
	JUCH	Juniperus chinensis 'Sea Green' / Sea Green Juniper
	TAMEG	Taxus x media 'Dark Green' / Dark Green Yew
	TAMEE	Taxus x media 'Everlow' / Everlow Yew
PERENNIALS & GRASSES	**CODE**	**BOTANICAL / COMMON NAME**
	CANE	Calamintha nepeta 'Montrose White' / Montrose White Catmint
	GERR	Geranium x 'Rozanne' / Rozanne Cranesbill
	LIA SPI	Liatris spicata 'Kobold' / Kobold Spike Gayfeather
	PAVI	Panicum virgatum 'Shenandoah' / Shenandoah Switch Grass
	SCSC	Schizachyrium scoparium 'Prairie Blues' / Prairie Blues Little Bluestem
	SPHE	Sporobolus heterolepis 'Tara' / Prairie Dropseed

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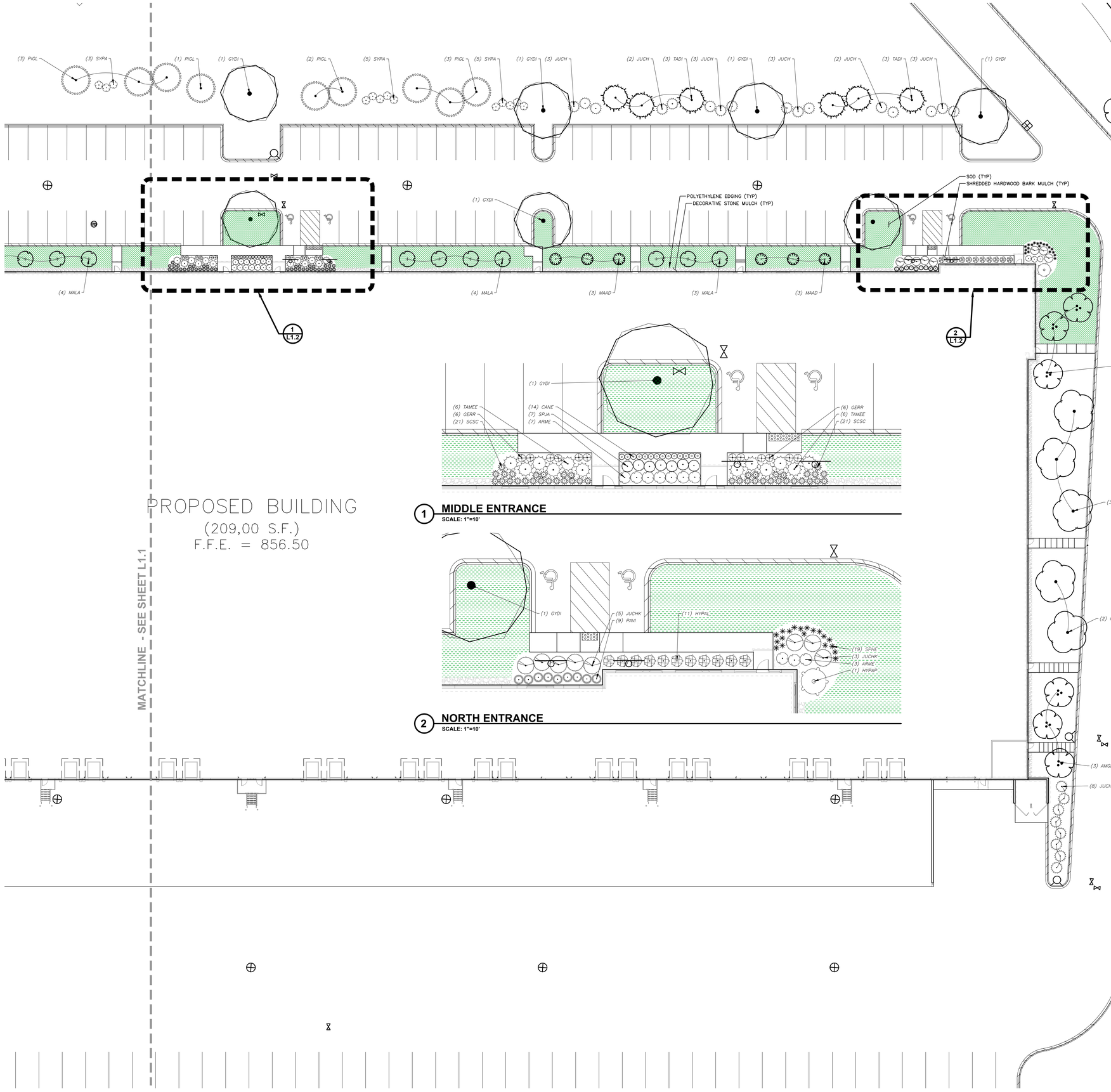
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1 **MIDDLE ENTRANCE**
SCALE: 1"=10'

2 **NORTH ENTRANCE**
SCALE: 1"=10'

SCALE IN FEET
20' 0 20'

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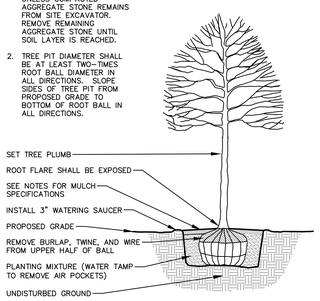
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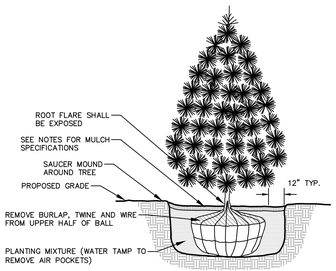
NOTE:

1. DIG HOLE NO DEEPER THAN BASE OF ROOT BALL TO FLARE. ROOT BALL TO BE SET ON UNDISTURBED SOIL UNLESS COMPACTED AGGREGATE STONE REMAINS FROM SITE EXCAVATOR. REMOVE REMAINING AGGREGATE STONE UNTIL SOIL LAYER IS REACHED.
2. TREE PIT DIAMETER SHALL BE AT LEAST TWO-TIMES ROOT BALL DIAMETER IN ALL DIRECTIONS. SLOPE SIDES OF TREE PIT FROM PROPOSED GRADE TO BOTTOM OF ROOT BALL IN ALL DIRECTIONS.



DECIDUOUS TREE PLANTING DETAIL

N.T.S.

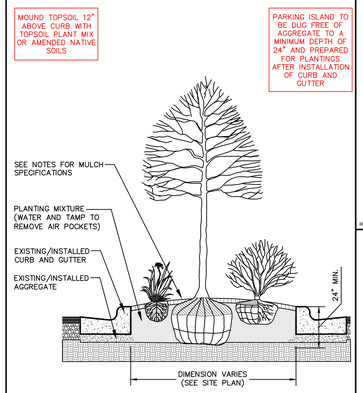


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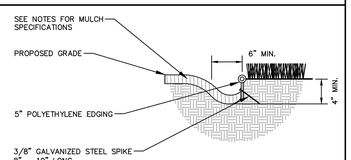
EVERGREEN TREE PLANTING DETAIL

N.T.S.



PARKING ISLAND LANDSCAPE DETAIL

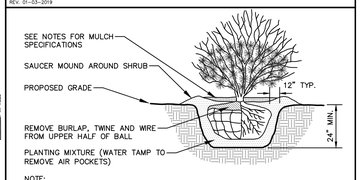
N.T.S.



POLYETHYLENE LANDSCAPE EDGING DETAIL

N.T.S.

REV. 01-03-2019

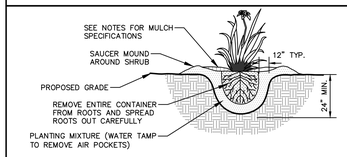


NOTE:

1. ROOT FLARE TO BE EXPOSED.

SHRUB PLANTING DETAIL

N.T.S.



PERENNIAL/ORNAMENTAL GRASS PLANTING DETAIL

N.T.S.

GENERAL NOTES

1. GENERAL: ALL WORK IN THE R-O-W AND PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES. LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO UTILITIES. CONTRACTOR MUST CALL 1-800-242-8511 FOR UTILITY LOCATIONS AT LEAST THREE DAYS PRIOR TO DIGGING. HAND DIG AND INSTALL ALL PLANTS THAT ARE NEAR EXISTING UTILITIES. PROTECT PREVIOUSLY INSTALLED WORK OF OTHER TRADES. CONTRACTOR IS RESPONSIBLE FOR STAKING THE PLANT MATERIALS FOR REVIEW BY OWNER PRIOR TO DIGGING AND PLACEMENT AND SHALL COORDINATE ALL FINE GRADING AND RESTORATION WITH THE GRADING CONTRACTOR.
2. DELIVERY AND HANDLING: DO NOT DELIVER MORE PLANT MATERIALS THAN CAN BE PLANTED IN ONE DAY, UNLESS ADEQUATE, APPROPRIATE AND SECURE STORAGE IS PROVIDED AND APPROVED BY OWNER'S REPRESENTATIVE. AT ALL TIMES, PROTECT ALL PLANT MATERIALS FROM WIND AND DIRECT SUN. DELIVER PLANTS WITH LEGIBLE IDENTIFICATION LABELS. PROTECT PLANTS DURING DELIVERY AND DO NOT PRUNE PRIOR TO DELIVERY. ALL TREES AND SHRUBS SHALL BE PLANTED ON THE DAY OF DELIVERY; IF THIS IS NOT POSSIBLE, PROTECT THE PLANT MATERIALS NOT PLANTED BY STORING THEM IN A SHADED, SECURE AREA, PROTECTING THE ROOT MASS WITH WET SOIL, MULCH, HAY OR OTHER SUITABLE MEDIUM. CONTRACTOR TO KEEP ALL PLANT MATERIALS ADEQUATELY WATERED TO PREVENT ROOT DESICCATION. DO NOT REMOVE CONTAINER GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING. DO NOT PICK UP CONTAINER OR BALLED PLANTS BY STEM OR ROOTS. ALL PLANTS SHALL BE LIFTED AND HANDLED FROM THE BOTTOM OF THE CONTAINER OR BALL. PERFORM ACTUAL PLANTING ONLY WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED BEST HORTICULTURAL PRACTICES.
3. MATERIALS – PLANTS: ALL PLANTS SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST 2 YEARS. PLANTS SHALL BE FRESHLY DUG (DURING THE MOST RECENT FAVORABLE HARVEST SEASON). PLANTS SHALL BE SO TRAINED IN DEVELOPMENT AND APPEARANCE AS TO BE UNQUESTIONABLY SUPERIOR IN FORM, COMPACTNESS, AND SYMMETRY. PLANTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF, AND FREE OF DISEASE AND INSECTS (ADULT EGGS, PUPAE OR LARVAE). THEY SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS AND SHALL BE FREE FROM PHYSICAL DAMAGE OR OTHER CONDITIONS THAT WOULD PREVENT THRIVING GROWTH OR PREMATURE MORTALITY. PLANTS SHALL BE OF THE HIGHEST QUALITY, POSSESS TYPICAL GROWTH HABITS AND FORM FOR THEIR SPECIES AND BE FREE OF INJURY. PARKWAY TREES AND PARKING LOT TREES SHALL HAVE A MINIMUM BRANCHING HEIGHT OF SIX (6) FEET ABOVE THE GROUND TO ALLOW ADEQUATE VISUAL AND PHYSICAL CLEARANCE.
4. PRUNING: THE CONTRACTOR SHALL PRUNE ALL TREES AND REPAIR ANY INJURIES THAT OCCURRED DURING THE PLANTING PROCESS. DOUBLE LEADERS, DEAD BRANCHES, AND LIMBS DAMAGED OR BROKEN DURING THE PLANTING PROCESS, SHALL BE PRUNED. THIS SHALL BE THE ONLY PRUNING ALLOWED AT PLANTING. PRUNING SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN STANDARD FOR TREE CARE OPERATIONS, ANSI A300. PRUNE TREES IN ACCORDANCE WITH NAA GUIDELINES. DO NOT TOP TREES. PRUNE SHRUBS ACCORDING TO STANDARD HORTICULTURAL PRACTICES. ON CUTS OVER 3/4" IN DIAMETER AND BRUISES OR SCARS ON BARK, TRACE THE INJURED CAMBIUM LAYER BACK TO LIVING TISSUE AND REMOVE. SMOOTH AND SHAPE WOUNDS SO AS NOT TO RETAIN WATER. TREAT THE AREA WITH AN APPROVED INCONSPICUOUS LATEX BASED NONSEPTIC TREE PAINT, IF PRUNING OCCURS "IN SEASON". DO NOT PRUNE ANY OAK TREES DURING THE MONTHS FROM APRIL TO OCTOBER.
5. CLEANUP: THE WORK AREA SHALL BE KEPT SAFE AND NEAT AT ALL TIMES. DISPOSED OF EXCESS SOIL, REMOVE ALL CUTTINGS AND WASTE MATERIALS. SOIL AND BRANCHES, BIND AND WRAP THESE MATERIALS, ANY REJECTED PLANTS, AND ANY OTHER DEBRIS RESULTING FROM ALL PLANTING TASKS AND PROMPTLY CLEAN UP AND REMOVE FROM THE PROJECT SITE. UNDER NO CIRCUMSTANCES SHALL THE ACCUMULATION OF SOIL, BRANCHES OR OTHER DEBRIS BE ALLOWED UPON A PUBLIC PROPERTY IN SUCH A MANNER AS TO RESULT IN A PUBLIC SAFETY HAZARD OR DAMAGE. LIKEWISE, UNDER NO CIRCUMSTANCES SHALL ANY DEBRIS OR INCIDENTAL MATERIALS BE ALLOWED UPON ADJACENT PRIVATE PROPERTY.
6. ANY SUBSTITUTIONS IN PLANT TYPE, LOCATION, OR SIZE SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
7. CONTRACTOR TO VERIFY PLANT MATERIAL QUANTITIES AND SQUARE FOOTAGES. QUANTITIES SHOWN ON PLAN TAKE PRECEDENCE OVER THOSE ON SCHEDULE.

LANDSCAPE MATERIAL NOTES

1. MATERIALS – PLANTING MIXTURE: ALL HOLES EXCAVATED FOR TREES, SHRUBS, PERENNIALS AND ORNAMENTAL GRASSES SHALL BE BACKFILLED WITH TWO (2) PARTS TOPSOIL, ONE (1) PART SAND AND ONE (1) PART COMPOST. SOIL MIXTURE SHALL BE WELL BLENDED PRIOR TO INSTALLATION.
2. MATERIALS – TOPSOIL: TOPSOIL TO BE CLEAN, FRIABLE LOAM FROM A LOCAL SOURCE, FREE FROM STONES OR DEBRIS OVER 3/4" IN DIAMETER, AND FREE FROM TOXINS OR OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL HAVE A pH VALUE BETWEEN 6 AND 7. TOPSOIL AND PLANTING SOIL SHALL BE TESTED TO ENSURE CONFORMANCE WITH THESE SPECIFICATIONS AND SHALL BE AMENDED TO MEET THESE SPECIFICATIONS. PROVIDE TEST RESULTS TO OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT. DO NOT PLACE FROZEN OR MUDDY TOPSOIL. APPLY SOIL AMENDMENTS TO ALL LANDSCAPE AREAS PER SOIL TEST.
3. MATERIALS – SHREDDED HARDWOOD BARK MULCH: ALL PLANTING AREAS LABELED ON PLAN SHALL RECEIVE CERTIFIED WEED FREE SHREDDED HARDWOOD BARK MULCH INSTALLED TO A MINIMUM AND CONSISTENT DEPTH OF 3-INCHES. SHREDDED HARDWOOD BARK MULCH SIZE & COLOR TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. FERTILIZER SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS. SHREDDED HARDWOOD BARK MULCH AREAS SHALL NOT RECEIVE WOVEN WEED BARRIER FABRIC.
4. MATERIALS – DECORATIVE STONE MULCH: ALL PLANTING AREAS LABELED ON PLAN SHALL RECEIVE 1.5" MISSISSIPPI WASHED STONE MULCH SPREAD TO A MINIMUM AND CONSISTENT DEPTH OF 3-INCHES. DECORATIVE STONE MULCH TYPE, SIZE & COLOR TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. FERTILIZER SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS. STONE MULCH AREAS SHALL RECEIVE WOVEN WEED BARRIER FABRIC. NO PLASTIC/IMPERVIOUS BARRIERS WILL BE PERMITTED. EXAMPLE: BLACK VISQUEEN.
5. MATERIALS – TREE & SHRUB RINGS: ALL TREES AND/OR SHRUBS PLANTED IN SEEDED LAWN AREAS TO BE INSTALLED WITH A MINIMUM 4' DIAMETER SHREDDED HARDWOOD BARK MULCH TREE RING SPREAD TO A CONSISTENT DEPTH OF 3-INCHES. ALL TREE RINGS SHOULD BE INSTALLED WITH A 5" DEPTH SHOVEL CUT EDGE, ANGLED 45 DEGREES INTO SOIL AT A 5' DIAMETER ABOUT THE CENTER OF THE TREE PLANTING. A PRE-EMERGENT GRANULAR HERBICIDE WEED-PREVENTER SHOULD BE MIXED WITH MULCH USED TO INSTALL TREE RING AS WELL AS TOPICALLY APPLIED TO COMPLETED INSTALLATION OF TREE RING.
6. MATERIALS – POLYETHYLENE EDGING: SHALL BE 5" HEAVY-DUTY CONTRACTOR GRADE, "VALLEY VIEW ACE OF DIAMONDS BLACK ROYAL" POLYETHYLENE EDGING. OWNER'S REPRESENTATIVE SHALL APPROVE PRODUCT SPECIFICATION PROVIDED BY LANDSCAPE CONTRACTOR.
7. MATERIALS – (BID ALTERNATE 3): TREE WATERING BAGS: ALL TREES TO BE INSTALLED WITH ONE (1) WATER BAG. PRODUCT TO BE "TREE GATOR ORIGINAL SLOW RELEASE WATERING BAG," PRODUCT NO. 98183-R OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

SEEDING, SODDING, TURF & POND VEGETATION NOTES

1. MATERIALS – BLUEGRASS SEED: DISTURBED LAWN AREAS LABELED ON PLAN AS SUCH, SHALL RECEIVE 6" OF TOPSOIL AND EARTH CARPET'S "MADISON PARKS" GRASS SEED, OR EQUIVALENT AS APPROVED BY THE OWNER'S REPRESENTATIVE, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. IN ADDITION TO TURFGRASS SEED, ANNUAL RYE SHALL BE APPLIED TO ALL DISTURBED AREAS AT A RATE OF 1 1/2 LBS PER 1000 SQUARE FEET. FERTILIZE AND MULCH PER MANUFACTURER'S RECOMMENDATIONS. MULCH SHALL BE CERTIFIED NOXIOUS WEED SEED-FREE.
3. MATERIALS – BLUEGRASS SOD: DISTURBED LAWN AREAS LABELED ON PLAN AS SUCH, SHALL RECEIVE 6" OF TOPSOIL AND A PREMIUM GRADE TURFGRASS SOD, ONLY IMPROVED TYPES OF SOD (ELITE) ARE ACCEPTABLE. TURFGRASS SHALL BE MACHINE CUT AT A UNIFORM THICKNESS OF .60 INCH, PLUS OR MINUS .25 INCH, AT TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH. LARGE ROLL TURFGRASS SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH (36-48 INCHES) AND LENGTH. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE. STANDARD SIZE SECTIONS OF TURGRASS SOD SHALL BE STRONG ENOUGH SO THAT THEY CAN BE PICKED UP AND HANDLED WITHOUT DAMAGE. TURFGRASS SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT IS EXCESSIVELY DRY OR WET, AS THIS MAY ADVERSELY AFFECT ITS SURVIVAL. POST-PLANT IRRIGATION WILL BE NECESSARY TO ENSURE SOD STAYS ALIVE AND ROOTS INTO SOIL. THE CONTRACTOR IS RESPONSIBLE FOR WATERING SOD UNTIL TIME OF ACCEPTANCE BY THE OWNER. TURFGRASS SOD SHALL BE HARVESTED, DELIVERED, AND INSTALLED/TRANSPLANTED WITHIN A PERIOD OF 24 HOURS. TURFGRASS SOD SHALL BE RELATIVELY FREE OF THATCH, UP TO 0.5 INCH ALLOWABLE (UNCOMPRESSED). TURFGRASS SOD SHALL BE REASONABLY FREE (10 WEEDS/100 SQ. FT.) OF DISEASES, NEMATODES AND SOIL-BORNE INSECTS. ALL TURFGRASS SOD SHALL BE FREE OF GRASSY AND BROAD LEAF WEEDS AND WEED SEED. THE SOD SUPPLIER SHALL MAKE RECOMMENDATIONS TO THE CONTRACTOR REGARDING WATERING SCHEDULE. THE WATERING SCHEDULE SHOULD BEGIN IMMEDIATELY AFTER SOD IS INSTALLED.

COMPREHENSIVE PLANT SCHEDULE

EVERGREEN TREE	CODE	BOTANICAL / COMMON NAME	CONT	SIZE	QTY
	PIGL	*Picea glauca / White Spruce*	B & B	Min. 6' Ht.	20
	TADI	*Taxodium distichum 'Mickelson' TM / Shawnee Brave Bald Cypress*	B & B	Min. 6' Ht.	12
ORNAMENTAL TREES	**CODE**	**BOTANICAL / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	AMGL	*Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Serviceberry*	B & B	1.5" Cal (Multi-Stem)	15
	MALA	*Malus x 'Lanzam' / Lancelot™ Dwarf Crabapple*	B & B	1.5"Cal	17
	MAAD	*Malus x adstringens 'Jefgreen' / Emerald Spire® Flowering Crabapple*	B & B	1.5"Cal	12
OVERSTORY DECIDUOUS TREES	**CODE**	**BOTANICAL / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	ACE MTN	*Acer miyabei 'Morton' / State Street™ Miyabe Maple*	B & B	2.5"Cal	2
	CEOC	*Celtis occidentalis 'Prairie Pride' / Prairie Pride Hackberry*	B & B	2.5"Cal	7
	GIBI	*Ginkgo biloba 'Autumn Gold' TM / Autumn Gold Maidenhair Tree*	B & B	2.5"Cal	10
	GYDI	*Gymnocladus dioica 'Espresso' / Kentucky Coffeetree*	B & B	2.5" B&B	10
DECIDUOUS SHRUBS	**CODE**	**BOTANICAL / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	ARME	*Aronia melanocarpa 'Morton' TM / Iroquis Beauty Black Chokeberry*	#3	Min. 12"-24"	13
	COSE	*Cornus sericea 'Farrow' / Arctic Fire® Red Twig Dogwood*	B & B	Min. 12"-24"	6
	HYPAP	*Hydrangea paniculata 'Dvp Pinky' TM / Pinky Winky Panicle Hydrangea*	B & B	Min. 24" Ht.	2
	HYPAL	*Hydrangea paniculata 'Little Quick Fire' / Little Quick Fire Hydrangea*	#3	Min. 12"-24"	14
	SPJA	*Spiraea japonica 'SMNSJMFR' TM / Double Play Red Spirea*	B & B	Min. 24" Ht.	7
	SYPA	*Syringa x 'SMNJRPI' TM / Bloomerang Dwarf Pink Lilac*	B & B	Min. 24" Ht.	13
EVERGREEN SHRUBS	**CODE**	**BOTANICAL / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	JUCHK	*Juniperus chinensis 'Pfitzerana Kallays Compacta' / Kally Pfitzer Compact Juniper*	B & B	Min. 12" Wide	9
	JUCH	*Juniperus chinensis 'Sea Green' / Sea Green Juniper*	B & B	Min. 24" wide	40
	TAMEG	*Taxus x media 'Dark Green' / Dark Green Yew*	#3	Min. 12"-24"	6
	TAMEE	*Taxus x media 'Everlow' / Everlow Yew*	#3	Min. 12" Wide	12
PERENNIALS & GRASSES	**CODE**	**BOTANICAL / COMMON NAME**	**CONT**	**SIZE**	**QTY**
	CANE	*Calamintha nepeta 'Montrose White' / Montrose White Catmint*	#1	Min. 8"-18"	14
	GERR	*Geranium x 'Rozanne' / Rozanne Cranesbill*	#1	Min. 8"-18"	12
	LIA SPI	*Liatris spicata 'Kobold' / Kobold Spike Gayfeather*	#1	Min. 8"-18"	8
	PAVI	*Panicum virgatum 'Shenandoah' / Shenandoah Switch Grass*	#1	Min. 8"-18"	9
	SCSC	*Schizachyrium scoparium 'Prairie Blues' / Prairie Blues Little Bluestem* *	#1	Min. 8"-18"	42
	SPHE	*Sporobolus heterolepis 'Tara' / Prairie Dropseed*	#1	Min. 8"-18"	54

CONTRACTOR AND OWNER RESPONSIBILITY NOTES

1. **GUARANTEE: THE CONTRACTOR SHALL GUARANTEE ALL PLANTS THROUGH ONE (1) YEAR AFTER ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PLANTS SHALL BE ALIVE AND IN HEALTHY AND FLOURISHING CONDITION AT THE END OF THE GUARANTEE PERIOD. THE CONTRACTOR SHALL REPLACE (AT NO COST TO OWNER) ANY PLANTS THAT ARE DEAD OR NOT IN A VIGOROUS THRIVING CONDITION. REPLACEMENT PLANTS SHALL BE OF THE SAME KIND AND SIZE AS ORIGINALLY SPECIFIED UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE. RESTORE BEDS AS NECESSARY FOLLOWING PLANT REPLACEMENT, INCLUDING BUT NOT LIMITED TO BEDDING, EDGING, MULCH, ETC. REPLACE PLANTS DAMAGED AT TIME OF PLANTING. REPAIR AREAS DISTURBED IN ANY WAY DURING PLANT REPLACEMENT AT NO COST TO OWNER. CONTRACTOR SHALL PROVIDE A ONE (1)-YEAR STRAIGHTENING GUARANTEE FOR ALL TREES.**
2. **CONTRACTOR IS RESPONSIBLE FOR STAKING THE PLANT MATERIALS FOR REVIEW BY OWNER'S REPRESENTATIVE PRIOR TO DIGGING AND PLACEMENT AND SHALL COORDINATE ALL FINE GRADING AND RESTORATION WITH THE GRADING CONTRACTOR.**
3. **MAINTENANCE: (CONTRACTOR) FOR ALL PLANTINGS, SEEDED AND/OR SODDED LAWN AREAS: THE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS AND LAWN AREAS FOR A MINIMUM TIME PERIOD OF 60 DAYS, UNTIL FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY WATERING PLANTS AND LAWN/TURFGRASS DURING THIS 60 DAY ESTABLISHMENT PERIOD. CONTRACTOR IS RESPONSIBLE FOR THE ESTABLISHMENT OF HEALTHY VIGOROUS PLANT MATERIALS AND LAWN/TURFGRASS GROWTH. CONTRACTOR IS ALSO RESPONSIBLE FOR ANY PRUNING OF PLANT MATERIALS, AND SHAPING AND/OR REPLACEMENT OR SUPPLEMENT OF DEFICIENT SHREDDED HARDWOOD BARK MULCH DURING THIS PERIOD. LONG TERM PLANT MATERIALS AND LAWN/TURFGRASS MAINTENANCE AND ANY PROGRAM FOR SUCH IS THE RESPONSIBILITY OF THE OWNER. ALL PLANTINGS AND LAWN/TURFGRASS AREAS SHALL BE MAINTAINED IN A MANICURED CONDITION UNTIL THE TIME WHEN THE OWNER'S ACCEPTANCE IS GIVEN.**
4. **MAINTENANCE: (OWNER) THE OWNER IS RESPONSIBLE FOR THE CONTINUED MAINTENANCE, REPAIR AND REPLACEMENT OF ALL LANDSCAPING MATERIALS AND WEED BARRIER FABRIC AS NECESSARY FOLLOWING THE ONE (1) YEAR CONTRACTOR GUARANTEE PERIOD.**

BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE: LANDSCAPE PLAN

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PARKWAY
VILLAGE OF GERMANTOWN, WI

JSD
MILWAUKEE REGIONAL OFFICE
W238 N1610 BUSSE ROAD, SUITE 100
WAUKESHA, WISCONSIN 53188
P. 262.513.0666
JSD PROJ. NO.: 23-13011
JSD PROJ. MGR.: RWI

DIGGERS HOTLINE
Call 811 or (800) 242-8511
Milwaukee Area (262) 432-7910
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

JOB:	3447
DRAWN:	
CHECKED:	
DATE:	02-13-2023
SHEET:	L2.0

DRAFT - NOT FOR CONSTRUCTION



1 ARCHITECTURAL SITE PLAN
1" = 40'-0"

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
ARCHITECTURAL SITE PLAN

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB:	223462
DRAWN:	CW
CHECKED:	CW
DATE:	2023-02-13

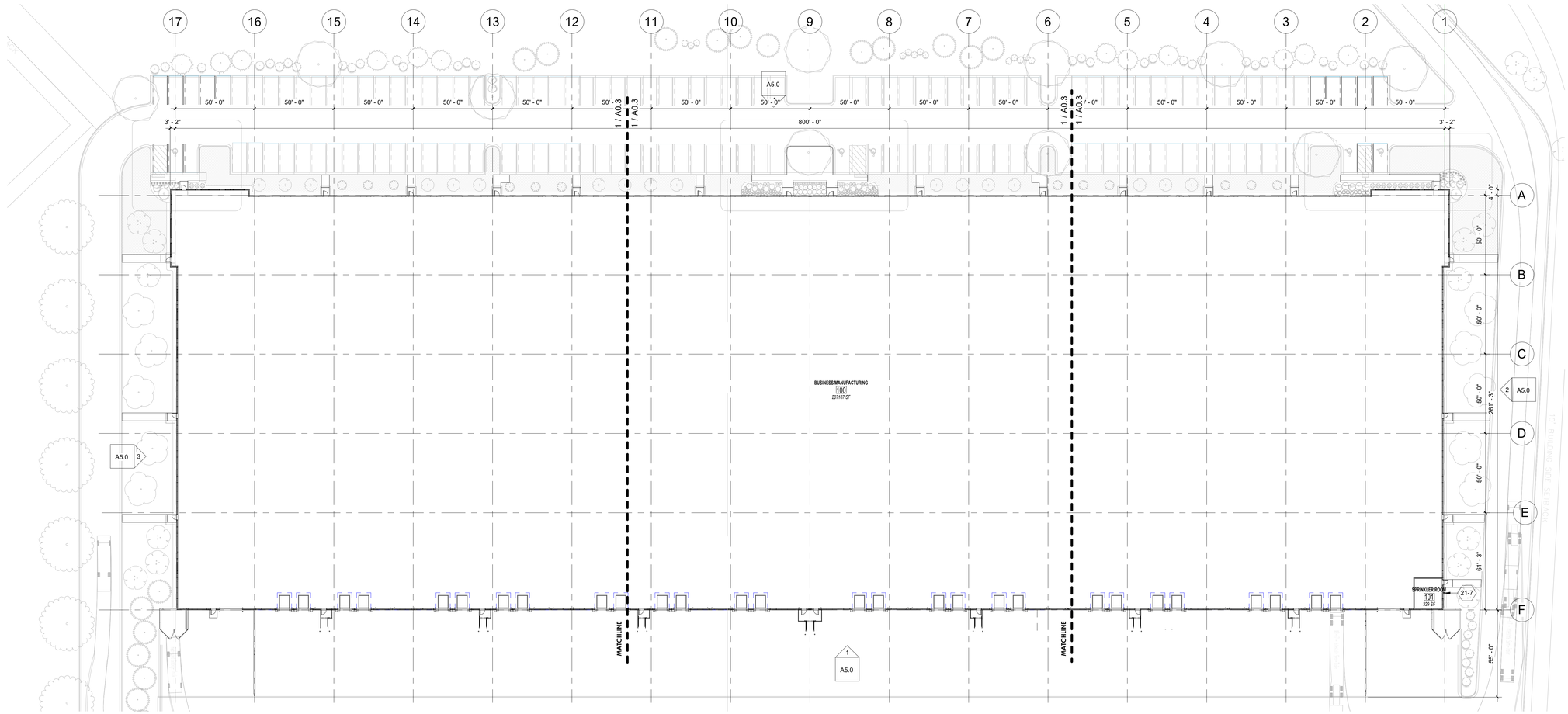
SHEET:
A0.3

FLOOR PLAN LEGEND

ROOM	ROOM NAME		PARTITION TO BE DEMOLISHED
100	ROOM NUMBER		
100	DOOR NUMBER		DOOR AND FRAME TO BE REMOVED
A	PARTITION TYPE		
1	KEYNOTES		EXISTING PARTITION TO REMAIN
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER		EXISTING DOOR TO REMAIN
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER		NEW CONSTRUCTION
	EXIT LIGHT		NEW DOOR & FRAME
	EXIT LIGHT (DIRECTIONAL)	MATCHLINE 3 / A1.2	MATCHLINE WITH SHEET REFERENCE
BL-1	BORROWED LIGHT TAG		
TP-1	TOILET ACCESSORY TAG		

GENERAL NOTES - NEW FLOOR PLAN

1	VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIOHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
2	VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
3	AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
4	SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
5	SEE SHEET A0.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS
6	SEE SHEET A1.2 FOR PARTITION TYPE.
7	EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL, CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
8	FURNITURE AND APPLIANCES PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.
9	ALL WALLS TO BE PAINTED PROVIDING FRP WAINSCOT WHERE CALLED FOR.
10	ALL FLOORS THROUGH OUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
11	EXPOSED STEEL DECK, JOISTS, GIRDERS AND COLUMNS ARE TO BE PRIME GREY.
12	LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERNCE ONLY.



1 FIRST FLOOR
1" = 30'-0"

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

SHEET TITLE
OVERALL FLOOR PLAN

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision	Date

JOB:	223462
DRAWN:	CW
CHECKED:	CW
DATE:	2023-02-13

SHEET:
A1.0

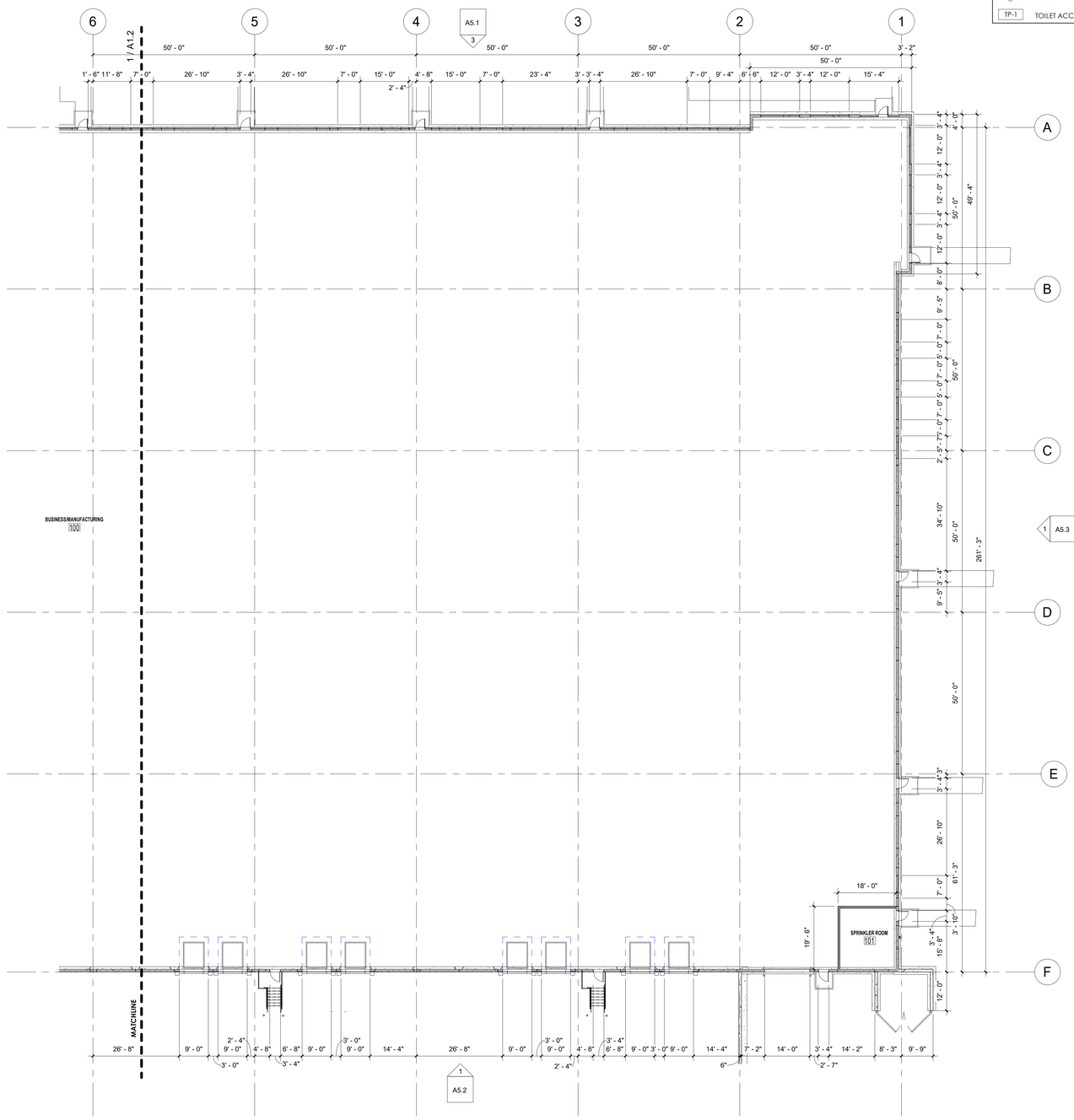
KEYNOTE LEGEND

GENERAL NOTES - NEW FLOOR PLAN

1	VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIOHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
2	VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
3	AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
4	SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
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FLOOR PLAN LEGEND

ROOM 100	ROOM NAME ROOM NUMBER		PARTITION TO BE DEMOLISHED
100	DOOR NUMBER		DOOR AND FRAME TO BE REMOVED
A	PARTITION TYPE		
1	KEYNOTES		EXISTING PARTITION TO REMAIN
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER		EXISTING DOOR TO REMAIN
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER		NEW CONSTRUCTION
	EXIT LIGHT		NEW DOOR & FRAME
	EXIT LIGHT (DIRECTIONAL)	MATCHLINE 3 / A1.2	MATCHLINE WITH SHEET REFERENCE
BL-1	BORROWED LIGHT TAG		
TP-1	TOILET ACCESSORY TAG		



1 ENLARGED FIRST FLOOR - NORTH
1/16" = 1'-0"

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

SHEET TITLE
PARTIAL ENLARGED FLOOR PLAN

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB:	223462
DRAWN:	CJR
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SHEET:
A1.1

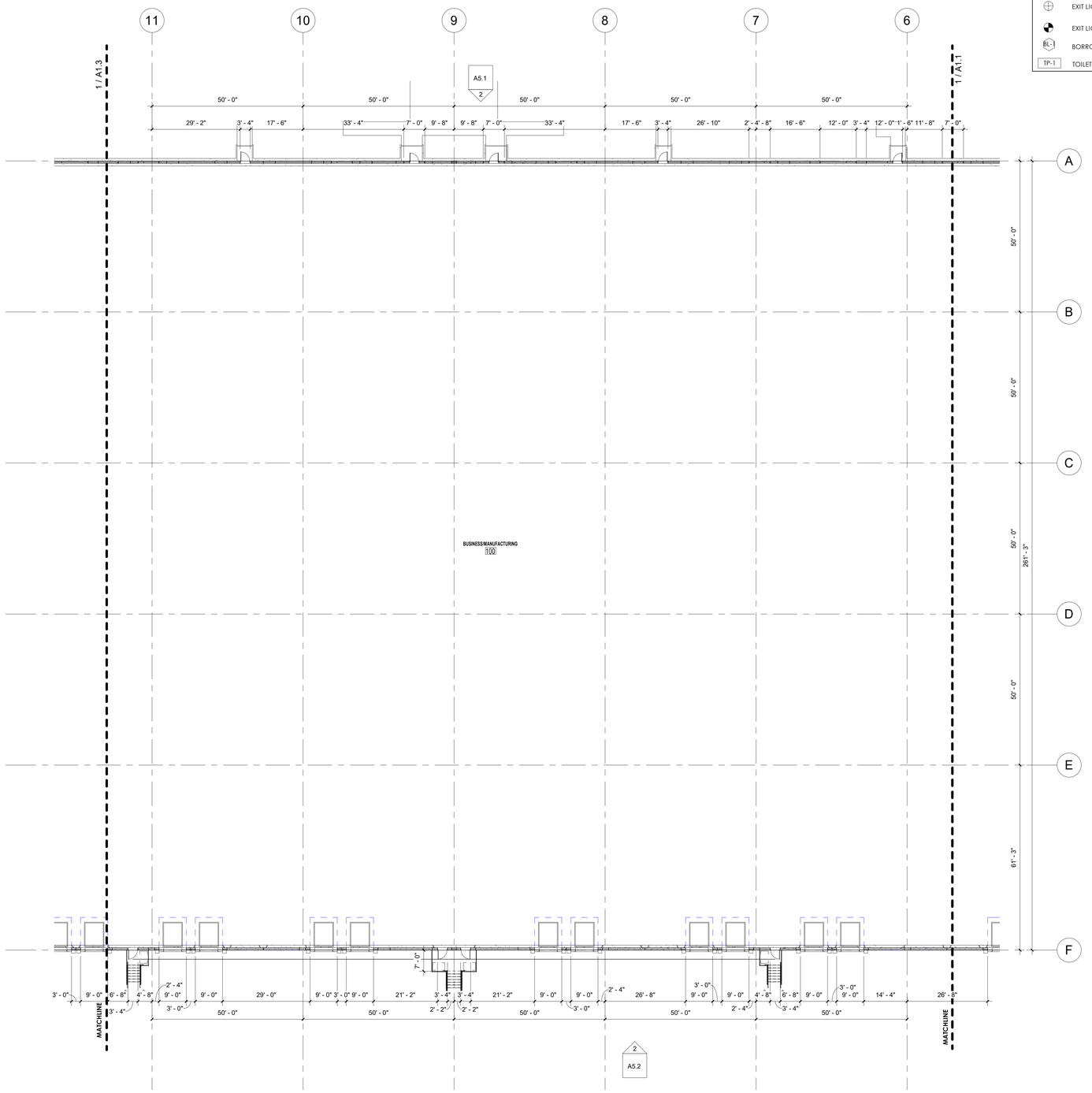
KEYNOTE LEGEND

GENERAL NOTES - NEW FLOOR PLAN

1	VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIOHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
2	VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
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FLOOR PLAN LEGEND

ROOM 100	ROOM NAME ROOM NUMBER		PARTITION TO BE DEMOLISHED
100	DOOR NUMBER		
A	PARTITION TYPE		DOOR AND FRAME TO BE REMOVED
1	KEYNOTES		
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER		EXISTING PARTITION TO REMAIN
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER		EXISTING DOOR TO REMAIN
	EXIT LIGHT		NEW CONSTRUCTION
	EXIT LIGHT (DIRECTIONAL)		NEW DOOR & FRAME
BL-1	BORROWED LIGHT TAG	MATCHLINE 3 / A1.2	MATCHLINE WITH SHEET REFERENCE
TP-1	TOILET ACCESSORY TAG		



1 ENLARGED FIRST FLOOR - CENTER
1/16" = 1'-0"

APPLICABLE TO ALL PLAN VIEWS

BRIOHN DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

SHEET TITLE
PARTIAL ENLARGED FLOOR PLAN

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB:	223462
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CHECKED:	CW
DATE:	2023-02-13

SHEET:
A1.2

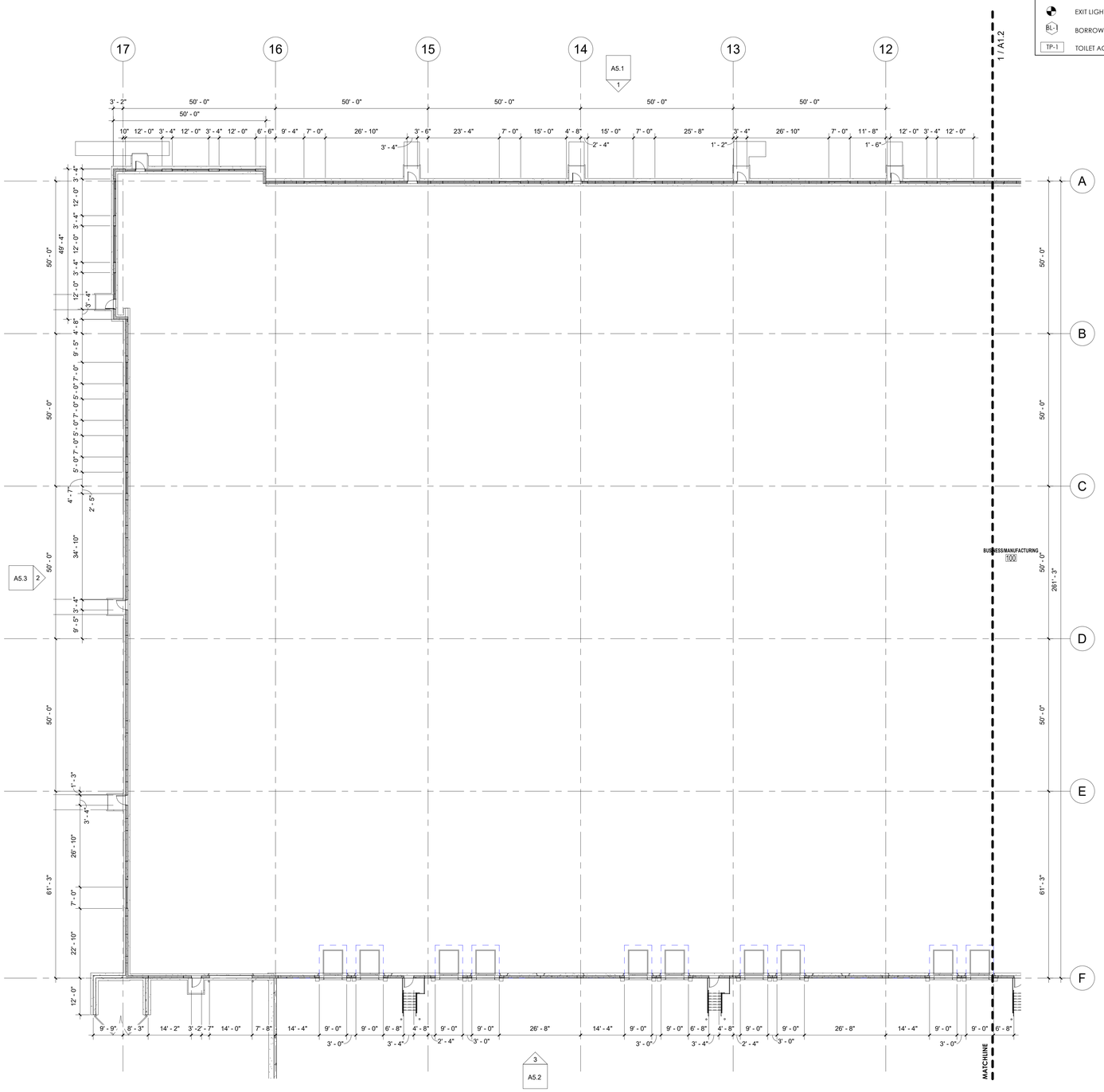
KEYNOTE LEGEND

GENERAL NOTES - NEW FLOOR PLAN

1	VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIOHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
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FLOOR PLAN LEGEND

ROOM 100	ROOM NAME ROOM NUMBER		PARTITION TO BE DEMOLISHED
100	DOOR NUMBER		DOOR AND FRAME TO BE REMOVED
A	PARTITION TYPE		
1	KEYNOTES		EXISTING PARTITION TO REMAIN
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER		EXISTING DOOR TO REMAIN
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER		NEW CONSTRUCTION
	EXIT LIGHT		NEW DOOR & FRAME
	EXIT LIGHT (DIRECTIONAL)	MATCHLINE 3 / A1.2	MATCHLINE WITH SHEET REFERENCE
BL-1	BORROWED LIGHT TAG		
TP-1	TOILET ACCESSORY TAG		



1 ENLARGED FIRST FLOOR - SOUTH
1/16" = 1'-0"

APPLICABLE TO ALL PLAN VIEWS

BRIOHN DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

SHEET TITLE
PARTIAL ENLARGED FLOOR PLAN

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

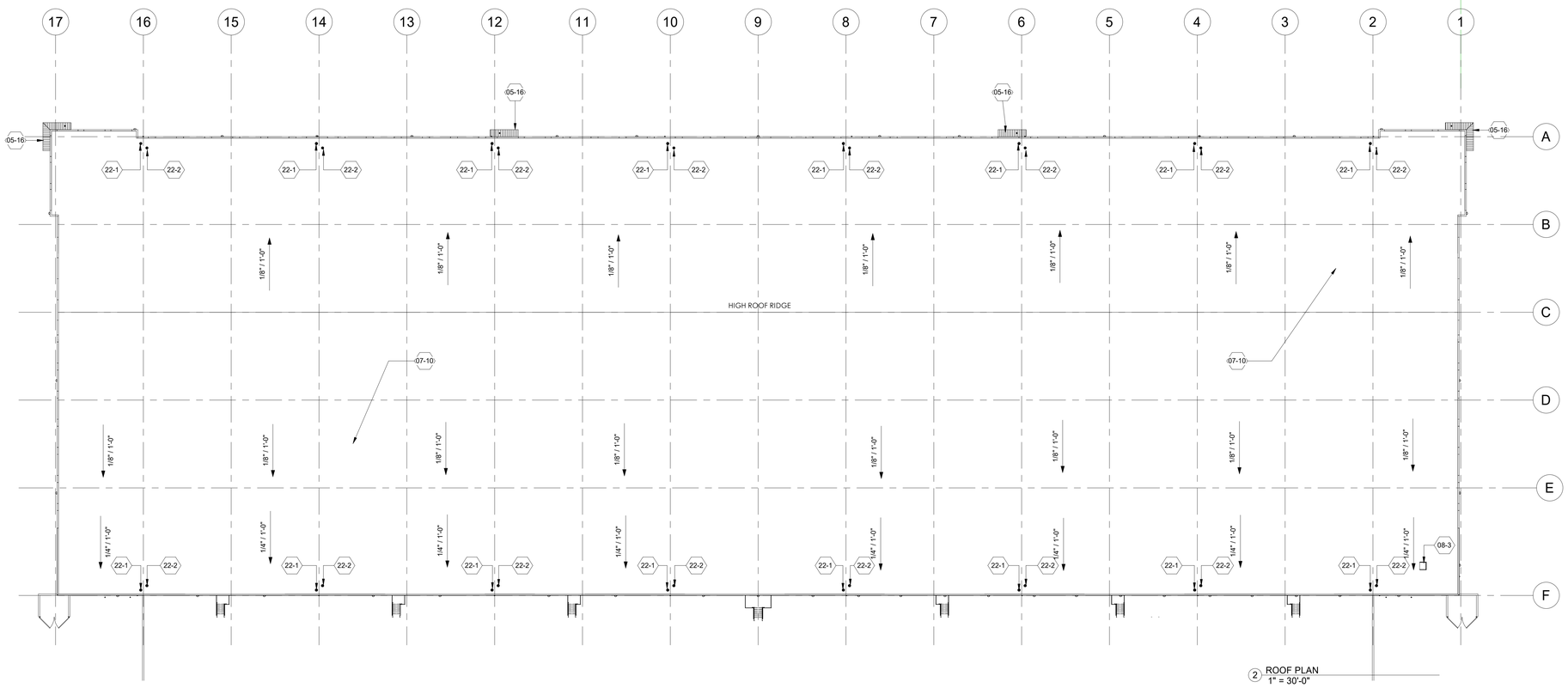
PROGRESS SET
NOT FOR CONSTRUCTION

Revision

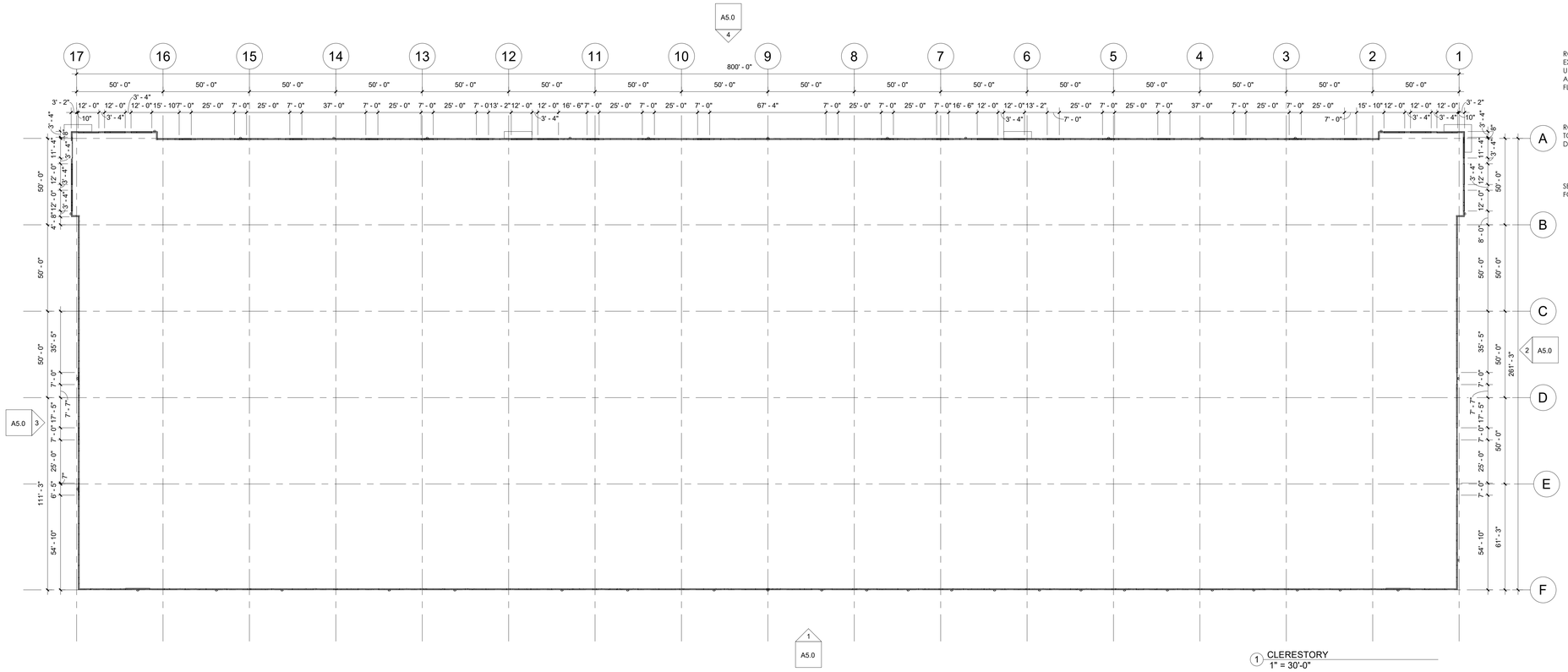
Date

JOB:	223462
DRAWN:	Author
CHECKED:	Checker
DATE:	2023-02-13

SHEET:
A1.3



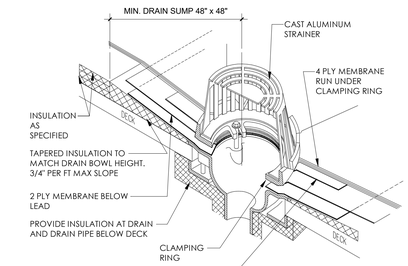
2 ROOF PLAN
1" = 30'-0"



1 CLERESTORY
1" = 30'-0"

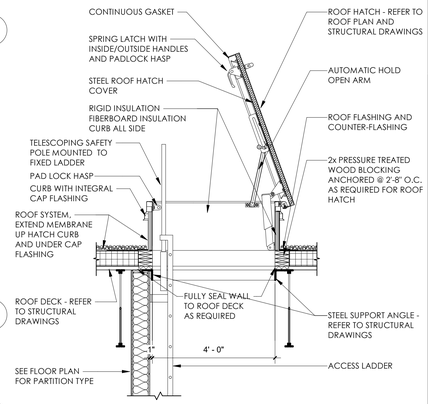
GENERAL NOTES - ROOF PLAN

1	SEE STRUCTURAL DWGS FOR FURTHER STRUCTURAL INFORMATION.
2	COORDINATE ROOF SCREEN SIZE WHERE CALLED FOR WITH MECHANICAL UNITS. SEE STUCTURAL DRAWINGS FOR FURTHER INFORMATION.
3	SEE SHEET A4.2 FOR OTHER CANOPY AND TUBE SUN SHADES PLANS
4	PROVIDE ROOF PAVERS AT ROOF HATCH AND AT ALL ROOF TOP UNITS. REFER TO HVAC PLAN BY OTHERS FOR LOCATIONS.
5	PROVIDE ROOF HATCH NOT LESS THAN 16 S.F. IN AREA AND HAVING A MINIMUM DIMENSION OF 24".
6	PROVIDE ALL REQUIRED FLASHING FOR HVAC ROOF TOP EQUIPMENT, INCLUDING ROOF TOP UNITS AND EXHAUST FANS.
7	PROVIDE AND INSTALL ALL REQUIRED FLASHING AND BOOTS FOR ROOF TOP AND PARAPET WALL ELECTRICAL PENETRATIONS AND HVAC EQUIPMENT.
8	PROVIDE FLASHING FOR PLUMBING VENTS.
9	PROVIDE 20 YEAR MANUFACTURERS LABOR AND MATERIAL WARRANTY.



NOTE: SECONDARY ROOF DRAINS TO MINIMUM 8" IN DIAMETER UNLESS NOTED OTHERWISE ON STRUCTURAL DWGS

4 ROOF DRAIN DETAIL
1/2" = 1'-0"



3 ROOF HATCH DETAIL
1/2" = 1'-0"

KEYNOTE LEGEND

05-16	PRE FINISHED METAL 24 GA. FASCIA ON ENTRY CANOPY. COLOR SHALL BE "DARK BRONZE" WITH RECESSED CAN FIXTURE OVER DOOR.
07-10	ROOF ASSEMBLY A: BALLASTED ROOF MEMBRANE ON 5.75" DIRECT TO DECK APPROVED EPS INSULATION (R25 - TWO LAYERS, STAGGERED) ON METAL DECK & SLOPED STRUCTURAL FRAMING (SEE STRUCTURAL DRAWINGS)
08-3	ROOF HATCH. PROVIDE CODE-COMPLIANT HATCH SIZE. FOR USE WITH OSHA-APPROVED STEEL LADDER ACCESS FROM FLOOR BELOW. PROVIDE FRAMING, CURB, FLASHING, AND TAPERED INSULATION FOR DRAINAGE AROUND HATCH AS REQUIRED. SEE DETAIL X/AX.X
22-1	PRIMARY ROOF DRAIN
22-2	OVERFLOW ROOF DRAIN-SET 2" HIGHER THAN PRIMARY ROOF DRAIN. EXTERIOR PIPE DISCHARGE THROUGH WALL. DO NOT PLACE PIPE OUTFALL DIRECTLY ABOVE EXTERIOR DOORS OR WINDOWS. COORD. PIPE SIZE WITH PLUMBING CONTRACTOR.

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

SHEET TITLE
ROOF AND CLERESTORY PLANS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision
Date

JOB: 223462
DRAWN: Author
CHECKED: Checker
DATE: 2023-02-13
SHEET:
A4.0

PAINTERS NOTE:

PAINTING OF EXTERIOR PRECAST WALL PANELS: CHOOSE ONE SUPPLIER FOR BOTH BASE COLOR AND ACCENT COLORS. PRECAST WALL PANELS SHALL WEATHER FOR 90 DAYS PRIOR TO PAINT APPLICATION. PAINT SHALL NOT BE APPLIED WHEN SURFACE AND AIR TEMPERATURE IS UNDER 45 DEGREES FAHRENHEIT AND TEMPERATURES SHALL BE RISING.

1. **ACRYLIC CONCRETE STAIN (BASE COLOR):**
   A. (2) COATS OF HALLMAN LINDSAY #167 GRIP CRETE ACRYLIC STAIN OR
   B. (2) COATS SHERWIN WILLIAMS LOXON VERTICAL STAIN OR
   C. (2) COATS BENJAMIN MOORE TUFFCRETE WB CONCRETE STAIN.

2. **ACCENT COLOR:**
   A. (2) COATS OF HALLMAN LINDSAY #174 WEATHER GUARD SATIN 100% ACRYLIC HOUSE PAINT OR
   B. (2) COATS SHERWIN WILLIAMS SUPER PAINT SATIN HOUSE PAINT OR
   C. (2) COATS BENJAMIN AURA SATIN 100% ACRYLIC HOUSE PAINT.

PRECASTER NOTE:

PRECASTER TO PROVIDE COVERS FOR ALL ROUND RECESSED POCKETS AND PROVIDE CLOSED CELL SPRAY FOAM INSULATION WITH STEEL PREFINISHED METAL COVER PLATES FOR ALL OTHER SHAPE OPENINGS OR RECESSED AREAS (BEAM, LINTEL, JOIST, GIRDER BEARING OR OTHER POCKETED CONDITIONS) ON INTERIOR SIDE OF THE PRECAST WALL PANELS

EXTERIOR BLDG SYSTEMS

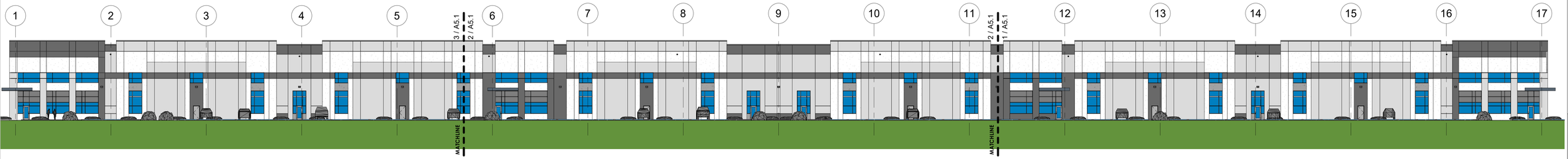
ROOF ASSEMBLY (BALLASTED): BALLASTED SINGLE PLAY 60 MIL EPDM ROOF MEMBRANE ON 5.75" DIRECT TO DECK APPROVED EPS INSULATION (R20 - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

ROOF ASSEMBLY (CANOPY) FULLY AHERED EPDM ROOF MEMBRANE ON TAPERED INSULATION TAPERED TO GUTTERS AS DETAILED.

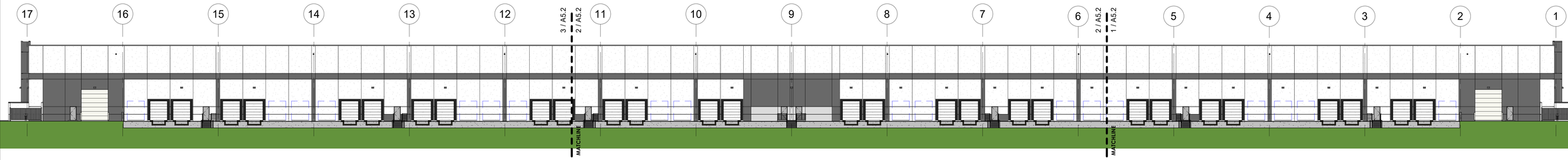
INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

ELEVATION PAINT COLOR KEY:

- PAINT COLOR 1: SHERWIN WILLIAMS - FIELD COLOR
- PAINT COLOR 2: SHERWIN WILLIAMS "SW 6203 SPARE WHITE" - LIGHT ACCENT
- PAINT COLOR 3: SHERWIN WILLIAMS "SW 2850 CHELSEA GRAY" - MEDIUM ACCENT
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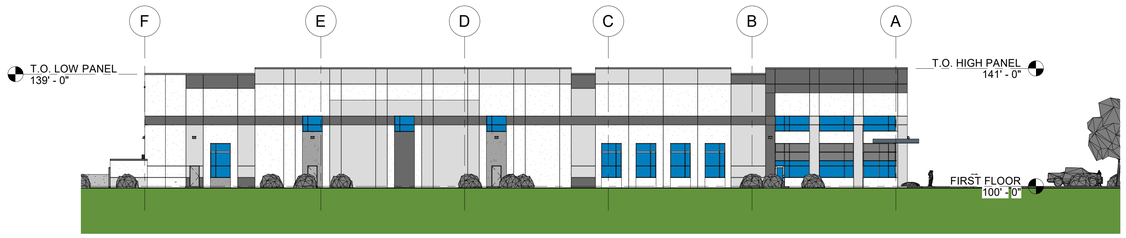


4 OVERALL WEST EXTERIOR ELEVATION
3/64" = 1'-0"

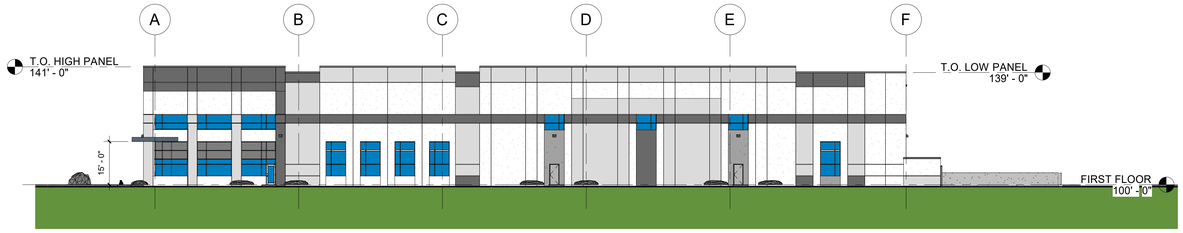


1 OVERALL EAST EXTERIOR ELEVATION
3/64" = 1'-0"

KEYNOTE LEGEND



2 NORTH EXTERIOR ELEVATION
3/64" = 1'-0"



3 SOUTH EXTERIOR ELEVATION
3/64" = 1'-0"

THE PROPOSED COMMERCIAL NON-RESIDENTIAL BUILDING TO BE LOCATED IN CLIMATE ZONE 6 (PER IECC SECTION 502) PER TABLE 502.2 (1) BUILDING ENVELOPE REQUIREMENTS - OPAQUE ASSEMBLIES.

ROOFS - PROPOSED ROOF INSULATION ENTIRELY ABOVE DECK R-20ci REQUIRED AND R-20ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

WALLS ABOVE GRADE PROPOSED EXTERIOR WALL - MASS (PRECAST INSULATED CONCRETE) R-13.3ci REQUIRED AND R-16ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

SLAB-ON-GRADE FLOORS - PROPOSED UNHEATED SLABS R-10 FOR 24 INCHES BELOW REQUIRED AND R-10 FOR 24 INCHES OR MORE PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

PER TABLE 502.3 BUILDING ENVELOPE REQUIREMENTS: FENESTRATION
VERTICAL FENESTRATION (40% MAXIMUM ALLOWED ABOVE GRADE) 5% ACTUAL PROVIDE REQUIRED U - FACTOR .40 ACTUAL PROVIDED .29 AND SHGC .41

PER 2015 IECC:

C402.5 AIR LEAKAGE THERMAL ENVELOPE.
PROPOSED BUILDING COMPLIES.

C402.5.1 AIR BARRIER PER C402.5.1.2.1 MATERIALS SEE EXCEPTION 13 CAST-IN-PLACE AND PRECAST CONCRETE.
PROPOSED BUILDING COMPLIES.

C402.5.2 AIR LEAKAGE FENESTRATION SEE EXCEPTION 1. FIELD FABRICATED FENESTRATION ASSEMBLIES THAT ARE SEALED IN ACCORDANCE WITH SECTION C402.5.1.
PROPOSED BUILDING COMPLIES.

C402.5.3 ROOMS CONTAINING FUEL - BURNING APPLIANCES EXCEPTION 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO OUTSIDE.
PROPOSED BUILDING COMPLIES.

C402.5.4 DOORS AND ACCESS OPENINGS TO SHAFTS, CHUTES, STAIRWAYS AND ELEVATOR LOBBIES.
NOT APPLICABLE TO PROPOSED BUILDING.

C402.5.5 AIR INTAKES, EXHAUST OPENINGS, STAIRWAYS AND SHAFTS. IF REQUIRED TO BE DAMPERED.
PROPOSED BUILDING COMPLIES.

C402.5.6 LOADING DOCK WEATHER SEALS TO BE PROVIDED FOR LOADING DOCK DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.7 VESTIBULES EXCEPTION 2. DOORS NOT INTENDED TO BE USED BY THE PUBLIC, SUCH AS DOORS TO MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, ON INTENDED SOLELY FOR EMPLOYEE USE. EXCEPTION 4 DOORS THAT OPEN DIRECTLY FROM A SPACE LESS THAN 3,000 SQUARE FEET IN AREA. EXCEPTION 6 DOORS USED PRIMARILY TO FACILITATE VEHICULAR MOVEMENT OR MATERIAL HAND LINE AND ADJACENT PERSONAL DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.8 RECESSED LIGHTING.
NOT APPLICABLE TO PROPOSED BUILDING.

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SHEET TITLE
EXTERIOR OVERALL ELEVATIONS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB:	223462
DRAWN:	CW
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SHEET:
A5.0

ELEVATION PAINT COLOR KEY:

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KEYNOTE LEGEND

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03-10	2" X 1/2" DEEP REVEAL (HORIZONTAL)
05-16	PRE FINISHED METAL 24 GA. FASCIA ON ENTRY CANOPY. COLOR SHALL BE "DARK BRONZE" WITH RECESSED CAN FIXTURE OVER DOOR.
07-8	PRE FINISHED METAL 24 GA. COPING COLOR SHALL BE 'CLEAR ANODIZED'
08-1	ALUMINUM STOREFRONT ENTRY SYSTEM
08-2	ALUMINUM STOREFRONT
08-4	PAINTED AND INSULATED HOLLOW METAL SERVICE DOOR AND FRAME WITH EMERGENCY EGRESS CODE REQUIRED LIGHTING .
22-3	OVERFLOW SPOUT WITH HINGED COVER. SEE ROOF PLAN FOR ADDITIONAL NOTES. COORDINATE WALL PENETRATION WITH PRECAST SUPPLIER.
26-1	EXTERIOR LIGHT FIXTURE - CUT-OFF LED WALLPACK - SEE LIGHTING PLAN FOR FIXTURE TYPE AND MOUNTING HEIGHT

PAINTERS NOTE:

PAINTING OF EXTERIOR PRECAST WALL PANELS: CHOOSE ONE SUPPLIER FOR BOTH BASE COLOR AND ACCENT COLORS. PRECAST WALL PANELS SHALL WEATHER FOR 90 DAYS PRIOR TO PAINT APPLICATION. PAINT SHALL NOT BE APPLIED WHEN SURFACE AND AIR TEMPERATURE IS UNDER 45 DEGREES FAHRENHEIT AND TEMPERATURES SHALL BE RISING.

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   B. (2) COATS SHERWIN WILLIAMS LOXON VERTICAL STAIN OR
   C. (2) COATS BENJAMIN MOORE TUFFCRETE WB CONCRETE STAIN.
2. **ACCENT COLOR:**
   A. (2) COATS OF HALLMAN LINDSAY #174 WEATHER GUARD SATIN 100% ACRYLIC HOUSE PAINT OR
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EXTERIOR BLDG SYSTEMS

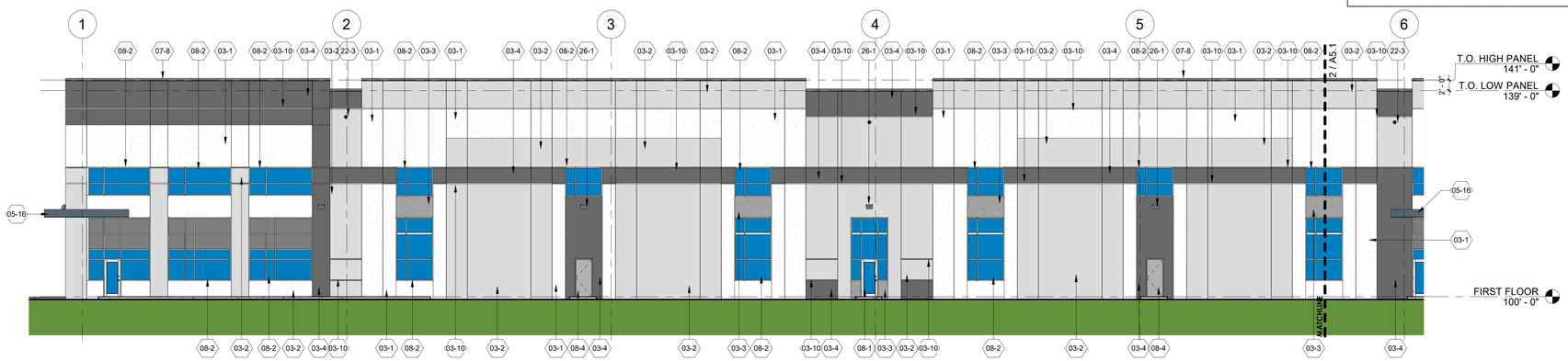
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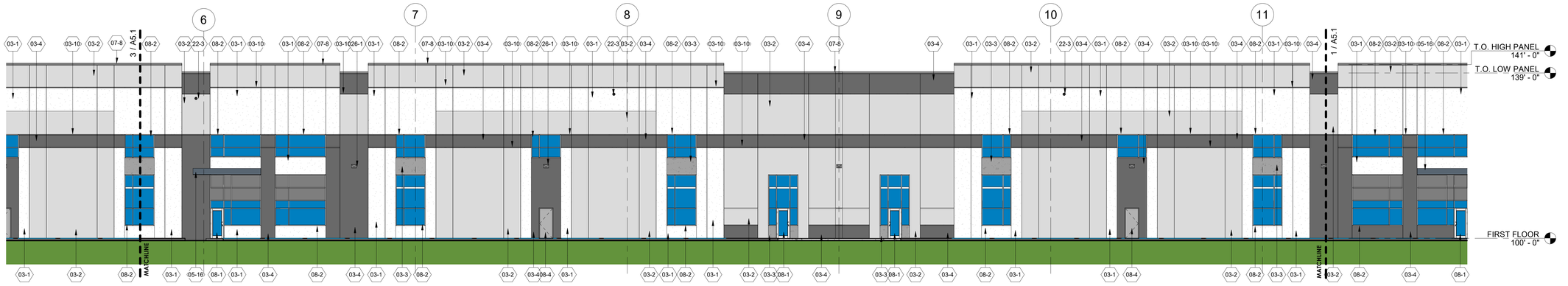
INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

PRECASTER NOTE:

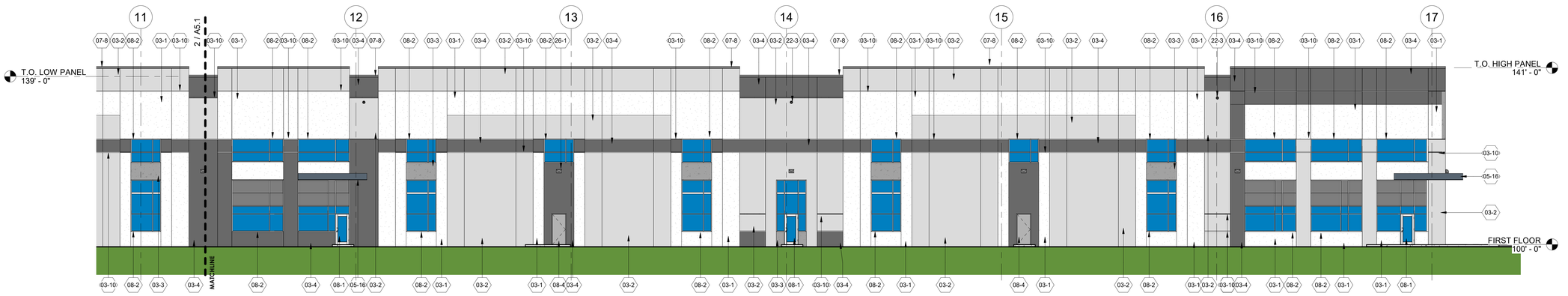
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3 ENLARGED PARTIAL WEST ELEVATION - NORTH
3/32" = 1'-0"



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3/32" = 1'-0"



1 ENLARGED PARTIAL WEST ELEVATION - SOUTH
3/32" = 1'-0"

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SHEET TITLE
ENLARGED PARTIAL EXTERIOR WEST ELEVATIONS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

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JOB:	223462
DRAWN:	CJR
CHECKED:	CW
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A5.1

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KEYNOTE LEGEND

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07-8	PRE FINISHED METAL 24 GA. COPING COLOR SHALL BE 'CLEAR ANODIZED'
08-4	PAINTED AND INSULATED HOLLOW METAL SERVICE DOOR AND FRAME WITH EMERGENCY EGRESS CODE REQUIRED LIGHTING.
08-5	INSULATED OH DOOR, FACTORY FINISHED. 6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARD(S), PAINTED SAFETY YELLOW
08-6	INSULATED OH DOOR FACTORY FINISHED, DOCK SEALS, DOCK LEVELERS AND BUMPERS.
08-7	FUTURE 9'-0" X 10'-0" KNOCK OUT PANEL FOR FUTURE OVERHEAD DOOR.
08-16	TREATED WOOD GATES (PAIR OF EQUAL PANELS) OF 1X6 VERTICAL SLATS MOUNTED TO STEEL FRAME. HINGE POSTS TO BE CONCRETE FILLED TUBE STILL WITH CONCRETE CROWNED TOP. PAINTED. HEIGHT TO MATCH DOOR HEIGHT PLUS 6".
26-1	EXTERIOR LIGHT FIXTURE - CUT-OFF LED WALLPACK - SEE LIGHTING PLAN FOR FIXTURE TYPE AND MOUNTING HEIGHT

PAINTERS NOTE:

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EXTERIOR BLDG SYSTEMS

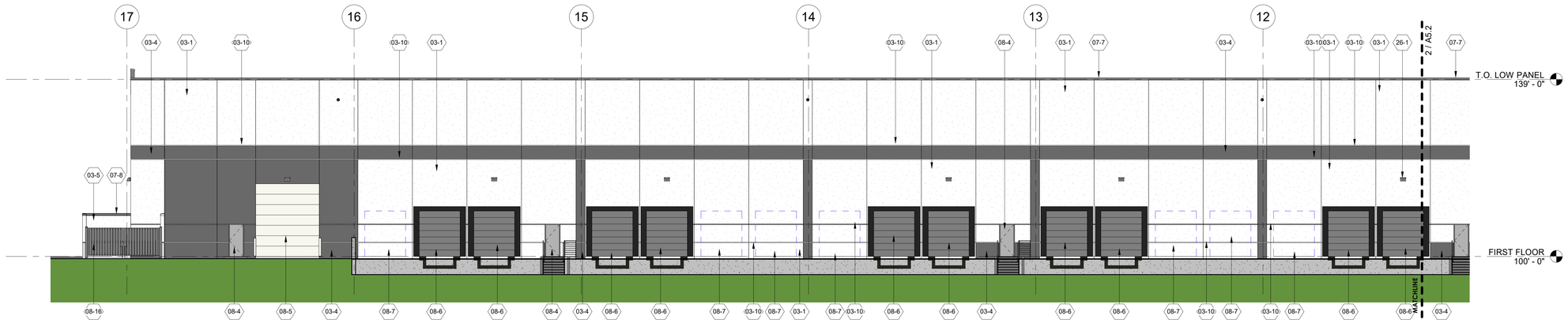
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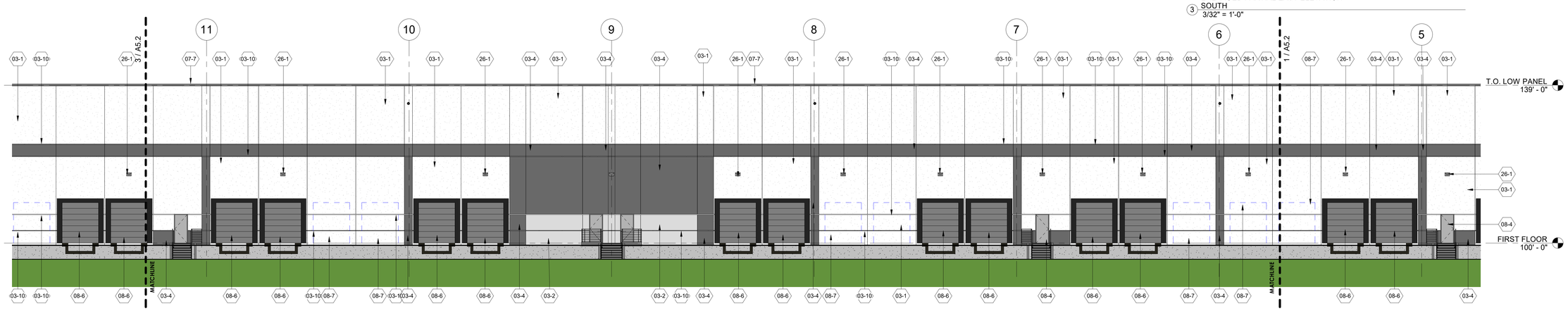
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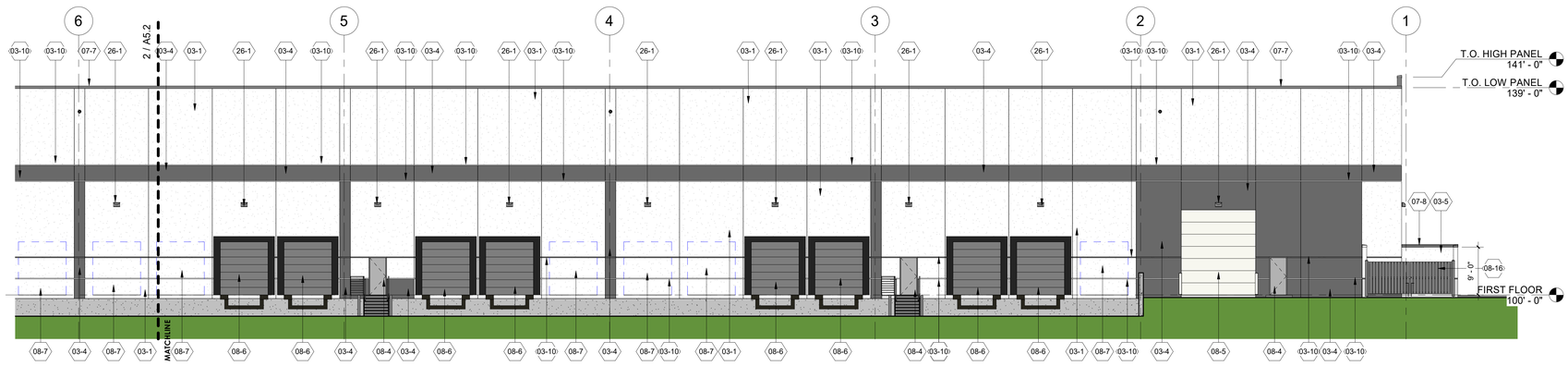
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ENLARGED PARTIAL EAST ELEVATION - SOUTH
3 3/32" = 1'-0"



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ENLARGED PARTIAL EAST ELEVATION - NORTH
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SHEET TITLE
ENLARGED PARTIAL EXTERIOR EAST ELEVATIONS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision	Date

JOB:	223462
DRAWN:	CJR
CHECKED:	CW
DATE:	2023-02-13
SHEET:	A5.2

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08-4	PAINTED AND INSULATED HOLLOW METAL SERVICE DOOR AND FRAME WITH EMERGENCY EGRESS CODE REQUIRED LIGHTING .
21-7	FIRE DEPARTMENT CONNECTION AND ALARM AS REQUIRED BY LOCAL GOVERNING MUNICIPALITY - REFER FLOOR PLAN.
26-1	EXTERIOR LIGHT FIXTURE - CUT-OFF LED WALLPACK - SEE LIGHTING PLAN FOR FIXTURE TYPE AND MOUNTING HEIGHT

PAINTERS NOTE:

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EXTERIOR BLDG SYSTEMS

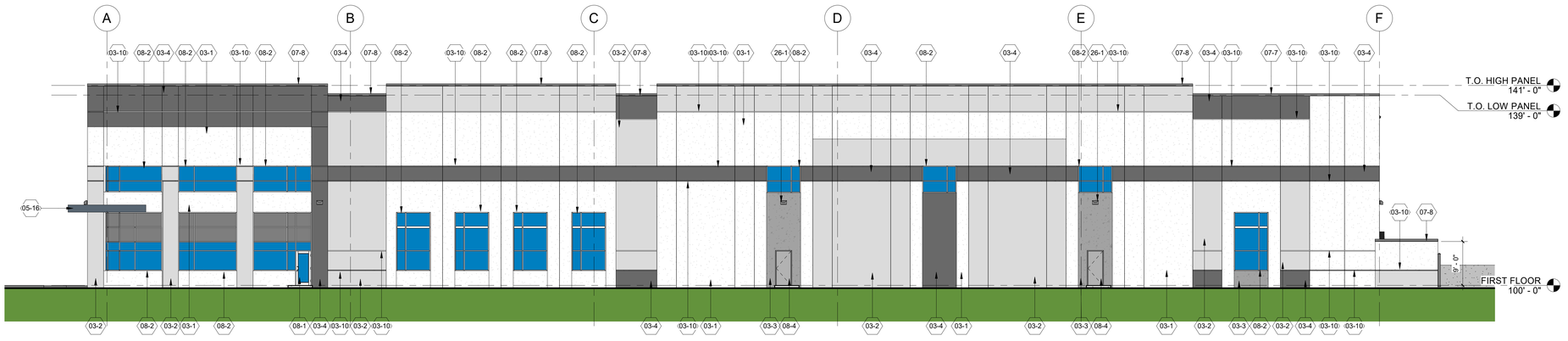
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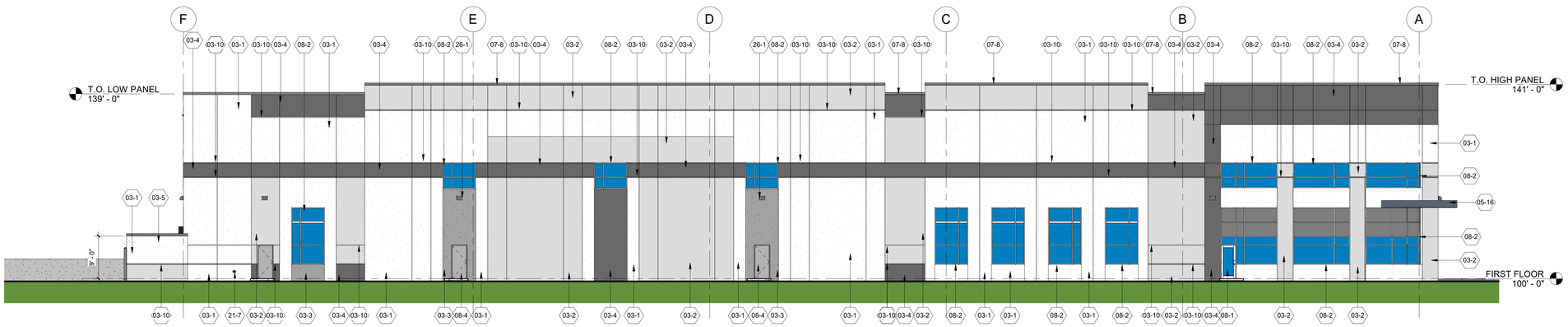
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1 ENLARGED NORTH ELEVATION
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SHEET TITLE
ENLARGED NORTH & SOUTH EXTERIOR ELEVATIONS

PROPOSED BUILDING FOR:
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GERMANTOWN, WI

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SHEET:
A5.3



BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
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SHEET TITLE
ENLARGED PERSPECTIVE

PROPOSED BUILDING FOR:
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SHEET:
A5.4



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SHEET TITLE
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PROPOSED BUILDING FOR:
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A5.5



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SHEET:
A5.6



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SHEET TITLE
AERIAL PERSPECTIVE

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB:	223462
DRAWN:	CW
CHECKED:	CW
DATE:	2023-02-13

SHEET:
A5.7

HFR electric
ELECTRICAL CONTRACTOR
RESIDENTIAL · COMMERCIAL · INDUSTRIAL
262-644-6940

WILLOW CREEK

Willow Creek Parkway, Germantown

Exterior Photometric Lighting Plan

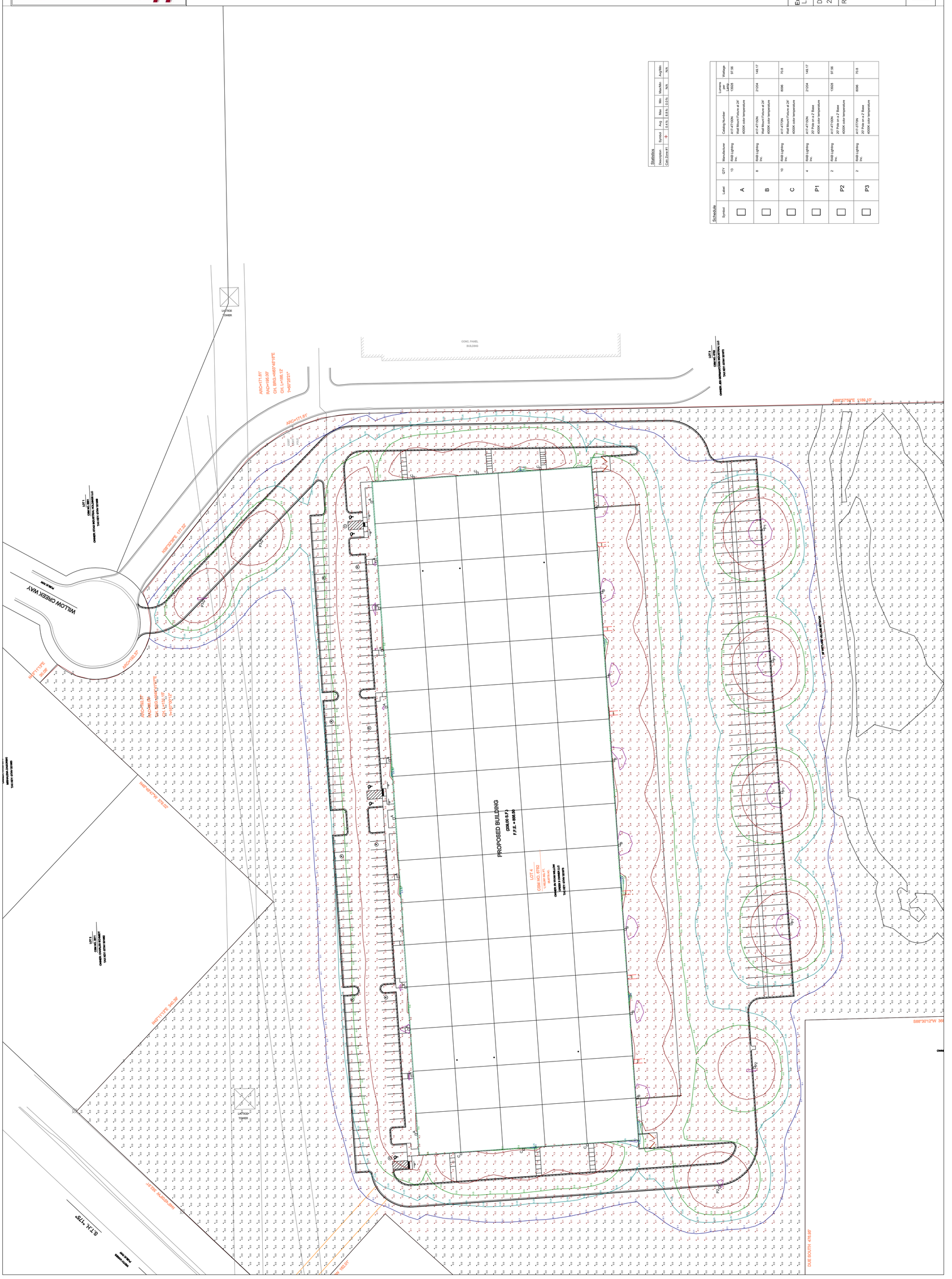
DATE: 2-10-2023

REVISIONS:

E-1.0

Schedule								
Symbol	Label	QTY	Manufacturer	Catalog Number	Lumens per Lamp	Wattage		
	A	13	RAB Lighting Inc.	A17-4T15DN Wall Mount Fixture at 24' 4000K color temperature	13928	97.56		
	B	8	RAB Lighting Inc.	A17-4T15DN Wall Mount Fixture at 24' 4000K color temperature	21304	149.17		
	C	10	RAB Lighting Inc.	A17-4T7DN Wall Mount Fixture at 24' 4000K color temperature	8056	70.8		
	P1	4	RAB Lighting Inc.	A17-4T15DN 20' Pole on a 2' Base 4000K color temperature	21304	149.17		
	P2	2	RAB Lighting Inc.	A17-4T15DN 20' Pole on a 2' Base 4000K color temperature	13928	97.56		
	P3	2	RAB Lighting Inc.	A17-3T7DN 20' Pole on a 2' Base 4000K color temperature	8056	70.8		

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	
Calc Zone #1	+	2.4 fc	8.8 fc	0.0 fc	N/A	N/A	



A17-4T70N+A17-WM

RAB

Technical Specifications (continued)

Construction

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

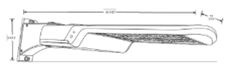
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions: A17-4T70N



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, limited warranty

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	70		N		
		3T = Type III **4T** = Type IV **5T** = Type V	**70** = 70W/10,000LM **100** = 100W/15,000LM **150** = 150W/22,500LM **200** = 200W/30,000LM **240** = 240W/36,000LM **300** = 300W/45,000LM **375** = 375W/51,800LM	**Blank** = Universal Pole Mount **SF** = Slipfitter (Factory installed SF available in 150W)	**Blank** = 5000K Cool **N** = 4000K Neutral	**Blank** = 120-277V, 0-10V Dimming **/480** = 480V, 0-10V Dimming	**Blank** = No Option **/SPRS** = 3-pin Receptacle and Shorting Cap **/7PRS** = 7-pin Receptacle and Shorting Cap **/MVS** = Microwave Motion Sensor **/LC** = Lightcloud® Controller

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A17-4T70N+A17-WM

Type: C

RAB



Color: Bronze



Weight: 10.8 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	0.70A
208V	0.40A
240V	0.35A
277V	0.30A
Input Watts	70.8W

LED Info

Watts	70W
Color Temp	4000K (Neutral)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	9,938 lm
Efficacy	140.3 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLPFBUH2NS6D

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 0.70A, 208V: 0.40A, 240V: 0.35A, 277V: 0.30A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.19% at 120V, 13.21% at 277V

Power Factor:

99.5 % at 120V, 91.7 % at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.66
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

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A17-4T150N+A17-WM

RAB

Technical Specifications (continued)

Construction

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

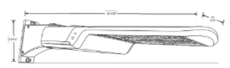
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions: A17-4T150N



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, limited warranty

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	150		N		
		3T = Type III **4T** = Type IV **5T** = Type V	**70** = 70W/10,000LM **100** = 100W/15,000LM **150** = 150W/22,500LM **200** = 200W/30,000LM **240** = 240W/36,000LM **300** = 300W/45,000LM **375** = 375W/51,800LM	**Blank** = Universal Pole Mount **SF** = Slipfitter (Factory installed SF available in 150W)	**Blank** = 5000K Cool **N** = 4000K Neutral	**Blank** = 120-277V, 0-10V Dimming **/480** = 480V, 0-10V Dimming	**Blank** = No Option **/SPRS** = 3-pin Receptacle and Shorting Cap **/7PRS** = 7-pin Receptacle and Shorting Cap **/MVS** = Microwave Motion Sensor **/LC** = Lightcloud® Controller

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A17-4T150N+A17-WM

Type: B

RAB



Color: Bronze



Weight: 13.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.50A
208V	0.80A
240V	0.70A
277V	0.06A
Input Watts	149.2W

LED Info

Watts	150W
Color Temp	4000K (Neutral)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	21,204 lm
Efficacy	142.1 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PL7CE05FQ0M

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.85% at 120V, 9.26% at 277V

Power Factor:

99.8% at 120V, 93.2% at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

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A17-4T100N+A17-WM

RAB

Technical Specifications (continued)

Construction

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

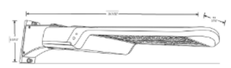
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions: A17-4T100N



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, limited warranty

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	100		N		
		3T = Type III **4T** = Type IV **5T** = Type V	**70** = 70W/10,000LM **100** = 100W/15,000LM **150** = 150W/22,500LM **200** = 200W/30,000LM **240** = 240W/36,000LM **300** = 300W/45,000LM **375** = 375W/51,800LM	**Blank** = Universal Pole Mount **SF** = Slipfitter (Factory installed SF available in 150W)	**Blank** = 5000K Cool **N** = 4000K Neutral	**Blank** = 120-277V, 0-10V Dimming **/480** = 480V, 0-10V Dimming	**Blank** = No Option **/SPRS** = 3-pin Receptacle and Shorting Cap **/7PRS** = 7-pin Receptacle and Shorting Cap **/MVS** = Microwave Motion Sensor **/LC** = Lightcloud® Controller

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A17-4T100N+A17-WM

Type: A

RAB



Color: Bronze



Weight: 11.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.0A
208V	0.60A
240V	0.50A
277V	0.40A
Input Watts	97.6W

LED Info

Watts	100W
Color Temp	4000K (Neutral)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	13,822 lm
Efficacy	141.7 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLBUH80K4UJ

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.67% at 120V, 10.35% at 277V

Power Factor:

99.8 % at 120V, 94 % at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

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BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
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SHEET TITLE
LIGHT FIXTURE CUT SHEETS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB: 223462
DRAWN: Author
CHECKED: Checker
DATE: 2023-02-13

SHEET:
E2.0

A17-4T100N

RAB

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	100		N		

3T = Type III
4T = Type IV
5T = Type V

70 = 70W/10,000LM
100 = 100W/15,000LM
150 = 150W/22,500LM
200 = 200W/30,000LM
240 = 240W/36,000LM
300 = 300W/45,000LM
375 = 375W/51,800LM

Blank = Universal Pole Mount
SF = Slipfitter (Factory installed SF available in 150W)

Blank = 5000K Cool
N = 4000K Neutral

Blank = 120-277V, 0-10V Dimming
/480 = 480V, 0-10V Dimming [1]

Blank = No Option
/3PRS = 3-pin Receptacle and Shorting Cap
/7PRS = 7-pin Receptacle and Shorting Cap
/MVS = Microwave Motion Sensor
/LC = Lightcloud® Controller

[1] *480V driver available standard on 150W and 300W and by special order on 100, 240 and 375W. Not available on 70W or 200W models.*

Type II distribution available as special order

Wall mount and adjustable universal pole mount available as optional field-installed accessories

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A17-4T100N

RAB

Technical Specifications (continued)

Construction

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)

1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 3 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions

Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, limited warranty

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A17-4T100N

Type: P2 20' pole mounted on a 2' base

RAB



Color: Bronze Weight: 11.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.0A
208V	0.60A
240V	0.50A
277V	0.40A
Input Watts	97.6W

LED Info

Watts	100W
Color Temp	4000K (Neutral)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	13,822 lm
Efficacy	141.7 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLBUH80K4UJ

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.0A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.67% at 120V, 10.35% at 277V

Power Factor:

99.8 % at 120V, 94 % at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

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A17-4T150N

RAB

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	150		N		

3T = Type III
4T = Type IV
5T = Type V

70 = 70W/10,000LM
100 = 100W/15,000LM
150 = 150W/22,500LM
200 = 200W/30,000LM
240 = 240W/36,000LM
300 = 300W/45,000LM
375 = 375W/51,800LM

Blank = Universal Pole Mount
SF = Slipfitter (Factory installed SF available in 150W)

Blank = 5000K Cool
N = 4000K Neutral

Blank = 120-277V, 0-10V Dimming
/480 = 480V, 0-10V Dimming [1]

Blank = No Option
/3PRS = 3-pin Receptacle and Shorting Cap
/7PRS = 7-pin Receptacle and Shorting Cap
/MVS = Microwave Motion Sensor
/LC = Lightcloud® Controller

[1] *480V driver available standard on 150W and 300W and by special order on 100, 240 and 375W. Not available on 70W or 200W models.*

Type II distribution available as special order

Wall mount and adjustable universal pole mount available as optional field-installed accessories

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A17-4T150N

RAB

Technical Specifications (continued)

Construction

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)

1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 3 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions

Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, limited warranty

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A17-4T150N

Type: P1 20' pole mounted on a 2' base

RAB



Color: Bronze Weight: 13.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.50A
208V	0.80A
240V	0.70A
277V	0.06A
Input Watts	149.2W

LED Info

Watts	150W
Color Temp	4000K (Neutral)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	21,204 lm
Efficacy	142.1 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PL7C2E05FQ0M

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.85% at 120V, 9.26% at 277V

Power Factor:

99.8% at 120V, 93.2% at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

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BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-0505 FAX

SHEET TITLE
LIGHT FIXTURE CUT SHEETS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB:	223462
DRAWN:	Author
CHECKED:	Checker
DATE:	2023-02-13

SHEET:
E2.1

RAB

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	3T	70		N		
		3T = Type III **4T =** Type IV **5T =** Type V	**70 =** 70W/10,000LM **100 =** 100W/15,000LM **150 =** 150W/22,500LM **200 =** 200W/30,000LM **240 =** 240W/36,000LM **300 =** 300W/45,000LM **375 =** 375W/51,800LM	**Blank =** Universal Pole Mount **SF =** Slipfitter (Factory installed SF available in 150W)	**Blank =** 5000K Cool **N =** 4000K Neutral	**Blank =** 120-277V, 0-10V Dimming **/480 =** 480V, 0-10V Dimming [1]	**Blank =** No Option **/3PRS =** 3-pin Receptacle and Shorting Cap **/7PRS =** 7-pin Receptacle and Shorting Cap **/MVS =** Microwave Motion Sensor **/LC =** LightCloud® Controller

[1] 480V driver available standard on 150W and 300W and by special order on 100, 240 and 375W. Not available on 70W or 200W models.
Type II distribution available as special order
Wall mount and adjustable universal pole mount available as optional field-installed accessories

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RAB

Technical Specifications (continued)

Construction

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)

1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

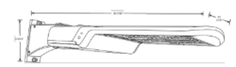
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, limited warranty

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Type: P3

20' Pole mounted on a 2' Base

RAB



Color: Bronze

Weight: 10.8 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	0.70A
208V	0.40A
240V	0.35A
277V	0.30A
Input Watts	69.8W

LED Info

Watts	70W
Color Temp	4000K (Neutral)
Color Accuracy	72 CRI
L70 Lifespan	100,000 Hours
Lumens	10,148 lm
Efficacy	145.3 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PL0M2HOLUOND

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 0.70A, 208V: 0.40A, 240V: 0.35A, 277V: 0.30A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.26% at 120V, 13.34% at 277V

Power Factor:

99.5% at 120V, 91.6% at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type III distribution is ideal for roadway, general parking and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

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BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

SHEET TITLE
LIGHT FIXTURE CUT SHEETS

PROPOSED BUILDING FOR:
THE DICKMAN CO.
WILLOW CREEK PKWY.
GERMANTOWN, WI

Revision

Date

PROGRESS SET
NOT FOR CONSTRUCTION

JOB: 223462
DRAWN: Author
CHECKED: Checker
DATE: 2023-02-13
SHEET:
E2.2

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1500 N Johns Street
Dodgeville, WI 53533-2116

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

August 16, 2019 EXE-SE-2019-67-02529

BV Ryan Willow Creek II Owner, LLC
533 South Third Street, Suite 100
Minneapolis, MN 55415

RE: Nonfederal Wetland Exemption Determination for an area described as Wetland 2, located in the SE1/4 of the NE1/4 of Section 32, Township 09 North, Range 20 East, Village of Germantown, Washington County

Dear Mr. or Ms. Shoaf:

This letter is in response to your request for a nonfederal wetland exemption determination for the above mentioned wetlands.

According to s. 281.36 (4n), Wis. Stats., a nonfederal wetland is a wetland that is not federally jurisdictional. Projects impacting nonfederal wetlands in urban areas must be less than 1 acre of total impact, and must be done in compliance with applicable stormwater management zoning ordinances or stormwater Wisconsin Pollution Discharge Elimination System (WPDES) permits to qualify for this exemption (s. 281.36(4n)(b)3, Wis. Stats.). In addition, DNR must also consider whether the nonfederal wetland is a rare and high quality wetland as defined in s. 281.36(4n)(a)3, Wis. Stats.

The Department reviewed the following materials to aid in our exemption determination:

- The request narrative
- An Approved Jurisdictional Determination from the U.S. Army Corps of Engineers
- Site location map and photographs that show different angles and views of the wetland
- Wetland delineation information
- Stormwater compliance information

Below is a summary of our findings:

According to the request narrative, the project entails the development of the 243,400 square foot Willow Creek II industrial building impacting all or a portion of Wetland 2 (“Wetlands in question” on enclosed map). Wetland 2 has an area of 3,144 square feet (0.0722 acres), and was determined to be not federally jurisdictional per an Approved Jurisdictional Determination issued by the U.S. Army Corps of Engineers on July 25, 2019 (Regulatory File No. 2018-035).

A wetland delineation completed in 2014 describes Wetland 2 as a small island of lowland hardwood trees and shrubs with dominant tree canopy cover of box elder (*Acer negundo*), which does not align with any of the rare and high quality community type descriptions in s. 281.36(4n)(a)3, Wis. Stats. To account for the loss of flood protection and stormwater treatment functions of Wetland 2, the proposed project will include stormwater conveyance and

detention to meet local and state requirements for storm water quantity, quality, and infiltration. The proposed project is not subject to compensatory mitigation requirements due to wetland impacts being less than 10,000 square feet in an urban area.

Conclusion

Based upon the documentation provided above, the project meets the eligibility criteria pursuant to s. 281.36 (4n), Wis. Stats. **You are able to proceed with this project**. If you have any questions or would like to schedule a meeting to discuss this approval, please call me at (608) 574-0573 or email James.Brodzeller@wisconsin.gov.

Sincerely,

James Brodzeller
Wetland Exemption Specialist

Enc. Wetland delineation map

cc: Andrew Shoaf, Pinnacle Engineering Group
Don Michna, Ryan Companies US, Inc.
File


WETLANDS IN QUESTION
3,144 SF (0.0722 AC)
Ryan Companies US, Inc.
Willow Creek
Village of Germantown
Washington County, Wisconsin
Map Legend
Cursory Point
Drain Tile Outlet
Sampling Point
Sump Pump Discharge
Off-site Stormwater
Off-site Wetland
Delineated Wetland
Dry Stormwater
Wet Stormwater
Study Area (26.46 Acres)
Esri, HERE, Garmin, © OpenStreetMap contributors
Figure 2
Wetland Boundary
Map
raSmith
CREATIVITY BEYOND ENGINEERING
October 24, 2018
1180582
0
62.5
125
1 inch = 125 feet

raSmith

CREATIVITY BEYOND ENGINEERING

Wetland Delineation Report



26.46-Acre Willow Creek Site

Village of Germantown
Washington County, Wisconsin

raSmith Project No. 1180582

November 19, 2018

Prepared for:
Mr. Jonathon Blaha
Environmental Manager
Ryan Companies, US Inc.
533 South Third Street, Ste. 100
Minneapolis, MN 55415

Prepared by:
raSmith
Tina Myers, PWS
Ecologist/Project Manager
16745 West Bluemound Road, Suite 200
Brookfield, WI 53005-5938
(262) 317-3389

raSmith
CREATIVITY BEYOND ENGINEERING

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Appendix 3: WETS Table Analysis, NRCS WETS Table, and Daily Precipitation Table
Appendix 4: Site Photographs
Appendix 5: Wetland Determination Data Forms – Northcentral & Northeast Region
Appendix 6: NR 151 Wetland Susceptibility Table
Appendix 7: 2014 Wetland Boundary Map
Appendix 8: WDNR 2018 Concurrence E-mail

raSmith

CREATIVITY BEYOND ENGINEERING

November 19, 2018

1.0 INTRODUCTION

raSmith is pleased to provide this Wetland Delineation Report for a 26.46-acre Study Area located along Appleton Avenue in the Village of Germantown, Washington County, Wisconsin (Figure 1). Based on the Public Land Survey System (PLSS), the Study Area is located within the NE ¼ of Section 32, Township 9 North, Range 20 East. The delineation was completed at the request of Ryan Companies US, Inc. (Ryan).

The purpose of the wetland delineation was to identify the proximity and extent of wetlands within the Study Area for future development. It was also intended as pre-purchase due diligence for Ryan who requested a re-evaluation of the wetlands since they were last delineated by Wetland and Waterway Consulting, LLC in 2014 (see 2014 wetland map in Appendix 7). The previous delineation had been completed prior to any grading or construction of storm water features (completed by the current landowner) when much of the site was actively farmed.

Four (4) wetlands, hereby referred to as "W-1 through W-4", were identified within the Study Area (Figure 2, Appendix 1) by Senior Wetland Scientist Tina Myers and assistant Charlie Nowakowski on October 19, 22 and 23, 2018. In addition, there were two very recently constructed stormwater conveyance swales identified within the Study Area. The total acreage of the wetland within the Study Area is 1.54 acres which is roughly 6 percent of the total 26.46-acre site. The wetland boundaries delineated by raSmith were significantly different than those delineated by Wetland and Waterway Consulting, LLC in 2014 (see 2014 wetland map in Appendix 7). However, Tom Nedland from the Wisconsin Department of Natural Resources (WDNR) met with raSmith on October 31, 2018 to re-evaluate the site and concurred with the revised 2018 boundaries (see WDNR concurrence email in Appendix 8). The delineation is presented here in terms of qualifications, methodology, results, and conclusions.

2.0 STATEMENT OF QUALIFICATIONS

raSmith provides wetland and ecological services including wetland delineation, assessment, permitting, and restoration. raSmith ecologists offer a wide variety of technical experience in the natural resource field and have successfully completed projects throughout the Midwestern and Northeastern United States.

Ms. Tina Myers was the technical lead and author on this delineation project. Tina earned a B.S. degree in Conservation Biology from the University of Wisconsin – Milwaukee and has over 19 years of multidisciplinary ecological experience. Tina has performed hundreds of wetlands delineations throughout Wisconsin and Illinois and is also experienced in wetland restoration, wetland and waterway permitting, wetland assessment, vegetation surveys including rare species surveys, wildlife surveys, and environmental monitoring. She is a Professional Wetland Scientist (PWS) with the Society of Wetland Scientists (SWS) and a Wisconsin Department of Natural Resources (WDNR) Assured Wetland Delineator.

3.0 WETLAND DELINEATION METHODOLOGY

The wetland delineation consisted of a review of available maps and information followed by site visits on October 19, 22, and 23, 2018, to document field conditions. The presence and absence of hydrophytic vegetation, wetland hydrology and hydric soil indicators were documented using methodology defined in the *US Army Corps of Engineers* (USACE) *1987 Wetland Delineation Manual*, *Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual: Northcentral & Northeast Region* (USACE ERDC, 2012) and *Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources* (USACE St. Paul District, 2015). See References section for a complete list of guidance and sources utilized.

3.1 VEGETATION

At the sampling points, herbaceous, shrub/sapling, tree and vine strata were measured using 5-foot, 15-foot, and 30-foot radius plots, respectively. When necessary, plot sizes were adjusted to fit the plant community represented. Percent cover was visually estimated within the plots, and dominant species were determined by applying the 50/20 Rule and/or Prevalence Index. *The National Wetland Plant List: 2016 wetland ratings* (Lichvar, et al., 2016) was used to determine the wetland indicator status of observed vegetation.

3.2 HYDROLOGY

The nearest available Natural Resource Conservation Service (NRCS) WETS Table and the National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Advanced Hydrologic Prediction Service (AHPS) 90-day Percent of Normal Precipitation Map were analyzed to determine the antecedent hydrologic condition of the Study Area. Inundation, water table, and/or saturation were measured at the sampling points, if present. Soil pits were generally left open for at least one half hour to one hour prior to measurement to allow for the normalization of the water level, if any. Primary and secondary indicators of wetland hydrology were investigated and if present were noted on the data sheets.

3.3 SOILS

At the sampling points, a soil pit was excavated to a depth of at least 20-24 inches, where possible. The color and texture of the soil matrix and associated mottling was recorded for each observed soil layer within the pit. The Munsell Soil Color Book was used to determine the color of observed moist soils. The soil was analyzed for hydric soil characteristics and, if met, hydric soil(s) was/were indicated on the data sheets.

3.4 SOURCES REVIEWED

The United States Geological Survey (USGS) Topographic Map (Figure 1, Appendix 1), a one-foot contour map (Figure 3, Appendix 1), an Environmental Features Map (Figure 4, Appendix 1), an NRCS soils map (Figure 5, Appendix 1), aerial photos from the years 2000, 2005, 2010, 2015, and 2017 (Figures 6A-E, Appendix 1), and a NOAA 90-Day Percent of Normal Precipitation Map (Figure 7, Appendix 1) were reviewed prior to the wetland delineation in order to gain familiarity with the site's topography, wetland history, soils, and past land uses.

3.5 SITE PHOTOS

Photos taken of the plant communities, including uplands and wetlands, are located in Appendix 4.

4.0 RESULTS

4.1 EXISTING ENVIRONMENTAL MAPPING

The USGS topographic map shows the general location of the Study Area which lies east of Appleton Avenue (Figure 1, Appendix 1). It also shows wetland symbols throughout the northeastern portion of the Study Area. The closest waterways are Willow Creek and the Menomonee River which are northeast of the site. As shown on the more detailed one-foot contour map (Figure 3, Appendix 1), the site is gently rolling with elevations ranging from 841 feet to 863 feet. However, due to ongoing construction activities throughout much of the site, elevations may have changed. In general, the wetlands lie within depressions and drainageways on the landscape. Wetland W-1 lies near the 842-foot contour, W-2 lies between the 841 and 842-foot contours, W-3 lies around the 844-foot contour, and W-4 lies below the 845-foot contour.

The Environmental Features map (Figure 4, Appendix 1) includes any mapped National Wetland Inventory (NWI) wetlands, USDA wet spots, intermittent waterways, rivers, streams, and other open water areas. There is one NWI mapped wetland within the Study Area denoted as PFO1C which indicates Palustrine (P), Forested (FO) Broad-leaved deciduous (1) and Seasonally Flooded (C). Compared to the raSmith wetland map (Figure 2, Appendix 1), the NWI mapped wetland is much larger than what was actually identified and delineated as wetland using field techniques. One small wetland (W-2) and one larger wetland (W-3) where delineated within the mapped NWI wetland, but there was a significant amount of mesic upland forest present as well. In addition, there were two wetlands identified by raSmith (W-1 and W-4) that are not mapped on the NWI at all. The boundaries delineated by raSmith have been overlaid onto Figure 4 for a direct comparison with the NWI mapped wetlands and to show the level of detail in the delineated boundaries compared to the NWI wetlands. The significant discrepancies between the NWI mapped wetland and raSmith's delineated boundaries are attributed to the level of wetland delineation employed during the investigation. It may also be attributed to misinterpretation of aerial photography when the NWI map was created. In addition, it does not take into account artificial wetlands such as W-4 that were recently created as a result of major hydrological changes within or near the site. The presence of wetlands and the location of wetland boundaries as determined by examination of aerial photography are not as accurate as physical examination of site conditions using methods outlined in the 1987 Corps Manual and its Northcentral & Northeast Supplement.

The NRCS Soil map shows seven mapped soil types within the Study Area (Table 1 and Figure 5, Appendix 1). Of these seven soil types, three are considered whole hydric soils: Colwood silt loam with 0-2% slopes, Palms mucky peat with 0-2% slopes, and Pella silt loam with 0-2% slopes. A full list of these soils with their components is also located in Appendix 2.

Table 1. Mapped Soils within Study Area

Soil Unit Name	Drainage Class	Percent of Study Area
Colwood silt loam, 0-2% slopes (Cw) †	Poorly drained	30.7
Knowles silt loam, 1-6% slopes (KwB)	Well drained	27.8
Ozaukee silt loam, carbonate substratum 2-6% slopes (OuB)	Moderately well drained	3.3
Palms mucky peat, 0-2% slopes (Pc) †	Very poorly drained	0.3
Pella silt loam, 0-2% slopes (Ph) †	Poorly drained	6.5
Ritchey silt loam, 2-6% slopes (RkB)	Well drained	27.1
Ritchey silt loam, 6-12% slopes, eroded (RkC2)	Well drained	4.2

† NRCS Listed Hydric Soil

Based on a review of aerial photographs from 2000, 2005, 2010, 2015 and 2017 (Figures 6A-E, Appendix 1), much of the site was used as agricultural land up until very recently when the site underwent mass grading and filling. Only the 2017 aerial shows the site following the mass grading as well as the recent construction of two stormwater conveyance features and a new off-site stormwater pond. Only a few areas have been avoided by

construction activity such as the large woodland in the northeast corner of the site and a few other areas where wetlands were identified and delineated in 2014. Many of the previously farmed areas that were avoided by construction now contain early succession "old-field" plant communities. These areas are visible on the 2017 aerial. In general, wetlands within the wooded area (W-2 and W-3) are not easily detectable on aerial imagery. Wetland W-1 and W-4 have slightly darker tones on the 2017 aerial image, but are only weak wetland signatures. There are no consistent wet signatures in two of the farmed areas delineated as wetland in 2014. It should be noted that although Farm Service Agency (FSA) crop slides are not included in the report, these were also evaluated and showed no consistent wet signatures in areas previously identified as farmed wetland in 2014.

4.2 ANTECEDENT HYDROLOGIC CONDITION

The closest weather station with available average data to the site was the Germantown station in Washington County. Based on the WETS Analysis Worksheet in Appendix 3, precipitation was wetter than normal for the months of July through September, 2018. However, NOAA's Advanced Hydrologic Prediction Service Map (Figure 7, Appendix 1), which analyzes precipitation data exactly 90 days prior to the date of the site visit, indicated that climatic conditions were considered to be within 150-200% of normal precipitation during the October 19, 22, and 23, 2018 site visits which is considered to be wetter than the normal range (normal: 75% to 125%). The NOAA AHPS Precipitation Map was used to determine typical hydrologic conditions because it more accurately reflects current conditions. According to the Daily Precipitation Table in Appendix 3, there was 3.07 inches of precipitation recorded during the month of October prior to the October 19, 2018 site visit which is wetter than the average range for the month (range is 1.95 inches to 2.95 inches) . An additional 0.10 inches of precipitation was recorded prior to the October 22 and 23, 2018 site visits for a total of 3.17 inches for the month. The wetter than normal conditions just prior to the delineation was taken into account when analyzing hydrology, particularly in upland areas. Based upon the significant precipitation that occurred shortly before the site visit, it was assumed that primary wetland hydrology indicators would be present within wetlands and would also be possible in some of the adjacent upland areas. However, no upland sampling points exhibited water tables above 18 inches.

4.3 FIELD INVESTIGATION

4.3.1 UPLANDS

A significant portion of the uplands within the Study Area have recently been filled and mass graded for construction of the site. Grading was still actively underway at the time of the October 2018 site visits. As part of the recent activity, two storm water swales had been constructed that convey runoff into a new stormwater pond just east of the site. The remaining uplands that were not filled and graded included four upland "old-field" plant communities near Sampling Points 1, 3, 14, 15, and 17 and one large mesic forest in the eastern half of the site where Sampling Points 4, 6, 7, 8, 9, 11, 13, 19, 20, 23, and 24 were observed. The "old-field" communities included three recently fallow farmed areas and one previously wooded area that was recently cut (near W-1). These early succession communities were dominated by weedy and invasive species such as Kentucky blue grass (*Poa pratensis*), Queen Anne's lace (*Daucus carota*), reed canary grass (*Phalaris arundinacea*), Canada thistle (*Cirsium arvense*), Canada goldenrod (*Solidago canadensis*), grass-leaved goldenrod (*Euthamia graminifolia*), white old-field American aster (*Symphyotrichum pilosum*), and shrub-size eastern cottonwood (*Populus deltoides*). The mesic forest plant community is dominated by trees such as American basswood (*Tilia americana*), sugar maple (*Acer saccharum*), black cherry (*Prunus serotina*), white oak (*Quercus alba*), swamp white oak (*Quercus bicolor*), bur oak (*Quercus macrocarpa*), green ash (*Fraxinus pennsylvanica*), and American elm (*Ulmus americana*). The understory was dominated by common buckthorn (*Rhamnus cathartica*), an aggressive invasive species and, to a lesser extent, common chokecherry (*Prunus virginiana*), a native shrub. While many of the upland sampling points met a hydric soil indicator, none of them met more than one secondary

hydrology indicator under wetter than normal climatic conditions. Please refer to the site photos in Appendix 4 for a visual of each upland plant community and their representative sampling points.

4.3.2 WETLANDS

A previous delineation for this site and several adjacent properties was conducted by Wetland and Waterway Consulting, LLC in the spring of 2014 (see 2014 map in Appendix 7). The 2014 boundaries were confirmed by the WDNR following a site visit and also concurred with by the Corps. However, the wetland boundaries delineated by raSmith were found to be significantly different than those delineated in 2014, especially within the woodland area in the eastern half of the site where a significant amount of mesic forest was identified and two areas that were previously identified as farmed wetlands. Since the previous delineation was less than five years old, raSmith requested that Tom Nedland from WDNR meet with raSmith on-site to perform a re-evaluation of the wetland boundaries within the Study Area. Following the site visit on October 31, 2018, WDNR concurred with the revised boundaries delineated by raSmith (see e-mail in Appendix 8).

All areas containing wetland indicators on the maps mentioned in section 4.1 were evaluated in the field on October 19, 22, and 23, 2018. Normal circumstances were not present throughout a significant portion of the site at the time of the fieldwork due to recent filling and grading activity. However, most of the natural areas remaining that were more closely evaluated by raSmith during the site visit exhibited normal circumstances. The exceptions include the small woodlot near W-2 which had been cut within the past several years, hydrology near W-2 which is artificially derived by a sump pump outlet, and W-4 which had recently developed as a result of natural drainage being impeded from a newly constructed berm. Site photos were taken of each wetland, its adjacent upland, and representative sampling points and are included in Appendix 4. A total of twenty-four (24) sample plots were examined and four (4) wetlands were delineated by raSmith (Figure 2, Appendix 1). Pink wire flags with the words “Wetland Delineation” were used to mark each wetland boundary and orange wire flags were used to mark each sample point within and near each wetland. raSmith located each wetland boundary and sample point flag with a Trimble Geo7x GPS unit and prepared a wetland boundary map using the GPS data and overlaying it onto a recent aerial basemap. Cursory sampling points in both upland and wetland areas were sampled in the field to determine the wetland boundaries. Data sheets were compiled and are included in Appendix 5. The following is a detailed description of each of the wetlands delineated within the Study Area:

<u>W-1 – Wet Meadow</u>

As shown on Figure 2 in Appendix 1, W-1 is a 3,161 square foot concave wetland depression within the Study Area. It appears to be isolated having no apparent inlet or outlet. The wetland is not depicted as wetland on the NWI map (Figure 4), but was delineated as wetland in 2014 by Wetland and Waterway Consulting, LLC. The wetland appears to have been located within or near a small woodlot back in 2014, but most of the woody vegetation within this woodlot has since been removed and filling and grading have occurred around most of the wetland perimeter. One sampling point (Point 2) was examined within W-1 and one was examined in the immediate adjacent upland (Point 3) where grading and filling activity appears to have been avoided.

Wetland W-1 is highly degraded and contains sparse vegetation, but is probably best described as wet meadow in its current state. The wetland is dominated by hydrophytic species especially reed canary grass (*Phalaris arundinacea*), curly dock (*Rumex crispus*), and pinkweed (*Persicaria pensylvanica*). The immediate adjacent upland plant community to the west is currently best described as an “old-field” following the recent removal of most of the woody vegetation in this area.

The wetland boundary was established using professional judgment and observed changes in wetland hydrology, soil, vegetation, and topography. The wetland is a located within a concave depression with fairly distinctive topographic and vegetative breaks along its boundary. Hydrology appears to be sustained by surface water

runoff from the surrounding upland landscape. Physical on-site evidence of wetland hydrology within W-1 included two primary indicators: high water table and saturation. It also included two secondary indicators: geomorphic position and a positive FAC-Neutral test. The water table was observed at 6 inches below the surface at the time of the site visit.

According to the NRCS Soil Survey of Washington County, Ritchey silt loam is the dominant mapped soil type within W-1 and the immediate adjacent upland. The Ritchey soil type is considered to be a well-drained non-hydric soil. The wetland profile observed within W-1 met the A11 (Depleted Below Dark Surface) NRCS Hydric Soil Indicator. The upland sampling point also met the same hydric soil indicator. Despite the recent woody vegetation disturbance, the upland sampling point met both the hydrophytic vegetation and hydric soil parameters; however, it was located at roughly 1.5 feet in elevation than W-1 and met only one secondary hydrology indicator. Compared to the wetland sampling point, the soil was dry and there was no water table observed. The presence of a hydric soil in a recently disturbed plant community that lacks wetland hydrology suggests a historical alteration to wetland hydrology such as tiling. It should be noted that a tile outlet was observed near the ditch along the edge of the woodland.

Please refer to site photos in Appendix 4 for views of W-1 and its immediate adjacent upland.

W-2– Hardwood Swamp

As shown on Figure 2 in Appendix 1, W-2 is a 3,401 square foot shallow depression within a large forested area in the northeastern portion of the Study Area. The wetland is depicted as a forested wetland (PFO1C) on the NWI map (Figure 4). Wetland W-2 is a low quality hardwood swamp dominated by green ash (Fraxinus pennsylvanica) and common buckthorn (*Rhamnus cathartica*). One sampling point (Point 5) was examined within W-2 and one was examined in the immediate adjacent upland (Point 5).

The wetland boundary was established using professional judgment and observed changes in wetland hydrology, soil, vegetation, and topography. The wetland is a located within a very shallow depression with only a very subtle topographic break along its boundary. The primary source of hydrology for W-2 appears to be artificially derived from the neighboring property whose sump pump discharges directly into this area. Please refer to site photograph 8 in Appendix 4 for a view of the discharge pipe. Water was observed pouring out of the discharge pipe at a continuous rate during the field visit as well as the October 31, 2018 visit with WDNR. It is possible that wetland hydrology would be absent from this area if this source of hydrology were removed. Physical on-site evidence of wetland hydrology within W-2 included six primary indicators: surface water, a high water table, saturation, a sparsely vegetated concave surface, water-stained leaves, and hydrogen sulfide odor. It also included two secondary indicators: geomorphic position and a positive FAC-Neutral test. In addition to the aforementioned hydrology indicators, exposed roots were observed on shrubs in this wetland.

According to the NRCS Soil Survey of Washington County, Colwood silt loam is the dominant mapped soil type within W-2 and the immediate adjacent upland. The Colwood soil type is considered to be a poorly drained hydric soil. The wetland profile observed within W-2 met the A4 (Hydrogen Sulfide), A11 (Depleted Below Dark Surface), and F3 (Depleted Matrix) NRCS Hydric Soil Indicators. The upland sampling point met both the hydrophytic vegetation and hydric soil parameters; however, it met only one secondary hydrology indicator despite wetter than normal climatic conditions. Compared to the wetland sampling point which exhibited 0.25 inches of standing water, the water table was below one foot of the surface at 19 inches. Three other upland sampling points were observed in this same woodland area (Points 6, 7, and 8) and all of exhibited water tables that were no higher than 21 inches below the surface despite wetter than normal conditions.

Please refer to site photos in Appendix 4 for views of W-2 and its immediate adjacent upland.

W-3– Hardwood Swamp

As shown on Figure 2 in Appendix 1, W-3 is the largest wetland within the Study Area and is 1.36 acres in size. It is located within a large forested area in the northeastern portion of the Study Area. The wetland is depicted as a forested wetland (PFO1C) on the NWI map (Figure 4). Wetland W-3 is best classified as a hardwood swamp and is dominated by swamp white oak (*Quercus bicolor*), American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*) and common buckthorn (*Rhamnus cathartica*). American basswood (*Tilia americana*) is also present in some of the more intermittent portions of W-3. Five sampling points (Points 10, 12, 16, 21, and 22) were examined within W-3 and nine were examined in the immediate adjacent upland (Points 9, 11, 13, 14, 15, 19, 20, 23, and 24).

The wetland boundary was established using professional judgment and observed changes in wetland hydrology, soil, vegetation, and topography. The wetland is a located within a concave depression subtle to moderate topographic and vegetative breaks along its boundary. An excavated ditch was also observed along the western boundary of W-3 where a tile outlet was observed. An upland island is located between the main portion of W-3 and the ditched area. Hydrology within W-3 appears to be derived from groundwater, surface water runoff, and direct inputs such as the tile outlet observed. Physical on-site evidence of wetland hydrology within W-3 included five primary indicators: surface water, a high water table, saturation, a sparsely vegetated concave surface, and water-stained leaves. It also included two secondary indicators: geomorphic position and a positive FAC-Neutral test. In addition to the aforementioned hydrology indicators, exposed root were observed on shrubs and fluted tree trunks were observed in some portions of W-3.

According to the NRCS Soil Survey of Washington County, Colwood silt loam is the dominant mapped soil type within W-3 and the immediate adjacent upland. The Colwood soil type is considered to be a poorly drained hydric soil. The wetland profiles observed within W-3 met the A11 (Depleted Below Dark Surface) and F3 (Depleted Matrix) NRCS Hydric Soil Indicators. Of the nine upland sampling points examined, two of them (Points 19 and 23) did not meet a hydric soil indicator. The remaining upland sampling points met at least one or more of the following NRCS Hydric soil Indicators: A11 (Depleted Below Dark Surface), A12, (Thick Dark Surface), F3 (Depleted Matrix), and F6 (Redox Dark Surface). However, it should be noted that based on topographic position and the mesic forest plant community, it is possible that some of the sampling points contained E horizons that could be misinterpreted as a hydric soil. Some of the upland sampling points met the hydrophytic vegetation parameter (Points 11, 19, 23, and 24) mainly due to the presence of highly invasive common buckthorn which often observed in multiple strata; however, none met the hydrology parameter despite wetter than normal climatic conditions. It is important to note that upland Sampling Point 14 was examined in an area that was previously identified as farmed wetland by Wetland and Waterway Consulting, LLC in 2014. However, this currently fallow area did not meet the vegetation or hydrology parameters and exhibited borderline hydric soil. In addition, a review of spring aerial photos and FSA slides showed that wet signatures were not present in this area.

Please refer to site photos in Appendix 4 for views of W-3 and its immediate adjacent upland.

W-4– Shallow Marsh (Artificial wetland)

As shown on Figure 2 in Appendix 1, W-4 is a 1,614 square foot shallow depression that is bordered by a steep berm to the south and an “old-field” upland plant community that was previously farmed to the north, east, and west. The wetland is not depicted on the NWI map (Figure 4). Wetland W-3 is considered an articial wetland that was inadvertenlty created as a result of the recent construction of a steep berm that surrounds a new stormwater pond to the south. It appears that the natural drainge in this area has been impeded by the berm causing water to pond in this area. There was no wetlands identified in this area durng the 2014 delination and there are no wet signatures observed on historical aerial imagery that would suggest a wetland existed prior to the construction of the berm. The plant community of this artificial wetland is best described as shallow marsh since it is currently

dominated by hydric cattail (*Typha x glauca*). One sampling point (Point 18) was examined within W-4 and one was examined in the immediate adjacent upland (Point 17).

The wetland boundary was established using professional judgment and observed changes in wetland hydrology, soil, vegetation, and topography. The wetland is a located within a shallow depression with a subtle to moderate topographic break along it north, eastern, and western boundaries, and an abrupt break along its southern boundary where the new berm is located. Hydrology appears to be derived from surface water runoff from the surrounding upland landscape and natural drainage appears to be impeded by the new berm, thus trapping water in this lower area on the landscape. Physical on-site evidence of wetland hydrology within W-4 included two primary indicators: a high water table and saturation. It also included two secondary indicators: geomorphic position and a positive FAC-Neutral test. The water table was observed at 5 inches below the surface at the time of the site visit. Based on observation, water appears to be perched on a heavy clay layer within this wetland.

According to the NRCS Soil Survey of Washington County, Colwood silt loam is the dominant mapped soil type within W-4 and a portion of the immediate adjacent upland. The Colwood soil type is considered to be a poorly drained hydric soil. The wetland profile observed within W-4 met the A11 (Depleted Below Dark Surface) and F3 (Depleted Matrix) NRCS Hydric Soil Indicators. The upland sampling point (Point 17) was examined upslope form W-4 within the mapped non-hydric Ozaukee silt loam soil type. It did not meet any of the parameters that would qualify it as wetland.

Please refer to site photos in Appendix 4 for views of W-4 and its immediate adjacent upland.

4.3.3 OTHER AQUATIC FEATURES

There were no other naturally occurring aquatic features identified within the Study Area limits. There are two newly constructed stormwater conveyance features that direct water into a constructed stormwater pond to the east of the Study Area. These conveyance features are currently dominated by hybrid cattail (*Typha x glauca*). It is anticipated that these features are exempt from wetland regulation. Please refer to the site photos of each storm water feature in Appendix 4.

5.0 CONCLUSION

Based on the wetland delineation completed by raSmith, four wetlands totaling 1.54 acres were identified, delineated, and subsequently GPS-located by raSmith (Figure 2, Appendix 1). One of the wetlands appears to have been artificially created in the past three years due to the construction of a berm that has impeded drainage. It is possible that this wetland would be exempt from wetland regulation; however, the jurisdiction of the wetland must be determined by the Corps and WDNR. In addition to the delineated wetlands, there were two recently constructed stormwater conveyance swales identified within the Study Area. Compared to a 2014 wetland delineation completed by Wetland and Waterway Consulting, LLC, the delineation completed by raSmith was significantly different following the delineation in 2018. However, WDNR re-evaluated the site on October 31, 2018 and has provided concurrence with the boundaries as delineated by raSmith (see WDNR email in Appendix 7). raSmith ecologists are required by the WDNR to provide their professional judgment on wetland susceptibility per revised NR 151 guidance (Guidance #3800-2015-02) (Appendix 6). It is our opinion that the susceptibility is *low* for wetlands W-1 and W-4 and *moderate* for forested wetlands W-2 and W-3.

Tina Myers, lead delineator, is an Assured Delineator as explained on the WDNR web site, http://dnr.wi.gov/topic/wetlands/assurance.html. The WDNR considers Ms. Myers' wetland determination / delineation work to be "Assured" for purposes of Wisconsin waterway and wetland permits, such that Ms. Myers'

clients do not need to wait for concurrence letters from the WDNR before relying on such determinations and delineations and may expect that wetland issues should not be the cause of delays in state waterway and wetland permit decisions. Per communication with USACE staff, concurrence from the United States Army Corps of Engineers is not necessary unless the project is associated with a wetland fill permit application.

The wetland boundary staked in the field by raSmith is a professional finding based on accepted USACE and WDNR methodology at the time the wetlands were delineated. This wetland delineation field work and the report are not intended to meet the requirements of a WDNR Endangered Species Review, a navigability determination, or the location of either the Ordinary High Water Mark or floodplain.

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. In addition, the USACE and WDNR have jurisdictional authority to determine which features are exempt including stormwater ponds, conveyance features, or other artificial wetlands. If the client proposes to modify a potential artificial wetland feature, an Artificial Determination Exemption would need to be submitted. See the form on the WDNR Wetland Identification website (fee involved), http://dnr.wi.gov/topic/wetlands/identification.html. Furthermore, municipalities, townships, and counties may have local zoning authority over certain areas or types of wetland and waterways. The determination that a wetland or waterway is subject to regulatory jurisdiction is made independently by the agencies.

Any activity in the delineated wetland may require U.S. Army Corps of Engineers permits and State of Wisconsin Department of Natural Resources Water Quality Certification and local government permits. If the Client proceeds to change, modify or utilize the property in question without obtaining authorization from the appropriate regulatory agency, it will be done at the Client's risk and raSmith shall not be responsible or liable for any resulting damages.

Ryan Companies US, Inc.
Willow Creek
Village of Germantown
Washington County, Wisconsin

W-1
3,161 sqft

W-2
3,401 sqft

W-3
1.36 Acres

W-4
1,614 sqft

Maple Rd

Maple Rd

Appleton Ave

Appleton Ave

WI-145

Document Path: H:\1180582\GIS\Wetland Figures\Figure 2 - Wetland Boundary Map.mxd

Map Legend

- Cursory Point
- Drain Tile Outlet
- Sampling Point
- Sump Pump Discharge
- Off-site Stormwater
- Off-site Wetland
- Delineated Wetland (1.54 Acres)
- Dry Stormwater Conveyance Feature
- Wet Stormwater Conveyance Feature
- Study Area (26.46 Acres)

Esri, HERE, Garmin, © OpenStreetMap contributors
Washington County, Wisconsin

Figure 2
Wetland Boundary Map

raSmith
CREATIVITY BEYOND ENGINEERING

October 29, 2018
1180582

0 62.5 125
1 inch = 125 feet

Ryan Companies US, Inc.
Willow Creek
Village of Germantown
Washington County, Wisconsin

Map Legend

- Off-site Wetland
- Delineated Wetland (1.54 Acres)
- Study Area (26.46 acres)

Esri, HERE, Garmin, © OpenStreetMap contributors
Washington County, Wisconsin

Figure 3
Contour Map

raSmith
CREATIVITY BEYOND ENGINEERING

October 25, 2018
1180582

0 75 150
1 inch = 150 feet

Appendix 8:

WDNR 2018 Concurrence E-mail

www.JSDinc.com

Stormwater Management Plan

The Dickman Co. Building
Willow Creek Parkway
Village of Germantown, Wisconsin

Report Date: March 9, 2023



Prepared for:

Briohn Design Group
3885 N. Brookfield Road
Suite 200
Brookfield, WI 53045-1950

Prepared by:

JSD Professional Services, Inc.
W238 N1610 Busse Road, Suite 100
Waukesha, WI 53188

JSD Project No. 23-13011

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Questions and comments can be directed to:

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APPENDICES

APPENDIX 1 - LOCATION MAP

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- SLAMM INPUT
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1.0 INTRODUCTION

Briohn Design Group is proposing to construct a commercial building for The Dickman Company to be located east of Willow Creek Way in the Village of Germantown. The building will be constructed on a 26.7-acre parcel within a larger commercial development known as Willow Creek Business Park. The proposed development will disturb approximately 12.7 acres and will involve the construction of a 209,000 square foot commercial building. Development will also include a concrete truck loading court, asphalt parking areas and drive aisles, and concrete sidewalks. Storm water runoff will be directed to an existing wet detention pond located southeast of the development. The existing pond was included as part of a regional storm water management plan that was prepared for Willow Creek Business Park by the Village of Germantown in February 2016. A location map identifying the project site can be found in **Appendix 1**.

This Storm Water Management Plan has been created to verify the proposed Dickman Company development will comply with the peak discharge and total suspended solids removal requirements of the 2016 Storm Water Management Plan prepared for Willow Creek Business Park.

2.0 CONFORMANCE WITH 2016 STORM WATER MANAGEMENT PLAN

According to the 2016 storm water management plan, the Willow Creek Business Park was designed to reduce peak runoff rates and provide total suspended solids removal in accordance with Village of Germantown, Milwaukee Metropolitan Sewerage District, and Wisconsin Department of Natural Resources requirements. Several wet detention ponds were constructed throughout the business park to achieve these stormwater goals. The proposed Dickman Company site is located within drainage area "Pond 2", which was designed to drain to detention Pond 2. The 2016 plan defines Pond 2 as 12.665 acres, with an assumed impervious ratio of 80%, resulting in a curve number of 94. Proposed development will cause a portion of drainage area "Pond 1" to now contribute to Pond 2, increasing the contributory area of Pond 2 to 15.952 acres. As a result, the hydrologic models used to calculate peak discharge rates and total suspended solids removal have been revised to reflect the updated drainage area boundaries.

3.0 UPDATED HYDROLOGIC MODELING

The 2016 Storm Water Management Plan divided Willow Creek Business Park into four drainage areas with each area assumed to be 80% impervious after development. As discussed above, the proposed development will remove 2.018 acres from the Pond 1 drainage area and add 2.927 acres to the Pond 2 drainage area. The drainage areas for Pond 3 and Pond 4 will not be affected by development of the proposed Dickman Company building. Refer to **Appendix 4** for a Proposed Conditions Hydrology Exhibit which illustrates the drainage areas**.**

After revising the drainage boundaries for Pond 1, the impervious and pervious areas were adjusted to match the assumptions of the 2016 storm water management plan: water surface remained unchanged; 80% impervious (39.5% hydrologic soil group C, 60.5% hydrologic soil group D); 20% pervious (39.5%

HSG C, 60.5% HSG D). Time of concentration routing and curve numbers for all source areas were unchanged from the 2016 modeling.

In the 2016 storm water management plan, drainage area Pond 2 was assumed to be 80% impervious (26.1% HSG C, 73.9% HSG D). In the updated modeling, Pond 2 has been modeled using the actual source areas proposed for the Dickman Company building site, while maintaining the same ratio of hydrologic soil groups. As a result, the revised Pond 2 drainage area will have an impervious ratio of only 69%, which correlates to a curve number of 92. For comparison, the 2016 storm water management plan assigned this drainage area a curve number of 94, based on 80% imperviousness. Runoff from the proposed development will be conveyed to the existing detention pond (Pond 2) as intended in the 2016 stormwater management plan via proposed storm sewer. Table 1 illustrates the source areas for Pond 2 after development of the Dickman Company building.

Table 1 – Proposed Pond 2 Source Areas

Surface	Area (acres)	Curve Number
Water Surface	1.136	98
Grass, HSG C	1.186	74
Grass, HSG D	3.358	80
Paved Parking, HSG C	2.681	98
Paved Parking, HSG D	7.591	98
Total	15.952	92

3.1 Runoff Rate Control

Stormwater runoff peak rates in the 2016 stormwater management plan were calculated using HydroCAD® version 10.00 software. Rainfall data was based on the SCS Type II rainfall distribution with a 2-year depth of 2.66-inches and a 100-year depth of 6.37-inches. The model used in the 2016 report has been recreated using HydroCAD® version 10.20 and current rainfall data to determine if the existing stormwater ponds will remain in compliance with current City of Germantown and Milwaukee Metropolitan Sewerage District (MMSD) standards after development of the proposed Dickman Company building. For reference, the peak runoff rates must not exceed 0.15 cfs/acre during the 2-year storm event and must not exceed 0.50 cfs/acre during the 100-year storm event. In addition to the revised drainage boundaries, curve numbers, and time of concentration routings, the updated model also utilizes the current MSE3 rainfall distribution with a 2-year depth of 2.65-inches and a 100-year depth of 6.41-inches.

Table 2 – Post-development Peak Rate Summary

Area Description	Area (acres)	2-year		100-year	
		Allowable Peak Rate (cfs)	Peak Rate (cfs)	Allowable Peak Rate (cfs)	Peak Rate (cfs)
Pond 1	14.872	2.23	2.02	7.44	5.41
Pond 2	15.952	2.39	2.30	7.98	6.06
East Subtotal	30.824	4.62	4.32	15.41	11.47
Pond 3	9.911	1.49	1.65	4.96	3.90
Pond 4	8.387	1.26	1.31	4.19	3.51
West Subtotal	18.298	2.74	2.96	9.15	7.41
Total	49.122	7.37	7.27	24.56	18.87

The peak rates summarized in Table 2 demonstrate that after development of the Dickman Company building, regional pond 2 will continue to meet Village of Germantown and MMSD requirements for peak runoff rate during the 2-year and 100-year storm events when adjusting for current rainfall standards. It should be noted, however, that Pond 3 and Pond 4 will not meet peak rate requirements when adjusting for current rainfall data, despite these drainage areas not being affected in any other way by the proposed Dickman Company development. Peak runoff rates from the entirety of the Willow Creek Business Park will continue to meet requirements and the 100-year high water level in all regional detention ponds will remain below the elevation of the emergency spillway. Please refer to **Appendix 4** for additional details of the modified peak runoff rate calculations.

3.2 Water Quality – Total Suspended Solids Treatment

The sediment reduction calculations in the 2016 stormwater management plan were calculated using WinSLAMM® (version 10.1.1) Source Loading and Management Model. The water quality model has been recreated using WinSLAMM® (version 10.5.0) to determine if the existing stormwater ponds and grass swales will continue to meet the 80% total suspended solids reduction required by the City of Germantown and Wisconsin Department of Natural Resources after development of the proposed Dickman Company building. Treatment practice data utilized in the updated model were based on the values used in the original 2016 modeling, but the drainage areas were updated to reflect the revised boundaries discussed earlier. The winter season dates were also revised to run from 12/06 to 03/28. Results of the WinSLAMM® models have been included in **Appendix 5.**

Calculation of TSS reduction for each drainage area has been determined based on the difference between the total mass of solids generated under the "without controls" and "with controls" conditions using WinSLAMM® software. Table 3 compares the TSS reductions calculated in the 2016 report with the updated WinSLAMM® modeling. Refer to **Appendix 5** for input and output data used in the water quality model.

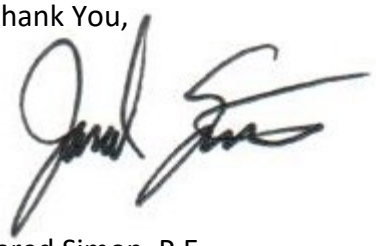
Table 3 – Total Suspended Solids Loading

Area Description	2016 Storm Water Report			Updated Modeling		
	Without Controls (lbs)	With Controls (lbs)	Percent Reduction (%)	Without Controls (lbs)	With Controls (lbs)	**Percent Reduction (%)**
Pond 1	5369	837.30	84.40	7188	1186	**83.50**
Pond 2	4001	646.70	83.84	9162	1811	**80.23**
Pond 3	4250	584.00	86.26	7277	1131	**84.46**
Pond 4	3396	434.20	87.21	5755	837	**85.46**
Total	17016	2502.20	85.30	29383	4964	**83.11**

4.0 CONCLUSION

The proposed Dickman Company development will drain to Pond 2, the wet detention pond designed to treat storm water runoff from this area in the 2016 storm water management plan. The updated drainage area contributing to the pond will not exceed the 80% impervious area ratio or curve number of 94 as defined in the 2016 storm water management plan. Hydrologic modeling, updated with current rainfall data, confirms Pond 2 will remain below the allowable peak release rates for the 2-year and 100-year storm events in conformance with Village of Germantown and Milwaukee Metropolitan Sewerage District requirements. The high-water level in the pond will remain below the emergency spillway elevation, and the business park will continue to provide total suspended solids reduction in excess of 80%, as required by Village of Germantown and Wisconsin Department of Natural Resources. Therefore, JSD has concluded that the proposed Dickman Company development is in conformance with the 2016 storm water management plan prepared by the Village of Germantown. Please refer to the following appendix for further information regarding the proposed development, the 2016 storm water management plan, the updated hydrologic modeling, and updated water quality modeling. You may contact me at (262) 513-0666 or jared.simon@jsdinc.com if you have questions, comments, or require any additional information.

Thank You,



Jared Simon, P.E.
Project Engineer
JSD Professional Services, Inc.

(Appendices Follow)

Myers, Tina

From: Nedland, Thomas S - DNR <Thomas.Nedland@wisconsin.gov>
Sent: Thursday, November 01, 2018 8:16 AM
To: Myers, Tina
Cc: Nowakowski, Charlie; Schroeder, Travis - DNR; Scott, Michelle M - DNR; april.n.marcangeli@usace.army.mil
Subject: RE: Willow Creek Germantown

Hello Tina,

Thank you for meeting at the Appleton Avenue site yesterday (located near W190N9950 Appleton Ave, Germantown). As we discussed in the field, DNR agrees with the wetland boundaries you delineated in the field in October of 2018. The following was taken into consideration to make this determination:

1. You conducted the site visit during very wet conditions, and wetland hydrology indicators were not present at your upland data points.
2. Much of the forested area that you examined consists of an upland mesic forest plant community, and many areas within the forest are not dominated by hydrophytic vegetation. Common species included basswood, sugar maple, white oak, black cherry, and common buckthorn.
3. Wetlands within the forest were confined to concave areas, with high water tables and/or ponding. These areas were also dominated by hydrophytic vegetation.
4. FSA slides were reviewed in the field. Some of the areas previously called wetland had no to few wetland signatures when the site was in a cropped condition. This also coincided with the lack of a sufficient wetland hydrology indicators under very wet conditions during your October 2018 field assessment.

Please let me know if you have any questions about this email.

Sincerely,

Tom

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Thomas S Nedland, P.W.S.
Wetland Identification Coordinator
Wisconsin Department of Natural Resources
107 Sutliff Avenue, Rhinelander, WI 54501
Phone: 715-365-8955
Cell Phone: 920-286-3739
Email: Thomas.Nedland@Wisconsin.gov

From: Myers, Tina <Tina.Myers@raSmith.com>
Sent: Wednesday, October 31, 2018 2:41 PM
To: Nedland, Thomas S - DNR <Thomas.Nedland@wisconsin.gov>
Cc: Nowakowski, Charlie <Charlie.Nowakowski@raSmith.com>
Subject: Willow Creek Germantown

Hi Tom,

Thanks again for taking the time to meet with us today. Per your request, I have attached the Corps concurrence letter for the 2014 delineation that Dave Meyer completed at the Willow Creek site in Germantown. I have also attached Dave's entire 2014 report if you need it. I have also included the wetland boundary map from my recent delineation. Due to the significant difference in the two delineations, I plan to send the delineation report to both you and the Corps once completed as well as send it in electronically via the WDNR e-permitting website. Please send a quick e-mail indicating that you have re-evaluated these new wetland boundaries, looked over FSA slides with me for the previously farmed areas, and concur with my most recent delineation. Thanks!

Tina M. Myers, PWS
Ecologist/Project Manager
WDNR Assured Wetland Delineator

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2050 COMPREHENSIVE PLAN
IMPLEMENTATION OBJECTIVES & ACTION STEPS
3/13/23 Plan Commission Meeting

Germantown Community Development Department

Village Staff Report **Germantown, Wisconsin**

**** CONTINUED FROM FEBRUARY 27 2023 PLAN COMMISSION MEETING ****

The purpose for this agenda item is to discuss the process, timing and priorities for the various Implementation objectives and action steps identified in the Chapter 8 of the 2050 Plan (copy attached).

As stated, the Implementation Plan includes an overall goal for the following implementation categories of the plan:

- Housing
- Transportation
- Agricultural, Cultural & Natural Resources
- Utilities & Community Facilities
- Economic Development
- Land Use

Each category or section includes a summary of why the overall goal is important, the various leaders responsible for carrying out the goals, and a series of objectives to be accomplished through implementation of the plan.

Each objective in the Implementation Plan includes one or more “action steps” and a priority time frame for completion. Each action step generally describes what is to be done by and/or in cooperation with the leadership identified within each section and what is to be accomplished.

Each objective and action step is assigned a priority level from “Ongoing” to “Short-term” to “Intermediate” to “Long-term”. Short-term actions have been identified as the most crucial actions to be addressed within the next 1-3 years. Intermediate goals are to be addressed within 3-5 years, and long-term goals are to be addressed within 5-10 years. It is intended that, when the plan is updated at or around the 10-year mark after adoption (as required under 66.1001 Wis. Stats.), new and/or revised objectives and action steps will be identified in the updated plan.

Within the six (6) implementation categories, there is a total of twenty-eight (28) specific objectives and sixty-six (66) specific action steps.

- (26) “Ongoing” Action Steps
- (27) “Short-Term” 1-3 year Action Steps
- (12) “Intermediate” 3-5 year Action Steps
- “Long-term” Action Steps

Obviously, there is a lot of work to be done if the priority level action steps are to be achieved as intended.

I would like to begin the process of sorting through and prioritizing the “ongoing” and “short-term” action steps considering factors such as in-house staffing and time availability, funds allocated for outside assistance (e.g. consulting services for planning, economic development, engineering, housing & real estate, etc.).

As we will discuss, for 2023, the Village Board approved the 2023 budget with $45,000 available for consulting services. An additional $90,000 recommended by staff for consulting services was removed from and put into a tentative “parking lot” for unfunded projects that MAY be eligible for funding, in whole or in part, after further review of unallocated surplus funds identified through past budget year audits currently being completed.

As has been discussed, there continues to be development pressure on land located in the “Holy Hill Gateway District”, as well as, a likely increase in development pressure on land in the “Freistadt District” as previously discussed. And while it goes with saying, but needs to be said, whether or not we see the sort of re-development proposals that we’ve been presented in years past for various properties in the “Village Center District”, the Village needs to be prepared for the such proposals before they are submitted.

For this reason, the “short-term” objectives regarding the development of detailed “master plans” or “neighborhood plans” for these three districts (Village Center, Holy Hill Gateway, and Freistadt) are likely to be a top priority. As was the case with the 2050 Plan, preparation of these “master plans” is going to require assistance from outside consultants. Regrettably, preliminary discussions with a planning consultant experienced and capable of preparing the sort of NDC “master plan” that staff feels is necessary reveal an estimated cost of $35-$50K for detailed master plan developed with public input over a 6-8 month timeframe.

We will discuss the “priority list” table handed out at the February 27 meeting and attempt to reach consensus on our priorities and next steps.

2050 COMPREHENSIVE PLAN - PRIORITY LIST - IMPLEMENTATION OBJECTIVES & ACTION STEPS

				ACTION STEP				
RANK	CATEGORY	OBJECTIVE #	OBJECTIVE DESCRIPTION	PRIORITY	ID	ACTION STEP DESCRIPTION	RESPONSIBILITY	STATUS
	Housing	2	Maintain a balanced housing mix and concentrate new multifamily development in walkable Village Center areas or other NDCs that provide connections to the regional transportation network (see NDC Table for areas supporting multi-family development).	1-3 Years	C	Amend appropriate zoning districts to allow for mixed-use commercial/residential buildings within Village Center, Freistadt District, Holy Hill Gateway and other NDCs that support mixed-use development.		
	Housing	2		1-3 Years	D	Initiate conversations with multifamily and conservation subdivision developers to gauge development interest in the Village Center District and Germantown.		
	Housing	3	Pursue a range of housing types, including smaller lot sizes, mixed use, and walkable Traditional Neighborhood Developments when reviewing new developments so that new homes are more affordable, and so that undeveloped and natural resource land is conserved.	Ongoing	F	Conduct a Housing Affordability Analysis pursuant to Ch. 66.10013 of the Wisconsin State Statutes.		
	Housing	3		Ongoing	G	Adopt a Traditional Neighborhood Development Ordinance pursuant to Ch. 66.1027 of the Wisconsin State Statutes.		
	Housing	4	Encourage and/or require the use of conservation subdivisions throughout the Village to preserve agricultural land and natural resources.	1-3 Years	H	Create a conservation subdivision ordinance to guide this type of residential development.		
	Transportation	1	Ensure State, County, and local roadways meet travel needs.	Ongoing	C	Update the Village's ultimate right-of-way map.		
	Transportation	1		Ongoing	D	Create and update a future road extension and ultimate lane improvements map for public streets and highways.		
	Transportation	2	Encourage active transportation options for Germantown residents by connecting destinations with non-motorized pathways to encourage healthy active lifestyles and reduce traffic congestion.	1-3 Years	E	Complete a Village-wide Trail Master Plan to identify priority corridors.		
	Transportation	2		1-3 Years	F	Prioritize trails along Menomonee River, Goldendale Creek, and connections to other existing regional trails.		
	Ag, Cultural & Nat Resources	1	Enhance protection of historic resources, cultural resources, and scenic viewsheds through open space preservation techniques.	1-3 Years	B	Use Zoning to protect encironmentally sensitve areas from urban development including the creation of conservation overlay zoning districts and development regulations to protect designated environmental corridors in the Village.		
	Utilities & Comm Facilities	1	Plan for future growth by identifying when current facilities can no longer support projected growth.	1-3 Years	A	Develop a 5-year capital improvement program, which most efficiently meets the future needs of the sanitary sewer service area expansion area.		
	Utilities & Comm Facilities	1		Ongoing	B	Coordinate with key leadership on at least an annual basis to assess current community service, facility and staff needs, capacity and/or levels of service for use in developing and maintaining annual and 5-year capital facility, service, and staff planning & budgeting.		

	Utilities & Comm Facilities	7	Improve coordination between the Village of Germantown and the Germantown School District related to future residential development, school district capacity, and necessary improvements to facilities.	Ongoing	L	Consider creating an advisory position on the Village Plan Commission for a representative of the School District.		
	Utilities & Comm Facilities	7		Ongoing	M	Coordinate and share information regarding new development proposals, approved development plans, and both updated housing & population projections with the Germantown School District on at least an annual or other mutually acceptable timeframe.		
	Economic Development	1	Develop a Master Plan for the Holy Hill Gateway District to ensure compatible industrial expansion in Germantown by providing aesthetically appealing development along highly visible thoroughfares to ensure industrial expansion that is compatible with non-industrial surrounding land uses.	1-3 Years	A	Carry out the “Next Steps” identified in the Opportunity Areas section Chapter 6.		
	Economic Development	2	Develop the Village Center District, including a Master Plan, to enhance Main Street and Mequon Road as complementary mixed-use economic zones with a unique cultural identity.	1-3 Years	B	Engage with stakeholders along commercial streets to determine a vision for the district.		
	Economic Development	2		1-3 Years	C	Carry out the “Village Center: Next Steps” identified in the Opportunity Areas section of Chapter 6.		
	Economic Development	2		1-3 Years	D	Develop a specific set of design guidelines that define an acceptable Germanic architectural identity.		
	Economic Development	3	Incentivize well-designed buildings, entry features, and public infrastructure in business parks and industrial districts through the development approval process.	1-3 Years	E	Develop a set of desired building design guidelines for business parks, industrial districts, and corridors based on the context of surrounding buildings, landscapes, and architecture and Germanic Theme design requirements and guidelines.		
	Land Use	2	Review and amend the Zoning Code, subdivision code, and other development regulations to implement the future Land Use policies reflected in the 2050 Comprehensive Plan.	1-3 Years	C	Create conservation subdivision regulations.		
	Land Use	2		1-3 Years	D	Conduct working sessions with Plan Commission and other stakeholders to identify necessary code revisions and revise the zoning code matrix in the NDC chapter of this plan as necessary.		
	Land Use	2		1-3 Years	E	Develop a new Village Center Zoning District to guide future development and redevelopment including higher density and density incentives, multi-family residential, Next Generation Housing, and mixed-use commercial/residential uses.		
	Land Use	3	Establish appropriate land use transitions to ensure compatibility between existing and new land uses.	1-3 Years	F	Develop zoning regulations to implement compatibility requirements and density policy for new uses adjacent to existing uses (ex. Lot size, bufferyards, building design, existing natural features, etc.).		
	Land Use	3		1-3 Years	G	Develop buffer requirements for all Neighborhoods, Districts, and Corridors that will see new development adjacent to existing neighborhoods and/or rural/open space districts.		
	Land Use	5	Develop and adopt detailed Land Use Plans for each neighborhood, district, and corridor (NDC).	1-3 Years	I	Prioritize and develop program to complete detailed plans for each Neighborhood, District and Corridor.		

Implementation Plan

The Implementation Plan is often the most important section of any comprehensive plan, serving as both summary and guide to realizing the vision developed through the planning process.

The Implementation Plan is often the most important section of any comprehensive plan, serving as both summary and guide to realizing the vision developed through the planning process.

Germantown's Implementation Plan includes an overarching goal for each section of the plan. Each section includes a summary of why the goal is important, key leaders responsible for carrying out the goals, and a series of objectives. Each objective in the implementation plan also includes a priority time frame and potential action steps.

The following page includes a descriptive summary and explanation of the format of each Implementation Plan Section.

Plan Review and Amendment

The Comprehensive Plan is intended to be reviewed frequently by Village staff to assess its reflection of current goals.

Periodic amendments are appropriate to the Comprehensive Plan and may be suggested by Village staff, officials, and residents. Changes should be consistent with the plan's vision.

Plan amendments must follow the processes required by State Statutes. Wisconsin Statute 66.1001(2)(I) requires comprehensive plan updates every 10 years.

Additionally, the Village will conduct an annual review of the 2050 Plan including an assessment of progress made toward achieving the Implementation Plan objectives and action steps. The Village will make amendments to the 2050 Plan on an annual basis or when deemed necessary.

Comprehensive Plan Goals, Objectives, and Action Steps

HOUSING

TRANSPORTATION

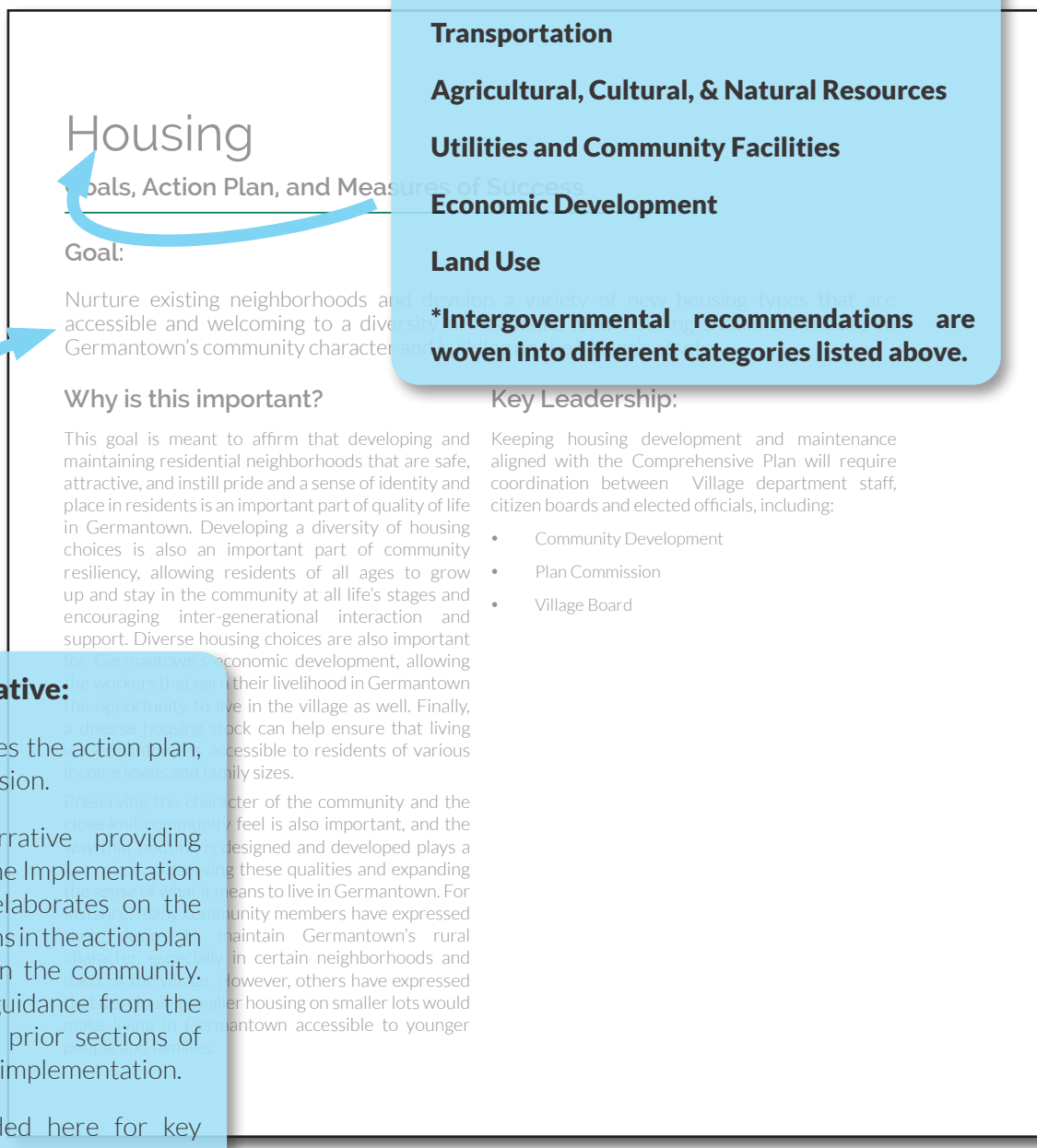
AGRICULTURAL , CULTURAL, AND NATURAL RESOURCES

UTILITIES AND COMMUNITY FACILITIES

ECONOMIC DEVELOPMENT

LAND USE

How to read the Implementation Plan



Section Headline and Description:

Each section is titled with a headline and description introducing the relevant Implementation Plan category. The categories included are:

Housing

Transportation

Agricultural, Cultural, & Natural Resources

Utilities and Community Facilities

Economic Development

Land Use

***Intergovernmental recommendations are woven into different categories listed above.**

Goal Statement and Narrative:

The goal statement summarizes the action plan, its purpose, and overarching vision.

Below each goal is a narrative providing additional details relevant to the Implementation Plan section. The narrative elaborates on the importance of each of the actions in the action plan and their intended impacts on the community. It may also reference other guidance from the 2050 Comprehensive Plan in prior sections of the document relevant to plan implementation.

Helpful information is included here for key leadership and village staff to indicate when and where certain actions may be implemented, why these actions were included in the plan, and how success can be gauged during and following implementation.

Objectives, Priority Level, and Potential Action Steps:

The Implementation Plan includes distinct outcomes intended by the goal in each section that are actionable, measurable, and accountable. Each action describes what is to be done by key leadership and what they will be seeking to accomplish.

Each objective is assigned a priority level from Short-term to Long-term or may be ongoing. Short-term priority actions have been identified as the most crucial actions to be addressed within 1-3 years.

Intermediate goals are to be addressed within 3-5 years, and long-term goals are to be addressed within 5-10 years.

Some objectives have "Potential Action Steps" which have been identified as actionable in the short term and will contribute to the outcome and comprehensive plan goals.

Transportation

	Objectives		Priority	Potential Action Step(s)
❑	1	Ensure State, County, and local roadways meet travel needs.	Ongoing	
❑	2	Encourage active transportation options for Germantown residents by connecting destinations with non-motorized pathways to encourage healthy active lifestyles and reduce traffic congestion.	Short ter (1-3 years	
❑	3	Promote regional transit connections to Germantown.	Intermediate (3-5 years)	G. Coordinate with the WisDOT, The Southeastern Wisconsin Regional Planning Commission (SEWRPC), and WCHD to secure opportunities for commuter service to/from the Village.
❑	4	Develop commercial and downtown areas using Complete Streets principles.	Intermediate (3-5 years)	H. Coordinating with WisDOT and Washington County Health Department (WCHD) to access current best practices and make streets more effective, attractive, and safe for all users. I. Prioritize and implement recommendations connecting Saxony Village - Historic Main Street connectivity plan by U.S. EPA Land Revitalization Technical Assistance.
❑	5	Support and implement regional transportation initiatives that impact Germantown, including the Washington County Bikeway and Trail Network Plan.	Ongoing	J. Maintain regular contact with regional agencies such as Washington County and SEWRPC.

Housing

Goals, Objectives, and Potential Action Steps

Goal:

Nurture existing neighborhoods and develop a variety of new housing types that are accessible and welcoming to a diversity of residents. New housing should contribute to Germantown's community character and build on the Village's assets.

Why is this important?

This goal is meant to affirm that developing and maintaining residential neighborhoods that are safe, attractive, and instill pride and a sense of identity and place in residents is an important part of quality of life in Germantown. Developing a diversity of housing choices is also an important part of community resiliency, allowing residents of all ages to grow up and stay in the community through all life's stages and encouraging inter-generational interaction and support. Diverse housing choices are also important for Germantown's economic development, allowing the workers that earn their livelihood in Germantown the opportunity to live in the village as well. Finally, a diverse housing stock can help ensure that living in Germantown is accessible to residents of various income levels and family sizes.

Preserving the character of the community and the close-knit community feel is also important, and the way that housing is designed and developed plays a key role in preserving these qualities and expanding the sense of what it means to live in Germantown. For instance, many community members have expressed their desire to maintain Germantown's rural character, especially in certain neighborhoods and parts of the village. However, others have expressed that developing smaller housing on smaller lots would make living in Germantown accessible to younger people and families.

Key Leadership:

Keeping housing development and maintenance aligned with the Comprehensive Plan will require coordination between Village department staff, citizen boards and elected officials, including:

- Community Development
- Plan Commission
- Village Board
- Germantown School District

Housing

	Objectives	Priority	Potential Action Step(s)
☐ 1	Ensure the compatibility of residential infill development with the scale and character of the surrounding landscapes.	Ongoing	A. Require new developments to follow the density guidelines in the 2050 Comprehensive Plan. B. Use the zoning ordinance to maintain the character of existing residential neighborhoods and periodically review for compatibility in the changing housing market.
☐ 2	Maintain a balanced housing mix and concentrate new multifamily development in walkable Village Center areas or other NDCs that provide connections to the regional transportation network (see NDC Table for areas supporting multi-family development).	Short term (1-3 years)	C. Amend appropriate zoning districts to allow for mixed-use commercial/residential buildings within Village Center, Freistadt District, Holy Hill Gateway and other NDCs that support mixed-use development. D. Initiate conversations with multifamily and conservation subdivision developers to gauge development interest in the Village Center District and Germantown.
☐ 3	Pursue a range of housing types, including smaller lot sizes, mixed use, and walkable Traditional Neighborhood Developments when reviewing new developments so that new homes are more affordable, and so that undeveloped and natural resource land is conserved.	Ongoing	E. Ensure that adequate review is being given to natural resource protection and that diverse housing types are encouraged at initial review of development and subdivision proposals. F. Conduct a Housing Affordability Analysis pursuant to Ch. 66.10013 of the Wisconsin State Statutes. G. Adopt a Traditional Neighborhood Development Ordinance pursuant to Ch. 66.1027 of the Wisconsin State Statutes.
☐ 4	Encourage and/or require the use of conservation subdivisions throughout the Village to preserve agricultural land and natural resources.	Short term (1-3 years)	H. Create a conservation subdivision ordinance to guide this type of residential development.
☐ 5	Ensure adequate access, drainage, open space, building layout, and community amenities at the time of development by requiring developers and landowners to master plan residential developments.	Short term (1-3 years)	I. Create an ordinance requiring applicants for residential subdivisions and minor land divisions to submit a sketch master plan illustrating the ultimate development of the property.
☐ 6	Ensure that there is market demand for newly created residential and mixed use lots and units.	Intermediate (3-5 years)	J. Require residential market studies as needed to ensure there is not an excessive amount of vacant or undeveloped residential housing units. K. Review housing trends and identify any opportunities to meet the needs of a changing housing market.
☐ 7	Ensure that existing housing stock remains attractive and functional by encouraging the rehabilitation of older housing stock, including the multifamily housing near the Village Center.	Intermediate (3-5 years)	L. Create an inventory of existing housing stock age and determine "priority areas" for targeted rehab. M. Identify new funding, regulatory, and organizational ways to facilitate housing rehab. N. Enforce the Property Maintenance Section of the Village Code.
☐ 8	Support regional housing initiatives that impact Germantown, including Washington County Next Generation Housing Initiative.	Ongoing	O. Maintain regular contact with regional agencies such as Washington County and SEWRPC.

Transportation

Goals, Objectives, and Potential Action Steps

Goal:

Ensure a safe, reliable, and accessible transportation system for all residents and visitors in Germantown. Transportation investments should be coordinated regionally, and new investments should consider a range of transportation choices. New development in Germantown should consider appropriate modes of transportation during the planning and approval process.

Why is this important?

Transportation systems are the foundation of our ability to access jobs, family, medical services, recreation, and more. It is important to maintain a balance of comprehensive road and transit systems and efficient use of these systems to maximize benefits to residents. There are benefits to planning transportation systems to meet the need of the population. Active transportation such as walking and biking are an important part of this system to keep people healthy, safe, and have the added benefit of helping reduce unnecessary congestion on roads.

These systems connect us to other places, so coordination with regional roads and highways is important to ensure compatibility of the overall transportation network beyond Germantown.

Streets make up the majority of public space, and so having streets that meet the needs of all residents is key to planning a strong community.

Key Leadership:

Keeping transportation development and maintenance aligned with the Comprehensive Plan will require coordination between Village department staff, citizen boards and elected officials, including:

- Public Works
- Streets and Highways
- Parks and Recreation
- Community Development
- Plan Commission
- Village Board
- Germantown School District

Transportation

	Objectives		Priority	Potential Action Step(s)
❑	1	Ensure State, County, and local roadways meet travel needs.	Ongoing	A. Annually review, revise, and adopt a five-year transportation improvement program that is consistent with this Plan.
				B. Make necessary roadway improvements according to five-year transportation improvement program.
				C. Update the Village's ultimate right-of-way map.
				D. Create and update a future road extension and ultimate lane improvements map for public streets and highways.
❑	2	Encourage active transportation options for Germantown residents by connecting destinations with non-motorized pathways to encourage healthy active lifestyles and reduce traffic congestion.	Short term (1-3 years)	E. Complete a Village-wide Trail Master Plan to identify priority corridors.
				F. Prioritize trails along Menomonee River, Goldendale Creek, and connections to other existing regional trails.
❑	3	Promote regional transit connections to Germantown.	Intermediate (3-5 years)	G. Coordinate with the WisDOT, The Southeastern Wisconsin Regional Planning Commission (SEWRPC), and WCHD to secure opportunities for commuter service to/from the Village.
❑	4	Develop commercial and downtown areas using Complete Streets principles.	Intermediate (3-5 years)	H. Coordinating with WisDOT and Washington County Health Department (WCHD) to access current best practices and make streets more effective, attractive, and safe for all users.
				I. Prioritize and implement recommendations connecting Saxony Village - Historic Main Street connectivity plan by U.S. EPA Land Revitalization Technical Assistance.
❑	5	Support and implement regional transportation initiatives that impact Germantown, including the Washington County Bikeway and Trail Network Plan.	Ongoing	J. Maintain regular contact with regional agencies such as Washington County and SEWRPC.

Agricultural, Cultural, & Natural Resources

Goals, Objectives, and Potential Action Steps

Goal:

Guarantee Germantown's history and identity are preserved for the future through the protection of its most valuable resources. Germantown's community should make use of natural areas to appreciate their value without contributing to their degradation. Open space and environmental corridors must be managed and protected.

Why is this important?

Natural and cultural resources are some of the most valuable resources in many communities over the long term, but they may take some planning and protection to preserve. Short-sighted development plans can sometimes threaten the protection of natural and cultural resources. Prime agricultural land is sensitive to nutrient depletion, pollution, or complete removal through development. Environmental areas such as woodlands contain habitat for native species that make up a large part of the wildlife and tourism economy and contribute to the biodiversity of our ecosystems and food systems. Even our cultural heritage is a resource that can be preserved through historic preservation and cultural activities, but may be threatened by redevelopment that isn't sensitive to local history. This Comprehensive Plan is one way of declaring these resources as valued and worth protecting.

Key Leadership:

Keeping natural and cultural resources aligned with the Comprehensive Plan will require coordination between Village department staff, citizen boards and elected officials, including:

- Community Development
- Plan Commission
- Village Board

Agricultural, Cultural, & Natural Resources

	Objectives		Priority	Potential Action Step(s)
❑	1	Enhance protection of historic resources, cultural resources, and scenic viewsheds through open space preservation techniques.	Short term (1-3 years)	A. Provide incentives and bonuses to developers for submitting natural resource protection plans including the retention of trees, wetlands, and water courses, and contiguous open spaces.
				B. Use zoning to protect environmentally sensitive areas from urban development including the creation of conservation overlay zoning districts and development regulations to protect designated environmental corridors in the Village.
❑	2	Implement green infrastructure projects to improve water quality and enhance the function and capacity of stormwater management in the Village.	Short term (1-3 years)	C. Use available street reconstruction capital improvement plans to identify near-term GI opportunities identified in the Menomonee River Watershed Updated Implementation Plan (2022).
				D. Identify, evaluate, and prioritize Germantown specific projects listed in the Menomonee River Watershed Updated Implementation Plan to see more Germantown-specific projects.
❑	3	Support environmental and habitat restoration and capacity of stormwater management in the Village.	Intermediate (3-5 years)	E. Coordinate efforts to restore habitat, remove invasives, and eliminate environmental contamination with private, nonprofit, and governmental organizations; do so in areas such as along the Menomonee River and its tributaries.
❑	4	Plan for long-term agricultural uses in Germantown which can adapt to future economic conditions by researching the efforts of, and coordinating with, agricultural planning experts.	Long-term (5-10 years)	F. Encourage the usage of agricultural conservation easements.
❑	5	Promote and celebrate the unique history of Germantown through the preservation of its historic sites, their context, and their stories.	Ongoing	G. Support the preservation and conservation efforts by promoting heritage tourism in coordination with the Chamber of Commerce and other private and non-profit entities.
				H. In cooperation with local community groups, investigate and identify opportunities to preserve, enhance and promote the Village's German heritage through private and public sector activities, events, and partnerships.

Utilities & Community Facilities

Goals, Objectives, and Potential Action Steps

Goal:

Provide Germantown residents and businesses with safe, reliable, and adequate utilities and facilities to meet current and future needs.

Why is this important?

Utility infrastructure has to be constantly planned and monitored for its capacity to support a changing residential and commercial population. Developing new neighborhoods, adding density to existing ones, or bringing new businesses and industries may change the adequacy of utility infrastructure. This Comprehensive Plan projects the future population, households, and jobs in Germantown to give some predictability to utility providers to they can anticipate future need and allocate resources effectively. It is important to make efficient use of utility infrastructure and have a plan for who is going to expand it when necessary, what type it will be, and what capacity it will have.

Utilities and community facilities in Germantown include stormwater and sewer infrastructure, electricity, natural gas, telecommunications, parks and schools, and more.

Key Leadership:

Keeping development and maintenance of utilities aligned with the Comprehensive Plan will require coordination between Village department staff, citizen boards and elected officials, including:

- Fire and Police
- Germantown School District
- Library
- Parks and Recreation
- Historic Preservation Commission
- Parks and Recreation
- Public Works
- Garbage and Recycling
- Senior Center
- Village Board

Utilities & Community Facilities

	Objectives		Priority	Potential Action Step(s)
❑	1	Plan for future growth by identifying when current facilities can no longer support projected growth.	Short term (1-3 years)	A. Develop a 5-year capital improvement program, which most efficiently meets the future needs of the sanitary sewer service area expansion area.
			Ongoing	B. Coordinate with key leadership on at least an annual basis to assess current community service, facility and staff needs, capacity and/or levels of service for use in developing and maintaining annual and 5-year capital facility, service, and staff planning & budgeting.
			Short term (1-3 years)	C. Investigate the legality, need, and logistics of creating, adopting and implementing an Adequate Public Facilities Ordinance and Concurrency Management System that uses adopted "levels of service" to ensure the approval and timing of new residential and nonresidential development is dependent upon the availability of public services and capital facilities, including: schools, roads, storm water, police, fire, parks & recreation, and public administration.
❑	2	Ensure active and passive recreation opportunities are accessible to existing neighborhoods and districts.	Short term (1-3 years)	D. Update and implement the Village Comprehensive Outdoor Recreation Plan every five years.
				E. Conduct individual park master plans that support long-term visions for community facilities within parks.
❑	3	Work with the MMSD and other public and private organizations to coordinate acquisition of sites identified as targets for protection from development in the MMSD Conservation Plan.	Short term (1-3 years)	F. Maintain regular contact with MMSD and help facilitate the acquisition of properties suited for preservation.
❑	4	Integrate regional water, sewer, and land use planning.	Ongoing	G. Coordinate with Milwaukee Metropolitan Sewerage District, the Germantown School District, the Washington County Health Department, and other relevant jurisdictions for future utility and facility expansions.
				H. Explore methods to improve coordination of long range planning goals for water and sewer infrastructure with land use planning.
❑	5	Facilitate resident access to a wide variety of services by assisting local private and nonprofit organizations that provide services to Village residents with their capital improvement objectives.	Intermediate (3-5 years)	I. Explore grant program models and opportunities to assist local organizations.
				J. Conduct a needs assessment to identify opportunities for partnerships.
❑	6	Increase energy efficiency and explore alternative energy sources to reduce peak energy demand, lower costs, and/or reduce environmental impacts. Plan for long-term reduction of energy dependence from fossil fuels.	Intermediate (3-5 years)	K. Research public best practices for guides/toolkits that support a resilient and clean energy network including wind energy, solar energy, and electrical vehicle charging stations.
❑	7	Improve coordination between the Village of Germantown and the Germantown School District related to future residential development, school district capacity, and necessary improvements to facilities.	Ongoing	L. Consider creating an advisory position on the Village Plan Commission for a representative of the School District.
				M. Coordinate and share information regarding new development proposals, approved development plans, and both updated housing & population projections with the Germantown School District on at least an annual or other mutually acceptable timeframe.

Economic Development

Goals, Objectives, and Potential Action Steps

Goal:

Promote economic, social, and environmental benefits through business and commercial activity in Germantown with a cohesive and unifying vision that inspires investment, tourism, and local pride.

Why is this important?

The economy is constantly changing. Over the past few decades, the Upper Midwest has seen a shift from a manufacturing based economy to a diversification to include more tourism and services. Germantown has maintained and continued to attract manufacturing jobs and still maintains a sizable agricultural base in addition to its retail and service sector. Strengthening each of these parts of the economy while staying able to take advantage of new opportunities requires a variety of strategies for economic development.

Enhancing the attractiveness of commercial areas, both retail and industrial, will help to attract residents, employers, and a workforce that enjoys working in Germantown. This includes enhancing the attractiveness of buildings but also the streets and districts that bring them all together. Similarly, developing a unique character and visitor experience by promoting Germantown's natural and cultural resources will help to continue attracting visitors and tourists to support the local economy.

Key Leadership:

Keeping economic development aligned with the Comprehensive Plan will require coordination between Village department staff, citizen boards and elected officials, including:

- Chamber of Commerce
- Community Development
- Economic Development Commission
- Plan Commission
- Public Works
- Village Board
- Germantown School District

Economic Development

	Objectives		Priority	Potential Action Step(s)
☐	1	Develop a Master Plan for the Holy Hill Gateway District to ensure compatible industrial expansion in Germantown by providing aesthetically appealing development along highly visible thoroughfares to ensure industrial expansion that is compatible with non-industrial surrounding land uses.	Short term (1-3 years)	A. Carry out the "Next Steps" identified in the Opportunity Areas section Chapter 6.
☐	2	Develop the Village Center District, including a Master Plan, to enhance Main Street and Mequon Road as complementary mixed-use economic zones with a unique cultural identity.	Short term (1-3 years)	B. Engage with stakeholders along commercial streets to determine a vision for the district. C. Carry out the "Village Center: Next Steps" identified in the Opportunity Areas section of Chapter 6. D. Develop a specific set of design guidelines that define an acceptable Germanic architectural identity.
☐	3	Incentivize well-designed buildings, entry features, and public infrastructure in business parks and industrial districts through the development approval process.	Short term (1-3 years)	E. Develop a set of desired building design guidelines for business parks, industrial districts, and corridors based on the context of surrounding buildings, landscapes, and architecture and Germanic Theme design requirements and guidelines.
☐	4	Promote and support the development of industrial and commercial areas in Germantown using financing incentives and regulatory tools, including but not limited to Tax Increment Financing.	Ongoing	F. Evaluate the Village's use of TIF (past and current TIDs) including an assessment of both the positive and negative impacts the use of TIF has had on the overall financial health of the Village and other taxing districts. G. Explore Business Grant types based upon examples from comparable communities or regional/State entities including alternative financing mechanisms other than Tax Increment Financing (TIF).
☐	5	Protect and promote the economic and aesthetic value of natural resources in Germantown for agriculture, recreation, and tourism.	Ongoing	H. Continue to update the Comprehensive Outdoor Recreation Plan every 5 years with information on the location and quality of natural resources for protection. I. Create zoning code regulations that support and accommodate agritourism and agricultural business uses.
☐	6	Support regional economic development initiatives that impact Germantown.	Ongoing	J. Leverage the resources and programs of Economic Development Corporation of Washington County and SEWRPC.
			Short term (1-3 years)	K. Evaluate the need for an Economic Development Coordinator position in the Community Development Department.

Land Use

Goals, Objectives, and Potential Action Steps

Goal:

Pursue a land use pattern of neighborhoods, districts, and corridors that facilitates the siting and compatibility of new and existing uses in a manner that promotes the efficient use of existing and future public utilities and facilities while protecting natural and environmental resources and preserving our rural character and quality of life.

Why is this important?

This Comprehensive Plan introduced a system of Neighborhoods, Districts, and Corridors for the land use plan to determine a desirable mix of land uses within places in Germantown. These neighborhoods, districts, and corridors already existed for the most part, but are defined more formally in this plan for the purposes of consistency and appropriateness in planning. Land use planning is forward thinking, accounting for multiple decades in the future to inform decision-making for day-to-day decisions about what is desirable or acceptable in new development proposals.

The approach focuses on a desired mix for an entire area, rather than for individual parcels, to allow for a degree of flexibility to changing future circumstances. The goals for land use ensure that areas develop with a consistent vision and give a level of assuredness of residents and property owners about the future of the areas they live and work in. New development should be guided to not impede on the agricultural resource base of the Village nor to disrupt the neighborhood patterns developed over history. Changes to the zoning ordinance should reflect the long term vision of the Comprehensive Plan, including the creation of new districts such as a mixed-use district to allow for a more vibrant Village Center District.

Key Leadership:

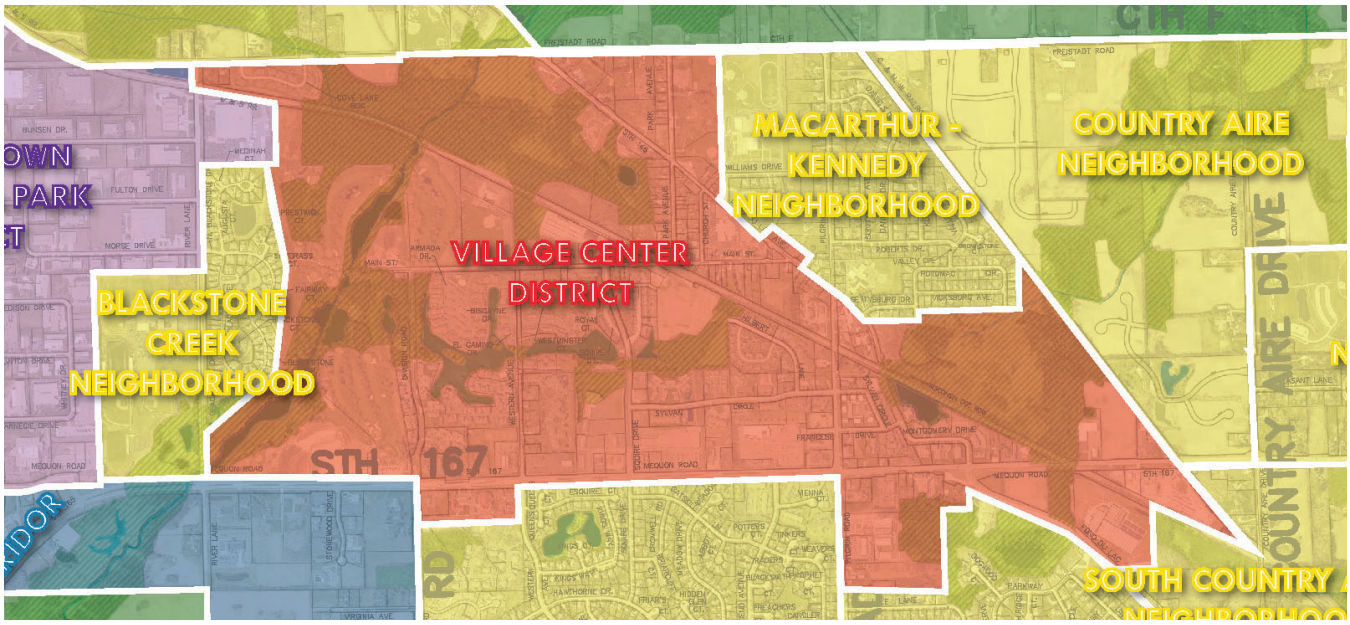
Keeping land development aligned with the Comprehensive Plan will require coordination between Village department staff, citizen boards and elected officials, including:

- Community Development
- Plan Commission
- Village Board
- Germantown School District

Land Use

	Objectives		Priority	Potential Action Step(s)
☐	1	Require new development to adhere to desired uses wherever possible in neighborhoods, districts, and corridors by sharing the desired uses listed during the development approval process.	Ongoing	A. Conduct a staff review of the development approval process for assessing compatibility with the Comprehensive Plan.
				B. Establish a planning task force that meets regularly to review necessary policies, guidelines, and ordinances for each Neighborhood, District, and Corridor to ensure the character of each place is preserved.
☐	2	Review and amend the Zoning Code, subdivision code, and other development regulations to implement the future Land Use policies reflected in the 2050 Comprehensive Plan.	Short term (1-3 years)	C. Create conservation subdivision regulations.
				D. Conduct working sessions with Plan Commission and other stakeholders to identify necessary code revisions and revise the zoning code matrix in the NDC chapter of this plan as necessary.
				E. Develop a new Village Center Zoning District to guide future development and redevelopment including higher density and density incentives, multi-family residential, Next Generation Housing, and mixed-use commercial/residential uses.
☐	3	Establish appropriate land use transitions to ensure compatibility between existing and new land uses.	Short term (1-3 years)	F. Develop zoning regulations to implement compatibility requirements and density policy for new uses adjacent to existing uses (ex. Lot size, bufferyards, building design, existing natural features, etc.).
			Short term (1-3 years)	G. Develop buffer requirements for all Neighborhoods, Districts, and Corridors that will see new development adjacent to existing neighborhoods and/or rural/open space districts.
☐	4	Support regional land use initiatives that impact Germantown and coordinate with adjoining municipalities to investigate, implement, and support mutually beneficial and cost-effective programs and initiatives that will positively impact the Village of Germantown, e.g. land use, shared services, etc.	Ongoing	H. Maintain regular contact with regional agencies such as Washington County and SEWRPC.
☐	5	Develop and adopt detailed Land Use Plans for each neighborhood, district, and corridor (NDC).	Short term (1-3 years)	I. Prioritize and develop program to complete detailed plans for each NDC.

Village Center DISTRICT



GENERAL CHARACTER

The Village Center District is a mixed-use commercial and residential district that is predominantly developed with banking and other financial uses, medical clinics and offices, churches, veterinary uses, grocery and other retail shopping uses, the Germantown post office, other general office uses, fast-food and sit-down dining restaurants, automobile service and convenience stores, the Village Hall, Library and Police Department campus. Residential uses widely vary in type and density throughout the district but include single-family lots north of Main Street with Rs-4 zoning (2.2 DU's/acre with minimum 20,000 sqft lots), Rs-5 (2.9 DU's/acre with min. 15,000 sqft lots), and Rs-6 (3.5 DU's/acre with min. 12,500 sqft lots). Multi-family condominiums and apartment-style rental units with Rm-2 (8.0 DU's/acre) and Rm-3 zoning (10.0 DU's/acre) are located south of Main Street from Division to Pilgrim Road. There are a few existing industrial uses on the east end of the district along Mequon Road near the WSOR and CN railroads.

SPECIAL FEATURES

Transportation The Village Center District is in the middle of the Village and is generally bounded by Freistadt Road to the north, Mequon Road to the south, the Menomonee River to the west and Pilgrim Road to the east (except for an area extending easterly to the Canadian-National railroad). The district has access to all parts of the Village by the main east-west roadways, e.g., Mequon Road, Fond du Lac Ave and Main Street, as well as the main north-south roadways, e.g., Division Road, and Pilgrim Road.

Environmental, Natural & Agricultural The Menomonee River and associated environmental corridor runs through the Blackstone Creek golf course on the west side of the district. The ponds in the Lake Park residential area are also tributary to the Menomonee River.

Public Park, Education, Safety & Utility The historic Main Street area is in the Village Center district. Firemen's Park, Fire Station No. 1, the Village's Senior Center and the Blackstone Creek golf course are in the district. The entire district is served by Village sewer and water.

The Village Center is intended to serve as the heart or central place within the community. The two primary circulation routes, Main Street and Mequon

PREFERRED FUTURE LAND USE

Village Center District

Preferred Future Land Uses												Enviro Corr.	SSA	Preferred Site Design			Maximum Density (residential uses)
Existing Uses (+ existing non-conforming zoning) See NOTE 5 for details	Residential: Single Family	Residential: Two to Four Family	Residential: Multi-family / Senior	Mixed-Use: Commercial / Residential	Mixed-Use: Commercial / Industrial	Commercial (includes "Activity Centers")	Institutional	Open Space & Recreational	Mineral Extraction	Industrial	Agricultural / Hobby Farming / Agribusiness	Contains an Environmental Corridor?	Sewered? (Y/N/Partial)	Traditional Neighborhood	Suburban Subdivision	Conservation Subdivision**	Dwelling Units / Acre See NOTE 4 for details
A	A	A	D	D	u	D	A	D	u	u	u	Yes	Yes	D	A	U	SF:2.9 units/ac 2-4F: 6 units/ac 25 units/acre

Road, are envisioned to be better connected through a combination of infrastructure improvements and redevelopment. The Village Center District is intended to continue as a mixed-use commercial and residential district but reinvigorated with more placed-based, pedestrian-friendly design elements. Improvements to Main Street and Pilgrim Road should continue to emphasize the conversion of existing buildings to entertainment, retail, and high-density residential uses that would service existing residents as well as draw visitors from the region. Historic and architecturally significant buildings should be preserved, and curb cuts and off-street parking areas minimized or placed in the rear of properties.

Opportunities exist at major intersections along Mequon Road for mixed-use redevelopment inclusive of outdoor gathering spaces. This shift from auto-dominant site design to "place-based" development should be emphasized with existing and future commercial property owners (see opportunity area scenarios included for the Village Center District). Multi-family residential development is acceptable in a traditional pattern of development up to densities

D =	**Desirable** – These uses should be encouraged because they are consistent with, support, and enhance the desired character of the area.
A =	**Allowable** – These uses are generally considered appropriate for the area, but may require additional consideration and/or specific modification or developed features to be compatible with other uses in the area.
u =	**Undesirable** – These uses should not be encouraged but may still be acceptable for the area under special circumstances.

of 25.0 DU's/acre and is encouraged to be developed as part of an overall mixed-use development. Park and open space uses are desirable, particularly those with a river-orientation abutting the Menomonee River corridor, including the area currently used for the Blackstone Creek golf course.

See the Economic Development Section of this Plan for more information on future land uses within the Village Center District.

The Village has intentions to adopt a new "Village Center" zoning district to guide development within the district consistent with the parameters in Section 6, "Opportunity Areas", and the 2018 "Saxony Village Connectivity Plan".

See all notes on page 42.

Village Center District

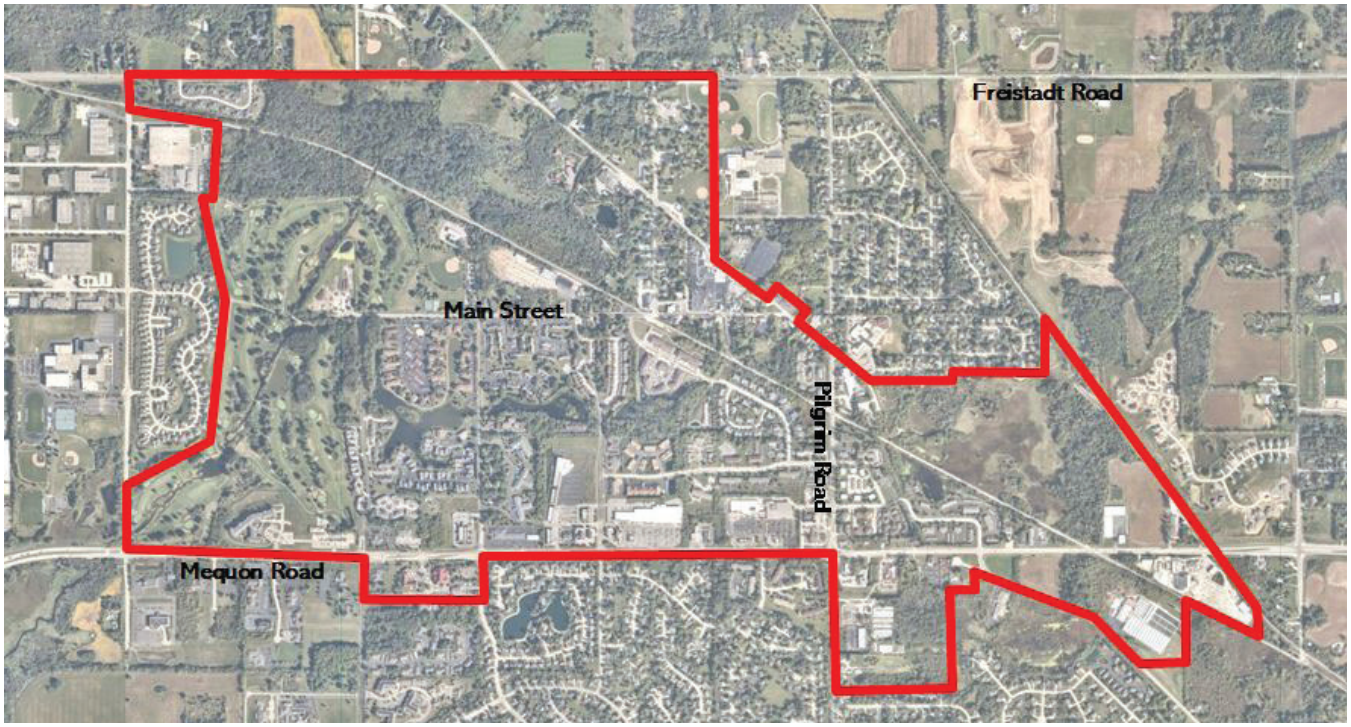
Germantown's Village Center has historically served as the heart of the community - a central place for gathering, shopping, and living close to amenities. Over the past years, development in this area has separated the historic main street area from the primary transportation corridors, and very little pedestrian infrastructure exists to connect residents to walkable destinations. The future vision for the Village Center district is to better connect Main Street with Mequon Road through pedestrian and bicycle infrastructure improvements along roadways and the addition/enhancement of multi-use paths.

Village residents and stakeholders have also identified the need for new mixed-use, walkable development patterns in the Village Center District. Redevelopment at any of the intersections along Mequon road could be designed with new housing options and outdoor gathering spaces in mind. Possible redevelopment nodes are identified for the area as well as more detail about a public-private partnership that could bring mixed use housing, retail, and active open space development to Germantown's Village Center.

Finally, residents and stakeholders have clearly identified another overarching goal of development and infrastructure improvements in the Village Center: to better connect to the Menomonee River and the surrounding environmental areas, and to ensure that the river remains accessible for recreation and education as well as protected for long-term sustainability.

The following pages include a summary of key issues that exist within the Village Center as it exists today, as well as guiding principles that the Village should apply to any future redevelopment proposed for the area. To assist the Village in evaluating development proposals, two redevelopment scenarios are included. These scenarios should be considered as illustrations, not a mandated regulation. The scenarios have a very clear illustration of a desired outcome, but the Village must also allow changes to accommodate the desires of specific developers and investors.

Figure 6.2 – Village Center Planning Boundary



Creating A Village Center

An analysis of the existing Village Center identified the following key issues:

- The existing land uses are destination-driven uses and include little-to-no synergies with adjacent uses.
- Existing residential development is disconnected from Village Center destinations.
- It is difficult or unpleasant to walk or bike from one business to the next, thus people who use this area will generally only visit one business and leave.
- There isn't a sense of arrival or central identity to Village Center.
- Main Street lacks connection to adjacent uses and is in need of streetscape enhancements.
- A number of uses exist that are not typically present in "downtown" areas and do not contribute to the attractiveness of the Village Center.

The Village Center recommendations focus on three guiding principles or elements to address the above issues: Making a Neighborhood, Making a Place, and Making Connections.

Making a Neighborhood

While the Village Center primarily caters to auto-oriented commercial uses today, the future vision looks to create a neighborhood: compact, pedestrian-friendly, and mixed-use. Traffic and visits drive success of commercial and retail centers, and providing high-density housing offers additional market, visibility and dynamics to a neighborhood.



Making a Place

Public spaces must be flexible in their design. Placemaking is a collaborative process where community members, business partners, property owners, and the Village work together to reimagine public spaces through urban design, events, and programs. The goal of placemaking projects is to help people feel more connected to places: more excited to walk to lunch, shop locally, and stay/play for extended periods of time.



Making Connections

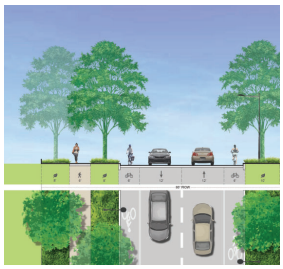
Great Village Centers are walkable, drivable, and bike-able and include a variety of civic spaces, such as complete streets, plazas, greens, and parks. The future vision looks to better connect Main Street, the Menomonee River, and Mequon Road through a combination of private sector development and public realm improvements.



Village Center Circulation: Future Vision

(see map following page)

1 Division Road
Painted/striped bike lanes and sidewalk to be added.



2 Sylvan Cir
Shared lane markings, on street parking with differentiated pavement, and sidewalks to be added.



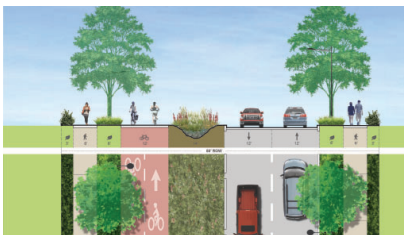
3 Main Street (Downtown)
Highly designed street with pedestrian focus.



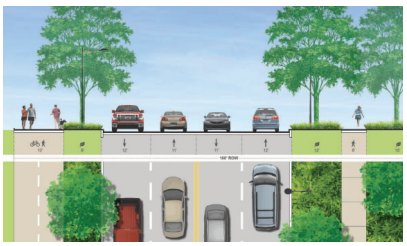
4 Western Ave
Sidepath and sidewalks to be added.



5 Squire Drive
Sidepath and sidewalks to be added.

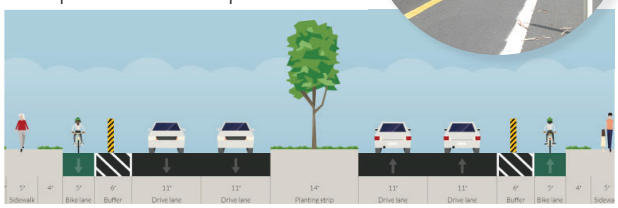


6 Pilgrim Road
Sidepath and sidewalks to be added.



7 Mequon Road
On-street, separated (buffered) bike lanes
NOTE: Dimensions not specific to Mequon Road





8 Allee
Tree-lined multi-use trail that connects mixed-use development on Mequon Road to park and recreation uses to the north.

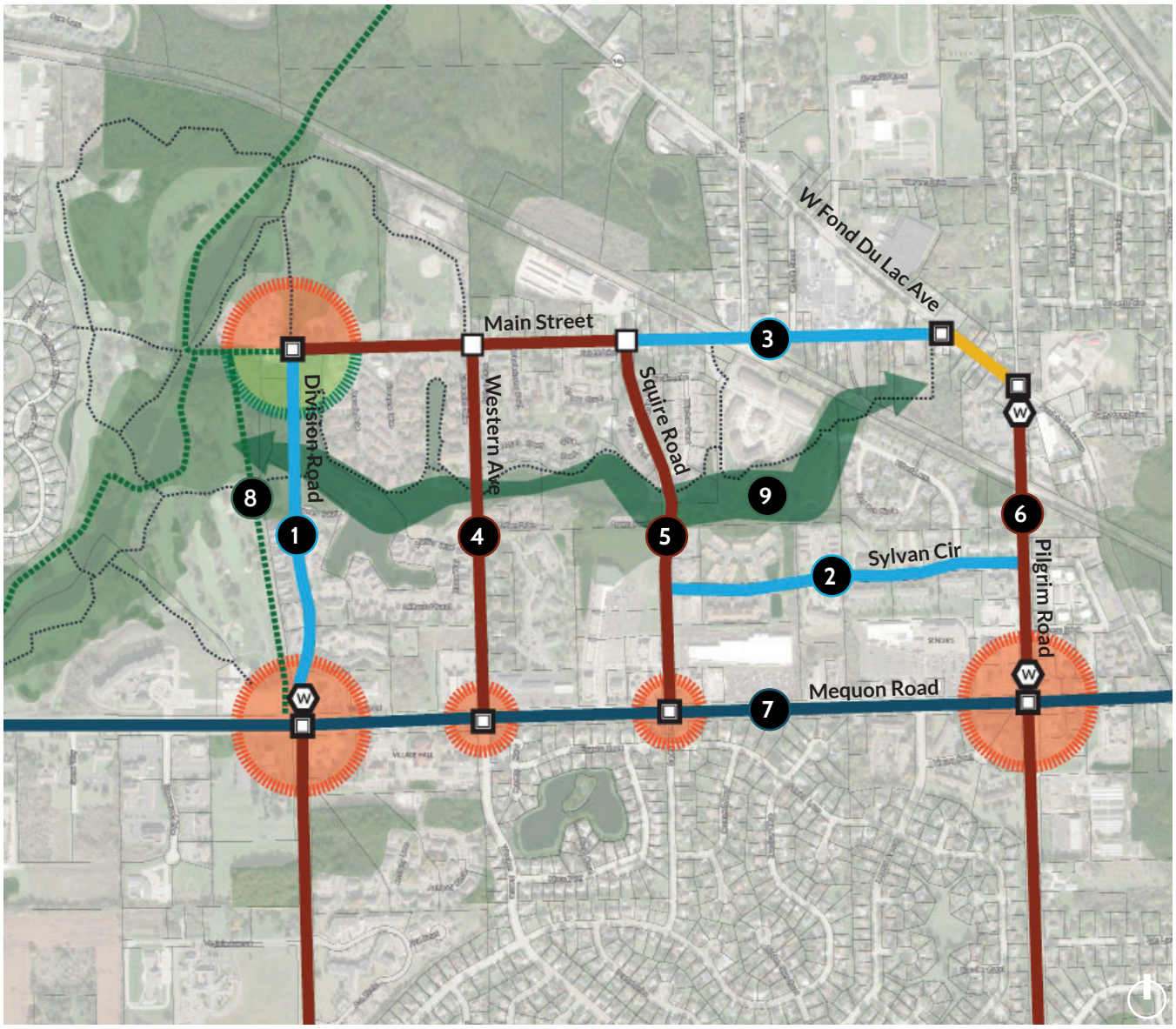


9 Secondary Trails
Combination of paved and unpaved paths that connect existing and new residents to retail and recreation destinations throughout Village Center.



▲ Cross sections taken from the 2018 Village Master Plan: Connecting Saxony Village

Figure 6.3 – Village Center - Circulation and Nodes



Sidepath

Separated Bike Lanes or Sidepath

Paved Shoulder with Sidewalk

Shared Lane Marking or Bike Lane

Paved Multi-use Trail

Secondary Trail (paved & unpaved)

Major Intersection Improvement/Enhancement

Minor Intersection Improvement/Enhancement

Wayfinding/Gateway Signage

Redevelopment Node

NOTE: All streets shall include sidewalks

NOTE: Dimensions are for planning purposed only

Village Center - Blackstone Development Node

The Blackstone Development Node, named for the existing golf course, is a critical redevelopment opportunity site. The site has high visibility and frontage on Mequon Road, it serves as the terminus or western end cap to the Historic Main Street, and it is home to the incredible natural asset that is the Menomonee River. The physical size of this area along with its location have made this site attractive for redevelopment proposals from the private sector. The Village understands the market attractiveness of this site, and the development illustration on the following page includes a desired vision that balances private sector development, community enjoyment, conservation of natural environment, and access to the Menomonee River.

Key design elements shown in Figure 6.4:

- A walkable, mixed-density development with majority multi-family housing stock (apartments & townhomes).
- Active retail/hospitality uses with residential above in the area visible from Mequon Road.
- Highly-design plaza (splashpad, ice rink, etc) and outdoor seating areas adjacent to retail.
- Transition from tall, mixed-use buildings (south) to mid-rise townhomes (north).
- Duplex or single-family lots to the west.
- An intentional, linear path runs from south to north with a variety of outdoor passive and active recreation amenities. The critical site design element of this site is connecting Mequon Road to Historic Main Street. This can only be achieved through an intentional combination of built and natural environment.
- Current Village recycling center site (to be relocated) serves as a terminus point to both Historic Main Street and the proposed N-S pathway. The site should be designed to embrace this location and draw people from both directions. Housing along with community-focused retail/institutional uses should be encouraged (nature center, community center, recreation equipment rental, etc.).
- A proposed Menomonee River Trail runs through the site and includes multiple connections to existing roadways and new development
- Additional active recreational activities should be further examined depending on supply of such features elsewhere in the village.



Community Voices

"The current sidewalk network in this area is discontinuous and requires crossing Division multiple times and using the neighborhood to access the CTH Q sidewalk system. Would like to see the remainder of the sidewalk along Division connected in the future."

Figure 6.4 – Village Center - Blackstone Development Node

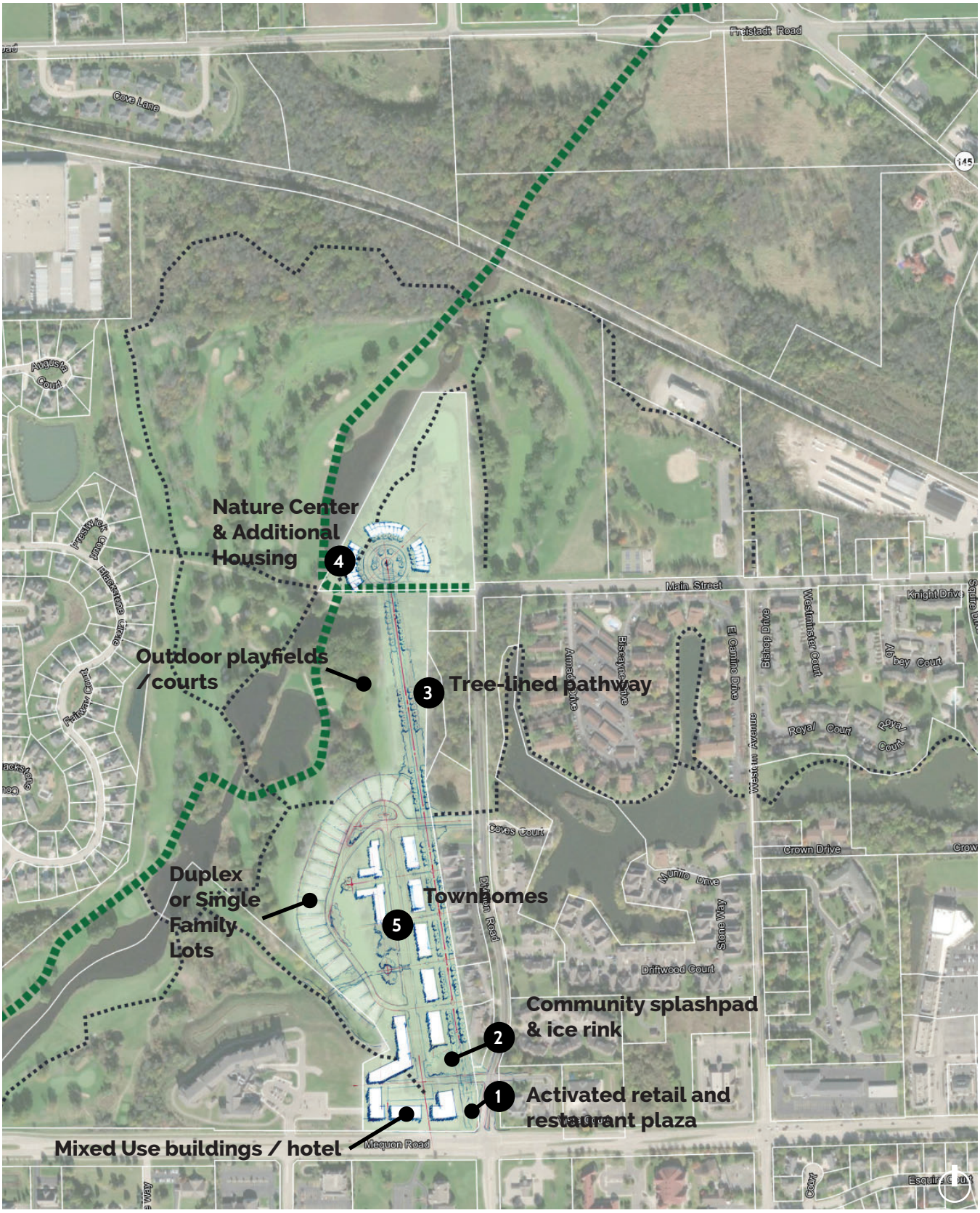
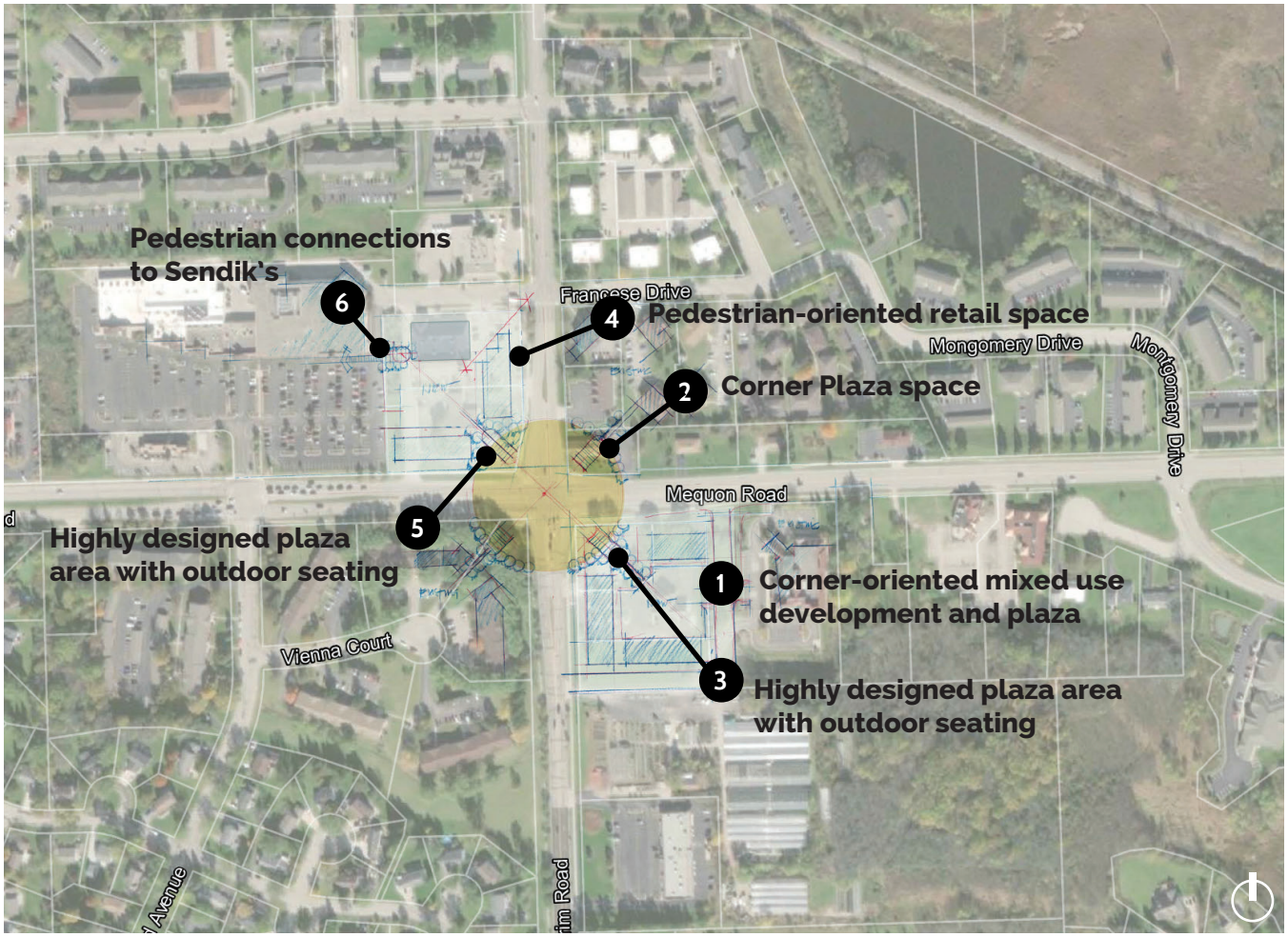


Figure 6.5 – Village Center - Mequon & Pilgrim Development Node



Traditional suburban retail centers are in need of a refresh. A reorientation from "auto-only" to "place-based, pedestrian-friendly" design is the model that thriving retail centers are embracing across the nation. Every major intersection within the Village Center along Mequon Road should look for ways to strategically place buildings that frame outdoor spaces, introduce intentional green/ landscaping (vs. left-over 9' wide parking lot islands), and allow for mixed-use buildings with residential above.



Village Center: Next Steps

In order to realize the vision for Germantown's Village Center, the Village should undertake the following:

1. **Identify key "first project" parcels for development and describe/illustrate multiple opportunities for each**: The more opportunities that can be defined as starting points for development, the more the Village can lower the risk for investors. Overly ambitious plans and visions can discourage developers as unrealistic. Investors prefer communities that show an interest in high quality development but, at the same time, show flexibility and pragmatism in the types of projects they consider desirable. Put another way, investment proposals invariably differ from predetermined community-based "visions". When such differences occur, the community must express a willingness to negotiate in order to help investors maintain financial success and still meet the Village's long-term vision.

2. **List the key existing conditions (constraints and opportunities) for each parcel**: Key parcel attributes might include traffic counts, current zoning (and the ability to modify zoning), environmental conditions that may be problematic, utilities and access points, transit, other proximity to other local features (both advantages and disadvantages).

3. **Create a phasing plan for infrastructure improvements:** Prioritize infrastructure enhancements that will better connect Main Street with the Menomonee River and Mequon Road.

4. **Document current available subsidies as well as additional subsidies the Village could pursue:** Typically, this includes current TIF districts and the willingness to create new TIF districts as needed. Additional programs and incentives should be explored with an emphasis on mixed-use redevelopment and active pedestrian spaces.

5. **Describe what the Village wants in terms of both short-term and long-term missions:** The key point to emphasize with investors is that the Village's mission is broader and long-term. Consequently, any initial proposals will be evaluated in terms of how easily they support both initial success as well as future long-term options that can be adapted to fit the Village's long-term vision.

6. **Conduct one-on-one meetings with property owners to determine interest in sale or redevelopment of their land:** Create a simple, easy-to-review executive summary that can be used in emails and hard copy handouts. Staff/consultants conducting the interview should have a portfolio of additional information concerning examples and possibilities the Village would like to see.

7. **Evaluate existing regulations and design guidelines:** Amend existing zoning districts, or develop an overlay zoning district, that provides specific regulations and expectations for future development in this area (ex. updated design guidelines with an emphasis on pedestrian space design, prohibit uses such as gas stations that are against desired vision for the area, etc.)

Holy Hill Gateway District/ Freistadt District

The land surrounding Holy Hill Road to the north and south has been in demand for new industrial development and growth in the Village. New businesses in this area include the Gateway Corporate Park, Capstone 41 Business Park, Dielectric Manufacturing, and Illing Packaging, which are located north of Holy Hill Road and west of Goldendale Road. It is anticipated that this demand will continue, and that more development and land conversion from agricultural to industrial land use will take place as a result. However, the exact areas that should be developed as part of the emerging industrial park is in question, as well as the design of those industrial buildings themselves.

As the Village plans future land use in this area, important considerations include the existing residential development to the southeast of the industrial development, the fact that much of the area already falls within the Village's sewer service area, and the desired character of the Holy Hill and Goldendale Road corridors, both for vehicles and for cyclist and pedestrians.

Through the comprehensive planning process, the Village has determined that the land in this area should be developed as a combination of Light Industrial, Commercial Warehousing, and High Density Multi-family Residential, primarily. Commercial development, potentially including multifamily housing if it is developed alongside community amenities and with a walkable format, is also a potential use along I-41. Medium Density Residential areas are envisioned as conservation subdivisions, which allow clustering of residential lots around areas of environmental areas. These districts are also deemed suitable for potential "next generation" housing opportunities provided that the Village qualifies under the Washington County's regional affordable housing ownership initiative. These subdivisions will allow a transition in development intensity between the industrial uses and the more rural and agricultural residential areas in this part of the Village.

Additionally, the area includes a vision for a regional trail network along existing environmental corridors and newly created regional stormwater corridors. This trail network will serve as an amenity to existing and future uses and serve as a physical connection for residents and businesses to the Village Center.

Community Voices

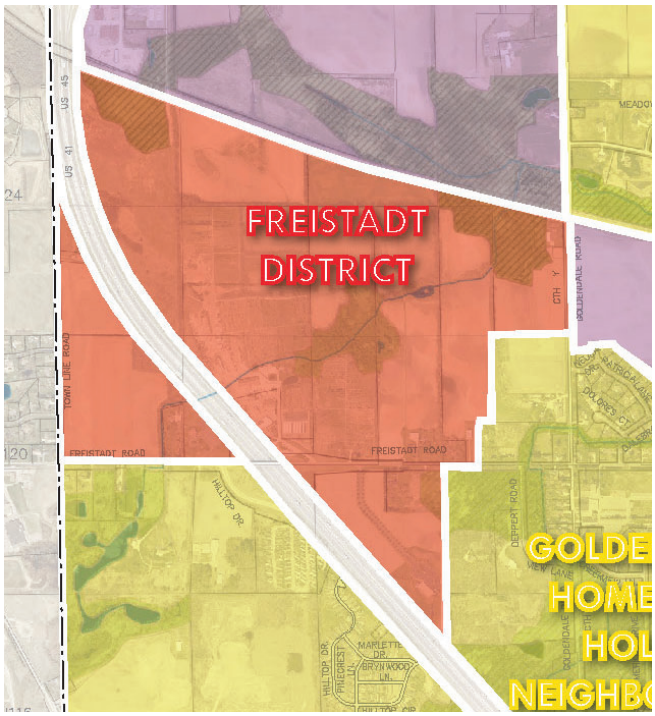
I understand the Holy Hill area is designated industrial...which is fine. I think it can be more thoughtful when looking at architectural styles, green space setbacks and parking in the rear of the buildings off the road. Include water features and walking paths in the front of the buildings in the green space. It would make a much more desirable area for all.

Next Steps

In order to realize the vision for this area of Germantown, the Village should undertake the following:

1. Develop a master plan for the Holy Hill/Freistadt Road area that includes the following elements:
   - Street and Block framework
   - Preferred Future Land Use
   - Regional stormwater concept plan
   - Trail and Open Space plan
   - Regulations and Design Guidelines
   - Funding & Incentives
2. Adopt the master plan as an amendment to the Comprehensive Plan.
3. Re-zone. Develop a new zoning district, or develop an overlay zoning district with design guidelines that will provide specific regulations and expectations for future development in this area, based on the master plan.
4. Engage with the development community to determine interest in the area and further refine proposed development patterns in response to specific needs of tenants.

Freistadt DISTRICT



GENERAL CHARACTER

The Freistadt District is predominantly undeveloped but intended to be a mixed-industrial district comprised predominantly of light industrial uses, warehouse, corporate office uses, and service-commercial uses. A portion of the district lies within Tax Incremental District (TID) No. 7. The District is almost entirely undeveloped. Existing uses include the D.J. Frank nursery and landscaping services operation and the Germantown Mutual Insurance campus. Existing zoning in the district is predominantly A-1: Agricultural.

SPECIAL FEATURES

Transportation The Freistadt District is bounded by I-41/Town Line Road to the west, the WSOR railroad to the north, Goldendale Road to the east and Freistadt Road to the south (except for the Germantown Mutual Insurance campus immediately south of Freistadt Road). Freistadt Road does not currently have an interchange with I-41.

Environmental, Natural & Agricultural Goldendale Creek bisects the district from west to east as part of an environmental corridor south of the railroad.

Public Park, Education, Safety & Utility A majority of this district is not located within the Sewer Service Area (SSA) however is located within the Potential Sewer Service Area, given the existing water and sewer facilities abutting the district, and, the potential extension of facilities to the Village of Richfield.

PREFERRED FUTURE LAND USE

Freistadt District

Preferred Future Land Uses												Enviro Corr.	SSA	Preferred Site Design			Maximum Density (residential uses)
Existing Uses (+ existing non-conforming zoning) See NOTE 5 for details	Residential: Single Family	Residential: Two to Four Family	Residential: Multi-family / Senior	Mixed-Use: Commercial / Residential	Mixed-Use: Commercial / Industrial	Commercial (includes "Activity Centers")	Institutional	Open Space & Recreational	Mineral Extraction	Industrial	Agricultural / Hobby Farming / Agribusiness	Contains an Environmental Corridor?	Sewered? (Y/N/Partial)	Traditional Neighborhood	Suburban Subdivision	Conservation Subdivision**	Dwelling Units / Acre See NOTE 4 for details
A	A	A	D	D	D	A	A	A	u	D	u	Yes	Yes	-	-	-	SF:2.9 units/ac 2-4F: 6.0 U/ac MF:25 units/ac

The Freistadt District is intended to develop as an industrial, warehousing and mixed-use commercial district with light industrial, warehouse, corporate office and service-related commercial uses. The potential for mixed-use commercial with high-density residential could be appropriate for land adjacent to Freistadt Road and I-41. Single-family development at a density of 2.9 units/acre would also be appropriate.

See the Economic Development Section of this Plan for more information on future land uses within the Freistadt District.

D =	**Desirable** – These uses should be encouraged because they are consistent with, support, and enhance the desired character of the area.
A =	**Allowable** – These uses are generally considered appropriate for the area, but may require additional consideration and/or specific modification or developed features to be compatible with other uses in the area.
u =	**Undesirable** – These uses should not be encouraged but may still be acceptable for the area under special circumstances.

See all notes on page 42.

Holy Hill Gateway District/ Freistadt District

The land surrounding Holy Hill Road to the north and south has been in demand for new industrial development and growth in the Village. New businesses in this area include the Gateway Corporate Park, Capstone 41 Business Park, Dielectric Manufacturing, and Illing Packaging, which are located north of Holy Hill Road and west of Goldendale Road. It is anticipated that this demand will continue, and that more development and land conversion from agricultural to industrial land use will take place as a result. However, the exact areas that should be developed as part of the emerging industrial park is in question, as well as the design of those industrial buildings themselves.

As the Village plans future land use in this area, important considerations include the existing residential development to the southeast of the industrial development, the fact that much of the area already falls within the Village's sewer service area, and the desired character of the Holy Hill and Goldendale Road corridors, both for vehicles and for cyclist and pedestrians.

Through the comprehensive planning process, the Village has determined that the land in this area should be developed as a combination of Light Industrial, Commercial Warehousing, and High Density Multi-family Residential, primarily. Commercial development, potentially including multifamily housing if it is developed alongside community amenities and with a walkable format, is also a potential use along I-41. Medium Density Residential areas are envisioned as conservation subdivisions, which allow clustering of residential lots around areas of environmental areas. These districts are also deemed suitable for potential "next generation" housing opportunities provided that the Village qualifies under the Washington County's regional affordable housing ownership initiative. These subdivisions will allow a transition in development intensity between the industrial uses and the more rural and agricultural residential areas in this part of the Village.

Additionally, the area includes a vision for a regional trail network along existing environmental corridors and newly created regional stormwater corridors. This trail network will serve as an amenity to existing and future uses and serve as a physical connection for residents and businesses to the Village Center.

Community Voices

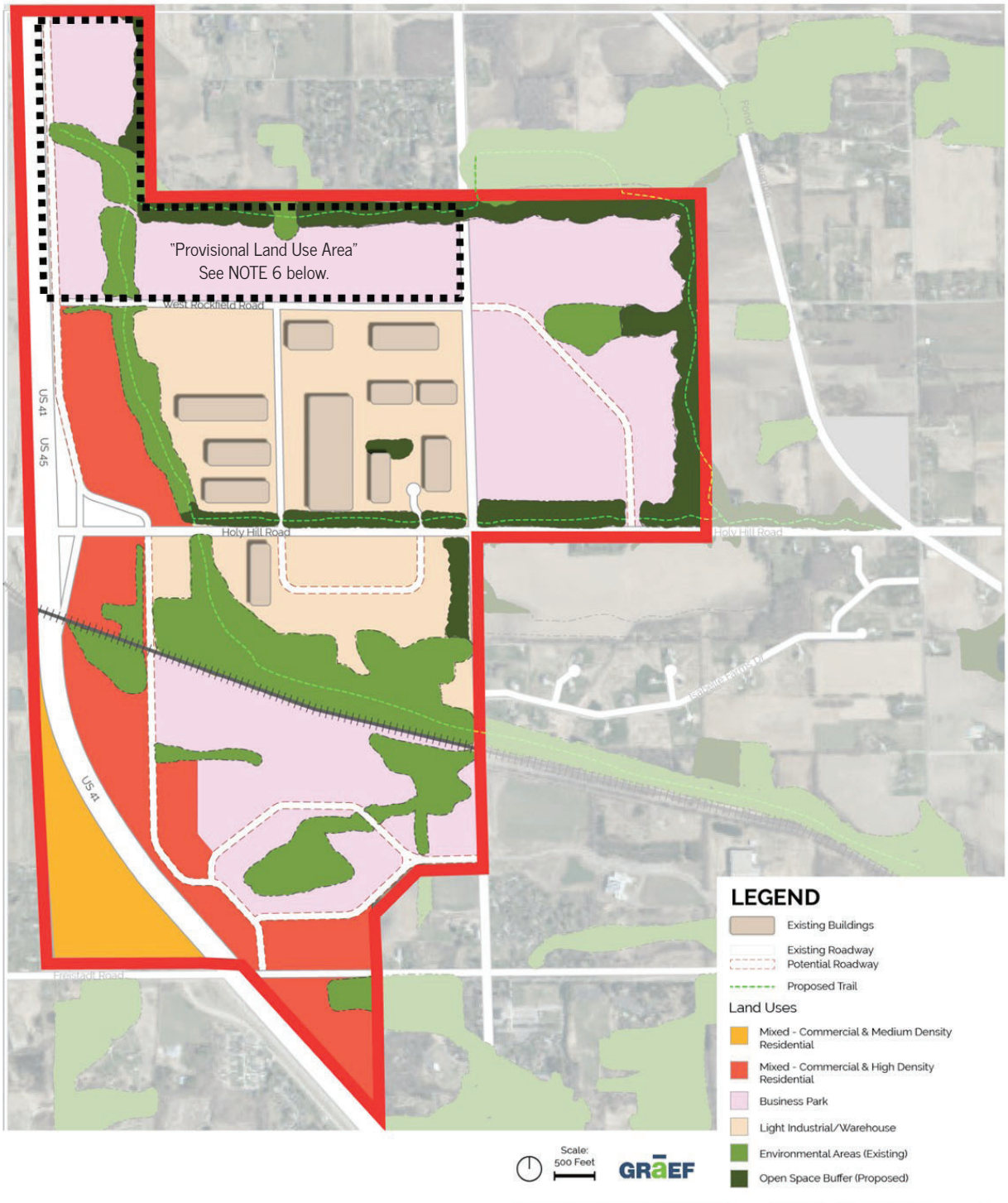
I understand the Holy Hill area is designated industrial...which is fine. I think it can be more thoughtful when looking at architectural styles, green space setbacks and parking in the rear of the buildings off the road. Include water features and walking paths in the front of the buildings in the green space. It would make a much more desirable area for all.

Next Steps

In order to realize the vision for this area of Germantown, the Village should undertake the following:

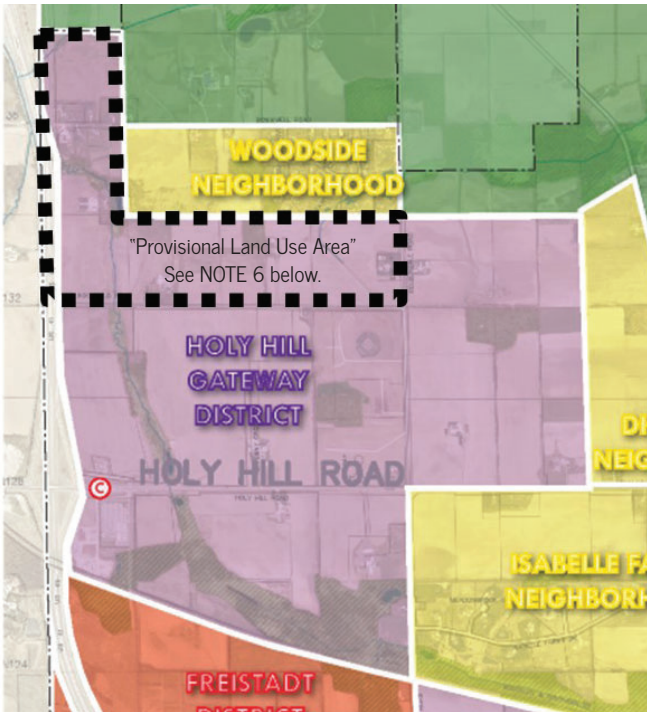
1. Develop a master plan for the Holy Hill/Freistadt Road area that includes the following elements:
   - Street and Block framework
   - Preferred Future Land Use
   - Regional stormwater concept plan
   - Trail and Open Space plan
   - Regulations and Design Guidelines
   - Funding & Incentives
2. Adopt the master plan as an amendment to the Comprehensive Plan.
3. Re-zone. Develop a new zoning district, or develop an overlay zoning district with design guidelines that will provide specific regulations and expectations for future development in this area, based on the master plan.
4. Engage with the development community to determine interest in the area and further refine proposed development patterns in response to specific needs of tenants.

Figure 6.6 – Holy Hill Gateway & Freistadt District - Future Land Use Vision



NOTE 6:	Land use within the "Provisional Land Use Area" shall be consistent with the former 2020 Land Use Plan "Agricultural/Conservation Residential" designation that allows agricultural use and single-family residential use with a maximum density and minimum lot size of 1 dwelling per 5 acres. See Holy Hill Gateway District Profile in Chapter 5 for details on Master Planning.

Holy Hill Gateway DISTRICT



GENERAL CHARACTER

The Holy Hill Gateway District is predominantly undeveloped but intended to be an industrial and mixed-use commercial district comprised predominantly of light industrial uses, warehouse, corporate office uses, and service-commercial uses. A portion of the district lies within Tax Incremental District (TID) No. 8. Existing development includes personal storage and highway-oriented commercial uses at the Holy Hill road interchange, a trucking and warehouse operation at the Holy Hill @ Goldendale Road intersection, and light industrial and warehousing uses in the Gateway Corporate Park north of Holy Hill Road and west of Goldendale Road. The existing zoning of the currently undeveloped parcels in the district is predominantly A-1: Agricultural.

SPECIAL FEATURES

Transportation The Holy Hill Gateway District is located at the Holy Hill Road interchange with I-41. The district is generally bounded by I-41 to the west, the Woodside neighborhood to the north, the Dheinsville Neighborhood to the east, and the WSOR railroad to the south.

Environmental, Natural & Agricultural Goldendale Creek, a tributary to the Menomonee River, and associated environmental corridor runs along the north side of the WSOR railroad in the southern part of the district. Rockfield Creek, a separate tributary to Little Cedar Creek, runs north-south through the district parallel to I-41.

Public Park, Education, Safety & Utility Village sewer and water currently serves a portion of the Holy Hill Gateway District. The system has capacity to serve the entire district upon further extension.

PREFERRED LAND USE

The Holy Hill Gateway District is intended to develop as an industrial, warehousing and mixed-use commercial district with light industrial, warehouse, hospitality, corporate office uses. Community-scale retail and service-related commercial uses are intended to locate at the Holy Hill Road interchange (except for "big box" retail) and neighborhood-type commercial uses at the Holy Hill Road/Frontage Road intersection. The potential for mixed-use commercial with high-density is desirable for land adjacent to and along the I-41 corridor. See the Economic Development Section of this Plan for more information on future land uses within the Holy Hill Gateway District.

Industrial and Warehousing Development in the Holy Hill Gateway District created potentially negative impacts on the surrounding rural areas. Residents and property owners demand that future industrial, warehousing, and commercial development not expand beyond Rockfield Road to the North and Goldendale Road to the East. In addition, residents have requested that regardless of where the ultimate district boundary is established, the Village needs to develop specific and substantial setback and buffering requirements for future development of the land within the district that is

PREFERRED FUTURE LAND USE

Holy Hill Gateway District

Preferred Future Land Uses												Enviro Corr.	SSA	Preferred Site Design			Maximum Density (residential uses)
Existing Uses (+ existing non-conforming zoning) See NOTE 5 for details	Residential: Single Family	Residential: Two to Four Family	Residential: Multi-family / Senior	Mixed-Use: Commercial / Residential	Mixed-Use: Commercial / Industrial	Commercial (includes "Activity Centers")	Institutional	Open Space & Recreational	Mineral Extraction	Industrial	Agricultural / Hobby Farming / Agribusiness	Contains an Environmental Corridor?	Sewered? (Y/N/Partial)	Traditional Neighborhood	Suburban Subdivision	Conservation Subdivision**	Dwelling Units / Acre See NOTE 4 for details
A	u	u	D	D	D	A	A	A	u	D	u	Yes	Yes	-	-	-	25 units/acre

adjacent to the Rural Preservation District, Woodside Neighborhood, Dheinsville Neighborhood, and Isabelle Neighborhood. The Village intends to develop and adopt specific setback, buffering, lighting, noise, and other development requirements in the Zoning Code to mitigate potential negative impacts associated with future development in this and other districts.

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Master Planning A detailed master plan will be developed for the Holy Hill Gateway District (see Implementation Plan: Economic Development Objective #1). Until the master plan is prepared and incorporated into the Future Land Use component of the 2050 Comprehensive Plan, the preferred land uses allowed in and future development of the area bounded by Rockfield Road, Goldendale Road, the Woodside Neighborhood, the Town of Germantown, and I-41 shall be limited to only the land uses and development allowed under the "Agricultural/ Conservation Residential" land use designation in the former 2020 Comprehensive Plan (see "Provisional Land Use Area" as shown on the Future Land Use Map). The "Agricultural/Conservation Residential" designation allows agricultural uses and single-family residential uses with a maximum density and minimum lot size of 1 dwelling per 5 acres.

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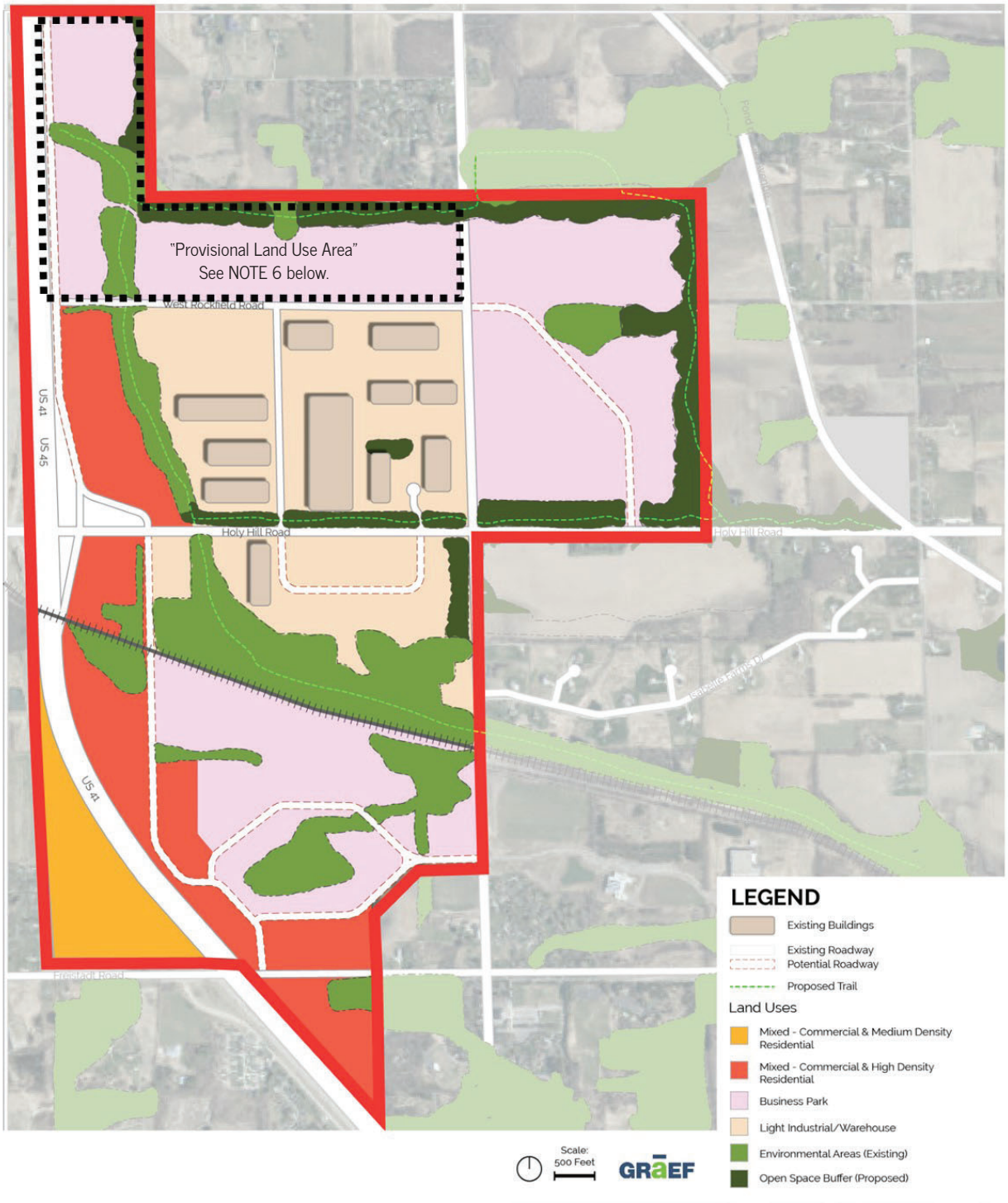
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Residential Market Analysis
--- Strategy Planning Guidelines ---
Mukwonago, Wisconsin

Prepared on behalf of:

Village of Mukwonago
440 River Crest Ct.
Mukwonago, WI

August 10, 2021

TRACY CROSS & ASSOCIATES, INC.
REAL ESTATE MARKET ANALYSIS
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SCHAUMBURG, IL 60173
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TRACY CROSS & ASSOCIATES, INC.

INTRODUCTION

At the request of the Village of Mukwonago, Tracy Cross & Associates, Inc. evaluated the market potential for residential development initiatives throughout Mukwonago, Wisconsin – a southwest suburb of Milwaukee. Specifically focusing upon new construction market rate housing opportunities throughout the municipality, this analysis establishes the following:

- Conclusions regarding the depth of the market for new housing development throughout Mukwonago based upon pertinent economic, demographic, and residential trends which define the marketplace.

- Conclusions regarding highest-and-best residential uses within the village over the next 5+ years. These conclusions are based upon factors associated with the location of Mukwonago, the depth of the market, demographic and socio-economic characteristics of existing and future households, and the alignment of residential developments, both existing and planned.

- Detailed recommendations regarding those conventional housing forms viewed to hold measurable market support near- to mid-term. Investigative uses range from multifamily rental apartments to all forms of for sale housing such as condominiums, townhomes/rowhomes, single family, etc. These recommendations address specific product types, plan styles/sizes, features/amenities, etc., along with benchmark rent/pricing strategies necessary to achieve acceptable levels of absorption. Please note that these recommendations will focus on all segments of the conventional market ranging from younger (entry level) profiles to active adult (55+) households.

- A detailed development matrix outlining the most marketable mix of residential uses in order to facilitate/inform future planning efforts, architecture, financial modeling, approvals, marketing, builder/developer participation, etc.

- A geographic positioning strategy for the introduction of new housing development in Mukwonago over the next 5+ years.

WORK PLAN

The work plan for this assignment involved a series of inter-related research investigations as outlined below:

- A thorough investigation of Mukwonago and surrounding areas to determine geographic boundaries of the local market area; identify factors which may impact residential potentials within the municipality: and examine areas that may be suitable for residential development.

- An analysis of all relevant employment, demographic and residential construction trends and statistics including an evaluation of key socio-economic variables of area households.

- An audit of selected new construction residential alignments in the defined market area in order to assess the competitive environment, together with a detailed evaluation of the existing home market.

- A case study evaluation of “like” residential initiatives throughout various markets of the Midwest in order to assess trends, products, performance levels, etc.

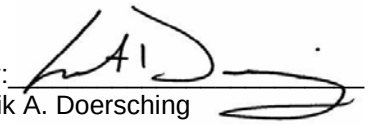
THE REPORT

This report is divided into three sections which integrate economic, demographic, and competitive data. Of particular importance is **Section 1** which characterizes the village of Mukwonago and its environs and forwards detailed conclusions and recommendations regarding the highest and best residential development opportunities going forward. Not to be dismissed, however, are the remaining two sections which can be defined as *fundamentals.* **Section 2**, for instance, provides an outlook for future conventional housing demand in the market area based upon all demand-related variables, while **Section 3** presents a thorough analysis of the study area's conventional residential marketplace.

CERTIFICATION AND SIGNATURE

This analysis represents our objective and independent opinion regarding the market potential for future housing development within the village of Mukwonago as certified below:

TRACY CROSS & ASSOCIATES, INC.
An Illinois Corporation

By: 
Erik A. Doersching

Its: Executive Vice President and
Managing Partner

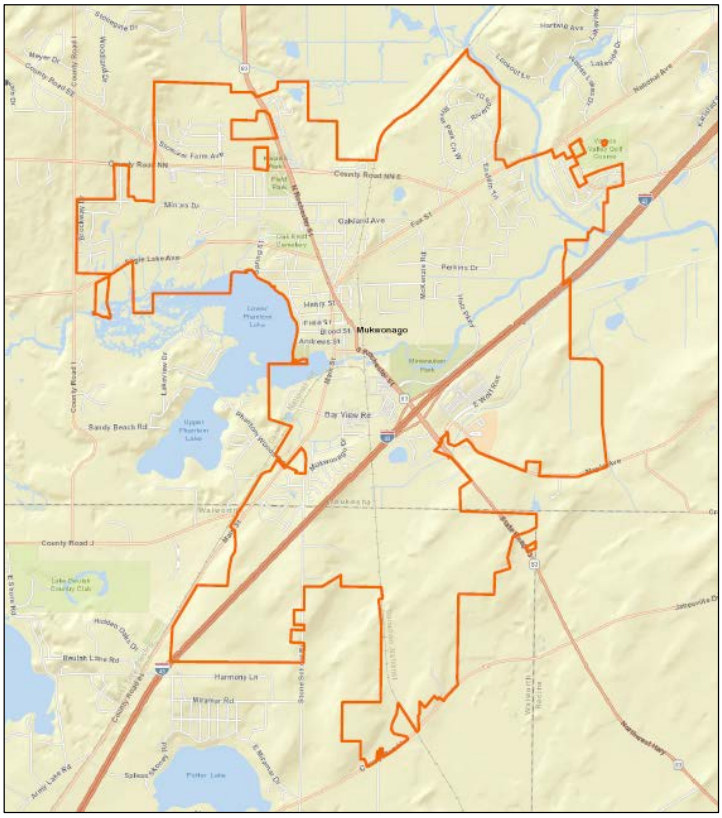
Date: August 10, 2021

1. *A FRAMEWORK FOR PLANNING*

Mukwonago is a self-contained village in the southern reaches of the Milwaukee metropolitan region which maintains its own localized employment base, yet also represents a bedroom community serving employment centers outside of the immediate area. The average travel time to work for a Mukwonago resident currently stands at 25.5 minutes, yet 22 percent of all residents work locally.

The village of Mukwonago currently spans 8.11 square miles. It is enhanced by its alignment with Upper and Lower Phantom Lake(s), both of which are located along the municipality's western perimeter. Most of the village is located in Waukesha County, although a small portion extends into Walworth County. Mukwonago contains a current (2021) population base of 8,195 persons distributed among 3,232 households. Just outside the village limits to the north/northwest, the town of Mukwonago supports another 8,000+/- persons distributed among 2,800+/- households.

MUKWONAGO, WISCONSIN: VILLAGE BOUNDARIES



Source: Environics Analytics

Mukwonago is well-served by regional transportation systems, primarily Interstate 43, which is accessible within minutes from most points within the village. This major expressway, which connects with other Milwaukee area arterials to the north, facilitates movement throughout the Milwaukee region linking area residents with major sources of employment in both the southwest and western suburbs of Milwaukee, along with the city of Milwaukee including downtown Milwaukee 25 miles to the east/northeast and General Mitchell International Airport 22 miles to the east. Via I-43 and its connections with WI-64 six miles north of Mukwonago, employment centers in the Waukesha-Brookfield area (where close to 70,000 jobs are represented) are reachable within 20-25 minutes.

Mukwonago's own economic base is diversified including various professional and business services, financial institutions, local government and educational sectors, healthcare/insurance, commercial/retail, and manufacturing led by the presence of Aptar – a major employer servicing the energy industry and located within the Mukwonago Industrial Park. Also anchoring Mukwonago's economic base is the large-scale, state-of-the-art D.N. Greenwald Center (ProHealth Care) Hospital located along the south (east) side of I-43, just north (east) of WI-83 in the Gateway Center retail/commercial campus.



Equally important is the availability of *in-place* shopping facilities. Within minutes of most areas within the village, residents can find virtually all major retail categories and service providers ranging from grocery, gas, restaurants, convenience items to various "big box" venues such as Home Depot and Walmart Supercenter, which are also situated within the Gateway Center retail/commercial campus. Additionally, within the heart of Mukwonago is a small, but notable downtown business/shopping/dining district in and around the intersection of Main and Rochester streets, which provides an element of downtown/small town charm.

Mukwonago supports a highly regarded school system. At the primary level, students attend several different elementary schools, along with Park View Middle School. Among all primary facilities, student test scores are *above* state averages. Secondary education is provided by Mukwonago High School. Statistics available for the most recent school year indicated a total enrollment of just over 1,600 students. Here, too, student achievement scores were considerably higher than state averages. In fact, students at all Mukwonago schools recently recorded accountability scores that earned each of them either an "*Exceeds Expectations" or* "*Significantly* E*xceeds Expectations"* ranking from the Wisconsin Department of Public Instruction.



Largely due to an excellent school system, together with a strong park system, annual community events and festivals, and other ancillary support mechanisms, Mukwonago was recently recognized by the "Niche" rating system as an "A" community in Wisconsin to raise a family.

Residentially, the primary housing form throughout Mukwonago consists of single family detached homes, although for sale condominiums/duplexes/townhomes can be found in various locations, along with a number of rental apartment communities, several of which are newer – as will be discussed in later sections of this report. A full 66 percent of all housing units in Mukwonago reflect single family detached residences. Among all dwelling units, 56 percent of the housing stock was constructed prior to 1990, while the remaining 44 percent has been constructed over the last 30 years. Roughly 10 percent of the current housing stock in the village has been built since 2010 including various new single family homes, condominiums and apartment residences. Overall, the village's single family inventory ranges from vintage bungalows and Victorian/Georgian-style residences (some restored/some in need of improvement), primarily in and around the downtown area, to water-oriented homes along the Phantom Lakes, to semi-custom/custom homes in larger-lot subdivisions outside of the downtown area. Attached sector (condominium) communities and rental apartment developments scattered throughout the village consist of various product types (targeting multiple market segments), some with water-orientation and others without.

A SUMMARY OF FINDINGS

As discussed in detail in Sections 2 and 3 of this report, future residential development potentials in Mukwonago and surrounding areas are considered strong. In other words, the village of Mukwonago is *well suited* for the introduction new *market rate* residential development over the next 5+ years including additional rental apartments and various forms of conventional for sale housing. This favorable conclusion is based upon: 1) more than adequate demand support for a variety of new construction housing alternatives; 2) notable supply-side constraints; 3) an ample base of existing (and future) households with strong demographic profiles; 4) tightness (and certain disjointedness) in both the rental and for sale sectors of the market; 5) an excellent school system; 6) in-place employment, transportation, shopping/services, entertainment and recreation; and 7) the opportunity to introduce new and differentiated housing product in a market where such product is needed.

Overall, the village of Mukwonago is in a position to help guide future residential development efforts in a direction of discipline and insight as it relates to specific products that meet the demands of the market relative to unit types/styles, and most importantly, rent/price positioning.

A PLANNING STRATEGY – THE PRODUCT

With a housing market showing growth potential during the next several years, and especially considering the supply-side constraints that exist today, practically any ***well designed and properly positioned*** new conventional residential product form could be introduced within a number of areas throughout the municipality. However, from a strategic planning perspective, the following bullet-point summary provides specific product guidelines for establishing the most practical and marketable hierarchy of conventional housing within Mukwonago – to serve as a guide for future planning and implementation efforts as the village reviews various proposals and/or seeks development partners.

- Taking the lead from a number of successful apartment developments throughout the Midwest, including recent market entrants throughout the greater Milwaukee region, the village should give consideration to one of the most common southeastern Wisconsin mid- to higher-density density product forms, which would be appropriate for multiple locations within the core of the village, i.e., the three-over-parking design concept. The three-over parking concept, which consists of three residential floors over one level of structured parking, is not only widely accepted throughout various urban/suburban areas in the Midwest, but it represents a building configuration whereby one-to-one enclosed parking can be provided in an efficient and cost-effective manner, and at a strong density. Individual floorplans for the mid- to higher-density apartment program should be broad and varied ranging from small studio units starting around 450 square feet, extending through a variety of one- and two-bedroom alternatives, and ending with three-bedroom residences containing roughly 1,350 square feet.

- A broad mix of unit types and sizes for the mid- to higher-density apartments will allow this product to capture the full breadth of renter profiles with attentive focus directed toward Millennials, also known and Echo Boomers or Generation Y, along with Centennials, also known as Generation Z (i.e., younger singles and couples without children), together with empty-nesters and non-traditional households such as divorcees, middle-age singles, never-nested couples, singles living together as couples in a roommate condition, transitional families, etc. Overall, the pool of renters in and around Mukwonago continues to expand each year, and a broad continuum of floorplan alternatives within any mid- to higher-density apartment community will best serve the overall base of existing/future renter households.

- If elevated properly, the three-over-parking concept can exemplify tasteful, urban/suburban architecture, and be very complimentary to other development and/or redevelopment initiatives throughout the village. This product concept can also be combined with first floor retail space if offered within pedestrian-oriented areas.





- For other portions of the village, primarily those characterized as more suburban environments, consideration should also be given to introducing a very specific garden-style "private entry" apartment product with a component of attached, direct-access garages. In this regard, one of the most successful garden-style developments in the Midwest (and in southeast Wisconsin) consists of a series of eight-unit buildings (each with four direct-access one-car garages) or 16-unit buildings (each with eight direct-access one-car garages). With just 50 percent direct-access garages suggested per structure, two different versions of the garden apartment building should be designed in order for each of the individual floorplans to be offered *with a direct access garage* in one of the two building types. By following this formula, each plan offering would have a 50 percent representation of direct-access one-car garages.





- Like the mid- to higher-density apartment product, individual designs for the garden apartment product should be broad and varied consisting of one-, two- and three-bedroom options. Again, by offering a wide range of unit types and sizes, the garden development will also be in a position to capture the full spectrum of renter profiles.

- Mirroring the competitive marketplace as a whole, size increments between floorplans (for both the mid- to higher-density product and the garden-style apartments) should not exceed 150 square feet (and be narrower in most instances). This discipline will keep lease rate differentials between plans small and in concert with the gradual upward movement of household incomes.

- Complimenting the mid-density and garden-style apartment products throughout the village, and representing an architectural transition as needed, strong consideration should be given to the configuration of ***for rent ranch villas/duplexes*** (no basements) at various site locations. This lower-density market rate rental product will not only fill a void that exists in the market, but it will help offset the higher prices found among new construction condominium alternatives directed to the more mature, move-down consumer, i.e., empty-nester. One only has to look at the success of Redwood Apartment Neighborhoods in other areas of the Midwest to understand the desirability of this particular product line. While representing, primarily, an age-targeted (55+) idiom, it will not exclude other segments of the market that find this product form appealing, i.e., young families, etc.



- Representing the first of five product lines in the "for sale" sector of the market, and in an effort to establish an overall hierarchy of ownership product starting with an alternative that should be able to achieve price points more in-line with the qualitative distribution of area incomes, is an efficiently designed mid-density ***townhome/rowhome series (with stacked flats or condominiums)***. This product line would include two three-story plan types, each with two main living areas configured over an integral two-car garage and a finished lower level, along with a split-foyer or raised ranch unit and two stacked flats, all with two-car garages. Plan sizes for this series, which will average close to 1,550 square feet, should range from 1,250 to 1,650 square feet including finished lower levels for the three-story and split foyer plans. With rear-entry garages, individual buildings are generally designed to face one another, thus allowing for a small pedestrian greenway between buildings, or they can be configured fronting a street. Combined, the five individual plan offerings, which together reflect three separate and distinct generic product forms, are capable of attracting a broad range of buyer profiles, with attentive focus directed toward young singles and couples without children, couples in their initial stages of family formation, young families, and the more mature, move down (empty-nester) segment of the market. It is important to note that the two stacked flats, which together are 40' wide, are interchangeable with two three-story rowhome units, which are each 20' wide.



- Architecturally, the townhome/rowhome product line (with stacked flats) can support either a traditional elevation scheme, or it can command something more contemporary/urban oriented, i.e., at the builder's discretion and dependent upon site location within the village. Overall, this product line can achieve a density of 12-14 units per acre, thus allowing builders to distribute land and development costs across more units – in an attempt to bring prices down from the current representation of condominium products (i.e., luxury duplexes) that dot the landscape throughout the market.

- Representing an age-targeted alternative to the highly-stylized ranch duplex condominiums currently found in Mukwonago and elsewhere throughout the area, yet still directed toward the more mature, move-down home purchasers aged 55-74, a very efficient ***attached ranch villa*** for sale series is recommended. This product line, which could be configured in 3-, 4- or 5-unit buildings (duplexed only where necessary) would consist exclusively of single-level ranch plans, each with a front-load two-car garage and a small, but usable, back-yard or patio area. Ranging in size from 1,375 to 1,675 square feet, the average attached villa unit would carry 1,525 square feet of living space. These homes would be configured slab-on-grade, although certain lots could/should be designated to accommodate optional basements. While directed toward the move-down consumer or empty-nester, this product line would be capable of attracting other segments of the market as well. Ultimately, the goal of creating a villa product (as opposed to straight duplex buildings) would be to achieve a higher-density which, again, would allow costs to be distributed across more units – ultimately leading to more competitive prices.



- In the single family sector, and representing a departure from the current larger-lot semi-custom/custom home development currently represented among new developments in Mukwonago, would be an urban/suburban detached product line with rear-load garages. Representing a derivation of the neo-traditional planning concept, i.e. Traditional Neighborhood Development (TND), this single family series, ideally, would be comprised of two single-level

"ranch" plans, two traditional two-story units (with second floor master bedrooms) and one two-story unit with a first-floor master bedroom. Ranging in size from 1,500 to 1,900 square feet, and averaging roughly 1,700 square feet across the group, homes in this series should be approximately 30'-35' wide configured on 40'-45' wide homesites. This product lines would include partial basements (unfinished). In the northern suburbs of Indianapolis, this particular product line has been extremely successful as it has allowed new construction single family housing (through density and unit sizes) to meet a price point not seen among more traditional counterparts. Because of the escalation of new construction single family prices in and around Mukwonago, a similar strategy is warranted. The TND single family product line will be able to attract a broad spectrum of detached home purchasers including young childless married couples, couples in their initial stages of family formation, young families, and first-time move up families emanating from the local area resale market. And, with the incorporation of several ranch plans and two-story master-down designs, this program will be in a position to also appeal to the 55 and older empty-nester segment desirous of detached housing.





- The second single family product line should consist of a smaller-lot, more traditional single family series with front-access, two-car garages and unfinished basements. This product line should be comprised of two single-level "ranch" plans and four traditional two-story units. Ranging in size from 1,750 to 2,400 square feet, and averaging roughly 2,050 square feet across the group, homes in this program should be configured on 50'-55" wide homesites. This smaller lot sizes would, once again, assist in reducing costs, thus allowing for a more competitive price position. Together, the six single family plans will also appeal to a broad spectrum of single family home purchasers including young childless married couples, couples in their initial stages of family formation, and first- and second-time move up families. And, with the inclusion of two ranch plans on small low-maintenance lots, this series will appeal to the 55 and older empty-nester segment as well.



- With proper land planning and architecture, smaller single family lots can still provide for aesthetically appealing community orientation and, most importantly, at the price points not widely represented in the new construction single family sector of the market.



- The third single family product line for the village of Mukwonago going forward should consist of the typical larger-lot semi-custom/custom development that is already in full-swing in Mukwonago and the rest of southwest suburban Milwaukee. In other words, the Milwaukee area buyer is so familiar with larger-lot, new construction single family development, that this, too, should be included in Mukwonago's overall housing portfolio in generally the same fashion it is being done today. The caveat being, of course, is that modest absorption will continue to be observed given the higher price points that accompany this particular product line.

Individual home designs across all product lines, especially the first two single family series, should focus on providing fully functional and livable interiors with ample closeting/storage. For example, walk-in pantries should be included in select plans, along with full size laundry rooms with storage capabilities. In addition, a third car garage option should be made available for select detached plans if lots can accommodate.

Outdoor living space for each unit (within each product) is essential, but need not be extensive. Specifically, private balconies for both apartment series and the townhomes/rowhomes/flats will be sufficient, along with private courtyards/patios/backyard areas for the attached ranch villas and the single family homes.

MARKET POSITIONING

To capitalize on the suggested product opportunities for Mukwonago, and in order maximize marketability and absorption potentials near- to mid-term, while also giving full consideration to the influence of local area home values and household incomes, **Exhibits 1.1 through 1.7** provide details regarding individual plan criteria, rent levels/price points and absorption potentials, again to serve as a guide for planning and implementation efforts. When reviewing these exhibits, prototype total unit counts are presented simply to show the relationship between a likely development size and absorption potentials at that scale. Total unit counts will naturally fluctuate based upon site configuration.

In order to meet the market-driven benchmark rents and prices established for each of the suggested product series, individual floorplans should be very efficient and cost-effective to build with emphasis placed more on exteriors and unit features as opposed to complicated floorplans. Please understand, however, that by creating value-oriented production-type floorplans, we are not suggesting that Mukwonago minimize the quality upon which this community has been heading with its development/redevelopment efforts to date, nor is there implication that overall curb appeal be comprised. Referencing the latter, a strong use of colors *not materials* is but one example of how quality can be portrayed to the consumer. This has been accomplished in numerous communities throughout the U.S. with specific reference made to re-development efforts at Stapleton Airport in Denver, among others.

Please note that rents/prices noted for all product lines in Exhibits 1.1 through 1.7 have been *very carefully* established in order for each series to be competitively positioned both internal to Mukwonago and against neighboring communities. In other words, the rent/price differentials between the different product lines will allow each to function autonomously within the host municipality, yet also maintain the proper alignment with both new construction and existing alternatives elsewhere in the market. As but one example, the suggested mid- to higher-density and garden-style apartment prototypes have been competitively positioned against the newest developments in Mukwonago and other nearby municipalities (see **Exhibits 1.8 and 1.9**). Absorption estimates, in turn, reflect rates being achieved by "like" developments throughout the market of a similar scale. In addition, at suggested rents, the prototype apartment communities for Mukwonago, while priced competitively in the local market, will be positioned some 10-20 percent lower than heavy concentrations of new construction alternatives well to the north in highly populated areas like Brookfield and Wauwatosa. This differential is appropriate considering these areas are arguably some of the most desirable suburban renter destinations in the Milwaukee region, primarily because of their rather substantial employment bases. At this differential, Mukwonago will be in a position to continue inducing spillover to its location.

1.1

PRODUCT CRITERIA AND BENCHMARK RENTS: MID- TO HIGHER-DENSITY MARKET RATE RENTAL APARTMENTS
-- A 60-UNIT PROTOTYPE --
MUKWONAGO, WISCONSIN

Product Line Summary

Product Form:	***3 Residential Floors Over Structured Parking (w/Elevator)***
Total Units:	***60+/-***
Enclosed Parking:	***60+/-***
Average Plan Size (Sq. Ft.):	***818***
Average Benchmark Base Monthly Rent (Floor 1 Only):	***$1,320***
Per Sq. Ft.:	***$1.61***
Average Benchmark Monthly Rent (All Floors):	***$1,330***
Per Sq. Ft.:	***$1.63***
Average Monthly Absorption Potential (In Units):	***6.0***



Plan Detail

Plan Designation	A	B	C-1	C-2	D	E-1	E-2	E-3	F
Percent Distribution	10	20	20	10	5	10	10	10	5
Plan Type	Studio	Junior 1BR	1BR	1BR	1BR Den	2BR	2BR	2BR	3BR
Bedroom/Bath Mix	--/1.0	1/1.0	1/1.0	1/1.0	1+Den/1.0	2/2.0	2/2.0	2/2.0	3/2.0
Unit Size (Sq. Ft.)	450	550	650	750	900	1,050	1,150	1,250	1,350
Benchmark Rent Per Floor:[1]									
Floor 3	$915	$1,030	$1,145	$1,260	$1,435	$1,610	$1,725	$1,840	$1,955
Floor 2	$905	$1,020	$1,135	$1,250	$1,425	$1,600	$1,715	$1,830	$1,945
Floor 1	$895	$1,010	$1,125	$1,240	$1,415	$1,590	$1,705	$1,820	$1,935
Average:	**$905**	**$1,020**	**$1,135**	**$1,250**	**$1,425**	**$1,600**	**$1,715**	**$1,830**	**$1,945**
Per Sq. Ft.:	**$2.01**	**$1.85**	**$1.75**	**$1.67**	**$1.58**	**$1.52**	**$1.49**	**$1.46**	**$1.44**

Features and Amenities

UNIT STANDARDS

- Painted Trim
- Luxury Plank Flooring in Living Areas
- "White" Interior Paint Finish
- Direct Wire Smoke Detectors
- Cable/Satellite/Telephone Access
- Carpeting in Bedrooms
- High-Speed Internet Connectivity
- Air Conditioning
- Designer Door Hardware
- Designer Lighting Package
- Private Balcony

KITCHEN FEATURES

- Wood Cabinetry
- Luxury Plank Flooring
- Four Burner Cooktop
- Self Clean Single Oven-Stainless Steel
- Built-In Dishwasher-Stainless Steel
- Refrigerator with Ice-Maker-Stainless Steel
- Garbage Disposal
- Microwave with Vent
- Granite or Quartz Countertops
- Stainless Steel Sink

BATH/POWDER ROOM STANDARDS

- Ceramic Flooring
- Granite or Quartz Vanity Tops
- Wood Cabinetry
- Ceramic Tub/Shower Surround
- Framed Glass Mirror Over Vanity

CLOSETS, UTILITIES, AND STORAGE

- Walk-In MBR Closet (Per Plan)
- Laminate Closet Shelving
- Washer/Dryer (Stacked or Side-by-Side)
- Linen Closet(s)
- Programmable Thermostat
- Storage Lockers

GENERAL BUILDING FEATURES/AMENITIES

- Architecturally-Enhanced Exteriors
- Secured Access Entry
- Community Room w/Kitchen
- Fitness Center
- E-Lounge w/Coffee Bar
- Fireside Lounge & Grilling Stations
- Extensive Landscaping/Hardscaping
- Dog Wash Area in Garage
- Wi-Fi in All Common Areas
- Enclosed Parking Leased Separately at $75 Per Space
- Adequate Open Parking

[1] Benchmark monthly rents, which are presented in August 2021 dollars, include premiums for floor (assuming three floors); however, they do not include incremental premiums for corner units or enhanced views, nor do they include enclosed garage parking, application/administration fees, pet fees, storage rental, or utilities.

Source: Tracy Cross & Associates, Inc.

1.2

PRODUCT CRITERIA AND BENCHMARK RENTS - GARDEN-STYLE MARKET-RATE RENTAL APARTMENTS
-- A 120-UNIT PROTOTYPE --
MUKWONAGO, WISCONSIN

Product Line Summary





Product Form:	***Two-Story Garden Apartments (8-Unit Buildings with 4 Direct-Access One-Car Garages Per Building or 16-Unit Buildings with 8 Direct-Access One-Car Garages Per Building)***
Estimated Total Units:	***120***
Attached Direct-Access One-Car Garages:	***60***
Average Plan Size (Sq. Ft.):	***972***
Average Benchmark Base Rent w/50 % Garages:	***$1,450***
Per Sq. Ft.:	***$1.49***
Average Monthly Absorption (In Units):	***10.0***

Plan Detail

Plan Designation	A	B-1	B-2	C	D-1	D-2	D-3	E
Percent Distribution	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Plan Type	JR 1BR	1BR	1BR	1BR DEN	2BR	2BR	2BR	3BR
Bedroom/Bath Mix	1/1.0	1/1.0	1/1.0	1+Den/1.0	2/2.0	2/2.0	2/2.0	3/2.0
Unit Size (Sq. Ft.)	575	700	800	925	1,025	1,150	1,225	1,375
Benchmark Base Rent w/o Garage:[1]	$940	$1,085	$1,200	$1,345	$1,460	$1,605	$1,695	$1,870
Per Sq. Ft.:[1]	$1.63	$1.55	$1.50	$1.45	$1.42	$1.40	$1.38	$1.36
Benchmark Base Rent w/ Garage:[2]	**$1,040**	**$1,185**	**$1,300**	**$1,445**	**$1,560**	**$1,705**	**$1,795**	**$1,970**
Per Sq. Ft.:[2]	**$1.81**	**$1.69**	**$1.63**	**$1.56**	**$1.52**	**$1.48**	**$1.47**	**$1.43**

[1] Benchmark base monthly rents, which are presented in August 2021 dollars, reflect the posted base rents for units without direct access garages. They do not include potential premiums for corner units or view. They also do not include application/administration fees, pet fees, storage rental, or utilities. They do, however, assume a level of unit features and community amenities similar to those outlined in Exhibit 1.1, although more extensive for a higher total unit count.

[2] Benchmark base monthly rents, which are presented in August 2021 dollars, reflect the posted base rents for units with direct access garages. They do not include potential premiums for corner units or view. They also do not include application/administration fees, pet fees, storage rental, or utilities. They do, however, assume a level of unit features and community amenities similar to those outlined in Exhibit 1.1, although more extensive for a higher total unit count.

Source: Tracy Cross & Associates, Inc.

1.3

PRODUCT CRITERIA AND BENCHMARK RENTS - RANCH VILLA MARKET-RATE RENTAL APARTMENTS
-- A 40-UNIT PROTOTYPE --
MUKWONAGO, WISCONSIN

Product Line Summary



Product Form:	***Ranch Villas or Duplexes (2-, 3- and 4-Unit Buildings w/Direct-Access Two-Car Garages)***
Estimated Total Units:	***40***
Attached Direct-Access Two-Car Garages:	***40***
Average Plan Size (Sq. Ft.):	***1,415***
Average Benchmark Base Rent:	***$2,255***
Per Sq. Ft.:	***$1.59***
Average Monthly Absorption (In Units):	***4.0***

Plan Detail

Plan Designation	A (Interior)	B (interior)	C (End)
Percent Distribution	30.0	30.0	40.0
Plan Type	2BR	2BR Den	3BR
Bedroom/Bath Mix	2/2.0	2+Den/2.0	3/2.0
Unit Size (Sq. Ft.)	1,250	1,400	1,550
Benchmark Base Rent:[1]	**$1,950**	**$2,200**	**$2,525**
Per Sq. Ft.:[1]	**$1.56**	**$1.57**	**$1.63**

[1] Benchmark base monthly rents, which are presented in August 2021 dollars, include a standard two-car garage and an end-unit premium for the C plan. They do not, however, include potential premiums for enhanced views. They also do not include application/administration fees, pet fees, storage rental, or utilities. They do, however, assume a level of unit features similar to those outlined in Exhibit 1.1, although amenities would be scaled down considerably unless the total unit count warrants more extensive amenities.

Source: Tracy Cross & Associates, Inc.

1.4

PRODUCT CRITERIA AND BENCHMARK PRICES - FOR SALE TOWNHOMES/ROWHOMES W/FLATS
-- A 30-UNIT PROTOTYPE --
MUKWONAGO, WISCONSIN

Product Line Summary

Product Form:	***Townhomes/Rowhomes (With Stacked Flats)***
Total Units:	***30+/- Per Site Location***
Garage Condition:	***Two-Car (Rear Load)***
Lower Level of Townhomes/Rowhomes	***Finished***
Average Plan Size (Sq. Ft.):	***1,535***
Average Benchmark Base Price: [1]	***$283,990***
Per Sq. Ft.:	***$185.01***
Average Anticipated Closing Price: [2]	***$303,900***
Per Sq. Ft.:	***$197.98***
Average Monthly Sales Rate (In Units):	***1.5***





Plan Detail

Plan Designation	A	B	C	D	E
Plan Style	First Floor Flat	Second Floor Flat	3-Story	3-Story	Raised Ranch (Split Foyer)
Unit Orientation	End	End	Interior	Interior	End
Bedrooms	2	3	2+Loft	3	2+Flex
Baths	2.0	2.0	2.5	2.5	2.0
Unit Size (Sq. Ft.)	1,250	1,575	1,550	1,650	1,650
Benchmark Base Price:[1]	$264,990	$284,990	$279,990	$289,990	$299,990
Per Sq. Ft.:	$211.99	$180.95	$180.64	$175.75	$181.81
Anticipated Closing Price: [2]	***$283,500***	***$304,900***	***$299,600***	***$310,300***	***$321,000***
Per Sq. Ft.:	***$226.80***	***$193.59***	***$193.29***	***$188.06***	***$194.55***

Features and Amenities

UNIT STANDARDS

- Luxury Plank Flooring in Main Living Areas
- Carpeting in Bedroom Areas
- "White" Interior Paint Finish
- Painted Trim
- Direct-Wire Smoke Detectors Per Code
- Cable/Satellite/Telephone Prewire
- Paneled Doors
- High-Speed Internet Connectivity
- Air Conditioning
- Designer Door Hardware
- Designer Lighting Package
- Private Balcony

KITCHEN FEATURES

- Quality Cabinetry
- Luxury Plank Flooring
- Four Burner Cooktop
- Self Clean Single Oven-Stainless Steel
- Built-In 5-Cycle Dishwasher-Stainless Steel
- Refrigerator with Ice-Maker-Stainless Steel
- Garbage Disposal
- Microwave with Vent
- Granite or Quartz Countertops
- Double Bowl Stainless Steel Sink

BATH/POWDER ROOM STANDARDS

- Ceramic Flooring
- Granite or Quartz Vanity Tops
- Quality Cabinetry
- Ceramic Tub/Shower Surround
- Framed Glass Mirror Over Vanity

CLOSETS, UTILITIES, AND LAUNDRY

- Walk-In MBR Closet (Per Plan)
- Laminate Closet Shelving
- Washer/Dryer Hook-Up
- Linen Closet(s)
- Programmable Thermostat

BUILDING FEATURES/AMENITIES

- Architecturally-Enhanced Exteriors
- Extensive Hardscaping/Landscaping
- Finished Lower Level in 3-Story and Raised Ranch Units in Lieu of Basement
- Front-Oriented Sidewalks

[1] Benchmark base sales prices, which are presented in August 2021 dollars, include premiums for end-unit conditions, but do not include options, upgrades or site premiums.
[2] Includes an estimate for options, upgrades and premiums, i.e. 7.0 percent above the base sales price.

Source: Tracy Cross & Associates, Inc.

1.5

PRODUCT CRITERIA AND BENCHMARK PRICES - FOR SALE ATTACHED RANCH VILLAS
-- A 20-UNIT PROTOTYPE --
MUKWONAGO, WISCONSIN

Product Line Summary

Product Form:	***Attached Ranch Villas (3-, 4- and 5-Unit Buildings)***
Lot Dimensions:	***TBD***
Total Units:	***20+/- Per Site Location***
Garage Condition:	***Two-Car (Front)***
Average Plan Size (Sq. Ft.):	***1,525***
Average Benchmark Base Price: [1] ***Per Sq. Ft.:***	***$316,990*** ***$207.86***
Average Anticipated Closing Price: [2] ***Per Sq. Ft.:***	***$339,200*** ***$222.43***
Average Monthly Sales Rate (In Units):	***1.5***



Plan Detail

Plan Designation	A	B	C
Plan Style	Ranch	Ranch	Ranch
Bedrooms	2	2+Den	3
Baths	2	2	2
Unit Size (Sq. Ft.)	1,375	1,525	1,675
Benchmark Base Price:[1] Per Sq. Ft.:	$293,990 $213.81	$316,990 $207.86	$339,990 $202.98
Anticipated Closing Price: [2] ***Per Sq. Ft.:***	***$314,600*** ***$228.80***	***$339,200*** ***$222.43***	***$363,800*** ***$217.19***

Features and Amenities

UNIT STANDARDS

- Luxury Plank Flooring in Main Living Areas
- Carpeting in Bedroom Areas
- "White" Interior Paint Finish
- Painted Trim
- Direct-Wire Smoke Detectors Per Code
- Cable/Satellite/Telephone Prewire
- Paneled Doors
- High-Speed Internet Connectivity
- Air Conditioning
- Designer Door Hardware
- Designer Lighting Package
- Private Patio Area

KITCHEN FEATURES

- Quality Cabinetry
- Luxury Plank Flooring
- Four Burner Cooktop
- Self Clean Single Oven-Stainless Steel
- Built-In 5-Cycle Dishwasher-Stainless Steel
- Refrigerator with Ice-Maker-Stainless Steel
- Garbage Disposal
- Microwave with Vent
- Granite or Quartz Countertops
- Double Bowl Stainless Steel Sink

BATH/POWDER ROOM STANDARDS

- Ceramic Flooring
- Granite or Quartz Vanity Tops
- Quality Cabinetry
- Ceramic Tub/Shower Surround
- Framed Glass Mirror Over Vanity

CLOSETS, UTILITIES, AND LAUNDRY

- Walk-In MBR Closet (Per Plan)
- Laminate Closet Shelving
- Washer/Dryer Hook-Up
- Linen Closet(s)
- Programmable Thermostat

HOME FEATURES/AMENITIES

- Architecturally-Enhanced Exteriors
- Extensive Hardscaping/Landscaping
- Basements Optional

[1] Benchmark base sales prices, which are presented in August 2021 dollars, do not include options, upgrades or premiums.
[2] Includes an estimate for options, upgrades and premiums, i.e. 7.0 percent above the base sales price.

Source: Tracy Cross & Associates, Inc.

1.6

PRODUCT CRITERIA AND BENCHMARK PRICES - TND FOR SALE SINGLE FAMILY
-- A 40-UNIT PROTOTYPE --
MUKWONAGO, WISCONSIN

Product Line Summary

Product Form:	***Single Family***
Lot Dimensions:	***40'-45" x 100'-110'***
Total Units:	***40+/- Per Site Location***
Garage Condition:	***Two-Car (Rear Load)***
Average Plan Size (Sq. Ft.):	***1,700***
Average Benchmark Base Price: [1] ***Per Sq. Ft.:***	***$349,990*** ***$205.88***
Average Anticipated Closing Price: [2] ***Per Sq. Ft.:***	***$374,500*** ***$220.29***
Average Monthly Sales Rate (In Units):	***1.5***



Plan Detail

Plan Designation	A	B	C	D	E
Plan Style	Ranch	Ranch	2-Story	2-Story	2-Story (1st Floor MBR)
Bedrooms	2	2+Den	3	3 + Den	3 + Loft
Baths	2	2	2.5	2.5	2.5
Unit Size (Sq. Ft.)	1,500	1,600	1,700	1,800	1,900
Benchmark Base Price:[1] Per Sq. Ft.:	$335,990 $223.99	$344,990 $215.62	$349,990 $205.88	$359,990 $199.99	$369,990 $194.73
Anticipated Closing Price: [2] ***Per Sq. Ft.:***	***$359,500*** ***$239.67***	***$369,100*** ***$230.69***	***$374,500*** ***$220.29***	***$385,200*** ***$214.00***	***$395,900*** ***$208.37***

Features and Amenities

UNIT STANDARDS

- Luxury Plank Flooring in Main Living Areas
- Carpeting in Bedroom Areas
- "White" Interior Paint Finish
- Painted Trim
- Direct-Wire Smoke Detectors Per Code
- Cable/Satellite/Telephone Prewire
- Paneled Doors
- High-Speed Internet Connectivity
- Air Conditioning
- Designer Door Hardware
- Designer Lighting Package
- Private Patio Area

KITCHEN FEATURES

- Quality Cabinetry
- Luxury Plank Flooring
- Four Burner Cooktop
- Self Clean Single Oven-Stainless Steel
- Built-In 5-Cycle Dishwasher-Stainless Steel
- Refrigerator with Ice-Maker-Stainless Steel
- Garbage Disposal
- Microwave with Vent
- Granite or Quartz Countertops
- Double Bowl Stainless Steel Sink

BATH/POWDER ROOM STANDARDS

- Ceramic Flooring
- Granite or Quartz Vanity Tops
- Quality Cabinetry
- Ceramic Tub/Shower Surround
- Framed Glass Mirror Over Vanity

CLOSETS, UTILITIES, AND LAUNDRY

- Walk-In MBR Closet (Per Plan)
- Laminate Closet Shelving
- Washer/Dryer Hook-Up
- Linen Closet(s)
- Programmable Thermostat

HOME FEATURES/AMENITIES

- Architecturally-Enhanced Exteriors
- Extensive Hardscaping/Landscaping
- Partial Basements Included (Unfinished)
- Front-Oriented Sidewalks

[1] Benchmark base sales prices, which are presented in August 2021 dollars, do not include options, upgrades or premiums.
[2] Includes an estimate for options, upgrades and premiums, i.e. 7.0 percent above the base sales price.

Source: Tracy Cross & Associates, Inc.

1.7

PRODUCT CRITERIA AND BENCHMARK PRICES - TRADITIONAL FOR SALE SINGLE FAMILY
-- A 50-UNIT PROTOTYPE --
MUKWONAGO, WISCONSIN

Product Line Summary

Product Form:	***Single Family***
Lot Dimensions:	***50'-55' x 110'-120'***
Total Units:	***15+/- Per Site Location***
Garage Condition:	***Two-Car (Front Load)***
Average Plan Size (Sq. Ft.):	***2,050***
Average Benchmark Base Price: [1] ***Per Sq. Ft.:***	***$396,657*** ***$193.49***
Average Anticipated Closing Price: [2] ***Per Sq. Ft.:***	***$424,400*** ***$207.02***
Average Monthly Sales Rate (In Units):	***1.5***



Plan Detail

Plan Designation	A	B	C	D	E	F
Plan Style	Ranch	Ranch	2-Story	2-Story	2-Story	2-Story
Bedrooms	3	3	3+Flex	4	4 + Loft	4 + Den
Baths	2.0	2.0	2.5	2.5	2.5	2.5
Unit Size (Sq. Ft.)	1,750	1,850	1,950	2,100	2,250	2,400
Benchmark Base Price:[1] Per Sq. Ft.:	$369,990 $211.42	$379,990 $205.40	$384,990 $197.43	$399,990 $190.47	$414,990 $184.44	$429,990 $179.16
Anticipated Closing Price: [2] ***Per Sq. Ft.:***	***$395,900*** ***$226.23***	***$406,600*** ***$219.78***	***$411,800*** ***$211.18***	***$428,000*** ***$203.81***	***$444,000*** ***$197.33***	***$460,100*** ***$191.71***

Features and Amenities

UNIT STANDARDS

- Luxury Plank Flooring in Main Living Areas
- Carpeting in Bedroom Areas
- "White" Interior Paint Finish
- Painted Trim
- Direct-Wire Smoke Detectors Per Code
- Cable/Satellite/Telephone Prewire
- Paneled Doors
- High-Speed Internet Connectivity
- Air Conditioning
- Designer Door Hardware
- Designer Lighting Package
- Large Private Patio Area

KITCHEN FEATURES

- Quality Cabinetry
- Luxury Plank Flooring
- Four Burner Cooktop
- Self Clean Single Oven-Stainless Steel
- Built-In 5-Cycle Dishwasher-Stainless Steel
- Refrigerator with Ice-Maker-Stainless Steel
- Garbage Disposal
- Microwave with Vent
- Granite or Quartz Countertops
- Double Bowl Stainless Steel Sink

BATH/POWDER ROOM STANDARDS

- Ceramic Flooring
- Granite or Quartz Vanity Tops
- Quality Cabinetry
- Ceramic Tub/Shower Surround
- Framed Glass Mirror Over Vanity

CLOSETS, UTILITIES, AND LAUNDRY

- Walk-In MBR Closet (Per Plan)
- Laminate Closet Shelving
- Washer/Dryer Hook-Up
- Linen Closet(s)
- Programmable Thermostat

HOME FEATURES/AMENITIES

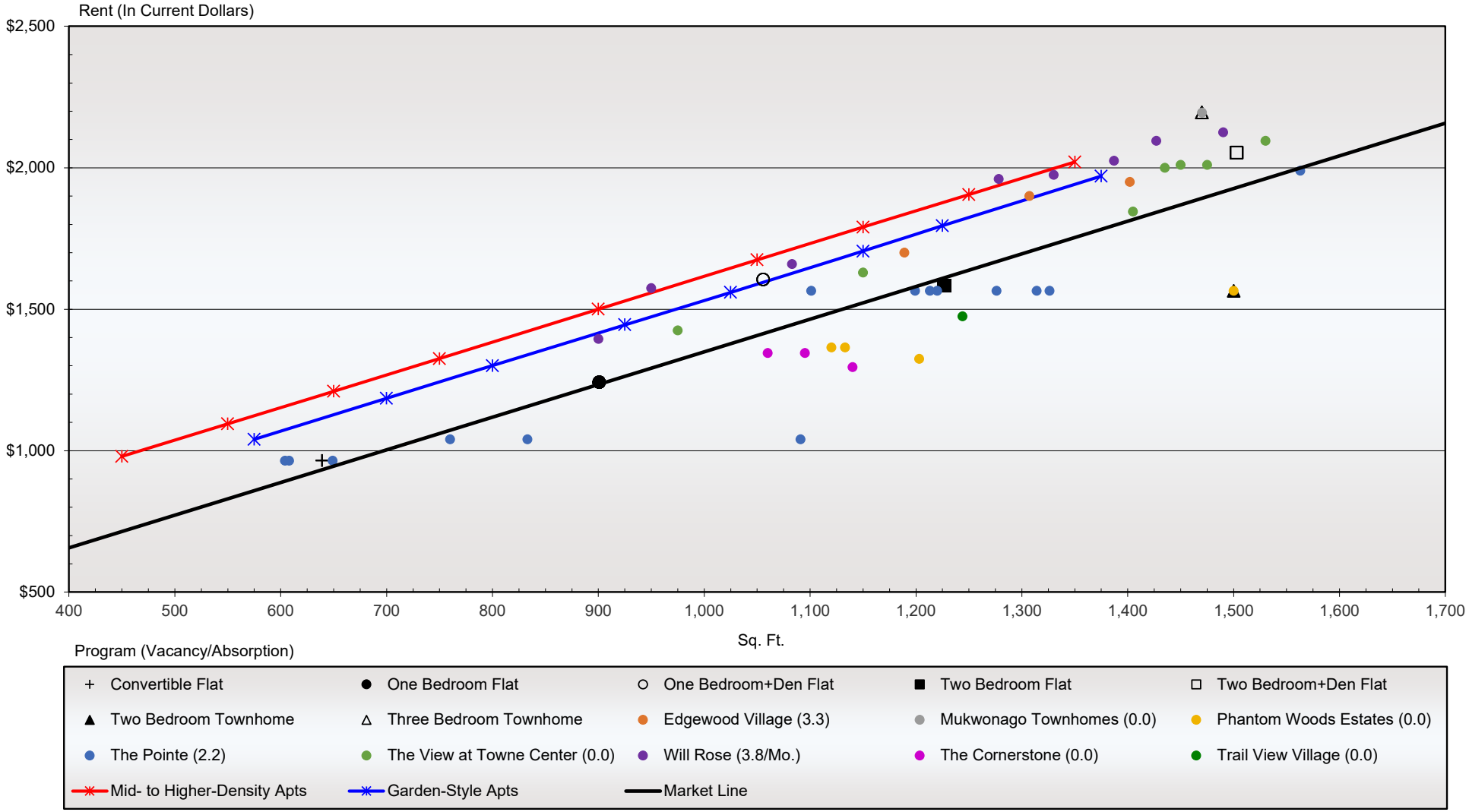
- Architecturally-Enhanced Exteriors
- Extensive Hardscaping/Landscaping
- Partial Basements Included (Unfinished)

[1] Benchmark base sales prices, which are presented in August 2021 dollars, do not include options, upgrades or premiums.
[2] Includes an estimate for options, upgrades and premiums, i.e. 7.0 percent above the base sales price.

Source: Tracy Cross & Associates, Inc.

1.8

Rent/Value Analysis
Selected Apartment Communities
Mukwonago Primary Market Area
July 2021



Rent/value analysis uses a scatter diagram to graphically represent a set of observations found in today's marketplace, specifically the square footage of units offered and their associated rent levels. Regression analysis is then used to fit a line through the set of market observations that represent the "best fit" or average market line. This market line can then be used to predict the performance of a new, untested product line or offer explanations regarding the occupancy/absorption rates of currently available product lines.

Source: Tracy Cross & Associates, Inc.

2021.07 AVG

Rent/Value Analysis
Selected Apartment Communities
Mukwonago Primary Market Area
July 2021

Plan Size (Sq. Ft.)	Average Market Rent	Program/Location	Year Built	Total Units	Average Plan Size (Sq. Ft.)	Average Posted Base Rent		Average Base Market Rent	Price Variance From Market	Vacancy Rate / Absorption (Units/Mo.)
						Dollars	Rent per Sq. Ft.			
500	$776	Mukwonago Townhomes/Mukwonago	2021	16	1,470	$2,195	$1.49	$1,891	+$304	0.0
600	891	(1) ***Mid- to Higher-Density Apartments***	---	---	***818***	***1,395***	***1.71***	***1,142***	***+253***	---
700	1,006	Will Rose/Muskego	2020	51	1,177	1,784	1.52	1,554	+230	3.8/Mo.
800	1,121	(2) ***Garden-Style Apartments***	---	---	***972***	***1,500***	***1.54***	***1,319***	***+181***	---
900	1,236	Edgewood Village/Mukwonago	2019	30	1,299	1,850	1.42	1,694	+156	3.3
1,000	1,351	The View at Towne Center/Muskego	2017	90	1,368	1,872	1.37	1,774	+98	0.0
1,100	1,466									
1,200	1,581	***---- Market Average ----***	---	---	***1,177***	***1,554***	***1.32***	***1,554***	***0***	***0.8 / 3.8/Mo.***
1,300	1,696									
1,400	1,811	(1) The Pointe/Mukwonago	2020	89	950	1,257	1.32	1,293	-36	2.2
1,500	1,926	The Cornerstone/Waterford	2021	84	1,098	1,328	1.21	1,463	-135	0.0
1,600	2,041	Trail View Village/Waterford	2020	18	1,244	1,475	1.19	1,631	-156	0.0
1,700	2,156	Phantom Woods Estates/Mukwonago	2017	68	1,193	1,377	1.15	1,573	-196	0.0

Slope: $1.15 per sq. ft.

(1) Development charges extra for one enclosed garage space. An adjustment has been made (for analytical purposes only) since all other developments include one enclosed space in base rent.

(2) Reflects those units with a direct-access one-car garage.

Source: Tracy Cross & Associates, Inc.

Among for sale alternatives, as yet another example of competitive positioning, the average estimated closing prices for the two production-oriented single family series have been properly aligned with new construction closing prices occurring among single family homes in Mukwonago at developments such as The Orchards, Fairwinds and Fox River Run. This alignment is outlined in **Exhibit 1.10**. Specifically, an approximate 10 percent pricing differential has been applied in order to improve absorption when cast against localized competitors. This same pricing variance can be seen when compared to all recent new construction closings throughout the larger market area (see **Exhibit 1.11**). Moreover, the pricing relationships from one for sale product line to another (including the attached sector series) reflects the proper "stepping" in an effort to limit internal cross-competition between product types.

Please also note that while our product guidelines are very specific, there are a number of derivatives to each of the recommended generic forms that could evolve through the design efforts of individual builders/developers – or through the guidance of the Village of Mukwonago. However, when considering any derivatives during the course of the planning process, it is important for the Village of Mukwonago to simply follow the general parameters outlined for each of the recommended products relative to unit types, bedroom counts, rents, prices, etc., in order to insure acceptable absorption and/or sales.

In addition, consideration can certainly be given to the introduction of other generic forms on the basis of the imbalance that exists market-wide between supply and demand – but done so with the same general planning strategy in mind – that being differentiation, efficiency, tasteful architecture, and rent/price positioning.

GEOGRAPHIC POSITIONG AND COMMUNITY PLANNING

The Village of Mukwonago is in a unique position to capitalize on the residential development opportunities that exist near- to mid-term, provided the product criteria and rent/pricing guidelines can be met. To this point, not only is there immediate market potential for various forms of conventional new construction housing, but the Village is already in the process of working through several different proposals by builders/developers interested in both rental apartment and for sale offerings. In addition, the Village continues to identify development and redevelopment sites (both large and small) throughout the municipality and adjoining areas that could potentially contain a component of residential units.

Because demand is expected to outstrip supply over the next 5+ years throughout the southwest suburbs of Milwaukee, current development proposals in the Mukwonago planning pipeline (and additional proposals in the future) could be given full consideration provided they fall within the hierarchy of demand-driven product. By guiding the process and adhering to the proper mix and price points of new housing, Mukwonago would be able to capture a disproportionate share of demand simply by taking a proactive role in promoting residential development when others in the southwest Milwaukee suburbs don't appear to be doing the same.

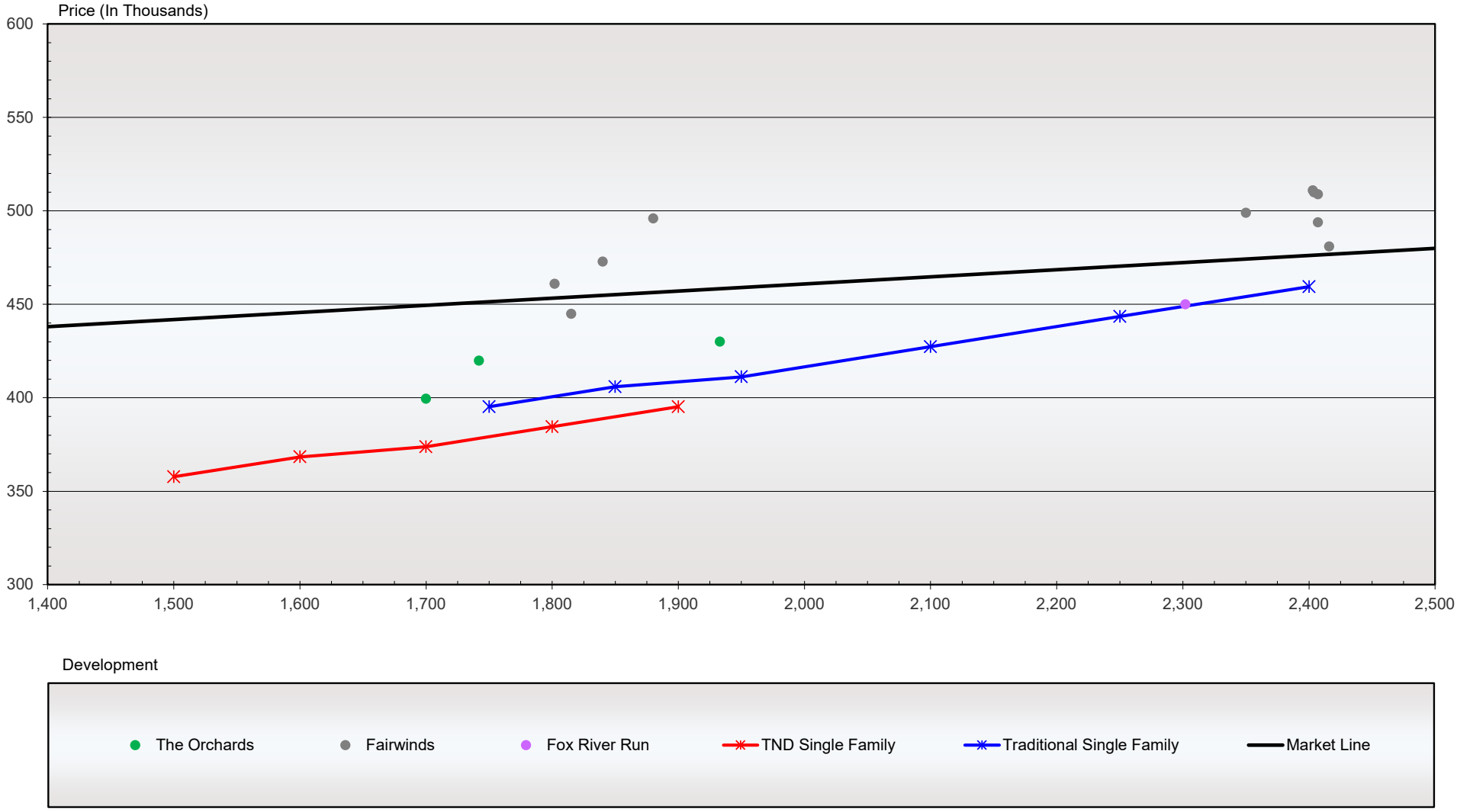
With the stage set, the following bullet-point summary provides general suggestions relative to a geographic positioning strategy for the recommended housing products. These guidelines, in turn, can be applied to current/future proposals, along with Mukwonago's own growth initiatives and overall intentions for new housing development within the municipality:

- First and foremost, when evaluating/identifying sites (current and future) that can accommodate one or more of the recommended product lines, several key factors come into play. These are highlighted below.

    - Existing infrastructure will be very important, i.e., sewer and water availability, etc. While this is a very straight forward observation/recommendation, it is especially important

1.10

Price/Value Analysis
New Construction Closing Activity: Single Family Developments
Mukwonago, Wisconsin



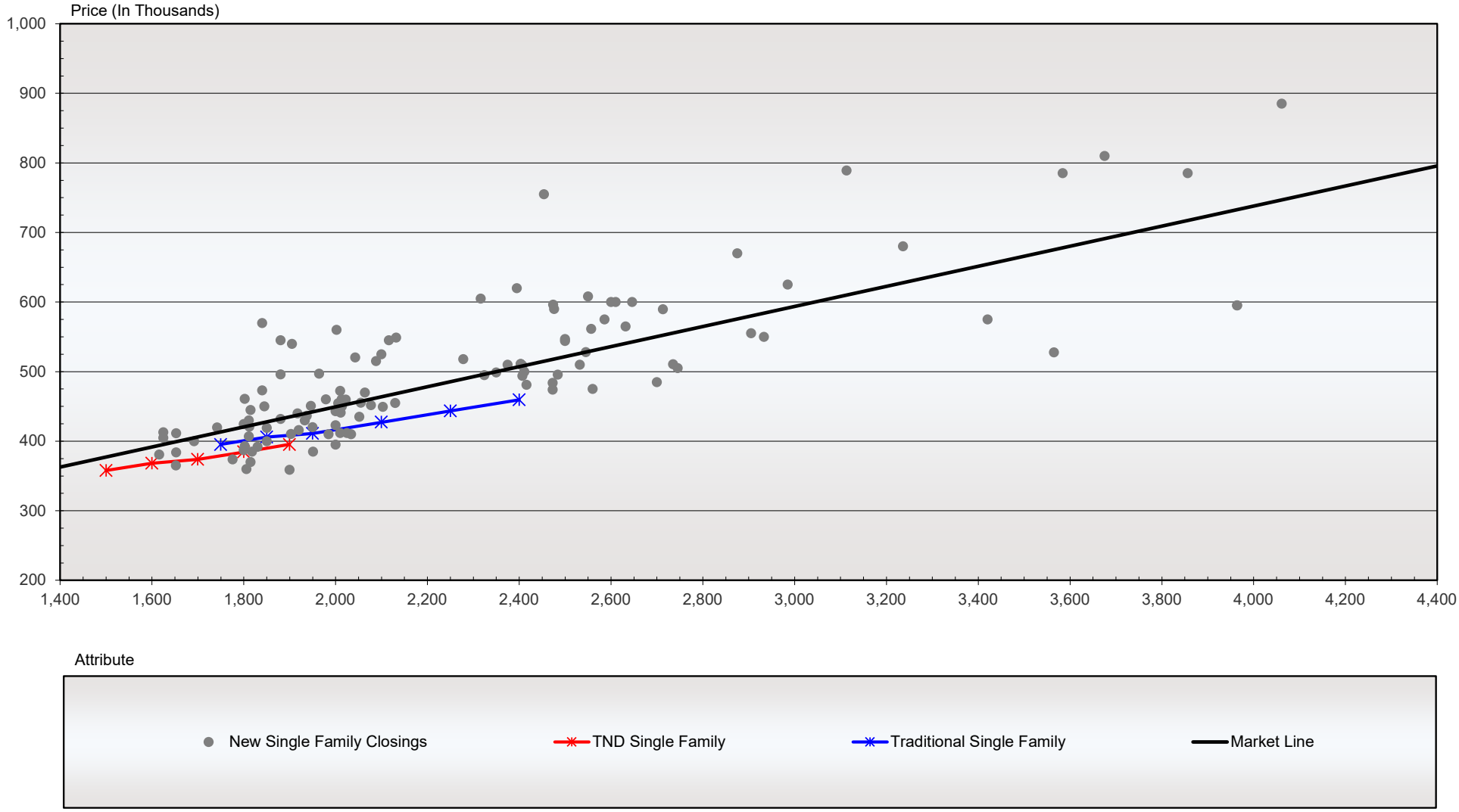
Price/value analysis uses a scatter diagram to graphically represent a set of observations found in today's marketplace, specifically the square footage of models offered and their associated sales prices. Regression analysis is then used to fit a line through the set of market observations that represent the "best fit" or average market line. This market line can then be used to predict the performance of a new, untested product line or offer explanations regarding the sales rate of currently available product lines.

Source: Tracy Cross & Associates, Inc.

2021CLOSINGSUAD

1.11

Price/Value Analysis
New Construction Closing Activity: Single Family Homes
Mukwonago Primary Market Area



Price/value analysis uses a scatter diagram to graphically represent a set of observations found in today's marketplace, specifically the square footage of models offered and their associated sales prices. Regression analysis is then used to fit a line through the set of market observations that represent the "best fit" or average market line. This market line can then be used to predict the performance of a new, untested product line or offer explanations regarding the sales rate of currently available product lines.

Source: Tracy Cross & Associates, Inc.

relative to keeping development costs in-line with where products need to be positioned in terms of rent and/or price in order to generate above average absorption or sales.

- From a marketing perspective, accessibility and visibility will be key ingredients for creating the necessary window of opportunity.

- Diversity in location (not just product and rent/price) will be critical in capturing the broadest spectrum of consumer segments. In other words, there should not be just one concentrated area of residential development as highlighted below:

  1) The extension of new construction residential offerings north of Mukwonago High School will provide options for those consumers desirous of being close to this highly regarded educational facility.

  2) Infill locations near downtown Mukwonago will allow for walkability to services and amenities. In this regard, residential adaptive reuse properties in the more residential mature areas of the village should be given consideration (as appropriate) as this trend is being extremely well received throughout other areas of the Milwaukee region, although almost exclusively as it relates to the rental apartment sector. In this regard, infill development should be complimentary to existing uses in order to retain Mukwonago's downtown/small town charm – one of its most endearing qualities.

  3) Locations along the Phantom Lakes (where possible) will attract those consumers seeking water-orientation.

  4) Multiple residential offerings on the south (east) side of I-43 will be important as it relates to providing renters or homeowners one of the most expedient access points to the expressway, along with direct alignment with this newly developed and growing commercial/shopping area and the hospital.

  5) Development extensions south of the village center (even in portions of Walworth County) will provide options for those consumers working in Walworth or Racine counties.

❑ For some of the larger development sites in and around the village, strong consideration should be given to the integration of the multiple product lines within a single location to establish a master-planned community environment – a development scenario not too common among active housing products in suburban Milwaukee. While this would take some effort, the foundation of the products remains the same – with the goal being to establish a destination-point development capable of retaining local area residents as they move out of existing rentals and/or resale units, while also to attracting new households to Mukwonago who are looking for a master-planned community environment in a desirable municipality. To this end, we present the following points, which are suggested as guiding principles to be considered for larger-scale developments.

- To provide strong community infrastructure created around a theme of livability, functionality, walkability, and recreation/convenience.



- To create communities where emphasis is placed on all segments of the market ranging from younger childless singles and couples to families living, playing, and growing together; and where active adult residents can see and experience the vibrancy of youth.

- To create communities in which a variety of densities are carefully combined with pocket parks and other recreational uses – and that all are highly integrated and exposed for everyone to enjoy.

- ❑ Finally, the speed at which the Village of Mukwonago would like to pursue residential development initiatives (considering strong demand potentials) must also fully consider its impact on area services. At the same time, however, the impact on services should be counterbalanced against the positive impact new housing development will have on the growth in population serving commercial/retail components.

OTHER CONSIDERATIONS

While the focus of this residential analysis was geared toward new construction conventional "for rent" and "for sale" housing opportunities during the next 5+ years, provided in the following paragraphs is a general assessment or "professional opinion" regarding other segments of the housing market as obtained during our research and overall body of work.

- ❑ Assisted living, memory care and/or continuing care senior housing development proposals brought before the Village should also be given consideration, but potentials are likely stronger (today) for smaller- to more moderate-scale communities given local area senior demographics. Nevertheless, with occupancy levels being reported high at projects such as LindenGrove and Castle Senior Living/Birchrock Castle, as well as other developments in nearby municipalities, coupled with the fact that no market rate senior housing development has been constructed in Mukwonago for 20 years, potentials do exist provided a competitive product/rent position can be maintained. In addition, because the planning process can take some time, it is important to note that opportunities for true senior housing forms are likely to improve 10 years from now as the population, both in Mukwonago and the market as a whole, continues to age.

- ❑ As mentioned, the existing housing inventory in Mukwonago is broad and varied ranging from older-stock residences to luxury new construction. And, while certain portions of the municipality include dwellings or neighborhoods that are in need of improvement, the current status of these areas will not impinge upon potentials for new homes in other "developing" areas of the village, again because of the severe supply-side constraints market-wide for properly positioned product, as well as the overall desirability of Mukwonago. With this said, anything that can be done from a Village standpoint to help with the revitalization/refurbishment of certain areas can only improve Mukwonago's position in the regional marketplace and make the community that much more appealing (and competitive) going forward.

COVID-19 IMPLICATIONS

Because of the current situation regarding the recent/ongoing coronavirus pandemic, there will likely be a new mindset in the way many people live and socialize going forward. Specifically, *health and wellness* will be at the forefront of many planning efforts, something to consider as Mukwonago reviews future residential development proposals, especially multifamily. In this regard, provided below are a few items for consideration:

- ❑ The type and style of furniture and accessories in residential amenity areas (for any new development), while being tastefully appointed, should be made of materials that can be easily (and readily) cleaned and disinfected.

- Throughout any community (primarily apartments), consideration should be given to establishing privacy areas that are more personalized for an individual, related couple or a small group gathering.

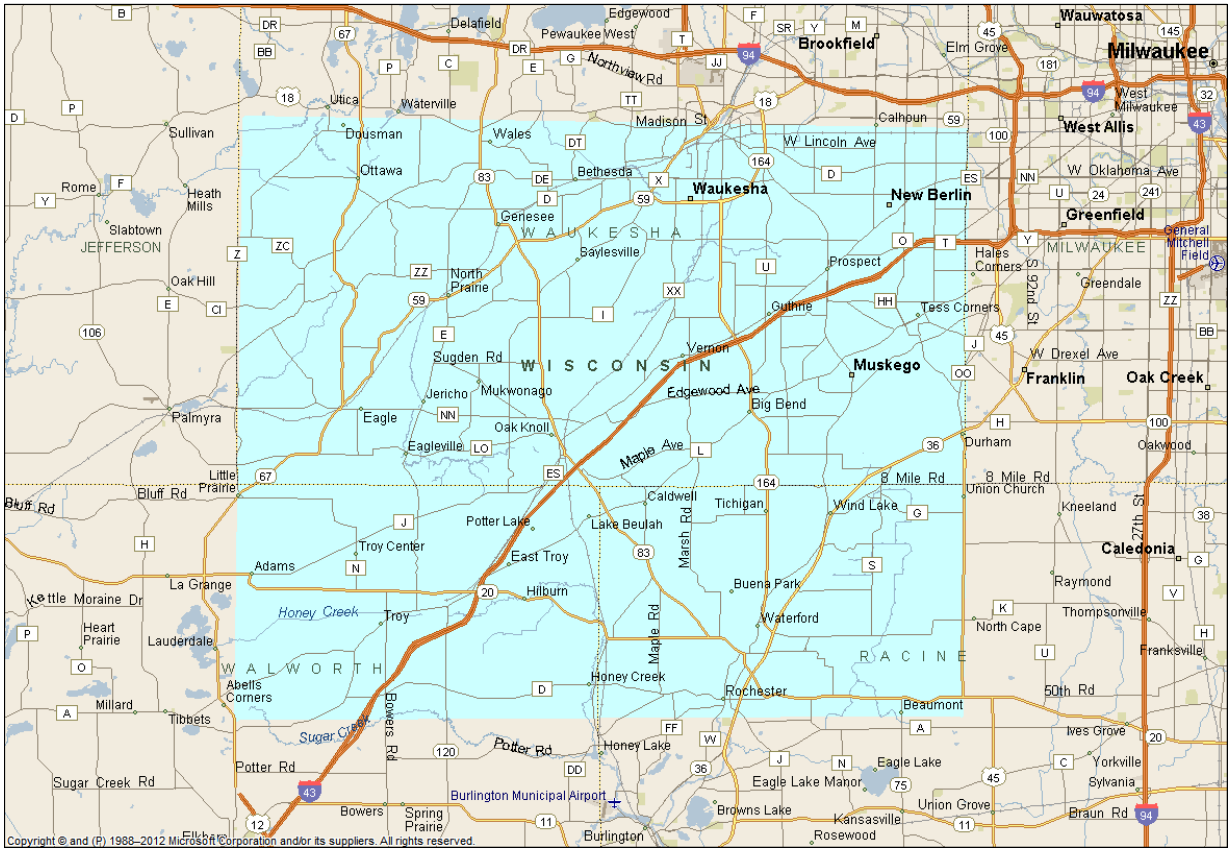
- In any fitness center that accompanies a residential development's amenity package (again, primarily multifamily), privatizing or compartmentalizing the work-out machines would go a long way in maximizing the appeal of this facility….and set it apart from existing competitors.

Again, these are just a few examples of the general planning framework that should be discussed prior to bringing any new residential development to market.

2. *MARKET FUNDAMENTALS FOR NEW HOUSING – A PERSPECTIVE*

Residential development/redevelopment efforts within the village of Mukwonago will receive primary demand support from Mukwonago itself and other nearby municipalities found in southwest suburban Waukesha County, northeast Walworth County, and northwest Racine County. Defined for the purposes of this analysis as the Mukwonago Primary Market Area (PMA), and including those municipalities generally aligning the Interstate 43 corridor such as Mukwonago, Muskego, Bid Bend, New Berlin, southern Waukesha, East Troy and Waterford, this geographic area shares commonalities relative to household composition, commutation patterns to major concentrations of employment, and the alignment of residential developments which will serve as sources of competitive influence, both direct and indirect.

GEOGRAPHIC DELINEATION OF THE MUKWONAGO PRIMARY MARKET AREA



Source: Microsoft Streets & Trips and Tracy Cross & Associates, Inc.

As summarized in this section of the report, residential development in the village of Mukwonago, and throughout the Mukwonago PMA for that matter, *can clearly be supported* by empirical evidence found in the key demand variables of population, household, incomes, employment, residential construction, etc.

POPULATION AND HOUSEHOLDS

The 2000 Census revealed that during the decade of the 1990s, the population of the Mukwonago PMA grew by 19.8 percent, or 3,284 persons yearly to a 2000 base of 198,913. Market area households, in turn, advanced by healthy 27.4 percent during the period, averaging 1,575 new households yearly, to a 2000 base of 73,215.

POPULATION AND HOUSEHOLD TRENDS
MUKWONAGO PRIMARY MARKET AREA: 1990-2010

Area	1990	2000	2010	Average Annual Change 1990 - 2000	Average Annual Change 2000 - 2010
Population					
Mukwonago PMA	**166,076**	**198,913**	**215,931**	**3,284**	**1,702**
Village of Mukwonago	4,457	6,831	7,355	237	52
Percent of PMA	2.7	3.4	3.4	16.6	19.1
Households					
Mukwonago PMA	**57,465**	**73,215**	**83,368**	**1,575**	**1,015**
Village of Mukwonago	1,535	2,591	2,898	106	31
Percent of PMA	2.7	3.5	3.5	6.7	3.0
Owner-Occupied Households					
Mukwonago PMA	**41,223**	**55,027**	**64,193**	**1,380**	**917**
Percent of Total Households	**71.7**	**75.2**	**77.0**	**---**	**---**
Village of Mukwonago	1,103	1,878	2,150	78	27
Percent of Total Households	71.9	72.5	74.2	---	---
Renter-Occupied Households					
Mukwonago PMA	**16,242**	**18,188**	**19,175**	**195**	**99**
Percent of Total Households	**28.3**	**24.8**	**23.0**	**---**	**---**
Village of Mukwonago	432	713	748	28	4
Percent of Total Households	28.1	27.5	25.8	---	---

Source: U.S. Census Bureau: Census 1990, 2000, and 2010

Statistics from the 2010 Census, however, showed a more moderate rate of growth as the PMA's population base increased by 8.5 percent between 2000 and 2010, or 1,702 persons annually. Households, too, advanced more gradually during the 2000-2010 period (13.9 percent), equal to an annual average pace of 1,015 new households. Several factors contributed to this moderation, including, primarily the negative impact of the national housing recession (the Great Recession) and also the built-out nature of the certain portions of the market, i.e., the downtown areas of various municipalities.

In the village of Mukwonago itself, growth in population and households from 1990 through 2010 generally emulated that of the PMA as a whole (on a percentage basis).

From 1990 through 2010, ownership housing forms represented the majority of occupied housing units throughout both the PMA and the village of Mukwonago, totaling over 70 percent during any given year.

According to growth projections by the Southeastern Wisconsin Regional Planning Commission, the Wisconsin Department of Administration, and Census estimates provided by Environics Analytics (through its evaluation of the Census Bureau's annual American Community surveys), household growth in the PMA over the next five years will total a healthy 2,900, or 580 annually, thus requiring new housing development. Most of this household growth will occur in those areas of the PMA where ample land is available for residential development, although redevelopment initiatives will continue to be part of the overall equation, especially considering ancillary-support mechanisms already in-place in the established downtown areas of constituent municipalities.

HOUSEHOLD GROWTH PROJECTIONS
MUKWONAGO PRIMARY MARKET AREA

Area	2010	2021 (Estimate)	2026 (Forecast)	Average Annual Change 2010 - 2021	Average Annual Change 2021 - 2026
Mukwonago PMA	**83,368**	**88,254**	**91,154**	**444**	**580**
Village of Mukwonago	2,898	3,232	3,448	30	43
Percent of PMA	3.5	3.7	3.8	6.8	7.4

Sources: U.S. Census Bureau, Environics Analytics; and Tracy Cross & Associates, Inc.

HOUSEHOLD COMPOSITION

The current composition of area households also lends support to the development of a variety of residential product forms at various locations throughout the PMA and the village of Mukwonago in particular. As highlighted in the adjacent text table, there is an ample number of one- and two- person households (for rental apartments and for sale duplexes/townhomes/condominiums), and also a significant number of three-, four- and five-person households (for both attached for sale housing products and single family detached homes).

Most notable are one- and two-person occupied housing units which, together, comprise 60.6 percent of the PMA's household base and 58.9 percent in the village of Mukwonago.

COMPOSITION OF AREA HOUSEHOLDS:
MUKWONAGO PRIMARY MARKET AREA - 2021

Attribute	Mukwonago Primary Market Area	Village of Mukwonago
Total Households	**88,254**	**3,232**
1-Person Household	21,079	825
2-Person Household	32,396	1,080
3-Person Household	14,827	566
4-Person Household	12,519	475
5-Person Household	5,054	192
6 or More Person Household	2,379	94
1 Person Households		
Percent	23.9	25.5
Number	21,079	825
2 Person Households		
Percent	36.7	33.4
Number	32,396	1,080

Source: Environics Analytics; *2021 Demographic Snapshot*

AGE AND INCOME

Households in the Mukwonago Primary Market Area support *considerably higher* incomes than the region as a whole as evidenced by an estimated 2021 median income of $88,388, a level 31.4 percent higher than the $67,248 median noted for the entire Milwaukee-Waukesha-West Allis Metropolitan Statistical Area (MSA), which includes the four counties of Milwaukee, Waukesha, Washington and Ozaukee.

In Mukwonago, incomes are virtually the same as the PMA with the estimated 2021 median household income in the host municipality standing at $86,901.

In both the PMA and the village of Mukwonago, over 73 percent of all current households earn $50,000 or more annually (see **Exhibit 2.1**). This signifies adequate income support locally (among the majority of households) for new construction housing development, both rental and for sale.

By age category, there is a near even distribution in area households among classifications under the ages of 75. Above 75, however, household levels drop rather precipitously, especially in the "frail elderly" category of 85+.

HOUSEHOLDS BY AGE GROUP: 2021
-- MUKWONAGO PRIMARY MARKET AREA --

Age Range	Mukwonago PMA	Village of Mukwonago
Under 35	11,955	498
35-44	14,321	593
45-54	15,859	649
55-64	19,899	630
65-74	15,551	517
75-84	7,300	215
85 and over	3,369	130
Total	***88,254***	***3,232***

Source: Environics Analytics: 2021 Demographic Snapshot Report

Over the next five years, while all age classifications among area households are expected to see gains, the 55-74 age group, i.e., the active adult/empty nester segment of the market, will show the largest increase (by far) throughout the PMA.

GROWTH IN HOUSEHOLDERS BY AGE GROUP
-- MUKWONAGO PRIMARY MARKET AREA --

	Mukwonago PMA	
Age Range	2021	2026
Under 35	11,955	12,298
35-54	30,180	30,309
55-74	35,450	37,546
75 and Over	10,669	11,001
Total	***88,254***	***91,154***

Source: Environics Analytics: 2021 Demographic Snapshot Report.

2.1

HOUSEHOLDERS BY AGE AND INCOME: 2021
-- MUKWONAGO PRIMARY MARKET AREA --

Income Range	Number of Households by Age of Householder							
	Total Households	Under 25	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	75 and Over
Mukwonago PMA								
Under $15,000	4,700	274	310	373	585	1,151	933	1,074
15,000 - 24,999	4,811	480	262	310	382	681	1,177	1,519
25,000 - 34,999	5,359	266	389	368	475	673	1,519	1,669
35,000 - 49,999	8,106	440	880	937	859	1,272	2,041	1,677
50,000 - 74,999	14,491	356	1,823	1,872	1,997	2,641	3,516	2,286
75,000 - 99,999	12,031	240	1,642	2,069	2,194	2,798	2,142	946
100,000 - 124,999	10,848	83	1,582	2,523	2,159	2,434	1,487	580
125,000 - 149,999	8,647	7	1,090	1,755	2,077	2,446	898	374
150,000 - 199,999	9,623	14	977	1,946	2,622	2,909	876	279
200,000 and Over	9,638	16	824	2,168	2,509	2,894	962	265
Total	***88,254***	***2,176***	***9,779***	***14,321***	***15,859***	***19,899***	***15,551***	***10,669***
Median	***$88,388***	***$37,282***	***$93,512***	***$112,025***	***$116,562***	***$107,293***	***$64,316***	***$44,686***
Households with Incomes of …								
$50,000 or More	65,278	716	7,938	12,333	13,558	16,122	9,881	4,730
Percent	74.0	32.9	81.2	86.1	85.5	81.0	63.5	44.3
Village of Mukwonago								
Under $15,000	196	2	6	6	38	63	39	42
15,000 - 24,999	175	4	12	14	15	30	47	53
25,000 - 34,999	173	4	20	18	10	10	62	49
35,000 - 49,999	302	29	19	19	61	74	55	45
50,000 - 74,999	575	32	96	89	68	74	134	82
75,000 - 99,999	385	13	54	64	87	82	57	28
100,000 - 124,999	419	8	72	115	100	80	32	12
125,000 - 149,999	356	3	39	59	114	94	32	15
150,000 - 199,999	317	1	36	76	88	66	37	13
200,000 and Over	334	1	47	133	68	57	22	6
Total	***3,232***	***97***	***401***	***593***	***649***	***630***	***517***	***345***
Median	***$86,901***	***$55,338***	***$96,527***	***$118,335***	***$111,794***	***$94,544***	***$60,295***	***$44,301***
Households with Incomes of …								
$50,000 or More	2,386	58	344	536	525	453	314	156
Percent	73.8	59.8	85.8	90.4	80.9	71.9	60.7	45.2

Sources: U.S. Bureau of the Census; Environics Analytics; and Tracy Cross & Associates, Inc.

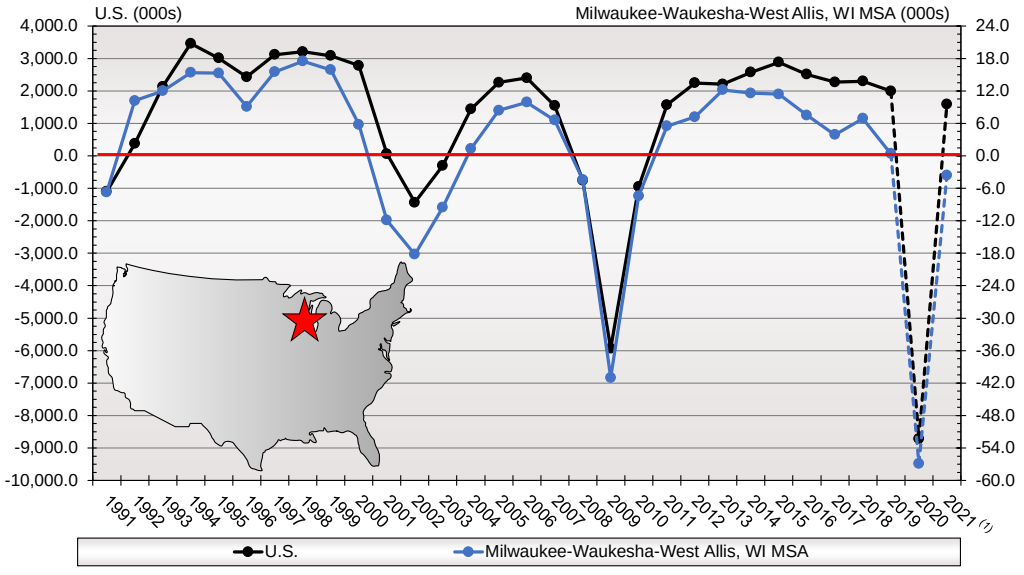
EMPLOYMENT

Mukwonago, while supporting its own internal economic, is also within a reasonable driving distance to concentrations of employment within the PMA itself, and, given easy access to Interstate 43, and its connection with other major transportation systems, employment sources throughout much of the Milwaukee metropolitan area, especially its southwestern and western suburbs and downtown Milwaukee.

While one cannot discount the effect that the Great Recession had on the region's economy, not to mention the current/recent Covid-19 pandemic, employment growth throughout the four-county Milwaukee-Waukesha-West Allis MSA had been on the positive side for nine years in a row through 2019. For example, after losing 6.1 percent of its total nonagricultural wage and salary employed workforce from 2007 through 2010 (during the trough of the Great Recession), the metropolitan area saw its job rosters grow by 66,600 workers during the subsequent 2011-2019 period, averaging 7,400 annually, and equal to a growth rate of approximately 1.0 percent.

Most recently, and due entirely to the global/national pandemic and its impact on the economy, the MSA witnessed job losses of 56,900 in 2020 – erasing roughly 85 percent of the net gains witnessed during the 2011-2019 period. However, this severe loss of jobs is/was temporary, and affected those sectors of the economy most impacted by the pandemic. Moreover, this most recent Covid-related downturn has already reversed course as vaccine distribution in progressing – bolstering the economy. As illustrated in the following graphic, the majority of employment losses in 2020 were replenished during the first six months of 2021. Moreover, the Wisconsin Department of Revenue, the Job Center of Wisconsin, and the Wisconsin Department of Workforce Development expect the Milwaukee region's employment rosters to increase by an average of 0.9 percent annually over the next five years. As such, the four-county MSA is expected to witness the addition of at least 36,000 total new jobs through 2026, which translates to an annual average of 7,200 workers.

YEAR-OVER-YEAR CHANGE IN NONFARM EMPLOYMENT
-- MILWAUKEE-WAUKESHA-WEST ALLIS, WI MSA AND THE U.S. --

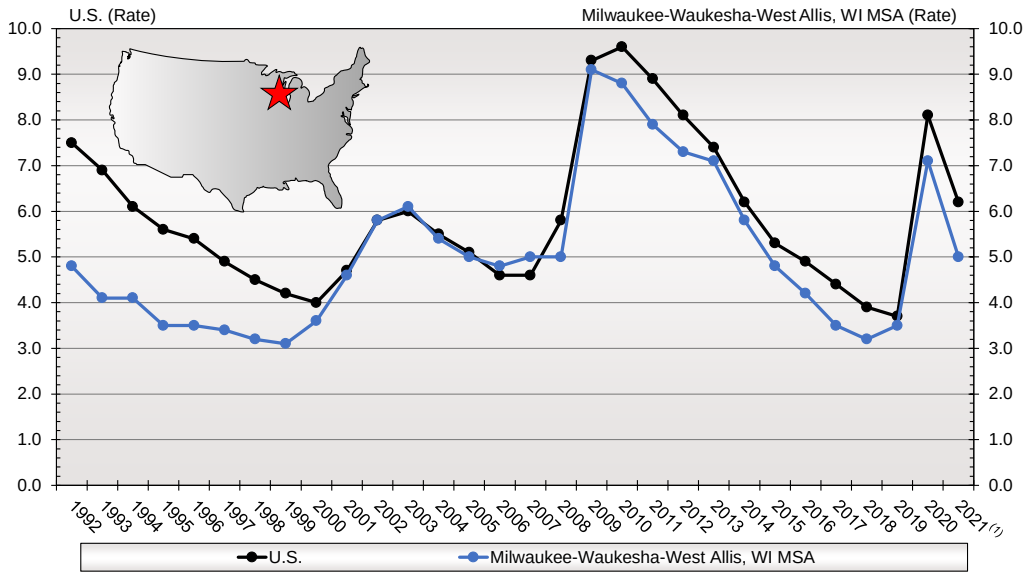


(1) January-June 2021 year-over-year.

Source: U.S. Department of Labor, Bureau of Labor Statistics

In addition, during the Milwaukee region's economic growth period of 2011 through 2019 (prior to the pandemic), the area's unemployment rate had been dropping steadily. As highlighted in the adjacent graphic, the Milwaukee area unemployment rate decreased from 8.8 percent in 2010 to just 3.5 in 2019. During this entire timeframe, the four-county MSA's unemployment rate remained at or *below* the nation as a whole. In addition, while unemployment in Milwaukee rose to 7.1 percent in 2020, i.e., the Covid-19 crisis, it remained lower than the 8.1 percent unemployment rate posted nationally. In addition, through the first six months of 2021, Milwaukee's unemployment rate had already retreated to 5.0 percent compared to a national average of 6.2 percent during the same time period.

UNEMPLOYMENT RATES BY YEAR
-- MILWAUKEE-WAUKESHA-WEST ALLIS, WI MSA AND THE U.S. --



(1) January-June 2021

Source: U.S. Department of Labor, Bureau of Labor Statistics

It is also important to note that employment gains in nearby Walworth and Racine counties, too, were positive during the 2011-2019 period prior to the coronavirus pandemic. In addition, both areas are on the road to recovery. In Walworth and Racine counties, there are currently over 115,000 jobs represented.

RESIDENTIAL BUILDING ACTIVITY

Since 1990, the Mukwonago PMA has recorded an average of 991 residential building permits per year ranging from a recessionary-impacted low of 191 units in 2011 to a high of 1,884 units in 1997 when land was more readily available for multiple forms of residential offerings, especially in the northern portions of the PMA, and development activity was simply more prevalent (see **Exhibit 2.2**).

Historically, single family permit authorizations have outpaced multifamily issuances at a ratio of two-to-one. For example, between 1990 and 2020, single family permits, which include single-address duplex, townhome and villa units, averaged 664 units yearly, while multifamily volumes averaged 327 units per annum.

Most recently, and due to diminishing land availability in certain areas of the PMA; various restrictive zoning practices; more limited development interest (or a concentrated interest elsewhere); and, of course, the

2.2

RESIDENTIAL BUILDING PERMIT TRENDS
-- MUKWONAGO PRIMARY MARKET AREA --
1990 - 2020

Year	Mukwonago Primary Market Area		
	Total	Single Family	Multi-Family
1990	1,652	884	767
1991	1,315	852	463
1992	1,803	1,129	674
1993	1,526	1,075	451
1994	1,536	970	566
1995	1,312	830	483
1996	1,797	1,035	762
1997	1,884	888	996
1998	1,787	1,038	750
1999	1,814	1,109	705
2000	1,219	872	348
2001	1,291	1,025	266
2002	1,308	989	320
2003	1,392	1,135	257
2004	1,266	1,010	256
2005	1,135	711	424
2006	842	682	160
2007	702	486	216
2008	673	294	379
2009	217	192	25
2010	194	192	2
2011	191	181	10
2012	323	256	67
2013	456	320	109
2014	594	350	204
2015	318	305	40
2016	438	380	98
2017	440	394	46
2018	477	449	28
2019	414	281	132
2020	398	260	138
Averages			
1990 - 2020	991	664	327
1990 - 1999	1,643	981	662
2000 - 2008	1,092	800	292
2009 - 2015	328	256	71
2016 - 2020	433	353	81

Source: U.S. Department of Commerce, Bureau of the Census: *C-40 Construction Reports*

Great Recession, resulted in lower residential construction activity. For example, total permit volumes during the last ten years averaged 405 units annually throughout the PMA, a level well below volumes posted during the previous 20 years.

From a regional capture rate perspective, between 1990 and 2008, the Mukwonago PMA consistently accounted for 20+ percent of all residential permit activity in the four-county Milwaukee metropolitan region. Then, during and immediately following the Great Recession, the PMA's capture rate generally hovered between 15 and 20 percent. In the last six years, however, the PMA's capture rate has dropped into the 10-15 percent range (see **Exhibit 2.3)** as most residential development, both single family and multifamily, is occurring outside of the local *area In other words, as the greater Milwaukee area moved from an average of roughly 1,850 permits annually between 2009 and 2014 to nearly 3,300 units yearly from 2015-2020, the Mukwonago PMA did not increase proportionately.* This resulted, primarily, from supply-side constraints locally – as will be discussed in Section 3.

HOUSING DEMAND – AN OUTLOOK

During the 2021-2026 timeframe, construction requirements for new housing in the Mukwonago PMA will average 680 units annually. This 680-unit forecast can be tied to household growth levels estimated at 580 per annum through 2026, along with 100+/- units representing the replacement of residences lost to demolition and abandonment and the need to provide a vacancy allowance for filtering or movement from one residence to another.

Of the 680 units expected to be constructed annually in the PMA during the 2021-2026 forecast period, 430 will occur among for sale housing forms with 250 represented in the rental apartment sector. As detailed in the adjacent text table, for sale housing demand will be distributed among 280 single family detached homes and 150 in the attached sector, i.e. duplexes, townhomes and condominiums.

ANNUAL RESIDENTIAL ABSORPTION POTENTIALS BY PRODUCT TYPE
-- MUKWONAGO PRIMARY MARKET AREA --
2021 - 2026

Product Type	Units
Total	***680***
For Sale	**430**
Single Family Detached	280
Townhome/Duplex/Condominium	150
For Rent	**250**

Source: Tracy Cross & Associates, Inc.

Given the severe supply-side constraints market-wide (which, again, will be discussed in the following section of the report), it is highly likely that demand will exceed supply near term, especially in the for sale sector but also among multifamily rental forms. This market reality bodes extremely well for development/redevelopment initiatives in Mukwonago, if properly planned and executed. In fact, Mukwonago could capture a disproportionate share of demand, say 25-30 percent, with a properly positioned continuum of product.

In addition, not only is "derived demand" likely to outstrip supply near term, but the overall base of residential construction requirements could actually be *much higher* (i.e. double) during any given year where properly positioned supply is made available. This *doubling of demand* factors pent-up demand, especially in the multifamily sector; upside household growth potentials if properly positioned development were actually to occur; the limited amount of new construction housing alternatives internal to the PMA (again, to be discussed later); and spillover potentials from areas outside the PMA.

2.3

RESIDENTIAL BUILDING PERMIT TRENDS: 1990 - 2020
-- MUKWONAGO PRIMARY MARKET AREA --

Year	Total Permits		
	Milwaukee-Waukesha-West Allis MSA	Mukwonago Primary Market Area	
		Number	Percent of MSA
1990	8,166	1,652	20.2
1991	5,988	1,315	22.0
1992	7,519	1,803	24.0
1993	7,201	1,526	21.2
1994	6,945	1,536	22.1
1995	6,176	1,312	21.2
1996	6,446	1,797	27.9
1997	6,429	1,884	29.3
1998	7,141	1,787	25.0
1999	7,173	1,814	25.3
2000	5,631	1,219	21.7
2001	5,879	1,291	22.0
2002	5,936	1,308	22.0
2003	6,467	1,392	21.5
2004	5,902	1,266	21.5
2005	5,444	1,135	20.9
2006	4,290	842	19.6
2007	3,266	702	21.5
2008	2,444	673	27.5
2009	1,443	217	15.0
2010	1,941	194	10.0
2011	1,593	191	12.0
2012	1,793	323	18.0
2013	2,000	456	22.8
2014	2,416	594	24.6
2015	3,048	318	10.4
2016	4,055	438	10.8
2017	3,693	440	11.9
2018	3,791	477	12.6
2019	2,440	414	17.0
2020	2,753	398	14.5
Averages			
1990 - 2020	4,691	991	21.1
1990 - 1999	6,918	1,643	23.7
2000 - 2008	5,029	1,092	21.7
2009 - 2015	2,033	328	16.1
2016 - 2020	3,346	433	12.9

Source: U.S. Department of Commerce, Bureau of the Census: *C-40 Construction Reports*

3. *THE RESIDENTIAL MARKETPLACE*

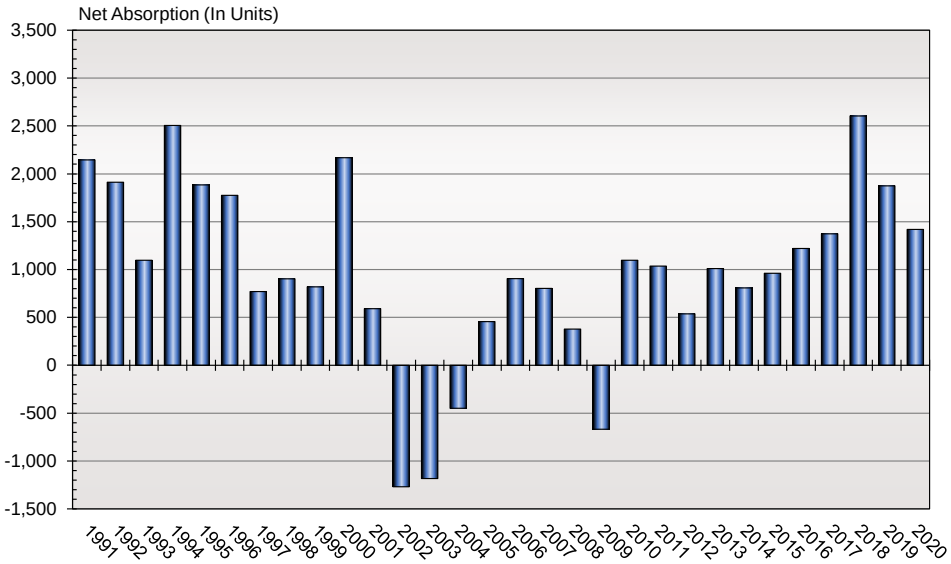
The most relevant sources of competitive influence upon future conventional residential offerings within Mukwonago will emanate from new/newer rental apartment development and for sale housing communities in the Mukwonago PMA, along with trends in the existing home market (i.e., the resale sector). This section of the report therefore summarizes relevant trends and statistics in the local housing market, placing concentrated emphasis upon the residential environment within Mukwonago itself, as activity in the immediate vicinity is most pertinent. We begin with an overview of the area's new construction rental apartment sector.

THE REGIONAL APARTMENT MARKET

Despite the physical, social, and economic impacts of the recent/on-going coronavirus pandemic, current rental apartment conditions in the greater Milwaukee region remain stable. For example, according to Reis, Inc., among all asset classifications of apartments in complexes of 20 units or more throughout the two core counties of the Milwaukee region, i.e., Milwaukee and Waukesha, a vacancy rate of 4.9 percent was reported at the close of the 2nd Quarter 2021, reflecting generally tight to balanced market conditions. In a normal (or balanced) market, vacancies of 5.0 to 6.0 percent are typically required for filtering, or movement between developments. In addition, the overall 4.7 percent vacancy rate incudes new "un-leased" units among those developments still undergoing their initial absorption periods. When these communities are excluded, the vacancy rate in Milwaukee and Waukesha counties drops to a tight 3.4 percent.

Net rental absorption in the two core counties of the Milwaukee region has averaged over 1,200 units annually during the last ten years – reaching or exceeding the 1,350-unit mark in each of the last four including 2,604 units in 2018 and 1,874 units in 2019. For perspective, during the eleven-year period from 1990 through 2000, Milwaukee and Waukesha counties saw their occupied apartment stock, among all asset classifications, increase by a total of 19,191 units, or an annual average of 1,745. Following this period of positive absorption, the 2001-2009 timeframe saw net absorption drop into negative territory for four of the eight years during the period due to recessionary overtones during the first part of the decade, a dramatic increase in home ownership, and a fair amount of rental-to-condominium conversion activity.

RENTAL APARTMENT ABSORPTION TRENDS: 1990-2020
-- MILWAUKEE & WAUKESHA COUNTIES, WI --



Source: Reis, Inc.

THE LOCAL APARTMENT MARKET

Not only are vacancies among all asset classifications of apartments in Milwaukee and Waukesha counties in a tight to balanced condition at 4.7 percent (3.4 percent excluding new/unabsorbed units), but vacancies are *even tighter (extremely tight)* in the Mukwonago PMA. For instance, among 18 smaller- to larger-scale developments surveyed by our firm throughout the PMA, i.e., those containing 15 total units or more and constructed since 1990, the overall vacancy rate among stabilized developments stands at just 0.9 percent (see **Exhibit 3.1**). This figure excludes one community still undergoing its initial absorption period, i.e., Will Rose in Muskego which is currently absorbing units at a pace of 3.8 per month.

One of the primary reasons for the tightness of the local apartment market is the overall limited number of new construction developments throughout the PMA. For example, unlike many other suburban areas of the Milwaukee region, new rental apartment development in the overall Mukwonago PMA has not kept pace with demand during the last 20+ years. Since 2000, only nine (9) new rental communities have been introduced in this broad geographic area, *many of which are smaller in scale* and lacking community amenities. In other words, the amount of new development activity during the past several years has not been sufficient enough to restore balance in the rental sector.

Mukwonago, itself, has been a contributing factor in *attempting* to fill the multifamily supply void as four separate apartment communities have been introduced in the municipality over the last five years. These four developments, however, all of which have been well received, have not been adequate enough to meet the multifamily demands of the market as they are currently near capacity with a collective vacancy rate of just 1.5 percent among 203 total units. This is especially true considering just five (5) other apartment communities (243 total units) have been constructed throughout the entirety of the PMA in the last five years. In addition, Mukwonago's 258-unit River Park Place community, which was constructed in 1992, is currently 100 percent occupied with a waiting list.

APARTMENT DEVELOPMENTS CONSTRUCTED IN 1990 OR LATER
-- MUKWONAGO, WISCONSIN --

Development	Year Built	Total Units	Vacant	Vacancy Rate	Average Plan Size (Sq. Ft.)	Average Monthly Base Rent	Average Base Rent Per Sq. Ft.
Edgewood Village 	2019	30	1	3.3	1,299	$1,850	$1.42
Mukwonago Townhomes 	2021	16	0	0.0	1,470	2,195	1.49
Phantom Woods Estates 	2017	68	0	0.0	1,193	1,377	1.15
The Pointe 	2020	89	2	2.2	950	1,167	1.23
River Park Place 	1992	258	0	0.0	770	922	1.20
Total/Average:	---	***461***	***3***	***0.7***	***926***	***1,141***	***1.23***

Source: Tracy Cross & Associates, Inc.

3.1

COMPOSITE RENTAL SUMMARY: APARTMENT COMMUNITIES CONSTRUCTED IN 1990 OR LATER
MUKWONAGO PRIMARY MARKET AREA: JULY 2021

Development	Municipality	Year Construction Started	Total Units	Number Vacant	Percent Vacant (Absorption Rate in Units)	Average Unit Size (Sq. Ft.)	Average Posted Base Monthly Rent	
							$	$/Sq. Ft.
Waukesha County								
Edgewood Village	Mukwonago	2019	30	1	3.3	1,299	$1,850	$1.42
Mukwonago Townhomes	Mukwonago	2021	16	0	0.0	1,470	2,195	1.49
Phantom Woods Estates	Mukwonago	2017	68	0	0.0	1,193	1,377	1.15
The Pointe	Mukwonago	2020	89	2	2.2	950	1,167	1.23
River Park Place	Mukwonago	1992	258	0	0.0	770	922	1.20
The View at Towne Center	Muskego	2017	90	0	0.0	1,368	1,872	1.37
Will Rose[1]	Muskego	2020	51	5	9.8 (3.8/Mo.)	1,177	1,784	1.52
Central Pointe	New Berlin	2015	40	1	2.5	987	1,508	1.53
Highlands of New Berlin	New Berlin	1998	158	0	0.0	1,127	1,440	1.28
The Sanctuary	New Berlin	2001	182	5	2.7	1,210	1,974	1.63
Clearwater	Waukesha	2015	55	2	3.6	942	1,231	1.31
Glens of Waukesha	Waukesha	2000	72	1	1.4	1,078	1,207	1.12
Kendal Hills	Waukesha	2005	120	0	0.0	1,157	1,271	1.10
Whispering Ponds	Waukesha	1999	96	1	1.0	1,065	1,249	1.17
Wildflower Place	Waukesha	2000	81	3	3.7	948	1,082	1.14
Walworth County								
Honey Creek	East Troy	2006	274	0	0.0	1,027	1,176	1.15
Racine County								
The Cornerstone	Waterford	2021	84	0	0.0	1,098	1,328	1.21
Trail View Village	Waterford	2020	18	0	0.0	1,244	1,475	1.19
Total/ Weighted Average	---	---	***1,782 / 1,731*** [2]	***21 / 16*** [2]	***1.2 / 0.9*** [2]	***1,061***	***$1,351***	***$1.27***

[1] Community is still undergoing its initial absorption period.

[2] Excludes the community still undergoing its initial absorption period.

Source: Tracy Cross & Associates, Inc.

The two newest apartment communities to be introduced in the village of Mukwonago include The Pointe (89 units) and Mukwonago Townhomes (16 units). Both communities have been extremely well received with The Pointe reaching stabilized occupancy in just 11 months at an average absorption rate of 7.7 units monthly, while the smaller-scale Mukwonago Townhomes reached stabilized occupancy in less than six months.

Again, the success of recent apartment development in Mukwonago can be tied directly to an undersupplied market for many years, not only in Mukwonago, but throughout the PMA as a whole.

The average posted base rent level among apartment communities in Mukwonago ranges from a low of $992 monthly for 770 square feet at River Park Place, which is almost 20 years old, to a high of $2,195 per month for 1,470 square feet at the new Mukwonago Townhomes. The others fall between these two extremes. It should be noted that on a rent per square foot basis, Mukwonago supports some of the most competitive rents in the entire PMA when cast against other new developments.

FUTURE APARTMENT COMPETITION

With the exception of the large-scale Maple Center apartment development (650+ units) proposed on the east side of Mukwonago, along with two smaller-scale communities in the village totaling 87 units, only four other market rate apartment developments (405 total units) are officially in the planning pipeline at this time elsewhere throughout the entirety of the PMA.

THE FOR SALE MARKET

New construction for sale development throughout the Mukwonago Primary Market Area is generally characterized by smaller-scale broker- or builder-represented communities reflecting single family and duplex/townhome/condominium subdivisions directed to both primary and lifestyle consumer segments which (in many cases) have been marketed in phases over extended periods of time. Overall, there are only a modicum of recently introduced developments actively marketing new units in proprietary communities throughout the PMA, although some scattered site/lot sale development is also evident.

In the entirety of the PMA, single family building permits, which include single family detached homes as well as single-address townhomes, duplexes, and condominium/villa units, has hovered around 270 units annually over the last two years *in this broad geographic area*, despite demand potentials being much stronger based upon household growth levels and replacement derivatives. This lack of new construction for sale development activity is due, in part, to the built-out nature of certain portions of the PMA and, more importantly, the higher prices that now accompany new for sale developments, which has resulted in slower sales volumes. In fact, most proprietary subdivisions throughout the PMA are generating sales volumes in the 0.5 to 0.8 unit-per-month range – rates viewed as modest by most standards. In addition, major Milwaukee-area builders are currently favoring other areas of the region – where price can be more readily absorbed.

In Mukwonago, itself, active for sale development currently includes several single family and condominium communities that, while reflecting tasteful architecture, color schemes, etc., are, too, priced in the higher ranges and generating more modest sales volumes. As highlighted in the following text table, the new construction for sale communities in Mukwonago have generated a total of 18 sales/closings over the last 18 months.



FOR SALE RESIDENTIAL DEVELOPMENTS
-- MUKWONAGO, WISCONSIN --

Development	Product Type	Number of Sales/Closings (Last 18 Months)	Average Plan Size (Sq. Ft.)	Average Sales/Closing Price	Average Price Per Sq. Ft.
The Orchards	Single Family	4	2,158	$421,438	$195.29
Fox River Run	Single Family	1	2,302	450,000	195.48
Fairwinds	Single Family	10	2,172	487,800	224.59
Phantom Lake Preserve	Duplex/Condo	6	1,578	389,900	247.08
Chapman Villas	Duplex/Condo	1	1,412	414,900	293.84
The Grand	Townhome/Condo	1	1,746	409,900	234.77

Source: Tracy Cross & Associates, Inc.

In the overall Mukwonago PMA, new/newer ***single family*** closing activity has been generally steady over the last 2+ years, with little improvement, mainly because of the lack of new developments entering the market. As highlighted in the following text table, roughly 100 new single family detached homes are sold/closed annually in the PMA (through the local multiple listing service), at price points averaging over $450,000. Given the limited amount of new construction development (overall), together with strong underlying currents of demand, the median closing price has risen steading since 2019, while the average marketing time of a new single family home (days on market) has dropped precipitously.

NEW/NEWER SINGLE FAMILY CLOSINGS
HOMES CONSTRUCTED BETWEEN 2017 - JUNE 2021: MUKWONAGO PMA
2019 - JUNE 2021

Price Range	2019		2020		Jan-June 2021 (Annualized)	
	Number of Closings	Percent of Total	Number of Closings	Percent of Total	Number of Closings	Percent of Total
Under $250,000	1	1.1	1	0.9	1	1.0
250,000 - 299,999	1	1.1	3	2.8	1	1.0
300,000 - 349,999	7	7.9	4	3.7	6	6.0
350,000 - 399,999	12	13.5	17	15.7	12	12.0
400,000 - 449,999	20	22.5	23	21.2	20	20.0
450,000 - 499,999	17	19.1	22	20.4	22	22.0
500,000 - 549,999	15	16.8	14	13.0	14	14.0
550,000 - 599,999	8	9.0	10	9.3	11	11.0
600,000 & Above	8	9.0	14	13.0	13	13.0
Total	***89***	***100.0***	***108***	***100.0***	***100***	***100.0***
Median	***- - - - - $460,208 - - - - -***		***- - - - - $463,970 - - - - -***		***- - - - - $472,726 - - - - -***	
Average Days on Market	***- - - - - - - 88 - - - - - - -***		***- - - - - - - 72 - - - - - - -***		***- - - - - - - 44 - - - - - - -***	

Source: Southeast Wisconsin Multiple Listing Service

Please note that new construction closings recorded by the multiple listing service do not include all proprietary subdivision activity among single family developments, especially where individual lots are sold directly to the end consumer, who in turn, builds a semi-custom or custom home.

While the lack of new single family development (of scale) is keeping volumes in the more modest ranges, especially when demand is much stronger, so, too, is the overall higher price position of the new construction homes being built (as mentioned earlier). In fact, with the median price of a new/newer single family closing (as recorded through the multiple listing service) standing at $472,726 during the first six months of 2021, there is a disconnect with the distribution of household incomes, which is putting extreme pressure on the existing home market, i.e. the resale sector. For example, the median closing price among new construction units in the PMA is now almost $140,000 higher than that of a resale counterpart. As a result, prices in the existing home market have been increasing even more rapidly and the average "days on market" are extremely low.

As highlighted in the following text table, the average market time of an older-stock single family resale closing during the January-June 2021 period stood at just 18 days, down from 23 days in 2020 and 27 days in 2019. For reference, the typically marketing time for a single family detached resale in the Midwest ranges from 72-90 days. In the village of Mukwonago, the average market time of a single family resale during the last six months stood at just 19 days, and at closing prices similar to those reflected in the PMA as a whole.

SINGLE FAMILY RESALE CLOSINGS
HOMES CONSTRUCTED BEFORE 2017: MUKWONAGO PMA
2019 - JUNE 2021

Price Range	2019		2020		Jan-June 2021 (Annualized)	
	Number of Closings	Percent of Total	Number of Closings	Percent of Total	Number of Closings	Percent of Total
Under $200,000	262	13.0	214	9.6	132	7.4
200,000 - 249,999	406	20.2	339	15.2	202	11.3
250,000 - 299,999	452	22.5	448	20.1	314	17.7
300,000 - 349,999	355	17.7	426	19.1	332	18.7
350,000 - 399,999	221	11.0	301	13.5	266	15.0
400,000 - 449,999	126	6.3	188	8.4	166	9.3
450,000 - 499,999	78	3.9	110	5.0	116	6.5
500,000 - 549,999	48	2.4	69	3.1	80	4.5
550,000 - 599,999	25	1.2	31	1.4	32	1.8
600,000 & Above	37	1.8	102	4.6	138	7.8
Total	***2,010***	***100.0***	***2,228***	***100.0***	***1,778***	***100.0***
Median	***$287,332***		***$313,350***		***$336,363***	
Average Days on Market	***27***		***23***		***18***	

Source: Southeast Wisconsin Multiple Listing Service

In the ***duplex/townhome/condominium*** sector, a similar condition exists in the PMA relative to pricing differentials between new construction units and resales. As highlighted in the table below, there are currently 75+/- new attached units being sold annually market-wide, again a relatively modest volume because of limited supply in this sector, coupled with price points that also exceed $400,000 on average.

NEW/NEWER DUPLEX/TOWNHOME/CONDOMINIUM CLOSINGS
HOMES CONSTRUCTED BETWEEN 2017 - JUNE 2021: MUKWONAGO PMA
2019 - JUNE 2021

Price Range	2019		2020		Jan-June 2021 (Annualized)	
	Number of Closings	Percent of Total	Number of Closings	Percent of Total	Number of Closings	Percent of Total
Under $200,000	5	10.6	0	0.0	0	0.0
200,000 - 249,999	2	4.3	0	0.0	0	0.0
250,000 - 299,999	5	10.6	0	0.0	0	0.0
300,000 - 349,999	6	12.8	12	17.4	12	15.3
350,000 - 399,999	7	14.9	17	24.6	18	23.1
400,000 - 449,999	14	29.8	18	26.1	22	28.2
450,000 - 499,999	3	6.4	10	14.5	18	23.1
500,000 & Above	5	10.6	12	17.4	8	10.3
Total	***47***	***100.0***	***69***	***100.0***	***78***	***100.0***
Median	***- - - - - $389,261 - - - - -***		***- - - - - $415,325 - - - - -***		***- - - - - $420,567 - - - - -***	
Average Days on Market	***- - - - - - - 89 - - - - - - -***		***- - - - - - - 78 - - - - - - -***		***- - - - - - - 69 - - - - - - -***	

Source: Southeast Wisconsin Multiple Listing Service

Again, the higher price position found in the new construction attached sector is putting tremendous pressure on the existing home market as evidenced by duplex/townhome/condominium resale closings averaging just 16 days on market during the January-June 2021 period, down from 23 days in 2019. As highlighted in the following text table, the difference in price between typical resale and new construction attached sector units is roughly $200,000.

DUPLEX/TOWNHOME/CONDOMINIUM RESALE CLOSINGS
HOMES CONSTRUCTED BEFORE 2017: MUKWONAGO PMA
2019 - JUNE 2021

Price Range	2019		2020		Jan-June 2021 (Annualized)	
	Number of Closings	Percent of Total	Number of Closings	Percent of Total	Number of Closings	Percent of Total
Under $150,000	112	28.1	108	25.1	52	13.4
150,000 - 199,999	104	26.1	108	25.1	76	19.7
200,000 - 249,999	108	27.1	102	23.7	102	26.4
250,000 - 299,999	48	12.1	51	11.9	78	20.2
300,000 - 349,999	13	3.3	26	6.0	32	8.3
350,000 - 399,999	7	1.8	15	3.5	32	8.3
400,000 - 449,999	4	1.0	9	2.1	12	3.1
450,000 - 499,999	2	0.5	9	2.1	1	0.3
500,000 & Above	0	0.0	2	0.5	1	0.3
Total	***398***	***100.0***	***430***	***100.0***	***386***	***100.0***
Median	***- - - - - $191,953 - - - - -***		***- - - - - $199,601 - - - - -***		***- - - - - $232,007 - - - - -***	
Average Days on Market	***- - - - - - - 23 - - - - - - -***		***- - - - - - - 20 - - - - - - -***		***- - - - - - - 16 - - - - - - -***	

Source: Southeast Wisconsin Multiple Listing Service

The limited amount of *new construction* product in the overall market, especially at price points more in-line with typical "new versus resale" differentials, is also having an impact on overall inventory levels. For example, among all residential resales in the PMA (both detached and attached excluding new construction), inventory levels are low. As outlined in the following text table, with only 485 single family listings reported at the beginning of July 2021, and with closing activity totaling 2,228 units in 2020, single family resale inventory levels in PMA stand at just 2.61 months, which falls below the typical three- to four-month inventory period that exists in more normal, or balanced, existing home markets. In the attached sector, an even lower level of inventory exists at just 2.20 months. The most notable areas of imbalance in the detached sector can be found at price points below $500,000, and in the attached sector, below $400,000.

RESALE INVENTORY ANALYSIS IN MONTH'S SUPPLY
MUKWONAGO PMA

Price Range	Closings 2020 (Full Year)	Current Listings As of 7/1/2021	Months of Inventory
Single Family Detached			
Under $200,000	214	35	1.96
200,000 - 249,999	339	38	1.35
250,000 - 299,999	448	69	1.85
300,000 - 349,999	426	81	2.28
350,000 - 399,999	301	66	2.63
400,000 - 449,999	188	43	2.74
450,000 - 499,999	110	34	3.71
500,000 - 549,999	69	28	4.87
550,000 - 599,999	31	22	8.52
600,000 & Above	102	69	8.12
Total	***2,228***	***485***	***2.61***
Duplex / Townhome / Condominium			
Under $150,000	108	13	1.44
150,000 - 199,999	108	15	1.67
200,000 - 249,999	102	13	1.53
250,000 - 299,999	51	9	2.12
300,000 - 349,999	26	9	4.15
350,000 - 399,999	15	6	4.80
400,000 - 449,999	9	6	8.00
450,000 - 499,999	9	6	8.00
500,000 & Above	2	2	12.00
Total	***430***	***79***	***2.20***

Source: Southeast Wisconsin Multiple Listing Service

Suffice it to say that the state of the current new construction home market throughout the PMA represents an opportunity for development/redevelopment in the village of Mukwonago on the basis of supply-side constraints (both rental and for sale), along with the extreme price disparity that exists in the for sale sector between new construction and resales. In other words, given current market conditions in both the rental apartment and for sale sectors of the market, Mukwonago is in a unique position to capitalize on current market conditions.

FUTURE FOR SALE COMPETITION

There are currently several for sale communities either formally in the Mukwonago planning pipeline or in the early discussion stages. Most of these reflect smaller-scale developments and/or extensions of existing subdivisions. Elsewhere throughout the PMA, just a modicum of for sale housing communities are in planning totaling less than 500 units at this time, distributed among various smaller-scale single family and duplex/townhome/condominium projects. Again, future "known" supply indicates clear imbalance relative to underlying demand potentials.

GENERAL LIMITING CONDITIONS

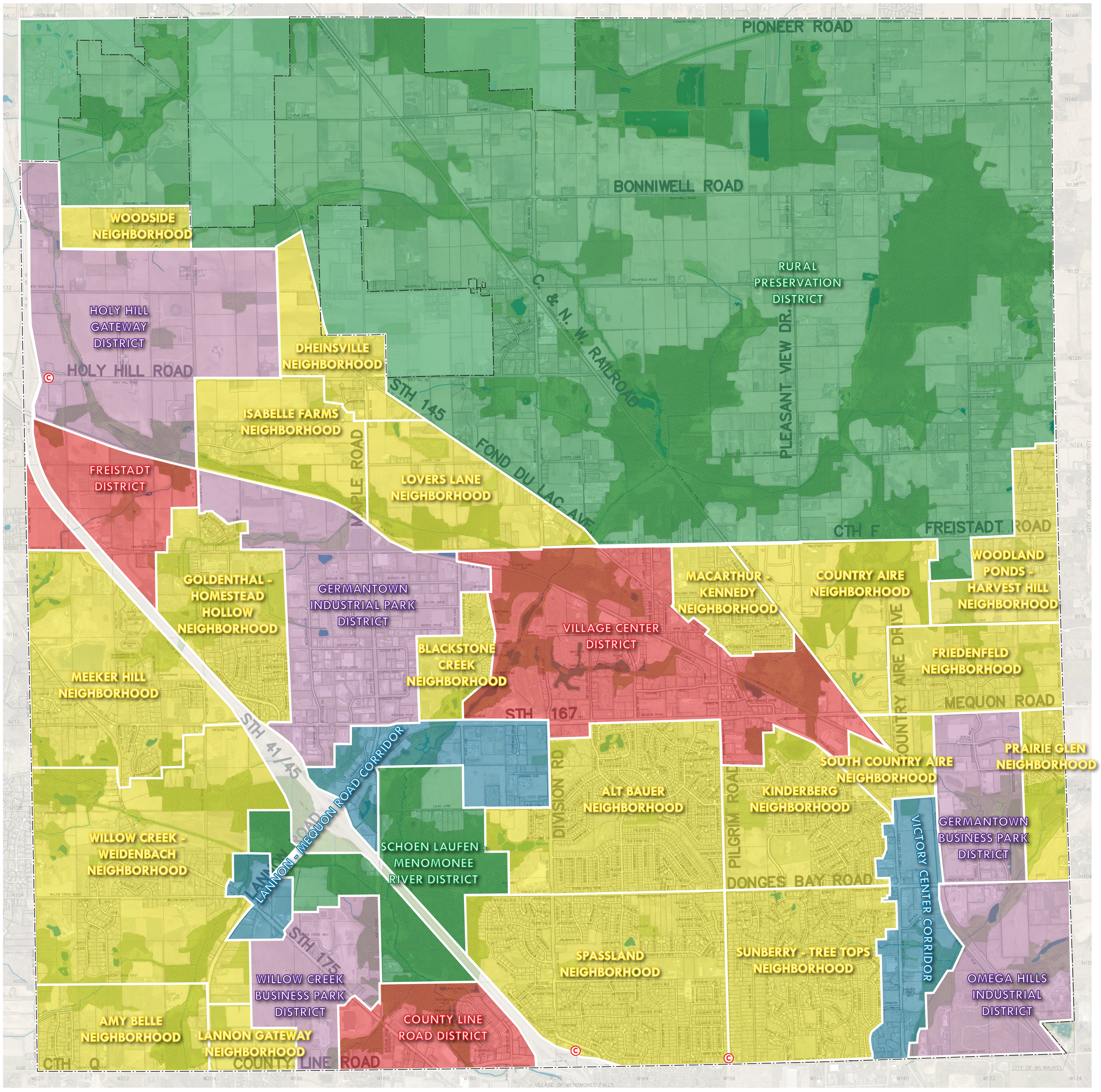
Tracy Cross & Associates, Inc. has made extensive efforts to confirm the accuracy and timeliness of the information contained in this study. Such information was compiled from a variety of sources, including interviews with developers/property managers and their agents, government officials, and other third parties. Although Tracy Cross & Associates, Inc. believes all information in this study is correct, it does not warrant the accuracy of such information and assumes no responsibility for inaccuracies in the information provided by third parties.

Conclusions and recommendations established in this analysis represent a professional opinion and are based upon forecasts into the future which could be significantly altered by outside occurrences. These include, among others, the possible interplay of unforeseen social, economic, physical/environmental, and governmental actions. In this regard, Tracy Cross & Associates, Inc., its owners, and its employees shall be held harmless of changes in conditions that may materially result from these occurrences.

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NEIGHBORHOODS, DISTRICTS, CORRIDORS

Village of Germantown 2050 Future Land Use Map



*Note: This map is intended for use in combination with the Future Land Use Table

LEGEND:

NEIGHBORHOODS

- ALT BAUER
- AMY BELLE
- BLACKSTONE CREEK
- COUNTRY AIRE
- DHEINSVILLE
- FRIEDENFELD
- GOLDENTHAL - HOMESTEAD HOLLOW
- ISABELLE FARMS
- KINDERBERG
- LANNON GATEWAY
- LOVERS LANE
- MACARTHUR - KENNEDY
- MEEKER HILL
- PRAIRIE GLEN
- SOUTH COUNTRY AIRE
- SPASSLAND
- SUNBERRY - TREE TOPS
- WILLOW CREEK - WEIDENBACH
- WOODLAND PONDS - HARVEST HILL
- WOODSIDE

DISTRICTS

MIXED-USE DISTRICTS

- COUNTY LINE ROAD
- FREISTADT
- VILLAGE CENTER

BUSINESS PARK/INDUSTRIAL DISTRICTS

- GERMANTOWN BUSINESS PARK
- GERMANTOWN INDUSTRIAL PARK
- HOLY HILL GATEWAY
- OMEGA HILLS INDUSTRIAL DISTRICT
- WILLOW CREEK BUSINESS PARK

RURAL/OPEN SPACE DISTRICTS

- RURAL PRESERVATION
- SCHOEN LAUFEN - MENOMONEE RIVER

CORRIDORS

- LANNON-MEQUON ROAD
- VICTORY CENTER

MUNICIPAL BOUNDARY

GERMANTOWN 2050 Planning our future together.

ADOPTED SEPTEMBER 26, 2022

Germantown 2050 - Comprehensive Plan Update | **Future Land Use Table** (Page One)

Places			Preferred Future Land Uses											SSA	Environmental Corridor	Preferred Site Design			Maximum Density (residential uses)
Neighborhood / District / Corridor	Place Type	Place Name	Existing Uses (+ existing non-conforming zoning) See Note 5 for details	Residential: Single Family	Residential: Two to Four Family	Residential: Multi-family / Senior	Mixed-Use: Commercial / Residential	Mixed-Use: Commercial / Industrial	Commercial (includes "Activity Centers")	Institutional	Open Space & Recreational	Mineral Extraction	Industrial	Agricultural / Hobby Farming / Agribusiness	Sewered? (Y/N/Partial)	Contains an Environmental Corridor?	Traditional Neighborhood	Suburban Subdivision	Conservation Subdivision**	Dwelling Units / Acre See NOTE 4 for details
District	Mixed-Use	County Line Road District	A	u	u	A	A	A	D	A	A	u	u	u	Y	YES	D	U	A	10 units/acre
District	Mixed-Use	Freistadt District	A	A	A	D	D	D	A	A	A	u	D	u	Y	YES	-	-	-	SF: 2.9 units/acre 2-4F: 6 units/acre MF: 25 units/acre
District	Mixed-Use	Village Center District	A	A	A	D	D	u	D	A	D	u	u	u	Y	YES	D	A	U	SF: 2.9 units/acre 2-4F: 6 units/acre MF: 25 units/acre
District	Industrial / Commercial	Germantown Business Park District	A	u	u	u	u	D	A	A	A	u	D	u	Y	YES	-	-	-	-
District	Industrial / Commercial	Germantown Industrial Park District	A	u	u	u	u	D	A	A	A	u	D	u	Y	YES	-	-	-	-
District	Industrial / Warehousing	Holy Hill Gateway District See NOTE 6 for details on "Provisional Land Use Area"	A	u	u	D	D	D	A	A	A	u	D	u	Y	YES	-	-	-	25 units/acre
District	Industrial / Landfill	Omega Hills Industrial District	A	u	u	u	u	D	A	A	A	A	D	u	N	YES	-	-	-	-
District	Industrial / Commercial	Willow Creek Business Park District	A	u	u	u	u	D	A	A	A	u	D	u	Y	YES	-	-	-	-
District	Rural / Open Space	Rural Preservation District	A	A	u	u	u	u	u	A	D	A	u	D	N	YES	U	U	D	see NOTE 1
District	Open Space	Schoen Laufen - Menomonee River District	A	u	u	u	u	u	u	A	D	u	u	u	P	YES	-	-	-	-
Corridor	Mixed-Use	Lannon - Mequon Road Corridor	A	A	A	A	A	A	D	A	A	u	u	u	P	YES	D	U	U	SF: 2.9 units/acre 2-4F: 6 units/acre MF: 10 units/acre
Corridor	Mixed-Use	Victory Center Corridor	A	A	A	A	A	A	D	A	A	u	A	u	Y	YES	D	U	U	SF: 2.9 units/acre 2-4F: 6 units/acre MF: 10 units/acre

NOTE 1:	"Rural Preservation" District:	1 unit/ 20 acres (4 or fewer CSM lots)
		1 unit/ 5 acres with Conservation Subdivision (5 or greater lots subdivided)
NOTE 2:	Neighborhood in SSA (w/ water & sewer)	2.2 units/ acre (4 or fewer CSM lots)
		3.5 units/acre with Conservation Subdivision (5 or greater lots subdivided)
NOTE 3:	Neighborhood outside SSA (no water & sewer)	1 unit/ 5 acres (4 or fewer CSM lots)
		1 unit/ 3 acres with Conservation Subdivision (5 or greater lots subdivided)
NOTE 4:	The density listed in this column is the maximum density permitted. However, a lower density may be required on a case by case basis and higher density may be permitted through a Planned Development District approved by the Village Board pursuant to the Planned Development District section of the Zoning Code.	
NOTE 5:	Expansion of existing and nonconforming uses within existing property boundaries may be permitted subject to zoning restrictions and Plan Commission approval.	
NOTE 6:	Land use within the "Provisional Land Use Area" shall be consistent with the former 2020 Land Use Plan "Agricultural/Conservation Residential" designation that allows agricultural use and single-family residential use with a maximum density and minimum lot size of 1 dwelling per 5 acres.	
*	Area is within (or partially within) SSA, but the majority of properties are not connected to sewer	
**	"Conservation Subdivision" includes: (a) minimum open space requirement (40-60%); (b) minimum lot size (1.0 acre for "Rural/Open Space" and 'Residential" outside SSA; 8,000SF for "Residential" inside SSA)	

D =	**Desirable** – These uses should be encouraged because they are consistent with, support, and enhance the desired character of the area.
A =	**Allowable** – These uses are generally considered appropriate for the area, but may require additional consideration and/or specific modification or developed features to be compatible with other uses in the area.
u =	**Undesirable** – These uses should not be encouraged but may still be acceptable for the area under special circumstances.

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Places			Preferred Future Land Uses											SSA	Environmental Corridor	Preferred Site Design			Maximum Density (residential uses)
Neighborhood / District / Corridor	Place Type	Place Name	Existing Uses (+ existing non-conforming zoning) See Note 5 for details	Residential: Single Family	Residential: Two to Four Family	Residential: Multi-family / Senior	Mixed-Use: Commercial / Residential	Mixed-Use: Commercial / Industrial	Commercial (includes "Activity Centers")	Institutional	Open Space & Recreational	Mineral Extraction	Industrial	Agricultural / Hobby Farming	Sewered? (Y/N/Partial)	Contains an Environmental Corridor?	Traditional Neighborhood	Suburban Subdivision	Conservation Subdivision**	Dwelling Units / Acre See NOTE 4 for details
Neighborhood	Residential Community	Alt Bauer Neighborhood	A	D	A	u	u	u	u	u	D	u	u	u	Y	YES	D	A	D	SF: 2.9 units/acre 2-4F: 6.0 units/acre
Neighborhood	Residential Community	Amy Belle Neighborhood	A	D	u	u	u	u	u	u	D	u	u	D	N	YES	A	U	D	see NOTE 2 and NOTE 3
Neighborhood	Residential Community	Blackstone Creek Neighborhood	A	D	A	u	u	u	u	u	D	u	u	u	Y	YES	D	A	D	5.8 units/acre
Neighborhood	Residential Community	Country Aire Neighborhood	A	D	u	u	u	u	u	u	D	u	u	u	P	YES	A	A	D	Non-sewered: 1.0 unit/acre Sewered: 2.9 units/acre
Neighborhood	Residential Community	Dheinsville Neighborhood	A	D	u	u	u	u	u	u	D	u	u	D	N	YES	D	U	D	see NOTE 2 and NOTE 3
Neighborhood	Residential Community	Friedenfeld Neighborhood	A	D	A	u	u	u	u	u	D	u	u	u	Y*	YES	D	A	D	SF: 2.9 units/acre 2-4F: 6 units/acre Non-sewered: 1.0 unit/acre
Neighborhood	Residential Community	Goldenthal - Homestead Hollow Neighborhood	A	D	A	u	u	u	u	u	D	u	u	u	Y	YES	D	A	D	Non-sewered: 1.0 unit/acre Sewered: 2.9 units/acre
Neighborhood	Residential Community	Isabelle Farms Neighborhood	A	D	u	u	u	u	u	u	D	u	u	D	P*	YES	A	U	D	see NOTE 2 and NOTE 3
Neighborhood	Residential Community	Kinderberg Neighborhood	A	D	A	u	u	u	u	u	D	u	u	u	Y	YES	D	A	D	SF: 2.9 units/acre 2-4F: 6.0 units/acre
Neighborhood	Residential Community	Lannon Gateway Neighborhood	A	D	u	D	u	u	u	u	D	u	u	u	Y	NO	D	U	D	SF: 2.9 units/acre MF: 10 units/acre
Neighborhood	Residential Community	Lovers Lane Neighborhood	A	D	u	u	u	u	u	u	D	u	u	D	N	YES	U	U	D	See NOTE 2 and NOTE 3
Neighborhood	Residential Community	MacArthur - Kennedy Neighborhood	A	D	A	u	u	u	u	u	D	u	u	u	Y	YES	D	A	U	SF: 2.9 units/acre 2-4F: 6.0 units/acre
Neighborhood	Residential Community	Meeker Hill Neighborhood	A	D	u	u	u	u	u	u	D	u	u	D	P	YES	A	U	D	see NOTE 2 and NOTE 3
Neighborhood	Residential Community	Prairie Glen Neighborhood	A	D	A	u	u	u	u	u	D	u	u	u	Y	YES	A	A	D	SF: 2.9 units/acre 2-4F: 6 units/acre Non-sewered: 1.0 unit/acre
Neighborhood	Residential Community	South Country Aire Neighborhood	A	D	A	u	u	u	u	u	D	u	u	u	Y	YES	D	A	D	SF: 2.9 units/acre 2-4F: 6 units/acre Non-sewered: 1.0 unit/acre
Neighborhood	Residential Community	Spassland Neighborhood	A	D	A	u	u	u	A	u	D	u	u	u	Y	YES	D	A	D	SF: 2.9 units/acre 2-4F: 6.0 units/acre
Neighborhood	Residential Community	Sunberry-Tree Tops Neighborhood	A	D	A	u	u	u	A	u	D	u	u	u	Y	NO	D	A	D	SF: 2.9 units/acre 2-4F: 6.0 units/acre
Neighborhood	Residential Community	Willow Creek - Weidenbach Neighborhood	A	D	u	u	u	u	u	u	D	u	u	D	N	YES	A	U	D	see NOTE 2 and NOTE 3
Neighborhood	Residential Community	Woodland Ponds-Harvest Hill Neighborhood	A	D	u	u	u	u	u	u	D	u	u	u	N	YES	U	A	D	1.0 units/acre
Neighborhood	Residential Community	Woodside Neighborhood	A	D	u	u	u	u	u	u	D	u	u	D	Y*	YES	A	U	D	see NOTE 2 and NOTE 3