

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

MEETING: REGULAR MEETING OF THE VILLAGE BOARD

DATE AND TIME: MONDAY, OCTOBER 21, 2019 7:00 p.m.

**LOCATION: Germantown Village Hall Board Room
N112 W17001 Mequon Road**

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

II. ROLL CALL:

III. PLEDGE OF ALLEGIANCE:

IV. PRESIDENT'S REPORT:

**V. ANNOUNCEMENTS OF FORTHCOMING EVENTS OF PUBLIC INTEREST
COMMITTEE AND DEPARTMENT REPORTS:**

The following individuals will be given the opportunity to make announcements of future municipal activities: Village President, Village Board Members, Village Administrator, Village Attorney, Village Clerk, And Department Heads.

VI. CITIZEN INPUT/PUBLIC APPEARANCE on items not subject to a public hearing: *Please be advised per §19.84(2), information will be received from the public. It is the policy of this municipality that there be a three (3) minute time period, per person, with time extension per the Chief Presiding Officer's discretion; be further advised that there may be limited discussion on the information received, however, no action will be taken under public comments. (15 minutes)*

VII. CONSENT AGENDA:

A. Approval of Minutes: October 7, 2019 Regular Village Board Meeting, and October 8, 2019 Committee of the Whole Meeting.

B. Accounts payable/payroll

1.	October 10, 2019	Accounts Payable	\$ 1,928,481.80
2.	October 15, 2019	Payroll (Salary)	\$ 110,011.43
3.	October 15, 2019	Payroll (Hourly)	\$ 246,665.07

C. Operator's Licenses: Kristen Bohn, Amanda Jeske, Casey Lochowitz, Ashley Schwarzhuber, Sara Ulberg. [Recommended]

The following items were forwarded from **Public Safety** with a unanimous recommendation.

D. Fire Department: Emergency Funding for Air Compressor in an amount not to exceed \$38,000.

VIII. OLD BUSINESS:

A. None.

IX. PUBLIC HEARINGS:

- A. Andrew Schott for Reflective Contracting Services LLC, Agent for Thomas H. & Gina L. Lange, Property Owners - N96 W16042 County Line Road. Conditional Use Permit (CUP) for "Construction Services/Contractor Shop. (Public Hearing only. The applicant has withdrawn the Application.)
- B. The Sigma Group, Inc., Agent for Glue Dots International and the Ellsworth Corporation, Property Owner - N117 W18711 Fulton Drive, W186 N11687 Morse Drive and W188 N11614 Maple Road. Conditional Use Permit (CUP) for Storage of Hazardous Chemicals within a Groundwater Protection Overlay Zoning District.
- C. Clean Harbors Industrial Services, Inc., Agent for Veolia ES Industrial Services Inc., Property Owner - N104 W13275 Donges Bay Road. Conditional Use Permit (CUP) for Storage of Chemicals, Flammable Liquids and Gaseous Substances; and Recycling Collection and Processing. (Public Hearing Only.)
- D. Community Development Department – Proposed Zoning Code Text Amendments (Section 17.51 regarding Public Notification Procedures and Protest Petitions).

X. NEW BUSINESS:

- A. Resolution 57-2019, Resolution Authorizing the Borrowing of Not to Exceed \$7,850,000; and providing for the Issuance and Sale of General Obligation Bonds Therefor.
- B. Resolution 58-2019, Resolution Authorizing the Borrowing of Not to Exceed \$3,040,000; and providing for the Issuance and Sale of General Obligation Bonds Therefor.
- C. Resolution 59-2019, Approval of Contract with Soper Grading & Excavating LLC for Firemen's Park Phase 1 Improvements Project per submitted bid of \$411,557 with a 10% contingency cost in an amount not to exceed \$452,713.
- D. Resolution 61-2019, Waiver and Agreement related to Certain Village Rights for Properties within Willow Creek Business Park (TID # 6), BV Ryan Property, Willow Creek II Owner, LLC.
- E. Public Grant Application – VFW Post 9202, Temporary Use Permit Fee to Sell Christmas Trees in Parking Lot by Latitudes Parking Lot, November 20th – December 24th.
- F. Conditional Use Permit (CUP) for Storage of Hazardous Chemicals within a Groundwater Protection Overlay Zoning District, & Certified Survey Map (CSM) to Combine Parcels for the Sigma Group, Inc., Agent for Glue Dots International and the Ellsworth Corporation, Property Owner - N117 W18711 Fulton Drive, W186 N11687 Morse Drive and W188 N11614 Maple Road.
- G. Ordinance 14-2019, Amendment to Chapter 17 Zoning Code – Proposed Zoning Code Text Amendments, Section 17.51 regarding Public Notification Procedures and Protest Petitions.

- H. Final Subdivision Plat for the 12-Lot Woodland Ponds Estates Development. David Leszczynski for Germantown Acquisition LLC, Property Owner - W124 N11749 Wasaukee Road, 29.41 Acres.

XI. ADJOURNMENT.

The next regular meeting of the Village Board will be on Monday, November 4, 2019 at 7:00 p.m.

The 2020 Budget Public Hearing will be on Monday, November 18, 2019, at 7:00 p.m.

UPON REASONABLE NOTICE, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For Additional information or to request this service please contact the Village Clerk at (262)250-4740 at least 2 days prior to the meeting.

**VILLAGE OF GERMANTOWN
VILLAGE BOARD MEETING MINUTES
October 7, 2019**

CALL TO ORDER: The meeting was called to order at 7:00 p.m. by President Wolter.

ROLL CALL: Present: President Wolter, Trustees Baum, Hughes, Kaminski, Myers (7:03 p.m.), Warren, Wing, and Zabel. Trustee Miller was absent excused. Also present: Administrator Kreklow, Clerk Braunschweig, Attorney Sajdak, Director Rath, Manager Tucker, Engineer Nitschke and Director Ratayczak.

PLEDGE OF ALLEGIANCE:

PRESIDENT'S REPORT:

President Wolter reminded residents of the Community Wide Survey that is now available on the Village website 2050 Plan page. The deadline for the survey is Friday, November 1st. Please contact the Community Development Department if you have any questions or would prefer a hard copy of the survey.

President Wolter announced the Historic Preservation Commission will present the Friedrich Groth Homestead a plaque on Sunday, October 13th at 2 p.m.

ANNOUNCEMENTS OF FORTHCOMING EVENTS OF PUBLIC

INTEREST/DEPARTMENT AND COMMITTEE REPORTS:

Trustees provided information on upcoming meeting dates and times.

CITIZEN INPUT/PUBLIC APPEARANCE on items not subject to a public hearing:

None.

CONSENT AGENDA:

A. Approval of Minutes: September 16, 2019 Regular Village Board Meeting.

B. Accounts payable/payroll

1.	September 17, 2019	Payroll (Hourly)	\$ 265,313.66
2.	September 25, 2019	Accounts Payable	\$ 1,858,650.58
3.	September 30, 2019	Payroll (Salary)	\$ 109,204.24
4.	September 30, 2019	Accounts Payable	\$ 39,622.20
5.	October 1, 2019	Payroll (Hourly)	\$ 238,688.51

The following items were forwarded from **Public Safety** with a unanimous recommendation.

C. Operator's Licenses: Elaine Blumreiter, Becky Buzdum, Scott Evans, Elizabeth Scott.
[Recommendation Forthcoming]

D. Change of Ownership and Agent: Kai Yong Inc, DBA China Kitchen, N112W16560 Mequon Road, Germantown, GongKai Ma, Class "B" Fermented Malt Beverage and Class C Wine for the period commencing October 7, 2019 and ending June 30, 2020
Premise license approvals are conditional upon completion of all documentation, compliance of all code violations/permits/ requirements and monies owed to the village paid prior to issuance of licenses in addition to any other conditions noted.

The following items were forwarded from **General Government and Finance** with a unanimous recommendation.

- E. Resolution 51-2019, Amendment to the Employee Policy & Procedure Manual in regards to Technology Use and Electronic Communications Policy.
- F. Resolution 52-2019, Amendment to the Employee Policy & Procedure Manual in regards to Social Media Policy.
- G. Health Plan Design Change to include genetic testing, treatment of autism spectrum, and acupuncture for pain management.

The following items were forwarded from **Public Works** with a unanimous recommendation.

- H. Baker Tilly TIF District Audit Services Engagement Letter.
- I. Hilbert Lane Sidewalk Extension in an amount not to exceed \$33,915.

MOTION (Baum/Myers) to approve Consent Agenda Items A-I. Zabel requested to pull item A. September 16, 2019 Regular Village Board Meeting. Roll Call Vote Carried Unanimously.

MOTION (Zabel/Myers) to approve September 16, 2019 Regular Village Board Meeting with correction. Motion carried unanimously.

OLD BUSINESS:

None.

PUBLIC HEARING:

None.

NEW BUSINESS:

Request to Fill Full-Time Deputy Clerk Position.

Clerk Braunschweig introduced the item with information from the memo in the packet.

MOTION (Zabel/Myers) to Approve the Request to Fill Full-Time Deputy Clerk Position with the understanding that it is dependent on the 2020 budget. Motion carried unanimously.

Resolution 53-2019, Disallowing the Claim of the Germantown School District Board of Education. The Village Board may convene into closed session per Wis. Stats. §19.85(1)(g) for the purpose of conferring with Legal Counsel who is rendering advice concerning strategy to be adopted by the Village with respect to litigation in which it is involved or is likely to become involved and then may reconvene into open session to take such action as it deems appropriate; and, Administrator Performance Review. The Village Board may convene into closed session per Wis. Stats. §19.85 (1) (c) considering employment, promotion, compensation or performance evaluation data of any public employee over which the governmental body has jurisdiction or exercises responsibility, and may convene into open session to take such action as it deems appropriate.

MOTION (Myers/Baum) to remain in open session. Discussion ensued of remaining in open session. Attorney Sajdak advised that he would not be as descriptive in open session. Motion failed.

MOTION (Baum/Myers) to convene into closed session at 7:12 p.m. and to include the Village Board, Administrator Kreklow, Attorney Sajdak and Clerk Braunschweig for the Disallowance of Claim portion of closed session. Roll Call Vote Carried Unanimously.

The Board reconvened into Open Session at 7:40 p.m.

MOTION (Baum/Zabel) to approve Resolution 53-2019, Disallowing the Claim of the Germantown School District Board of Education. Motion carried unanimously.

MOTION (Baum/Zabel) to convene back into closed session at 7:42 p.m. and to include the Village Board and Administrator Kreklow for the performance review portion of closed session. Administrator Kreklow and Village Board were in the closed session for performance review portion. Roll Call Vote Carried Unanimously.

ADJOURNMENT.

ADJOURNMENT: There being no further business, the meeting adjourned at 7:55 p.m.

The next regular meeting of the Village Board will be on Monday, October 21, 2019 at 7:00 p.m.

Respectfully Submitted,
Deanna B. Braunschweig, WCMC/CMC
Village Clerk

VILLAGE OF GERMANTOWN
COMMITTEE OF THE WHOLE
MEETING MINUTES
October 8, 2019

CALL TO ORDER: The meeting was called to order at 6:00 p.m. by Pres. Wolter.

ROLL CALL: Present: President Wolter, Baum, Hughes, Kaminski, Wing, Warren, and Zabel. Trustee Miller and Myers were absent excused. Also present: Administrator Kreklow, Finance Director Rath, Chief Hoell, Captain Snow, Lieutenant Todd Grenier, Manager Tucker, and Clerk Braunschweig.

Approval of Minutes: October 1, 2019.

Motion (Baum/Zabel) to approve the minutes. Motion carried unanimously.

2020 Budget Review including Capital for Each Department.

Police:

Police Captain Mike Snow came to the podium. He pointed out differences from last year. There is an increase in the software support due to agreement with Axon for the body and squad car cameras. This will be in place for four years. Lexipole is in the training budget as a one-time cost. There are two squad cars in the Capital Budget. There is an increase in the 2020 squad cars due to a new model and old equipment is not transferable.

Lieutenant Todd Grenier reported on the policy development software to achieve accreditation of Wileag. This will move the department toward clear concise and defensible policies and procedures. This is to achieve accreditation with Wylag. The process will take about 5-8 months. Lexipole will train the officers on the software package. There are real world training scenarios and daily training announcements and exercises. There are acknowledgements to sign off on by the employee on each training. Lexipole notifies management of changes to be approved. Lexipole offers a 10% discount from the insurance if the service is implemented. Lexipole will give an electronic policy of the manual as it stands if / when the service is disconnected. The daily training is 10-12 minutes. The Wisconsin Standards and Training Board will credit the officer 12 hours of training time for training 12 minutes a day. This is ½ of the training requirement. This is in the borrowed capital; but paid for by interest and other funds. \$55,249 is the year one cost. The on-going cost is \$13,268 for daily training bulletins and updates.

Administrator Kreklow pointed out the Police Department did request an additional position of a non-sworn, records clerk. It did not fit into the 2020 budget but will be looked at again in future budgets. The position is for camera related records requests. The amount for the position is \$52,150.

Lexipole is priced based on the number of users at \$300 per officer per year. The Fire Department uses Lexipole now. The policies are different.

Chief Hoell came to the podium. He commented that this is the fifteenth year he was responsible for the budget. This year Captain Snow and Lieutenant Grenier put the budget together and did an excellent job. He appreciates all the years of work.

President Wolter thanked Chief Hoell for the straight forward budgets.

Emergency Government:

Captain Snow came to the podium. There were not any significant changes to the Emergency Budget.

Canine Fund:

Captain Snow came to the podium. There are enough funds to add an additional canine for the 2020 budget. The dog will not be available until the spring.

Asset Forfeiture:

Captain Snow commented that with the change in the laws, this will go away. This fund will be exhausted and go to the federal government.

Honor Guard:

The account remains in good shape. No need to take funds out of the account. The honor guard fund is a donation source.

Fire Department:

Fire Chief DeLain came to the podium. There is an increase in the uniform line due to increase in personnel. There is also an increase in gear, due to NFPA getting rid of gear after ten years. Medical supplies increased due to amounts of medications and ambulance calls.

Discussion of the heating and electric ensued. Director Rath reported that this is dependent on previous years and adjust to actual. The previous building is in the fire department budget but will transfer to the parks dept.

Administrator Kreklow pointed out the revenue in the Survive Alive House, where the Village will charge the School District for the use. The Superintendent of the Schools has been informed.

The \$30,000 in revenue for the use of the Survive Alive House is based on the school using the building. They are the largest user of that building. Discussion ensued of the use of the Survive Alive House.

Discussion ensued of the ambulance fees. Director Rath reported on the annual adjustments made for medicare or write offs. The projected \$605,000 is close but not certain.

Fire Chief Delain reported on the capital expenditure for a new ambulance. There were two ambulances were rechassised. These units have needed continued repairs such as a ceiling falling down, doors not opening or not latching, boxes are corroding, pieces falling off as driving down the road. They are looking to replace one this year and another next year and turning the chassis over to public works for their fleet. New boxes were looked at; however, the manufacturer commented it would be more expensive and no guarantees on the electrical. Public Works could use for a dump box. The cost was \$270,000 to have both rechassised.

Administrator Kreklow clarified that a lot of time has been spent discussing with Chief Delain. A couple of years ago, it was a well-intentioned effort to save money and update the equipment. As good as the idea was; it did not work. These are pieces of equipment that have to work.

Discussion ensued of the ambulances and the frustration.

Chief commented that he shares the frustration and the intention was very good. Most places in the United States it is a viable option but not for this area.

There are three ambulances in service now.

TIF District 6, 7, 8:

Director Rath reported the revenue budgeted for highway transportation aids came in with an increase of 75,398. This could go into the paving general fund amount. \$557,271 as 481,873.

MOTION (Zabel/Baum) to put the \$75,398 into the paving general fund account. Motion carried unanimously.

Director Rath reported on the TIF districts. TIF 8 has more activity on Holy Hill Road. 2020 will have an auditing cost for 30% completion.

TIF 6 revenue side is not as high as the debt going forward. The 100,000 is held for the final lift of asphalt. The \$50,000 was transferred in.

TIF 7 and 8 show more revenue than expenditures.

2020 Full Budget Review:

MOTION (Zabel/Baum) send the 2020 Budget for publication for the Public Hearing.

The tax rate will actually decrease by .47 cents. Director Rath commented on projections based on the assessments.

Discussion ensued of the contingency that is currently in place.

Administrator Kreklow commented on the finance plan for the public works facility and police department facility. Some of the reserves will be used to fund the debt service.

Motion carried unanimously.

ADJOURNMENT: There being no further business, meeting adjourned at 7:20 p.m.

Respectfully Submitted,

Deanna B. Braunschweig, WCMC/CMC
Village Clerk

NOTICE OF PUBLIC HEARING
VILLAGE OF GERMANTOWN

NOTICE is hereby given that a public hearing will be held by the Village of Germantown Plan Commission and Village Board at the Germantown Village Hall located at N112 W17001 Mequon Road, Germantown, Wisconsin on the following dates and times noted below (or soon thereafter):

PLAN COMMISSION: Monday, October 14, 2019 at 6:30 p.m.

VILLAGE BOARD: Monday, October 21, 2019 at 7:00 p.m.

The purpose of said hearing is to hear any and all parties, their attorneys or agents, for or against a Conditional Use Permit (CUP) application for a "construction services/contractor shop" pursuant to Section 17.30 of the Municipal Code for the property described below:

Applicant: Andrew Schott for Reflective Contracting Services LLC, Agent for Thomas H. & Gina L. Lange, Property Owners

Property: N96 W16042 County Line Road (Tax Key: GTNV 344-271)

Lot 2 of CSM 3267, Section 34, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin.

A copy of the application and a map showing the property described above are on file and available for inspection at the Community Development Department-Planning & Zoning Services office at the Germantown Village Hall during the hours of 8:00 a.m. to 4:00 p.m. Monday through Friday, or, on the Village's website by following this link:

<http://www.village.germantown.wi.us/589/5318/Current-Projects-Under-Review>

Deanna Braunschweig, Village Clerk
Dated this 19th day of September 2019

To Be Published On: September 25th and October 2nd, 2019

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BUSINESS OF THE VILLAGE BOARD GERMANTOWN, WI

MEETING DATE: October 21, 2019

AGENDA ITEM: Public Hearing [CONDITIONAL USE PERMIT]

ITEM TITLE: Andrew Schott for Reflective Contracting Services LLC, Agent for Thomas H. & Gina L. Lange, Property Owners - N96 W16042 County Line Road. Conditional Use Permit (CUP) for "Construction Services/Contractor Shop. (Public Hearing only. The Public Hearing was advertised; however, the applicant has withdrawn the Conditional Use Permit Request.)

SUBMITTED BY: Jeffrey W. Retzlaff, Director, Community Development Department

SUMMARY EXPLANATION:

Andrew Schott, Reflective Contracting Services LLC, agent for Thomas Lange, property owner is requesting approval of a Conditional Use Permit (CUP) to operate a "construction services/contractor shop" business from the .32-acre property located at N96 W16042 County Line Road.

On Monday, October 14, after publication for the public hearing, Andrew Schott for Reflective Contracting Services LLC contacted Village Staff and withdrew the Conditional Use Permit application. At their October 14th meeting, the Plan Commission did not hold the public hearing nor act on this application. No hearing or action is required by the Village Board.

APPLICATION, PLANS & RELATED DOCUMENTS:

All relevant documents, including applications, plans, supporting information, the staff report & recommendation, Plan Commission meeting minutes (when available), draft ordinance and resolution are included in the PDF digital file distributed by the Village Clerk.

NOTICE OF PUBLIC HEARING VILLAGE OF GERMANTOWN

NOTICE is hereby given that a public hearing will be held by the Village of Germantown Plan Commission and Village Board at the Germantown Village Hall located at N112 W17001 Mequon Road, Germantown, Wisconsin on the following dates and times noted below (or soon thereafter):

PLAN COMMISSION: Monday, October 14, 2019 at 6:30 p.m.

VILLAGE BOARD: Monday, October 21, 2019 at 7:00 p.m.

The purpose of said hearing is to hear any and all parties, their attorneys or agents, for or against the applications filed by the following applicant for a CONDITIONAL USE PERMIT for the operation and expansion of an existing business operation that involves the storage of hazardous chemicals within a Groundwater Protection Overlay Zoning District at W186 N11676 Morse Drive in the Germantown Industrial Park described below pursuant to Section 17.40.11(2)(b) of the Municipal Code for the property described below:

Applicant: The Sigma Group, Inc., Agent for Glue Dots International and The Ellsworth Corporation, Property Owner
Property: N117 W18711 Fulton Drive & W186 N11687 Morse Drive & W188 N11614 Maple Road (Tax Key: GTNV 212-972 & GTNV 212-955 & GTNV 212-996),

N117 W18711 FULTON DRIVE, GERMANTOWN LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, PART OF THE NW 1/4 OF SECTION 21, T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN. 4.35-ACRES
TAX PARCEL ID NUMBER: 212-972

W186 N11687 MORSE DRIVE, GERMANTOWN LOT 1 OF CERTIFIED SURVEY MAP NO. 4116, PART OF THE NW 1/4 OF SECTION 21, T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN. 2.62-ACRES
TAX PARCEL ID NUMBER: 212-955

W188 N11614 MAPLE ROAD, GERMANTOWN PART OF THE SW 1/4 OF THE NW 1/4 OF SECTION 21, T9N, R20E, AS DESCRIBED IN DOCUMENT NO. 1435599, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN. 1.00-ACRES
TAX PARCEL ID NUMBER: 212-996

A copy of the application and a map showing the property described above are on file and available for inspection at the Community Development Department-Planning & Zoning Services office at the Germantown Village Hall during the hours of 8:00 a.m. to 4:00 p.m. Monday through Friday, or, on the Village's website by following this link:

<http://www.village.germantown.wi.us/589/5318/Current-Projects-Under-Review>

Deanna Braunschweig, Village Clerk
Dated this 19th day of September 2019

To Be Published On: September 25th and October 2nd, 2019

NOTICE OF PUBLIC HEARING
VILLAGE OF GERMANTOWN

NOTICE is hereby given that a public hearing will be held by the Village of Germantown Plan Commission and Village Board at the Germantown Village Hall located at N112 W17001 Mequon Road, Germantown, Wisconsin on the following dates and times noted below (or soon thereafter):

PLAN COMMISSION: Monday, October 14, 2019 at 6:30 p.m.

VILLAGE BOARD: Monday, October 21, 2019 at 7:00 p.m.

The purpose of said hearing is to hear any and all parties, their attorneys or agents, for or against a Conditional Use Permit application to permit (1) buildings, structures and underground storage tanks for the storage of chemicals, flammable liquids and gaseous or vaporous substances; and (2) a recycling collection and processing center pursuant to Section 17.33 of the Municipal Code for the property described below:

Applicant: Clean Harbors Industrial Services, Inc. Agent for Veolia ES Industrial Services Inc.,
Property Owner

Property: N104 W13275 Donges Bay Road (Tax Key: GTNV 362-992)

Lot 1 of Certified Survey Map No. 4324 recorded in the office of the Register of Deeds for Washington County on May 19, 1994 in Volume 28 of Certified Survey Maps, Pages 264-267, as Document No. 668027, being a Redivision of Lot 1 of Certified Survey Map Number 3036 recorded in the office of the Register of Deeds for Washington County on April 8, 1987 in Volume 17 of Certified Survey Maps, Pages 201-204, as Document No. 509138 in the Northeast 1/4 of the Northwest of Section 36 and unplatted land in the Northwest and Southwest of the Northeast 1/4s of Section 36, all in Township 9 North, Range 20 East in the Village of Germantown, County of Washington and State of Wisconsin. 6.03-Acres

A copy of the application and a map showing the property described above are on file and available for inspection at the Community Development Department-Planning & Zoning Services office at the Germantown Village Hall during the hours of 8:00 a.m. to 4:00 p.m. Monday through Friday, or, on the Village's website by following this link:

<http://www.village.germantown.wi.us/589/5318/Current-Projects-Under-Review>

Deanna Braunschweig, Village Clerk

Dated this 19th day of September 2019

To Be Published On: September 25th and October 2nd, 2019

BUSINESS OF THE VILLAGE BOARD GERMANTOWN, WI

MEETING DATE: October 21, 2019

AGENDA ITEM: Public Hearing [CONDITIONAL USE PERMIT]

ITEM TITLE: Clean Harbors Industrial Services, Inc., Agent for Veolia ES Industrial Services Inc., Property Owner - N104 W13275 Donges Bay Road. Conditional Use Permit (CUP) for Storage of Chemicals, Flammable Liquids and Gaseous Substances; and Recycling Collection and Processing. (Public Hearing Only.)

SUBMITTED BY: Jeffrey W. Retzlaff, Director, Community Development Department

SUMMARY EXPLANATION:

Vincent Van Engelenburg, Agent for Clean Harbors Industrial Services Inc., property owner, is requesting approval of a Conditional Use Permit (CUP) to operate a facility used for the collection, transportation and temporary storage of non-hazardous, hazardous and infectious waste from the 6.0-acre property located at N104 W13275 Donges Bay Road.

At this time, staff does not have sufficient information about the proposed operation to issue a full report & recommendation. Additional information addressing review questions and comments from Village staff and the Fire Department was provided late last week (and included in your packet). However, at the time of this writing, staff has not had sufficient time to review the supplemental information and cannot provide a complete report and recommendation at this time. Staff recommended that the Plan Commission table action on this application.

Ordinarily, under these circumstances, the application would not be put on the Village Board agenda. However, this item is on the agenda in an effort to keep the process moving forward and to accommodate the public hearing process since advertising and public hearing notices have already been published and mailed to the surrounding property owners. For that reason, we are obligated to open the public hearing on Monday, October 21 as posted.

PLAN COMMISSION RECOMMENDATIONS:

TABLE the conditional use permit application for Clean Harbors Industrial Services, Inc., to operate a facility used for the collection, transportation and temporary storage of non-hazardous, hazardous and infectious waste from the 6.0-acre property located at N104 W13275 Donges Bay Road.

APPLICATION, PLANS & RELATED DOCUMENTS:

All relevant documents, including applications, plans, supporting information, the staff report & recommendation, Plan Commission meeting minutes (when available), and any documents to be approved (ordinance, resolution, CUP, CSM, etc.) are included in the PDF digital file distributed by the Village Clerk.

CONDITIONAL USE PERMIT (CUP)

10/14/19 Plan Commission Meeting

Clean Harbors Industrial Services Inc.

Village Planner Report

Germantown, Wisconsin

Summary

Vincent Van Engelenburg, Agent for Clean Harbors Industrial Services Inc., property owner, is requesting approval of a Conditional Use Permit (CUP) to operate a facility used for the collection, transportation and temporary storage of non-hazardous, hazardous and infectious waste from the 6.0-acre property located at N104 W13275 Donges Bay Road.

Location: N104 W13275 Donges Bay Road

Agent/

Property Owner: Vincent Van Engelenburg
Clean Harbors Industrial Services Inc.
633 East 138th Street
Dolton, IL 60419

Clean Harbors Industrial
42 Longwater Drive
Norwell, MA 02061

Zoning: M-1: Limited Industrial

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



Proposal

Vincent Van Engelenburg, Agent for Clean Harbors Industrial Services Inc., property owner, is requesting approval of a Conditional Use Permit (CUP) to operate a facility used for the collection, transportation and temporary storage of non-hazardous, hazardous and infectious waste from the 6.0-acre property located at N104 W13275 Donges Bay Road.

As stated in the application and supporting documents, Clean Harbors (formerly Veolia Industrial Services Inc.) is seeking permit approval under Section 17.33(3)(a) and (d) to operate a “truck-to-truck” facility where waste materials will be collected using box trucks and tractor trailers from various commercial and industrial customers off-site, brought back to the property in enclosed waste containers, off-loaded in a concrete area on the property, consolidated (not comingled) and moved onto out-going trucks/trailers for off-site delivery elsewhere. The temporary storage of waste materials on trucks, trailers or in the staging area will not exceed a period of ten (10) days. Containers will not be opened nor will there be any processing of waste material on the property.

Clean Harbors currently has 20 employees (up to 25 proposed) and intends to operate Monday to Friday, 7:00am to 5:00pm from the subject property.

Staff Comments

Consistency with Village’s 2020 Land Use Plan & M-1 Zoning District.

The 2020 Land Use Plan map classifies this property as “Industrial/Office”. The current zoning of the property (and all adjacent properties) is M-1: Limited Industrial. Conditional use approval for this type of facility can be granted under Section 17.33(3) of the Zoning Code:

- (a) Buildings, structures or underground storage tanks used for the storage of chemicals, flammable liquids and gaseous or vaporous substances;
- (b) Recycling collection/processing center

At this time, staff does not have sufficient information about the proposed operation to issue a full report & recommendation. Additional information addressing review questions and comments from Village staff and the Fire Department was provided late last week (and included in your packet). However, at the time of this writing, staff has not had sufficient time to review the supplemental information and cannot provide a complete report and recommendation at this time.

Ordinarily, under these circumstances an application would not be put on the Plan Commission agenda. However, this item is on the agenda in an effort to keep the process moving forward and to accommodate the public hearing process since advertising and public hearing notices have already been published and mailed to the surrounding property owners. For that reason, we are obligated to open the public hearing on Monday, October 14 as posted.

The Plan Commission can either close the hearing or continue it to a future meeting date in order to give staff adequate time to review and respond to the supplemental information provided by the applicant in order to better understand the proposal and render a complete review and report to the Plan Commission. As is stands, there is not sufficient information to determine if the proposed operation would/can be compliant and with what specific requirements or conditions given the unique circumstances of this operation and property.

For this reason, staff recommends that the public hearing be opened, public comment received, and the public hearing, consideration and action be kept open and tabled/continued until the November 11 Plan Commission meeting.

Village Planner Recommendation

TABLE consideration of and action on the conditional use permit (CUP) application for Clean Harbors Industrial Services Inc. for the operation of a facility for the collection, transportation and temporary storage of non-hazardous, hazardous and infectious waste from the 6.0-acre property located at N104 W13275 Donges Bay Road.



Community Development Department
Jeffrey W. Retzlaff, AICP, Director
Village Planner & Zoning Administrator
N112 W17001 Mequon Road P.O. Box 337
Germantown, WI 53022-0337
Telephone: (262) 250-4735 Website: www.village.germantown.wi.us
FAX: (262) 253-8255 E-mail: jretzlaff@village.germantown.wi.us

October 7, 2019

Vinnie Vanengelenburg
Clean Harbors Industrial Services Inc.
633 East 138th Street
Dolton, IL 60419

RE: Conditional Use Permit (CUP) Application; Staff Review Comments

Village Staff has reviewed the application submitted for the proposed hazardous/non-hazardous waste collection operation and has identified the following outstanding items/issues that need to be addressed. Please provide the requested information, corrections, revisions, etc. as soon as possible. If necessary, Village staff can meet to discuss specific comments prior to you submitting response and/or revised plans or supplemental information.

Community Development Department

1. The Washington County Property Lister identifies Veolia ES Industrial Services Inc. as the property owner. Please explain who the current owner is and what the relationship is with Clean Harbors. Identify who the authorized agents are for the applicant and property owner and who signed the application form.
2. A scaled site plan of the property is required with existing and proposed buildings, features, etc. identified on the site where the various activities will occur. A more detailed description of the operation is needed.
3. The brief description doesn't provide the level of detail necessary to clearly understand what the operation is all about, what happens on the site, what materials or equipment are brought to/from and kept on the site, etc. Please address the following:
 - a. What supplies, equipment and other materials will be stored on the property? In what quantities, for how long, etc.
 - b. Provide a detailed list of all liquid, solid and/or gaseous hazardous and non-hazardous waste material that will be or could be brought to and stored on the property. Where kept on site?
 - c. What type of containers (5 to 350 gal) will be used? Material? Where kept on site?
 - d. How will the materials be consolidated... be specific. Where on site?
 - e. Will different types of materials be co-mingled with other materials as part of the consolidation process?
 - f. What are covered bulk bins? What materials will be kept in the bins? How covered? Size and capacity? Where kept on site?
 - g. What are Frac tanks? Size and capacity? Where kept on site? How will they be cleaned... be specific.
 - h. Is water used in the process of cleaning containers? How is run-off managed and disposed of?
4. Provide a list of the DNR and other agency permits, licenses or approvals required to operate this type of facility and the status of obtaining those items.

5. What measures will be taken to protect the groundwater and nearby wetlands and navigable waterway from run-off? Is there a spill containment plan?

Fire Department

6. Clean Harbor needs to provide list and quantity of Hazardous waste materials to be keep on site. As a starting point does site comply with IFC chapter 50 Hazardous Materials?
7. Copies of current licensing from DNR or DOT for site related to waste or transportation.
8. Statement of current operations on site. How will this additional CUP change the use of the property? Will all existing business activities remain on site? Statement of intended operations after they receive all required approvals.
9. Safety plan for handling hazardous materials. Spill plan for hazardous materials. How will they prevent spills from groundwater contamination? Is this area within well-head protection district?
10. What are frac tanks? How large are frac tanks? Do they need licensing? Do they carry hazardous materials? Where will these activities take place?
11. How will frac tanks be cleaned? What waste can be generated from cleaning process by frac tanks and customer rented containers? Is the truck to truck transfer Hazardous containers or hazardous liquids or both?
12. How long will the waste be stored on site? Where will it be stored? Will fire protection be required? Only one building has fire sprinkler protection. Outside trailers being used to for storage may need to meet fire safety codes if they are actively storing flammable materials.
13. Will the wastes be transferred or received directly from adjoining waste transfer facilities? Will site become drop off location for hazardous materials directly by public?
14. Create site plan for property detailing above. Is additional FD water supply required within site? Property is gated with FD Knox box access currently, creating arrival delay.
15. There was no mention of infectious waste in the CUP application. But they supplied the GFD with a "draft application to DNR" for permitting infectious materials as supporting document. Nothing for Hazardous materials. This document was supplied after site visit by Chief Delian and myself, September 11 with Clean Harbors staff and site manager.

A public hearing of the application is scheduled for the October 14 Plan Commission meeting. In light of the outstanding information listed above, we will hold the hearing but likely will table action by the Plan Commission.

When additional information, please submit (1) digital plan set and fifteen (15) full-size, hard-copy plan sets set to the Community Development Department. Complete responses and/or information, plan revisions, etc. to the items/issues listed above will help avoid further delay.

Respectfully,
Jeffrey W. Retzlaff, AICP
Village Planner & Zoning Administrator

Copy: Eric Nitschke, Village Engineer



Village of
Germantown
Willkommen

ZONING COMPLIANCE/ OCCUPANCY PERMIT

Date of Application: _____

\$175 Application Fee Received By: _____

Please read and print legibly. List name of actual contact person (NOT just business name).

APPLICANT OR AGENT:

Name: Clean Harbors Industrial Services, Inc.
Address: 633 East 138th Street, Dolton, Illinois 60419
Phone: 316 - 269 - 7485
Fax: 608 - 221 - 9685
E-Mail: vanengelenburg.vincent@cleanharbors.com

PROPERTY or Business OWNER:

Name: Clean Harbors Industrial Services, Inc.
Address: 42 Longwater Drive, Norwell, MA 02061
Phone: 781 - 792 - 5000
Fax: 781 - 792 - 5903
E-Mail: Kelly.Taylor@safety-kleen.com

PROPERTY ADDRESS OR Tax Parcel ID#:

N104 W13275 Donges Bay Road, Germantown, WI 53022

DESCRIPTION OF PROPOSED USE (Describe improvements, structures, uses and activities conducted, services provided, products made or sold, # of employees, hours of operation, etc. that will enable Zoning Administrator to determine if the proposed use or operation complies with the applicable zoning district and/or other use restrictions that may apply to the subject property. Use back side or additional sheets as needed):

Clean Harbors collects hazardous and nonhazardous solid wastes from generators (our customers). Containers of wastes (5 Gallon – 350 Gallon) are managed under a truck-to-truck transfer where the wastes are collected by Clean Harbors' employees in collection vehicles, transported to the Germantown site where these wastes will be consolidated on a staged outbound trailer for offsite shipment. Covered bulk bins may also be stored temporarily prior to shipment for offsite disposal. Clean Harbors will also be cleaning various types of rented Containers and Frac Tanks before returning to Owner. The facility typically operates Monday through Friday, from 6 a.m. to approximately 6 p.m. Approximately 20 employees work at the property and there are three structures on site.

READ AND INITIAL THE FOLLOWING:

- ☒ I understand that Village Staff may request additional information to properly evaluate this request and failure to provide such information may in itself by sufficient cause to deny the petition.
- ☒ I understand that Village Staff can impose conditions or other requirements necessary in order to meet and/or remain in compliance with the Village's Zoning Codes and/or other Village requirements that may apply to the subject property.

INCLUDE THE FOLLOWING WITH YOUR APPLICATION:

- ☐ A scaled site plan showing location of proposed use on the property (not required if within building).
- ☐ \$175 Application Fee
- ☐ Other Information required by Zoning Administrator

SIGNATURES: ALL APPLICATIONS MUST BE SIGNED

Mon. Joranson 2-6-19
Applicant Date
Mon. Joranson 2-6-19
Property Owner Date

VILLAGE USE ONLY	
APPROVED	
☒ Building/Arch Plan	☐ Site Plan
☒ Landscaping Plan	☐ Sign Plan
☒ Lighting Plan	☒ Zoning Permit
<u>[Signature]</u> Village Planning/Zoning Administrator	<u>7-2-19</u> Date Approved
☒ Approved Conditions apply as noted below	
SEE LETTER DATED 7-2-19	
FOR REQUIREMENTS AND	
CONDITIONS OF APPROVAL	

[illegible]

Jeff Retzlaff

From: Jeff Retzlaff
Sent: Tuesday, October 23, 2018 4:22 PM
To: Kelly.taylor@safety-kleen.com
Cc: Lori Johnson
Subject: Clean Harbors ES Industrial Service; N104 W13275 Donges Bay Road
Attachments: Zoning Compliance Permit Application 10-15-09.pdf

COPY

I am responding to your email sent to Lori Johnson earlier today regarding the above-cite property.

Not knowing anything more than what information you provided in your email, I would say that depending on the specific activities conducted as part of each, it is very likely that the proposed solid and medical waste storage facilities would violate, i.e. NOT be in compliance with) the Village's Zoning Code without either one or both of the following: (1) rezoning the property from M-1: Limited Industrial to M-2: General Industrial or M-3: Special Use Industrial; or (2) obtaining a conditional use permit (CUP) from the Village.

We do not have a current Zoning/Occupancy Permit for the most recent operation on this property. Our records indicate that that last use of the property is/was for storage of equipment related to the collection of solid waste and/or recycling, e.g. bins, etc.

To help us determine zoning compliance, you will need to submit a detailed explanation of what the property will be used for, what activities will be conducted, services or products offered, what type of items will be stored, produced, processed, and in what quantities, etc. What would be extremely helpful is to get a copy of your license/permit applications required under NR502 and NR526. Once received, we will review and process. If necessary, we will identify any other permits, approvals, etc. that may be required in order to obtain/maintain compliance with the Village's Zoning Code.

Please provide this information along with the attached Zoning Compliance/Occupancy Permit application to Planning & Zoning Services at Village Hall. Coordinate your submittal with Lori Johnson.

Thanks.

*Jeffrey W. Retzlaff, AICP
Community Development Director
Zoning Administrator
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022
262-250-4735
jretzlaff@village.germantown.wi.us*

Village of



Community Development Dept.
Planning & Zoning
Jeffrey W. Retzlaff, AICP
Village Planner & Zoning Administrator
N112 W17001 Mequon Road P.O. Box 337
Germantown, WI 53022-0337
(262) 250-4735

COPY

February 20, 2018

CDS Commercial Due Diligence Services
3550 W. Robinson Street, Third Floor
Norman, OK 73072

Attn: Cody Carter

RE: N104 W13275 Donges Bay Road, Germantown, WI

I am in receipt of your request for a Zoning Verification letter for the property listed above located in the Village of Germantown. I could not locate a property file and therefore neither a survey or site plan is available showing the relative location of the existing structures on the subject property. As a result, I am unable to determine if the existing structures comply with the Village's current Zoning Code requirements, e.g. building setbacks, etc. Also, because I don't have any information on this property or the business that is operating there, I am unable to confirm if the use is in compliance with the Zoning Code. Please contact me if you wish to discuss further.

To the best of my knowledge, I can make the following statements:

- The zoning for the property is M-1: Limited Industrial Zoning District, Section 17.33 of the Municipal Code (see attached).
- Certificates of Occupancy are attached.
- There are no outstanding zoning or building code violations
- The adjacent property zoning designations are: North: M-1
South: M-1
East: M-1
West: M-1

Please contact me if you have any questions or concerns at (262) 250-4735 or by e-mail at ljohnson@village.germantown.wi.us.

Thank you,

Lori Johnson
Planning Assistant

Enc.



Community Development Department

Jeffrey W. Retzlaff, AICP, Director

Village Planner & Zoning Administrator

N112 W17001 Mequon Road P.O. Box 337

Germantown, WI 53022-0337

Telephone: (262) 250-4735

FAX: (262) 253-8255

Website: www.village.germantown.wi.us

E-mail: jretzlaff@village.germantown.wi.us

July 2, 2019

Vincent Van Engelenburg, District Manager
Clean Harbors Industrial Services Inc.
633 East 138th Street
Dolton, IL 60419

RE: N104 W13275 Donges Bay Road; Zoning Permit Application
Hazardous & Non-Hazardous Solid Waste Collection & Consolidation Facility

The zoning permit application for a hazardous & non-hazardous solid waste collection, consolidation & recycling facility at the above cited property has been approved subject to the conditions listed below. Subject to satisfying all of the conditions below, the proposed use would comply with the M-1: Limited Industrial Zoning District regulations applicable to the subject property.

Be advised that the M-1 Zoning District within which the property is located does not allow the proposed use as a "permitted principal use" but does allow such a use with a conditional use permit (CUP) granted by the Village Board. To that end, I am including a CUP application packet for your information and use. Because a CUP application for the type of facility proposed would be processed under a separate procedure, including public hearings before the Village's Plan Commission and Village Board, you can discuss the details of that process with our department staff separately. Notwithstanding, as part of applying for and obtaining A CUP from the Village for the proposed uses, you will be required to document compliance with applicable state licensing and other applicable requirements, including but not limited to Wis. Stats. Chap 289 and Admin Code NR 502.

In the meantime, unless and until a CUP for the proposed hazardous & non-hazardous solid waste collection, consolidation & recycling facility is granted, the property and buildings may be used in a manner consistent with how and what the property has been used historically according to our records and observations, i.e. storage of equipment used for and/or related to the collection of solid waste and recyclables, e.g. bins, roll-off containers, dumpsters, trailers, etc., but excluding the actual collection, consolidation, processing, recycling and/or transporting of solid, liquid or gaseous waste and materials to/from the property.

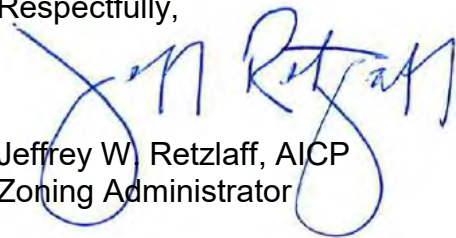
CONDITIONS OF APPROVAL:

1. The proposed use as described in the application, i.e. hazardous & non-hazardous solid waste collection, consolidation & recycling facility, is only allowed in the M-1: Limited Industrial Zoning District if a conditional use permit (CUP) is granted by the Village Board. No uses or activities other than the on-site storage of equipment used for and/or related to the collection of solid waste and recyclables are permitted (e.g. bins, roll-off containers, dumpsters, trailers, etc., but excluding the actual collection, consolidation, processing, recycling and/or transporting of solid, liquid or gaseous waste and materials to/from the property).

2. Village building permits are required for all interior and exterior improvements and renovations (construction, electrical and/or plumbing). Contact Mike Guttman, Building Inspector, to discuss any proposed improvements, permit & inspection requirements, and any state (Department of Safety and Professional Services) commercial building plan approval requirements. Contact Holly in Inspection Services for information about permit applications. Both can be reached at 262-250-4760.
3. Prior to occupancy or commencement of use, an occupancy inspection shall be conducted in coordination with the Village Fire Department and Inspection Services. Please contact the Fire Department and Inspection Services to arrange an inspection at 262-502-4701.
4. If required by the Fire Department or Inspection Services as part of the initial or future occupancy inspections, the owner/operator shall install and/or update necessary fire safety measures, emergency management and/or other improvements to ensure fire and building code compliance for the type of occupancy/use proposed.
5. All exterior signs, temporary and permanent, requires a sign permit. Contact Lori Johnson regarding proposed signs, and the Village's sign regulations and permit requirements at 262-250-4735.
6. The Village's Utility Code requires all commercial and industrial users discharging wastes into the sewer system to construct and maintain sampling and metering manholes in suitable and accessible positions on public property or easement to facilitate the observation, measurement and sampling of all wastes or wastewater. These manholes are required to be located, constructed and maintained in a manner approved by the Village Engineer/Wastewater Utility Superintendent. Therefore, the property owner is required to contact Tim Zimmerman, Superintendent of Wastewater Utility 262-253-7765 to coordinate an inspection of the sanitary sampling manhole, and, make any/all necessary corrections or repairs to the sampling manhole and appurtenances thereto to ensure ongoing compliance with the Village's Utility Code.

If you have any questions or concerns regarding this matter, feel free to contact me at (262) 250-4735 or Inspection Services at (262) 250-4760.

Respectfully,



Jeffrey W. Retzlaff, AICP
Zoning Administrator

Copies:

Brian Sajdak, Village Attorney
John Delain, Fire Chief

17.33 - M-1 LIMITED INDUSTRIAL DISTRICT .

The M-1 Industrial District is intended to provide for warehousing, manufacturing or fabrication operations which, on the basis of physical and operational characteristics, would not be detrimental to the immediate surrounding area or to the Village as a whole by reason of smoke, odor, noise, dust, flash, traffic, physical appearance, or other similar factors; and to establish such regulatory controls as will reasonably insure compatibility with the surrounding area in this respect. All uses in this District must meet the State of Wisconsin industrial standards.

(1) **PERMITTED PRINCIPAL USES.**

- (a) Building and yards for the storage and wholesale of goods and materials other than chemical, flammable, liquid, gaseous, vaporous or explosive substances where such goods or materials are temporarily stored inside a building or within an open area visually screened from public streets or highways and adjacent nonindustrial uses.
- (b) All uses involving the manufacture and fabrication of goods within the confines of a building and in which any smoke, noise, dust, flash or odor produced in the manufacturing process is confined within the building.
- (c) All uses involving the provisions of a service which is either manufacturing-related or fabrication-related and not permitted in business districts confined within a building, and in which smoke, dust, flash, heat, noise or odor produced by such service uses is confined within the building.
- (d) Commercial self-storage buildings where all storage is conducted within an enclosed building or individual units within a building. (Cr. Ord. #09-16)

(2) **PERMITTED ACCESSORY USES.**

- (a) Enclosed as well as screened areas for the storage of materials other than explosive or flammable materials or substances used in the manufacturing or fabrication process.
- (b) Offices normally auxiliary to the principal use.
- (c) Garages for the storage of vehicles used in conjunction with the operation of the warehouse or industrial use.
- (d) Auxiliary power generators.
- (e) Off-street parking and loading areas.
- (f) One aboveground storage tank (maximum 5,000 gallon capacity) for storage of flammable materials, subject to compliance with section 11.071 of this Code. (Cr. Ord. #30-97)

(3) **CONDITIONAL USES.** (Rep. & Recr. Ord. #30-97)

- (a) Buildings, structures or underground storage tanks used for the storage of chemicals, flammable liquids and gaseous or vaporous substances.
- (b) Two or more aboveground storage tanks (over 5,000 gallon capacity) for storage of flammable materials, subject to compliance with section 11.071 of this Code.
- (c) Yards and structures used for the temporary storage or holding of animals not for slaughter.
- (d) Recycling collection/processing center.
- (e) Commercial self-storage buildings where storage is conducted within an enclosed building, individual units within a building, or outside of a building but within a secure area screened from view. (Cr. Ord. #09-16)
- (f) Secondhand stores greater than 5,000 square feet in area, subject to all other requisite approvals applicable to conditional use and subject to the Plan Commission determining reasonable regulations for the collection, warehousing, sorting and repair of materials in the course of operation of such secondhand stores.

- (g) Child care, day care centers or preschool centers licensed by the State and in continuous compliance with all applicable State and local regulations. (Cr. Ord. #34-97)
 - (h) Commercial activities permitted in the B-2, Community Business District when the Plan Commission finds that the activity will directly support the businesses of the industrial park and can be integrated into an overall plan for the industrial park. (Cr. Ord. #11-00)
 - (i) Agricultural and dairy product silos, cooling towers, and other accessory structures whose height exceeds 45 feet. (Cr. Ord. #23-03; Am. Ord. #31-07)
 - (j) Principal buildings exceeding a height of 45 feet provided that: (Cr. Ord. #31-07)
 - 1. A new or expanded building should normally not exceed the height of any existing principal building(s) on an adjacent or opposing property (across the street) if the height of the new building will be greater than twice the height of the nearest, tallest existing building;
 - 2. The site design and architecture of the new or expanded building includes additional setback, and, variation or articulation of the wall and roof components of the new or expanded building to provide a transition in height; and
 - 3. The new or expanded building is not on property that is adjacent to a residential zoning district or other established residential area.
- (3a) **TEMPORARY USES.** (Cr. Ord. #32-91) Any use listed as a permitted use within the district of a limited duration as established in section 17.07(2a) of this chapter and as defined in section 17.08(83) of this chapter.

(4) **LOT, YARD AND BUILDING REQUIREMENTS.**

Lot frontage at setback	Minimum 120 ft.
Lot area	Minimum 30,000 sq. ft.
Principal building:	
Front yard	Minimum 30 ft.
Side yards	Minimum 10 ft.
Rear yard	Minimum 25 ft.
Building height	Maximum 45 ft.
Percentage of coverage, including parking and loading	Maximum 80%

(5) **PARKING AND LOADING REQUIREMENTS.** See section 17.45 of this chapter.

(6) **SITE PLAN APPROVAL REQUIRED.** See section 17.43 of this chapter.



Fee must accompany application

☐ \$1460 Paid _____ Date _____

CONDITIONAL USE PERMIT APPLICATION

Pursuant to Section 17.42 of the Municipal Code

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

1 APPLICANT OR AGENT

Phone () _____
Fax () _____
E-Mail _____

PROPERTY OWNER

Phone () _____

2 TO WHOM SHOULD THE PERMIT BE ISSUED?

--

3 PROPERTY ADDRESS

TAX KEY NUMBER

--	--

4 DESCRIPTION OF EXISTING OPERATION

Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant." Use additional pages as necessary.

--

5 DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code.

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations.

--

METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY — REQUIRED

6

Attach pages as necessary.

SUPPORTING DOCUMENTATION:

7

- ☐ Site plan and elevations for new construction (can be conceptual)
- ☐ Photos of existing use and/or proposed use operating elsewhere

☐ _____

☐ _____

READ AND INITIAL THE FOLLOWING:

8

_____ I understand that the Village is under no obligation to issue a Conditional Use Permit and will do so only if the applicant successfully demonstrates that the proposed use is harmonious with the neighborhood and the long range goals of the Village.

_____ I will notify the Village if any aspect of the conditional use changes. I understand that failure to do so may result in the revocation of the CUP.

_____ I understand that a Conditional Use Permit is valid only if the conditions and restrictions of the permit are met. I understand that failure to comply with any aspect of the permit may result in revocation.

SIGNATURES — ALL APPLICATIONS MUST BE SIGNED BY OWNER!

9

Applicant

Date

Owner

Date



Planning Department
Jeff Retzlaff, Village Planner
N112 W17001 Mequon Road P.O. Box 337
Germantown, WI 53022-0337
(262) 250-4735 direct line
(262) 253-8255 fax

CONDITIONAL USE PERMITS

Pursuant to Section 17.51 of the Municipal Code

The Zoning Code prescribes permitted and *conditional* uses within each zoning district. As the name implies, conditional uses may be appropriate under certain conditions and inappropriate in others. For example, a bank may be permitted in the B-1 zoning district in all situations, while a gas station may be appropriate on major thoroughfares but not in a residential neighborhood. A special permit, approved by the Village Board, is required to operate a conditional use. The Village Board may impose certain restrictions on a conditional use to ensure that surrounding properties are not adversely affected. The Conditional Use Process is summarized as follows:

Initial Consultation: Recommended but not mandatory.

Submission to Plan Commission: See Plan Commission Meeting Dates & Deadlines (approximately 5 weeks prior to meeting).

Internal Review by Planning, Engineering, Fire and Police Departments: Modifications to plans may be required after review.

Plan Commission Meeting: The Plan Commission makes a non-binding recommendation to the Village Board. The applicant should attend this meeting to answer questions.

A Public Hearing is scheduled (typically within 4-6 weeks) – A Class II Public Notice is Published.

Village Board Meeting: Village Board Action after Public Hearing.

THE CONDITIONAL USE PROCESS

The Village recognizes that some uses of property are more intensive than others, and therefore, may require special consideration before being approved. Before a Conditional Use Permit is issued, a public hearing is held to give neighbors and concerned citizens an opportunity to voice their opinion and have it documented in the permanent Village record. The public hearing notice is published in local papers and is posted in Village Hall. On the night of the public hearing, the petitioner may address the Board and present any supporting documentation and plans for the proposed use. Typically, the Board will vote on the Conditional Use Permit on the same evening as the public hearing.

GETTING ON THE SCHEDULE

To initiate the Conditional Use Permit process, the applicant must submit the following:

- APPLICATION FEE (\$1,460)
- SIGNED AND DATED APPLICATION
- METES AND BOUNDS LEGAL DESCRIPTION
- SUPPORTING DOCUMENTATION

All submissions must be complete and received in the Planning Department by 4:00 PM on the deadline date.

HOW LONG WILL IT TAKE?

Because the Conditional Use Permit requires a public hearing, a Class II Legal Notice is required. Typically, after the Plan Commission considers the merits of a conditional use application, a public hearing can be scheduled within a month, although it may take longer depending on the number of requests pending. Applicants should expect a six to eight week time frame to complete the Conditional Use Permit process. Because a new permit is often associated with new construction, the applicant should allow ample time for Site Plan Review as well.

HOW MUCH WILL IT COST?

Conditional Use Permits cost \$1460 per property. This application fee helps defray the cost of staff review and publishing legal notices. An applicant may request a partial refund if an application is withdrawn before a public hearing notice is published, although the applicant's intention to withdraw must be made in writing within one week of the initial Plan Commission meeting.

WHERE DO I APPLY?

All applications to the Plan Commission are submitted to the Planning Department at the Germantown Village Hall. Submissions may be made in person or by mail.

PRELIMINARY CONSULTATION?

The Village encourages applicants to schedule a brief meeting with Village staff to go over their applications and get feedback, especially if the applicant is new to the Germantown development process. This meeting is not mandatory, however, staff can help save time and frustration by guiding the applicant through the necessary approvals a project will require. An appointment should be scheduled before coming in.

CAN I APPEAL A DECISION?

The vote of the Village Board is final and binding. While an applicant may reapply for rezoning and supplement an application with additional information, a decision of the Board must be appealed through the courts.

HOW MANY COPIES?

The Village Plan Commission requires (17) full size sets of all application materials; including a digital (PDF) of the entire submittal.

WHAT WILL THE PERMIT ADDRESS?

In issuing a Conditional Use Permit, the Board will consider the nature of the proposed operation in conjunction with its affects on the surrounding neighborhood. The size of the operation, number of employees, hours of operation and overall design will be taken into consideration. Certain restrictions will typically be included in the permit to ensure minimal impacts.

CAN A CUP BE TRANSFERRED?

A Conditional Use Permit is issued to a particular property, and unless specifically issued as "non-transferable," will run with the property and not the owner. Non-transferable permits are often issued to uses that are owner specific, and may need to be reevaluated if ownership changes.

SUPPORTING DOCUMENTATION?

The applicant is responsible for building a case for the CUP. While the Village may not require supporting documentation, an applicant may wish to show the Board how a property will operate if a permit is issued, i.e. site plan, architectural renderings, photos of similar projects, etc. All documentation is public information and is made available for review at the Planning Department.

CAN THE PERMIT BE REVOKED?

A Conditional Use Permit is valid as long as it meets the conditions outlined in the permit. If the scope of the operation changes substantially, an amended CUP may be required. Likewise, if the conditions of the permit are not met, the permit may be revoked without notice. The Village generally reviews its CUP's every other year to evaluate compliance.

CAN I REAPPLY?

An applicant may reapply for a Conditional Use Permit as often as necessary.

QUESTIONS? Contact the Village Planner at:

Village of Germantown
N112 W17001 Mequon Road
P.O. Box 337
Germantown, WI 53022-0337

Phone: (262) 250-4735

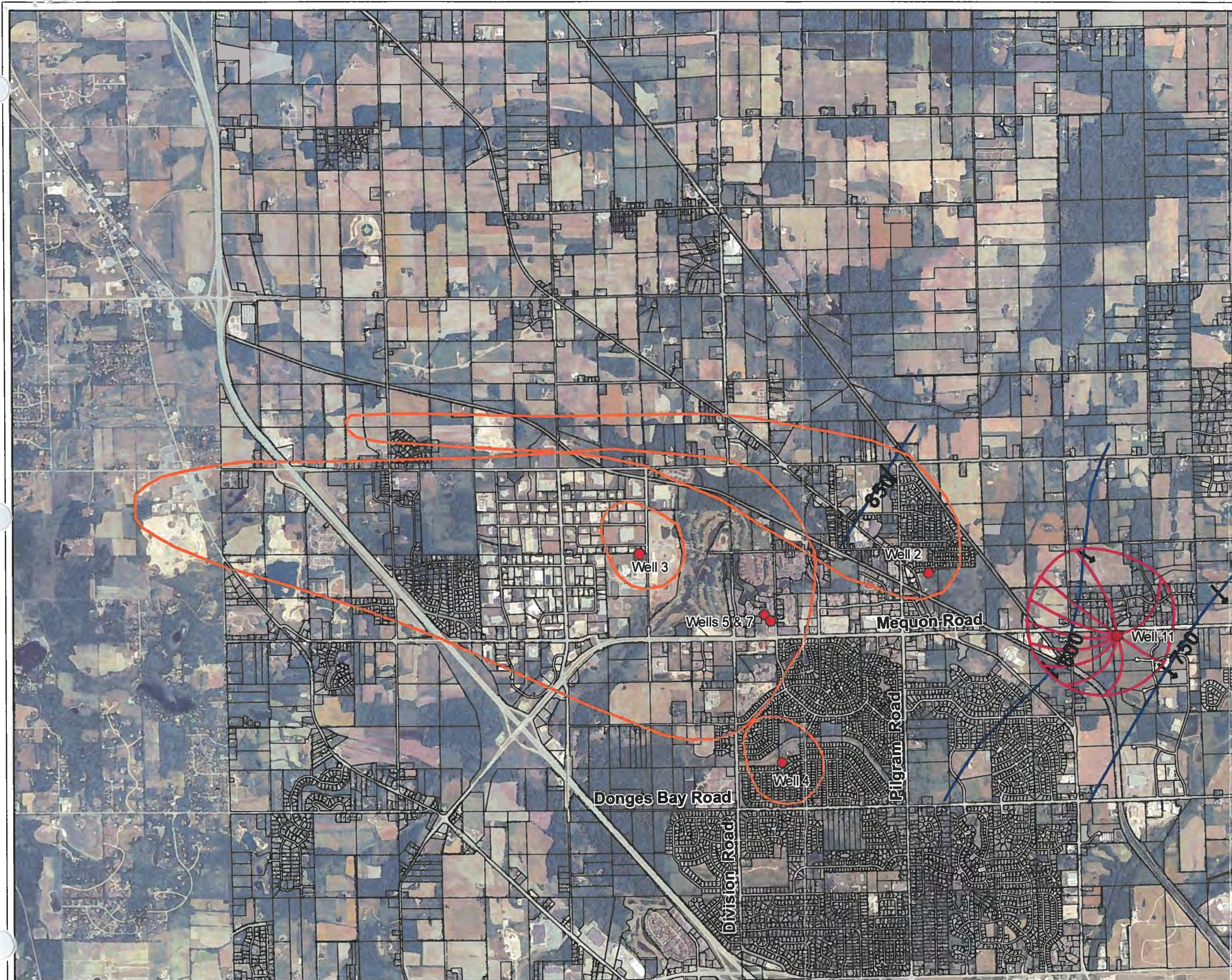


Figure 1

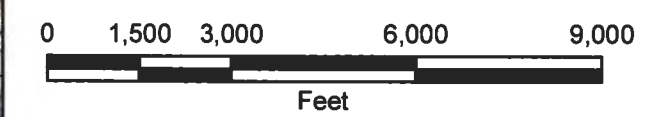
**Wellhead Protection Areas for
Germantown Well No. 11***

**Village of Germantown
Washington County, Wisconsin**

*WHPA for Well 11 delineated by
Ruekert-Mielke, 2010 in Amendment
No. 1 to Wellhead Protection Plan for
Municipal Well Nos. 2, 3, 3, 5, & 7
delineated by Graef, 2008

Legend

- Village Well Sites
- Direction of Groundwater Flow
- 800 Potentiometric Surface Elevation of Sandstone Aquifer (Static Condition)
- Wellhead Protection Area Well 11 (Based on 5-Year TOT)
- Graef Wellhead Protection Areas Wells 2-5 & 7 (Based on 5-Year TOT)





Village of

Germantown
Willkommen

Fee must accompany application

☐ **\$1460** Paid _____ Date _____

CONDITIONAL USE PERMIT APPLICATION

Pursuant to Section 17.42 of the Municipal Code

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

1 APPLICANT OR AGENT

Clean Harbors Industrial Services, Inc.

633 East 138th Street

Dolton, Illinois 60419

Phone (316) 269 - 7485

Fax (608) 221 - 9685

E-Mail vanengelenburg.vincent@cleanharbors.com

PROPERTY OWNER

Clean Harbors Industrial Services, Inc.

42 Longwater Drive,

Norwell, MA 02061

Phone (781) 792 - 5000

2 TO WHOM SHOULD THE PERMIT BE ISSUED?

Clean Harbors Industrial Services, Inc.

3 PROPERTY ADDRESS

N104 W13275 Donges Bay Road, Germantown, WI 53022

TAX KEY NUMBER

GTNV 362992

4 DESCRIPTION OF EXISTING OPERATION

Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant." Use additional pages as necessary.

Storage of Supplies, Equipment, and Other Materials, along with General Office Space. Property is about 6 acres in total and there are three structures on site. There are approximately 20 employees currently and hours are Monday-Friday, 7am - 5pm

5 DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code.

M1, Limited Industrial Zoning District, Section 17.33 of the Municipal Code, Section 3: Conditional Use (a) Buildings, structures or underground storage tanks used for the storage of chemicals, flammable liquids and gaseous or vaporous substances and (d) recycling collection/processing center.

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations.

Clean Harbors collects hazardous and nonhazardous solid wastes from generators (our customers). Containers of wastes

(5 Gallon -350 Gallon) are managed under a truck-to-truck transfer where the wastes are collected by Clean Harbors' employees in collection vehicles, transported to the Germantown site where these wastes will be consolidated on a staged outbound trailer for offsite shipment. Covered bulk bins may also be stored temporarily prior to shipment for offsite disposal. Clean Harbors will also be cleaning

various types of rented Containers and Frac Tanks before returning to Owner. Approximately 25 employees will work at the site and hours will be Monday-Friday, 7AM - 5PM. At no time, will any waste containers be opened onsite nor will there be any waste processing of any kind.

METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY — REQUIRED

6

Attach pages as necessary.

Attached

SUPPORTING DOCUMENTATION:

7

- ☐ Site plan and elevations for new construction (can be conceptual)
- ☐ Photos of existing use and/or proposed use operating elsewhere

☐ _____

☐ _____

READ AND INITIAL THE FOLLOWING:

8

MIB I understand that the Village is under no obligation to issue a Conditional Use Permit and will do so only if the applicant successfully demonstrates that the proposed use is harmonious with the neighborhood and the long range goals of the Village.

MIB I will notify the Village if any aspect of the conditional use changes. I understand that failure to do so may result in the revocation of the CUP.

MIB I understand that a Conditional Use Permit is valid only if the conditions and restrictions of the permit are met. I understand that failure to comply with any aspect of the permit may result in revocation.

SIGNATURES — ALL APPLICATIONS MUST BE SIGNED BY OWNER!

9

MIBattle

8/19/19

Applicant

Date

Clean Harbors Industrial Services, Inc.

MIBattle

8/19/19

Owner

Date

Clean Harbors Industrial Services, Inc.

METES AND BOUNDS DESCRIPTION

Lot 1 of Certified Survey Map No. 4324 recorded in the office of the Register of Deeds for Washington County on May 19, 1994 in Volume 28 of Certified Survey Maps, Pages 264-267, as Document No. 668027, being a Redivision of Lot 1 of Certified Survey Map Number 3036 recorded in the office of the Register of Deeds for Washington County on April 8, 1987 in Volume 17 of Certified Survey Maps, Pages 201-204, as Document No. 509138 in the Northeast 1/4 of the Northwest 1/4 of Section 36 and unplatted land in the Northwest and Southwest 1/4 of the Northeast 1/4s of Section 36, all in Township 9 North, Range 20 East in the Village of Germantown, County of Washington and State of Wisconsin.

CleanHarbors®





October 11, 2019

Jeffrey W. Retzlaff, AIOP
Village Planner & Zoning Administrator
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022-0337

Dear Mr. Retzlaff;

Clean Harbors is providing responses to your October 7, 2019 Staff Review Comments letter sent to Vinnie VanEngelenburg. The Review comments are repeated in this letter, followed by Clean Harbors' response.

Community Development Department

1. The Washington County Property Listed identifies Veolia ES Industrial Services Inc. as the property owner. Please explain who the current owner is and what the relationship is with Clean Harbors. Identify who the authorized agents are for the applicant and property owner and who signed the application form.

Clean Harbors' Response:

Clean Harbors Industrial Services, Inc. is the current property owner. On February 23, 2018 Clean Harbors purchased all outstanding shares of Veolia ES Industrial Services, Inc. On May 11, 2018 the name of Veolia ES Industrial Services, Inc. was changed to Clean Harbors ES Industrial Services, Inc. On January 1, 2019, Clean Harbors ES Industrial Services, Inc. was merged into Clean Harbors Industrial Services, Inc. Please refer to the attached Certificate of Amendment for the name change and the attached Certificate of Merger for further information.

2. A scaled site plan of the property is required with existing and proposed buildings, features, etc. identified on the site where the various activities will occur. A more detailed description of the operation is needed.

Clean Harbors' Response:

A scaled site plan (to be printed as an 11" x 17" document) is provided with this response. All waste transfer activities will occur at the concrete dock. Large containers ('frac tanks' and bulk bins) will be staged in the areas described as equipment/trailer staging areas on the site plan.

3. The brief description doesn't provide the level of detail necessary to clearly understand what the operation is all about, what happens on the site, what materials or equipment are brought to/from and kept on the site, etc. Please address the following:

a. What supplies, equipment and other materials will be stored on the property? In what quantities, for how long, etc.

Clean Harbors' Response:

Supplies stored onsite would be empty containers such as drums, pails, totes and other packaging materials such as absorbents to be sold to customers for packaging their wastes at their facilities or for use at the site. Personal protective equipment (gloves, safety glasses, etc.) will also be stored onsite.

It's anticipated there will be two 26' straight box trucks and three 53' tractor-trailer units based at the facility for waste activity. Clean Harbors transport vehicles for customer pickups will be dispatched from the facility each day. The trucks are completely enclosed box trucks/trailers. Throughout the day, the drivers of these trucks collect containerized wastes from numerous industrial and commercial facilities located throughout the state. The vehicles will return to the facility at the end of the day. The trucks will be backed up to the concrete loading dock, and the waste containers will be transferred from the incoming transport vehicles to a trailer that is staged at the dock. The waste containers will be moved using ramps, forklifts, drum carts, or handcart, or by hand if the weight of the container allows. At no time are the containers opened. They remain closed at all times. The closed containers in the staged tractor-trailer may be held on-site for up to ten days awaiting delivery to the ultimate destination facility. All vehicles used for picking up the wastes from our customers and for the temporary storage/outbound shipments are DOT compliant. The number of trucks may vary due to business needs. Traffic that will be generated by these operations will not have a major impact of the traffic volume of adjacent and nearby roadways. Non-DOT compliant trailers may be used onsite only for the storage of equipment and supplies and will not be used for temporary storage of any wastes.

b. Provide a detailed list of all liquid, solid and/or gaseous hazardous and non-hazardous waste material that will be or could be brought to and stored on the property. Where kept on site?

Clean Harbors' Response:

Clean Harbors is authorized and permitted to transport DOT hazard classes 2-9, except for Class 7-radioactive materials. The maximum amount of waste to be stored at any time will be the volume of the three tractor trailers and the two box trucks or three hundred twenty-eight (328) 55-gallon drum equivalents. All wastes will be stored on transport vehicles for a maximum of 10 days. There is no onsite disposal. All wastes are shipped offsite for disposal/processing.

c. What type of containers (5 to 350) will be used? Material? Where kept on site?

Clean Harbors' Response:

Waste containers will be metal, plastic, or fiberboard and will vary in size from small boxes to 350-gallon totes or cubic yard boxes. All waste containers will be DOT approved and are compatible with the contents. These waste containers are not opened or mixed while on-site.

All waste containers are properly labeled/marked in accordance with USEPA and USDOT requirements. The waste labels include the generator's name and address, manifest document number, and a description of the waste. All waste materials will be staged on the box trucks or the tractor-trailers at the loading dock.

d. How will the materials be consolidated..be specific. Where on site?

Clean Harbors' Response:

All containers are transferred from the incoming route vehicles to a staged trailer for offsite shipment. All waste containers remain closed, with there being no waste consolidation conducted on site.

e. Will different types of materials be co-mingled with other materials as part of the consolidation process?

Clean Harbors' Response:

No wastes will be co-mingled or consolidated while onsite.

f. What are covered bulk bins?

Clean Harbors' Response:

Covered bulk bins are twenty or thirty-yard rolloffs that typically have a hard plastic cover or a fabric tarp. There are used to containerize larger volumes of soils or other solids. They will be parked on pavement at the site.

g. What are Frac Tanks?

Clean Harbors' Response:

A frac tank is a 22,000-gallon portable tank used to containerize water or other liquids on a customer's site. There are also sometimes called by the commercial name of a "Baker Tank". The frac tank cannot be transported when it is full. Clean Harbors has made the decision that it will no longer seek the ability to clean frac tanks as part of this CUP application. Therefore, if frac tanks are present at the site, they would either be empty or only contain slight residuals while awaiting return to their owners. Frac tanks would be parked on pavement at the until they are returned.

h. Is water used in the process of cleaning containers?

Clean Harbors' Response:

Clean Harbors is abandoning the part of this CUP application for cleaning containers onsite. Therefore, no water will be used for container cleaning.

4. Provide a list of the DNR and other agency permits, licenses or approvals required to operate this type of facility and the status of obtaining those items.

A copy of the following transportation permits are provided.

License/Permit #	Issuing Agency	Type
12102	Wisconsin DNR	Hazardous Waste Transport Service License
15167	Wisconsin DNR	Infectious Waste Transportation License
14741	Wisconsin DNR	Solid Waste Transportation License
062117 553 058ZB	US DOT PHMSA	Hazardous Materials Certificate of Registration

Hazardous Waste transfer activities are covered under the WI DNR-issued Hazardous Waste Transport Service License #12102.

As required by Wisconsin Administrative Code, Clean Harbors will be submitting an application to the WI DNR to operate a Solid Waste Transfer Facility license (WAC NR 502) and Infectious Waste Transfer Facility license (WAC NR 526) after the CUP is approved by the Village of Germantown.

5. What measures will be taken to protect the ground and nearby wetlands and navigable waterway from run-off? Is there a spill containment plan?

Clean Harbors' Response:

All waste remains in-transit and any releases would be managed under protocols established in Clean Harbors' In-Transit Emergency Response Procedures. An example of this document is attached for reference.

Clean Harbors is a spill response organization and has equipment and personnel to respond to any onsite releases. The trailers storing the transfer wastes are parked on a concrete pad so any release would likely be contained on the pad. If the CUP is approved and permitting moves forward with the WI DNR, that Clean Harbors will place a berm around the concrete pad. The distance from where the transfer wastes will be stored to the south/southeast property line is over 450' and the wetlands is approximately 100' beyond the property line. There will be a very low potential for any onsite release to affect the wetlands.

Fire Department

6. Clean Harbors needs to provide list and quantity of hazardous waste materials to be kept onsite. As a starting point, does site comply with IFC chapter 50 Hazardous Materials?

Clean Harbors' Response:

Please refer to 3.b above for the materials to be handled. The truck to truck operation would be exempted from IFC Chapter 50 as off-site transportation of hazardous materials under Section 5001.1.4. However, Clean Harbors intends to operate the off-site transportation operation in conformance with the general safety precautions found in 5003.9 to 5003.9.2 including training, written procedures, fire department liaison and security. In addition, if the CUP is approved, berms will be added to the trailer pad such that containment for the largest contain (350 gallon tote) and the 24-hour rainfall for a 25-year storm will be contained pursuant to 5004.2.2.4.

7. Copies of current licensing from DNR or DOT for site related waste or transportation.

Clean Harbors' Response:

Reference 4 (above)

8. Statement of current operations on site. How will this additional CUP change the use of the property? Will all existing business activities remain onsite? State of intended operations after they receive all required approvals.

Clean Harbors' Response:

The current operations will continue at the site. The CUP will allow the proposed Solid Waste and Infectious Medical Waste containerized waste truck-to-truck transfer activities.

9. Safety plan for handling hazardous materials. Spill plan for hazardous materials. How will they prevent spills from groundwater contamination? Is this area within well-head protection district?

Clean Harbors' Response:

In addition to information provided in 5 (above), Clean Harbors has a Transfer Facility Compliance Manual. A draft of this document is provided for reference. The facility is not located within the well-head district.

10. What are frac tanks?

Clean Harbors' Response:

Reference 3.g. (above)

11. How will frac tanks be cleaned?

Clean Harbors' Response:

As set forth in 3.h above, Clean Harbors is no longer pursuing the cleaning of frac tanks on the site as part of this CUP application.

12. How long will waste be stored onsite? Where will be stored? Will fire protection be required? Only one building has fire sprinkler protection. Outside trailers being used for storage may need to meet fire safety codes if they are actively storing flammable materials.

Clean Harbors' Response:

All wastes will be stored on transport vehicles for a maximum of 10 days. Fire protection will not be required for this in-transit staging of waste on vehicles.

13. Will the wastes be transferred or received directly from adjoining waste transfer facilities? Will site become drop off location for hazardous materials directly by public?

No wastes will be transferred or received from adjoining transfer facilities. The site will not be a drop off location for hazardous materials by the public.

14. Create site plan for property detailing above. Is additional FD water supply required within site? Property is gated with FD Knox box access currently, creating arrival delay.

Clean Harbors' Response:

A site plan is provided (reference 2 above). Additional water supply is not required within the site. Clean Harbors is required to maintain site security and safety to prevent access to the facility by the public. The FD Knox Box allows for easy access by the FD in the event of an emergency while maintaining site security.

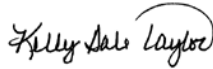
15. There was no mention of infectious waste in the CUP application. But they supplied the GFD with a "draft application to DNR" for permitting infectious materials as supporting document. Nothing for Hazardous Materials. This document was supplied after site visit by Chief Delain and myself, September 11 with Clean Harbors staff and site manager.

Clean Harbors' Response:

Clean Harbors intends to obtain licensing from the WI DNR as a Solid Waste Storage and Infectious Medical Waste Storage facility. All materials would be transferred off-site before they could reach a putrescible state. Hazardous Waste transfer activities are covered under the WI DNR-issued Hazardous Waste Transport Service License #12102.

Clean Harbors trusts the information presented satisfies the Village of Germantown's requests. If questions remain or if additional information is needed, please contact Vincent (Vinnie) VanEngelenburg.

Regards,

A handwritten signature in black ink that reads "Kelly Dale Taylor". The signature is written in a cursive, flowing style.

Kelly Dale Taylor, CHMM
Compliance Specialist
Safety-Kleen Systems, Inc.

**UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**



**HAZARDOUS MATERIALS
CERTIFICATE OF REGISTRATION
FOR REGISTRATION YEAR(S) 2017-2020**

Registrant: CLEAN HARBORS ENVIRONMENTAL SERVICES INC
Attn: RITA POWERS
PO BOX 9149
NORWELL, MA 02061-9149

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S.C. 5108. It is unlawful to alter or falsify this document.

Reg. No: 062117 553 058ZB Effective: 07/01/2017 Expires: 06/30/2020
HM Company ID: 007987

Record Keeping Requirements for the Registration Program

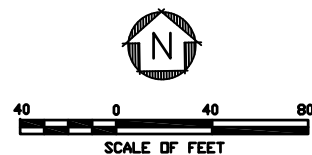
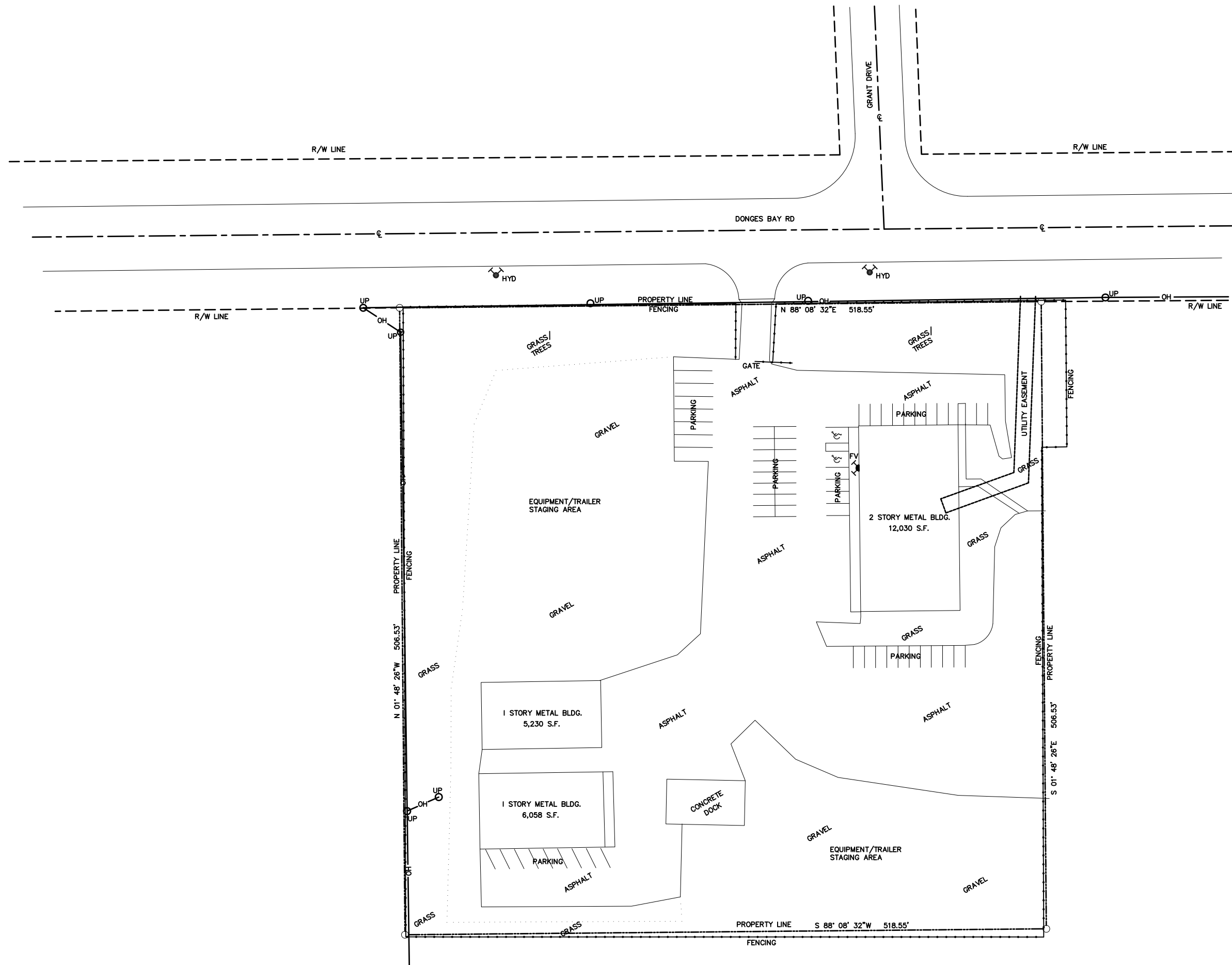
The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

- (1) A copy of the registration statement filed with PHMSA; and
- (2) This Certificate of Registration

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, PHH-52, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC 20590, telephone (202) 366-4109.



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IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

**Clean Harbors 24 hour Emergency Operations Centre
1-800-645-8265**



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

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IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

PURPOSE

This Transportation Emergency Response Procedure was developed by **Clean Harbors** for its affiliated carriers.

This procedure is intended to describe the equipment, management procedures and notification guidelines for responding to any release of Dangerous or Hazardous goods/wastes, petroleum oil or other materials that may pollute during the course of transportation over public roadways.

***Note:** This procedure is designed to initiate procedures to mitigate or prevent the release of petroleum oil and other hazardous materials/wastes to the environment while waiting for the arrival of an emergency response crew. The information provided by the driver will dictate the level of response needed to effectively respond to the release. Clean Harbors has the internal personnel & equipment to respond to spills from its transport vehicles in addition to a network of third party approved subcontractors*



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

IDENTIFICATION OF HAZARDOUS WASTE AND HAZARDS

Hazardous Waste Type/Class	Physical Properties	Chemical Properties	Toxicological Properties	Human Health Risks	Environmental Risks
Class 2.1 Flammable Gases (eg natural gas, acetylene, butane, ethylene, hydrogen, LPG)	May be compressed and/or liquefied—please refer to SDS or NIOSH guide for specific vapor density, flashpoint and LEL/UEL data.	Reacts with strong oxidizers. Please refer to SDS or NIOSH guide for specific incompatibilities.	Please refer to SDS or NIOSH guide for product specific toxicological properties.	Flammable gases under pressure may cause cold exposure injuries (frost-bite). Respiratory protection may be required. Flash fire is a significant risk. Ensure no ignition sources are present. Refer to SDS or NIOSH guide for product specifics.	Gas/ Vapor cloud may migrate significant distances to reach an ignition source. Dependent on vapor density, product may rise and dissipate or pool in low lying areas or vertical accesses. Refer to SDS or NIOSH guide for specifics.
Class 2.2 Non-flammable/ Non-toxic Gases (eg. nitrogen, CO2, helium)	May be compressed, liquefied or pressurized cryogenic. Please refer to SDS or NIOSH guide for product specifics.	Heat or water may vigorously vaporize the product.	N/A.	Possible asphyxiant due to the exclusion of oxygen.	N/A
Class 2.3 Toxic Gases (eg. chlorine, fluorine, hydrogen cyanide, ammonia)	May be compressed, liquefied or pressurized cryogenic. Please refer to SDS or NIOSH guide for product specifics.	May react with water, oxidizers, acids, organic compounds or other substances. Please refer to SDS or NIOSH guide for specific incompatibilities.	Known or presumed to be toxic or corrosive to humans as to pose a hazard to health. Please refer to SDS or NIOSH guide for product specifics.	Significant inhalation risk. Respiratory protection may be required. Refer to SDS or NIOSH guide for product specifics.	Gas/ Vapor cloud may migrate significant distances or pool in low lying areas or vertical accesses dependent on vapor density and pose a significant hazard to flora, fauna and other forms of life.
Class 3 Flammable Liquids (eg. Petrol, kerosene, solvents, dry-cleaning fluid)	Liquid, mixtures of liquids, liquids containing solids in solution or suspension that give off flammable vapor at temperatures below 37.8C or 100.04F	Please refer to SDS or NIOSH guide for product specifics. Regard should be given regarding solubility, specific gravity and incompatibilities.	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics.	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for product specifics. Regard should be given regarding solubility, specific gravity. Poses a risk to flora, fauna and other forms of life
Class 4.1 Flammable Solids (eg. magnesium, naphthalene)	Solid substances that are easily ignited and readily combustible. May be powdered, granular or pasty substances.	Please refer to SDS or NIOSH guide for specific incompatibilities.	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics.	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics	Normal extinguishing agents (CO2 or water) may increase the hazard. Decomposition, particularly if no ignition occurs, may result in the evolution of toxic gases or vapors. Runoff from fire control may be corrosive.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

Class 4.2 Spontaneously Combustible (eg. phosphorous)	Solid substances that ignite spontaneously when exposed to air	Reacts with air, oxidizers and halogens. Please refer to SDS or NIOSH guide for specific incompatibilities	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics	Products are pyrophoric or exothermic. Runoff from fire control may be corrosive or toxic.
Class 4.3 Water reactive (eg. sodium, calcium, potassium, calcium carbide)	Solid substances that emit a flammable gas when wet or react violently with water.	Emits flammable gas when wet or reacts violently with water. Please refer to SDS or NIOSH guide for specific incompatibilities.	Please refer to SDS or NIOSH guide for product specifics.	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics.	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Class 5.1 Oxidizing Substances (eg. calcium hypochlorite, ammonium nitrate, hydrogen peroxide)	Solid or liquid that may, generally by yielding oxygen, cause or enhance the combustion of other materials. Please refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for specific incompatibilities.	May be toxic to lungs and mucous membranes. Please refer to SDS or NIOSH guide for product specifics.	Poses possible inhalation and ingestion risks. Please refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for product specifics.
Class 5.2 Organic Peroxides	Solid (usually fine powder), liquid or paste. Please refer to SDS or NIOSH guide for product specifics.	Do not expose to combustible materials. Please refer to SDS or NIOSH guide for specific incompatibilities.	May be toxic or corrosive. Please refer to SDS or NIOSH guide for product specifics.	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics.	For liquid spills/releases, dilution is recommended. Please refer to SDS or NIOSH guide for product specifics.
Class 6.1 Toxic Substances (eg, sodium cyanide, potassium cyanide, mercuric chloride)	Solid (may be powder or flakes), liquid or paste that is liable to cause death, serious injury or harm to human health if swallowed, inhaled or comes into contact with human skin. Please refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for specific incompatibilities.	Known or presumed to be toxic or corrosive to humans as to pose a hazard to health. Please refer to SDS or NIOSH guide for product specifics.	Possible significant risk via all routes of entry. Respiratory protection may be required. Refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for product specifics. Regard should be given regarding solubility, specific gravity. Poses a risk to flora, fauna and other forms of life.
Class 6.2 Infectious Substances (eg. regulated medical waste, forensic materials, used health care products)	Substances or material infected by pathogens may exist in any form of matter.	Please refer to SDS or NIOSH guide for specific incompatibilities.	Poses possible inhalation, ingestion, injection and absorption risks. Please refer to SDS or NIOSH guide for product specifics.	Possible significant risk via all routes of entry. Respiratory protection may be required. Refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for product specifics. Regard should be given regarding solubility, specific gravity. Poses a risk to flora, fauna and other forms of life.
Class 8 Corrosives (eg. sulfuric acid, hydrochloric acid)	Liquid or solid that can dissolve organic tissue or severely corrode certain metals. Please refer to SDS or NIOSH guide for product specifics	This class includes both acids and bases. Incompatible material may react violently if mixed. Please refer to SDS or NIOSH guide for specific	Poses possible inhalation, ingestion, and absorption risks. Please refer to SDS or NIOSH guide for product specifics	Possible significant risk via all routes of entry. Respiratory protection may be required. Refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics. Regard should be given regarding solubility, specific gravity. Poses a risk to flora, fauna and other forms of life



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

		incompatibilities.			
Class 9 Miscellaneous	Please refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for product specifics.	Please refer to SDS or NIOSH guide for product specifics.
Waste Oil	Viscous liquid or sludge	Not soluble in water. Please refer to SDS or NIOSH guide for product specifics	Used oil contaminants may include lead, cadmium, chromium, arsenic, dioxins, benzene and polycyclic aromatics	Poses possible inhalation, ingestion, and absorption risks. May be carcinogenic. Please refer to SDS or NIOSH guide for product specifics	Poses a risk to flora, fauna and other forms of life
Waste Pest Control Products	Please refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics
Leachable Toxic Waste	Please refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics	Please refer to SDS or NIOSH guide for product specifics
Waste Containing Tetrachloroethylene (dry cleaning fluid)	Colorless liquid with sweet detectable odor.	Please refer to SDS or NIOSH guide for product specifics	Group 2A carcinogen	Product dissolves fats from skin, potentially resulting in skin irritation. May increase risk of developing Parkinson's.	Presents as a dense nonaqueous phase liquid (immiscible and specific gravity over 1).



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

CONTINGENCY PLAN FOR IN-TRANSIT RELEASES

1. REFERENCE DOCUMENTS (Available to driver and/or response personnel)

- a. Current Emergency Response Guidebook ERG (2016)
- c. Shipping Document (Manifest, Bill of Lading)
- d. On-line waste profile information & Safety Data Sheets
(Accessed via 24 hour emergency response operator).
- e. NIOSH Pocket Guide to Chemical Hazards (Responder)

2. GENERAL RESPONSE PROCEDURES

In the event of a release or the threat of a release from a vehicle, the following procedures are to be followed to mitigate or prevent the release of petroleum oil or other hazardous materials/wastes to the environment.

A. Secure the Area

1. Halt/shut down the operation, for example
 - a. Loading or unloading
 - b. Transporting
2. Keep unauthorized people away from the release area by using physical barriers (i.e. caution tape, pylons) or with the assistance of local officials on the scene.
3. Stay upwind.
4. Eliminate any ignition sources.

B. Identify the Magnitude of the Situation

1. Determine the type of material/waste that may be involved by reviewing the shipping paper(s).
2. Refer to the current Emergency Response Guidebook for properties of the material including any potential evacuation distances, potential fire or explosion hazards, potential health hazards, and/or potential personnel protective equipment that first responders may need.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

3. When deploying spill containment control materials (i.e. poly sheeting, suitable absorbent material spill containment pail to catch inconsequential drips) ensure that you don your protective Tyvec suit, chemical resistant gloves, hard hat and protective eyewear as a precaution (refer to SDS for full list of required PPE). Please note that your initial role is to simply secure the vehicle, keep unauthorized individuals away from the scene and deploy, if safe to do so, necessary initial spill containment controls to protect sensitive areas (storm drains, culverts, pervious surfaces). Remember you are not to attempt to remediate the release or to enter the cargo space of a waste hauling vehicle to identify the source of a suspected release. Take those steps that are necessary to secure the scene and initiate notification procedures and have all available shipping papers and related documents needed for first responders to safely determine a response plan.
4. Attempt to locate the source of the release and the extent of the contamination.
5. Determine the volume and rate of release (e.g. slow leak up to a catastrophic failure).
6. Identify which category the release falls into:
 - a. **Category 1:**
 - Minor release (e.g. faulty valve)
 - 0-5 gallons (0-23L)
 - includes those inconsequential incidental slops & drips of material characteristic to daily servicing of Safety Kleen clients and which can readily and safely be managed by the respective driver with no adverse effect or requirement to make notification to the regulatory agency.
 - b. **Category 2:**
 - Serious release (e.g. container failure)
 - 5-55gallons. (23 – 250L)
 - All Dangerous Goods Class 2,3,4,5, 6, 8 and 9.
 - Any release requiring an immediate notification to Agency, see section D “Notification Procedures”.
 - c. **Category 3:**
 - Major release (e.g. tank failure)
 - 55-8500 gallons (250 – 39,000L)



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

REMEMBER: The first priority of any emergency response is life & health. If you do not have adequate information or personnel protective equipment, do not approach the release. Do not enter the material/waste hauling portion of the vehicle under any circumstances. These areas may be defined as a "confined space" and require specific Health & Safety safeguards before entering the space.

C. Contain the Release

Category 1 – Minor

1. Undertake initial response actions to halt the release of the oil or other material and contain its spread using absorbent material, physical barriers, containment pail, etc. if it is safe to do so.
2. Look for storm drains, manhole covers and other vertical access points and dike off or dam to prevent material from entering these areas.
3. Take those actions to protect public health, safety and the environment that can be taken without compromising your safety or the safety of others.
4. Initiate notification procedures.

Category 2 - Serious

1. Undertake initial response actions to halt the release of the oil or other material and contain its spread using absorbent materials, physical barriers, containment device, etc.
2. Look for storm drains, manhole covers and other vertical access points and dike off or dam to prevent material from entering these areas.
3. Take those actions to protect public health, safety and the environment that can be taken without compromising your safety or the safety of others.
4. Initiate notification procedures.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

Category 3 - Major

1. Look for storm drains, manhole covers and other vertical access points and dike off or dam to prevent material from entering these areas.
2. Take those actions to protect public health, safety and the environment that can be taken without compromising your safety or the safety of others.
3. Initiate notification procedures.

D. Notification Procedures

1. The driver is to immediately notify Clean Harbors Dispatcher at his/her home office and provide his/her name, address & phone number. If after hours, initial notification is to be made to the Clean Harbors 24-hour emergency response phone number. The driver is to provide the following information:
 - a. Exact location of release;
 - b. Identity of material being released;
 - c. Type of vehicle involved in release along with type of container (s). If a tank is involved, provide volume contained within the vessel;
 - d. Estimated amount of material released, flow rate & current weather conditions on scene;
 - e. Area material was released to (i.e. asphalt, soil, storm drain, etc.);
 - f. Name and address of shipper;
 - g. Shipping document and or manifest numbers.
 - h. Actions taken prior to notification.

Note: If required by the respective jurisdiction, the driver must make an immediate report to the applicable agency (i.e. In British Columbia report to Provincial Emergency Program, PEP, 1-800-663-3456).

2. Home Dispatcher is then to notify the Clean Harbors' Transportation Compliance Department who will then make appropriate notifications to local, state, provincial, and federal agencies (including National Emergency Response Center when applicable) listed in Appendix 1-3.
3. Home dispatcher will then dispatch necessary equipment and personnel from the closest Clean Harbors service center to the scene.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

3. Priority Phone Numbers

A. 24 HOUR EMERGENCY RESPONSE Numbers:

Clean Harbors 1-800-483-3718
or
Safety- Kleen 1-800-468-1760

B. Home Terminal Dispatcher:

C. If the driver is unable to contact his home dispatcher or the Clean Harbor's/Safety Kleen's 24-Hour emergency response phone number for any reason, he/she will be required to contact the following:

- Local fire and police - (911)
- Applicable state and provincial authorities (See Appendix 1 & 2 & 3).
- USA - National Emergency Response Center (If release exceeds the U.S. DOT reportable quantity. amount): 1-800-424-8802

The National Response Center & Director of the Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington DC must be notified via telephone as soon as practical but no later than 12 hours after an occurrence in which:

- A person is killed or requires hospitalization due to injuries.
- Carrier or property damages exceeds \$50,000
- Accident/spill involved radioactive materials or infections/etiological agents.
- The general public is evacuated for one hour or more.
- A major transportation artery or facility is closed for one hour or more.
- The operational flight plan or routine of an aircraft is altered.
- A release of a marine pollutant in excess of 119 gallons for a liquid or 882 pounds for a solid, Or
- A situation exists in which a continuing danger to life exists at the scene of the incident.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

National Emergency Response Center
1-800-424-8802

1-800-232-0124 (Center for Disease Control – to be called
if infectious items are involved).

1-800-424-9300 CHEMTREC

- Canada – **CANUTEC** 1-613-996-6666
- Generator contact (From Manifest or Bill of Lading)

D. Responsible Company Official

The company officials listed in Appendix 5 will be responsible for insuring that all required notifications are made, all required reports are generated and submitted, appropriate emergency response resources are dispatched to the incident scene, appropriate health and safety measures are taken throughout the duration of any response activity and all media involvement is handled in accordance with established company protocols.

NOTE: Clean Harbors will utilize internal spill response teams positioned throughout North America based on proximity to an incident scene. In the event local coverage is not feasible, a 3rd party suitably trained and competent subcontractor (CERCA member in Canada) will be engaged to represent Clean Harbors to address and respond to an incident.

4. SCENARIO CLEAN-UP PROCEDURES

The transporter is responsible for the clean-up of a release that occurred during the course of transportation. Therefore, it is the responsibility of the driver to monitor the scene and take any necessary actions to isolate, contain and control the release and prevent its spread. The driver is required to be in attendance (i.e. on-duty not driving) of the motor vehicle until such time that company personnel arrive to conduct the clean-up operation. At this time, the motor carrier will make the determination as to the duty status of the driver.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

A. Actions

Once the emergency response crew arrives at the scene, the following actions will be taken if the release has stopped. If the release is ongoing, measures to transfer remaining product from the damaged or defective vessel to a receiving vessel will be conducted concurrent to the below actions. In the event of a fire resulting in a release, the extinguishing agent run-off will be treated as product contaminated.

1. Material that has been released to impervious surface (i.e. concrete or pavement) will be absorbed using a suitable absorbent such as speedy dry or diatomaceous earth. This material will then be containerized and sent to a fully licensed waste management facility for disposal.
2. Material that has reached any pervious surface such as soil will result in the remediation of the affected area to the extent that all contamination is removed. All material collected as a result of said remediation will be containerized and sent for disposal at a fully licensed waste management facility. In addition, analytical will be conducted by an approved lab (BTEX, PAH etc.) when necessary to determine that all contamination has been removed.
3. Material that has reached a water body such as a stream, river or lake will result in a remediation and mitigation of the affected area to facilitate the removal of all contamination possible through use of absorbents, booms, and physical/vacuum material recovery. All material collected as a result of said remediation will be containerized and sent for disposal at a fully licensed waste management facility. In addition, analytical will be conducted by an approved lab (BTEX, PAH etc) when necessary to determine that all contamination has been removed.
4. Prior to leaving any site, appropriate backfill will be used to replace any ground cover removed during the clean-up process.
5. Any damaged container involved in an incident will be placed into a suitable salvage drum and shipped to a fully licensed waste management facility for disposal.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

B. Equipment Requirements

Every Hazardous Waste Vehicle must have the following equipment readily available and in working condition. Vehicles not found to be in 100% compliance with this part will be placed out of service until such time that the required equipment is secured.

1. (Mandatory) Two pound (rated at 10 B:C or more) fire extinguisher mounted in the cab of the motor vehicle.
2. (Optional) Twenty pound (B:C or more) fire extinguisher mounted outside of the cab. Each fire extinguisher must be inspected for a valid inspection date and to insure that it is fully charged.
Note: Extinguishers cannot be mounted inside the cargo-carrying portion of the vehicle.
3. Working flashlight.
4. Absorbent material.
5. Small shovel & broom.
6. Spare fuses and circuit breakers (as appropriate).
7. Five (5) gallon empty bucket w/cover.
8. Six (6) mil polysheet
9. Mounted Spill Kit (where feasible)
10. First aid kit with 16-ounce eyewash.
11. A One gallon container of germicide [bleach solution] for those vehicles transporting medical waste.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

12. Personal Protective Equipment:

- a. Chemical protective suit.
- b. Chemical resistant gloves.
- c. Inner surgical gloves.
- d. Eye/face protection w/side shields.
- e. Respirator with applicable cartridges (clean & bagged when not in use).
- f. Extra respirator cartridges
- g. Hard hat.
- h. Disposable boots [i.e. "chicken boots"].

13. Working 2-way communication.

14. Set of 3 triangle reflectors (warning signals)

15. Chock block set.

16. Current copy of Clean Harbor's In-Transit Emergency Response Procedures. (This document)

17. Current DOT Emergency Response Guidebook (must be with the manifest at all times and within the reach of the driver while at the controls of the vehicle). (US/CAN)

18. Driver's Pocket Guide to Hazardous Materials. (US)

19. Federal Motor Carrier Safety Regulations. (US)

20. Applicable hazardous waste manifest or shipping document.

NOTE: Drivers & Dispatchers: Please be aware that it is your responsibility to ensure that the items on this list are available and in working order before each trip. If any item is missing, do not begin the trip until required equipment is secured.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

5. FOLLOW-UP PROCEDURES

A. Decontamination

Decontamination of all contaminated vehicles, equipment and clothing will be conducted prior to departure from a spill site. Decontamination of a truck or trailer will be conducted by removing all visible liquid or solid contamination. In addition, a suitable decontamination solution will be used to prepare the vehicle for transport to a suitable facility for further decontamination if necessary. The primary goal of the on-site decontamination is to prevent additional material being released to the environment. Equipment used in the clean-up process will be decontaminated using a suitable decontamination solution.

All rinse-ate used in the process will be containerized and sent for disposal at a fully licensed waste management facility.

All contaminated clothing will be containerized and managed in the same manner as the rinse-ate collected from the decontamination of the vehicle and equipment involved in the clean-up procedure.

B. Written Notification

Canada Notification

If an immediate report was required to be made for an accidental release, a dangerous goods accident, or a dangerous goods incident, a follow-up report must be made as prescribed by TDG Regulations Part VIII, and sent to the Director General within 30 days after the occurrence.

USA Notification

Within 30 days of a discharge of a hazardous waste, a written report will be completed on the form prescribed by the U.S. DOT (DOT 5800.1 spill report) and sent to the Information Systems Manager, Office of Hazardous Materials Transportation, Research and Special Programs Administration, U.S. Department of Transportation, Washington, DC 20590. In addition, a copy of this report will be forwarded to the applicable state agency within each states specified time frame as noted in Appendix 1.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

6. DOT/TDGA EMERGENCY RESPONSE GUIDEBOOK

A. Purpose of Guidebook

The current Emergency Response Guidebook is to be used to obtain initial response information (i.e. spill containment, personal protective equipment, first aid, evacuation information) while waiting for emergency response crew to arrive on scene. Federal Regulations require that each driver have this reference document available in the event of a release.

B. Four (4) Sections of the Guidebook

There are 4 Sections of the Guidebook:

Yellow

Reference Chemical
By UN/NA Number

Blue

Reference Chemical by Chemical

Orange

Response Information

Green

Evacuation Distances



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

APPENDIX 1: STATE & FEDERAL EMERGENCY RESPONSE PHONE NUMBERS

NATIONAL EMERGENCY RESPONSE CENTER:		1-800-424-8802
		1-202-267-2675
CHEMTREC:		1-800-424-9300
Alabama:	Alabama Department of Environmental Management, Emergency Response Center	1-800-643-0699 (After Hrs) 1-334-271-7700
Alaska:	Dept. of Environmental Conservation	1-800-478-9300 (After Hrs.)
	Central	1-907-269-3063 (Bus. Hrs)
	Northern	1-907-451-2121 (Bus. Hrs)
	Southeastern	1-907-465-5340 (Bus. Hrs)
Arizona:	Department of Environmental Quality	1-602-771-2330
	Emergency Response	1-800-234-5677
Arkansas:	Department of Emergency Management	1-800-322-4012
California:	State Office of Emergency Services	1-800-852-7550 (In CA) 1-916-845-8911
Colorado:	Department of Public Health and Environment, Emergency Spill Reporting	1-877-518-5608
Connecticut:	Dept. of Environmental Protection	1-860-424-3338
Delaware:	Dept. of natural Resources & Environmental Control	1-302-739-5072 (24 Hr.) 1-800-662-8802 (In-State)
District of Columbia:	Emergency Management Office	1-202-727-6161
Florida:	Florida State Warning Point	1-800-320-0519 1-850-413-9911
Georgia:	Dept. of Natural Resources	1-800-241-4113
Hawaii:	Local Police	911
Idaho:	State Communications Board.	1-800-632-8000
Illinois:	Emergency management Agency	1-800-782-7860 1-217-782-7860 (24 Hr.)
Indiana:	Office of Emergency Response	1-800-451-6027 (In-State) 1-888-233-7745
Iowa:	Dep. Of Natural Resources Emergency Response	1-515-281-8694
Kansas:	Dept. of Health and Environment	1-785-296-1679 1-800-905-7521
	HazMat Response	1-800-275-0297 1-785-296-8013
Kentucky:	Dept. of Natural Resources Environmental	1-502-564-2380 (24 Hr)



**IN-TRANSIT EMERGENCY RESPONSE PROCEDURES
(USA and Canada)**

Louisiana:	Response Team	1-800-928-2380
	HazMat Line	1-225-925-6595
		1-225-925-7500
	LA Homeland Security & Emergency	1-800-256-7036 (24 Hr.)
	Planning Department	
Maine:	Department of Environmental Protection	1-800-452-4664 (In-State)
		1-207-624-7000
		1-800-482-0777 (In-State)
Maryland	Department of the Environment	1-866-633-4686
Massachusetts:	Dept. of Environmental Protection	1-888-304-1133
Michigan:	Dept. of Environmental Quality	1-800-292-4706 (In-State)
		1-517-373-7660
Minnesota:	Minnesota Pollution Control Agency	1-800-422-0798
	Emergency Response Team	1-651-649-5451
Mississippi:	Department of Environmental Quality,	1-601-352-9100
	Emergency Management Agency	1-800-222-6362
Missouri:	Dept. of Natural Resources	1-573-634-2436
Montana:	Emergency & Disaster Service	1-406-444-0379
Nebraska:	Dept. of Environmental Quality	1-402-471-2186 (Bus. Hrs)
	State Highway	1-402-471-4545 (After Hrs)
Nevada:	Dept. of Environmental Protection	1-888-331-6337 (In State)
		1-702-687-4240 (Bus. Hrs)
New Hampshire:	Dept. of Environmental Services	
	HazMat	1-603-271-3899 (Bus. Hrs)
	Oil (Petroleum)	1-603-271-3644 (Bus. Hrs)
	State Police (Off-Hours)	1-800-346-4009 (In State)
		1-603-223-4381 (Out of State)
New Jersey:	Dept. of Environmental Protection	1-877-927-6337
New Mexico:	Department of Environment	1-505-827-9329
New York:	Dept. of Environmental Conservation	1-800-457-7362 (in State)
		1-518-457-7362 (Out State)
North Carolina:	Division of Env. Management	1-800-662-7956
		1-800-858-0368 (24 Hrs.)
North Dakota:	Emergency Management Agency	1-800-472-2121
Ohio:	Environmental Protection Agency	1-800-282-9378
Oklahoma:	Hazardous Materials Emergency Response	1-800-522-0206
Oregon:	Emergency Response Team	1-800-452-0311



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

Pennsylvania:	Dept of Env. Protection	
	Southeast	1-484-250-5900
	Northeast	1-570-826-2511
	Southcentral	1-717-705-4741
		1-877-333-1904 (After Hours)
	Northcentral	1-570-327-3636
	Southwest	1-412-442-4000
	Northwest	1-814-332-6945
		1-800-373-3398 (After Hours)
Puerto Rico:	Environmental Quality Board	1-787-766-2823
	Civil Defense	1-787-724-0124
Rhode Island:	Office of Compliance and Inspection	1-401-222-1360 (Bus. Hrs.)
	The Environmental Police	1-401-222-3070 (Off Hrs.)
South Carolina:	Dept. of Health & Environmental Control	1-888-481-0125
		1-803-253-6488 (24 Hr.)
South Dakota:	Dept. of Env. & Natural Resources	1-605-773-3231 (24 Hr.)
	State Radio Communications	1-605-773-3296 (Bus. Hrs.)
Tennessee:	Emergency Management Agency	1-800-262-3300
Texas:	Commission on Env. Quality	1-800-832-8224
Utah:	Dept. of Environmental Quality	1-801-536-4123
Vermont:	Agency of Natural Resources	1-800-641-5005 (24 Hr.)
		1-802-241-3888 (Bus. Hrs.)
Virginia:	Dept. of Emergency Services	1-804-897-6510 (Bus. Hrs.)
		1-804-674-2400 (Off Hrs)
Washington:	Dept. of Ecology	1-800-258-5990 (Main #)
		1-800-OIL-S911 (645-7911)
West Virginia:	Department of Homeland Sec. Division of Emergency Management Services	1-304-558-5380
Wisconsin:	Dept. of Natural Resources	1-800-943-0003
Wyoming:	Dept. of Environmental Quality	1-307-777-7781



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

APPENDIX 2: LOUISIANA REPORTING REQUIREMENTS

TRANSPORTATION RELEASE AND INCIDENT REPORTING CRITERIA RS 32:1510. REPORTING OF INCIDENTS, ACCIDENTS, AND CLEANUPS

- A. Each person involved in an incident, accident, or the cleanup of an incident or accident during the transportation, loading, unloading, or related storage in any place of a hazardous material subject to this Chapter shall report immediately by telephone to the department if that incident, accident, or cleanup of an incident or accident involves:
- (1) A fatality due to fire, explosion, or exposure to any hazardous material.
 - (2) The hospitalization of any person due to fire, explosion, or exposure to any hazardous material.
 - (3)(a) A continuing danger to life, health, or property at the place of the incident or accident under any of the following circumstances:
 - (i) The incident or accident results in the release of a hazardous material, as defined in Title 49 of the Code of Federal Regulations.
 - (ii) As a result of the incident or accident, a bulk package of a regulated hazardous material as defined in Title 49 of the Code of Federal Regulations, comes to rest at an angle forty-five degrees or more from the upright position.
 - (iii) It is deemed necessary to transfer a hazardous material, as defined in Title 49 of the Code of Federal Regulations, from one bulk package to another bulk package on a public highway or within 500 feet of an inhabited building.
 - (b) Vehicles suffering mechanical failures completely unrelated to the transportation container or the material contained therein, shall not be required to notify under this Paragraph.
 - (4) An estimated property damage of more than ten thousand dollars.
- E. (1) Notwithstanding any other provision of law to the contrary, the provisions of this Section shall not apply to any incidents, accidents, or cleanup of incidents or accidents that occur within a facility that is subject to the release reporting requirements of R.S. 30:2373(B) and is engaged in activities defined or classified under one or more of the following subsectors, industry groups, or industries of the 1997 North American Industry Classification System (NAICS):
- (a) 211 (oil and gas extraction)



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

- (b) 22111 (electric power generation)
- (c) 3221 (pulp, paper, and paperboard mills)
- (d) 324 (petroleum and coal products manufacturing)
- (e) 325 (chemical manufacturing)f) 326 (plastics and rubber products manufacturing)
- (g) 331 (primary metal manufacturing)
- (h) 4953 (refuse systems)
- (i) 4212 (local trucking without storage)
- (j) 4789 (trucking without storage)

(2) Notwithstanding the provisions of Paragraph 1 of this Subsection, this Section shall apply to any carrier involved in any incident, accident, or cleanup of an incident or accident which occurs outside the perimeter of any facility exempted from this Section pursuant to Paragraph 1 of this Subsection.

Any emergency or release notification made to the Hazardous Materials Hotline must be received no later than one hour after the occurrence, depending on the exigency of the circumstances. This is a guideline which places the burden of immediate notification on the responsible party ensuring that timely notification to Local and State government occurs. The purpose of this immediate notification is to ensure the public safety.

LEPC Emergency Release Notification Information

Updated as of April 09, 2009

Parish		Day Contact		Night Contact		
		Agency	Phone	Agency		Phone
1	Acadia	911 Dispatch	337-788-8772	911 Dispatch	337-788-8772	
2	Allen	Oakdale Fire Dept	318-335-1155	Oakdale Fire Dept	318-335-2820	
3	Ascension	Office of Emergency Preparedness	225-621-8360	Sheriff's Office	225-621-8300	
4	Assumption	Sheriff's Office	985-369-2912	Sheriff's Office	985-369-2912	
5	Avoyelles	Sheriff's Office	318-253-4000	Sheriff's Office	318-253-4000	
6	Beauregard	Sheriff's Office	337-463-3281	Sheriff's Office	337-463-3281	
7	Bienville	Sheriff's Office	318-263-2215	Sheriff's Office	318-263-2302	
8	Bossier	Fire Department	318-741-8711	LEPC	318-425-5351	
9	Caddo	Shreveport Fire Dept	318-675-2137	Office of Homeland Security & Emergency Preparedness	318-425-5351	
10	Calcasieu	Office of Homeland Security & Emergency Preparedness	337-439-9911	911 Dispatch	337-439-9911	
11	Caldwell	Sheriff's Office	318-649-2345	Sheriff's Office	318-649-2345	
12	Cameron	Office of Emergency Preparedness	337-775-5111	Sheriff's Office	337-775-5111	



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

13	Catahoula	Sheriff's Office	318-744-5411	Sheriff's Office	318-744-5411
14	Claiborne	Sheriff's Office	318-927-2011	Sheriff's Office	318-927-2011
15	Concordia	Police Jury	318-336-7151	Sheriff's Office	318-757-3162
16	De Soto	Sheriff's Office	318-872-3956	Sheriff's Office	318-872-3956
17	E Baton Rouge	FD Communications	225-389-2050	FD Communications	225-389-2050
18	E Carroll	Sheriff's Office	318-559-2800	Sheriff's Office	318-559-9911
19	E Feliciana	Sheriff's Office	225-683-5459	Sheriff's Office	225-683-5459
20	Evangeline	Sheriff's Office	337-363-2161	911 Dispatch	337-363-3345
21	Franklin	Office of Homeland Security & Emergency Preparedness	318-435-6247	Sheriff's Office	318-435-4505
22	Grant	Office of Homeland Security & Emergency Preparedness	318-627-3041	Sheriff's Office	318-627-3261
23	Iberia	Sheriff's Office	337-369-3711	Sheriff's Office	337-369-3711
24	Iberville	911 Dispatch	225-687-5140	Sheriff's Office	225-687-5140
25	Jackson	Sheriff's Office	318-259-9021	Sheriff's Office	318-259-9021
26	Jefferson	Office of Homeland Security & Emergency Preparedness	504-736-6211	Office of Homeland Security & Emergency Preparedness	504-736-6211
27	Jeff Davis	Jennings Fire Dept	337-821-5508	Sheriff's Office	337-821-2100
28	Lafayette	Office of Homeland Security & Emergency Preparedness	337-291-5075	Office of Homeland Security & Emergency Preparedness	337-291-5075
29	Lafourche	Office of Homeland Security & Emergency Preparedness	985-446-8427	Parish Government	985-446-8427
30	La Salle	Sheriff's Office	318-992-2151	Sheriff's Office	318-992-2151
31	Lincoln	Sheriff's Office	318-251-5111	Sheriff's Office	318-251-5111
32	Livingston	Office of Emergency Preparedness	225-686-3066	Sheriff's Office	225-686-2241
33	Madison	Office of Homeland Security & Emergency Preparedness	318-574-6911	Sheriff's Office	318-341-1697
34	Morehouse	Sheriff's Office	318-874-3907	Sheriff's Office	318-281-4141
35	Natchitoches	Sheriff's Office	318-352-6432	Sheriff's Office	318-352-6432
36	Orleans	Office of Homeland Security & Emergency Preparedness	504-658-8700	Office of Homeland Security & Emergency Preparedness	504-658-8725
37	Ouachita	Fire Department	318-343-1122	Fire Department	318-343-1122
38	Plaquemines	911 Dispatch	504-394-3541	Belle Chasse Fire Dept	504-394-3541
39	Pointe Coupee	Sheriff's Office	225-694-3737	Sheriff's Office	225-694-3737



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

40	Rapides	Office of Homeland Security & Emergency Preparedness	318-445-1418	911 Dispatch	318-445-1418
41	Red River	Sheriff's Office	318-932-5753	Sheriff's Office	318-932-4221
42	Richland	Sheriff's Office	318-728-2071	Sheriff's Office	318-728-2071
43	Sabine	Sheriff's Office	318-256-9241	Sheriff's Office	318-256-9241
44	St Bernard	Fire Department	504-278-4275	Fire Dispatch	504-279-1200
45	St Charles	Emergency Ops	985-783-5050	Emergency Ops	985-783-5050
46	St Helena	Sheriff's Office	225-222-4413	Office of Emergency Preparedness	985-517-3346
47	St James	Sheriff's Office	225-562-2200	Emergency Operator	225-562-2364
48	St John	Office of Homeland Security & Emergency Preparedness	985-652-2222	911 Dispatch	985-652-6338
49	St Landry	Office of Homeland Security & Emergency Preparedness	337-948-7177	Sheriff's Office	337-948-6516
50	St Martin	Sheriff's Office	337-394-2800	Sheriff's Office	337-394-2800
51	St Mary	Sheriff's Office	337-828-1960	Sheriff's Office	337-828-1960
52	St Tammany	LEPC	985-624-3120	Unified Dispatch	985-898-2338
53	Tangipahoa	911 Dispatch	985-748-8977	911 Dispatch	985-748-8959
54	Tensas	Sheriff's Office	318-766-3961	Sheriff's Office	318-766-3961
55	Terrebonne	Houma Police Dept	985-879-3568	Office of Emergency Preparedness	985-580-0911
56	Union	Sheriff's Office	318-368-3124	Sheriff's Office	318-368-3124
57	Vermilion	OHSEP	337-898-4308	OHSEP / 911	337-898-4308
58	Vernon	Sheriff's Office	337-238-1311	Sheriff's Office	337-238-1311
59	Washington	Office of Homeland Security & Emergency Preparedness	985-732-5200	Fire Department	985-732-5200
60	Webster	Sheriff's Office	318-377-1515	Sheriff's Office	318-377-1515
61	W B Rouge	Sheriff's Office	225-346-1577	Sheriff's Office	225-490-8599
62	W Carroll	Office of Homeland Security & Emergency Preparedness	318-428-8020	Sheriff's Office	318-428-2331
63	W Feliciana	Fire District # 1	225-635-4312	911 Dispatch	225-784-3136
64	Winn	Fire District # 3	318-628-1230	Sheriff's Office	318-628-4611



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

Appendix 3: EMERGENCY REPORTING - CANADA

1. Emergency Report - Initial

In the event of a Release or Anticipated Release of Dangerous Goods that do or may exceed quantities from table below, immediately make an **EMERGENCY REPORT** to any local authority that is responsible for responding to emergencies at the geographic location including **police or fire department**, and also the authorities shown below:

Table

Class	Packing Group or Category	Quantity
1	II	Any quantity
2	Not applicable	Any quantity
3, 4, 5, 6.1 or 8	I or II	Any quantity
3, 4, 5, 6.1 or 8	III	30 L or 30 kg
6.2	A or B	Any quantity
7	Not applicable	A level of ionizing radiation greater than the level established in section 39 of the "Packaging and Transport of Nuclear Substances Regulations, 2015"
9	II or III, or without packing group	30 L or 30 kg

2. **Emergency Report** – immediate additional report if the release or anticipated release resulted in,
- The death of a person;
 - A person sustaining injuries that required immediate medical treatment by a health care provider;
 - An evacuation of people or their shelter in place; or
 - The closure of
 - A facility used in the loading and unloading of dangerous goods, or
 - A road, a main railway line or a main waterway.
 - A means of containment has been damaged to the extent that its integrity is compromised; or
 - The centre sill or stub sill of a tank car is broken or there is a crack in the metal equal to or greater than 15cm (6 in.).



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

Immediate additional report to:

- CANUTEC, at 1-888-CANUTEC (1-888-226-8832) or 613-996-6666;
- The consignor or the dangerous goods;

3. Security Reports – Immediate report to Canutec at 1-888-CANUTEC (1-888-226-8832) or 613-996-6666 in event of Loss or Theft or Unlawful interference of dangerous goods listed in section 8.16 of TDG regulations.

Canadian Environmental and Transport Emergencies Notification		
Province	Office	Telephone Numbers
Newfoundland and Labrador	Newfoundland and Labrador Regional Office Canadian Coast Guard	709-772-2083 or 1-800-563-9089*
Prince Edward Island	Maritimes Regional Office Canadian Coast Guard	902-426-6030 or 1-800-565-1633*
Nova Scotia	Maritimes Regional Office Canadian Coast Guard	902-426-6030 or 1-800-565-1633*
New Brunswick	Maritimes Regional Office Canadian Coast Guard	902-426-6030 or 1-800-565-1633*
Quebec	Environmental Protection Operations Directorate- Quebec Environment Canada	514-283-2333 or 1-866-283-2333*
Ontario	Spills Action Centre Ontario Ministry of the Environment	416-325-3000 or 1-800-268-6060*
Manitoba	Manitoba Department of Conservation	204-944-4888
Saskatchewan	Saskatchewan Ministry of Environment	1-800-667-7525
Alberta	Alberta Ministry of Environment Transport Dangerous Goods (Immediate notification by Driver)	780-422-4505 or 1-800-222-6514* 1-800-272-9600
Northwest Territories	Department of Environment and Natural Resources Government of the Northwest Territories	867-920-8130
Nunavut	Department of Environment and Natural Resources Government of the Northwest Territories	867-920-8130
British Columbia	British Columbia Provincial Emergency Program Ministry of Public Safety and Solicitor General (Immediate Report by Driver) International Marine Oil Spill Reporting on the Pacific West Coast (for California, Oregon, Washington, and British Columbia)	1-800-663-3456 1-800-645-7911
Yukon	Yukon Department of Environment	867-667-7244

* Telephone number accessible only within the respective province. **Note:** In some jurisdictions Dangerous Goods Incidents and Environmental Incidents must be reported to separate phone numbers. Transportation and Environmental Compliance Staff can assist. Ensure that all notifications are promptly made.



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

Appendix 4: BRITISH COLUMBIA – SPILL REPORTING QUANTITIES

Item	Column 1 Substance spilled	Column 2 Specified amount
1	Class 1, Explosives as defined in section 2.9 of the Federal Regulations	Any quantity that could pose a danger to public safety or 50 kg
2	Class 2.1, Flammable Gases, other than natural gas, as defined in section 2.14 (a) of the Federal Regulations	10 kg
3	Class 2.2 Non-Flammable and Non-Toxic Gases as defined in section 2.14 (b) of the Federal Regulations	10 kg
4	Class 2.3, Toxic Gases as defined in section 2.14 (c) of the Federal Regulations	5 kg
5	Class 3, Flammable Liquids as defined in section 2.18 of the Federal Regulations	100 L
6	Class 4, Flammable Solids as defined in section 2.20 of the Federal Regulations	25 kg
7	Class 5.1, Oxidizing Substances as defined in section 2.24 (a) of the Federal Regulations	50 kg or 50 L
8	Class 5.2, Organic Peroxides as defined in section 2.24 (b) of the Federal Regulations	1 kg or 1 L
9	Class 6.1, Toxic Substances as defined in section 2.27 (a) of the Federal Regulations	5 kg or 5 L



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

10	Class 6.2, Infectious Substances as defined in section 2.27 (b) of the Federal Regulations	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
11	Class 7, Radioactive Materials as defined in section 2.37 of the Federal Regulations	Any quantity that could pose a danger to public safety and an emission level greater than the emission level established in section 20 of the "Packaging and Transport of Nuclear Substances Regulations"
12	Class 8, Corrosives as defined in section 2.40 of the Federal Regulations	5 kg or 5 L
13	Class 9, Miscellaneous Products, Substances or Organisms as defined in section 2.43 of the Federal Regulations	25 kg or 25 L
14	waste containing dioxin as defined in section 1 of the Hazardous Waste Regulation	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
15	leachable toxic waste as defined in section 1 of the Hazardous Waste Regulation	25 kg or 25 L
16	waste containing polycyclic aromatic hydrocarbons as defined in section 1 of the hazardous Waste Regulation	5 kg or 5 L
17	waste asbestos as defined in section 1 of the Hazardous Waste Regulation	50 kg
18	waste oil as defined in section 1 of the Hazardous Waste Regulation	100 L
19	waste containing a pest control product as defined in section 1 of the Hazardous Waste Regulation	5 kg or 5 L



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

20	PCB Wastes as defined in section 1 of the Hazardous Waste Regulation	25 kg or 25 L
21	waste containing tetrachloroethylene as defined in section 1 of the Hazardous Waste Regulation	50 kg or 50 L
22	biomedical waste as defined in section 1 of the Hazardous Waste Regulation	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
23	A hazardous waste as defined in section 1 of the Hazardous Waste Regulation and not covered under items 1 – 22	25 kg or 25 L
24	A substance, not covered by items 1 to 23, that can cause pollution	200 kg or 200 L
25	Natural gas	10 kg, if there is a breakage in a pipeline or fitting operated above 100 psi that results in a sudden and uncontrolled release of natural gas



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

Appendix 5

CLEAN HARBORS TRANSPORTATION COMPLIANCE DEPARTMENT INCIDENT/ACCIDENT REPORTING

**24 Hour Emergency Response #
1-800-483-3718**

Company policy requires that a representative of the Transportation Compliance Department be contacted by phone when a company employee is involved in an accident on either public or private property or when there is a release of any material from a company vehicle in transit. In-transit includes loading, unloading, temporary storage and while being transported. In-transit does not include those times when the transporter is not present and a vehicle is being loaded and/or unloaded by the facility either accepting a shipment or preparing a shipment for transportation. In this scenario – the reporting is the responsibility of the facility not the transporter.

The expectation is for the responsible party to contact the Transportation Compliance Specialist assigned to the region where the accident/incident occurred. If the primary contact is unavailable, contact the 24 hour Emergency Response operator at the number identified above and you will be placed into contact with an alternate Transportation Compliance Specialist.

TRANSPORTATION COMPLIANCE

Mark Reynolds – Transportation Compliance Specialist - Canada
403-341-4930 (office)
587-877-0102 (cell)
PROVINCES: **Alberta, British Columbia, Saskatchewan,**

Kevin Oberg- Transportation Compliance Specialist - Canada
403-237-6437 (office)
403-988-5443 (cell)
PROVINCES: **Alberta, British Columbia**

Jill Gibb - Transportation Compliance Specialist - Canada
905-315-5610 (Office)
289-230-1030 (Cell) PROVINCES: **Manitoba, Ontario, Quebec, New Brunswick,
Newfoundland/Labrador, Prince Edward Island, Nova Scotia.**



IN-TRANSIT EMERGENCY RESPONSE PROCEDURES (USA and Canada)

Dawn Hubbard - Transportation Compliance Specialist- USA

760-248-6929 (Office)

760-497-3808 (Cell)

STATES: **Alaska, Arizona, California, Hawaii, Nevada, Oregon**

Alphonse Joseph – Transportation Compliance Specialist-USA

225-400-7511 (Cell)

STATES: **Arkansas, Louisiana, Texas.**

Mike Perry – Transportation Compliance Specialist - USA

1-315-800-7907 (Cell)

STATES: **Alabama, Florida, Delaware, Georgia, Maryland, North Carolina, Puerto Rico, South Carolina, Virginia, West Virginia. Mississippi, Tennessee.**

Jay Sisley - Transportation Compliance Specialist - USA

330-474-6017 (Office)

330-298-8548 (Cell)

STATES: **Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.**

Karli Smith - Transportation Compliance Specialist- USA

385-219-8732 (Cell)

STATES: **Colorado, Idaho, Kansas, Montana, New Mexico, Nebraska, North Dakota, Oklahoma, South Dakota, Washington, Wyoming, Utah.**

Dave Tarvin - Transportation Compliance Specialist- USA

618-293-1885 (Office)

618-791-9705 (Cell)

STATES: **Iowa, Illinois, Indiana, Michigan, Minnesota, Missouri, Ohio, Wisconsin,**

Aaron Kelley –Director, Transportation Compliance

781-792-5762 (office)

702-379-3675 (cell)

Paul Thompson – Vice President, Transportation Compliance

905-315-5602 (office)

905-638-4746 (cell)

Tony Cellucci – Senior Vice President, Transportation Compliance

781-792-5760 (office)

781-858-4205 (cell)



**STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
TRANSPORTATION SERVICE LICENSE**

License Number: 14741

TRANSPORTATION SERVICE LICENSE

Solid Waste Transporter - Solid Waste Only

Truck Count: 135

Licensee Name: CLEAN HARBORS ENVIRONMENTAL SERVICES INC

Effective Date: October 01, 2019

Expiration Date: September 30, 2020

Facility Information

FID: 999774050

CLEAN HARBORS ENVIRONMENTAL SERVICES INC

42 Longwater Dr

Norwell MA 02061-1612

DNR Region: SE

This license authorizes the licensee to operate the transportation service described above during the term specified, and is subject to and conditioned upon compliance with the provisions of chapter 287, and 289, Wis. Stats., and chapters NR 500-590, Wis. Adm. Code. Any exemptions from the requirements of chapters NR 500-590, Wis. Adm. Code, issued for this service are listed above.



**STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
INFECTIOUS WASTE TRANSPORTATION LICENSE**

License Number: 15167

INFECTIOUS WASTE TRANSPORTATION LICENSE

Infectious Waste Transporter

Truck Count: 61

Licensee Name: CLEAN HARBORS ENVIRONMENTAL SERVICES INC

Effective Date: October 01, 2019

Expiration Date: September 30, 2020

Facility Information

FID: 999774050

CLEAN HARBORS ENVIRONMENTAL SERVICES INC

42 Longwater Dr

Norwell MA 02061-1612

DNR Region: SE

This license authorizes the licensee to operate the transportation service described above during the term specified, and is subject to and conditioned upon compliance with the provisions of chapter 287, and 299, Wis. Stats., chapters NR 500-590, Wis. Adm. Code. Any exemptions from the requirements of chapters NR 500-590, Wis. Adm. Code, issued for this service are listed above.



**STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE TRANSPORT SERVICE LICENSE**

License Number: 12102

HAZARDOUS WASTE TRANSPORT SERVICE LICENSE

Hazardous Waste Transporter - Hazardous Waste - PCB

Truck Count: 1

Licensee Name: CLEAN HARBORS ENVIRONMENTAL SERVICES INC

Effective Date: October 01, 2019

Expiration Date: September 30, 2020

Facility Information

FID: 999774050

EPA ID: MAD039322250

CLEAN HARBORS ENVIRONMENTAL SERVICES INC

42 Longwater Dr

Norwell MA 02061-1612

DNR Region: SE

This license authorizes the licensee to operate the transport service described above during the term hereof except as modified by the Department. This license is subject to and conditioned on compliance with the provisions of chapters 291 and 292, Wis. Stats., all applicable hazardous waste requirements of chapters NR 660 to 679, Wis. Adm. Code, and the equipment operator qualifications in the U.S. Department of Transportation regulations in 49 CFR 177.816.

The Department may modify or revoke the license during its term, or its issuance or renewal may be denied for grievous and continuous failure of the licensee or equipment operator to comply with the provisions of chapters 291 and 292, Wis. Stats., or the applicable requirements of chapters NR 113, 204 or 660 to 679. This license does not convey any property rights of any sort, or any exclusive privileges. This license does not authorize entry or trespass upon the property of any person.



TRANSFER FACILITY COMPLIANCE MANUAL

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INTRODUCTION

This compliance and training handbook is intended to summarize important information regarding the transfer of hazardous and non-hazardous waste from one transport vehicle to another when the transfer is not occurring at the destination facility designated on the shipping papers. These locations are commonly referred to as Truck-To-Truck (TTT) locations.

These rules govern the management of containers when they are:

1. Transferred from one vehicle to another (non-bulk or intermediate bulk containers); and/or
2. Temporarily stored (drums and bulk) at a Clean Harbor's Service Center or a Facility.

"In-transit" refers to materials that are physically between the site of generation and the designated receiving facility.

Unless a TTT location is operated in accordance with an approved state permit, each Clean Harbor's location that conducts TTT transfers or temporary storage must comply with the following standard operation procedures. These TTT transfer guidelines are intended to ensure that each Clean Harbor's locations that conducts these activities is maintained in compliance with specific state, local, and federal regulations governing transportation and storage of hazardous, solid, and universal waste.

STANDARD OPERATING PROCEDURES

1.1 Transfer Coordinator:

Each authorized Clean Harbor's TTT location must designate one individual (TTT Coordinator) to be responsible for overseeing the transfer operation and ensuring that all activities are conducted safely, compliantly, and in accordance with these rules.

Each location's management must designate at least one individual to act as an Alternate who will be delegated the TTT coordinator's responsibility when the primary coordinator is not available to oversee the transfer operation.

At no time shall an outside "non-Clean Harbor's" transporter be allowed to deliver or pick-up a shipment at an in-transit location without the TTT coordinator or his/her alternate in attendance.

It is each region's General Manager's responsibility to ensure that each TTT location operates in compliance with all applicable policies, laws, and regulations.

1.2 Coordinator Training Requirements:

The coordinators and personnel responsible for TTT operations must receive appropriate training prior to conducting any activities discussed in the manual. The training must include both the applicable regulatory training and function specific training. At the minimum each individual must receive training covering the following subjects:

1. DOT Hazmat Employee training including but not limited to: general hazmat awareness, manifesting, labeling, marking, placarding, load segregation and securement, container closure and inspection.
2. Transportation security plan training.
3. In-transit spill and emergency response contingency plan review.

1.3 Storage Time:

The maximum time that a shipment of hazardous waste may be stored on-site for is 10 days. Other solid wastes may be stored longer than 10 days if outbound capacity dictates, but onsite storage time will not exceed 15 days.

Note that these storage time limits apply to the dates containers of waste were delivered to the facility. In addition, unless indicated otherwise, all time frames are in calendar days, not business days. The date the material is delivered to a location is day one.

1.4 Shipping Papers:

Location/Placement: Original or a photocopy of Hazardous Waste Manifests and/or Bills-of-Lading must be maintained in an accessible area. The shipping papers must be readily and safely accessible to the response personnel in case of emergency.

The TTT coordinators are responsible to ensure that all shipping papers are signed and dated in the appropriate location prior to any load leaving each site.

Continuation Sheets: If more than two continuing transporters participate in a shipment of manifested material, the TTT coordinator or his/her alternate is responsible for completing a continuation sheets for each manifest and ensuring that all required information and signatures are present on each shipping document.

Use of Special Permits: Whenever special permit is utilized for a shipment of hazardous materials, all terms and provisions of the special permit must be followed. It is the coordinators responsibility to apply the appropriate special permits when consolidation of separate shipments onto the same motor vehicles creates a situation where due to segregation or other requirements the shipment would not be otherwise possible. In addition, when applicable, a valid copy of all special permits must be enclosed with each shipment.

1.5 Container Management:

All containers delivered to a TTT location must be in full compliance with all applicable EPA and DOT rules and regulations. The containers must be properly Packaged, Marked, Labeled, and Segregated. Additionally, the containers must be in acceptable shipping condition, not bulging, leaking, deteriorated, grossly contaminated, or severely rusted. It is left at the discretion of the transfer coordinator to overpack the containers as seen fit. The coordinators are to inspect all incoming containers to ensure complete compliance. If any markings or labels are damaged during the transfer operation, they are to be appropriately replaced.

1. **Packaging** – Hazardous material containers must be stored and transported in packages that meet the performance based requirements specified by the U.S. Department of Transportation for the specific material being transported as specified in Column 8 of the shipping table in 49 CFR §172.101.
2. **Marking** – All containers must be marked with the appropriate DOT shipping name and all other marking requirements of U.S. DOT 49 CFR §172.300 and U.S. EPA 40 CFR §262.32. And any applicable special permits or approvals.
3. **Labeling** – All containers must display the appropriate DOT Hazard Class label(s) specified for each type of material. This includes any subsidiary class label(s) when required.
4. **Segregation** - Containers of hazardous materials must be segregated based on chemical compatibility and in accordance with DOT segregation table for hazardous materials 49 CFR §177.848 (see Chapter 3).

5. **Placarding** – When containers of hazardous material are stored in the vehicles or staged trailers, the outside of the vehicle or a trailer must be placarded accordingly. All rules that apply to hazardous materials in transit, apply to materials stored incidental to transportation.

In addition to the above requirements, the following container management rules apply.

1. Do not unpack closed containers, mix or pump material from one container or transport vehicle into another.
2. Do not open any containers or bulk transport vehicles for any reason, including sampling, transfer, treatment, or addition of absorbent.
3. Do not open, handle, or store containers or transport vehicles in a manner which may rupture the container or transport vehicle and cause it to leak.

1.6 Transport Unit and Carrier Management:

Prior to transloading a shipment, coordinators must ensure that the transport unit that is being loaded is in acceptable condition. This includes but not limited to the following:

1. The integrity of the vehicle floors and walls is not compromised.
 - a. No missing floor boards
 - b. No sharp or protruding defects
 - c. No large tears, gaps or holes on the walls and floors
2. Transport units are clean and free of any previous spill residues or vapors.
3. Transport unit is capable of being locked and secured

Only properly permitted and Clean Harbors' authorized transporters must be used. Clean Harbors National Transportation ensures that the transport unit and the transporter is in a possession of all applicable valid licenses and permits.

1.7 Security:

Each transfer facility security measures must be in accordance with Clean Harbor's transportation security plan as well as all state and local requirements. Box trucks and van trailers must be closed and locked when not in use, unless in a secure area. Gates must be secured and locked at all locations equipped with a fence. Unauthorized access to the vehicles and storage areas must be prevented. Vehicle keys must be stored in a secure location with limited access. Unless required by permits, keys may not be left inside any vehicle regardless if it is parked in a secure area or not.

1.8 Safety and Compliance:

All company Health and Safety policies and procedures must be followed at all times. This includes, but not limited to:

- Wearing appropriate company uniforms
- Wearing appropriate PPE (safety glasses, safety shoes, hardhat, hand protection)
- Placing jack stands under all trailers not attached to a power unit
- Chock and block wheels of all vehicles prior to loading or unloading
- Only qualified and trained individuals can operate forklifts In

addition the following compliance issues must be considered.

1. **Reactives & Ignitables:** Some states require containers of reactive and ignitable waste to be stored at least 50 feet from the facility's property line; these containers must be separated and protected from sources of ignition. Each transfer facility must comply

with all local ordinances and regulations.

2. **Incompatibles:** The Department of Transportation (DOT) has specific rules governing the transportation of incompatible hazardous materials. In some instances cyanides and acids or spontaneously combustible materials and corrosive liquids may not be stored or transported on the same motor vehicle. It is the responsibility of the Transfer Coordinators to ensure that shipments containing incompatible materials are not scheduled for transfer and consolidation on the same motor vehicle (See Chapter 3 for additional information). In addition, if storage of containers is permitted on the loading dock or a warehouse floor, all applicable segregation requirements must still be followed.
3. **Prohibited Materials:** Under no circumstance are Explosives (Class 1), Radioactive (Class 7) or any Temperature Controlled hazardous materials to be stored or transferred at a Clean Harbor's location.

PROCEDURES

This section outlines detailed procedures for handling loads, containers, and shipping papers from the arrival of materials to a TTT location to their departure.

Although it is the responsibility of the drivers and chemists at the time of the shipments to ensure that the material is being packaged, manifested and shipped in accordance with all applicable regulations, the TTT coordinator (or designate) must inspect all incoming loads to ensure complete compliance. If any issues are discovered, they are to be addressed prior to the material being re-offered for continuing transportation. At no time may a non-Clean Harbors load be offloaded without the presence of a TTT coordinator or his/her alternative.

The general lifecycle of materials and shipping papers from the arrival to a TTT location to its departure is outlined in Chart 1.

2.1 Load Arrival:

Upon arrival of a shipment at a TTT location copies of the shipping papers are to be given to the personnel responsible for offloading the vehicles. These copies are to be used to verify the piece count, destination, and proper marking and labeling of the containers.

2.2 Material Verification:

The offloading personnel must verify piece count, marking and labeling with the corresponding shipping papers. All discrepancies including count, drum condition, marking and labeling must be resolved prior to material being loaded on any awaiting trailers and re-offered for continued transportation. Any leaking containers must be properly overpacked, and when required an incident report must be initiated per current company procedures.

2.3 Transfer:

Depending on each location, the arrived material may be transferred directly to a staged trailer or temporarily stored on the loading dock, plant floor, or warehouse; collectively referred to as floor material.

If the transfer is occurring at a location that is also a permitted TSDF, at times the plant material may be added to the TTT material or vice versa.

NOTE: Staged trailers at TTT locations are considered to be in-transit; therefore all segregation and placarding rules are applicable. It is the coordinators responsibility to update required placards as materials are added or subtracted from the each storage trailer.

2.4 Load Departure:

On or prior to the permissible storage time limits the material must leave each location. Prior to the departure, the carrier is responsible to ensure that all material is properly loaded, segregated, and placarded. TTT coordinator is to provide the carrier original shipping papers for review and signature. The carrier is ultimately responsible to ensure that:

1. Cargo is properly loaded.
2. Cargo is properly secured to prevent shifting and falling.
3. The vehicle is properly placarded.
4. All shipping papers are signed and dated prior to departure.
5. Actual container count matches that of the shipping papers.

HAZARDOUS MATERIALS

SEGREGATION AND LOADING

3.1.1 Segregation of Hazardous Materials:

During transportation and storage incidental to transportation (TTT storage) non-bulk and intermediate bulk (IBC) packages require proper segregation. For highway transportation, DOT has published a segregation table in 49 CFR §177.848 that dictates appropriate segregation among different hazard classes of materials. The segregation table on the next page should be used when two or more different hazard classes are loaded onto one transport unit. Following are instructions for using the segregation table for hazardous materials.

- (1) The absence of any hazard class or division or a blank space in the Table indicates that no restrictions apply.
- (2) The letter "**X**" in the Table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation.
- (3) The letter "**O**" in the Table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation unless separated in a manner that, in the event of leakage from packages under conditions normally incidental to transportation, commingling of hazardous materials would not occur. Notwithstanding the methods of separation employed, Class 8 (corrosive) liquids may not be loaded above or adjacent to Class 4 (flammable) or Class 5 (oxidizing) materials; except that shippers may load *truckload** shipments of such materials together when it is known that the mixture of contents would not cause a fire or a dangerous evolution of heat or gas.

***NOTE:** The term "truckload" as used in this section means a shipment of hazardous materials loaded into a transport vehicle by a single shipper. Shipments of hazardous materials offered to a carrier by different shippers and loaded into a transport vehicle are not considered to be truckload shipments. Therefore, for segregation purposes only "truckload" shipments that arrived at a particular TTT location may leave as a "truckload" shipment assuming no additional material is added to that load.

CLASS

CLASS 3	COMBUSTIBLE LIQUIDS				IN BULK	C D E
CLASS 6.1	OTHER THAN INHALATION HAZARD, ZONES A or B			 POISON 6  TOXIC 6  PG III 6	1001 Lbs.	
CLASS 9	MISCELLANEOUS				1001 Lbs.	C D

(1) The absence of any hazard class or division or a blank space in the Table indicates that you do not store any applicable hazard class or division.

(2) The letter "X" in the Table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation.

(3) The letter "O" in the Table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation unless separated in a manner that, in the event of leakage, DOT packages under no conditions normally incident to transportation, coming into contact with materials would not occur.

(4) New labeling on the method of separation employed. Class 6 (corrosive) liquids may not be loaded above or adjacent to Class 4 (flammable) or Class 5 (oxidizing) materials, except that shippers may place such materials in separate containers if it is known that the mixture of contents will not cause a fire or a dangerous evolution of heat or gas.

(5) The letter "E" in the Table indicates that segregation is required for Class 1 (explosive) materials as governed by the compatibility label in paragraph (f) of this section.

(6) The term "A" in the third column of the Table means that, notwithstanding the requirements of the letter "X," ammonium nitrate (UN 1942) and ammonium nitrate ternary may be loaded or stored with Division 1.1 (Class A explosive) or Division 1.5 (blasting agents) materials.

(7) When the §172.101 Table or §172.402 of this subchapter requires a package bear a subsidiary hazard label, segregation appropriate to the subsidiary hazard must be applied when that hazard is more restrictive than that required by the primary hazard. However, hazardous materials of the same class may be stowed together without regard to segregation requirements for any secondary hazard if the materials are not capable of reacting dangerously with each other and causing combustion or dangerous evolution of heat, evolution of flammable, poisonous, or asphyxiating gases, or form alone of corrosive or unstable materials.



ORM-D 11

Placard 454 kg (1001 lbs.) gross weight of two or more categories of hazardous materials listed in Table 2. A freight container, unit load device, transport vehicle, or rail car which contains two or more packages with two or more categories of hazardous materials that require different placards, as specified in Table 2, may be placarded with a DANGEROUS placard instead of the separate placarding specified for each of the materials in Table 2. However, when 1,000 kg (2,205 pounds) aggregate gross weight of more than one category of material is loaded therein at one loading load on a freight container, unit load device, transport vehicle, or rail car, the placard specified in Table 2 for that category must be applied.



Division 5.1
Division 5.2, other than Type 8,
liquid or solid,
temperature controlled
Division 6.1, other than
inhalation hazard,
Zone A or B
Class a
Class 9

3.1.2 Segregation applicable to secondary hazard classes:

When the Hazardous Materials Shipping Table (HMT) 49 CFR §172.101 requires a package to bear a subsidiary hazard label, segregation appropriate to the subsidiary hazard must be applied when that segregation is more restrictive than that required by the primary hazard. However, hazardous materials of the same class may be stowed together without regard to segregation required for any secondary hazard if the materials are not capable of reacting dangerously with each other and causing combustion or dangerous evolution of heat, evolution of flammable, poisonous, or asphyxiating gases, or formation of corrosive or unstable materials.

3.1.3 Use of special permits (exemptions):

When Special Permits (SP) or special approvals are utilized all of the requirements of the permits must be met. This may include specified segregation or loading of the material, special packaging and marking requirements etc. When required, a copy of a SP must be enclosed with all shipping papers.

3.1.4 Segregation for cyanides and spontaneously combustible materials Division 4.2:

Unless packaged and loaded according to the following requirements, or in accordance with any applicable special permits, material capable of liberating Hydrogen Cyanide gas may not be transported with Class 8 liquid acids and Division 4.2 material may not be loaded and transported on the same motor vehicle with any Class 8 liquids.

For Cyanide mixtures and compounds:

- The waste cyanides or waste cyanide mixtures or solutions must be packaged in lab packs 49 CFR §173.12(b).
- The Class 8 acids must be packaged in lab packs or in authorized single packaging not exceeding **208 L** (55 gallons) capacity.
- Waste cyanides or waste cyanide mixtures may not exceed **2 kg** (4.4 pounds) per inner receptacle and may not exceed **10 kg** (22 pounds) per outer packaging; waste cyanide solutions may not exceed **2 L** (0.6 gallon) per inner receptacle and may not exceed **10 L** (3.0 gallons) per outer packaging.
- The waste cyanides or waste cyanide mixtures or solutions must be separated from the acids by a minimum horizontal distance of **1.2 m** (4 feet); and
- Loaded at least **100 mm** (4 inches) off the floor of the freight container, unit load device, transport vehicle or rail car.

For Division 4.2 Material:

- The waste Division 4.2 materials are packaged in lab packs 49 CFR §173.12(b).

- The Class 8 liquids are packaged in lab packs or in authorized single packaging not exceeding **208 L** (55 gallons) capacity.
- The waste Division 4.2 materials may not exceed **2 kg** (4.4 pounds) per inner receptacle and may not exceed **10 kg** (22 pounds) per outer packaging.
- The waste Division 4.2 materials must be separated from the Class 8 liquids by a minimum horizontal distance of **1.2 m** (4 feet).
- The waste Division 4.2 materials and the Class 8 liquids are loaded at least **100 mm** (4 inches) off the floor of the freight container, unit load device, transport vehicle or rail car.

3.2 Hazardous Materials Loading and Securement

3.2.1 General Loading:

When cargo is loaded onto a transport unit it must be loaded in such a manner to permit proper load bracing and placement of load securement devices without undue risk of personal injury, container damage, or hazardous material spill. In addition, heavy items must be loaded in such a way as to distribute the weight evenly and maintain the vehicle total gross and axle weights within legal limits.

3.2.2 Double Stacking:

Clean Harbors Environmental Services has adopted the following guidelines regarding double stacking of hazardous materials. In addition, the Transportation Compliance Department may grant a waiver to this policy on case-by-case basis.

A. Statement of Policy

1. Double stacking containerized hazardous and regulated waste materials in a transport vehicle is prohibited except for the following circumstances.
 - a. Labpacks packaged in accordance with 49 CFR §173.12 in Class and Divisions 3, 4.1, 5.1, 6.1 (except all poisonous by inhalation materials), 8 & 9.
 - b. Non-regulated solid materials (e.g. non RCRA and non DOT).
 - c. Empty containers including empty containers that contain residue of Class and Divisions 3, 4.1, 5.1, 6.1, 8, or 9 hazardous materials. **Note:** The same segregation requirements apply to containers that contain only the residue of

hazardous materials. However, the weight of empty containers does not need to be included in calculating placardable quantity.

- d. Non-bulk packages (other than labpacks) which contain solids in Class and Divisions 4.1, 5.1, 6.1 (other than poisonous by inhalation materials), 8 & 9.
- e. Packages containing aerosol cans packaged in accordance with the limited quantity exemption found in 49 CFR §173.306, or applicable special permits.
- f. Combination packages in hazard Class and Divisions 3, 4.1, 5.1, 6.1 (except all poisonous by inhalation materials), 8 & 9.
- g. Case-by-case basis for bulk packages, shipments by rail, shipment by vessel and special circumstances. (Contact Corporate Compliance Department).

B. Additional Requirements

When double stacking containers within a transport vehicle, the following requirements must be followed:

- 1. Containers may not be stacked more than 2 high.
- 2. Liquids (other than labpacks, or combination packaging) may not be stacked on top of other containers.
- 3. All double-stacked containers must be secured on pallets to facilitate safe off-loading.
- 4. U.S. Department of Transportation segregation requirements found in 49 CFR §177.848 must be followed. Under no circumstances may Class 8 material be loaded next to, adjacent to or above Class 4 or 5 materials.
- 5. Class and Divisions 2.1, 2.2, 2.3 (except for aerosols packaged in accordance with the limited quantity exemption found in 49 CFR 173.306, or applicable special permits) 4.2, 4.3, 5.2, 6.1 (poisonous by inhalation materials) and PCB's are prohibited from being double stacked.
- 6. All containers must be adequately blocked and braced to prevent any movement between containers. When possible shrink-wrap should be utilized to secure the containers.
- 7. Vehicle weight limits (both gross vehicle weight and axle weights) must be within regulatory limits.
- 8. No container may be double stacked which will crush or damage the container it is loaded above.

9. Flex bins may be double stacked on 4/55 gallon steel drums.
10. Only hard-walled cubic yard boxes may be stacked on each other.
11. Placement of packages 5 gallons or less on top of each other does not constitute double stacking; however, these packages must remain on the floor level of the transport vehicle and the material above and below must be compatible. Example: Placing a 5-gallon container of Division 4.3 material on top of a 5 gallon of Division 6.1 material is acceptable, and thus also accomplishes the requirement to keep Division 4.3 material 4 inches of the vehicle floor. Five-gallon containers may not be stacked more than three high, and must be properly secured and prevented from shifting and falling.

Lori Johnson

From: Woods, Bryan C <woods.bryan@cleanharbors.com>
Sent: Monday, August 19, 2019 10:08 AM
To: VanEngelenburg, Vincent J
Subject: Germantown Buildings: 1 of 2
Attachments: image001.jpg

Per your request, see below.

Bryan Woods
Clean Harbors
Field Service Branch Manager
Milwaukee Service Center
(o) 262.293.2267
(c) 262.787.8989
(f) 262.236.8140
woods.bryan@cleanharbors.com
www.cleanharbors.com

Safety Starts with Me: Live It 3-6-5

















Lori Johnson

From: Woods, Bryan C <woods.bryan@cleanharbors.com>
Sent: Monday, August 19, 2019 10:10 AM
To: VanEngelenburg, Vincent J
Subject: Germantown Buildings: 2 of 2
Attachments: image001.jpg

2 of 2.

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NOTICE OF PUBLIC HEARING
VILLAGE OF GERMANTOWN

NOTICE is hereby given that a public hearing will be held by the Village of Germantown Plan Commission and Village Board at the Germantown Village Hall located at N112 W17001 Mequon Road, Germantown, Wisconsin on the following dates and times noted below (or soon thereafter):

PLAN COMMISSION: Monday, October 14, 2019 at 6:30 p.m.

VILLAGE BOARD: Monday, October 21, 2019 at 7:00 p.m.

The purpose of said hearing will be to hear any and all parties, their attorneys or agents, for or against the petition filed by the Village of Germantown Community Development Department for proposed text amendments to the following sections of the Zoning Code (Chapter 17) of the Village of Germantown Municipal Code: 17.51 (Zoning Code Changes & Amendments); specifically regarding public notification procedures and protest petitions.

A copy of the application and a map showing the property described above are on file and available for inspection at the Community Development Department-Planning & Zoning Services office at the Germantown Village Hall during the hours of 8:00 a.m. to 4:00 p.m. Monday through Friday, or, on the Village's website by following this link:

<http://www.village.germantown.wi.us/589/5318/Current-Projects-Under-Review>

Deanna Braunschweig, Village Clerk

Dated this 19th day of September 2019

To Be Published On: September 25th and October 2nd, 2019

RESOLUTION NO. 57-2019

RESOLUTION AUTHORIZING THE BORROWING
OF NOT TO EXCEED \$7,850,000; AND
PROVIDING FOR THE ISSUANCE AND SALE OF
GENERAL OBLIGATION BONDS THEREFOR

WHEREAS, it is necessary that funds be raised by the Village of Germantown, Washington County, Wisconsin (the "Village") for the purpose of paying the project costs of the Village's Tax Incremental District No. 8 (the "Project"), and there are insufficient funds on hand to pay said costs;

WHEREAS, the Village hereby finds and determines that the Project is within the Village's power to undertake and serves a "public purpose" as that term is defined in Section 67.04(1)(b) of the Wisconsin Statutes; and,

WHEREAS, villages are authorized by the provisions of Section 67.04 of the Wisconsin Statutes to borrow money and to issue general obligation bonds for such public purposes.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village that:

Section 1. Authorization of the Bonds. For the purpose of paying the cost of the Project, there shall be borrowed pursuant to Section 67.04 of the Wisconsin Statutes, the principal sum of not to exceed SEVEN MILLION EIGHT HUNDRED FIFTY THOUSAND DOLLARS (\$7,850,000) from purchasers to be determined by a subsequent resolution of this Village Board.

Section 2. Sale of the Bonds. To evidence such indebtedness, the Village President and Village Clerk are hereby authorized, empowered and directed to make, execute, issue and sell to said purchasers for, on behalf of and in the name of the Village, general obligation bonds in the principal amount of not to exceed SEVEN MILLION EIGHT HUNDRED FIFTY THOUSAND DOLLARS (\$7,850,000)(the "Bonds").

Section 3. Award of the Bonds. The Finance Director (in consultation with the Village's financial advisor, Ehlers & Associates, Inc.) shall prepare or cause to be prepared an Official Notice of Sale and an Official Statement and take other actions necessary for the subsequent sale and award of the Bonds.

Section 4. Prior Resolutions; Severability; Effective Date. All prior resolutions, rules or other actions of the Village or any parts thereof in conflict with the provisions hereof shall be, and the same are, hereby rescinded insofar as the same may so conflict. In the event that any one or more provisions hereof shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect any other provisions hereof. The foregoing shall take effect immediately upon adoption and approval in the manner provided by law.

Adopted and recorded this 21st day of October, 2019.

Dean Wolter
Village President

(SEAL)

ATTEST:

Deanna Boldrey
Village Clerk

RESOLUTION NO. 58-2019

RESOLUTION AUTHORIZING THE BORROWING
OF NOT TO EXCEED \$3,040,000; AND
PROVIDING FOR THE ISSUANCE AND SALE OF
GENERAL OBLIGATION BONDS THEREFOR

WHEREAS, it is necessary that funds be raised by the Village of Germantown, Washington County, Wisconsin (the “Village”) for the purpose of paying the costs of sewerage system improvements (the “Project”), and there are insufficient funds on hand to pay said costs;

WHEREAS, the Village hereby finds and determines that the Project is within the Village’s power to undertake and serves a “public purpose” as that term is defined in Section 67.04(1)(b) of the Wisconsin Statutes; and,

WHEREAS, villages are authorized by the provisions of Section 67.04 of the Wisconsin Statutes to borrow money and to issue general obligation bonds for such public purposes.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village that:

Section 1. Authorization of the Bonds. For the purpose of paying the cost of the Project, there shall be borrowed pursuant to Section 67.04 of the Wisconsin Statutes, the principal sum of not to exceed THREE MILLION FORTY THOUSAND DOLLARS (\$3,040,000) from purchasers to be determined by a subsequent resolution of this Village Board.

Section 2. Sale of the Bonds. To evidence such indebtedness, the Village President and Village Clerk are hereby authorized, empowered and directed to make, execute, issue and sell to said purchasers for, on behalf of and in the name of the Village, general obligation bonds in the principal amount of not to exceed THREE MILLION FORTY THOUSAND DOLLARS (\$3,040,000)(the “Bonds”).

Section 3. Award of the Bonds. The Finance Director (in consultation with the Village’s financial advisor, Ehlers & Associates, Inc.) shall prepare or cause to be prepared an Official Notice of Sale and an Official Statement and take other actions necessary for the subsequent sale and award of the Bonds.

Section 4. Prior Resolutions; Severability; Effective Date. All prior resolutions, rules or other actions of the Village or any parts thereof in conflict with the provisions hereof shall be, and the same are, hereby rescinded insofar as the same may so conflict. In the event that any one or more provisions hereof shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect any other provisions hereof. The foregoing shall take effect immediately upon adoption and approval in the manner provided by law.

Adopted and recorded this 21st day of October, 2019.

Dean Wolter
Village President

(SEAL)

ATTEST:

Deanna Boldrey
Village Clerk

**VILLAGE OF GERMANTOWN
WASHINGTON COUNTY**

RESOLUTION NO. 59-2019

**CONTRACT WITH SOPER GRADING & EXCAVATING LLC FOR
FIREMEN’S PARK PHASE 1 IMPROVEMENTS PROJECT**

WHEREAS, the Village of Germantown will contract for Firemen’s Park Phase 1 Improvements Project. Phase 1 consists of materials and labor to install sewer, water, and electrical service to the shelter building as well as pedestrian lighting and park pathways; and,

WHEREAS, the project was sent for public bidding on September 16th, with Bid Opening held on October 8th. Six companies submitted bids with Soper Grading & Excavating LLC., submitting the lowest responsible bid of \$411,557. The engineer’s estimate provided by Ayres Associates for this project was \$418,500; and,

WHEREAS, on October 15, 2019, the Park and Recreation Commission recommended to approve a contract with Soper Grading & Excavating, LLC, for materials and labor to complete the Firemen’s Park Phase 1 Improvements Project per submitted bid of \$411,557, with a 10% contingency for a project cost not to exceed \$452,713; and,

NOW THEREFORE BE IT RESOLVED that the Village Board of the Village of Germantown, does hereby approve Soper Grading & Excavating, LLC, for materials and labor to complete the Firemen’s Park Phase 1 Improvements Project per submitted bid of \$411,557, with a 10% contingency for a project cost not to exceed \$452,713.

Introduced by: _____

Adopted: October 21, 2019

Vote: Ayes: ____ Nays: ____

Dean M. Wolter, Village President

ATTEST:

Deanna B. Braunschweig, WCMC/CMC
Village Clerk

**BUSINESS OF THE VILLAGE BOARD
GERMANTOWN, WI**

MEETING DATE: Monday, October 21, 2019

AGENDA ITEM: New Business

ITEM TITLE: Firemen's Park Phase I Improvements Project – Contract Award

SUBMITTED BY: Mark Schroeder, Park & Recreation Director

SUMMARY EXPLANATION:

At the February 4, 2019 meeting, the Germantown Village Board approved monies in the 2019 CIP Budget to complete Phase 1 of the project. Phase 1 consists of materials and labor to install sewer, water, and electrical service to the shelter building, as well as pedestrian lighting, and park pathways.

The project design plans and specifications were completed in early September with the project sent for public bidding on September 16th, with Bid Opening held on October 8th. Six companies submitted bids with Soper Grading & Excavating LLC., submitting the lowest responsible bid of \$411,557. The engineer's estimate provided by Ayres Associates for this project was \$418,500.

ATTACHMENT: ORDINANCE_____ RESOLUTION__X__ OTHER_____

RECOMMENDATION:

At the October 15th, 2019 Park & Recreation Commission Meeting, a motion was made by Commissioner Leukert, seconded by Commissioner Knop, to send forth a positive recommendation to the Village Board to approve a contract with Soper Grading & Excavating, LLC, for materials and labor to complete the Firemen's Park Phase 1 Improvements Project per submitted bid of \$411,557, with a 10% contingency for a project cost not to exceed \$452,713. Motion carried unanimously. Monies to come from 2019 CIP Budget Account #40-552-570-8310.

October 10, 2019



Mark Schroeder
Park and Recreation Director
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

Re: Firemen's Park Phase 1 Improvements Bid Results

Dear Mark:

This memo is in reference to the bid opening for the Firemen's Park Phase 1 Improvements that took place Tuesday October 8, 2019 at the Village of Germantown Park and Recreation Department at 10:00 am.

We have reviewed the six bids received (Mid City Corporation, Globe Contractors, Inc., Soper Grading and Excavating LLC, Veit & Company, Inc., Poblocki Paving Corporation, and Blaze Landscaping Contracting, Inc.), and have found one error in an as-read item total and as-read bid total. This error did affect the overall bid order results but did not affect the low bid. The six bid totals ranged from \$411,557.00 to \$799,777.00. Alternate Bid total for the deduct work to not include the Bollard Lighting within the project scope of work ranged from \$37,216.00 to \$63,276.00. Soper Grading and Excavating LLC provided the lowest Base Bid total.

The bid received from Soper Grading and Excavating LLC was a Base Bid of \$411,557.00 and Alternate Deduct Bid of \$40,180.00. Our estimate for the Base Bid was \$418,500.00 with an Alternate Deduct Bid of 53,000.00. The low Base Bid came in at \$6,943.00 under the Base Bid estimate.

It is our opinion that the city should accept the bid received from Soper Grading and Excavating LLC of \$411,557.00 but not including the alternate deduct bid for Firemen's Park Phase 1 Improvements. The Village has requested that Soper Grading and Excavating LLC provide their bidder's qualifications information. We will review their qualifications prior to the Village awarding the project to Soper Grading and Excavating LLC based on their low Base Bid total.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Blake Theisen".

Blake Theisen, PLA, ASLA
Project Manager/Landscape Architect
Ayres Associates, Inc.

BID TABULATION

Project: Firemen's Park Phase 1 Improvements
Project Number: 52-0631.10
Bid Opening Date: October 8, 2019 9:00 AM



BASE BID				ENGINEER'S ESTIMATE		MID CITY CORP		GLOBE CONSTRUCTION		SOPER GRADING		VEIT & COMPANY		POBLOCKI PAVING		BLAZE LANDSCAPE	
Item		Qty.	Unit	Unit Price	Item Total	Unit cost	Item Total	Unit cost	Item Total	Unit cost	Item Total	Unit cost	Item Total	Unit cost	Item Total	Unit cost	Item Total
1	MOBILIZATION	1	LS	\$20,000.00	\$20,000.00	\$45,000.00	\$45,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$140,887.00	\$140,887.00	\$28,455.00	\$28,455.00	\$32,165.00	\$32,165.00
2	EROSION CONTROL	1	LS	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$13,000.00	\$13,000.00	\$10,000.00	\$10,000.00	\$10,200.00	\$10,200.00	\$1,200.00	\$1,200.00	\$25,000.00	\$25,000.00
3	DEMOLITION	1	LS	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$86,000.00	\$86,000.00	\$17,500.00	\$17,500.00	\$15,500.00	\$15,500.00	\$31,056.00	\$31,056.00	\$26,500.00	\$26,500.00
4	EARTHWORK	1	LS	\$40,000.00	\$40,000.00	\$75,000.00	\$75,000.00	\$45,000.00	\$45,000.00	\$30,000.00	\$30,000.00	\$52,300.00	\$52,300.00	\$48,900.00	\$48,900.00	\$104,500.00	\$104,500.00
5	ROCK REMOVAL	1,114	LF	\$40.00	\$44,560.00	\$35.00	\$38,990.00	\$26.25	\$29,242.50	\$30.00	\$33,420.00	\$28.00	\$31,192.00	\$37.00	\$41,218.00	\$30.00	\$33,420.00
6	BASE AGGREGATE DENSE. 1-1/4"	1,113	TN	\$20.00	\$22,260.00	\$26.00	\$28,938.00	\$25.00	\$27,825.00	\$14.00	\$15,582.00	\$28.25	\$31,442.25	\$33.00	\$36,729.00	\$30.00	\$33,390.00
7	ASPHALT PATH	142	TN	\$100.00	\$14,200.00	\$145.00	\$20,590.00	\$140.00	\$19,880.00	\$140.00	\$19,880.00	\$158.00	\$22,436.00	\$136.00	\$19,312.00	\$145.00	\$20,590.00
8	ASPHALT DRIVEWAY	109	TN	\$100.00	\$10,900.00	\$130.00	\$14,170.00	\$120.00	\$13,080.00	\$120.00	\$13,080.00	\$123.00	\$13,407.00	\$136.00	\$14,824.00	\$110.00	\$11,990.00
9	CONNECT TO EXISTING STORM INLET	1	SF	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,200.00	\$1,200.00	\$500.00	\$500.00	\$3,500.00	\$3,500.00	\$1,200.00	\$1,200.00	\$4,800.00	\$4,800.00
10	6" PVC STORM SEWER	120	LF	\$35.00	\$4,200.00	\$75.00	\$9,000.00	\$80.00	\$9,600.00	\$48.00	\$5,760.00	\$58.00	\$6,960.00	\$48.00	\$5,760.00	\$85.00	\$10,200.00
11	YARD INLET	2	EA	\$750.00	\$1,500.00	\$750.00	\$1,500.00	\$1,350.00	\$2,700.00	\$1,200.00	\$2,400.00	\$1,800.00	\$3,600.00	\$3,000.00	\$6,000.00	\$2,500.00	\$5,000.00
12	12" CULVERT	55	LF	\$50.00	\$2,750.00	\$175.00	\$9,625.00	\$153.00	\$8,415.00	\$70.00	\$3,850.00	\$219.00	\$12,045.00	\$60.00	\$3,300.00	\$155.00	\$8,525.00
13	CONNECT TO EXISTING WATER	1	EA	\$2,000.00	\$2,000.00	\$4,000.00	\$4,000.00	\$3,700.00	\$3,700.00	\$2,500.00	\$2,500.00	\$9,500.00	\$9,500.00	\$4,200.00	\$4,200.00	\$8,000.00	\$8,000.00
14	WATER SERVICE, 2"	407	LF	\$40.00	\$16,280.00	\$145.00	\$59,015.00	\$114.00	\$46,398.00	\$70.00	\$28,490.00	\$132.00	\$53,724.00	\$252.00	\$102,564.00	\$115.00	\$46,805.00
15	COMPRESSION CURB STOP, 2"	1	EA	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$650.00	\$650.00	\$500.00	\$500.00	\$930.00	\$930.00	\$600.00	\$600.00	\$850.00	\$850.00
16	HYDRANT SHUT OFF VALVE, 2"	1	EA	\$2,000.00	\$2,000.00	\$1,250.00	\$1,250.00	\$720.00	\$720.00	\$600.00	\$600.00	\$975.00	\$975.00	\$600.00	\$600.00	\$750.00	\$750.00
17	FLUSHING HYDRANT	1	EA	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$5,500.00	\$5,500.00	\$2,200.00	\$2,200.00	\$3,900.00	\$3,900.00	\$3,000.00	\$3,000.00	\$10,500.00	\$10,500.00
18	CONNECT TO EXISTING SANITARY MANHOLE	1	EA	\$2,000.00	\$2,000.00	\$3,500.00	\$3,500.00	\$7,000.00	\$7,000.00	\$5,200.00	\$5,200.00	\$9,170.00	\$9,170.00	\$1,200.00	\$1,200.00	\$10,000.00	\$10,000.00
19	SANITARY SERVICE, 6"	707	LF	\$50.00	\$35,350.00	\$220.00	\$155,540.00	\$134.00	\$94,738.00	\$85.00	\$60,095.00	\$106.00	\$74,942.00	\$286.00	\$202,202.00	\$185.00	\$130,795.00
20	CLEANOUT	10	EA	\$1,000.00	\$10,000.00	\$750.00	\$7,500.00	\$720.00	\$7,200.00	\$600.00	\$6,000.00	\$1,263.00	\$12,630.00	\$840.00	\$8,400.00	\$800.00	\$8,000.00
21	PEDESTRIAN LIGHT	9	EA	\$5,000.00	\$45,000.00	\$3,250.00	\$29,250.00	\$3,100.00	\$27,900.00	\$3,200.00	\$28,800.00	\$4,370.00	\$39,330.00	\$5,000.00	\$45,000.00	\$4,000.00	\$36,000.00
22	BOLLARD LIGHT	16	EA	\$3,000.00	\$48,000.00	\$1,250.00	\$20,000.00	\$1,200.00	\$19,200.00	\$1,200.00	\$19,200.00	\$2,500.00	\$40,000.00	\$2,330.00	\$37,280.00	\$2,000.00	\$32,000.00
23	SITE ELECTRICAL SYSTEM	1	LS	\$20,000.00	\$20,000.00	\$1,600.00	\$1,600.00	\$1,500.00	\$1,500.00	\$32,000.00	\$32,000.00	\$43,100.00	\$43,100.00	\$45,414.00	\$45,414.00	\$6,500.00	\$6,500.00
24	PEDESTRIAN LIGHT ELECTRICAL SYSTEM	1	LS	\$5,000.00	\$5,000.00	\$31,500.00	\$31,500.00	\$31,000.00	\$31,000.00	\$22,500.00	\$22,500.00	\$46,228.00	\$46,228.00	\$30,282.00	\$30,282.00	\$25,000.00	\$25,000.00
25	BOLLARD LIGHT ELECTRICAL SYSTEM	1	LS	\$5,000.00	\$5,000.00	\$22,000.00	\$22,000.00	\$22,000.00	\$22,000.00	\$1,500.00	\$1,500.00	\$23,500.00	\$23,500.00	\$27,681.00	\$27,681.00	\$40,000.00	\$40,000.00
26	RESTORATION	1	LS	\$28,000.00	\$28,000.00	\$70,000.00	\$70,000.00	\$50,000.00	\$50,000.00	\$30,000.00	\$30,000.00	\$14,125.00	\$14,125.00	\$53,400.00	\$53,400.00	\$75,000.00	\$75,000.00

				BASE BID TOTAL	\$418,500.00	BASE BID TOTAL	\$687,468.00	BASE BID TOTAL	\$593,448.50	BASE BID TOTAL	\$411,557.00	BASE BID TOTAL	\$715,523.25	BASE BID TOTAL	\$799,777.00	BASE BID TOTAL	\$746,280.00
						AS READ		AS READ		AS READ		AS READ	\$778,799.25	AS READ		AS READ	

ALTERNATE BID 1 (DEDUCT)				ENGINEER'S ESTIMATE		MID CITY CORP		GLOBE CONSTRUCTION		SOPER GRADING		VEIT & COMPANY		POBLOCKI PAVING		BLAZE LANDSCAPE	
Item		Qty.	Unit	Unit Price	Item Total	Unit cost	Item Total	Unit cost	Item Total	Unit cost	Item Total	Unit cost	Item Total	Unit cost	Item Total	Unit cost	Item Total
1	BOLLARD LIGHT	16	EA	\$3,000.00	\$48,000.00	\$1,230.00	\$19,680.00	\$1,300.00	\$20,800.00	\$1,230.00	\$19,680.00	\$2,486.00	\$39,776.00	\$2,096.00	\$33,536.00	\$1,341.00	\$21,456.00
2	BOLLARD LIGHT ELECTRICAL SYSTEM	1	LS	\$5,000.00	\$5,000.00	\$21,000.00	\$21,000.00	\$21,500.00	\$21,500.00	\$20,500.00	\$20,500.00	\$23,500.00	\$23,500.00	\$24,912.00	\$24,912.00	\$15,760.00	\$15,760.00

				ALT 1 TOTAL	\$53,000.00	ALT 1 TOTAL	\$40,680.00	ALT 1 TOTAL	\$42,300.00	ALT 1 TOTAL	\$40,180.00	ALT 1 TOTAL	\$63,276.00	ALT 1 TOTAL	\$58,448.00	ALT 1 TOTAL	\$37,216.00
						AS READ		AS READ		AS READ		AS READ		AS READ		AS READ	
				Yellow Highlight Indicates Different from "AS READ" Amount													
				5% Bid Bond Included		X		X		X		X		X		X	
				Pre - Qualifications													

Project Manual for

**Firemen's Park Phase 1 Improvements
Germantown, Wisconsin**

**Firemen's Park
Park Avenue and Freistadt Road
Germantown, WI 53022**

September 16, 2019



Prepared for

**Village of Germantown, Wisconsin
Germantown, Wisconsin**

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SECTION 00 01 03
PROJECT DIRECTORY

FIREMEN'S PARK PHASE 1 IMPROVEMENTS
GERMANTOWN, WISCONSIN

Owner:	Village of Germantown, WI N112 W17001 Mequon Road Germantown, WI 53022 Contact: Mark Schroeder, CPRP, Park and Recreation Director Phone: (262) 250-4710
Landscape Architect:	Ayres Associates 5201 E. Terrace Drive Madison, Wisconsin 53718 Contact: Blake Theisen Phone: (608) 443-1200 Email: TheisenB@AyresAssociates.com
Sanitary and Water Design:	Germantown DPW / Engineering N112 W17001 Mequon Road Germantown, WI 53022 Contact: Larry Ratayczak, Director of Public Works Phone: (262) 250-4721

END OF SECTION

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**Firemen's Park Phase 1 Improvements
Germantown, Wisconsin**

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PROJECT: Firemen's Park Phase 1 Improvements

BID DEADLINE: October 8, 2019. 9:00am

NOTICE

Sealed bids for the above project will be received by Mark Schroeder, Village of Germantown Park and Recreation Director, at the Germantown Park and Recreation Department, N112 W17001 Mequon Road, Germantown, WI 53022. Immediately thereafter, the bids will be publicly opened and read aloud.

In general, the project consists of site improvements at Firemen's Park in Germantown, Wisconsin. The scope of work includes asphalt path system, asphalt pavement replacement, bollard and pedestrian lighting with associated site electrical work, and water and sanitary services to the future community building within the park, with associated erosion control, demolition, earthwork and site restoration.

A single prime bid will be received for the work.

BID SECURITY

Bids must be accompanied by bid security in the amount of 5% of the maximum bid amount. Bid and bid security may not be withdrawn for a period of 45 days after the Bid Deadline.

Bid security will be retained if the Bidder is awarded the Work and fails to execute the Agreement and furnish 100% Performance and Payment Bonds.

QUALIFICATIONS

If requested, the apparent low bidder will be required to submit evidence of qualifications to the Owner prior to award of contract.

RIGHTS RESERVED

Owner reserves the right to reject any or all bids and to waive informalities in any bid.

PUBLIC NOTICE

Bid will be advertised in the Daily Reporter and Northwest Now on Wednesday September 18, 2019 and Wednesday September 25, 2019.

BIDDING DOCUMENTS

Bidding documents may be obtained in PDF electronic format by download from the Quest Construction Data Network website, accessible via www.AyresAssociates.com by clicking on the "Bidding" link, for a non-refundable fee of \$15.00. Quest # 6517711

Published by authority of: Mark Schroeder, Park and Recreation Director, Village of Germantown, WI

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INSTRUCTIONS TO BIDDERS

1. SUMMARY

A. The following documents shall be completed and submitted with each bid:

1. Bid Form
2. Bid Security

2. PREPARATION OF BIDS

A. Bids shall be prepared on the form provided in this Project Manual and submitted as specified. Bids will be received for the contract(s) listed on the Bid Form. All blank spaces for bid prices shall be completed, in ink or typewritten, in both words and figures where provided. In case of discrepancy, written words shall govern over figures for lump sum bids and unit prices shall govern over extended amounts for unit price bids. Bidder must sign the bid.

B. Bids may be rejected for the following reasons: alterations of the form, additions to the form, alternates not specified, incomplete bids, erasures, unbalanced prices, and irregularities of any kind. The term "unbalanced prices" shall mean the use of one or more unit prices that do not reflect the reasonable actual costs of labor, equipment, materials, profit, overhead costs, and indirect costs of the bidder for the item(s).

C. Submit original Bid Form and required supporting documents in a sealed envelope. Remove Bid Form from Project Manual; do not submit entire Project Manual. Mark the exterior of the envelope as follows:

BID
Firemen's Park Phase 1 Improvements
Germantown, WI
(Bidder's Name and Address)

D. If forwarded by mail, the sealed envelope containing the bid shall be enclosed in another envelope addressed as specified.

3. FAX TRANSMISSION AND E-MAIL

A. Fax transmission or e-mailing of Bid Form or required supporting documents to individual designated to receive bids will not be acceptable.

4. WITHDRAWAL OR MODIFICATION OF BID

A. Unless prohibited by laws and regulations, a bid may be withdrawn by an appropriate document duly executed in the same manner that a bid must be executed and delivered to the place where bids are to be submitted prior to the Bid Deadline. Upon receipt of such notice, the unopened bid will be returned to the bidder.

B. If a bidder wishes to modify its bid prior to the Bid Deadline, bidder must withdraw its initial bid in the manner specified above and submit a new bid prior to the Bid Deadline.

C. Thereafter, a bid may not be withdrawn or modified during the bid holding period specified in the Advertisement for Bids/Invitation to Bid.

5. BID SECURITY

A. Bids shall be accompanied by a bid bond, certified check, or bank cashier's check in the amount specified in the Advertisement for Bids/Invitation to Bid made payable to Owner as a guarantee that the bidder will enter into a contract and furnish bonds. Certified checks shall be drawn on the account of the bidder. Bid bonds shall be executed by the bidder and by a surety corporation licensed to transact business in the state where the project is located.

B. Bidders shall require Attorneys-in-fact who execute bid bonds or contract bonds to affix thereto a certified and current copy of their power of attorney.

C. Bid security of the three lowest bidders (three lowest bidders for each contract on multiple prime projects) will be released when the (applicable) contract has been executed or, if no award has been made within the specified bid holding period, upon demand of the bidder at any time thereafter so long as bidder has not been notified of acceptance of its bid. All other bid securities will be released within 10 days after the opening of bids.

6. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

A. The successful bidder, upon failure or refusal to execute and deliver the contract and bonds required within 10 days after receiving Notice of Award, shall forfeit the bid security to Owner as liquidated damages for such failure or refusal.

7. QUALIFICATIONS OF BIDDER

A. Before the award of any contract, the Owner shall be satisfied that the bidder, (a) maintains a permanent place of business, (b) has adequate equipment to do the work properly and expeditiously, (c) has a suitable financial status to meet obligations incident to the work, (d) has appropriate technical experience, and (e) has satisfactorily completed contracts of similar nature and magnitude.

B. If requested, the apparent low bidder shall submit evidence of qualifications to Owner prior to award of contract.

8. ADDENDA AND INTERPRETATIONS

A. No binding interpretation of the meaning or intent of the drawings, specifications, or other bidding documents will be made to any bidder orally. Requests for such interpretation shall be made to Ayres Associates in writing. Requests received less than 7 days prior to the Bid Deadline may not be answered. Interpretations or clarifications considered necessary by A/E in response to such requests will be issued by addenda mailed or delivered to all parties recorded by A/E as having received the bidding documents. All addenda so issued shall become part of the bidding documents and shall be acknowledged with the bid. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under this bid as submitted.

9. SUBSTITUTIONS (BID PHASE)

A. Bids shall be based on those products, materials, and equipment specified or described in the bidding documents, or those substitute or "or equal" items approved by addendum.

B. Products, materials, and equipment identified in the bidding documents by reference to a manufacturer's name, catalog number, or model are identified for the purpose of establishing a standard of type, function, appearance, and quality. Bidders desiring to submit bids for manufacturers or products not previously named shall submit a substitution request for approval not later than 10 days prior to the Bid Deadline.

C. Requests for substitution of alternate products or use of "or equal" items shall be submitted with complete references to manufacturer's product identification and specification data indicating composition, guarantee, availability, applicable standards or agency approvals met or exceeded, restrictions imposed on product, and manufacturer's recommended method of application or installation. A substitution or an "or equal" item will be considered acceptable if the product will perform adequately the duties imposed by the general design and, in the opinion of the A/E, is of equal substance, quality, appearance, and function, unless the named item is necessary for interchangeability or if the named product has been demonstrated to be most cost-effective. If approved by addendum, the requested substitution or "or equal" item may be included in the Contract Bid amount.

10. ALTERNATE BIDS

A. If alternate bids are requested, bidder shall state the amount to be added to or deducted from the base bid for making the changes required under each alternate. The stated amount shall include all incidental work and adjustments as may be necessary or required to fully complete the alternate work. Refer to Section 01 23 00 Alternates. If there is no price change, the bidder shall state "NO CHANGE."

11. SUPPLEMENTAL UNIT PRICES

A. If supplemental unit prices are requested, bidder shall state the amount of each such unit price. If included in the Contract, supplemental unit prices will be used for additions to or deductions from the amount of work required under the Contract. Unit prices shall include all costs of materials, labor, insurance, taxes, overhead, and profit. Owner reserves the right to reject any supplemental unit prices as submitted in the bid or to accept any or all of such unit prices.

12. LIST OF SUBCONTRACTORS

A. Bidders are required to submit, with the Bid Form, a list of subcontractors. Failure to complete this list may be considered cause to recommend rejection of the bid.

B. Bidders are specifically advised that any person, firm or other party to whom it is proposed to award a subcontract under this contract must be acceptable to Owner. If Owner, after due investigation, has reasonable objection to any proposed subcontractor or supplier, Owner may, before the Notice of Award is given, request apparent successful bidder to submit a substitute without an increase in the bid. If apparent successful bidder declines to make any such substitution, Owner may award the Contract to the next lowest bidder that proposes to use acceptable subcontractors and suppliers. Declining to make requested substitutions will not constitute grounds for forfeiture of the bid security of any bidder.

13. DISCLOSURE OF OWNERSHIP

A. Bidder shall disclose on the date of submitting a bid for this project, the name of any construction business of which bidder has had a 25% or greater interest as a shareholder, officer, partner, or owner at any time during the preceding three years, if said construction business has been found by the Wis. Dept. of Workforce Development to have failed to pay the prevailing wage rate or at least 1.5 times the hourly basic rate of pay for hours worked in excess of the prevailing hours of labor to any employee at any time within the preceding three years. The "Disclosure of Ownership" form may be obtained at no charge from the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, Wisconsin 53708.

14. AWARD OF CONTRACT

A. Contract(s) will be awarded on the basis of lowest responsible, responsive total base bid amount, or combination of base and alternate bid amounts, or combined contract bid amount in the Owner's best interests.

B. The Owner reserves the right to reject any or all bids, including bids which, in the opinion of Owner, are excessive or not sufficient to properly carry out the work. The Owner reserves the right to reject the bid of bidders who have previously failed to properly perform or complete on time contracts of similar nature.

C. Bidder shall, if awarded a contract, deliver executed agreement forms within 10 days of the date of the Notice of Award, including satisfactory bonds which shall remain in effect for one year after acceptance of the work and component parts by the Owner. Said bonds shall be 100% Performance Bond and 100% Labor and Material Payment Bond in the amount of Bid and on forms furnished by Owner.

D. The Owner reserves the right to hold bids for a period of up to 90 days prior to awarding the bid.

15. PAYMENTS TO CONTRACTOR

A. Progress payments to Contractor and retainage on progress payments will be in accordance with the Supplementary Conditions.

BID FORM**PROJECT:** Firemen's Park Phase 1 Improvements**BID DEADLINE:** 9:00 am, October 8, 2019

To: Village of Germantown Wisconsin, Park and Recreation Department

We _____ (Name of Bidder)
 acknowledge that we have received the Contract Documents, prepared by Ayres Associates and dated
 _____, that are listed in the Project Manual Table of Contents and Drawing Sheet Index.
 We hereby agree to provide all labor, materials, equipment, and services required to complete the work in strict
 accordance with the Contract Documents for the following stated amount(s).

BID FORM – FIREMEN'S PARK PHASE 1 IMPROVEMENTS

Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Item Description	Bid Qty.	Unit	Bid Unit \$	Bid Total \$
1	MOBILIZATION	1	LS	\$ -	\$ -
2	EROSION CONTROL	1	LS	\$ -	\$ -
3	DEMOLITION	1	LS	\$ -	\$ -
4	EARTHWORK	1	LS	\$ -	\$ -
5	ROCK REMOVAL	1114	LF	\$ -	\$ -
6	BASE AGGREGATE DENSE, 1-1/4"	1113	TN	\$ -	\$ -
7	ASPHALT PATH	142	TN	\$ -	\$ -
8	ASPHALT DRIVEWAY	109	TN	\$ -	\$ -
9	CONNECT TO EXISTING STORM INLET	1	EA	\$ -	\$ -
10	6" PVC STORM SEWER	120	LF	\$ -	\$ -
11	YARD INLET	2	EA	\$ -	\$ -
12	12" CULVERT	55	LF	\$ -	\$ -
13	CONNECT TO EXISTING WATER	1	EA	\$ -	\$ -
14	WATER SERVICE, 2"	407	LF	\$ -	\$ -
15	COMPRESSION CURB STOP, 2"	1	EA	\$ -	\$ -
16	HYDRANT SHUT OFF VALVE, 2"	1	EA	\$ -	\$ -
17	FLUSHING HYDRANT	1	EA	\$ -	\$ -
18	CONNECT TO EXISTING SANITARY MANHOLE	1	EA	\$ -	\$ -
19	SANITARY SERVICE, 6"	707	LF	\$ -	\$ -
20	CLEANOUT	10	EA	\$ -	\$ -
21	PEDESTRIAN LIGHT	9	EA	\$ -	\$ -
22	BOLLARD LIGHT	16	EA	\$ -	\$ -
23	SITE ELECTRICAL SYSTEM	1	LS	\$ -	\$ -

24	PEDESTRIAN LIGHT ELECTRICAL SYSTEM	1	LS	\$ -	\$ -
25	BOLLARD LIGHT ELECTRICAL SYSTEM	1	LS	\$ -	\$ -
26	RESTORATION	1	LS	\$ -	\$ -

Total Base Bid Written _____
 _____ Dollars (\$ _____)

ALTERNATE BID A1 – REMOVAL OF BOLLARD LIGHTING FROM CONTRACT (DEDUCT)

Bidder shall state the total deduct amount from Base Bid to not furnish and install Bollard Lighting and associated Bollard Lighting Electrical System along the asphalt path. Total Price for Alternate Bid A1 shall be deducted from Base Bid Total Price.

Item No.	Item Description	Bid Qty.	Unit	Bid Unit \$	Bid Total \$
A1-1	BOLLARD LIGHT	16	EA	\$ -	\$ -
A1-2	BOLLARD LIGHT ELECTRICAL SYSTEM	1	LS	\$ -	\$ -

Total Alternate Bid A1 Written _____
 _____ Dollars (\$ _____)

BID SECURITY

Accompanying this bid is bid security payable to Owner in the form stipulated in the Instructions to Bidders, which is at least 5% of the maximum bid amount, and will be retained by Owner as liquidated damages if the undersigned fails to execute agreements and furnish bonds (if specified) within 10 days after Notice of Award.

WITHDRAWAL OF BID

It is agreed that this bid and any required bid security may not be withdrawn for a period of 45 days after the Bid Deadline.

BIDDER'S WARRANTY

By the act of submitting a bid for the proposed work, the bidder warrants that:

1. Bidder and its subcontractors have carefully and thoroughly reviewed the Contract Documents and have found them complete, free of ambiguities, and sufficient for the purpose intended; further that,
2. Bidder and all workers, employees, and subcontractors are skilled and experienced in the type of work represented by the Contract Documents; further that,
3. Bid is based solely upon the Contract Documents and properly issued written addenda and not upon any other representation; further that,
4. Bidder has carefully examined the site of the work and from its investigations is satisfied as to the nature and location of work, the character, quality, quantities of materials, and difficulties to be encountered, the kind and extent of equipment and other facilities needed for performance of the work, the general and local conditions, and other items which may, in any way, affect the work or its performance; and further that,

5. Neither the bidder nor its employees, agents, prospective suppliers, or subcontractors have relied upon any verbal representations allegedly authorized or unauthorized from the Owner, its employees or agents, including architects, engineers, and consultants, in assembling the bid.

LIST OF SUBCONTRACTORS

The following is a list of subcontractors whose bids were used in this bid. It is agreed that after submission of this list, no change may be made in subcontractors as listed without submitting change for Owner review in accordance with the conditions of the contract. If there are no subcontractors, state "None."

<u>Subcontract:</u>	<u>Subcontractor:</u>

ADDENDA

The undersigned acknowledges receipt of addenda _____ to _____ inclusive.

ORGANIZATION AND AUTHORITY

The undersigned hereby certifies that the bidder is organized as indicated below and that all statements herein are made on behalf of such bidder.

Business Name _____

Business Address _____

Telephone Number _____

Fax Number _____

E-Mail Address _____

State Contractor Registration/License No. (if applicable) _____

(Complete applicable paragraph 1, 2, 3, or 4.)

1. Corporation. Bidder is a corporation organized under the laws of the state of _____. Its corporate president is _____ and its corporate secretary is _____. The _____ is authorized to submit bids and sign construction contracts for the bidder by action of the board of directors.
2. Limited Liability Corporation. Bidder is a limited liability corporation organized under the laws of the state of _____. Its members are _____. The _____ is authorized to submit bids and sign construction contracts for the bidder.
3. Partnership. Bidder is a partnership consisting of partners _____ and _____.
4. Sole Trader. Bidder is an individual doing business as _____.

SWORN STATEMENT

I, being duly sworn, hereby certify that I have examined and carefully prepared this bid from the Contract Documents and have checked the same in detail before submitting this bid; that I have full authority to make such statements and submit this bid on behalf of the above bidder; and that said statements are true and correct.

Signature _____

Name and Title _____

(Seal, if bid is by a corporation)

Subscribed and sworn to before me this _____

day of _____, 20 _____

_____, Notary Public

_____, County, _____

My Commission expires _____

BID BOND

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND

Bond Number:

Date:

Penal sum _____ \$ _____
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder any difference between the total amount of Bidder's Bid and the total amount of the Bid of the next lowest, responsible Bidder that submitted a responsive Bid as determined by Owner for the work required by the Contract Documents, provided that:
 - 1.1 If there is no such next Bidder, and Owner does not abandon the Project, then Bidder and Surety shall pay to Owner the penal sum set forth on the face of this Bond, and
 - 1.2 In no event shall Bidder's and Surety's obligation hereunder exceed the penal sum set forth on the face of this Bond.
 - 1.3 Recovery under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is dated as of the ____ day of _____ in the year ____ by and between _____ ("Owner") and _____ ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 - WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

In general, the project consists of site improvements at Firemen's Park in Germantown, Wisconsin. The scope of work includes asphalt path system, asphalt pavement replacement, bollard and pedestrian lighting with associated site electrical work, and water and sanitary services to the future community building within the park, with associated erosion control, demolition, earthwork and site restoration.

ARTICLE 2 - THE PROJECT

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Firemen's Park Phase 1 Improvements

ARTICLE 3 - ENGINEER

- 3.01 The part of the Project that pertains to the Site Work has been designed by Blake Theisen, Ayres Associates, 5201 E. Terrace Dr., Madison, WI 53718.
- 3.02 The part of the Project that pertains to the Sanitary and Water Utilities has been designed by Larry Ratayczak, Village of Germantown Director of Public Works, N112 W17001 Mequon Road, Germantown, WI 53022.
- 3.03 The Owner will designate a representative to assume all duties and responsibilities ("Engineer"), which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

- 4.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

- 4.02 *Contract Times: Dates*

- A. Anticipated Project Start Date : November 4, 2019

- B. The Work will be substantially completed on or before May 22, 2019, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before June 22, 2019.
- C. Parts of the Work shall be substantially completed on or before the following Milestone(s). Refer to Section 01 11 80 Work Sequencing for additional information.

1. Milestone 1: Sanitary and Water Laterals completed by December 20, 2019

2. ~~Milestone 2:~~

4.03 *Liquidated Damages*

~~A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):~~

- ~~1. Substantial Completion: Contractor shall pay Owner \$_____ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02-A above for Substantial Completion until the Work is substantially complete.~~
- ~~2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$_____ for each day that expires after such time until the Work is completed and ready for final payment.~~
- ~~3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.~~
- ~~4. Milestone 1: Contractor shall pay Owner \$_____ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of Milestone 1, until Milestone 1 is achieved.~~
- ~~5. Milestone 2: Contractor shall pay Owner \$_____ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of Milestone 2, until Milestone 2 is achieved.~~

ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

~~A. For all Work other than Unit Price Work, a lump sum of:~~

~~— All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.~~

- B. For all Unit Price Work, an amount equal to the sum of the extended price (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item). The extended prices are as indicated in Contractor's Bid, attached hereto as an exhibit. The estimated total of all extended prices for Unit Price Work is:

The extended prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment ~~on or about the ____ day of~~ once each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract:
 - a. 95 percent of the Work completed (with the balance being retainage). ~~If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and~~
 - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
 - c. At 50 percent completion, no additional amounts will be retained unless Engineer certifies that the Work is not proceeding satisfactorily, but amounts previously retained will not be paid to Contractor. At 50 percent completion or any time thereafter when the progress of the Work is not satisfactory, additional amounts may be retained but in no event will total retainage be more than 10 percent of the Work

completed and materials and equipment delivered, suitably stored, and accompanied by required documentation.

- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 98 percent of the ~~Work completed~~ Contract Price (with the balance being retainage), less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less ~~percent of~~ Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment and less retainage per Paragraph 6.02.A.1.c.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 - CONTRACTOR'S REPRESENTATIONS

7.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
- B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 8 - CONTRACT DOCUMENTS

8.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 8, inclusive).
 - 2. Performance bond (pages 1 to 3, inclusive), plus attachments.
 - 3. Payment bond (pages 1 to 3, inclusive), plus attachments.
 - 4. Special Provisions (pages 1 to 22, inclusive).
 - 5. General Conditions (pages 1 to 66, inclusive).
 - 6. Supplementary Conditions (pages 1 to 4, inclusive).
 - 7. General Requirements (pages 1 to 5, inclusive).
 - 8. Specifications as listed in the Project Manual Table of Contents.
 - 9. Appendix A - Geotechnical Data (pages A1 to A34, inclusive)
 - 10. Drawings (not attached but incorporated by reference) consisting of 25 sheets as listed in the Drawing Sheet Index.
 - 11. Addenda (numbers to , inclusive).
 - 12. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages 1 to 4, inclusive).
 - 13. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.

- d. Field Orders.
- B. The documents listed in Paragraph 8.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 9 - MISCELLANEOUS

9.01 *Terms*

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions and the Supplementary Conditions.

9.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

9.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

9.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or “track changes” (redline/strikeout), or in the Supplementary Conditions.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective as of the date first written on Page 1 of the Agreement (which is the Effective Date of the Contract).

OWNER

CONTRACTOR

Signed: _____

Signed: _____

Title: _____

Title: _____

Date: _____

Date: _____

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

Village Attorney:

License No.: _____

(Where applicable)

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence,

to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims

for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____

Signature

By: _____

Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____

Signature

Attest: _____

Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and

8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
 - b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a

Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.

- c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
- 11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 - 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 - 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 - 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 - 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 - 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 - 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 - 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 - 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 - 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 - 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
 - 22. *Engineer*—The individual or entity named as such in the Agreement.
 - 23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
 - 24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.

- a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor’s plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.
43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.

- c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
- 47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
- 48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
- 49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
- 50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives*: The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day*: The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective*: The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. does not conform to the Contract Documents;
 - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).

E. *Furnish, Install, Perform, Provide*

1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software

application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to

provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes

or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.
- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
 - 1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 - 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 - 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
 - 1. The circumstances that form the basis for the requested adjustment;
 - 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 - 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 - 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 - 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected

by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.

- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused

directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
- C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
 - 1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
 - 2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
 - 3. Technical Data contained in such reports and drawings.
- B. *Underground Facilities*: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.
- C. *Reliance by Contractor on Technical Data*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.
- D. *Limitations of Other Data and Documents*: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 - 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 - 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;
- then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.
- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;
 3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;

2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
 2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.

- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any),

including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.

- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.
- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);
 - 4. not seek contribution from insurance maintained by the additional insured; and
 - 5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur:* Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities:* Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until

the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.

- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
 - 1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 - 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
 - 1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.

- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.
- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;

- 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
- c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.

- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all

fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.
- 3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.

- B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.
 5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
 8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
 - d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.

- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.

- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 - 1. Observations by Engineer;
 - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. Use or occupancy of the Work or any part thereof by Owner;
 - 5. Any review and approval of a Shop Drawing or Sample submittal;
 - 6. The issuance of a notice of acceptability by Engineer;
 - 7. The end of the correction period established in Paragraph 15.08;
 - 8. Any inspection, test, or approval by others; or
 - 9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.
- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with

Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.

- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On

the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.
- E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and

programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.
- B. If Owner has issued a Work Change Directive and:
 - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 - 1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 - 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 - 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:
 - 1. A mutually acceptable fixed fee; or
 - 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

- B. *Change Proposal Procedures*

- 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
- 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

- 3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
- 4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
- 5. *Binding Decision:* Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 - 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal

and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.
 - c. *Construction Equipment Rental*
 - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
- 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 6. Expenses incurred in preparing and advancing Claims.
- 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.

- b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
 - 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.
- E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.
- E. *Adjustments in Unit Price*
 - 1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
 - 2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
 - 3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
3. by manufacturers of equipment furnished under the Contract Documents;
4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final

payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 - 3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 - 4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications*
 - 1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 - 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of

the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. Payment Becomes Due

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. Reductions in Payment by Owner

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that

can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in

liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim, appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 4. Contractor's repeated disregard of the authority of Owner or Engineer.

- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
 - 1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 - 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 - 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

1. GENERAL

A. These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2018 Edition). All provisions which are not so amended or supplemented remain in full force and effect.

2. DEFINITIONS

A. The terms used in these Supplementary Conditions have the meanings stated in the General Conditions.

B. The term Shop Drawings shall include submittals identified as "product data" in the Specifications.

3. COPIES OF DOCUMENTS

A. Amend the first sentence of Paragraph 2.02.A of the General Conditions to read as follows:

Owner shall furnish to Contractor two printed copies of the Contract Documents (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF).

4. COMMENCEMENT OF CONTRACT TIMES; NOTICE TO PROCEED

A. Delete paragraph 4.01.A of the General Conditions in its entirety and insert the following in its place:

A. The Contract Times will commence to run on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the Effective Date of the Agreement, unless otherwise stated in the Agreement.

5. REFERENCE POINTS

A. Amend paragraph 4.03 of the General Conditions as follows: Contractor shall provide all survey staking and layout as required to complete the Work.

6. PERFORMANCE AND PAYMENT BONDS

A. Add the following to paragraph 6.01 of the General Conditions: The performance and payment bonds furnished for the project are for a public improvement contract. The bonds shall be construed to comply with Wis. Stats., s. 779.14.

7. CONTRACTOR'S LIABILITY INSURANCE

A. The limits of liability for the insurance required by paragraph 6.03 of the General Conditions shall be not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation and related coverages under paragraphs 6.03.A.1 and A.2 of the General Conditions:

- | | |
|----------------------------------|----------------------------------|
| a. State and Applicable Federal: | Statutory |
| b. Employer's Liability: | \$ 100,000 Each Accident |
| | \$ 100,00 Disease, Each Employee |
| | \$ 500,000 Disease, Policy Limit |

2. Contractor's Commercial General Liability under paragraphs 6.03.B and 6.03.C of the General Conditions:
 - a. Each Occurrence (Bodily Injury and Property Damage): \$500,000
 - b. Personal and Advertising Injury: \$500,000
 - c. General Aggregate: \$1,000,000
 - d. Products-Completed Operations Aggregate: \$2,000,000
3. Automobile Liability under paragraph 6.03.D of the General Conditions:
 - a. Bodily Injury and Property Damage, Combined Single Limit: \$1,000,000
4. Umbrella or Excess Liability under paragraph 6.03.E of the General Conditions:
 - a. Each Occurrence \$3,000,000
 - b. General Aggregate: \$3,000,000
5. Contractor's Pollution Liability: This insurance is not required under this Contract.
6. Additional Insureds under paragraph 6.03.G of the General Conditions are as follows. The insurance afforded the additional insureds under Contractor's liability policies shall provide primary coverage for all claims covered thereby on a non-contributory basis.
 - a. Owner: Village of Germantown, Wisconsin
 - b. Engineer: Ayres Associates
7. Contractor's Professional Liability: This insurance is not required under this Contract.

8. PROPERTY INSURANCE

- A. Delete paragraphs 6.05 through 6.07 of the General Conditions.
- B. Contractor is not required to purchase and maintain property insurance for the Work during construction.
- C. Contractor shall be responsible for any physical loss or damage to the Work until Substantial Completion. Contractor, at its option, may purchase insurance to cover its risk.

9. SUBSTITUTIONS AND "OR EQUAL" ITEMS

- A. Add the following to both paragraph 7.04.A and paragraph 7.05.A of the General Conditions: Substitutions and "or equal" items proposed after Contract award are subject to the restrictions, if any, specified in the General Requirements.

10. SUBCONTRACTORS AND SUPPLIERS

- A. Amend paragraph 7.06 of the General Conditions as follows:
 1. Contractor shall submit a list of subcontractors as indicated on the Bid Form.
 2. In accordance with Wis. Adm. Code, ch. DWD 294, work on this project shall not be subcontracted to a Contractor on the Wis. Dept. of Workforce Development list of debarred employers. No increase in the Contract Price or Contract Time shall be allowed due to rejection of a debarred employer.
 3. In accordance with Wis. Stats., s. 779.14, Contractor agrees, to the extent practicable, to maintain a list of all subcontractors and suppliers performing labor or furnishing materials to Contractor for the project.

11. COORDINATION

A. Amend paragraph 8.02 of the General Conditions as follows: The Work shall be coordinated in accordance with Division 01 General Requirements.

12. UNIT PRICE WORK

A. Add the following to paragraph 13.03.E.1 of the General Conditions: "Materially and significantly" shall be defined in accordance with the provisions of reference WIDOT Std. Spec., Subsection 104.2.

13. PAYMENTS TO CONTRACTOR

A. Amend paragraph 15.01 of the General Conditions as follows:

1. Applications for Payment shall be submitted on the form provided by Engineer in which Contractor certifies that all previous progress payments received have been applied to discharge obligations incurred in connection with the Work, that title to all Work will pass to Owner at time of payment, and that all Work covered by the Application for Payment is in accordance with the Contract Documents and not defective.
2. Applications for Payment shall be submitted once per month by the date indicated by Engineer. Failure to submit an Application for Payment by the required date may result in delay of its review and approval by one month.
3. Retainage shall be accumulated at 5% of the value of the Work completed, and 5% of the value of materials and equipment delivered and suitably stored, until 50% completion. At 50% completion, no additional amounts shall be retained unless Engineer certifies that the Work is not proceeding satisfactorily, but amounts previously retained shall not be paid to Contractor. At 50% completion or any time thereafter when the progress of the Work is not satisfactory, additional amounts may be retained but in no event shall total retainage be more than 10% of the value of the Work completed and material and equipment delivered and suitably stored.
4. Upon Substantial Completion, payments shall be increased to 98% of the Contract Price (i.e. retainage will be reduced to 2% of the Contract Price), less an allowance for incomplete Work and other amounts that may be withheld in accordance with the General Conditions.

B. In the first sentence of paragraph 15.01.B.1 of the General Conditions, change "20 days" to "30 days."

C. Delete paragraph 15.01.D.1 of the General Conditions and insert the following language in its place.

1. Twenty days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

16. DISPUTE RESOLUTION

A. Dispute resolution methods and procedures shall be as set forth in Article 17 of the General Conditions.

17. NONRESIDENT CONTRACTORS

A. The State of Wisconsin requires nonresident persons, whether incorporated or not, engaging in construction contracting in the State as a contractor or subcontractor to file a surety bond with the Wis. Dept. of Revenue or (if approved) a cash deposit with the Wis. Dept. of Administration to guarantee the

payment of certain taxes. The bond or deposit is required where the amount of the contract or subcontract (or the aggregate amount of two or more contracts or subcontracts in one year) is \$50,000 or more. The bond or deposit must be filed within 60 days after construction is begun. Refer to Wis. Stats., s. 71.80(16), for complete requirements.

B. Nonresident contractors and subcontractors are responsible for making their own arrangements to meet this requirement.

SECTION 01 01 00**GENERAL REQUIREMENTS****1.01 PROJECT DESCRIPTION**

- A. In general, the project consists of site improvements at Firemen's Park in Germantown, Wisconsin. The scope of work includes asphalt path system, asphalt pavement replacement, bollard and pedestrian lighting with associated site electrical work, and water and sanitary services to the future community building within the park, with associated erosion control, demolition, earthwork and site restoration.

1.02 WORK BY OTHERS

- A. None

1.03 WORK SEQUENCE

- A. The work shall be performed in accordance with general sequence or phasing outlined in Section 01 11 80 Work Sequencing and meet Milestones as require in Article 4 – Contracts times within the Contract Agreement. Contractor shall be responsible of the specific sequence of work within this general outline.
 - 1. Erosion control installation
 - 2. Site demolition and top soil stripping
 - 2. Site Utilities
 - 4. Rough grading
 - 5. Asphalt Pavement Construction
 - 6. Site restoration

1.04 PROJECT MEETINGS

- A. A preconstruction conference will be scheduled after award of contract and prior to beginning work. This meeting shall be attended by A/E, Owner, and an authorized representative of Contractor.
- B. Periodic progress meetings will be held at project site at times designated by Owner or A/E. A responsible representative of Contractor who can bind Contractor to decisions shall attend.

1.05 WORK HOURS

- A. Work shall be conducted between the hours of 7:00 a.m. to 6:00 p.m. on normal work days, unless approved for unusual circumstances.
- B. Give written notice to A/E whenever it is desired to perform work at night, or on a Saturday, Sunday, or holiday, or to vary period of hours during which work is carried on each day. If approved, such work shall be subject to requirements furnished in writing by A/E, and no extra compensation will be allowed.

1.06 SUBMITTALS

- A. Submit items for review as listed below and as indicated in individual specification sections. Unless otherwise indicated, submit the following quantities for each type of submittal:
 - 1. Construction Schedule: PDF electronic file or 2 paper copies.
 - 2. Shop Drawings: PDF electronic file or minimum 3 paper copies (2 retained, 1 returned).
 - 3. Product Data: PDF electronic file or minimum 3 paper copies (2 retained, 1 returned).
 - 4. Appearance Samples: 2 samples (1 retained, 1 returned).
 - 5. Certificates of Compliance: PDF electronic file or 2 paper copies.
 - 6. Permits and Approvals: PDF electronic file or 1 paper copy.
 - 7. Test Reports: PDF electronic file or 2 paper copies.
 - 8. Operation and Maintenance (O/M) Manuals: 2 paper copies.
 - 9. Warranties: PDF electronic file or 2 paper copies.
- B. Shop drawing and product data submittals shall bear the stamp of approval of Contractor as evidence of accuracy, compatibility, and conformance with contract requirements. Drawings and product data not so stamped will be returned without being examined. Where manufacturer's standard literature includes multiple products or options, identify the specific products and options as required for this project. Specific written notice shall be given of each variation that shop drawings and product data may have from requirements of the Contract Documents.
- C. Products subject to shop drawing, product data, or sample review shall not be used in the work until submittals have been reviewed and bear the stamp and signature of A/E. Submittals will only be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Contractor shall be responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and the means and methods of construction, coordinating its work with that of all other trades, and performing all work in a safe and satisfactory manner. Corrections or comments made on submittals shall not relieve Contractor from compliance with requirements of Drawings and Specifications and shall not be considered an order for extra work.

1.07 PERMITS AND CODES

- A. Contractor shall provide all other necessary permits and licenses and pay all fees, taxes, and royalties, unless otherwise indicated.
- B. Comply with local and municipal ordinances and applicable state and national codes.

1.08 TEMPORARY UTILITIES

- A. Contractor shall be responsible for providing temporary electric power as required for construction purposes. Provide portable power supply or make arrangements with local utility company.
- B. Contractor shall be responsible for obtaining water for its needs. Pay cost of water used and meter rental, if applicable.
- C. Contractor shall provide temporary outside toilets sufficient for construction workers. Toilets shall be self-contained chemical type and shall comply with applicable Codes.

Maintain sanitary facilities in a clean and sanitary condition; supply toilet paper until completion of project.

1.09 PROTECTION

- A. Furnish and maintain proper barricades, fences, signal lights, warning signs, and personnel as required to properly protect and safeguard the work, persons, animals, and property against injury.

1.10 ENVIRONMENTAL CONTROLS

- A. Maintain erosion control measures to protect the project site and prevent sediment pollution of adjacent water courses and properties.
 - 1. Install erosion control measures prior to start of construction and maintain them until final completion of work. Unless otherwise instructed, remove temporary erosion control measures prior to final application for payment.
 - 2. Strive to limit stripping of sod and vegetation to a period that will expose bare soil to the least possibility of erosion that construction requirements allow.
 - 3. Construct and maintain filter fabric barriers, straw bale barriers, or temporary diversions to receive runoff leaving site.
 - 4. Protect storm drain inlets by using inlet protection of the type shown on Drawings. If not shown, use inlet protection fabric, silt fence barriers, erosion bale barriers, or equivalent.
 - 5. Remove at the end of each work day soils and sediment reaching public or private streets not part of the construction site.
 - 6. Unless otherwise shown or specified, erosion control measures shall comply with the WDNR "Stormwater Management Technical Standards" (available on the WDNR web site at dnr.wi.gov/topic/stormwater/standards/const_standards.html).
- B. Minimize dispersion of dust from construction operations by application of water or other dust control materials. Controls shall confine dust and dirt within the immediate area of project.
- C. Provide noise control measures to limit the amount of noise and prevent nuisance. Properly equip all equipment with mufflers. Limit construction activities generating significant noise to normal working hours.

1.11 TRAFFIC CONTROL

- A. Conduct operations to ensure minimum interference with streets, walks, and adjacent facilities not part of construction project.
- B. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

1.12 PRODUCT REQUIREMENTS

- A. General: Provide new products manufactured and conditioned for the particular application as recommended by manufacturer, unless otherwise noted. Transport, handle, store, and protect products as specified and in accordance with manufacturer's recommendations.

- B. Acceptable Manufacturers: Products, materials, and equipment identified by reference to a manufacturer's name, catalog number, or model are identified for the purpose of establishing a standard of type, function, appearance, and quality. Unless otherwise noted, any other product, material, or equipment which will perform adequately the duties imposed by the general design will be considered for substitution in accordance with the provisions below.
- C. Bid Phase Substitutions: Substitutions and "or equal" items proposed prior to the Bid Deadline shall be submitted in accordance with the Instructions to Bidders.
- D. Construction Phase Substitutions: Substitutions and "or equal" items proposed after Contract has been awarded shall be submitted for approval prior to their use. Consideration will be given only to proposed substitutions and "or equal" items where:
 - 1. The products named in the Contract Documents are no longer available or cannot be provided within the Contract Time.
 - 2. The manufacturers' standard products are no longer in conformance with the specified requirements.
 - 3. Owner's interests may be adversely affected.
- E. Substitution Procedures: Requests for substitution of alternate products or use of "or equal" items shall be submitted with complete references to manufacturer's product identification and product data indicating composition, guarantee, availability, applicable standards or agency approvals met or exceeded, restrictions imposed on product, and manufacturer's recommended method of application or installation. A substitution or an "or equal" item will be considered acceptable if the product will perform adequately the duties imposed by the general design and, in opinion of A/E, is of equal substance, quality, appearance, and function, unless the named item is necessary for interchangeability or if the named product has been demonstrated to be most cost-effective.

1.13 SURVEYS, STAKING, LINE AND GRADE

- A. Contractor shall provide all survey staking and layout as required to complete the Work.

1.14 FIELD MEASUREMENTS AND INSPECTION OF SURFACES

- A. Contractor shall layout its Work based on reference points furnished by Owner and shall be solely responsible for the accuracy of its measurements. Verify grades, lines, levels, locations, and dimensions as shown on Drawings, and inspect surfaces that are to receive work before proceeding with fabricating, assembling, fitting, or erecting. Notify A/E in writing in case of unsuitable conditions, defective substrates, or discrepancies in Contract Documents. Starting of work shall imply acceptance of conditions.
- B. Correct any errors or defects due to faulty measurements, improper layout, or failure to report discrepancies.

1.15 CUTTING AND PATCHING

- A. Cut new openings in existing construction as required. Employ skilled workers.
- B. Restore surfaces to match adjacent finish. Waterproof and insulate holes in exterior walls. Backfill and properly compact earthwork needed to perform cutting and patching.

1.16 CONSTRUCTION CLEANING

- A. Keep work area free of accumulations of surplus materials, rubbish, and debris.

1.17 PUNCH LIST

- A. A "punch list" will be prepared and distributed to Contractor at Substantial Completion. Items on punch list shall be completed within 30 days. Required submittals (see below) shall be completed prior to or when requesting final payment.

1.18 CLOSEOUT SUBMITTALS

- A. Submit the following items to A/E prior to or with final Application for Payment:
 - 1. Project record drawings marked to show all changes made during construction. Dimension underground and concealed work and utilities from permanent reference points; record vertical distances. Make and record measurements to the nearest 0.5 ft on a clean drawing set.
 - 2. Evidence of continuing insurance coverage complying with insurance requirements (see Conditions of the Contract).
 - 3. Contractor's affidavit, along with final releases and waivers of liens as required by Owner, indicating that all debts and claims against project (less amounts withheld by Owner) have been paid in full or otherwise satisfied.
 - 4. Consent of surety company to final payment.

1.19 DEFINITIONS

- A. Dimensions on drawings and details are subject to field measurements.
- B. The term "working days" shall exclude weekends (Saturday and Sunday) and holidays.
- C. References to "Division 00" shall mean the Bidding Requirements and Contracting Requirements.
- D. References to "WDNR" shall mean Wisconsin Department of Natural Resources.
- E. References to "WIDOT Std. Spec." shall mean Wisconsin Department of Transportation, Standard Specifications for Highway and Structure Construction, latest edition.
- F. References to "A/E", "Architect", or "Engineer" shall mean Owner's designated representative.
- G. References to "Owner" shall mean Village of Germantown, Wisconsin

END OF SECTION

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SECTION 01 11 80 WORK SEQUENCE

1.01 SUMMARY

- A. The work shall be performed in accordance with general sequence or phasing outlined below. Contractor shall be responsible of the specific sequence of work within this general outline.
- B. Contractor may deviate from general sequencing and phasing outlined but shall meet all Milestones and Substantial Completion as outlined in the Contract Agreement.

1.02 WORK SEQUENCE

- A. The work shall be performed in the following sequence or phases:

Fall-Winter Phase

1. Anticipated Construction Start Date : November 4, 2019
2. Install Erosion Control Measures required for Utility installation
3. Water and Sanitary Sewer lateral construction
4. Demolition of pavement and site features required only for service lateral installation

Milestone 1 - Sanitary and Water Laterals completed by December 20, 2019

Winter shut down – Contractor to restore to finish grade all disturbed utility trenches. Utility trenches that will not be disturbed during the next phase shall be permanently restored per restoration notes. All disturbed areas that will be disturbed during the next phase shall be temporarily restored per restoration notes. Areas of pavement removal shall be temporary restored to finish grade with compacted aggregate base. Erosion control measures shall remain in place during winter. All equipment shall be removed from the project.

Spring Phase

1. Address all Erosion Control Measures and amend or install new as required for remaining construction sequencing
2. Strip and Stockpile Topsoil
3. Remove remainder of site features as called for in the Plans
4. Rough Grade Site
5. Install Storm Sewer and Electrical Provisions
6. Gravel Asphalt Path and Driveways and Fine Grade remainder of Site
7. Construct Asphalt Path and Asphalt Driveway
8. Topsoil and Restore all disturbed areas with seed and mulch as they are completed.
9. Remove Erosion Control measures once the site reaches 80% vegetative cover.

Substantial Completion – May 22, 2019

END OF SECTION

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SECTION 01 23 00

ALTERNATES

1.01 SUMMARY

- A. The extent of each Alternate is indicated on the Drawings and/or described below. Comply with applicable provisions of the Instructions to Bidders and Bid Form.
- B. Each Alternate is identified by number and describes the basic changes to be made to the Work if the Alternate is accepted by the Owner by inclusion in the Contract Agreement.
- C. Coordinate related work and modify or adjust adjacent work as necessary to ensure that work affected by each accepted Alternate is complete and fully integrated into the project.

1.02 ALTERNATE BID NO. A1

- A. Alternate Bid No A1 is a **DEDUCT** alternate for not providing the labor and materials required for the construction of the Bollard Lighting adjacent to the asphalt path system, as shown on the drawings and details, including Bollard Lighting Electrical System. Any additional base bid items including but not limited to Earthwork and Restoration required in the areas of the Bollards not to be installed shall be considered incidental to this Alternate Bid. Site Electrical System, Pedestrian Lights, and Pedestrian Light Electrical System shall be installed per plans if this Alternate is selected.

END OF SECTION

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SPECIAL PROVISIONS

FIREMEN'S PARK PHASE 1 IMPROVEMENTS GERMANTOWN, WISCONSIN

SCOPE OF WORK

In general, the project consists of site improvements at Firemen's Park in Germantown, Wisconsin. The scope of work includes asphalt path system, asphalt pavement replacement, bollard and pedestrian lighting with associated site electrical work, and water and sanitary services to the future community building within the park, with associated erosion control, demolition, earthwork and site restoration.

All scope of work shown on plans shall be accounted for in total bid price. Listed bid items shall include any and all materials, labor, etc. required to complete the project entirety.

SPECIFICATIONS

Prospective bidders should note that the Wisconsin Department of Transportation's Standard Specifications for Highway and Structure Construction (hereinafter referred to as "WisDOT Specifications") shall govern in cases not defined in these Special Provisions and General Conditions of this contract. If such State specifications should differ from the Special Provisions and General Conditions or not be applicable, in that event the Special Provisions and General Conditions shall govern.

All work shall conform to the Village of Germantown's Design, Drafting, and Construction Standards and Specifications (hereinafter referred to as "Village's Standards and Specifications"). If such Village's Standards and Specifications should differ from the Special Provisions and General Conditions, in that event the Village's Standards and Specifications shall govern.

The term "WisDOT Specification" in these special provisions refers to the "State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction", 2018 Edition, and shall be executed under the requirements of the General Conditions, Technical Specifications, WisDOT Specifications, and these special provisions.

Whenever in the specifications, or in any documents or plans related to the construction operations, the reference is made to the specifications or designations of A.S.T.M., A.A.S.H.T.O., A.S.A. or A.W.W.A., the intent and meaning shall be interpreted to be the use of the latest revision.

EXPLANATION OF BID ITEMS

The following section contains an explanation of bid items contained in this bid proposal and supersedes the standard specifications if conflicts arise. Measurement and payment of items shall be as specified in the State Specifications where applicable.

FIREMEN'S PARK PHASE 1 IMPROVEMENTS BASE BID ITEMS

Item - Item Description

1 – MOBILIZATION

Description: This work shall include the cost of moving in equipment and supplies to the site, the establishment of necessary stockpiles and trailer, and moving the same off site. This item also includes any construction staking required by the contractor, securing the site, vehicular traffic control or pedestrian traffic control, and daily site cleanup. The item mobilization shall conform to Section 619 of

the WisDOT Specifications.

Method of Measurement: Mobilization will be measured in-place, at the contract lump sum price acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
1	Mobilization	Lump Sum

This work will be paid for at the contract lump sum price. This price shall be full compensation for furnishing all materials, including delivering, installing, maintenance, removal and for all labor, equipment, tools and incidentals necessary to complete this item of work.

2 – EROSION CONTROL

Description: This work consists of furnishing, installing, and maintaining erosion control devices, including but not limited to, silt socks/fence, a construction trackout pad(if applicable), temporary seeding, dust control measures, and other erosion control devices or methods where directed by the Project Engineer; removing and disposing of sediment deposits, and removing fence and other measures at the completion of the work in accordance with the Wisconsin DNR Stormwater Construction Technical Standards and WisDOT Specifications Section 628 and the Village's Standards and Specifications Section 3.0. The work also includes scraping and removing sediment deposits or top dressing the tracking pad, and removing tracking pad at the completion of the work. See General Requirements for additional Erosion Control requirements.

Contractor shall prepare a Village Erosion Control Permit and submit with fee to the Village Inspection Services (Building Inspection) Department.

Construction: Installation, maintenance and removal shall comply with WisDOT Specifications Section 628, the Wisconsin DNR Stormwater Construction Technical Standards and in accordance with the Erosion Control Permit.

All erosion control measures shall be maintained for the duration of the project and inspected for effective control of sediment by the contractor. After final stabilization, all erosion control measures shall be removed and disposed of offsite by the contractor.

Method of Measurement: Erosion Control will be measured in-place, at the contract lump sum price acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
2	Erosion Control	Lump Sum

This price shall be full compensation for furnishing all materials, including delivering, installing, maintenance, removal and for all labor, equipment, tools and incidentals necessary to complete this

item of work.

3 – DEMOLITION

Description: This work consists of removing and disposing of miscellaneous items at the locations designated on the Plans in accordance with WisDOT Specifications Section 201 and 204, and where directed by the Project Engineer. Items include but are not limited to saw cutting, grubbing, pavement and base removal, frame garage removal, tree removal, utility removals, and miscellaneous item removals.

Sawcuts must be made by a wheel mounting saw and full-depth of existing pavement per Village Standards and Specifications Section 4.0.

All trees other than those called to be removed shall be protected per Village Standards and Specifications Section 3.0. Contractor shall erect snow fence surrounding drip line of tree intended to be saved and avoid these areas. Snow fencing shall be minimum of 4' height with posts buried to 2' depth. No entry, staging, or trench shall be done within protection zone. Trees called to be removed shall be removed per Village Standards and Specifications Section 3.0. All trees and stumped to be removed shall be removed in their entirety and disposed of properly per Section 3.0.

Aggregate base that is removed from under the existing basketball court and asphalt pavement may be reused onsite as aggregate base under proposed asphalt paths and supplemented to meet proposed grades. Aggregate that is to be reused onsite shall be free of all soils, pavement, or other debris that may contaminate the aggregate base.

Any items damaged by the contractor that is not called out to be removed shall be replaced in kind at the contractor's expense and no additional compensation shall be made. The existing basketball equipment shall be removed in such a manner not to damage the equipment and be salvaged and provided to the owner.

Tree protection and other measures to protect utility and site features not to be removed shall be considered incidental to this bid item.

Method of Measurement: Demolition will be measured in-place, at the contract lump sum price acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
3	Demolition	Lump Sum

This price shall be full compensation for furnishing all materials, removal and legal disposal, and for all labor, equipment, tools and incidentals necessary to complete this item of work.

4 – EARTHWORK

Description: This work consists of stripping and stockpiling of topsoil, common excavation, filling, rough and finish grading, compacting, preparation of sub-grade, disposal of excess materials, temporary drainage, spreading topsoil, and related earthwork in accordance with WisDOT Specifications Section 205 206, 209 and the Village's Standards and Specifications Section 3.0. All costs associated with base aggregate shall be covered under a separate bid item.

This item all includes imported topsoil per the Village's Standards and Specifications Section 3.0. Topsoil shall be spread at a minimum depth of 4 inches and be screened of roots, rocks, clumps, or large debris.

This item included all required testing per the Village's Standards and Specifications Section 3.0. Proof rolls shall be conducted on all proposed pavement subgrade and base course. This includes the subgrade and base course for all asphalt path and asphalt driveway. The contractor shall notify the Village Engineering Department a minimum two business before construction to schedule inspections. A village representative shall be present to witness all forms of testing. Contractor shall repair any areas that fail any test per Village Standards and Specifications Section 9.0.

Materials: Per Section 205 206, 208, and 209 and the Village's Standards and Specifications Section 3.0.

Construction: Per Section 205 206, 208, and 209 and the Village's Standards and Specifications Section 3.0. Excavated soil must be removed and disposed of in a legal manner if not reused on the site per plans.

Dewatering shall be considered incidental to this work.

Method of Measurement: Earthwork will be measured in-place, at the contract lump sum price acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
4	Earthwork	Lump Sum

Payment is full compensation for furnishing and placing all materials, excavation, disposal, placing, rough and finish grading, and placing topsoil; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

5 – ROCK REMOVAL

Description: This work consists of removing and disposing of any bedrock material that is encountered and conflicts with any proposed utilities' line or grade and proposed subgrade elevations in accordance with WisDOT Specifications Section 205 and where directed by the Project Engineer, and by means of excavation, grinding, or other approved method. Geotechnical Data is provided in the appendix of the contract documents.

Blasting is an approved form of rock removal. Contractor shall furnish and provide any required permits or fees, a licensed operator and notify the owner prior to any blasting operations are to commence. It is the contractors responsible to protect all utilities, existing structures. Any damage caused by blasting

operations shall be repaired at the contractor's expense.

The Contractor shall be solely responsible for quality assurance associated with rock blasting. Quality assurance efforts undertaken by the Contractor shall include, but not be limited to the following:

Pre-Blast Survey: Conduct a pre-blast survey as described in subsequent sections of this specification.

Daily Explosive Material Consumption Log: Maintain a daily record of the storage and use of explosive materials. Provide records of the class and quantities received and issued and the total remaining on hand at the end of each day. Check the remaining explosive inventory each day and report any discrepancies that would indicate a theft or loss of explosive material.

Test Blasting: Conduct test blasting as described in subsequent sections of this specification

Blasting Log: Provide a daily blasting log, summarizing blasting operations for that day. Include the following information in the daily blasting log:

- Station limits of the shot
- Plan and section view of the drill pattern including hole diameter, hole depth, hole angle, overburden depth
- Loading diagram showing type, trade name and amount of explosives and primers.
- Initiators sequence of blast holes including delay type, delay system and times in each blast hole.
- Blast times.
- Results of blasting.

Video Recording of Blasts: Video record each blast. Provide audio commentary describing blast, including results of blast. Index the tapes to allow identification and access of each blast.

All explosives and related material shall meet the requirements of all applicable federal, state, and local regulations, as well as the recommendations of the International Society of Explosives Engineers. Store all explosives in accordance with all local, state and federal regulations. All explosive material shall be stored in accordance with the Wisconsin Administrative Code, Chapter SPS 307 – Explosives and Fireworks, and the project material storage plan

Contractor shall be solely responsible for obtaining and paying for all permits necessary to complete the work.

If blasting, submit "Notice of Blasting in Community" (Form SBD-7336, current version) to the Wisconsin Department of Safety and Professional Services and other applicable agencies (fire department, law enforcement office, etc...). Obtain and pay for other blasting permits as required by local governments.

The Contractor conducting rock blasting shall be a State of Wisconsin licensed blaster, specializing in rock blasting. The Contractor shall have a minimum of 10 years of experience in rock blasting. The Contractor shall demonstrate the prerequisite experience and knowledge by providing a minimum of 5 references for projects having similar size and scope. A Contractor that is unable to demonstrate the

prerequisite experience shall be considered unqualified and will not be allowed to complete the work.

Excavate to elevations and dimensions as shown on the drawings and as necessary to complete construction. Excavations shall be sufficiently deep to provide for all proposed bedding, base course or other subgrade materials. Slope and shore excavations as necessary to complete the work and comply with all applicable OSHA regulations. Notify Village Engineer and/or Construction Representative if correction of excessive rock breaking and/or over-excavation is necessary. Contractor will be responsible for all costs associated with correcting these excavations.

Method of Measurement: Rock Removal will be measured in-place, at the contract linear foot price per utility pipe installed acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
5	Rock Removal	Linear Foot

This price shall be full compensation for furnishing all materials, removal and legal disposal, and for all labor, equipment, tools and incidentals necessary to complete this item of work.

6 – BASE AGGREGATE DENSE, 1-1/4"

Description: This special provision describes furnishing and installing base aggregate dense in accordance with the requirements of WisDOT Specifications Section 305, the Village's Standards and Specifications Section 8.0, the details shown in the Plans.

This item included all required testing per the Village's Standards and Specifications Section 3.0. Proof rolls shall be conducted on all proposed pavement subgrade and on base course. This includes the subgrade and base course for all asphalt path and asphalt driveway. The contractor shall notify the Village Engineering Department a minimum two business before construction to schedule inspections. A village representative shall be present to witness all forms of testing. Contractor shall repair any areas that fail any test per Village Standards and Specifications Section 9.0.

Materials: Base Aggregate Dense 1-1/4" per Section 305 of WisDOT Specifications and the Village's Standards and Specifications Section 8.0.

Construction: Per WisDOT Specifications Section 305 and the Village's Standards and Specifications Section 8.0.

Method of Measurement: Base Aggregate Dense will be measured in-place, at the contract per ton price acceptably completed. Contractor to supply tickets.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the

following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
6	Base Aggregate Dense, 1-1/4"	Ton

Payment is full compensation for furnishing and installing the material in accordance with these specifications, including preparation of foundation and all required testing and submittals.

7 – ASPHALT PATH

8 – ASPHALT DRIVEWAY

Description: This special provision describes constructing asphalt pavement and paths in accordance with the requirements of WisDOT Specification 465, Village Standards and Specifications Section 8.0, the details shown in the plans, and as hereinafter provided. Base aggregate dense is part of a separate bid item.

Materials: Per Section 610 and 650 and Section 465 and Village Standards and Specifications Section 8.0
Asphalt pavement for paths shall be LT 58-28 S
Asphalt pavement for driveways shall be LT 58-28 S

Tack coat shall be considered incidental to these bid items.

Construction: Per Section 610 and 650 and Section 465 and Village Standards and Specifications Section 8.0.
Asphalt pavement for paths shall be 3" thick LT 58-28 S installed in 1 lift
Asphalt pavement for driveways shall be 4" thick LT 58-28 S installed in 2-1/4" binder layer and 1-3/4" surface layer.

The binder and surface courses shall not be installed on the same day.

Method of Measurement: Measurement for this item of work will be measured in-place, acceptably completed at the contract unit prices provided below. Contractor to supply tickets.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
7	Asphalt Path	Ton
8	Asphalt Driveway	Ton

Payment is full compensation for furnishing all materials, including preparing, sawing, hauling, mixing, placing, shaping, compacting, asphaltic materials and for all labor, equipment, tools and incidentals necessary to complete this item of work.

9 – CONNECT TO EXISTING STORM INLET

Description: This special provision describes connecting to an existing storm sewer structure as shown on the plans in accordance with WisDOT Specification Section 611, Village's Standards and Specifications Section 4.0, and as hereinafter provided.

Removing and plugging existing openings in the existing manhole shall be covered under the Demolition item.

Materials: Per Section 611 and as shown on Plans.

Construction: Per Section 611 and as shown on Plans.

Contractor to core drill the required opening in an existing storm structure at the required elevation to provide the invert as called for on the plans.

Concrete collars or other means of connecting storm piping to an existing manhole shall be covered under this bid item.

Method of Measurement: Measurement for these items of work will be measured in-place, acceptably completed at the contract unit price per each acceptably completed

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
9	Connect to Existing Storm Inlet	Each

Payment is full compensation for providing all materials, including all sewer and manhole connections, other fittings; for all excavating, backfilling, disposing of surplus material, and for cleaning out and restoring the work site.

10 – 6" PVC STORM SEWER

Description: This special provision describes furnishing and installing storm sewer as shown on the plans in accordance with WisDOT Specification Sections 608, the Village's Standards and Specifications Section 4.0, and as hereinafter provided.

This item shall include all inspection and testing required by the Village's Standards and Specifications Section 4.0. PVC piping of Diameter 27" or less, shall conform to WisDot Standard Specification Chapter 3.2.6(i)(4) and File no. 30 for 5% deflection limit.

Materials: PVC storm sewer piping shall be SDR-26 minimum with rubber gaskets required.

Pipe bedding and cover shall be per Village's Standards and Specifications Section 4.0. Backfill material may be spoil material where approved by the Engineer and mechanically compacted in lifts.

Construction: Per Sections 608, Village's Standards and Specifications Section 4.0, and as shown on Plans.

Per the Village's Standards and Specifications Section 3.0, open excavations shall not exceed 25 feet in

length at the end of the day, and all open excavations shall be protected by barricades with flashers and snow fencing.

Tracer wire is required on all underground storm piping and shall conform to the Village's Standards and Specifications Section 4.0.

Method of Measurement: Measurement for these items of work will be measured in-place, acceptably completed at the contract unit price listed below:

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
10	6" PVC Storm Sewer	Linear Foot

Payment is full compensation for providing all materials, including all bedding, sewer connections, pipes, and other fittings; for all excavating, backfilling, testing, disposing of surplus material, and for cleaning out and restoring the work site.

11 – YARD INLET

Description: This special provision describes furnishing and installing stormwater sewer structures as shown on the plans in accordance with WisDOT Specification Section 611, Village's Standards and Specifications Section 4.0, and as hereinafter provided.

Materials: Per Section 611 and as shown on Plans.

Yard inlets: 18" square tapered HDPE catch basins.

Grates: 18" square cast iron or galvanized steel pedestrian grate

¾" gravel base shall be considered incidental to this bid item.

Construction: Per Section 611 and as shown on Plans.

Installation to be completed in accordance with manufacturer's recommendations. Grates shall be attached to yard inlet with screws at the time of installation.

Contractor to drill weep holes at the bottom of the yard inlet structure per the Plans.

Method of Measurement: Measurement for these items of work will be measured in-place, acceptably completed at the contract unit price per each acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
13	Yard Inlet	Each

Payment is full compensation for providing all materials, including all sewer connections, other fittings; for all excavating, cutting, backfilling, disposing of surplus material, and for cleaning out and restoring the work site.

12 – 12" CULVERT

Description: This special provision describes furnishing and installing storm sewer as shown on the plans in accordance with WisDOT Specification Sections 608, the Village's Standards and Specifications Section 4.0, and as hereinafter provided.

This item shall include all inspection and testing required by the Village's Standards and Specifications Section 4.0.

Materials: Per the Village's Standards and Specifications Section 4.0, culverts shall be RCP CLASS III with rubber gaskets and conform to Wisdot Standard Specifications Section 522.2.2 or 523.2.2.

This item shall include apron endwalls and pipe grates. Endwalls shall be RCP conforming to Wisdot Standard Specifications Section 522.2.4 and 523.2.4

Pipe bedding and cover shall be per Village's Standards and Specifications Section 4.0. Backfill material may be spoil material where approved by the Engineer and mechanically compacted in lifts.

Construction: Per Sections 608, Village's Standards and Specifications Section 4.0, and as shown on Plans.

Per the Village's Standards and Specifications Section 3.0, open excavations shall not exceed 25 feet in length at the end of the day, and all open excavations shall be protected by barricades with flashers and snow fencing.

Tracer wire is required on all underground storm piping and shall conform to the Village's Standards and Specifications Section 4.0.

Method of Measurement: Measurement for these items of work will be measured in-place, acceptably completed at the contract unit price listed below:

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
12	12" Culvert	Linear Foot

Payment is full compensation for providing all materials, including all bedding, sewer connections, pipes, endwalls, and other fittings; for all excavating, backfilling, testing, disposing of surplus material, and for cleaning out and restoring the work site.

13 – CONNECT TO EXISTING WATER

Description: This special provision describes furnishing and installation of water utilities to connect to an existing water main in accordance with pertinent sections of the Standard Specifications for Sewer and Water Construction, "SSSWC", in Wisconsin, current edition, Village's Standards and Specifications Section 6.0, the details shown in the plans, and as hereinafter provided.

Per Village Standards and Specifications 6.0, connections shall be made under pressure.

Materials: Per SSSWC and as shown on plans. Fittings are incidental to work.

Construction: Per SSSWC and as shown on plans. Install tracer wire over all underground pipes.

Method of Measurement: These items will be measured in-place, per units listed below acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
13	Connect to Existing Water	Each

Payment is full compensation for furnishing all materials, including delivering, excavating, laying pipe, sealing joints, connecting, providing granular backfill and bedding, testing, backfilling, and cleaning and for all labor, equipment, tools and incidentals necessary to complete this item of work. Tracer wire and fittings are incidental to this bid item.

14 – WATER SERVICE, 2”

Description: This special provision describes furnishing and installation of water utilities in accordance with pertinent sections of the Standard Specifications for Sewer and Water Construction, “SSWC”, in Wisconsin, current edition, Village’s Standards and Specifications Section 6.0, the details shown in the plans, and as hereinafter provided.

This item shall include all inspection and testing required by the Village’s Standards and Specifications Section 6.0. The contractor shall perform all testing, sampling, and analysis. The contractor shall notify the Village Engineering Department a minimum two business before construction to schedule inspections. A village representative shall be present to witness all forms of testing.

Materials: Per the Village’s Standards and Specifications Section 6.0, water service piping shall be HDPE, AWWA C901, SDR-9. PE 3408 conforming to ASTM D 3350 cell classification 345464C. Standard grade HDB rating = 1600 psi at 73 degrees F. Color material = conform to cell classification 345464E. Approved for potable water per NSF Standard 61. Fittings shall be considered incidental to this bid item.

Pipe bedding and cover shall be per Village’s Standards and Specifications Section 4.0. Backfill material may be spoil material where approved by the Engineer and mechanically compacted in lifts PER Village Standards and Specifications.

Construction: Per SSSWC and as shown on plans. Install tracer wire over all underground pipes.

Minimum cover above the water service shall be 6’ per Village Standards and Specifications 6.0. All depths less than 5’ require polystyrene board insulation conforming to Wisdot Standard Specifications Chapter 4.17.0 and 8.50.2. Where the service is 2’ or less from an underground structure, insulation is required.

Per the Village’s Standards and Specifications Section 3.0, open excavations shall not exceed 25 feet in length at the end of the day, and all open excavations shall be protected by barricades with flashers and

snow fencing.

Method of Measurement: These items will be measured in-place, per units listed below acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
14	Water Service, 2"	Linear Foot

Payment is full compensation for furnishing all materials, including delivering, excavating, laying pipe, fittings, sealing joints, connecting, providing granular backfill and bedding, testing, backfilling, and cleaning and for all labor, equipment, tools and incidentals necessary to complete this item of work. Tracer wire and fittings are incidental to this bid item.

15 – COMPRESSION CURB STOP, 2"

16 – HYDRANT SHUT OFF VALVE, 2"

17 – FLUSHING HYDRANT

Description: This special provision describes furnishing and installation of water utilities in accordance with pertinent sections of the Standard Specifications for Sewer and Water Construction, "SSSWC", in Wisconsin, current edition, Village's Standards and Specifications Section 6.0, the details shown in the plans, and as hereinafter provided. Required bedding, blocking, and backfill per the plans and specifications shall be considered incidental to these items.

This item shall include all inspection and testing required by the Village's Standards and Specifications Section 6.0. The contractor shall perform all testing, sampling, and analysis. The contractor shall notify the Village Engineering Department a minimum two business before construction to schedule inspections. A village representative shall be present to witness all forms of testing.

Materials: Per the Village's Standards and Specifications Section 6.0

Curb Stop: Minneapolis pattern ball valve curb stop with pack joints. Conform to Standard Specifications Ch 8.30.0. Stiffeners at each compression type connection.

Curb Stop box shall be considered incidental to item 12 – Compression Curb Stop, 2" Box shall be Minneapolis pattern curb stop valve box for each curb stop valve. Cast Iron Service Box. Lid to be two-piece with standard brass pentagon bolt plug, Type PL.

Couplings and Fittings shall be incidental to these bid items. Compression type with insert stiffeners for plastic tubing conforming to AISI Type 304 (stainless steel). All hardware is considered incidental to these bid items and manufactured by Cor-Blue.

Hydrant shut off valves shall be per the Village's Standards and Specifications Section 6.0. Valve Boxes shall be incidental to this item.

Flushing Hydrant shall be self-draining, non-freezing, compression type hydrant, No. 2 Eclipse Post

Hydrant as Manufactured by The Kupferle Foundry, St. Louis MO. 63102 or Approved Equal.

Tracer Wire, Tracer Wire connections, and Tracer Wire boxes required per the plans and specifications shall be considered incidental to these bid items.

Construction: Per SSSWC and as shown on plans. Install tracer wire over all underground pipes.

Per the Village's Standards and Specifications Section 3.0, open excavations shall not exceed 25 feet in length at the end of the day, and all open excavations shall be protected by barricades with flashers and snow fencing.

Method of Measurement: These items will be measured in-place, per units listed below acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
15	Compression Curb Stop, 2"	Each
16	Hydrant Shut Off Valve, 2"	Each
17	Flushing Hydrant	Each

Payment is full compensation for furnishing all materials, including delivering, excavating, curb stops and curb stop boxes, shut off valves and valve boxes, flushing hydrants, connections, providing granular backfill and bedding, testing, backfilling, and cleaning and for all labor, equipment, tools and incidentals necessary to complete this item of work. Tracer wire and fittings are incidental to this bid item.

18 – CONNECT TO EXISTING SANITARY MANHOLE

Description: This special provision describes connecting to an existing sanitary sewer structure as shown on the plans in accordance with WisDOT Specification Section 611, Village's Standards and Specifications Section 5.0, and as hereinafter provided.

Materials: Per Section 611, Village's Standards and Specifications Section 5.0, and as shown on Plans.

Construction: Per Section 611, Village's Standards and Specifications Section 5.0, and as shown on Plans. At the beginning of construction, the contractor shall install a mechanical plug at the new connection to the existing manhole. The Village Utility Superintendent will remove and return the plug after the constructed system has been accepted.

Contractor to core drill the required opening in an existing sanitary structure at the required elevation to provide the invert as called for on the plans.

Method of Measurement: Measurement for these items of work will be measured in-place, acceptably completed at the contract unit price per each acceptably completed

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
18	Connect to Existing Sanitary Manhole	Each

Payment is full compensation for providing all materials, including all sewer and manhole connections, and other fittings; for all excavating, backfilling, cutting, disposing of surplus material, and for cleaning out and restoring the work site.

19 – SANITARY SERVICE, 6”

Description: This special provision describes furnishing and installation of sanitary service laterals in accordance with pertinent sections of the Standard Specifications for Sewer and Water Construction, “SSSWC”, in Wisconsin, current edition, Village’s Standards and Specifications Section 5.0, the details shown in the plans, and as hereinafter provided.

This item shall include all inspection and testing required by the Village’s Standards and Specifications Section 5.0. The contractor shall notify the Village Engineering Department a minimum two business before construction to schedule inspections. A village representative shall be present to witness all forms of testing.

Materials: Per the Village’s Standards and Specifications Section 4.0, sanitary service piping shall be SDR-35 minimum with rubber gaskets required conforming to WisDot Standard Specification Chapter 5.3.10 and 8.10.0

Pipe bedding and cover shall be per Village’s Standards and Specifications Section 4.0. Backfill material may be spoil material where approved by the Engineer and mechanically compacted in lifts.

Construction: Per SSSWC and as shown on plans. Install tracer wire over all underground pipes.

Minimum cover above the sanitary services shall be 7’ per Village Standards and Specifications. All depths less than 7’ require polystyrene board insulation conforming to Wisdot Standard Specifications Chapter 4.17.0 and 8.50.2.

Per the Village’s Standards and Specifications Section 3.0, open excavations shall not exceed 25 feet in length at the end of the day, and all open excavations shall be protected by barricades with flashers and snow fencing.

Method of Measurement: Measurement for these items of work will be measured in-place, acceptably completed at the contract unit price per linear foot acceptably complete.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
19	Sanitary Service, 6”	Linear Foot

Payment is full compensation for furnishing all materials, including delivering, excavating, laying pipe, sealing joints, connecting, providing granular backfill and bedding, testing, backfilling, and cleaning and for all labor, equipment, tools and incidentals necessary to complete this item of work. Tracer wire and fittings are incidental to this bid item.

20 – CLEANOUT

Description: This special provision describes furnishing and installation of cleanouts along the sanitary service laterals in accordance with pertinent sections of the Standard Specifications for Sewer and Water Construction, “SSSWC”, in Wisconsin, current edition, Village’s Standards and Specifications Section 5.0, the details shown in the plans, and as hereinafter provided.

This item shall include all inspection and testing required by the Village’s Standards and Specifications Section 5.0. The contractor shall notify the Village Engineering Department a minimum two business before construction to schedule inspections. A village representative shall be present to witness all forms of testing.

Materials:

Cleanouts shall include 6”x6” Wye PVC Fittings, 45 degree PVC Elbow, and 6” PVC riser pipe with PVC Plug. Contractor to provide 8” Diameter PVC frost sleeve and Neenah R-1979 Monument Casting and Lid.

Construction: Per SSSWC and as shown on plans. Install tracer wire over all underground pipes. One full length of pipe shall be installed prior to the Wye PVC Fitting. After the Wye and PVC Elbow, contractor shall install 6’ Diameter Riser pipe of the same material as the service pipe to the proposed sub-base elevation. Contractor to provide PVC Frost Sleeve and Monument Casting and Lid adjusted to the proposed finish grade elevation of turf or pavement. Tracer wire shall be installed up the PVC riser pipe and be attached at the PVC plug.

Method of Measurement: Measurement for these items of work will be measured in-place, acceptably completed at the contract unit price per each acceptably complete.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
20	Cleanout	Each

Payment is full compensation for furnishing all materials, including delivering, excavating, laying pipe, sealing joints, connecting, cleanouts, providing granular backfill and bedding, testing, backfilling, and cleaning and for all labor, equipment, tools and incidentals necessary to complete this item of work. Tracer wire and fittings are incidental to this bid item.

21 – PEDESTRIAN LIGHT

Description: The work shall include the furnishing and installing pedestrian lights with direct bury concrete poles in accordance with the plans, WisDOT Section 654 and 659, and as hereinafter provided. Conduit, wiring, boxes, etc. required for pedestrian lights and receptables are included in the Pedestrian Lighting Electrical System bid item.

Manufacturer:

1. Traditional Concrete, Inc.
Mailing Address: PO Box 157, Menomonee Falls, WI 53052-0157
Plant Location: W142N9110 Fountain Blvd, Menomonee Falls, WI 53501
Phone: 262-250-7599

2. Or approved equal

Materials:

Wiring and fusing shall be in accordance with WISDOT Std. Spec., Section 659.

Luminaires: MH10 Harp Light, color black

Poles: D715-SP-EA-HTO – Direct burial, 700 series, decorative octagon, 15' above ground, 4.5' burial, salt and pepper colored, etched finish, concrete pole with acrylic seal, harp light tenon, and GFI outlet.

Concrete pole to be 7000 psi minimum fiber reinforced concrete with steel reinforcement per details, cast aluminum handhole and cover, and weatherproof, locking duplex GFI receptacle within use cover.

Construction

Concrete shall be in accordance with WISDOT Std. Spec., Section 654 and as shown on plans.

Install lights shall be in accordance with manufacturer's recommendations, WISDOT Std. Spec., Section 659, and as shown on plans.

Measurement: This item will be measured per each base acceptably completed at the contract unit price per each.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
21	Pedestrian Light	Each

Payment for each light is full compensation for providing and installing all materials, including poles and luminaires; for all hardware; and for excavating, backfilling, and disposing of surplus materials, and all hardware and fittings needed to integrate the components into the lighting system; and for all labor, tools, equipment and incidentals necessary to complete this item of work.

22 – BOLLARD LIGHT

Description: The work shall include the furnishing and installing direct bury concrete bollard lights in accordance with the plans, WisDOT Section 654 and 659, and as hereinafter provided. Conduit, wiring, boxes, etc. required for bollard lights and receptables are included in the Bollard Light Electrical System bid item.

Manufacturer:

1. Traditional Concrete, Inc.
Mailing Address: PO Box 157, Menomonee Falls, WI 53052-0157
Plant Location: W142N9110 Fountain Blvd, Menomonee Falls, WI 53501
Phone: 262-250-7599
2. Or approved equal

Materials:

Wiring and fusing shall be in accordance with WISDOT Std. Spec., Section 659.

Bollard: D303-SP-EA-G-CAV6 – Direct bury, 300 series, 8” round O.D., 3-7/8” I.D., 36” above grade, 4’ burial, salt and pepper colored, etched finish, concrete bollard with acrylic seal and marine grade, black colored CAV6 domed top, louvered bollard with medium (E26) socket for screw in LED light source.

Concrete bollards to receive locking duplex GFI receptacle within use cover as denoted on plans.

Construction

Concrete shall be in accordance with WISDOT Std. Spec., Section 654 and as shown on plans.

Install bollards shall be in accordance with manufacturer’s recommendations, WISDOT Std. Spec., Section 659, and as shown on plans.

Measurement: This item will be measured per each base acceptably completed at the contract unit price per each.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
22	Bollard Light	Each

Payment for each light is full compensation for providing and installing all materials, including poles and luminaires; for all hardware; and for excavating, backfilling, and disposing of surplus materials, and all hardware and fittings needed to integrate the components into the lighting system; and for all labor, tools, equipment and incidentals necessary to complete this item of work.

23 – SITE ELECTRICAL SYSTEM

This item includes all costs for the designing, furnishing and installation of all related electrical work to power the future community building 325 AMP panel. This item includes all labor, materials, and incidentals to connect to the existing, furnishing and installing a transformer with 24 slot distribution panel and meter box and installing the required electrical service to such transformer, furnishing and installing a 325 AMP panel for future building service connection and the electrical service to such panel. This item also includes all conduit and pull boxes called for in the plans for pavement crossings and all incidental items for the site electrical work.

All electrical services, wiring, conduit, and pull boxes that feed either the pedestrian light, bollard lights or pedestrian or bollard receptables shall be covered under separate bid items.

Note that all support equipment, materials, and labor should be considered incidental to this item. Providing temporary site electrical power and connecting to the existing electrical service within the park shall be considered incidental to this bid item. Lights, poles, and bases and wiring for such shall be covered under separate items.

Materials: Shall be per Plan and Specifications. Provide electrical system design drawings and cut sheets for review.

Conduit shall be in accordance with WISDOT Std. Spec., Section 652, for rigid nonmetallic conduit, Sch. 40.

Pull and junction boxes shall be in accordance with WISDOT Std. Spec., Section 653.

Electrical wiring shall be in accordance with WISDOT Std. Spec., Section 655.

Electrical service shall be in accordance with WISDOT Std. Spec., Section 656.

Construction: Install electrical system in accordance with shop drawings, and the applicable provisions of WISDOT Std. Spec., Sections 651 through 657 and 659.

Contractor shall coordinate all utility service requirements including permits and fees with WE Energies prior to bid and all costs shall be included.

Method of Measurement: This item shall be measured on a lump sum basis, completed and fully operational in accordance with all local, state and federal codes, laws and regulations.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
23	Site Electrical System	Lump Sum

Payment is full compensation for designing the electrical system, furnishing all materials, including transformer and service panel, delivering, installing, wiring, conduit, placing and testing and for all labor, equipment, tools and incidentals necessary to complete this item of work.

24 – PEDESTRIAN LIGHT ELECTRICAL SYSTEM

This item includes all costs for the designing, furnishing and installation of all related electrical work to power the pedestrian lighting and receptacles on all pedestrian light poles. This item includes all labor, materials, and incidentals to connect to the panel for future building service connection and the electrical service all pedestrian light poles and pedestrian light pole receptacles.

All electrical services, wiring, conduit, and pull boxes that feed bollard lights or bollard receptables shall be covered under separate bid items.

Note that all support equipment, materials, and labor should be considered incidental to this item. Providing temporary site electrical power and connecting to the existing electrical service within the park shall be considered incidental to this bid item. Lights, poles, and bases shall be covered under separate items.

Materials: Shall be per Plan and Specifications

Provide electrical system design drawings and cut sheets for review. Control All Light Types with timer and photocell. Coordinate final light control with OWNER.

Conduit shall be in accordance with WISDOT Std. Spec., Section 652, for rigid nonmetallic conduit, Sch.

40.

Pull and junction boxes shall be in accordance with WISDOT Std. Spec., Section 653.

Electrical wiring shall be in accordance with WISDOT Std. Spec., Section 655.

Electrical service shall be in accordance with WISDOT Std. Spec., Section 656.

Construction: Install electrical system in accordance with shop drawings, lighting fixture manufacturer's recommendations, and the applicable provisions of WISDOT Std. Spec., Sections 651 through 657 and 659.

Contractor shall coordinate all utility service requirements with WE Energies prior to bid and all costs shall be included.

Method of Measurement: This item shall be measured on a lump sum basis, completed and fully operational in accordance with all local, state and federal codes, laws and regulations.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
24	Pedestrian Light Electrical System	Lump Sum

Payment is full compensation for designing the electrical system, furnishing all materials, including delivering, installing, wiring, conduit, controls, placing and testing and for all labor, equipment, tools and incidentals necessary to complete this item of work.

25 – BOLLARD LIGHT ELECTRICAL SYSTEM

This item includes all costs for the designing, furnishing and installation of all related electrical work to power the bollard lighting and receptacles as called for on bollard lights. This item includes all labor, materials, and incidentals to connect to the panel for future building service connection and the electrical service all bollard lights and bollard receptacles.

All electrical services, wiring, conduit, and pull boxes that feed pedestrian lights or pedestrian light receptacles as well as the site electrical service to the transformer and service panel shall be covered under separate bid items.

Note that all support equipment, materials, and labor should be considered incidental to this item. Providing temporary site electrical power and connecting to the existing electrical service within the park shall be considered incidental to this bid item. Lights, poles, and bases shall be covered under separate items.

Materials: Shall be per Plan and Specifications

Provide electrical system design drawings and cut sheets for review. Control All Light Types with timer and photocell. Coordinate final light control with OWNER.

Conduit shall be in accordance with WISDOT Std. Spec., Section 652, for rigid nonmetallic conduit, Sch.

40.

Pull and junction boxes shall be in accordance with WISDOT Std. Spec., Section 653.

Electrical wiring shall be in accordance with WISDOT Std. Spec., Section 655.

Electrical service shall be in accordance with WISDOT Std. Spec., Section 656.

Construction: Install electrical system in accordance with shop drawings, lighting fixture manufacturer's recommendations, and the applicable provisions of WISDOT Std. Spec., Sections 651 through 657 and 659.

Contractor shall coordinate all utility service requirements with WE Energies prior to bid and all costs shall be included.

Method of Measurement: This item shall be measured on a lump sum basis, completed and fully operational in accordance with all local, state and federal codes, laws and regulations.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
25	Bollard Light Electrical System	Lump Sum

Payment is full compensation for designing the electrical system, furnishing all materials, including delivering, installing, wiring, conduit, controls, placing and testing and for all labor, equipment, tools and incidentals necessary to complete this item of work.

26 – RESTORATION

Description: This special provision describes preparing seed beds and furnishing and sowing seeds, fertilizing, mulch as shown on the Plans, in accordance with the WisDOT Specifications Sections 625, 627, 629, and 630, and the Village's Standards and Specifications Section 3.0 and hereinafter provided.

Materials: Hydroseeding is not required but is an acceptable method per the Village's Standards and Specifications Section 3.0

SEED MIX: TURF Per Section 630 using the following seed mixture:

- 50% - 4 kinds of Elite Kentucky Bluegrasses
- 25% - Elite Turf Type Tall Fescue
- 25% - Elite Creeping Red Fescue
- Seed shall be free of non-seed debris and invasive weed species.

MULCH: Per Section 627 and the Village's Standards and Specifications Section 3.0.

FERTILIZER: Per Section 629

EROSION CONTROL MAT: Per Village's Standards and Specifications Section 3.0. and WDNR Tech Standard #1052 and 1053 and shall be applied to slopes 4:1 or steeper.

Construction: Prepare seed beds in accordance with applicable portions of section 630 of the WisDOT Specifications and the seed manufacturer's recommendations.

Hydroseeding is not required but is an acceptable method per the Village's Standards and Specifications Section 3.0 and conforming to WDNR Technical Standard #1059. Hydro-seeding application equipment shall incorporate an agitation system that will suspend and homogeneously mix the slurry.

Seeding rates shall be applied per Restoration Notes within the Plans

Cellulose Fiber Mulch shall be applied at a rate of 1500lbs/acre

Organic tackifier shall be applied at the rate of 70 lbs/acre.

Fertilizer shall be applied the rate of 300 lbs/acre.

TURF MAINTENANCE:

GENERAL: Maintain seeding until satisfactory turf has been established. Maintain and establish turf by watering, fertilizing, weeding, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.

Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.

In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.

Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.

WATERING: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Water turf with fine spray at a minimum rate of 1 inch per week unless rainfall precipitation is adequate. Water shall be considered incidental to this item.

TURF POSTFERTILIZATION: Apply commercial fertilizer after initial mowing and when grass is dry. Use fertilizer that provides actual nitrogen of at least 1 lb./1000 sq. ft. to turf area.

SATISFACTORY TURF

Turf installations shall meet the following criteria as determined by Engineer:

At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.

Method of Measurement: Restoration will be measured in-place, per Lump Sum acceptably completed.

Basis of Payment: The OWNER will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
26	Restoration	Lump Sum

Payment is full compensation for providing, handling, and storing all seed; for providing the required culture and inoculating seed as specified; and for placing topsoil, preparing the seed bed, seeding, fertilizing, mulching, erosion control mat, watering, maintenance during establishment period, and for all labor, tools, equipment and incidentals necessary to complete the work in accordance with the contract.

APPENDIX A

GEOTECHNICAL DATA

Subsurface investigations have been performed pertaining to this project site. A copy of the geotechnical report follows. Please read the following information before using this report.

Geotechnical investigations have been performed in accordance with generally accepted soil and foundation engineering practices. However, boring logs and related information depict subsurface conditions only at the specific locations and particular times designated. Soil conditions at other locations may differ from conditions occurring at these boring locations. Also the passage of time may result in changed conditions at these boring locations.

Bidder may rely upon the accuracy of the technical data contained in the report, but not upon nontechnical data, interpretations, or opinions contained therein or for the completeness thereof for Bidder's purposes. The geotechnical report is not a Contract Document.

Bidder shall make additional investigations as it deems necessary to determine the subsurface character of the work and shall examine the site and the drawings as well as the record of soil investigations to determine conditions under which the work will be completed. Obtain Owner's permission before conducting further site explorations.

See the General Conditions (EJCDC C-700, paragraph 5.04) for the differing site conditions clause applicable to the project.

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Construction • Geotechnical
Consulting Engineering/Testing

September 12, 2019
CM19020

Mr. Mark Schroeder, CPRP
Park & Recreation Director
Germantown Park & Recreation Department
N112 W17001 Mequon Road
Germantown, WI 53022

Re: Geotechnical Exploration Report
Proposed Pavilion and Utilities
Firemen's Park
Germantown, Wisconsin

Dear Mr. Schroeder:

Construction • Geotechnical Consultants, Inc. (CGC) has completed the subsurface exploration for the proposed community center pavilion building and underground utilities (storm sewer and water lines) within Firemen's Park in Germantown, Wisconsin. The purpose of this exploration program was to evaluate the subsurface conditions within the planned building and along utility alignments and to provide geotechnical engineering recommendations regarding site preparation, foundation, and floor slab design/construction. We are sending you an electronic copy of this report and can provide a paper copy upon request. An electronic copy is also being forwarded to Messrs. Bob Beilfuss and Lawrence Ratayczak with the Village of Germantown.

PROJECT DESCRIPTION

The project site is located within Firemen's Park at the southeast corner of Friestadt Road and Park Avenue, in Germantown, Wisconsin. The planned development will include construction of a free-standing community pavilion building that will be located within the central portion of the park. Associated with the building will be the installation of a sanitary sewer which will extend south from the proposed building and then east to the eastern edge of the park and a water main which will extend southwest from the proposed building to Park Avenue. The location of the proposed building and underground utilities are shown on the Soil Boring Location Map enclosed in Appendix B.

The planned pavilion will be one-story with a slab-on-grade floor and no basement or other below-grade areas. The building will include an outdoor patio area with a roof. We anticipate the structural loads will be relatively light in magnitude. Based on review of the preliminary *Site Plan* (Sheet No. 2; dated June, 2019) prepared by the Village of Germantown Engineering Department, we understand the finished floor elevation (FFE) of the proposed pavilion building will be at EL 881.15 ft. and the planned bottom of footings will be at EL 875.15 ft, with the

Mr. Mark Schroeder, CPRP
Park & Recreation Director
Germantown Park & Recreation Department
September 12, 2019
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understanding the building will not be heated year round. Existing grades within the planned building area currently range between about EL 880.5 to 884 ft; therefore, we anticipate up to about 4 ft of cut will be required to establish the floor slab subgrade, exclusive of site preparation requirements.

The planned sanitary sewer line will be 8 in. in diameter and will tie into an existing sanitary sewer line north of the baseball field at the eastern park property line. The manhole structures associated with the sewer line will have rim elevations ranging from EL 881.0 ft (near the planned pavilion) to EL 873.54 ft (at the eastern park property line) and invert elevations ranging between EL 874.48 ft to 865.4 ft. Existing surface grades along the sanitary sewer alignment range between about EL 872 to 881.5 ft; therefore, about 7.2 to 8.2 ft of excavation is anticipated to establish the sanitary sewer invert elevations.

The planned water line will be 6-in. in diameter and will extend southwest to Park Avenue. Based on review of the preliminary *Site Plan* existing site grades along the water line alignment range between about EL 879.8 ft (at Boring 5) to about EL 884 ft (along Park Avenue). The invert elevations were not provided on the preliminary *Site Plan*.

The conclusions and recommendations provided in this report are based on the above described descriptions. If our understanding and assumptions of the proposed construction are inaccurate, we ask that we be notified for review and possible modification of the recommendations provided.

EXPLORATION PROGRAM

Eight (8) Standard Penetration Test (SPT) borings were drilled, two within the planned building footprint and six along the planned sanitary sewer and water main alignments. The borings were planned to be extended to depths of 10 and 15 ft; however, due to auger refusal on probable bedrock, the borings were terminated at depths ranging from about 3 to 10 ft below existing site grades. The utility boring locations (Borings 1 through 6) were located in the field by Village of Germantown personnel and the building borings (Borings 7 and 8) were field staked by CGC relative to the existing buildings. One exception was Boring 3 which was offset to the west of the field marked location at the request of Village personnel to determine the thickness of the existing asphaltic concrete pavement and underlying base course. The approximate locations of the borings are indicated on the Soil Boring Location Map enclosed in Appendix B. The borings were drilled by Geoserve, Inc. (under subcontract to CGC) on August 6, 2019. Specific procedures used for drilling and sampling are described in Appendix A. The ground surface

Mr. Mark Schroeder, CPRP
Park & Recreation Director
Germantown Park & Recreation Department
September 12, 2019
Page 3

elevations at Borings 1, 2, and 4 through 6 were provided by Village of Germantown personnel. The ground surface elevations at Borings 3, 7 and 8 were determined by CGC by interpolating between elevation contour intervals included on the preliminary *Site Plan* (Sheet No. 2, dated June, 2019) prepared by the Village of Germantown Engineering Department. The elevations at Borings 3, 7 and 8 are considered accurate to within $1\pm$ ft.

Water level observations were made in each soil boring during and immediately upon completion of the drilling operations. Representative samples of the subsoils were also collected during the field exploration for classification and laboratory testing. The soils were classified by a geotechnical engineer using the Unified Soil Classification System (USCS). Moisture content testing was performed on representative samples. The final logs prepared by the engineer per the USCS procedures and including the results of the soil laboratory testing are enclosed in Appendix B.

SITE CONDITIONS

A. Surface Conditions

The subject site is located within the central portion of Firemen's Park. The planned pavilion area currently consists of a grass lawn with several trees in the northern building area and overhead power lines. The planned building area is bounded by asphaltic concrete drives/pathways to the west and south, bathrooms to the north and lawn to the east. Existing site grades within the planned building area currently range between about EL 880.5 and 884 ft. The planned sanitary sewer and water line areas currently consist of a combination of lawn and asphaltic concrete drives/pathways.

B. Subsurface Conditions

The subsurface exploration program completed at the site reveals a somewhat uniform soil profile beneath the parcel. The generalized subsurface profile consists of the following (in descending order):

- Surface materials in unpaved areas typically consist of about 4 to 12 in. of *topsoil* and in paved areas consists of about 3 in. of asphaltic concrete over 6 to 7 in. of dark brown sand and gravel base course; underlain by,

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- **Natural soils** consisting of brown, brown mottled and/or light brown and gray mottled **lean clay** with trace sand and gravel to depths ranging from about 2 to 9.5 ft; underlain by,
- Natural brown to light brown to brown fine to coarse **sand and gravel (possible weathered bedrock)** extending to depths ranging from about 3 to 10 ft, the maximum depths explored, where auger refusal on **probable bedrock** was encountered. A summary of the approximate depths and elevations of the encountered bedrock is included in the following table:

Boring No.	Approximate Depth/Elevation (ft)	
	Weathered Bedrock	Apparent Sound Bedrock
1	9.5 / 863.1	10 / 862.6'
2	4 / 871.3	4.5 / 870.8
3	2 / 876.0	3 / 875.0
4	4 / 874.6	4.5 / 874.1
5	4.5 / 875.3	5 / 874.8
6	4.5 / 876.3	5 / 875.8
7	5 / 875.8	5.5 / 875.3
8	--	4 / 879.5

The natural lean clay soils exhibited unconfined compressive strengths (as measured with a hand penetrometer) typically ranging from 1.25 to greater than 4.5 (typically 2.0 to 3.5) tons per square foot (tsf), indicating the clayey soils are stiff to hard. The silty clay soils had moisture contents ranging from about 17 to 29 percent.

The weathered bedrock stratum encountered in all of the borings during drilling appears to have been reduced to 'soil' with sand and gravel size particles present. It should be recognized, however, that the transition from severely to completely weathered rock (typically excavated with conventional earthwork equipment) to sound rock (requiring drilling, chiseling and/or blasting) may be irregular in elevation due to the variability in the degree of weathering. It should also be recognized that the stratification lines shown on the test boring logs represent the approximate boundary between the surficial soils and the underlying apparent bedrock. The actual transition between soil and rock is expected to be very irregular in both the vertical and horizontal directions.

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C. Groundwater Conditions

Water was generally not encountered during or upon completion of drilling at the boring locations. An exception was encountered at Boring 1 where probable perched water was encountered within a sand seam at a depth of about 7 ft. Based on soil coloration and the relative moisture contents of the collected soil samples, we estimate the long-term groundwater level throughout the site to be greater than the maximum depths explored, ranging from 3 to 10 ft. However, considering the relatively high natural moisture contents and mottled coloration of some of the encountered lean clay soils and the relatively shallow and variable depth of the probable bedrock surface, we anticipate the site is susceptible to shallow perched water conditions, at least seasonally and/or during periods of heavy precipitation. Perched water should be anticipated immediately above the probable bedrock. Groundwater levels can be expected to fluctuate based on seasonal variations in precipitation, infiltration, evapotranspiration and other factors.

More detailed information regarding the soil and groundwater conditions is presented on the boring logs in Appendix B.

DISCUSSION AND RECOMMENDATIONS

Subject to the limitations discussed below and based on the findings of the subsurface exploration, it is our opinion that the site generally appears suitable for the proposed construction. However, considering the shallow bedrock encountered across the site, at depths above the planned foundation bearing grade within the proposed building area and above the planned sanitary sewer and water line invert elevations, specialized excavation methods are anticipated to be necessary. Specific recommendations regarding the geotechnical aspects of design and construction are included in the following sections of this report. Additional information regarding the conclusions and recommendations provided in this report is discussed in Appendix C.

A. Site Preparation

To prepare the site for construction, we recommend initial site preparation within the planned building area include stripping/removal of surface topsoil/vegetation at least 5 ft beyond the proposed building construction area. Topsoil at the building borings was about 5 in. thick; however, deeper organic soil removal depths may be necessary in unexplored areas of the

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planned building area, such as in the area of the existing trees, due to existing trees etc. The topsoil can be stockpiled on-site and re-used as fill in landscaped areas. Following topsoil removal, we recommend that high areas of the site be cut to the planned subgrade elevations.

Following the above-described initial site preparation activities we anticipate the exposed soils will consist of natural stiff to very stiff lean clay. Prior to any filling that may be required within low areas of the proposed building pad and development areas, we recommend the exposed subgrades be evaluated by thoroughly proof-rolling the site with a loaded tri-axle dump truck, scraper or a similar piece of rubber-tired construction equipment. The purpose of proof-rolling is to check the overall stability of the exposed subgrade, as well as to identify soft or yielding conditions that may require recompaction or undercutting prior to fill placement. Considering the relatively high moisture content of the near surface lean clay soils, we anticipate that some areas of instability may be encountered, which will also be dependent on the time of year that construction proceeds. If unstable areas are detected, an initial attempt should be made to aerate and densify the subgrade by recompaction where natural moisture contents are at appropriate levels (i.e., ± 3 percent of optimum moisture content). If this procedure is ineffective, the disturbed soils should be undercut and replaced with compacted fill and/or stabilizing materials such as an imported 3-in. breaker rock. A relatively firm, non-yielding subgrade should be established prior to proceeding with fill placement.

After the subgrade is prepared as described above, we recommend that fill placement proceed as necessary to establish planned site grades. The exposed subgrade should be thoroughly compacted prior to placement of fills on the site. Selection, placement and compaction of engineered fills should be in accordance with the guidelines presented in our "Recommended Compacted Fill Specifications" included in Appendix D. The on-site non-organic soils present across the site generally appear suitable for re-use as engineered fill. The use of the on-site lean clay soils in structural areas will require close observation on a regular basis during fill placement, however, including the monitoring of moisture contents, compaction levels, and the overall stability of the prepared fill subgrades. Some moisture conditioning (i.e., drying) of these materials should be anticipated to achieve desired compaction levels, particularly if fill placement proceeds during wet periods of the year. We recommend that fills placed within designated structural areas on the site be compacted to 95 percent of modified Proctor (ASTM D1557). Field density tests should be taken by CGC staff during fill placement to check the adequacy of the compactive effort.

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B. Foundation Design

Based on the planned FFE at EL 881.15 ft, we understand the foundations throughout the planned building are planned to bear at EL 875.15 ft, because the planned structure will not be heated year-round. At Boring 7, auger refusal was encountered at a depth of about 5.5 ft, which corresponds to about EL 875.3 ft, or slightly above the planned foundation bearing grade. At Boring 8, auger refusal was encountered at a depth of about 4 ft (EL 879.5 ft, or about 4.4 ft above the planned foundation bearing grade. Therefore, difficult excavation requiring specialized excavation procedures (i.e., ripper, rock chisel, etc.) or possibly blasting may be necessary and should be anticipated. We recommend that all footings be extended through any encountered weathered bedrock (due to the possible presence of clay filled joints within the weathered bedrock) to bear upon sound bedrock, which may require some undercutting through the encountered lean clay and weathered bedrock materials in unexplored areas of the planned building area. Shallower foundations, still bearing on sound bedrock, could be explored if proper drainage is provided and insulation is used along the foundations and floor slab. We recommend the structural engineer be consulted to provide adequate frost protection recommendations.

Provided the above recommendations are implemented, it is our opinion the following parameters can be used for foundation design for the planned building:

- **Maximum Allowable Bearing Pressure:** 5,000 psf*
 - * Bearing pressure assumes foundations are supported by sound bedrock. A higher bearing pressure is most likely possible for foundations bearing on sound bedrock. However, a higher pressure does not appear to be warranted considering the anticipated loads associated with the planned structure.
 - **Minimum Foundation Widths:**
 - Continuous wall footings: 18 in.
 - Individual column pads: 30 in.
 - **Minimum Footing Depths:**
 - Exterior perimeter/ Interior footings 6 ft** (per plan)
- ** Should sound bedrock be encountered and adequate site drainage be provided, the foundation embedment depth could be reduced to correspond to the top of sound bedrock.

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- **Site Classification for Seismic Design:**

In our opinion, the average soil/rock properties in the upper 100 ft of the site (based on the encountered auger refusal depths) can be characterized as a rock profile. This characterization would place the site in *Site Class B* for seismic design according to the International Building Code, current edition (see Table 1613.5.2).

We recommend that footing subgrades be observed by CGC prior to foundation construction to check that bearing materials are consistent with the conditions observed in the borings. The evaluation would include checking for the presence of localized loose or compressible zones, and confirming the adequacy of undercutting, where deemed necessary. Where unsuitable conditions occur, footings can be either extended to bear on the underlying sound bedrock or established at the planned foundation bearing grade on structural lean-mixed concrete having a minimum strength of 500 psi that is placed within the undercut excavation. With the use of lean-mix concrete, over-sizing of the footing excavations can be reduced to a maximum width which equals the footing width plus approximately 6 in. each side. Footings can then be cast directly on the lean-mix concrete base.

Providing the foundation design/construction recommendations discussed above are followed, we estimate that total and differential settlements should not exceed 1.0 and 0.50 in., respectively. We recommend that foundation excavations be conducted using a smooth-edged backhoe bucket to minimize disturbance to the bearing soils.

C. Floor Slab

After preparing the building pad as described in the Site Preparation section of this report, it is our opinion the soils present at floor slab subgrade should generally be suitable for slab-on-grade construction. Based on the anticipated floor slab grade, subgrade soils beneath the slab are expected to consist of a combination of the existing natural silty clays and possibly newly-placed engineered fills. Prior to slab construction, the subgrades should be rigorously recompact to densify soils that may become disturbed or loosened during construction activities. The design subgrade modulus is based on a recompact subgrade such that non-yielding conditions are developed. To serve as a capillary break, the final 4 to 6 in. of soil placed below the slabs should consist of well-graded sand or gravel with no more than 5 percent by weight passing a No. 200 U.S. standard sieve. (Note that some structural engineers require a 4 to 6 in. layer of dense graded base (e.g., 1¼-in. dense graded base course) below the slab to increase the subgrade modulus immediately below the slab.) A subgrade modulus of 150 pci may be used for slab

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design on adequately prepared lean clay soils or newly-placed and compacted engineered fill. If 6 in. of 1¼-in. dense graded base is included below the floor slabs, the subgrade modulus can be increased to 175 pci. To further minimize the potential for moisture migration, a 10-mil plastic vapor barrier can also be utilized below the slabs. The slabs should be structurally separate from the foundations and have construction joints and wire mesh for crack control. Fill and drainage course material placed below the floor slabs should be placed in accordance with the guidelines presented in Appendix D. If clean crushed stone is used as a drainage course material, these materials should be densified until no deflection or settlement is observed under compaction equipment.

D. Utility Construction

Based on the available soil and groundwater information, it appears that sanitary sewer and water line construction can proceed using traditional open cut methods. However, bedrock excavation will be required along the majority of the planned utilities. Although dewatering is generally not anticipated for utility installations over much of the site, some dewatering may be required due to sand layers and/or due to perched water conditions above the bedrock surface, at least seasonally. It is expected that excavation sidewalls will be sloped back for relatively shallow installations (i.e., less than 4 ft in depth) and that a trench shield and/or internal bracing will be used for deeper excavations. The following are our recommendations regarding trench excavation, dewatering, and backfilling:

- **Excavation:** Open cuts should be sloped and/or braced in accordance with OSHA guidelines. The stiff to hard clays are typically classified as OSHA Type ‘B’ soils and slopes of 1H:1V or flatter are expected to be at least temporarily stable. Depending on the degree of weathering of the apparent bedrock, steeper slopes may be possible in fairly sound bedrock that does not include highly weathered zones. Where necessary, such as near Boring 1 (and possibly other locations), effective dewatering should be implemented to maintain safe working conditions. Ineffective dewatering will likely necessitate flatter excavation side slopes. The utility excavations should be monitored by a competent person to determine the safe sidewall slope. Temporary bracing should be designed by a registered professional engineer.
- **Rock Removal:** As mentioned above, probable weathered bedrock was encountered at depths ranging from about 2 to 9.5 ft and auger refusal was encountered at depths of 3 to 10 ft on harder bedrock. The depth and consistency of the bedrock depth will

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likely vary across the site. A summary of the depth/elevation to apparent sound bedrock, the planned invert elevations at the sanitary sewer locations and the corresponding estimated depth below the encountered bedrock surface to establish the invert elevation is included in the following table.

Boring No.	Depth/ Elevation to Apparent Sound Bedrock	Planned Invert Elevation	Estimated Depth Below Sound Bedrock to Establish Invert Elevation
1	10 / 862.6	865.40	(a)
2	4.5 / 870.8	868.13	2.67
3	3 / 875.0	869.4	5.6
4	4.5 / 874.1	871.15	2.95
5	5 / 874.8	(b)	
6	5 / 875.8	(b)	

Notes: (a) Stiff lean clay at planned invert elevation, approximately 2.8 ft above sound bedrock elevation.
 (b) Invert elevation not known at time of report.

It has been our experience that excavation to the level of auger refusal can typically be achieved with conventional earthwork equipment, and that excavations below the auger refusal depth will likely require special rock removal techniques such as blasting or chipping with a hydraulic rock chipper. Supplemental test pits are recommended to determine how much effort will be required to excavate the bedrock using conventional equipment or if specialized rock excavation techniques will be required. A unit rate for bedrock excavation should be included in the bidding documents.

- Dewatering: Based on observations made during the field exploration, groundwater infiltration into utility excavations is generally anticipated to be nominal, although a perched water condition within a sand seam was encountered at Boring 1. We anticipate that dewatering can typically be accomplished using submersible pumps in shallow sump pits. Water accumulating at the base of the utility excavations due to precipitation or seepage should be controlled and removed using pumps operating in shallow sump pits.

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- Backfilling - Excavation backfilling may proceed using the following guidelines:
 - Clay excavation spoils may be used to backfill the utility trenches above the pipe and associated granular bedding material. *However, we recommend that granular soils be used as backfill within roadways or near structures because sand/gravel are relatively easy to place and compact in most weather conditions.* The clayey and silty soils will likely require some moisture conditioning prior to placement and compaction, which could delay construction progress. Granular soils with cobbles and boulders should not be used in direct contact with utility lines. Excavated bedrock may require crushing before being reused as trench backfill to achieve particle sizes of less than 3 to 6 in.
 - Backfill material should be placed in accordance with Appendix D guidelines or applicable Village of Germantown requirements.
 - Compaction recommendations:
 - Depths greater than 3 ft below grade: 90% modified Proctor (ASTM D1557)
 - Final 3 ft: 95% modified Proctor
 - Landscape areas: 85% modified Proctor

CONSTRUCTION CONSIDERATIONS

Due to variations in weather, construction methods and other factors, specific construction problems are difficult to predict. Soil related difficulties which could be encountered on the site are discussed below:

1. Due to the potentially sensitive nature of the on-site lean clay soils, we recommend that final site grading activities be completed during dry weather, if possible. Construction traffic should be avoided or minimized on prepared subgrades to minimize potential disturbance.
2. During cold weather, exposed subgrades should be protected from freezing before and after footing construction. Fill should never be placed while frozen or on frozen surfaces.

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3. Excavations extending greater than 4 ft in depth below the existing ground surface should be sloped in accordance with current OSHA standards. In order to maintain stable excavations, we estimate that cut slopes can generally be established in the surficial mixed soil deposits above the water table at 1H:1V or flatter over short periods of time.

RECOMMENDED CONSTRUCTION MONITORING

The quality of the foundation and floor slab subgrades will be largely determined by the level of care exercised during site development. To check that earthwork and foundation construction proceeds in accordance with our recommendations, the following operations should be monitored by CGC:

1. Topsoil stripping/removal, subgrade proof-rolling and undercutting (if any);
2. Fill/backfill placement and compaction;
3. Foundation excavation/subgrade preparation; and
4. Concrete and asphalt placement.

* * * * *

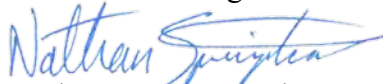
It has been a pleasure to serve you on this project. We look forward to continuing our project involvement by providing construction testing services during the construction phase of the project. If you have any questions or need additional consultation, please contact us.

Sincerely,

CGC, Inc.

A handwritten signature in blue ink, reading "Paul J. Giese".

Paul J. Giese, P.E.
Senior Consulting Professional

A handwritten signature in blue ink, reading "Nathan I. Springstead".

Nathan I. Springstead, P.E.
Senior Staff Engineer



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Encl: Appendix A - Field Exploration
Appendix B - Soil Boring Location Map
Logs of Test Borings (8)
Log of Test Boring - General Notes
Unified Soil Classification System
Appendix C - Document Qualifications
Appendix D - Recommended Compacted Fill Specifications

cc (via email): Mr. Bob Beilfuss / Village of Germantown
Mr. Lawrence Ratayczak / Village of Germantown

APPENDIX A

FIELD EXPLORATION

APPENDIX A

FIELD EXPLORATION

Eight (8) Standard Penetration Test (SPT) borings were drilled on August 6, 2019, two within the planned building footprint and six within the planned sanitary sewer and water main alignments. The borings were planned to be extended to depths of 10 and 15 ft; however, due to auger refusal on probable bedrock, the borings were terminated at depths ranging from about 3 to 10 ft below existing site grades. The utility boring locations (Borings 1 through 6) were located in the field by Village of Germantown personnel and the building borings (Borings 7 and 8) were field staked by CGC relative to the existing buildings. One exception was Boring 3 which was offset to the west of the field marked location at the request of Village personnel to determine the thickness of the existing asphaltic concrete pavement and underlying base course. The approximate locations of the borings are indicated on the Soil Boring Location Map enclosed in Appendix B. The borings were drilled by Geoserve, Inc. (under subcontract to CGC) on August 6, 2019 using an all-terrain-vehicle (ATV) -mounted rotary drill rig equipped with hollow-stem augers and an automatic SPT hammer. The ground surface elevations at Borings 1, 2, and 4 through 6 were provided by Village of Germantown personnel. The ground surface elevations at Borings 3, 7 and 8 were determined by CGC by interpolating between elevation contour intervals included on the preliminary *Site Plan* (Sheet No. 2, dated June, 2019) prepared by the Village of Germantown Engineering Department.

In each boring, soil samples were obtained at 2.5-foot intervals to the depths explored. The soil samples were obtained in general accordance with specifications for standard penetration testing, ASTM D 1586. The specific procedures used for drilling and sampling are described below.

1. Boring Procedures between Samples

The boring is extended downward, between samples, by a hollow-stem auger.

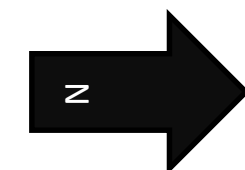
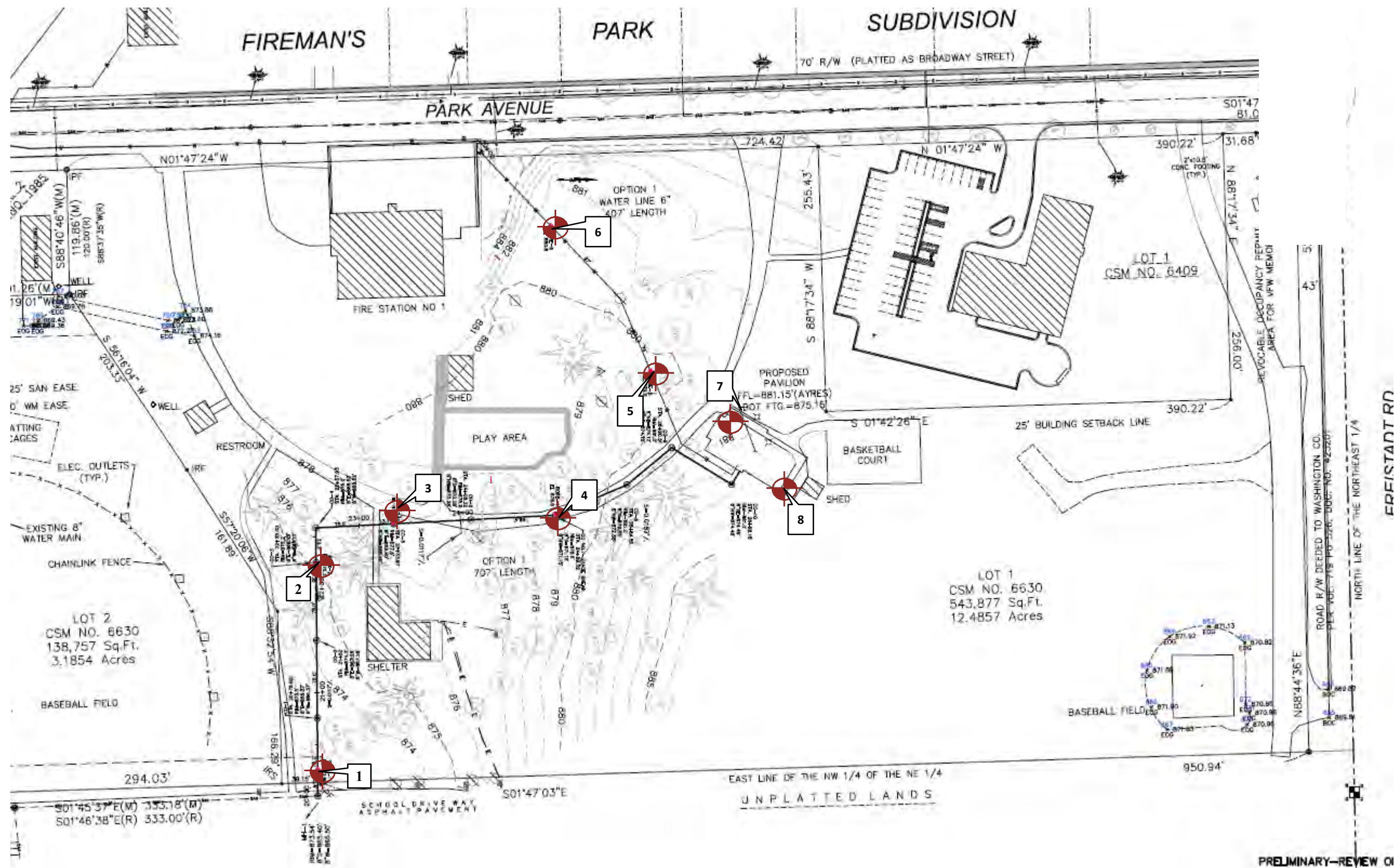
2. Standard Penetration Test and Split-Barrel Sampling of Soils
(ASTM Designation: D 1586)

This method consists of driving a 2-inch outside diameter split-barrel sampler using a 140-pound weight falling freely through a distance of 30 inches. The sampler is first seated 6 inches into the material to be sampled and then driven 12 inches. The number of blows required to drive the sampler the final 12 inches is recorded on the log of borings and is known as the Standard Penetration Resistance.

During the field exploration, the driller visually classified the soil and prepared a field log. *Field screening of the soil samples for possible environmental contaminants was not conducted by the drillers as environmental site assessment activities were not part of CGC's work scope.* Water level observations were made in each boring during and after drilling and are shown at the bottom of each boring log. Upon completion of drilling, the borings were backfilled with bentonite (where required) to satisfy WDNR regulations. The soil samples were delivered to our laboratory for visual classification and laboratory testing. The soil samples were visually classified by a geotechnical engineer using the Unified Soil Classification System. The final logs prepared by the engineer and a description of the Unified Soil Classification System are presented in Appendix B.

APPENDIX B

**SOIL BORING LOCATION MAP
LOGS OF TEST BORINGS (8)
LOG OF TEST BORING - GENERAL NOTES
UNIFIED SOIL CLASSIFICATION SYSTEM**



Scale: Reduced

Legend

 Denotes approximate locations and number of test borings.

Notes

1. Test borings drilled by Geoserve, Inc. (under subcontract to CGC, Inc.) on August 6, 2019.
2. Map developed from preliminary *Site Plan* (Sheet No. 2, dated June, 2019) prepared and provided by the Village of Germantown Engineering Department.

Date: August, 2019		SOIL BORING LOCATION MAP PROPOSED PAVILION AND UTILITY LINES FIREMEN'S PARK GERMANTOWN, WISCONSIN A18	
Job No. CM19020			



LOG OF TEST BORING

Project **Proposed Pavilion & Utility Lines**

Firemen's Park

Location **Germantown, Wisconsin**

Boring No. **1**

Surface Elevation (ft) **872.6**

Job No. **CM19020**

Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES					
No.	TYPE	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL	LOI
						4" TOPSOIL (Light Brown Silty Clay)					
1		14	M	4		Very Stiff, Brown Lean CLAY; Trace Sand, Trace Fine Roots (CL)	(2.5)	23.4			
2		16	M	5		Stiff, Brown Mottled Lean CLAY; Trace Sand (CL)	(1.5)	29.3			
3		16	W	8		Stiff, Light Brown and Gray Mottled Lean CLAY; Trace Sand (CL)	(1.25)	17.5			
						Wet sand seam at 7 ± ft					
4		8	M	50		Weathered BEDROCK (Brown Mottled Fine to Coarse Sand and Gravel)	(1.5)				
						End of Boring & Auger Refusal on Probable Bedrock at 10 ft Backfilled with Soil Cuttings					

WATER LEVEL OBSERVATIONS					GENERAL NOTES	
While Drilling	▽ 7.0'	Upon Completion of Drilling	NW		Start	8/6/19
Time After Drilling					End	8/6/19
Depth to Water					Driller	GeoServe Chief
Depth to Cave in					Eddie	Rig 7822
					Logger	Matt
					Editor	PJG
					Drill Method	2.25" HSA
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.						



LOG OF TEST BORING

Project Proposed Pavilion & Utility Lines
Firemen's Park
Location Germantown, Wisconsin

Boring No. 2
Surface Elevation (ft) 875.3
Job No. CM19020
Sheet 1 of 1

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES					
No.	TYPE	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL	LOI
						12" TOPSOIL (Dark Brown Lean Clay with Organics)					
1		12	M	6		Very Stiff, Dark Brown Lean CLAY; Trace Sand (CL)	(3.5)	21.5			
2		18	M	50/2"		Weathered BEDROCK (Light Brown Fine to Coarse Sand and Gravel)	(2.0)				
					5	End of Boring & Auger Refusal on Probable Bedrock at 4.5 ft Backfilled with Soil Cuttings					
					10						
					15						

WATER LEVEL OBSERVATIONS					GENERAL NOTES				
While Drilling	☒ NW	Upon Completion of Drilling	☐ NW		Start	8/6/19	End	8/6/19	
Time After Drilling					Driller	GeoServe Chief	Eddie	Rig 7822	
Depth to Water					Logger	Matt	Editor	PJG	Geoprobe
Depth to Cave in					Drill Method	2.25" HSA			
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.					A20				



LOG OF TEST BORING

Project Proposed Pavilion & Utility Lines
Firemen's Park
Location Germantown, Wisconsin

Boring No. 3
Surface Elevation (ft) 878.0 ±
Job No. CM19020
Sheet 1 of 1

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES					
No.	TYPE	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL	LOI
						3" ASPHALT / 6" BASE COURSE (Dark Brown Silty Fine to Coarse Sand and Gravel)					
1		14	M	87		Hard, Brown Mottled Lean CLAY; Trace Sand (CL)	(4.5+)				
						Weathered BEDROCK (Light Brown Fine to Coarse Sand and Gravel)					
						End of Boring & Auger Refusal on Probable Bedrock at 3 ft Backfilled with Soil Cuttings					
					5						
					10						
					15						

WATER LEVEL OBSERVATIONS					GENERAL NOTES					
While Drilling	☒ NW	Upon Completion of Drilling	☐ NW		Start	8/6/19	End	8/6/19		
Time After Drilling					Driller	GeoServe	Chief	Eddie	Rig	7822
Depth to Water					Logger	Matt	Editor	PJG	Geoprobe	
Depth to Cave in					Drill Method	2.25"	HSA			
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.					A21					



LOG OF TEST BORING

Project **Proposed Pavilion & Utility Lines**
Firemen's Park
Location **Germantown, Wisconsin**

Boring No. **4**
Surface Elevation (ft) **878.6**
Job No. **CM19020**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
					3" ASPHALT / 7" BASE COURSE (Dark Brown Fine to Coarse Sand and Gravel, Little Silt)					
1	14	M	6		Very Stiff, Brown Mottled Lean CLAY; Trace Sand (CL)	(3.5)	21.9			
2	12	M	62		Weathered BEDROCK (Brown Fine to Coarse Sand and Gravel)					
				5	End of Boring & Auger Refusal on Probable Bedrock at 4.5 ft Backfilled with Soil Cuttings					
				10						
				15						

WATER LEVEL OBSERVATIONS					GENERAL NOTES		
While Drilling	☒ NW	Upon Completion of Drilling	☒ NW	Start	8/6/19	End	8/6/19
Time After Drilling				Driller	GeoServe Chief	Eddie	Rig 7822
Depth to Water				Logger	Matt	Editor	PJG
Depth to Cave in				Drill Method	2.25" HSA		Geoprobe
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.					A22		



LOG OF TEST BORING

Project **Proposed Pavilion & Utility Lines**
Firemen's Park
Location **Germantown, Wisconsin**

Boring No. **5**
Surface Elevation (ft) **879.8**
Job No. **CM19020**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
					5" TOPSOIL (Dark Brown Silty Clay with Organics)					
1	12	M	7		Hard, Brown Mottled Lean CLAY; Trace Sand, Trace Organics (Fine Roots) (CL)	(4.5+)	19.2			
2	14	M	25			(4.25)				
				5	Weathered BEDROCK (Light Brown Fine to Coarse Sand and Gravel)					
					End of Boring & Auger Refusal on Probable Bedrock at 5 ft Backfilled with Soil Cuttings					
				10						
				15						

WATER LEVEL OBSERVATIONS					GENERAL NOTES			
While Drilling	☒ NW	Upon Completion of Drilling	☒ NW	Start	8/6/19	End	8/6/19	
Time After Drilling				Driller	GeoServe Chief	Eddie	Rig 7822	
Depth to Water				Logger	Matt	Editor	PJG	Geoprobe
Depth to Cave in				Drill Method	2.25" HSA			
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.					A23			



LOG OF TEST BORING

Project **Proposed Pavilion & Utility Lines**
Firemen's Park
Location **Germantown, Wisconsin**

Boring No. **6**
Surface Elevation (ft) **880.8**
Job No. **CM19020**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Rec (in.)	Moist	N	Depth (ft)		qu (qa) (tsf)	W	LL	PL	LOI
					6" TOPSOIL (Dark Brown Silty Clay with Organic Matter)					
1	12	M	5		Very Stiff, Brown Mottled Lean CLAY; Trace Sand (CL)	(3.0)	18.1			
2	8	M	67			(3.0)				
					Weathered BEDROCK (Light Brown to Brown Fine to Coarse Sand and Gravel)					
				5	End of Boring & Auger Refusal on Probable Bedrock at 5 ft Backfilled with Soil Cuttings					
				10						
				15						

WATER LEVEL OBSERVATIONS					GENERAL NOTES					
While Drilling	∇	NW	Upon Completion of Drilling	NW	Start	8/6/19	End	8/6/19		
Time After Drilling					Driller	GeoServe	Chief	Eddie	Rig	7822
Depth to Water					Logger	Matt	Editor	PJG	Geoprobe	
Depth to Cave in					Drill Method	2.25" HSA				
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.										
A24										



LOG OF TEST BORING

Project **Proposed Pavilion & Utility Lines**
Firemen's Park
Location **Germantown, Wisconsin**

Boring No. **7**
Surface Elevation (ft) **880.8**
Job No. **CM19020**
Sheet **1** of **1**

336 S. Curtis Rd, West Allis, WI 53214 (414) 443-2000, FAX (414) 443-2099

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES					
No.	TYPE	Rec (in.)	Moist	N		Depth (ft)	qu (qa) (tsf)	W	LL	PL	LOI
						5" TOPSOIL (Dark Brown Silty Clay with Organics)					
1		12	M	6		Stiff to Very Stiff, Brown Mottled Lean CLAY; Trace Sand (CL)	(3.5)	20.4			
2		8	M	8			(2.0)	19.0			
					5	Weathered BEDROCK (Brown Fine to Coarse Sand and Gravel)					
						End of Boring & Auger Refusal on Probable Bedrock at 5.5 ft Backfilled with Soil Cuttings					
					10						
					15						

WATER LEVEL OBSERVATIONS					GENERAL NOTES	
While Drilling	☒ NW	Upon Completion of Drilling	NW		Start	8/6/19
Time After Drilling					End	8/6/19
Depth to Water					Driller	GeoServe Chief
Depth to Cave in					Editor	Eddie
					Logger	Matt
					Editor	PJG
					Drill Method	2.25" HSA
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.					Rig 7822	
					Geoprobe	
					A25	

[illegible]

LOG OF TEST BORING

General Notes

Descriptive Soil Classification

GRAIN SIZE TERMINOLOGY

Soil Fraction	Particle Size	U.S. Standard Sieve Size
Boulders	Larger than 12"	Larger than 12"
Cobbles	3" to 12"	3" to 12"
Gravel: Coarse	3/4" to 3"	3/4" to 3"
Fine	4.76 mm to 3/4"	#4 to 3/4"
Sand: Coarse	2.00 mm to 4.76 mm	#10 to #4
Medium	0.42 to mm to 2.00 mm	#40 to #10
Fine	0.074 mm to 0.42 mm	#200 to #40
Silt	0.005 mm to 0.074 mm	Smaller than #200
Clay	Smaller than 0.005 mm	Smaller than #200

Plasticity characteristics differentiate between silt and clay.

GENERAL TERMINOLOGY

Physical Characteristics
Color, moisture, grain shape, fineness, etc.,
Major Constituents
Clay, silt, sand, gravel
Structure
Laminated, varved, fibrous, stratified, cemented, fissured, etc.
Geologic Origin
Glacial, alluvial, eolian, residual, etc.

RELATIVE DENSITY

Term	"N" Value
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Over 50

RELATIVE PROPORTIONS OF OF COHESIONLESS SOILS

Proportional Term	Defining Range by Percentage of Weight
Trace	0%-5%
Little	5%-12%
Some	12%-35%
And	35%-50%

CONSISTENCY

Term	q _u -tons/sq. ft.
Very Soft	0.0 to 0.25
Soft	.0.25 to 0.50
Medium	0.50 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	Over 4.0

ORGANIC CONTENT BY COMBUSTION METHOD

Soil Description	Loss on Ignition
Non Organic	Less than 4%
Organic Silt/Clay	4-12%
Sedimentary Peat	12-50%
Fibrous and Woody Peat	More than 50%

PLASTICITY

Term	Plastic Index
None to Slight	0-4
Slight	5-7
Medium	8-22
High to Very High	Over 22

The penetration resistance, N, is the summation of the number of blows required to effect two successive 6" penetrations of the 2" split-barrel sampler. The sampler is driven with a 140 lb. weight falling 30" and is seated to a depth of 6" before commencing the standard penetration test.

SYMBOLS

DRILLING AND SAMPLING

CS--Continuous Sampling
RC--Rock Coring: Size AW, BW, NW, 2"W
RQD--Rock Quality Designator
RB--Rock Bit
FT--Fish Tail
DC--Drove Casing
C--Casing: Size 2 1/2", NW, 4", HW
CW--Clear Water
DM--Drilling Mud
HSA--Hollow Stem Auger
FA--Flight Auger
HA--Hand Auger
COA--Clean-Out Auger
SS--2" Diameter Split-Barrel Sample
2ST--2" Diameter Thin-Walled Tube Sample
3ST--3" Diameter Thin-Walled Tube Sample
PT--3" Diameter Piston Tube Sample
AS--Auger Sample
WS--Wash Sample
PTS--Peat Sample
PS--Pitcher Sample
NR--No Recovery
S--Sounding
PMT--Borehole Pressuremeter Test
VS--Vane Shear Test
WPT--Water Pressure Test

LABORATORY TESTS

q _a --Penetrometer Reading, tons/sq. ft.
q _u --Unconfined Strength, tons/sq. ft.
W--Moisture Content, %
LL--Liquid Limit, %
PL--Plastic Limit, %
SL--Shrinkage Limit, %
LI--Loss on Ignition, %
D--Dry Unit Weight, lbs/cu. ft.
pH--Measure of Soil Alkalinity or Acidity
FS--Free Swell, %

WATER LEVEL MEASUREMENT

▽ --Water Level at time shown
NW--No Water Encountered
WD--While Drilling
BCR--Before Casing Removal
ACR--After Casing Removal
CW--Caved and Wet
CM--Caved and Moist

Note: Water level measurements shown on the boring logs represent conditions at the time indicated and may not reflect static levels, especially in cohesive soils.

CGC, Inc.

Madison - Milwaukee

UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS

(more than 50% of material is larger than No. 200 sieve size.)

Clean Gravels (Less than 5% fines)

GRAVELS
More than 50% of coarse fraction larger than No. 4 sieve size

GW	Well-graded gravels, gravel-sand mixtures, little or no fines
GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
Gravels with fines (More than 12% fines)	
GM	Silty gravels, gravel-sand-silt mixtures
GC	Clayey gravels, gravel-sand-clay mixtures

Clean Sands (Less than 5% fines)

SANDS
50% or more of coarse fraction smaller than No. 4 sieve size

SW	Well-graded sands, gravelly sands, little or no fines
SP	Poorly graded sands, gravelly sands, little or no fines
Sands with fines (More than 12% fines)	
SM	Silty sands, sand-silt mixtures
SC	Clayey sands, sand-clay mixtures

FINE-GRAINED SOILS

(50% or more of material is smaller than No. 200 sieve size.)

SILTS AND CLAYS
Liquid limit less than 50%

ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
OL	Organic silts and organic silty clays of low plasticity

SILTS AND CLAYS
Liquid limit 50% or greater

MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
CH	Inorganic clays of high plasticity, fat clays
OH	Organic clays of medium to high plasticity, organic silts

HIGHLY ORGANIC SOILS

PT	Peat and other highly organic soils
----	-------------------------------------

LABORATORY CLASSIFICATION CRITERIA

GW $C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3

GP Not meeting all gradation requirements for GW

GM Atterberg limits below "A" line or P.I. less than 4
GC Atterberg limits above "A" line with P.I. greater than 7

Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols

SW $C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3

SP Not meeting all gradation requirements for GW

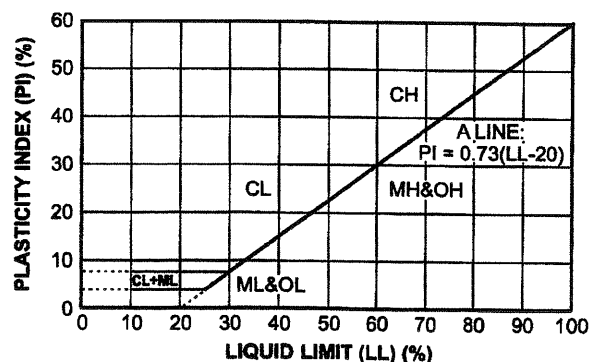
SM Atterberg limits below "A" line or P.I. less than 4
SC Atterberg limits above "A" line with P.I. greater than 7

Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols.

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

Less than 5 percent GW, GP, SW, SP
More than 12 percent GM, GC, SM, SC
5 to 12 percent Borderline cases requiring dual symbols

PLASTICITY CHART



APPENDIX C

DOCUMENT QUALIFICATIONS

APPENDIX C

DOCUMENT QUALIFICATIONS

I. GENERAL RECOMMENDATIONS/LIMITATIONS

CGC, Inc. should be provided the opportunity for a general review of the final design and specifications to confirm that earthwork and foundation requirements have been properly interpreted in the design and specifications. CGC should be retained to provide soil engineering services during excavation and subgrade preparation. This will allow us to observe that construction proceeds in compliance with the design concepts, specifications and recommendations, and also will allow design changes to be made in the event that subsurface conditions differ from those anticipated prior to the start of construction. CGC does not assume responsibility for compliance with the recommendations in this report unless we are retained to provide construction testing and observation services.

This report has been prepared in accordance with generally accepted soil and foundation engineering practices and no other warranties are expressed or implied. The opinions and recommendations submitted in this report are based on interpretation of the subsurface information revealed by the test borings indicated on the location plan. The report does not reflect potential variations in subsurface conditions between or beyond these borings. Therefore, variations in soil conditions can be expected between the boring locations and fluctuations of groundwater levels may occur with time. The nature and extent of the variations may not become evident until construction.

II. IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL ENGINEERING REPORT

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes. While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. *No one except you* should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one - not even you* - should apply the report for any purpose or project except the one originally contemplated.

Typical changes that can erode the reliability of an existing geotechnical report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes - even minor ones - and request an assessment of their impact. *CGC cannot accept responsibility or liability for problems that occur because our reports do not consider developments of which we were not informed.*

READ THE FULL REPORT

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A GEOTECHNICAL ENGINEERING REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, *do not rely on a geotechnical engineering report* that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

SUBSURFACE CONDITIONS CAN CHANGE

A geotechnical engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

MOST GEOTECHNICAL FINDINGS ARE PROFESSIONAL OPINION

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgement to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ - sometimes significantly - from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most

effective method of managing the risks associated with unanticipated conditions.

A REPORT'S RECOMMENDATIONS ARE NOT FINAL

Do not over-rely on the confirmation-dependent recommendations included in your report. *Those confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgement and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *CGC cannot assume responsibility or liability for the report's confirmation-dependent recommendations if we do not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A GEOTECHNICAL ENGINEERING REPORT IS SUBJECT TO MISINTERPRETATION

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical engineering report. Confront that risk by having CGC participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

DO NOT REDRAW THE ENGINEER'S LOGS

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

GIVE CONSTRUCTORS A COMPLETE REPORT AND GUIDANCE

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time to perform additional study.* Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

READ RESPONSIBILITY PROVISIONS CLOSELY

Some clients, design professionals, and constructors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic

expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineer's responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

ENVIRONMENTAL CONCERNS ARE NOT COVERED

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

OBTAIN PROFESSIONAL ASSISTANCE TO DEAL WITH MOLD

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention.* *Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

RELY ON YOUR GEOTECHNICAL ENGINEER FOR ADDITIONAL ASSISTANCE

Membership in the Geotechnical Business Council (GBC) of Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with CGC, a member of GBC, for more information.

Modified and reprinted with permission from:

Geotechnical Business Council
of the Geoprofessional Business Association
8811 Colesville Road, Suite G 106
Silver Spring, MD 20910

APPENDIX D

RECOMMENDED COMPACTED FILL SPECIFICATIONS

APPENDIX D

CGC, INC.

RECOMMENDED COMPACTED FILL SPECIFICATIONS

General Fill Materials

Proposed fill shall contain no vegetation, roots, topsoil, peat, ash, wood or any other non-soil material which by decomposition might cause settlement. Also, fill shall never be placed while frozen or on frozen surfaces. Rock, stone or broken concrete greater than 6 in. in the largest dimension shall not be placed within 10 ft of the building area. Fill used greater than 10 ft beyond the building limits shall not contain rock, boulders or concrete pieces greater than a 2 sq ft area and shall not be placed within the final 2 ft of finish subgrade or in designated utility construction areas. Fill containing rock, boulders or concrete pieces should include sufficient finer material to fill voids among the larger fragments.

Special Fill Materials

In certain cases, special fill materials may be required for specific purposes, such as stabilizing subgrades, backfilling undercut excavations or filling behind retaining walls. For reference, WisDOT gradation specifications for various types of granular fill are attached in Table 1.

Placement Method

The approved fill shall be placed, spread and leveled in layers generally not exceeding 10 in. in thickness before compaction. The fill shall be placed at a moisture content capable of achieving the desired compaction level. For clay soils or granular soils containing an appreciable amount of cohesive fines, moisture conditioning will likely be required.

It is the Contractor's responsibility to provide all necessary compaction equipment and other grading equipment that may be required to attain the specified compaction. Hand-guided vibratory or tamping compactors will be required whenever fill is placed adjacent to walls, footings, columns or in confined areas.

Compaction Specifications

Maximum dry density and optimum moisture content of the fill soil shall be determined in accordance with modified Proctor methods (ASTM D1557). The recommended field compaction as a percentage of the maximum dry density is shown in Table 2. Note that these compaction guidelines would generally not apply to coarse gravel/stone fill. Instead, a method specification would apply (e.g., compact in thin lifts with a vibratory compactor until no further consolidation is evident).

Testing Procedures

Representative samples of proposed fill shall be submitted to CGC, Inc. for optimum moisture-maximum density determination (ASTM D1557) prior to the start of fill placement. The sample size should be approximately 50 lb.

CGC, Inc. shall be retained to perform field density tests to determine the level of compaction being achieved in the fill. The tests shall generally be conducted on each lift at the beginning of fill placement and at a frequency mutually agreed upon by the project team for the remainder of the project.

Table 1
Gradation of Special Fill Materials

Material	WisDOT Section 311	WisDOT Section 312	WisDOT Section 305			WisDOT Section 209		WisDOT Section 210
	Breaker Run	Select Crushed Material	3-in. Dense Graded Base	1 1/4-in. Dense Graded Base	3/4-in. Dense Graded Base	Grade 1 Granular Backfill	Grade 2 Granular Backfill	Structure Backfill
Sieve Size	Percent Passing by Weight							
6 in.	100							
5 in.		90-100						
3 in.			90-100					100
1 1/2 in.		20-50	60-85					
1 1/4 in.				95-100				
1 in.					100			
3/4 in.			40-65	70-93	95-100			
3/8 in.				42-80	50-90			
No. 4			15-40	25-63	35-70	100 (2)	100 (2)	25-100
No. 10		0-10	10-30	16-48	15-55			
No. 40			5-20	8-28	10-35	75 (2)		
No. 100						15 (2)	30 (2)	
No. 200			2-12	2-12	5-15	8 (2)	15 (2)	15 (2)

Notes:

1. Reference: Wisconsin Department of Transportation *Standard Specifications for Highway and Structure Construction*.
2. Percentage applies to the material passing the No. 4 sieve, not the entire sample.
3. Per WisDOT specifications, both breaker run and select crushed material can include concrete that is 'substantially free of steel, building materials and other deleterious material'.

Table 2
Compaction Guidelines

Area	Percent Compaction (1)	
	Clay/Silt	Sand/Gravel
<u>Within 10 ft of building lines</u>		
Footing bearing soils	93 - 95	95
Under floors, steps and walks		
- Lightly loaded floor slab	90	90
- Heavily loaded floor slab and thicker fill zones	92	95
<u>Beyond 10 ft of building lines</u>		
Under walks and pavements		
- Less than 2 ft below subgrade	92	95
- Greater than 2 ft below subgrade	90	90
Landscaping	85	90

Notes:

1. Based on Modified Proctor Dry Density (ASTM D 1557)

**VILLAGE OF GERMANTOWN
WASHINGTON COUNTY**

RESOLUTION NO. 61-2019

**WAIVER AND AGREEMENT RELATED TO CERTAIN VILLAGE RIGHTS FOR
PROPERTIES WITHIN WILLOW CREEK BUSINESS PARK TID #6**

WHEREAS, On January 22, 2019, MLG, transferred to BV Ryan Willow Creek II Owner, LLC, BV Ryan Property; and,

WHEREAS, the Waiver and Agreement for MLG Germantown Investment LLC and the Village of Germantown is attached which includes certain option rights which are waived for the benefit of BV Ryan; and

NOW, THERFORE BE IT RESOLVED that the Village of Germantown does Approve the attached Waiver and Agreement Related to Certain Village Rights for Properties within Willow Creek Business Park TID #6.

Introduced by: _____

Adopted: _____

Vote: Ayes: ____ Nays: ____

Dean M. Wolter, Village President

ATTEST:

Deanna B. Braunschweig, WCMC/CMC
Village Clerk

WAIVER AND AGREEMENT

THIS WAIVER AND AGREEMENT (this "Waiver") is entered into effective as of _____, 2019 by MLG Germantown Investment LLC ("Declarant") and Village of Germantown ("Village").

RECITALS

- A. MLG is Declarant under the Declaration of Protective Covenants for Willow Creek Business Park of Germantown, dated October 2, 2017, filed October 4, 2017 as Document No. 1439286 ("Declaration") which encumbers certain real property located in Germantown, Wisconsin and legally described on Exhibit A attached hereto (the "Property"), for the benefit of Declarant and the Village.
- B. On January 22, 2019, MLG transferred to BV Ryan Willow Creek II Owner, LLC, a Delaware limited liability company ("BV Ryan") certain real property as described in Exhibit B ("BV Ryan Property").
- C. Said Declaration created certain option rights (the "Option Rights") for the Declarant or the Village to repurchase the Property from the current owner under certain circumstances set forth in the Declaration under Section 9 thereof.
- D. Declarant and Village desire to waive the Option Rights for the benefit of BV Ryan, its successors and assigns.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is agreed as follows:

- 1. Capitalized Terms. Capitalized terms used herein and not otherwise defined have the meanings assigned to them in the Declaration.
- 2. Extension of Time to Commence Construction. The time period set forth in Section 9.01 requiring commencement of construction is hereby extended to August 15, 2020, and Declarant acknowledges and agrees that it cannot exercise the Commencement Option unless construction on the Ryan Property has not commenced as of such date. Declarant further acknowledges that in the event of force majeure that causes cessation of work on the Ryan Property, it will not exercise the Construction Option so long as the owner of the Ryan Property is using diligent efforts to restart construction at the Ryan Property.
- 32. Waiver of Right of First Refusal. The right of first refusal set forth in Section 9.03 of the Declaration is hereby waived by Declarant.
- 3. Ratification. Except as expressly set forth herein, the Declaration is hereby fully ratified and continues in full force and effect.
- 4. Counterparts. This Waiver may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned has caused this instrument to be executed the day and year first above written, intending to be legally bound thereby and warranting authority to execute the same.

MLG Germantown Investment LLC,
A Wisconsin limited liability company

By: _____
Title: _____

Village of Germantown

By: _____
Title: _____

ATTEST:

By: _____
Title: _____

STATE OF _____)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 2019 by _____, the _____ of MLG Germantown Investment LLC, a Wisconsin corporation, on behalf of said corporation.

Notary Public

STATE OF _____)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 2019 by _____, the _____ and _____, the _____ of Village of Germantown, Wisconsin and who executed the foregoing instrument and acknowledged the same as the act and deed of said entity.

Notary Public

Drafted by:
Ryan Companies US, Inc. (AEW)
533 South 3rd St. Suite 100
Minneapolis, MN 55415

[Waiver of Repurchase Option]

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY ENCUMBERED BY DECLARATION

BEGINNING at the Southeast corner of said Northeast 1/4 Section, thence North 89°56'02" West along the South line of said Northeast 1/4 Section 967.64 feet to a point; thence North 47°58'02" West 369.24 feet to a point; thence South 42°01'58" West 222.02 feet to a point on the centerline of Appleton Avenue (S.T.H. " 175"); thence North 46°45'05" West along said centerline 354.12 feet to a point; thence North 43°11'13" East along the Southeasterly line of Certified Survey Map No. 2911 and its extension 400.39 feet to a point; thence North 46°48'47" West along the Northeasterly line of said Certified Survey Map 448.35 feet to a point; thence South 88°46'35" West along the Northerly line of said Certified Survey Map 227.59 feet to a point; thence South 01°13'25" East 336.97 feet to a point on the centerline of Appleton Avenue (S.T.H. " 175"); thence North 46°45'05" West along said centerline 339.22 feet to a point; thence North 47°52'41" West along said centerline 411.36 feet to a point; thence North 01°18'32" West 1098.81 feet to a point; thence North 89°35'20" East 550.07 feet to a point on the West line of the East 35 acres of the West 1/2 of the Northeast 1/4 of Section 32; thence North 01°18'32" West along said West line 150.06 feet to a point; thence North 89°35'20" East 652.58 feet to a point; thence North 01°18'32" West 330.00 feet to a point on the North line of the Northeast 1/4 of Section 32; thence North 89°35'20" East along said North line 577.34 feet to a point; thence North 00°30'22" West 1307.93 feet to a point; thence North 89°45'33" East 15.16 feet to a point; thence South 01°04'05" East 696.98 feet to a point; thence North 89°38'41" East 509.45 feet to a point on the West line of Maple Road; thence South 00°21'19" East along said West line 610.45 feet to a point on the North line of the Northeast 1/4 of Section 32; thence North 89°35'20" East along said North line 79.99 feet to a point on the West line of Maple Road; thence South 01°29'48" East along said West line 336.09 feet to a point; thence North 89°35'20" East 50.01 feet to a point on the East line of the Northeast 1/4 of Section 3; thence South 01°29'48" East along said East line 1393.10 feet to a point; thence South 88°30'12" West 363.50 feet to a point; thence South 01°29'48" East 779.67 feet to a point; thence North 88°30'12" East 363.50 feet to a point on the East line of the Northeast 1/4 of Section 32; thence South 01°29'48" East along said East line 179.43 feet to the point of beginning. Containing 5,215,935 or 119.7414 acres of land.

EXHIBIT B

BV RYAN PROPERTY

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 as Document No. 1438853, being a 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 Township 9 North, Range 20 East, in the Village of Germantown, County of Washington, State of Wisconsin.

#

BUSINESS OF THE VILLAGE BOARD GERMANTOWN, WI

MEETING DATE: October 21, 2019

AGENDA ITEM: New Business [Ordinance & CSM]

ITEM TITLE: Conditional Use Permit (CUP) for Storage of Hazardous Chemicals within a Groundwater Protection Overlay Zoning District, & Certified Survey Map (CSM) to Combine Parcels for the Sigma Group, Inc., Agent for Glue Dots International and the Ellsworth Corporation, Property Owner - N117 W18711 Fulton Drive, W186 N11687 Morse Drive and W188 N11614 Maple Road

SUBMITTED BY: Jeffrey W. Retzlaff, Director, Community Development Department

SUMMARY EXPLANATION:

Tom Olejniczak, Harwood Engineering, agent for Glue Dots, is requesting approval of a Certified Survey Map (CSM) to combine three parcels owned by Glue Dots. In addition, Robert Peschel, PE, The Sigma Group, Inc, agent for Glue Dots is requesting approval of a Conditional Use Permit (CUP) for the Storage of Hazardous Chemicals within a Groundwater Protection Overlay Zoning District for the property located at W186 N11687 Morse Drive in the Germantown Industrial Park.

The proposed CSM and CUP are necessary for a proposed 68,387sqft addition to the existing Glue Dots facility. The Site Plan was conditionally approved by the Plan Commission on October 14, 2019, including: demolition of the existing 12,163 sqft Glue Factory facility; a 129-stall parking lot and on-site stormwater management infrastructure. This project will combine three existing Ellsworth Adhesives companies (Glue Dots International, The Glue Factory, and Heartland Adhesives) into one campus.

PLAN COMMISSION RECOMMENDATION:

APPROVE the Conditional Use Permit for Glue Dot International to allow the storage of Hazardous Chemicals within a Groundwater Protection Overlay Zoning District subject to two conditions.

APPROVE the Certified Survey Map (CSM) to create the 7.895-acre parcel subject to one condition.

APPLICATION, PLANS & RELATED DOCUMENTS:

All relevant documents, including applications, plans, supporting information, the staff report & recommendation, Plan Commission meeting minutes (when available), draft ordinance and resolution are included in the PDF digital file distributed by the Village Clerk.

CUP #__ – 19

Document No.

CONDITIONAL USE PERMIT

Document Title

**VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN
CONDITIONAL USE ZONING PERMIT**

Whereas the Applicants:

**Glue Dots International (Operator) and Ellsworth
Adhesives (Property Owner)**

agrees to comply with applicable Codes and Ordinances of the Village of Germantown, Wisconsin, and further agrees that all work done pursuant to the permission granted herewith will conform with the applications and drawings filed with and approvals granted by officials of the Village for the purpose of obtaining this permit.

Now, therefore, this permit is issued to the Property Owner and Operator for the development and operation of facility used for the bulk storage of flammable hazardous and non-flammable non-hazardous liquid materials pursuant to Section 17.40(11) of the Village's Zoning Code.

Name & Return Address:

**Village of Germantown
P.O. Box 337
Germantown, WI 53022**

Parcel Identification No:

**GTNV 212-972,
212-955, 212-996****On the following described property located in the Village of Germantown,
Washington County, Wisconsin:**

Lot 1 of Certified Survey Map No. 3266 and Lot 1 of Certified Survey Map No. 4116 located in that part of the northwest 1/4 of Section 25, Town 9 North, Range 20 East, in the Village of Germantown, County of Washington, State of Wisconsin.

Part of the southwest 1/4 of the northwest ¼ of Section 21, Town 9 North, Range 20 East, as described in Document No. 1435599, Village of Germantown, Washington County, Wisconsin.

Tax Key No. GTNV 212-972, GTNV 212-955, & GTNV 212-996.

Pursuant to the following condition(s):

1. The applicant shall submit a final Environmental Assessment to the Village upon completion of the building expansion design and the geotechnical report.
2. The applicant shall submit a final business, operational and contingency plan to the Fire Department for review and approval within ninety (90) days after CSUP approval.
3. If the use, activities and/or operation subject of this permit falls out of conformity with the conditions herein, or where there is a change in the nature, character, intensity or extent of the permitted conditional uses and activities which cause special problems or harmful effects associated with the permitted uses and activities that were not revealed or anticipated at the time this CUP was granted, or, where conditions imposed by this CUP that were anticipated to mitigate or eliminate harmful effects associated with the uses and activities but are subsequently insufficient to do so, or, for similar cause based upon consideration for the public comfort, safety, and welfare, this conditional use permit may be terminated or modified by the Village Board by the amendment to or addition of conditions after public hearing thereon.

CUP # ____-19

Glue Dots International, Operator, Ellsworth Adhesives, Property Owner

Village of Germantown, Washington County, Wisconsin

Page 2 of 4

Granted by the Village Board of the Village of Germantown, Washington County, Wisconsin
on the ____ day of _____, 2019.

Dean Wolter, Village President

ATTEST:

Deanna B. Braunschweig, WCMC/CMC, Village Clerk

STATE OF WISCONSIN) SS
WASHINGTON COUNTY)

Personally came before me this ____ day of _____, 2019, the above
named Dean Wolter, Village President, and Deanna B. Braunschweig, Village Clerk, to me
known to be the persons who executed the foregoing instrument and acknowledged the same.

{type or print name of Notary on this line}

{signature of Notary on this line}

Notary Public, State of Wisconsin

My Commission Expires: _____

CUP # ____-19

Glue Dots International, Operator, Ellsworth Adhesives, Property Owner

Village of Germantown, Washington County, Wisconsin

Page 3 of 4

ACCEPTANCE OF TERMS AND CONDITIONS BY OPERATOR

As business operator and agent for the property owner I hereby accept the terms and conditions set forth herein and realize that non-adherence to the terms and conditions as stated herein may result in the revocation of this Permit by the Village of Germantown.

Dated this ____ day of _____, 2019

Erica Roberts, Agent for Glue Dots International, Operator

STATE OF WISCONSIN) SS
_____) COUNTY)

Personally came before me this ____ day of _____, 2019, being the above named _____, to me known to be the person who executed the foregoing instrument and acknowledged the same.

{type or print name of Notary on this line}

{signature of Notary on this line}
Notary Public, State of Wisconsin
My Commission Expires: _____

CUP # ____-19

Glue Dots International, Operator, Ellsworth Adhesives, Property Owner

Village of Germantown, Washington County, Wisconsin

Page 4 of 4

ACCEPTANCE OF TERMS AND CONDITIONS BY PROPERTY OWNER

As property owner, I hereby accept the terms and conditions set forth herein and realize that non-adherence to the terms and conditions as stated herein may result in the revocation of this Permit by the Village of Germantown.

Dated this ____ day of _____, 2019

Erica Roberts, Agent for Ellsworth Adhesives, Property Owner

STATE OF WISCONSIN) SS
_____) COUNTY)

Personally came before me this ____ day of _____, 2019, being the above named _____, to me known to be the person who executed the foregoing instrument and acknowledged the same.

{type or print name of Notary on this line}

{signature of Notary on this line}
Notary Public, State of Wisconsin
My Commission Expires: _____

This instrument was drafted by:
Jeffrey W. Retzlaff, AICP
Community Development Director/Village Planner/Zoning Administrator

Village of Germantown, Wisconsin

**CERTIFIED SURVEY MAP (CSM),
CONDITIONAL USE PERMIT & SITE PLAN APPLICATIONS**
10/14/19 Plan Commission Meeting

**JAKnetter Architects, Inc. / Harwood Engineering /
The Sigma Group, Inc / Glue Dots International**

Village Planner Report

Germantown, Wisconsin

Summary

Tom Olenjniczak, Harwood Engineering, agent for Glue Dots International, is requesting approval of a Certified Survey Map (CSM) to combine three parcels into one; Robert Peschel, PE, The Sigma Group, Inc, agent for Glue Dots International is requesting approval of a Conditional Use Permit (CUP); and Jay Knetter, JAKnetter Architects, Inc, agent for Glue Dots International is requesting approval of Site Development and Building plans for the property located at W186 N11676 Morse Drive in the Germantown Industrial Park.

Location: East of Maple Road, south of Fulton Drive, and west of Morse Drive
N117 W18711 Fulton Drive & W186 N11676 Morse Drive, Germantown

Property Owner: Glue Dots International
Erica Roberts
N117 W18711 Fulton Drive
Germantown, WI

Current Zoning: M-1: Industrial

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Institutional (Fire Station)	I
East	Industrial	M-1
West	Industrial	M-1



Background/Proposal

Glue Dots International is requesting approval of a Certified Survey Map (CSM) to combine three parcels into one, approval of a Conditional Use Permit (CUP), and approval of Site Development and Building plans for the expansion of the property located at W186 N11676 Morse Drive in the Germantown Industrial Park.

Glue Dots International is a subsidiary of Ellsworth Adhesives and a specialty manufacturer focused on pressure sensitive and hotmelt adhesives, converting services, and instant adhesive products for the industrial, commercial, and consumer market. This project will combine three existing Ellsworth Adhesives companies (Glue Dots International, The Glue Factory, and Heartland Adhesives) into one campus. Glue Dots International currently has 50 employees operating Monday through Friday. The proposed expansion would allow for 10 additional positions to be added. Details of each application are provided below.

Certified Survey Map (CSM)

The proposed CSM combines three parcels into one 7.8951-acre parcel. This will allow the existing building on the north side of the property to be enlarged with an addition on to the south.

Conditional Use Permit (CUP)

Glue Dots International is requesting a CUP for the storage of Hazardous Chemicals within a Groundwater Protection Overlay Zoning District (as required by Chapter 17.40.11). The Germantown Groundwater Technical Review Committee met on September 10, 2019. The Glue Dots International Site is located within the Wellhead Protection Area for Well #5 and Well #7, which are recharge areas for municipal water supply wells. Application documents submitted include:

- a) *A site plan map with all building and structure footprints, driveways, sidewalks, parking lots, stormwater management structures, groundwater monitoring wells, and 2-foot ground elevation contours.*
- b) *A business plan and/or other documentation which describes in detail the use, activities, and structures proposed.*
- c) *An environmental assessment report prepared by a licensed environmental engineer which details the risk to, and potential impact of, the proposed use, activities, and structures on groundwater quality.*
- d) *An operational safety plan, which details the operational procedures for material processes and containment, best management practices, stormwater runoff management, and groundwater monitoring.*
- e) *A contingency plan which addresses in detail the actions that will be taken should a contamination event caused by the proposed use, activities, or structures occur.*

Site Development & Building Plans

Detailed site development and building plans have been prepared for the proposed 68,387-square foot addition to the existing building on the north portion of the property. This project will include the demolition of an existing 12,163-square foot facility located on the property (The Glue Factory). As detailed in the plans, the site and building will have the following characteristics:

Site Improvements

- Construction of parking along the west side of the proposed addition, totaling 129 spaces on the entire site, including 5 ADA Compliant spaces near the entrance to the new office area
- A right-turn only access drive off of Maple Road, with signage
- New driveway access off of Morse Drive for access to an overhead door on the east façade of the proposed building
- Construction of a stormwater basin in the southwest corner of the site
- Installation of a retaining wall near the west property line, east of Maple Road, and along the northeast edge of the stormwater basin, and landscaping near the parking lot and building foundation
- Tanker off-load station
- Exterior Dust Collection and Chiller
- Exterior Nitrogen Storage Tank on the east side of the proposed addition

Building Improvements

- 68,387-square foot two-story addition (resulting in a 129,639-square foot building footprint) including:
 - o 2-story office area (totaling 12,006 square feet)
 - o 2,150-square foot mezzanine
- Painted load-bearing precast panels which match the painting scheme of the existing building pre-cast concrete wall panels w/ smooth finish (29' parapet and 32' max wall height)
- Decorative metal panels
- Six (6) elevated shipping docks and two (2) overhead doors (south elevation)
- At-grade overhead door along east elevation of proposed addition
- Roof-mounted and screened mechanicals

Storm Water Management. A total of 88,949.52 square feet of impervious surfaces are proposed to be added to the site as part of the proposed site improvements. The total area of impervious surface on the site will be 5.196 acres or 226,338 square feet or 66.5% of the total 7.814 acres leaving 33.5% of the site as pervious surface/open space. A wet detention basin is proposed for the southwest corner of the site, along Maple Road. Storm sewer, catch basins, overflow routes, and outlet control are provided with connections to this basin. A total of 4.451 acres of area will be disturbed for this project. The submitted Erosion Control Plan includes silt filter fence, erosion control matting in graded areas and swales, and soil stabilization.

Landscaping & Buffering. Landscaping is proposed along the east, west and south sides of the proposed building addition. To the extent possible existing trees will be maintained. and within the parking area. Plantings include a variety of deciduous street and shade trees, ornamental trees, evergreen trees, deciduous and evergreen shrubs, perennial plantings and ornamental grasses.

Lighting. Additional exterior lighting of the site and building includes:

- (9) LED cut-off style pole-mounted fixtures mounted on a 22' pole with 3' base (total height: 25') for parking lot illumination
- (8) LED cut-off style wall-mounted fixtures illuminating the loading dock area
- (6) LED Downlight & Wall Wash under canopy at the primary employee/visitor

entrance.

- (5) LED Bollard style (cut-off) light fixtures near the office entrance
- (7) LED cut-off style wall pack on west, south, and east sides of the building
- (2) LED landscaping/sign illuminating fixtures

Signage. A monument sign “placeholder” is shown in the west side of the site along Maple Road. A separate sign permit application, meeting the requirements of Chapter 17.46, shall be submitted for all proposed signage.

Staff Comments

Community Development: Planning & Zoning

The Village’s Wellhead Protection regulations (Section 17.40 of the Zoning Code) were adopted in 2010. With respect to existing businesses located within a Wellhead Protection Zone, as in the case of Glue Dots International, the Glue Factory and Heartland Adhesives (all existing businesses to be combined into one facility), the Village is effectively obligated to issue a CUP provided such businesses provide a business plan, environmental assessment, operational safety plan, and a contingency plan (including spill prevention/containment) to the Village. As indicated in the CUP application materials, Geotechnical Soil Borings were completed on the Glue Dots Site on September 13, 2019. At this time, the environmental assessment report is not complete, but will be following completion of the building expansion design and the geotechnical report. The operational safety and contingency plans will need to be approved by the Fire Department.

Additional landscaping along the west, south, and southeast property lines was requested by Planning staff and provided in a revised set of drawings.

The proposed parking spaces should be a minimum of 180 square feet in size. The site plan should be updated to reflect compliance with this requirement.

Final specifications for the proposed nitrogen tank (current estimated height is 10’6”), chiller and dust collector systems have not been submitted. This information must be submitted prior to approval of a building permit. The proposed screening for this area will include a 7’ tall privacy fence with landscape screening on the east side of the tanker off-load access drive.

Public Works/ Village Engineer/Village Surveyor

The Village Engineer and Public Works Department staff have identified several technical issues and plan revisions that need to be resolved or otherwise addressed by the Developer prior to commencing construction activities and issuance of a building permit. Consequently, Staff is recommending conditional approval of the site development and building plans subject to all of the outstanding items and issues identified in the following review memos being resolved and reflected in additional information and/or revised plans submitted to Staff for further review, comment and approval prior to commencing any site construction and prior to issuance of a building permit for the proposed Glue Dots facility:

- August 26, 2019 memo from Village Surveyor
- September 30, 2019 memo from Village Engineer

Fire & Police Departments

1. One approved fire hydrant per village water utility standards shall be installed in the SE corner of the trucking lot.
2. Location of FDC to be approved by GFD.
3. Additional fire alarm annunciator may be required. Fire alarm equipment locations to be approved by GFD.
4. H-3 occupancy locations require emergency operational plan prior to occupancy.
5. Backup emergency power or communications may be required in H-3 areas.
6. Additional Knox box required at new fire protection room.
7. A Knox Box shall be installed at a location to be determined by GFD.
8. Fire sprinkler and alarms are required by IBC based on occupancy class.
9. All exterior doors (except primary entrance) shall be clearly marked with reflective 5" or larger letters/numbers to aid emergency personnel access.

Community Development: Inspection Services

Inspection Services has indicated that the submission of state-approved plans will be required prior to issuing a building permit along with the required \$20,000 occupancy bond.

VILLAGE PLANNER RECOMMENDATION*Conditional Use Permit (CUP)*

APPROVE a Conditional Use Permit for Glue Dot International to allow the storage of Hazardous Chemicals within a Groundwater Protection Overlay Zoning District subject to the following conditions:

1. The applicant shall submit a final Environmental Assessment to the Village upon completion of the building expansion design and the geotechnical report.
2. The applicant shall submit a final business, operational and contingency plan to the Fire Department for review and approval within ninety (90) days after CSUP approval.

VILLAGE PLANNER RECOMMENDATION:*Certified Survey Map (CSM)*

APPROVE the Certified Survey Map (CSM) to create the 7.895-acre parcel subject to the following conditions:

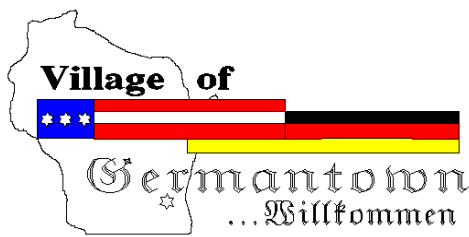
1. The CSM shall be revised to reflect the Village Surveyor comments contained in the August 26, 2019 review memo prior to recording the CSM.

VILLAGE PLANNER RECOMMENDATION:

Site Development & Building Plans

APPROVE the site development and building plans for the 7.8951-acre Ellsworth (Glue Dots International) property and the 68,387-square foot addition to the existing building located at N117 W18711 Fulton Drive 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. *Architectural and civil plans for Glue Dots International submitted October 10, 2019 (revised);*
 - b. *Landscaping plans dated October 10, 2019 (revised);*
 - c. *Lighting plans dated October 10, 2019 (revised).*
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 commencing construction or issuance of a building permit for the Glue Dots International facility addition.
 - a. *September 30, 2019 memo from Village Public Works Director*
5. State approved plans and a \$20,000 occupancy bond are required by the Building Inspection Department as part of the building permit application.
6. Prior to the issuance of a building permit, a revised site plan shall be submitted to show compliance with the parking stall minimum size of 180 square feet.
7. Final specifications for the proposed nitrogen tank, chiller and dust collector systems shall be submitted prior to the issuance of a building permit.



Engineering Department Memorandum

To: Jeff Retzlaff Village Planner

CC:

From: Bob Beilfuss, PLS, Village Surveyor

Date: August 26, 2019

Re: Glue Dots CSM

Jeff,

Here are my review comments for the CSM received 8-20-2019.

Certified Survey Map

Applicant or Owner: Glue Dots International

Land Surveyor/Firm: Mike Berry, PLS – Capitol Survey Enterprises

1. A notary signature block is required for all signatures including Village plan commission and Board approval certificates. Please add the notary signature blocks as needed.
2. Incorrect Planning Commission Secretary's name on the Village Planning Commission Certificate. The correct secretary's name is Laura A. Johnson.
3. Add the name and title of the corporate officer signing the Corporate Owner's Certificate.
4. There are two (2) misspelling of the word "Germantown" in the Corporate Owner's Certificate. These need to be replaced.
5. What will the status of the existing masonry building be located at W186 N11687? Will that building be razed or absorbed into the new addition? Please place the new status of the building on Sheet 1 of 3.
6. Show original lot lines of Lot 1 of Certified Survey Map No. 3266, Lot 1 and Outlot 1 of Certified Survey Map No.4116 as a screened or dashed linetype.

No further review comments.

Document Approval and Recording

For this CSM to be approved by the Village Board and recorded at the Washington County Register of Deeds, the document must be provided to the Village Clerk's office in a completed format including all original signatures of the owner and lending institution, original seals of the professional land surveyor on the recordable media the Wednesday prior to the scheduled Village Board meeting.

This includes the CADD file.

Any documents or digital files not submitted by the due date or contain outstanding technical review comments that have not be addressed, will be moved to the next scheduled Village Board meeting agenda.

Document Submittals and Data Conversion

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

Prior to Recording the Certified Survey Map or Subdivision Plat, The professional land surveyor is responsible for submitting a copy of the AutoCad drawing file (.dwg) of the document in version 2018 on compact disk (CD) or via email to the Village Surveyor.

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

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

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

September 16, 2019

Project Reference #18858

Via email: jretzlaff@village.germantown.wi.us

Groundwater Technical Review Committee
c/o Mr. Jeff Retzlaff, Village Planner
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

**Subject: Environmental Assessment Report
Glue Dots International Building Expansion
N117W18711 Fulton Drive
Germantown, WI 53022**

Dear Committee Members:

The Glue Dots International (GDI) facility located at N117W18711 Fulton Drive, Germantown, WI, submitted their proposed building expansion project to the Village of Germantown Plan Commission on August 19, 2019. After submitting to the Plan commission, GDI was informed by the Village of Germantown that GDI is subject to the Wellhead Protection Ordinance because the facility is located within the Village's Groundwater Protection Overlay District for Well #5 and Well #7 and because the facility uses Hazardous chemical identified by OSHA criteria, 40 CFR 370. Accordingly, a Conditional Use Permit (CUP) is required.

In accordance with Village of Germantown City Ordinance #15-10 Wellhead Protection 17.40 established by the Wisconsin Legislature in § 62.23(7)(a) and (c), Wisconsin Statue, on behalf of Glue Dots International (GDI), The Sigma Group, Inc. (Sigma) has prepared a Conditional Use Permit (CUP) Application including supporting documentation defined in 17.40.11(3) for the proposed GDI building expansion project. Supporting documentation defined in 17.40.11(3) includes the following:

- a) *A site plan map with all building and structure footprints, driveways, sidewalks, parking lots, stormwater management structures, groundwater monitoring wells, and 2-foot ground elevation contours.*
- b) *A business plan and/or other documentation which describes in detail the use, activities, and structures proposed.*
- c) *An environmental assessment report prepared by a licensed environmental engineer which details the risk to, and potential impact of, the proposed use, activities, and structures on groundwater quality.*
- d) *An operational safety plan, which details the operational procedures for material processes and containment, best management practices, stormwater runoff management, and groundwater monitoring.*
- e) *A contingency plan which addresses in detail the actions that will be taken should a contamination event caused by the proposed use, activities, or structures occur.*

The Site Plan Map was previously submitted on August 19, 2019 as the part of the Plan Commission Submittal; C1.20 – Grading Plan C1.50 – Existing Survey are provided as attachments to this CUP application to satisfy item 17.40.11(3)(a).

Sigma has prepared a Business, Operational Safety, and Contingency Plan to satisfy items 17.40.11(3)(b), (d), and (e). Sigma has also prepared a draft Environmental Assessment Report to satisfy item 17.40.11(3)(c). The Business, Operational safety, and Contingency Plan and the draft Environmental Assessment Report are included in the CUP application.

Currently, GDI is working with engineering and architectural consultants to finalize design details and conduct a geotechnical evaluation. Geotechnical soil borings were completed at the Site on September 13, 2019. GDI is currently waiting to receive the geotechnical report. GDI intends to finalize building expansion project design by mid-November. Additionally, Sigma is working on retrieving well construction information for Well #7. Therefore, Sigma will not finalize the environmental assessment report, included in the CUP Application until all the proposed building expansion design is finalized and the geotechnical report is reviewed.

Per conversation with the Village of Germantown Groundwater Technical Review Committee on September 10, 2019, the draft CUP is to be submitted by September 18, 2019 and is to be finalized within 90 days of draft submittal.

Please call or contact us should you have any questions or require additional information.

Respectfully submitted,

THE SIGMA GROUP, INC.



Robert Peschel, PE
Senior Project Manager
414.643.4150
rpeschel@thesigmagroup.com



Morgan Schroeder
Staff Engineer
414. 643.4103
mschroeder@thesigmagroup.com

cc: Erica Roberts – Glue Dots International

Attachment: Conditional Use Permit Application



Village of



Fee must accompany application

☒ \$1460 Paid _____ Date 9/16/19

CONDITIONAL USE PERMIT APPLICATION

Pursuant to Section 17.42 of the Municipal Code

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

1 APPLICANT OR AGENT

Robert Peschel, PE

The Sigma Group, Inc

1300 West Canal Street

Milwaukee, WI

Phone (414) 643-4150

Fax (414) 643-4210

E-Mail rpeschel@thesigmagroup.com

PROPERTY OWNER

Erica Roberts

Glue Dots International

W186 N11676 Morse Drive

Germantown, WI

Phone (262) 437-7885

eroberts@gluedots.com

2 TO WHOM SHOULD THE PERMIT BE ISSUED?

Glue Dots International

3 PROPERTY ADDRESS

W186 N11676 Morse Drive, Germantown, WI

TAX KEY NUMBER

212972; 212955; 212996

4 DESCRIPTION OF EXISTING OPERATION

Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant." Use additional pages as necessary.

The GDI site currently includes three parcels and two buildings; the 61,252 SF GDI facility, located at N117W18711 Fulton Drive, Germantown, WI and the 12, 163 SF Glue Factory building located at W186N11687 Morse Drive, Germantown. GDI is an adhesive manufacturer with 50 employees at the current GDI facility. The GDI facility operates Monday through Friday.

5 DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code.

Chemical Manufacturers (Standard Industrial Classification major Group 28)

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations. GDI's site currently includes three parcels to be combined into one Certified Survey Map. It is proposed that the Glue Factory building will be demolished and the existing GDI facility be expanded to include a 68,387 SF building addition. The GDI building expansion project would result in a total footprint of 129,639 SF The proposed expansion will employ 10 additional employees and will operate Monday through Friday.

METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY — REQUIRED

6

Attach pages as necessary.

N117W18711 Fulton Drive, Germantown
Tax Parcel ID number: 212972
4.35-acres
PT of NW CSM 3266 Lot 1 V1412 P348

W186N11687 Morse Drive, Germantown
Tax Parcel ID number: 212955
2.62-acres
PT of SW NW Lot 1 CSM 4298 V1424 P447

W188N11614 Maple Road, Germantown
Tax Parcel ID number: 212996
1.00-acres
PT of SW NW DOC 1435599

SUPPORTING DOCUMENTATION:

7

- ☒ Site plan and elevations for new construction (can be conceptual)
- ☐ Photos of existing use and/or proposed use operating elsewhere
- ☒ Draft Environmental Assessment Report
- ☒ Business, Operational Safety, and Contingency Plan

READ AND INITIAL THE FOLLOWING:

8

EIR I understand that the Village is under no obligation to issue a Conditional Use Permit and will do so only if the applicant successfully demonstrates that the proposed use is harmonious with the neighborhood and the long range goals of the Village.

EIR I will notify the Village if any aspect of the conditional use changes. I understand that failure to do so may result in the revocation of the CUP.

EIR I understand that a Conditional Use Permit is valid only if the conditions and restrictions of the permit are met. I understand that failure to comply with any aspect of the permit may result in revocation.

SIGNATURES — ALL APPLICATIONS MUST BE SIGNED BY OWNER!

9

Robert Rosch 9/16/2019
Applicant Date

Erica K. Rold 9/16/19
Owner Date

**GLUE DOTS INTERNATIONAL
GERMANTOWN, WISCONSIN
LEGAL DESCRIPTION**

September 2019

N117W18711 FULTON DRIVE, GERMANTOWN

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, PART OF THE NW 1/4 OF SECTION 21, T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

4.35-ACRES

TAX PARCEL ID NUMBER: 212972

W186N11687 MORSE DRIVE, GERMANTOWN

LOT 1 OF CERTIFIED SURVEY MAP NO. 4116, PART OF THE NW 1/4 OF SECTION 21, T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

2.62-ACRES

TAX PARCEL ID NUMBER: 212955

W188N11614 MAPLE ROAD, GERMANTOWN

PART OF THE SW 1/4 OF THE NW 1/4 OF SECTION 21, T9N, R20E, AS DESCRIBED IN DOCUMENT NO. 1435599, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

1.00-ACRES

TAX PARCEL ID NUMBER: 212996

CONSULTANT



PROJECT INFORMATION:

GLUE DOTS
INTERNATIONAL
BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION
SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION
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19 AUGUST 2019

PROJECT NUMBER PROJECT MANAGER

EXISTING SURVEY

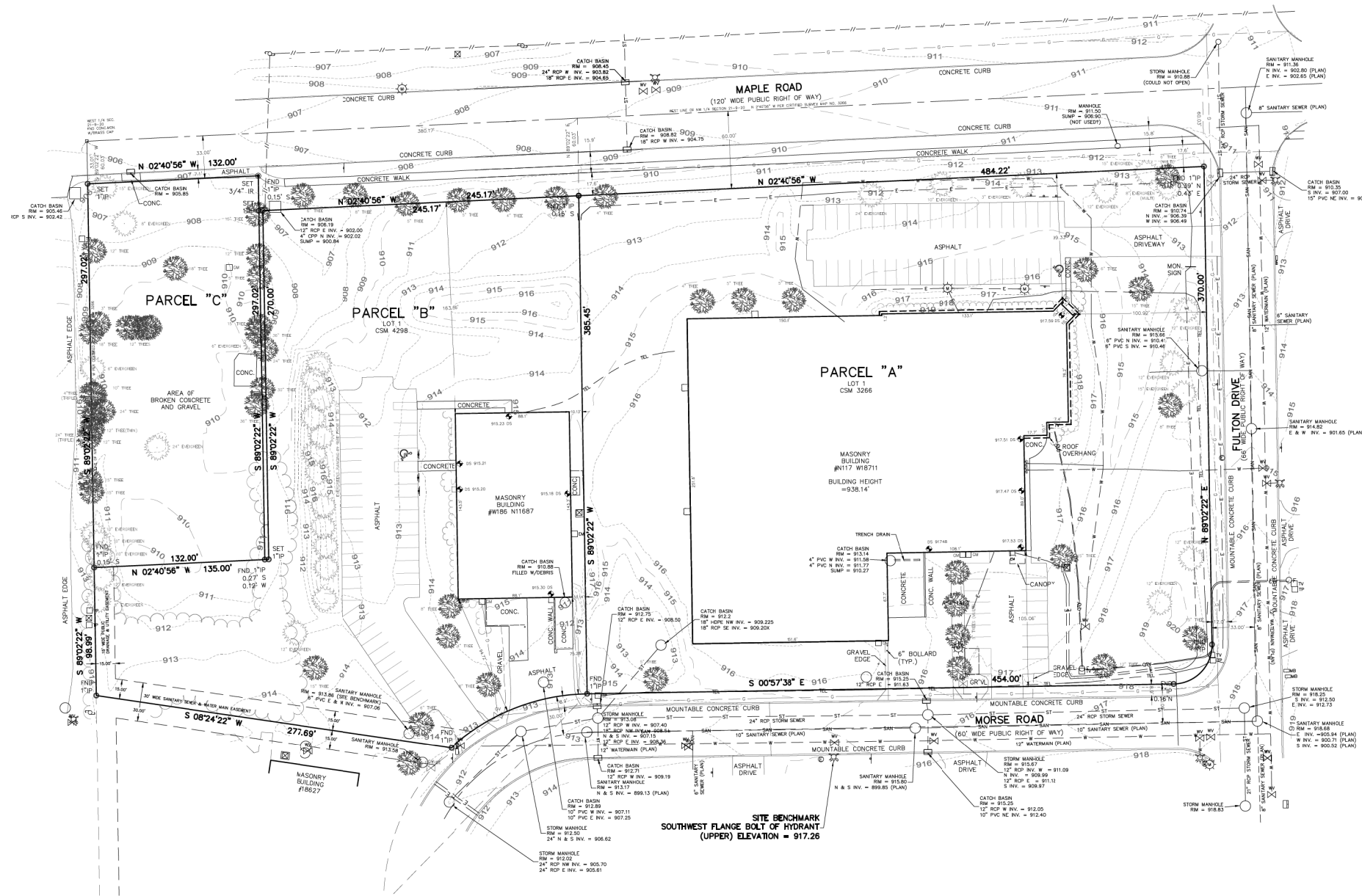
SCALE: 1" = 40'

C1.50

©JAKnetter
Architects



CAPITOL SURVEY ENTERPRISES
220 REGENCY CT. STE. 210
BROOKFIELD, WI 53045
PH: (262) 786-6600
FAX: (414) 786-6608
WWW.CAPITOLSURVEY.COM



LEGEND	
— SAN —	SANITARY SEWER
— ST —	STORM SEWER
— W —	WATER MAIN
— TEL —	BURIED TELEPHONE LINE
— E —	BURIED ELECTRIC LINE
— FO —	BURIED FIBER OPTIC LINE
— UT —	UTILITY FILE
— CO —	CONCRETE SEWER
— M —	METAL FENCE
— P —	EDGE OF TREES AND BRUSH
— 104-32 —	DOOR SILL ELEVATION
— 104 —	FILE DEPARTMENT CONNECTION
— E —	ELECTRIC TRANSFORMER
— M —	ELECTRIC METER
— E —	ELECTRIC FEEDER
— E —	TELEPHONE BOX AT GRADE
— E —	TELEPHONE FEEDER
— E —	TV FEEDER
— E —	CABLE SEWER
— E —	AIR CONDITIONER
— E —	UTILITY FILE
— E —	METAL SIGN
— E —	WOOD SIGN
— E —	FLUOR PLATE
— E —	BOLLARD
— E —	YARD LIGHT
— E —	WATER VALVE
— E —	GAS VALVE
— E —	MANHOLE
— E —	STORM MANHOLE
— E —	CATCH BASIN
— E —	CURB INLET
— E —	METAL LIGHT POLE
— E —	CONCRETE LIGHT POLE
— E —	WOOD LIGHT POLE
— E —	WOOD SIGN
— E —	FIBER OPTIC WAREHOUSE
— E —	DUTY WIRE

PLAT OF SURVEY WITH TOPOGRAPHY
FOR

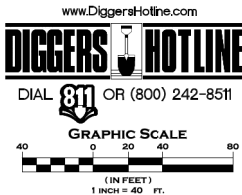
GLUE DOTS
W186 N11676 MORSE DRIVE
GERMANTOWN, WI

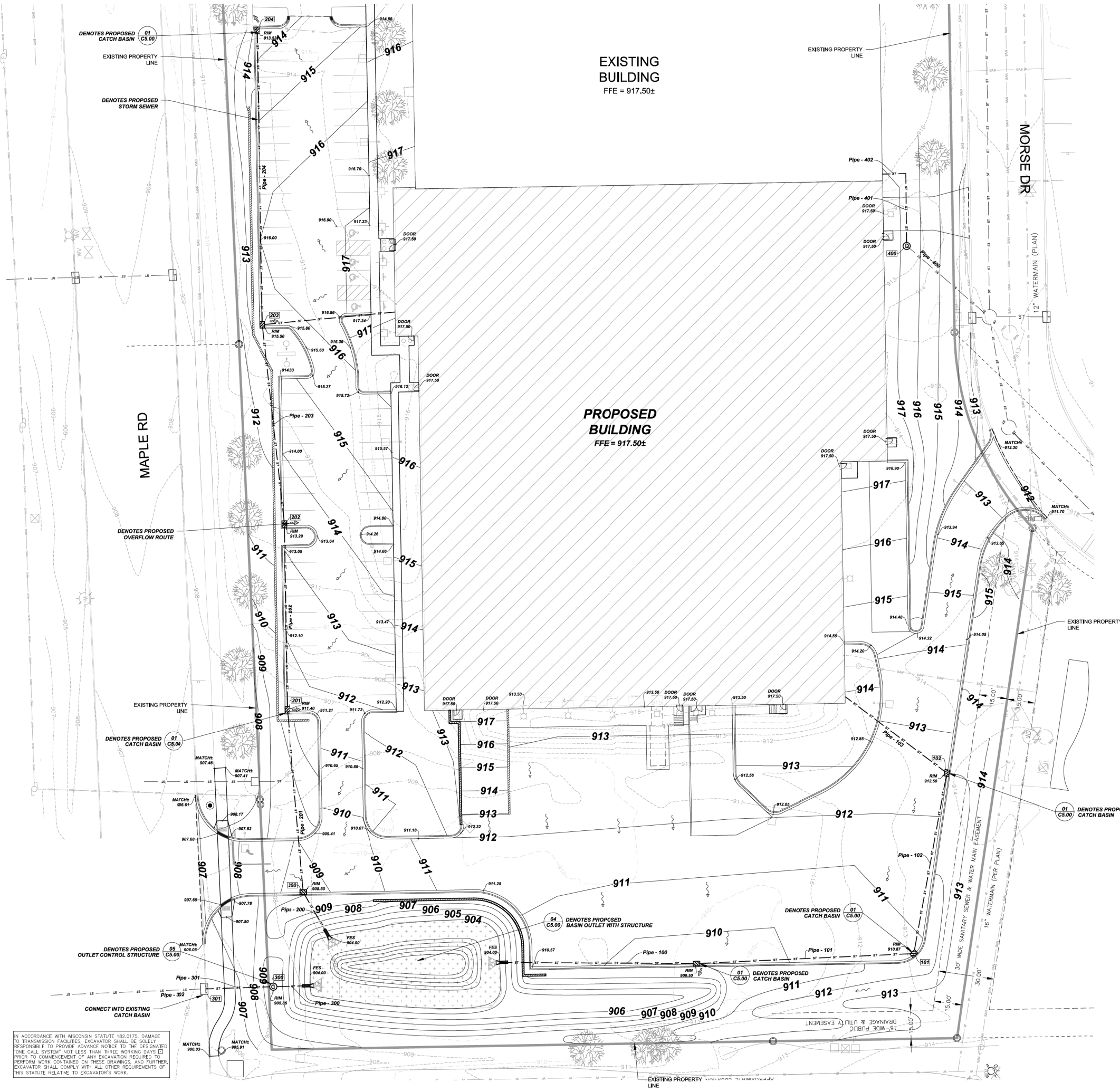
DRAWN BY:	NJF	DATE:	APRIL 30, 2019
CHECKED BY:	MJB	DRAWING NO.:	P - 1
CSE JOB NO.:	12 - 064	SHEET	1 OF 1

I CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY, AND THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION AND DIMENSIONS OF ALL VISIBLE STRUCTURES THEREON, BOUNDARY FENCES, APPARENT EASEMENTS AND ROADWAYS AND VISIBLE ENCROACHMENTS, IF ANY. THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE PRESENT PROPERTY, AND ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THEREIN, WITHIN ONE (1) YEAR FROM DATE THEREOF.

APRIL 30, 2019
DATE

MICHAEL J. BERRY
S-2545
BROOKFIELD, WI
REGISTERED LAND SURVEYOR S-2545





Storm Structure Table	
#	Structure Details
100	CATCH BASIN - CURB RIM = 906.50 Pipe - 101 = 905.06 Pipe - 100 = 905.06
101	CATCH BASIN - CURB RIM = 910.87 Pipe - 102 = 906.23 Pipe - 101 = 906.23
102	CATCH BASIN - CURB RIM = 912.50 Pipe - 102 = 907.22 Pipe - 103 = 907.22
200	CATCH BASIN - CURB RIM = 908.50 Pipe - 201 = 904.27 Pipe - 200 = 904.27
201	CATCH BASIN - CURB RIM = 911.40 Pipe - 202 = 905.26 Pipe - 201 = 905.26
202	CATCH BASIN - CURB RIM = 913.29 Pipe - 203 = 906.26 Pipe - 202 = 906.26
203	CATCH BASIN - CURB RIM = 915.50 Pipe - 204 = 907.34 Pipe - 203A = 905.34 Pipe - 203 = 907.34
204	CATCH BASIN - CURB RIM = 913.53 Pipe - 204 = 908.92
300	OUTLET CONTROL STRUCTURE (SEE DETAIL) RIM = 906.90 Pipe - 300 = 904.00 Pipe - 301 = 904.00
301	EXISTING CATCH BASIN - CURB RIM = 905.92 Pipe - 301 = 903.00 Pipe - 302 = 902.10
400	CATCH BASIN (3' DIA) RIM = 912.26 Pipe - 400 = 909.02 Pipe - 401 = 909.89

Storm Pipe Table				
Pipe Name	Size	Material	Length	Slope Description
Pipe - 100	12	PVC	106	1.00%
Pipe - 101	12	PVC	117	1.00%
Pipe - 102	12	PVC	99	1.00%
Pipe - 103	12	PVC	68	1.00%
Pipe - 200	12	PVC	27	1.00%
Pipe - 201	12	PVC	99	1.00%
Pipe - 202	12	PVC	100	1.00%
Pipe - 203	12	PVC	108	1.00%
Pipe - 203A	12	PVC	72	3.70%
Pipe - 204	12	PVC	158	1.00%
Pipe - 300	12	PVC	20	0.00%
Pipe - 301	12	PVC	37	2.88%
Pipe - 302	24	RCP	34	1.00% Existing Pipe
Pipe - 400	18	RCP	55	0.95% Existing Pipe
Pipe - 401	18	PVC	39	1.00%
Pipe - 402	18	PVC	13	1.00%



N116 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262.513.9800 | fax 262.513.9815



CONSULTANT



PROJECT INFORMATION:

GLUE DOTS
INTERNATIONAL
BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

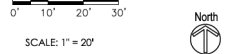
PLAN COMMISSION
SUBMITTAL

REVISIONS		
#	DATE	DESCRIPTION

19 AUGUST 2019

PROJECT NUMBER PROJECT MANAGER

GRADING PLAN



C1.20

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Architects



IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE-CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

September 16, 2019

Project Reference #18858

Groundwater Technical Review Committee
c/o Mr. Jeff Retzlaff, Village Planner
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

**Subject: Draft Environmental Assessment Report
Glue Dots International Building Expansion
N117W18711 Fulton Drive
Germantown, WI 53022**

Dear Committee Members:

On behalf of Glue Dots International (GDI), The Sigma Group, Inc. (Sigma) has prepared this Draft Environmental Assessment Report for the proposed GDI Building Expansion project at the above-referenced property (the "Site").

The Site is located within the Wellhead Protection Area (WPA) for Village of Germantown Well #5 and Well #7 as established by Section 17.40, Germantown Code "Wellhead Protection Ordinance" (copy provided in **Attachment A**). Additionally, the site is also located in proximity to Village of Germantown Well #3.

Accordingly, a Conditional Use Permit (CUP) from the Village of Germantown is required for the proposed building addition construction. This document is intended to satisfy Section 17.40.11(3)(c) of the Germantown Code ("An environmental assessment report prepared by a licensed environmental engineer which details the risk to, and potential impact of, the proposed use, activities, and structures on groundwater quality.") and to be incorporated and submitted with other documents required in the Code to obtain the CUP for this project.

BACKGROUND INFORMATION

Project Site

The Site is located in the southwest ¼ of the northwest ¼ of Section 21, Township 9 North, Range 20 East in the Village of Germantown, Washington County, Wisconsin. Please see attached **Figure 1 Site Location Map** and **Figure 2 Site Plan Map**.

The GDI site is located within the Wellhead Protection Area for Well #5 and Well #7, an area of the Village of Germantown that lies within the recharge areas for municipal water supply wells, as defined in subsection 17.40.05 of City Ordinance #15-10 Wellhead Protection. Therefore, the GDI facility is subject to the regulations specified in the Wellhead Protection Ordinance, as previously stated. Please see **Attachment B - Village of Germantown Figure 1 – Wellhead Protection Areas**.

Figure 3 – Site Vicinity Map shows the location of Germantown Well #3, Well #5, and Well #7 in relation to the location of the GDI site. Well #5 and Well #7 are adjacent to each other and are located approximately

6,000 feet southeast of the Site. Well #3 is located approximately 2,100 feet east of the Site, and but it not located within its wellhead protection area.

Geology & Hydrogeology

Well #5: originally constructed on December 22, 1987 to a depth of 405 feet below grade. The geology encountered during the drilling of Well #5 is representative of the regional geology, although shallow unconsolidated soil deposits may vary locally. According to the Well Constructor's Report, the static water level is at a depth of 19 feet below grade. At Well #5, the geology included:

- 0 to 385 feet: Limestone
- 385 to 405 feet: Shale

Well #7: Information about Well #7 is pending. Sigma has requested this information from the Village.

Well #3: originally constructed in 1967 to a depth of 1,282 feet below grade and was reconstructed on August 10, 2018. Reconstruction of Well #3 involved abandonment from 965 to 1,286 feet below grade. The uppermost 531 feet of the well is sealed with steel casing such that groundwater originates from the deeper dolomite and sandstone formations between 531 feet and 965 feet below grade; the static water level is at a depth of 265 feet below grade. The geology encountered during the drilling of Well #3 is representative of the regional geology, although shallow unconsolidated soil deposits may vary locally. At Well #3, the geology included:

- 0 to 12 feet: Clay
- 12 to 375 feet: Outwash
- 275 to 510 feet: Shale
- 510 to 725 feet: Limestone/ Dolomite (well casing terminates in this unit)
- 725 to 1,282: Sandstone

Copies of the well construction reports and geologic log as provided by the Wisconsin Department of Natural Resources are included in **Attachment C – Well Construction Reports**.

Geotechnical soil borings are scheduled to be completed at the Site on September 13, 2019 to evaluate physical soil conditions and develop geotechnical recommendations for building, pavement and stormwater management system construction. Sigma will evaluate the findings when the report becomes available and summarize our findings in a subsequent submittal to the Village.

PROPOSED BUILDING EXPANSION PROJECT

GDI is a specialty manufacturer focused on pressure sensitive and hotmelt adhesives, converting services, and instant adhesive products for the industrial, commercial, and consumer use. GDI plans to upgrade and expand their existing facility in the Germantown Business Park to include a 68,387 SF building expansion. This building expansion will include the demolition of their adjacent facilities, The Glue Factory, in order to maximize usable area and connectivity of resources within a single building. The Glue Dots International expansion will be the next step in creating a single campus industrial facility that will merge three businesses together, GDI, The Glue Factory, and Heartland Adhesives.

The GDI site currently includes three parcels to be combined into one Certified Survey Map (CSM). This site has two buildings, the GDI facility, located at N117W18711 Fulton Drive, Germantown, WI and the Glue Factory building located at W186N11687 Morse Drive, Germantown. In an effort to maximize

usable area and connectivity of resources, it is proposed that the existing Glue Factory building will be demolished and the GDI facility be expanded. A pre-demolition hazardous materials inspection has been conducted by Sigma in accordance with United States Environmental Protection Agency (USEPA) and Wisconsin Department of Natural Resources (WDNR) regulations for the demolition of Glue Factory building with results pending analysis and interpretation.

Facility Design

Proposed architectural and civil engineering drawings are included in the CUP application package. Following is a brief overview of the relevant plan drawings as related to potential risks and impacts of the proposed Site development and operations.

- During construction, erosion control measures consistent with industry standards and regulatory requirements are specified on the civil engineering plans. No adverse affects to surface waters or groundwater are expected so long as the erosion control features are installed and maintained per the civil engineering plans.
- The 68,387 SF building expansion footprint is located within the 4.897-acre site which includes three parcels to be combined into one CSM. The building expansion will create a two-story facility that will merge GDI, The Glue Factory, and Heartland Adhesives.

The two-story building will have the following functional areas:

- o First Floor-Interior
 - Bulk Chemical Storage with secondary containment
 - Dry storage racks chemical/product
 - Adhesive process
 - Hot Melt Adhesive Process
 - Water-based Adhesive Process
 - Research and Development Lab
 - Electrical Room
 - Office Area
 - Fork Truck Charging
 - Maintenance Shop
 - Container Washroom
 - Compressor Room
 - Boiler Room
 - Shipping and Receiving Office
 - Liquid Nitrogen Bulk Storage
- o Second Floor-Interior
 - Office Area
 - Mezzanine
- o Exterior
 - Liquid Nitrogen Delivery curbed pad
 - Containment dock for delivery of chemicals
 - Loading and Unloading Truck Docks
 - Trash Compactor

- Dust Collection System
- Stormwater management system

Note: The design of the proposed building addition and related manufacturing processes is currently being finalized and is in expected to be completed by mid-November, 2019. At that time additional information will be provided to the Village.

Delivery/Transfer

Chemicals/product at the GDI facility are handled and transferred following written standard operating procedures. All vehicles entering the site for delivery will enter the GDI site (west side of site) off of Maple Road. Once entering the site, vehicles will back into the appropriate delivery/transfer area. Upon completion of delivery vehicles will exit to Morse Drive (east side of site). To ensure safety and line-of-sight, GDI will remove necessary trees along Maple Road. Delivery/transfer areas are described below.

- A containment dock will be located along the southeast corner of the building for bulk container deliveries. The maximum containment capacity for the containment dock is yet to be determined but is expected to be approximately 6,000 gallons. The containment valve will be shut during deliveries and will remain open at all other times. Stormwater collected in this area will be directed to the wet retention pond.
- Totes, drums, and pallets will be delivered using the loading dock area along the southern face of the building at the overhead doors. The overhead doors will be protected with a canopy cover.
- A tanker load area with concrete pad and curb will be located along the eastern edge of the building for liquid nitrogen deliveries. The maximum capacity of deliveries is yet to be determined but is expected to be less than 5,000 gallons.

Chemical/Product Storage

The GDI facility uses variety of hydrocarbon resins, oil and petroleum distillate products, and plasticizers in the manufacturing and ancillary processes. Chemicals/product used at the GDI facility are included in GDI's **Business, Operational Safety, and Contingency Plan** provided in the CUP application package. These materials will be in containers (tanks, totes, drums, etc.) that are compatible with their contents and will be stored in the following areas and in individual containers located at the point of use. The building expansion project will have the following chemical/product storage areas accompanied with necessary engineering controls and containment.

- Bulk containers are stored in an interior room, designed to provide secondary containment.
- Dry storage racks storing chemical/product containers will be contained by the building; floor drains are not located in the dry storage area.
- Liquid Nitrogen is stored in along the east side of the building in a tank.

As required, under the Emergency Planning and Community Right-to-Know Act (EPCRA), GDI will submit a SARA 302 notification should there be any Extremely Hazardous Substances (EHS) over the Threshold Planning Quantity (TPQ) located onsite and will submit SARA 313 Tier 2 Emergency and Hazardous

Chemical Inventory Forms as appropriate annually in accordance with the deadlines set forth in the regulation.

Additionally, GDI has a corporate Chemical Spill Procedure that describes the required response actions for both 'incidental spills' (i.e. less than 1 gallon) and those that require notification of their internal emergency response team and in accordance with 40 CFR 112 Spill Prevention, Control, and Countermeasure (SPCC) Regulation, GDI will prepare a SPCC Plan.

GDI's **Business, Operational Safety, and Contingency Plan** provides specific chemical/product storage information and is included in the associated CUP application package.

Stormwater Management

A stormwater management analysis was conducted by Harwood Engineering Consultants, dated August 19, 2019, and is included as **Attachment D – Stormwater Management Report**, for the 4.897-acre site. The report follows Village of Germantown, Milwaukee Metropolitan Sewerage District (MMSD), and WDNR requirements.

Proposed watershed conditions outlined in the attached Stormwater Management Report utilize a wet retention basin located in the southwest portion of the site, that will collect stormwater from the roof, south, and west portions of the site; this area accounts for approximately 3.816 acres, 78 percent of the Site. The wet retention basin will manage stormwater quantity and quality from the site. Precipitation that falls on the ground surface, pavements and green space surfaces, will follow ground surface topography and be directed to either storm sewer catch basins that discharge to the wet retention pond or local storm sewer. Municipal water and sanitary sewer utilities are present in the adjacent road right-of-ways to serve the Site in the future, as are other subsurface utilities (e.g., electric and communication lines).

The wet retention basin will manage stormwater quantity and quality from the site. The wet retention basin will be constructed using a clay liner to prevent seepage from the wet retention basin to the surrounding environment and groundwater; to ultimately protect the wellhead protection area. Stormwater runoff will generally be directed towards the wet retention basin and stormwater catch basins in the adjacent streets.

The Proposed Drainage Area Map for the building expansion project, included the associated CUP application package, shows the areas of the site and whether they will be directed to the wet retention pond or local storm sewer. The area of the site where delivery/transfer will occur will be constructed with a combination of concrete and heavy-duty asphalt with curb and storm sewer will capture and convey stormwater and any inadvertent spills of material to the wet retention basin in the southwest corner of the site.

The GDI facility operations are classified as Standard Industrial Classification (SIC) code: 28910200, adhesives . In accordance with NR 216, the facility will either obtain a general WPDES permit for stormwater associated with industrial activity or will apply for a 'No Exposure' exclusion. A Storm Water Pollution Prevention Plan (SWPPP) will be developed that will include Best Management Practices (BMPs) if a WPDES permit is issued. In addition, GDI will follow the Village of Germantown's Stormwater Maintenance Manual for Private Facilities.

Process Wastewater

The main sanitary sewer lateral will connect the new addition with the municipal system in Morse Drive at the southeast corner of the building and a sampling manhole will be installed immediately outside of the building for facility process wastewater sampling activities.

The floor drain system services the two new process, hot melt adhesives and water-based adhesives, included in the proposed building expansion project. The floor drain system also services the container washroom, constructed with a sloped floor directed to a floor drain. The floor drain system connects along the eastern area of the building interior. Any spills within the new addition, other than within the bulk storage containment area, would be contained within the building walls and collected at the sanitary sewer floor drains.

GDI's process wastewater is generated from the water-based adhesive process and wash operations and are subject to the Milwaukee Metropolitan Sewerage District's Rules, Chapter 11. Accordingly, the GDI will submit a Notice of Intent (NOI) to the District for authorization to discharge process wastewater from the facility. Chapter 11 also requires notification of any spills that are collected and conveyed to the sanitary sewer.

Further information about the facility operations is included in the associated CUP application package.

ENVIRONMENTAL ASSESSMENT EVALUATION

It is understood that all material handling and manufacturing operations will take place within the proposed building; the only outdoor operations will include bulk raw product delivery/transfer at the containment dock located along the southeast wall of the building, the curbed transfer location for liquid nitrogen along the east side of the building, and the overhead door delivery station located along the south side of the building. Sigma understands that GDI has a proven materials management track record and that these same raw and finished product handling practices will continue to be used in the expanded facility.

No adverse effects to surface waters or groundwater are expected so long as the storm sewer features are installed per the civil engineering plans and maintained.

It is understood that GDI will comply with all local, regional, state, and federal legislation as outlined in their **Business, Operational Safety, and Contingency Plan**, included in the associated CUP application package.

Therefore, it is Sigma's professional opinion that to the extent feasible, based upon scientific, engineering and economic factors, the proposed GDI building expansion project employs designs and technologies which are state of the art, such that they diminish the potential for wellhead contamination.

This document has been prepared by Robert Peschel, P.E., a licensed Professional Engineer in the State of Wisconsin. Mr. Peschel has over 30 years of experience as an environmental engineer and has completed numerous environmental site investigation, remediation, and brownfield redevelopment projects in Wisconsin. The document was also reviewed by Sigma's Geosciences Group Leader, Mr. Randy Boness, P.G.

Please call or contact us should you have any questions or require additional information.

Sincerely,

THE SIGMA GROUP, INC.

Robert Peschel, PE
Senior Project Engineer
414.643.4150
rpeschel@thesigmagroup.com

Morgan Schroeder
Staff Engineer
414.643.4103
mschroeder@thesigmagroup.com

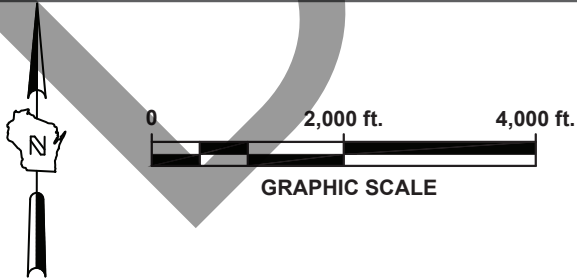
Enclosures:

Figure 1 - Site Location Map
Figure 2 - Site Plan Map
Figure 3 – Site Vicinity Map
Attachment A - Section 17.40, Germantown Code "Wellhead Protection Ordinance"
Attachment B - Village of Germantown Figure 1 – Wellhead Protection Areas
Attachment C – Well Construction Reports
Attachment D – Stormwater Management Report

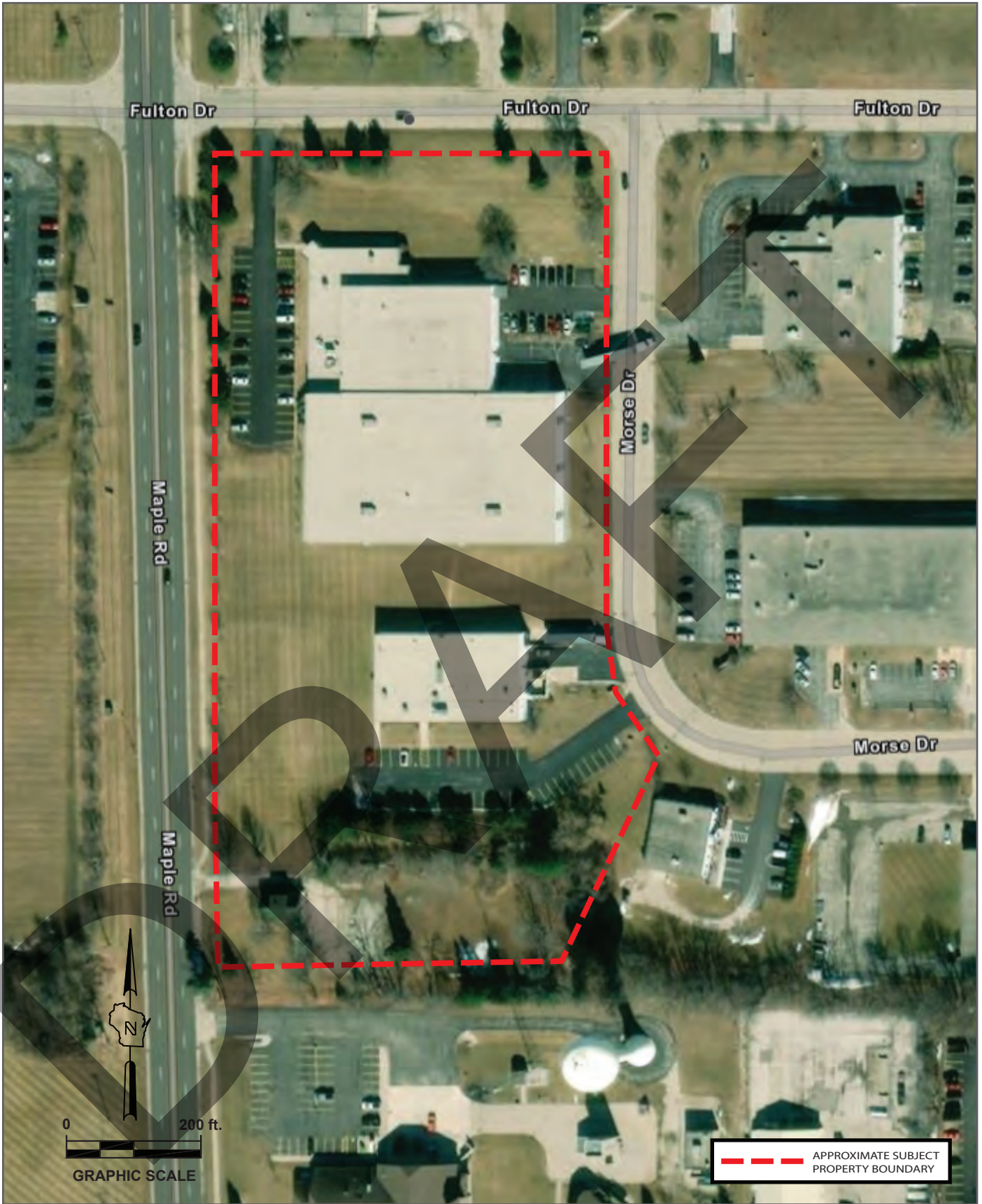
cc: Erica Roberts – Glue Dots International
Ric Miller – MC Group
Randy Boness, P. G. – The Sigma Group

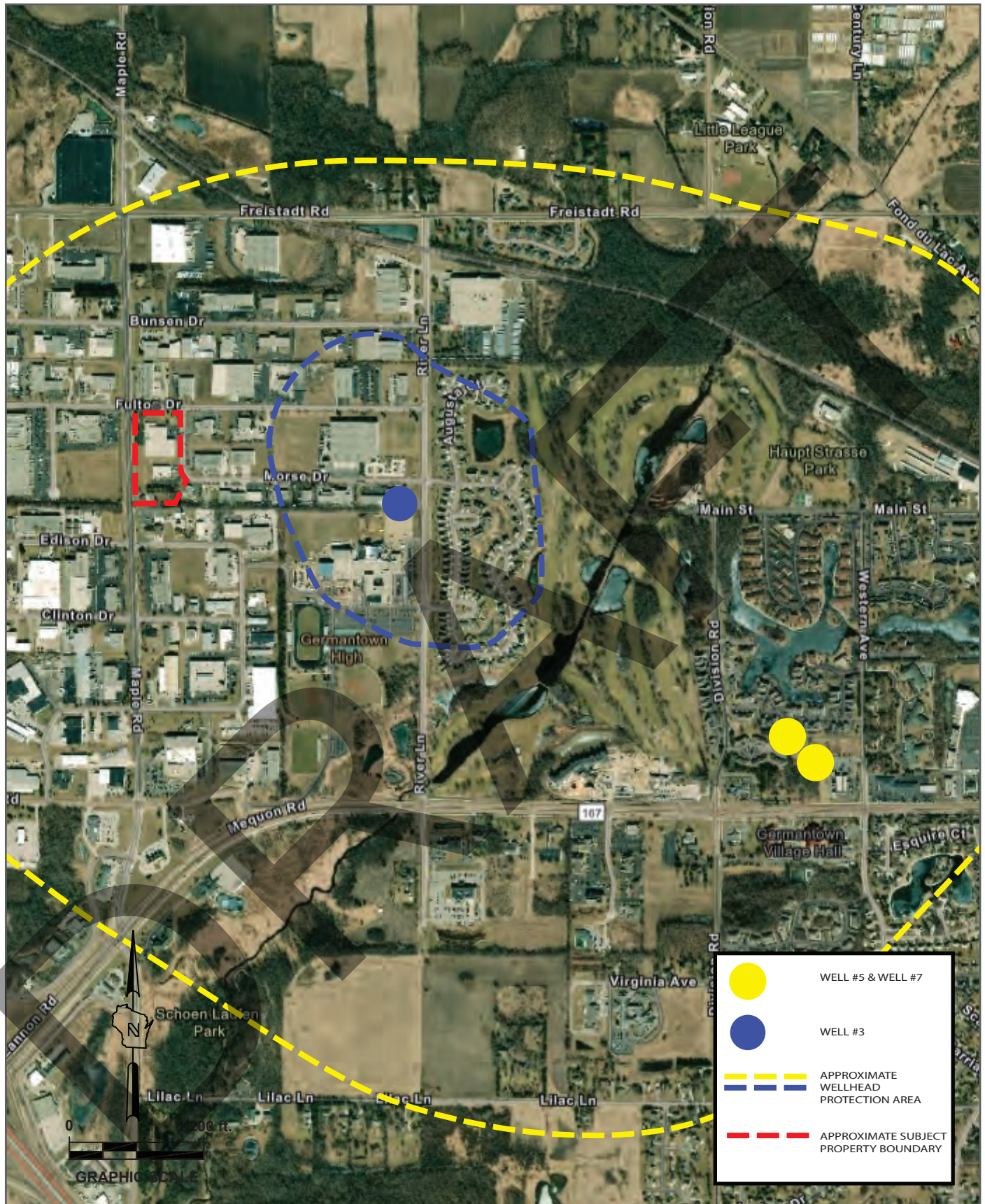
DRAFT

FIGURES



Located in the SW 1/4 of the NW 1/4, Section 21, T9N, R20E
 Germantown USGS MAP Quadrangle
 7.5 minute, 1 : 24,000 Topographic Map Collection





ATTACHMENT A

SECTION 17.40, GERMANTOWN CODE "WELLHEAD PROTECTION ORDINANCE"

17.40 - WELLHEAD PROTECTION. (Cr. Ord. #15-10)

17.40.01 PURPOSE AND AUTHORITY.

- (1) Purpose. The residents of the Village of Germantown depend exclusively on groundwater for a safe drinking water supply. Certain land use practices and activities can seriously threaten or degrade groundwater quality. The purpose of this Wellhead Protection Ordinance is to institute land use regulations and restrictions protecting the municipal water supply of the Village of Germantown and promote the public health, safety and general welfare of the residents.
- (2) Authority. Statutory authority of the Village to enact these regulations was established by the Wisconsin Legislature in §62.23(7)(a) and (c), Wis. Stats. Under these statutes, the Village has the authority to enact this ordinance to encourage the protection of groundwater resources.

17.40.02 APPLICATION OF REGULATIONS. The regulations specified in this Wellhead Protection Ordinance shall apply to those areas of the Village of Germantown that lie within the recharge areas for municipal water supply wells as defined in subsection 17.40.05, and are in addition to the requirements in the underlying zoning district, if any. If there is a conflict between this ordinance and the zoning ordinance, the more restrictive provision shall apply.

17.40.03 DEFINITIONS.

- (1) Aquifer. A saturated, permeable geologic formation that contains and will yield significant quantities of water.
- (2) Cone of Depression. The area around a well, in which the water level has been lowered at least 1/10 of a foot by pumping of the well.
- (3) Facilities. A general term referring to land uses, business operations, activities, developed property, or material stored.
- (4) Five-Year Time of Travel. The recharge area upgradient of the cone of depression, the outer boundary of which it is determined or estimated that groundwater will take 5 years to reach a pumping well.
- (5) Municipal Water Supply. The municipal water supply of the Village of Germantown.
- (6) Person. An individual, partnership, association, corporation, municipality or state agency, or other legal entity.
- (7) Recharge Area. The area which encompasses all areas or features that, by surface infiltration of water that reaches the zone of saturation of an aquifer, supplies groundwater to a well.
- (8) Thirty-Day Time of Travel. The recharge area upgradient of a well, or its cone of depression, the outer boundary of which it is determined or estimated that groundwater will take 30 days to reach a pumping well.
- (9) Well Field. A piece of land used primarily for the purpose of locating wells to supply a municipal water system.
- (10) Well. A boring into the earth for the purpose of extracting groundwater for supply to the municipal water supply.
- (11) Zone of Saturation. The area of unconsolidated, fractured or porous material that is saturated with water and constitutes groundwater.

17.40.04 GROUNDWATER TECHNICAL REVIEW COMMITTEE.

- (1) The Germantown Groundwater Technical Review Committee shall consist of all of the following:
 - (a) The Village Planner/Zoning Administrator.
 - (b) The Village Public Works Director.

- (c) The Village Engineer
- (d) The Fire Chief.
- (e) The Superintendent of the Water Utility.

(2) The purpose of the Germantown Groundwater Technical Review Committee is to provide objective and scientific technical review of requests for conditional use permits and make recommendations to the Plan Commission and ultimately to the Village Board to grant or deny conditional use permits based upon the facts discovered in that review, to make recommendations on any and all conditions placed on a conditional use permit, and to give advice on matters concerning groundwater.

(3) Professional Services. The Village may retain the services of professional consultants (including engineer, environmental specialist, hydrologist, and other experts) to assist the Village in the Village's review of a proposal or submittal coming before the Germantown Water Technical Review Committee. The submittal of a proposal by a petitioner shall be construed as an agreement to pay for such professional review services applicable to the proposal. The Village may apply the charges for these services to the petitioner along with an administrative fee. Review fees which are applied to the petitioner, but which are not paid, may be assigned by the Village as a special assessment to the subject property.

17.40.05 GROUNDWATER PROTECTION OVERLAY DISTRICT. A Groundwater Protection Overlay District may be created to institute land use regulations and restrictions within a defined area which contributes water directly to a municipal water supply and thus promotes public health, safety, and welfare. The district is intended to protect the groundwater recharge area for the existing or future municipal water supply from contamination.

17.40.06 SUPREMACY OF THIS DISTRICT. The regulations of an overlay district will apply in addition to all other regulations which occupy the same geographic area. The provisions of any zoning districts that underlay this overlay district will apply except when provisions of the Groundwater Protection Overlay District are more stringent.

17.40.07 GROUNDWATER PROTECTION OVERLAY DISTRICTS BOUNDARIES. The boundaries of the Groundwater Protection Overlay Districts are referenced as being part of the Germantown zoning map being an overlay district to the zoning map. The locations and boundaries of the zoning districts established by this ordinance are set forth on the Village of Germantown Municipal Wellhead Protection Areas Map which is incorporated herein and hereby made a part of this ordinance. Said map, together with everything shown thereon and all amendments thereto, shall be as much a part of this ordinance as though fully set forth and described herein.

17.40.08 PERMITTED USES.

(1) Subject to the conditions for existing uses listed in subsection 17.40.12 the following are the only permitted uses within the groundwater protection overlay district.

- (a) Public and private parks, and playgrounds provided there are no on-site wastewater disposal systems or holding tanks.
- (b) Wildlife and natural and woodland areas.
- (c) Biking, hiking, skiing, nature, equestrian and fitness trails.
- (d) Residential which is municipally sewered and free of flammable and combustible liquid underground storage tanks.
- (e) Agricultural uses in accordance with the county soil conservation department's best management practices guidelines.
- (f) Single-family residences on a minimum lot of 20,000 square feet with a private on-site sewage treatment system receiving less than 8,000 gallons per day, which meets the County and State health standards for the effluent, and free of flammable or combustible liquid underground storage tanks.

- (g) Commercial, institutional, industrial or office establishments which are municipally sewered subject to the prohibited and conditional uses listed in subsections 17.40.10 and 17.40.11.

17.40.09 SEPARATION DISTANCE REQUIREMENTS.

- (1) The following separation distances as specified in § NR 811.16(4)(d), Wis. Adm. Code, shall be maintained. Measurements shall be from the well head to the specified structure, facility, edge of landfill or storage area as described in items (a) through (f) below.
 - (a) Fifty feet between a public water supply well and a stormwater sewer main or any sanitary sewer main constructed of water main materials and joints which is pressure tested in place to meet current AWWA 600 specifications. NOTE: Current AWWA 600 specifications are available for inspection at the office of the Wisconsin Department of Natural Resources, the Secretary of State's office and the office of the Revisor of Statutes.
 - (b) Two hundred feet between a public water supply well and any sanitary sewer main not meeting the above specifications, any sanitary sewer lift station or single-family residential fuel oil tank.
 - (c) Four hundred feet between a public water supply well and a septic system receiving less than 8,000 gallons per day, or a stormwater detention, retention, infiltration or drainage basin.
 - (d) Six hundred feet between a well and any gasoline or fuel oil storage tank installation that has received written approval from the Wisconsin Department of Commerce (hereafter Commerce) or its designated agent under § COMM 10.10, Wis. Adm. Code.
 - (e) One thousand feet between a well and land application of municipal, commercial or industrial waste; industrial, commercial or municipal waste water lagoons or storage structures; manure stacks or storage structures; and septic tanks or soil adsorption units receiving 8,000 gallons per day or more.
 - (f) Twelve hundred feet between a well and any solid waste storage, transportation, transfer, incineration, air curtain destructor, processing, wood burning, one-time disposal or small demolition facility; sanitary landfill; coal storage area; salt or deicing material storage area; gasoline or fuel oil storage tanks that have not received written approval from Commerce or its designated agent under § COMM 10.10, Wis. Adm. Code; bulk fuel storage facilities; and pesticide or fertilizer handling or storage facilities.

17.40.10 PROHIBITED USES.

- (1) The following uses are prohibited:
 - (a) Buried hydrocarbon, petroleum or hazardous chemical storage tanks. (Hazardous chemicals are identified by OSHA criteria under 40 CFR Part 370.)
 - (b) Radioactive waste facilities.
 - (c) Coal storage.
 - (d) Industrial lagoons, pits or natural or manmade containment structures, primarily of earthen materials used for storage or treatment of wastewater, fermentation leachates or sludge.
 - (e) Landfills and any other solid waste facility, except post-consumer recycling.
 - (f) Manure and animal waste storage except animal waste storage facilities regulated by the County.
 - (g) Pesticide and fertilizer dealer.
 - (h) Railroad yards and maintenance stations.
 - (i) Rendering plants and slaughterhouses.

- (j) Salt or deicing material storage for the purpose of distribution.
- (k) Septage or sludge spreading.
- (l) Septage, wastewater, or sewage lagoons.
- (m) Motor vehicular filling stations.
- (n) Wood preserving operations.

17.40.11 CONDITIONAL USES.

- (1) Any person may request a conditional use permit for certain uses, activities and structures within the Groundwater Protection Overlay District not prohibited in subsection 17.40.10.
- (2) The uses, activities, and structures that may be conditionally allowed are:
 - (a) Jewelry plating and metal plating.
 - (b) Machine or metal working shops as the principal business.
 - (c) Commercial, institutional, or office establishments utilizing a private on-site wastewater treatment system.
 - (d) Cemeteries.
 - (e) Chemical manufacturers (Standard Industrial Classification Major Group 28).
 - (f) Dry cleaners.
 - (g) Nonmetallic earthen materials extraction or sand and gravel pits.
 - (h) Salvage or junk yards.
 - (i) Stockyards and feedlots.
 - (j) Research labs, universities and hospitals.
 - (k) Exposed hydrocarbon, petroleum or hazardous chemical storage tanks. (Hazardous chemicals are identified by OSHA criteria under 40 CFR Part 370.) This shall not apply to residential LP gas tanks which are permitted under subsection 17.40.08(1)(i).
 - (l) Storage or processing of extremely hazardous substances, radioactive materials or substances listed in Table 1, Ch. NR 140, Wis. Adm. Code (Extremely hazardous substances are identified by SARA/EPCRA criteria under 40 CFR Parts 302 and 355.)
 - (m) Septage or sludge storage or treatment
 - (n) Motor vehicular service stations, repair, renovation and body working.
- (3) All requests for a conditional use permit shall be submitted in writing to the Germantown Village Planning and Zoning Department, and shall include all of the following:
 - (a) A site plan map with all building and structure footprints, driveways, sidewalks, parking lots, stormwater management structures, groundwater monitoring wells, and 2-foot ground elevation contours.
 - (b) A business plan and/or other documentation which describes in detail the use, activities, and structures proposed.
 - (c) An environmental assessment report prepared by a licensed environmental engineer which details the risk to, and potential impact of, the proposed use, activities, and structures on groundwater quality.
 - (d) An operational safety plan, which details the operational procedures for material processes and containment, best management practices, stormwater runoff management, and groundwater monitoring.

- (e) A contingency plan which addresses in detail the actions that will be taken should a contamination event caused by the proposed use, activities, or structures occur.
- (4) All applicants submitting a request for a conditional use permit shall reimburse the Village for all consultant fees and expenses and technical review committee expenses associated with this review, plus administrative costs and processing fees.
- (5) All conditional use permits granted shall be subject to conditions that will include environmental and safety monitoring determined necessary to afford adequate protection of the public water supply. These conditions shall include all of the following:
 - (a) Provide current copies of all federal, state and local facility operation approval or certificates and on-going environmental monitoring results to the Village.
 - (b) Establish environmental or safety structures/monitoring to include an operational safety plan, material processes and containment, operations monitoring, best management practices, stormwater runoff management, and groundwater monitoring.
 - (c) Replace equipment or expand in a manner that improves the environmental and safety technologies in existence.
 - (d) Prepare, file and maintain a current contingency plan which details the response to any emergency which occurs at the facility, including notifying municipal, county and state officials. Provide a current copy to the Village.
- (6) The Germantown Village Board shall decide upon a request for a conditional use permit only after full consideration of the recommendations made by the Germantown Groundwater Technical Review Committee. Any conditions above and beyond those specified in conditional uses, subsection (5) herein that are recommended by the Germantown Groundwater Technical Review Committee may be applied to the granting of the conditional use permit.

17.40.12 REQUIREMENTS FOR EXISTING FACILITIES REQUIRING A CONDITIONAL USE OR LISTED AS A PROHIBITED USE. Existing facilities within the Groundwater Protection Overlay District at the time of enactment of such district which require a conditional use or are listed as a prohibited use in subsection 17.40.11 or subsection 17.40.10 all of which are incorporated herein as if fully set forth.

- (1) The owners or operators of such facilities as above which exist within the district at the time of enactment shall, within 45 days of enactment, provide copies of all current, and within 30 days of receipt, revised or new Federal, State and local facility operation approvals, permits or certificates; operational safety plan and on-going environmental monitoring results to the Village.
- (2) The owners or operators of such facilities as above which exist within the district at the time of enactment of a district shall have the responsibility of devising, filing and maintaining, with the Village, a current contingency plan which details how they intend to respond to any emergency which may cause or threaten to cause environmental pollution that occurs at their facility, including notifying municipal, county and state officials.
- (3) In the event of casualty loss causing damage or destruction to building improvements exceeding 50% of the assessed valuation thereof, or the desire to expand or enlarge building improvements, the cost of which will reasonably be anticipated to exceed 50% of the assessed valuation thereof, the owners or operators of such facilities shall be granted a conditional use permit, in accordance with this Code, and subsection 17.40.11 above, to repair, rebuild, or expand such facilities, provided that the conditions imposed shall generally require that:
 - (a) To the extent feasible, based upon scientific, engineering and economic factors, the building improvements shall be repaired, restored or rebuilt employing designs and technologies which are state of the art, such that they diminish the potential for wellhead contamination, and

- (b) To the extent feasible, based upon scientific, engineering, and economic factors, the replacement or augmentation of equipment and machinery and the installation thereof, which diminishes potential for wellhead contamination. This section does not apply to normal maintenance or minor repairs.

17.40.13 **CHANGING TECHNOLOGY.**

- (1) The uses prohibited by this district are prohibited based upon the combined pollution experience of many individual uses, and the technology generally employed by a particular use considered to be of a high risk for pollution to the groundwater resource. As the technology of other uses change to low or non-risk materials or methods, upon petition from such use, after conferring with the Groundwater Technical Review Committee or other expert opinion, and after appropriate public notice and hearing, the Village through appropriate procedures and actions to change these provisions of the Germantown Municipal Code may remove from the designated prohibited uses such uses as are demonstrated convincingly that they no longer pose a groundwater pollution hazard.
- (2) In dealing with uses which attempt to become permissible, under the terms of this district, by continuing to utilize pollutant materials but altering their processing, storage and handling, it is not the intention to accept alternate or reduced hazards as the basis for making a use permissible. It is the intention to continue a prohibition on such uses until the technology of the use removes reliance upon the pollutant materials or processes deemed to be a groundwater hazard.

17.40.14 **ENFORCEMENT AND PENALTY.**

- (1) Penalty. Any person who violates, neglects or refuses to comply with any of the provisions of this ordinance shall be subject to a penalty as provided in section 17.40 of this Municipal Code.
- (2) Injunction. The Village of Germantown may, in addition to any other remedy, seek injunction or restraining order against the party alleged to have violated the provisions herein, the cost of which shall be charged to the defendant in such action.
- (3) Cleanup Costs. As a substitute for, and in addition to any other action, the Village of Germantown may commence legal action against both the person who releases the contaminants and the owner of the facility whereupon the contaminants were released to recover the costs, together with the costs of prosecution. Any person who causes the release of any contaminants which may endanger or contaminate the municipal water supply system associated with a Groundwater Protection Overlay District shall immediately cease such discharge and immediately initiate cleanup satisfactory to the Village of Germantown and the other State and Federal regulatory agencies.

The person who releases such contaminants and the person who owns the facility whereon the contaminants have been released shall be jointly and severally responsible for the cost of cleanup, consultant, or other contractor fees, including all administrative costs for oversight, review and documentation, including the Village employees, equipment, and mileage.

17.40.15 **CONFLICT, INTERPRETATION AND SEVERABILITY.**

- (1) Conflict and Interpretation of Provisions. If the provisions of the different chapters of this Code conflict with or contravene each other, the provisions of each chapter shall prevail as to all matters and questions arising out of the subject matter of such chapter. In their interpretation and application, the provisions of this ordinance shall be held to be the minimum and are not deemed a limitation or repeal of any other power granted by Wisconsin Statutes. Where any terms or requirements of this ordinance may be inconsistent or conflicting, the most restrictive requirements or interpretations shall apply.
- (2) Severability of Code Provisions. If any section, subsection, sentence, clause or phrase of the Code is for any reason held to be invalid or unconstitutional by reason of any decision of any court of competent jurisdiction, such decision shall not affect the validity of any other section, subsection, sentence, clause or phrase or portion thereof. The Village Council hereby declares

that they would have passed this Code and each section, subsection, sentence, clause, phrase or portion thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases or portions may be declared invalid or unconstitutional.

ATTACHMENT B

VILLAGE OF GERMANTOWN FIGURE 1 – WELLHEAD PROTECTION AREAS

Figure 1

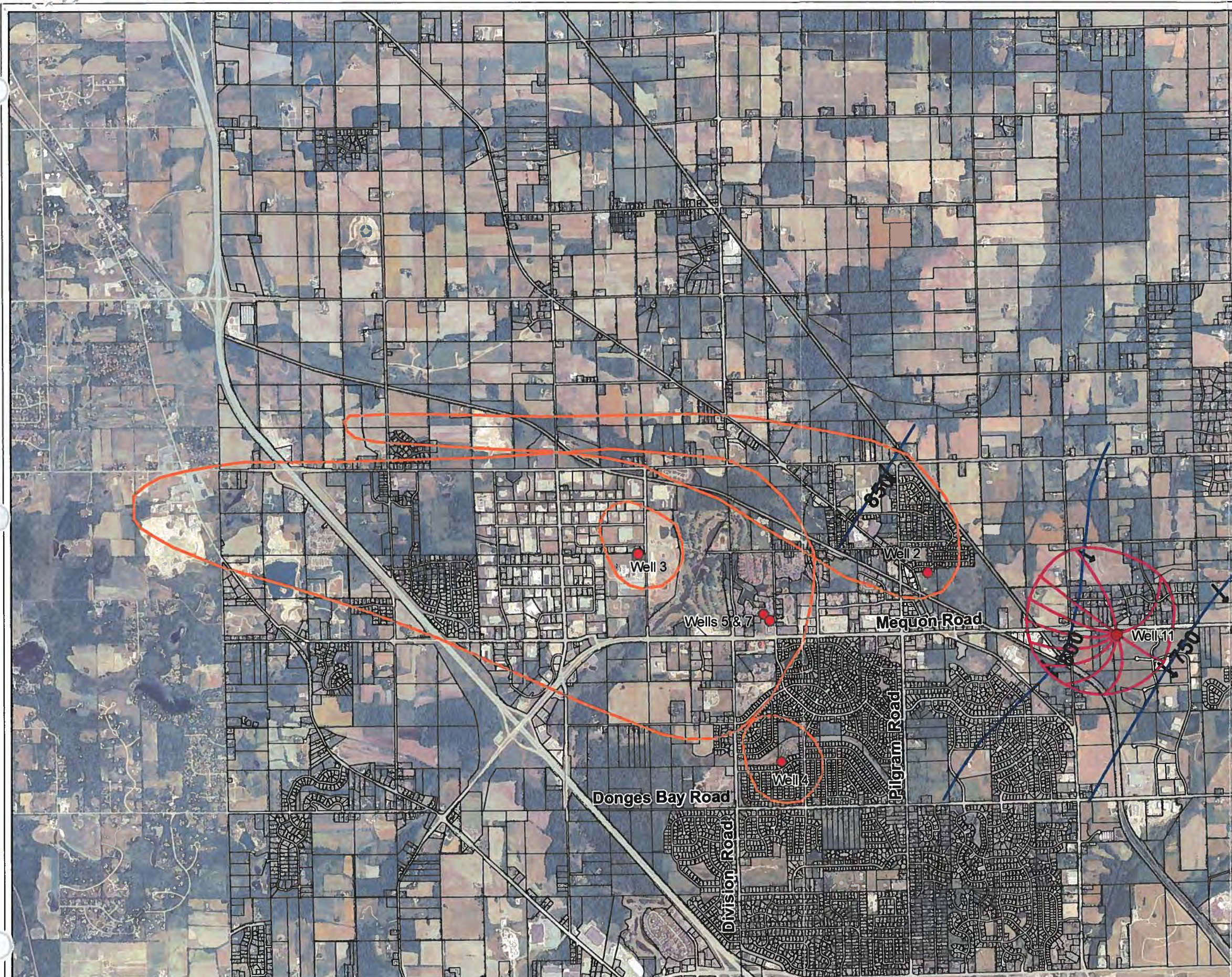
**Wellhead Protection Areas for
Germantown Well No. 11***

**Village of Germantown
Washington County, Wisconsin**

*WHPA for Well 11 delineated by
Ruekert-Mielke, 2010 in Amendment
No. 1 to Wellhead Protection Plan for
Municipal Well Nos. 2, 3, 3, 5, & 7
delineated by Graef, 2008

Legend

- Village Well Sites
- Direction of Groundwater Flow
- 800 Potentiometric Surface Elevation of
Sandstone Aquifer (Static Condition)
- Wellhead Protection Area
Well 11 (Based on 5-Year TOT)
- Graef Wellhead Protection Areas
Wells 2-5 & 7 (Based on 5-Year TOT)



ATTACHMENT C

WELL CONSTRUCTION REPORTS

Well #5

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT

Form 3300-12 Rev. 5-85

JAN 5 1988

WN-938-G

1. COUNTY <u>Washington</u>		CHECK (✓) ONE: ☐ Town ☒ Village ☐ City		Name <u>Germantown</u>							
2. LOCATION <u>NW, NW, NW</u> <u>SE, SW, SW</u>		Section <u>22</u>	Township <u>9N</u>	Range <u>20E</u>	3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE						
OR - Grid or Street No. <u>Western Ave + Mequon</u>		Street or Road Name		ADDRESS <u>P.O. Box 337</u>							
AND - If available subdivision name, lot & block No. <u>Well Location Enclosed</u>		POST OFFICE <u>Germantown WI</u>		ZIP CODE <u>53022</u>							
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building	Sanitary Bldg. Drain	Sanitary Bldg. Sewer	Floor Drain Connected To:	Storm Bldg. Drain	Storm Bldg. Sewer				
			C.I. Other	C.I. Other	C.I. Sewer Other Sewer	C.I. Other	C.I. Other				
Street Sewer		Other Sewers	Foundation Drain Connected to:	Sewage Sump	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pneumatic Tank		
San.	Storm	C.I. Other	Sewer	Clearwater Dr.	Clearwater Sump	Nothing in		Seepage Pit	Seepage Bed	Seepage Trench	
Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pump/Room	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
Temporary Manure Stack or Platform		Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin		Other (Describe)			
						Concrete Floor Only		<u>Well No. 5</u>			
						Concrete Floor and Partial Concrete Walls					
5. Well is intended to supply water for: <u>Village</u>						9. FORMATIONS					
						Kind	From (ft.)	To (ft.)			
6. DRILLHOLE											
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)						
<u>18</u>	<u>Surface</u>	<u>100</u>	<u>12</u>	<u>100</u>	<u>405</u>	<u>Line stone</u>	<u>Surface</u>	<u>385</u>			
						<u>Schale</u>	<u>385</u>	<u>405</u>			
						<u>Virtually no soil over</u>					
7. CASING, LINER, CURBING AND SCREEN						the Niagara					
Material, Weight, Specification											
Dia. (in.)	Mfg. & Method of Assembly		From (ft.)	To (ft.)							
<u>12 I.D. new pipe</u>			<u>Surface</u>	<u>102'-5"</u>							
<u>49.56 ASTM A. 53B</u>						<u>DNR permanent</u>					
<u>12 3/4 X 375</u>						<u>Well # 87933</u>					
<u>Hydro tested 1540 psi.</u>											
<u>2.5.P.</u>											
8. GROUT OR OTHER SEALING MATERIAL						10. TYPE OF DRILLING MACHINE USED					
Kind						From (ft.)	To (ft.)				
<u>Cement & Water</u>						<u>Surface</u>	<u>100</u>				
<u>127 bags</u>						<u>750 gal Water</u>					
						Well construction completed on <u>12-22</u> 19 <u>87</u>					
11. MISCELLANEOUS DATA						Well is terminated <u>24</u> inches ☒ above final grade ☐ below					
Yield Test: <u>96</u> Hrs. at <u>800</u> GPM						Well disinfected upon completion ☒ Yes ☐ No					
Depth from surface to normal water level <u>1</u> Ft.						Well sealed watertight upon completion ☒ Yes ☐ No					
Depth of water level when pumping <u>19</u> Ft. Stabilized ☒ Yes ☐ No											
SP. CAP. = <u>44.4 gpm/ft</u> <u>S.L.H.</u>						laboratory on <u>12-18</u> 19 <u>87</u>					
Water sample sent to <u>5.L.H.</u>											
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.											
Signature <u>Maver Hofen</u>						Business Name and Complete Mailing Address <u>N 9899 Hwy 23</u> <u>WI, Wells</u> <u>53965</u>					
cc: SED 365 WELL LOG BOOK Registered Well Driller											

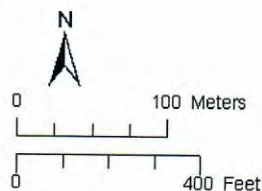
Figure 3

GERMANTOWN WATER UTILITY

Wisconsin Unique Well Number (WUWN): BH246 (Well # 3)



- Selected Public Water Supply Well
- Other Water Supply Wells (Public or Private)
- Source Water Assessment Area
- Potential Contaminant Source
- Potential Contaminant Source
- Potential Contaminant Source
- Municipalities



The specific locations of drinking water wells and surface water intakes are sensitive information. To prevent misuse of this information DNR staff may not provide this information outside of the Department. Information requests should be directed to Jeff Helmuth, (608) 266-5234, jeffrey.helmuth@dnr.state.wi.us

Tuesday, April 15, 2003

Well Construction Report WISCONSIN UNIQUE WELL NUMBER				ZR551		Drinking Water and Groundwater - DG/5 Department of Natural Resources, Box 7921 Madison WI 53707				Form 3300-077A							
Property Owner GERMANTOWN, VILLAGE OF						Phone #		1. Well Location				Fire # (if avail.)					
Mailing Address MEQUON RD PO BOX 337						Village of GERMANTOWN											
City GERMANTOWN						State WI		Zip Code 53022		Street Address or Road Name and Number							
County Washington						Co. Permit #		Notification #		Completed 08-10-2018		Subdivision Name		Lot #		Block #	
Well Constructor (Business Name) C T W CORP						Lic. # 364		Facility ID # (Public Wells) 267010590		Latitude / Longitude in Decimal Degree (DD) 43.2286 °N -88.1332 °W				Method Code GPS008			
Address 21500 W GOOD HOPE RD LANNON WI 53046-9720						Well Plan Approval #		SE NW		Section 21		Township 9 N		Range 20 E			
						Approval Date (mm-dd-yyyy)		2. Well Type Reconstruction of previous unique well # BH246 constructed in 1967 Reason for replaced or reconstructed well ? WATER QUALITY									
Hicap Permanent Well # 87902						Common Well # 3		Specific Capacity 300		Reason for replaced or reconstructed well ? WATER QUALITY							
3. Well serves # of MUNICIPALITY Municipal/Community						Hicap Well ? Yes		Hicap Property ? No		Construction Type Other							
Heat Exchange # of drillholes						Hicap Potable ? No											
4. Potential Contamination Sources - ON REVERSE SIDE																	
5. Drillhole Dimensions and Construction Method										Geology Codes		8. Geology Type, Caving/Noncaving, Color, Hardness, etc...		From (ft.)		To (ft.)	
Dia. (in.)		From (ft.)		To (ft.)		Upper Enlarged Drillhole		Lower Open Bedrock									
20		Surface		9		No Rotary - Mud Circulation		No		C		C-CLAY		Surface		12	
19.30		9		531		Yes Rotary - Air		Yes		O		O-OUTWASH		12		375	
13.30		531		1282		No Rotary - Air & Foam		No		H		H-SHALE		375		510	
						No Drill-Through Casing Hammer				L		L-LIMESTONE/DOLOMITE		510		725	
						No Reverse Rotary				N		N-SANDSTONE		725		1282	
						No Cable-tool Bit in. dia...		No									
						No Dual Rotary		No									
						No Temp. Outer Casing in. dia											
						No Removed? depth ft. (If NO explain on back side)											
6. Casing, Liner, Screen										9. Static Water Level				11. Well Is			
Dia. (in.)		Material, Weight, Specification Manufacturer & Method of Assembly				From (ft.)		To (ft.)		265 ft. below ground surface				12 in. above grade			
20		EXISTING BLACK STEEL				Surface		9		10. Pump Test				Developed ? Yes			
14		EXISTING BLACK STEEL				0		531		Pumping level 405 ft. below surface				Disinfected ? Yes			
Dia. (in.)		Screen type, material & slot size				From (ft.)		To (ft.)		Pumping at 700 GP H for 8 Hrs.				Capped ? Yes			
										Pumping Method ? Test Pump							
7. Grout or Other Sealing Material										12. Notified Owner of need to fill & seal ? No							
Method TREMIE PIPE - PUMPED																	
Kind of Sealing Material		From (ft.)		To (ft.)		# Sacks Cement				Filled & Sealed Well(s) as needed?				No			
NEAT CEMENT GROUT		Surface		531		0											
										13. Constructor / Supervisory Driller				Lic #		Date Signed	
										TS				364		09-10-2018	
										Drill Rig Operator				Lic or Reg #		Date Signed	

4a. Potential Contamination SourcesIs the well located in floodplain ? No**Comment:**

WELL WAS ABANDONED WITH 810CU FT CHLORINATED PEA STONE FROM 965' TO 1282'. 60 CU FT OF TREMIE PIPE PUMPED NEAT GROUT FROM 925' TO 965'. 324CU FT OF CHLORINATED PEA STONE FROM 912' TO 925'. 54CU FT OF TREMIE PIPE PUMPED NEAT CEMENT GROUT FROM 891' TO 912'.

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Abandonment Type	Abandonment Date	Procedure	Reason
Permanent	08/10/2018	CHLORINATED PEA STONE/NEAT CEMENT	WATER QUALITY

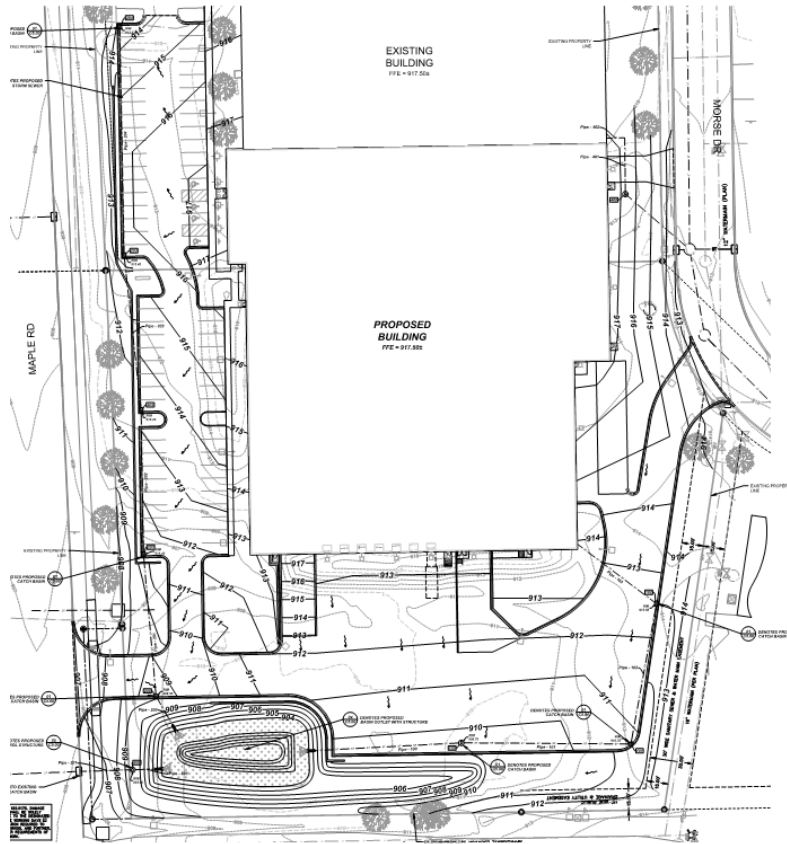
Created On: 09-04-2018**Created by:** TROYSIMONAR**Updated On:** 09-17-2018**Updated by:** TROYSIMONAR

ATTACHMENT D

STORMWATER MANAGEMENT REPORT

STORMWATER MANAGEMENT REPORT

FOR



Glue Dots International

Date: August 19, 2019

Prepared By: **Harwood Engineering Consultants, Ltd.**



Nathan F. Schmit, P.E.
255 North 21st Street
Milwaukee, WI 53233
Ph: 414-475-5554

Reviewed By: Thomas B. Olejniczak, P.E., LEED AP
Project Number: 19-1115.00

Introduction

Glue Dots International is located at N117W18711 Fulton Dr in the Village of Germantown, Wisconsin. This stormwater management report describes the practices that were used to meet the Village of Germantown, MMSD, and Wisconsin Department of Natural Resources (WDNR) stormwater management requirements.

Method of Analysis and Requirements

- Stormwater quantity management analysis was completed using HydroCAD-10.0 modeling software. Runoff curve numbers were determined from the NRCS tables within the TR-55 handbook. The rainfall events used in this analysis were based on NRCS values for Washington County for 2-YR and 100-YR , 24-hour events (2.65 inches and 6.41 inches, respectively).
- Stormwater quality analysis was completed utilizing WinSLAMM V.10.2.0. The on-site water quality design was completed using the 1969 Milwaukee rainfall files provided by WinSLAMM modeling software as well as the date ranges required by WDNR NR151.
- On-site storm sewer calculations were completed utilizing the Rational Method and Manning's equation, as well as, the Atlas 14 rainfall values.
- The stormwater quantity requirements for this site are dictated by the Village of Germantown, MMSD, and the WDNR. The volumetric design procedure will be used to meet the requirements of chapter 13.
- Stormwater quality requirements are dictated by the WDNR and require that this project achieve a reduction of 40% total suspended solids (TSS) for parking and roadway areas on the site, when compared with using no controls at all. The **Water Quality Summary** section summarizes the water quality methods and results on-site.

Soils Information

A geotechnical exploration is currently being completed on the site. This section will be updated with the final report when the results are received.

Infiltration

This project is a re-development and exempt from infiltration requirements per NR 151.

Existing Watershed Conditions (See Existing Conditions Exhibit)

The existing site includes the existing Glue Dots industrial building along with the associated parking and drive aisles. The existing terrain of the property slopes downward away from the building.

This report will analyze 4.897 acres of the site. The existing site was split in two drainage areas.

EX-1 – This area includes the West and South portions of the site that drain to existing site sewer in Maple Road. It includes paved, roofed and greenspace areas.

EX-2 - This area includes the East portions of the site that drain to existing site sewer in Morse Road. It includes paved, roof and greenspace areas.

The table below summarizes the existing watershed characteristics.

Existing Conditions Summary:

Sub-Area Name	Area (acres)	Curve Number	Time of Concentration (min)
EX-1	4.174	81	27.6
EX-2	0.723	82	11.0
Total	4.897		

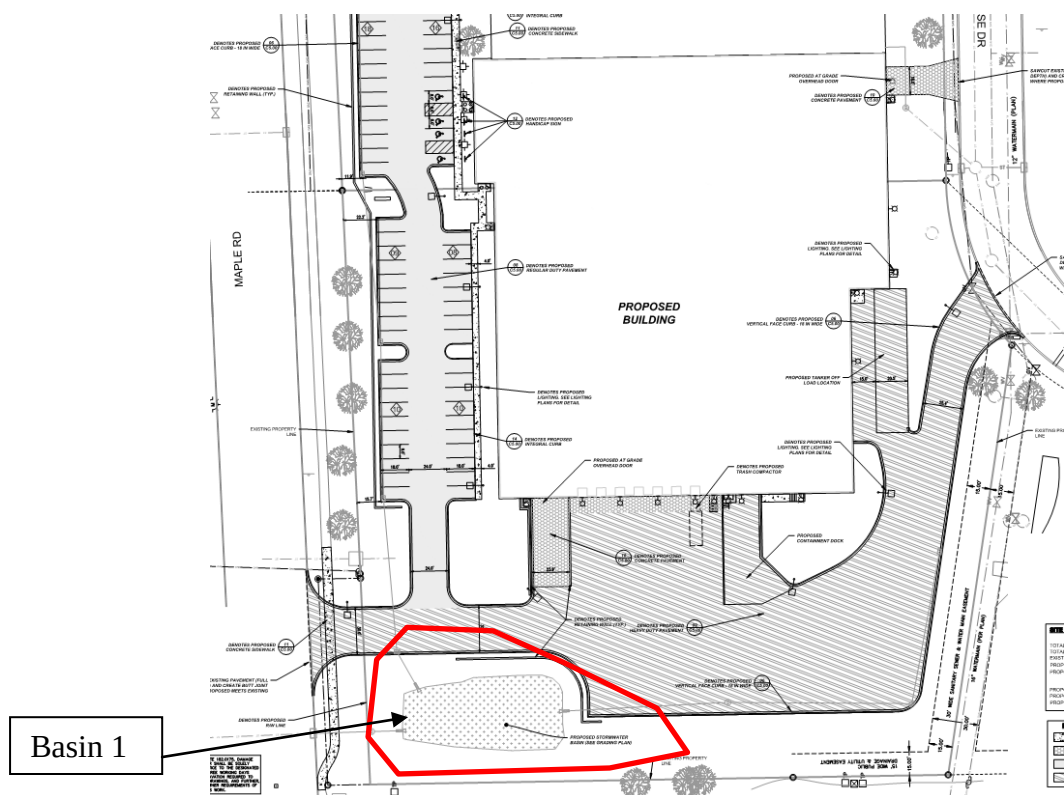
Existing Site Release Rate Summary:

Storm Event	Total Existing Release (cfs)
2-yr	4.52
10-yr	8.64
100-yr	18.55

Proposed Watershed Conditions

The proposed site improvements include 1 building addition to the existing building to the North, totaling roughly 68,387 SF. Along with the building addition, the parking lot, drives and site utilities will be reconfigured and re-constructed.

The proposed condition analyzes the same 4.897 acres as the existing conditions. A wet retention basin will be constructed to manage the stormwater quantity and quality from the site. It will be located on the southwest portion of the site.



The site was split into four drainage areas as described below:

PR-1 – Includes a portion of the proposed roof and the South portions of the site that are tributary to the stormwater basin.

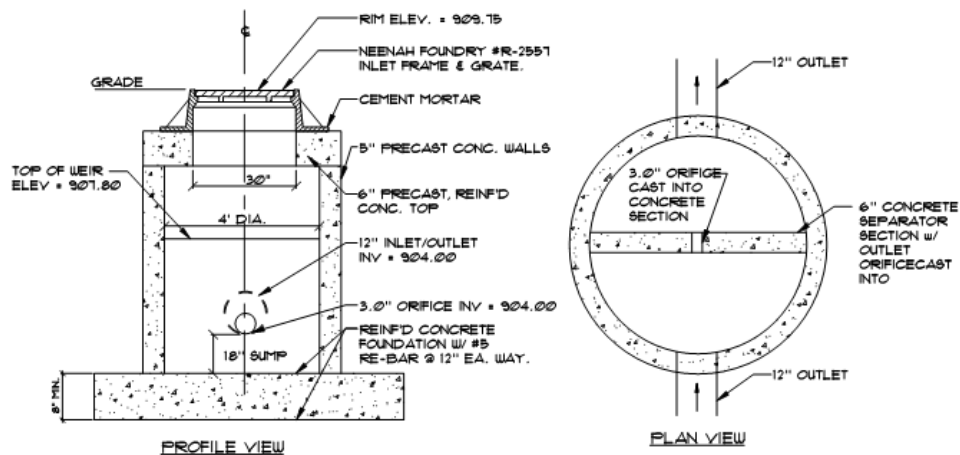
PR-2 – Includes a portion of the proposed roof and the West portions of the site that are tributary to the stormwater basin.

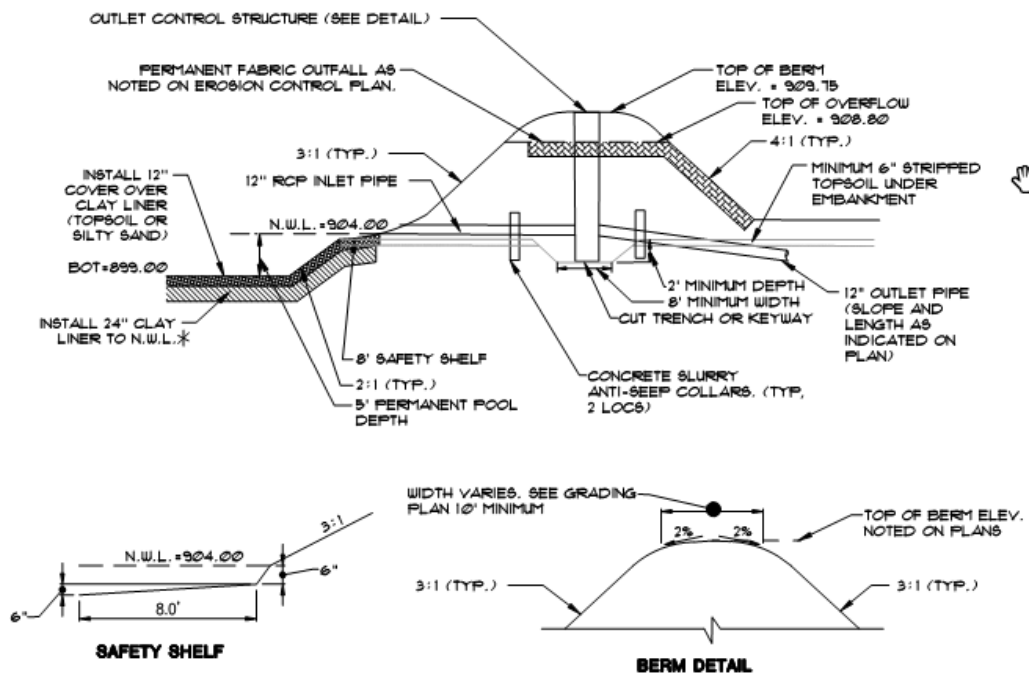
UD-1 – This area includes the portions of the West side of the site that will be released undetained. It includes paved and greenspace areas.

UD-2 – This area includes the portions of the East, side of the site that will be released undetained. It includes paved and greenspace areas.

Proposed Conditions Summary:

Sub-Area Name	Area (acres)	Curve Number	Time of Concentration (min)
PR-1	2.338	91	18.1
PR-2	1.478	96	6.0
UD-1	0.701	85	6.0
UD-2	0.380	78	6.0
Total	4.897		





04 BASIN OUTLET WITH STRUCTURE
NTS

Stormwater Basin 1 Summary:

Storm Event	Elevation	Release Rate (cfs)
2-yr	906.68	0.38
10-yr	907.78	0.45
100-yr	908.46	7.30

Overall On-Site Stormwater Volume Comparison Summary:

The volumetric design procedure was used for this project to show the site meets the requirements of MMSD chapter 13. The volumetric design procedure analyzes the volume of water leaving the site for both the existing and proposed conditions. Based on MMSD chapter 13 requirements, the volume during the critical time period for the proposed conditions must be less than the volume for the critical time period under the existing condition.

This site is located in the Menomonee River watershed. The length of the critical time period for the Menomonee River Watershed is 9.5 hours. The critical time starts at 11.75 hours and ends at 21.25 hours.

The table below summarizes the volume from the study area under both the existing and proposed conditions and shows the volume under the proposed conditions is less than the existing conditions during the critical time period, meeting the requirements of MMSD chapter 13. Additional tables and hydrographs supporting this summary can be found in the **Proposed Conditions** section of the report.

Storm Event	Existing Volume (ac-ft)*	Proposed Volume (ac-ft)*	% Volume Reduction (Proposed vs. Existing)
2-yr	0.414	0.367	11.35
100-yr	1.563	1.205	22.90

*During the critical time period of 11.75 hours to 21.25 hours.

Water Quality and Analysis

The proposed development was modeled using the water quality software WinSLAMM (Ver. 10.2.0). Wisconsin Department of Natural Resources requires this redevelopment site to provide a 40% TSS reduction for the new roadway and parking areas as compared to using no runoff management controls.

The stormwater basin has been modeled in WinSLAMM and show that the site exceeds the 40% requirements. See the **Water Quality** section for exhibits and calculations that demonstrate that the site meets the 40% reduction requirement.

Erosion Control Plan

Approximately 4.5 acres of the existing site will be disturbed for this project. The Erosion Control Plan shows the methods and locations proposed to stabilize the site during and after the development project.

Prior to initiating construction onsite, the silt filter fence and the construction entrance tracking pad shall be installed in an effort to minimize sediment travelling offsite.

Construction activities shall be staged, as much as possible, to limit the combined disturbed area.

Upon completing the grading and swales, the erosion control matting shall be installed. Silt fencing shall be maintained throughout the construction process and repaired and replaced as needed.

Sediment tracking shall be minimized to the maximum extent practicable. Roadways are to be swept of debris at the end of each work day, as needed.

Disturbed areas shall be stabilized as soon as grading is completed. Restoration and seeding methods shall follow the landscaping plans and Town standards.

Dust control shall be maintained onsite with the use of a water truck if substantial dust becomes airborne.

During construction, the site shall be inspected by the contractor weekly and after every 0.5" or greater rainfall to evaluate the conditions of the erosion control practices and resolve any issues. The inspections shall be documented and maintained onsite and follow Wisconsin Department of Commerce Chapter Comm. 60.

After the site work has been substantially completed and the areas have become stabilized, the stormwater management basins, inlet and outlets, and outlet control structure shall be inspected and cleaned if necessary to

remove all sediment deposits transported during construction. After all areas have been stabilized, the temporary erosion control methods should be removed permanently

Operation and Maintenance

Routine inspection and maintenance is required to maximize the long term water quantity and quality benefits provided by the stormwater management basins.

Culverts and inlets/outlets should be visually inspected after any large event and at a minimum of once per year. The outlet control structure should also be inspected after any large event, as well as, a minimum of twice per year (remove any debris that might create a blockage, including the grate on flared end section).

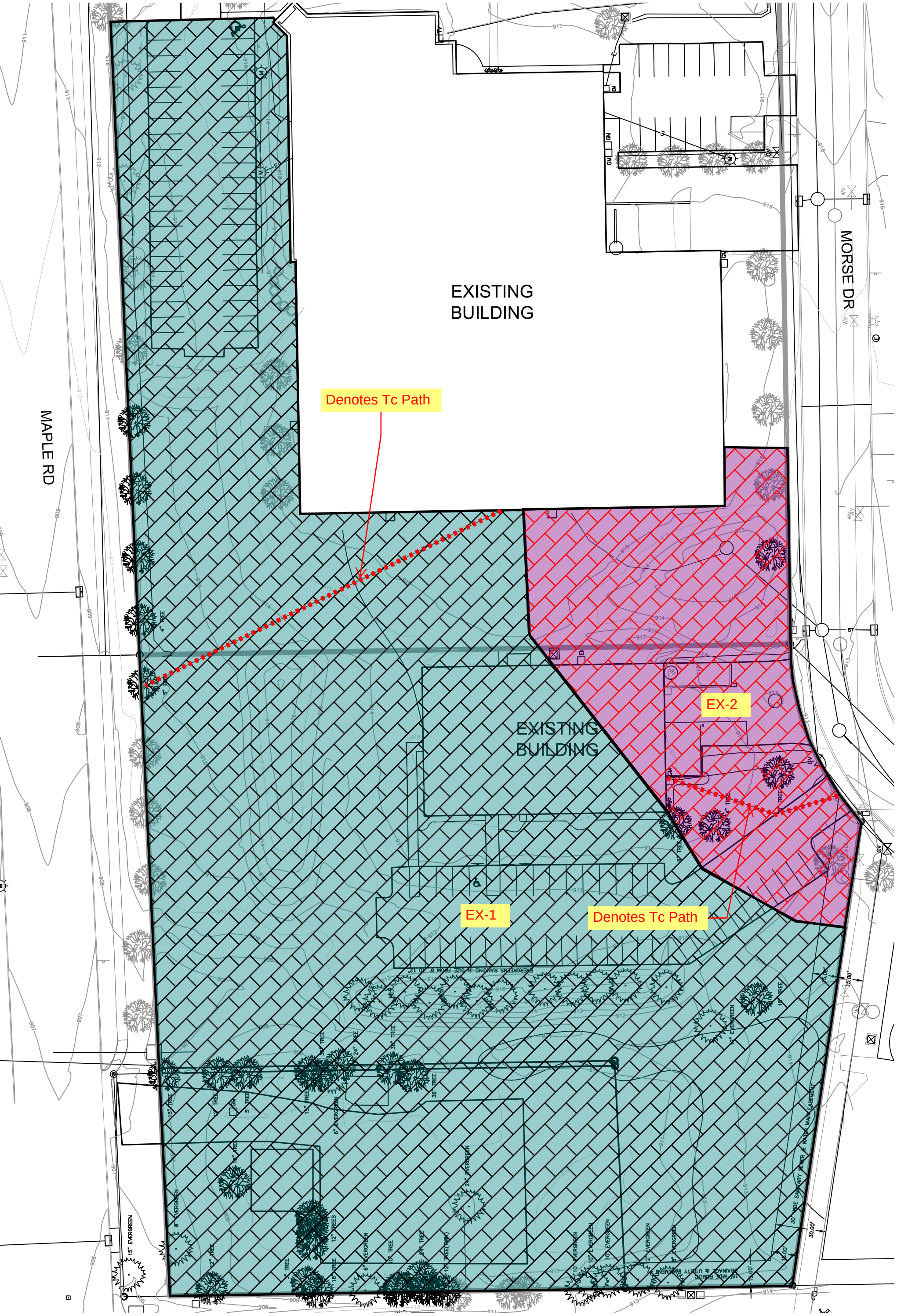
In regards to the stormwater management basins controlling weeds in areas within the basin, as well as, the side slopes is required throughout the life of the basin. Weed control should be accomplished through spot applications of herbicides only, not broadcast or sprayed. Herbicide applications should be performed by trained professionals with proper equipment and understanding of herbicide properties. A healthy stand of turf grass in areas above the basin serves as an additional sediment filter. Areas of bare soil shall be reseeded and mulched as needed. Tree seedlings within the areas upslope of the basin can be removed and/or controlled with a routine mowing schedule.

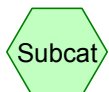
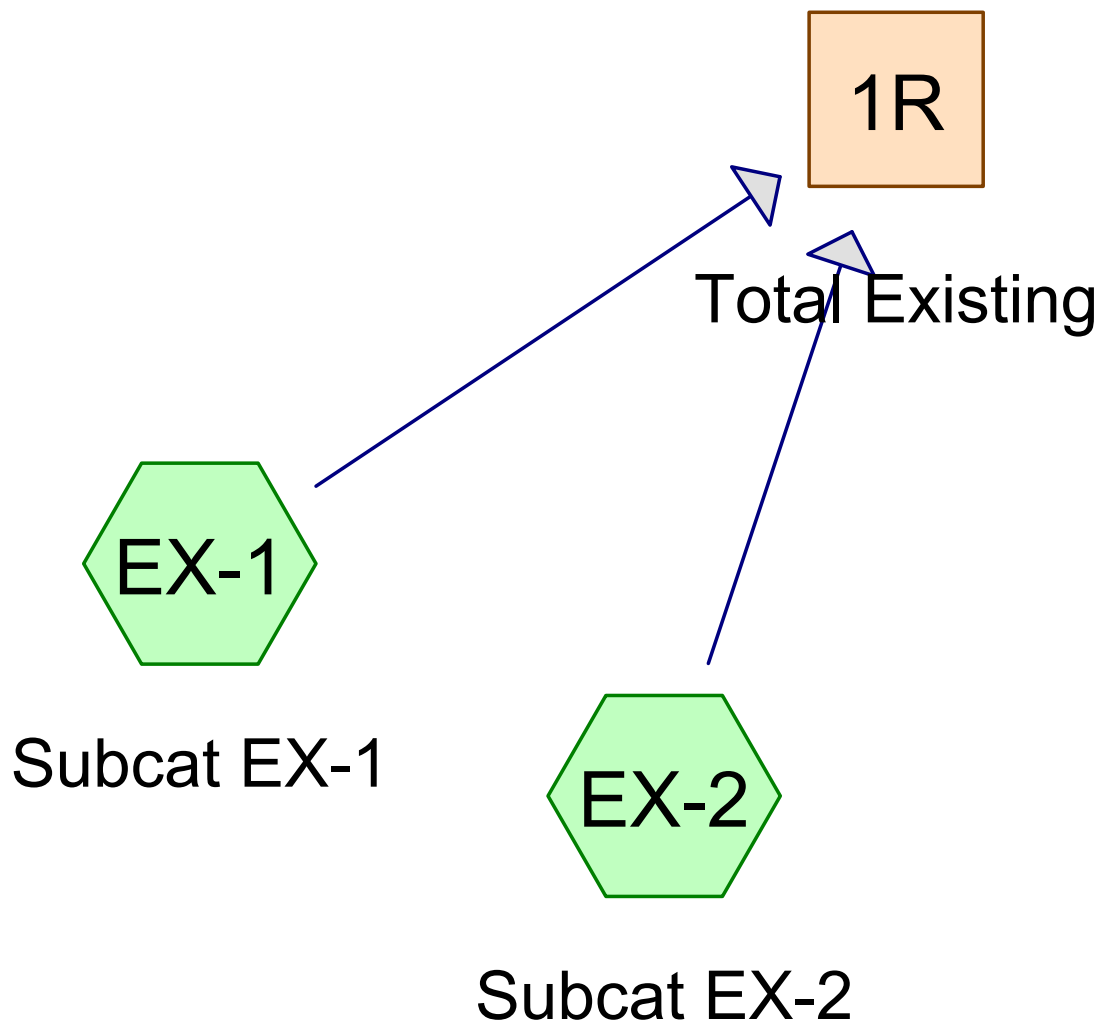
The basin area shall be routinely inspected for litter, floating debris, weeds and tree seedlings, and sediment build up. Sediment within the basin bottom shall be safely removed and disposed of on an as needed basis to maintain water quality functions.

A copy of inspections performed, as well as, any preventative and/or required maintenance shall be logged and kept on site or with the property owner.

Conclusion

The proposed stormwater management features for the Glue Dots International Building Addition has been designed to meet the requirements of the Village of Germantown and Wisconsin Department of Natural Resources with respect to stormwater quantity, quality, and erosion control.

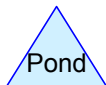




Subcat



Reach



Pond



Link

Routing Diagram for Existing

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Existing*MSE 24-hr 3 2-Year Rainfall=2.65"*

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Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

SubcatchmentEX-1: Subcat EX-1

Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>1.04"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=4.04 cfs 0.361 af

SubcatchmentEX-2: Subcat EX-2

Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>1.08"
Flow Length=103' Tc=11.0 min CN=82 Runoff=1.20 cfs 0.065 af

Reach 1R: Total Existing

Inflow=4.52 cfs 0.426 af
Outflow=4.52 cfs 0.426 af

Total Runoff Area = 4.897 ac Runoff Volume = 0.426 af Average Runoff Depth = 1.04"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Existing

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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Subcatchment EX-1: Subcat EX-1

Runoff = 4.04 cfs @ 12.42 hrs, Volume= 0.361 af, Depth> 1.04"

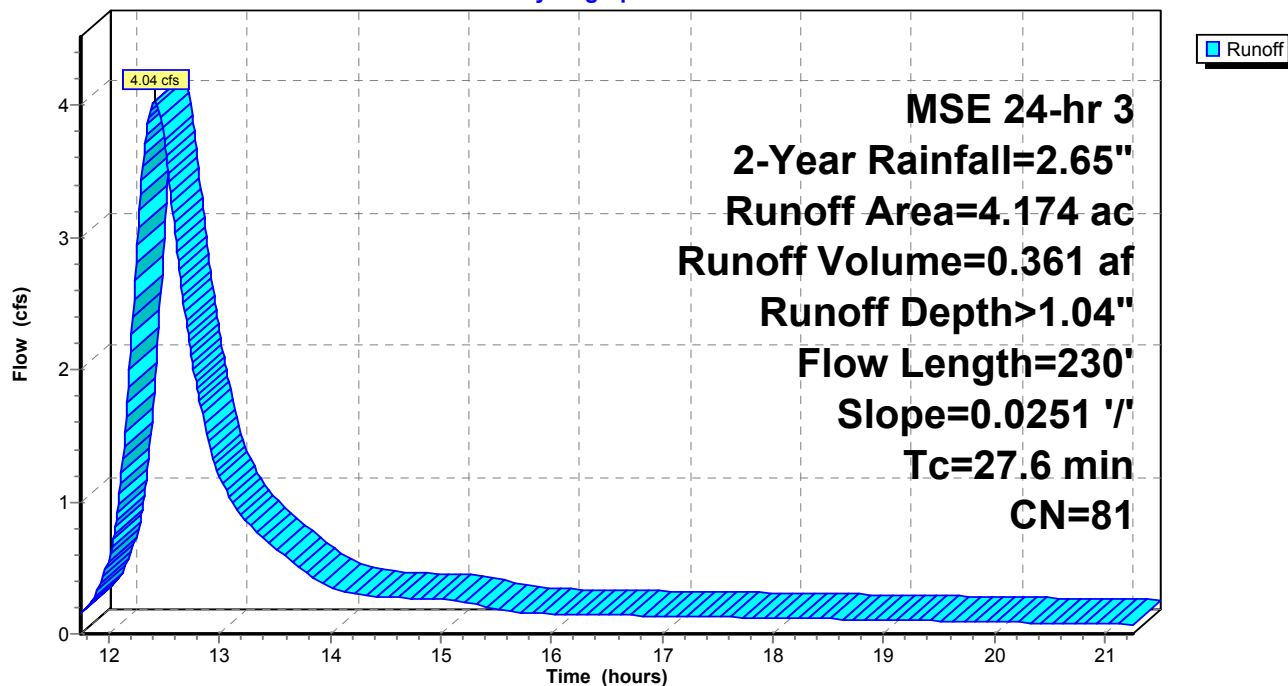
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1

Hydrograph



Existing

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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Subcatchment EX-2: Subcat EX-2

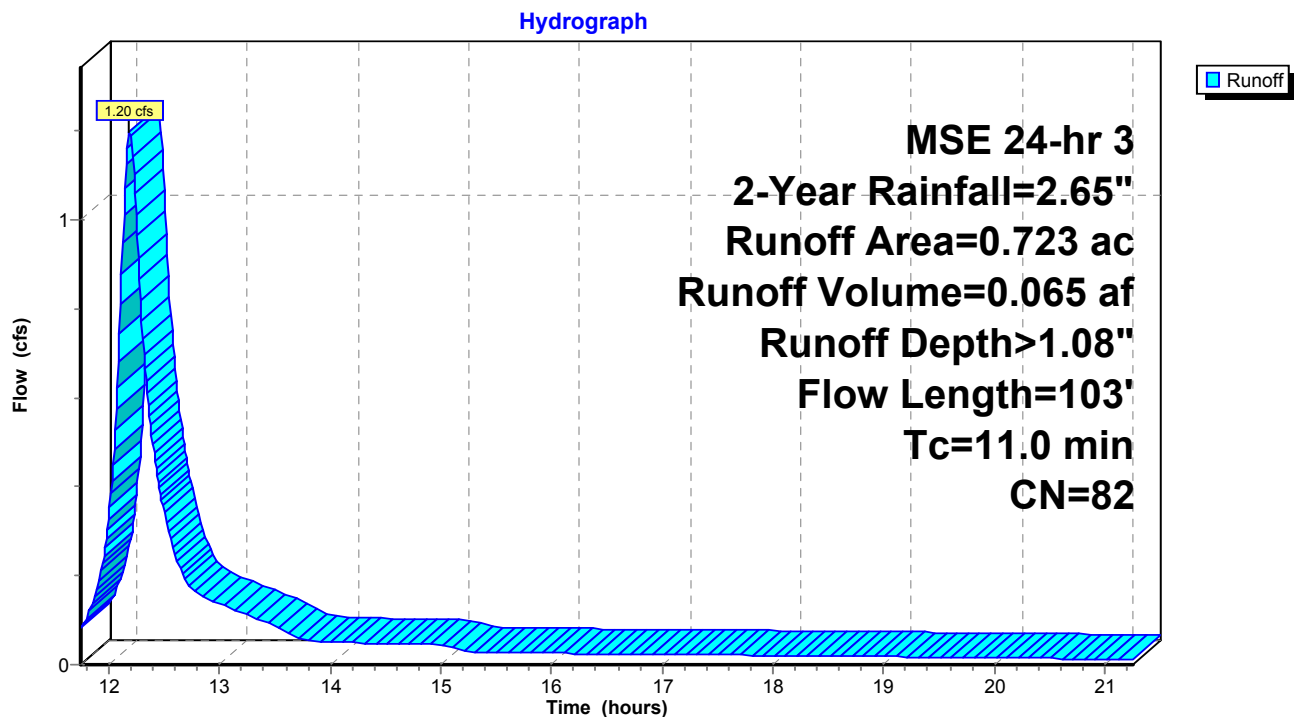
Runoff = 1.20 cfs @ 12.19 hrs, Volume= 0.065 af, Depth> 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2



Existing

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MSE 24-hr 3 2-Year Rainfall=2.65"

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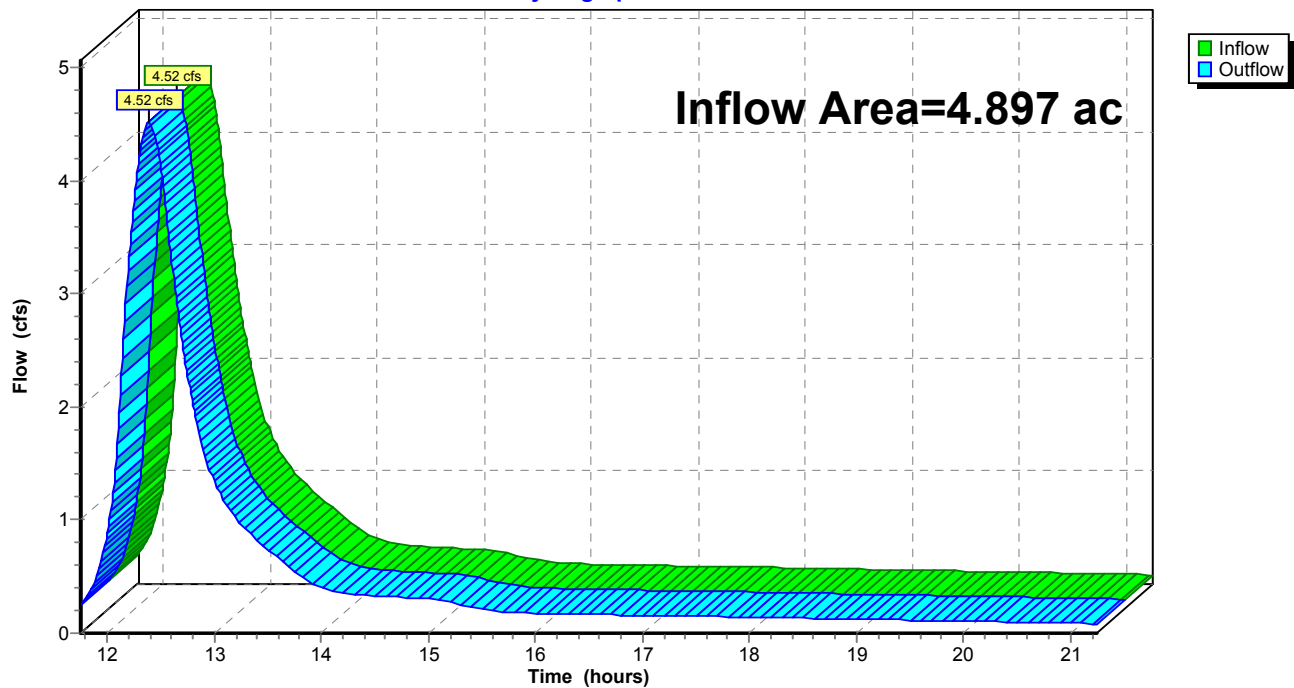
Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 1.04" for 2-Year event
Inflow = 4.52 cfs @ 12.39 hrs, Volume= 0.426 af
Outflow = 4.52 cfs @ 12.39 hrs, Volume= 0.426 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing

Hydrograph



Existing*MSE 24-hr 3 10-Year Rainfall=3.82"*

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Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

SubcatchmentEX-1: Subcat EX-1

Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>1.90"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=7.71 cfs 0.662 af

SubcatchmentEX-2: Subcat EX-2

Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>1.93"
Flow Length=103' Tc=11.0 min CN=82 Runoff=2.23 cfs 0.116 af

Reach 1R: Total Existing

Inflow=8.64 cfs 0.778 af
Outflow=8.64 cfs 0.778 af

Total Runoff Area = 4.897 ac Runoff Volume = 0.778 af Average Runoff Depth = 1.91"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Existing

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MSE 24-hr 3 10-Year Rainfall=3.82"

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Summary for Subcatchment EX-1: Subcat EX-1

Runoff = 7.71 cfs @ 12.40 hrs, Volume= 0.662 af, Depth> 1.90"

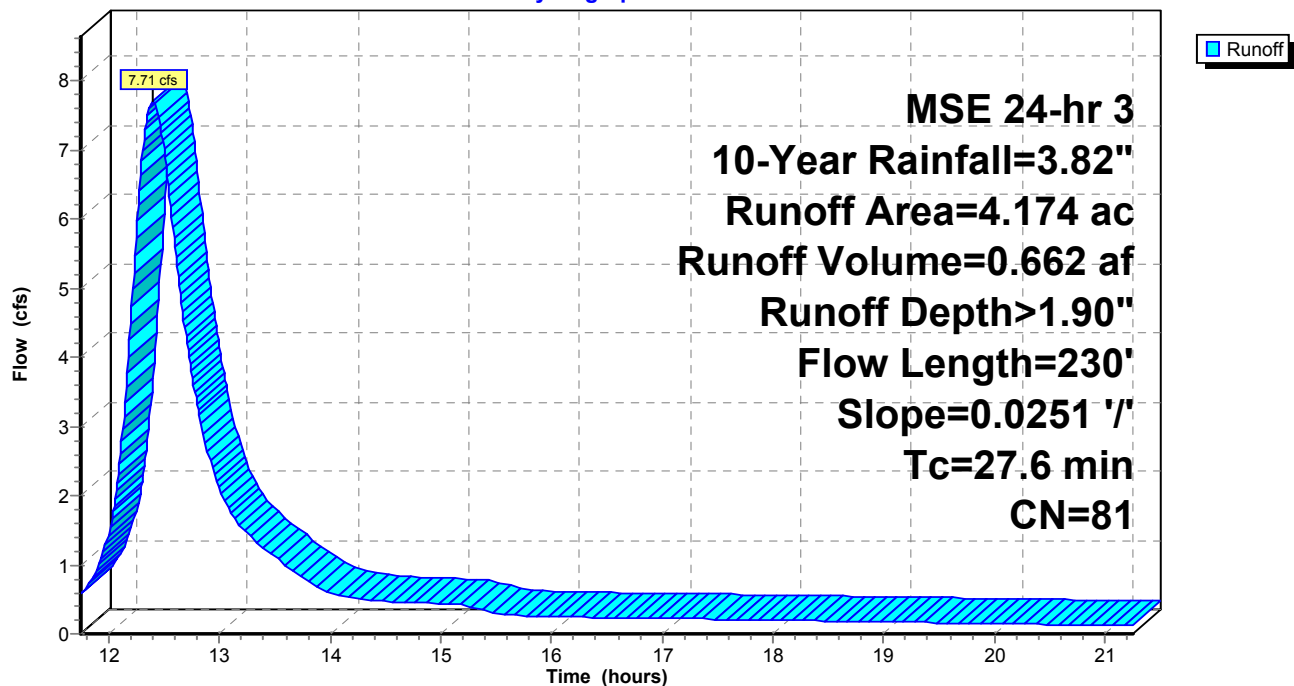
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1

Hydrograph



Existing

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MSE 24-hr 3 10-Year Rainfall=3.82"

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Summary for Subcatchment EX-2: Subcat EX-2

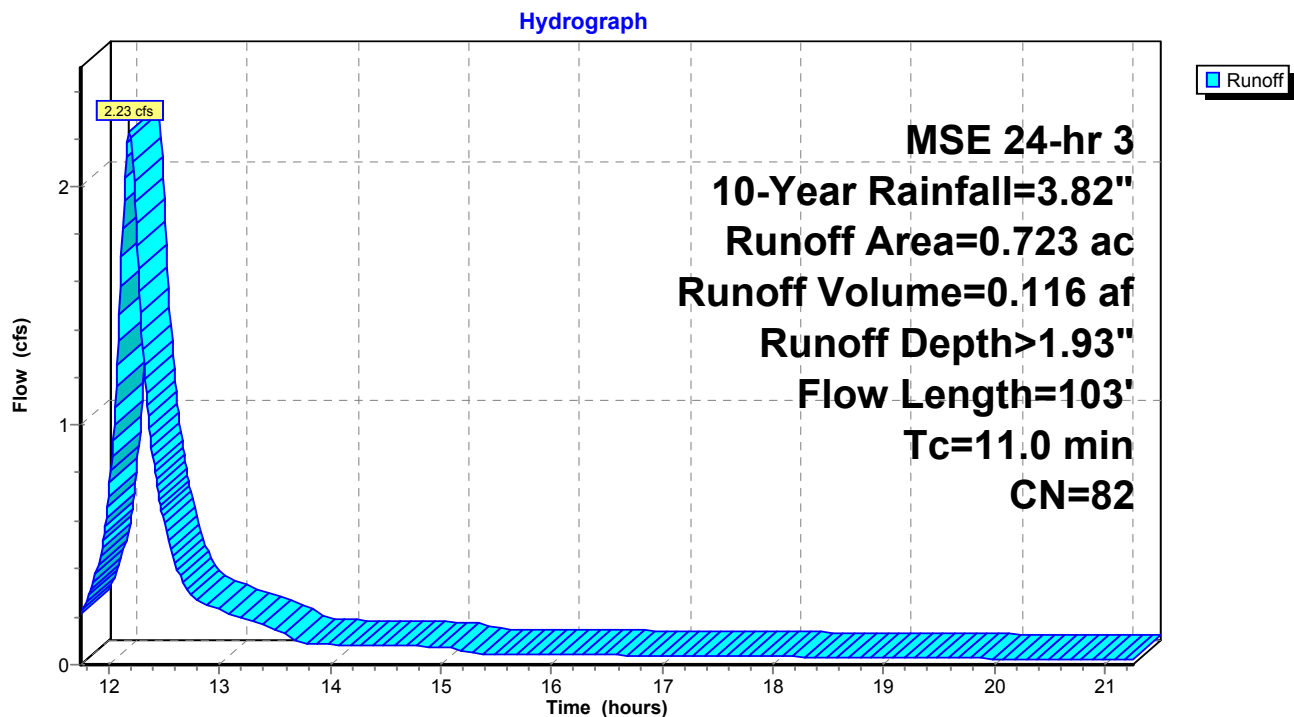
Runoff = 2.23 cfs @ 12.19 hrs, Volume= 0.116 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2



Existing

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MSE 24-hr 3 10-Year Rainfall=3.82"

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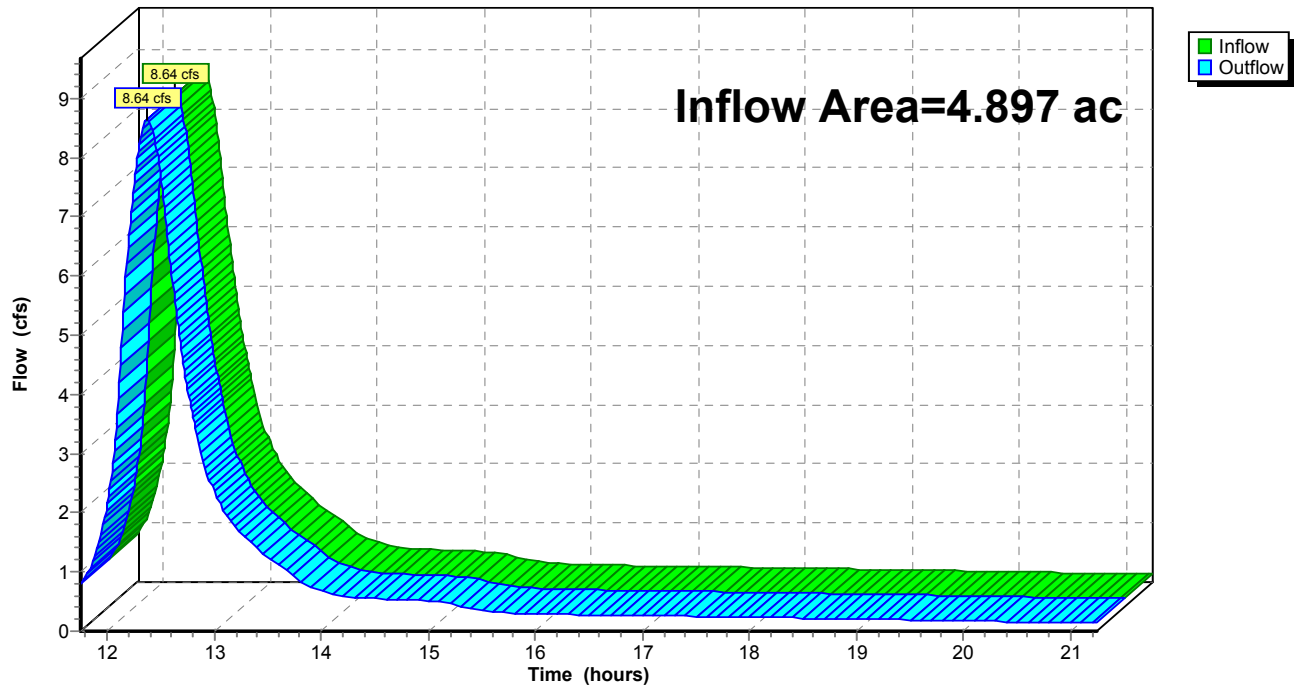
Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 1.91" for 10-Year event
Inflow = 8.64 cfs @ 12.36 hrs, Volume= 0.778 af
Outflow = 8.64 cfs @ 12.36 hrs, Volume= 0.778 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing

Hydrograph



Existing*MSE 24-hr 3 100-Year Rainfall=6.41"*

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Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

SubcatchmentEX-1: Subcat EX-1

Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>3.95"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=16.59 cfs 1.373 af

SubcatchmentEX-2: Subcat EX-2

Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>3.90"
Flow Length=103' Tc=11.0 min CN=82 Runoff=4.65 cfs 0.235 af

Reach 1R: Total Existing

Inflow=18.55 cfs 1.608 af
Outflow=18.55 cfs 1.608 af

Total Runoff Area = 4.897 ac Runoff Volume = 1.608 af Average Runoff Depth = 3.94"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Existing

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment EX-1: Subcat EX-1

Runoff = 16.59 cfs @ 12.39 hrs, Volume= 1.373 af, Depth> 3.95"

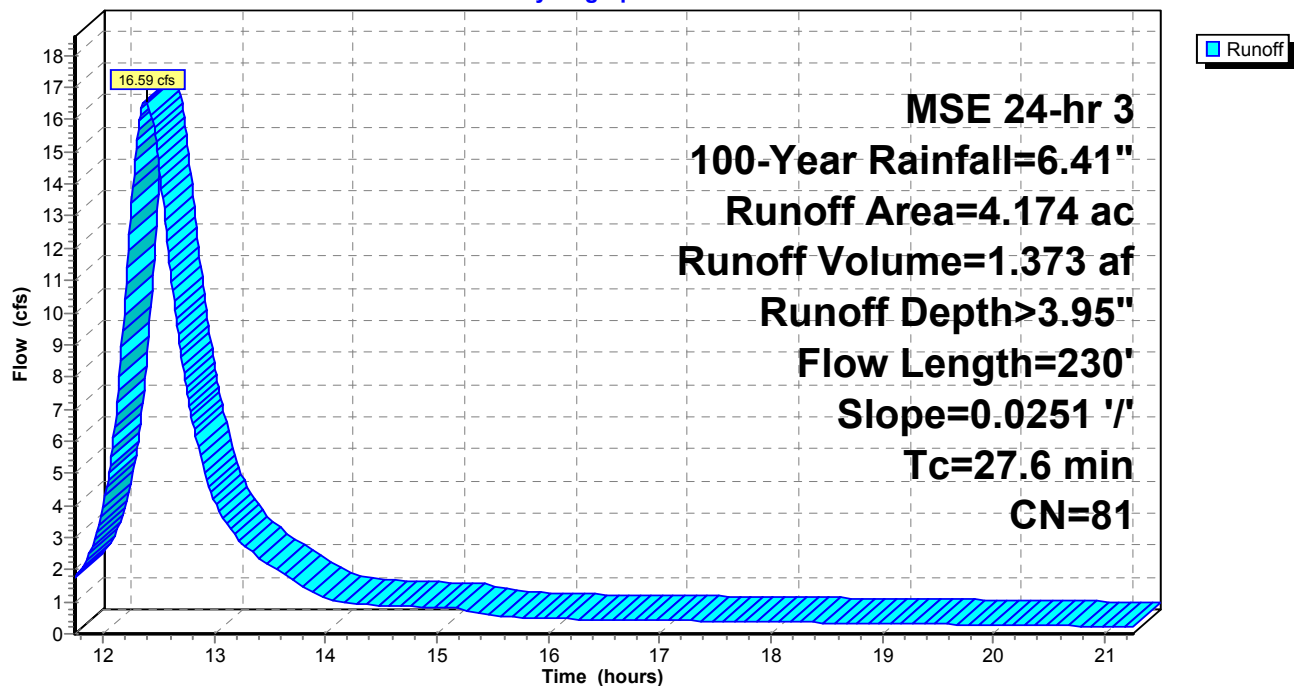
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1

Hydrograph



Existing

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment EX-2: Subcat EX-2

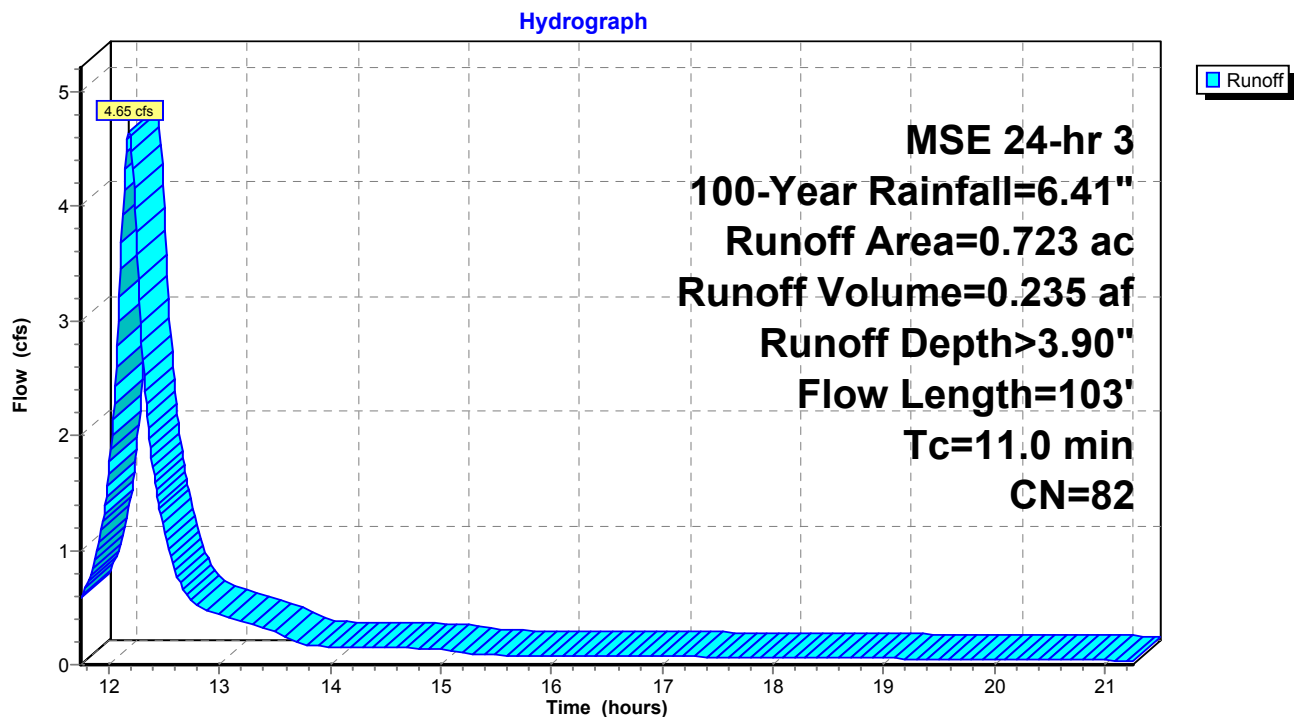
Runoff = 4.65 cfs @ 12.18 hrs, Volume= 0.235 af, Depth> 3.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		Sheet Flow, Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2



Existing

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 3.94" for 100-Year event

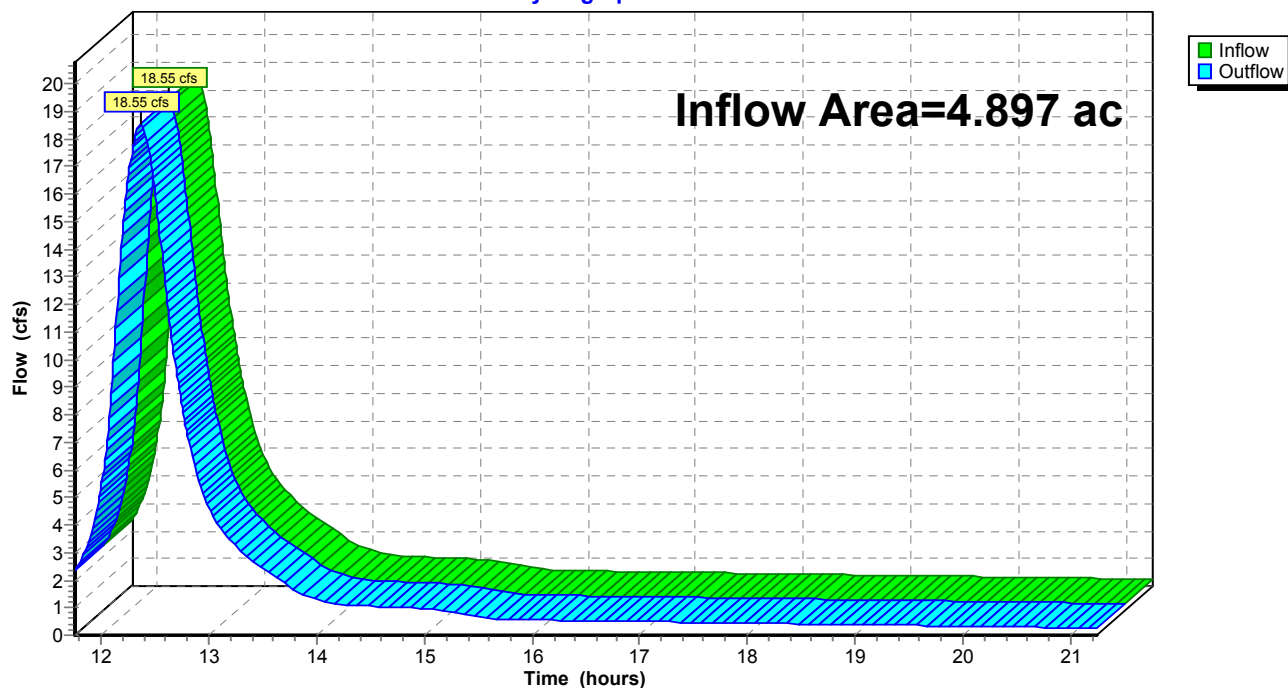
Inflow = 18.55 cfs @ 12.36 hrs, Volume= 1.608 af

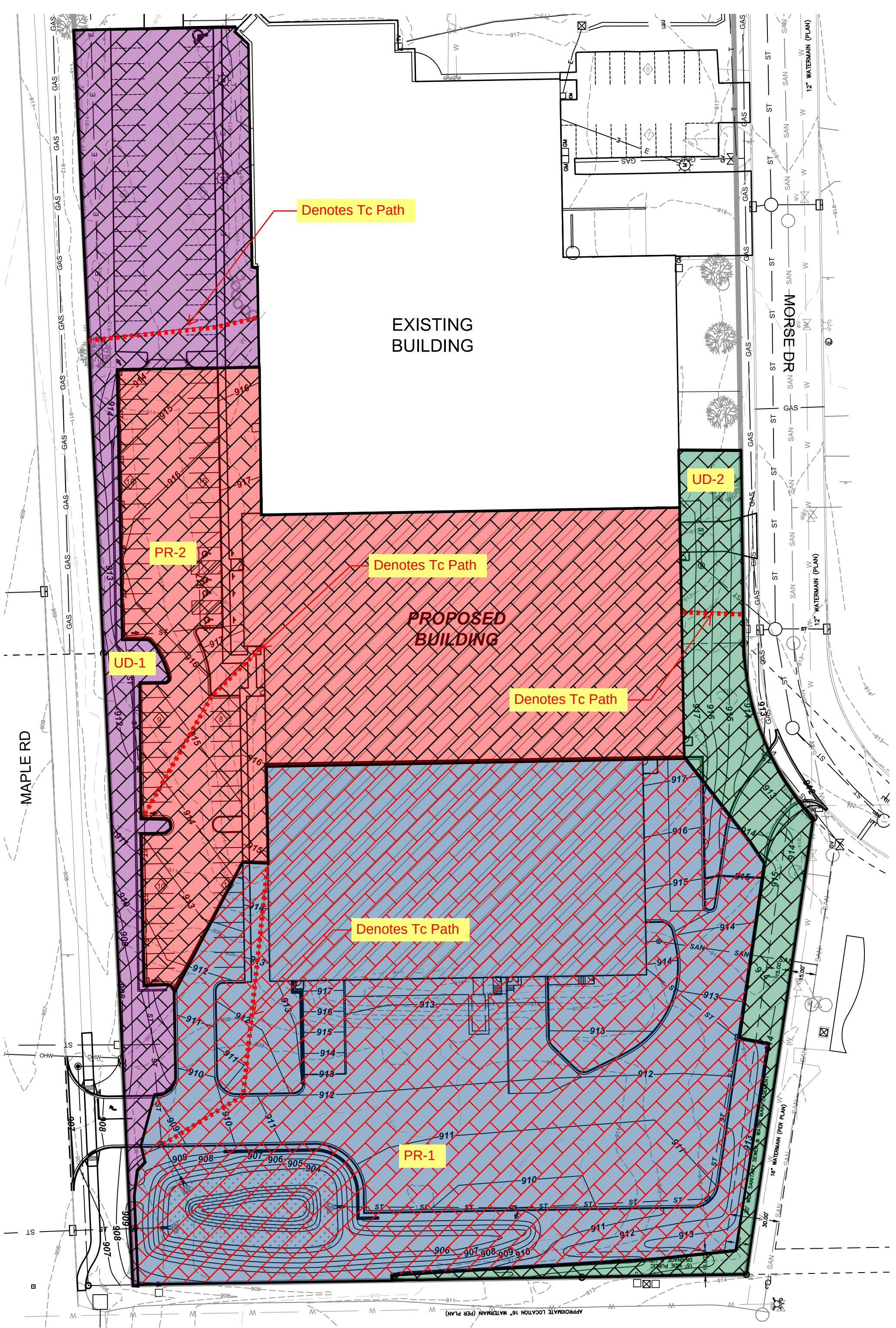
Outflow = 18.55 cfs @ 12.36 hrs, Volume= 1.608 af, Atten= 0%, Lag= 0.0 min

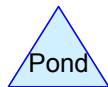
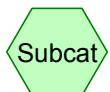
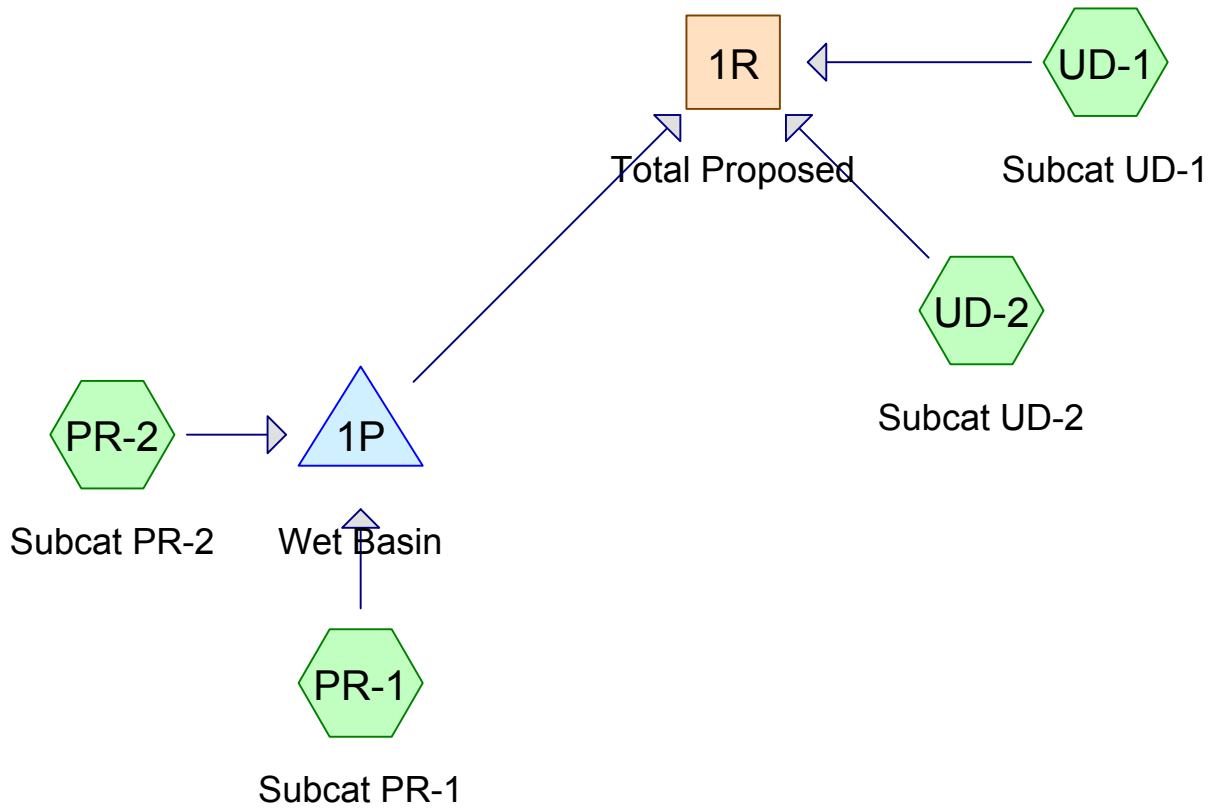
Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing

Hydrograph







Proposed*MSE 24-hr 3 2-Year Rainfall=2.65"*

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Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

SubcatchmentPR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>1.60"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=4.78 cfs 0.312 af

SubcatchmentPR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>1.80"
Flow Length=249' Tc=6.0 min CN=96 Runoff=5.53 cfs 0.222 af

SubcatchmentUD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>1.20"
Tc=0.0 min CN=85 Runoff=2.04 cfs 0.070 af

SubcatchmentUD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>0.87"
Tc=0.0 min CN=78 Runoff=0.81 cfs 0.027 af

Reach 1R: Total Proposed Inflow=3.12 cfs 0.434 af
Outflow=3.12 cfs 0.434 af

Pond 1P: Wet Basin Peak Elev=906.68' Storage=23,681 cf Inflow=8.59 cfs 0.534 af
Outflow=0.38 cfs 0.336 af

Total Runoff Area = 4.898 ac Runoff Volume = 0.632 af Average Runoff Depth = 1.55"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Subcatchment PR-1: Subcat PR-1

Runoff = 4.78 cfs @ 12.27 hrs, Volume= 0.312 af, Depth> 1.60"

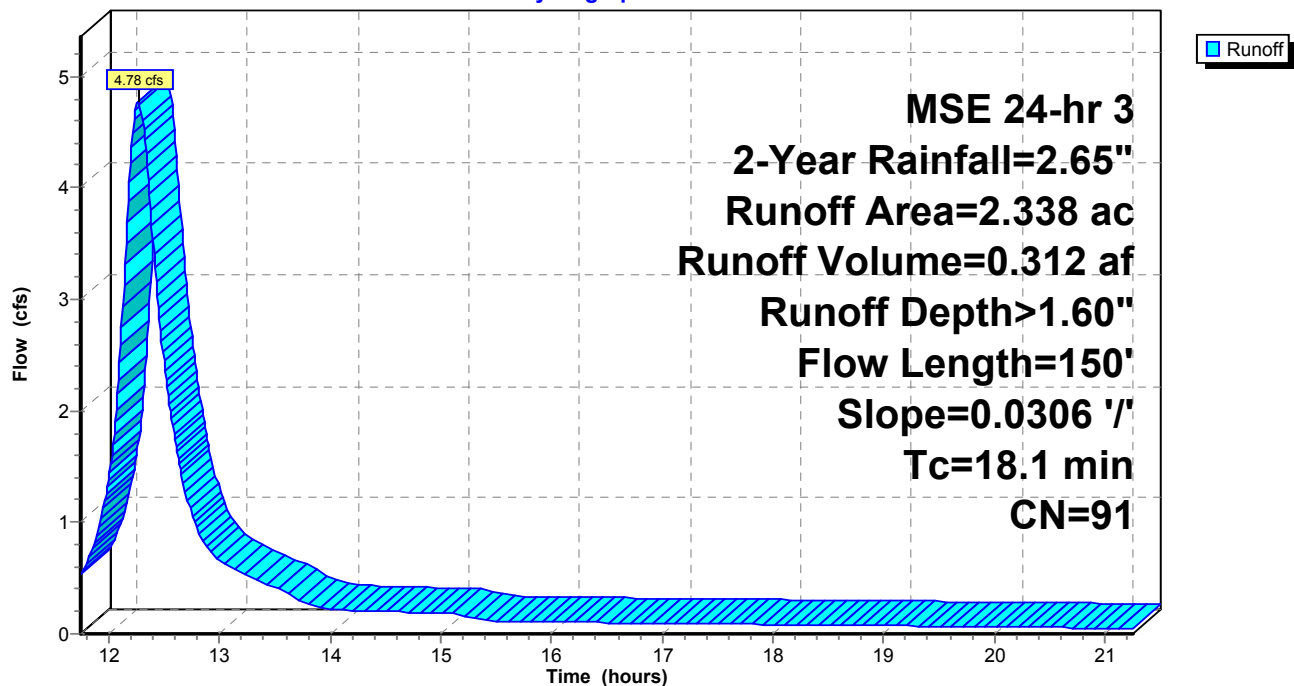
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1

Hydrograph



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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Subcatchment PR-2: Subcat PR-2

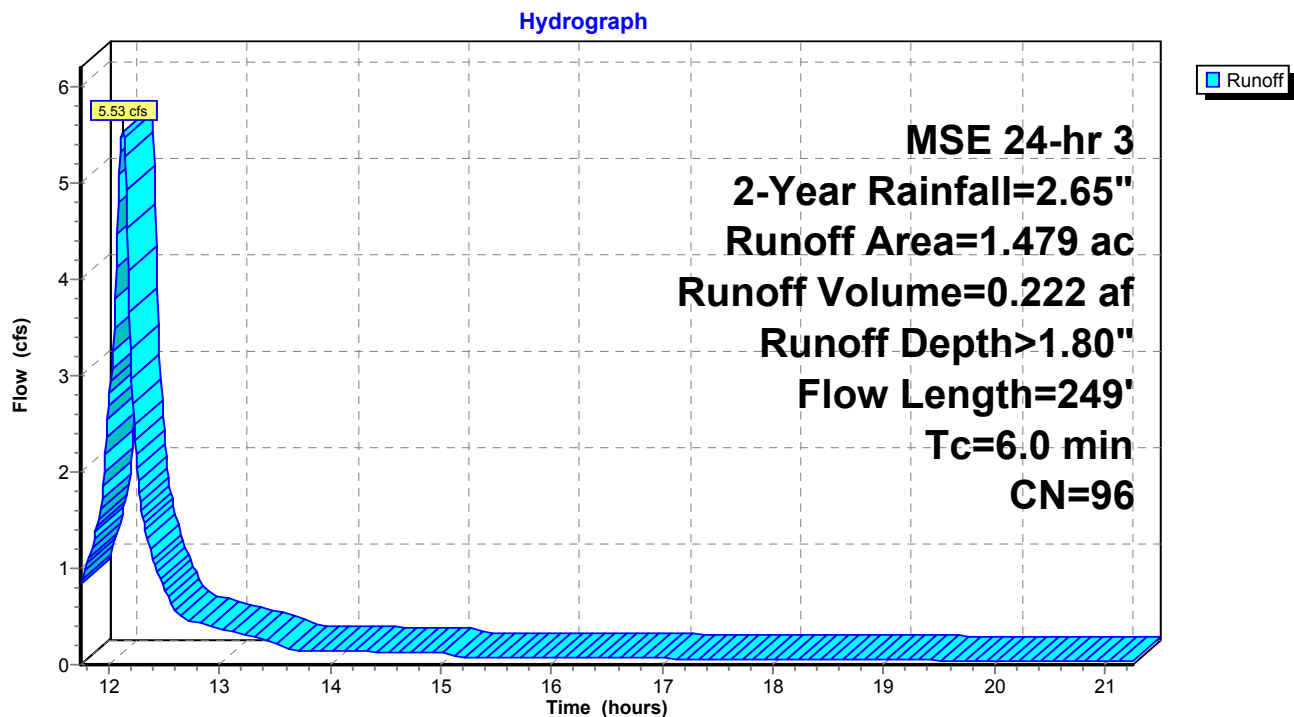
Runoff = 5.53 cfs @ 12.13 hrs, Volume= 0.222 af, Depth> 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2



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MSE 24-hr 3 2-Year Rainfall=2.65"

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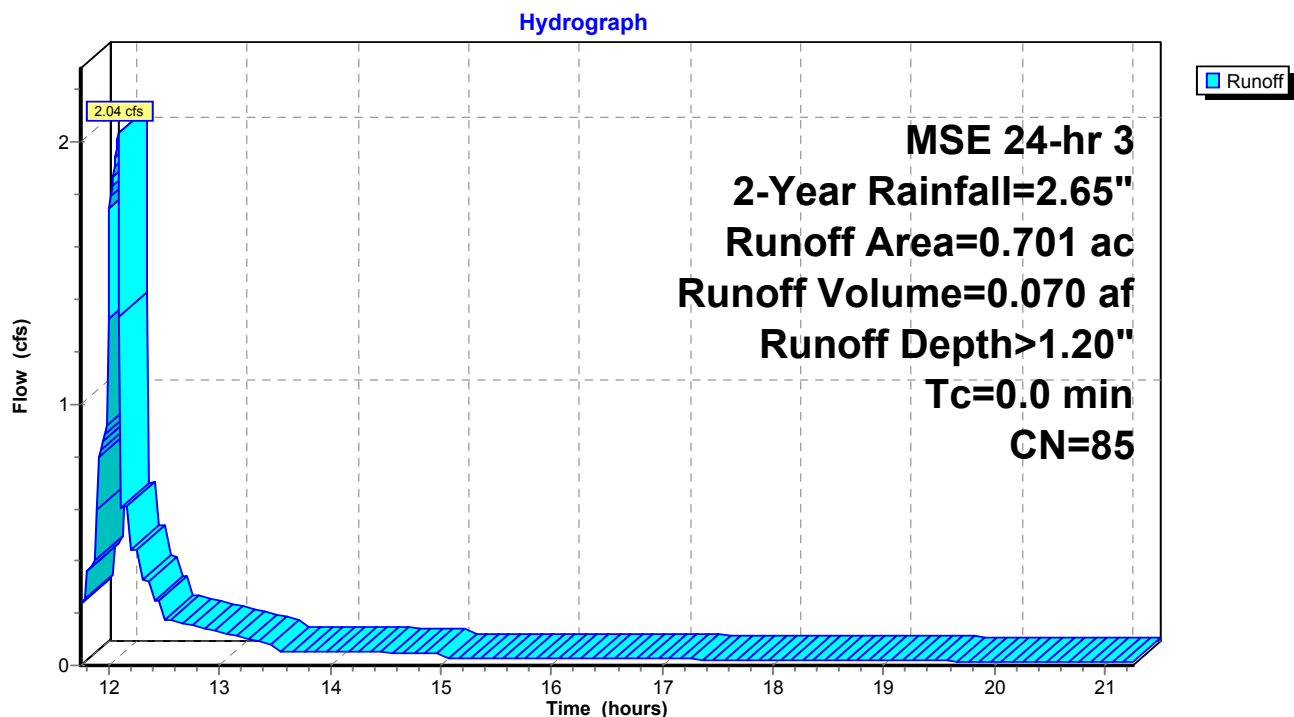
Summary for Subcatchment UD-1: Subcat UD-1

Runoff = 2.04 cfs @ 12.09 hrs, Volume= 0.070 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1



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MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Subcatchment UD-2: Subcat UD-2

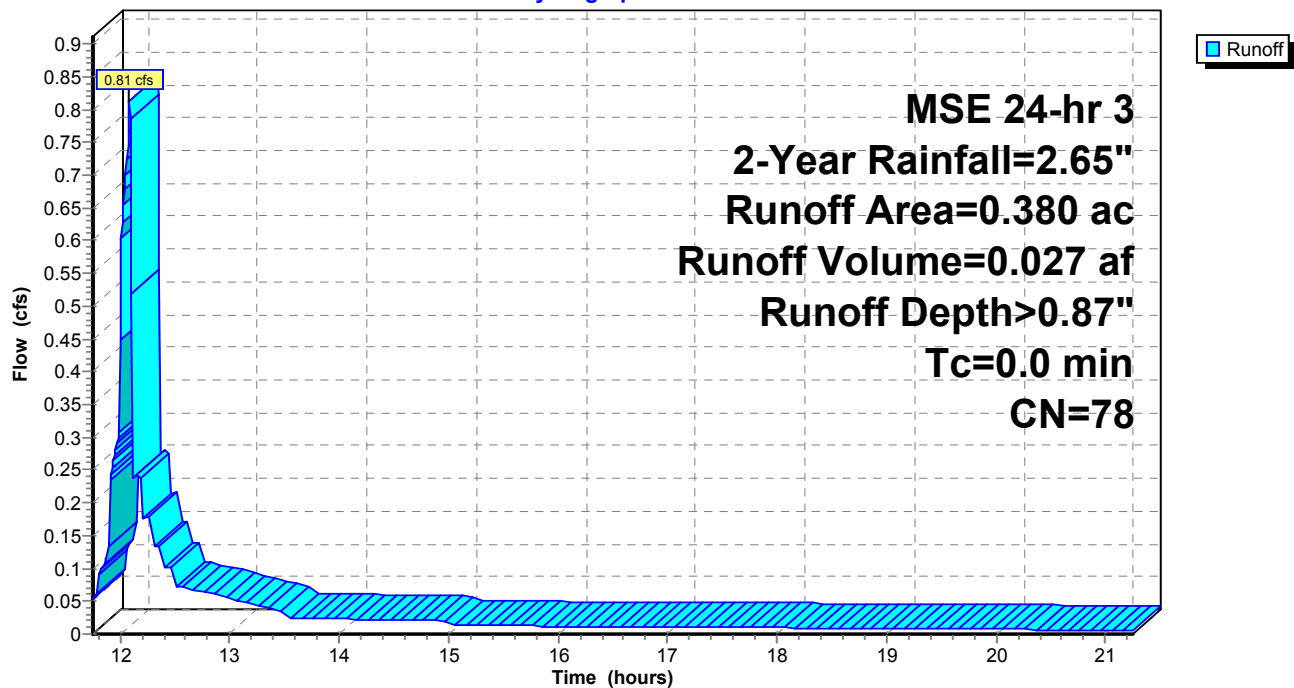
Runoff = 0.81 cfs @ 12.09 hrs, Volume= 0.027 af, Depth> 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2

Hydrograph



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MSE 24-hr 3 2-Year Rainfall=2.65"

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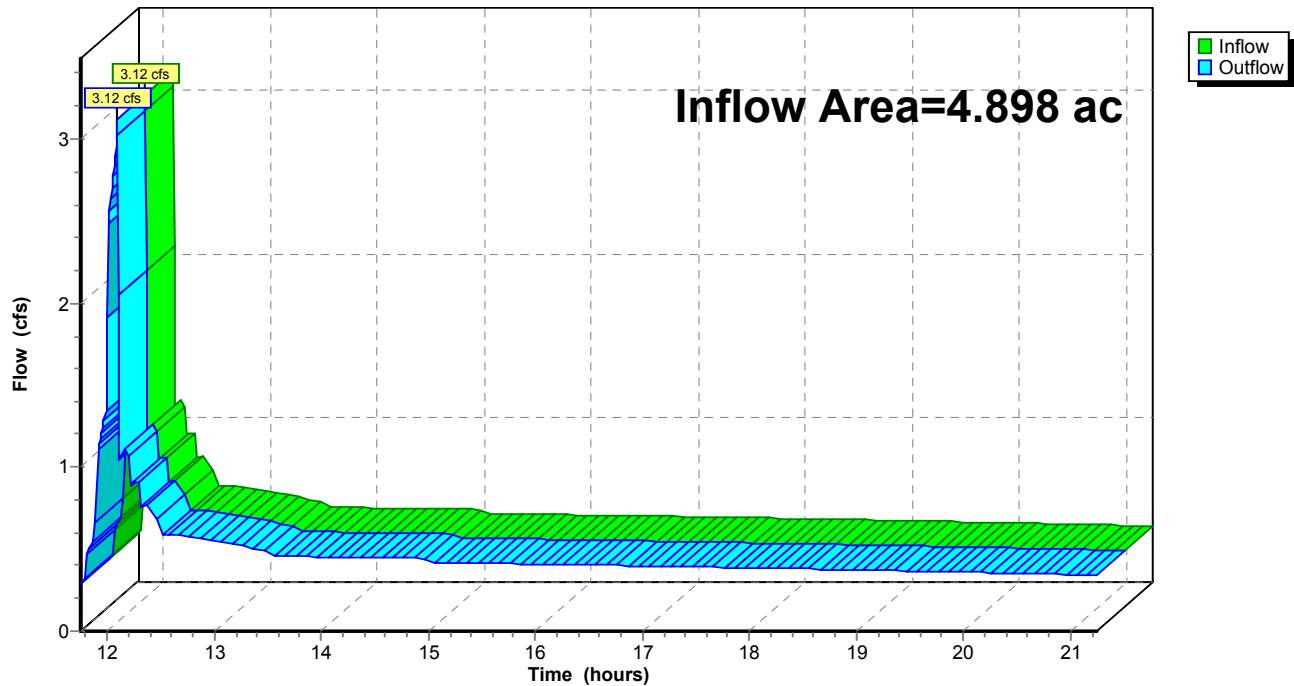
Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 1.06" for 2-Year event
Inflow = 3.12 cfs @ 12.09 hrs, Volume= 0.434 af
Outflow = 3.12 cfs @ 12.09 hrs, Volume= 0.434 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed

Hydrograph



Proposed

MSE 24-hr 3 2-Year Rainfall=2.65"

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Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 1.68" for 2-Year event
 Inflow = 8.59 cfs @ 12.14 hrs, Volume= 0.534 af
 Outflow = 0.38 cfs @ 13.91 hrs, Volume= 0.336 af, Atten= 96%, Lag= 106.1 min
 Primary = 0.38 cfs @ 13.91 hrs, Volume= 0.336 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf

Peak Elev= 906.68' @ 13.91 hrs Surf.Area= 7,967 sf Storage= 23,681 cf (15,794 cf above start)

Plug-Flow detention time= 526.3 min calculated for 0.154 af (29% of inflow)

Center-of-Mass det. time= 254.3 min (1,062.2 - 807.9)

Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	12.0" Round Culvert L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	3.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	907.80'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	908.80'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.38 cfs @ 13.91 hrs HW=906.68' (Free Discharge)

1=Culvert (Passes 0.38 cfs of 6.81 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.38 cfs @ 7.69 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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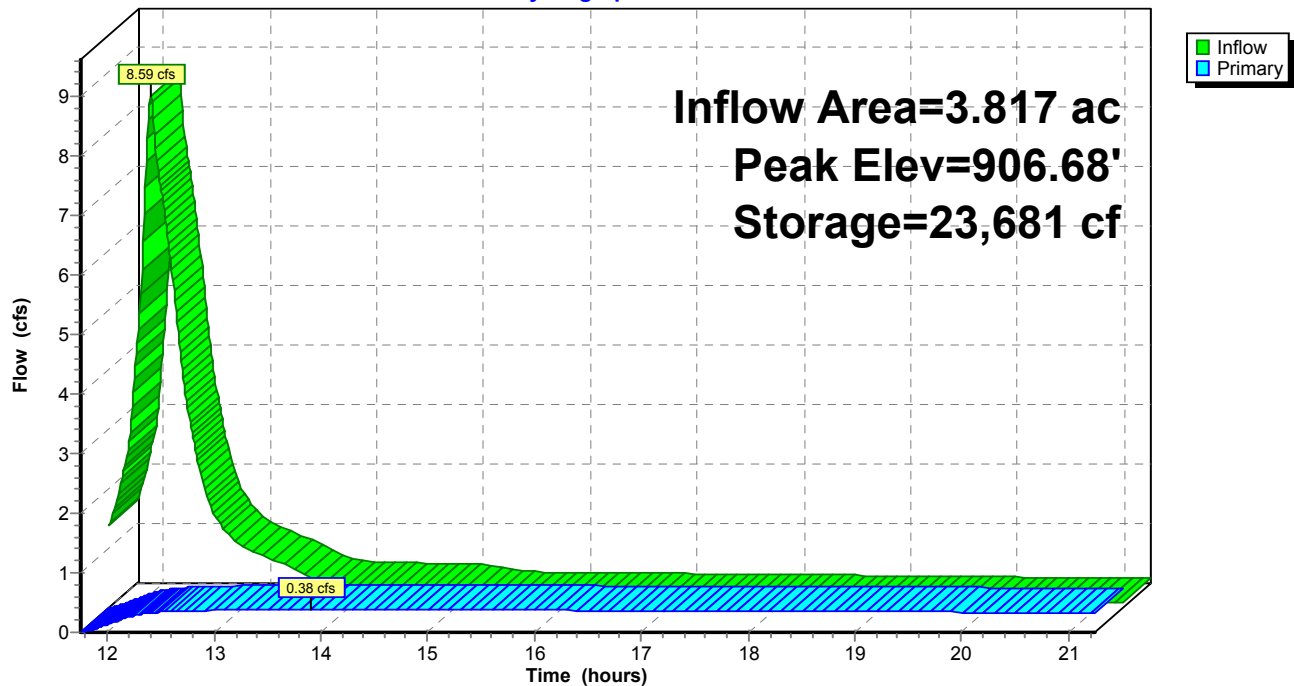
MSE 24-hr 3 2-Year Rainfall=2.65"

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Pond 1P: Wet Basin

Hydrograph



Proposed*MSE 24-hr 3 10-Year Rainfall=3.82"*

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Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

SubcatchmentPR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>2.52"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=7.64 cfs 0.491 af

SubcatchmentPR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>2.67"
Flow Length=249' Tc=6.0 min CN=96 Runoff=8.19 cfs 0.329 af

SubcatchmentUD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>2.04"
Tc=0.0 min CN=85 Runoff=3.46 cfs 0.119 af

SubcatchmentUD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>1.64"
Tc=0.0 min CN=78 Runoff=1.50 cfs 0.052 af

Reach 1R: Total Proposed Inflow=5.21 cfs 0.588 af
Outflow=5.21 cfs 0.588 af

Pond 1P: Wet Basin Peak Elev=907.78' Storage=33,385 cf Inflow=13.24 cfs 0.820 af
Outflow=0.45 cfs 0.417 af

Total Runoff Area = 4.898 ac Runoff Volume = 0.990 af Average Runoff Depth = 2.43"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

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MSE 24-hr 3 10-Year Rainfall=3.82"

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Summary for Subcatchment PR-1: Subcat PR-1

Runoff = 7.64 cfs @ 12.26 hrs, Volume= 0.491 af, Depth> 2.52"

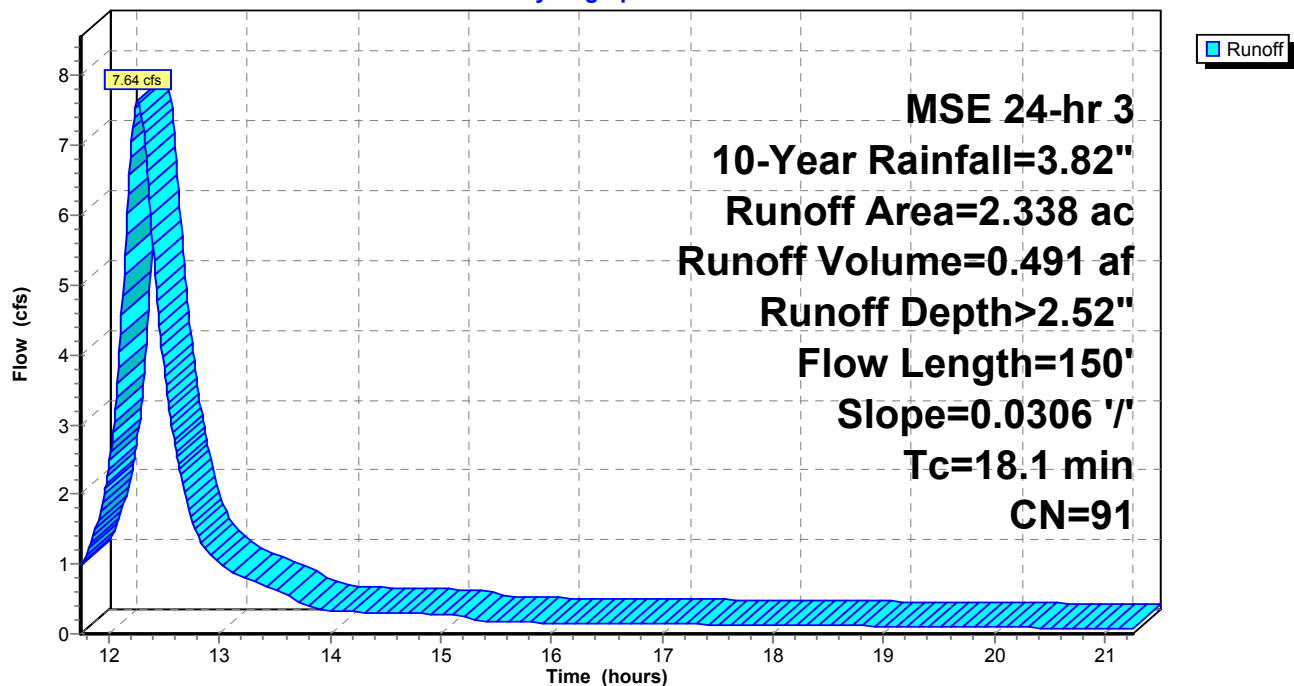
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.82"

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Summary for Subcatchment PR-2: Subcat PR-2

Runoff = 8.19 cfs @ 12.13 hrs, Volume= 0.329 af, Depth> 2.67"

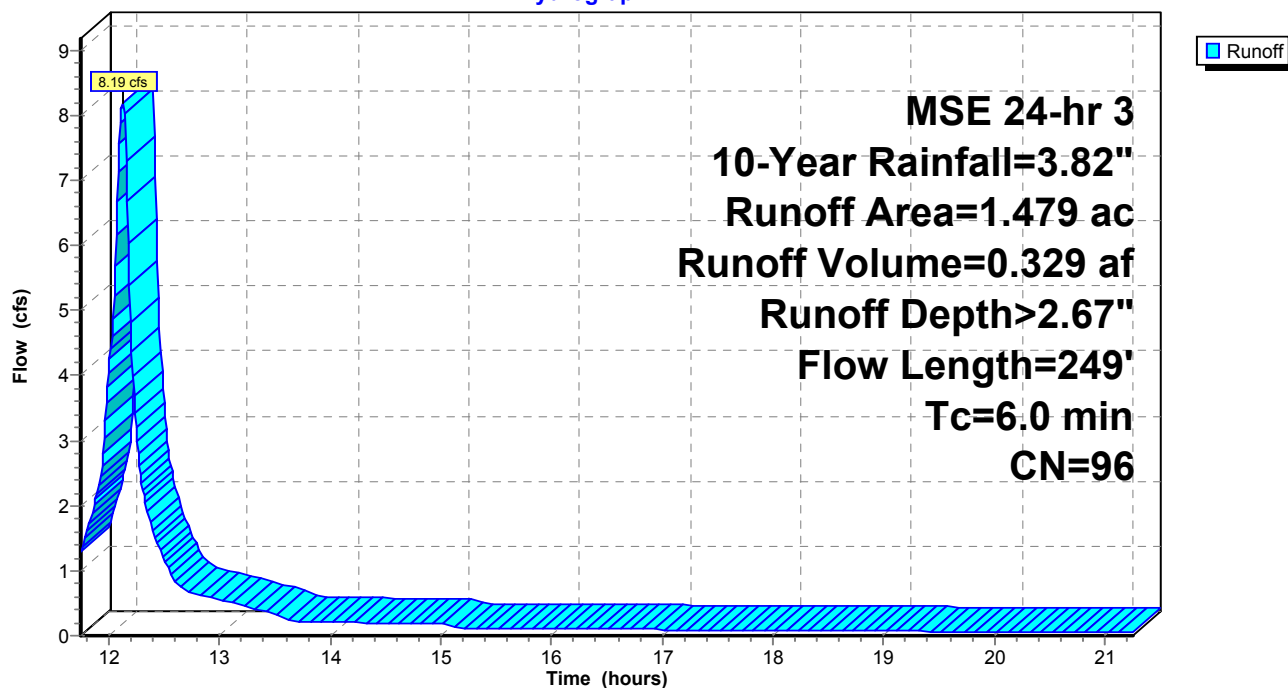
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.82"

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Summary for Subcatchment UD-1: Subcat UD-1

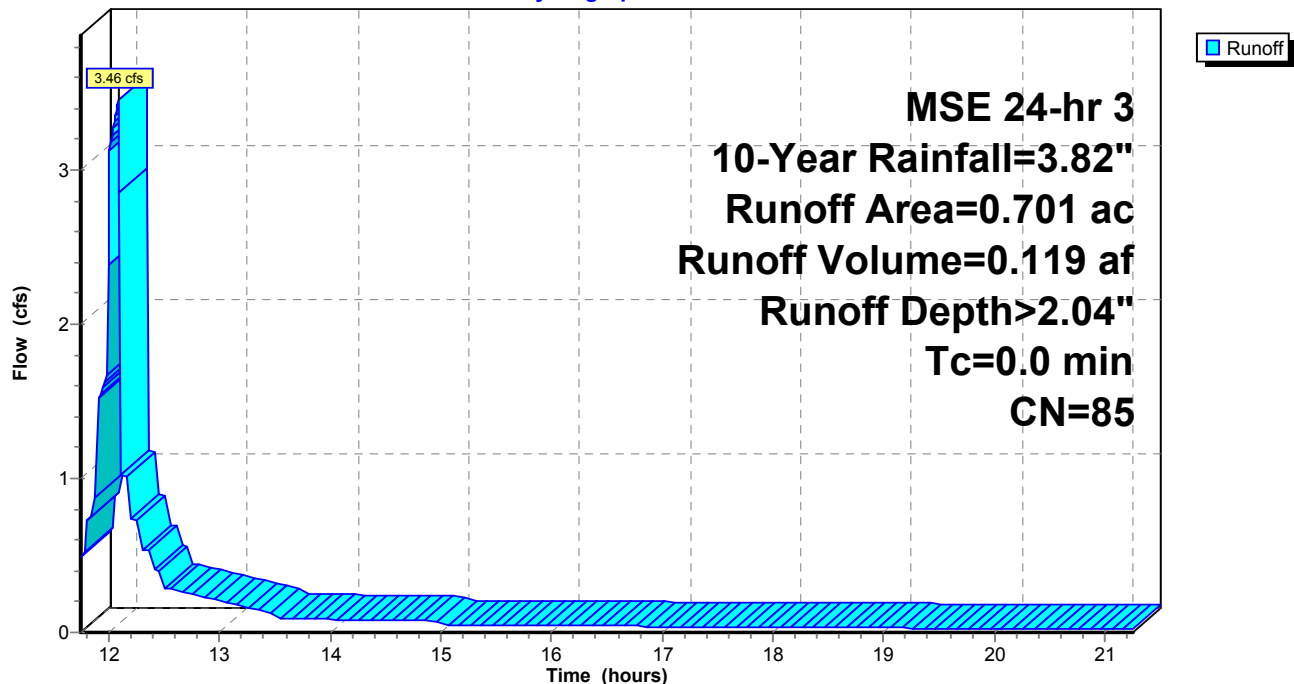
Runoff = 3.46 cfs @ 12.09 hrs, Volume= 0.119 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1

Hydrograph



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MSE 24-hr 3 10-Year Rainfall=3.82"

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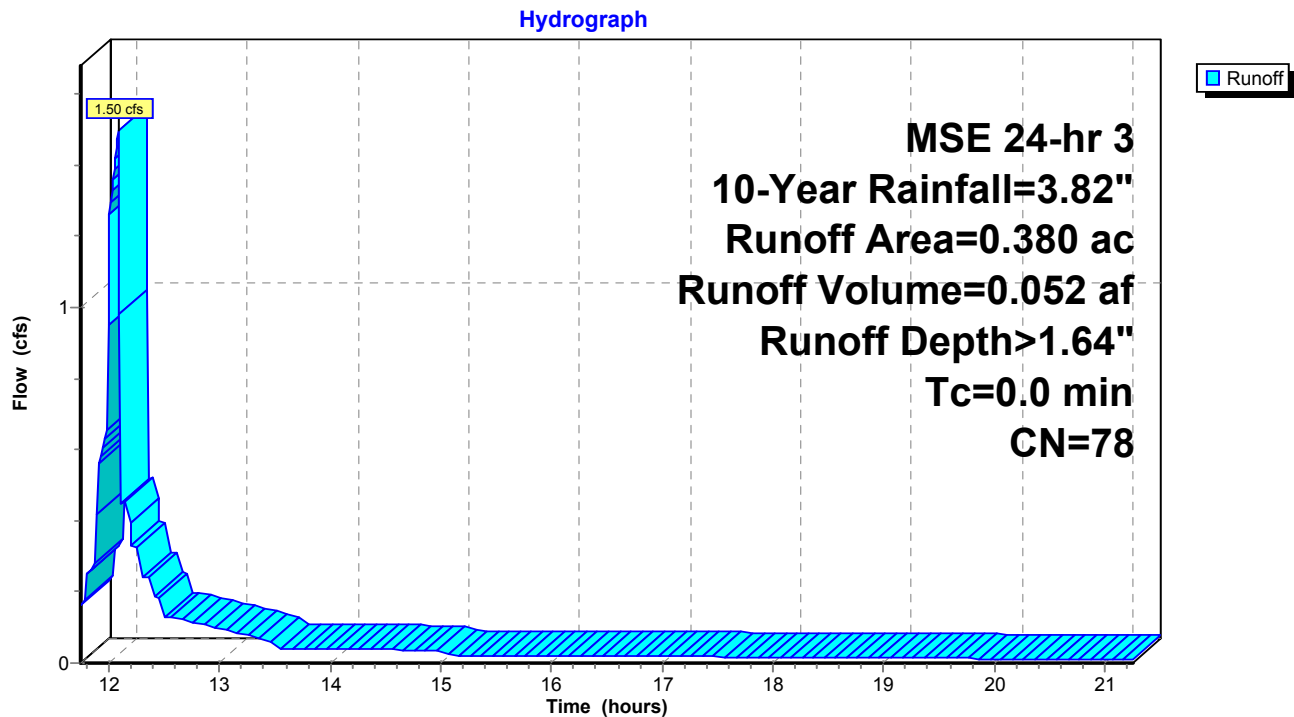
Summary for Subcatchment UD-2: Subcat UD-2

Runoff = 1.50 cfs @ 12.09 hrs, Volume= 0.052 af, Depth> 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2



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MSE 24-hr 3 10-Year Rainfall=3.82"

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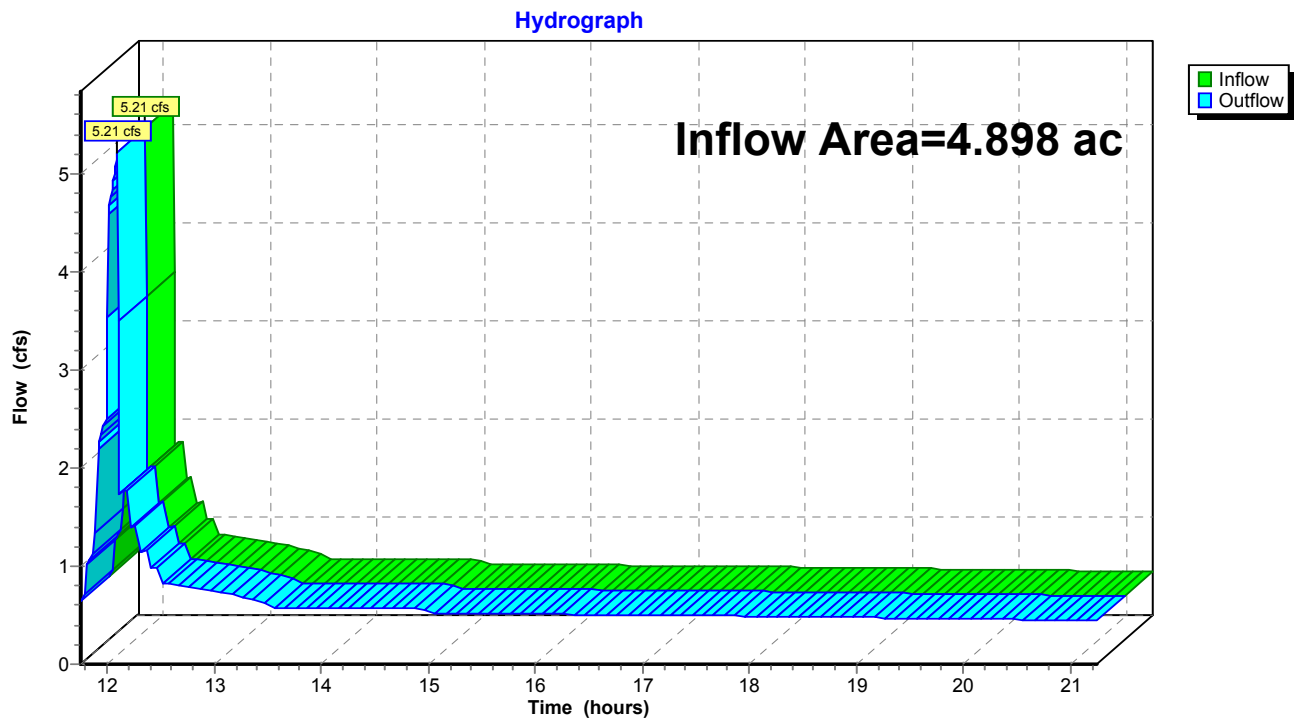
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Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 1.44" for 10-Year event
Inflow = 5.21 cfs @ 12.09 hrs, Volume= 0.588 af
Outflow = 5.21 cfs @ 12.09 hrs, Volume= 0.588 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed



Proposed

MSE 24-hr 3 10-Year Rainfall=3.82"

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Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 2.58" for 10-Year event
 Inflow = 13.24 cfs @ 12.14 hrs, Volume= 0.820 af
 Outflow = 0.45 cfs @ 15.05 hrs, Volume= 0.417 af, Atten= 97%, Lag= 174.6 min
 Primary = 0.45 cfs @ 15.05 hrs, Volume= 0.417 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf

Peak Elev= 907.78' @ 15.05 hrs Surf.Area= 9,667 sf Storage= 33,385 cf (25,498 cf above start)

Plug-Flow detention time= 497.1 min calculated for 0.234 af (29% of inflow)

Center-of-Mass det. time= 262.6 min (1,068.1 - 805.5)

Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	12.0" Round Culvert L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	3.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	907.80'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	908.80'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.45 cfs @ 15.05 hrs HW=907.78' (Free Discharge)

1=Culvert (Passes 0.45 cfs of 8.55 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.45 cfs @ 9.20 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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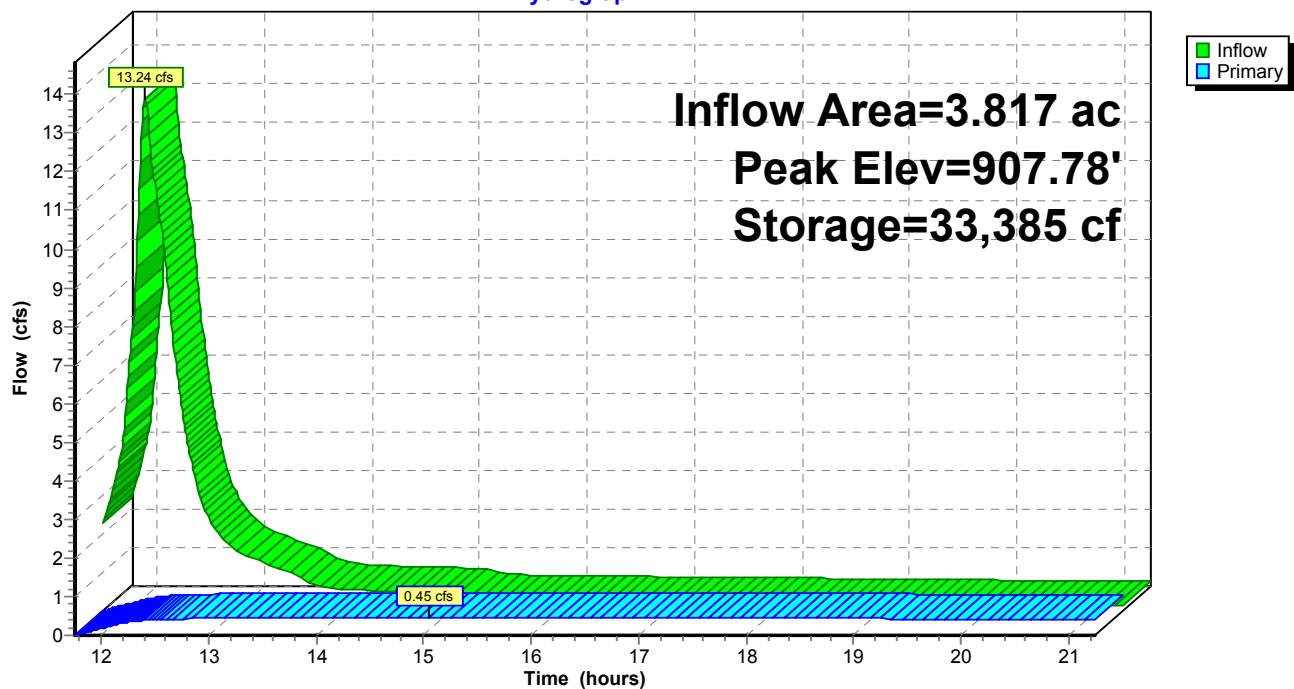
MSE 24-hr 3 10-Year Rainfall=3.82"

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Pond 1P: Wet Basin

Hydrograph



Proposed*MSE 24-hr 3 100-Year Rainfall=6.41"*

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Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

SubcatchmentPR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>4.54"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=13.94 cfs 0.885 af

SubcatchmentPR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>4.56"
Flow Length=249' Tc=6.0 min CN=96 Runoff=14.02 cfs 0.562 af

SubcatchmentUD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>3.92"
Tc=0.0 min CN=85 Runoff=6.64 cfs 0.229 af

SubcatchmentUD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>3.48"
Tc=0.0 min CN=78 Runoff=3.20 cfs 0.110 af

Reach 1R: Total Proposed Inflow=10.17 cfs 1.303 af
Outflow=10.17 cfs 1.303 af

Pond 1P: Wet Basin Peak Elev=908.46' Storage=40,366 cf Inflow=23.47 cfs 1.447 af
Outflow=7.30 cfs 0.964 af

Total Runoff Area = 4.898 ac Runoff Volume = 1.786 af Average Runoff Depth = 4.38"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment PR-1: Subcat PR-1

Runoff = 13.94 cfs @ 12.26 hrs, Volume= 0.885 af, Depth> 4.54"

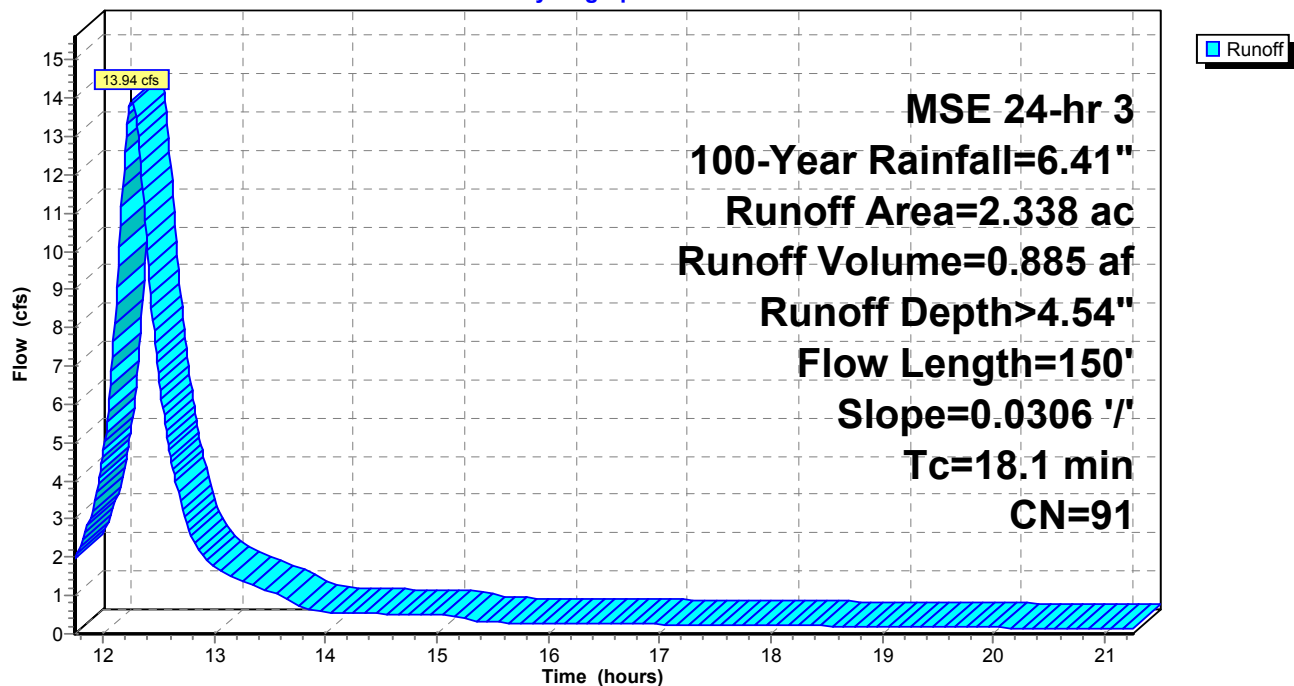
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		Sheet Flow, Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1

Hydrograph



Proposed

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment PR-2: Subcat PR-2

Runoff = 14.02 cfs @ 12.13 hrs, Volume= 0.562 af, Depth> 4.56"

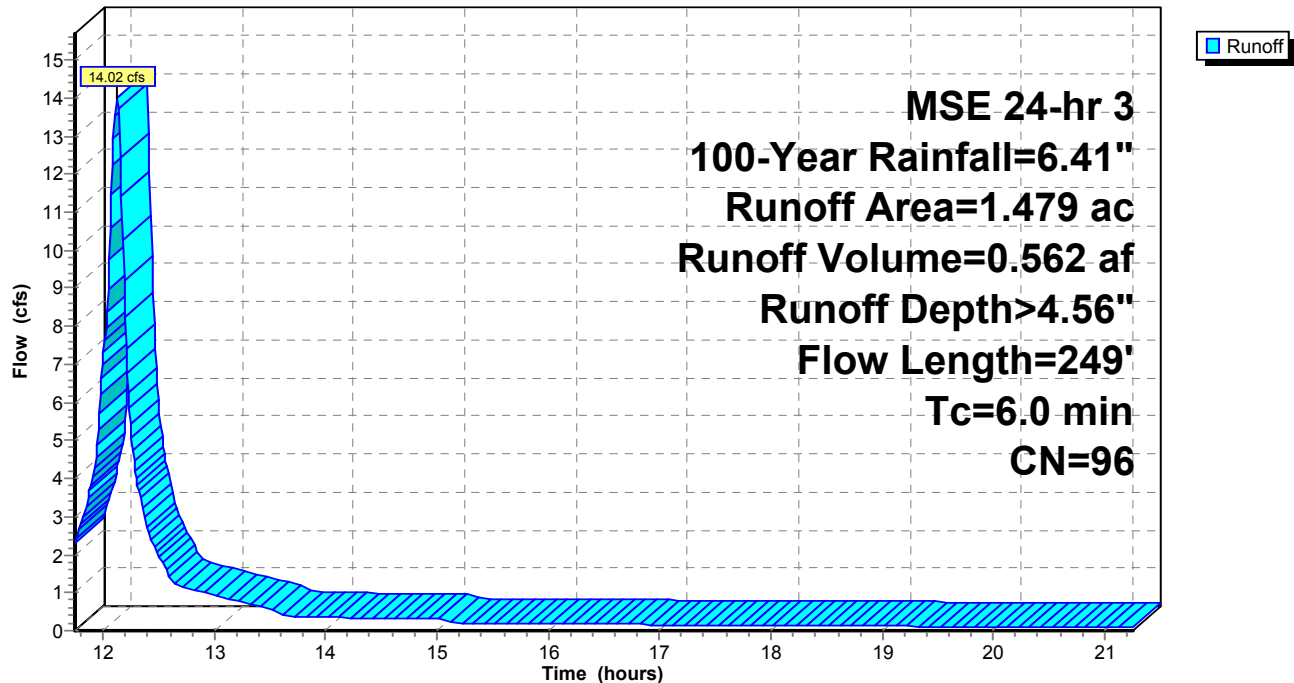
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2

Hydrograph



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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment UD-1: Subcat UD-1

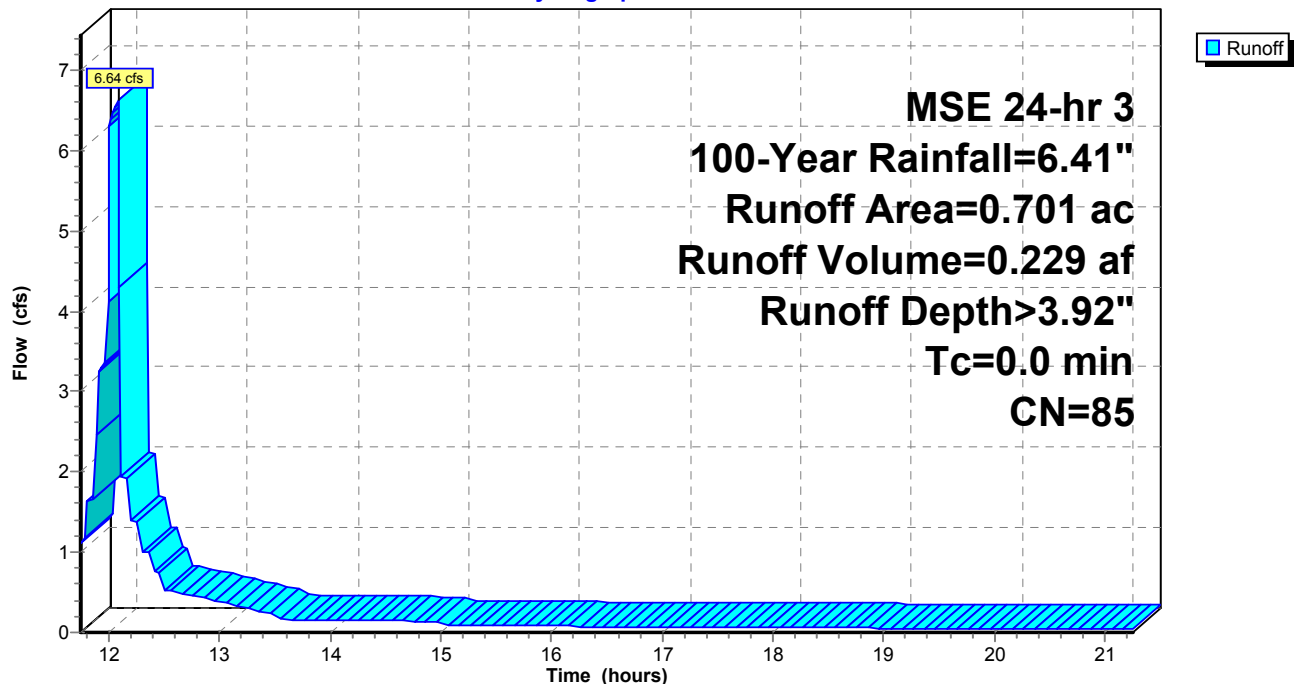
Runoff = 6.64 cfs @ 12.09 hrs, Volume= 0.229 af, Depth> 3.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1

Hydrograph



Proposed

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Subcatchment UD-2: Subcat UD-2

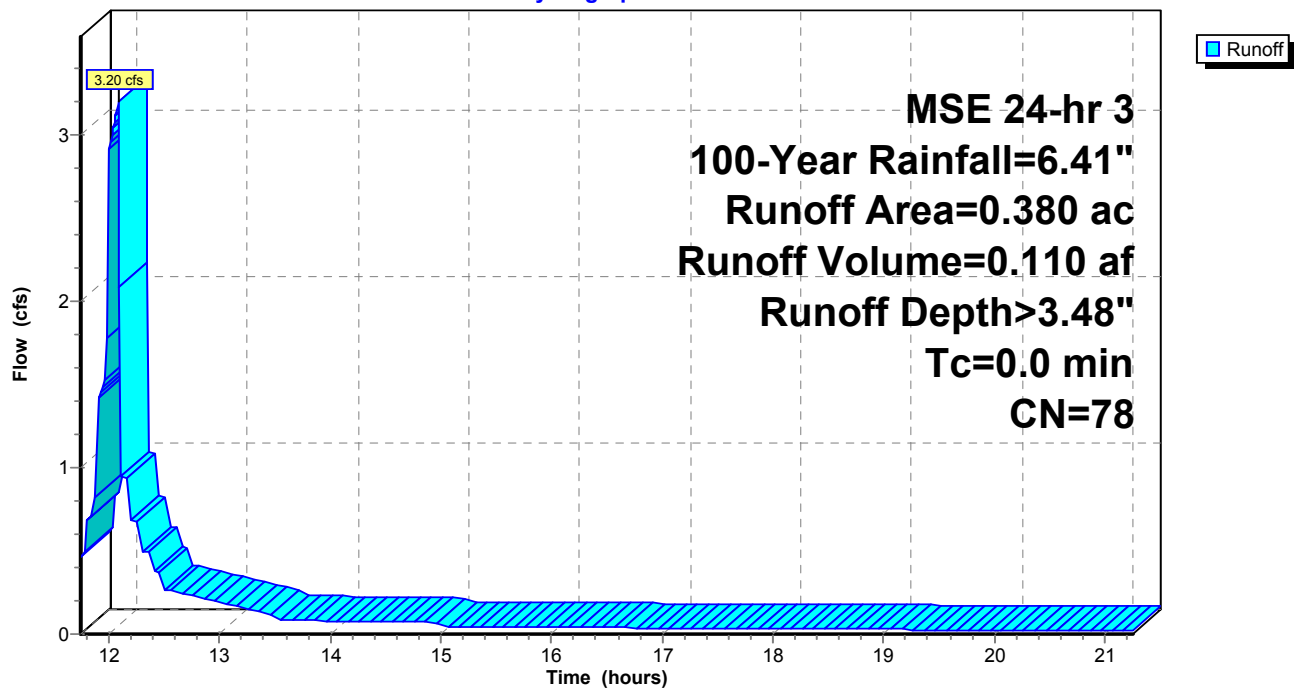
Runoff = 3.20 cfs @ 12.09 hrs, Volume= 0.110 af, Depth> 3.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2

Hydrograph



Proposed

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MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 3.19" for 100-Year event

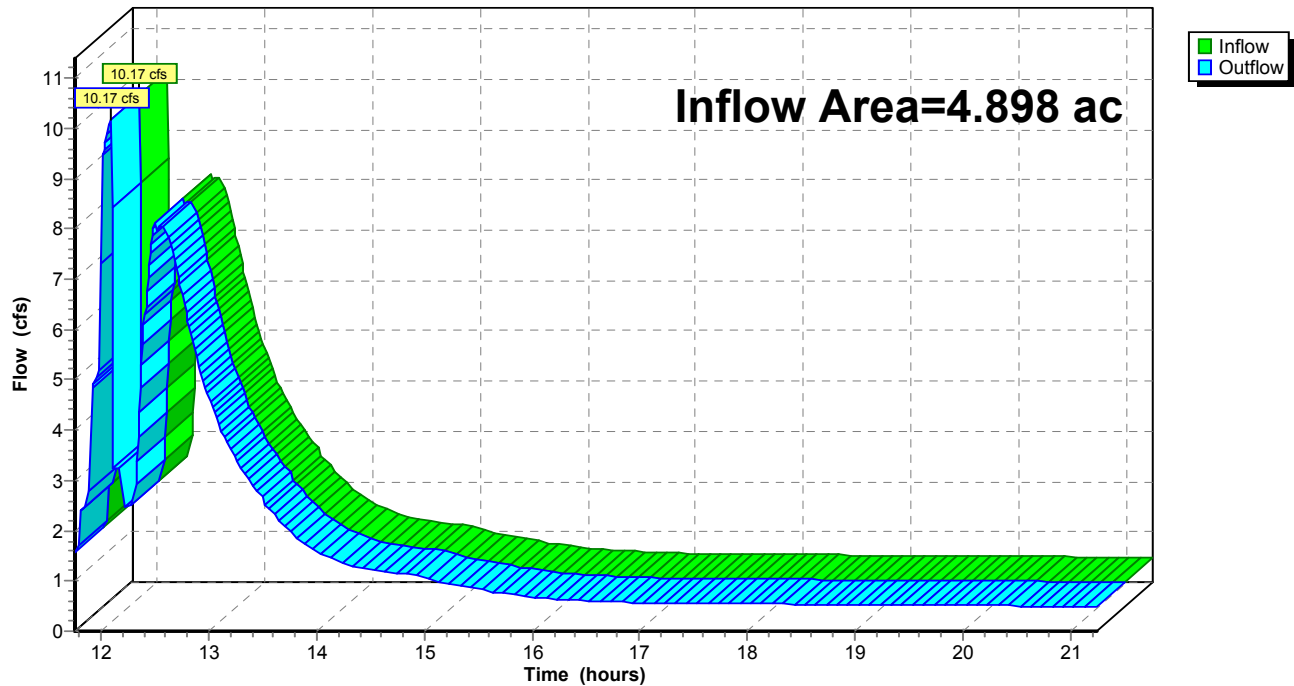
Inflow = 10.17 cfs @ 12.09 hrs, Volume= 1.303 af

Outflow = 10.17 cfs @ 12.09 hrs, Volume= 1.303 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed

Hydrograph



Proposed

MSE 24-hr 3 100-Year Rainfall=6.41"

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Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 4.55" for 100-Year event
 Inflow = 23.47 cfs @ 12.14 hrs, Volume= 1.447 af
 Outflow = 7.30 cfs @ 12.56 hrs, Volume= 0.964 af, Atten= 69%, Lag= 24.6 min
 Primary = 7.30 cfs @ 12.56 hrs, Volume= 0.964 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf

Peak Elev= 908.46' @ 12.56 hrs Surf.Area= 10,675 sf Storage= 40,366 cf (32,479 cf above start)

Plug-Flow detention time= 225.8 min calculated for 0.780 af (54% of inflow)

Center-of-Mass det. time= 112.8 min (916.2 - 803.4)

Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	12.0" Round Culvert L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	3.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	907.80'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	908.80'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=7.29 cfs @ 12.56 hrs HW=908.46' (Free Discharge)

1=Culvert (Passes 7.29 cfs of 9.47 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.49 cfs @ 10.03 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 6.80 cfs @ 2.66 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Proposed

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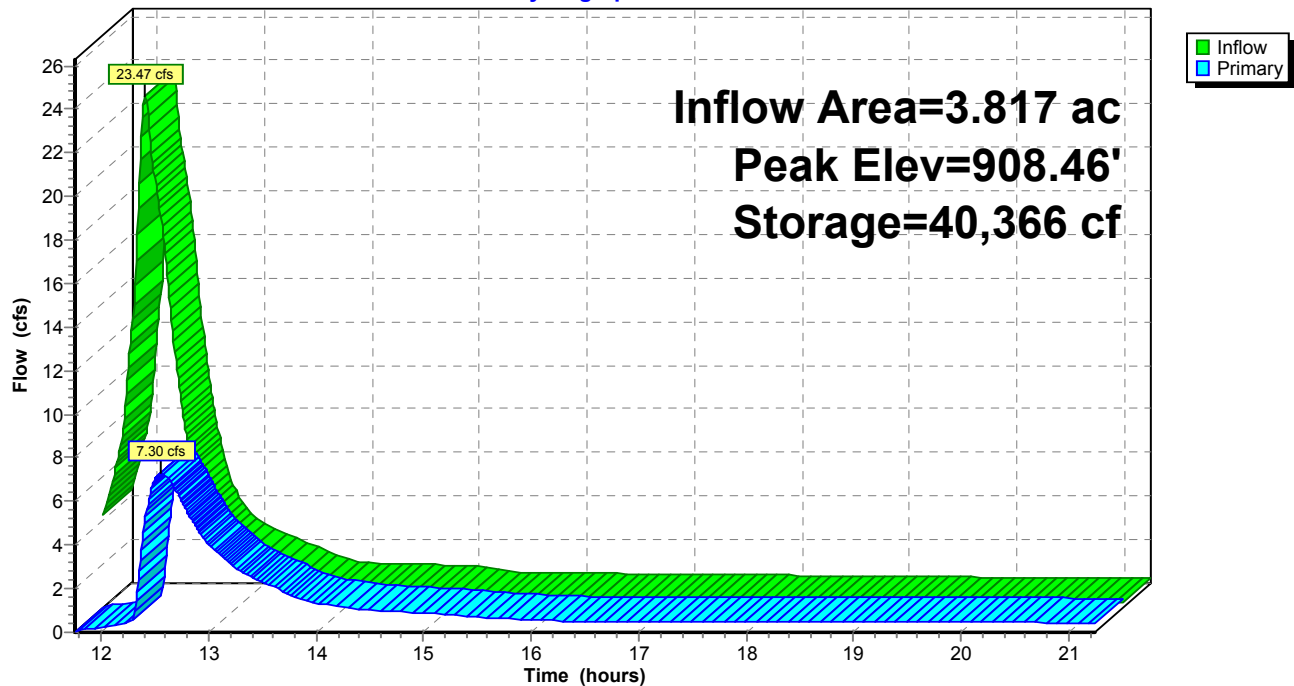
MSE 24-hr 3 100-Year Rainfall=6.41"

Printed 8/19/2019

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Pond 1P: Wet Basin

Hydrograph



Proposed Pvmt Only - InputData.txt

Data file name: H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed Pvmt Only.mdb
WinSLAMM Version 10.2.0

Rain file name: C:\WinSLAMM Files\Rain Files\WI Milwaukee 69.RAN

Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx

Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx

Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std

Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdX

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Study period starting date: 01/05/69

Study period ending date: 12/31/69

Start of Winter Season: 12/02

End of Winter Season: 03/12

Date: 08-19-2019

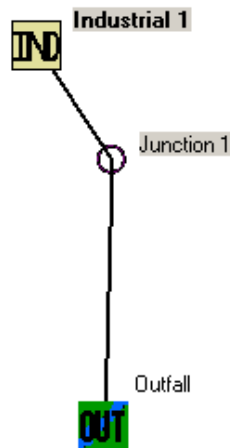
Time: 08:42:08

Site information:

LU# 1 - Industrial: Industrial 1 Total area (ac): 1.494

13 - Paved Parking 1: 1.494 ac. Connected Source Area PSD File:

C:\WinSLAMM Files\NURP.cpz



File Name:

H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed Pymt Only.mdb

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	118007		0.66	250.0	1842	
Outfall Total with Controls	118007	0.00 %	0.66	250.0	1842	0.00 %
Current File Output: Annualized Total After Outfall Controls	119646	Years in Model Run:		0.99	1867	

Print Output
Summary to Text
File

Print Output
Summary to .csv
File

Total Area Modeled (ac)

1.494

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall
Flow Duration
Curve Calculations

Receiving Water Impacts Due To Stormwater Runoff

(CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.66	Poor
With Controls	0.66	Poor

The proposed pavement area with no controls produces 1842 lbs of solids. The proposed site controls will need to remove at least 40% of this which comes to 736.8 lbs.

Proposed - InputData.txt

Data file name: H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed - Wet Basin.mdb
WinSLAMM Version 10.2.0
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppd
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/06 End of Winter Season: 03/28
Date: 08-19-2019 Time: 08:30:01
Site information:

LU# 1 - Industrial: PR-1 Total area (ac): 2.339
1 - Roofs 1: 0.676 ac. Flat Connected Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
13 - Paved Parking 1: 0.995 ac. Connected Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.012 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.656 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Industrial: UD-1 Total area (ac): 1.082
13 - Paved Parking 1: 0.359 ac. Connected Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.025 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.698 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Industrial: PR-2 Total area (ac): 1.479
1 - Roofs 1: 0.894 ac. Flat Connected Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
13 - Paved Parking 1: 0.447 ac. Connected Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
31 - Sidewalks 1: 0.036 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.102 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

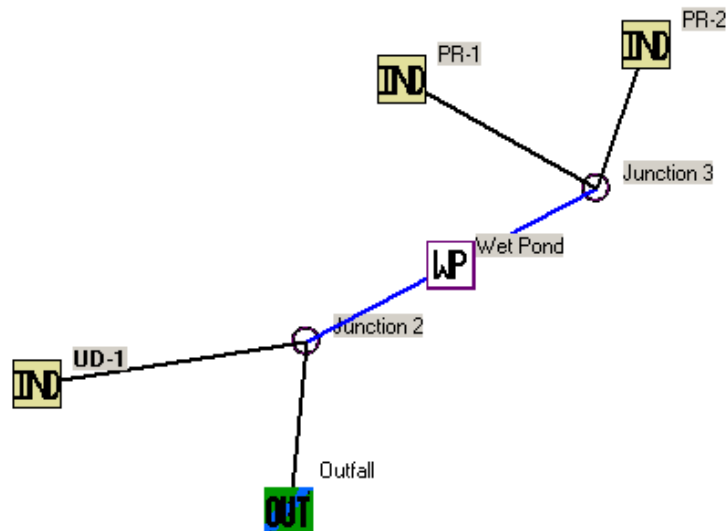
Control Practice 1: Wet Detention Pond CP# 1 (DS) - Wet Pond

Proposed - InputData.txt
 Particle Size Distribution file name: Not needed - calculated by program
 Initial stage elevation (ft): 5
 Peak to Average Flow Ratio: 3.8
 Maximum flow allowed into pond (cfs): No maximum value entered
 Outlet characteristics:
 Outlet type: Sharp Crested Weir
 1. Sharp crested weir length (ft): 4
 2. Sharp crested weir height from invert: 1.95
 3. Sharp crested weir invert elevation above datum (ft): 8.8

outlet type: Orifice 1
 1. Orifice diameter (ft): 0.25
 2. Number of orifices: 1
 3. Invert elevation above datum (ft): 5

outlet type: Broad Crested Weir
 1. Weir crest length (ft): 10
 2. Weir crest width (ft): 10
 3. Height from datum to bottom of weir opening: 9.8

Pond stage and surface area				
(cfs)	Entry Number	Stage (ft)	Pond Area (acres)	Natural Seepage (in/hr)
0.00	0	0.00	0.0000	0.00
0.00	1	0.01	0.0121	0.00
0.00	2	1.00	0.0191	0.00
0.00	3	2.00	0.0270	0.00
0.00	4	3.00	0.0350	0.00
0.00	5	4.00	0.0440	0.00
0.00	6	5.00	0.0990	0.00
0.00	7	6.00	0.1180	0.00
0.00	8	7.00	0.1590	0.00
0.00	9	8.00	0.1950	0.00
0.00	10	9.00	0.2300	0.00
0.00	11	10.00	0.2630	0.00
0.00	12	10.75	0.2630	0.00



Wet Detention Control Device

Pond Number 1
Drainage System Control Practice

Select Particle Size Distribution File

Not needed - calculated by program

Initial Stage Elevation (ft): 5.00

Peak to Average Flow Ratio: 3.80

Maximum Inflow into Pond (cfs)

Enter 0 or leave blank for no limit:

Copy Pond Data

Paste Pond Data

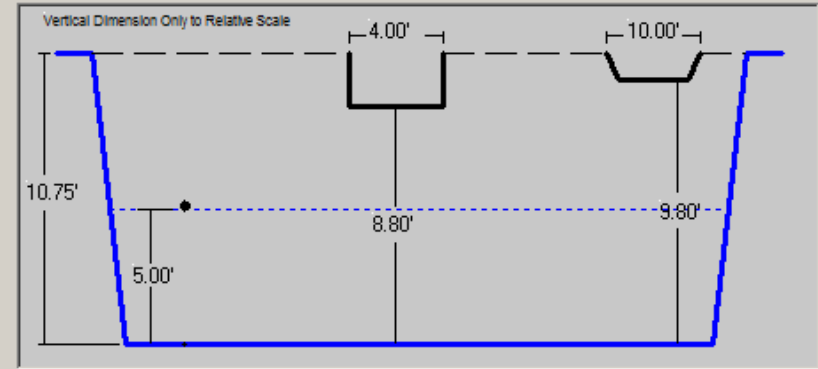
Enter fraction (greater than 0) that you want to modify all pond areas by and then select 'Modify Pond Areas' button

0.00

Modify Pond Areas

	Stage (ft)	Area (acres)	Cumulative Volume (ac-ft)
0	0.00	0.0000	0.000
1	0.01	0.0121	0.000
2	1.00	0.0191	0.016
3	2.00	0.0270	0.039
4	3.00	0.0350	0.070
5	4.00	0.0440	0.109
6	5.00	0.0990	0.181
7	6.00	0.1180	0.289
8	7.00	0.1590	0.428
9	8.00	0.1950	0.605
10	9.00	0.2300	0.817
11	10.00	0.2630	1.064
12	10.75	0.2630	1.261
13			
14			
15			
16			
17			

Recalculate Cumulative Volume



Delete Pond

Cancel

Continue

Control Practice #: 1 CP Index #: 1

Remove Sharp Crested Weir

Weir Length (ft) 4.00

Height from datum to bottom of weir opening (ft) 8.80

Add V-Notch Weir

Weir Angle (<180 degrees)

Height from datum to bottom of weir opening (ft)

Number of V-Notch weirs

Remove Orifice Set 1

Orifice Diameter (ft) 0.25

Invert elevation above datum (ft) 5.00

Number of orifices in set 1

Add Orifice Set 2

Orifice Diameter (ft)

Invert elevation above datum (ft)

Number of orifices in set

Add Orifice Set 3

Orifice Diameter (ft)

Invert elevation above datum (ft)

Number of orifices in set

Add Stone Weeper

Width at bottom of weeper (ft)

Weeper side slope (H:1V)

Upstream side slope (H:1V)

Downstream side slope (H:1V)

Horizontal flow path length at top of weeper (ft)

Average rock diameter (ft)

Distance from bottom to top of weeper (ft)

Height from datum to bottom of weeper (ft)

Add Vertical Stand Pipe

Pipe diameter (ft)

Height above datum (ft)

Month	Evaporation (in/day)	Water Withdraw Rate (ac-ft/day)
Jan	0.00	0.000
Feb	0.00	0.000
Mar	0.00	0.000
Apr	0.00	0.000
May	0.00	0.000
Jun	0.00	0.000
Jul	0.00	0.000
Aug	0.00	0.000
Sep	0.00	0.000
Oct	0.00	0.000
Nov	0.00	0.000
Dec	0.00	0.000

Stage (ft)	Natural Seepage Rate (in/hr)	Other Outflow Rate (cfs)
0.00	0.00	0.000
0.01	0.00	0.000
1.00	0.00	0.000
2.00	0.00	0.000
3.00	0.00	0.000
4.00	0.00	0.000
5.00	0.00	0.000

Remove Broad Crested Weir (Required)

Weir crest length (ft) 10.00

Weir crest width (ft) 10.00

Height from datum to bottom of weir opening (ft) 9.80

Add Seepage Basin

Infiltration rate (in/hr)

Width of device (ft)

Length of device (ft)

Invert elevation of seepage basin inlet above datum (ft)

File Name:

H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed - Wet Basin.mdb

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	279478		0.48	145.2	2533	
Outfall Total with Controls	279109	0.13 %	0.47	56.74	988.6	60.97 %
Current File Output: Annualized Total After Outfall Controls	282985	Years in Model Run:		0.99	1002	

Print Output
Summary to Text
File

Print Output
Summary to .csv
File

Total Area Modeled (ac)

4.900

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall
Flow Duration
Curve Calculations

Receiving Water Impacts Due To Stormwater Runoff (CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.48	Poor
With Controls	0.47	Poor

The wet pond removed 1544 lbs of solids which is greater than the 736.8 lbs needed

BUSINESS, OPERATIONAL SAFETY, AND CONTINGENCY PLAN

Glue Dots International, Inc.
Germantown, WI

September 2019

DRAFT

BUSINESS, OPERATIONAL SAFETY, AND CONTINGENCY PLAN

Glue Dots International, Inc.

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Figure 1 - Facility Operations

Attachment A - Architectural Site Plan

Attachment B - GDI SDS Summary of Raw Materials

Attachment C - Stormwater Management Report

1. INTRODUCTION

Glue Dots International's (GDI) site currently includes three parcels which are to be combined into one Certified Survey Map (CSM). This site has two buildings, the GDI facility, located at N117W18711 Fulton Drive, and the Glue Factory building located at W186N11687 Morse Drive. In an effort to maximize usable area and connectivity of resources, GDI intends to demolish the Glue Factory building and expand the GDI facility.

Please see **Attachment A – Architectural Site Plan**.

The GDI site is located within an area of the Village of Germantown that lies within the recharge areas for municipal water supply wells as defined in subsection 17.40.05 of City Ordinance #15-10 Wellhead Protection. Therefore, the GDI facility is subject to the regulations specified in the Wellhead Protection Ordinance.

This Business, Operational Safety, and Contingency Plan (Plan) has been prepared in accordance with City Ordinance #15-10 Wellhead Protection 17.40 established by the Wisconsin Legislature in § 62.23(7)(a) and (c), Wisconsin Statute.

2. PURPOSE

It is understood that the residents of the Village of Germantown depend exclusively on groundwater for a safe drinking water supply. The purpose of this Plan is to comply with the City Ordinance #15-10 Wellhead Protection and to ensure the protection of the municipal water supply of the Village of Germantown.

3. OPERATIONS

The existing GDI facility conducts adhesive processing (described below in section 3.1). The building expansion project will incorporate two new processes, a hot melt adhesive process and a water-based adhesive process (described below in sections 3.2 and 3.3).

3.1 Adhesive Processing

The existing GDI building will continue to perform its current manufacturing operations which consist of converting raw material in a solid form, delivered in drums and/or boxes, to a product form by heating and shaping/molding. This process is located in **Area A of Figure 1 – Facility Operations**.

3.2 Hot Melt Adhesive Process

GDI's hot melt adhesive process involves Tackifier Resins, Styrenic Block Copolymers, and Liquid Plasticizers that are added to a mixing vessel and heated to 350 °F. These raw materials are either added as liquid and piped in from bulk storage tanks, or as solids that are contained in 55-lb bags and hand loaded into the mixing vessels. After the raw materials are added, the vessel is put under a vacuum and allowed to mix for a given amount of time that is specified for the product. After the adhesive is created, it is pumped to the packaging area where it can be packaged as 55-gallon drums or onto smaller packaging lines which use a water-wax mixture to create small eighth-inch diameter pellets, and a water bath system to create 2-pound pillows of adhesives. While the product is being pumped out of the mixing vessel for packaging, a nitrogen blanket is pumped into the tank to reduce oxidation. This process is located in **Area B of Figure 1 – Facility Operations**.

3.3 Water-Based Adhesive Process

GDI's water-based adhesive process involves solid raw materials that are dispersed in water to create adhesive. The dispersion/mixing process can occur at a range of temperatures from ambient to 200 °F. The raw materials are mostly powders and are weighed out to specific amounts prior to being added to the mixing kettles. After the batch is dispersed it is packaged into a range of containers including totes, drums pails, and gallon jugs. Each disperser/mixer is then rinsed out with water in a wash station. **Area C of Figure 1 – Facility Operations.**

3.4 Container Washing

Various manufacturing process containers will be washed in the designated washroom. The area has sloped floor and floor drain connected to the municipal sanitary sewer system.

Please see **Attachment B - GDI SDS Summary of Raw Materials.**

4. OPERATIONAL SAFETY

4.1 Operational Procedures for Material Processes and Containment

GDI's standard operating procedures include the following with respect to material management and containment:

Bulk Material Management

- Bulk unloading of chemical/product occurs at the containment dock, located at the southeast corner of the facility. The containment dock is designed to provide containment for spills. The capacity for the containment dock has yet to be determined but is expected to be approximately 6,000 gallons. This area is shown as **Area D of Figure 1 – Facility Operations.**
- GDI has a written standard operating procedure for receiving bulk chemical/product deliveries, which includes verifying capacity of receiving containers prior to transfer of chemical/product.
- Bulk containers are stored in an interior room, designed to provide secondary containment. This area is shown as **Area E of Figure 1 – Facility Operations.**

Dry Storage Material Management

- Dry storage racks storing chemical/product containers will be contained by the building; floor drains are not located in the dry storage area. This area is shown as **Area F of Figure 1 – Facility Operations.**
- Certain chemical/product containers are kept on secondary containment pallets where appropriate to minimize the risk of incompatible interaction.
- Chemical/product containers are kept closed/sealed when not in use.

Liquid Nitrogen Storage

Nitrogen is received in bulk and stored in a cryogenic tank. Should there be a leak from the tank it would result in a release to the atmosphere. This area is shown as **Area G of Figure 1 – Facility Operations.**

4.2 Best Management Practices

GDI implements the following best management practices as part of their operations.

- Standard operating procedures are followed for a number of activities including adhesive blending/production, wash operations, and shipping/receiving.
- General good housekeeping practices are maintained (i.e. organized, labeled, clean, etc.).
- Safety/good housekeeping inspections will be conducted.

4.3 Stormwater Runoff Management

A stormwater management analysis was conducted by Harwood Engineering Consultants, dated August 19, 2019, and is included as **Attachment C – Stormwater Management Report**, for the 4.897-acre site. The report follows Village of Germantown, Milwaukee Metropolitan Sewerage District (MMSD), and Wisconsin Department of Natural Resources requirements. GDI's Proposed Building Expansion Project includes the construction of a wet retention basin, located in the southwest portion of the site. The wet retention basin will manage stormwater quantity and quality. The wet retention basin will be constructed using a clay liner to prevent seepage from the wet retention basin to the surrounding environment and groundwater; to ultimately protect the wellhead protection area. Stormwater runoff will generally be directed towards the wet retention basin and stormwater catch basins in the adjacent streets.

In accordance with NR 216, the facility will either obtain a general WPDES permit for storm water associated with industrial activity or will apply for a 'No Exposure' exclusion. A Storm Water Pollution Prevention Plan (SWPPP) will be developed if a permit is issued.

In addition, GDI will follow the Village of Germantown's Stormwater Maintenance Manual for Private Facilities.

4.4 Groundwater Monitoring

There are currently no groundwater monitoring structures at the GDI site. There are no plans for groundwater monitoring structures to be included in the proposed Building Expansion Project.

5. CONTINGENCY PLAN

5.1 Description of Discharges

GDI's process wastewater is generated from the water-based adhesive process and from container wash operations. GDI will submit a Notice of Intent (NOI) to the MMSD for authorization to discharge process wastewater from the facility.

5.2 Description of Chemicals Used

GDI uses a variety of hydrocarbon resins, oil and petroleum distillate products, and plasticizers in the manufacturing and ancillary processes. These materials are maintained in containers (tanks, totes, drums, etc.) that are compatible with their contents. A summary of chemicals is included in **Attachment B - GDI SDS Summary of Raw Materials**.

Chemicals/product are stored in the following areas and in individual containers located at the point of use throughout the facility.

- Bulk containers are stored in an interior room with a recessed floor, designed to provide secondary containment. This area is shown as **Area E of Figure 1 – Facility Operations**.
- Chemical/product containers in the dry storage rack area will be contained by the building; floor drains are not located in the dry storage area. This area is shown as **Area F of Figure 1 – Facility Operations**.
- Liquid Nitrogen is stored along the east side of the building in a cryogenic tank. This area is shown as **Area G of Figure 1 – Facility Operations**.

As required, under the Emergency Planning and Community Right-to-Know Act (EPCRA), GDI will submit a SARA 302 Emergency Planning Notification (EPN) should there be any Extremely Hazardous Substances (EHS) over the Threshold Planning Quantity (TPQ) located onsite and will submit SARA 312 Tier 2 Emergency and Hazardous Chemical Inventory reports as appropriate for chemicals onsite over the reporting thresholds.

5.3 Procedures to Prevent Adverse Impact from Accidental Spills

Inspection and Maintenance of Storage Areas

GDI maintains good housekeeping practices for employee safety and product quality requirements. Oil and chemical storage and usage areas are routinely observed as part of daily operations. In addition, regular safety/good housekeeping inspections are conducted.

Handling and Transfer of Materials

Materials are handled and transferred following written standard operating procedures. Chemical/product will be delivered to three areas where transfer operations will be conducted.

- A containment dock will be located along the southeast corner of the building for bulk material deliveries. The containment dock is designed with curbing to provide a secondary containment. Capacity for the containment dock has yet to be determined but is expected to be approximately 6,000 gallons. The curbing is designed with a valve to allow stormwater to be discharged from the containment area. The valve will be shut during deliveries and will remain open at all other times. Stormwater collected in this area will be directed to the wet retention pond. This area is shown as **Area D of Figure 1 – Facility Operations**.
- Totes and pallets will be delivered using the loading area along the southern face of the building where overhead doors will be located. This area is shown as **Area H of Figure 1 – Facility Operations**.
- A tanker loading area with concrete pad and curb will be located along the eastern edge of the building for liquid nitrogen deliveries. This area is shown as **Area G of Figure 1 – Facility Operations**.

Employee Training

All members of the GDI Emergency Response Team are trained annually. All GDI employees working in the immediate area of chemicals with the potential of a spill, participate in a general spill cleanup/control orientation and are trained annually.

Containment Structures/Equipment

Spills that occur at the facility will be contained by structures, the building, or active response measures to prevent the material from being released to the environment (open sewer, pervious surface, groundwater well, ditch, etc.).

- Bulk unloading of chemical/product occurs at the containment dock, located at the southeast corner of the facility. The containment dock is designed to provide containment for spills. Capacity for the containment dock has yet to be determined but is expected to be approximately 6,000 gallons. This area is shown as **Area D of Figure 1 – Facility Operations.**
- Bulk containers are stored in an interior room with a recessed floor, designed to provide secondary containment. This area is shown as **Area E of Figure 1 – Facility Operations.**
- Chemical/product containers in the dry storage rack area will be contained by the building; floor drains are not located in the dry storage area. This area is shown as **Area F of Figure 1 – Facility Operations.**
- Certain chemical/product containers are kept on secondary containment pallets where appropriate to minimize the risk of incompatible interaction.

Spill Response Procedure and Equipment

GDI has a corporate Chemical Spill Procedure that describes the required response actions for both ‘incidental spills’ (i.e. less than 1 gallon) and those that require notification of their internal emergency response team and/or notification of external agencies or response contractors for assistance.

GDI has spill response kits containing sorbent materials and equipment to control, contain, and clean-up spills.

In accordance with 40 CFR 112 Spill Prevention, Control, and Countermeasure (SPCC) Regulation, GDI will prepare a SPCC Plan. The SPCC Plan will describe the measures in place to prevent oil spills and to control and respond to a spill if one should occur.

Collection and Disposal of Spilled Material

Should a spill occur, trained members of the spill response team will engage in clean-up activities under direct supervision of the area manager and utilizing the appropriate level of PPE required for the spilled material. Chemical SDSs will be consulted and recommendations will be adhered to. Recovered material and wastes generated during cleanup (e.g. PPE, sorbents, etc.) will be containerized, labeled, and managed offsite as appropriate.

6. SPILL NOTIFICATION PROCEDURE

In the event of a spill, the employee observing the spill will immediately alert others in the area, notify the supervisor, and contact a member of the Emergency Response Team. The Emergency Response Team member will conduct an initial assessment to determine the appropriate external notification, if necessary.

EMERGENCY TELEPHONE NUMBERS

Internal Notification			
Contact		Office	Cell
Emergency Response Team Coordinator:	Erica Roberts	(262) 437-7885	(262) 422-3883
Alternative Emergency Response Team Member:	Jackie Flood	(262) 509-8799	(262) 352-5404
External Notification			
Agency		Emergency	Non-emergency
Fire Department:	Germantown Fire Dept.	911	(262) 253-7795
Police Department:	Germantown Police Dept.	911	(262) 253-7780
Hospital:	Community Memorial	---	(262) 251-1000
Environmental Contractor:	One Step Environmental	(262) 284-8950	---
	The Sigma Group	(414) 643-4200	(414) 643-4200
Germantown Water Utility:	Paul Haugen	(262) 808-7464	(262) 253-8254
National Response Center (NRC):		(800) 424-8802	---
U.S. EPA Region 5:		(312) 353-2318	---
Local Emergency Planning Committee (LEPC):		(262) 548-7580	---
Wisconsin Spill Hotline:		(800) 943-0003	---

The following releases to the environment (i.e. to a sewer, water body, or pervious surface) must be reported:

Release	Report to
1 gallon or more of gasoline	Wisconsin Spill Hotline
5 gallons or more of other petroleum products	Wisconsin Spill Hotline
A Reportable Quantity (RQ) or more of a hazardous substance	NRC, Wisconsin Spill Hotline, and LEPC
A Reportable Quantity (RQ) or more of an Extremely Hazardous Substance (EHS)	NRC, Wisconsin Spill Hotline and LEPC

7. CERTIFICATION STATEMENT

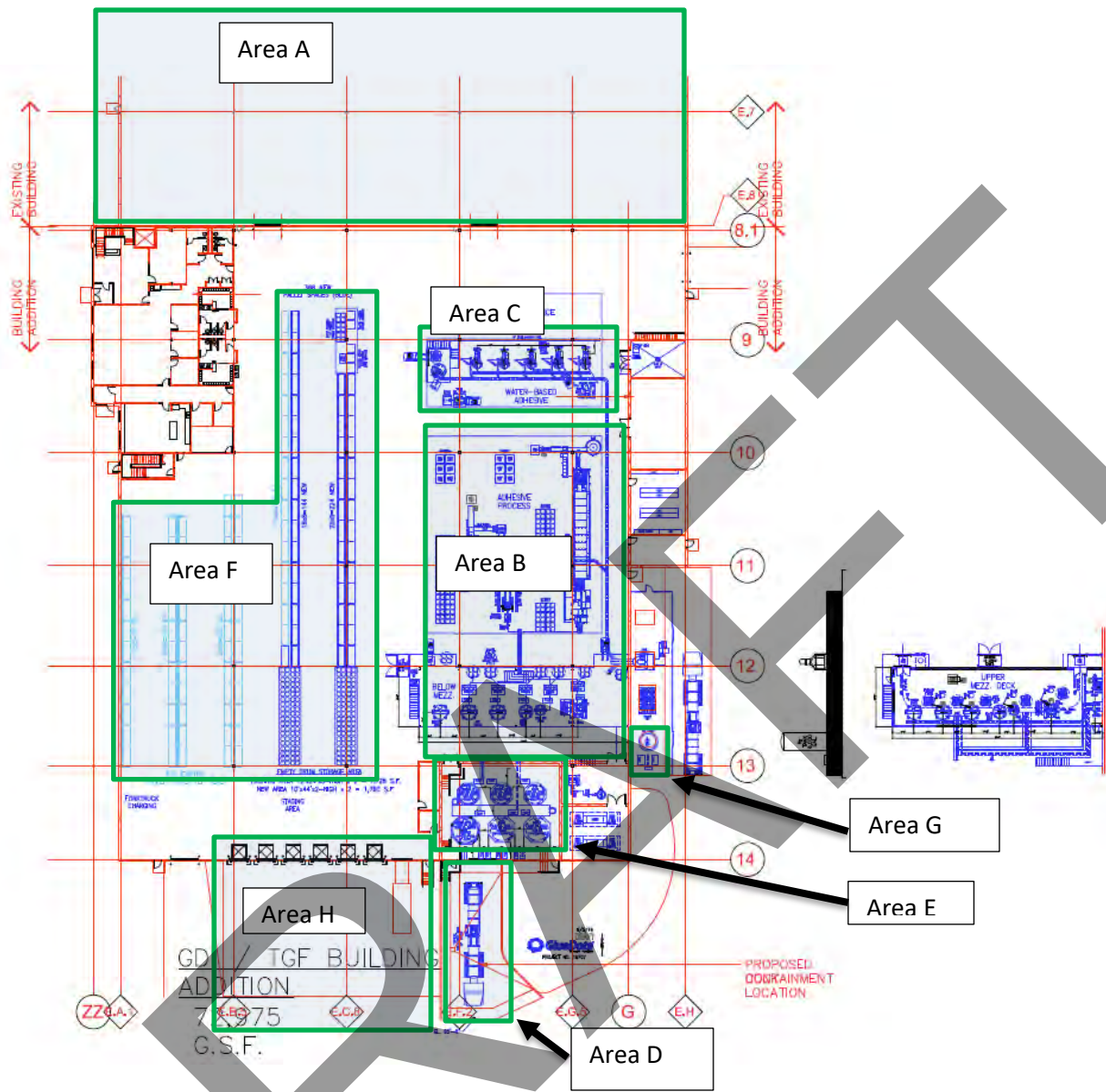
“Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for Total Toxic Organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the Toxic Organics Management Plan submitted to the control authority.”

Name and Title

Date

FIGURE 1
FACILITY OPERATIONS

DRAFT



ATTACHMENT A
ARCHITECTURAL SITE PLAN

DRAFT



N16 W23217 STONE RIDGE DRIVE, SUITE 300
WALKEISHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815



PROJECT INFORMATION:

GLUE DOTS
INTERNATIONAL
BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION
SUBMITTAL

REVISIONS		
#	DATE	DESCRIPTION

19 AUGUST 2019

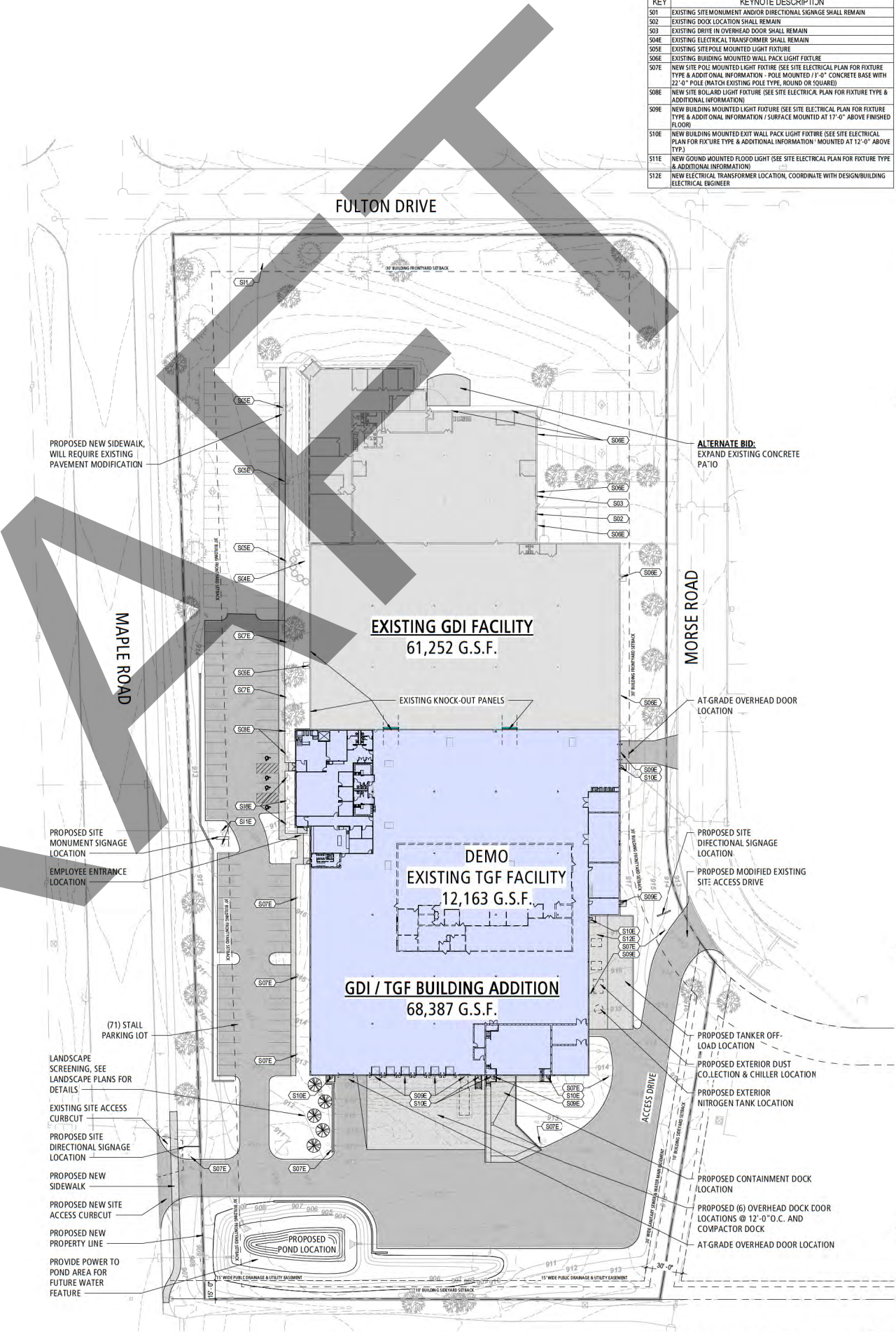
PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

ARCHITECTURAL SITE
PLAN

AS100

© JAKnetter Architects

KEYNOTES - SITE PLAN	
KEY	KEYNOTE DESCRIPTION
S01	EXISTING SITE MONUMENT AND/OR DIRECTIONAL SIGNAGE SHALL REMAIN
S02	EXISTING DOCK LOCATION SHALL REMAIN
S03	EXISTING DRIVE IN OVERHEAD DOOR SHALL REMAIN
S04E	EXISTING ELECTRICAL TRANSFORMER SHALL REMAIN
S05E	EXISTING SITE POLE MOUNTED LIGHT FIXTURE
S06E	EXISTING BUILDING MOUNTED WALL PACK LIGHT FIXTURE
S07E	NEW SITE POLE MOUNTED LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION - POLE MOUNTED 1'-0" CONCRETE BASE WITH 22'-0" POLE (MATCH EXISTING POLE TYPE, ROUND OR SQUARE))
S08E	NEW SITE BOLLARD LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION)
S09E	NEW BUILDING MOUNTED LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION / SURFACE MOUNTED AT 1'-0" ABOVE FINISHED FLOOR)
S10E	NEW BUILDING MOUNTED EXIT WALL PACK LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION / MOUNTED AT 12'-0" ABOVE TYPE)
S11E	NEW GROUND MOUNTED FLOOD LIGHT (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION)
S12E	NEW ELECTRICAL TRANSFORMER LOCATION, COORDINATE WITH DESIGN/BUILDING ELECTRICAL ENGINEER



ATTACHMENT B

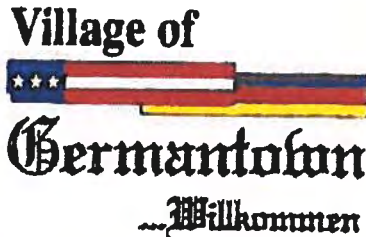
GDI SDS SUMMARY OF RAW MATERIALS

DRAFT

GLUEDOTS
CHEMICAL HAZARD AND CLASS (LIQUIDS)

Process	CHEMICAL NAME	SUPPLIER	DESCRIPTION	2018 USAGE (POUNDS)	TANKER SIZE (GALLONS)	MAX. AMOUNT ON-SITE AT ONE TIME (LBS)	STORAGE CONTAINER SIZE	STORAGE CONTAINER TYPE/MTL.	STORAGE LOCATION	FLASH POINT (F)	HEATED TEMP. (F)	BOILING POINT (F)	LIQUID CLASS	TOXIC OR OTHER HAZARD	NFPA 704			COMMENTS
															HEALTH	FLAMM.	REACTIVITY	
Adhesive	Wingtack EXTRA Molten	Craw Valley	Hydrocarbon Resin	268,185	5,400	96,000 (12,000 gal)	13,500 gal	C.S. Tank	Tank Farm	437	350-400	N/A	Class IIIB	Not Classified	1	1	0	
Adhesive	Wingtack 10	Total	Hydrocarbon Resin	106,398	5,400	(5,500 gal)	6,200 gal	C.S. Tank	Tank Farm	266	250-350	N/A	Class IIIB	Not Classified	1	1	0	
Adhesive	Krystol 380	Petro-Canada	White Oil	108,840	5,400	39,969 (5,500 gal)	6,200 gal	C.S. Tank	Tank Farm	482	350	N/A	Class IIIB	Toxic or Possibly Highly Toxic (1)	1	1	0	Replaced by Drakeol 35
Adhesive	Drakeol 35	Calumet	White Mineral Oil	0	5,400	39,877 (5,500 gal)	6,200 gal	C.S. Tank	Tank Farm	233.6	350	424.4	Class IIIB	Toxic or Possibly Highly Toxic (2)	Not classified			
Adhesive	INDOPOL H100	INEOS Oligomers	Polybutene	25,805		10,000	275 gal	Totes	Pallet Racking	257	350	N/A	Class IIIB	No Data	0	1	0	
Adhesive	Calsol 5550	Calumet	Petroleum Distillate	?			275 gal	Totes	Pallet Racking	429.8	350	1382	Class IIIB	Toxic or Possibly Highly Toxic (3)	Not classified			
Adhesive	Agitan 299	Munzing	Defoamer	132		132			Pallet Racking	>212	60		Class IIIB					
Adhesive	Dee Fo 215	Munzing	Defoamer	1,600		450	55 gal	Drum	Pallet Racking	>300	60		Class IIIB					
Adhesive	Indopol L-14	INEOS Oligomers	Polybutene	397		450	55 gal	Drum	Pallet Racking	>239	350		Class IIIB		1	1	0	
Adhesive	Luba-print 280W	Munzing	wax additive	0					Pallet Racking						1	1	0	
Adhesive	Brightener repitan 00003	REPI LLC	Optical Brightener	0					Pallet Racking									
Adhesive	TPC 1285	TPC Group	Liquid Plasticizers	0					Pallet Racking	>410	350		Class IIIB	Eye irritant 2B	1	1	0	
Adhesive	TPC 1160	TPC Group	Liquid plasticizers	7,700		7,700	55 gal	Drum	Pallet Racking	>410	350		Class IIIB		0	1	0	
Adhesive	TPC 1105	TPC Group	Polyisobutylene	0					Pallet Racking	170 Open Cup.	350		Class IIIB		0	2	0	
Water Based	Acrysol 6038-A	Dow	Emulsion	450		450	55 gal	Drum	Pallet Racking		200	212			Not Classified			
Water Based	Acticide GA	THOR	Biocidal	1,350		450	55 gal	Drum	Pallet Racking	NA	100	212			3	0	0	
Water Based	Acticide OTW	THOR	Biocidal	120		450	55 gal	Drum	Pallet Racking		100	212			3	0	0	
Water Based	Aqua Ammonia 26	Tanner Industries	Ammonium Hydroxide	450		450	55 gal	Drum	Pallet Racking					Serious Eye Damage, Corrosive to skin	3	1	0	
Water Based	Aquabead 525-E	MPI	Aqueous Solution	450		450	55 gal	Drum	Pallet Racking						Not classified			
Water Based	Aquamix 115	Polyone Corp	Water based mixture	40		40	5 gal	Pail	Pallet Racking						Not classified			
Water Based	Aquamix 125	Polyone Corp	Water based mixture	600		300	5 gal	Pail	Pallet Racking						Not classified			
Water Based	Aquamix 129	Polyone Corp	Water based mixture	1		40	5 gal	Pail	Pallet Racking						Not classified			
Water Based	Aquamix 132	Polyone Corp	Water based mixture	800		400	5 gal	Pail	Pallet Racking						Not classified			
Water Based	Black 43190	Ruscoe Company	Colouring Agent	5		40	5 gal	Pail	Pallet Racking	392					Not classified			
Water Based	Black LFD4343	Sun Chemical Corp	Colouring Agent	150		150	5 gal	Pail	Pallet Racking			212			1	0	0	
Water Based	Caustic 50	Westlake Chemical	Sodium Hydroxide	2,000		1,000	55 gal	drum	Pallet Racking			298		Corrosive to skin	Not classified			
Water Based	Covinax 210-00	Franklin International	Liquid adhesive	450		450	55 gal	Drum	Pallet Racking	>200		210			1	1	0	
Water Based	Covinax 383-00	Franklin International	Liquid adhesive	40		40	5 gal	Pail	Pallet Racking	>200		210			0	0	0	
Water Based	Diethylene Glycol	Sigma-Aldrich	Diethylene Glycol	10		40	5 gal	Pail	Pallet Racking	289		473			0	1	0	
Water Based	Disperoll C-74	Covestro LLC	Rubber Aqueous Solution	12,000		4,000	475 gal	Totes	Pallet Racking			212			Not classified			
Water Based	Dur-o-set C-310	Celanese	Polyvinyl Acetate Homopolymer	2,000		2,000	475 gal	Totes	Pallet Racking			212			1	0	0	
Water Based	Dur-o-set E-200	Celanese	Vinyl Acetate Ethylene Copolymer	6,000		2,000	476 gal	Totes	Pallet Racking			212			Not classified			
Water Based	Dur-o-set E-351	Celanese	Vinyl Acetate Ethylene Copolymer	4,000		2,000	477 gal	Totes	Pallet Racking			212			1	0	0	
Water Based	Elvace 737	HB Fuller	Water based mixture	8,000		2,000	478 gal	Totes	Pallet Racking			212			0	0	0	
Water Based	Flexbond 165	Ashland	Emulsion	10,000		2,000	479 gal	Totes	Pallet Racking	175 (calculated)		212		Combustible Liquid	1	1	0	
Water Based	Flexbond AV-190	Ashland		450		450	55 gal	Drum	Pallet Racking	>212		212		Not considered Hazardous	1	1	0	
Water Based	Glycerin	Pricetech Group	Glycerin	<450		450	55 gal	Drum	Pallet Racking	405		580			0	1	0	
Water Based	Hystretch V-43	Lubrizol	Modified Acrylic Polymer	<40		40	5 gal	Pail	Pallet Racking			212			1	1	0	
Water Based	Inchremez PR-65	InChem Corp	Butylated Phenolic Resin	10		450	55 gal	Drum	Pallet Racking	90		240		Flammable	Not classified			
Water Based	Joncryl 74-A	BASF	Water based mixture	<450		450	55 gal	Drum	Pallet Racking	>212		212			Not classified			
Water Based	Latex Low (Belchem 407)	Belmont Chemical Corp	Rubber Aqueous Solution	<40		40	5 gal	Pail	Pallet Racking			212			Not classified			
Water Based	Leucophor T4	Clariant	Fluorescent Brightener	2		40	5 gal	Pail	Pallet Racking			205			1	1	0	
Water Based	Propylene Glycol	Barton Solvents	Propylene Glycol	<450		450	55 gal	Drum	Pallet Racking	217.4		369			0	1	0	
Water Based	Rhodoline 999	Solvay USA	Defoamer	<300		450	475gal	Totes	Pallet Racking	511		199-572			2	1	0	
Water Based	RV-0122 White	Chromaflor	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	RV-0262 Black	Chromaflor	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	RV-0313 Blue	Chromaflor	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	RV-60085 Orange	Chromaflor	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	RV-80199 Lemon	Chromaflor	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	S-1505P-L	SNP Inc	Polyvinyl Alcohol	1,200		4,000	475	Totes	Pallet Racking			212			Not classified			
Water Based	SA-200 (Synthbond)	Stynthomer	Styrene Acrylic Copolymer	14,000		4,000	475	Totes	Pallet Racking	>212		212		es Eye Irritation and organ damage through pro	Not classified			
Water Based	Surfynol 420	Evonik	Surfactant	<40		40	5 gal	Pail	Pallet Racking	>230		552		Eye Damage and Skin Sensitization	Not classified			
Water Based	Surfynol TG	Evonik	Surfactant	1,000		1,000	5 gal	Pail	Pallet Racking	>237		>399		Eye Damage and Skin Sensitization, Acute	Not classified			
Water Based	Tertigol NP-9	Barton Solvents	Alkyl Aryl Polyglycol ether	<5		40	5 gal	Pail	Pallet Racking	230					2	1	0	
Water Based	Vinac DPN890	Celanese	Water based mixture	<450		450	55 gal	Drum	Pallet Racking			212			1	0	0	
Water Based	Vinnapas EAF68	Vinnapas	aqueous polymer dispersion	900		900	55 gal	Drum	Pallet Racking			212			Not classified			
Water Based	Vinnapas EP 7000	Vinnapas	aqueous polymer dispersion	<450		450	55 gal	Drum	Pallet Racking			212		Not Hazardous	Not classified			
Water Based	Vtac 9001	Valpac	Tackifier Dispersion	6,000		3,000	55 gal	Drum	Pallet Racking			212			1	0	0	
Water Based	White E-18091	Akrochem Corp	Colouring Agent	<40		40	5 gal	Pail	Pallet Racking						Not classified			
Water Based	White E-18811	Akrochem Corp	Colouring Agent	<40		40	5 gal	Pail	Pallet Racking						2	1	0	

= Material is heated above its flashpoint.
(1) LC50(inhalation dust/mist) > 5.2 mg/l in 4 hrs = >1.3 mg/l in 1 hr
(2) LC50(inhalation dust/mist) > 5.0 mg/l in 4 hrs = >1.25 mg/l in 1 hr
(3) LC50(inhalation dust/mist) > 5.7 mg/l in 4 hrs = >1.425 mg/l in 1 hr



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

8.19.19

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

Jay Knetter
JKnetter Architects, Inc.
N16 W29217 Stone Ridge Dr.
Suite 300
Waukesha, WI. 53188

Phone (262) 278-4383

E-Mail jayk@jaknetter.com

PROPERTY OWNER

Eric Roberts
Glue Dots International
W186 N11676 Morse Drive
Germantown, WI. 53022

Phone (262) 437-7885

E-Mail eroberts@gluedots.com

2

PROPERTY ADDRESS

W186 N11676 Morse Drive | Glue Dots International

3

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

North	South	East	West
Multi-spec Industrial	Germantown Fire Dept.	KLH Industries Inc.	Mess Industrial

4

READ AND INITIAL THE FOLLOWING:

jk

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

jk

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

jk

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!

Applicant

Date

Owner

Date



N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

August 19, 2019

Jeff Retzlaff
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

**RE: Proposed Glue Dots International Building Expansion Design Narrative
W186 N11676 Morse Drive**

Jeff,

On behalf of Glue Dots International (an Ellsworth Company) we are submitting a Site Plan design package to the Village of Germantown for review and approval at the October 14th Plan Commission meeting. Glue Dots International (GDI) has made a commitment to upgrading and expanding their existing facility in the Germantown Business Park to include a 68,387 SF building expansion. This building addition expansion will include the demolition of one of their adjacent facilities, The Glue Factory, in order to maximize usable area and connectivity of resources within a single building. As a result, there will be the need to combine (3) parcels into one CSM. The Glue Dots International expansion will be the next step in creating a single campus industrial facility that will merge (3) businesses together (GDI, The Glue Factory and Heartland Adhesives) while promoting the Ellsworth Adhesives model of good design aesthetics to showcase their expertise in the marketplace. GDI is a specialty manufacturer with 50 employees focused on pressure sensitive and hotmelt adhesives, converting services, and instant adhesive products for the industrial, commercial and consumer marketplace.

The building expansion will maintain painted load-bearing precast panels in a contextual manner with the same painting scheme as the current building. There will be a new central office area that will house the operations team and utilize a second floor mezzanine. Decorative horizontal metal panel will be utilized to help identify the office area and provide additional interest in breaking up the long façade. The south end of the addition will provide a secluded loading dock area necessary for raw and finish good deliveries and shipping. This dock area will provide on-site maneuvering of trucks with a right turn only access drive off of Maple Road. Additionally, this will assist in fire department access. Additional car parking will be extended along Maple Road with landscaping and site lighting.

Please feel free to contact me directly with any questions at 262-751-0840.

Sincerely,

JAKnetter ARCHITECTS, Inc.

Jay Knetter, AIA
President



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

- ☒ Provide Completed Checklist with submittal
- ☒ Names and addresses of owner/developer/designer
- ☒ Graphic scale, north arrow
- ☒ Location sketch
- ☒ Size of site (gross and net acreage)
- ☒ Existing zoning
- ☒ Adjacent zoning and uses
- ☐ Number of residents (subdivisions)
- ☒ Number of employees *50 employees @ 601.*

EXISTING SITE INFORMATION

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

ARCHITECTURAL PLANS

- ☒ Existing building location
- ☒ Existing building elevations/materials
- ☒ Proposed use (use list from Section 17.45) *# 10*
- ☒ Statement of design intent (narrative)
- ☒ Proposed floor plans (dimension)
- ☒ Square footage (total and individual rooms/stores)
- ☒ Proposed elevations (dimension)
- ☒ Proposed building height

- ☒ Proposed materials and colors (material sample board required for new construction) *will bring to meeting*
- ☒ Proposed signage (elevations, color, square footage, height, construction material, lighting)
- ☒ Details of any special features

PROPOSED SITE PLAN

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

LIGHTING PLAN

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

LANDSCAPING PLAN

- ☒ Major improvements for context (building, drives, walks)
- ☒ Proposed outdoor amenities (benches, paths, etc.)
- ☒ Existing vegetation
 - Species
 - Size
 - Approximate canopy in plan
- ☒ Vegetation to be destroyed
 - List and show location
- ☒ Proposed method of saving existing vegetation during construction
- ☒ Proposed landscape features (berms, fountains)
- ☒ Existing/proposed lighting
- ☒ Irrigation/watering systems (locate outlets)
- ☒ Plant lists or schedules
 - Keyed to plan
 - Number of each species
 - Size when planted (caliper)
- ☒ Installation details/staking

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.



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October 10, 2019

Jeffrey W. Retzlaff, Village Planner & Zoning Administrator
Village of Germantown
N112W17001 Mequon Road
Germantown, WI 53022

Re: Glue Dots International (GDI) Building Expansion
N117W18711 Fulton Drive
Germantown, WI 53022
Architect No. 19013-01

Jeff,

Enclosed are response items relating to the Village of Germantown review comments (RE: Conditional Use Permit (CUP), Certified Survey Map (CSM) & Site Plan Applications Staff Review Comments; October 7, 2019) for the Glue Dots International (GDI) Building Expansion dated August 19, 2019. Listed below are the comments from your letter with our formal response in bold form to facilitate a quick response for your re-review. As is usual and customary, JAK Architects will continue to work with the Village of Germantown at a staff level as required to satisfactorily meet any outstanding design concerns.

Village Staff has reviewed the applications and supporting plans submitted for the proposed manufacturing building expansion, parcel combination and conditional use permit and has identified the following outstanding items/issues that need to be addressed before we can schedule the plans for Plan Commission review/approval. Please provide the requested information, corrections, revisions, etc. as soon as possible. If necessary, Village staff can meet to discuss specific comments prior to you submitting response and/or revised plans or supplemental information.

Community Development Department

1. Site Plan: The proposed landscaping needs to be addressed:
 - a. Additional street trees are required along Maple Road to replace those removed in an amount equal to 1 tree per 50 feet of frontage. Said trees can be planted in groupings or spaced equally across the frontage. The Village Forester will review the plans and is likely to point out the need to plant the trees as close to the ROW line as possible. It is understood that the retaining wall location may preclude installing trees along the edge; however, trees may be installed within the ROW if necessary.
RESPONSE: Street trees have been added to the plan, spaced approx. 40' o.c. to match those that were removed.

- b. Additional landscaping is needed along the retaining wall on Maple road; the retaining wall height should be called out better with top & bottom wall elevations.
RESPONSE: Shrub massing has been added along the base of the retaining wall. Elevations & wall heights are as indicated on the Civil plans.
 - c. The plant schedule should be completed with quantities listed.
RESPONSE: Plant schedule quantities can be confirmed with Village staff if needed as a condition of approval. Calculation of final plant quantities are typically the contractor's responsibility.
 - d. All landscaping is required to meet a minimum planted size of 2.5' to 3" for deciduous trees and 6'-8' for evergreen trees.
RESPONSE: Tree sizes meet Village minimums.
 - e. Additional plantings are needed along the south side of the new parking area along the south and southeast property lines.
RESPONSE: Additional trees & shrubs have been located along the south & east property lines.
2. A materials board is required. It can be delivered to the Planning & Zoning counter at Village Hall any time before, or brought with you to, the Plan Commission meeting.
RESPONSE: Material samples will be brought to the Plan Commission meeting on October 14, 2019.
3. No details for the nitrogen, chiller and dust collection equipment are provided as called out on Sheets A100 & A140. What are the dimensions and capacities? How will screening be accomplished?
RESPONSE: The nitrogen tank, chiller and dust collection equipment and systems are still being designed / vetted / determined by the Owner. Equipment depicted in our drawings and dashed on our exterior elevations is dimensionally accurate to reflect the "best educated guess" of what the equipment will be and how it will be located. We have revised the height of the nitrogen tank to be approximately 10'-6" tall based on recent information. We have made a conscious effort of consolidating equipment into a recessed notch of the building, set back from Morse Drive to assist in screening. The equipment area will be screened by 7' tall privacy fencing (vinyl or chain link with privacy slats) and have Landscape screening on the East side of the proposed tanker off-load access drive.

4. No details for a dumpster/trash enclosure are provided. Village guidelines for dumpster enclosures are as follows:
 - a. The enclosure area shall be large enough to accommodate the dumpster and be located on the lot with adequate space for access and maneuverability by the collection service. Generally, an enclosure should be located in the rear or side yard of a lot. There shall not be any type of enclosure or container(s) stored in the front yard.
 - b. The enclosure shall be placed on a concrete pad with a minimum concrete depth of four inches (4").
 - c. The enclosure area shall be screened on three (3) sides by a wall from view from public streets and abutting properties.
 - d. The walls shall be constructed in a durable fashion of brick, stone or other masonry materials compatible with the principal building. The gate shall be an opaque type material of either wood, concrete, vinyl or chain link with privacy slats (wooden fencing must be of the "shadow box" design).
 - e. The height of the enclosure shall fully enclose the container(s) and should generally not exceed eight feet (8') in height (unless necessitated by the height of the container).
 - f. The enclosure shall be constructed in such a manner that all structural members, including braces, posts, poles and other projections, shall be on the interior side of the fence.
 - g. Drains that connect to the sanitary system are not permitted within an enclosure area. Drains that connect to a storm water drainage system may be allowed; contact the Village Engineer.
 - h. All enclosure areas shall include landscaping comprised of evergreen and deciduous trees & shrubs. Said landscaping shall be integrated with landscaping of the entire lot and included in the overall landscape plan for the lot.

RESPONSE: Since the original Plan Commission submittal (8/19/19), the Owner has added the requirement for a trash container enclosure; see the revised plans for the location in the truck court area. The enclosure is designed to accommodate a single 10-Yard container. The enclosure will be constructed on (3) sides by painted Precast Concrete wall panels with reveals to match the building and have a thickened concrete slab and approach (sheet draining to the Storm Sewer). There will be (2) swinging gates on the East side (facing away from Maple Road) that shall be constructed with privacy fencing (vinyl or chain link with privacy slats). See the revised Landscaping plans & details for this area that will additionally screen the container enclosure from view.



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5. Signage is not adequately addressed. Please indicate if signage will be handled under a separate and future sign permit application. A sign “placeholder” for directional signage is noted at the south driveway onto Maple road. If the owner intends to get approval for a monument sign with the site plans, a separate application with more detailed information needs to be provided:
 - a. Confirm location meets minimum 5’ setback from property line
 - b. The sign is required to be mounted on a base of same/similar materials as the primary building
 - c. Minimum 5” height of address coordinates
 - d. Details on external lighting (flood lights require shielding and screening)
 - e. Landscaping required; current landscape plan shows one street tree nearby and in front of sign placeholder shown on site plan

RESPONSE: Any annotation to signage in our documents is for conceptual design intent at this time. All new site signage will be handled under a separate future sign permit application. Consider the locations indicated in our current plans as “placeholders” for a future signage submittal to the Village.

6. Site Plan: The proposed mounting height of fixtures on the poles in the parking area is unclear. The maximum fixture height allowed is 25’ including any concrete bases. The lighting plan needs to be revised accordingly.

RESPONSE: Acknowledged. Please see revision drawing for updated notation.

Fire Department

7. One approved fire hydrant per village water utility standards shall be installed in the SE corner of the trucking lot.

RESPONSE: A fire hydrant per village water utility standards has been added to the plan.

8. Location of FDC to be approved by GFD.

RESPONSE: The indicated FDC location is a “placeholder” to be coordinated with the GFD for final approval. It is understood that on-site coordination and meetings will be conducted with the Design / Build Fire Protection contractor and GFD as required.

9. Additional fire alarm annunciator may be required. Fire alarm equipment locations to be approved by GFD.

RESPONSE: Acknowledged. It is understood that on-site coordination and meetings will be conducted with the Design / Build Fire Protection contractor and GFD as required.

10. H-3 occupancy locations require emergency operational plan prior to occupancy.

RESPONSE: Our original submittal drawings eluded to the potential for an H-3 area in the building addition. The intent of this building expansion is to consolidate the current adhesive processes and storage functions occurring at The Glue Factory and Heartland Adhesives under one roof. We are

currently evaluating all raw materials and finished goods that will be present in the building expansion and believe we will fall under the IBC designations of moderate-hazardous Factory (F-1) and moderate-hazard Storage (S-1) occupancies. With that said, we are taking additional measures of isolating rooms with inherent concerns and areas with 2-hour fire-rated barriers as necessary in order to provide a safe environment. GDI has engaged their insurance company as well in order to gain insight into their design and process-related concerns as it relates to NFPA. It is understood that GDI and the GFD will continue to communicate and implement any necessary emergency operational plan prior to occupancy and the project team will solicit information as necessary thru the design and construction phase in order to meet expectations.

11. Backup emergency power or communications may be required in H-3 areas.
RESPONSE: It is understood that emergency power or communications may be required in areas identified as H-3. At this time, H-3 designations are still be reviewed and considered. GDI has committed to having a back-up generator for the building.
12. Additional Knox box required at new fire protection room.
RESPONSE: Understood. The GDI project team will coordinate the preferred location of the Knox Box with the GFD as is typically done.

Public Works/Village Engineer/Village Surveyor

13. Comments from the Village Surveyor regarding the CSM are contained in a separate review memo dated August 26, 2019 (copy attached). **RESPONSE:** *comments are included herein for simplicity & inclusion*

Here are my review comments for the CSM received 8-20-2019.

Certified Survey Map

Applicant or Owner: Glue Dots International

Land Surveyor/Firm: Mike Berry, PLS – Capitol Survey Enterprises

- i. A notary signature block is required for all signatures including Village plan commission and Board approval certificates. Please add the notary signature blocks as needed.
RESPONSE: Understood and updated.
- ii. Incorrect Planning Commission Secretary's name on the Village Planning Commission Certificate. The correct secretary's name is Laura A. Johnson.
RESPONSE: The correct name has been updated.

- iii. Add the name and title of the corporate officer signing the Corporate Owner's Certificate.

RESPONSE: This has been added as requested.

- iv. There are two (2) misspelling of the word "Germantown" in the Corporate Owner's Certificate. These need to be replaced.

RESPONSE: Misspelled typos have been corrected.

- v. What will the status of the existing masonry building be located at W186 N11687? Will that building be razed or absorbed into the new addition? Please place the new status of the building on Sheet 1 of 3.

RESPONSE: The existing masonry building has been noted to be razed.

- vi. Show original lot lines of Lot 1 of Certified Survey Map No. 3266, Lot 1 and Outlot 1 of Certified Survey Map No.4116 as a screened or dashed linetype.

RESPONSE: Understood and updated.

No further review comments.

Document Approval and Recording

For this CSM to be approved by the Village Board and recorded at the Washington County Register of Deeds, the document must be provided to the Village Clerk's office in a completed format including all original signatures of the owner and lending institution, original seals of the professional land surveyor on the recordable media the Wednesday prior to the scheduled Village Board meeting.

RESPONSE: Understood.

This includes the CADD file.

RESPONSE: Understood.

Any documents or digital files not submitted by the due date or contain outstanding technical review comments that have not be addressed, will be moved to the next scheduled Village Board meeting agenda.

RESPONSE: Understood.

Document Submittals and Data Conversion

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

RESPONSE: Understood.

Prior to Recording the Certified Survey Map or Subdivision Plat, The professional land surveyor is responsible for submitting a copy of the AutoCad drawing file (.dwg) of the document in version 2018 on compact disk (CD) or via email to the Village Surveyor.

RESPONSE: Understood.

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

RESPONSE: Understood.

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

RESPONSE: Understood.

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

RESPONSE: Understood.

14. Comments regarding storm water management, roads, and utilities are contained in a separate memo prepared by the Village Engineer dated September 30, 2019 (copy attached). **RESPONSE:** *comments are included herein for simplicity & inclusion*

Included you will draft review comments pertaining to the Glue Dots proposed expansion. The comments are in addition to staff's review comments.

i. Sanitary comments

1. Every effort should be made to reuse the existing connection for the building being raised. Mainline sewer is 12"VCP, will be very

difficult to get a factory Wye to work for a tap. If not, existing sanitary will need to be abandoned at the main, existing sample manhole removed, and record drawings updated to reflect the changes.

RESPONSE: The sanitary lateral has been revised to connect into the existing sanitary sampling manhole.

2. On plan sheet C5.0, the sanitary sampling manhole is to be replaced with the updated detail. The correct detail is dated October 12, 2017 and can be found on Germantown's website under the Engineering Department's standard details.

RESPONSE: The detail of the sanitary sampling manhole has been updated with the most up to date detail from the Germantown website.

ii. Water comments

1. On Sheet AS100-Architectural site plan, if the water lateral to this building is not being reused it needs to show abandonment of the water lateral to this building at the water main connection per our abandonment code section.

RESPONSE: The existing water main lateral shall be modified for reuse and not abandoned, see the revised Architectural Site Plan (AS100) for note indicating such.

iii. Engineering comments

1. Please electronic files of the storm water management plan so that they may be submitted to MMSD for their review and approval per Chapter 13 requirements.

RESPONSE: Electronic files of the SWMP have been provided to the Village Engineer.

2. It is important to note that the access onto Maple Road is to be right-in and right-out. Thank you for formally calling out the sign on Sheet C1.11.

RESPONSE: As Noted

3. A stormwater maintenance agreement is required for the wet detention pond.

RESPONSE: A stormwater maintenance agreement will be prepared and provided to the Village Engineer.



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When submitting revised plans or additional information, please submit (1) digital plan set and fifteen (15) full-size, hard-copy plan sets set to the Community Development Department. Complete responses and/or information, plan revisions, etc. to the items/issues listed above will help avoid delay in the review and processing of your application.

RESPONSE: Acknowledged. Please see included one (1) digital plan set and fifteen (15) sets of revised plans with all revisions clouded and tagged as referenced in this letter.

I hope this response letter satisfies your requirements for approval. Please feel free to contact me directly with any questions or concerns.

Regards,

A handwritten signature in black ink, appearing to read 'Jay A. Knetter', is written over a circular scribble.

Jay A. Knetter
JAKnetter Architects
262.751-0840



REVISED PLAN COMMISSION SUBMITTAL
FOR:
GLUE DOTS INTERNATIONAL BUILDING
EXPANSION

W186N11676 MORSE DRIVE
GERMANTOWN, WI 53022



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office 262 513 9800 | fax 262 513 9815



PROJECT INFORMATION:

GLUE DOTS
INTERNATIONAL
BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

REVISED PLAN
COMMISSION
SUBMITTAL

REVISIONS		
#	DATE	DESCRIPTION

ISSUANCES

VILLAGE OF GERMANTOWN PLAN COMMISSION SUBMITTAL	19 AUGUST 2019
EXTERIOR PRECAST CONCRETE PANEL RFP DRAWINGS	6 SEPTEMBER 2019
MEP DESIGN ASSIST RFP DRAWINGS	13 SEPTEMBER 2019
BID PACKAGE #1: CORE & SHELL DOCUMENTS	3 OCTOBER 2019
REVISED PLAN COMMISSION SUBMITTAL	10 OCTOBER 2019

10 OCTOBER 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

COVER

TS100

ABBREVIATIONS

A AC air condition AE Architect/Engineer ADT acoustical ADDL ceiling tile ADD addendum AFC above finished counter AFF above finished floor AFG above finished grade AFS above finished slab ALT alternate ALUM aluminum APPO approved APT apartment AP acoustic panel ASC above suspended ceiling	C (continued) CNU construction joint CL centerline CLR ceiling CM construction management CMU concrete masonry unit CO cleanout COL column CONC concrete CORR corridor CONT continuous CPT carpet CSWK casework CTB ceramic tile base ceramic tile base	F F female F filler FA fire alarm clear FAB fabric FAX facsimile FC file cabinet FD floor drain FEC fire extinguisher cabinet FHC fire hose cabinet FLR floor FM factory mutual grade FO floor mat FO fireproof opening FP fireproof fireplace FT feet, foot FTG footing	I ID inside diameter INSUL insulation INT interior	J JA janitor sink	L LAM laminate LAV lavatory LL live load	M MAX maximum MC modular carpet tile MECH mechanical manipulator MFR microwave oven MIN minimum miscellaneous miscellaneous masonry opening mop sink metal	P plywood PLYWD panel PREFAB prefabricated PREFIN prefinished PSI pounds per square inch PT paint, painted PTN partition	T time & materials TEMP temperature TERB terrazzo TFF top of finish floor TKSD tackboard TO top of TOB top of beam TOC top of concrete TOI top of joist TOPO topography TOS top of slab TST top of steel TV television TYP typical	
B baseboard BB bulletin board BLDG building BLT borrowed light BLW below BPL base plate BO bottom of BOS bottom of steel	D DEMCO demolition DEPT department DF drinking fountain DFS door and frame schedule DIA diameter DP decorative panel DR door DRL door frame DTL detail DS downspout DW dishwasher DWG drawing	G GA gauge GALV galvanized GB grab bar GC general contractor GL glass GLT glass tile GLULAM glue laminated wood GR grade, grading GT grout GYRD gypsum board	N N north NA not applicable NIC not in contract NO number NS nominal NTS not to scale	R R resilient base RCP reflected ceiling plan RD roof drain reinforcing steel bars REBAR	Q quarry tile quarry tile base	R R resilient base RCP reflected ceiling plan RD roof drain reinforcing steel bars REBAR	U unless noted otherwise	V V vending machine VERT vertical vendor furnished, contractor installed vendor furnished, owner installed vendor furnished, owner installed verify in field	W west WJ with W/O without WC water closet WC wall covering WD wood WDB wood base WDV wood veneer WH water heater WP wall protection workpoint WT window treatment
C catch basin CB construction bulletin CF/CI contractor furnished, contractor installed CF/VI contractor furnished, owner installed CG chalkboard CHBD corner guard CJ control joint	E E east EIFS exterior insulation & finish system EL elevation EXP expansion joint ELEC electric, electrical ELEV elevator EPS expanded polyethylene board EQ equal EXIST existing EXP expand, expansion EXT exterior	H HB hose bibb HC hollow core HCP handicapped HM hollow metal HORIZ horizontal HSPT housekeeping HGT height HVAC heating, ventilating & air conditioning HW hot water HWY highway	O OC on center OD outside diameter OF/CI owner furnished, contractor installed OF/OI owner furnished, owner installed OF/VI owner furnished, owner installed OH DR overhead (ceiling) door OPH opposite hand OPNG opening	S SAN sanitary SC sealed concrete SC solid core SF square foot SS similar SST stainless steel ST stair STN stone stone base STRUCT structure	Q quarry tile quarry tile base	R R resilient base RCP reflected ceiling plan RD roof drain reinforcing steel bars REBAR	U unless noted otherwise	V V vending machine VERT vertical vendor furnished, contractor installed vendor furnished, owner installed vendor furnished, owner installed verify in field	W west WJ with W/O without WC water closet WC wall covering WD wood WDB wood base WDV wood veneer WH water heater WP wall protection workpoint WT window treatment
X XPS extruded polystyrene board (insulated)									

PROJECT TEAM

OWNER
GLUE DOTS INTERNATIONAL

W186N11676 MORSE DRIVE
GERMANTOWN, WI 53022
PHONE: (262) 437-7885

PROJECT CONTACT: ERICA ROBERTS, VP
DIRECT PHONE: (262) 422-3883
EMAIL ADDRESS: eroberts@gluedots.com
PROJECT CONTACT: BILL HOGAN
DIRECT PHONE:
EMAIL ADDRESS: bhogan@gluedots.com

OWNER'S REP
MC GROUP

N19W24200 RIVERWOOD DRIVE
WAUKESHA, WI 53188
PHONE: (262) 522-7000

PROJECT CONTACT: RIC MILLER
DIRECT PHONE: (262) 227-4895
EMAIL ADDRESS: ricmiller@mcgroup-gbs.com

GENERAL CONTRACTOR
MIRON CONSTRUCTION

10700 RESEARCH DRIVE, STE 100
MILWAUKEE, WI 53226
PHONE: (414) 308-1510
FAX: (414) 431-0933

PROJECT CONTACT: ANDRE LORENZEN
DIRECT PHONE: (414) 308-1523
EMAIL ADDRESS: andre.lorenzen@miron-construction.com

CIVIL ENGINEERING
HARDWOOD ENGINEERING CONSULTANTS

255 NORTH 21ST STREET
MILWAUKEE, WI 53233
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FAX: (414) 773-9240

PROJECT CONTACT: TOM OLEJNICZAK, PE
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LANDSCAPE
HARDWOOD ENGINEERING CONSULTANTS

255 NORTH 21ST STREET
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FAX: (414) 773-9240

PROJECT CONTACT: TOM DISALVO, ASLA
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SITE LIGHTING
HARDWOOD ENGINEERING CONSULTANTS

255 NORTH 21ST STREET
MILWAUKEE, WI 53233
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FAX: (414) 773-9240

PROJECT CONTACT: ERIK KOPP
DIRECT PHONE: (141) 918-1234
EMAIL ADDRESS: Erik.Kopp@hecl.com

ARCHITECTURAL
JAKnetter ARCHITECTS

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PROJECT DATA

PROJECT DATA	
OWNER	GLUE DOTS INTERNATIONAL (AN ELLSWORTH COMPANY)
LOCATION	
MUNICIPALITY:	GERMANTOWN
COUNTY:	WASHINGTON
STATE:	WISCONSIN
APPLICABLE BUILDING CODES	WISCONSIN COMMERCIAL BUILDING CODE 2015 IBC AS MODIFIED BY CHAPTERS SPS 381-366 2015 INTERNATIONAL EXISTING BUILDING CODE VILLAGE OF GERMANTOWN M-1 LIMITED INTERNATIONAL DISTRICT.
CONSTRUCTION CLASSIFICATION	IIB
OCCUPANCY GROUP	(B) BUSINESS, (S-1) MODERATE-HAZARD STORAGE, (F-1) MODERATE-HAZARD FACTORY
PROJECT TYPE	BUILDING ADDITION
NUMBER OF STORIES	1 + MEZZANINE
BLDG ADDITION GROSS AREA (SQ FT)	68,387 SF, WI 6,003 SF OFFICE MEZZANINE AND 2,500 SF STORAGE MEZZANINE
FIRE PROTECTION	COMPLETE
FIRE ALARM	COMPLETE
FIRE SUPPRESSION:	COMPLETE
MONITORING TYPE	REMOTE SUPERVISION
NFPA STANDARD USED	13
FIRE RESISTIVE RATINGS	
STAIR ENCLOSURES	1 HOUR
ELEVATOR ENCLOSURES	1 HOUR
FLOORS	0 HOUR
ROOFS	0 HOUR
EXTERIOR WALLS	0 HOUR
ELEVATOR EQUIPMENT ROOMS	1 HOUR
NON-SPRINKLERED PRIMARY ELECTRICAL ROOM	2 HOUR

BUILDING DESCRIPTION AND INFORMATION	
1.	THIS 68,387 SF BUILDING ADDITION HAS BEEN DESIGNED WITH THE INTENT OF SUPPORTING THE EXISTING INDUSTRIAL WAREHOUSE & ADHESIVES PROCESS OF GOODS FOR GLUE DOTS INTERNATIONAL.
2.	ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES. MAINTAIN CODE REQUIRED FIRE RESISTANCE RATINGS AND ENCLOSURES.
3.	ALL EGRESS DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF KEY OR SPECIAL KNOWLEDGE.
4.	THIS BUILDING IS COMPLETELY SPRINKLERED.
5.	ALL CONTRACTORS AND TRADES TO REFER TO ALL SHEETS OF THE SET FOR INFORMATION TO COMPLETE THEIR WORK.
6.	ALL CONSTRUCTION AND/OR TRADES MUST COORDINATE THEIR WORK AND LOCATION WITH OTHER CONTRACTORS AND/OR TRADES.
7.	ANY DISCREPANCIES OR UNUSUAL EXISTING CONDITIONS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF JAK ARCHITECTS FOR FURTHER DIRECTION. DO NOT SCALE DRAWINGS.
8.	THIS BUILDING WILL HAVE EXIT LIGHT SIGNAGE, EMERGENCY LIGHTING, SMOKE DETECTORS, FIRE ALARM, STROBES, AND FIRE EXTINGUISHERS AS REQUIRED BY CODE.
9.	THIS PROJECT WILL HAVE DESIGN/BUILD MEP/FP DESIGN. EACH RESPECTIVE DESIGN/BUILD MEP SUBCONTRACTOR WILL BE REQUIRED TO PROVIDE FINAL DESIGN DOCUMENTS FOR STATE REVIEW AND APPROVAL AND MEET ALL APPLICABLE CODES, AS THEY WILL BE CONSIDERED DESIGNER OF RECORD.

VICINITY MAP



N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815



PROJECT INFORMATION:

GLUE DOTS
INTERNATIONAL
BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

REVISED PLAN
COMMISSION
SUBMITTAL

REVISIONS		
#	DATE	DESCRIPTION
1	10/10/19	REVISED P.C.

10 OCTOBER 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

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TS101



CONSULTANT

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#	DATE	DESCRIPTION

LEGEND:

UTILITY	GRADING	SITE
EXISTING: — W — W — WATERMAIN — E — E — BURIED ELECTRIC — OHW — OHW — OVERHEAD WIRE — GAS — GAS — GAS LINE — SAN — SAN — SANITARY SEWER — ST — ST — STORM SEWER UTILITY POLE LIGHT POLE SANITARY MANHOLE FIRE HYDRANT WATER VALVE STORM SEWER STRUCTURE PROPOSED: — W — W — WATERMAIN — E — E — ELECTRICAL LINE — GAS — GAS — GAS LINE — SAN — SAN — SANITARY SEWER — ST — ST — STORM SEWER WATER VALVE STORM SEWER STRUCTURE FLARED END SECTION	EXISTING: 160' — MAJOR CONTOUR 160' — MINOR CONTOUR EXIST 100.00' — EXISTING SPOT ELEVATION PROPOSED: 160' — MAJOR CONTOUR 160' — MINOR CONTOUR 100.00' — SPOT ELEVATION (T/C - TOP OF CURB, E/P - EDGE OF PAVEMENT) DOOR 100.00' — DOOR ELEVATION GR 100.00' — GROUND GRADE AT BUILDING 100.50T/C 100.00E/P — SPOT ELEVATION (T/C - TOP OF WALL, BW - GROUND GRADE AT BOTTOM) 100.50T/W 100.00B/W — RETAINING WALL SPOT ELEVATION (PIPE SIZE, INVERT ELEVATION) 12" FES 100.00B/W — DRAINAGE FLOW DIRECTION EMERGENCY OVERFLOW ROUTE	EXISTING: EXISTING PARKING COUNT EXISTING SIGN EXISTING ADA PARKING SPACE PROPOSED: PARKING COUNT ADA PARKING SPACE SIGN TRUNCATED DOMES PAVEMENT MARKING DIRECTIONAL ARROWS

GENERAL NOTES AND SPECIFICATIONS:

- THE EXISTING SITE INFORMATION ON THIS PLAN WAS TAKEN FROM A SITE SURVEY PROVIDED BY CAPITOL SURVEY ENTERPRISES. THE ENGINEER MAKES NO WARRANTY OR REPRESENTATION WITH REFERENCE TO THE ACCURACY AND COMPLETENESS OF THE EXISTING CONDITIONS INDICATED OR NOT INDICATED ON THE ENGINEERING PLANS PROVIDED. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING SITE CONDITIONS INCLUDING UNDERGROUND UTILITIES, UNDERGROUND UTILITY ELEVATIONS, BUILDING SETBACKS AND EXISTING BUILDING LOCATIONS. THE CONTRACTOR SHALL INFORM THE OWNER AND ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WITH WORK. QUESTIONS REGARDING THE EXISTING SURVEY SHALL BE DIRECTED TO THE PARTIES LISTED ABOVE.
- BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL TO BE CONNECTED TO (VERIFYING ELEVATION, LOCATION AND SIZE). SHOULD THE EXISTING UTILITY NOT BE AS INDICATED ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR EVALUATION.
- ALL UTILITY CONSTRUCTION SHALL ADHERE TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (2003), AS WELL AS, THE MUNICIPAL CONSTRUCTION STANDARDS AND THE DEPT. OF SAFETY AND PROFESSIONAL SERVICES SEC. 382-387.
- ALL PERMITS MUST BE RECEIVED FROM THE MUNICIPALITY AND WDNR PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE ALL APPLICABLE PERMITS ARE RECEIVED PRIOR TO STARTING CONSTRUCTION.
- NOTIFY THE PUBLIC WORKS INSPECTION DEPT., AT LEAST 48 HOURS BEFORE STARTING CONSTRUCTION.
- BACKFILL REQUIREMENTS AND ROADWAY/SIDEWALK RESTORATION SHALL ADHERE TO LOCAL STANDARDS (GRANULAR BACKFILL UNDER OR WITHIN 5' OF CURBS, SIDEWALK, OR PAVEMENT. SPOIL MAY BE USED ELSEWHERE. SLURRY BACKFILL WILL BE REQUIRED IN PUBLIC ROADWAYS.)
- ALL BUILDING UTILITIES SHALL BE VERIFIED WITH THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.
- ALL PROPOSED WATERMAIN SHALL BE: PVC SDR 18, CLASS 150, AWWA C900 WITH ELASTOMERIC JOINTS.
- PROPOSED SANITARY SEWER PIPE SHALL BE PVC, ASTM D-3034, SDR 35 WITH RUBBER GASKETED JOINTS CONFORMING TO ASTM D-3212.
- PROPOSED STORM SEWER SHALL BE PVC, ASTM D-3034, SDR 35 WITH RUBBER ELASTOMERIC JOINTS CONFORMING TO ASTM D-3212 (UNLESS OTHERWISE NOTED).
- A MEANS TO LOCATE BURIED UNDERGROUND EXTERIOR NONMETALLIC UTILITIES MUST BE PROVIDED. PROVIDE TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORD WITH THE PROVISIONS SECTIONS 182.0715(2R) OF THE STATE STATUTES.
- UTILITY TRENCHES SHALL BE MECHANICALLY COMPACTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
- ALL MANHOLES, CATCH BASINS, INLETS, VALVES BOXES, ETC WITHIN THE PROJECT AREA SHALL BE RESET AND ADJUSTED TO MATCH FINISH GRADE.
- ALL EXCAVATED OR STRIPPED MATERIALS NOT BEING REPLACED IN UTILITY TRENCHES OR BEING USED FOR FILL SHALL BE REMOVED FROM THE SITE, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- SEE ARCHITECTURAL PLANS FOR EXACT BUILDING & FOUNDATION DETAILS AND ORIENTATION.
- ALL ON-SITE CONCRETE CURB AND GUTTER TO BE 18" WIDE VERTICAL FACE, UNLESS OTHERWISE NOTED. REVERSE OR REGULAR STYLE CURB DENOTED ON PLANS.
- ALL CURB ELEVATIONS ARE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. SEE CURB DETAIL FOR TOP OF CURB ELEVATIONS.
- ALL CURB RADII ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL MATCH PROPOSED CONCRETE CURB AND GUTTER, SIDEWALK AND PAVEMENT TO EXISTING IN ELEVATION AND ALIGNMENT.
- REMOVAL OF CURB AND GUTTER, SIDEWALK AND PAVEMENT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE WISCONSIN D.O.T.
- ALL CONCRETE FOR CURB AND GUTTER, ROADWAY AND SIDEWALKS MUST CONFORM TO THE STANDARD SPECIFICATIONS FOR READY MIXED CONCRETE. MINIMUM 28 DAY COMPRESSIVE STRENGTH TEST MUST EQUAL 4000 PSI.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL PROPERTY CORNERS.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING UTILITIES OR SITE IMPROVEMENTS. CONTRACTOR SHALL DOCUMENT ALL EXISTING DAMAGE PRIOR TO START OF CONSTRUCTION AND NOTIFY CONSTRUCTION MANAGER OF ANY FINDINGS.
- PROJECT SAFETY ON-SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SOIL CONDITIONS, CONSTRUCTION MANAGER MAY HAVE SOILS REPORT FOR MORE INFO.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED UP PLANS (AS-BUILTS) SHOWING ANY CHANGES DURING CONSTRUCTION.

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C5.00	CONSTRUCTION DETAILS

10 OCTOBER 2019

PROJECT NUMBER PROJECT MANAGER

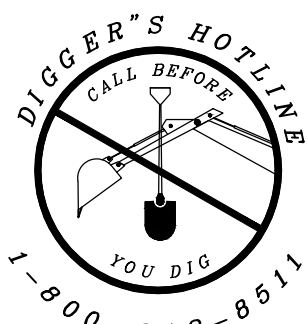
SITE PLAN -
OVERALL

0' 100' 120' 220'
SCALE: 1" = 120'



C1.10

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IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THESE DRAWINGS. AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

CONSULTANT



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INTERNATIONAL
BUILDING EXPANSION

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GERMANTOWN, WI
53022

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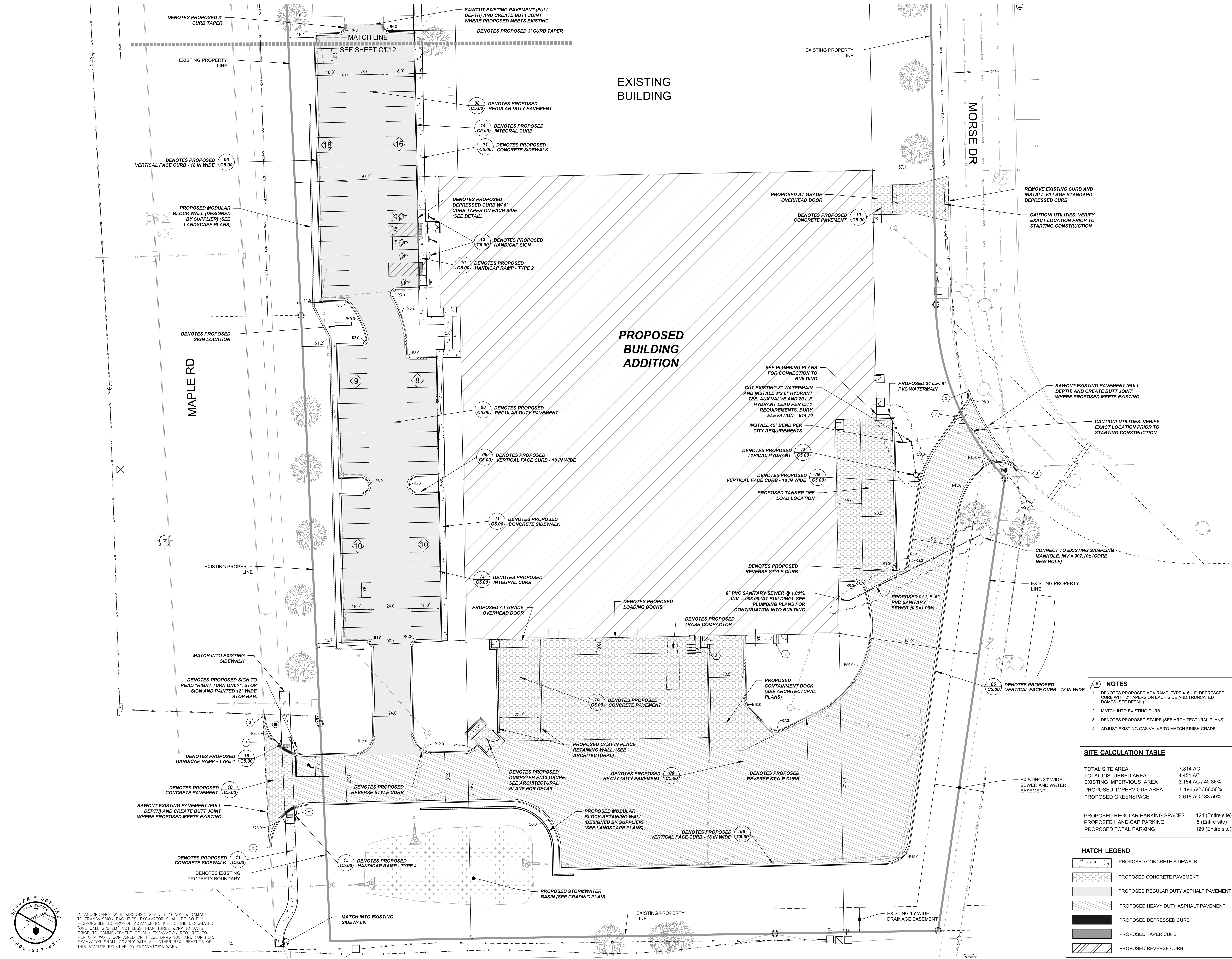
10 OCTOBER 2019

PROJECT NUMBER PROJECT MANAGER

SITE PLAN -
DETAILED SOUTH

0' 10' 20' 30'
SCALE: 1" = 20'

C1.11
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PROJECT NUMBER PROJECT MANAGER

SITE PLAN -
DETAILED NORTH

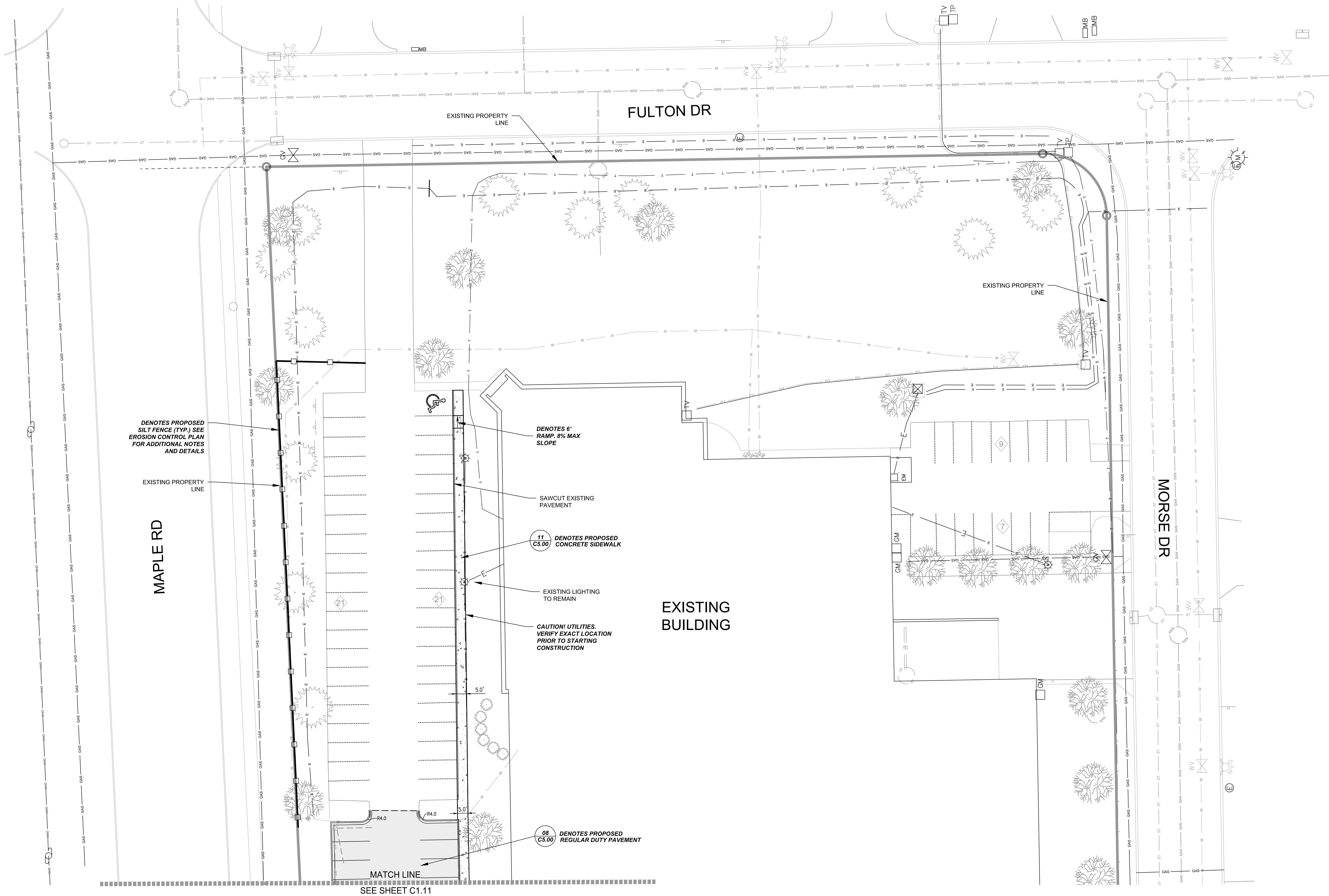
0' 10' 20' 30'

SCALE: 1" = 20'



C1.12

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HATCH LEGEND	
	PROPOSED CONCRETE SIDEWALK
	PROPOSED CONCRETE PAVEMENT
	PROPOSED REGULAR DUTY ASPHALT PAVEMENT
	PROPOSED HEAVY DUTY ASPHALT PAVEMENT



IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

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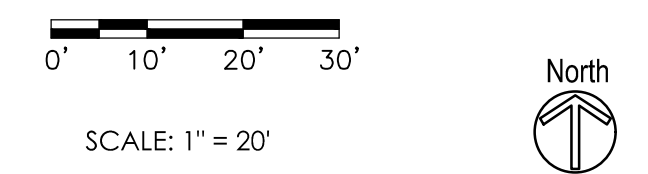
REVISIONS

#	DATE	DESCRIPTION

10 OCTOBER 2019

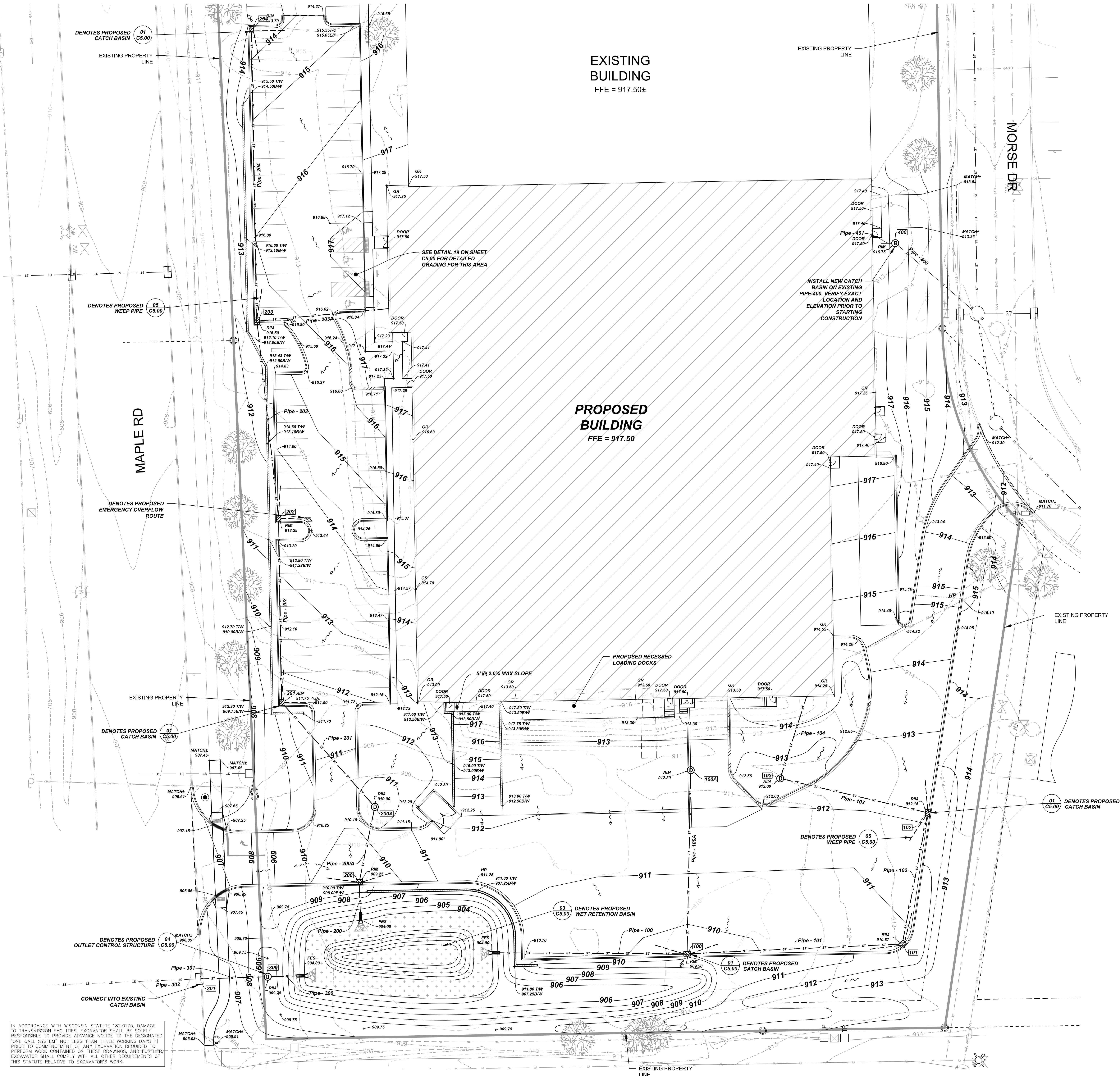
PROJECT NUMBER PROJECT MANAGER

GRADING PLAN



C1.20

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IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL" SYSTEM, NOT LESS THAN THREE WORKING DAYS (2) PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THESE DRAWINGS, AND FURTHER EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

REVISIONS		
#	DATE	DESCRIPTION

10 OCTOBER 2019

PROJECT NUMBER PROJECT MANAGER

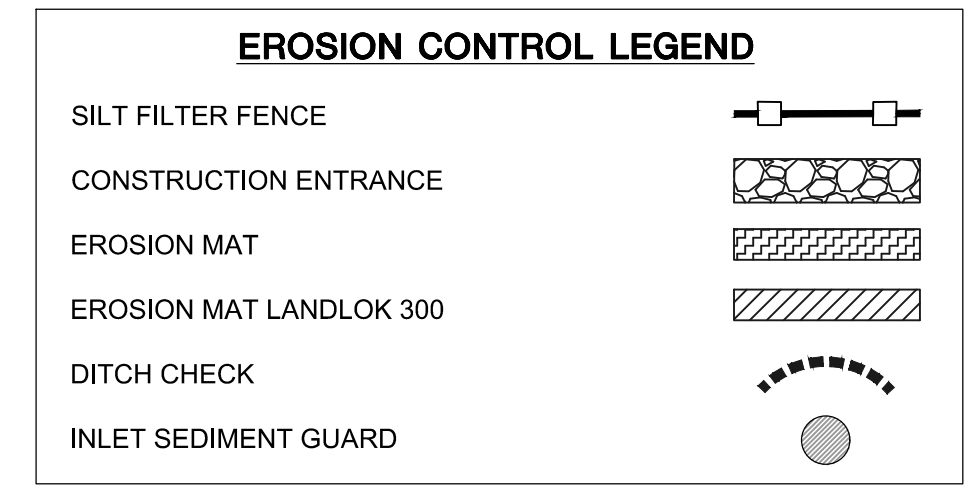
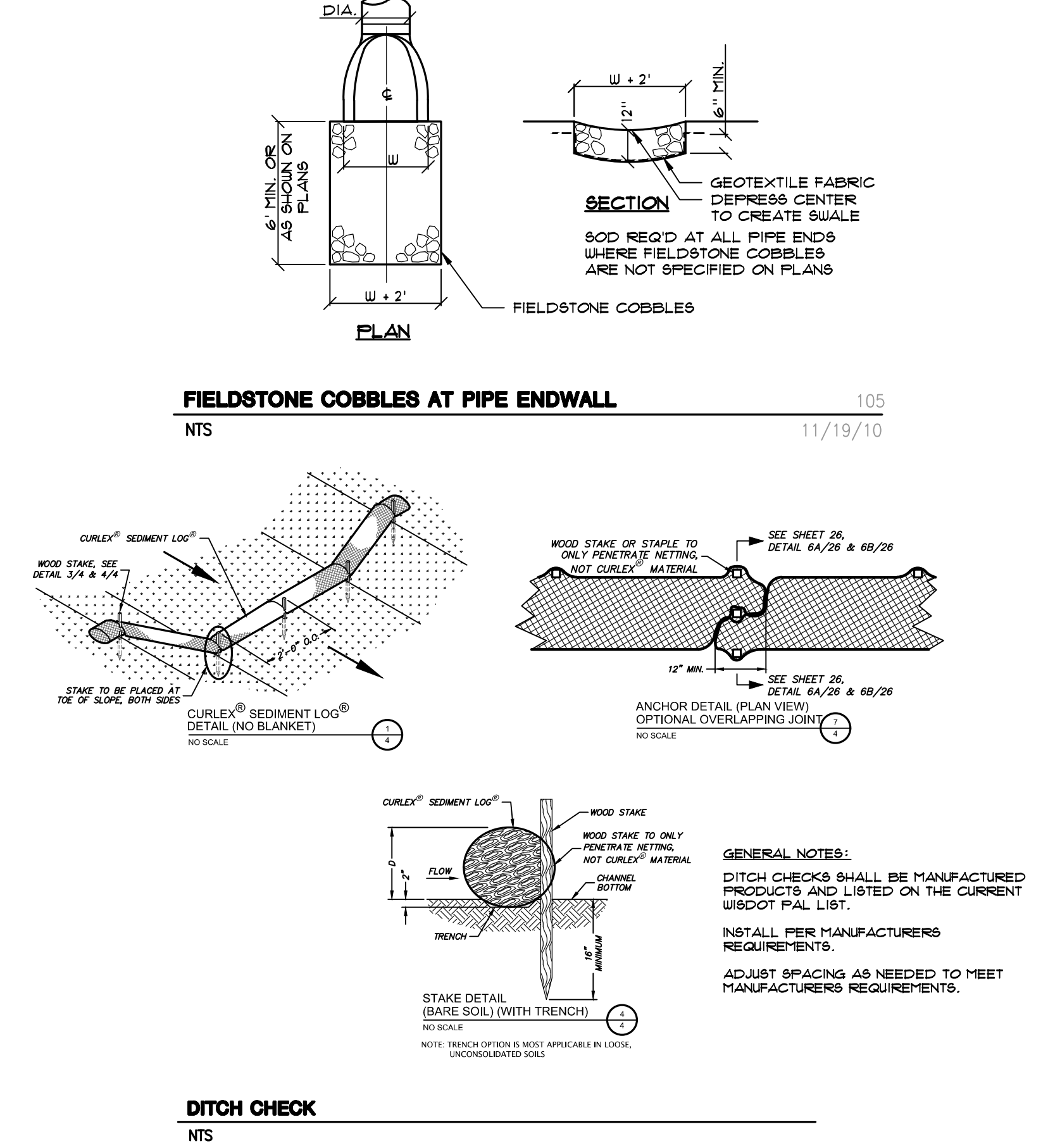
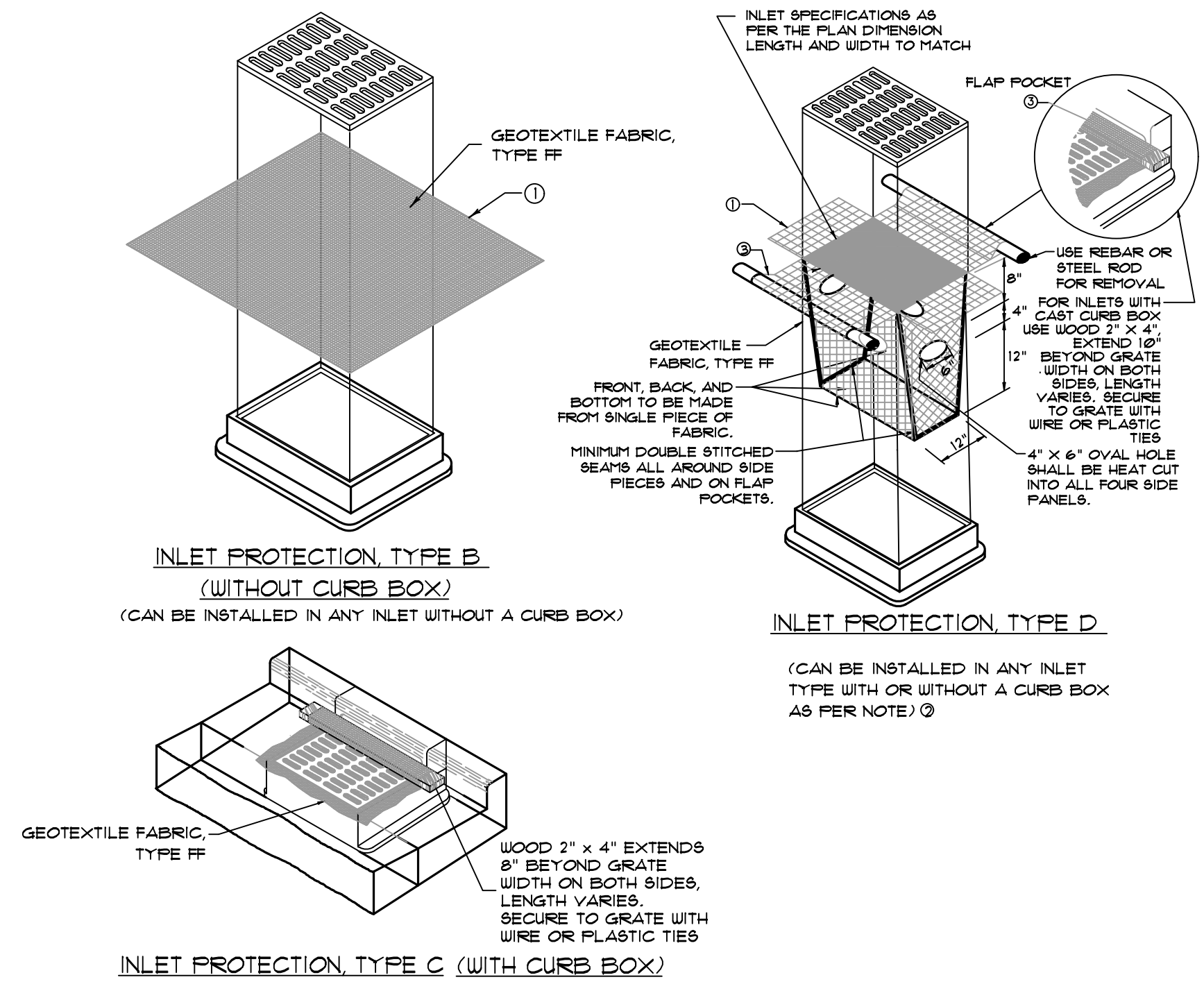
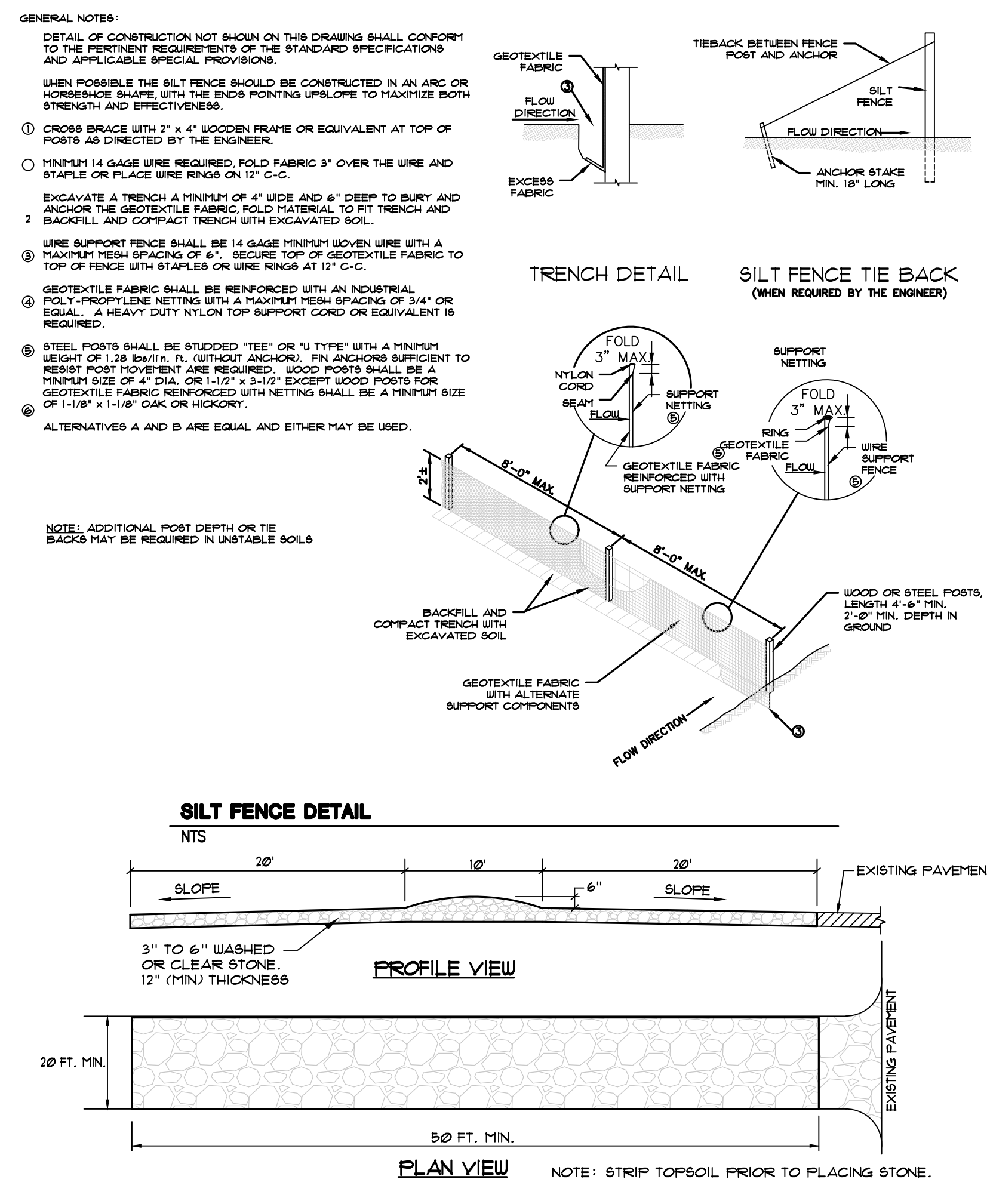
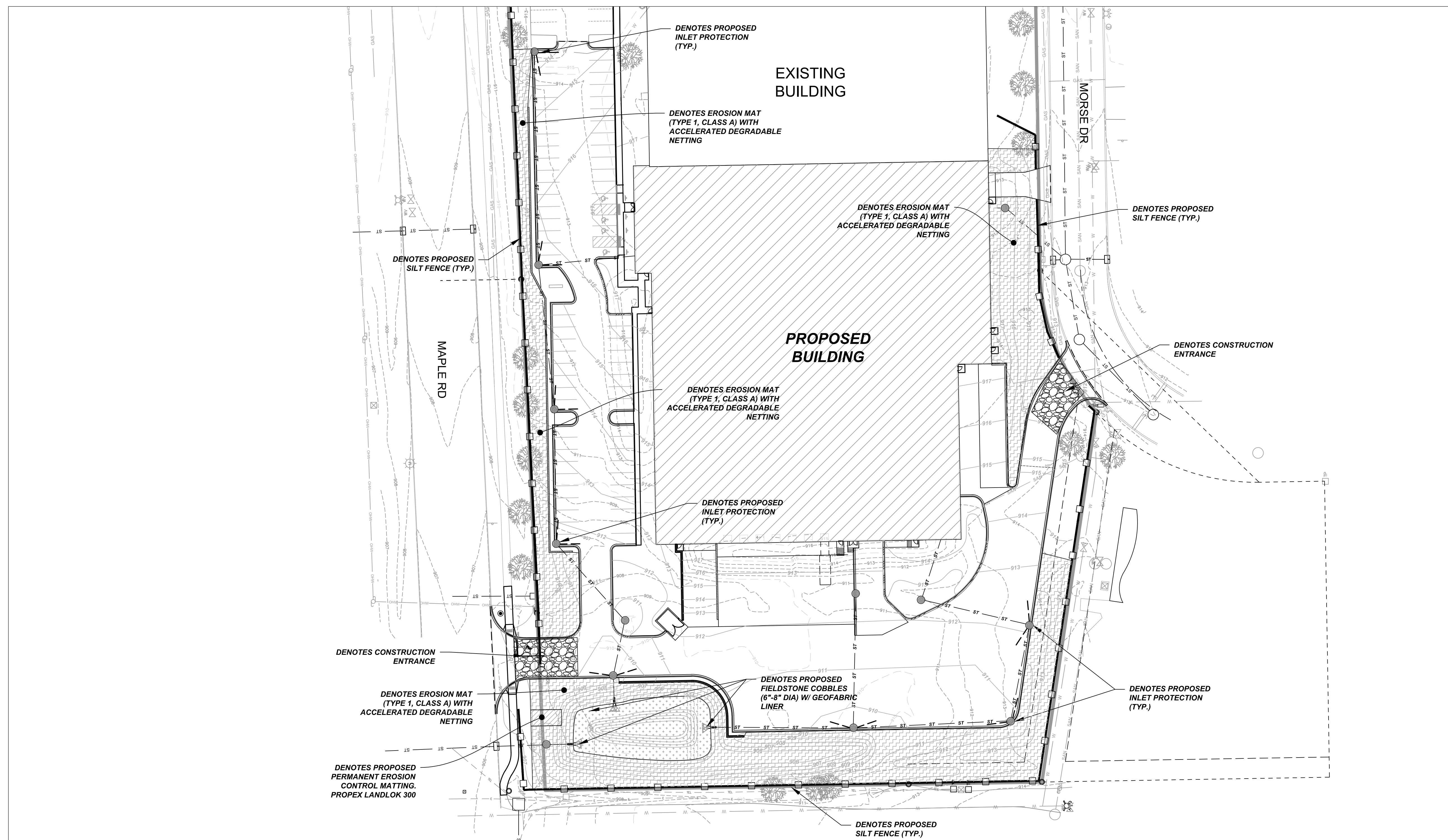
EROSION CONTROL PLAN

0' 20' 40' 60'
SCALE: 1" = 40'

C1.30
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EROSION CONTROL NOTES AND PHASING

1. WDNR PERMIT COVERAGE IS REQUIRED. POST WDNR CERTIFICATE OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED. THE SITE IS STABILIZED, AND A NOTICE OF TERMINATION IS FILED WITH WDNR.
2. KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
3. SUBMIT PLAN REVISIONS OR AMENDMENTS TO THE ENGINEER AT LEAST 5 DAYS PRIOR TO FIELD IMPLEMENTATION.
4. CONTRACTOR IS RESPONSIBLE FOR ROUTINE SITE INSPECTIONS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. KEEP INSPECTION REPORTS ON-SITE AND MAKE THEM AVAILABLE UPON REQUEST.
5. INSPECT AND MAINTAIN ALL INSTALLED EROSION CONTROL PRACTICES UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
6. WHEN POSSIBLE: PRESERVE EXISTING VEGETATION (ESPECIALLY ADJACENT TO SURFACE WATERS), MINIMIZE LAND-DISTURBING CONSTRUCTION ACTIVITY ON SLOPES OF 20% OR MORE. MINIMIZE SOIL COMPACTION, AND PRESERVE TOPSOIL.
7. REFER TO THE WDNR STORMWATER CONSTRUCTION TECHNICAL STANDARDS AT <http://dnr.wisconsin.gov/topic/water/NonpointSourcePollution.nsf>
8. INSTALL PERIMETER EROSION CONTROLS AND ROCK TRACKING PAD CONSTRUCTION ENTRANCES(S) PRIOR TO ANY LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING. USE WDNR TECHNICAL STANDARD STONE TRACKING PAD FOR ROCK CONSTRUCTION ENTRANCES(S).
9. INSTALL INLET PROTECTION PRIOR TO LAND-DISTURBING ACTIVITIES IN THE CONTRIBUTING DRAINAGE AREA AND/OR IMMEDIATELY UPON INLET INSTALLATION. COMPLY WITH WDNR TECHNICAL STANDARD STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES #1060.
10. STAGE CONSTRUCTION GRADING ACTIVITIES TO MINIMIZE THE CUMULATIVE EXPOSED AREA. CONDUCT TEMPORARY GRADING FOR EROSION CONTROL PER WDNR TECHNICAL STANDARD TEMPORARY GRADING PRACTICES FOR EROSION CONTROL #1067.
11. PERMITTING OF GROUNDWATER DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR. GROUNDWATER DEWATERING IS SUBJECT TO A DNR WASTEWATER DISCHARGE PERMIT AND A DNR HIGH CAPACITY WELL APPROVAL IF CUMULATIVE PUMP CAPACITY IS 70 GPM OR MORE.
12. PROVIDE ANTI-SCOUR PROTECTION AND MAINTAIN NON-EROSIVE FLOW DURING DEWATERING. PERFORM DEWATERING OF ACCUMULATED SURFACE RUNOFF IN ACCORDANCE WITH WDNR TECHNICAL STANDARD DEWATERING #1061.
13. COMPLETE AND STABILIZE WET POND PRIOR TO MASS LAND DISTURBANCE TO CONTROL RUNOFF DURING CONSTRUCTION. REMOVE SEDIMENT AS NEEDED TO MAINTAIN 3 FEET OF DEPTH TO THE OUTLET, AND PROPERLY DISPOSE OF SEDIMENT REMOVED DURING MAINTENANCE (REFER TO NR 528). CONSTRUCT AND MAINTAIN THE SEDIMENT BASIN PER WDNR TECHNICAL STANDARD SEDIMENT BASIN #1064 AND SEDIMENT TRAP # 1063.
14. INSTALL AND MAINTAIN SILT FENCING PER WDNR TECHNICAL STANDARD SILT FENCE #1056. REMOVE SEDIMENT FROM BEHIND SILT FENCES AND SEDIMENT BARRIERS BEFORE SEDIMENT REACHES A DEPTH THAT IS EQUAL TO ONE-HALF OF THE FENCE AND/OR BARRIER HEIGHT.
15. REPAIR BREAKS AND GAPS IN SILT FENCES AND BARRIERS IMMEDIATELY. REPLACE DECOMPOSING STRAW BALES (TYPICAL BALE LIFE IS 3 MONTHS). LOCATE, INSTALL, AND MAINTAIN STRAW BALES PER WDNR TECHNICAL STANDARD DITCH CHECKS #1062.
16. INSTALL AND MAINTAIN FILTER SOCKS IN ACCORDANCE WITH WDNR TECHNICAL STANDARD INTERIM MANUFACTURED PERIMETER CONTROL AND SLOPE INTERRUPTION PRODUCTS # 1071.
17. IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.
18. IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILIZE WITH MULCH, TACKIFIER, AND A PERENNIAL SEED MIXED WITH WINTER WHEAT, ANNUAL OATS, OR ANNUAL RYE, AS APPROPRIATE FOR REGION AND SOIL TYPE. OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE.
19. STABILIZE AREAS OF FINAL GRADING WITHIN 7 DAYS OF REACHING FINAL GRADE.
20. SWEEP/CLEAN UP ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY OR AS DIRECTED BY THE WDNR MUNICIPALITY. SEPARATE SWEEP MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.
21. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST PER WDNR TECHNICAL STANDARD DUST CONTROL ON CONSTRUCTION SITES # 1068.
22. PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
23. FOR NON-CANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES 4:1 OR GREATER (OR AS SHOWN ON THE PLAN), PROVIDE CLASS I TYPE TYPE A (WITH ACCELERATED DEGRADABLE NETTING) EROSION CONTROL MATTING. SELECT EROSION MATTINGS FROM WDNR'S PRODUCT ACCEPTABILITY LIST (PAL). INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD NON-CHANNEL EROSION MAT #1052.
24. FOR CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED AREAS (OR AS SHOWN ON THE PLANS), PROVIDE NORTH AMERICAN GREEN SO100 (OR APPROVED EQUAL) EROSION CONTROL MATTING. INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD CHANNEL EROSION MAT #1053.
25. MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.
26. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES (SUCH AS TEMPORARY SEDIMENT BASINS, DITCH CHECKS, EROSION CONTROL MATTING, SILT FENCING, FILTER SOCKS, WATTLES, SWALES, ETC.), OR AS DIRECTED BY WDNR MUNICIPALITY.
27. NOTICE OF TERMINATION: WHEN THE SITE HAS BEEN FULLY STABILIZED AND ALL STORMWATER DISCHARGES FROM THE SITE AUTHORIZED UNDER THE NOI PERMIT HAVE BEEN ELIMINATED, A NOTICE OF TERMINATION SHALL BE FILED WITH THE DNR. CONTRACTOR SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION APPLICATION IN ACCORDANCE WITH THE PERMIT REQUIREMENTS TO THE SITE OWNER FOR EXECUTION PRIOR TO FINAL PAYMENT.



IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.



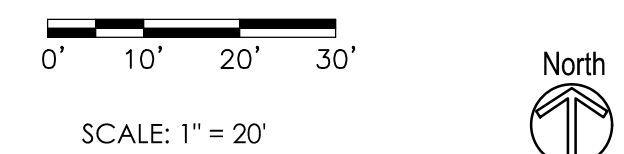
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Consultants

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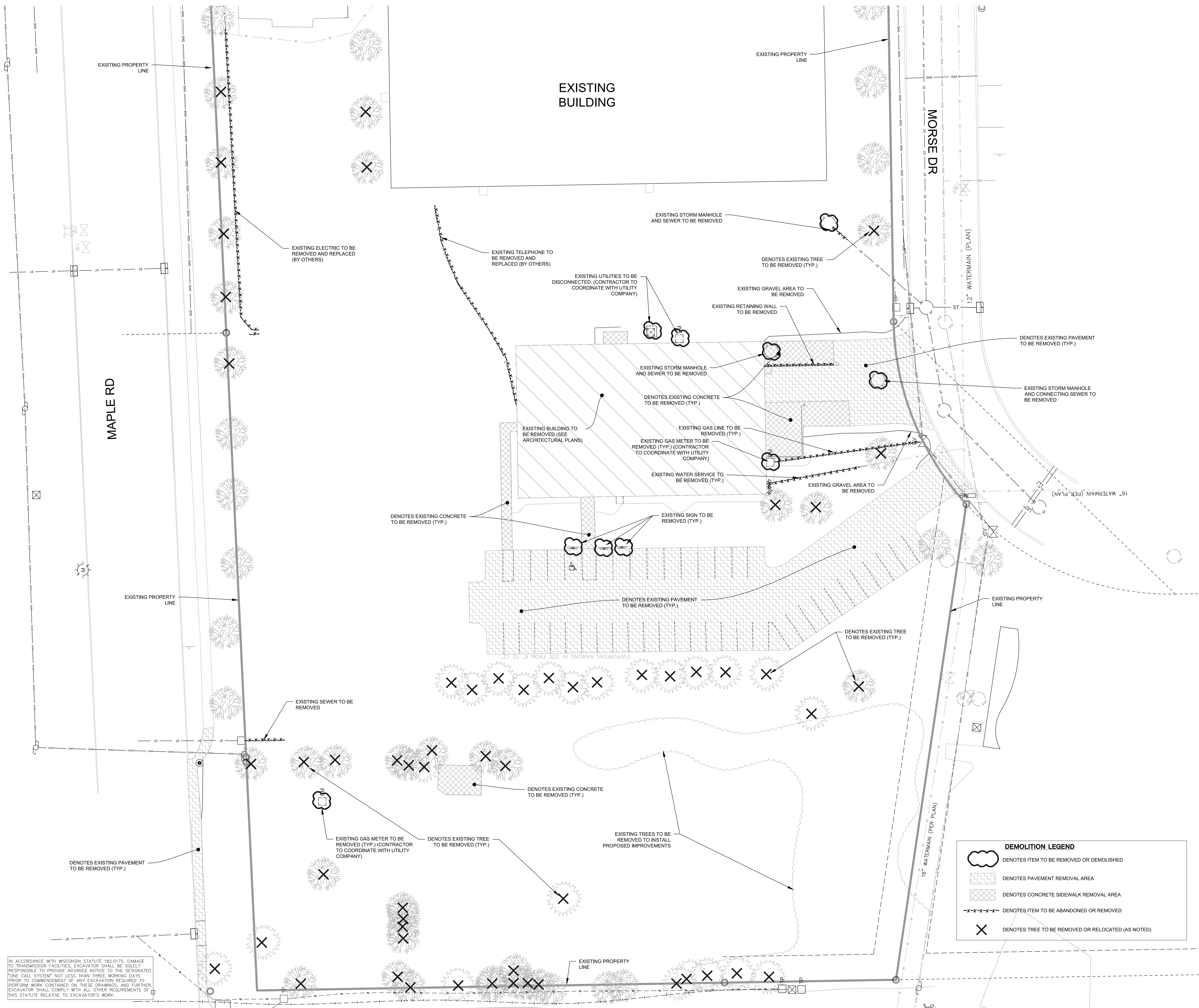
**GLUE DOTS
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DEMOLITION
PLAN

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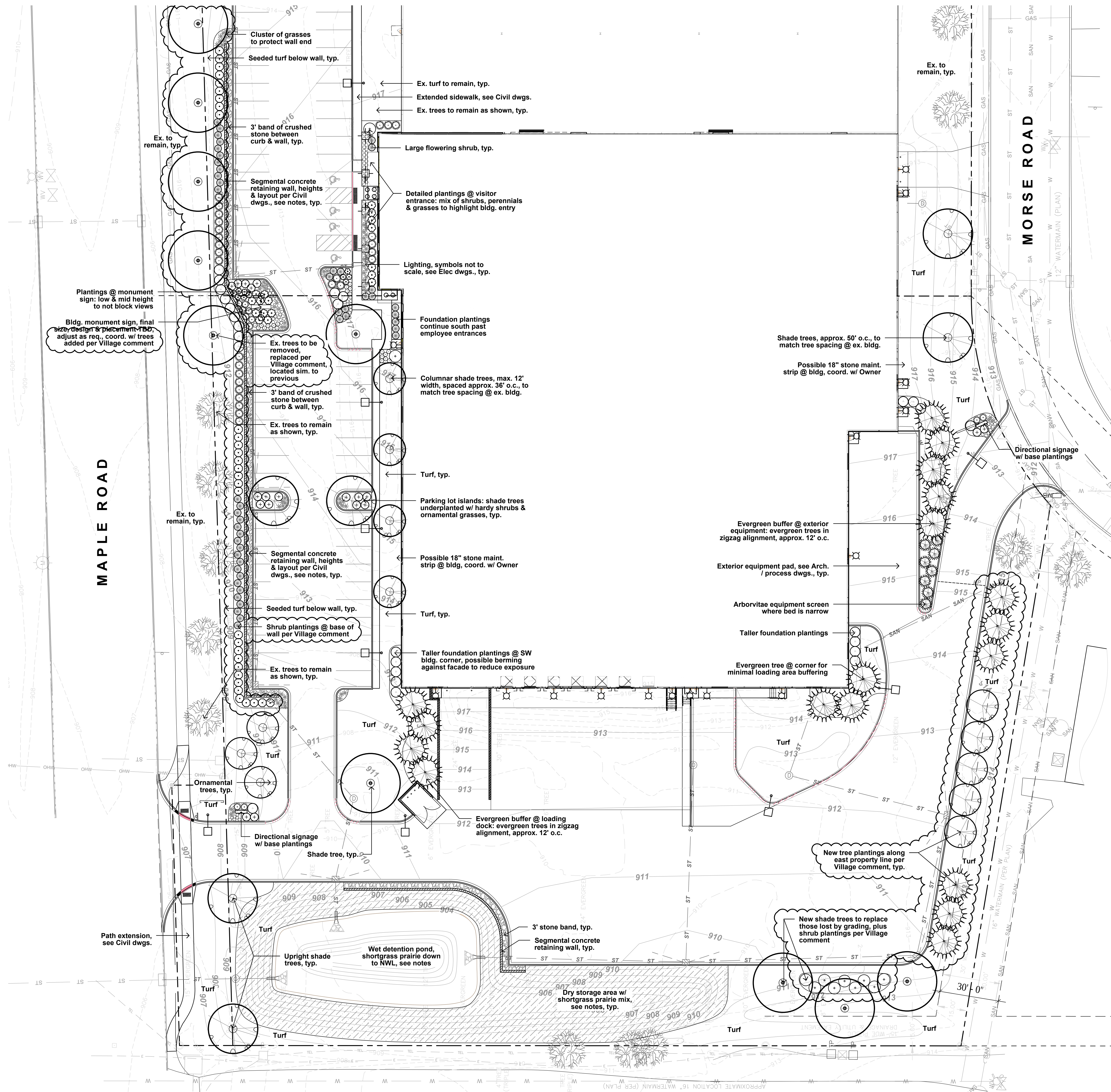
PROJECT NUMBER PROJECT MANAGER

LANDSCAPE
PLAN

SCALE: 1" = 20'

L1.00

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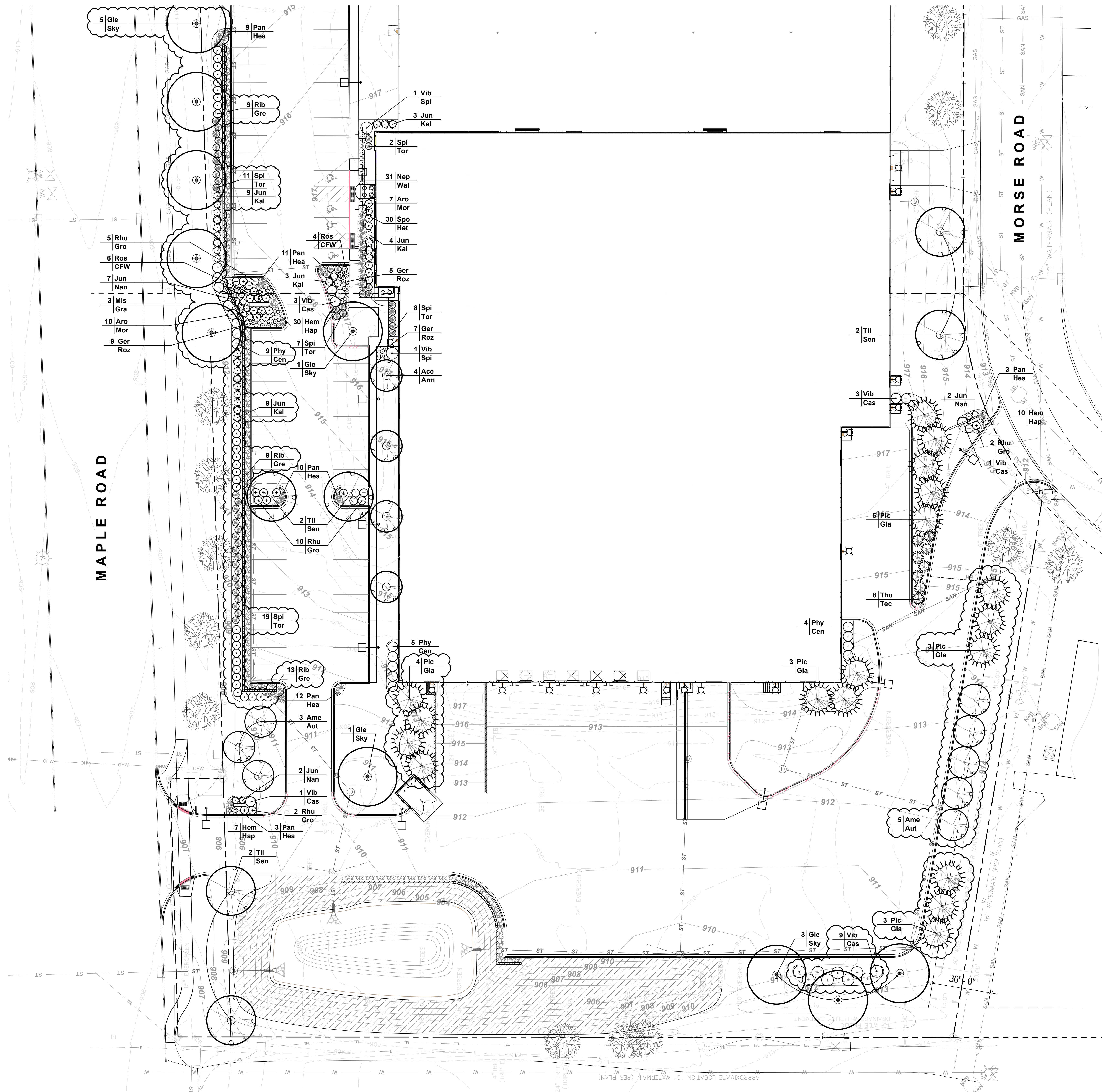
PLANTING PLAN

SCALE: 1" = 20'

North

L2.00

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W186N11676 MORSE DR
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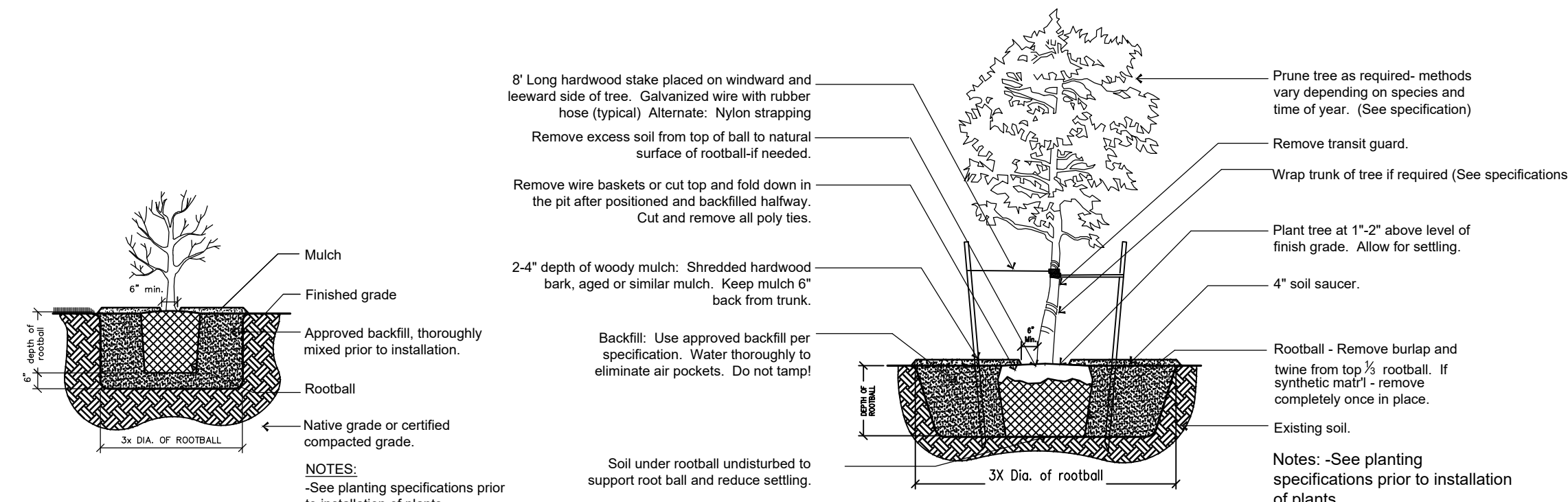
PROJECT NUMBER PROJECT MANAGER

LANDSCAPE
DETAILS
SCHEDULES &
NOTES

SCALE: 1" = 20'



L5.00



2 Shrub Planting Detail
Not To Scale

1 Tree Planting Detail
Not To Scale

General Notes

- 1.01 All landscape installation & maintenance to conform with all applicable local codes & ordinances, including (but not limited to) select portions of Village of Germantown Municipal Code.
- 1.02 See Site dwgs. for work limits, scope of construction, hardscape, dimensions &/or construction notes. See Civil dwgs. for all hardscape, grading, stormwater management, site utilities & erosion control. See Landscape dwgs. for landscape plans, site amenities, details, schedules, notes. See Architectural dwgs. for all construction. See Electrical drawings for all power, circuiting, lighting & access control.
- 1.03 Contractor shall provide shop drawings and material submittals of **all** hardscape & landscape construction elements shown in plan set for Landscape Architect review prior to construction, including (but not limited to) ornamental fencing & all access control equipment.
- 1.04 Contractor to provide samples for Landscape Architect's approval on all colors, finishes & materials prior to construction, including (but not limited to) topsoil, gravels, mulches, seed mixes et al.
- 1.05 Caution: underground utilities are present on site. The Contractor shall verify location of all above- and below-grade utilities, both public & private, prior to commencement of site construction. If unanticipated above- or below-grade conditions are encountered, notify Client & Landscape Architect prior to proceeding. Coordinate with local public utility locating entity as needed.
- 1.06 Contractor to verify hardscape layout prior to construction. Contact Landscape Architect if discrepancies are found.
- 1.07 Contractor to limit construction traffic to within work limit lines. All adjacent damage shall be the responsibility of the contractor to restore. See Civil drawings for limits of disturbance.
- 1.08 Existing trees to remain on site shall be protected. Contractor shall erect snow fencing @ 15' R from trunk or @ tree driplines, whichever is farther. All construction traffic, storage, compaction, parking or other disturbance within protection zones shall be prevented for the duration of construction, except to complete work specifically indicated in the site plans.
- 1.09 All written dimensions supersede scaled dimensions. All dimensions are taken from face of curb, wall or existing building foundations.

Landscape Notes

- 2.01 Rough grading & topsoil import/spreading are to be completed by others. Finish grading, seed area and ornamental planting bed preparation shall be the landscape contractor's responsibility. Verify all existing site and grading conditions prior to construction.
- 2.02 All areas disturbed by site construction shall be fine graded and restored with vegetative cover as shown. See plans for cover types & locations, see specifications for materials & installation.
- 2.03 Contractor shall verify plant quantities shown on plan. Symbol quantities take precedence over plant keys except where noted in the plant schedule. Contractor shall forward a material list to the Landscape Architect prior to construction identifying all quantities, species, sizes & plant sources to be used on the project.
- 2.04 All plant materials shall conform to the schedule and shall meet quality requirements outlined in the ANLA "American Standard for Nursery Stock", ANSI Z60.1-2004. The Landscape Architect reserves the right to reject any substandard planting material. Such rejected material shall be removed from the project site immediately.
- 2.05 The Owner's representative shall be allowed to inspect and approve trees at the nursery prior to delivery to the site.
- 2.06 All nursery tags/labels shall be left on plant materials until the project punch-list inspection is completed by the Landscape Architect. Untagged materials will be assumed to be deficient.
- 2.07 All planting beds shall contain screened blended topsoil mix to a min. depth of 18". All turf, low-mow & shortgrass prairie areas shall have min. 6". Suitable existing soil may be used & mixed if previously approved. Subgrade shall be tilled and/or scarified prior to placement of topsoil. Contractor shall be responsible for obtaining soil tests for existing or imported topsoil. Soil testing results shall include (but is not limited to) soil pH, % organic matter, phosphorus, potassium, calcium & texture (percentages of sand, silt and/or clay.) Remove excessive clay, gravel & stones detrimental to healthy plant growth. Remove all debris greater than 1" diameter.
- 2.08 Contractor shall be responsible for ensuring that all tree pits & planting areas drain properly. Notify Landscape Architect if drainage or moisture problems are encountered while planting.
- 2.09 Contractor shall backfill all trees, shrubs & evergreens with a mix of 1/3 plant starter mix & 2/3 remaining soil. Plant Starter Mix shall be provided by Liesener Soils, Cedarburg WI, or approved equal.
- 2.10 All perennial and groundcover areas shall receive a 3" layer of plant starter mix and perennial starter fertilizer, rotted into the top 6" of blended topsoil in beds.
- 2.11 Unless otherwise shown, all perennials & shrubs to be planted in triangular arrangements. For plants not shown individually, refer to the spacing shown in the plant schedule.
- 2.12 Stone mulch areas shall include 1-2" of decomposed / crushed granite installed over woven geotextile fabric & contained w/ metal edging.
- 2.13 Bed edging shall be as follows:
 - Metal edging shall be installed at the building maint. strip. Edging shall be 3/16" x 4" alum. mill-finish. Permaloc "CleanLine" or "ProSlide", or approved equal.
 - 6" deep shovel-cut edging shall be installed at all other locations, typ.
- 2.14 Contractor shall provide positive drainage away from all structures for a minimum of 10'.
- 2.15 Contractor shall be responsible for providing base bid comprehensive landscape establishment, maintenance and warranty care for one year after installation. Work shall include all watering, weeding, pruning, fertilizing, pest management & spring / fall clean-ups. Prior to beginning installation, the contractor shall submit a 12-mo. calendar for review/approval including all anticipated maintenance activities.

Seeding Notes & Mixes

- 3.01 This work shall consist of preparing the seed beds and furnishing, sowing and mulching the required seed on the various seeded areas, as outlined in the site plans and specifications. All turf restoration shall be seeded turf unless otherwise noted.
- 3.02 Rough grading, drainage work, topsoiling and fine grading shall be completed before sowing the seed mixes. The areas to be seeded shall be worked with plow chisels, discs & harrows, soil finishers and/or other appropriate equipment until a reasonably even and loose seedbed is obtained. Seed beds shall be prepared immediately in advance of the seeding. If proposed seed areas are weedy, contractor to apply herbicide or other weed control measures to eliminate weeds. Conform with seed supplier's specifications if required.
- 3.03 Confirm that anticipated project schedule date(s) fall within the respective seed supplier's approved calendar prior to installation. Installations completed outside of acceptable seeding dates shall be performed at the sole responsibility and expense of the contractor. For dormant seeding, a min. of one over-seed application in the following season will be required.
- 3.04 Seeds shall be PLS and will be mixed in accordance w/ mfr's specifications. Provide invoices, bag-tags or mix analysis results for approval prior to installation.
- 3.05 The seed mixtures shall be sown by means of equipment adapted to the purpose. Mechanical distribution of seed (i.e. Truax seed drill, Brillion seeder, cultipacker, slit-seeder, drop spreader or broadcast spreader) are the only accepted methods. No hand-broadcasting of seed.
- 3.06 No seeding shall occur if the wind exceeds 12 MPH.
- 3.07 Coordinate erosion control and/or mulching with Civil dwgs:
 - In sloped areas steeper than 4:1, erosion matting shall be installed by others. Landscape installation shall be coordinated with the erosion control contractor.
 - In areas with slopes between 4:1 and 8:1, landscape contractor shall apply clean hay or straw mulch, free of debris and seeds, on all newly seeded areas. Mulch shall be uniformly spread over the designated area at a rate of 55 bales per acre or as indicated in the respective seed supplier's specifications. Mulch material shall be chopped and blown into the seeded area.
 - Lightweight E.C. matting and/or hydromulch will be accepted as a no-cost alternate if approved by Landscape Architect prior to application.
- 3.08 See Civil dwgs for erosion control devices. Coordinate with erosion control contractor where required to ensure that topsoil, seeding and/or mat installations are properly coordinated.
- 3.09 Contractor shall be responsible for obtaining soil tests for all seeded areas. Soil testing results shall include (but is not limited to) soil pH, % organic matter, phosphorus, potassium, calcium & texture (percentages of sand, silt and/or clay.) Remove excessive clay, gravel & stones detrimental to healthy plant growth. Remove all debris greater than 1" diameter. If necessary, supply soil amendments required for specified seed mixes and/or coordinate alternate mixes if soils cannot be properly conditioned.
- 3.10 Seed mix substitutions will be considered only if submitted for approval 10 days before the close of bidding. All mixes shall be installed & maintained per supplier's specifications.

BLUEGRASS MIX:
"Deluxe 50 Mix" shall be supplied by Reinders, Elm Grove WI, 262-786-3300. Apply @ 6 lbs per 1000 GSF.

SHORTGRASS PRAIRIE MIX:
"Shortgrass Prairie For Dry Soils" shall be supplied by Prairie Nursery, Westfield WI, 800-476-9453. Apply @ 10 lbs per AC, plus Annual Rye cover crop @ 5 lbs / AC in spring or 15 lbs / AC in fall.

- 3.11 Contractor shall be responsible for providing base bid comprehensive seed area establishment, maintenance and warranty care for all seeded areas:
 - Bluegrass areas shall be for one full season after installation. Work shall include all watering, weeding, fertilizing & mowing. Assume 24 mowings per season. Re-seed any bare areas larger than 1 sq. ft. after 60 days of establishment.
 - All other seed areas shall be for two seasons after installation. Work shall include all watering, weeding (both spot herbicide and/or hand-pulling, depending on necessity), spring / fall clean-up & mowing. Assume 4-5 mowings in the first season, then 3-4 mowings in the second season. All mowings shall be timed to cut weeds but not desirable species. Re-seed any bare areas larger than 1 sq. ft. after 60 days of establishment.
 - Prior to beginning installation, the contractor shall submit a 24-month calendar for review/approval including all anticipated maintenance activities.

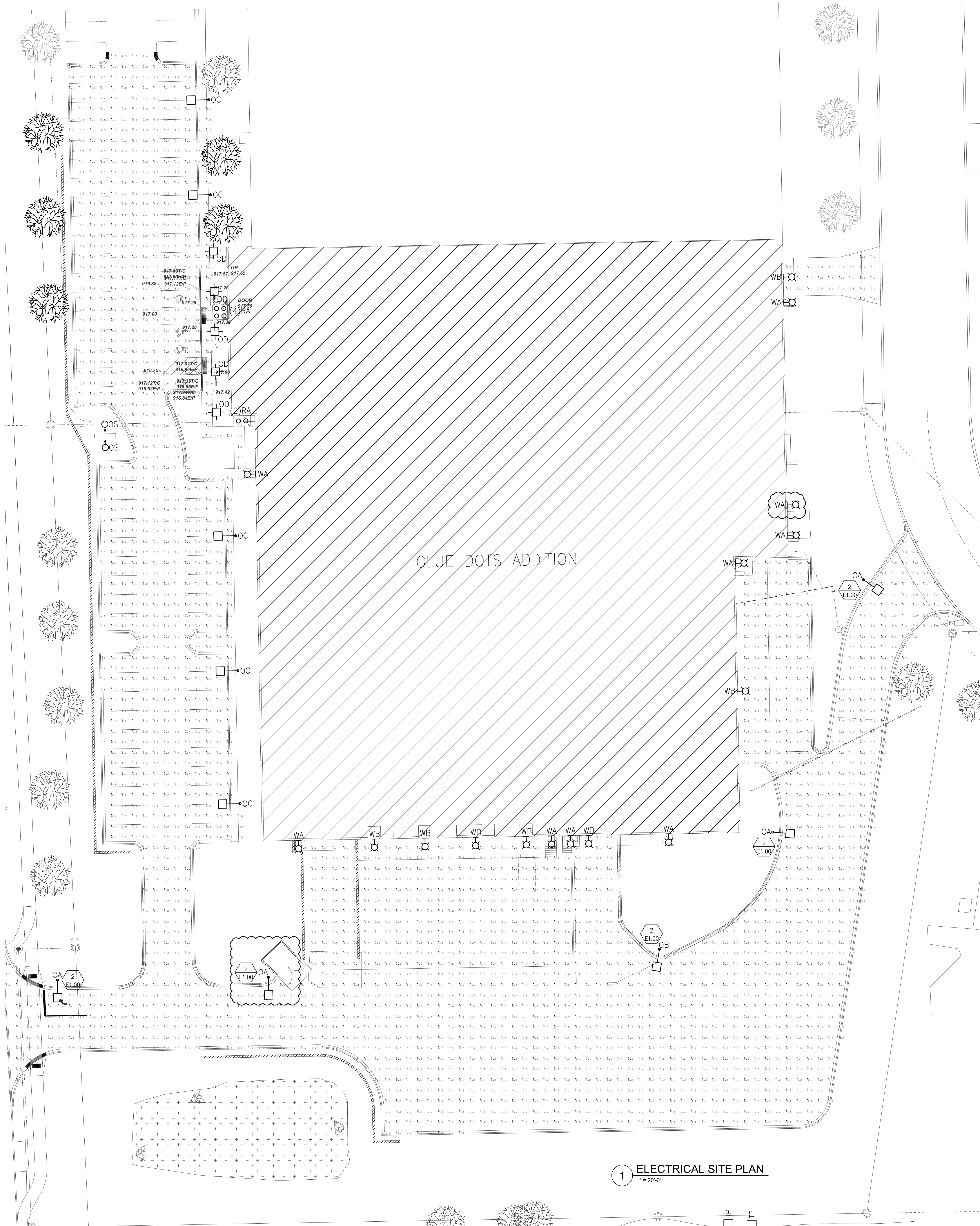
Hardscape / Amenity Notes

- 4.01 Segmental concrete retaining walls: Construct as shown. Provide fully detailed shop drawings for review, stamped by a Wisconsin-licensed structural engineer. Color shall be TBD, selected from standard range. See Civil dwgs. for wall layout & TOW / BOW elevations. System shall be from the following options, or approved equal:
 - Keystone 'Compac' straight split-face
 - Unilock 'Pisa2'
 - Versalok 'Standard'
- 4.02 Monument & directional signage: By Owner.

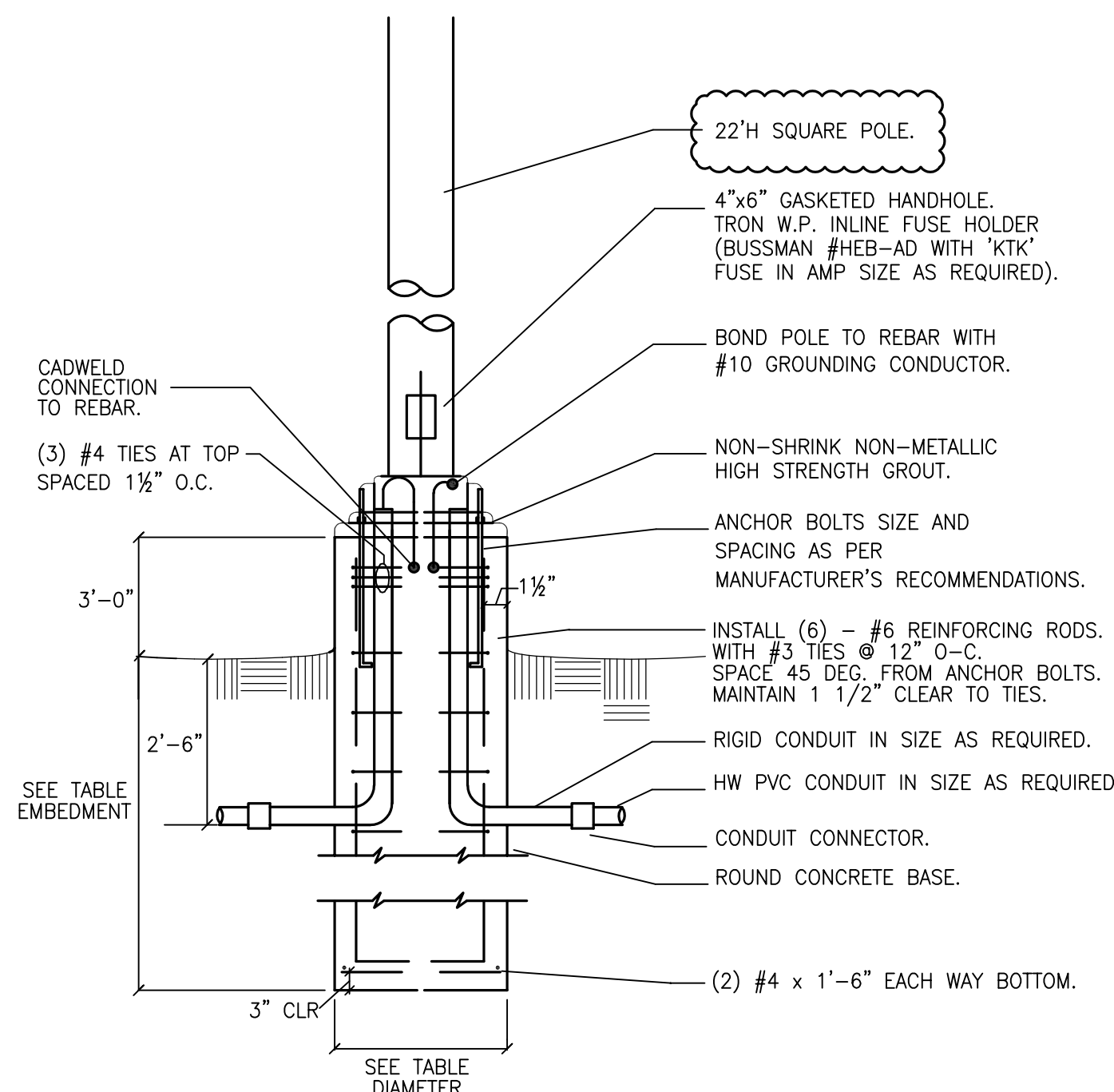
Plant Schedule

Note: Final species per Owner approval

Symbol	Qty Prop.	Botanical Name	Common Name	Native or Cultivar?	Installed Size	Root	Spacing	Notes
Shade Trees								
Ace Arm	4	Acer s. freemanii 'Amston'	Amstrong Columnar Maple		2.5' Cal.	B/B	As Shown	50x15'
Gle Sky	9	Medisia tri. 'Skyline'	Skyline Honeylocust		2.5' Cal.	B/B	As Shown	50x35'
Til Sen	6	Tilia americana 'Sentry'	Sentry Linden		2.5' Cal.	B/B	As Shown	50x25'
Ornamental Trees								
Aut. Aut.	8	Amelanchier s. 'Autumn Brilliance'	Autumn Brilliance Serviceberry	*	8' Ht.	B/B	As Shown	25x25' heavy 3-stem, confirm min. 2.5' cal.
Evergreen Trees								
Pic Gla	18	Picea glauca var. densata	Black Hills Spruce		7' Ht.	B/B	As Shown	20x15'
Large Shrubs								
Thu Tet	8	Thuja occidentalis 'Technit'	Technit Dwarf Arborvitae		6' Ht.	B/B	As Shown	20x8'
Deciduous Shrubs								
Aro Mor	17	Aronia melanocarpa 'Munon'	Inoquois Beauty Aronia	*	15-18' Ht.	2 Gal.	48" o.c.	5x5'
Rib Gre	18	Ribes alpinum 'Green Mound'	Green Mound Alpine Currant		15-18' Ht.	2 Gal.	48" o.c.	4x4'
Spi Tor	10	Spiraea betulifolia 'Tor'	Tor Bechtel Spirea		15-18' Ht.	2 Gal.	42" o.c.	3x4'
Vib Spt	2	Viburnum carlesii 'Spiced Bouquet'	Spiced Bouquet Dwarf Spice Viburnum		30-36" Ht.	7 Gal.	60" o.c.	7x7'
Vib Cas	17	Viburnum cassinoides	Winthod Viburnum	*	30-36" Ht.	7 Gal.	60" o.c.	6x6'
Evergreen Shrubs								
Jun Kai	28	Juniperus plutz 'Kallay Compact'	Kallay Compact Juniper		24" sqd.	7 Gal.	60" o.c.	4x8'
Jun Nan	11	Juniperus procumbens 'Nana'	Dwarf Japanese Garden Juniper		24" sqd.	7 Gal.	48" o.c.	1x4'
Perennials & Grasses								
Ger Rud	21	Geranium 'Rozanne'	Rozanne Geranium		4.5"	Cont.	18-24" o.c.	1x2'
Hem Hay	47	Hemerocallis 'Happy Returns'	Happy Returns Daylily		4.5"	Cont.	18-24" o.c.	2x2'
Mix Gra	3	Mixanthus 'Gracillimus'	Gracillimus Maidenhairgrass		1 Gal.	Cont.	36" o.c.	6x3'
Pan Hex	47	Panicum 'Heavy Metal'	Heavy Metal Switchgrass		1 Gal.	Cont.	30-36" o.c.	4x2'
Nep Wal	31	Nepeta 'Walker's Low'	Walker's Low Catmint		4.5"	Cont.	18" o.c.	1x2'
Spo Het	30	Sambolus heterolepis	Prairie Dropseed	*	1 Gal.	Cont.	18-24" o.c.	Qty's per plant keys



1 ELECTRICAL SITE PLAN
1" = 20'-0"



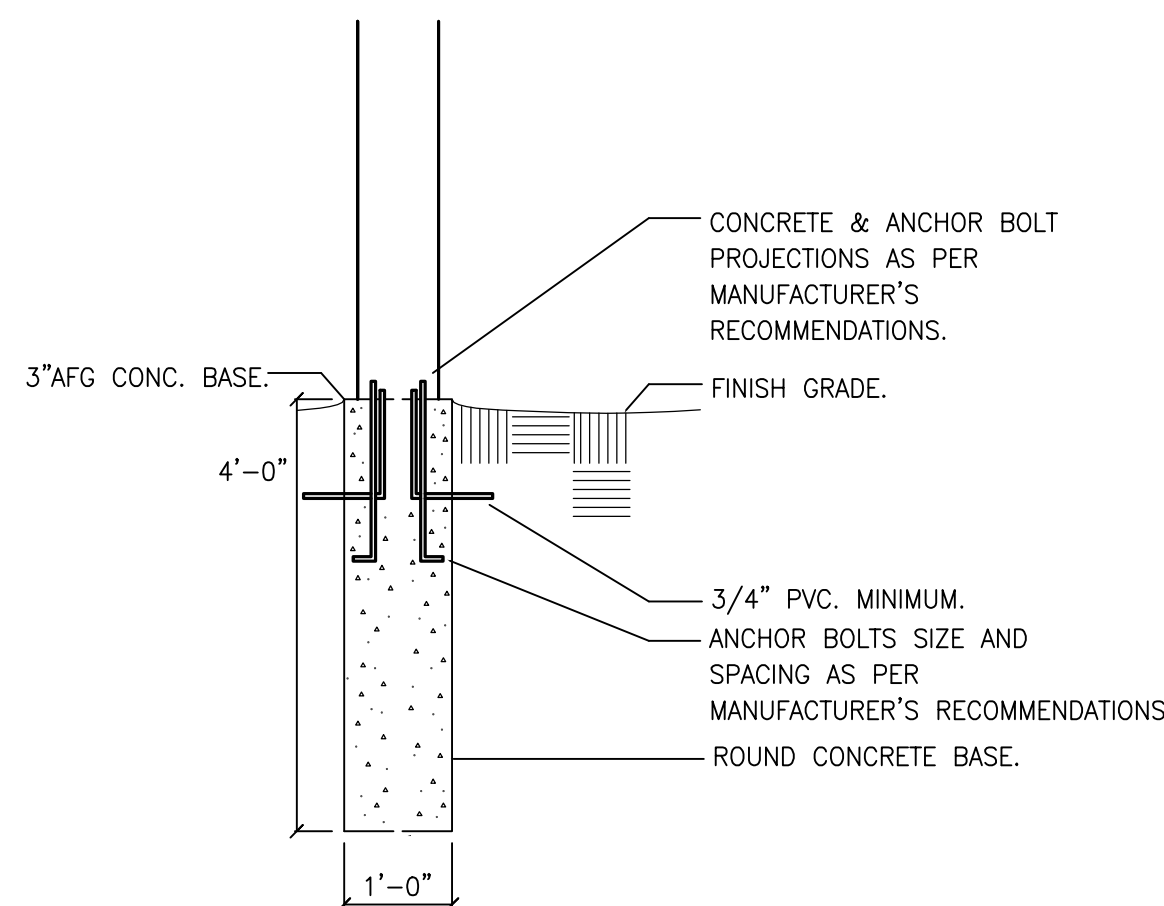
7 POLE BASE DETAIL
NO SCALE

- NOTES:
- DIMENSIONS GIVEN ARE MINIMUM. PROVIDE POLE BASE DIAMETER AND DEPTH AS REQUIRED IN ACCORDANCE WITH LOCAL SOIL AND WIND VELOCITY CONDITIONS.
 - ALL LIGHTING POLE CONCRETE BASES SHALL BE LOCATED A MINIMUM OF 12 INCHES OFF THE FACE OF THE CURBING EDGE OF SIDEWALK OR CENTERED WITHIN AN ISLAND. IN ALL CASES, HOWEVER, FINAL LOCATIONS OF LIGHTING POLES MUST BE VERIFIED WITH THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
 - ALL DIMENSIONS POLE BASE ARE FOR BIDDING ONLY. POLE BASE SHALL MATCH THOSE AT EXISTING POLES, IF APPLICABLE.

POLE HEIGHT	BASE EMBEDMENT/DIAMETER			
	1 HEAD	2 HEAD	3 HEAD	4 HEAD
15'-0"	6'-5 1/2'-0"	6'-5 1/2'-0"	6'-5 1/2'-0"	6'-5 1/2'-0"
20'-0"	6'-5 1/2'-0"	6'-5 1/2'-0"	8'-0 1/2'-0"	8'-0 1/2'-0"
25'-0"	6'-5 1/2'-0"	8'-0 1/2'-0"	9'-0 1/2'-0"	10'-0 1/2'-0"
30'-0"	8'-0 1/2'-6"	9'-0 1/2'-6"	10'-0 1/2'-6"	10'-0 1/2'-6"

NOTES:

- TABLE IS BASED ON SOIL BEARING PRESSURE OF 3000 PSF. AND A LATERAL BEARING PRESSURE OF 200 PSF/FT.



8 BOLLARD BASE DETAIL
NO SCALE

- NOTES:
- DIMENSIONS GIVEN ARE MINIMUM. PROVIDE BOLLARD BASE DIAMETER AND DEPTH AS REQUIRED IN ACCORDANCE WITH LOCAL SOIL AND WIND VELOCITY CONDITIONS.
 - ALL BOLLARD CONCRETE BASES SHALL BE LOCATED A MINIMUM OF 6 INCHES OFF THE FACE OF THE CURBING OR CENTERED WITHIN AN ISLAND. IN ALL CASES, HOWEVER, FINAL LOCATIONS OF BOLLARDS MUST BE VERIFIED WITH THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.



2 TYPES OA / OB / OC / WB / WC
NO SCALE

- NOTES:
- Type OA - Lumark PRV-A40-D-UNV-T2-SA-BK Series on 22H Pole/3H AFG Base
 - Type OB - Lumark PRV-A40-D-UNV-T4-SA-BK Series on 22H Pole/3H AFG Base
 - Type OC - Lumark PRV-A40-D-UNV-T4-SA-BK Series on 22H Pole/3H AFG Base
 - Type WB - Lumark PRV-A40-D-UNV-T4-WM-BK Series (Wall Mt., Type I Dist.)
 - Type WC - Lumark PRV-A40-D-UNV-T4-WM-BK Series (Wall Mt., Type IV Dist.)



3 TYPE OD
NO SCALE

- NOTES:
- Type OD - Targett MB-B-41-42-360-L3-40-FE Series



4 TYPE RA
NO SCALE

- NOTES:
- Type RA - Halo HC4-15-D010-HM-12-840-41-MD-H Series



5 TYPE WA
NO SCALE

- NOTES:
- Type WA - Lumark AXCS3A SERIES



6 TYPE OS
NO SCALE

- NOTES:
- Type OS - Lumark NFELD-S SERIES

CONSULTANT

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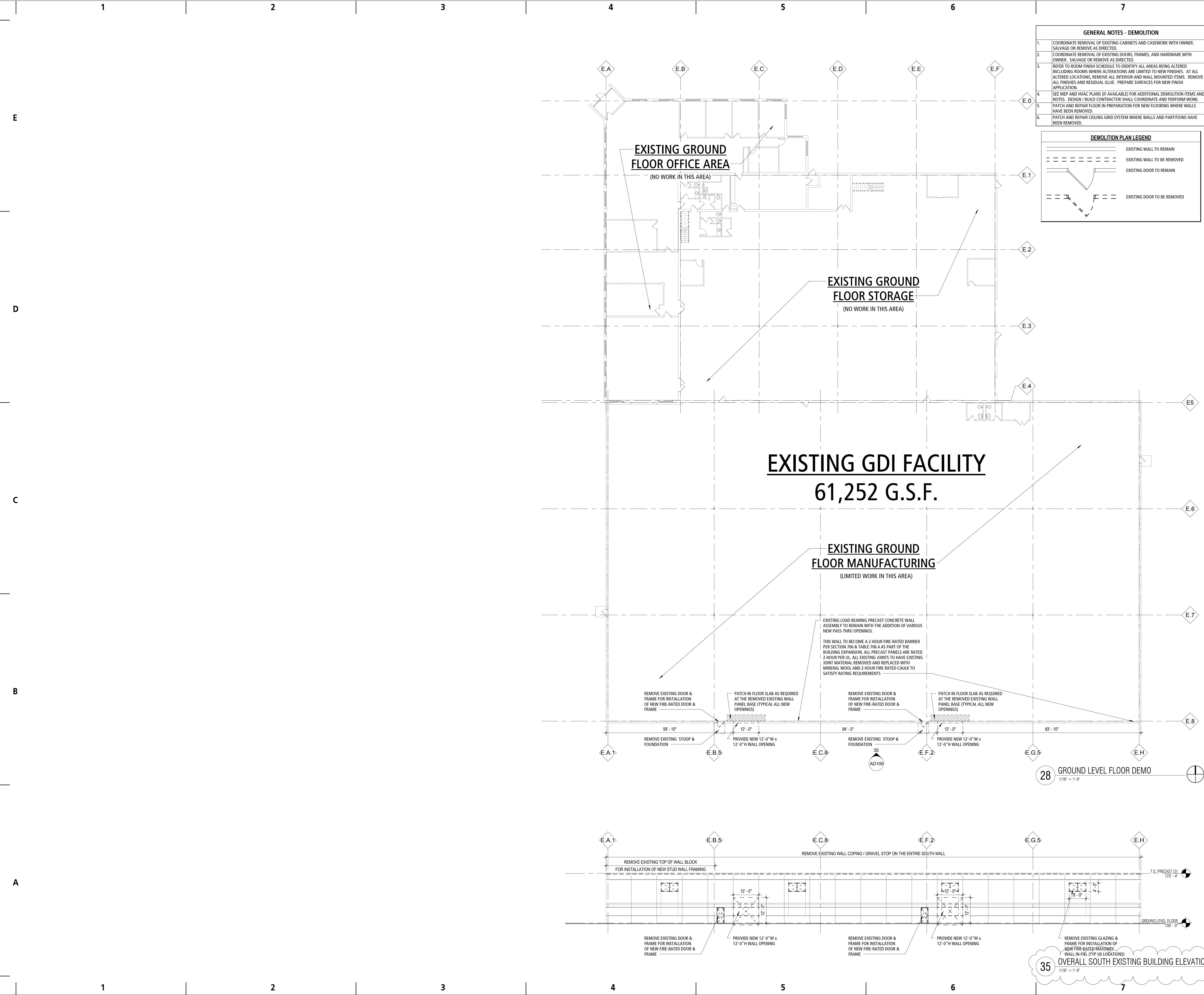
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ELECTRICAL
SITE PLAN

SCALE: 1" = 20'



E1.00



GENERAL NOTES - DEMOLITION

- COORDINATE REMOVAL OF EXISTING CABINETS AND CASEWORK WITH OWNER. SALVAGE OR REMOVE AS DIRECTED.
- COORDINATE REMOVAL OF EXISTING DOORS, FRAMES, AND HARDWARE WITH OWNER. SALVAGE OR REMOVE AS DIRECTED.
- REFER TO ROOM FINISH SCHEDULE TO IDENTIFY ALL AREAS BEING ALTERED INCLUDING ROOMS WHERE ALTERATIONS ARE LIMITED TO NEW FINISHES. AT ALL ALTERED LOCATIONS, REMOVE ALL INTERIOR AND WALL MOUNTED ITEMS. REMOVE ALL FINISHES AND RESIDUAL GLUE. PREPARE SURFACES FOR NEW FINISH APPLICATION.
- SEE MEP AND HVAC PLANS (IF AVAILABLE) FOR ADDITIONAL DEMOLITION ITEMS AND NOTES. DESIGN / BUILD CONTRACTOR SHALL COORDINATE AND PERFORM WORK.
- PATCH AND REPAIR FLOOR IN PREPARATION FOR NEW FLOORING WHERE WALLS HAVE BEEN REMOVED.
- PATCH AND REPAIR CEILING GRID SYSTEM WHERE WALLS AND PARTITIONS HAVE BEEN REMOVED.

DEMOLITION PLAN LEGEND

- EXISTING WALL TO REMAIN
- EXISTING WALL TO BE REMOVED
- EXISTING DOOR TO REMAIN
- EXISTING DOOR TO BE REMOVED



N16 W23217 STONE RIDGE DRIVE, SUITE 300
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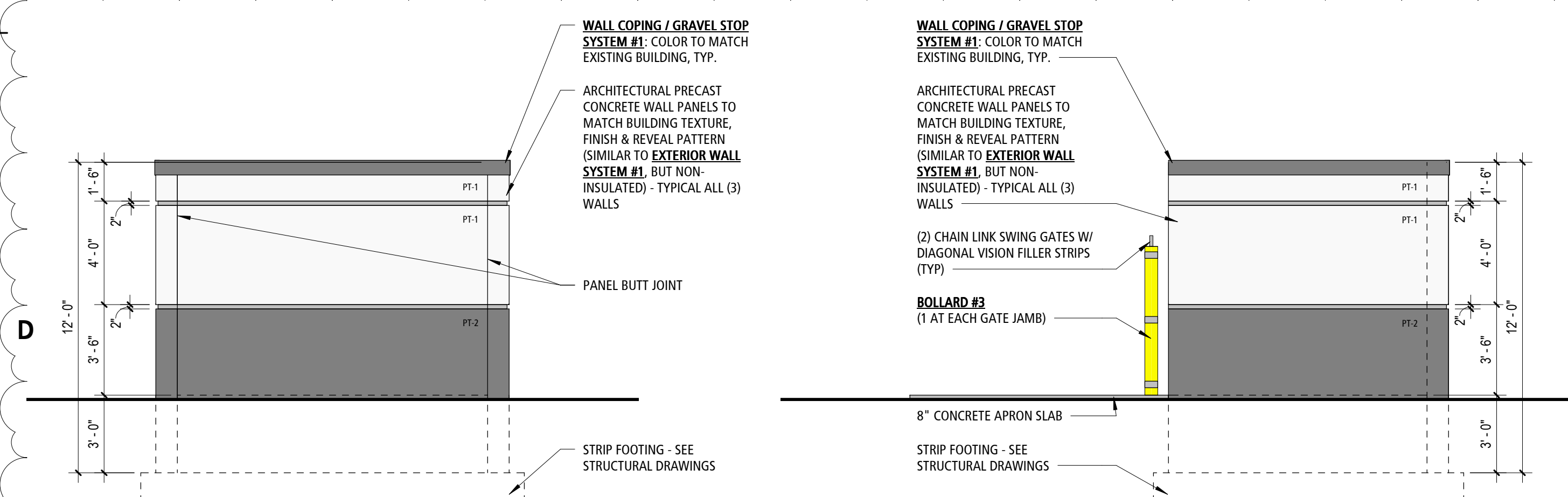
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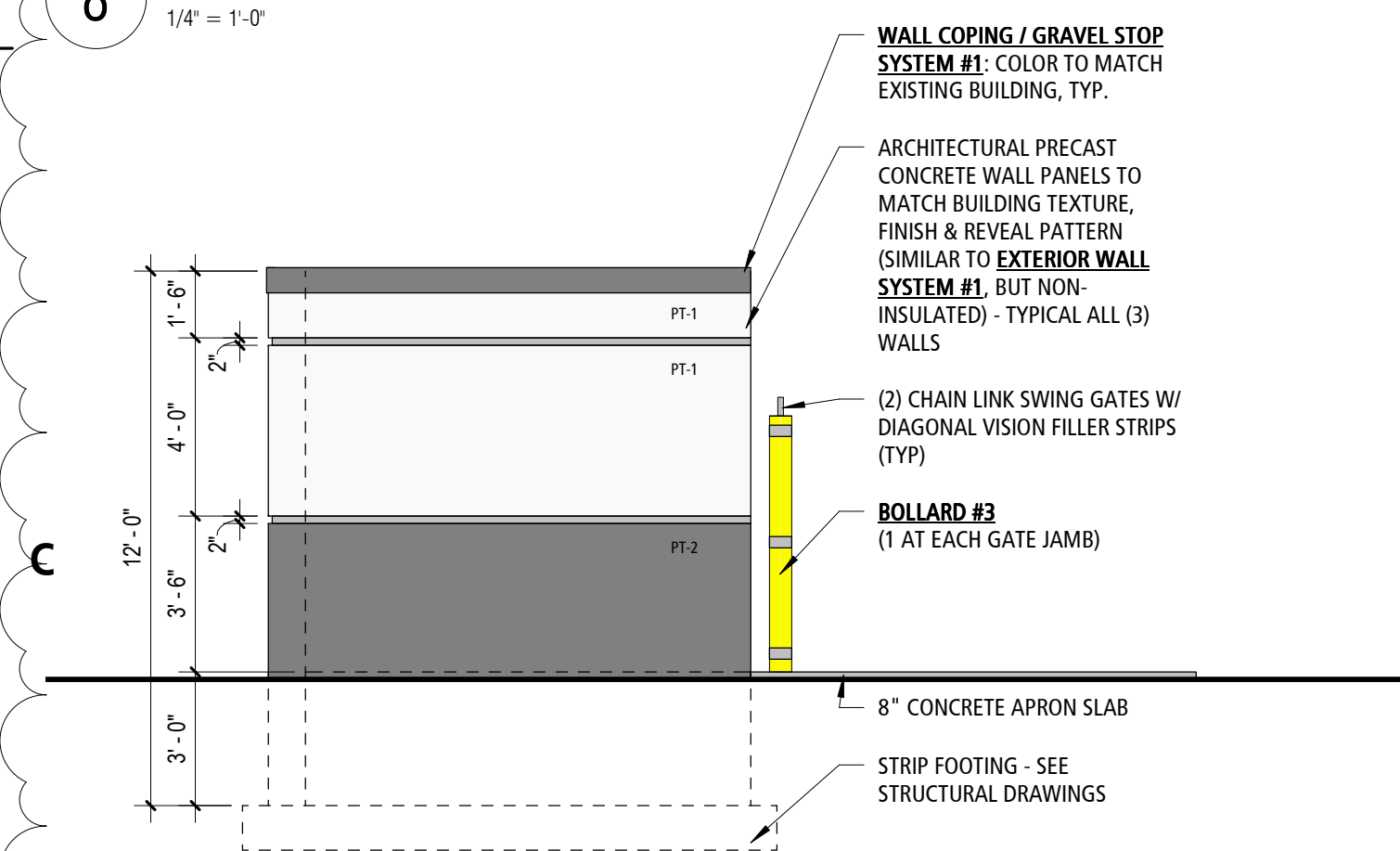
DEMOLITION FLOOR
PLAN

AD100

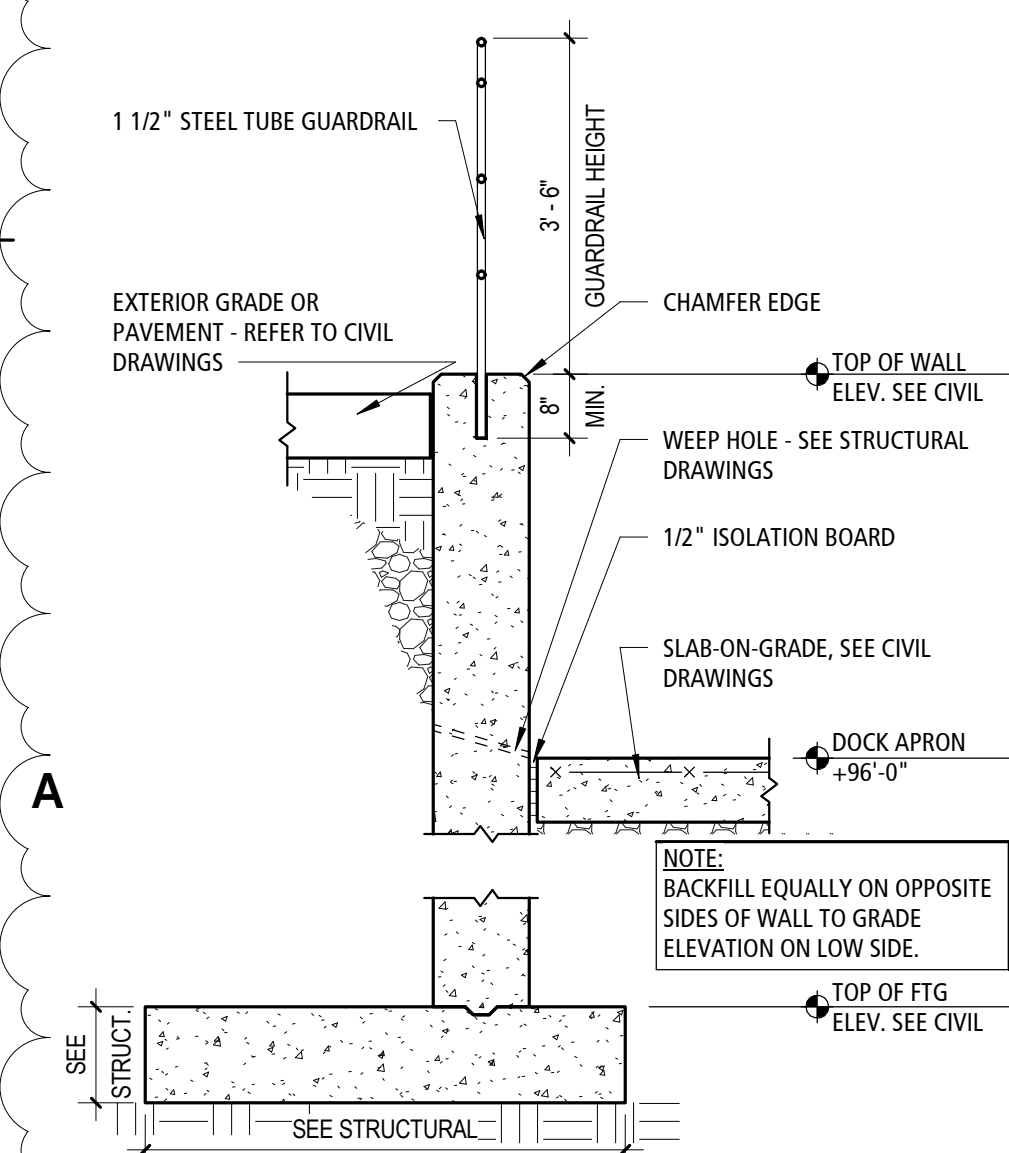
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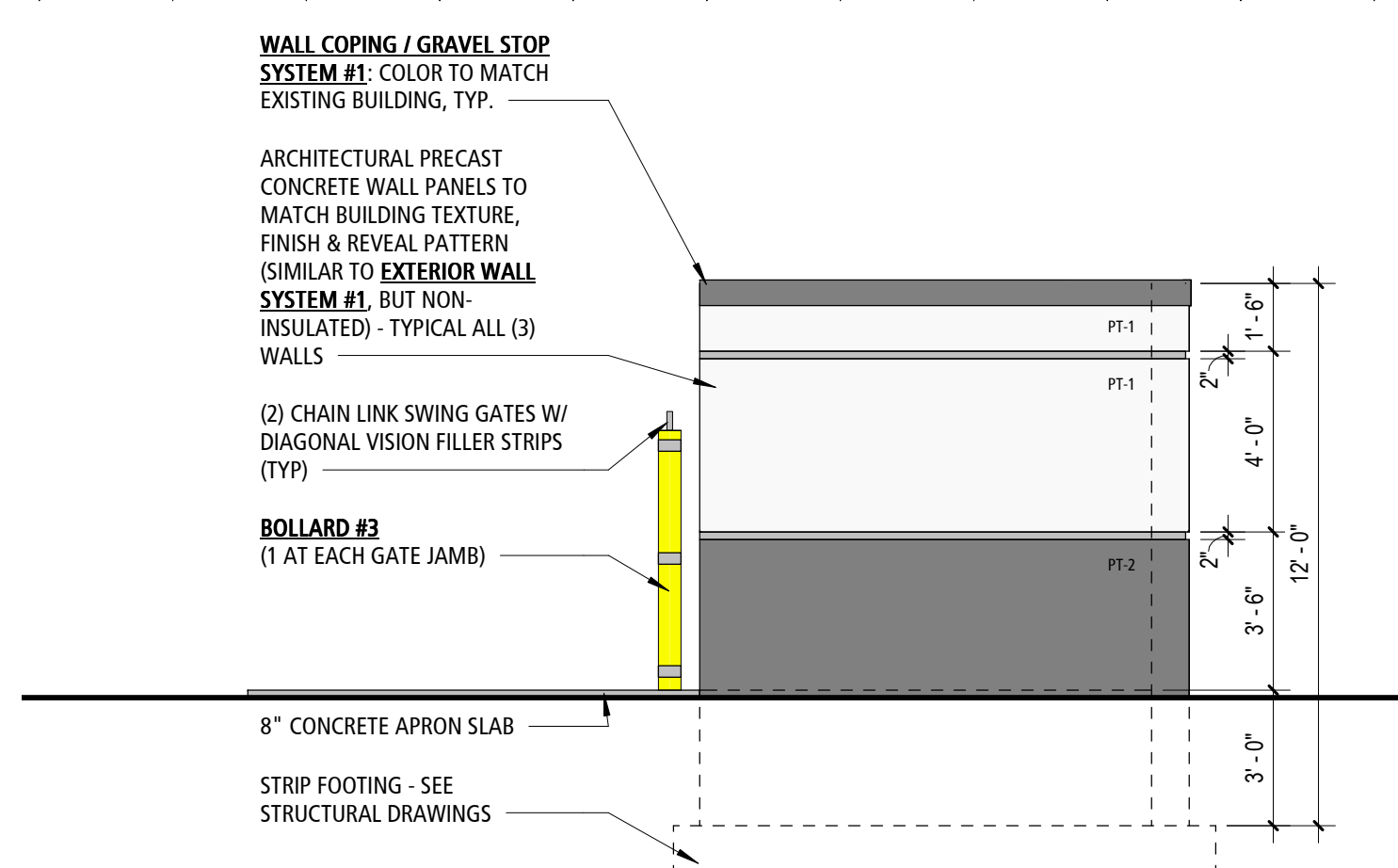
8 ENCLOSURE NORTH ELEVATION
1/4" = 1'-0"



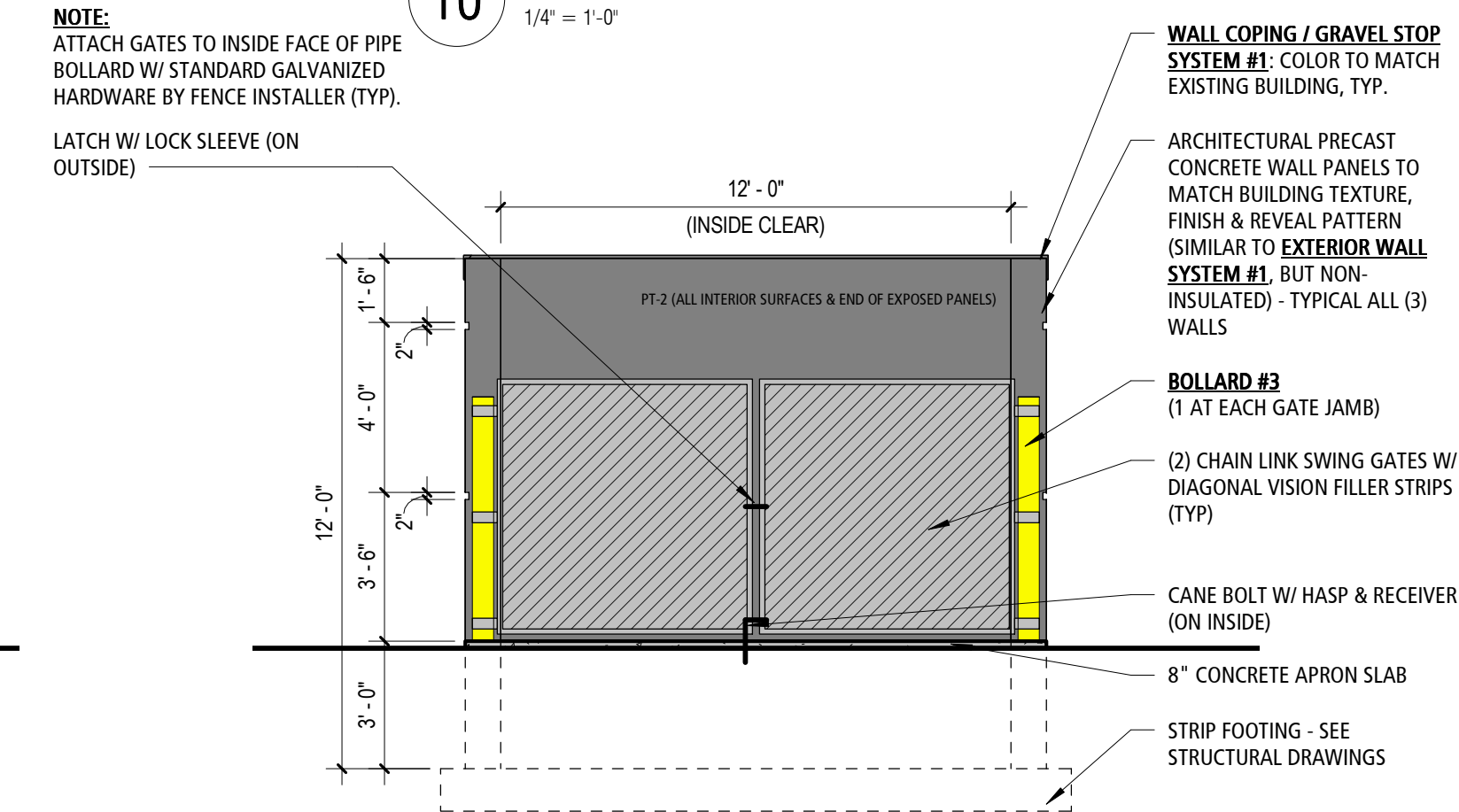
15 ENCLOSURE WEST ELEVATION
1/4" = 1'-0"



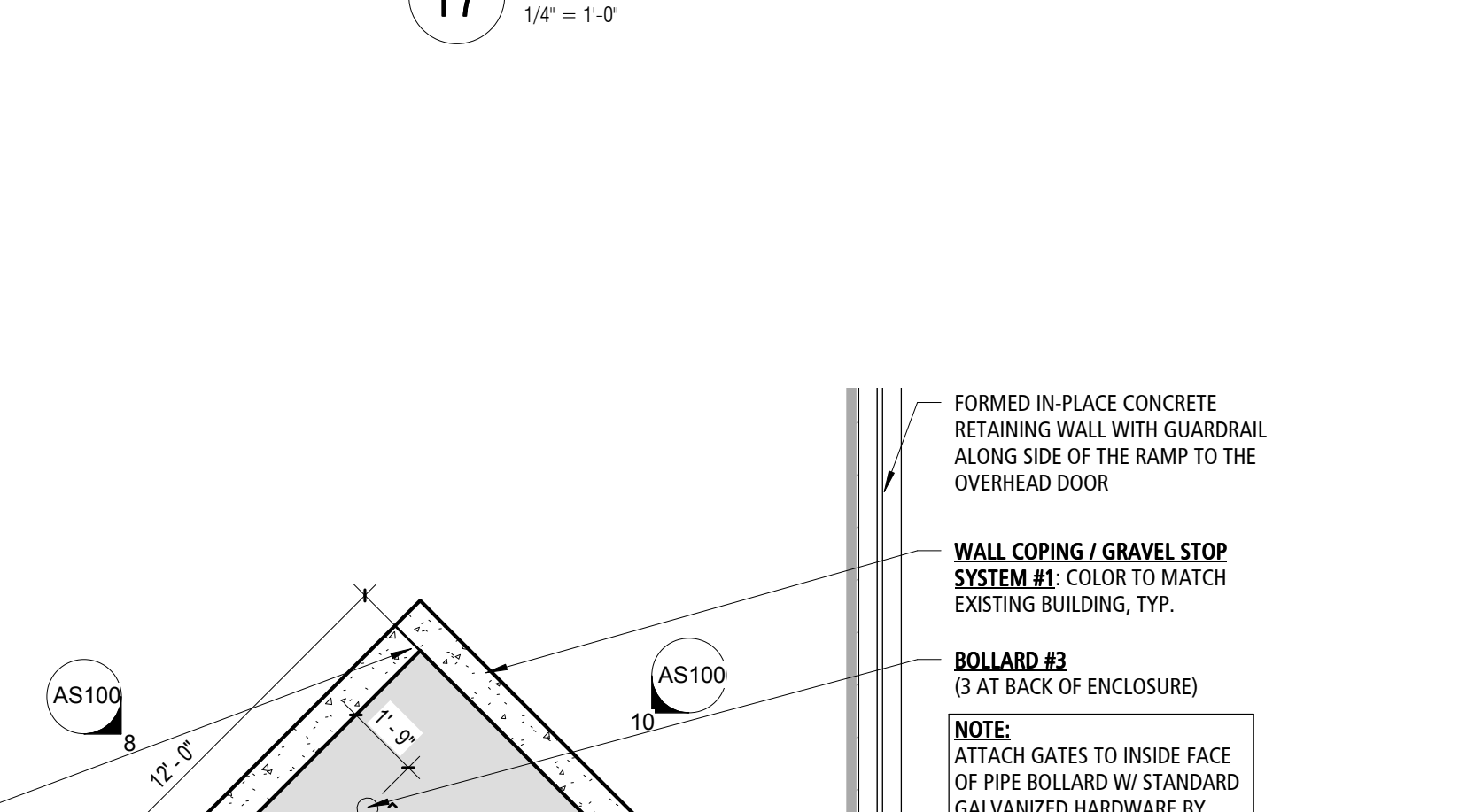
29 RETAINING WALL GUARDRAIL



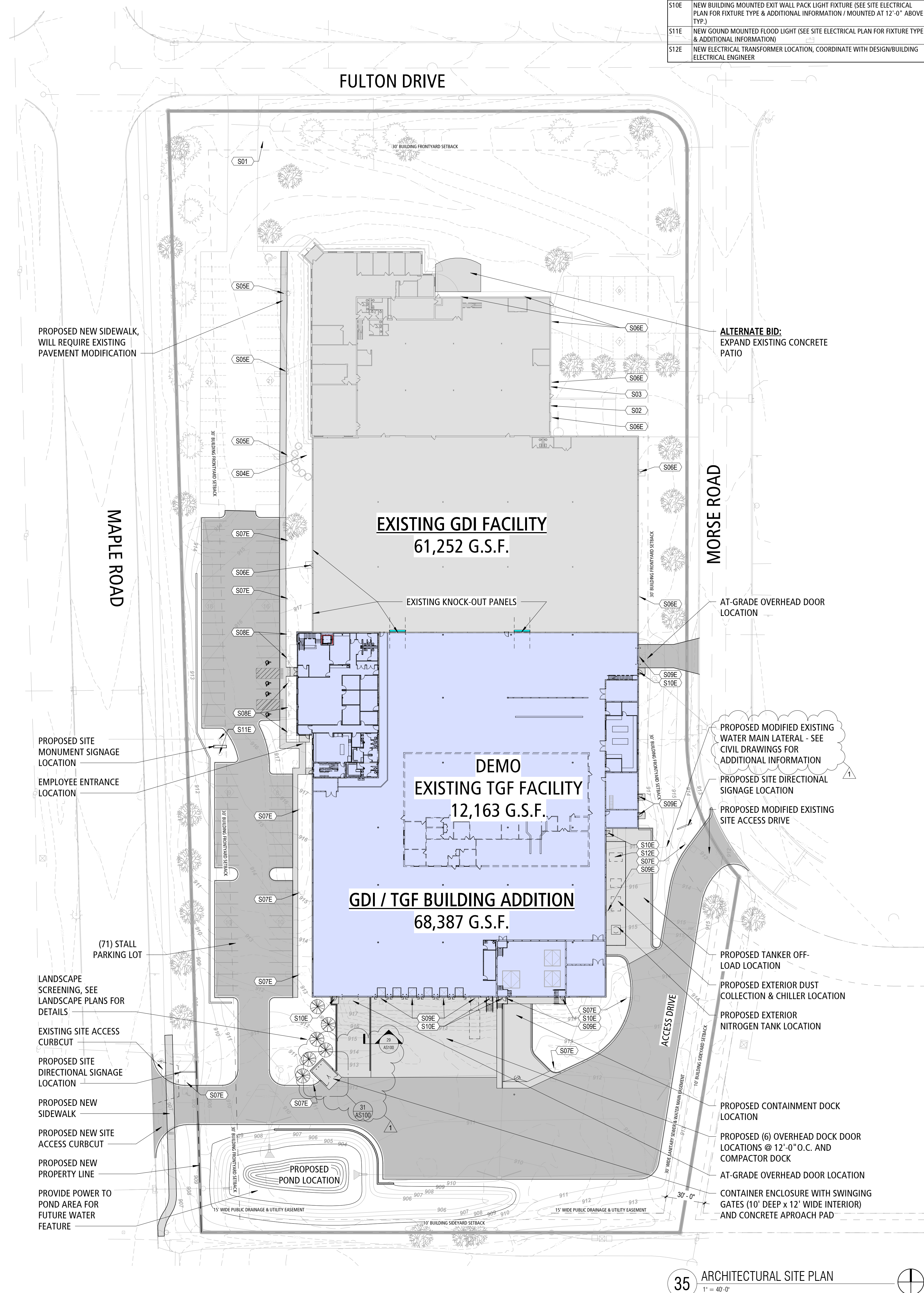
10 ENCLOSURE EAST ELEVATION



17 ENCLOSURE SOUTH ELEVATION
1/4" = 1'-0"



31 ENLARGED ARCHITECTURAL SITE PLAN
1/4" = 1'-0"



KEYNOTES - SITE PLAN	
KEY	KEYNOTE DESCRIPTION
S01	EXISTING SITE MONUMENT AND/OR DIRECTIONAL SIGNAGE SHALL REMAIN
S02	EXISTING DOCK LOCATION SHALL REMAIN
S03	EXISTING DRIVE IN OVERHEAD DOOR SHALL REMAIN
S04E	EXISTING ELECTRICAL TRANSFORMER SHALL REMAIN
S05	EXISTING SITE POLE MOUNTED LIGHT FIXTURE
S06	EXISTING BUILDING MOUNTED ADDITIONAL W/ PACK LIGHT FIXTURE
S07E	NEW SITE POLE MOUNTED LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION / POLE MOUNTED 3 / 0" CONCRETE BASE WITH 22" - 24" PITCH MATCHING POLE TYPE, ROUND OR SQUARE)
S08E	NEW SITE BOLLARD LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION)
S09E	NEW BUILDING MOUNTED LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION / SURFACE MOUNTED AT 17' 0" ABOVE FINISHED FLOOR)
S10E	NEW BUILDING MOUNTED EXT WALL PACK LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION / MOUNTED AT 12' 0" ABOVE TP)
S11E	NEW GROUND MOUNTED FLOOD LIGHT (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION)
S12E	NEW ELECTRICAL GENERATOR LOCATION, COORDINATE WITH DESIGN/BUILDING ELECTRICAL ENGINEER



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A

ARCHITECTURAL SITE PLAN

AS100

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REVISIONS		
#	DATE	DESCRIPTION

10 OCTOBER 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DZ

ARCHITECTURAL
COLORED SITE PLAN

AS110

#	DATE	DESCRIPTION
1	10/10/19	REVISED P.C.

10 OCTOBER 2019

PROJECT NUMBER PROJECT MANAGER
19013-01 DK

OVERALL FLOOR PLANS

A100

32 OVERALL MEZZANINE LEVEL FLOOR
1" = 30'-0"

35 OVERALL GROUND LEVEL FLOOR
1" = 30'-0"

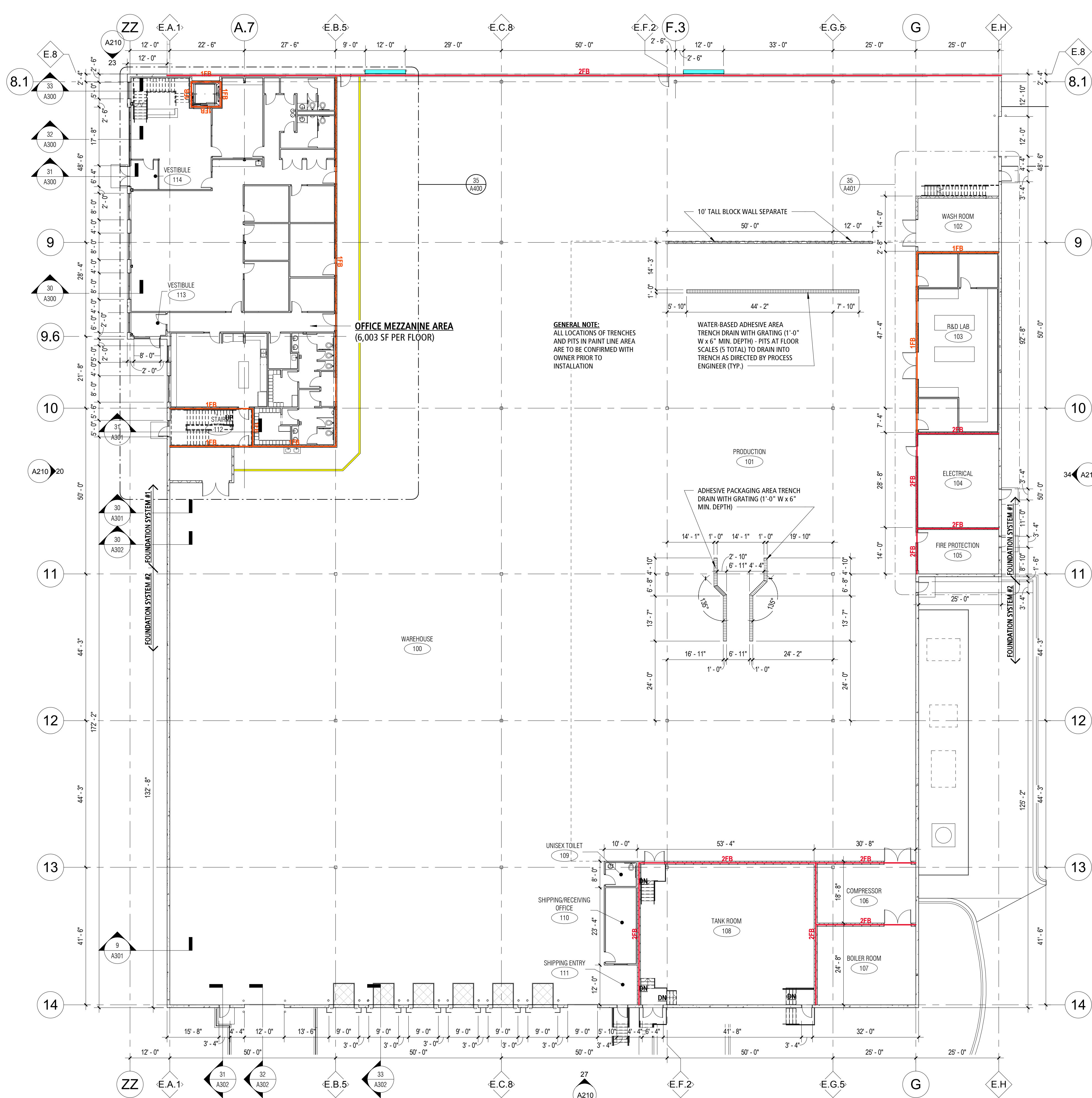
E

D

C

B

A



35 WALL SECTION
1/16" = 1'-0"

BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)
REINFORCED, FORMED POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)
SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.) EXTERIOR SURFACE TO MATCH EXTERIOR SURFACE OF PRECAST CONCRETE WALL PANELS AND BE PREPARED FOR FINISH PAINTING.

STOOP #1
5" SLAB-ON-GRADE CONCRETE STOOP WITH POSITIVE SLOPE AWAY FROM THE DOOR, OVER FORMED-IN-PLACE FROST RESISTANT 4'-0" BELOW GRADE CONCRETE FOUNDATION WALL WITH STONE (2" - 3" ROCK) MATERIAL BACKFILL. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #1 (TYPICAL - PRODUCTION)
REINFORCED STRUCTURAL FIBER POURED-IN-PLACE CONCRETE SLAB-ON-GRADE AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 15-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED WAREHOUSE LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION.)

FLOOR SYSTEM #2 (TYPICAL - OFFICE)
POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION.)

FLOOR SYSTEM #3 (OFFICE MEZZANINE)
NORMAL WEIGHT CONCRETE ON COMPOSITE DECK WITH SHEAR STUDS OVER WIDE FLANGE BEAM AND COLUMN STRUCTURAL FLOOR SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #4 (STORAGE MEZZANINE)
HOLLOW CORE PRECAST CONCRETE PLANK WITH BONDED CONCRETE TOPPING SET ON W-FLANGE STEEL BEAM AND STRUCTURAL LOAD BEARING MASONRY CONSTRUCTION. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

EXTERIOR WALL SYSTEM #1
10" NOMINAL FORMED INSULATED PRECAST CONCRETE (2.5"/3"/3.5") R-13 MIN. WET CAST SMOOTH FACED LOAD-BEARING ARCHITECTURAL PANELS WITH 1/2" DEEP FORMED HORIZONTAL REVEALS AND SMOOTH FINISH AS DEPICTED IN EXTERIOR ELEVATIONS. EXTERIOR FACE OF PANELS TO BE PAINTED WITH HALLMAN UNDESEY GRIP TITE 66 ACRYLIC MASONRY PRIMER AND (2) COATS WEATHERGUARD 176, FLAT, 100% ACRYLIC PAINT. ALL DOORS AND WINDOW OPENINGS TO BE FORMED INTEGRAL GRIP AT THE HEAD OF THE OPENING AND POSITIVE SLOPED SILL. PROVIDE SEALANT AND BACKER ROD AT ALL VERTICAL PANEL JOINTS (INTERIOR AND EXTERIOR). SEE ELEVATIONS AND WALL SECTIONS FOR LOCATIONS OF REVEALS, PANEL ARTICULATIONS AND WALL PANEL LAYOUT. REFER TO EXTERIOR MATERIAL SCHEDULE FOR PAINT COLOR SELECTION.

EXTERIOR WALL SYSTEM #2
PROVIDE & INSTALL 24 GAUGE 36" WIDE PREFINISHED RIBBED DEEP-DECK CORRUGATED METAL WALL PANELS, INSTALLED HORIZONTALLY IN 4'-10" 12" LENGTHS APPROXIMATELY. WITH STANDARD CONCEALED FASTENER WITH NEOPRENE WASHERS AND INTO THROUGH THE VERTICAL WALL FRAMING MEMBERS BELOW. 5/8" GLASS MAT GYPSUM SHEATHING BOARD WITH AIR & MOISTURE BARRIER ("DENSELEMENT BARRIER SYSTEM SHEATING" OR COMPARABLE PRODUCT) ASTM C 1177/C 1177M, WITH FIBERGLASS MAT LAMINATED TO BOTH SIDES AND WITH MANUFACTURER'S STANDARD EDGES. INSTALL EXTERIOR SHEATHING ON 6" STRUCTURAL STEEL STUDS 16" O.C. WITH BATT INSULATION AND 5/8" GYPSUM BOARD INTERIOR FINISH. PROVIDE CONTROL JOINTS AS REQUIRED PER STRUCTURAL REQUIREMENTS.

GLAZING SYSTEM #1
"TRIFAB 451T SYSTEM" BY KAWNEER. THIS IS A CENTER GLAZED STOREFRONT SYSTEM: 2" WIDE X 4.5" DEEP IN BRONZE ANODIZED ALUMINUM FRAME (MATCH EXISTING). REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF MULLION. 1" INSULATED LOW-E, BRONZE TINTED GLASS UNITS WITH THERMAL BREAK, SILL FLASHINGS, EXTERIOR METAL CLOSERS AD SHIMS ATTACHED TO OPENINGS AS INDICATED. ALL FULL-LITE GLASS ALUMINUM DOORS TO BE MEDIUM STYLE FRAMES. PROVIDE TEMPERED GLAZING AS REQUIRED. PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

GLAZING COMPOSITION
INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME, 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

CANOPY STRUCTURE #1
PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FACADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSCORE OF CANOPY WITH METAL STUDS, AND ALUMINUM METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED RIGID INSULATION SLOPED TO SIDES OF CANOPY WITH SCUPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)
WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60 MIL EPDM MEMBRANE ON (2) LAYERS OF 2.6" POLYISOCYANURATE INSULATION WITH STAGGERED JOINTS WITH FELT OR GLASS-FIBER MAT FASTER ON BOTH MAJOR SURFACES AND MINIMUM R-26. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES AND POSITIVE DRAINAGE. 20 GA. MINIMUM METAL DECK OVER STRUCTURAL STEEL JOISTS. STRUCTURAL STEEL TO FIT TO INSULATED ROOF DRAINS. INSTALL INSULATED OVERFLOW ROOF DRAINS THAT WILL EXTEND TO THE ADJACENT EXTERIOR WALL AS DEPICTED ON THE ROOF PLAN AND DROP VERTICALLY TO DAYLIGHT SCUPPER AT 18" A.F.F. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION. (SEE STRUCTURAL DRAWINGS FOR ROOF FRAMING, PITCH AND OTHER SPECIFIC INFORMATION.)

ROOF SYSTEM #2 (ADHERED)
PROVIDE & INSTALL 60 MIL EPDM MEMBRANE FULLY ADHERED AND ASSOCIATED 60 MIL EPDM FLASHINGS. A MECHANICALLY FASTENED BASE LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 24 PER BOARD AT 18" DIA. ROADS. AND A FULLY ADHERED TOP LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FASER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANE SYSTEM & INSULATE FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1
PROVIDE & INSTALL CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1
PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O.C. WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1
CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSURE/DRAIN DOWNSPOUTS WITH BRACKETS AS REQUIRED. DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR. PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1
AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED 22-GA. METAL COUNTER FLASHING PER CODE AT LINTELS OF OPENING. ADHESIVE BACKED OVER STAINLESS STEEL SILL DRIP EDGE REGLET SAN CUT INTO PRECAST WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1
PROVIDE TYPE "NB" SIZE 2'-6" WIDE X 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF HATCH #2
PROVIDE TYPE "BRHE-D" (SIZED PER ROOF PLAN) EQUIPMENT ROOF HATCH, DOUBLE LEAF BY BARCOCK DAVIS ON STRUCTURALLY FRAMED OPENING. HATCH TO BE ALL ALUMINUM SINGLE INSULATED COVER & WALL CURB CONSTRUCTION IN MILL FINISH.

ROOF LADDER #1
PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1
14 GA. GALVANIZED INSULATED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)
12'-0" WIDE X 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)
9'-0" WIDE X 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING. VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 40" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL, VERIFY SEALERS/DOCKS AND OTHER REQUIREMENTS WITH MANUFACTURER. PROVIDE 35,000# MECHANICAL DOCK LEVELER OR 7'x8", 50,000# AIR-BAG DOCK LEVELER (RITE HITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED / GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)
12'-0" WIDE X 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1
SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY CONTROLLED DRIVE WITH 3,500# CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD GRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL. PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #2 (MEZZANINE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #3 (SHIP'S LADDER)
PAINTED STEEL CHANNEL STRINGER WITH BAR GRATE TREADS, 68 DEGREE STEEP INCLINE STAIR WITH 1'-0" MAX. RISERS AND 6" DEEP TREADS. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #4 (DOCK ACCESS)
GALVANIZED EXTERIOR/INTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE TS SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1 1/2" WIDE X 1 1/2" HIGH STEEL CHECKER PLATE WELDING WELDED TO STEEL GRATE TREADS. (MCMCHOLS BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

HANDRAIL #1
PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" PAST THE NOSE OF THE TREAD AT TOP AND BOTTOM OF STAIR. PRIME AND PAINT GRAY. PROVIDE WALL MOUNTED SINGLE LINE HANDRAIL ON EXTERIOR WALL. CORE AND PLACE RAILING IN PLACE, GROUT SOLID AND CAULK.

BOLLARD #1 (TYPICAL)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED "SAFETY YELLOW."

BOLLARD #3
6" DIAMETER, 6'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."



N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815



PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

REVISED PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION
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10 OCTOBER 2019

PROJECT NUMBER PROJECT MANAGER

19013-01 DK

GROUND LEVEL ADDITION FLOOR PLAN

A101

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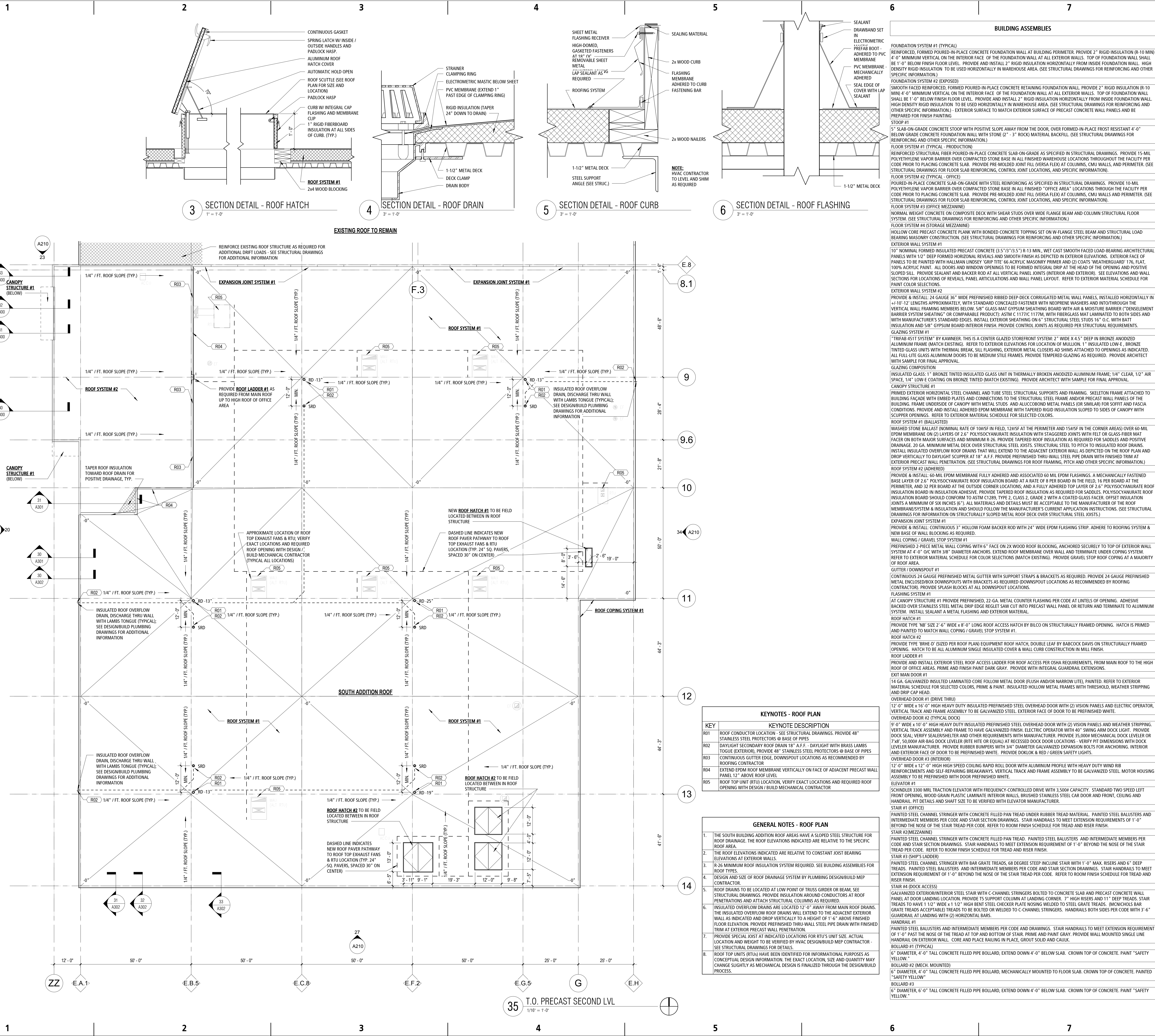
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N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815



PROJECT INFORMATION:

GLUE DOTS
INTERNATIONAL
BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

REVISED PLAN
COMMISSION
SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION
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B

10 OCTOBER 2019

PROJECT NUMBER PROJECT MANAGER

19013-01 DK

ADDITION ROOF PLAN

A121

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W186N11676 MORSE DR
GERMANTOWN, WI
53022

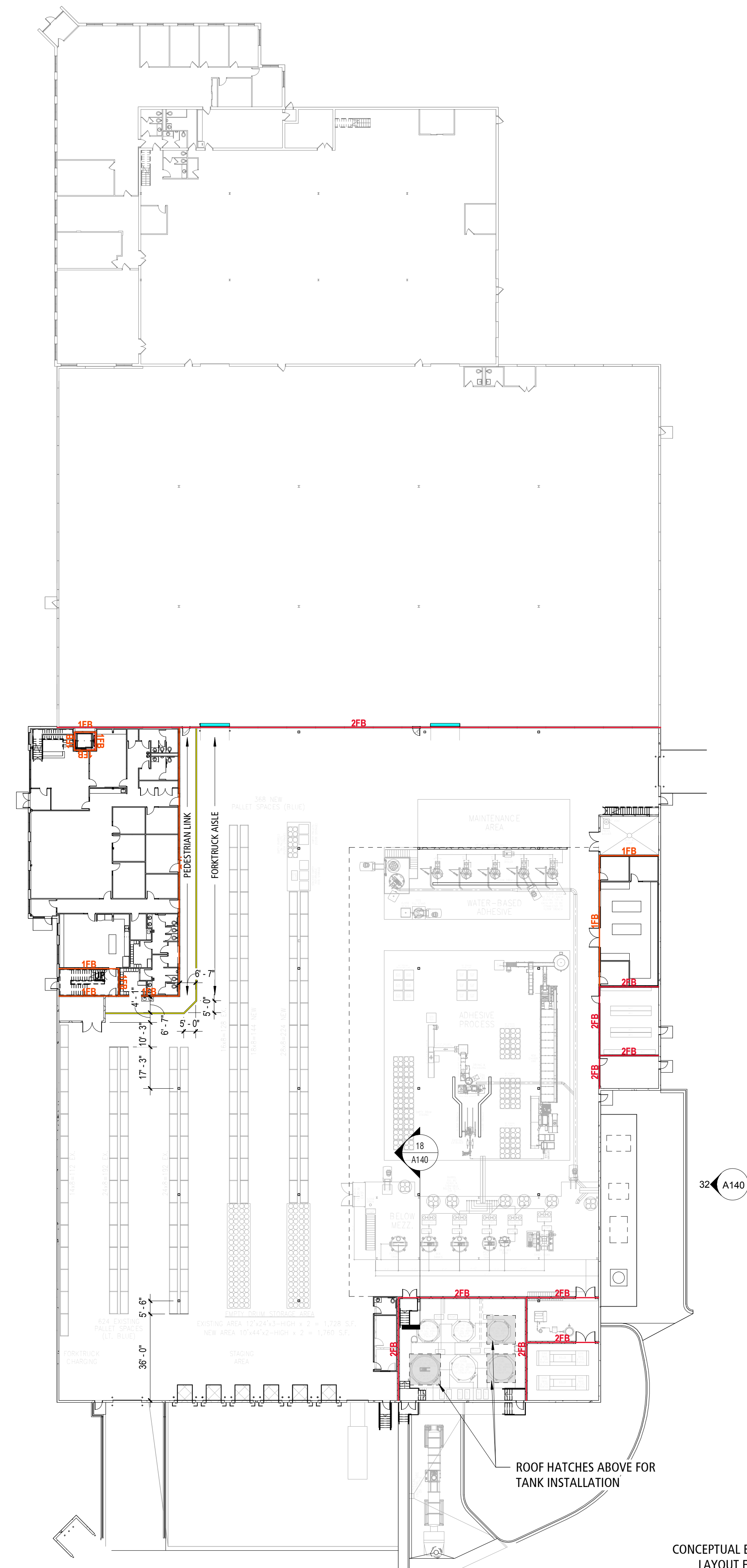
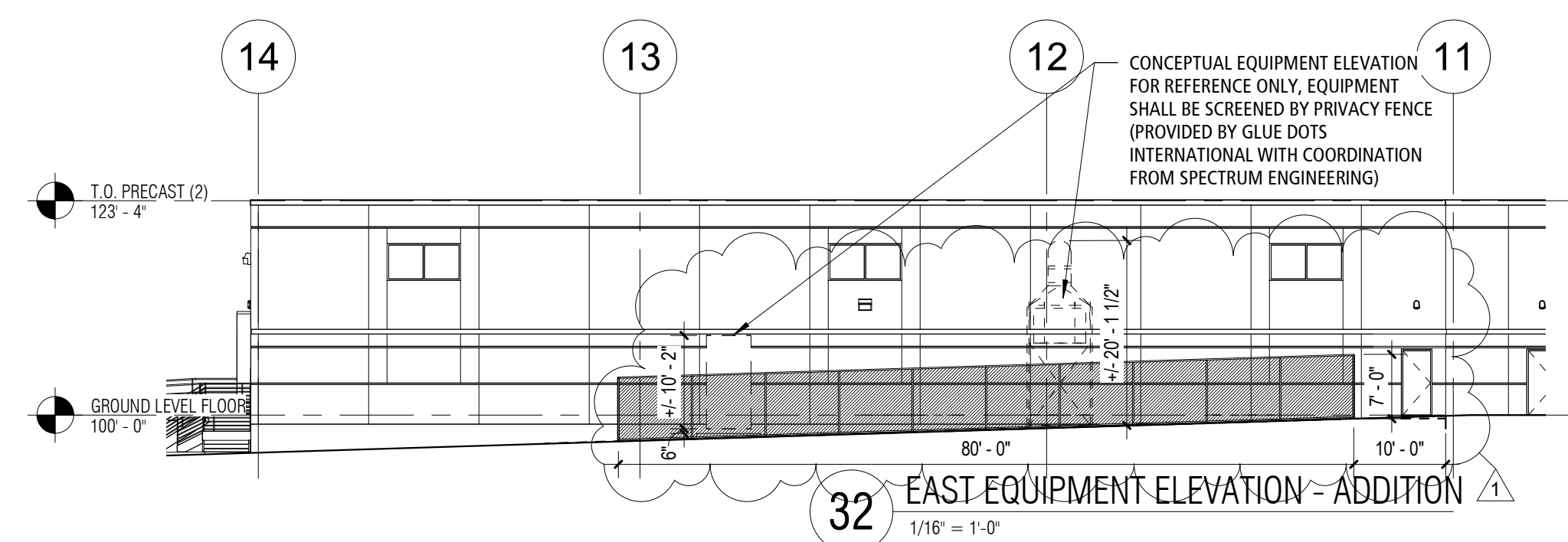
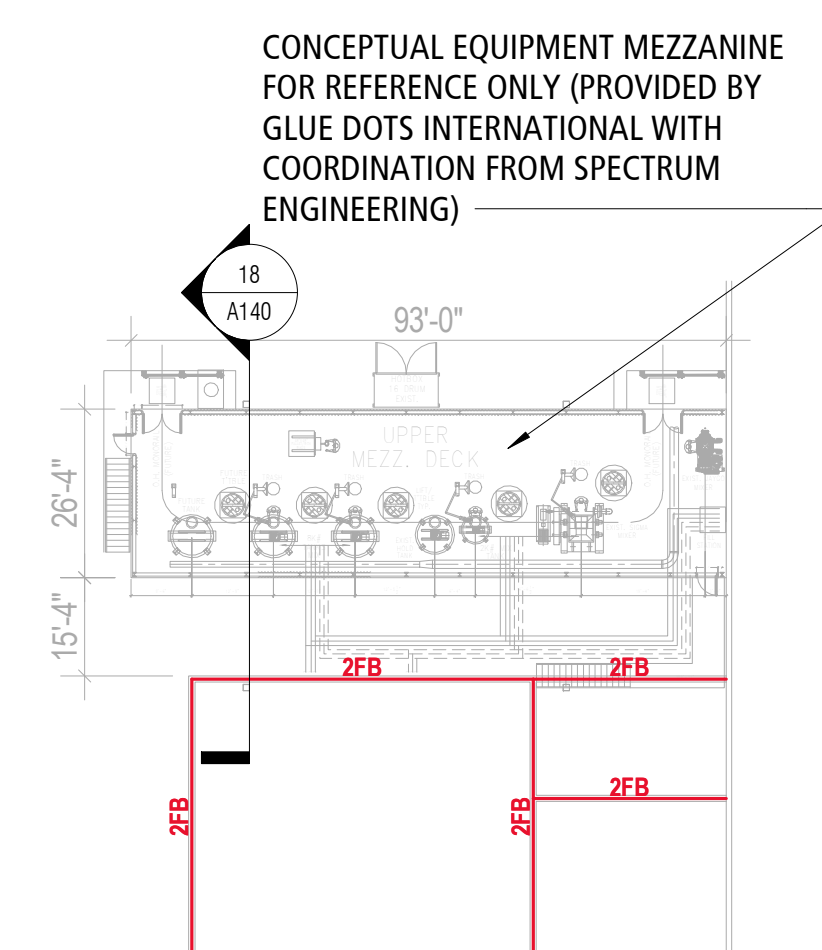
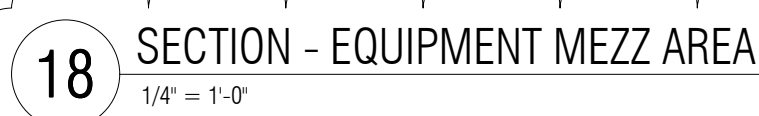
DRAWING ISSUANCE: _____

REVISD PLAN
COMMISSION
SUBMITTAL

#	DATE	DESCRIPTION
1	10/10/19	REVISED P.C.

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

A140



CONCEPTUAL EQUIPMENT AND RACKING
LAYOUT FOR REFERENCE ONLY
(PROVIDED BY GLUE DOTS
INTERNATIONAL WITH COORDINATION
FROM SPECTRUM ENGINEERING)

35 GROUND LEVEL EQUIPMENT PLAN
1" = 30'-0"

1

2

3

4

5

6

7

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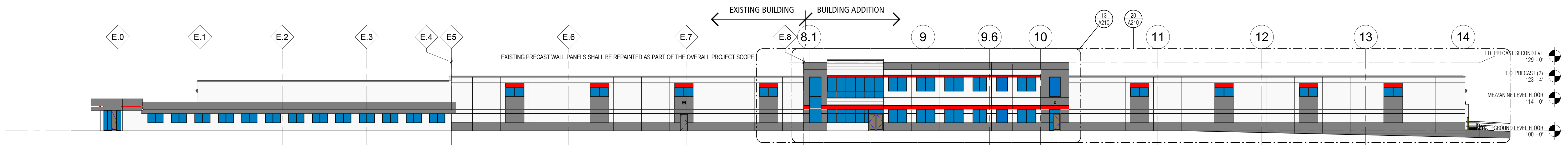
10 NW VIEW OF ENTRANCE



14 SW VIEW OF ENTRANCE

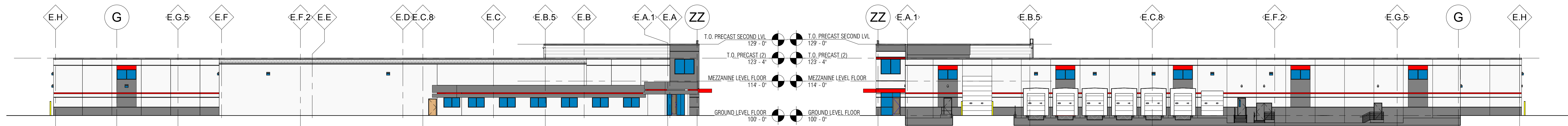
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21 OVERALL WEST BUILDING ELEVATION
1" = 20'-0"

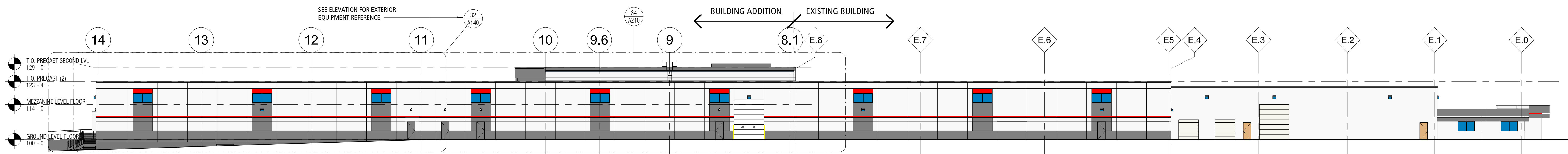
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24 OVERALL NORTH BUILDING ELEVATION
1" = 20'-0"28 OVERALL SOUTH BUILDING ELEVATION
1" = 20'-0"

A

A

35 OVERALL EAST BUILDING ELEVATION
1" = 20'-0"

1

2

3

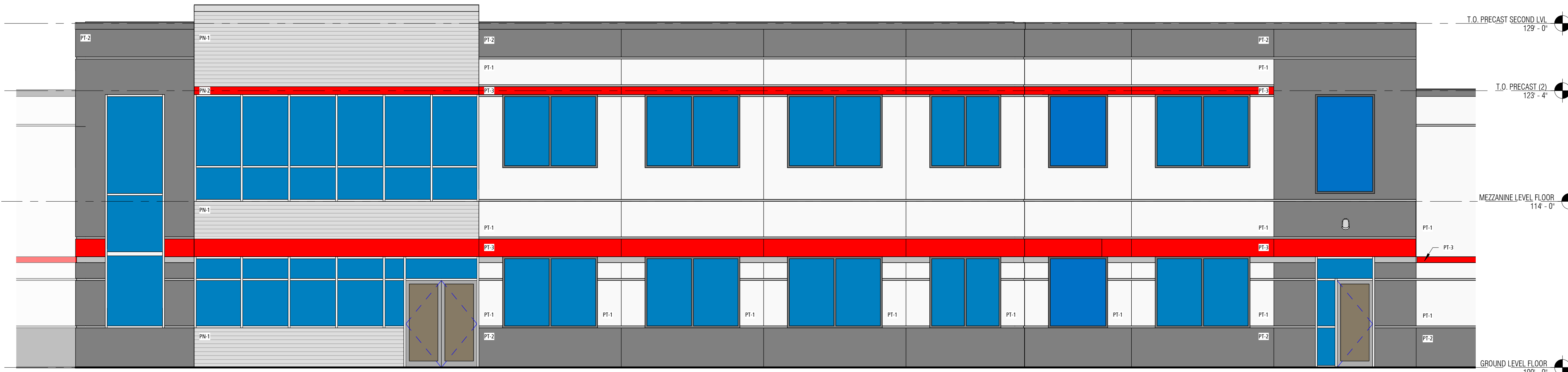
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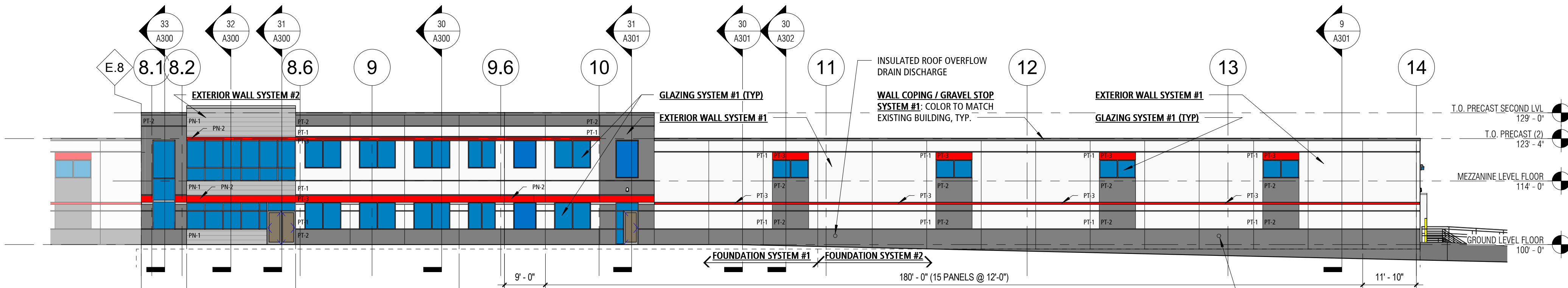
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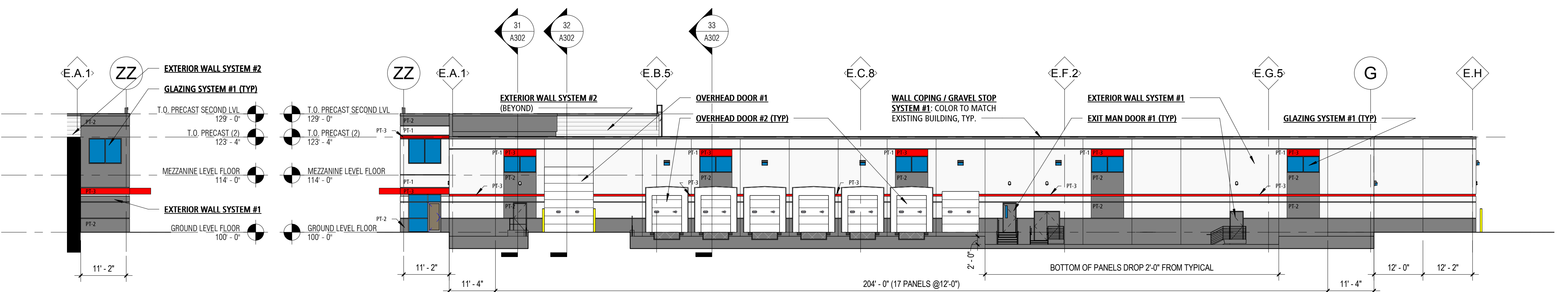
EXTERIOR MATERIAL FINISH SCHEDULE		
EXTERIOR ALUMINUM WINDOW / DOOR FINISH	BRONZE ALUMINUM - THERMALLY BROKEN GLAZING SYSTEM W/ 1" INSULATED LOW-E BRONZE ANNEAL TINTED GLASS.	PAINT INFORMATION
GLASS	1" BRONZE LOW-E GLASS BY PPG - REFER TO BUILDING ASSEMBLIES FOR MORE INFORMATION	COLOR 1 (PT-1): 'WHITE' TBD #
PREFINISHED METAL FLASHING, COPING, ETC.	PREFINISHED METAL COPING. MATCH EXISTING, COLOR: MATCH EXISTING	COLOR 2 (PT-2): 'GREY' TBD #
METAL TRIM / CANOPY	PREFINISHED METAL PANEL. COLOR: 'RED' FASCIA AND 'GREY' SOFFIT	COLOR 3 (PT-3): 'RED' TBD #
NOTES:	1. PROVIDE SEALANT COLOR SAMPLES TO ARCHITECT FOR APPROVAL. 2. PROVIDE COPING, BREAK METAL, PAINT DRAW DOWNS, ETC. SAMPLES TO ARCHITECT FOR APPROVAL.	METAL PANEL 1 (PW-1): HORIZONTAL ACCENT PANEL 'LIGHT GREY' RIBBED, TBD # METAL PANEL 2 (PW-2): ALUCCOROND 'RED' FLUSH



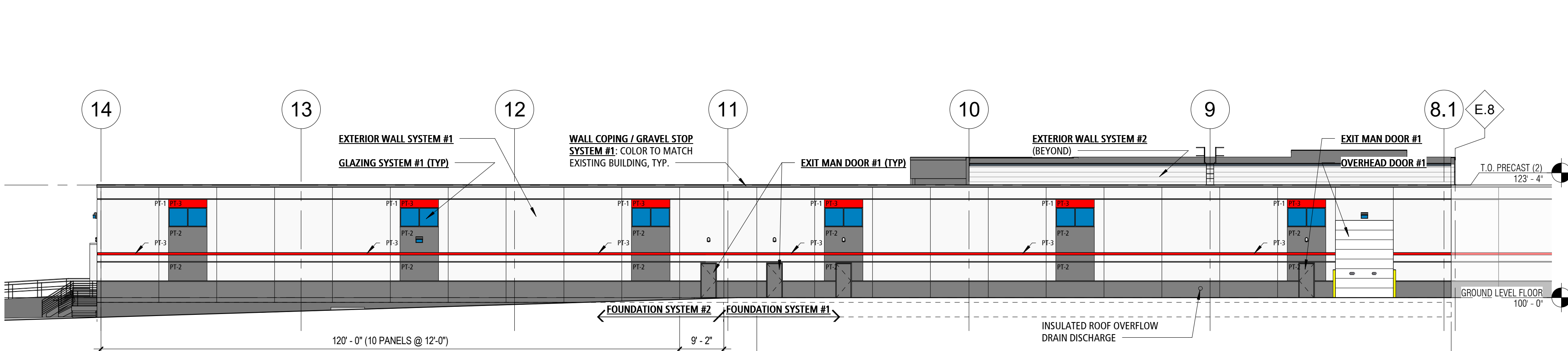
13 ENLARGED WEST BUILDING ELEVATION - ADDITION
3/16" = 1'-0"



20 OVERALL WEST BUILDING ELEVATION - ADDITION
1/16" = 1'-0"



23 PARTIAL NORTH BUILDING ELEVATION - ADDITION
1/16" = 1'-0"



27 OVERALL SOUTH BUILDING ELEVATION - ADDITION
1/16" = 1'-0"



34 OVERALL EAST BUILDING ELEVATION - ADDITION
1/16" = 1'-0"

BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)

REINFORCED, FORMED POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)

SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.) EXTERIOR SURFACE TO MATCH EXTERIOR SURFACE OF PRECAST CONCRETE WALL PANELS AND BE PREPARED FOR FINISH PAINTING

STOOP #1

5" SLAB-ON-GRADE CONCRETE STOOP WITH POSITIVE SLOPE AWAY FROM THE DOOR, OVER FORMED-IN-PLACE FROST RESISTANT 4'-0" BELOW GRADE CONCRETE FOUNDATION WALL WITH STONE (2" - 3" ROCK) MATERIAL BACKFILL. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #1 (TYPICAL - PRODUCTION)

REINFORCED STRUCTURAL FIBER POURED-IN-PLACE CONCRETE SLAB-ON-GRADE AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 15-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION.)

FLOOR SYSTEM #2 (TYPICAL - OFFICE)

POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION.)

FLOOR SYSTEM #3 (OFFICE MEZZANINE)

NORMAL WEIGHT CONCRETE ON COMPOSITE DECK WITH SHEAR STUDS OVER WIDE FLANGE BEAM AND COLUMN STRUCTURAL FLOOR SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #4 (STORAGE MEZZANINE)

HOLLOW CORE PRECAST CONCRETE PLANK WITH BONDED CONCRETE TOPPING SET ON W-FLANGE STEEL BEAM AND STRUCTURAL LOAD BEARING MASONRY CONSTRUCTION. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

EXTERIOR WALL SYSTEM #1

10" NOMINAL FORMED INSULATED PRECAST CONCRETE (0.5" / 3" / 5.5") R-13 MIN., WET CAST SMOOTH FACED LOAD-BEARING ARCHITECTURAL PANELS WITH 1/2" DEEP FORMED HORIZONTAL REVEALS AND SMOOTH FINISH AS DEPICTED IN EXTERIOR ELEVATIONS. EXTERIOR FACE OF PANELS TO BE PAINTED WITH HALLMAN UNISEY GRIP TITE 66 ACRYLIC MASONRY PRIMER AND (2) COATS WEATHERGUARD 176, FLAT, 100% ACRYLIC PAINT. ALL DOORS AND WINDOW OPENINGS TO BE FORMED INTEGRAL DRIP AT THE HEAD OF THE OPENING AND POSITIVE SLOPED SILL. PROVIDE SEALANT AND BACKER ROD AT ALL VERTICAL PANEL JOINTS (INTERIOR AND EXTERIOR). SEE ELEVATIONS AND WALL SECTIONS FOR LOCATIONS OF REVEALS, PANEL ARTICULATIONS AND WALL PANEL LAYOUT. REFER TO EXTERIOR MATERIAL SCHEDULE FOR PAINT COLOR SELECTIONS.

EXTERIOR WALL SYSTEM #2

PROVIDE & INSTALL 24 GAUGE 36" WIDE PREFINISHED RIBBED DEEP-DECK CORRUGATED METAL WALL PANELS, INSTALLED HORIZONTALLY IN 4' / 10' / 12' LENGTHS APPROXIMATELY. WITH STANDARD CONCEALED FASTENER WITH NEOPRENE WASHERS AND INTO THROUGH THE VERTICAL WALL FRAMING MEMBERS BELOW. 5/8" GLASS MAT OYSPUM SHEATHING BOARD WITH AIR & MOISTURE BARRIER ("DECELFLEX BARRIER SYSTEM SHEATHING" OR COMPARABLE PRODUCT; ASTM C 1177/C 1177M, WITH FIBERGLASS MAT LAMINATED TO BOTH SIDES AND WITH MANUFACTURER'S STANDARD EDGES. INSTALL EXTERIOR SHEATHING ON 6" STRUCTURAL STEEL STUDS 16" O.C. WITH BATT INSULATION AND 5/8" OYSPUM BOARD INTERIOR FINISH. PROVIDE CONTROL JOINTS AS REQUIRED PER STRUCTURAL REQUIREMENTS.

GLAZING SYSTEM #1

"TRIFAB 451T SYSTEM" BY KAWNEER. THIS IS A CENTER GLAZED STOREFRONT SYSTEM: 2" WIDE X 4.5" DEEP IN BRONZE ANODIZED ALUMINUM FRAME (MATCH EXISTING). REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF MULLION. 1" INSULATED LOW-E, BRONZE TINTED GLASS UNITS WITH THERMAL BREAK, SILL FLASHINGS, EXTERIOR METAL CLOSERS AND SHIMS ATTACHED TO OPENINGS AS INDICATED. ALL FULL-LITE GLASS ALUMINUM DOORS TO BE MEDIUM STYLE FRAMES. PROVIDE TEMPERED GLAZING AS REQUIRED. PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

GLAZING COMPOSITION

INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME, 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

CANOPY STRUCTURE #1

PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FACADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSIDE OF CANOPY WITH METAL STUDS AND ALUCCOROND METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED DRIP INSULATION SLOPED TO SIDES OF CANOPY WITH SCUPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)

WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60 MIL EPDM MEMBRANE ON (2) LAYERS OF 2.6" POLYISOCYANURATE INSULATION WITH STAGGERED JOINTS WITH FELT OR GLASS-FIBER MAT FASTER ON BOTH MAJOR SURFACES AND MINIMUM R-26. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES AND POSITIVE DRAINAGE. 20 GA. MINIMUM METAL DECK OVER STRUCTURAL STEEL. STRUCTURAL STEEL TO PITCH TO INSULATED ROOF DRAINS. INSTALL INSULATED OVERLAP ROOF DRAINS THAT WILL TO THE ADJACENT EXTERIOR WALL AS DEPICTED ON THE ROOF PLAN AND DROP VERTICALLY TO DAYLIGHT SCUPPER AT 18" A.F.F. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION. (SEE STRUCTURAL DRAWINGS FOR ROOF FRAMING, PITCH AND OTHER SPECIFIC INFORMATION.)

ROOF SYSTEM #2 (ADHERED)

PROVIDE & INSTALL 60 MIL EPDM MEMBRANE FULLY ADHERED AND ASSOCIATED 60 MIL EPDM FLASHINGS. A MECHANICALLY FASTENED BASE LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 32 PER BOARD OUTSIDE CORNER LOCATIONS, AND A FULLY ADHERED TOP LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FASER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANE SYSTEM & INSULATION. FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1

PROVIDE & INSTALL CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1

PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O.C. WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1

CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSED DRAIN DOWNSPOUTS WITH BRACKETS AS REQUIRED (DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR). PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1

AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED 22-GA. METAL COUNTER FLASHING PER CODE AT LINTELS OF TERMINING. ADHESIVE BACKED OVER STAINLESS STEEL METAL DRIP EDGE REGLET SAN CUT INTO COUNTER WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1

PROVIDE TYPE 'NB' SIZE 2'-6" WIDE X 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF HATCH #2

PROVIDE TYPE 'BRHE-D' (SIZED PER ROOF PLAN) EQUIPMENT ROOF HATCH, DOUBLE LEAF BY BARCOCK DAVIS ON STRUCTURALLY FRAMED OPENING. HATCH TO BE ALL ALUMINUM SINGLE INSULATED COVER & WALL CURB CONSTRUCTION IN MILL FINISH.

ROOF LADDER #1

PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1

14 GA. GALVANIZED INSULATED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)

12'-0" WIDE X 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)

9'-0" WIDE X 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING. VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 40" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL, VERIFY SEAM ASSEMBLY TO BE GALVANIZED STEEL. PROVIDE 35,000# MECHANICAL DOCK LEVELER ON 7'x8", 50,000# AIR-BAG DOCK LEVELER (RITE RITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED / GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)

12'-0" WIDE X 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1

SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY-CONTROLLED DRIVE WITH 3,500# CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD GRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL. PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)

PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #2 (MEZZANINE)

PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #3 (SHIP'S LADDER)

PAINTED STEEL CHANNEL STRINGER WITH BAR GRATE TREADS, 68 DEGREE STEEP INCLINE STAIR WITH 1'-0" MAX. RISERS AND 6" DEEP TREADS. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #4 (DOCK ACCESS)

GALVANIZED EXTERIOR INTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE TS SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1 1/2" WIDE X 1 1/2" HIGH BENT STEEL CHECKER PLATE WELDING WELDED TO STEEL GRATE TREADS. (MCMCHOLS BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

HANDRAIL #1

PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" PAST THE NOSE OF THE TREAD AT TOP AND BOTTOM OF STAIR. PRIME AND PAINT GRAY. PROVIDE WALL MOUNTED SINGLE LINE HANDRAIL ON EXTERIOR WALL. CORE AND PLACE RAILING IN PLACE, GROUT SOLID AND CAULK.

BOLLARD #1 (TYPICAL)

6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)

6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED "SAFETY YELLOW."

BOLLARD #3

6" DIAMETER, 6'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."



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PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

REVISED PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION
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10 OCTOBER 2019

PROJECT NUMBER PROJECT MANAGER

19013-01 DK

ENLARGED ELEVATIONS

A210

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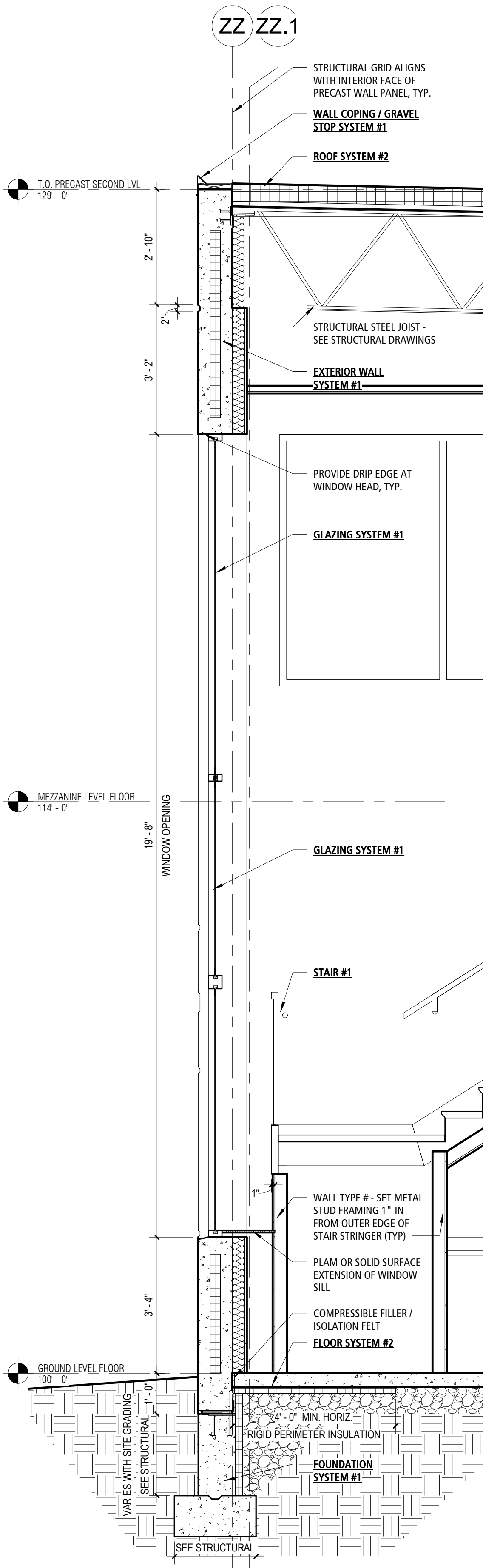
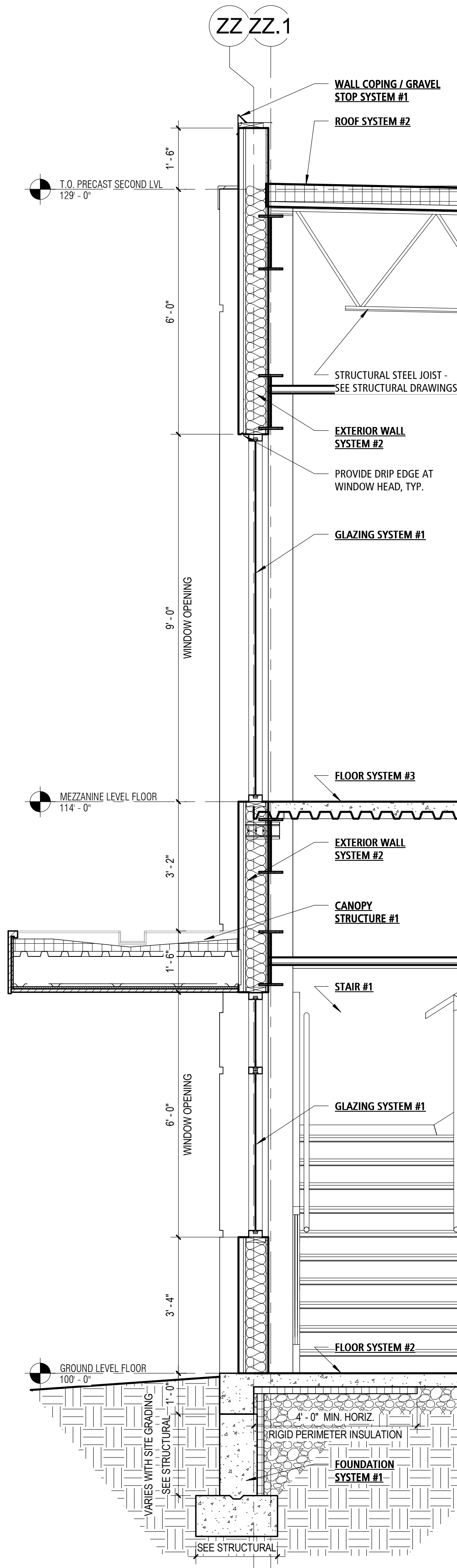
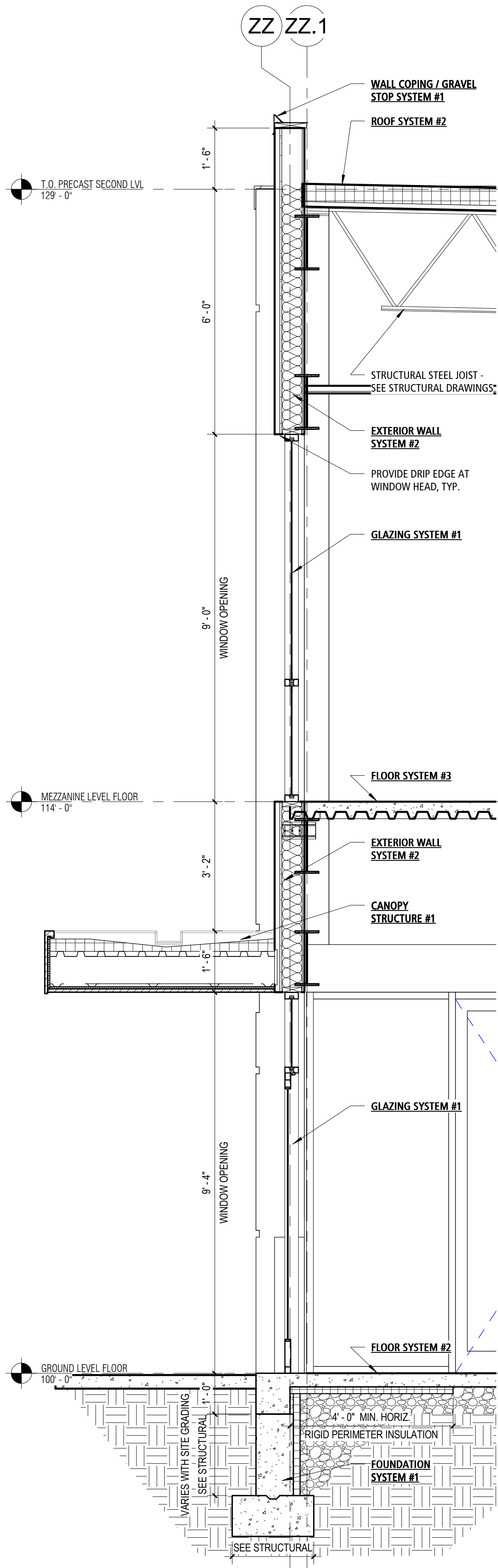
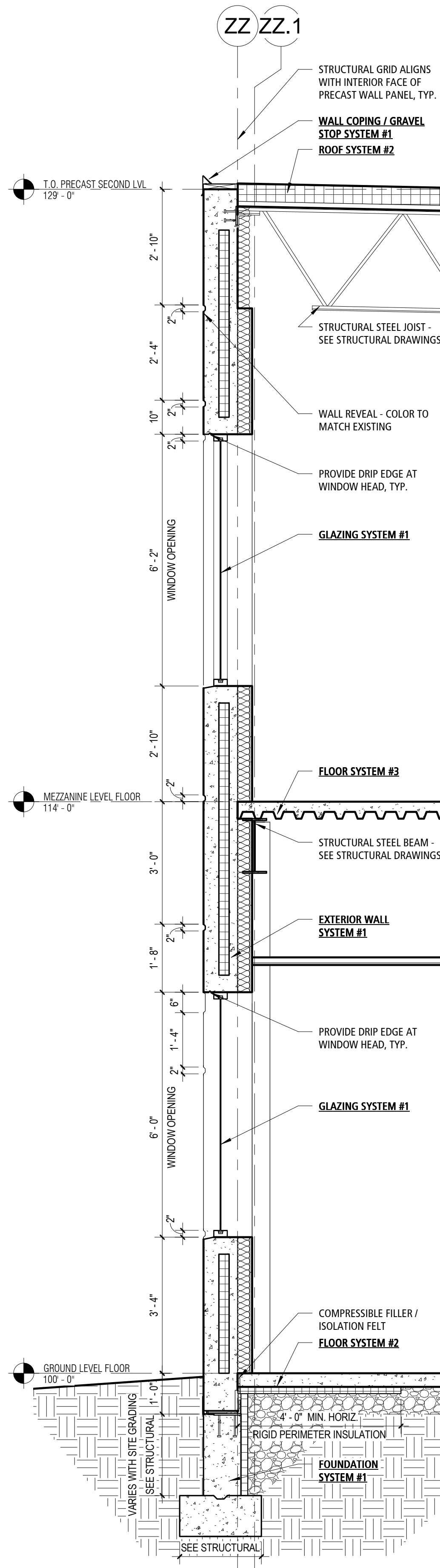
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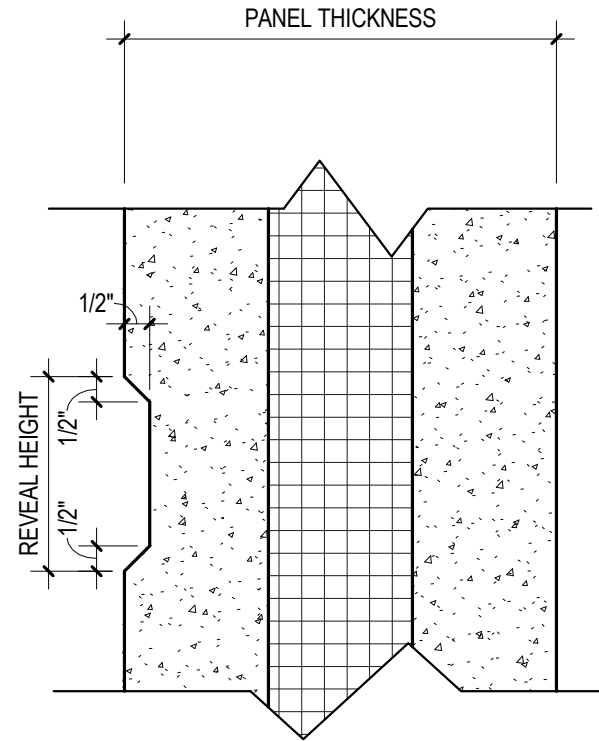
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5 PRECAST REVEAL DETAIL (TYPICAL)
3" = 1'-0"



BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)
REINFORCED, FORMED POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)
SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.) EXTERIOR SURFACE TO MATCH EXTERIOR SURFACE OF PRECAST CONCRETE WALL PANELS AND BE PREPARED FOR FINISH PAINTING.

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FLOOR SYSTEM #2 (TYPICAL - OFFICE)
POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION.)

FLOOR SYSTEM #3 (OFFICE MEZZANINE)
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GLAZING COMPOSITION
INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME, 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

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PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FACADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSIDE OF CANOPY WITH METAL STUDS AND ALUMINOID METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED RIGID INSULATION SLOPED TO SIDES OF CANOPY WITH SCUPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)
WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60 MIL EPDM MEMBRANE ON (2) LAYERS OF 2-6" POLYISOCYANURATE INSULATION WITH STAGGERED JOINTS WITH FELT OR GLASS-FIBER MAT FASTER ON BOTH MAJOR SURFACES AND MINIMUM R-26. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES AND POSITIVE DRAINAGE. 20 GA. MINIMUM METAL DECK OVER STRUCTURAL STEEL JOISTS. STRUCTURAL STEEL TO PITCH TO INSULATED ROOF DRAINS. INSTALL INSULATED OVERFLOW ROOF DRAINS THAT WILL EXTEND TO THE ADJACENT EXTERIOR WALL AS DEPICTED ON THE ROOF PLAN AND DROP VERTICALLY TO DAYLIGHT SCUPPER AT 18" A.F.F. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION. (SEE STRUCTURAL DRAWINGS FOR ROOF FRAMING, PITCH AND OTHER SPECIFIC INFORMATION.)

ROOF SYSTEM #2 (ADHERED)
PROVIDE & INSTALL: 60 MIL EPDM MEMBRANE FULLY ADHERED AND ASSOCIATED 60 MIL EPDM FLASHINGS. A MECHANICALLY FASTENED BASE LAYER OF 2-6" POLYISOCYANURATE ROOF INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 32 PER BOARD AT THE OUTSIDE CORNER LOCATIONS, AND A FULLY ADHERED TOP LAYER OF 2-6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FASER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANE SYSTEM & INSULATION. SHOULD FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1
PROVIDE & INSTALL: CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1
PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O.C. WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1
CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSURE/DROK DOWNSPOUTS WITH BRACKETS AS REQUIRED. DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR; PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1
AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED, 22-GA. METAL CURB FLASHING PER CODE AT LINTELS OF OPENING. ADHESIVE BACKED OVER STAINLESS STEEL METAL DRIP EDGE REGLET. METAL CUT INTO PRECAST WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1
PROVIDE TYPE "NB" SIZE 2'-6" WIDE X 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF HATCH #2
PROVIDE TYPE "BRHE-D" (SIZED PER ROOF PLAN) EQUIPMENT ROOF HATCH, DOUBLE LEAF BY BARCOCK DAVIS ON STRUCTURALLY FRAMED OPENING. HATCH TO BE ALL ALUMINUM SINGLE INSULATED COVER & WALL CURB CONSTRUCTION IN MILL FINISH.

ROOF LADDER #1
PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1
14 GA. GALVANIZED INSULATED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)
12'-0" WIDE X 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)
9'-0" WIDE X 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING. VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 40" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL, VERIFY SEALER/SHEETER AND OTHER REQUIREMENTS WITH MANUFACTURER. PROVIDE 3,500LB MECHANICAL DOCK LEVELER OR 7'x8", 50,000LB AIR-BAG DOCK LEVELER (RITE HITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)
12'-0" WIDE X 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1
SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY CONTROLLED DRIVE WITH 3,500LB CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD GRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL. PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PANT TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #2 (MEZZANINE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PANT TREAD. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #3 (SHOPS LADDER)
PAINTED STEEL CHANNEL STRINGER WITH BAR GRATE TREADS, 68 DEGREE STEEP INCLINE STAIR WITH 1'-0" MAX. RISERS AND 6" DEEP TREADS. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #4 (DOCK ACCESS)
GALVANIZED EXTERIOR/INTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE TS SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1 1/2" WIDE, CHECKER PLATE WELDING WELDED TO STEEL GRATE TREADS. (MCMCHONLS BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

HANDRAIL #1
PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" PAST THE NOSE OF THE TREAD AT TOP AND BOTTOM OF STAIR. PRIME AND PAINT GRAY. PROVIDE WALL MOUNTED SINGLE LINE HANDRAIL ON EXTERIOR WALL. CORE AND PLACE RAILING IN PLACE, GROUT SOLID AND CAULK.

BOLLARD #1 (TYPICAL)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED "SAFETY YELLOW."

BOLLARD #3
6" DIAMETER, 6'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."



N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815



PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

REVISED PLAN COMMISSION SUBMITTAL

#	DATE	DESCRIPTION
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REVISIONS

10 OCTOBER 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

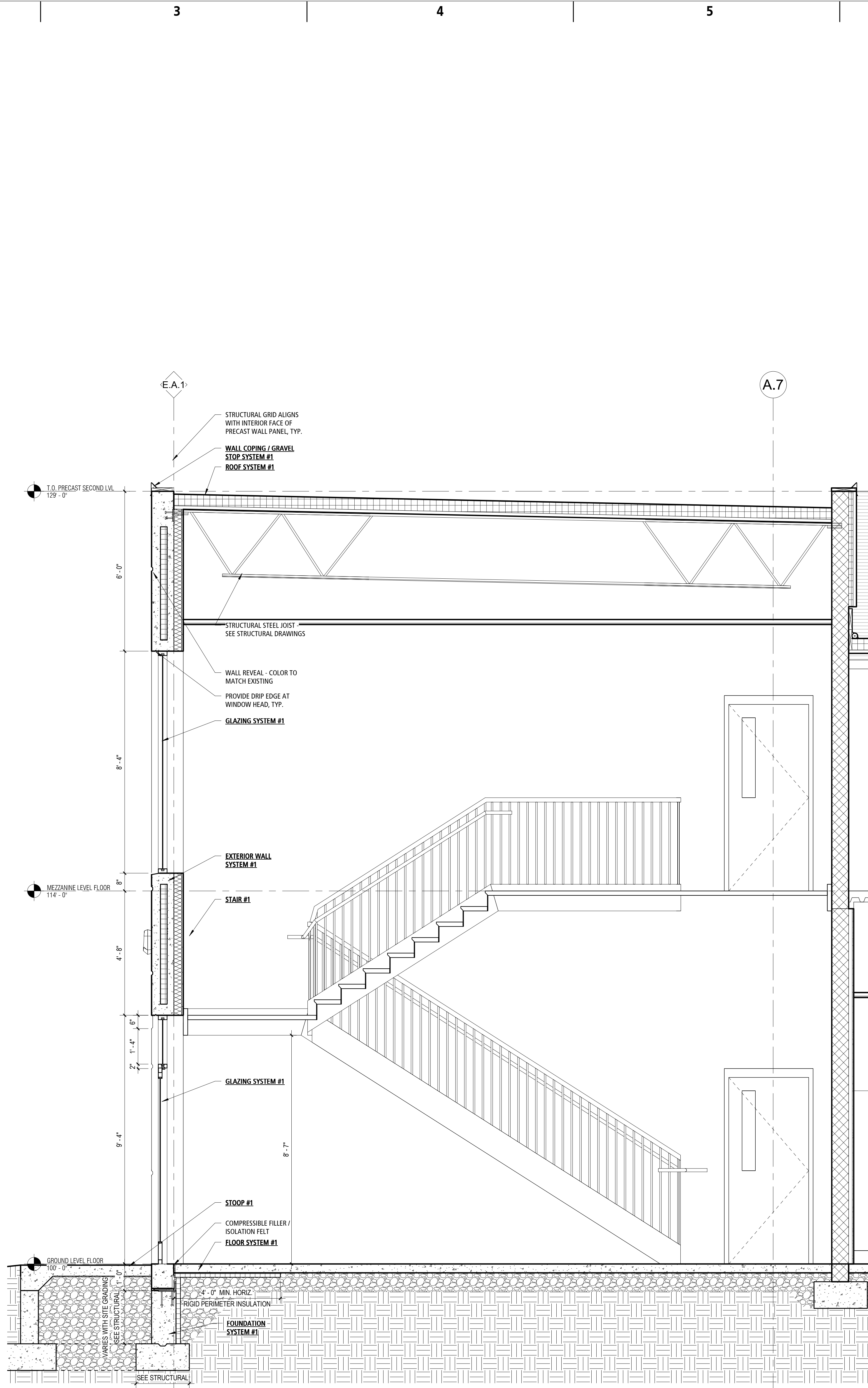
WALL SECTIONS

A300

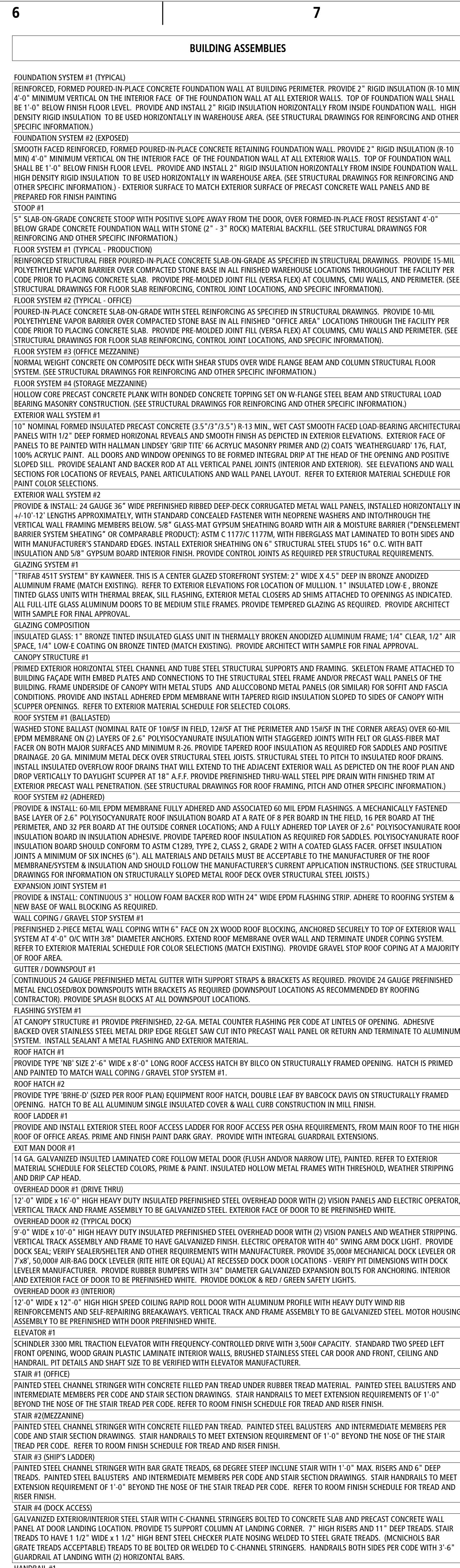
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A

30 SECTION - TYPICAL PANEL
1/2" = 1'-0"



31 SECTION - GLAZING DOOR @ STAIR
1/2" = 1'-0"



A

WALL SECTIONS

A301

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N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815



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REVISÉ PLAN
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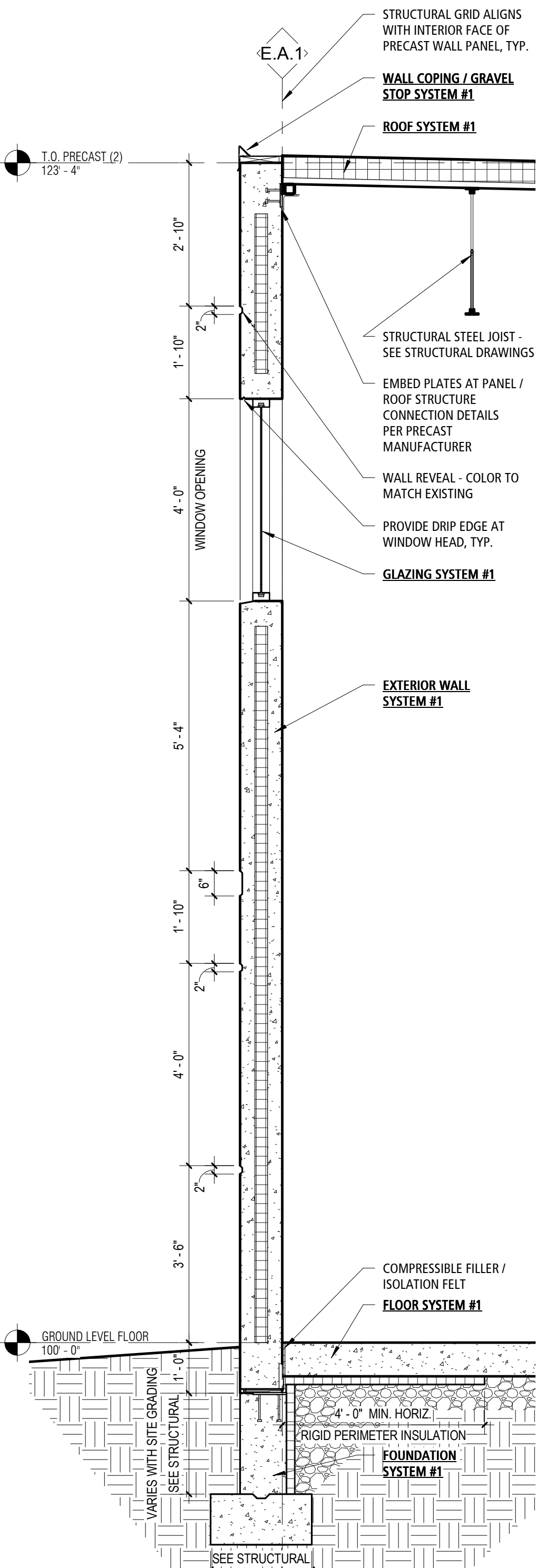
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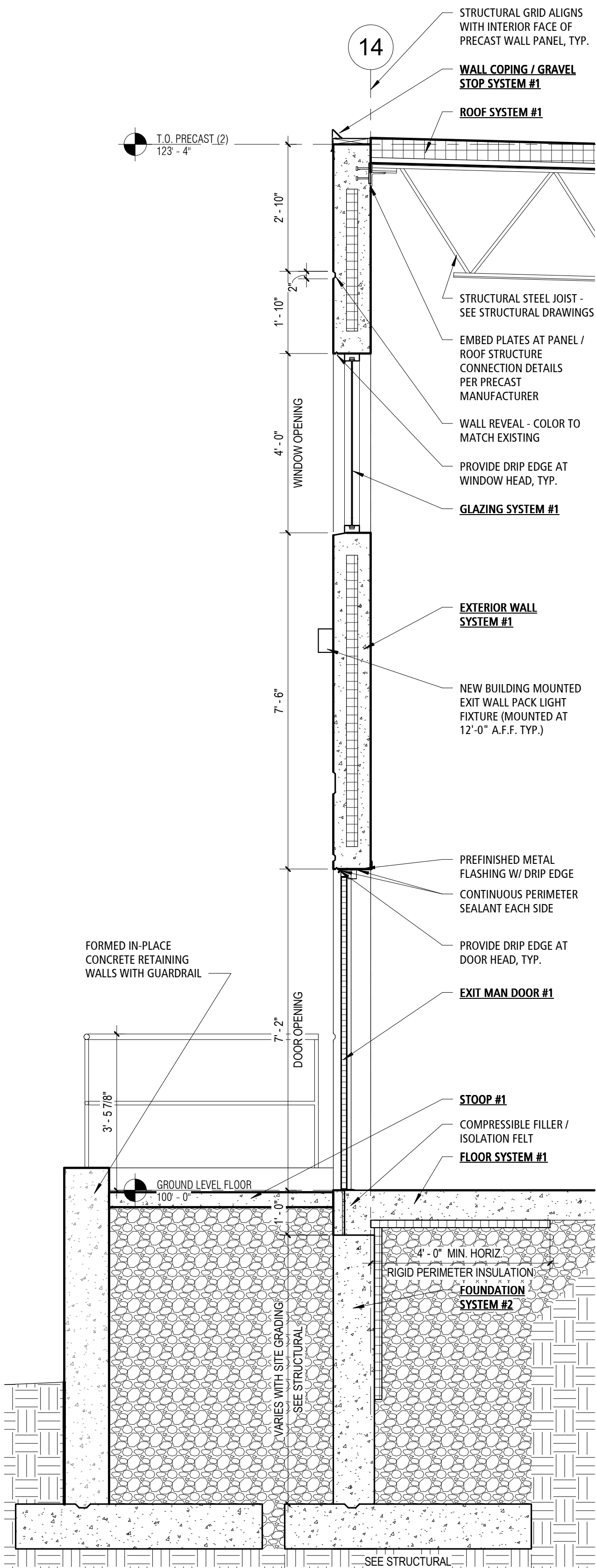
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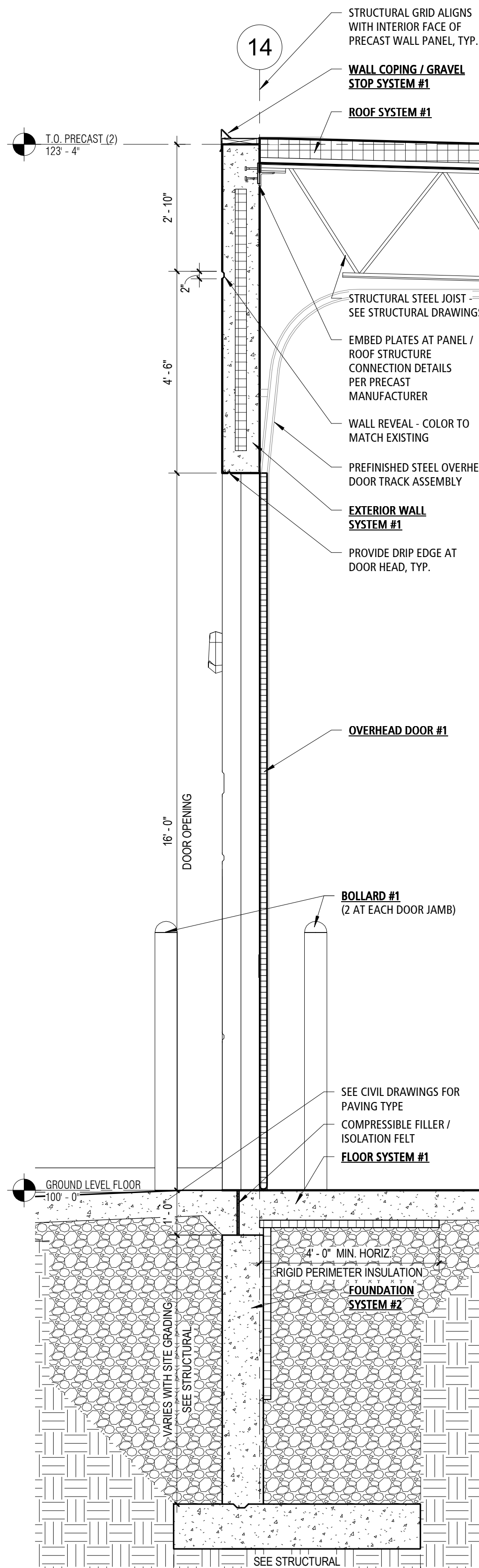
30 SECTION - CLERESTORY WINDOW
1/2" = 1'-0"



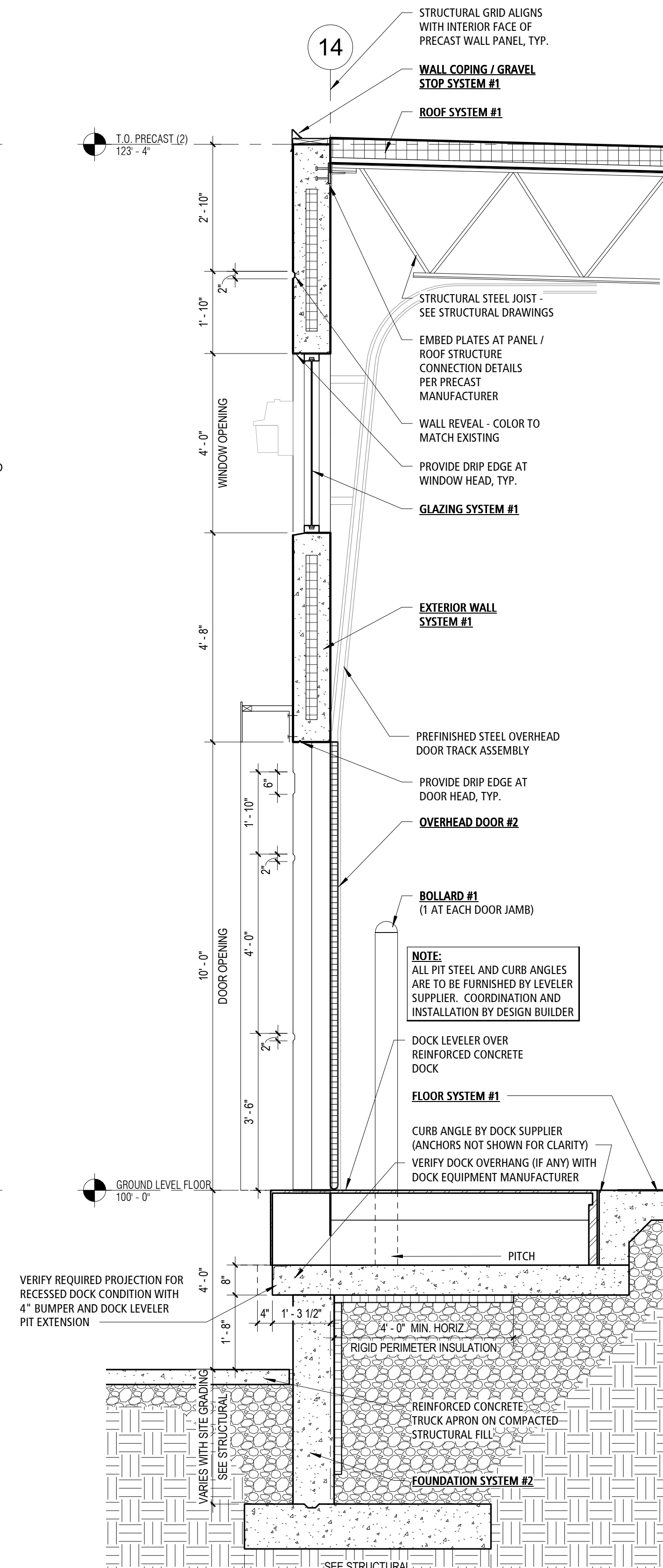
31 SECTION - EXIT MAN DOOR
1/2" = 1'-0"



32 SECTION - DRIVE THRU DOOR
1/2" = 1'-0"



33 SECTION - TYPICAL DOCK
1/2" = 1'-0"



BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)
REINFORCED, FORMED POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 3" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)
SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.) - EXTERIOR SURFACE TO MATCH EXTERIOR SURFACE OF PRECAST CONCRETE WALL PANELS AND BE PREPARED FOR FINISH PAINTING

STOOP #1
5" SLAB-ON-GRADE CONCRETE STOOP WITH POSITIVE SLOPE AWAY FROM THE DOOR, OVER FORMED-IN-PLACE FROST RESISTANT 4'-0" BELOW GRADE CONCRETE FOUNDATION WALL WITH STONE (2" - 3" ROCK) MATERIAL BACKFILL. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #1 (TYPICAL - PRODUCTION)
REINFORCED STRUCTURAL FIBER POURED-IN-PLACE CONCRETE SLAB-ON-GRADE AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 15-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED WAREHOUSE LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION.)

FLOOR SYSTEM #2 (TYPICAL - OFFICE)
POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION.)

FLOOR SYSTEM #3 (OFFICE MEZZANINE)
NORMAL WEIGHT CONCRETE ON COMPOSITE DECK WITH SHEAR STUDS OVER WIDE FLANGE BEAM AND COLUMN STRUCTURAL FLOOR SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #4 (STORAGE MEZZANINE)
HOLLOW CORE PRECAST CONCRETE PLANK WITH BONDED CONCRETE TOPPING SET ON W-FLANGE STEEL BEAM AND STRUCTURAL LOAD BEARING MASONRY CONSTRUCTION. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

EXTERIOR WALL SYSTEM #1
10" NOMINAL FORMED INSULATED PRECAST CONCRETE (2.5"/3"/3.5") R-13 MIN, WET CAST SMOOTH FACED LOAD-BEARING ARCHITECTURAL PANELS WITH 1/2" DEEP FORMED HORIZONTAL REVEALS AND SMOOTH FINISH AS DEPICTED IN EXTERIOR ELEVATIONS. EXTERIOR FACE OF PANELS TO BE PAINTED WITH HALLMAN UNDESEY GRIP TITE 66 ACRYLIC MASONRY PRIMER AND (2) COATS WEATHERGUARD 176, FLAT, 100% ACRYLIC PAINT. ALL DOORS AND WINDOW OPENINGS TO BE FORMED INTEGRAL DRIP AT THE HEAD OF THE OPENING AND POSITIVE SLOPED SILL. PROVIDE SEALANT AND BACKER ROD AT ALL VERTICAL PANEL JOINTS (INTERIOR AND EXTERIOR). SEE ELEVATIONS AND WALL SECTIONS FOR LOCATIONS OF REVEALS, PANEL ARTICULATIONS AND WALL PANEL LAYOUT. REFER TO EXTERIOR MATERIAL SCHEDULE FOR PAINT COLOR SELECTIONS.

EXTERIOR WALL SYSTEM #2
PROVIDE & INSTALL: 24 GAUGE 36" WIDE PREFINISHED RIBBED DEEP-DECK CORRUGATED METAL WALL PANELS, INSTALLED HORIZONTALLY IN +/- 10'-12' LENGTHS APPROXIMATELY, WITH STANDARD CONCEALED FASTENER WITH NEOPRENE WASHERS AND INTO THROUGHT THE VERTICAL WALL FRAMING MEMBERS BELOW. 5/8" GLASS MAT GYPSUM SHEATHING BOARD WITH AIR & MOISTURE BARRIER ("DENSELEMENT BARRIER SYSTEM SHEATING" OR COMPARABLE PRODUCT) ASTM C 1177/C 1177M, WITH FIBERGLASS MAT LAMINATED TO BOTH SIDES AND WITH MANUFACTURER'S STANDARD EDGES. INSTALL EXTERIOR SHEATHING ON 6" STRUCTURAL STEEL STUDS 16" O.C. WITH BATT INSULATION AND 5/8" GYPSUM BOARD INTERIOR FINISH. PROVIDE CONTROL JOINTS AS REQUIRED PER STRUCTURAL REQUIREMENTS.

GLAZING SYSTEM #1
"TRIFAB 451T SYSTEM" BY KAWNEER. THIS IS A CENTER GLAZED STOREFRONT SYSTEM: 2" WIDE X 4.5" DEEP IN BRONZE ANODIZED ALUMINUM FRAME (MATCH EXISTING). REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF MULLION. 1" INSULATED LOW-E, BRONZE TINTED GLASS UNITS WITH THERMAL BREAK, SIL FLASHINGS, EXTERIOR METAL CLOSERS AND SHIMS ATTACHED TO OPENINGS AS INDICATED. ALL FULL-GLASS ALUMINUM DOORS TO BE MEDIUM STYLE FRAMES. PROVIDE TEMPERED GLAZING AS REQUIRED. PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

GLAZING COMPOSITION
INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME, 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

CANOPY STRUCTURE #1
PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FACADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSIDE OF CANOPY WITH METAL STUDS AND ALUMINOID METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED RIGID INSULATION SLOPED TO SIDES OF CANOPY WITH SCRIPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)
WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60 MIL EPDM MEMBRANE ON (2) LAYERS OF 2.6" POLYISOCYANURATE INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 32 PER BOARD IN CORNER. AND FULLY ADHERED TOP LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FASER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANE SYSTEM & FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1
PROVIDE & INSTALL: CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1
PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O.C. WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1
CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSUREBOX DOWNSPOUTS WITH BRACKETS AS REQUIRED. DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR. PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1
AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED, 22-GA. METAL COUNTER FLASHING PER CODE AT LINTELS OF OPENING. ADHESIVE BACKED OVER STAINLESS STEEL METAL DRIP EDGE REGLET SAW CUT INTO PRECAST WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1
PROVIDE TYPE "NB" SIZE 2'-6" WIDE X 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF HATCH #2
PROVIDE TYPE "BRHE-D" (SIZED PER ROOF PLAN) EQUIPMENT ROOF HATCH, DOUBLE LEAF BY BARCOCK DAVIS ON STRUCTURALLY FRAMED OPENING. HATCH TO BE ALL ALUMINUM SINGLE INSULATED COVER & WALL CURB CONSTRUCTION IN MILL FINISH.

ROOF LADDER #1
PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1
14 GA. GALVANIZED INSULATED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)
12'-0" WIDE X 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)
9'-0" WIDE X 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING, VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 40" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL, VERIFY SEALERS/SHIELDER AND OTHER REQUIREMENTS WITH MANUFACTURER. PROVIDE 3,500# MECHANICAL DOCK LEVELER OR 7'x8", 50,000# AIR-BAG DOCK LEVELER (RITE HITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED / GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)
12'-0" WIDE X 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1
SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY CONTROLLED DRIVE WITH 3,500# CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD GRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL. PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PANT TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #2 (MEZZANINE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PANT TREAD. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #3 (SHIP'S LADDER)
PAINTED STEEL CHANNEL STRINGER WITH BAR GRATE TREADS, 68 DEGREE STEEP INCLINE STAIR WITH 1'-0" MAX. RISERS AND 6" DEEP TREADS. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #4 (DOCK ACCESS)
GALVANIZED EXTERIOR/INTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE TS SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1'-2" WIDE X 1'-2" HIGH BENT STEEL CHECKER PLATE WELDING WELDED TO STEEL GRATE TREADS. 1/4" INCHES BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

HANDRAIL #1
PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" PAST THE NOSE OF THE TREAD AT TOP AND BOTTOM OF STAIR. PRIME AND PAINT GRAY. PROVIDE WALL MOUNTED SINGLE LINE HANDRAIL ON EXTERIOR WALL. CORE AND PLACE RAILING IN PLACE, GROUT SOLID AND CAULK.

BOLLARD #1 (TYPICAL)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED "SAFETY YELLOW."

BOLLARD #3
6" DIAMETER, 6'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."



N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815



PROJECT INFORMATION:

GLUE DOTS
INTERNATIONAL
BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

REVISED PLAN
COMMISSION
SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION
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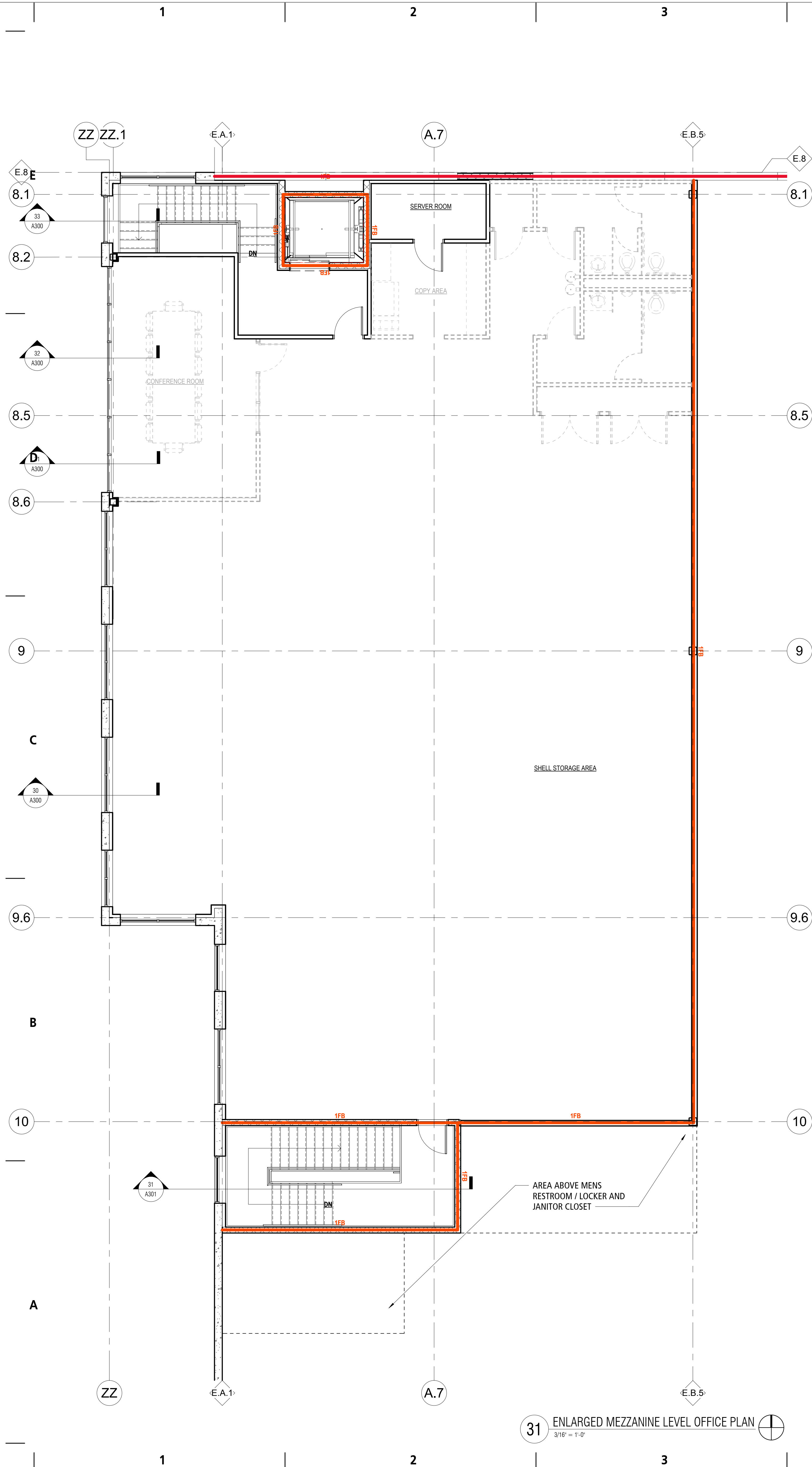
10 OCTOBER 2019

PROJECT NUMBER PROJECT MANAGER

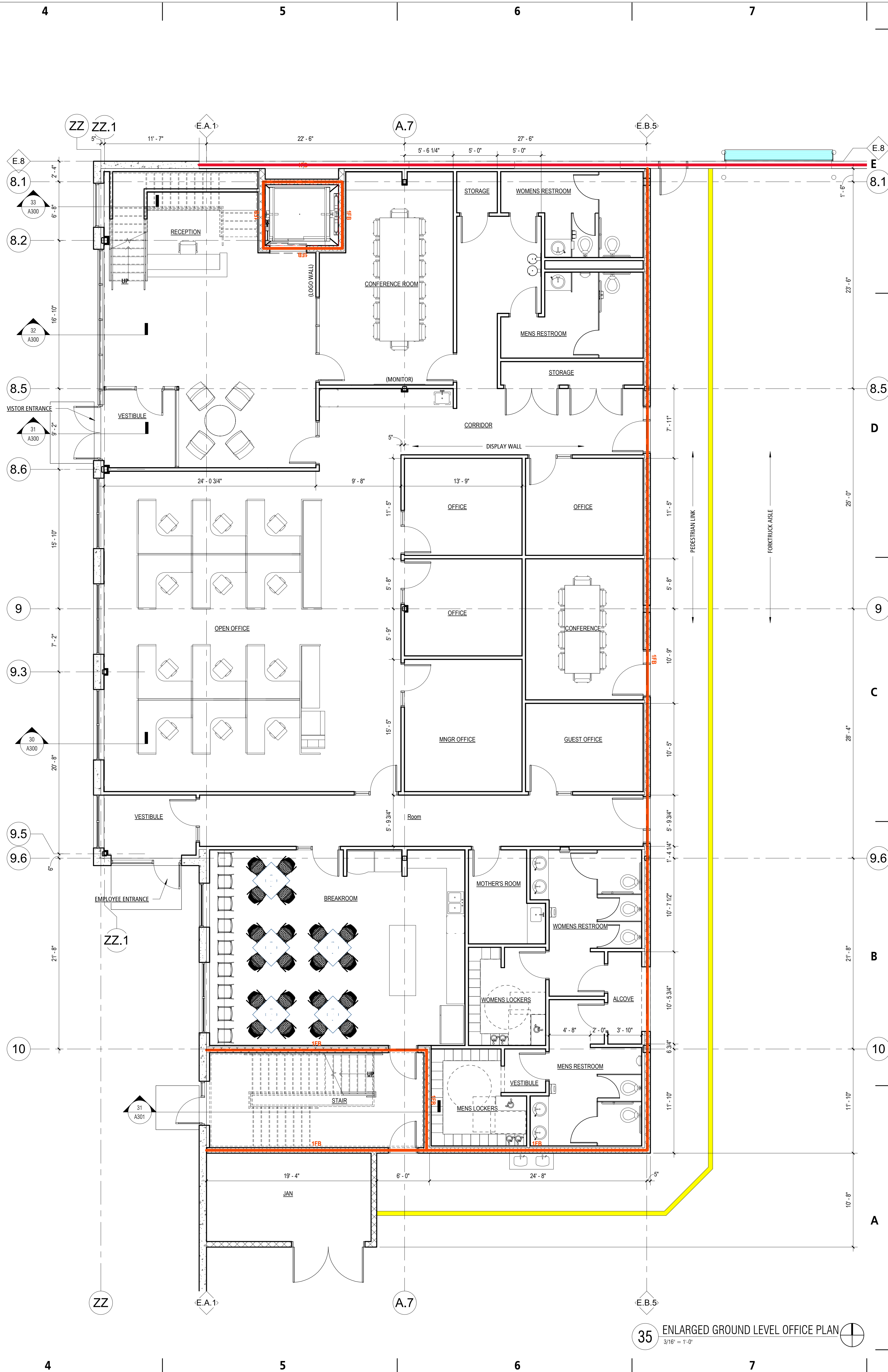
19013-01 DK

WALL SECTIONS

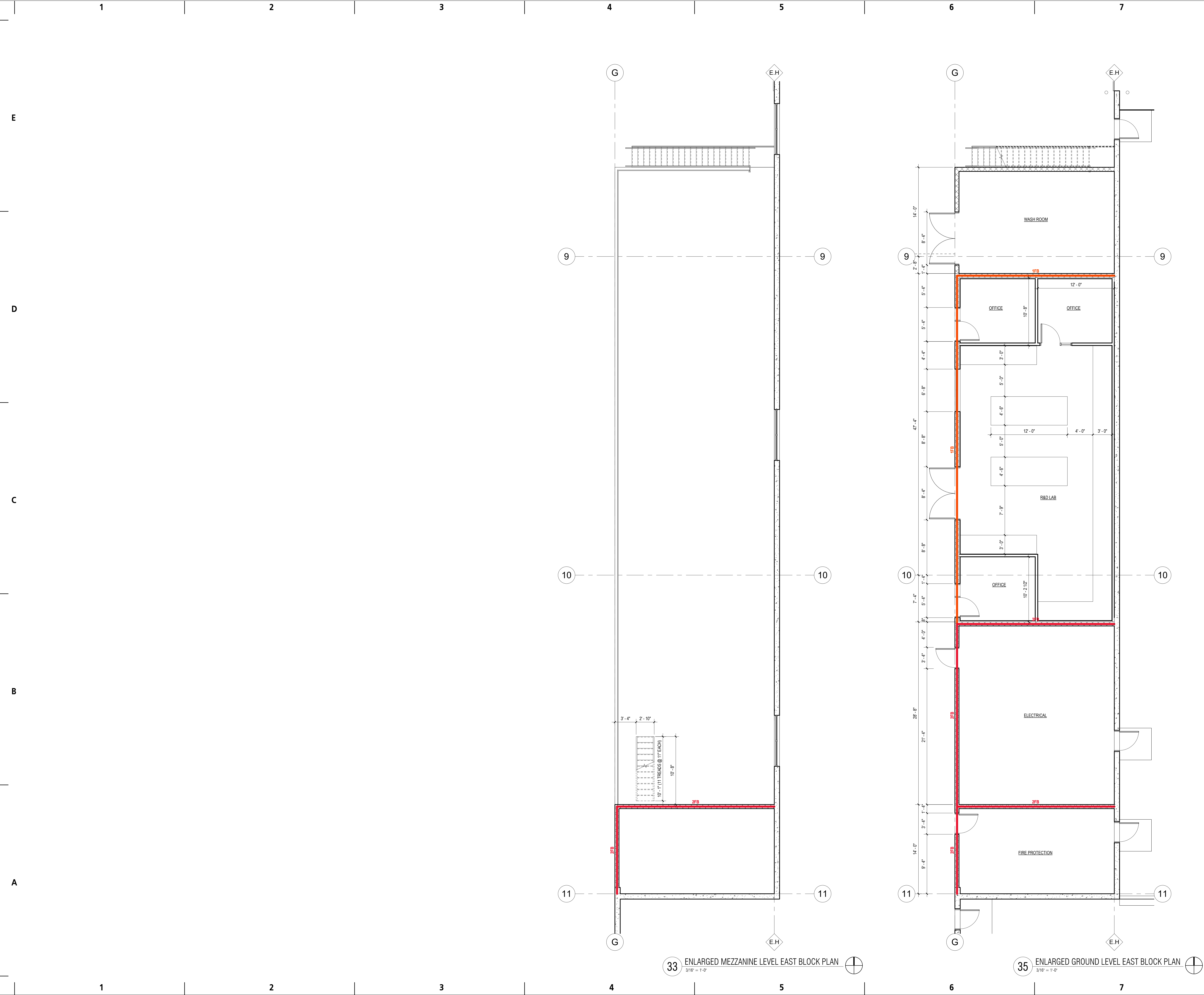
A302



31 ENLARGED MEZZANINE LEVEL OFFICE PLAN
3/16" = 1'-0"



35 ENLARGED GROUND LEVEL OFFICE PLAN
3/16" = 1'-0"



N16 W23217 STONE RIDGE DRIVE, SUITE 300
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COMMISSION
SUBMITTAL

REVISIONS		
#	DATE	DESCRIPTION

10 OCTOBER 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

ENLARGED EAST BLOCK
AREA

A401

© JAKnetter Architects



Village of



Germantown

...Willkommen

Fee must accompany application

☐ \$2,900 with public improvements

☒ \$1,960 no public improvements

Paid

Date

8-20-19

CERTIFIED SURVEY MAP APPLICATION

Pursuant to Section 18.06 of the Municipal Code

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

1 APPLICANT OR AGENT

Tom Olejniczak

Harwood Engineering

255 N 21st Street, Milwaukee WI 53233

Phone (414) 918-1240

Fax ()

E-Mail tom.olejniczak@hecl.com

PROPERTY OWNER

Erica Roberts

Glue Dots International

N117W18711 Fulton Dr, Germantown WI 53022

Phone (262) 437-7885

E-Mail eroberts@gluedots.com

2 PROPERTY ADDRESS OR GENERAL LOCATION TAX KEY NUMBER

N117W18711 Fulton Dr, Germantown WI 53022

212972, 212955, 212996

3 PURPOSE OF LAND SPLIT

Building addition to the existing Glue Dots International building

Will the land split require rezoning?

No

From

To

4 READ AND INITIAL THE FOLLOWING:

T.O. I understand that the Certified Survey Map is not valid until recorded at the Washington County Register of Deeds. The Village will record the document and charge the applicant all applicable recording fees.

T.O. I understand that the Map will not be placed on the Village Board agenda until all the technical corrections to the CSM are made, the payment of any outstanding impact fees are paid to the Village Clerk's Department, and the original signed and stamped copy of the Map is submitted on the proper paper.

To. I understand that parcels created outside the Sewer Service Area will require a soil test. I also understand that all properties abutting a State Highway will require DOT approval and I will be responsible for securing such approval prior to recording.

T.O. I understand all delinquent property taxes on any of the properties involved shall be paid prior to recording.

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

Applicant

Date

Owner

Date

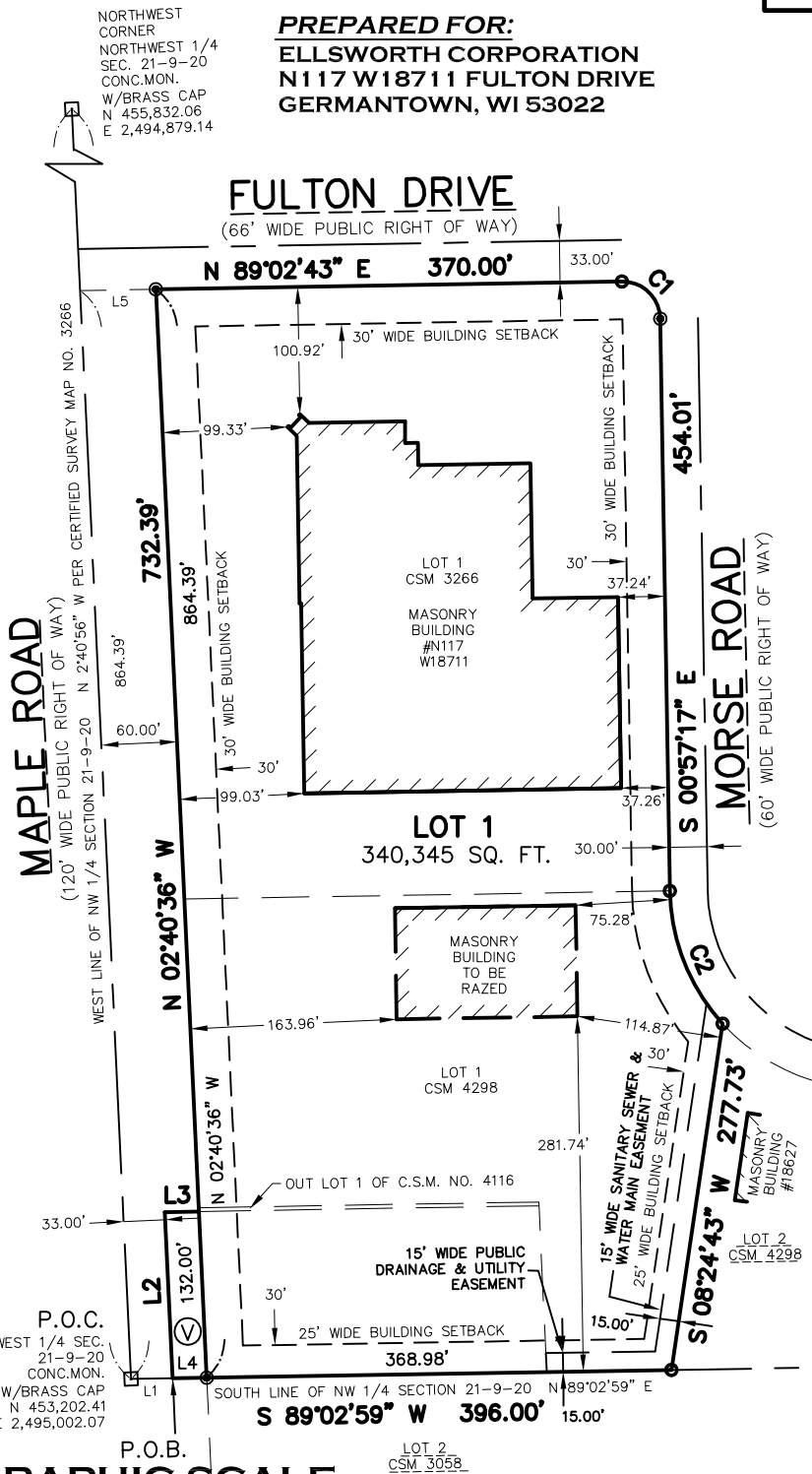
CERTIFIED SURVEY MAP NO. _____

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTH WEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

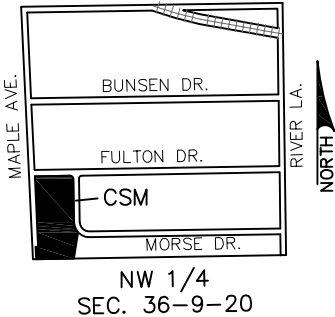


CAPITOL SURVEY ENTERPRISES
220 REGENCY CT STE 210
BROOKFIELD, WI 53045
PH: (262)-786-6600
WWW.CAPITOLSURVEY.COM

PREPARED FOR:
ELLSWORTH CORPORATION
N117 W18711 FULTON DRIVE
GERMANTOWN, WI 53022



VICINITY MAP
1" = 2000'
FRIESTADT RD.



- INDICATES 1 INCH DIA. IRON PIPE, 18 INCHES IN LENGTH, WEIGHING 1.68 LBS PER LINEAL FOOT, SET.
- INDICATES 1 INCH DIA. IRON PIPE, FOUND.
- Ⓥ 3,565 SQUARE FEET DEDICATED TO MAPLE ROAD.

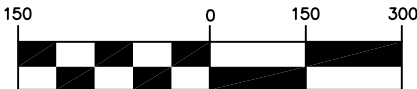
SUBJECT PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN, PER INFORMATION FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. 55131C0357D, WITH A DATE OF IDENTIFICATION OF NOVEMBER 20, 2013, IN COMMUNITY NO. 550472, VILLAGE OF GERMANTOWN, WHICH IS THE COMMUNITY IN WHICH THE SUBJECT PROPERTY IS SITUATED.

SUBJECT PROPERTY ZONED:
M-1 LIMITED BUSINESS DISTRICT

SETBACKS FOR AREAS ZONE M-1:
FRONT = 30'
SIDES = 25'
REAR = 25'

SEE SHEET 2 FOR LINE AND CURVE TABLE.

GRAPHIC SCALE



1 inch = 150 ft.

ALL BEARINGS REFER TO THE WEST LINE THE NORTHWEST 1/4 OF SECTION 21-9-20, WHICH HAS A BEARING OF N 02°40'56" W.



CERTIFIED SURVEY MAP NO. _____

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN)
MILWAUKEE COUNTY) SS

I, MICHAEL J BERRY, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY:

THAT I HAVE SURVEYED, DIVIDED, MAPPED, AND DEDICATED, LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHWEST 1/4 OF SAID SECTION;
THENCE N 89°02'59" E 33.01 FEET ALONG THE SOUTH LINE OF SAID 1/4 SECTION;
THENCE N 02°40'35" W 132.00 FEET; THENCE N 89°02'43" E 27.02 FEET TO THE EAST LINE OF MAPLE ROAD; THENCE N 02°40'36" W 732.39 FEET ALONG SAID EAST LINE TO THE SOUTH LINE OF FULTON DRIVE; THENCE N 89°02'43" E 370.00 FEET ALONG SAID SOUTH LINE; THENCE SOUTHEASTERLY 47.13 FEET ALONG THE ARC OF A CURVE WHOSE CENTER LIES TO THE SOUTHWEST, WHOSE RADIUS IS 30.00 FEET, AND WHOSE CHORD BEARS S 45°57'34" E 42.43 FEET; THENCE S 00°57'17" E 454.01 FEET; THENCE SOUTHEASTERLY 115.87 FEET ALONG THE ARC OF A CURVE WHOSE CENTER LIES TO THE NORTHEAST, WHOSE RADIUS IS 160.00 FEET; AND WHOSE CHORD BEARD S 21°42'09" E 113.36 FEET; THENCE S 08°24'43" W 277.73 FEET TO THE SOUTH LINE OF SAID 1/4 SECTION; THENCE S 89°02'59" W 396.00 FEET TO THE POINT OF BEGINNING.

CONTAINING: 343,910 SQUARE FEET OR 7.8951 ACRES

THAT I HAVE MADE SUCH SURVEY, LAND DIVISION, MAP AND DEDICATION BY THE DIRECTION OF ELLSWORTH CORPORATION, OWNER OF SAID LAND.

THAT SUCH MAP IS A CORRECT REPRESENTATION OF ALL EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND THE DIVISION THEREOF MADE.

THAT I HAVE FULLY COMPLIED WITH THE PROVISIONS OF CHAPTER 236.34 OF THE STATUTES OF THE STATE OF WISCONSIN AND CHAPTER 18 OF THE VILLAGE OF GERMANTOWN CODE OF ORDINANCES IN SURVEYING, DIVIDING, AND MAPPING THE SAME.

DATED THIS 19TH DAY OF AUGUST, 2016.


MICHAEL J BERRY
PROFESSIONAL LAND SURVEYOR,
S-2545
STATE OF WISCONSIN

LINE TABLE		
LINE	BEARING	LENGTH
L1	N 89°02'59" E	33.01'
L2	N 02°40'35" W	132.00'
L3	N 89°02'43" E	27.02'
L4	S 89°02'59" W	27.02'
L5	S 89°02'59" W	60.03'

CURVE TABLE					
CURVE	ARC	RADIUS	BEARING	CHD. LENGTH	DELTA
C1	47.13'	30.00'	S 45°57'34" E	42.43'	90°00'35"
C2	115.87'	160.00'	S 21°42'09" E	113.36'	41°29'38"



CERTIFIED SURVEY MAP NO. _____

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CORPORATE OWNER'S CERTIFICATE

ELLSWORTH CORPORATION, A COMPANY DULY ORGANIZED AND EXISTING UNDER AND BY VIRTUE OF THE LAWS OF THE STATE OF WISCONSIN, AS OWNER, CERTIFIES THAT SAID CORPORATION CAUSED THE LAND DESCRIBED ON THIS MAP TO BE SURVEYED, DIVIDED, MAPPED AND DEDICATED AS REPRESENTED ON THIS MAP, AND SUBMITTED TO THE VILLAGE OF GERMANTOWN AS REQUIRED IN ACCORDANCE WITH THE ORDINANCES OF THE VILLAGE OF GERMANTOWN.

IN WITNESS WHEREOF, THE ABOVE NAMED COMPANY HAS CAUSED THESE PRESENTS TO BE SIGNED BY BILL HOGAN, ITS CONTROLLER, AT _____, WISCONSIN, THIS _____ DAY OF _____, 2019.

BILL HOGAN
CONTROLLER, ELLSWORTH CORPORATION

STATE OF WISCONSIN)
COUNTY) SS

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____, 2019 _____, TO ME KNOWN TO BE THE PERSON WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

NOTARY PUBLIC
STATE OF WISCONSIN
MY COMMISSION EXPIRES:

VILLAGE OF GERMANTOWN PLAN COMMISSION APPROVAL

THIS CERTIFIED SURVEY MAP IS HEREBY APPROVED BY THE PLAN COMMISSION OF THE VILLAGE OF GERMANTOWN ON THIS DAY _____ OF _____, 2019.

DEAN WOLTER, VILLAGE PRESIDENT

DATE

LAURA A. JOHNSON, PLAN COMMISSION SECRETARY

DATE

STATE OF WISCONSIN)
COUNTY) SS

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____, 2019, DEAN WOLTER, VILLAGE OF GERMANTOWN PRESIDENT, TO ME KNOWN TO BE THE PERSON WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

NOTARY PUBLIC
STATE OF WISCONSIN
MY COMMISSION EXPIRES:

STATE OF WISCONSIN)
COUNTY) SS

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____, 2019, LAURA A. JOHNSON, VILLAGE OF GERMANTOWN PLAN COMMISSION SECRETARY, TO ME KNOWN TO BE THE PERSON WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

NOTARY PUBLIC
STATE OF WISCONSIN
MY COMMISSION EXPIRES:



CERTIFIED SURVEY MAP NO. _____

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

VILLAGE OF GERMANTOWN BOARD APPROVAL

THIS CERTIFIED SURVEY MAP, BEING A DIVISION OF LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN. HAVING BEEN APPROVED BY THE PLANNING COMMISSION BEING THE SAME, IS HEREBY APPROVED AND ACCEPTED BY THE VILLAGE BOARD OF TRUSTEES OF THE VILLAGE OF GERMANTOWN ON THIS _____ DAY OF _____, 2019.

DEAN WOLTER, VILLAGE PRESIDENT

DATE

DEANNA BRAUNSCHWEIG, VILLAGE CLERK

DATE

STATE OF WISCONSIN)
COUNTY) SS

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____, 2019, DEAN WOLTER, VILLAGE OF GERMANTOWN PRESIDENT, TO ME KNOWN TO BE THE PERSON WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

NOTARY PUBLIC
STATE OF WISCONSIN
MY COMMISSION EXPIRES:

STATE OF WISCONSIN)
COUNTY) SS

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____, 2019, DEANNA BRAUNSCHWEIG, VILLAGE OF GERMANTOWN CLERK, TO ME KNOWN TO BE THE PERSON WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

NOTARY PUBLIC
STATE OF WISCONSIN
MY COMMISSION EXPIRES:



#

BUSINESS OF THE VILLAGE BOARD GERMANTOWN, WI

MEETING DATE: October 21, 2019

AGENDA ITEM: Public Hearing & New Business **[ORDINANCE]**

ITEM TITLE: Ordinance Amending Section 17.51 (Changes and Amendments) regarding Public Notification Procedures and Protest Petitions

SUBMITTED BY: Jeffrey W. Retzlaff, Director, Community Development Department

SUMMARY EXPLANATION:

Community Development Department staff has initiated a proposed Zoning Code text amendment intended to clarify and codify current procedural steps taken with regard to rezoning petitions for property in the Village.

In addition, staff has brought back for consideration changes to the existing “protest petition” provisions in the Zoning Code as directed by the Village Board from April 2018. Unlike the 2018 proposal to eliminate the protest petition provision, the current proposed amendment modifies the voting requirement from a ¾ of the full Board requirement to a ¾ of the Board members in attendance requirement.

PLAN COMMISSION RECOMMENDATION:

APPROVE the code amendments as proposed with additional language requiring (1) a requirement that the 1,000 radius “buffer” within which property owner/occupants receive notification of a proposed rezoning extend beyond any large, undeveloped parcels that might ordinarily reduce/limit the property owner list; and (2) that a property subject of a rezoning be posted so others who may be impacted by a rezoning and might not receive a notice may be made aware of such rezoning.

[NOTE: See Staff Report for a more detailed explanation and justification for the proposed code amendment]

ZONING CODE TEXT AMENDMENTS

10/14/18 Plan Commission Meeting

Germantown Community Development Department

Village Planner Report

Germantown, Wisconsin

Summary

The Community Development Department is proposing amendments to provisions under Section 17.51 of the Zoning Code regarding public hearing property owner notification requirements and protest petitions.

SECTION 1. That Section 17.51 (Changes and Amendments) is revised as follows where words that are ~~stricken~~ are deleted and words that are underlined are to be added:

(3) PETITIONS.

Petitions for any change to the district boundaries or amendments to the regulations shall be filed with the Village Planner, describe the premises to be rezoned by a metes and bounds description or the regulations to be amended, list the reasons justifying the petition, specify the proposed use, and have attached the following:

- (a) Plot plan drawn to a legible scale of ~~one-inch equals 100 feet~~ with sufficient information showing the area and size (in both sqft and acres) proposed to be rezoned, ~~its~~ relative location within the Village, ~~its~~ dimensions, the boundaries location and classification of adjacent zoning districts, and the boundaries location and existing use of all abutting properties within 200 feet of the area proposed to be rezoned.
- (b) ~~Owners' names~~ List of all tax parcel numbers, and addresses and owners of all properties lying within the Village of Germantown and 1,000 ~~300~~ feet outward from the exterior boundary of the area proposed to be rezoned in a digital form acceptable to the Village Planner, or, a written request seeking assistance from the Village Planner to compile said list (subject to the payment of an additional fee if applicable).
- (c) Additional information required by the Plan Commission or the Village Board.

STAFF COMMENTARY: *Section 1 contains changes to certain application information requirements for petitions to change zoning district boundaries (i.e. rezoning petitions). Section 1 includes an increase in the "buffer" area from 300 to 1,000 feet around a property subject of a rezoning petition for which parcel ID #'s (tax parcel or key numbers), addresses and ownership information is required. Section 1 requires an applicant to provide said list in a digital format, and, provides that an applicant can request assistance from Village staff to prepare said list subject to a fee.*

SECTION 2. That Section 17.51 (Changes and Amendments) is revised as follows where words that are ~~stricken~~ are deleted and words that are underlined are to be added:

(4) HEARINGS AND RECOMMENDATIONS.

The Plan Commission shall (and the Village Board may) hold a public hearing on the proposed changes and amendments and shall give notice as specified in section 17.53 of this chapter, and, provide notice of the proposed rezoning to the owners or occupants of the properties lying within the Village of Germantown and 1,000 feet outward from the exterior boundary of the area proposed to be rezoned. The Plan Commission shall review all proposed changes and amendments within the corporate limits and shall provide the Village Board with a recommendation and report as to whether the petition be granted as requested, modified or denied. The recommendation and report shall be made in writing to the Village Board (as presented by Village Planner or designee). If the Village Board does not receive recommendations and a report from the Plan Commission within 60 days of submitting the proposed amendments, the Village Board may hold hearings without first receiving the recommendations and report.

STAFF COMMENTARY: *Section 2 contains changes to the public hearing & reporting procedures, including a requirement that notice of a proposed rezoning petition be provided to the owners or occupants of those properties located within the 1,000 feet “buffer” area around the subject of the rezoning petition. Historically (and somewhat surprisingly), the process of sending “courtesy” notices to owners & occupants of property surrounding a property subject of a rezoning petition has been done as a matter of practice vs. a specific code requirement. This amendment codifies the process as a requirement.*

Also, Section 2 makes it clear that a public hearing of a zoning code amendment is mandatory before the Plan Commission but adds the option of a hearing before the Village Board. In 2018, this section of the code was changed to require public hearings be held before the Plan Commission. At that time, it was intended that public hearings would no longer be held before the Village Board. During the transition, we began holding public hearings before both the PC and VB (primarily because of the Veridian rezoning proposal that initially had a hearing before the VB and the desire was to be consistent with subsequent hearings as that proposal evolved). Since January 1, 2019, we have held hearings of all rezoning petitions before both the PC and VB. Staff would like to continue the transition to only holding hearings before the PC, but keep open the option of also holding a hearing before the VB.

SECTION 3. That Section 17.51 (Changes and Amendments) is revised as follows where words that are ~~stricken~~ are deleted and words that are underlined are to be added:

(7) PROTEST.

In the event of a protest against such district change or amendment to the regulations of this chapter, duly signed and acknowledged either by the owners of 20% or more of the areas of the land included in such proposed change, or by the owners of 20% or more of the land immediately adjacent to the land included in the proposed change, or by the owners of 20% or more of land extending 100 feet from the street frontage of such opposite land, such a change or amendment shall not become effective except by the favorable vote of $\frac{3}{4}$ of the ~~full~~ Village Board members in attendance and voting on the proposed rezoning.

STAFF COMMENTARY: Section 3 contain a change to the protest petition voting requirement from $\frac{3}{4}$ of the full Village Board to $\frac{3}{4}$ of the Board members in attendance and voting on a particular zoning code change in order for that change to be approved. The change eliminates the seemingly extraordinary requirement in the event two or more members are absent or declare a conflict of interest (as was the case with the Veridian proposal protest petition that eventually required a unanimous vote to pass when two members were absent).

As shown in Table 1 below, a requirement of $\frac{3}{4}$ of the members present/voting consistently requires 1 more vote than a simpler majority regardless of the number of members present. (Another common requirement of $\frac{2}{3}$ is shown only for illustrative purposes).

Table 1.

Voting Criteria	Village Board Members Present				
	5	6	7	8	9
Majority	3	4	4	5	5
$\frac{2}{3}$	3	4	5	5	6
$\frac{3}{4}$	4	5	5	6	7

Finally, as explained in the Village Attorney's September 16 letter concerning this topic (copy attached), the Wis. Stats. were revised in 2018 to delete a similar protest petition provision (effective as of January 1, 2019). The Attorney's recommendation to the Village has been and continues to be that the Village should also eliminate this provision from the Zoning Code.



Office of the Village Attorney

Private Office: 11402 W. Church Street, Franklin, WI 53132
414.529.8900

M E M O R A N D U M

To: Village President and Village Board of Trustees
From: Brian C. Sajdak, Village Attorney
Date: September 16, 2019
Re: Veridian Homes Rezoning – Objection to Protest Petition

As you will recall, I had previously provided you with a memo dated August 18, 2019 related to a protest petition filed by neighboring landowners to the Veridian Homes site along Donges Bay Road (south of Kinderberg Park). In that memo, I highlighted for you the fact that the statute statutes had been amended to remove the protest petition language. However, the Village code retains similar language, and it was that language which formed the basis for my opinion that the protest petition filed contesting the rezoning was valid, thereby triggering the $\frac{3}{4}$ supermajority voting requirement.

Attached you will find a letter from an attorney representing Veridian Homes. As you can see, Veridian believes that 2017 Wis. Act 243 not only repealed the protest petition provisions from the Wisconsin Statutes, but also preempted local governments from having their own provisions in this regard. After discussing this position with the attorney by phone and further consideration, I do not find Veridian's position persuasive, and continue to believe the Village's protest petition provisions are valid.

It is clear that the legislature understands the general rules regarding preemption of local authority. For example, Act 243 includes two sections that expressly provide that any existing local ordinances that are inconsistent with the statute "does not apply and may not be enforced." See 2017 Wis. Act 243 § 33 and § 49. Had the legislature intended to preempt local protest petition ordinances, it could have used the same language. Indeed, the Wisconsin Legislative Council's Act Memo on Act 243 identifies areas where the Act preempts local ordinances. The protest petition repeal is not listed as one of those sections.

When considering whether a local ordinance is otherwise logically conflicts with, or goes against the spirit of legislation, one has to consider the legislation as a whole. "The power to enact zoning ordinances is broadly construed in favor of the municipality." State ex rel. B'nai B'rith Found. v. Walworth Cnty. Bd. of Adjustment, 59 Wis.2d 296, 304, 208 N.W.2d 113 (1973). Under Wis. Stat. § 62.23(7)(am), the legislatures broad grant of zoning power to municipalities means that "any ordinance, resolution or regulation enacted or adopted under this section, shall be liberally construed in favor of the city and as minimum requirements adopted for the purposes stated."

In this case, the repeal only removed the requirement from the statutes such that there is no option to file a protest petition unless there is a local option. Veridian suggests that the Board's broad authority extends only to technical aspects of development (size, setback, etc.) and not to procedure. However, this is inconsistent with practice throughout the state. For example, one local procedural rule that is widely used throughout the state is prohibiting resubmission of the same application without a substantial change after denial of the original application. See League of Wisconsin Municipalities Legal Op, Zoning #351 (1976).

Notwithstanding this opinion, I also note that another municipal law firm has opined for their clients the opposite. Attorney Eric Larson, of the Municipal Law & Litigation Group, S.C. (F/K/A Arenz, Molter, Macy, Riffle, Larson & Bitar) provided the following to the Dane County Towns Association on the protest petition section of Act 243:

For decades, property owners located within a certain proximity of a zoning change had an ability to file a protest petition, which would trigger a super-majority requirement for the zoning amendment to pass. Many zoning codes include language very similar to the former State law, describing this ability to protest and to create a super-majority requirement. The statutory protest petition language is now repealed. If you continue to describe a protest petition in your zoning code, be advised, there is no statutory basis for that provision. A significant legal dispute could arise about how many votes are required for a zoning ordinance to pass, if your code maintains that super-majority requirement that has been repealed from the statute.

Recommendation: I recommend that DCTA members review their zoning code to determine whether it includes a protest petition or super-majority requirement, based upon the former statute. If so, I recommend that they repeal that provision of their zoning code, to maintain consistency with the statutory framework.

I note that there is no analysis to this statement. Accordingly, I think Attorney Larson may have been simply advocating for the removal of local provisions because it eliminates a large potential headache to rezoning approvals. While I typically do not rely on the opinions of other attorneys, and do not do so here, I highlight this for you to suggest that the Board may wish to address this at the meeting tonight. At the end of the day, I have provided my opinion that a valid protest petition exists. However, the Board is the ultimate decision maker on this point. Given the fact that a repeal of the local protest petition language was brought before you last year, I suspect that nothing has changed. However, if there was a desire to revisit the issue, it could be done by raising a Point of Order either before the vote (preferable because it allows everyone to know the voting rules before the vote) or at the time that the vote result is announced. Upon announcement of my determination as parliamentarian, a motion could be made to overrule that determination.

BCS

**AN ORDINANCE AMENDING CHAPTER 17 (ZONING CODE)
OF THE VILLAGE OF GERMANTOWN MUNICIPAL CODE**

THE VILLAGE BOARD OF THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY,
WISCONSIN, ORDAINS AS FOLLOWS:

SECTION 1. That Section 17.51 (Changes and Amendments) is revised as follows where words that are ~~stricken~~ are deleted and words that are underlined are to be added:

(3) PETITIONS.

Petitions for any change to the district boundaries or amendments to the regulations shall be filed with the Village Planner, describe the premises to be rezoned by a metes and bounds description or the regulations to be amended, list the reasons justifying the petition, specify the proposed use, and have attached the following:

- (a) Plot plan drawn to a legible scale of one inch equals 100 feet with sufficient information showing the area and size (in both sqft and acres) proposed to be rezoned, its relative location within the Village, its dimensions, the boundaries location and classification of adjacent zoning districts, and the boundaries location and existing use of all abutting properties within 200 feet of the area proposed to be rezoned.
- (b) ~~Owners' names~~ List of all tax parcel numbers, and addresses and owners of all properties lying within the Village of Germantown and 1,000 300 feet outward from the exterior boundary of the area proposed to be rezoned in a digital form acceptable to the Village Planner, or, a written request seeking assistance from the Village Planner to compile said list (subject to the payment of an additional fee if applicable).
- (c) Additional information required by the Plan Commission or the Village Board.

SECTION 2. That Section 17.51 (Changes and Amendments) is revised as follows where words that are ~~stricken~~ are deleted and words that are underlined are to be added:

(4) HEARINGS AND RECOMMENDATIONS.

The Plan Commission shall (and the Village Board may) hold a public hearing on the proposed changes and amendments and shall give notice as specified in section 17.53 of this chapter, and, provide notice of the proposed rezoning to the owners or occupants of the properties lying within the Village of Germantown and 1,000 feet outward from the exterior boundary of the area proposed to be rezoned. The Plan Commission shall review all proposed changes and amendments within the corporate limits and shall provide the Village Board with a recommendation and report as to whether the petition be granted as requested, modified or denied. The recommendation and report shall be made in writing to the Village Board (as presented by Village Planner or designee). If the Village Board does not receive recommendations and a report from the Plan Commission within 60 days of submitting the proposed amendments, the Village Board may hold hearings without first receiving the recommendations and report.

**AN ORDINANCE AMENDING CHAPTER 17 (ZONING CODE)
OF THE VILLAGE OF GERMANTOWN MUNICIPAL CODE**

SECTION 3. That Section 17.51 (Changes and Amendments) is revised as follows where words that are ~~stricken~~ are deleted and words that are underlined are to be added:

(7) PROTEST.

In the event of a protest against such district change or amendment to the regulations of this chapter, duly signed and acknowledged either by the owners of 20% or more of the areas of the land included in such proposed change, or by the owners of 20% or more of the land immediately adjacent to the land included in the proposed change, or by the owners of 20% or more of land extending 100 feet from the street frontage of such opposite land, such a change or amendment shall not become effective except by the favorable vote of $\frac{3}{4}$ of the ~~full~~ Village Board members in attendance and voting on the proposed rezoning.

SECTION 4. This ordinance shall take effect and be in full force the day after its passage and publication, as provided by law.

Introduced by Trustee: _____
Adopted: _____, 2019

Vote: Ayes: _____
 Nays: _____

Dean Wolter, Village President

ATTEST:

Deanna B. Braunschweig, WCMC/CMC Village Clerk

APPROVED AS TO FORM:

Brian Sajdak, Attorney

Published:

BUSINESS OF THE VILLAGE BOARD GERMANTOWN, WI

MEETING DATE: October 21, 2018

AGENDA ITEM: New Business [Final Subdivision Plat]

ITEM TITLE: Final Subdivision Plat for the 12-Lot Woodland Ponds Estates Development; David Leszczynski for Germantown Acquisition LLC, Property Owner - W124 N11749 Wasaukee Road, 29.41 Acres

SUBMITTED BY: Jeffrey W. Retzlaff, Director, Community Development Department

SUMMARY EXPLANATION:

Germantown Acquisition LLC has submitted a final subdivision plat for the Woodland Ponds Estates development; a 12-lot single-family residential development located west of Wasaukee Road and north of Elm Lane adjacent to the existing Woodland Ponds (north) and Harvest Hills (west) subdivisions.

The Public Works Department/Village Engineer have identified a few remaining items that will be required to be completed prior to the recording of the final plat. While the developer has agreed to complete these items as soon as possible, they are items covered by the letter of credit (LOC) and Developer's Agreement with the Village. Staff will withhold the LOC pending completion of these items.

PLAN COMMISSION RECOMMENDATION:

APPROVE the Woodland Ponds Estates Final subdivision plat subject to the following conditions:

1. The street trees, as specified in the approved Landscaping Plan, shall be planted prior to the recording of the Final Plat.
2. The Developer shall ensure the following items are addressed/completed to the satisfaction of the Public Works Department prior to the recording of the final plat:
 - a. Complete and submit "as-built" data for the stormwater pond recertification
 - b. Complete clean-up/restoration of all road ditches and drainage easements
 - c. Complete final asphalt lift and road shouldering (as provided in the Developer's Agreement)
3. The Developer must submit Village Attorney approved Restrictive Covenants that include the requirements of Section 9.11 of the Woodland Ponds Developer's Agreement Document and a requirement that each individual lot contain the minimum landscaping required under Section 17.43(5).
4. A Letter of "no objection" from the WI Department of Administration (DOA) shall be submitted to the Village prior to recording the final plat.

APPLICATION, PLANS & RELATED DOCUMENTS:

All relevant documents, including applications, plans, supporting information, the staff report & recommendation, and Plan Commission meeting minutes (when available) are included in the PDF digital file distributed by the Village Clerk.

FINAL SUBDIVISION PLAT

10/14/19 Plan Commission Meeting

Woodland Ponds Estates / Germantown Acquisitions LLC

Village Planner Report

Germantown, Wisconsin

Summary

David Leszczynski, agent for Germantown Acquisition, LLC, property owner, is requesting approval of final subdivision plat for Woodland Ponds Estate, a 29.7-acre, 12-lot single-family residential development located north of Elm Lane and west of Wasaukee Road.

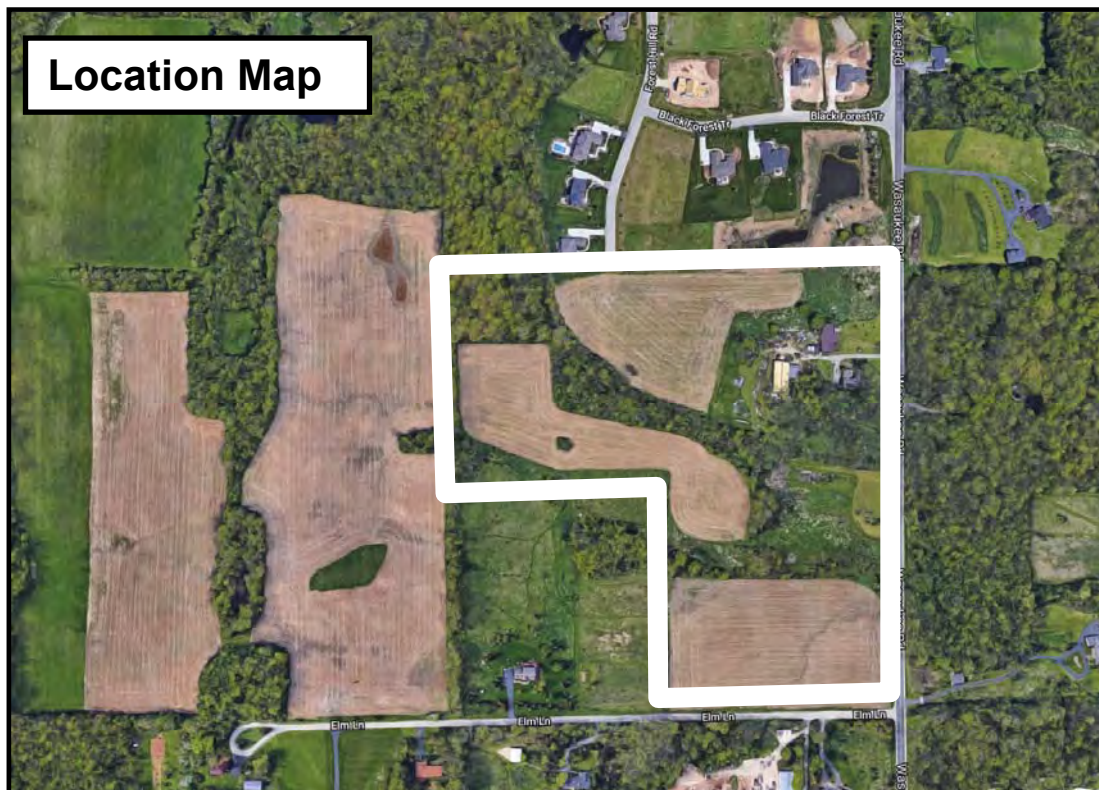
Property Location: Elm Lane @ Wasaukee Road

Applicant/

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

Zoning: Rs-3: Single-Family

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



Background/Proposal

David Leszczynski, agent for Germantown Acquisitions LLC, property owner, is requesting approval of a final subdivision plat for Woodland Ponds Estates, a 12-lot, 29.7-acre single-family residential development located north of Elm Lane and west of Wasaukee Road.

In August 2018, following a positive recommendation from the Plan Commission, the Village Board approved rezoning the property from A-1 to Rs-3 and a 17-lot concept plan. The original proposal to create a Planned Development District (PDD) was abandoned in favor of an Rs-3 District development with 16 or 17 single-family lots, depending on whether or not the WisDNR would approve the filling of two small wetland areas located on the property.

In October 2018, the WisDNR denied the developer's application to fill the two wetland areas (located in what are now Outlot 2 and a portion of Outlot 3) but did grant permission to fill .007 acres (304 sqft) in Outlot 3 for driveway access purposes to serve proposed Lots #8 and #9. The approved wetland fill will allow the developer to replace an existing 15' culvert previously used for an agricultural access located across a narrow gap between the wetlands in Outlot 3 (see attached). As a result, the development has been reduced to a total of 16 lots; 9 lots with access to/from Forest Hill Road.

As previously proposed, the developer intends to develop the land in two phases. Phase I development will include the 12 lots shown in the final plat with 4 additional lots created in/from Outlot 4 in Phase 2. All lots will be served by individual wells and private on-site wastewater treatment systems ("POWTS" a.k.a. "septic systems"). Soil evaluations have been prepared and submitted that show all of the proposed lots (for both phases) can support the proposed POWTS (lot 3 will be served by an existing mound previously used by the existing farm house that will be removed).

As summarized below, the proposed development (Phase 1 only) has the following characteristics:

Staff	Woodland Ponds Estates Final Plat	
	Gross Area	29.68 acres
	Right-of-Way Area	4.56 acres
	Wetland Area	4.2 acres
	Net Area	20.92 acres
	Single-family Lots/Dwelling Units (DU)	12
	Gross Density (DU/gross acres)	0.40
	Net Density (DU/net acres)	0.57
	Open Space Area	13.29 acres (6 outlots)
	Avg. Lot Size	1.03 acres
	Range of Lot Sizes	1.0 acres to 1.13 acres

CommentsVillage Planner/Zoning Administrator

In March 2019, the Village Board approved a preliminary plat for Woodland Ponds Estates with ten (10) conditions. Some of these conditions have been met with the final plat submittal. The remaining conditions have been carried over as conditions of approval for the final plat.

In order to be eligible for approval by the Village, Wis. Stats. 236.11(1)(b) requires a final plat to “substantially conform” to the approved preliminary plat. Staff has determined that this requirement has been met.

The Developer has entered into a Development Agreement with the Village, which was recorded in June of 2019.

In accordance with the Village's Subdivision Code, the Plan Commission is responsible for reviewing the final plat and forwarding a recommendation to the Village Board along with comments received from the official "objecting agencies". A letter of “no objection” has been received from Washington County (see attached) but not from the WI Department of Administration. This letter has been included as a condition of approval prior to recording the final plat.

The preliminary plat approval requires conformance of Lots 1-9 with the Woodland Ponds Homeowner's Association Covenants and conformance of Lots 10-12 with the Harvest Hills Homeowner's Association Covenants. In addition, the Developer must record restrictive covenants approved by the Village Attorney prior to selling any lots including the requirements set forth in Section 9.11 of the Woodland Ponds Estates Developer's Agreement Document.

The street trees have not yet been planted. The Developer has indicated that the trees will be planted this fall during the optimal planting timeframe and according to the approved landscape plan.

Village Surveyor

The Village Surveyor reviewed the proposed Final Plat and provided comments in a memorandum dated 8/6/2019. These comments have been addressed by the applicant and are reflected in the revised Final Plat.

Public Works Department/Village Engineer

As-built data for stormwater pond recertification has not yet been submitted. Final clean-up/restoration of all road ditches and drainage easements and a final lift of asphalt and road shouldering (as provided in the Developers Agreement) is still outstanding.

Village Planner Recommendation

APPROVE the Woodland Ponds Estates Final subdivision plat subject to the following conditions:

1. The street trees, as specified in the approved Landscaping Plan, shall be planted prior to the recording of the Final Plat.
2. The Developer shall ensure the following items are addressed/completed to the satisfaction of the Public Works Department prior to the recording of the final plat:
 - a. Complete and submit “as-built” data for the stormwater pond recertification
 - b. Complete clean-up/restoration of all road ditches and drainage easements
 - c. Complete final asphalt lift and road shouldering (as provided in the Developer’s Agreement)
3. The Developer must submit Village Attorney approved Restrictive Covenants that include the requirements of Section 9.11 of the Woodland Ponds Developer’s Agreement Document and a requirement that each individual lot contain the minimum landscaping required under Section 17.43(5).
4. A Letter of “no objection” from the WI Department of Administration (DOA) shall be submitted to the Village prior to recording the final plat.

Village of

Germantown

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Fee must accompany application
Preliminary & Final Plat Fees Combined

Under 10 lots \$4,575

11-25 lots \$5,600

26-50 lots \$6,625

Over 51 lots \$7,650

PAID 1-23-19 *[Signature]*



SUBDIVISION PLAT APPLICATION

Pursuant to Section 18.04 and 18.05 of the Municipal Code

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

1

APPLICANT OR AGENT

David Leszczynski
3223 Fleur de Lis Dr
Medison WI 53092

Phone (414) 550 8087

Fax ()

E-Mail dlesz2000@yahoo.com

PROPERTY OWNER

GERMANTOWN ACQUISITION LLC
3223 Fleur de Lis Dr.
Medison WI 53092

David Leszczynski, AGENT

Phone (414) 550 8087

2

PROPERTY ADDRESS OR GENERAL LOCATION

11749 N. Wausauke Rd
Germantown WI 53022

TAX KEY NUMBER(S)

Multiple Attached
TAX BILL

3

READ AND INITIAL THE FOLLOWING:

[Initials] I understand that the Subdivision Plat is not valid until recorded at the Washington County Register of Deeds. The Village will record the document and charge the applicant all applicable recording fees.

[Initials] If technical corrections to the Plat are required, I understand that the document will not be recorded until all corrections are made and approved by the Village.

[Initials] I understand that all applicable impact fees must be paid prior to recording. Failure to pay fees will delay recording and may ultimately result in the revocation of Village approval. I understand that parcels created outside the Sewer Service Area will require a soil test. I also understand that all properties abutting a State Highway will require DOT approval and I will be responsible for securing such approval prior to recording.

[Initials] I understand all delinquent property taxes on any of the properties involved shall be paid prior to recording.

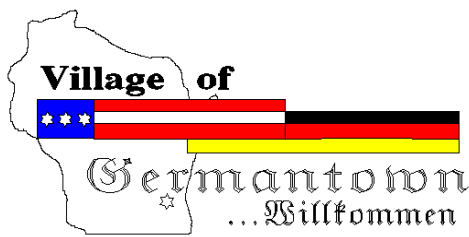
[Initials] I understand that a Developer's Agreement will be required prior to recording of the plat.

4

SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER

David Leszczynski 1/23/19
Applicant Date

David Leszczynski for 1/23/19
Owner Date
Germantown Acquisition LLC



Engineering Department Memorandum

To: Jeff Retzlaff Village Planner

CC:

From: Bob Beilfuss, PLS, Village Surveyor

Date: August 6, 2019

Re: Woodland Ponds Estates Subdivision Final Plat Review

Jeff,

Here are my review comments for the subdivision plat received 8-7-2019.

Subdivision Plat Review-Final

Applicant or Owner: Germantown Acquisitions, LLC Dave Leszczynski

Land Surveyor/Firm: Jim Schneider, PLS, North Shore Engineering

1. Add the adjoining platted lots from Harvest Hills Subdivision that are common to the west line of this plat.
2. On Lot 18 there were buildings to be razed but no building outlines are shown. Please add the basement or foundation lines on the map.
3. All construction and construction punch list items need to be completed and approved before the final plat is recorded at the County

No further review comments.

Document Approval and Recording

For this subdivision plat to be approved by the Village Board and recorded at the Washington County Register of Deeds, the document must be provided to the Village Clerk's office in a completed format including all original signatures of the owner and lending institution, original seals of the professional land surveyor on the recordable media the Wednesday prior to the scheduled Village Board meeting.

This includes the CADD file.

Any documents or digital files not submitted by the due date or contain outstanding technical review comments that have not be addressed, will be moved to the next scheduled Village Board meeting agenda.

Document Submittals and Data Conversion

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

Prior to Recording the Certified Survey Map or Subdivision Plat, The professional land surveyor is responsible for submitting a copy of the AutoCad drawing file (.dwg) of the document in version 2018 on compact disk (CD) or via email to the Village Surveyor.

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

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

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



Village of



Germantown

Willkommen

Community Development Department

Jeffrey W. Retzlaff, AICP, Director

N112 W17001 Mequon Road P.O. Box 337

Germantown, WI 53022-0337

(262) 250-4735 direct line

(262) 253-8255 fax

August 26, 2019

Renee Powers, PLS
WI Dept of Administration-Plat Review
101 E. Wilson Street FL 9
P.O. Box 1645
Madison, WI 53703

RE: V. of Germantown, Washington County;
Woodland Ponds Estates Subdivision Plat; Private Street Ordinance

Ms. Powers:

As required under your department's Subdivision Plat Checklist, specifically Section 236.20(4)(d), I'm providing this letter as evidence that the Village of Germantown has an ordinance that allows subdivision lots to obtain access to a public street via a private street and/or shared-driveway easement. Section 18.07(1)(d) of the Village's Municipal Code provides for three types of "private streets" to serve up to 15 single-family platted lots in easements or outlots owned and maintained by the property owners and/or homeowner's association.

With respect to the Woodland Ponds Estates development, the subdivision plat was approved with Lot 8 & Lot 9 served by a 20' wide paved, shared driveway within a 30' wide easement pursuant to Section 28.07(1)(d).

Please contact me if you have questions or concerns.

Respectfully,

Jeffrey W. Retzlaff, AICP
Director, Community Development Department
Village Planner & Zoning Administrator

Copies: Bob Beilfuss, Village Surveyor
James Schneider, North Shore Engineering



Planning and Parks Department

Jamie Ludovic, Central Services Director

Debora Sielski, Deputy Planning and Parks Administrator

Paul Sebo, County Conservationist

Phil Gaudet, Land Resources Manager

Public Agency Center
333 E. Washington Street, Suite 2300
P.O. Box 2003
West Bend, WI 53095-2003
(262) 335-4445
Fax: (262) 335-6868
webplan@co.washington.wi.us
www.co.washington.wi.us/PPD

NOTIFICATION OF ACTION ON PROPOSED SUBDIVISION PLAT WASHINGTON COUNTY LAND USE & PLANNING COMMITTEE MEETING

09/30/2019

Department of Administration
Plat Review Unit
P O Box 1645
Madison WI 53701-1645

To Whom It May Concern:

This letter is to inform you that the Washington County Land Use & Planning Committee has considered the following subdivision plat pursuant to Wisconsin Statutes and applicable local Ordinances:

Date of Meeting: **09/26/2019**

Subdivision Name: **WOODLAND PONDS ESTATES**

// Pre-Preliminary Plat // Preliminary Plat / X/ Final Plat

Location: PART OF THE SE ¼ OF THE NE ¼, SECTION 24, VILLAGE OF GERMANTOWN
Municipality: VILLAGE OF GERMANTOWN
Subdivider: GERMANTOWN ACQUISITION, LLC - C/O DAVID LESZCZYNSKI
Surveyor: JAMES G. SCHNEIDER, NORTH SCHORE ENGINEERING, INC

Action taken: The Land Use & Planning Committee recommended no objection to the **WOODLAND PONDS** Final Plat Review as presented.

If you have any questions regarding this subdivision plat, please do not hesitate to contact me.

Sincerely,

Phil Gaudet, Land Resources Manager

cc: Municipal Clerk
Subdivider
Surveyor
Washington County, Land & Water Conservation Division
Washington County, Highway Department

"WOODLAND PONDS ESTATES"

PART OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4, OF SECTION 24, TOWN 9 NORTH, RANGE 20 EAST,
IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN

MAIN CURVE TABLE

CURVE	LENGTH	RADIUS	CHORD	TANGENT BEARING IN	CHORD BEARING	TANGENT BEARING OUT	DELTA
A-NE	72.83'	70.00'	69.59'	S1°40'46"E	S31°29'05.5"E	S61°17'25"E	59°36'39"
A-CL	104.02'	100.00'	99.39'	S1°41'27"E	S31°29'26"E	S61°17'25"E	59°35'58"
A-SW	135.21'	130.00'	129.20'	S1°41'49"E	S31°29'37"E	S61°17'25"E	59°35'36"
B-NE	99.08'	570.00'	98.95'	S61°17'25"E	S66°16'11.5"E	S71°14'58"E	9°57'33"
B-CL	104.29'	600.00'	104.16'	S61°17'25"E	S66°16'11.5"E	S71°14'58"E	9°57'33"
B-SW	109.51'	630.00'	109.37'	S61°17'25"E	S66°16'11.5"E	S71°14'58"E	9°57'33"
C	40.30'	45.00'	38.97'	S71°14'58"E	N83°05'30"E	N57°25'58"E	51°19'04"
D	369.97'	75.00'	93.75'	N57°25'58"E	S18°45'02"W	N19°55'54"W	282°38'08"
E	40.30'	45.00'	38.97'	S71°14'58"E	S45°35'26"E	S19°55'54"E	51°19'04"
F	320.31'	75.00'	126.72'	N84°27'02"E	S26°48'06"W	N30°50'50"W	244°42'08"
G	30.20'	40.16'	29.49'	N1°39'05"W	N23°11'36.5"W	N44°44'08"W	43°05'03"
H	13.28'	30.00'	13.17'	N44°44'08"W	N57°25'07"W	N70°06'06"W	25°21'58"

LOT CURVE TABLE

LOT	ARC	RADIUS	CHORD	CHORD BEARING	DELTA
2	31.34'	75.00'	31.11'	N69°24'11"E	23°56'26"
OL 1	82.39'	75.00'	78.31'	S67°09'23.5"E	62°56'25"
3	91.31'	75.00'	85.77'	S0°48'31"E	69°45'20"
4	62.39'	75.00'	60.60'	S57°53'58.5"W	47°39'39"
5	102.54'	75.00'	94.74'	N59°06'03"W	78°20'18"
10	67.12'	75.00'	64.91'	S55°58'09"W	51°16'46"
11	88.41'	75.00'	83.38'	N64°37'09"E	67°32'38"
12	164.78'	75.00'	133.58'	S32°36'36"E	125°52'44"

LEGEND :

- - DENOTES #6 REBAR (FOUND)
- - DENOTES 1.315" STEEL PIPE (FOUND)
- ⊠ - DENOTES #10 REBAR (FOUND)
- - DENOTES #10 REBAR, WEIGHING 3.65 LBS. PER LINEAL FOOT, SET.
- () - DENOTES ALSO RECORDED AS DIRECTION OR DISTANCE

ALL OTHER LOT CORNERS 1.315"x18" STEEL PIPE WEIGHING 1.68 LBS. PER LINEAL FOOT (SET).

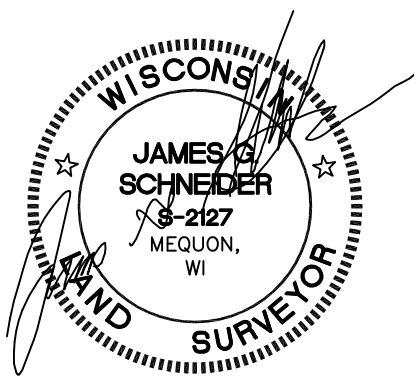
ALL DISTANCES ARE MEASURED TO THE NEAREST ONE HUNDREDTH (0.01') OF A FOOT.

ALL BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. (NAD 27), THE EAST LINE OF THE NE 1/4 OF SECTION 24-9-20, WHICH BEARS N1°33'21"W.

- DENOTES BUILDING SETBACK LINE
- DENOTES WETLAND BOUNDARY
- DENOTES EASEMENT LINE
- DENOTES CENTERLINE
- DENOTES SECTION LINE

NOTES :

- LOTS IN THIS DEVELOPMENT WILL USE ON-SITE SOIL ABSORPTION SANITARY SEWERAGE DISPOSAL SYSTEMS AND PRIVATE WELLS.
- REFER TO SHEET 2 OF 3 FOR EASEMENT EXHIBIT
- ZONING IS R8-3 AND UNLESS NOTED OTHERWISE BUILDING SETBACKS ARE AS FOLLOWS:
FRONT YARD = 45.0'
SIDE YARD = 20.0'
REAR YARD = 35.0'



Dated this 21st day of August, 2019

There are no objections to this plat with respect to Secs. 236.15, 236.16, 236.20 and 236.21(1) and (2), Wis. Stats. as provided by s. 236.12, Wis. Stats.

Certified _____, 20____

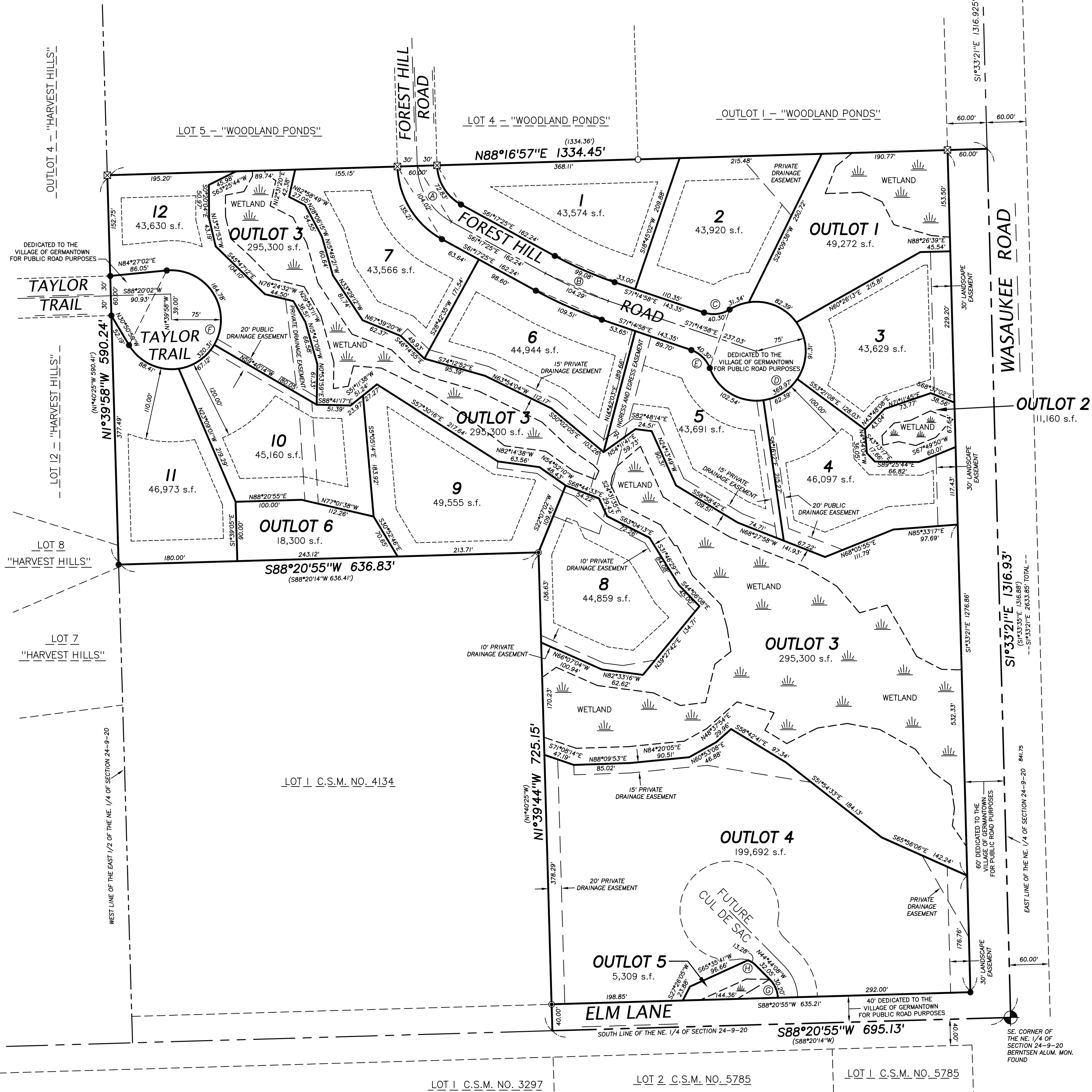
Department of Administration



GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.



"WOODLAND PONDS ESTATES"

PART OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4, OF SECTION 24, TOWN 9 NORTH, RANGE 20 EAST,
IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN

EASEMENT EXHIBIT

LEGEND :

- - DENOTES #6 REBAR (FOUND)
- - DENOTES 1.315" STEEL PIPE (FOUND)
- ☒ - DENOTES #10 REBAR (FOUND)
- - DENOTES #10 REBAR, WEIGHING 3.65 LBS. PER LINEAL FOOT, SET.
- () - DENOTES ALSO RECORDED AS DIRECTION OR DISTANCE

ALL OTHER LOT CORNERS 1.315"x18" STEEL PIPE WEIGHING 1.68 LBS. PER LINEAL FOOT (SET).

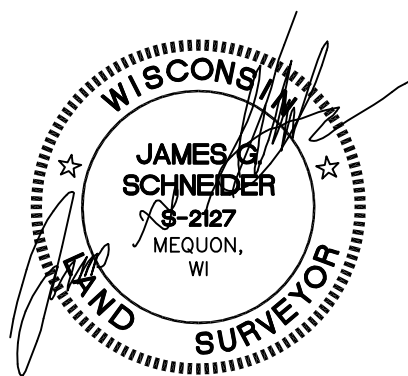
ALL DISTANCES ARE MEASURED TO THE NEAREST ONE HUNDREDTH (0.01') OF A FOOT.

ALL BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, (NAD 27), THE EAST LINE OF THE NE 1/4 OF SECTION 24-9-20, WHICH BEARS N1°33'21"W.

- DENOTES BUILDING SETBACK LINE
- DENOTES WETLAND BOUNDARY
- DENOTES EASEMENT LINE
- DENOTES CENTERLINE
- DENOTES SECTION LINE

NOTES :

1. MOST LOT LINE BEARINGS AND DISTANCES ARE NOT SHOWN ON THIS SHEET FOR CLARITY, REFER TO SHEET 1 OF 3.



Dated this 21st day of August, 2019



There are no objections to this plat with respect to Secs. 236.15, 236.16, 236.20 and 236.21(1) and (2), Wis. Stats. as provided by s. 236.12, Wis. Stats.

Certified _____, 20____

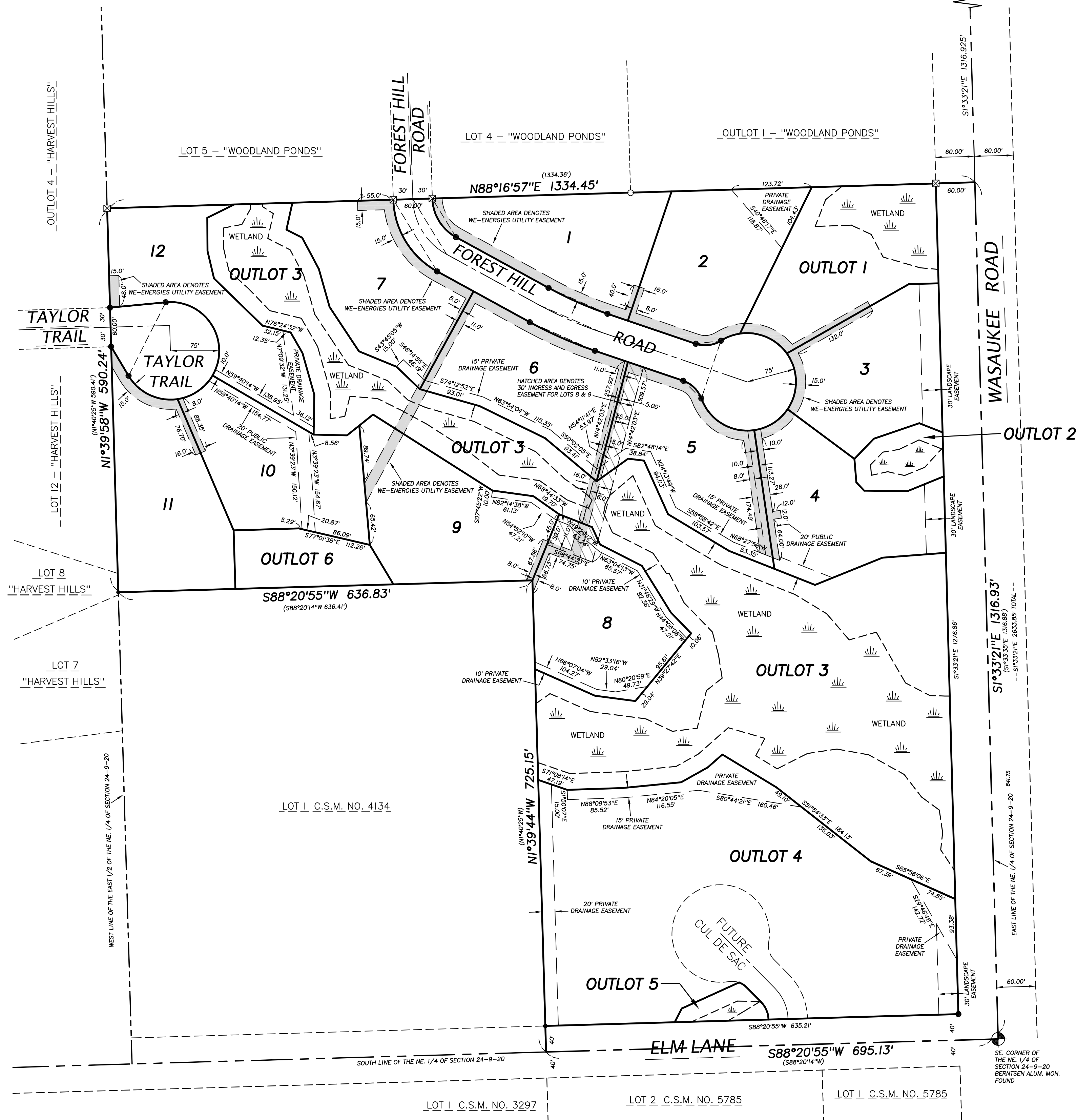
Department of Administration



GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.



SE CORNER OF THE NE 1/4 OF SECTION 24-9-20 BERTSEN ALUM. MON. FOUND

"WOODLAND PONDS ESTATES"

PART OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4, OF SECTION 24, TOWN 9 NORTH, RANGE 20 EAST,
IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN

SURVEYOR'S CERTIFICATE

I, James G. Schneider, Professional Land Surveyor, do hereby certify:

THAT I have surveyed, divided, and mapped the plat of "WOODLAND PONDS ESTATES",
bounded and described as follows:

All that part of the Southeast 1/4 of the Northeast 1/4 of Section 24, Township
9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin,
bounded and described as follows:

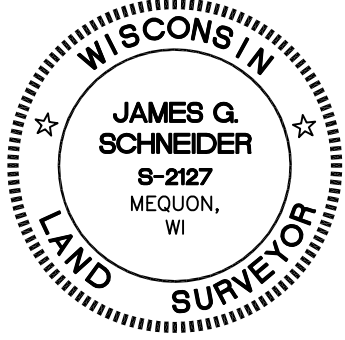
Beginning at the Southeast corner of the Northeast 1/4 of said Section 24;
running thence S88°20'55"W along the South line of said Northeast 1/4 and the
centerline of Elm Lane, 695.13 feet to the Southeast corner of Certified Survey
Map No. 4134, thence N1°39'44"W along the East line of Lot 1 of said Certified
Survey Map, 725.15 feet to the Northeast corner of said Lot 1; thence
S88°20'55"W along the North line of said Lot 1 and parallel with the South line
of said Northeast 1/4 Section, 636.83 feet to a point in the West line of the East
1/2 of said Northeast 1/4 Section; thence N1°39'58"W along said West line,
590.24 feet to a point in the North line of the Southeast 1/4 of the Northeast
1/4 of said Section 24; thence N88°16'57"E along said North line of the
Southeast 1/4 of said Northeast 1/4, said line also being the south line of
"Woodland Ponds", a recorded subdivision, 1,334.45 feet to a point in the East
line of the Northeast 1/4 of said Section 24 and the centerline of Wasaukee
Road; thence S1°33'21"E along said East line and the centerline of Wasaukee
Road, 1316.93 feet to the place of beginning.

Said lands containing 1,292,897 sq. ft./29.681 acres of land, more or less.
THAT I have made such survey, land division and plat at the direction of
GERMANTOWN ACQUISITIONS, LLC; the owner of said land.

THAT such plat is a correct representation of all the exterior boundaries
of the land surveyed and the land division thereof made.

THAT I have fully complied with the provisions of Chapter 236 of the Wisconsin
State Statutes and the Village of Germantown Subdivision Regulations.


James G. Schneider P.L.S No. S-2127



Dated this 21st day of August, 2019

CORPORATE OWNERS CERTIFICATE OF DEDICATION

Germantown Acquisitions, LLC, a corporation duly organized and existing under and by virtue of
the laws of the State of Wisconsin, as owner, does hereby certify that said corporation caused
the land described on this plat to be surveyed, divided, mapped and dedicated as represented
on this plat. As owners, we hereby dedicate that part of Wasaukee Road, Elm Lane, Taylor Trail
and Forest Hill Road to the Village of Germantown for public road purposes as represented on
Sheet 1 of 3 of this plat. We also certify that this plat is required by s.236.10 or s.236.12 of the
Wisconsin State Statutes to be submitted to the following for approval or objection:
1) Department of Administration, (2) Village of Germantown.

Witness the hand and seal of said owner this ____ day of _____, 20 ____.

GERMANTOWN ACQUISITIONS, LLC
BY: DAVID LESZCZYNSKI, MANAGING MEMBER

IN THE PRESENCE OF

WITNESS _____ DAVID LESZCZYNSKI, Managing Member

STATE OF WISCONSIN) SS
WASHINGTON COUNTY)

Personally came before me this ____ day of _____, 20 ____, the above named David
Leszczynski, Managing Member of Germantown Acquisitions, LLC, a Wisconsin Corporation, to me
known to be the person who executed the foregoing instrument and acknowledged the same.

NOTARY PUBLIC—STATE OF WISCONSIN
My Commission expires _____, 20 ____

CONSENT OF CORPORATE MORTGAGEE

_____ BANK, existing under and by virtue of the laws of
the State of Wisconsin, mortgagee of the above described land does
hereby consent to the Surveying, Dividing, Mapping and Dedication of the land
described on this plat of "WOODLAND PONDS ESTATES" and does hereby
consent to the above certificate of GERMANTOWN ACQUISITIONS, LLC; OWNER.

IN witness whereof, the said _____ BANK has caused these
presents to be signed by _____, its
at _____, Wisconsin, this _____ day of _____, 20 ____.

IN THE PRESENCE OF:

WITNESS _____ (Signature) _____

COUNTY TREASURER'S CERTIFICATE

STATE OF WISCONSIN)
WASHINGTON COUNTY) SS

I, Jane Merten, being duly elected, qualified and acting Treasurer
of the County of Washington, do hereby certify that the records in my
office show no unredeemed tax sales and no unpaid taxes or special
assessments as of _____, 20 ____, affecting the
lands included in the plat of "WOODLAND PONDS ESTATES".

Dated: _____, 20 ____.
JANE MERTEN, County Treasurer

VILLAGE TREASURER'S CERTIFICATE

STATE OF WISCONSIN)
WASHINGTON COUNTY) SS

I, Kim E. Rath, Finance Director for the Village of Germantown,
do hereby certify that in accordance with the records in my
office, there are no unpaid taxes or unpaid special assessments
as of this ____ day of _____, 20 ____, on any
of the land included in the plat of "WOODLAND PONDS ESTATES".

Dated: _____, 20 ____.
KIM E. RATH, Finance Director/ Treasurer

VILLAGE OF GERMANTOWN PLANNING COMMISSION APPROVAL

This plat is hereby approved by the Planning Commission of the Village of
Germantown on this ____ day of _____, 20 ____.

DEAN WOLTER, Chairman Date

LAURA A. JOHNSON, Secretary Date

VILLAGE OF GERMANTOWN BOARD APPROVAL

Resolved that the plat known as "WOODLAND PONDS ESTATES" being a division
of a part of the Southeast 1/4 of the Northeast 1/4 of Section 24, Township 9
North, Range 20 East, Village of Germantown, Washington County, Wisconsin,
having been approved by the Planning Commission being the same, is hereby
approved and the dedication of Wasaukee Road, Elm Lane, Taylor Trail and
Forest Hill Road for public road purposes as shown on Sheet 1 of 3 is hereby
accepted by the Village Board of Trustees of the Village of Germantown on this
____ day of _____, 20 ____.

DEAN WOLTER, Village President Date

DEANNA BRAUNSCHWEIG, Village Clerk Date

UTILITY EASEMENT PROVISIONS

An easement for electric, natural gas, and communications service is hereby
granted by GERMANTOWN ACQUISITIONS, LLC; Grantor, to
WISCONSIN ELECTRIC POWER COMPANY and WISCONSIN GAS, LLC,
Wisconsin corporations doing business as We Energies, Grantee,
Wisconsin Bell, Inc. d/b/a AT&T Wisconsin, a Wisconsin corporation, Grantee,
and TIME WARNER ENTERTAINMENT COMPANY, L.P., Grantee

their respective successors and assigns, to construct, install, operate, repair,
maintain and replace from time to time, facilities used in connection with
overhead and underground transmission and distribution of electricity and
electric energy, natural gas, telephone and cable TV facilities for such
purposes as the same is now or may hereafter be used, all in, over, under,
across, along and upon the property shown within those areas on the plat
designated as "Utility Easement Areas" and the property designated on the plat
for streets and alleys, whether public or private, together with the right to
install service connections upon, across within and beneath the surface of each
lot to serve improvements, thereon, or on adjacent lots; also the right to trim or
cut down trees, brush and roots as may be reasonably required incident to the
rights herein given, and the right to enter upon the subdivided property for all
such purposes. The Grantees agree to restore or cause to have restored, the
property, as nearly as is reasonably possible, to the condition existing prior to
such entry by the Grantees or their agents. This restoration, however, does not
apply to the initial installation of said underground and/or above ground
electric facilities, natural gas facilities, or telephone and cable TV facilities or
to any trees, brush or roots which may be removed at any time pursuant to the
rights herein granted. Structures shall not be placed over Grantees' facilities or
in, upon or over the property within the lines marked "Utility Easement Areas"
without the prior written consent of Grantees. After installation of any such
facilities, the grade of the subdivided property shall not be altered by more
than four inches without written consent of grantees.

The grant of easement shall be binding upon and inure to the benefit of the
heirs, successors and assigns of all parties hereto.

WOODLAND PONDS ESTATE SUBDIVISION

Wasaukee Rd. & Elm Lane

Germantown Wisconsin

January 22, 2019

Owner Developer - Germantown Acquisitions, LLC

Contact - Dave Leszczynski

3223 Fleur De Lis Drive

Mequon, WI 53092

Dlesz2000@yahoo.com

414-550-8087

Engineering - North Shore Engineering, Inc.

James Hensel, P.E.

11433 N. Port Washington Road

Mequon, WI 53092

262-241-9400

