SPECIAL VILLAGE BOARD
MEETING
Mukwonago Municipal Building / Board Room
440 River Crest Court, Mukwonago, WI 53149
August 5, 2026 at 6:00 PM

AGENDA

The Special Meeting will begin at 6:00 p.m. or immediately after the conclusion of the Committee of the Whole.

1. **Call to Order**

2. **Roll Call**

3. **Pledge of Allegiance**

4. **Comments from the Public**

   The Public Comment Session shall last no longer than fifteen (15) minutes and individual presentations are limited to three (3) minutes per speaker. These time limits may be extended at the discretion of the Chief Presiding Officer. The Village Board may have limited discussion on the information received, however, no action will be taken on issues raised during the Public Comment Session unless they are otherwise on the Agenda for that meeting. Public comments should be addressed to the Village Board as a body. Presentations shall not deal in personalities personal attacks on members of the Village Board, the applicant for any project or Village employees. Comments, questions and concerns should be presented in a respectful professional manner. Any questions to an individual member of the Commission or Staff will be deemed out of order by the Presiding Officer.

5. **Consent Agenda**

   5.1 Approve a Special Event Permit filed by St James the Less Church for the St. James the Less Parish Festival, to be held August 21, 2026 through August 23, 2026

   5.2 Approve a Temporary Alcohol Beverage License Application filed by St James the Less Church for the St James Parish Festival, to be used on August 21, 2026 through August 23, 2026

   5.3 Approve **Resolution 2026-53** a resolution to accept the Conveyance and Dedication of the existing private water main facilities and associated appurtenances located within the properties of MUKV16999003 and MUKV1963999052 (retired), as identified by Certified Survey Map No. 12779

6. **Planning Commission, President Winchowky**

   6.1 **For Information Only:**

   - **PC Resolution 2026-08** for a Site Plan and Architectural Review for an

Assembly Hall for Elegant Farmer, located at 1545 S. Main Street, Parcel #VM 00010, Applicant (Elegant Farmer, Inc)

- **PC Resolution 2026-09** for a Site Plan and Architectural Review for the Bear Crossing Development located at the NW Corner of STH 83 and CTH NN, parcels MUKV1963996005 and MUKV1963996006, applicant (Anderson Commercial Group)
- **PC Resolution 2026-10** for a Site Plan and Architectural Review for Road Runner Express Car Wash located on a parcel to be established via future CSM in the development located at the NW corner of STH 83 and CTH NN, existing parcels MUKV1963996005 and MUKV1963996006, applicant (Carl Goede)
- **PC Resolution 2026-11** for a Site Plan and Architectural Review for the installation of memorial monuments representing military branches of service and fallen service members at the NW corner of the Park View Middle School site, located at 930 N. Rochester Street, Parcel MUKV1964992, applicant (Mukwonago Area School District)

6.2 Discussion/Action to approve **Resolution 2026-48** for a Conditional Use Permit for an Assembly Hall for Elegant Farmer, located at 1545 S. Main Street, Parcel #VM 00010, Applicant (Elegant Farmer, Inc)

6.3 Discussion/Action to approve **Resolution 2026-49** for a CSM review for the Bear Crossing Development located at the NW Corner of STH 83 and CTH NN, parcels MUKV1963996005 and MUKV1963996006, applicant (Anderson Commercial Group)

6.4 Discussion/Action to approve **Resolution 2026-50** for a Conditional Use Permit for a free-standing Car Wash (Roadrunner Express Car Wash) located on a parcel to be established via future CSM in the development located at the NW corner of STH 83 and CTH NN, existing parcels MUKV1963996005 and MUKV1963996006, applicant (Carl Goede)

7. Village President

7.1 Discussion/Action regarding **Resolution 2026-52** a resolution confirming the Village President's appointments to various committees and commissions for the Village of Mukwonago

8. Closed Session

8.1 **Closed session pursuant to Wis. Stats.§ 19.85(1)(f)** Considering financial, medical, social or personal histories or disciplinary data of specific persons, preliminary consideration of specific personnel problems or the investigation of charges against specific persons except where par. (b) applies which, if

discussed in public, would be likely to have a substantial adverse effect upon the reputation of any person referred to in such histories or data, or involved in such problems or investigations **regarding Building Inspector II**

9. Reconvene into Open Session

9.1 Motion to reconvene into open session pursuant to Wis. Stats. §19.85(2) for possible discussion and/or action concerning any matter discussed in closed session

10. Adjournment

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

Members: Trustee Brill, D. Johnson, K. Johnson, Meiners, Reeves, Rooker, and President Winchowky

Village of Mukwonago

440 River Crest Court, Mukwonago, Wisconsin 53149
Tel: (262) 363-6420 | Fax: (262)363-6425
www.villageofmukwonago.gov

Office Use Only	
Paid	✓
Security Deposit	
Calendar	
Excel Calendar	
Special Event	
Approved	
Permits Issued	

SPECIAL EVENT PERMIT APPLICATION

Today's Date: 7/9/26 Rental Date(s): — (including set up and clean up) Event Date(s): 8/21-8/23 (open to the public) Amount Paid: $120-

Event Name: St James Festival Applicants Name: St James the Less

Please refer to the Special Event Manual for step-by-step instructions.

Please select all the fees that apply for your event:

General Event Fees

☒	Class I Event (Includes alcohol and/or amplified music)	$20 per day
☐	Class II Event	$10 per day
☐	Temporary Operator (Bartender) License *This License is only good for event	$20 per event
☐	Operator (Bartender) License (1 year)	$45 per year
☒	Temporary Class B (Picnic) Beer and/or Wine License	$10 per event
☐	Park rental Permit	To Be Determined by event
☐	Parade Permit	$25 per event
☐	Firework Display Permit	$25 State & Local Permits required
☐	Pyrotechnics for Events or Entertainment pyrotechnics	$25 per event
☐	Security Deposit	$200 per event (on top of park fees)

Inspections

☐	Pre-Event Safety Inspection	$75 per hour
☐	Electrical Inspection	$75 per hour
☐	Tent Inspection (<2,500 sq ft)	$35
☒	Tent Inspection (>2,500 sq ft)	$50

Total Fees: $ 120-

DEPARTMENT CONTACTS

Clerk/Treasurer	(262) 363-6420	Police	(262) 363-6435
Building Inspection	(262) 363-6419	Public Works	(262) 363-6447
Fire	(262) 363-6426	Water/Sewer Utility	(262) 363-6416

Revised 2.3.26

GUIDELINES

This application must be completed in its entirety and submitted to the Village of Mukwonago Clerk's Office, located at 440 River Crest Court, Mukwonago, WI 53149, for approval. A signed copy authorizing use of the park facility will be returned to the applicant upon approval.

This application, fees, and any supporting documentation must be submitted no less than 90 days prior to the event date to allow for Village Board approval. Fees are non-refundable.

If this Special Event is taking place at a Village rental facility, a separate Rental Application is also required. Reservations are confirmed only after the completed application and full payment, including the security deposit, have been received. ***Please make sure rental location is available first.***

"Residents" are defined as individuals residing within the Village of Mukwonago limits. Park facilities are rented on a first-come, first-served basis and are reserved by the day. Applications are taken for the current year only and are accepted after the 1st of that year.

Payments may be made by cash or check. Credit card payments are accepted in person only and are subject to a processing fee.

Mail completed Application and payments to:

Village Clerk-Treasurer's Office
ATTN: Parks
440 River Crest Ct
Mukwonago WI 53149

Village Hall Office Hours
Monday-Thursday 8am-5pm
Friday 8am-Noon
Holidays may affect these hours
*Hours are subject to change

Email to: parks@villageofmukwonago.gov

EVENT PERSON CONTACT INFORMATION

Name: Tom Daniels

[redacted]

ORGANIZATION INFORMATION (if applicable)

Name of Organization: St. James the Less Church

Mailing Address: 830 E. Veterans Way City: Mukwonago State/Zip: WI

[redacted]

EVENT INFORMATION

Date(s) Rental needed: N/A
(Please include days needed for setup and cleanup)

Date(s) of Event: 8/21 - 8/23
(Dates Event is Open to attendees)

Estimated Number of Participants: 300/DAY

Estimated Number of Vendors (if any): 6/7

Event Open to Public Daily Time: FRIDAY

End Time: SUNDAY

Type of Event and Purpose: _____

Location of Event: St. James

(Will your event take place in a residential neighborhood? ***If yes, you will be required to notify all adjacent property owners when the event will occur. Please provide list of addresses notified with this application.)***

You MUST attach a detailed map of your event indicating the specific location and layout of your event. If you are having a parade a detailed map of route is required.

Provide General Plan of Operation of your event: (you may attach a separate sheet if needed)

Fundraiser - see attached sheets

OTHER INFORMATION

Will alcohol be sold/served? ***If yes, temporary Class B beer and/or wine (picnic) and operator (bartender) licenses are necessary under separate application.*** ☒ YES ☐ NO

Please list the number of Village of Mukwonago licensed bartenders that will be on site: _____

Will you be selling/serving food? ***If yes, you will need to contact Waukesha County Health Department (262-896-8300) for proper permits.*** ☒ YES ☐ NO

Will your event need electricity? ***If yes, the Fire Department and Building Inspection Department will need to inspect prior.*** ☒ YES ☐ NO

Will you be setting up any lighting? ***If yes, the Fire Department and Building Inspection Department will need to inspect prior.*** ☒ YES ☐ NO

Will your event require any fencing? **If yes, please provide plans for the fencing location and the gates. You will need to contact Diggers Hotline to have area marked before fence can be placed.** ☐ YES ☐ NO

Does your event involve fireworks or pyrotechnics? (This also includes any entertainment ie) bands) **If yes, *you will be contacted after approval with further instructions.*** ☒ YES ☐ NO

Does your event involve amplified music? ☑ YES ☐ NO

If yes, will the amplified music be a: ☑ Band ☑ DJ ☐ Other Hours of amplified music: _____

Please list the number of security staff you will be providing for the event (if necessary): Per Police Department

Will you need barricades provided by the Village for your event? ☑ YES ☐ NO

If yes, how many? 24

Will you be erecting any tents, canopies, or other temporary structure(s)? ***If yes, please provide a plan for their proposed locations. The Fire Department and Building Inspection Department will need to inspect these structures prior to the start of your event.*** ☑ YES ☐ NO

Will you be providing portable restrooms and wash stations? **If yes, please provide a description of how many restrooms/wash stations will be provided, their locations, and the plan for how solid waste will be disposed of.** ☑ YES ☐ NO

Will you provide parking for your participants? **If yes, please provide a plan describing where parking will be available.** ☑ YES ☐ NO

Will you provide dumpster/clean-up services? **If yes, please provide a clean-up and refuse collection plan.** ☑ YES ☐ NO

What other assistance do you foresee needing from the Village (personnel, materials, equipment, etc.)?

_____

_____

_____

_____

_____

Have you reviewed and do you have a copy of the **Village of Mukwonago Special Events Manual** and the **Village of Mukwonago Ordinance**? ☑ YES ☐ NO

INSURANCE REQUIREMENTS

The Special Event Sponsor will provide evidence of liability insurance in a form acceptable to the Village Attorney, with limits of not less than $1 Million per occurrence and $2 Million in the aggregate, which coverage names the Village of Mukwonago, its officers, agents, employees and contractors as Additional Insured on a primary and non-contributory basis. Evidence of this coverage must be provided by a Policy Endorsement received by the Village not less than 20 days prior to the event. A Certificate of Insurance must evidence this coverage throughout the duration of the event. Applicant further agrees to indemnify and hold harmless the Village of Mukwonago, its officers, agents, employees, contractors and assigns, as and against any and all claims, demands, actions and causes of action, including actual attorney fees, arising from the Applicant's use of Village property and the issuance of this Permit.

Are you able to provide these insurance documents, if required?: ☑ YES ☐ NO

DEPOSIT REQUIREMENTS

The applicant may be required to submit to the Village Clerk-Treasurer's Office a cleaning/damage deposit of $200 for each scheduled day of the event (or portion thereof) two weeks prior to the starting date of the event. That deposit shall be refunded to the applicant, if, upon inspection, all is in order, or a prorated portion thereof as may be necessary to reimburse the Village for loss or cleaning costs. The Village reserves the right to retain the entire deposit if cleanup is not completed satisfactorily in the time frame as specified in the permit. Unless otherwise stated in the permit, the applicant shall be fully responsible for all necessary cleanup associated with the permitted event to be completed within 12 hours after the conclusion of the event. (This deposit is separate from any deposit required for rental of Village parks).

TERMINATION OF AN EVENT

The Village reserves the right to cancel or shut down any event that is in progress if it is determined to pose a public safety risk (including severe weather) by the Police Department, Fire Department, or if there is a violation of Village Ordinances, State Statutes, or the terms of the approved permit/application. The Village Administrator or their designee may also revoke a park facility use permit before the event date if the applicant does not comply in good faith with the permit conditions.

CERTIFICATION

By signing this form, the applicant certifies that they are authorized to act on behalf of their organization and agree to hold the Village, its officers, agents, employees, and contractors harmless from any and all claims, liabilities, losses, damages, or expenses (including, but not limited to, attorney fees) arising from or related to any injury or damage to persons or property resulting directly or indirectly from activities conducted under this permit. Any changes to insurance coverage must be approved by the Village.

NOTICE FOR RENTAL

This rental agreement is based on a per-day rental of the venue. Please include setup and cleanup time within your requested rental period, as access to the facility is limited to the times specified in your reservation. Venues may be rented multiple times throughout the week or weekend. Do not leave valuables unattended. The Village is not responsible for lost, stolen, or damaged items. The security deposit will be refunded once all keys are returned to Village Hall and no damage to the facility has been reported. Deposits not claimed within two (2) weeks after the event date will be destroyed. In case of an emergency or park-related concern, please contact the **Mukwonago Police Department (non-emergency)** at **(262) 363-6435**.

Check before Submitting:

This form is designed to be a guide for submitting a complete application for a special event.

Application:

- ❑ Completed application form including the procedural checklist.
- ❑ Application fee: see fee sheet.

Other Documents:

- ❑ Plan of operation/proposal.
- ❑ Overview of the site to be used for the event (layout of the event site).
- ❑ Any additional information as determined by Village staff.

By signing this form, the applicant certifies authorization to act on behalf of their organization, and hereby agrees to hold the Village, its officers, agents, employees, and contractors harmless against all claims, liability, loss, damage or expense (including but not limited to actual attorney fees) incurred by the Village for any damage or injury to person or property caused by or resulting directly or indirectly from the activities for which the permit is granted. Any change to coverage requires Village approval.

Tom Daniels
Signature - Applicant

Tom Daniels
Name & Title (PRINT)

7/9/2026
Date

Signature - Applicant

Name & Title (PRINT)

Date

FOR OFFICE USE ONLY			
Date Fees Paid	**Receipt #**	**Key #**	**Key Returned?**

Police Department:	Approved ☐ Denied ☐	Comments:
Fire Department:	Approved ☐ Denied ☐	Comments:
Public Works Department:	Approved ☐ Denied ☐	Comments:
Village Administrator:	Approved ☐ Denied ☐	Comments:
Village Clerk:	Approved ☐ Denied ☐	Comments:
Village Building:	Approved ☐ Denied ☐	Comments:
Village Utilities:	Approved ☐ Denied ☐	Comments:
Village Board:	Approved ☐ Denied ☐	Comments:

Amount Deposit Paid	**Date Deposit Paid**	**Deposit Returned?**	**Any Issues?**

Certificate of Coverage

Date: 7/10/2026

Certificate Holder
Archdiocese of Milwaukee
3501 S. Lake Drive
PO Box 070912
Milwaukee, WI 53207-0912

This Certificate is issued as a matter of information only and confers no rights upon the holder of this certificate. This certificate does not amend, extend or alter the coverage afforded below.

Company Affording Coverage
THE CATHOLIC MUTUAL RELIEF SOCIETY OF AMERICA
10843 OLD MILL RD
OMAHA, NE 68154

Covered Location
St. James the Less Parish
830 E. Veterans Way
Mukwonago, WI 53149

Coverages

This is to certify that the coverages listed below have been issued to the certificate holder named above for the certificate indicated, notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the coverage afforded described herein is subject to all the terms, exclusions and conditions of such coverage. Limits shown may have been reduced by paid claims.

	Type of Coverage	Certificate Number	Coverage Effective Date	Coverage Expiration Date	Limits	
	Property				Real & Personal Property	
	D. General Liability [x] Occurrence [ ] Claims Made	8595	7/1/2026	7/1/2027	Each Occurrence	500,000
					General Aggregate	1,000,000
					Products-Comp/OP Agg	
					Personal & Adv Injury	
					Fire Damage (Any one fire)	
					Med Exp (Any one person)	
	Excess Liability	8595	7/1/2026	7/1/2027	Each Occurrence	500,000
					Annual Aggregrate	1,000,000
	Other				Each Occurrence	
					Claims Made	
					Aggregate	
					Annual Aggregrate	
					Limit/Coverage	

Description of Operations/Locations/Vehicles/Special Items (the following language supersedes any other language in this endorsement or the Certificate in conflict with this language)
General liability coverage only extends to the Village of Mukwonago, its officers, agents, employees and contractors for St. James the Less Parish's festival, August 21-23, 2026. Coverage only applies during the dates and times of the festival and only to claims arising out of the acts of St. James the Less Parish, not the acts or negligence of others.

Holder of Certificate

Additional Protected Person(s)

The Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Cancellation

Should any of the above described coverages be cancelled before the expiration date thereof, the issuing company will endeavor to mail 30 **days written notice to the holder of certificate named to the left, but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives.**

Authorized Representative Paul A. Petravon

0065012705

ENDORSEMENT

(TO BE ATTACHED TO CERTIFICATE)

Effective Date of Endorsement 8/21/2026 Charge Credit

Cancellation Date of Endorsement 8/24/2026

Certificate Holder Archdiocese of Milwaukee 3501 S. Lake Drive PO Box 070912 Milwaukee, WI 53207-0912

Location St. James the Less Parish 830 E. Veterans Way Mukwonago, WI 53149

Certificate No. 8595 of The Catholic Mutual Relief Society of America is amended as follows:

SECTION II - ADDITIONAL PROTECTED PERSON(S)

It is understood and agreed that Section II - Liability (only with respect to Coverage D - General Liability), is amended to include as an ***Additional Protected Person(s)*** the organization(s) shown in the schedule below.

Schedule - ADDITIONAL PROTECTED PERSON(S)

The Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Remarks:
General liability coverage only extends to the Village of Mukwonago, its officers, agents, employees and contractors for St. James the Less Parish's festival, August 21-23, 2026. Coverage only applies during the dates and times of the festival and only to claims arising out of the acts of St. James the Less Parish, not the acts or negligence of others.

However, the following limitations apply to coverage:

1. The maximum limits of coverage provided by Catholic Mutual Relief Society of America to the ***Additional Protected Person(s)*** named in this endorsement shall not exceed the coverage dollar amount specifically required by contract or agreement and agreed to by the ***Protected Person(s)***. In the absence of specific coverage limits within a referenced contract or agreement, the limits of liability afforded to the ***Additional Protected Person(s)*** must be listed on a separate Certificate of Coverage form attached to this endorsement. All limits of liability extended by this endorsement are inclusive of both Section II Coverage D and Section VII coverages (if applicable).
2. Unless specifically agreed to by contract or agreement, the coverage extended to the ***Additional Protected Person(s)*** by this endorsement is excess and non-contributory over any other available coverage or insurance.
3. This endorsement does not apply to any ***Occurrence*** outside the specific date(s) of a facility use agreement or terms of a lease.
4. This endorsement does not extend coverage to the ***Additional Protected Person(s)*** for ***Occurrences*** which cannot be attributed to primary acts or omissions of the ***Protected Person(s)***.
5. Provided that a premises is utilized by the ***Protected Person(s)*** in a manner consistent with its intended purpose and in accordance with the applicable contract, agreement, or lease, this endorsement does not extend coverage to the ***Additional Protected Person(s)*** for premises defects or other ***Occurrences*** which could not be discovered by the ***Protected Person(s)*** with reasonable diligence.
6. The limited coverage afforded to the ***Additional Protected Person(s)*** by this endorsement only applies to the extent permissible by law and shall not apply to non-delegable duties unless specifically agreed to by contract or agreement.

This extension of coverage shall not enlarge the scope of coverage provided to the ***Certificate Holder*** under this Certificate nor increase the limit of liability thereunder. Unless otherwise agreed by contract or agreement, coverage extended under this endorsement to the ***Additional Protected Person(s)*** will not precede the effective date of this endorsement or extend beyond the cancellation date.

ENDORSEMENT

(TO BE ATTACHED TO CERTIFICATE)

Effective Date of Endorsement 8/21/2026 Charge _____ Credit _____
Cancellation Date of Endorsement 8/24/2026
Certificate Holder Archdiocese of Milwaukee 3501 S. Lake Drive PO Box 070912 Milwaukee, WI 53207-091
Location St. James the Less Parish 830 E. Veterans Way Mukwonago, WI 53149
Certificate No. 8595 of The Catholic Mutual Relief Society of America is amended as follows:

PRIMARY AND NONCONTRIBUTORY
OTHER INSURANCE or COVERAGE CONDITION

This endorsement modifies coverage provided under the following:

PKS-100 SECTION II - LIABILITY CONDITIONS

The following is added to the **Other Insurance or Coverage** Condition and supersedes any provision to the contrary:

Primary and Noncontributory Insurance or Coverage
This protection is primary to and will not seek contribution from any other insurance or coverage available to an ***Additional Protected Person(s)*** under your certificate provided that:

(1) The ***Additional Protected Person(s)*** is a Named Insured under such other insurance; and

(2) You have agreed in writing in a contract or agreement that this protection would be primary and would not seek contribution from any other insurance available to the ***Additional Protected Person(s)*** .

Paul A. Peterson
Authorized Representative

PKS-207 (12-20)

McDonough Septic
[redacted]

Pricing:

20 Standard Units at the rate of $70 per unit, 1 Handicapped Units at the rate of $115 per unit, 4 Handwashing Stations at $100 per unit and 49 Servicing/Cleanings at $15 per cleaning/service: $2,500.

20 standard units at $70/unit= $1400

1 handicap unit at $115/unit= $115

4 handwash sink at $100/unit=$400

49 serviced and cleanings at $15/cleaning= $735

Totaling $2650

Discount $150

Bringing total to $2500.

Additional services if needed: $20.00 per unit

Standard Delivery and Set Up: No Charge

McDonough Septic recommends, due to demands in 2022, that a minimum of 4 sinks should be used for this event.

McDonough Septic also recommends that units behind band tent be placed in a horseshoe pattern with the sinks placed in the middle.

McDonough Septic also recommends an additional toilet be rented at a rate of $75 for Saturday, only to be placed in tractor pull area, if needed.

McDonough Septic will hold in reserve no less than 5 additional toilets, should event staff deem it necessary to add toilets due to expected good weather and/or high volume.

Please sign below and return to accept reservation for a term of 1 year,2026 festival.

_____ _____ 7-1-26

Rick Murphy, Committee Member of St. James Festival Date

Please sign below and return to accept reservation for 2027, 2028, 2029 at guaranteed pricing above. The number of units can be adjusted at the above pricing per unit.

X X 7-1-26

Rick Murphy Date

Committee Member of St. James Festival

McDonough Septic
5[redacted]

Proposal to Provide Portable Toilets

McDonough Septic will provide St. James Festival in Mukwonago, WI portable toilets and sinks to be placed at the direction and location of the staff.

Requested Units:

20 Standard Units delivered on Thursday August 20th, 2026

1 Handicapped Accessible Unit delivered on Thursday August 20th, 2026

4 Two-Person Handwashing Stations delivered on Thursday August 20th, 2026

Additional Notes:

All units to be cleaned by 10AM on Saturday, August 22nd, 2026.

All units to be cleaned by 10AM on Sunday, August 23rd, 2026.

10 units to be removed Sunday, August 23rd, 2026.

All units to be removed no later than Tuesday, August 25th, 2026.

*Additional services due to high usage can be provided on an as needed basis and shall be completed within four hours of notice at an additional charge of $20.00 per unit.

Standard units are 43" by 47" (15 percent larger than the industry standard for this class of unit) and have a hand sanitizer dispenser and two roll toilet paper dispensers inside the unit. Handicapped accessible units will allow wheelchair access and include a hand sanitizer dispenser and two roll toilet paper dispensers inside unit. Pickup and delivery charges are waived.

All units will be delivered and set up in new or like new condition.

WAUKESHA COUNTY
DEPARTMENT OF PARKS AND LAND USE
Division of Environmental Health

License, Permit or Registration

The person, firm, or corporation whose name appears on this license is hereby authorized to operate the facility indicated below. The operation and maintenance of the facility shall be in accordance with the Waukesha County Code. This is not a zoning permit.

ACTIVITY	EXPIRATION DATE	I.D. NUMBER
Retail Food - Serving Meals - Moderate Complexity	30-Jun-2027	HSAT-96F2JL

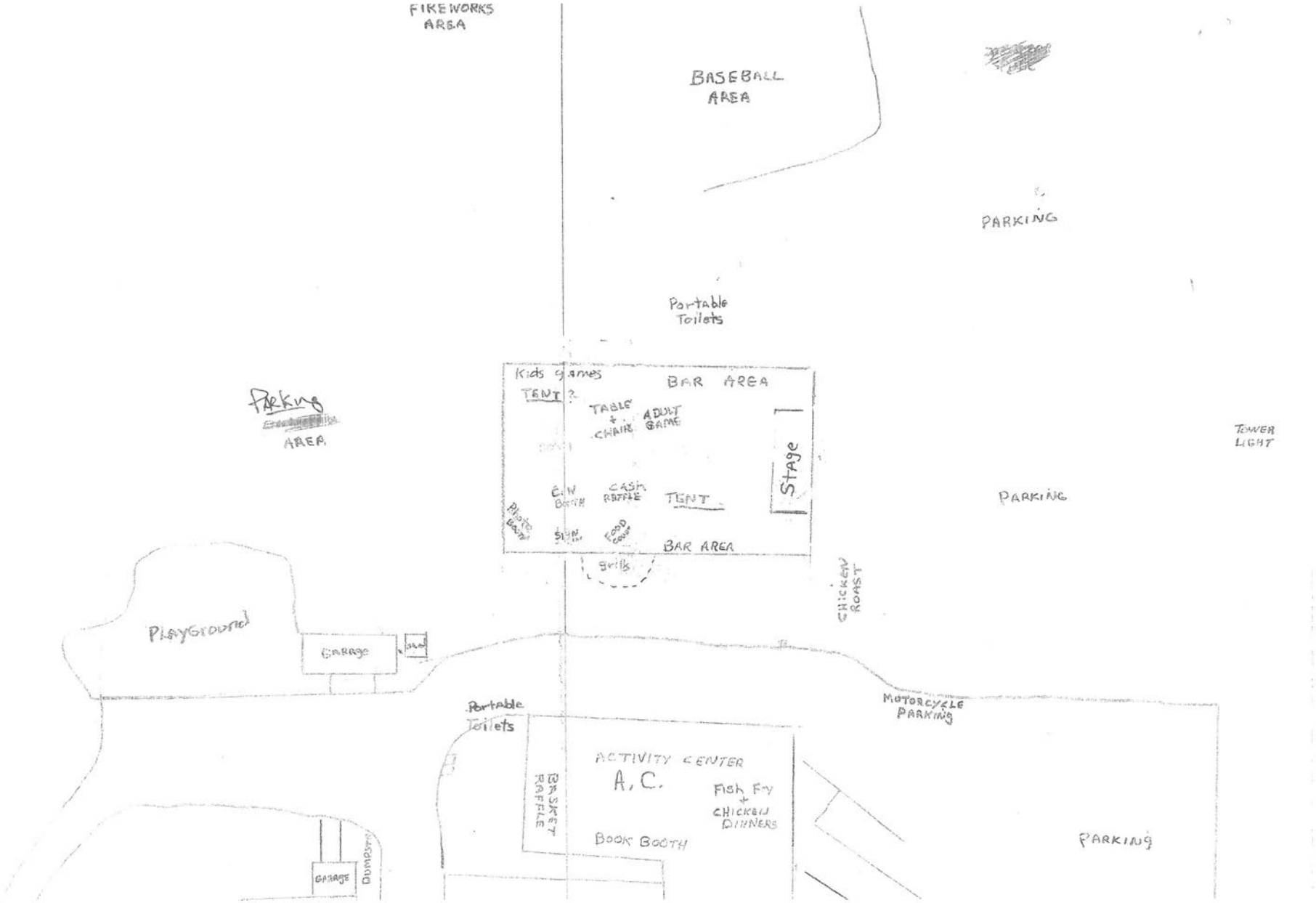
LICENSEE MAILING ADDRESS	NOT TRANSFERABLE	BUSINESS / ESTABLISHMENT ADDRESS
ST. JAMES CATHOLIC CHURCH 830 E VETERANS WAY MUKWONAGO WI 53149		ST. JAMES CATHOLIC CHURCH 830 E VETERANS WAY MUKWONAGO WI 53149

If you do not receive a renewal form prior to June 30th from your licensing authority, you should send in your payment for renewing your permit to the following address:

WAUKESHA COUNTY DEPARTMENT OF PARKS AND LAND USE DIVISION OF ENVIRONMENTAL HEALTH
515 W MORELAND BLVD AC 260
WAUKESHA, WI 53188
(262)896-8300

* Include the name of your facility and the ID number.

F-fd-123


FIREWORKS AREA
BASEBALL AREA
PARKING
Portable Toilets
Kids games
BAR AREA
TENT
TABLE + CHAIR
ADULT GAME
Stage
E.W Booth
CASH RAFFLE
TENT
Photo booth
SIGN IN
FOOD COUPON
BAR AREA
Grills
Parking AREA
TOWER LIGHT
PARKING
CHICKEN ROAST
PLAYGROUND
GARAGE
MOTORCYCLE PARKING
Portable Toilets
ACTIVITY CENTER
A.C.
BASKET RAFFLE
Fish Fry + CHICKEN DINNERS
BOOK BOOTH
PARKING
GARAGE
Dumpster

[redacted]

TENTS · EVENTS · CONTRACTOR EQUIPMENT

Status: Quote
Quote #: q21747-1

Event Beg: Fri 8/21/2026 7:30AM
Event End: Sun 8/23/2026 4:00PM
Operator: Duane Badzinski
Terms: On Account

Customer #: 50664

ST JAMES PARISH *

Phone 262-353-7615
Mobile 262-347-8975

830 E VETERANS WAY
MUKWONAGO, WI 53149

Delivery Mon 8/17/2026 8:00AM - 5:00PM

[redacted]

-

1)DELIVER MONDAY OR TUESDAY TO BE DONE BY TUESDAY
2)MUST HAVE CAPS ON ALL STAKES

-

Pickup Mon 8/24/2026 8:00AM - 5:00PM

[redacted]

-

1)PU CAN START MONDAY BUT HAVE AT AREA RENTALS AVAILABILITY NO RUSH

-

1)BILLING ACCOUNT
2)EVENT FESTIVAL
3)SURFACE GRASS
4)CUSTOMER IS RESPONSIBLE FOR CALLING DIGGERS HOTLINE 10 DAYS PRIOR
5)-50 DIRECT ACCESS FOR TRUCK TO SITE
6)PERMITS ARE THE RESPONSIBILITY OF THE CUSTOMER
7)CUSTOMER TO MARK CORNERS OF TENT PRIOR TO INSTALL
8)DAMAGE WAIVER AVAILABLE FOR AN ADDITIONAL 10% OF THE RENTAL COST

Qty	Key	Items	Status
	TENT		
1	127-0396	100X210WEN TENSION	Rental
1	127-0721	100X30WEN END ROPES	Rental
1	127-0722	100X30WEN END HOLES	Rental
5	127-0723	100X30WEN MID	Rental
	SIDEWALL		
22	128-0030-1	SIDEWALL,8'X20'SOLID,TRAD.	Rental
	STAGE		
60	096-0050	STAGE,4'X4'SECTIONS UP TO 32"TALL	Rental
	STAGE SIZE 24X40X24"		
60	096-0500-1	.STAGE,4'X4'SECTIONS	Rental
1	096-0095-1	STAGE,STEPS UP TO 32"TALL	Rental
	TABLES		
45	096-0025-1	TABLE,BANQ,8'X30" SEATS-8	Rental
	(DO NOT STAPLE TABLES , $5.00 CHARGE PER TABLE)		
	(TABLES ARE MADE OF PLYWOOD AND ARE DESIGNED TO BE COVERED)		
	1.50 CHARGE PER TABLE IF NOT BROKEN DOWN AND STACKED UPON PICKUP		
	CHAIRS		
275	096-0001-1	CHAIR,BLACK POLY	Rental
	A .30 CHARGE PER CHAIR IF NOT BROKEN DOWN AND STACKED UPON PICKUP		
140	125-0041	STAKE CAP	Rental
	MISC. SALES ITEMS		
1	MISC-1	DELIVERY/PICKUP	Delivery

Quote valid for 5 days.

Quote

I have read all pages associated with this contract. Front and Back

Area Rental has 5 Business Days to accept or decline the contract after submission of the signed contract based on equipment and staffing availability.

EQUIPMENT DAMAGE WAIVER, 10% of Rental Charge

INITIAL: ACCEPTED_____ DECLINED X_____

Signature: Trustee

ST JAMES PARISH *

Rental:	$18,404.48
Delivery Charge:	$310.00
Subtotal:	$18,714.48
Total:	$18,714.48
Paid:	$0.00
Amount Due:	$18,714.48

Modification #1

1. Lessee understands and agrees that said equipment remains the property of Lessor and that failure of the Lessee to return said equipment to Lessor within the time provided may constitute a crime and subject the Lessee to prosecution, therefore, unless such failure is occasioned through Lessee's required compliance with military orders. Equipment must not be taken more than 150 miles from origin without Lessor's approval.

2. Lessee agrees to pay Lessor for any loss of or damage to said equipment while in his custody or other expenses resulting from Lessee's use of said equipment. Lessee agrees to pay full rental fee of said equipment until payment for such repairs or replacements have been made to Area Rental. If Lessee accepts damage waiver, Lessee is not responsible for damage to equipment not caused through Lessee neglect up to maximum limit of $5,000, the Lessee would be responsible for all damages over and above the $5,000. The Lessee is fully responsible for the following regardless if the damage waiver was accepted or declined: damage to tires, cost of cleaning and reconditioning necessary resulting from use in painting, sandblasting or similar use of equipment, cost of repair or replacement from negligent use from misuse or abuse of the equipment or unnecessary exposure to the elements, or use for purposes for which the equipment was not designed, or for loading beyond capacity. Tractors, loaders and skid steer loaders are not to be used for the purpose of demolition.

3. Lessee authorizes Lessor to bill Lessee's credit card for all charges and expenses incurred pursuant to said contract.

4. Lessee agrees to indemnify and save harmless the Lessor from claims: loss and damage, including costs and attorney's fees arising from or occasioned by the operation, use or presence of the leased equipment or any act or default of Lessee, his agents or servant. Lessee assumes all risks, liabilities and costs for all injuries to or death of any person or persons and damage to the property of anyone arising or occasioned by the operation, use or presence of the leased equipment. Lessee shall reimburse Lessor for all attorney fees, court costs and expenses incurred by Lessor to enforce collection to preserve and enforce Lessor's rights under this contract.

5. Lessee shall assume all liability for any and all damage to personal property from any cause whatsoever while being transported in said trailer and/or equipment including damage caused by water or theft.

6. For the purpose of enforcing Lessor's ownership of said equipment and to protect Lessor's rights under the contract, Lessee agrees that Lessor may retake possession of equipment at any time and for such purpose to enter upon the premises of Lessee. Lessee hereby waives any right of action against Lessor by reason of such retaking or entry.

Lessee acknowledges that he has examined said equipment and/or trailer, together with any coupling mechanism and that said equipment and/or trailer and coupling mechanism are in good condition and that said trailer and/or equipment is securely connected to Lessee's automobile. Lessee agrees to assume all liability for any damages to the towing vehicle arising out of the use of said trailer and/or equipment. Lessee agrees to periodically inspect said equipment and/or trailer and coupling mechanism and to maintain the same in a safe, dependable and secure condition while in his custody. Lessee is fully responsible for the suitability of the towing vehicle and hitch assembles ability to transport the weight of the trailer and load. Regardless of the party at fault, Lessee understands and agrees to be responsible for damage to said trailer or equipment regulating from collision or other accident.

7. Lessee agrees that in the event any of the Property becomes unsafe or in a state of disrepair, Lessee will immediately discontinue the use thereof and promptly notify Lessor. Lessee accepts responsibility for evacuating any tent when wind or gust exceed 25 MPH or when other unsafe conditions arise. Lessor is not responsible for any damage caused by tents falling regardless of the cause. Grounds must be suitable for the use of installation equipment, Lessor is not responsible for grass, grounds or asphalt damage.

8. Reservations canceled or significantly altered less than 72 hours before the Property is to be delivered or picked up by Lessee are subject to a cancellation free equal to the full contract cost. All other reservation cancellations are subject to a cancellation fee of 1/3 of the contract cost. Counts may be reduced by up to 15 percent of the dollar amount of the contract without penalty a minimum of 72 hours before the Property is to be delivered or picked up. Deliveries are tail gate to tail gate. A $15 per man per 15 minutes is accessed on delays of pick ups or deliveries.

9. Lessee assumes full responsibility for any additional expenses incurred by Reason of Breakdown of said equipment. Lessee must pay for all gas used. Sales tax is added to all rentals. Lessee pays for time out, not time used. There are minimum charges on Lessor's equipment regardless if Lessee used up all of that time. In case of equipment breakdown, it is Lessee's responsibility to return equipment for service or replacement. Time adjustments may be made, however, Lessee is still responsible for rental fees. Any equipment kept overnight is charged on a daily basis. Any rental credits must be used within a 3 week period of the original rental contract. Lessee will be charged for service calls due to Lessee error.

10. This contract represents the entire agreement between the parties hereto and there are no collateral, oral or other agreements or understandings. Inquiry proposals are null and void if not accepted within 15 days.

ST. JAMES THE LESS PARISH
FESTIVAL

FRIDAY AUGUST 21ST, 2026 - SUNDAY AUGUST 23RD , 2026

FRIDAY, AUGUST 21
4PM - 11PM

$25,000 CASH/CAR RAFFLE

- FISH FRY
- FOOD COURT
- BAKERY BOOTH
- BASKET RAFFLE
- GAMES
- SILENT AUCTION
- BOOK BOOTH

***9 SMALLER CASH PRIZES; ONLY 4,000 TICKETS*

MUSIC:

"PATRICK MURPHY"
Nashville Singer/Songwriter
6 PM - 7:30PM

"BELLA CAIN"
8 PM - 11 PM

SATURDAY, AUGUST 22
9AM - 10PM

- FOOD COURT
- BOOK BOOTH
- SILENT AUCTION
- GAMES
- BASKET RAFFLE

CAR SHOW 9AM - 2PM

CORNHOLE TOURNAMENT - STARTS @ 11 AM

FIREWORKS @ 9:15 PM

MUSIC:

"DEPOT EXPRESS"
10 AM - 2 PM

"PATRICK MURPHY"
Nashville Singer/Songwriter
5:30 PM - 7 PM

"ATLANTIC WAVE"
7:30 PM - 9 PM

SUNDAY, AUGUST 23
11AM - 3PM

- CHICKEN DINNER
- FOOD COURT
- BASKET RAFFLE
- SILENT AUCTION
- GAMES

ALL RAFFLE PRIZES WILL BE DRAWN AT 2PM

MUSIC:

"Curated Music Playlist"
11 AM - 3 PM

St. James Catholic Church 830 E Veterans Way Mukwonago, WI 53149
www.stjamesmukwonago.org / 262-363-7615x110

ST. JAMES THE LESS PARISH

ANNUAL CAR SHOW

SATURDAY, AUGUST 22
9AM -2PM

LIVE MUSIC BY
DEPOT EXPRESS
10AM - 2PM

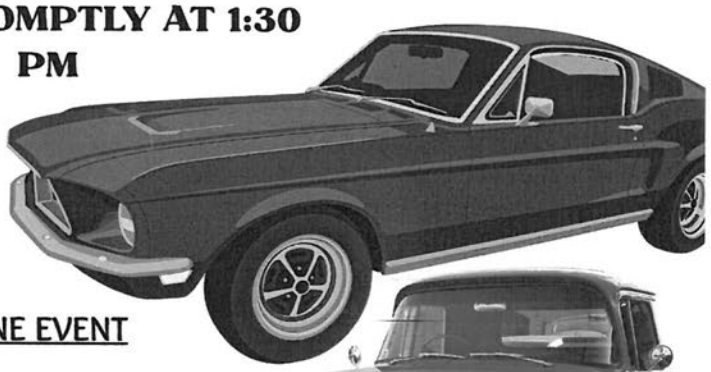
OPEN TO ALL MAKES & MODELS; CARS, TRUCKS, AND MOTORCYCLES

REGISTRATION
8:30AM - 1:30 PM
LOCATED IN LAWN ADJACENT TO THE TENT.
ST. JAMES CATHOLIC CHURCH
830 E VETERANS WAY,
MUKWONAGO, WI 53149

$10 PER VEHICLE

PEOPLE'S CHOICE AWARDS FOR CARS, TRUCKS, AND MOTORCYCLES

AWARDS AND RAFFLES GIVEN PROMPTLY AT 1:30 PM







RAIN OR SHINE EVENT

FOOD, SODA, & BEER WILL BE AVAILABLE
NO CARRY-INS PLEASE!

FOR MORE INFORMATION CONTACT:
RICK MURPHY
rmurphy@clcbuild.com 262-993-8111

Form
AB-220

Temporary Alcohol Beverage License

Municipality: V. Mukwonago

License(s) Requested	Fees	
☒ Temporary "Class B" Wine ☒ Temporary Class "B" Beer	License Fees	$ 10-
	Background Check	$
	Total Fees	$ 10-

Part A: Organization Information

1. Organization Name: St. James the Less Church
2. Organization Permanent Address: 830 E. Veterans Way
3. City: Mukwonago | 4. State: WI | 5. Zip Code: 53149
6. Mailing Address (if different from permanent address):
7. FEIN | 8. Date of Organization/Incorporation | 9. State of Organization/Incorporation
10. Phone | 11. Email
12. Organization type *(check one)*
☐ Bona Fide Club ☒ Church ☐ Fair Association/Agricultural Society ☐ Veteran's Organization
☐ Lodge/Society ☐ Chamber of Commerce or similar Civic or Trade Organization under ch. 181, Wis. Stats.
13. Is this organization required to hold a Wisconsin Seller's permit? ..... ☐ Yes ☒ No
14. Wisconsin Seller's Permit Number (if applicable)

Part B: Individual Information

List the name, title, and phone number for all officers, directors, and agent of the organization. Include an Individual Questionnaire (Form AB-100) for each person listed below. Attach additional sheets if necessary.

Corporations must also include Alcohol Beverage Appointment of Agent (Form AB-101).

Last Name	First Name	Title	Phone
			[redacted]
Murphy	Rick		
Daniels	Tom		

Continued →

Part C: Event Information

1. Name of Event (if applicable)	St. James Festival
2. Dates of Operation	August 21, - August 23, 2026
3. Hours of Operation	Aug 21st 4-11 PM Aug 22nd 9AM - 10PM Aug 23 11AM - 3PM
4. Premises Address	830 E. Veterans Way
5. City	Mukwonago
6. State	WI
7. Zip Code	53149
8. County	Waukesha
9. Governing Municipality ☐ City ☐ Town ☒ Village of: Mukwonago	
10. Aldermanic District	
11. Organizer of Event (if not the named applicant)	Rick Murphy
12. Email and/or Phone Number for Organizer of Event	[redacted]
13. Organizer Website	

15. Premises Description - Describe the building or buildings and any outside areas where alcohol beverages and records are sold, stored, or consumed, and related records are kept. Describe all rooms within the building, including living quarters. Authorized alcohol beverage activities and storage of records may occur only on the premises described in this application. Attach a map or diagram and additional sheets if necessary.

Located in the tent area

Part D: Attestation

Who must sign this application?

- one officer or director of the nonprofit organization

READ CAREFULLY BEFORE SIGNING: Under penalty of law, I have answered each of the above questions completely and truthfully. I agree that I am acting solely on behalf of the applicant organization and not on behalf of any other individual or entity seeking the license. Further, I agree that the rights and responsibilities conferred by the license(s), if granted, will not be assigned to another individual or entity. I agree to operate according to the law, including but not limited to, purchasing alcohol beverages from Wisconsin-permitted wholesalers. I understand that lack of access to any portion of a licensed premises during inspection will be deemed a refusal to allow inspection. Such refusal is a misdemeanor and grounds for revocation of this license. I understand that any license issued contrary to Wis. Stat. Chapter 125 shall be void under penalty of state law. I further understand that I may be prosecuted for submitting false statements and affidavits in connection with this application, and that any person who knowingly provides materially false information on this application may be required to forfeit not more than $1,000 if convicted.

Last Name: Daniels	First Name: Tom	M.I.
Title	[redacted]	
Signature: Tom Daniels		Date: 7-9-2026

Part E: For Clerk Use Only

Date Application Was Filed With Clerk: 7/9/2026	License Number
Date License Granted	Date License Issued
Signature of Clerk/Deputy Clerk	

Form
AB-100

Alcohol Beverage Individual Questionnaire

Date

All individuals involved in the alcohol beverage business must complete this form, including:

- sole proprietor
- all partners of a partnership
- all officers, directors, and agent of a corporation or nonprofit organization
- members and agent of a limited liability company

Your alcohol beverage application is not complete until all required Individual Questionnaires are submitted.

Part A: Business Information

1. Legal Business Name (individual name if sole proprietor)
   St James the Less Church
2. Business Trade Name or DBA
3. Entity Type *(check one)*
   ☐ Sole Proprietor ☐ Partnership ☐ Limited Liability Company ☐ Corporation ☑ Nonprofit Organization

Part B: Individual Information

1. Last Name	2. First Name	3. M.I.
Murphy	Richard	A

4. Relationship to Business (Title)
   Trustee

[redacted]

Part C: Address History

1. Do you currently live in Wisconsin? ☐ Yes ☑ No

   If yes, provide the month and year when you permanently moved to Wisconsin (MM/YYYY)

2. List in chronological order all of your addresses **within the last 5 years**. Attach additional sheets if necessary.

[redacted]

Previous Address 5	City	State	Zip Code

3. List all states and counties you have lived in as an adult. Attach additional sheets if necessary.

[redacted]

State	County	State	County	State	County	State	County

Continued ⟶

Part D: Criminal History

1. Have you ever been convicted of any offenses (excluding traffic offenses unless related to alcohol beverages) for violation of any federal, Wisconsin, or another state's laws or of any county or municipal ordinances?..... ☐ Yes ☑ No

If yes to question 1, please list details of each conviction below. Attach additional sheets as needed.

Law/Ordinance Violated	Location	Conviction Date

Penalty Imposed	Was sentence completed?..... ☐ Yes ☐ No

Law/Ordinance Violated	Location	Conviction Date

Penalty Imposed	Was sentence completed?..... ☐ Yes ☐ No

Law/Ordinance Violated	Location	Conviction Date

Penalty Imposed	Was sentence completed?..... ☐ Yes ☐ No

2. Are charges for any offenses currently pending against you (excluding traffic offenses unless related to alcohol beverages) for violation of any federal, Wisconsin, or another state's laws or any county or municipal ordinances?..... ☐ Yes ☑ No

If yes to question 2, describe nature and status of pending charges using the space below. Attach additional sheets as needed.

Part E: Attestation

READ CAREFULLY BEFORE SIGNING: Under penalty of law, I have answered each of the above questions completely and truthfully. I certify that I am not prohibited from participating in this business due to any involvement in another tier of the alcohol beverage industry as a restricted investor. I understand that any license issued contrary to Wis. Stat. Chapter 125 shall be void under penalty of state law. I further understand that I may be prosecuted for submitting false statements and affidavits in connection with this application, and that any person who knowingly provides materially false information on this application may be required to forfeit not more than $1,000 if convicted.

Signature	Date
RQAM	07/17/2026

07/20/26 CP OK

Save | Print | Clear

Form **AB-100**

Alcohol Beverage Individual Questionnaire

Date 7/16/26

All individuals involved in the alcohol beverage business must complete this form, including:

- sole proprietor
- all partners of a partnership
- all officers, directors, and agent of a corporation or nonprofit organization
- members and agent of a limited liability company

Your alcohol beverage application is not complete until all required Individual Questionnaires are submitted.

Part A: Business Information

1. Legal Business Name (individual name if sole proprietor): St. James the Less Catholic Church
2. Business Trade Name or DBA:
3. Entity Type *(check one)*
   ☐ Sole Proprietor ☐ Partnership ☐ Limited Liability Company ☐ Corporation ☑ Nonprofit Organization

Part B: Individual Information

1. Last Name	2. First Name	3. M.I.
Daniels	Thomas	J.

4. Relationship to Business (Title): Church Council

[redacted]

Part C: Address History

1. Do you currently live in Wisconsin? ☑ Yes ☐ No

   If yes, provide the month and year when you permanently moved to Wisconsin (MM/YYYY): 10/1961

2. List in chronological order all of your addresses **within the last 5 years**. Attach additional sheets if necessary.

[redacted]

3. List all states and counties you have lived in as an adult. Attach additional sheets if necessary.

State	County	State	County	State	County	State	County
[redacted]							

Continued →

Part D: Criminal History

1. Have you ever been convicted of any offenses (excluding traffic offenses unless related to alcohol beverages) for violation of any federal, Wisconsin, or another state's laws or of any county or municipal ordinances? ☐ Yes ☒ No

If yes to question 1, please list details of each conviction below. Attach additional sheets as needed.

Law/Ordinance Violated	Location	Conviction Date

Penalty Imposed	Was sentence completed? ☐ Yes ☐ No

Law/Ordinance Violated	Location	Conviction Date

Penalty Imposed	Was sentence completed? ☐ Yes ☐ No

Law/Ordinance Violated	Location	Conviction Date

Penalty Imposed	Was sentence completed? ☐ Yes ☐ No

2. Are charges for any offenses currently pending against you (excluding traffic offenses unless related to alcohol beverages) for violation of any federal, Wisconsin, or another state's laws or any county or municipal ordinances? ☐ Yes ☒ No

If yes to question 2, describe nature and status of pending charges using the space below. Attach additional sheets as needed.

Part E: Attestation

READ CAREFULLY BEFORE SIGNING: Under penalty of law, I have answered each of the above questions completely and truthfully. I certify that I am not prohibited from participating in this business due to any involvement in another tier of the alcohol beverage industry as a restricted investor. I understand that any license issued contrary to Wis. Stat. Chapter 125 shall be void under penalty of state law. I further understand that I may be prosecuted for submitting false statements and affidavits in connection with this application, and that any person who knowingly provides materially false information on this application may be required to forfeit not more than $1,000 if convicted.

Signature	Date
Thomas J. Daniel	7/16/2026

OK Chief C. D. 7246 07/22/26

VILLAGE OF MUKWONAGO WAUKESHA AND WALWORTH COUNTIES

RESOLUTION NO. 2026-53

Resolution to accept the Conveyance and Dedication of the existing private water main facilities and associated appurtenances located within the properties of MUKV16999003 and MUKV1963999052 (retired), as identified by Certified Survey Map No. 12779

WHEREAS, The Village of Mukwonago has reviewed the existing private water main facilities and associated appurtenances located within the properties of MUKV16999003 and MUKV1963999052 (retired), as identified by Certified Survey Map No. 12779, identified as Exhibit A, in conjunction with the dedication of right-of-way for the extension of Marsh View Drive in the Village of Mukwonago.; and

WHEREAS, the water main facilities were constructed in phases between 1990 and 1996 and have remained under private ownership (DC Properties LLP) and maintenance since their installation. As part of the Marsh View Drive extension and associated right-of-way dedication, the Village has evaluated the condition and functionality of these facilities for acceptance into the Village's public water utility system; and

WHEREAS, Michael Michalski, a Civil Engineer with Ruekert & Mielke, identified that water utility facilities will offer a great benefit to the public water system and the upon acceptance, the above-described facilities shall become part of the Village of Mukwonago Water Utility System, and the Village shall assume responsibility for their ownership, operation, maintenance, and future replacement in accordance with applicable Village ordinances and utility regulations.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, that the Village does hereby accept the Conveyance and Dedication of the existing private water main facilities and associated appurtenances located within the properties of MUKV16999003 and MUKV1963999052 (retired), as identified by Certified Survey Map No. 12779, identified as Exhibit A.

BE IT FURTHER RESOLVED that Village Staff is hereby directed to take such steps as necessary to effectuate the intention of this Resolution.

Adopted this 19th day of August, 2026.

APPROVED:

_____
Fred H Winchowky, Village President

Attestation:

_____
Lana C Kropf, WCMC
Village Clerk-Treasurer

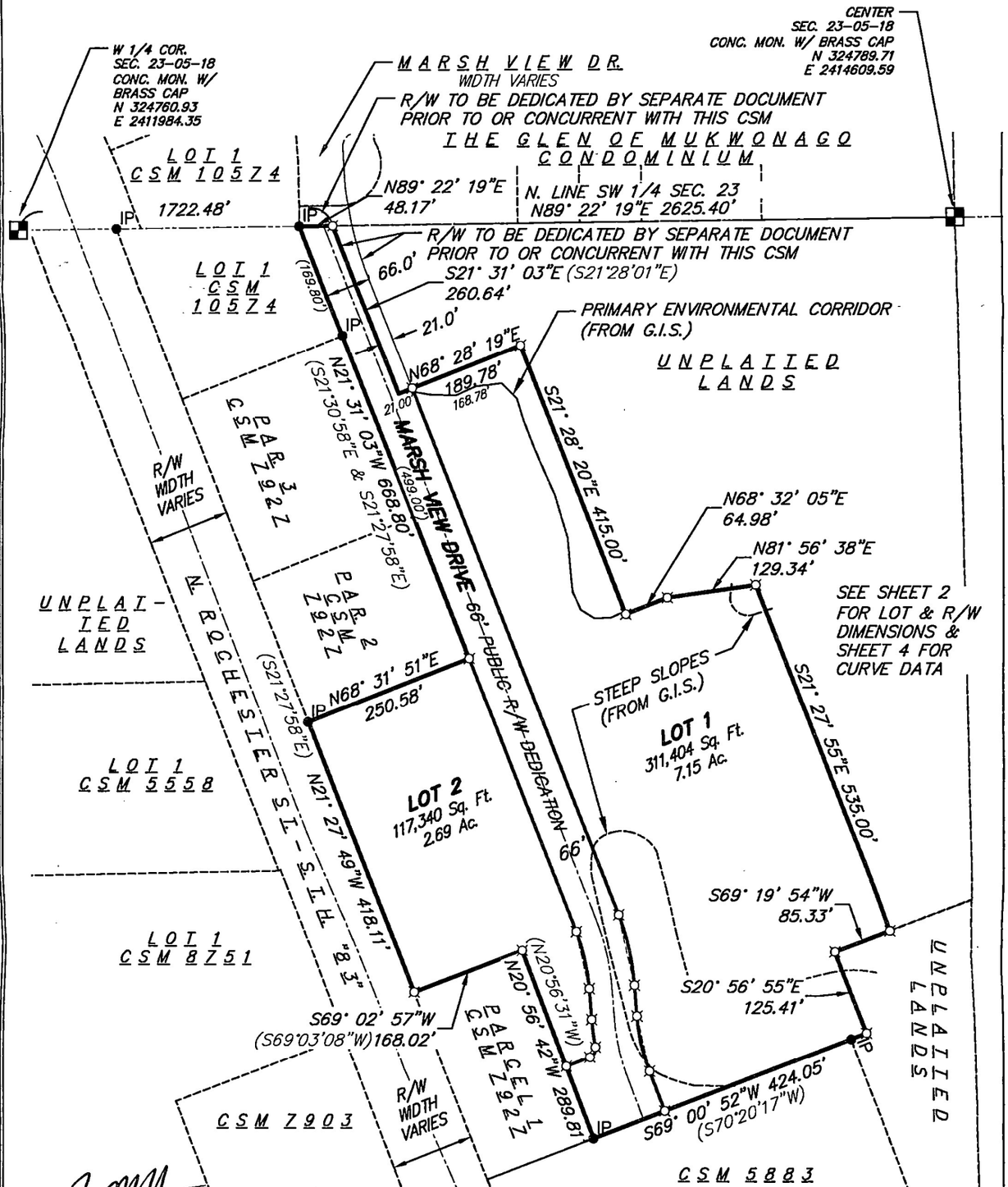
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Book 134 Page 186-190

RM814PB

CERTIFIED SURVEY MAP NO. 12779

PART OF THE NE 1/4 AND SE 1/4 OF THE SW 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN



1-28-2026

WISCONSIN
BAIBA M. ROZITE
S-2351
MILWAUKEE WI
LAND SURVEYOR

IP FOUND 1" DIAM. IRON PIPE

SET 3/4" DIAM. X 18" LONG IRON ROD, MIN. WT. 1.13 LBS/FT.

FOUND CONCRETE MONUMENT WITH BRASS CAP

N
W E
S

0 100 200
SCALE IN FEET

BEARINGS ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, NAD 83, SOUTH ZONE, NORTH LINE OF SW 1/4 OF 23-05-18 BEARS N 89°22'19" E.

PREPARED FOR:
DC PROPERTIES LLP
1243 FOX RIVER CT
MUKWONAGO, WI 53149-9539

PREPARED BY:
RUEKERT & MIELKE, INC.
W233 N2080 RIDGEVIEW PKWY.
WAUKESHA, WI 53188

SHEET 1 OF 5

Ruekert·Mielke
Waukesha • Kenosha • Madison
Global Water Center • Fox Valley
www.ruekertmielke.com

THIS INSTRUMENT WAS DRAFTED BY B. ROZITE, P.L.S., CHECKED BY T. PLACEK (1/28/2026)

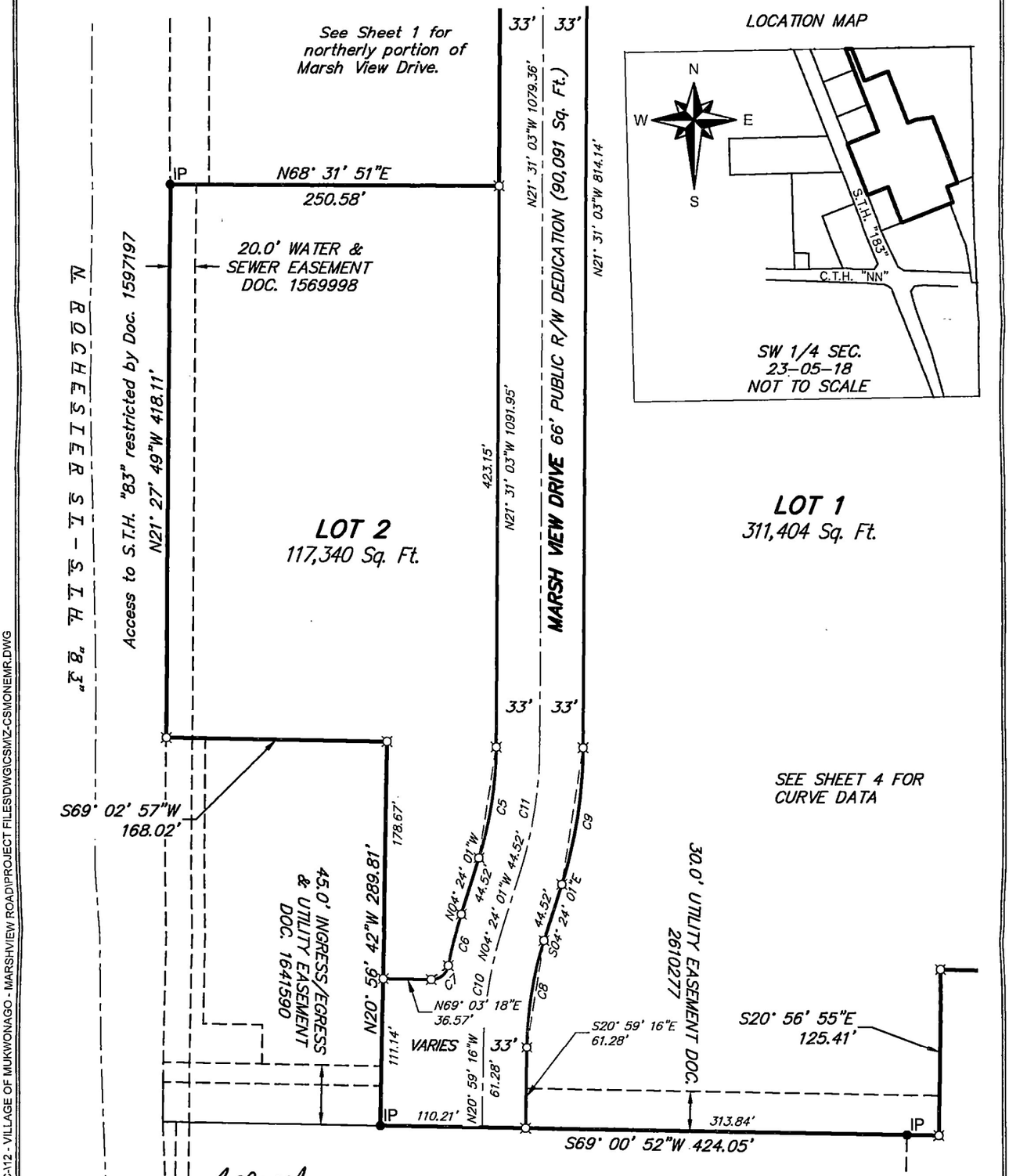
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CERTIFIED SURVEY MAP NO. 12779

PART OF THE NE 1/4 AND SE 1/4 OF THE SW 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN



1-28-2026

WISCONSIN
BAIBA M. ROZITE
S-2351
MILWAUKEE
WI
LAND SURVEYOR

- IP FOUND 1" DIAM. IRON PIPE
- SET 3/4" DIAM. X 18" LONG IRON ROD, MIN. WT. 1.13 LBS/FT.
- FOUND CONCRETE MONUMENT WITH BRASS CAP

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SCALE IN FEET

BEARINGS ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, NAD 83, SOUTH ZONE, NORTH LINE OF SW 1/4 OF 23-05-18 BEARS N 89°22'19" E.

SHEET 2 OF 5

THIS INSTRUMENT WAS DRAFTED BY B. ROZITE, P.L.S., CHECKED BY T. PLACEK (1/28/2026)

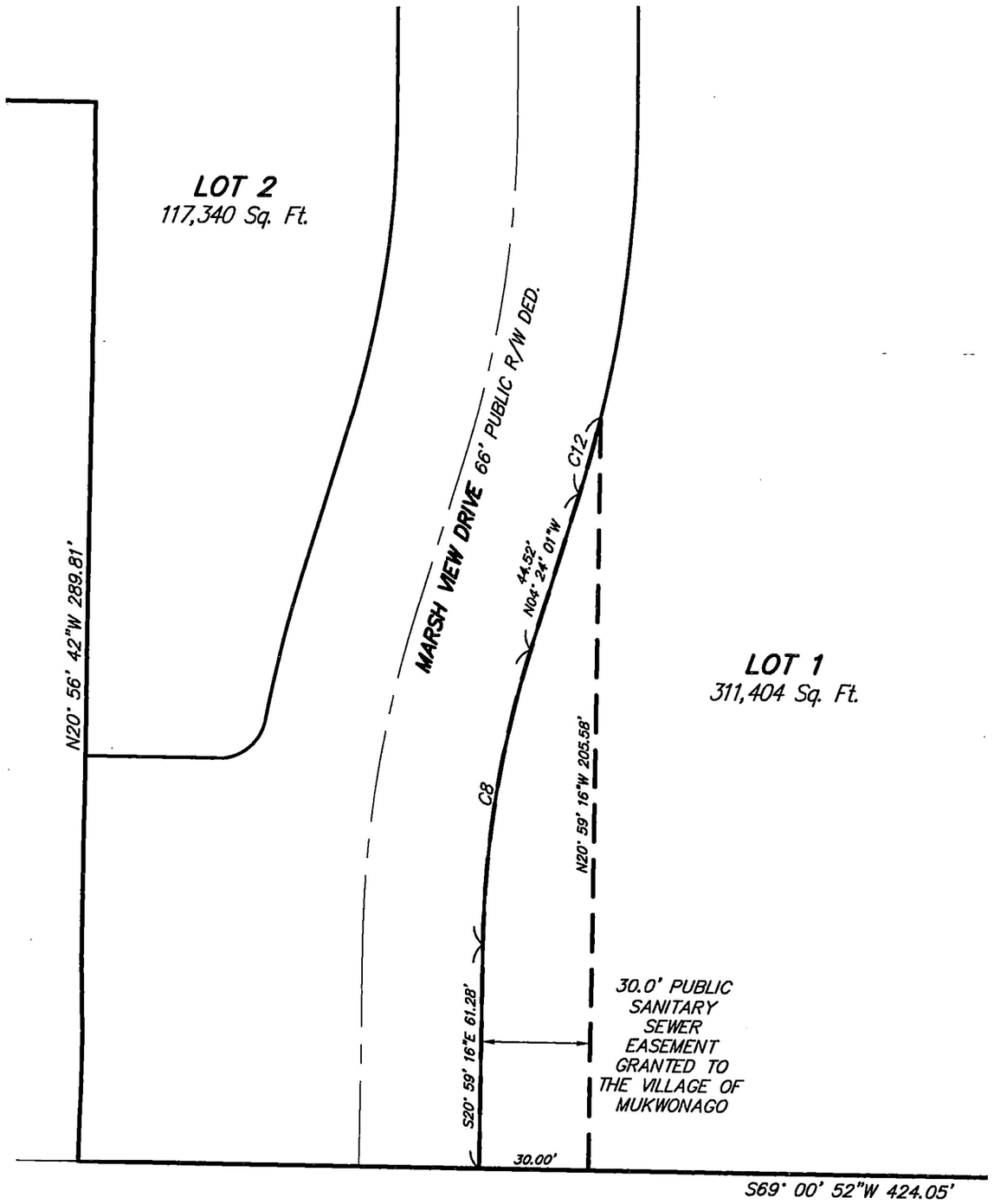
Ruekert·Mielke
Waukesha • Kenosha • Madison
Global Water Center • Fox Valley
www.ruekertmielke.com

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CERTIFIED SURVEY MAP NO. 12779

PART OF THE NE 1/4 AND SE 1/4 OF THE SW 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN



1-28-2026

WISCONSIN
BAIBA M. ROZITE
S-2351
MILWAUKEE
WI
LAND SURVEYOR

SEE SHEET 4 FOR CURVE DATA

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W
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0 20 40
SCALE IN FEET

BEARINGS ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, NAD 83, SOUTH ZONE, NORTH LINE OF SW 1/4 OF 23-05-18 BEARS N 89°22'19" E.

SHEET 3 OF 5

Ruekert·Mielke
Waukesha • Kenosha • Madison
Global Water Center • Fox Valley
www.ruekertmielke.com

THIS INSTRUMENT WAS DRAFTED BY B. ROZITE, P.L.S., CHECKED BY T. PLACEK (1/28/2026)

881

RM814PB

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RM814PB

CERTIFIED SURVEY MAP NO. 12779

PART OF THE NE 1/4 AND SE 1/4 OF THE SW 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN }
COUNTY OF WAUKESHA } SS

I, Baiba M. Rozite, Ruekert & Mielke, Inc., Wisconsin Professional Land Surveyor, do hereby certify that I have surveyed, divided and mapped part of the NE 1/4 and the SE 1/4 of the SW 1/4 of Section 23, Township 5 North, Range 18 East, in the Village of Mukwonago, Waukesha County, Wisconsin, bounded and described as follows:

Commencing at the West 1/4 corner of said Section 23; thence North 89°22'19" East, 1722.48 feet along the north line of said SW 1/4 section to the point of beginning of this description; thence South 21°31'03" East, 260.64 feet; thence North 68°28'19" East, 189.78 feet; thence South 21°28'20" East, 415.00 feet; thence North 68°32'05" East, 64.98 feet; thence North 81°56'38" East, 129.34 feet; thence South 21°27'55" East, 535.00 feet; thence South 69°19'54" West, 85.33 feet; thence South 20°56'55" East, 125.41 feet to the easterly extension of the north line of Certified Survey Map No. 5883; thence South 69°00'52" West, 424.05 feet along said north line and its extension to the easterly line of Parcel 1 of Certified Survey Map No. 7927; thence North 20°56'42" West, 289.81 feet along said easterly line to the northerly line of said Parcel 1; thence South 69°02'57" West, 168.02 feet along said northerly line to the easterly line of N. Rochester Street – S.T.H. "83"; thence North 21°27'49" West, 418.11 feet along said easterly line to the southerly line of Parcel 2 of said Certified Survey Map No. 7927; thence North 68°31'51" East, 250.58 feet along said southerly line to the easterly line of said Parcel 2 and Parcel 3 of said Certified Survey Map No. 7927 and the easterly line of Lot 1 of Certified Survey Map No. 10574; thence North 21°31'03" West, 668.80 feet along said easterly line to the north line of said SW 1/4 section; thence North 89°22'19" East, 48.17 feet along said north line to the point of beginning. Containing 518,836 square feet or 11.911 acres of land, more or less. The right-of-way dedication of Marsh View Drive contains 90,091 square feet of land, more or less.

That I have made this survey, land division and map by the direction of DC Properties LLP, owner of said land.

That such map is a correct representation of all the exterior boundaries of the land surveyed and the division thereof made.

That I have fully complied with the provisions of Chapter 236 of the Wisconsin Statutes and Chapter 45 of the Village of Mukwonago land division ordinance in surveying, dividing and mapping of same.

1-28-2026

Baiba M. Rozite, PLS – 2351
Date of field work: 9/23/2025

WISCONSIN
BAIBA M. ROZITE
S-2351
MILWAUKEE WI
LAND SURVEYOR

CURVE TABLE							
CURVE #	RADIUS	DELTA	CHORD	CHORD BRG.	ARC	TAN BRG. IN	TAN BRG. OUT
C5	283.00'	17°07'01"	84.23'	N12° 57' 32"W	84.55'	N4° 24' 01"W	N21° 31' 03"W
C6	349.00'	6°35'09"	40.09'	N7° 41' 36"W	40.12'	N10° 59' 11"W	N4° 24' 01"W
C7	13.00'	80°21'39"	16.78'	N29° 02' 05"E	18.23'	N69° 12' 54"E	N11° 08' 45"W
C8	283.00'	16°35'15"	81.64'	S12° 41' 39"E	81.93'	S4° 24' 01"E	S20° 59' 16"E
C9	349.00'	17°07'01"	103.88'	S12° 57' 32"E	104.26'	S21° 31' 03"E	S4° 24' 01"E
C10	316.00'	16°35'15"	91.16'	N12° 41' 39"W	91.48'	N20° 59' 16"W	N4° 24' 01"W
C11	316.00'	17°07'01"	94.05'	N12° 57' 32"W	94.40'	N4° 24' 01"W	N21° 31' 03"W
C12	349.00'	3°32'25"	21.56'	S6° 10' 14"E	21.56'	S7° 56' 26"E	S4° 24' 01"E

SHEET 4 OF 5

Ruekert·Mielke
Waukesha • Kenosha • Madison
Global Water Center • Fox Valley
www.ruekertmielke.com

THIS INSTRUMENT WAS DRAFTED BY B. ROZITE, P.L.S., CHECKED BY T. PLACEK (1/28/2026)

C:\USERS\BROZITE\DC\ACCDOCS\RUEKERT & MIELKE, INC\12 - VILLAGE OF MUKWONAGO - MARSHVIEW ROAD\PROJECT FILES\DWG\CSMZ-CSMONEMR.DWG

RM814PB

CERTIFIED SURVEY MAP NO. 12779

PART OF THE NE 1/4 AND SE 1/4 OF THE SW 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN

OWNER'S CERTIFICATE OF DEDICATION:

DC Properties LLP, a Wisconsin limited liability partnership duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said limited liability partnership caused the land described on this map to be surveyed, divided, mapped and dedicated as represented on this map.

DC Properties LLP, as owner, does further certify that this Certified Survey Map is to be submitted to the following for approval or objection:

The Village of Mukwonago

WITNESS the hand and seal of said owner(s) this 4th day of March, 20 26.

DC Properties LLP

Darwin D. Greenwald — PARTNER (Title (print))

STATE OF WISCONSIN } SS
COUNTY OF Waukesha }

LANA C KROPF NOTARY PUBLIC STATE OF WISCONSIN

Personally came before me this 4th day of March, 20 26, Darwin D. Greenwald of DC Properties LLP, to me known to be the partner said DC Properties LLP, and acknowledged that he executed the foregoing instrument by its authority.

Notary Public, Waukesha County, ____ My Commission Expires 3/29/2029

VILLAGE BOARD APPROVAL:

Resolved, that this Certified Survey Map, in the Village of Mukwonago, is hereby approved by the Village Board of the Village of Mukwonago.

Dated this 18th day of February, 20 26.

Fred H. Winchowky, Village President — Lana Kropf, Village Clerk

I hereby certify that the foregoing is a copy of a resolution adopted by the Village Board of the Village of Mukwonago.

Lana Kropf, Village Clerk

PLAN COMMISSION APPROVAL:

Resolved, that this Certified Survey Map, in the Village of Mukwonago is hereby approved by the Village of Mukwonago Plan Commission.

Fred H. Winchowky, Chairman — Shay Zerfas, Deputy Clerk — March 4, 2026 Date

WISCONSIN BAIBA M. ROZITE S-2351 MILWAUKEE WI LAND SURVEYOR 1-28-2026

4865480

REGISTER OF DEEDS
WAUKESHA COUNTY, WI
RECORDED ON
March 17, 2026 10:55 AM
James R Behrend
Register of Deeds
5 PGS
TOTAL FEE:$30.00
TRANS FEE:$0.00

Book 134 Page 186-190

SHEET 5 OF 5

Ruekert·Mielke
Waukesha • Kenosha • Madison
Global Water Center • Fox Valley
www.ruekertmielke.com

THIS INSTRUMENT WAS DRAFTED BY B. ROZITE, P.L.S., CHECKED BY T. PLACEK (1/28/2026)

190

C:\USERS\BROZITE\DOCUMENTS\ACCDOCS\RUEKERT & MIELKE, INC-112 - VILLAGE OF MUKWONAGO - MARSHVIEW ROAD\PROJECT FILES\DWG\CSMZ-CSMONEMR.DWG

VILLAGE OF MUKWONAGO

440 River Crest Court Mukwonago, WI 53149
Tel. (262) 363-6420 | Fax: (262)363-6425 | www.villageofmukwonago.gov

Date: July 24, 2026

Mr. Darwin Greenwald
DC Properties LLP
1243 Fox River Court
Mukwonago, WI 53149

Re: Acceptance of Conveyance and Dedication of Existing Private Water Main Facilities

Dear Mr. Greenwald:

The Village of Mukwonago has reviewed the existing private water main facilities and associated appurtenances located within the properties of MUKV16999003 and MUKV1963999052 (retired), as identified by Certified Survey Map No. 12779, in conjunction with the dedication of right-of-way for the extension of Marsh View Drive in the Village of Mukwonago.

The water main facilities were constructed in phases between 1990 and 1996 and have remained under private ownership and maintenance since their installation. As part of the Marsh View Drive extension and associated right-of-way dedication, the Village has evaluated the condition and functionality of these facilities for acceptance into the Village's public water utility system

Based upon the Village's review of the facilities, the Village of Mukwonago hereby accepts the dedication of the following water utility improvements:

ACCEPTANCE OF WATER SUPPLY FACILITIES

Including, but not limited to:

- Water mains,
- Fire hydrants,
- Valves and valve boxes,
- Related water main appurtenances,
- Associated easements and utility infrastructure necessary for the operation of the water distribution system.

Upon acceptance, the above-described facilities shall become part of the Village of Mukwonago Water Utility System, and the Village shall assume responsibility for their ownership, operation, maintenance, and future replacement in accordance with applicable Village ordinances and utility regulations.

The Village appreciates the cooperation of DC Properties LLP in the transfer of these water utility facilities for the benefit of the public water system.

Acknowledgment of Conveyance

The undersigned, on behalf of DC Properties LLP, hereby conveys and dedicates the above-described water utility facilities to the Village of Mukwonago.

DC PROPERTIES LLP

Approves this ___ day of July, 2026.

Name: _____

Title: _____

Date: _____

Acceptance by the Village of Mukwonago

The Village of Mukwonago hereby accepts the conveyance and dedication of the water utility facilities described herein and incorporates such facilities into the Village of Mukwonago Water Utility System.

VILLAGE OF MUKWONAGO

Approves this ___ day of July, 2026.

By: _____
Fred Winchowky, Village President

Attest: _____
Lana Kropf, Village Clerk-Treasurer

PLAN COMMISSION STAFF REPORT

TO: Village of Mukwonago Plan Commission

FROM: Peter Gesch, P.E., Ruekert & Mielke, Inc.

REPORT DATE: July 13, 2026

MEETING DATE: July 21, 2026, 6:30 P.M.

SUBJECT: Elegant Farmer – Site Plan & Architectural Review & Conditional Use

BASIC INFORMATION	
Project:	Elegant Farmer Event Venue
Applicant:	Elegant Farmer, Inc.
Consulting Engineer:	Endpoint Solutions
Consulting Architect:	David C. Baum
Request:	Site Plan & Architectural Review & Conditional Use
Staff Recommendation:	Approve with Conditions

PARCEL DATA/CHARACTERISTICS	
Tax Key:	VM 00010
Acreage:	2.90 Acres
Current Use:	General Retail
Proposed Use:	General Retail & Assembly Hall
Reason for Request:	Partial Remodel for Assembly hall
Land Use Classification:	Business
Zoning Classification:	B-2 General Business District

Project Summary & Overview

The Elegant Farmer is proposing to remodel their existing Greenhouse building into a two-level, 6,480 square-foot event assembly hall. The main barn building is planned to stay as well as the majority of the rest of the site infrastructure. The venue would be able to accommodate up to 250 occupants with two separate event areas that can be utilized for one primary event or two smaller events upstairs and downstairs.

Staff met with the applicant in a preliminary pre-application meeting to discuss the need for parking, adequate fire protection from the existing retail barn structure, coordination with local protective services during larger events such as the applicant does now, but not on a regular basis for every event, coordination with Walworth County to verify the access points are adequate to CTH ES, and several other

site details. Staff have reviewed the application documents and provided the comments in the section below.

Conditional Use Request

Attached to this staff report is the justification questions for a Conditional Use Permit that have been answered by the applicant. The Planning Commission shall take these into consideration when making their decisions and recommendations.

Conditional Use Process / Findings

The established review procedures are that the Plan Commission shall hold a public hearing and make a recommendation to the Village Board whom makes the final decision.

Following the close of the public hearing, the Plan Commission may recommend (1) approval, (2) approval with conditions, or (3) denial.

If approval is recommended, the Plan Commission can recommend conditions deemed necessary to protect public health, safety, and welfare. The Plan Commission, in passing on the matter, will need to make the following determinations consistent with Section 100-354 of Mukwonago's Zoning Regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
3. The establishment, maintenance or operation of the conditional use is compatible with surrounding properties, whether in the same or different zoning districts. In making this determination, the Plan Commission and Village Board must determine whether the petitioner has demonstrated there are no adverse effects on surrounding properties or that potentially adverse effects have been eliminated or reduced to an acceptable level. Approaches that could be employed to mitigate potentially adverse effects will depend on the particular circumstances but may include:
    a. Adjusting the location of the use, or parts thereof, on the subject property;
    b. Limiting hours of operation;
    c. Limiting the size or scope of the use, or parts thereof;
    d. Controlling how the use is managed on an ongoing basis;
    e. Providing additional landscaping;
    f. Providing additional screening; and
    g. Limiting operations conducted out-of-doors, if otherwise allowed
4. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
5. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
6. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner / tenant has shown compliance with the requirements set forth in the Village's zoning regulations for specified use.

The Village Board will carefully review the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

These findings are incorporated into the draft conditional use order which is attached.

The Plan Commission shall approve a conditional use application if the terms and conditions of the zoning regulations are met. However, in the event the terms and conditions of the ordinance are not consented to and complied with by the applicant, the Commission may deny the application. In addition, the Commission may deny the application or place conditions on it if substantial evidence, as defined in §62.23(7) Wis. Stats. is presented. That evidence must demonstrate the inability of the applicant to comply with or meet the conditions of the zoning regulations or that the conditions to be applied by the Plan Commission are necessary to protect the public health, safety or welfare of the community based upon the presentation of substantial evidence. Potential motion for approval to Recommend to the Village Board approval of the project as a conditional use as set forth in the attached conditional use order as drafted, provided the Village Attorney approves the final form of the conditional use order.

Staff Review

Engineering:

- Final civil plans will need to be provided and approved by staff prior to issuance of Building permits.
- Construction signage shall be added to the area near the existing barn retail facility to prevent construction traffic from utilizing the northern entrance.
- Sanitary manhole detail shall be added to the plans.
- Prior to approval of the final plans, applicant shall provide more detail on the grading and drainage near the outfall of the proposed storm sewer on the south west corner of the site. Existing grades are shown on the grading and erosion control plan, but not labeled.

Public Works — No comments at this time. Email verification from Walworth County that they don't see issues with the existing access drives is sufficient.

Utilities

- Existing 4-inch sanitary lateral will need to be abandoned at the sewer main.

Police — No comments at this time.

Fire

- Turning Template was provided. One stall that gets cut off by the fire apparatus needs to be striped for no parking.
- Show location of FDC on the proposed utility and architectural plans.

- Clearly indicate location of fire riser room on final architectural drawings and provide exterior access.

Building Inspection No comments at this time.

Planning

- The maximum building height is met. The parapet structures at the top of the building are exempt from the maximum height restriction.
- A photometric site plan shall be provided showing zero footcandles at the property lines. Staff have no concern this can be met.
- Parking is adequate per the ordinance. The Plan of Operation details how event staff and management will manage congestion and overflow parking on adjacent parcels owned by the Elegant Farmer. If parking becomes an issue, event staff will work with Village Staff to remedy the issue. Biggest possibility for concern is daily retail hours overlapping larger events, however, the plan of operation and management have indicated overflow parking across the street will be used during these times to manage the needed parking and staff is able to park on the lot across the railroad tracks.
- Landscaping is adequate and provides parking lot required landscaping adjacent to building structure. Existing vegetation to south of proposed parking lot should remain to maximum extent practicable and new vegetation should be added if necessary after construction to screen neighboring parcel.
- Any venue signage shall be submitted and approved via the Village's Sign Permit prior to construction.
- Dumpster locations are screened by existing fence in rear of building and new proposed building.

Recommended Action

Conditional Use Permit
Staff recommends the Planning Commission recommend to the Village Board approval of a conditional use permit as set forth in the provided resolution.

To – Grant a Conditional Use Permit for an Assembly Hall with the following on-going conditions deemed necessary to protect the health, safety, and welfare:

1. Ongoing conditions of approval. The following conditions shall constitute an ongoing obligation:
    a. Any modifications to the site, buildings, site improvements, shall require the conditional use application being updated.
    b. The applicant shall maintain adequate parking at all times and shall promptly address concerns from Village Staff, should they arise, to maintain the conditional use permit.
    c. Hours of operation shall be stated in the plan of operation on file at the time of approval.
2. The following conditions are also true and are consistent with Section 100-354 of Mukwonago's zoning regulations:
    a. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

b. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
c. The establishment, maintenance or operation of the conditional use is compatible with surrounding properties, whether in the same or different zoning districts.
d. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
e. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
a. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

Site Plan and Architectural Review
Staff Recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution with the included conditions.

Attachments

1. Application and Development Information
2. Plans and Site Drawings

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

PC RESOLUTION NO. 2026-08

A RESOLUTION FOR A SITE PLAN AND ARCHITECTURAL REVIEW FOR ELEGANT FARMER, PARCEL VM00010

WHEREAS, pursuant to Section 100-601 of the Zoning Code, an application for a site plan and architectural review has been filed for the approval of a site redevelopment for The Elegant Farmer, which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by Elegant Farmer, Inc., as property owner and applicant and authorized agent, and

WHEREAS, the use is a conditional use within the B-2 General Business District– in which the subject property is located, and

WHEREAS, the plan of operation and development plans have been reviewed and recommended by the Plan Commission.

NOW, THEREFORE, BE IT RESOLVED by the Plan Commission of the Village of Mukwonago, Wisconsin hereby approves the site plan and architectural review for the Elegant Farmer site redevelopment to be constructed, based upon the plans submitted to the Village.

NOW, THEREFORE, BE IT FURTHER RESOLVED the site plan and architectural review approval shall be subject to the following conditions:

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of site construction plans to the Village and receive approval of said plans prior to issuance of any building permits. Plans shall include but are not limited to grading, utilities, utility calculations, erosion control, landscaping, lighting, building architecture, building materials and other plans as required. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction. Construction shall comply with any conditions of approval issued by staff.
2. All required regulatory agency permits shall be received and provided to the Village prior to the start of construction.
3. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicants' representatives and primary contractors, and Village department heads and representatives. The applicant representative shall coordinate such meeting.
4. The applicant must obtain all required land disturbance permits within six months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.

5. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
6. The Applicant shall establish an escrow in the value of $10,000 prior to the start of construction.
7. The applicant must obtain all required building permits within nine months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
8. All work related to this project must comply with all project plans approved by the Village.
9. The developer must comply with all requirements related to impact fees imposed by the Village.
10. The developer shall comply with all parts of the Municipal Code as it relates to this project.
11. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Building Inspectors are authorized to approve minor modifications so long as the overall project elements remain unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.
12. Refuse/Recycling Collection shall be contracted privately.
13. All lighting within the parking lot and building lighting shall be full cut off lighting and meet municipal standards. Building lighting shall not be direct light or the appearance of light towards adjoining properties. The Police Department or Zoning Administrator, after completion or any modification to the lighting in the future, may request adjustments. A final photometric lighting plan must be submitted and approved prior to construction.
14. Landscaping shall be installed per Village standards and approved plans and no trees shall be planted in any storm water drainage or treatment facility locations.
15. Any future modification to the site such as modification of parking, lighting, grading, signage, fences, etc. may require Site Plan and Architectural Review.

Passed and adopted by the Village of Mukwonago Plan Commission this 21st day of July, 2026.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Shay Zerfas, Deputy Clerk-Treasurer

PLAN COMMISSION STAFF REPORT

TO: Village of Mukwonago Plan Commission

FROM: Peter Gesch, P.E., Ruekert & Mielke, Inc.

REPORT DATE: July 13, 2026

MEETING DATE: July 21, 2026, 6:30 P.M.

SUBJECT: Bear Crossing - Site Plan & Architectural Review

BASIC INFORMATION	
Project:	Bear Crossing
Applicant:	Anderson Commercial Group
Consulting Engineer:	Endpoint Solutions
Consulting Architect:	N/A
Request:	Site Plan & Architectural Review
Staff Recommendation:	Approve with Conditions

PARCEL DATA/CHARACTERISTICS	
Tax Key:	MUKV1963996005 and MUKV1963996006
Acreage:	8.29 Acres Total Combined
Current Use:	Open Space / Parkland
Proposed Use:	Business
Reason for Request:	New Development
Land Use Classification:	Business
Zoning Classification:	B-2 General Business District

Project Summary & Overview

Anderson Commercial Group is developing the former Kiwanis Park site located at the NW Corner of the STH 83 and CTH NN intersection. This development will consist of approximately seven retail/business sites and one storm water outlot with a shared private access roadway through the center and private utilities.

The proposed site plan is for the overall development of the site and each subsequent business/commercial development will submit individual applications for their respective developments. The intent of this process is to develop a business/commercial site that is ready for development with shared regional storm water and access and utilities ready for quick hook-up.

Staff have reviewed the proposed overall development plans and offer the following comments:

Staff Review

Engineering:

- Prior to the issuance or permits, verify that State or County access is granted and permitted for construction activities.
- Coordination must be maintained between Village Contractor and site Contractor for closing and relocating access drives for the Animal Hospital to maintain uninterrupted access.
- Recommend adding notes as needed to instruct Contractor on coordination for entrances at CTH NN and STH 83 with Village Contractor.
- Storm Water Maintenance Agreement must be prepared and submitted before site development occurs.

Public Works

- Public Works would like to see internal sidewalk continue to the north and connect to the path on STH at the discretion of the Plan Commission.
- Indicate location of Village access to storm water pond.
- Seeking Village Attorney review of easement agreement related to storm water. Comments will be provided to applicant prior to final approval.

Utilities

- Please include Village standard detail for check valve configuration.
- South connection off CTH NN calls for “Meter Connection” – please clarify if each individual building will be metered or if there will be a master meter for the development.

Police No comments at this time.

Fire: Verify 300-foot hydrant spacing is being met in final civil plan design.

Building Inspection No comments at this time.

Planning No comments at this time. Individual sites will meet the required zoning standards.

Recommended Action

Staff recommends the Planning Commission approve with conditions enumerated in the provided resolution.

Attachments

1. Application Documents

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

PC RESOLUTION NO. 2026-09

A RESOLUTION FOR A SITE PLAN AND ARCHITECTURAL REVIEW FOR BEAR CROSSING LOCATED AT THE NW CORNER OF STH 83 AND CTH NN, PARCELS MUKV 1963996005 AND 1963996006

WHEREAS, pursuant to Section 100-601 of the Zoning Code, an application for a site plan and architectural review has been filed for the approval the overall development plans for Bear Crossing, which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by Anderson Commercial Group, and

WHEREAS, the project involves the construction and development of overall site improvements for Bear Crossing including site grading, erosion control, storm water management, private utilities, and a private roadway, and

WHEREAS, the project complies with the requirements of the Village of Mukwonago zoning code.

NOW, THEREFORE, BE IT RESOLVED by the Plan Commission of the Village of Mukwonago, Wisconsin hereby approves the site plan and architectural review for Bear Crossing based upon the plans submitted to the Village.

NOW, THEREFORE, BE IT FURTHER RESOLVED the site plan and architectural review approval shall be subject to the following conditions:

1. If changes are made to the provided plans, prior to any land disturbing activity, the applicant must submit a complete and final set of site construction plans to the Village and receive approval of said plans prior to issuance of any building permits. Plans shall include but are not limited to grading, utilities, utility calculations, erosion control, landscaping, lighting, building architecture, building materials and other plans as required. All Village department heads must verify in writing whether they have approved the final plans within their purview prior to the issuance of building permits. Any outstanding matters must be resolved to staff's satisfaction. Construction shall comply with any conditions of approval issued by staff.
2. All required regulatory agency permits shall be received and provided to the Village prior to the start of construction.
3. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicant's representatives and primary contractors, and Village department heads and representatives. The applicant representative shall coordinate such meeting.
4. The applicant must obtain all required permits within nine months of this date, and start construction within six months of the date of permit issuance and continue in good faith to completion.

5. All work related to this project must comply with all project plans approved by the Village.
6. The developer must comply with all requirements related to impact fees imposed by the Village. If an irrigation system is planned, the applicant shall disclose that to the Village Utilities Director at the time of impact fee calculation.
7. The developer shall comply with all parts of the Municipal Code as it relates to this project.
8. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Building Inspectors are authorized to approve minor modifications so long as the overall project elements remain unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.
9. The applicant shall comply with all verbal changes requested by the Plan Commission, if any.
10. Any future modification to the site such as modification of parking, lighting, grading, signage, fences, etc. may require Site Plan and Architectural Review.

Passed and adopted by the Village of Mukwonago Plan Commission this 21st day of July, 2026.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Shay Zerfas, Deputy Clerk-Treasurer

PLAN COMMISSION STAFF REPORT

TO: Village of Mukwonago Plan Commission

FROM: Peter Gesch, P.E., Ruekert & Mielke, Inc.

REPORT DATE: July 13, 2026

MEETING DATE: July 21, 2026, 6:30 P.M.

SUBJECT: Roadrunner Express Carwash – Site Plan & Architectural Review & Conditional Use

BASIC INFORMATION	
Project:	Roadrunner Express Carwash
Applicant:	Carl Goede
Consulting Engineer:	Endpoint Solutions
Consulting Architect:	Haag Muller, Inc.
Request:	Site Plan & Architectural Review & Conditional Use
Staff Recommendation:	Approve with Conditions

PARCEL DATA/CHARACTERISTICS	
Tax Key:	Lot 3 of Future CSM for Parcels MUKV1963996005 and MUKV1963996006
Acreage:	0.92 Acres
Current Use:	Open Space / Parkland
Proposed Use:	Free-Standing Car Wash
Reason for Request:	New Development
Land Use Classification:	Business
Zoning Classification:	B-2 General Business District

Project Summary & Overview

The

Conditional Use Request

Attached to this staff report is the justification questions for a Conditional Use Permit that have been answered by the applicant. The Planning Commission shall take these into consideration when making their decisions and recommendations.

Conditional Use Process / Findings

The established review procedures are that the Plan Commission shall hold a public hearing and make a recommendation to the Village Board whom makes the final decision.

Following the close of the public hearing, the Plan Commission may recommend (1) approval, (2) approval with conditions, or (3) denial.

If approval is recommended, the Plan Commission can recommend conditions deemed necessary to protect public health, safety, and welfare. The Plan Commission, in passing on the matter, will need to make the following determinations consistent with Section 100-354 of Mukwonago's Zoning Regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
3. The establishment, maintenance or operation of the conditional use is compatible with surrounding properties, whether in the same or different zoning districts. In making this determination, the Plan Commission and Village Board must determine whether the petitioner has demonstrated there are no adverse effects on surrounding properties or that potentially adverse effects have been eliminated or reduced to an acceptable level. Approaches that could be employed to mitigate potentially adverse effects will depend on the particular circumstances but may include:
    a. Adjusting the location of the use, or parts thereof, on the subject property;
    b. Limiting hours of operation;
    c. Limiting the size or scope of the use, or parts thereof;
    d. Controlling how the use is managed on an ongoing basis;
    e. Providing additional landscaping;
    f. Providing additional screening; and
    g. Limiting operations conducted out-of-doors, if otherwise allowed
4. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
5. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
6. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner / tenant has shown compliance with the requirements set forth in the Village's zoning regulations for specified use.

The Village Board will carefully review the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

These findings are incorporated into the draft conditional use order which is attached.

The Plan Commission shall approve a conditional use application if the terms and conditions of the zoning regulations are met. However, in the event the terms and conditions of the ordinance are not consented to and complied with by the applicant, the Commission may deny the application. In addition, the Commission may deny the application or place conditions on it if substantial evidence, as defined in §62.23(7) Wis. Stats. is presented. That evidence must demonstrate the inability of the applicant to comply with or meet the conditions of the zoning regulations or that the conditions to be applied by the Plan Commission are necessary to protect the public health, safety or welfare of the community based upon the presentation of substantial evidence. Potential motion for approval to Recommend to the Village Board approval of the project as a conditional use as set forth in the attached conditional use order as drafted, provided the Village Attorney approves the final form of the conditional use order.

Staff Review

Engineering:

- Final civil plans will need to be provided and approved by staff prior to issuance of Building permits, including an erosion control plan.
- Preconstruction conditions sheet should be updated to reflect the new CSM.

Public Works No comments at this time.

Utilities No comments at this time.

Police No comments at this time.

Fire

- No exterior access is currently shown to the fire sprinkler room. Exterior access must be provided per Ordinance requirements.

Building Inspection No comments at this time.

Planning

- All signage will require a Village Sign permit.
- The proposed water feature, if not installed at the time of development, will require a future SPAR application submittal for review and approval.
- Photometric plan shows the proposed lighting exceeding zero footcandles at the western lot line. Applicant shall revise or provide justification that the individual site lighting for each commercial site will provide the illumination for the private road. Height of fixtures should be noted on the plans not to exceed 25-ft from grade.
- Parking and car was lane stacking is adequate for the site development.

Recommended Action

Conditional Use Permit
Staff recommends the Planning Commission recommend to the Village Board approval of a conditional use permit as set forth in the provided resolution.

To – Grant a Conditional Use Permit for a Free-Standing Car Wash facility with the following on-going conditions deemed necessary to protect the health, safety, and welfare:

1. Ongoing conditions of approval. The following conditions shall constitute an ongoing obligation:
    a. Any modifications to the site, buildings, site improvements, shall require the conditional use application being updated.
2. The following conditions are also true and are consistent with Section 100-354 of Mukwonago's zoning regulations:
    a. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
    b. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
    c. The establishment, maintenance or operation of the conditional use is compatible with surrounding properties, whether in the same or different zoning districts.
    d. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
    e. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
    a. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

Site Plan and Architectural Review
Staff Recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution with the included conditions.

Attachments

1. Application and Development Information
2. Plans and Site Drawings

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

PC RESOLUTION NO. 2026-10

A RESOLUTION FOR A SITE PLAN AND ARCHITECTURAL REVIEW FOR ROADRUNNER EXPRESS CAR WASH, LOT 3 OF THE FUTURE CSM FOR PARCELS MUKV1963996005 AND MUKV1963996006

WHEREAS, pursuant to Section 100-601 of the Zoning Code, an application for a site plan and architectural review has been filed for the approval of a site development for Roadrunner Express Car Wash, which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by Carl Goede, as property owner and applicant and authorized agent, and

WHEREAS, the use is a conditional use within the B-2 General Business District– in which the subject property is located, and

WHEREAS, the plan of operation and development plans have been reviewed and recommended by the Plan Commission.

NOW, THEREFORE, BE IT RESOLVED by the Plan Commission of the Village of Mukwonago, Wisconsin hereby approves the site plan and architectural review for the Roadrunner Express Car Wash site development to be constructed, based upon the plans submitted to the Village.

NOW, THEREFORE, BE IT FURTHER RESOLVED the site plan and architectural review approval shall be subject to the following conditions:

1. Prior to any land disturbing activity, the applicant must submit a complete and final set of site construction plans to the Village and receive approval of said plans prior to issuance of any building permits. Plans shall include but are not limited to grading, utilities, utility calculations, erosion control, landscaping, lighting, building architecture, building materials and other plans as required. All Village department heads must verify in writing whether they have approved the final plans within their purview. Any outstanding matters must be resolved to staff's satisfaction. Construction shall comply with any conditions of approval issued by staff.
2. A civil plan set including a final erosion control plan shall be submitted for review and approval.
3. All required regulatory agency permits shall be received and provided to the Village prior to the start of construction.
4. Prior to any land-disturbing activity, a pre-construction meeting must be held with the applicants' representatives and primary contractors, and Village department heads and representatives. The applicant representative shall coordinate such meeting.

5. The applicant must obtain all required land disturbance permits within six months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
6. Prior to any land-disturbing activity, the applicant must reimburse the Village for any outstanding charges and establish an escrow account with the Village as may be required.
7. The Applicant shall establish an escrow in the value of $10,000 prior to the start of construction.
8. The applicant must obtain all required building permits within nine months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
9. All work related to this project must comply with all project plans approved by the Village.
10. The developer must comply with all requirements related to impact fees imposed by the Village.
11. The developer shall comply with all parts of the Municipal Code as it relates to this project.
12. If the approved plans need to be revised to address any of the conditions of approval or to conform to Building and Fire Safety Codes, the Zoning Administrator and the Building Inspectors are authorized to approve minor modifications so long as the overall project elements remain unchanged. If they determine that the revision is substantial, the plans must be submitted to the Plan Commission for review and approval.
13. Refuse/Recycling Collection shall be contracted privately.
14. All lighting within the parking lot and building lighting shall be full cut off lighting and meet municipal standards. Building lighting shall not be direct light or the appearance of light towards adjoining properties. The Police Department or Zoning Administrator, after completion or any modification to the lighting in the future, may request adjustments. A final photometric lighting plan must be submitted and approved prior to construction.
15. Landscaping shall be installed per Village standards and approved plans and no trees shall be planted in any storm water drainage or treatment facility locations.
16. Any future modification to the site such as modification of parking, lighting, grading, signage, fences, etc. may require Site Plan and Architectural Review.

Passed and adopted by the Village of Mukwonago Plan Commission this 21st day of July, 2026.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Shay Zerfas, Deputy Clerk-Treasurer

PLAN COMMISSION STAFF REPORT

TO: Village of Mukwonago Plan Commission

FROM: Peter Gesch, P.E., Ruekert & Mielke, Inc.

REPORT DATE: July 14, 2026

MEETING DATE: July 21, 2026, 6:30 P.M.

SUBJECT: PVMS – Veterans and Armed Forces Monuments – Site Plan & Architectural Review

BASIC INFORMATION	
Project:	PVMS – Veterans and Armed Forces Monuments
Applicant:	Mukwonago Area School District
Consulting Engineer:	Kapur & Associates, Inc.
Consulting Architect:	Bray Architects
Request:	Site Plan & Architectural Review
Staff Recommendation:	Approve with Conditions

PARCEL DATA/CHARACTERISTICS	
Tax Key:	MUKV1964992
Acreage:	36.88 Acres
Current Use:	Institutional – Middle School
Proposed Use:	Institutional – Middle School
Reason for Request:	Revised SPAR for Monuments
Land Use Classification:	Public/Semi-Public – Institutional Use
Zoning Classification:	P-1 – Public and Semipublic District

Project Summary & Overview

The Mukwonago Area School District previously received approval for a Site Plan & Architectural Review for the Park View Middle School expansion that is currently under construction. As part of the SPAR that was previously approved, the site plans included a decorative walkway with flag poles that went from the school building and connected to the SE corner of the intersection at CTH NN and STH 83. The area around the flag poles featured a few benches and a stone seatwall.

The applicant has been in coordination with the VFW and other groups to redesign the walkway and flagpole area to incorporate several monuments honoring veterans and all the branches of the armed forces. The remainder of the PVMS site will stay the same.

The applicant has included updated drawings and renderings for the site as well as a summary of the project change. The pillars for the branches of the armed forces will be approximately 6-FT tall and 30-inches by 30-inches. The larger memorial monument will be approximately 8-FT tall and 24-ft long.

Staff Review

Engineering:	No comments.
Public Works	No comments.
Utilities	No comments.
Police	No comments.
Fire	No comments.
Building Inspection	No comments.
Planning	No comments.

Recommended Action

Staff Recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution with the included conditions.

Attachments

1. Application and Development Information
2. Plans and Site Drawings

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

PC RESOLUTION NO. 2026-11

A RESOLUTION FOR A SITE PLAN AND ARCHITECTURAL REVIEW FOR VETERANS AND ARMED FORCES MEMORIAL MONUMENTS LOCATED AT THE PARK VIEW MIDDLE SCHOOL SITE, PARCEL MUKV1964992

WHEREAS, pursuant to Section 100-601 of the Zoning Code, an application for a site plan and architectural review has been filed for the approval of several monuments honoring veterans and branches of the armed forces at the Park View Middle School site located at 930 N Rochester St, which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by the Mukwonago Area School District as the authorized agent, and

WHEREAS, the applicant previously received approval for an expansion of Park View Middle School which is currently under construction, and

WHEREAS, the applicant desires to amend the front walkway entrance to the site by adding monuments honoring the military, in coordination with local veteran groups, and

WHEREAS, the applicant has provided revised site drawings and renderings detailing the new walkway layout and layout of the monument structures.

WHEREAS, the plans, as provided, comply with the various provisions of the Mukwonago Municipal Code.

NOW, THEREFORE, BE IT RESOLVED by the Plan Commission of the Village of Mukwonago, Wisconsin hereby approves the site plan and architectural review for monuments to be constructed at the Park View Middle School site, based upon the plans submitted to the Village.

NOW, THEREFORE, BE IT FURTHER RESOLVED the site plan and architectural review approval shall be subject to the following conditions:

1. All required regulatory agency permits shall be received and provided to the Village prior to the start of construction.
2. The applicant must obtain all required building permits within twelve months of this date, and start construction within six months of the date of building permit issuance and continue in good faith to completion.
3. All work related to this project must comply with all project plans approved by the Village.
4. The developer shall comply with all parts of the Municipal Code as it relates to this project.
5. Any future modification to the site such as modification of parking, lighting, grading, signage, fences, etc. may require Site Plan and Architectural Review.

Passed and adopted by the Village of Mukwonago Plan Commission this 21st day of July, 2026.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Shay Zerfas, Deputy Clerk-Treasurer

VILLAGE OF MUKWONAGO

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

Application Fee: Below

Date Submitted: 6.16.2026

FEES

(Please check one)

- ☒ Minor Site Plan (No Building): $160.00
- ☐ Major Site Plan; New Building/Addition (> 600 sq. ft.): $475.00 plus $.02 per sq. ft.
- ☐ Planned Unit Development (PUD) Review: $225.00 plus $50.00/unit
- ☐ Other (See Current Fee Schedule)_____

CONTACTS

Building Department
Contact: Supervisor of Inspections
Tim Rutenbeck
Phone: (262) 363-6419 Option 1
Fax: (262) 363-6425
Email: trutenbeck@villageofmukwonago.gov

Zoning and Planning
Contact: Village Planner
Peter Gesch
Phone: (262) 542-5733
Fax: (262) 363-6425
Email: pgesch@ruekert-mielke.com

GUIDELINES

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

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

Mail completed applications to:	Village Planner 440 River Crest Ct Mukwonago, WI 53149
Deliver to:	Village Clerk's Office 440 River Crest Ct
Email to:	trutenbeck@villageofmukwonago.gov

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

APPLICANT *(Full Legal Name)*

Name: Andrew Wegner

Company: Mukwonago Area School District

Address: 385 E. Veterans Way **City:** Mukwonago **State:** WI **Zip:** 53149

Daytime Phone: 262-363-6300 Ext 24300 **Fax:**

E-Mail: wegnean@masd.k12.wi.us

APPLICANT IS REPRESENTED BY *(Full Legal Name)*

Name: Chris Eger

Company: Bray Architects

Address: 829 S. 1st Street **City:** Milwaukee **State:** WI **Zip:** 53204

Daytime Phone: 414-226-0200 **Fax:**

E-Mail: ceger@brayarch.com

ARCHITECT

Name: Chris Eger

Company: Bray Architects

Address: 829 S. 1st Street **City:** Milwaukee **State:** WI **Zip:** 53204

Daytime Phone: 414-226-0200 **Fax:**

E-Mail: ceger@brayarch.com

PROFESSIONAL ENGINEER

Name: Michael Froehlich, PE

Company: Kapur

Address: 788 N. Jefferson Street **City:** Milwaukee **State:** WI **Zip:** 53202

Daytime Phone: 414-751-7245 **Fax:**

E-Mail: mfroehlich@kapurinc.com

REGISTERED SURVEYOR

Name: Brian Sandberg

Company: Kapur

Address: 788 N. Jefferson Street **City:** Milwaukee **State:** WI **Zip:** 53202

Daytime Phone: **Fax:**

E-Mail: mfroehlich@kapurinc.com

CONTRACTOR

Name: Jeff Schwasinger

Company: J.P. Cullen

Address: 104 E. Pleasant Street **City:** Milwaukee **State:** WI **Zip:** 53212

Daytime Phone: 608-751-4161 **Fax:**

E-Mail: jeff.schwasinger@jpcullen.com

PROPERTY INFORMATION

Property Owner (s) *(if different from applicant)*: Mukwonago Area School District - Andrew Wegner

Address: 385 E. Veterans Way **City:** Mukwonago **State:** WI **Zip:** 53149

Daytime Phone: 262-363-6300 Ext 24300 **Fax:**

E-Mail: wegnean@masd.k12.wi.us

Present Zoning: P-1 - Public **Tax Key No(s).:** MUKV 1964.992

Location/Address: 930 N. Rochester Street

Present Use: Public Middle School **Intended Use:** Public Middle School

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

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

Application:

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

Other Documents:

- ☒ One(1) complete set of Application and materials, in addition to the original, for Village of Mukwonago review.
- ☒ Project Summary: Please attach a statement detailing the reasons and background for this request including: details of proposal, services provided, wares sold, plans and hours of operation, number of employees, frequency of customer visits, frequency of deliveries to site, description of any interior/exterior modifications or additions to be made to property, any outside storage (dumpsters, trucks, materials…), number of parking stalls, screening/buffer type, any other information available. ***PLEASE EXPLAIN IN DETAIL.***
- ☒ **Electronic Submittals are required.** Email (or CD ROM) with all plans and submittal materials in Adobe PDF to trutenbeck@villageofmukwonago.gov .
- ☐ Any additional information as determined by Village staff.

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

CERTIFICATION

Applicant hereby certifies that:

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

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

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

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

Signature - Property Owner

Andrew Wegner

Name & Title (PRINT)

6/16/2026

Date

Signature - Applicant

Chris Eger, AIA

Name & Title (PRINT)

6/16/2026

Date

Signature - Property Owner

Name & Title (PRINT)

Date

Signature – Applicant's Representative

Name & Title (PRINT)

Date

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

PVMS site plan project summary

Mukwonago Area School District

BRAY PROJECT NUMBER | 3526

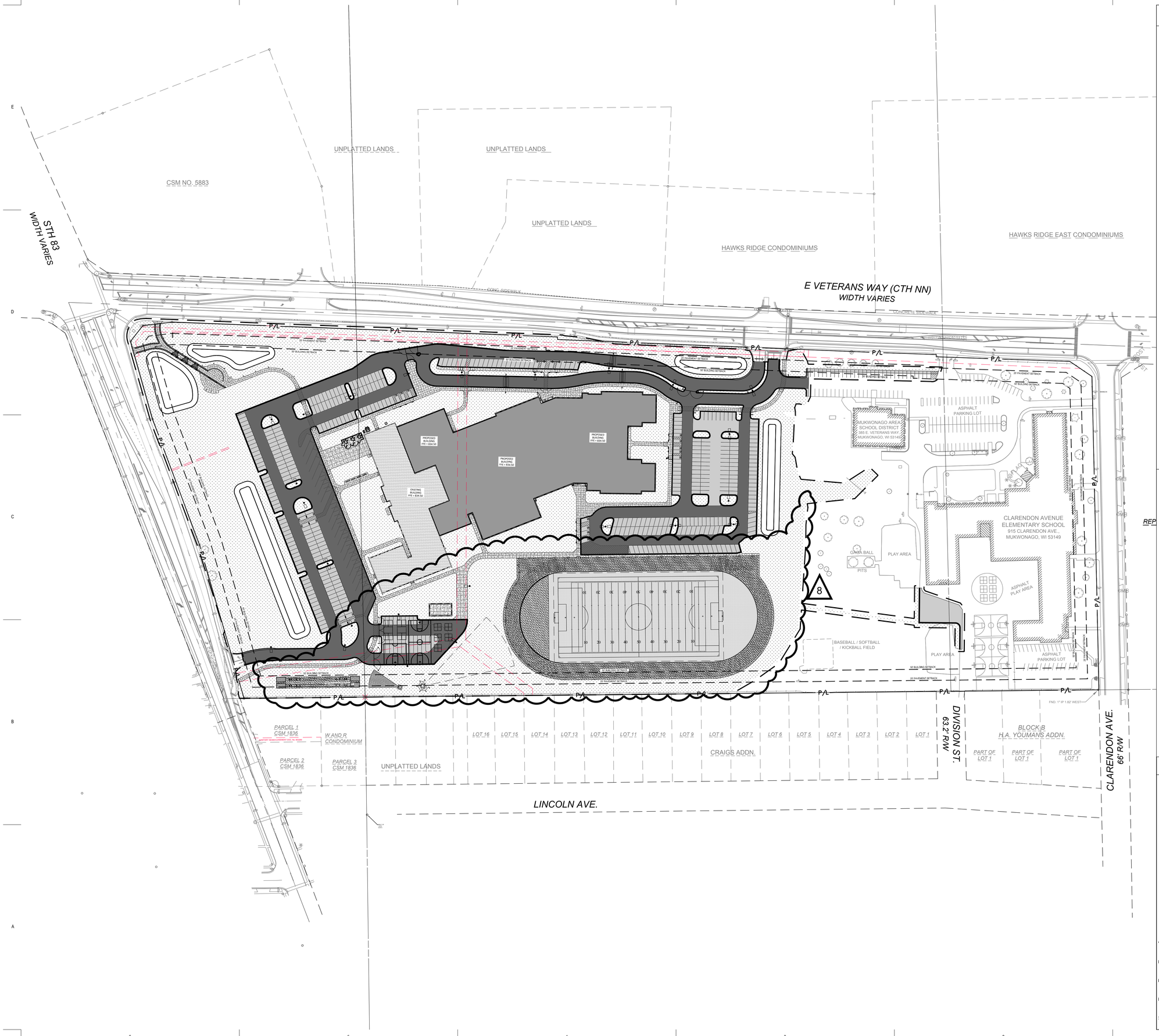
Project Name	Park View Middle School – MUKV 1964.992
Project Location	930 N. Rochester Street, Mukwonago WI 53149
Submittal Date	April 2, 2025
Submittal	Village of Mukwonago - Site Plan & Architectural Review/ Conditional Use
Owner	Mukwonago Area School District Andrew Wegner – wegnean@masd.k12.wi.us 385 E. Veterans Way, Mukwonago WI 53149
Architect	Bray Architects Chris Eger, AIA – ceger@brayarch.com - 414-290-1986 829 S. 1st Street, Milwaukee, WI 53204
Civil Engineer	Kapur and Associates Michael Froehlich – mfroehlich@kapurinc.com - 414-659-8193 788 N. Jefferson Street, Milwaukee WI 53202
Electrical Engineer	MSA Professional Services, Inc. Dave Schulze – dschulze@msa-ps.com 116 Freemont Street, P.O. Box 235, Kiel, WI 53042
Construction Manager	JP Cullen Jeff Schwasinger – jeff.schwasinger@jpcullen.com – 608-751-4161 104 E. Pleasant Street, Milwaukee WI 53212

Project Description:

This project includes the addition of seven granite Memorials at the Northwest corner of the site. All civil engineering was completed as part of the original SPAR & Conditional Use Permit for the Park View Middle School addition. The black granite memorials will represent the military branches of service and fallen service members. The civil engineering, concrete work, foundations, landscaping, benches, flags and lighting are being completed as part of the original CUP and have the same schedule as the overall building project. The monuments have a fund-raising component that will govern when the memorials will be placed onto the site. The fund-raising will go through the district and ultimately the memorials will be completed by the school district. The memorials and flags will be lit at night and the concrete walk will be maintained by the school district.

BRAYARCHITECTS

JP CULLEN THE TOUGH JOB EXPERTS



SITE STATISTICS
PARK VIEW MIDDLE SCHOOL

PARCEL ADDRESS: 930 NORTH ROCHESTER STREET
MUKWONAGO, WI 53149

PARCEL LEGAL DESCRIPTION: PART OF THE SOUTHEAST ¼ OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

PARCEL AREA: 1,612,646 SQ. FT. OR 37.021 ACRES

ZONING DESIGNATION – P-1 PUBLIC AND SEMIPUBLIC DISTRICT

PARCEL PERVIOUS AREA BEFORE IMPROVEMENTS: 28.650 AC. (77.39%)
PARCEL IMPERVIOUS AREA BEFORE IMPROVEMENTS: 8.371 AC. (22.61%)
PARCEL PERVIOUS AREA AFTER IMPROVEMENTS: 25.166 AC. (67.98%)
PARCEL IMPERVIOUS AREA AFTER IMPROVEMENTS: 11.855 AC. (32.02%)

NET INCREASE IN IMPERVIOUS AREA: 3.484 ACRES

PROPOSED AREA OF LAND DISTURBANCE ON PARCEL: 25.658 ACRES

PARKING SUMMARY

MINIMUM REQUIRED PARKING SPACES: 1 SPACE FOR EVERY 2 STUDENTS AT MAXIMUM ENROLLMENT AND 1 SPACE PER PERSON EMPLOYED AT THE SCHOOL. A PORTION OF THE PARKING MAY BE PROVIDED ON A SOLID SURFACE PLAY AREA, AS DETERMINED BY THE PLAN COMMISSION. (SECTION 100-402(A)(2) OF THE MUNICIPAL CODE)

EXISTING ENROLLMENT: 722 STUDENTS
EXISTING EMPLOYMENT: 100 PERSONS
MINIMUM REQUIRED PARKING SPACES PER CODE: 461 STALLS

EXISTING PARKING STALLS IN WEST PARKING AREA: 12
STANDARD PARKING STALLS: 8
ADA PARKING STALLS: 4

EXISTING PARKING STALLS IN NORTHWEST PARKING AREA: 157
STANDARD PARKING STALLS: 151
ADA PARKING STALLS: 6

EXISTING PARKING STALLS IN NORTHEAST PARKING AREA: 67
STANDARD PARKING STALLS: 67
ADA PARKING STALLS: 0

TOTAL EXISTING PARKING STALLS ON SITE: 236
STANDARD PARKING STALLS: 226
ADA PARKING STALLS: 10

PROPOSED MAXIMUM FUTURE ENROLLMENT: 1,200 STUDENTS
PROPOSED EMPLOYMENT: 150 PERSONS
MINIMUM REQUIRED PARKING SPACES PER CODE: 750 STALLS

PROPOSED PARKING STALLS IN SOUTHWEST PARKING AREA: 36
STANDARD PARKING STALLS: 34
ADA PARKING STALLS: 2

PROPOSED PARKING STALLS IN WEST PARKING AREA: 169
STANDARD PARKING STALLS: 135
OVERFLOW PARKING STALLS: 28
ADA PARKING STALLS: 6

PROPOSED PARKING STALLS IN NORTHWEST PARKING AREA: 60
STANDARD PARKING STALLS: 57
ADA PARKING STALLS: 3

PROPOSED PARKING STALLS IN NORTH PARKING AREA: 28
STANDARD PARKING STALLS: 24
ADA PARKING STALLS: 4

PROPOSED PARKING STALLS IN EAST PARKING AREA: 107
STANDARD PARKING STALLS: 102
ADA PARKING STALLS: 5

PROPOSED PARKING STALLS IN SOUTHEAST PARKING AREA: 82
STANDARD PARKING STALLS: 78
ADA PARKING STALLS: 4

TOTAL PROPOSED PARKING STALLS ON SITE: 482
STANDARD PARKING STALLS: 458
ADA PARKING STALLS: 24

PROPOSED PARKING STALL COUNT IS MORE THAN DOUBLE THE EXISTING STALL COUNT, WHEREAS THE MAXIMUM FUTURE ENROLLMENT WILL BE LESS THAN DOUBLE THE EXISTING ENROLLMENT.

Scale: 0 40 80 160
Scale: 1" = 80'

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

KEY INDEX

- PROJECT LIMITS
- P/L PROPERTY LINE
- EASE EASEMENT LINE
- AREAS DISTURBED BY CONSTRUCTION (NOT SPECIFICALLY CALLED OUT ON THE LANDSCAPE PLANS) TO BE RESTORED WITH MINIMUM 4" TOPSOIL, SEED, FERTILIZER, AND MULCH (TYP). USE SALVAGED TOPSOIL OR IMPORT TOPSOIL IF REQUIRED.
- NEW ASPHALTIC CONCRETE (LIGHT DUTY) — 1/C2.11
- NEW ASPHALTIC CONCRETE (HEAVY DUTY) — 2/C2.11
- NEW CONCRETE SLAB (LIGHT DUTY) — 2/C2.11, 3/C2.11
- NEW CONCRETE SLAB (HEAVY DUTY) — 4/C2.11, 3/C2.11
- NEW COLORED CONCRETE SIDEWALK. FINAL COLOR SELECTION BY OWNER. — 2/C2.11, 1/C2.11
- NEW ASPHALTIC CONCRETE TRACK AND FIELD AREAS WITHOUT SYNTHETIC SURFACE — 2/C2.12, 5/C2.12
- NEW SEEDED SOCCER FIELD WITH MINIMUM 4" TOPSOIL, NARENBUG TURF BLUE PRO SEED (OR APPROVED EQUIVALENT), FERTILIZER, AND MULCH (TYP). USE SALVAGED TOPSOIL OR IMPORT TOPSOIL IF REQUIRED.
- 18" BARRIER LOW-SIDE CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED — 4/C2.11
- 18" BARRIER HIGH-SIDE CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED — 4/C2.11
- 18" DEPRESSED LOW-SIDE CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED — 5/C2.11
- 18" DEPRESSED HIGH-SIDE CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED — 5/C2.11

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Project Title:
RENOVATION AND ADDITION TO:
Park View Middle School
Mukwonago Area School District
930 N Rochester St,
Mukwonago, WI 53149

REVISIONS:

	DATE	DESCRIPTION
1	08/22/25	ADDENDUM #1
2	09/09/25	POST BID ADDENDUM
3	10/03/25	PS-1
7	04/03/26	PS-6
8	05/15/26	PS-8

Project Number: **3526**

Issued For: **BID PACKAGE #1** 08/08/2025

Sheet Title: **OVERALL SITE LAYOUT PLAN**

Sheet Number: **C1.20**

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STH 83
WIDTH VARIES

BIO-RETENTION BASIN-3
TOP OF BERM 829.00
BOTTOM OF BASIN 825.00
SEE DETAIL 1/C2.19

BIO-RETENTION BASIN-4
TOP OF BERM 830.00
BOTTOM OF BASIN 826.00
SEE DETAIL 1/C2.19

25' PAVEMENT SETBACK
50' BUILDING SETBACK
MATCHLINE
PROPOSED BUILDING FFE = 834.50
EXISTING BUILDING FFE = 834.50

Scale: 0 15 30 60
Scale: 1" = 30'

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VICINITY MAP

KEY INDEX

- PROJECT LIMITS
- P/L PROPERTY LINE
- EASE EASEMENT LINE
- AREAS DISTURBED BY CONSTRUCTION (NOT SPECIFICALLY CALLED OUT ON THE LANDSCAPE PLANS) TO BE RESTORED WITH MINIMUM 4" TOPSOIL, SEED, FERTILIZER, AND MULCH (TYP). USE SALVAGED TOPSOIL OR IMPORT TOPSOIL IF REQUIRED.
- NEW ASPHALTIC CONCRETE (LIGHT DUTY) — 1/C2.11
- NEW ASPHALTIC CONCRETE (HEAVY DUTY) — 1/C2.11
- NEW CONCRETE SLAB (LIGHT DUTY) — 2/C2.11, 3/C2.11
- NEW CONCRETE SLAB (HEAVY DUTY) — 2/C2.11, 3/C2.11
- NEW COLORED CONCRETE SIDEWALK. FINAL COLOR SELECTION BY OWNER. — 2/C2.11, 3/C2.11
- NEW ASPHALTIC CONCRETE TRACK AND FIELD AREAS WITHOUT SYNTHETIC SURFACE — 2/C2.19, 3/C2.19
- NEW SEEDED SOCCER FIELD WITH MINIMUM 4" TOPSOIL, NARENBUG TURF BLUE PRO SEED (OR APPROVED EQUIVALENT), FERTILIZER, AND MULCH (TYP). USE SALVAGED TOPSOIL OR IMPORT TOPSOIL IF REQUIRED.
- 18" BARRIER LOW-SIDE CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED — 4/C2.11
- 18" BARRIER HIGH-SIDE CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED — 4/C2.11
- 18" DEPRESSED LOW-SIDE CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED — 5/C2.11
- 18" DEPRESSED HIGH-SIDE CONCRETE CURB & GUTTER UNLESS OTHERWISE NOTED — 5/C2.11

1. NEW 30" BARRIER LOW-SIDE CONCRETE CURB & GUTTER — 6/C2.11
2. NEW 30" BARRIER HIGH-SIDE CONCRETE CURB & GUTTER — 6/C2.11
3. NEW 24" MOUNTABLE LOW-SIDE CONCRETE CURB & GUTTER — 7/C2.11
4. NEW 24" MOUNTABLE HIGH-SIDE CONCRETE CURB & GUTTER — 7/C2.11
5. 10' TRANSITION FROM 18" BARRIER CURB & GUTTER TO 30" BARRIER CURB & GUTTER — 4/C2.11, 6/C2.11
6. 10' TRANSITION FROM 24" MOUNTABLE CURB & GUTTER TO 18" BARRIER CURB & GUTTER — 4/C2.11, 8/C2.11
7. 3' TRANSITION FROM 18" BARRIER CURB & GUTTER TO ZERO FACE CURB & GUTTER — 4/C2.11, 10/C2.11
8. 3' TRANSITION FROM 30" BARRIER CURB & GUTTER TO ZERO FACE CURB & GUTTER — 6/C2.11, 10/C2.11
9. 3' TRANSITION FROM 24" MOUNTABLE CURB & GUTTER TO ZERO FACE CURB & GUTTER — 7/C2.11, 10/C2.11
10. TRANSITION FROM 18" BARRIER CURB & GUTTER TO 18" DEPRESSED CURB & GUTTER. SEE PLANS FOR LENGTH — 8/C2.11
11. NEW ACCESSIBILITY RAMP WITH TRUNCATED DOME DETECTABLE WARNING FIELDS — 13/C2.11, 17/C2.11
12. NEW ACCESSIBILITY RAMP — 12/C2.19
13. NEW ACCESSIBILITY RAMP WITH TRUNCATED DOME DETECTABLE WARNING FIELDS — 2/C2.19, 17/C2.11
14. NEW ACCESSIBILITY RAMP WITH TRUNCATED DOME DETECTABLE WARNING FIELDS — 3/C2.19, 12/C2.11
15. NEW ACCESSIBILITY RAMP WITH TRUNCATED DOME DETECTABLE WARNING FIELDS — 4/C2.19, 12/C2.11
16. NEW ACCESSIBILITY RAMP — 2/C2.19
17. NEW ACCESSIBILITY RAMP — 4/C2.19
18. NEW ACCESSIBILITY RAMP — 12/C2.19
19. NEW FOUR SQUARE COURTS — 3/C2.19
20. NEW ACCESSIBILITY RAMP WITH TRUNCATED DOME DETECTABLE WARNING FIELDS — 8/C2.19, 13/C2.11
21. NEW ACCESSIBILITY RAMP WITH TRUNCATED DOME DETECTABLE WARNING FIELDS — 10/C2.19, 12/C2.11
22. NEW STEEL MANUAL SECURITY GATES — 2/C2.19
23. NEW ULINE (OR EQUIVALENT) SINGLE-SIDED GRID BIKE RACK — 9 BIKE CAPACITY (BLACK) MODEL NO. H-2891BL
24. NEW BASKETBALL COURTS — 4/C2.19, 5/C2.19, 6/C2.19
25. CONCRETE SHOT PUT/DISCUS THROWING PAD — 4/C2.19
26. RUNNING TRACK RADIUS POINT — 4/C2.19
27. LONG JUMP/TRIPLE JUMP RUNWAYS AND SAND PIT BOXES — 1/C2.19, 2/C2.19
28. NEW MONUMENT SIGN. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
29A. NEW 35' HIGH FLAGPOLE WITH LED BEACON AT THE TOP TO ILLUMINATE THE FLAG. REFER TO ARCHITECTURAL SPECIFICATIONS FOR MORE INFORMATION.
29B. NEW 30' HIGH FLAGPOLE WITH LED BEACON AT THE TOP TO ILLUMINATE THE FLAG. REFER TO ARCHITECTURAL SPECIFICATIONS FOR MORE INFORMATION.
30. CONCRETE PAD FOR NEW PRE-CAST CONCRETE BENCHES. CONCRETE PAD SHALL BE 8" THICK WITH 6" OF CRUSHED AGGREGATE BASE COURSE (HEAVY-DUTY SECTION) CONTRACTOR TO COORDINATE BENCH SELECTION WITH OWNER. — 2/C2.11, 3/C2.11
31. NEW FREESTANDING SEAT WALL WITH STONE VENEER. — 4/C2.19
32. NEW LIGHT POLE (TYP.). REFER TO ELECTRICAL PLANS FOR MORE INFORMATION.
33. NEW OFFSET FOOTBALL GOAL POSTS. GOAL POSTS SHALL BE THE SAME MAKE AND MODEL THAT WERE INSTALLED AT MUKWONAGO HIGH SCHOOL LAST YEAR. GOAL POSTS SHALL BE OWNER SUPPLIED AND CONTRACTOR INSTALLED.
34. EXISTING SOCCER GOALS TO BE UTILIZED. GOALS TO BE OWNER SUPPLIED AND CONTRACTOR INSTALLED.
35. RELOCATED PAVILION BUILDING. CONTRACTOR TO INSTALL TO MATCH EXISTING PAVILION BUILDING LAYOUT.
36. NEW TRANSFORMER AND PAD MOUNTED CT CABINET W/METER. REFER TO ELECTRICAL PLANS FOR MORE INFORMATION.
37. NEW TRASH ENCLOSURE. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
38. NEW 6" DIAMETER STEEL BOLLARDS — 3/C2.19
39. NEW GILL ATHLETICS ALUMINUM DISCUS THROWING CAGE WITH BARRIER NET, OR EQUIVALENT. THROWING CAGE SHALL MEET THE MOST CURRENT NFHS REGULATIONS. — 5/C2.19
40. NEW MONUMENT WALL. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
41. NEW MILITARY BRANCH PILLARS CONSTRUCTED OF BLACK GRANITE. PILLARS TO BE PLACED ON A CONCRETE FOUNDATION THAT SHALL SIT 6" ABOVE THE ADJACENT GRADE. FOUNDATION CONCRETE TO BE THE SAME COLOR AS THE CONCRETE BANDS. REFER TO ARCHITECTURAL & STRUCTURAL PLANS FOR ADDITIONAL INFORMATION.
42. NEW SPEED HUMP — 8/C2.19
43. 4'-0" HIGH BLACK VINYL COATED CHAIN-LINK FENCE — 1/C215
44. 4'-0" HIGH BLACK VINYL COATED CHAIN-LINK FENCE SINGLE SWING GATE — 8/C215, 9/C215
45. 4'-0" HIGH BLACK VINYL COATED CHAIN-LINK FENCE DOUBLE SWING GATE — 2/C215, 9/C215
46. NEW PICKLEBALL COURT STRIPING — 10/C215

8

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7	04/03/26	PS-6
8	05/15/26	PS-8

Project Number:
3526

Issued For:
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08/08/2025

Sheet Title:
SITE LAYOUT PLAN - AREA A

Sheet Number:
C1.21A

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STH 83
WIDTH VARIES

REFER TO PROPOSED ROADWAY PLANS FOR CURB & ROADWAY DESIGN

P/L

25' PAVEMENT SETBACK

50' BUILDING SETBACK

REFER TO PROPOSED ROADWAY PLANS FOR CURB & ROADWAY DESIGN

25' PAVEMENT SETBACK

50' BUILDING SETBACK

PROPOSED BUILDING FFE = 834.50

EXISTING BUILDING FFE = 834.50

MATCHLINE

ONLY

SCHOOL

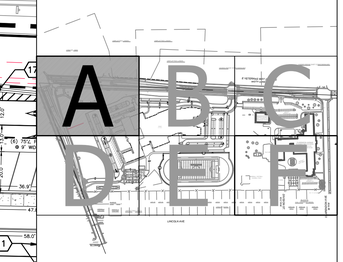
ONLY ONLY

(10) PARKING STALLS @ 9' WIDE = 90.0'

(9) PARKING STALLS @ 9' WIDE = 81.0'

(8) PCC BUS PARKING STALLS @ 12' WIDE = 96.0'

VICINITY MAP



KEY INDEX

- PROJECT LIMITS
- P/L — PROPERTY LINE
- EASE — EASEMENT LINE
- 1 — PAVEMENT MARKING ARROWS, LATEX PAVEMENT MARKING PAINT, WHITE (SEE WisDOT PAVEMENT MARKING S.D.D.)
- 2 — PAVEMENT MARKING WORDS, LATEX PAVEMENT MARKING PAINT, WHITE (SEE WisDOT PAVEMENT MARKING S.D.D.)
- 3 — PAVEMENT MARKING STOP LINE, LATEX PAVEMENT MARKING PAINT, WHITE (SEE WisDOT PAVEMENT MARKING S.D.D.)
- 4 — PAVEMENT MARKING MAINLINE, LATEX PAVEMENT MARKING PAINT, 4" YELLOW (DOUBLE) (SEE WisDOT PAVEMENT MARKING S.D.D.)
- 5 — PAVEMENT MARKING INTERSECTION, LATEX PAVEMENT MARKING PAINT, 4" WHITE (SEE WisDOT PAVEMENT MARKING S.D.D.)
- 6 — PAVEMENT MARKING CROSSWALK, LATEX PAVEMENT MARKING PAINT, WHITE, 4-INCH WIDE DIAGONAL STRIPING, 3' O.C. SPACING
- 7 — PAVEMENT MARKING CROSSWALK, LATEX PAVEMENT MARKING PAINT, WHITE, 6-INCH WIDE TRANSVERSE LINES. 6-FOOT SPACING. (SEE WisDOT PAVEMENT MARKING S.D.D.)
- 8 — NEW ACCESSIBLE PARKING SYMBOL (TYP.). → 4A C2.13
- 9 — NEW ACCESSIBLE SIGN (TYP.). → 1 C2.13
- 10 — NEW 4" WHITE PAINT 36" O.C. FOR DIAGONALS → 4B C2.13
- 11 — NEW 4" WHITE PAINT 36" O.C. FOR DIAGONALS → 5 C2.13
- 12 — NEW 4" WHITE PAINT 36" O.C. FOR DIAGONALS → 6 C2.13
- 13 — NEW 4" WHITE PAINT 36" O.C. FOR DIAGONALS → 7 C2.13
- 14 — KEYNOTE REMOVED FROM PLAN SET (8)
- 15 — NEW 4" WHITE PAINT 36" O.C. FOR DIAGONALS → 9 C2.13
- 16 — NEW 4" WHITE PAINT 36" O.C. FOR DIAGONALS → 1 C2.14
- 17 — NEW 4" WHITE PAINT 36" O.C. FOR DIAGONALS

SIGN INDEX

A — STOP
R1-1
30" X 30"
(SEE DETAIL 3/C2.13)

B — DO NOT ENTER
R5-1
30" X 30"
(SEE DETAIL 3/C2.13)

C — SPEED HUMP
W17-1
30" X 30"
(SEE DETAIL 3/C2.13)

Scale: 0 15 30 60
Scale: 1" = 30'

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8	05/15/26	PS-8

Project Number:
3526

Issued For:
BID PACKAGE #1
08/08/2025

Sheet Title:
SITE SIGNAGE & TRAFFIC CONTROL PLAN - AREA A

Sheet Number:
C1.31A

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STH 83
WIDTH VARIES

MATCHLINE

50' VISION TRIANGLE

MONUMENT SIGN (SEE CIVIL AND ARCHITECTURAL DRAWINGS)

REFER TO PROPOSED ROADWAY PLANS FOR CURB & ROADWAY DESIGN

BIORETENTION BASIN #3B
(3,023 SF) (SEE DETAIL 2/L2.10)

BIORETENTION BASIN #3A
(6,524 SF) (SEE DETAIL 2/L2.10)

BIORETENTION BASIN #4
(8569 SF) (SEE DETAIL 2/L2.10)

25' PAVEMENT SETBACK

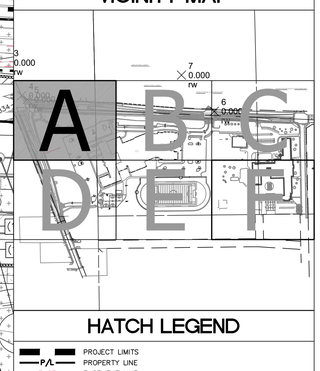
50' BUILDING SETBACK

PROPOSED BUILDING
FFE = 834.50

EXISTING BUILDING
FFE = 834.50

(10)SPFRA (12)SPFRA (12)ALSPB (14)HEHR (16)HEHR (6)SPFRA (13)CAAC (3)SYMEP (4)SYMEP (2)PHOCG (16)CAAC (1)MASS (12)SPFRA (13)SPFRA (16)CAAC (3)SYMEP (1)PLAMC (1)GIBAG (1)PLAMC (1)ULAMP (2)PIGLD (1)GYDIE (3)PIGLD (1)BENI (1)GYDIE (3)SYRIS (1)GLTIS (1)BENI (1)GLTIS (1)GYDIE (1)GIBAG (1)PLAMC (3)ACMSS (1)GIBAG (3)SYMEP (3)CABRA (10)HOFII (2)SYRIS (3)HAVE (7)RIALG (7)PANO (14)PANO (9)JUCHM (6)PHOCG (2)RIALG (3)CABRA (2)RIALG (3)CABRA (2)JUCHM (2)SYMEP (3)CABRA (2)RIALG (3)CABRA (2)RIALG (3)CABRA (2)RIALG (3)SYMEP (9)SPFRA (12)CAAC (7)SPFRA (7)SYXBK (14)RIALG (4)SYMEP (8)CAAC (8)CAAC (4)SYMEP

VICINITY MAP



HATCH LEGEND

- PROJECT LIMITS
- P/L PROPERTY LINE
- EASE EASEMENT LINE
- ALUMINUM EDGING (8 / L2.10)
- TEMPORARY TREE PROTECTION FENCE (2 / L2.11)
- AREAS DISTURBED BY CONSTRUCTION TO BE RESTORED WITH MINIMUM 4" TOPSOIL, LAWN GRASS SEED, FERTILIZER, AND MULCH (TYP). USE SALVAGED TOPSOIL OR IMPORT TOPSOIL IF REQUIRED.
- AREAS DISTURBED BY CONSTRUCTION TO BE RESTORED WITH MINIMUM 4" TOPSOIL, NO MOW FESCUE WITH ANNUAL RYE GRASS SEED, FERTILIZER, AND MULCH (TYP). USE SALVAGED TOPSOIL OR IMPORT TOPSOIL IF REQUIRED.
- MIX 1: 3" PLUG PLANTINGS IN BIORETENTION AREA. REFER TO CIVIL AND LANDSCAPE DETAILS. PLUGS TO BE PLANTED 12-INCHES O.C. (2 / L2.10)
- NEW SEEDED SPORTS FIELD WITH MINIMUM 4" TOPSOIL, BARENBRUG TURF BLUE PRO SEED (OR APPROVED EQUIVALENT), FERTILIZER, AND MULCH (TYP). USE SALVAGED TOPSOIL OR IMPORT TOPSOIL IF REQUIRED. TOPSOIL PLACEMENT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND FINE GRADING BY THE LANDSCAPE CONTRACTOR.
- (10)HEPM — PLANT "CODE" REFERENCES TO THE PLANT SCHEDULE
- QUANTITY OF PLANTS IN THE PLANT GROUPING
- LEADER LINE
- PLANT SYMBOL (SYMBOL VARIES)

KEY INDEX

1. SHREDDED HARDWOOD MULCH (7 / L2.10)
2. ALUMINUM EDGING AT PLANTING BED (8 / L2.10)
3. NEW TRANSPLANTED LOCATION FOR EXISTING TREES THAT WERE PLANTED BY THE GIRL SCOUTS. (CURRENTLY LOCATED BETWEEN THE EXISTING BASEBALL FIELD AND THE MUKWONAGO SCHOOL DISTRICT ADMINISTRATIVE OFFICE BUILDING.)
4. NEW TRANSPLANTED LOCATION FOR EXISTING MEMORIAL TREE AND PLAQUE. (CURRENTLY LOCATED AT THE SOUTHEAST CORNER OF THE MUKWONAGO SCHOOL DISTRICT ADMINISTRATIVE OFFICE PARKING LOT.)
5. 4'x8' RAISED GARDENS – 30" TALL (FOR SPECIAL EDUCATION)
6. UTILITY TRANSFORMER (SEE CIVIL PLANS – PROTECT FROM DAMAGE DURING CONSTRUCTION)
7. PAD MOUNTED CT CABINET WITH METER (SEE CIVIL PLANS – PROTECT FROM DAMAGE DURING CONSTRUCTION)
8. FLAGPOLES (SEE CIVIL PLANS – PROTECT FROM DAMAGE DURING CONSTRUCTION)
9. LIGHT POLE (SEE SITE LIGHTING PLAN FOR OFFICAL LOCATIONS)
10. TRASH ENCLOSURE (SEE CIVIL PLANS AND ARCHITECTURAL PLANS)
11. SEAT WALL (SEE CIVIL PLANS – PROTECT FROM DAMAGE DURING CONSTRUCTION)
12. CONDENSING UNIT (SEE CIVIL PLANS – PROTECT FROM DAMAGE DURING CONSTRUCTION)

Scale: 0 15 30 60
Scale: 1" = 30'

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3	10/03/25	PROJECT SUPPLEMENT #1
7	04/03/26	PS-6

Project Number:
3526

Issued For:
BID PACKAGE #1
08/08/2025

Sheet Title:
SITE LANDSCAPE PLAN - AREA A

Sheet Number:
L1.11A

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Plant Schedule

Code	Scientific Name	Common Name	Quantity	Spacing	Install Size	Mature Size (Height/Spread)
Canopy Trees: (Install in accordance with detail 3/L2.10)						
ACFAF	Acer x freemanii 'Autumn Fantasy'	Autumn Fantasy Maple	5	Per Plan	2.5" caliper B&B	50'/40'
ACMSS	Acer miyabei 'Morton'	State Street Miyabei Maple	5	Per Plan	2.5" caliper B&B	50'/40'
BENI	Betula nigra	River Birch	5	Per Plan	8' multi-stem B&B	40'-70'/35'-50'
CAOV	Carya ovata	Shagbark Hickory	5	Per Plan	2.5" caliper B&B	80'/40'
GIBAG	Ginko biloba 'Autumn Gold'	Autumn Gold Ginko (male)	5	Per Plan	2.5" caliper B&B	50'/30'
GLTDR	Gleditsia triacanthos 'Draves'	Street Keeper Honeylocust	4	Per Plan	2.5" caliper B&B	45'/20'
GLTIS	Gleditsia triacanthos 'Shademaster' PP1,515	Shademaster Honeylocust	2	Per Plan	2.5" caliper B&B	60'/35'
GYDIE	Gymnocladus dioicus 'Espresso'	Espresso Kentucky Coffee Tree	4	Per Plan	2.5" caliper B&B	50'/35'
PLAMC	Platanus x acerfolia 'Morton Circle'	Exclamation London Planetree	4	Per Plan	2.5" caliper B&B	60'/45'
TICOG	Tilia cordata 'Greenspire' PP2,086	Greenspire Linden	3	Per Plan	2.5" caliper B&B	40'-50'/30'-35'
ULAMP	Ulmus americana 'Princeton'	Princeton Elm	1	Per Plan	2.5" caliper B&B	60'-80'/40'-60'
Ornamental Trees: (Install in accordance with detail 3/L2.10)						
CACFK	Carpinus caroliniana 'JN Select A' PPAF	Fire King Musclewood	2	Per Plan	2" caliper B&B	20'-25'/20'-25'
CECA	Cercis canadensis	Eastern Redbud	3	Per Plan	8' multi-stem B&B	20'-30'/25'-35'
MALM	Magnolia x loebneri 'Leonard Messel'	Leonard Messel Magnolia	2	Per Plan	2" caliper B&B	15'-20'/20'-25'
MASS	Malus x 'Spring Snow'	Spring Snow Crabapple	3	Per Plan	2" caliper B&B	20-25'/15-20'
SYRIS	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	6	Per Plan	2" caliper B&B	25'/15'
Evergreen Trees: (Install in accordance with detail 4/L2.10)						
PIAB	Picea aibes	Norway Spruce	0	Per Plan	6' tall B&B	50'-70'/25'-30'
PIGLD	Picea glauca var. densata	Black Hills Spruce	5	Per Plan	6' tall B&B	25'-45'/15'-25'
Deciduous Shrubs: (Install in accordance with detail 5/L2.10)						
HAVE	Hamamelis vernalis	Vernal Witchhazel	3	Per Plan	30" tall pot	6'-10'/10'-15'
PHOCG	Physocarpus opulifolius 'Center Glow'	Center Glow Ninebark	8	Per Plan	36" tall pot	8'-10'/8'-10'
RHARG	Rhus aromatica 'Gro-Low'	Gro-Low Sumac	21	Per Plan	18" spread pot	2'-3'/6'-8'
RIALG	Ribes alpinum 'Green Mound'	Green Mound Alpine Currant	38	Per Plan	18" tall pot	3'-5'/3'-5'
SPFRA	Spiraea x fritschiana 'JN Select A'	Pink-a-licious Fritsch Spirea	86	Per Plan	18" tall pot	2'-3'/2'-3'
SYMEP	Syringa meyeri 'Palibin'	Meyer Lilac (Dwarf Korean Lilac)	27	Per Plan	24" tall pot	4'-5'/5'-7'
SYXBK	Syringa x 'SMNSDTP'	Baby Kim Lilac	7	Per Plan	15" tall pot	2'-3'/2.5'-3'
Evergreen Shrubs: (Install in accordance with detail 5/L2.10)						
JUCHM	Juniperus chinensis 'Mountbatten'	Mountbatten Chinese Juniper	11	Per Plan	4' tall B&B	15'/6'-8'
JUCP	Juniperus chinensis 'Pfitzeriana'	Pfitzer Juniper	19	Per Plan	18" spread pot	6'/8'
Perennials: (Install in accordance with detail 6/L2.10)						
ALSPB	Allium x 'Summer Peek-a-Boo'	Summer Peek-a-Boo Globe Lily	12	Per Plan	#1 cont.	8"-12"/18"-24"
CAAC	Calamagrostis x acutiflora Karl Foerster	Karl Foerster Reed Grass	73	Per Plan	#1 cont.	4'-5'/18"-24"
CABRA	Calamagrostis brachytricha	Fall Blooming Feather Reed Grass	21	Per Plan	#1 cont.	36"-60"/24"
HEHR	Hemerocallis 'Happy Returns'	Happy Returns Daylily	30	Per Plan	#1 cont.	12"-18"/16"-24"
HOAM	Hosta 'August Moon'	August Moon Hosta	21	Per Plan	#1 cont.	20"/24"-30"
HOFII	Hosta x 'Fire and Ice'	Fire and Ice Hosta	23	Per Plan	#1 cont.	12"-18"/24"
PANO	Panicum virgatum 'Northwinds'	Northwinds Switch Grass	28	Per Plan	#1 cont.	4'-5'/24"-30"

NOTE: Plant quantities indicated in the plant schedule are for convenience only. Installation contractor is responsible for verifying plant count on the landscape plan. When discrepancies between the plant schedule, labels and the landscape plan occur, the quantity drawn on the landscape plan shall be the official quantity.

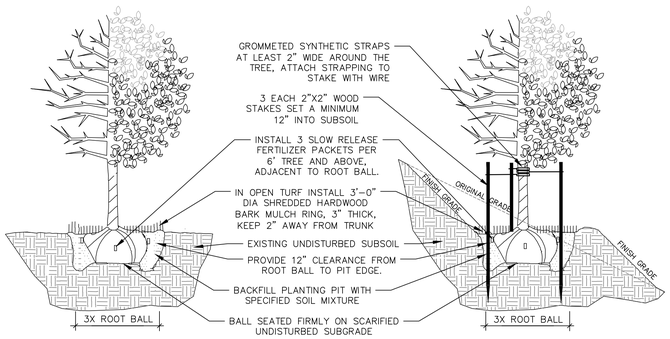
1 / L2.10 PLANT SCHEDULE
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

Bio-Retention Basin Plant Plug Schedule

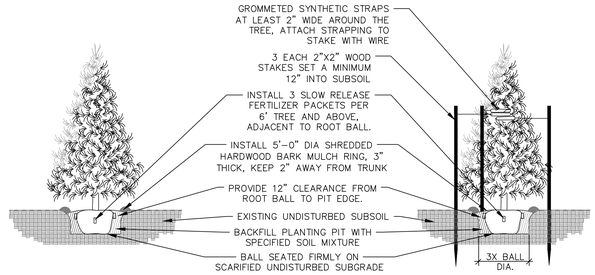
Code	Scientific Name	Common Name	Bio #1 Quantity	Bio #2 Quantity	Bio #3A Quantity	Bio #3B Quantity	Bio #4 Quantity	Soldier Spacing	Install Size	Mature Size (Height/Spread)
Bio-mix: (Space according to detail 9/L2.10)										
BIOMIX 1	Aster ericoides	Heath Aster	228	128	400	184	528	12" o.c.	3" plug	18"-24"/12"-18"
BIOMIX 1	Aster novae-angliae	New England Aster	228	128	400	184	528	12" o.c.	3" plug	48"-60"/18"-24"
BIOMIX 1	Physostegia virginiana	Obedient Plant	228	128	400	184	528	12" o.c.	3" plug	24"-48"/18"-24"
BIOMIX 1	Verbena hastata	Blue Vervain	228	128	400	184	528	12" o.c.	3" plug	36"-48"/18"-24"
BIOMIX 1	Liatris spicata	Marsh Blazing Star	228	128	400	184	528	12" o.c.	3" plug	36"-48"/12"-24"
BIOMIX 1	Monarda fistulosa	Wild Bergamot	228	128	400	184	528	12" o.c.	3" plug	36"-48"/24"-36"
BIOMIX 1	Rudbeckia hirta	Black-eyed Susan	228	128	400	184	528	12" o.c.	3" plug	36"-48"/12"-18"
BIOMIX 1	Solidago rugosa 'Fireworks'	Fireworks Goldenrod	228	128	400	184	528	12" o.c.	3" plug	42"-48"/18"-24"
BIOMIX 1	Tradescanta ohiensis	Spiderwort	228	128	400	184	528	12" o.c.	3" plug	24"-36"/12"-18"
BIOMIX 1	Ratibida pinnata	Yellow Coneflower	228	128	400	184	528	12" o.c.	3" plug	36"-48"/12"-18"
BIOMIX 1	Carex bebbi	Bebb's Sedge	290	170	462	224	588	12" o.c.	3" plug	12"-24"/8"-12"
BIOMIX 1	Bromus ciliatus	Fringed Brome Grass	228	128	400	184	528	12" o.c.	3" plug	20"-40"/12"-18"
BIOMIX 1	Panicum virgatum	Switch Grass	228	128	400	184	528	12" o.c.	3" plug	60"-108"/24"-36"
BIOMIX 1	Elymus canadensis	Canada Wild Rye	228	128	400	184	528	12" o.c.	3" plug	24"-48"/10"-12"
BIOMIX 1	Elymus virginius	Virginia Wild Rye	228	128	400	184	528	12" o.c.	3" plug	24"-48"/18"-24"
BIOMIX 1	Carex vulpinoidea	Fox Sedge	290	170	462	224	588	12" o.c.	3" plug	12"-36"/24"-36"

NOTE: Plant quantities indicated in the plant schedule are for convenience only. Installation contractor is responsible for verifying plant count on the landscape plan. When discrepancies between the plant schedule, labels and the landscape plan occur, the quantity drawn on the landscape plan shall be the official quantity. Native plugs of same species shall be planted in groupings of a minimum 40 plugs.

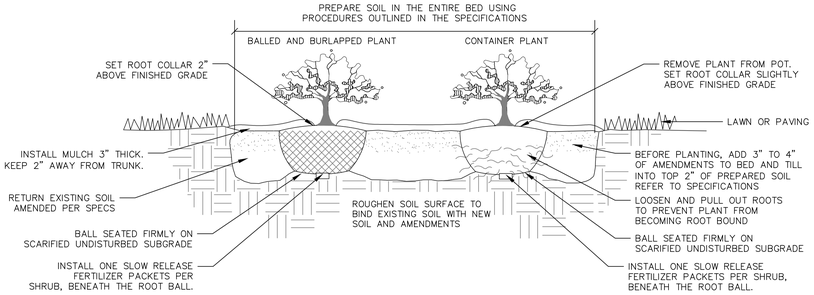
2 / L2.10 BIORETENTION BASIN PLANT SCHEDULE
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION



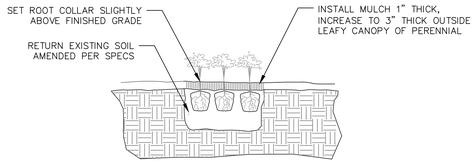
3 / L2.10 DECIDUOUS TREE PLANTING, STAKING, & PLANTING ON A SLOPE
N.T.S.



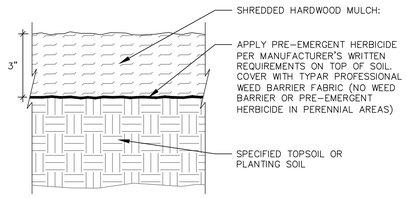
4 / L2.10 EVERGREEN TREE PLANTING & STAKING
N.T.S.



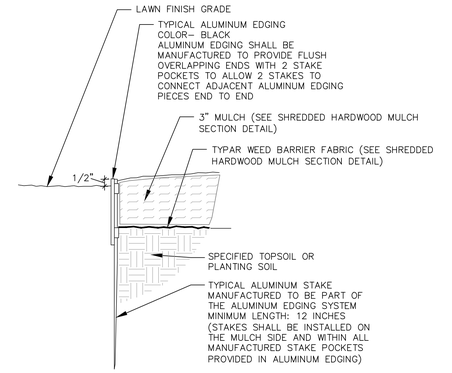
5 / L2.10 DECIDUOUS & EVERGREEN SHRUB PLANTING
N.T.S.



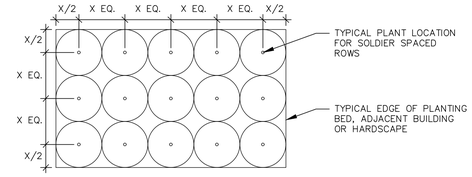
6 / L2.10 PERENNIAL PLANTING
N.T.S.



7 / L2.10 SHREDDED HARDWOOD MULCH SECTION
N.T.S.



8 / L2.10 ALUMINUM EDGING AT PLANTING BED SECTION
N.T.S.



NOTE:
1. X IS EQUAL TO ON CENTER SPACING. SEE LANDSCAPE SCHEDULE FOR SPACING PER PLANT.

9 / L2.10 PERENNIALS AND GROUNDCOVERS SPACING: SOLDIER
N.T.S.

1. ALL PLANT MATERIAL SHALL BE OBTAINED FROM A NURSERY LOCATED IN ZONE 5, CONFORM TO APPLICABLE REQUIREMENTS OF THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AND BOTANICAL NAMES SHALL BE ACCORDING TO THE CURRENT EDITION OF "STANDARDIZED PLANT NAMES" PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURE NOMENCLATURE.
2. CONTRACTOR TO PROVIDE TO THE LANDSCAPE ARCHITECT SAMPLES OF ALL BARK AND MINERAL/STONE MULCHES, DECORATIVE GRAVELS, MAINTENANCE STRIP STONE, OR OTHER GROUND COVER MATERIALS FOR APPROVAL PRIOR TO INSTALLATION.
3. BARK MULCH TO BE FRESHLY ACQUIRED HARDWOOD SHREDDED BARK MULCH WHICH IS NATURALLY DARK BROWN IN COLOR WITHOUT COLORANTS. DOUBLE MILLED, EXCESSIVE DIRT AND DUST LIKE MATERIAL OR OLD MATERIAL IS NOT ACCEPTABLE.
4. LANDSCAPE EDGING TO BE ALUMINUM EDGING. REFER TO SPECIFICATION 32 93 00 PLANTS FOR ADDITIONAL INFORMATION.
5. ALL PLANTING AREAS TO RECEIVE A 3–INCH THICK LAYER OF HARDWOOD SHREDDED BARK MULCH OVER TYPAR PROFESSIONAL WEED FABRIC WITH EDGING. NO TYPAR PROFESSIONAL WEED FABRIC IN PERENNIAL AREAS. EDGING TO BE INSTALLED BETWEEN DIFFERENT TYPES OF MULCHES, BETWEEN MULCHES AND TURF, AND/OR WHERE SPECIFICALLY NOTED ON THE PLAN. REFER TO SPECIFICATION 32 93 00 PLANTS FOR ADDITIONAL INFORMATION.
6. INSTALL SHOVEL CUT EDGE AROUND ALL INDIVIDUAL TREES AND SHRUBS IN LAWN AREAS AND ALONG PAVEMENT WHERE PLANTING AREAS ABUT TO PREVENT HARDWOOD SHREDDED BARK MULCH FROM SPILLING OUT OF PLANTING AREA.
7. CONTRACTOR RESPONSIBLE FOR MAINTENANCE OF PLANT MATERIAL FOR 90 DAYS FROM INSTALLATION, INCLUDING WATERING, WEEDING, ETC. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF SEEDED AREAS FOR 60 DAYS FROM INSTALLATION, INCLUDING WATERING, WEEDING, ETC. CONTRACTOR TO PROVIDE AND REVIEW MAINTENANCE INSTRUCTIONS WITH THE OWNER PRIOR TO THE COMPLETION OF THESE MAINTENANCE PERIODS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
8. CLEANLY PRUNE AND REMOVE DAMAGED BRANCHES, DEAD WOOD, AND ROOTS IMMEDIATELY PRIOR TO PLANTING. DO NOT CUT LEADERS OR LEAVE "V" CROTCHES OR DOUBLE LEADERS UNLESS A MULTI–STEM TREE IS SPECIFIED.
9. REMOVE BURLAP, WIRE BASKET, ROPE, TWINE, AND ALL SYNTHETIC MATERIAL FROM THE ROOTS, TRUNK, OR CROWN OF PLANT.
10. REMOVE EXCESS SOIL ABOVE ROOT COLLAR.
11. PLANT TREES AND SHRUBS SO THAT THE ROOT COLLAR IS 2" ABOVE FINISHED GRADE OR SEVERAL INCHES ABOVE GRADE IF PLANT IS INSTALLED IN POOR SOILS.
12. PLANT TREES AND SHRUBS WITH SAME ORIENTATION AS WHEN HARVESTED FROM THE NURSERY OR TO SHOWCASE THE MOST AESTHETIC VIEW.
13. PLANT ALL TREES WITH THREE SLOW RELEASE FERTILIZER PACKETS, SPACED EQUIDISTANT AROUND THE EDGE OF THE ROOT BALL.
14. PLANT ALL SHRUBS WITH ONE SLOW RELEASE FERTILIZER PACKET, PLACED BELOW THE ROOTING SYSTEM.
15. WATER AND TAMP BACKFILL AND ROOTS OF ALL NEWLY SET PLANT MATERIAL SO THE SOIL AND ROOTS ARE THOROUGHLY SOAKED AND AIR POCKETS ARE REMOVED.
16. FOR INDIVIDUAL TREES & SHRUBS PLANTED IN TURF AREAS, PROVIDE CONTINUOUS 3" SOIL SAUCER TO CONTAIN WATER & MULCH (TREES ON SLOPES SHALL BE SAUCERED ON THE DOWNHILL SIDE)
17. INSTALL 3" THICK SHREDDED HARDWOOD BARK MULCH RING 4'–0" DIA. FOR DECIDUOUS TREES AND ALL INDIVIDUAL SHRUBS IN LAWN AREAS, 5'–0" DIA. FOR EVERGREEN TREES. KEEP MULCH 2" AWAY FROM TRUNKS.
18. STAKING – ONLY STAKE EVERGREEN TREES 5'–0" OR GREATER IN HEIGHT OR TREES THAT ARE UNABLE TO REMAIN UPRIGHT AFTER PLANTING. TREES WILL BECOME STRONGER FASTER WHEN THE TOP 2/3 OF THE TREE IS FREE TO SWAY. DO NOT ATTACH WIRE DIRECTLY TO TREES OR THROUGH HOSES – UTILIZE GROMMETED, SYNTHETIC STRAPS AT LEAST 2" WIDE AROUND THE TREE, ATTACH STRAPPING TO STAKE WITH WIRE. STAKE ONLY WHEN NECESSARY. STAKES SHOULD BE DRIVEN DEEPLY INTO THE GROUND TO PREVENT DISLODGING. CHECK AT LEAST EVERY THREE MONTHS FOR BINDING OR OTHER PROBLEMS. STAKES AND TIES SHOULD BE REMOVED SIX MONTHS TO ONE YEAR AFTER PLANTING.
19. NO MOW TO BE NO MOW FESCUE SEED MIX WITH ANNUAL RYE NURSE CROP FROM PRAIRIE NURSERY, INC. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. PRAIRIE NURSERY ADDRESS: PO BOX 306 WESTFIELD, WI 53964. TELEPHONE: 1–800–476–9453 FAX: 608–296–2741.
20. REFER TO SPECIFICATIONS 32 93 00 PLANTS AND 32 92 00 TURF AND GRASSES FOR ADDITIONAL INFORMATION.

10 / L2.10 LANDSCAPE NOTES
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

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Project Title:
RENOVATION AND ADDITION TO:
Park View Middle School
Mukwonago Area School District
930 N Rochester St,
Mukwonago, WI 53149

REVISIONS:

	DATE	DESCRIPTION
1	08/22/25	ADDENDUM #1
2	09/09/25	POST BID ADDENDUM
8	05/15/26	PS-8

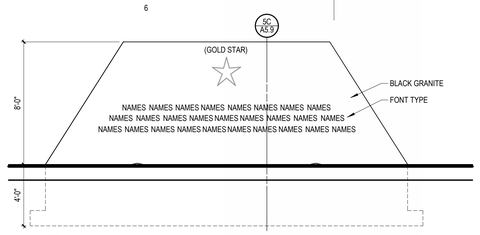
Project Number: **3526**

Issued For: **BID PACKAGE #1** 08/08/2025

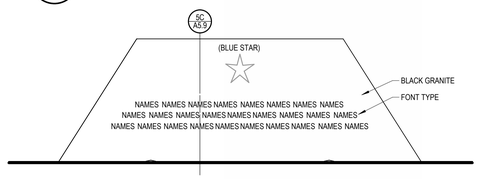
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Sheet Number: **L2.10**

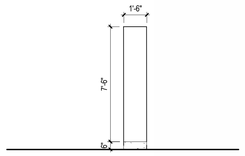
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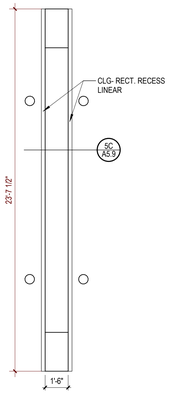
6E MONUMENT FRONT ELEVATION
A5.9 Scale: 1/4" = 1'-0"



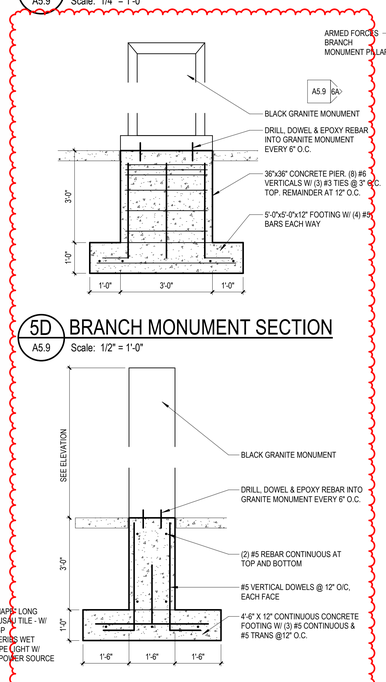
6D2 MONUMENT BACK ELEVATION
A5.9 Scale: 1/4" = 1'-0"



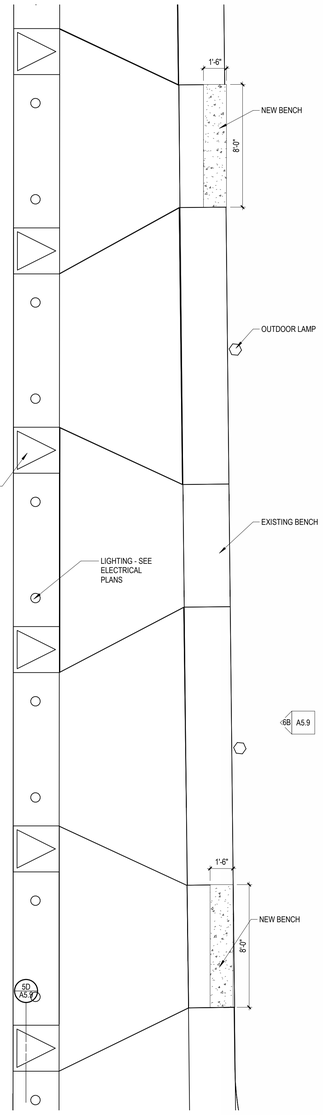
6D MONUMENT SIDE ELEVATION
A5.9 Scale: 1/4" = 1'-0"

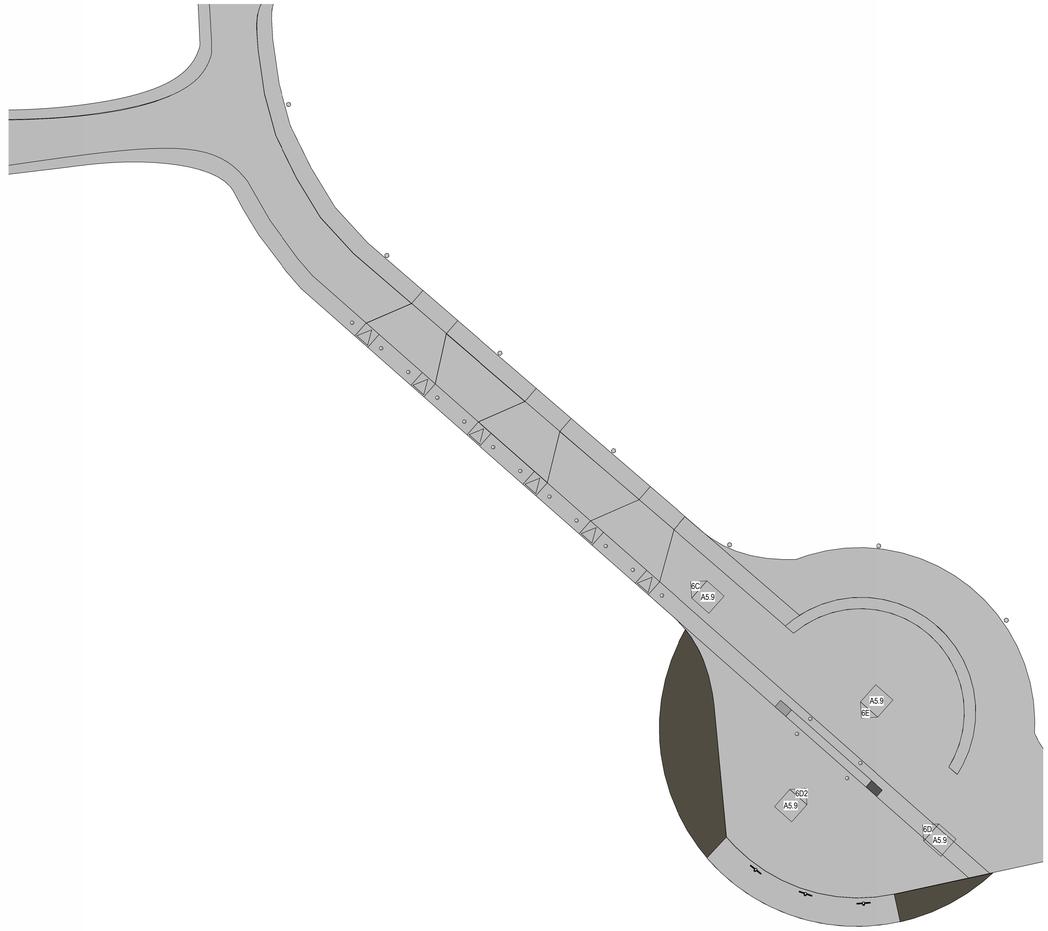


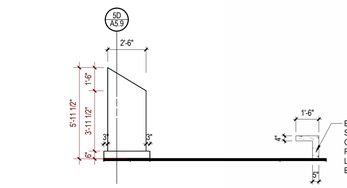
5D2 MONUMENT PLAN
A5.9 Scale: 1/4" = 1'-0"



5D BRANCH MONUMENT SECTION
A5.9 Scale: 1/2" = 1'-0"





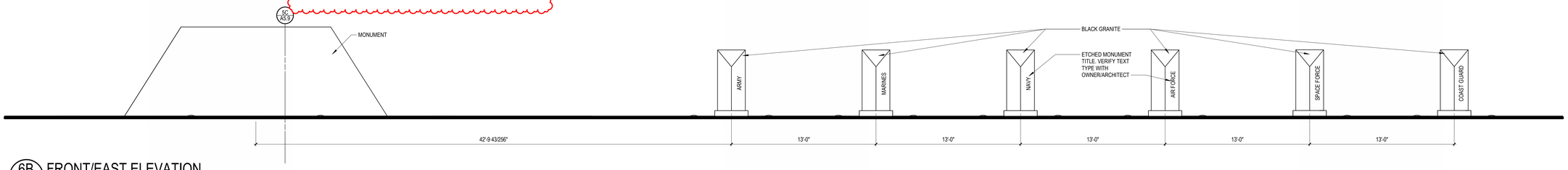


6C TYP. BRANCH PILLAR
A5.9 Scale: 1/4" = 1'-0"

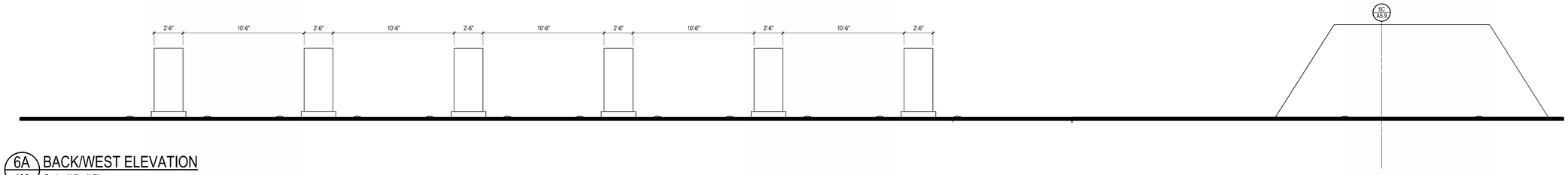
5C MAIN MONUMENT SECTION
A5.9 Scale: 1/2" = 1'-0"

4C WAR MEMORIAL PLAN
A5.9 Scale: 1/4" = 1'-0"

3C WAR MEMORIAL SITE PLAN
A5.9 Scale: 3/32" = 1'-0"



6B FRONT/EAST ELEVATION
A5.9 Scale: 1/4" = 1'-0"



6A BACK/WEST ELEVATION
A5.9 Scale: 1/4" = 1'-0"

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REVISIONS:

#	DATE	DESCRIPTION
2	12/5/25	ADD-2
8	04/3/26	PS-6
9	05/13/26	PS-7

Project Number:
3526

Issued For:
CONSTRUCTION DOCUMENTS
11/26/2025

Sheet Title:
PLANS & ELEVATIONS

Sheet Number:
A1.1

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Autodesk Docs://3526-MASD Master Plan/3526_MASD_New Middle School.rvt
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RENDERED AXON



VIEW TOWARDS THE CORNER OF 83 & VETERANS WAY



VIEW FROM THE CORNER OF 83 & VETERANS WAY

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11/26/2025

Sheet Title:
RENDERINGS

Sheet Number:
A1.2

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PLAN COMMISSION STAFF REPORT

TO: Village of Mukwonago Plan Commission

FROM: Peter Gesch, P.E., Ruekert & Mielke, Inc.

REPORT DATE: July 13, 2026

MEETING DATE: July 21, 2026, 6:30 P.M.

SUBJECT: Elegant Farmer – Site Plan & Architectural Review & Conditional Use

BASIC INFORMATION	
Project:	Elegant Farmer Event Venue
Applicant:	Elegant Farmer, Inc.
Consulting Engineer:	Endpoint Solutions
Consulting Architect:	David C. Baum
Request:	Site Plan & Architectural Review & Conditional Use
Staff Recommendation:	Approve with Conditions

PARCEL DATA/CHARACTERISTICS	
Tax Key:	VM 00010
Acreage:	2.90 Acres
Current Use:	General Retail
Proposed Use:	General Retail & Assembly Hall
Reason for Request:	Partial Remodel for Assembly hall
Land Use Classification:	Business
Zoning Classification:	B-2 General Business District

Project Summary & Overview

The Elegant Farmer is proposing to remodel their existing Greenhouse building into a two-level, 6,480 square-foot event assembly hall. The main barn building is planned to stay as well as the majority of the rest of the site infrastructure. The venue would be able to accommodate up to 250 occupants with two separate event areas that can be utilized for one primary event or two smaller events upstairs and downstairs.

Staff met with the applicant in a preliminary pre-application meeting to discuss the need for parking, adequate fire protection from the existing retail barn structure, coordination with local protective services during larger events such as the applicant does now, but not on a regular basis for every event, coordination with Walworth County to verify the access points are adequate to CTH ES, and several other

site details. Staff have reviewed the application documents and provided the comments in the section below.

Conditional Use Request

Attached to this staff report is the justification questions for a Conditional Use Permit that have been answered by the applicant. The Planning Commission shall take these into consideration when making their decisions and recommendations.

Conditional Use Process / Findings

The established review procedures are that the Plan Commission shall hold a public hearing and make a recommendation to the Village Board whom makes the final decision.

Following the close of the public hearing, the Plan Commission may recommend (1) approval, (2) approval with conditions, or (3) denial.

If approval is recommended, the Plan Commission can recommend conditions deemed necessary to protect public health, safety, and welfare. The Plan Commission, in passing on the matter, will need to make the following determinations consistent with Section 100-354 of Mukwonago's Zoning Regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
3. The establishment, maintenance or operation of the conditional use is compatible with surrounding properties, whether in the same or different zoning districts. In making this determination, the Plan Commission and Village Board must determine whether the petitioner has demonstrated there are no adverse effects on surrounding properties or that potentially adverse effects have been eliminated or reduced to an acceptable level. Approaches that could be employed to mitigate potentially adverse effects will depend on the particular circumstances but may include:
    a. Adjusting the location of the use, or parts thereof, on the subject property;
    b. Limiting hours of operation;
    c. Limiting the size or scope of the use, or parts thereof;
    d. Controlling how the use is managed on an ongoing basis;
    e. Providing additional landscaping;
    f. Providing additional screening; and
    g. Limiting operations conducted out-of-doors, if otherwise allowed
4. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
5. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
6. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner / tenant has shown compliance with the requirements set forth in the Village's zoning regulations for specified use.

The Village Board will carefully review the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

These findings are incorporated into the draft conditional use order which is attached.

The Plan Commission shall approve a conditional use application if the terms and conditions of the zoning regulations are met. However, in the event the terms and conditions of the ordinance are not consented to and complied with by the applicant, the Commission may deny the application. In addition, the Commission may deny the application or place conditions on it if substantial evidence, as defined in §62.23(7) Wis. Stats. is presented. That evidence must demonstrate the inability of the applicant to comply with or meet the conditions of the zoning regulations or that the conditions to be applied by the Plan Commission are necessary to protect the public health, safety or welfare of the community based upon the presentation of substantial evidence. Potential motion for approval to Recommend to the Village Board approval of the project as a conditional use as set forth in the attached conditional use order as drafted, provided the Village Attorney approves the final form of the conditional use order.

Staff Review

Engineering:

- Final civil plans will need to be provided and approved by staff prior to issuance of Building permits.
- Construction signage shall be added to the area near the existing barn retail facility to prevent construction traffic from utilizing the northern entrance.
- Sanitary manhole detail shall be added to the plans.
- Prior to approval of the final plans, applicant shall provide more detail on the grading and drainage near the outfall of the proposed storm sewer on the south west corner of the site. Existing grades are shown on the grading and erosion control plan, but not labeled.

Public Works — No comments at this time. Email verification from Walworth County that they don't see issues with the existing access drives is sufficient.

Utilities

- Existing 4-inch sanitary lateral will need to be abandoned at the sewer main.

Police — No comments at this time.

Fire

- Turning Template was provided. One stall that gets cut off by the fire apparatus needs to be striped for no parking.
- Show location of FDC on the proposed utility and architectural plans.

- Clearly indicate location of fire riser room on final architectural drawings and provide exterior access.

Building Inspection No comments at this time.

Planning

- The maximum building height is met. The parapet structures at the top of the building are exempt from the maximum height restriction.
- A photometric site plan shall be provided showing zero footcandles at the property lines. Staff have no concern this can be met.
- Parking is adequate per the ordinance. The Plan of Operation details how event staff and management will manage congestion and overflow parking on adjacent parcels owned by the Elegant Farmer. If parking becomes an issue, event staff will work with Village Staff to remedy the issue. Biggest possibility for concern is daily retail hours overlapping larger events, however, the plan of operation and management have indicated overflow parking across the street will be used during these times to manage the needed parking and staff is able to park on the lot across the railroad tracks.
- Landscaping is adequate and provides parking lot required landscaping adjacent to building structure. Existing vegetation to south of proposed parking lot should remain to maximum extent practicable and new vegetation should be added if necessary after construction to screen neighboring parcel.
- Any venue signage shall be submitted and approved via the Village's Sign Permit prior to construction.
- Dumpster locations are screened by existing fence in rear of building and new proposed building.

Recommended Action

Conditional Use Permit
Staff recommends the Planning Commission recommend to the Village Board approval of a conditional use permit as set forth in the provided resolution.

To – Grant a Conditional Use Permit for an Assembly Hall with the following on-going conditions deemed necessary to protect the health, safety, and welfare:

1. Ongoing conditions of approval. The following conditions shall constitute an ongoing obligation:
    a. Any modifications to the site, buildings, site improvements, shall require the conditional use application being updated.
    b. The applicant shall maintain adequate parking at all times and shall promptly address concerns from Village Staff, should they arise, to maintain the conditional use permit.
    c. Hours of operation shall be stated in the plan of operation on file at the time of approval.
2. The following conditions are also true and are consistent with Section 100-354 of Mukwonago's zoning regulations:
    a. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

b. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
c. The establishment, maintenance or operation of the conditional use is compatible with surrounding properties, whether in the same or different zoning districts.
d. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
e. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
a. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

Site Plan and Architectural Review
Staff Recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution with the included conditions.

Attachments

1. Application and Development Information
2. Plans and Site Drawings

RESOLUTION 2026-48

Village of Mukwonago Order Granting a Conditional Use and Prescribing Conditions for an Assembly Hall (Elegant Farmer) on VM00010, Mukwonago, WI

WHEREAS, ELEGANT FARMER, INC., (hereinafter "property owner") as the current owner and operator of the Elegant Farmer, owns the property identified as parcel VM00010, (hereinafter "subject property") in the Village of Mukwonago, more particularly described as follows:

PT NW 1/4 SEC 2 T4N R18E DESC AS COM W 1/4 COR SEC 2 T4N R18E, N0D43'30"E 1220.43', N44D26'E 319.50', N50D55'W 241.71', N38D00'30"E 316.73' TO POB, N38D00'30"E 714.37', S82D40'W 351.92', S31D14'W 63.93', S31D 21'30"W 402.80', S51D59'30"E 192.83' TO POB. EXC. P ET 2- 3D1 DESC IN VOL 144 PG 667 RECORDS. VILLAGE OF MUKWONAGO ANNEXED TO VILLAGE UNDER DOC. #446048 OMITS P ET 2-3

WHEREAS, the property owner has, consistent with the Village of Mukwonago's zoning regulations, submitted a conditional use application for an Assembly Hall at the Elegant Farmer per Section 100-251, and

WHEREAS, upon receipt of the petition submitted by the property owner and future purchaser, the Village Clerk properly referred such petition to the Plan Commission; and

WHEREAS, allowing for required public notice, the Plan Commission conducted a public hearing on July 21, 2026, to consider the petitioner's request; and

Return to:
Lana Kropf, Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Parcel Number: VM00010

WHEREAS, members of the public in attendance were given ample opportunity to provide comment regarding the petitioner's request; and

WHEREAS, the Plan Commission passed a motion recommending to the Village Board that the conditional use be approved subject to certain conditions; and

WHEREAS, the Plan Commission, in passing on the matter, has made the following determinations consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.

3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.

5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner has shown compliance with the requirements set forth in the Village's zoning regulations for the specified use.

WHEREAS, the Village Board has carefully reviewed the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

NOW THEREFORE, IT IS HEREBY DETERMINED AND ORDERED AS FOLLOWS:

1. **Authorized uses**. Subject to the terms and conditions of this approval and the sections of the zoning code that apply, the property owner is authorized to construct an Assembly Hall.

2. **Issuance of permit required**. The zoning administrator is authorized to issue the property owner a conditional use permit when all conditions enumerated in section 3 have been satisfied to his or her satisfaction. Such permit is the last approval before the property owner/tenant can begin to establish the use as authorized herein.

3. **Initial conditions of approval.** The following conditions shall be satisfied prior to the issuance of the conditional use permit:

a. The property owner must submit site/architectural plans to the Village for review and obtain approval of the same within 9 months of the date of this decision.

b. The property owner must accept the terms and conditions of this conditional use order in its entirety in writing within 6 months of the date of this decision. Prior to such expiration, the property owner may request an extension to this time period, and the Village Clerk may approve an extension with good cause.

c. This order must be recorded against the subject property in the Waukesha County or Walworth County register of deeds office (only if subsections 3(a) through 3(b) have been satisfied).

In the event the requirements enumerated in subsections 3(a) and 3(b) above are not satisfied, this order shall automatically be null and void without any further action by the Village of Mukwonago on the aforementioned date.

4. **Ongoing conditions of approval**. The following conditions shall constitute an ongoing obligation:

a. Any modifications to the site, buildings, and site improvements shall require the conditional use application being updated.
b. The applicant shall maintain adequate parking at all times and shall promptly address concerns from Village Staff, should they arise, to maintain the conditional use permit.
c. Hours of operation shall be as stated in the plan of operation on file at the time of approval.

5. **Expansion or changes.** The conditional use hereby authorized shall be confined to the subject property without extension or expansion. Any expansion or change in use shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

6. **Modification of property boundary lines**. The property owner shall not change the size and/or shape of the subject property by any means without the approval of the Village Board. If the Village Board determines that a proposed change is substantial with regard to the overall size of the parcel and/or configuration, such change shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

7. **Plans and related matters**. Unless otherwise expressly stated herein, plans that are specifically required by this conditional use order may be amended upon the prior approval of the Plan Commission if the Plan Commission finds the amendment to be minor and consistent with the conditional use order and permit. Any change in any plan that the Plan Commission feels, in its sole discretion to be substantial, shall require a

new conditional use approval and all procedures in place at the time must be followed.

8. **Inspection**. The property owner shall allow Village of Mukwonago staff, officials, and other authorized agents to inspect the subject property, at any reasonable time and for any proper purpose related to compliance with this conditional use order.

9. **Discontinuance**. Should the conditional use be discontinued in use for 365 consecutive days the use shall be terminated as set forth in the Village of Mukwonago's zoning regulations.

10. **Private rights**. This approval is given under the Village of Mukwonago's zoning regulations and is not to be interpreted to abrogate any private rights other property owners may have pursuant to deed restrictions or restrictive covenants.

11. **Interpretation**. If any aspect of this conditional use order is in conflict with any other aspect of the conditional use order, the more restrictive provisions shall be controlling, as determined by the Plan Commission.

12. **Other permits**. This order shall not be deemed to constitute a building permit, or constitute any other license or permit required by Village ordinance, or other local, state, or federal law.

13. **Severability**. In the event a court of competent jurisdiction determines that a paragraph or phrase of this conditional use order is unlawful, illegal, or unconstitutional, said determination as to the particular phrase or paragraph shall not void the rest of the conditional use order and the remainder shall continue in full force and effect.

14. **Heirs, successors, and assigns**. This conditional use order shall be binding upon the property owner and their heirs, successors, and assigns. Upon a change in ownership, the property owner shall notify the Village Clerk.

15. **Ongoing review**. This conditional use may be reviewed by the Plan Commission with notice to the property owner at any time upon complaint or upon Plan Commission initiative. If it is determined that the authorized use is no longer compatible, or that the provisions of this approval have not been complied with, the Village Board may revoke or amend this order after recommendation by the Plan Commission and holding of a public hearing.

16. **Amendment**. The property owner may propose an amendment to this conditional use order at anytime by submitting a written petition to the Village Clerk, which shall be reviewed pursuant to the requirements in effect at the time of application.

17. **Violation**. Any violation of this order may be treated as a violation of Mukwonago's zoning regulations and each day of each violation of each condition herein shall be treated as a separate violation.

18. **Acceptance.** GRANTEES hereby accept the said Conditional Use Grant and covenant strictly to comply with all the terms and conditions thereof. GRANTEES acknowledge that, in accordance with the provisions of the Zoning Code, failure to comply with any conditions of the Conditional Use Grant is cause for the termination of said Grant by the Village. GRANTEES also acknowledge that approval of the Conditional Use Grant allows the appropriate Village officials to conduct reasonable and routine inspections of the property. This Covenant shall run with the land and shall be binding on the GRANTEES and all persons claiming any estate or interest in the Premises by, through or under the GRANTEES, as long as the said Premises are used as described in the Conditional Use Grant

The remainder of this page intentionally left blank.

Approved this 5th day of August, 2026.

BY THE VILLAGE BOARD OF THE VILLAGE OF MUKWONAGO

_____
Fred Winchowky, Village President

Attest: _____
Lana Kropf, Village Clerk-Treasurer

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally came before me this ____ day of _____ 2026, the persons described above, Fred Winchowky, Village President, and Lana Kropf, Village Clerk, to me known to be the persons who executed the foregoing instrument and to me known to be such Village President and Village Clerk of the Village of Mukwonago and acknowledged that they executed the foregoing instrument as such officers of said municipal corporation by its authority and pursuant to the authorization by the Village Board from their meeting on the ____ day of _____, 2026.

_____
NOTARY PUBLIC

_____
My Commission Expires:

The remainder of this page left intentionally blank.

Acceptance by Property Owner

I, _____ verify that I am an authorized agent for ELEGANT FARMER, INC., Owner and Operator of The Elegant Farmer, accepts the terms stated herein.

Dated this _____ day of _____, 2026

_____
_____, agent

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally, came before me this ____ day of _____, 2026, the above-named person, _____ to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
NOTARY PUBLIC

_____
My Commission Expires:

Drafted by Peter Gesch, Contracted Village Planner at the direction of the Mukwonago Village Board.

PROJECT SUMMARY

Date:	June 9, 2026
Owner:	Elegant Farmer
Project:	Event Venue
Site Address:	1545 Main Street
	Mukwonago, WI 53149

Reason for Site Plan Application

The above site is proposing to remove their existing greenhouse building and replace it with an event venue. The venue would have a maximum capacity of 250 occupants. The site would be modified to add parking to the west of the venue as well as associated drive aisles. The existing access points along the east would remain. The proposed building is approximately 6,480 SF.

Plan of Operations

The Orchard at The Elegant Farmer

June 2026

ISSUED BY

The Elegant Farmer

Executive Summary

The following information outlines the Plan of Operations for a new event space at The Elegant Farmer. Our primary goals are to improve our fall Harvest Fest experience, add a year round event space, and expand our community engagement with Mukwanago, East Troy, and the surrounding communities.

Key Areas of Focus

Fall Harvest Fest:

We are looking to continue all of our great activities during our Harvest Fest season, but provide a space for all to enjoy. Providing a temperature controlled environment, better views of the orchard, and permanent on-site bathrooms. We will also be able to host smaller private events during fall days, such as birthday parties or company events.

Event Space:

The event space is going to be centred around weddings and large private events. Featuring a bridal suite, groom suite, catering kitchen, and a full bar staffed by the Elegant Farmer. This space is the primary driver for the new building adding a year round revenue source for the business. The space will also be able to hold small events throughout the year, as the suites can be converted into conference rooms for any type of meeting.

Community Activities:

With the additional space, we are looking to bring in activities to support our surrounding communities. This includes expanding our field trips to the orchard to learn about the process of growing apples, birthday party options, improved space for the events with the East Troy Rail Company, and nightly events.

Overview of The Orchard Building and Amenities

The Orchard at The Elegant Farmer is aiming to be the largest event venue in the Village of Mukwonago at 9,800 square feet and seating up to 250 guests. The two-story venue will be able to accommodate events of all sizes, from 10-15 person meetings to full accommodations for wedding ceremonies and receptions. The layout of the building will allow for multiple events to happen simultaneously as areas and rooms can be closed off and bathrooms are available on both floors. An elevator will allow guests to easily move between floors. Please reference Appendix I to view the floor layouts for the building.

The Main Event Space

The main room of the venue will be able to seat up to 180 guests with a permanent full service bar. The south wall will have a fireplace that will be an ideal backdrop for wedding ceremonies and a grand staircase opposite that for an entrance that everyone will remember. The West side of the main space will have views of the apple orchard across the street with four garage doors that will open up for fresh air during the summer months.

Attached to the main space on the first floor is a full service bar with two service wells along the bar. The rear of the bar will have shelving for alcohol bottles, refrigerators for canned and bottled drinks, and an under bar dish washer. Each service well will have an ice bin, bottle storage, garnish station, soda gun system, and POS terminals. In between the wells will be a handwashing sink and dump sink.

A second floor opens up in the center with a view to the first floor. An additional 70 guests will be able to be seated. A mobile bar will be able to accommodate and service patrons for larger events, or events only utilizing the upstairs area.

Catering Kitchen and Storage Space

Attached to the main space is a full service capable kitchen that can be used by catering companies during events or Harvest Fest weekends at The Elegant Farmer. The kitchen includes refrigerators, freezers, oven, heated holding cabinet, flat top griddle, and a 6 top range. The range and griddle are covered by a full exhaust hood for ventilation. A three

compartment sink will be just inside the door from the bar area. This sink will serve as a cleaning station for the kitchen along with a backup wash station for glassware and bar supplies. A dedicated hand sink and prep sink (not shown in the drawings) will be available in the kitchen. Shelving and tables will be available for storage and prep space for events.

Attached to the catering kitchen is a large storage space that wraps around the back of the bar and to the other side. The storage space will be used to hold tables and chairs when not in use, bar supplies, bathroom supplies, and cleaning supplies for the venue.

Bridal and Groomsman Suites

There are two rooms that will be able to serve as a bridal or grooms suite. One on the first floor attached to the main space. The second is on the second floor next to the stairs. This allows brides and grooms to choose the experience they want, from a grand entrance down the stairs or staged downstairs.

Both rooms will also be able to be converted to conference rooms. This provides smaller spaces for meetings and small parties during Harvest Fest weekends. The conference rooms provide The Elegant Farmer with formal rooms to host potential clients or vendors to help grow other areas of the business.

Check Out and Cocktail Area

Attached to the existing silo that goes between the store and this new space is an open space that can be used for additional check out lanes during the fall weekends, a cocktail hour space with mobile bar, or converted to Santa's workshop for the holiday season. This space can be closed off from the main event space for private events, along with keeping a space for guests at the store to come and enjoy lunch from the deli and have a year round space to sit and eat.

Outdoor Spaces

The existing awning covering the entrance to the shop will be removed to make space for a new balcony and awning to help connect the new building to the existing store. Seating is available on the patio area under the awning/balcony with two staircases that

allow access to a second floor outdoor balcony with great views of our orchard. Glass doors and windows will separate the second floor event space from the balcony.

Revamped Parking Lot

With this project, the entire main parking lot will now be paved allowing for more formal parking for events. Additional parking will also be added to our property on the north side of the East Troy Railroad tracks for overflow and employee parking during large events. Lighting will be established for safety purposes and be in accordance with state and local ordinances.

Bathrooms, Infrastructure, and Offices

The venue will have HVAC throughout the building with specific control on multiple rooms. The kitchen's hood system will not have cooling for the return air, as the kitchen will be cooled via the HVAC. This system will keep guests and employees comfortable year round, especially during our Harvest Fest weekends.

The primary bathrooms will be on the first floor, accessible by the main event space and the cocktail area separately. Each bathroom downstairs will have two stalls and two sinks to accommodate the capacity of the first floor seating. Additionally, there are two individual bathrooms on the second floor for the added seating capacity there. The bathrooms downstairs will meet the needs of the store for retail needs alone. All bathrooms will be handicap accessible.

An office will be on the main floor for the Event Manager. This office is next to the venue entrance on the south side of the building.

The storage room that is attached to the kitchen will house the electrical panels for the building. Other mechanical, water, HVAC, and fire system panels or systems will be split between the same storage area and the mechanical/storage room located on the second floor.

Exterior

The exterior of the building will have wood siding in a light brown shade. The patio area will be lined with floral boxes to create a division between it and the parking lot. The

South side of the building will have a large mural tying apple trees and the village of Mukwonago together. Proofs of the building can be found in Appendix II.

Event Types

While the building is geared towards weddings, the new space will be capable of so much more. The following events are the primary events we want to cater to, along with the flexibility to meet the needs of many more occasions.

Wedding ceremonies & receptions
Harvest Fest food sales
The Elegant Cork at The Elegant Farmer nightly events
Private parties and celebrations
Corporate and community events
Other approved special events

Staffing & Management

A small dedicated staff will be used to manage the new building.

Event Manager

The event manager will oversee the scheduling, operations, and logistics of all events at the space. This includes being the point of contact for the venue during events. All event staff will be under the Event Manager, including the bar staff, Maintenance personnel, and Harvest Fest staff (during the fall weekends).

Bar Staff

Bar staff will be split with the venue and The Cork at The Elegant Farmer. There will be two bartenders and a barback for large events. Bar staff will be adjusted based on the size of the event and type of beverages being served.

Maintenance Staff

Up to two dedicated Maintenance staff will be responsible for maintenance of the building, setup of the event space, and other related duties.

Harvest Fest Staff

The Harvest Fest staff will be seasonal to support our busiest time of the year. Part of the staff will be preparing and serving food in the catering kitchen. The other part will be manning registers to support the store and food sales for the kitchen.

Operational Details

Booking Procedures

All events will be managed through Toast Event Management. To book an event, a signed rental agreement and deposit will be required. Final guest count, payment, and cancellation dates will be established in advance.

Hours of Operation

Harvest Fest will maintain the current hours of operation, from 10am to 5pm. Events during the fall will be limited on the weekends to accommodate the needs of Harvest Fest. Weddings and large events can start any time after 8am, but will be limited to 12am (midnight). Last call for drinks will be 11:30pm with no sales after 11:45pm. Smaller events will manage times on a case by case basis within the 8am to midnight hours. All Guests must be out of the space by 1am or 1 hour after the event, whichever comes first.

Parking

The expanded paved parking on the main property will be the primary parking for guests at the venue. The first image in Appendix III shows 52 stalls in red where the gravel lot currently is. The existing 51 paved stalls will give us a total of 103 stalls on the main property. The same entrances and exits will be used as they are today. A final layout of the parking is shown in the second picture in Appendix III.

The small gravel lot that is north of the train tracks, in “Parcel B”, will be expanded using the ground up concrete and asphalt that will be removed from the greenhouse foundation and parking lot rework. This lot will provide parking for staff and vendors during events, with overflow parking for guests as well. The Elegant Farmer will work with the East Troy Electric Rail to get a path and proper signage across the tracks.

Harvest Fest, or any other events requiring it, will continue to utilize the grass parking along the East side of the apple orchard (not pictured in Appendix III).

Alcohol Service

All alcohol sales will be handled by The Elegant Farmer, following all state and local regulations for serving. The permanent bar inside the venue will be a full service bar. Different bar packages will be available for events, from full cash bars to full included packages. All alcoholic beverages consumed on the site will be sold through The Elegant Farmer. Alcoholic beverages will be required to stay within the new building, the patio area outside, the 2nd floor balcony, or inside The Elegant Cork. Alcohol will not be allowed to cross the street during Harvest Fest or any other events utilizing the orchard. When not in use, alcohol in the venue will be stored in a locked cage inside the storage area next to the bar.

Safety & Maintenance

The new building will be a sprinkled building to meet fire code requirements. Evacuation routes and information will be provided and staff will be trained on what to do in the event of an emergency. Contact information will be maintained for all events.

Restrooms will be cleaned and stocked before each event. During business hours for the store while events are not happening, staff will check bathrooms on a regular basis. During Harvest fest, hourly checks of the restrooms will be made to maintain cleanliness.

Recycling dumpsters will be moved behind the new venue. The trash compactor will be evaluated to be relocated along with the recycling dumpsters. This move requires moving electrical, but can streamline deliveries to the store or the back side of the venue.

Vendor Policies

A preferred vendor list will be maintained for event coordinators to use when hosting events at The Elegant Farmer. Vendors will be required to provide proof of insurance when getting set up as a vendor. Insurance will be updated on a yearly basis. Vendor scheduling will be handled by the Event Manager.

Insurance

The Elegant Farmer will maintain general liability and building insurance for the property and events.

Multiple Event Spaces

The building will be capable of hosting multiple events at the same time. This is due to the ability to close off different areas of the building. The main space and cocktail area will have a dividing door to close off one or the other. This door will remain closed when events are not being held at the venue, but the store is open for people to sit and enjoy a lunch or ice cream from the deli.

With the versatility of the bridal and grooms suites, this will allow for birthday parties to be held during harvest fest. Along with larger events upstairs during the fall weekends.

Conditional Use Details

Question A:

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

The Elegant Farmer has been a fall staple in Mukwonago for decades, bringing locals and tourists together in one space. While The Orchard at The Elegant Farmer will help improve this experience, our biggest growth opportunity is the other 44 weekends a year. With the growth the village downtown has seen over the past 15 years, Mukwonago is a great town to come and visit for a wedding or special event. The new venue will offer up a great space for locals and visitors alike to use, and keep tourists here longer and provide opportunities for other businesses to see increased revenue.

Although increased tourism is a factor, The Elegant Farmer will be utilizing a local contractor, Campbell Construction, for this project. The additional space will also bring on two full time employees and 5 to 6 full or part time employees to run events and staffing of the bar.

Question B:

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

There are several objectives of the Comprehensive Plan that the new building will coincide with, but two of them stick out. The first, “To evaluate all new development or redevelopment with quality architectural, site and landscaping design principles.” will be handled with our take on a farm style building that can also accommodate formal events. Appendix II shows the design aesthetic in the renderings.

The second, “To coordinate with property owners and business owners toward a well maintained and aesthetically pleasing built environment.” will be accomplished by removing the greenhouse, which is in need of retarping and other maintenance. The new space will also have complete HVAC to keep our guests comfortable year round, with outdoor seating and views of our orchard from any seat in the building.

Question C:

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

Parking and traffic have been the biggest concern for this project. Parking is being addressed by paving the rest of the main parking lot in Parcel A. This will formalize and add a few more spots than what is traditionally available in the gravel lot currently on the property. The expansion of the gravel area on Parcel B will formalize employee and overflow parking for events in the new space. Parking for large events will follow the same process that is currently used for Harvest Fest weekends today, with the grass parking area across Main street on the farm. Events that only utilize the new event space will not require regular use of the parking across the street. Entry and exit points for the parking lots will not be changing.

The relocation of the building will allow for the dumpsters to be moved to an area behind the new space that will keep them hidden from the road. The green space percentage on Parcel A will not be reduced, but is still under the 25% threshold. Planters and floral around the building will help offset the difference. The architecture of the building will follow suit with the existing buildings. Lastly, a fire hydrant will be added to the property to ensure proper fire safety.

Question D:

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

The land will be maintained as commercial with this development.

Question E:

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

No.

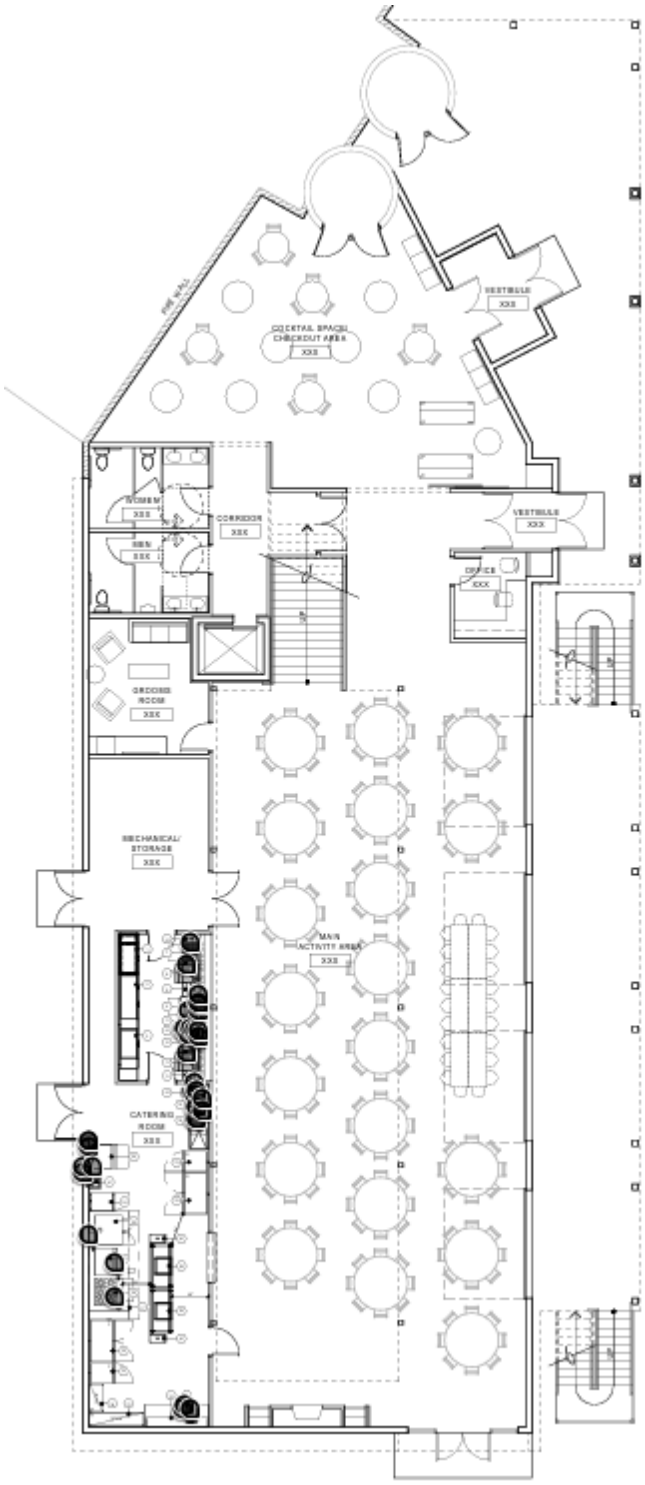
Question F:

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

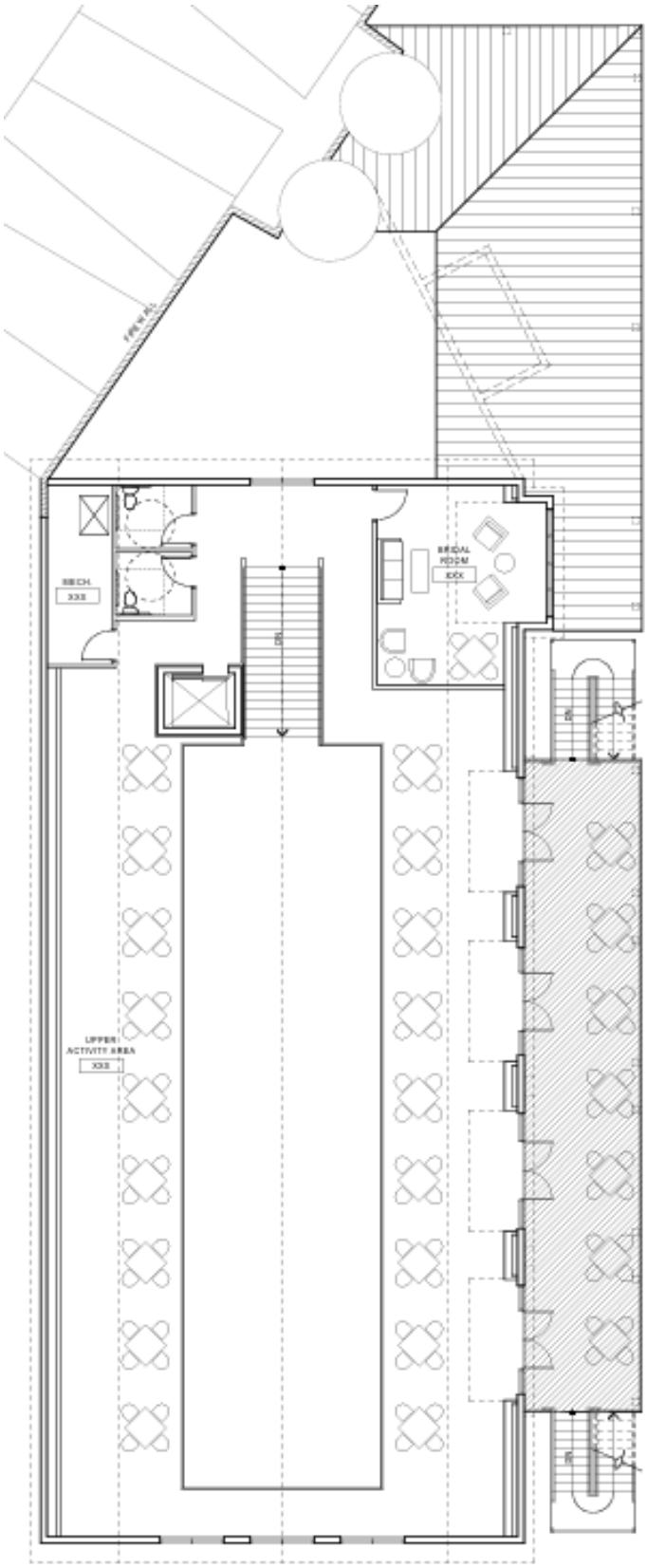
Yes, The Elegant Farmer does not see the investment of the new building and revamped parking lot to be a negative addition to the value of the neighborhood and community.

Appendix I

Ground Floor



Second Floor



Appendix II

Rendered design intent of the new building space

View of the building from Main Street



View of the building from the new parking lot

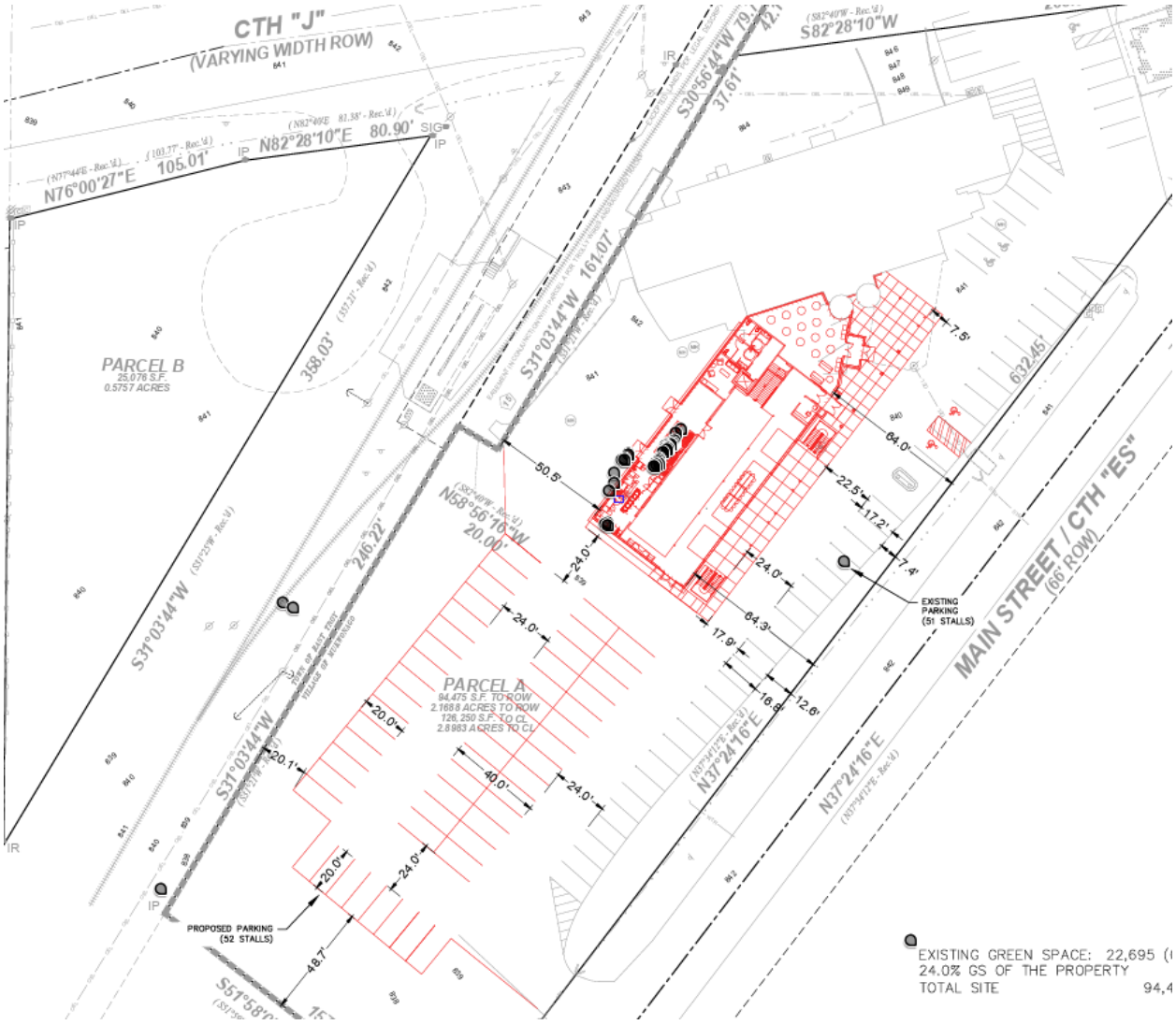


Design intent of the interior of the building

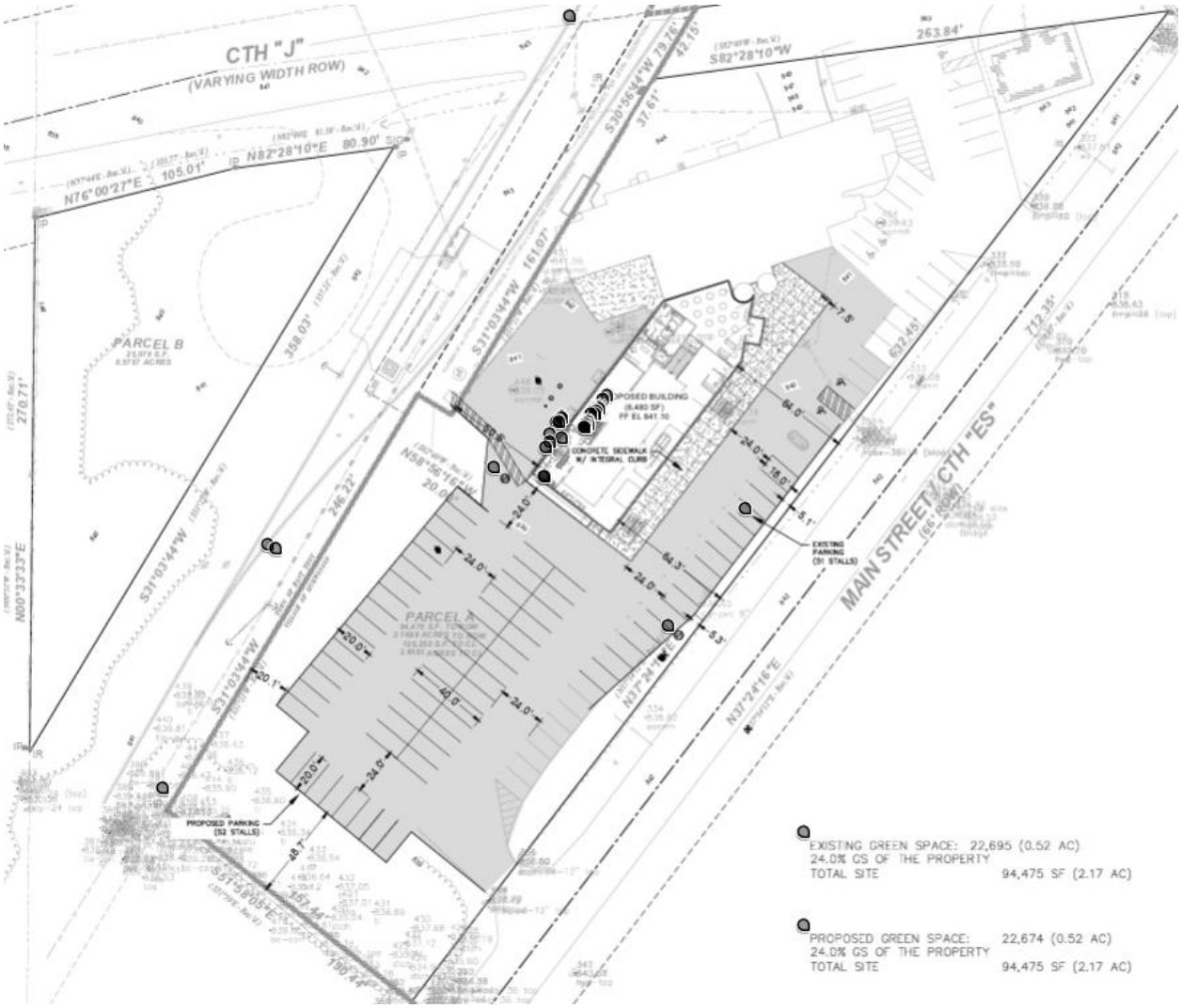


Appendix III

Parking Lot expansion showing new spots in red



Approved Parking Lot Layout



ISSUED FOR MUNICIPAL REVIEW

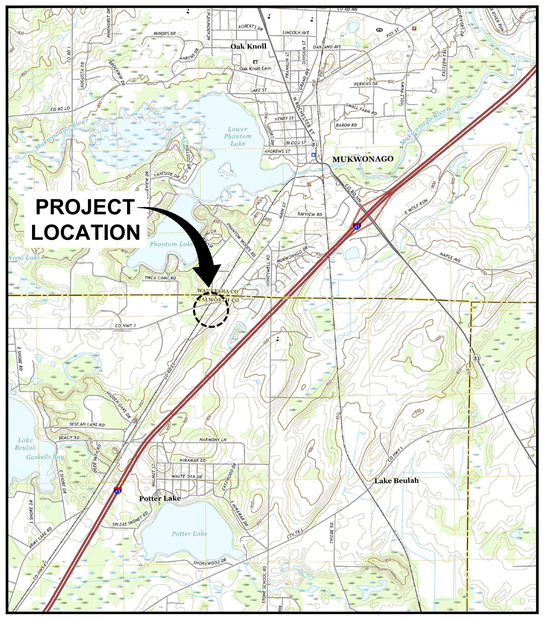
PROPOSED SITE IMPROVEMENTS

THE ORCHARD AT THE ELEGANT FARMER
1545 MAIN STREET
MUKWONAGO, WISCONSIN

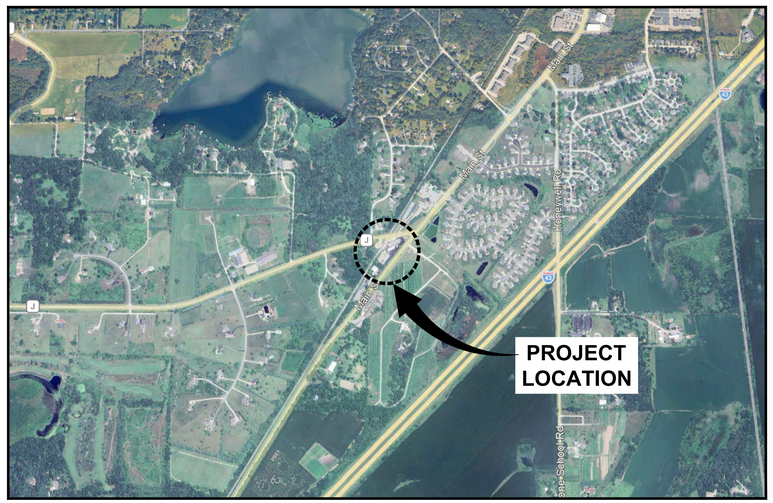
CALL OR CLICK 3 WORKING DAYS BEFORE YOU DIG

Help Us... Help You... Protect Your Facilities!

811 CALL 811 BEFORE YOU DIG SAFE DIGGING PARTNER



LOCATION MAP
0 3000' 6000' N



SITE MAP
0 1000' 2000' N

DATE ISSUED

JUNE 9, 2026

Endpoint Solutions

CONTACTS

OWNER:
ELEGANT FARMER
DAVID WESSEL
1545 MAIN ST
MUKWONAGO, WISCONSIN
PHONE: 262-363-6770
EMAIL: DAVIDW@ELEGANTFARMER.COM

SITE CONTACT:
CAMPBELL CONSTRUCTION
461 RIVER CREST CT
MUKWONAGO, WISCONSIN
CONTACT: JAY CAMPBELL
PHONE: 262-436-4760
EMAIL: JAY@CAMPBELLCONSTRUCTIONBBG.COM

ARCHITECT:
SCHROEDER AND HOLT ARCHITECTS
311 E CHICAGO, SUITE 310
MILWAUKEE, WISCONSIN 53202
CONTACT: DAVID BAUM AIA
PHONE: 414-416-4531 TEMPORARY
CELL: 141-899-4418

ENGINEER:
ENDPOINT SOLUTIONS CORP.
6871 S. LOVERS LANE
FRANKLIN, WI 53132
CONTACT: JASON HEINONEN, P.E.
PHONE: 414-858-1920
EMAIL: JASON@ENDPOINTCORPORATION.COM

DRAWING SHEET INDEX

CS	COVER SHEET
C1	PRE-CONSTRUCTION CONDITIONS
C2	DEMOLITION PLAN
C3	PROPOSED SITE PLAN
C4	PROPOSED GRADING PLAN
C5	PROPOSED UTILITY PLAN
C6	EROSION CONTROL NOTES & DETAILS
C7	GENERAL CONSTRUCTION NOTES
C8	CONSTRUCTION DETAILS
C9	CONSTRUCTION DETAILS

REVISION LOG

REVISION	ISSUE DATE	REVISED SHEETS	ISSUED FOR

P:\Elegant Farmer - 1391\001 - Mukwonago, WI\CAD\C0_1391-001 Cover Sheet.dwg

SOURCE: GOOGLE MAPS, USGS

Jun 09, 2026 10:37am PLOTTED BY: jheinonen SAVED BY: cmorris
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XREFS: _Endpoint 22x34 Border-Elegant Farmer.dwg, \560-012 Survey Basemap.dwg

CTH "J"
(VARYING WIDTH ROW)

EDGE OF ASPHALT

(N75°44'E - Rec.'d) (103.77' - Rec.'d)
N76°00'27"E 105.01'

(N82°48'E - 81.38' - Rec.'d)
N82°28'10"E 80.90'

ACCESS

(315.90' - Rec.'d)
317.15'

(S82°40'W - Rec.'d)
S82°28'10"W

263.84'

(S82°40'W - Rec.'d)
S82°28'10"W

42.15'

S30°56'44"W 79.16'

37.61'

POINT OF EAST VILLAGE OF MUKWONAGO

DEED TIED LANDS PER LEGAL DESCRIPTION

EASEMENT IN CONJUNCTION WITH ABOVE AS A RECIPROCAL AGREEMENT

S31°03'44"W 161.07'

(S37°21'W - Rec.'d)

358.03'

(357.21' - Rec.'d)

(272.43' - Rec.'d)
270.71'

(N00°52'W - Rec.'d)
N00°33'33"E

(S31°21'W - Rec.'d)
S31°03'44"W

(S37°21'W - Rec.'d)
S37°03'44"W

246.22'

(S31°59'E - Rec.'d)
S51°38'05"E

157.44'

190.44'

(S31°21'W - Rec.'d)
S31°03'44"W

(S37°21'W - Rec.'d)
S37°03'44"W

(S31°59'E - Rec.'d)
S51°38'05"E

(S58°40'W - Rec.'d)
N58°56'16"W 20.00'

33.00'

(N37°21'E - Rec.'d)
N37°24'16"E

N37°24'16"E

632.45'

712.35'

(710.95' - Rec.'d)

MAIN STREET / CTH "ES"
(66' ROW)

PARCEL B
25,076 S.F.
0.5757 ACRES

PARCEL A
94,475 S.F. TO ROW
2.1688 ACRES TO ROW
126,250 S.F. TO CL
2.8983 ACRES TO CL

"1545"
EXISTING BUILDING
8,605 S.F.

"1541"
EXISTING BUILDING
1,055 S.F.

EXISTING GREENHOUSE
3,800 S.F.

OVERHANG

ASPHALT
GRASS
GRAVEL
ACCESS
EDGE OF ASPHALT

NOTES:

1. SURVEY FIELD WORK PERFORMED BY ENDPOINT SOLUTIONS ON FEBRUARY 4TH, 2026.
2. COORDINATES ARE BASED ON WALWORTH COUNTY COORDINATE SYSTEM, US SURVEY FOOT. VERTICAL DATUM IS NAVD 88.
3. ALL UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE FIELD VERIFIED PRIOR TO SITE DEVELOPMENT AND CONSTRUCTION ACTIVITIES.

LEGEND

- MUNICIPAL BOUNDARY
- RIGHT - OF - WAY C/L
- PROPERTY LINE
- OFF-SITE PROPERTY LINE/ROW LINE
- BUILDING
- PAVEMENT/CONCRETE/EDGE OF GRASS
- PAVEMENT MARKING
- GRAVEL
- RETENTION WALL / BLOCK WALL
- VINYL FENCE
- RAILROAD TRACKS
- UNDERGROUND COMMUNICATIONS
- GAS LINE
- OVERHEAD ELECTRIC LINE
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- MAJOR CONTOUR, (5' INTERVAL)
- MINOR CONTOUR, (1' INTERVAL)
- CONCRETE
- AIR CONDITIONING UNIT
- COMMUNICATIONS PEDESTAL/BOX
- GAS METER
- LIGHT POLE
- BOLLARD
- IRON PIPE FOUND
- IRON ROD FOUND
- POSSIBLY MONUMENT SIGNAL
- SIGN
- MANHOLE GENERIC
- SANITARY MANHOLE
- UTILITY POLE
- END OF LOCATE
- CORRUGATED PIPE / END SECTION
- HANDICAP STALL MARKER

N

0 30' 60'

SCALE 1" = 30'

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FRANKLIN, WI 53132
PHONE: (414) 427-1200

THE ORCHARD AT THE ELEGANT FARMER

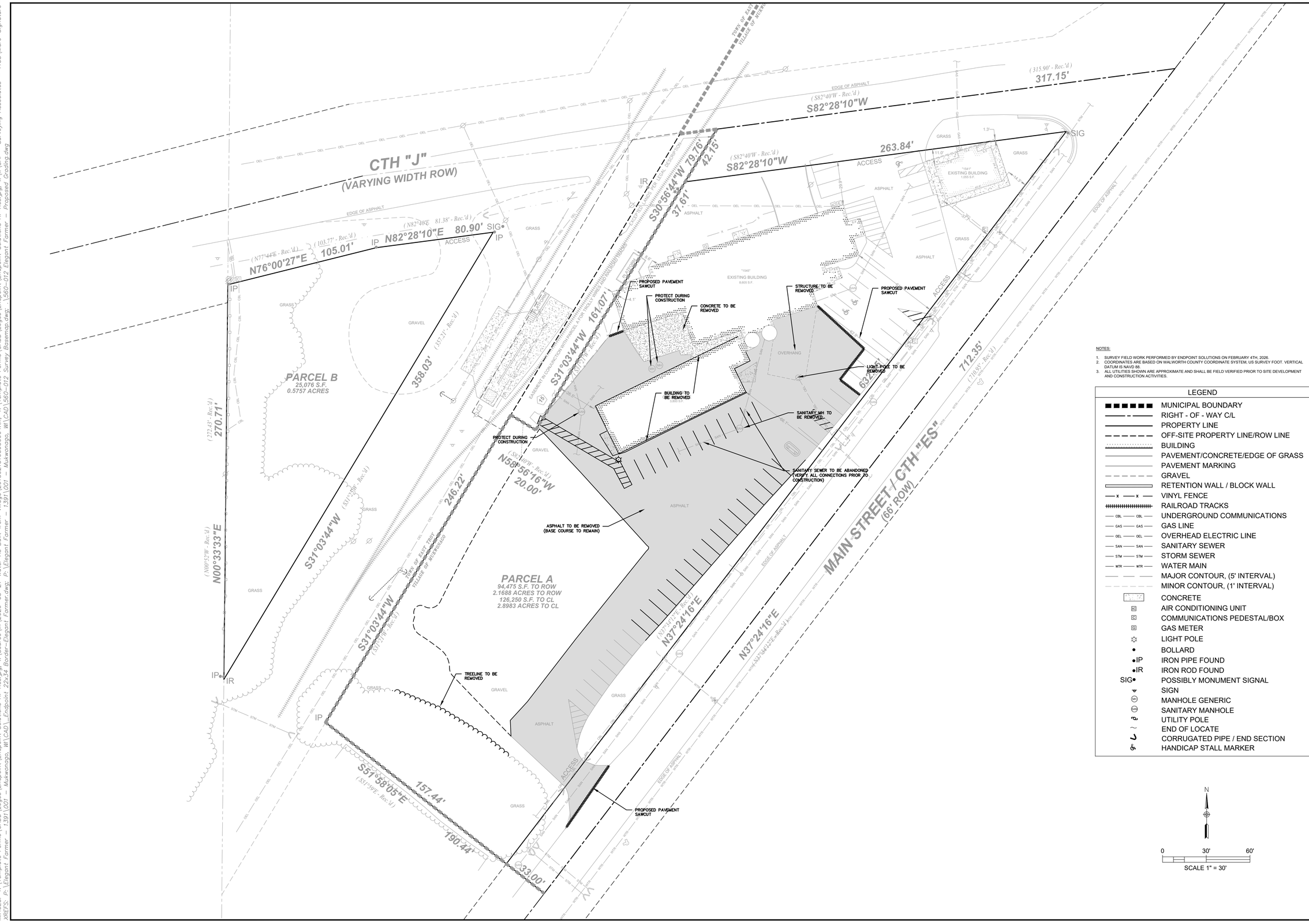
PRE-CONSTRUCTION CONDITIONS

1545 MAIN STREET
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH	DATE:
CHECKED BY:	JJJ	6/09/2026
APPROVED BY:	JAH	

PROJECT NO.
1391-001

SHEET NO.
C1



NOTES:

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- IR IRON ROD FOUND
- SIG POSSIBLY MONUMENT SIGNAL
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- MANHOLE GENERIC
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- END OF LOCATE
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- HANDICAP STALL MARKER

N

0 30' 60'

SCALE 1" = 30'

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THE ORCHARD AT THE ELEGANT FARMER

DEMOLITION PLAN

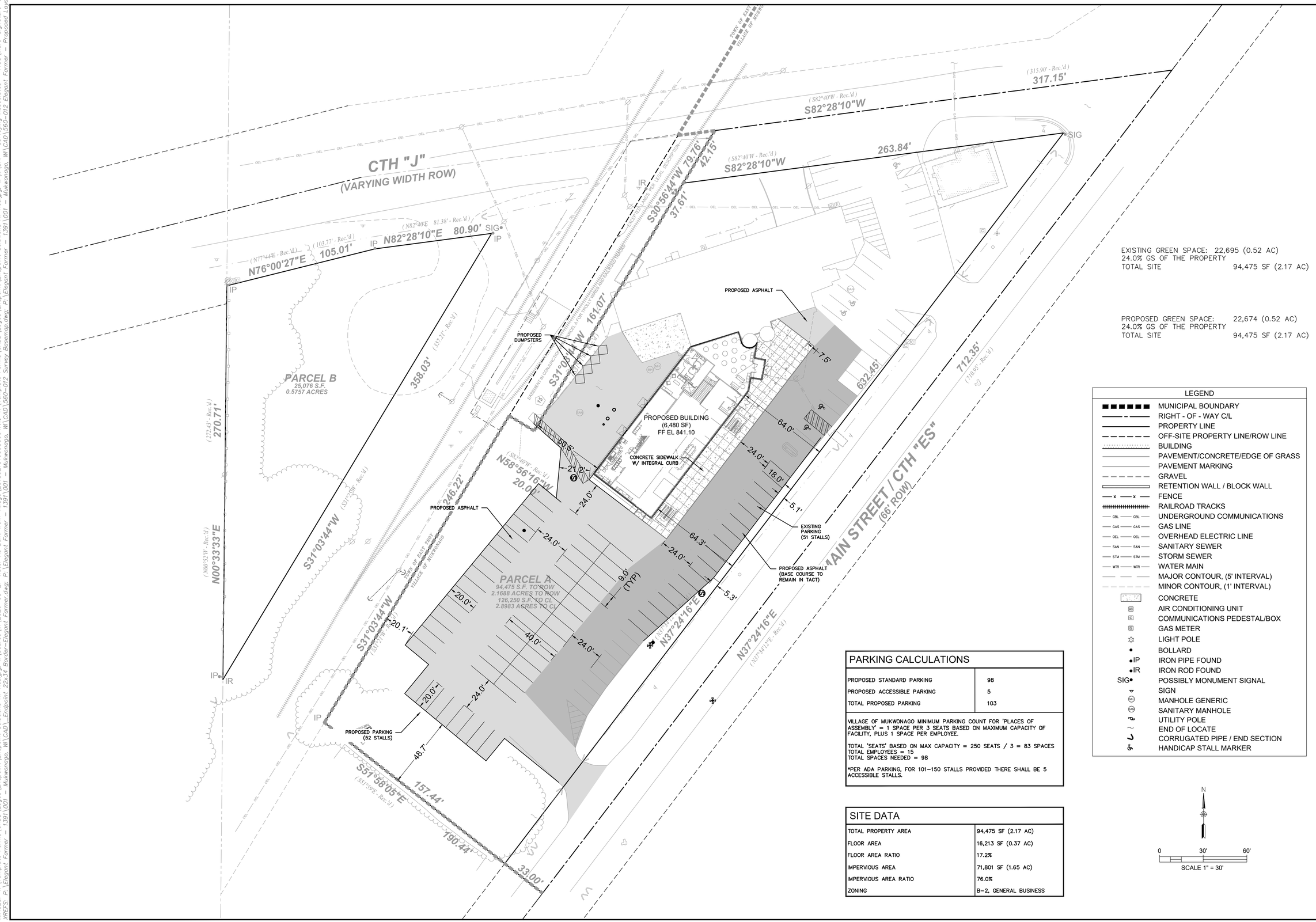
1545 MAIN STREET
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH	DATE:
CHECKED BY:	JJJ	6/09/2026
APPROVED BY:	JAH	

PROJECT NO.
1391-001

SHEET NO.
C2

Jun 09, 2026 10:38am PLOTTED BY: jheinonen SAVED BY: jheinonen
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EXISTING GREEN SPACE: 22,695 (0.52 AC)
24.0% GS OF THE PROPERTY
TOTAL SITE 94,475 SF (2.17 AC)

PROPOSED GREEN SPACE: 22,674 (0.52 AC)
24.0% GS OF THE PROPERTY
TOTAL SITE 94,475 SF (2.17 AC)

LEGEND	
MUNICIPAL BOUNDARY	
RIGHT - OF - WAY C/L	
PROPERTY LINE	
OFF-SITE PROPERTY LINE/ROW LINE	
BUILDING	
PAVEMENT/CONCRETE/EDGE OF GRASS	
PAVEMENT MARKING	
GRAVEL	
RETENTION WALL / BLOCK WALL	
FENCE	
RAILROAD TRACKS	
UNDERGROUND COMMUNICATIONS	
GAS LINE	
OVERHEAD ELECTRIC LINE	
SANITARY SEWER	
STORM SEWER	
WATER MAIN	
MAJOR CONTOUR, (5' INTERVAL)	
MINOR CONTOUR, (1' INTERVAL)	
CONCRETE	
AC	AIR CONDITIONING UNIT
C	COMMUNICATIONS PEDESTAL/BOX
G	GAS METER
	LIGHT POLE
	BOLLARD
IP	IRON PIPE FOUND
IR	IRON ROD FOUND
SIG	POSSIBLY MONUMENT SIGNAL
	SIGN
SAN	MANHOLE GENERIC
SAN	SANITARY MANHOLE
	UTILITY POLE
	END OF LOCATE
	CORRUGATED PIPE / END SECTION
	HANDICAP STALL MARKER

PARKING CALCULATIONS

PROPOSED STANDARD PARKING	98
PROPOSED ACCESSIBLE PARKING	5
TOTAL PROPOSED PARKING	103

VILLAGE OF MUKWONAGO MINIMUM PARKING COUNT FOR 'PLACES OF ASSEMBLY' = 1 SPACE PER 3 SEATS BASED ON MAXIMUM CAPACITY OF FACILITY, PLUS 1 SPACE PER EMPLOYEE.

TOTAL 'SEATS' BASED ON MAX CAPACITY = 250 SEATS / 3 = 83 SPACES
TOTAL EMPLOYEES = 15
TOTAL SPACES NEEDED = 98

*PER ADA PARKING, FOR 101-150 STALLS PROVIDED THERE SHALL BE 5 ACCESSIBLE STALLS.

SITE DATA

TOTAL PROPERTY AREA	94,475 SF (2.17 AC)
FLOOR AREA	16,213 SF (0.37 AC)
FLOOR AREA RATIO	17.2%
IMPERVIOUS AREA	71,801 SF (1.65 AC)
IMPERVIOUS AREA RATIO	76.0%
ZONING	B-2, GENERAL BUSINESS

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0 30' 60'

SCALE 1" = 30'

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THE ORCHARD AT THE ELEGANT FARMER

PROPOSED SITE PLAN

1545 MAIN STREET
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH	DATE:
CHECKED BY:	JJJ	6/09/2026
APPROVED BY:	JAH	

PROJECT NO.
1391-001

SHEET NO.
C3

Jun 09, 2026 10:38am PLOTTED BY: jhelnonen SAVED BY: jhelnonen
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CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCE AND EROSION CONTROL AS SHOWN ON PLAN. MAINTAIN AS NECESSARY DURING CONSTRUCTION. INSPECT FOLLOWING RAIN EVENTS.
2. GRADE SITE AND CONSTRUCT IMPROVEMENTS.
3. STABILIZE DISTURBED GROUND WITH TEMPORARY SEED, FERTILIZER, AND MULCH.
4. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL BMPs WHEN DISTURBED AREAS ARE PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.

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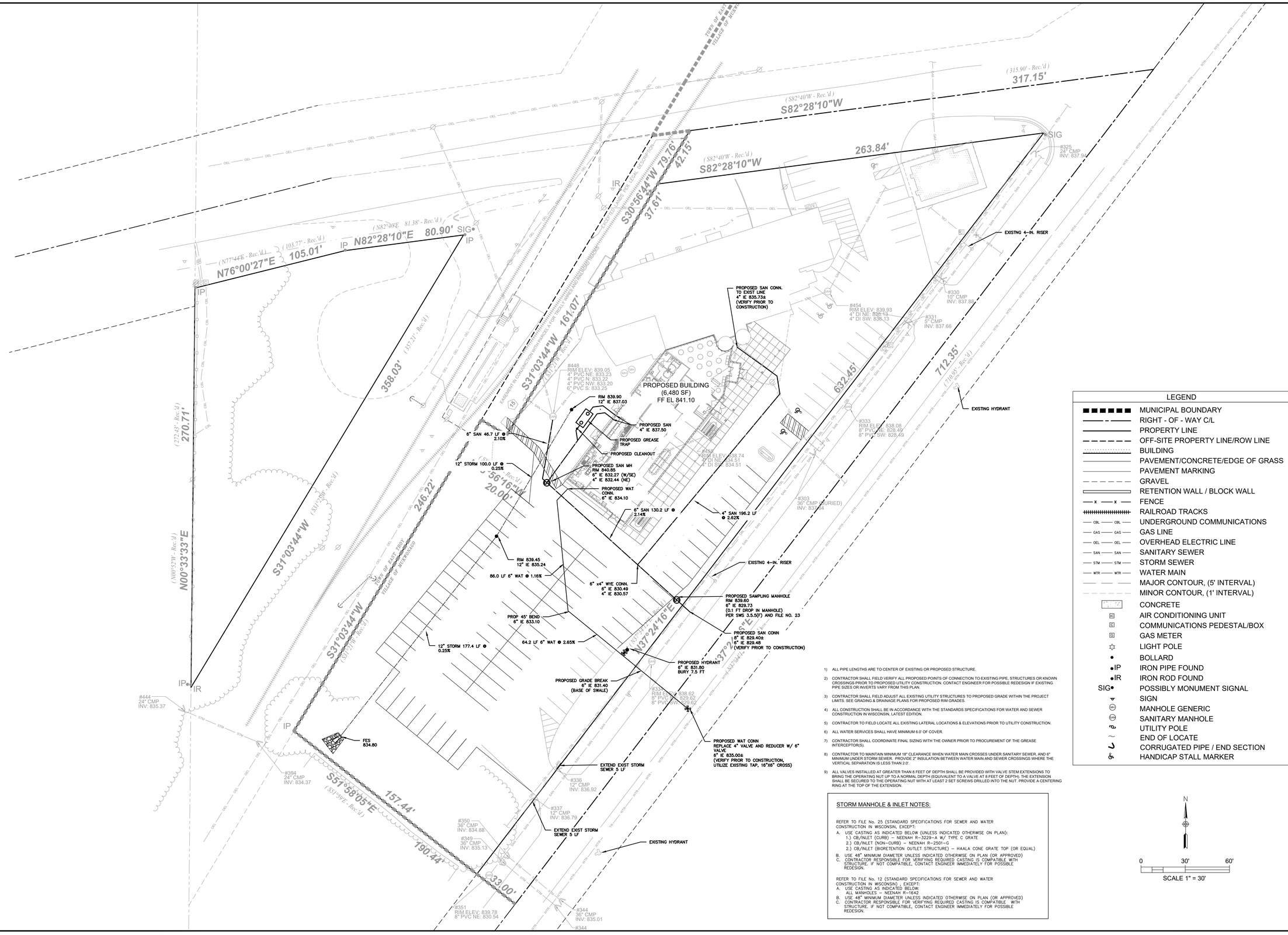
THE ORCHARD AT THE ELEGANT FARMER
PROPOSED GRADING AND EROSION CONTROL PLAN
1545 MAIN STREET
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH	DATE:
CHECKED BY:	JJJ	6/09/2026
APPROVED BY:	JAH	

PROJECT NO.
1391-001

SHEET NO.
C4

Jun 09, 2026 10:39am PLOTTED BY: jheinonen SAVED BY: jheinonen
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LEGEND

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- RIGHT - OF - WAY C/L
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- LIGHT POLE
- BOLLARD
- IRON PIPE FOUND
- IRON ROD FOUND
- POSSIBLY MONUMENT SIGNAL
- SIGN
- MANHOLE GENERIC
- SANITARY MANHOLE
- UTILITY POLE
- END OF LOCATE
- CORRUGATED PIPE / END SECTION
- HANDICAP STALL MARKER

1) ALL PIPE LENGTHS ARE TO CENTER OF EXISTING OR PROPOSED STRUCTURE.
2) CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED POINTS OF CONNECTION TO EXISTING PIPE, STRUCTURES OR KNOWN CROSSINGS PRIOR TO PROPOSED UTILITY CONSTRUCTION. CONTACT ENGINEER FOR POSSIBLE REDESIGN IF EXISTING PIPE SIZES OR INVERTS VARY FROM THIS PLAN.
3) CONTRACTOR SHALL FIELD ADJUST ALL EXISTING UTILITY STRUCTURES TO PROPOSED GRADE WITHIN THE PROJECT LIMITS. SEE GRADING & DRAINAGE PLANS FOR PROPOSED RIM GRADES.
4) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
5) CONTRACTOR TO FIELD LOCATE ALL EXISTING LATERAL LOCATIONS & ELEVATIONS PRIOR TO UTILITY CONSTRUCTION.
6) ALL WATER SERVICES SHALL HAVE MINIMUM 6.0' OF COVER.
7) CONTRACTOR SHALL COORDINATE FINAL SIZING WITH THE OWNER PRIOR TO PROCUREMENT OF THE GREASE INTERCEPTOR(S).
8) CONTRACTOR TO MAINTAIN MINIMUM 18" CLEARANCE WHEN WATER MAIN CROSSES UNDER SANITARY SEWER, AND 6" MINIMUM UNDER STORM SEWER. PROVIDE 2" INSULATION BETWEEN WATER MAIN AND SEWER CROSSINGS WHERE THE VERTICAL SEPARATION IS LESS THAN 2.0'.
9) ALL VALVES INSTALLED AT GREATER THAN 8 FEET OF DEPTH SHALL BE PROVIDED WITH VALVE STEM EXTENSIONS TO BRING THE OPERATING NUT UP TO A NORMAL DEPTH (EQUIVALENT TO A VALVE AT 8 FEET OF DEPTH). THE EXTENSION SHALL BE SECURED TO THE OPERATING NUT WITH AT LEAST 2 SET SCREWS DRILLED INTO THE NUT. PROVIDE A CENTERING RING AT THE TOP OF THE EXTENSION.

STORM MANHOLE & INLET NOTES:

REFER TO FILE No. 25 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, EXCEPT:
A. USE CASTING AS INDICATED BELOW (UNLESS INDICATED OTHERWISE ON PLAN):
1.) CB/INLET (CURB) – NEENAH R-3229-A W/ TYPE C GRATE
2.) CB/INLET (NON-CURB) – NEENAH R-2501-G
2.) CB/INLET (BIORETENTION OUTLET STRUCTURE) – HAALA CONE GRATE TOP (OR EQUAL)
B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN (OR APPROVED)
C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

REFER TO FILE No. 12 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN) , EXCEPT:
A. USE CASTING AS INDICATED BELOW:
ALL MANHOLES – NEENAH R-1642
B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN (OR APPROVED)
C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

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0 30' 60'

SCALE 1" = 30'

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THE ORCHARD AT THE ELEGANT FARMER

PROPOSED UTILITY PLAN

1545 MAIN STREET
MUKWONAGO, WISCONSIN

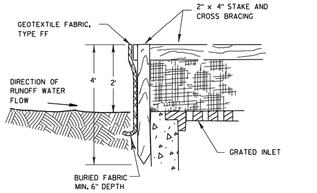
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CHECKED BY:	JJJ	6/09/2026
APPROVED BY:	JAH	

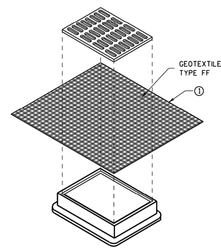
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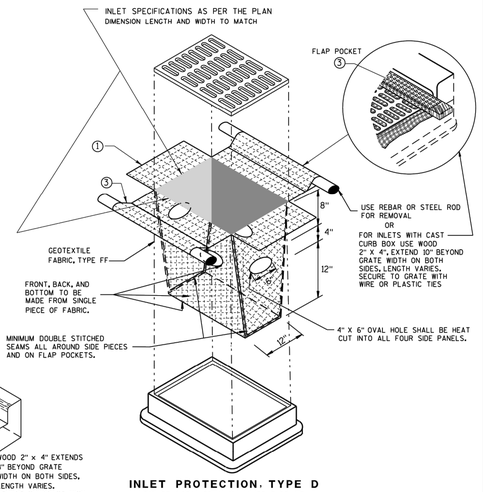
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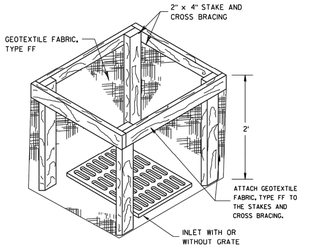
Jun 09, 2026 10:39am PLOTTED BY: jheinonen SAVED BY: jheinonen
P:\Elegant Farmer – 1391\001 – Mukwonago, WI\CAD\C5_1391-001 Proposed Utility Plan.dwg Layout1
IMAGES: T:\Template Forms\CADD\Logos\Endpoint\Endpoint Solutions HI-Res.jpg, ..\..\SAI – Surveying Associates – 11.38\Marc–Signature–3.tif, P:\Elegant Farmer – 1391\001 – Mukwonago, WI\CAD\560–012 Survey Basemap.dwg, P:\Elegant Farmer – 1391\001 – Mukwonago, WI\CAD\560–012 Elegant Farmer – Proposed Layout.dwg, P:\Elegant Farmer – 1391\001 – Mukwonago, WI\CAD\2018021516595O604.tif, T:\Template Forms\CADD\Logos\Endpoint\Endpoint Solutions HI-Res.jpg, ..\..\SAI – Surveying Associates – 11.38\Marc–Signature–3.tif, P:\Elegant Farmer – 1391\001 – Mukwonago, WI\CAD\560–012 Survey Basemap.dwg, P:\Elegant Farmer – 1391\001 – Mukwonago, WI\CAD\560–012 Elegant Farmer – Proposed Layout.dwg, P:\Elegant Farmer – 1391\001 – Mukwonago, WI\CAD_Endpoint 22x34 Border–Elegant Farmer.dwg, P:\Elegant Farmer – 1391\001 – Mukwonago, WI\CAD\560–012 Elegant Farmer – 1391\001 – Mukwonago, WI\CAD_Endpoint 22x34 Border–Elegant Farmer.dwg, ..\Source\In\2026–05–27 Water As Built from Village

8E10: Inlet Protection Type A, B, C and D



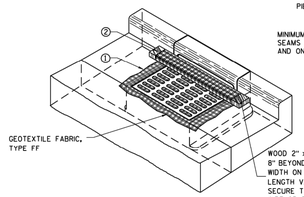






INLET PROTECTION, TYPE A

INLET PROTECTION, TYPE B (WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INLET PROTECTION, TYPE D
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

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

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

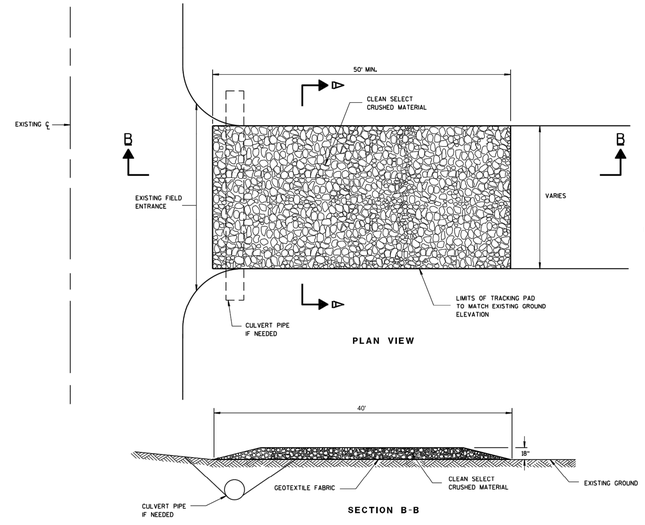
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3", WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

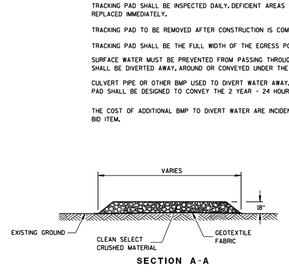
INLET PROTECTION TYPE A, B, C AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-6-02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 10-2

INLET PROTECTION
NOT TO SCALE

8E14: Tracking Pad





GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.

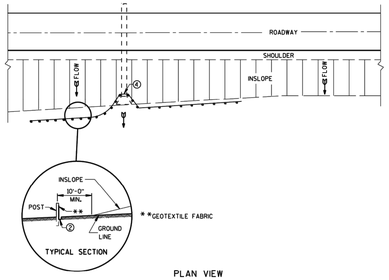
TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3-24-201 DATE	/S/ Jerry M. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

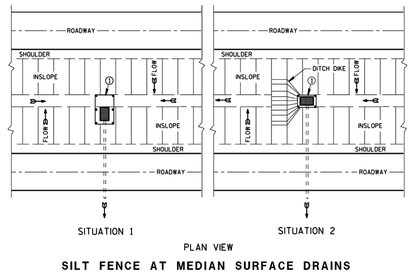
S.D.D. 8 E 14-1

TRACKING PAD
NOT TO SCALE

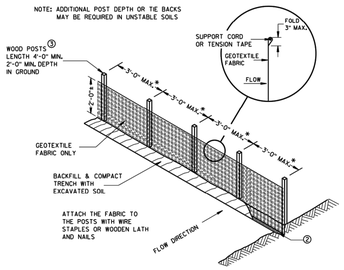
8E9: Silt Fence



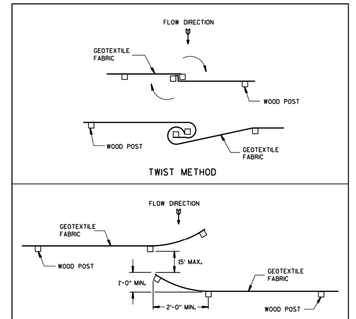
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE AT MEDIAN SURFACE DRAINS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

GENERAL NOTES

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

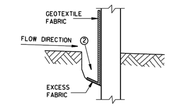
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

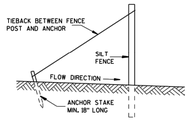
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 9-6

SILT FENCE
NOT TO SCALE

EROSION AND SEDIMENT CONTROL

1. CONSTRUCT AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) CHAPTERS NR 151 AND NR 216, WISCONSIN ADMINISTRATIVE CODE, AND APPROPRIATE WDNR TECHNICAL STANDARDS. EROSION AND SEDIMENT CONTROL PRODUCTS SHALL BE LISTED IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION PRODUCT ACCEPTABILITY LIST (WisDOT PAL). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF THESE STATE REQUIREMENTS, TECHNICAL STANDARDS, AND WisDOT PAL.
2. IMPLEMENT EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) PRIOR TO SOIL DISTURBING ACTIVITIES (E.G., CLEARING, GRUBBING, TOPSOIL STRIPING, EXCAVATION, MATERIAL STOCKPILING, ETC.). INSTALL EROSION CONTROL MEASURES AROUND STOCKPILE LOCATIONS.
3. MINIMIZE DISTURBED AREA BY PHASING OR SEQUENCING CONSTRUCTION AND PRESERVING EXISTING VEGETATION WHERE POSSIBLE.
4. DIVERT STORM WATER AWAY FROM DISTURBED OR EXPOSED AREAS WHEN POSSIBLE.
5. PROTECT ADJACENT PROPERTIES WITH SEDIMENT BALE BARRIERS OR SILT FENCE UNTIL CONSTRUCTION IS COMPLETE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS 1055 OR 1056, RESPECTIVELY.
6. INSTALL A GRAVEL TRACKING PAD IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1057. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEPT AND/OR SCRAPED PERIODICALLY TO REMOVE SOIL, DIRT, AND/OR DUST. ADJACENT ROADS ARE TO CLEANED IMMEDIATELY IF ANY SEDIMENT TRANSFER AND TRACKING OCCURS.
6. PROTECT INLETS, CATCH BASINS, AND OTHER CONVEYANCE STRUCTURES WITH STRAW BALES, FILTER FABRIC, OR OTHER APPROPRIATE MEASURES IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1060. TYPE D INLET PROTECTION SHALL BE USED IN STORM STRUCTURES IN THE PUBLIC RIGHT-OF-WAY, WHENEVER POSSIBLE.
7. DURING DEWATERING ACTIVITIES, UTILIZE A COMPARTMENTED CONTAINER, SETTLING BASIN, FILTER, OR OTHER APPROPRIATE BEST MANAGEMENT PRACTICE FOR TREATING SEDIMENT-LADEN WATER PRIOR TO DISCHARGE OFF-SITE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061.
8. INSPECT THE SITE REGULARLY AND PROPERLY MAINTAIN BMPS, ESPECIALLY AFTER RAINSTORMS. AT MINIMUM, INSPECTIONS OF CONSTRUCTION BMPS ARE REQUIRED AT LEAST ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS AFTER A PRECIPITATION EVENT OF 0.5 INCH OR MORE.
9. BMPS MUST BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION OR NOTIFICATION OF A PROBLEM.
10. KEEP THE CONSTRUCTION SITE CLEAN BY PUTTING TRASH IN TRASH CANS, KEEPING STORAGE BINS COVERED, AND PREVENTING OR REMOVING EXCESS SEDIMENT ON ROADS AND OTHER IMPERVIOUS SURFACES.
11. SITE RESTORATION AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF INACTIVITY.

REV:	DATE:
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4	
3	
2	

Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

THE ORCHARD AT THE ELEGANT FARMER

EROSION CONTROL NOTES & DETAILS

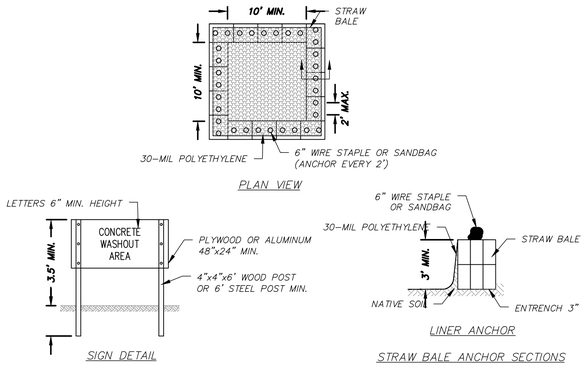
1545 MAIN STREET
MUKWONAGO, WISCONSIN

DRAWN BY: JAH	DATE: 6/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO.
1391-001

SHEET NO.
C6

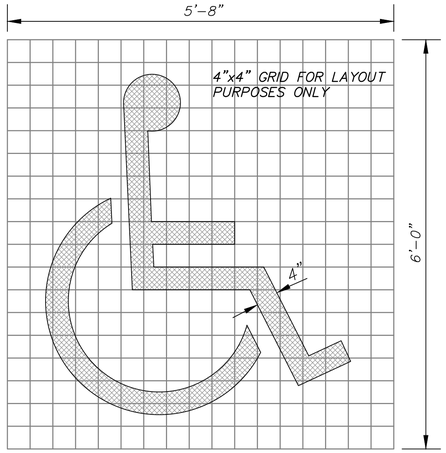
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NOTES:
1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.
3. EACH STRAW BALE IS TO BE STAKED IN PLACE USING (2) 2"x2"x4' WOODEN STAKES.

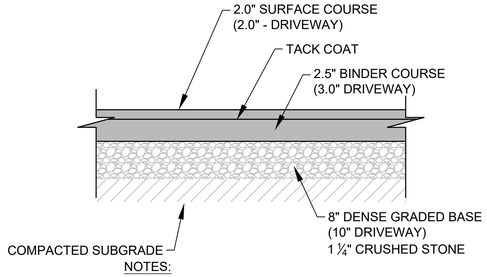
TEMPORARY CONCRETE WASHOUT FACILITY - STRAW BALE

NOT TO SCALE



PAINTED ADA SYMBOL

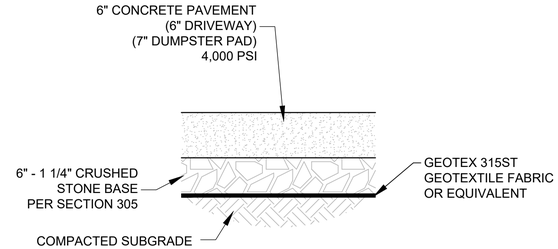
NOT TO SCALE



NOTES:
1. PAVEMENT TO BE INSTALLED PER GEOTECHNICAL REPORT OR OWNER RECOMMENDATIONS.
2. ALL NON PARKING STALL AREAS TO BE DRIVEWAY SECTION.

TYPICAL ASPHALT PAVEMENT

NOT TO SCALE



NOTES:
1. PAVEMENT TO BE INSTALLED PER GEOTECHNICAL REPORT OR OWNER RECOMMENDATIONS.

TYPICAL CONCRETE PAVEMENT

NOT TO SCALE

GENERAL GRADING NOTES

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE D.O.T. STANDARD SPECIFICATIONS, LOCAL ORDINANCES AND SPECIFICATIONS, AND RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.
2. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATIONS OF ALL GRADING AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT.
3. GRADING SHALL CONSIST OF CLEARING AND GRUBBING EXISTING VEGETATION, STRIPPING TOPSOIL, REMOVAL OF EXISTING PAVEMENT OR FOUNDATIONS, IMPORTING OR EXPORTING MATERIAL TO ACHIEVE AND ON-SITE EARTHWORK BALANCE, GRADING THE PROPOSED BUILDING PADS AND PAVEMENT AREAS, SCARIFYING AND FINAL COMPACTION OF THE PAVEMENT SUBGRADE, AND PLACEMENT OF TOPSOIL.
4. THE CONTRACTOR SHALL MAINTAIN SITE DRAINAGE THROUGHOUT CONSTRUCTION.
5. EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AS PART OF THIS PROJECT. CONSTRUCTION ACTIVITIES MUST COMPLY WITH ALL PROVISIONS OF LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS THE SITE SPECIFIC SWPPP (IF APPLICABLE). ALL LAND DISTURBING ACTIVITIES MAY BE SUBJECT TO INSPECTION BY LOCAL AUTHORITIES AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.
6. CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE EXTENT POSSIBLE. CONTRACTOR RESPONSIBLE FOR RESTORATION OF ALL DISTURBED AREAS.
7. RUBBISH, TRASH, GARBAGE, LITTER OR OTHER SUCH MATERIALS SHALL BE DISPOSED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE SITE THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE REMOVAL OF CONSTRUCTION WASTE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
8. SILT FENCE AND OTHER EROSION CONTROL FACILITIES MUST BE INSTALLED PRIOR TO CONSTRUCTION OR ANY OTHER LAND DISTURBING ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL FACILITIES ONCE THE SITE HAS STABILIZED.
9. NO FILL SHALL BE PLACED ON A WET OR SOFT SUBGRADE. THE SUBGRADE SHALL BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE ANY MATERIAL IS PLACED.
10. ALL FILL SHALL BE CONSIDERED STRUCTURAL FILL AND SHALL BE PLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT
11. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.
12. TEMPORARY EROSION CONTROL MATTING SHALL BE PLACED ON ALL SLOPES THAT ARE STEEPER THAT 4:1.
13. ALL PROPOSED CONTOURS REPRESENT FINAL FINISHED GRADE ELEVATIONS.

GENERAL NOTES

1. THE BIDDER WILL BE SOLELY RESPONSIBLE FOR QUANTITIES AND ESTIMATE OF WORK REQUIRED AND SHALL STATE SUCH QUANTITIES IN THEIR BID.
2. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC, FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION OF THIS PROJECT.
3. SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. SOIL CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT IS AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
5. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THE WORK. THE CONTRACTOR SHALL CONDUCT THEIR WORK ACCORDING TO THE REQUIREMENTS OF THE PERMITS.
6. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE FIELD CONDITIONS WITH DRAWINGS.
7. CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES DURING CONSTRUCTION. ANY PROPERTY (PRIVATE OR PUBLIC) WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR. THE COST OF THE RESTORATION IS CONSIDERED INCIDENTAL, AND SHOULD BE INCLUDED IN THE BID PRICES.
8. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY INFORMATION SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL DIGGER'S HOTLINE TO REQUEST FIELD STAKING OF EXISTING UTILITIES AND NOTIFY THE UTILITIES OF THE PROJECT COMPONENTS.
9. CONTRACTOR SHALL ENSURE ALL MUD AND DEBRIS IS NOT DEPOSITED ONTO THE ADJACENT ROADWAYS PER THE REQUIREMENT OF THE AGENCY HAVING JURISDICTION ON THE ROADWAYS.
10. SUBMITTALS:
    - A. SHOP DRAWINGS AND/OR MANUFACTURER'S PRODUCT DATA SUBMITTALS ARE REQUIRED ONLY IF THE PRODUCT OR METHOD OF CONSTRUCTION:
        - a. IS DIFFERENT FROM THAT SPECIFIED OR
        - b. IS PART OF THE WORK THAT WILL BE DEDICATED AS A PUBLIC UTILITY OR ROADWAY AT THE END OF THE PROJECT OR
        - c. IF REQUIRED BY THE MUNICIPAL ENGINEER.
    - B. FOR UTILITY OR ROAD WORK THAT WILL BE DEDICATED TO A MUNICIPALITY, CONTRACTOR MUST MAKE SUBMITTALS TO THE MUNICIPALITY AS WELL AS ENGINEER.

PRIVATE UTILITIES

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO WISCONSIN ADMINISTRATIVE CODE, SECTION SPS 382-384, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
2. PROPOSED SANITARY SEWER, WATER MAIN, AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT A POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. STORM SEWER CONNECTING TO EXTERIOR DOWN SPOUTS SHALL BE PER DETAILS ON THE ARCHITECTURAL PLANS. THE EXACT LOCATION OF ALL DOWN SPOUTS SHALL BE PER THE ARCHITECTURAL PLANS.
3. MATERIALS FOR STORM SEWER SHALL BE AS FOLLOWS:

   STORM SEWER PIPE 30" OR LARGER SHALL BE REINFORCED CONCRETE, ASTM C-76, CLASS III OR GREATER, WITH ELASTOMERIC SEALS CONFORMING TO ASTM C-443.

   STORM SEWER PIPE 24" OR LESS SHALL BE EITHER:
   A) POLYVINYL CHLORIDE (PVC) PIPE, ASTM D-3034, SDR 35, WITH ELASTOMERIC PUSH-ON JOINTS CONFORMING TO ASTM D-3212.

   B) REINFORCED CONCRETE, ASTM C-76, CLASS III OR GREATER, WITH ELASTOMERIC SEALS CONFORMING TO ASTM C-443.

   TRENCH SECTION SHALL BE CLASS "C" FOR CONCRETE AND CLASS "B" FOR ALL OTHER MATERIALS.

   INLETS SHALL BE SOLID CONCRETE BLOCK OR PRE CAST REINFORCED CONCRETE, ASTM C-478.
6. MATERIALS FOR SANITARY SEWER SHALL BE AS FOLLOWS:

   SANITARY SEWER PIPE SHALL BE PVC, ASTM D-3034, SDR-35 WITH RUBBER GASKETED JOINTS, CONFORMING TO ASTM D-3212.

   TRENCH SECTION SHALL BE CLASS "B" BEDDING. CRUSHED STONE CHIPS SHALL BE USED FOR BEDDING MATERIAL. PREFABRICATED WYE CONNECTIONS ARE REQUIRED FOR SANITARY LATERALS
7. MATERIALS FOR WATER SERVICE SHALL BE AS FOLLOWS:

   WATER SERVICE SHALL BE CLASS 55 DUCTILE IRON (DI), ASTM A-377, WITH ELASTOMERIC JOINTS (AWWA C-111), WITH A VALVE AT THE SUPPLY MAIN OR C900 PVC PRESSURE RATED FOR WATER.

   TRENCH SECTION SHALL CONFORM TO SECTION 4.3.C, FILE NO. 38 OF THE STANDARD SPECIFICATIONS. SAND OR STONE CHIP BEDDING MATERIAL IS REQUIRED.
8. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER & WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.
9. UPON COMPLETION OF FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED-UP PRINTS SHOWING ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE OWNER.
11. TRACER WIRE SHALL BE INSTALLED ON ALL BURIED NON-METALLIC SANITARY SEWERS, PRIVATE SANITARY INTERCEPTOR MAIN SEWERS, STORM BUILDING SEWERS, AND PRIVATE STORM INTERCEPTOR MAIN SEWERS THAT DISCHARGE TO MUNICIPAL MAINS. TRACER WIRE SHALL ALSO BE INSTALLED ON ALL BURIED NON-METALLIC WATER SERVICES AND PRIVATE WATER MAINS CONNECTED TO MUNICIPAL SUPPLY SYSTEMS. TRACER WIRE SHALL BE IN ACCORDANCE WITH SPS 382.30(11)(h) AND SPS 382.36(7)(d)10.b.

PAVING

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS, AND THE GEOTECHNICAL REPORT.
2. PAVING SHALL CONSIST OF FINE GRADING PAVEMENT AREAS, INSTALLATION OF CRUSHED STONE BASE, CONCRETE AND/OR BITUMINOUS PAVEMENT, PAVEMENT MARKING, AND CLEANUP. ALL MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR.
3. AGGREGATES USED IN THE HMA SHALL BE IN ACCORDANCE WITH SUBSECTION 460.2.2.3 OF THE STANDARD SPECIFICATIONS.
4. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS: SECTION 415 FOR CONCRETE PAVEMENT AND SECTION 602 FOR CONCRETE SIDEWALKS.
5. RESTORATION OF PUBLIC SIDEWALKS SHALL BE JOINT TO JOINT.
6. PAVEMENT MARKINGS SHALL BE PAINT IN ACCORDANCE WITH SECTION 646 OF THE STANDARD SPECIFICATIONS. THE FOLLOWING ITEMS SHALL BE PAINTED WITH COLORS NOTED BELOW:

   PARKING STALLS: WHITE
   PEDESTRIAN CROSSWALKS: WHITE
   ADA SYMBOLS: WHITE OR PER LOCAL CODE

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THE ORCHARD AT THE ELEGANT FARMER

GENERAL CONSTRUCTION NOTES

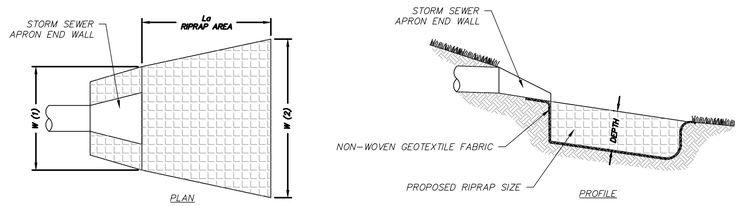
1545 MAIN STREET
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH	DATE: 6/09/2026
CHECKED BY:	JJJ	
APPROVED BY:	JAH	

PROJECT NO.
1391-001

SHEET NO.
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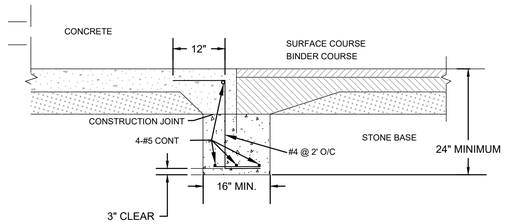
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	OUTLET	
DIMENSION	___	___
La	___	___
W (1)	___	___
W (2)	___	___
d50	___	___
DEPTH	___	___

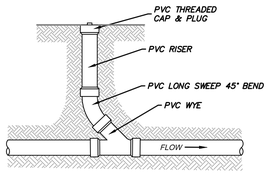
RIPRAP DETAIL

NOTE:
1. NON-WOVEN GEOTEXTILE TO BE TYPE HR, PER SECTION 606 (STATE HIGHWAY SPECS).
2. RIPRAP PER SECTION 606 (STATE HIGHWAY SPECS)



CONCRETE/ASPHALT JOINT DETAIL

NOT TO SCALE

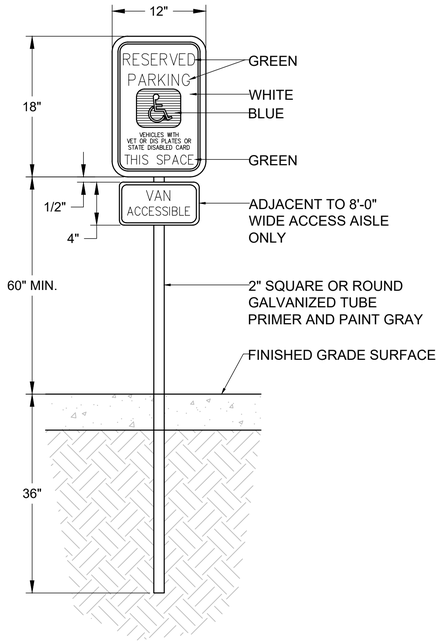


CLEAN-OUT STRUCTURE



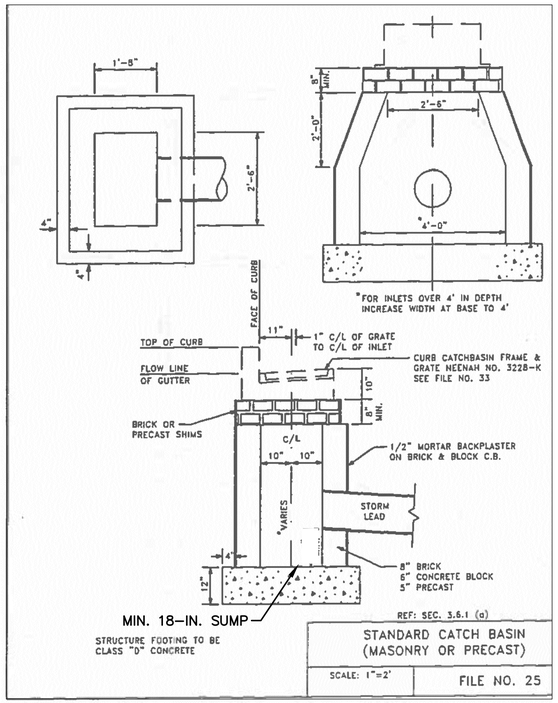
ACCESSIBLE PARKING SIGNS

NOT TO SCALE



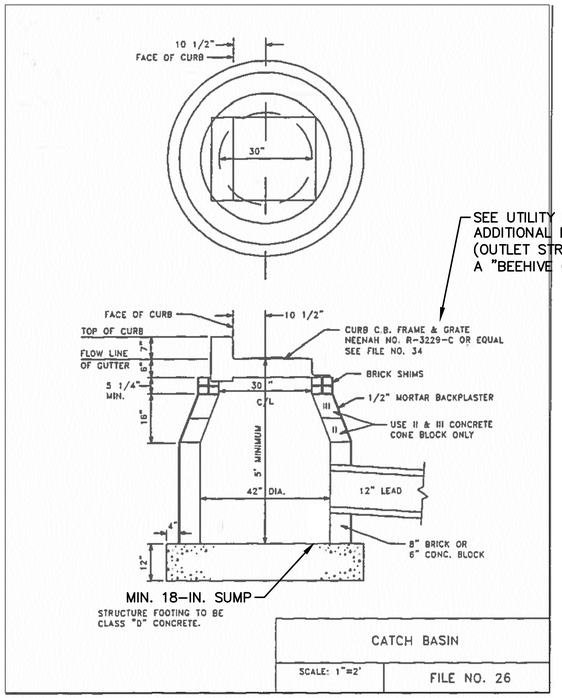
ACCESSIBLE PARKING SIGN

NOT TO SCALE



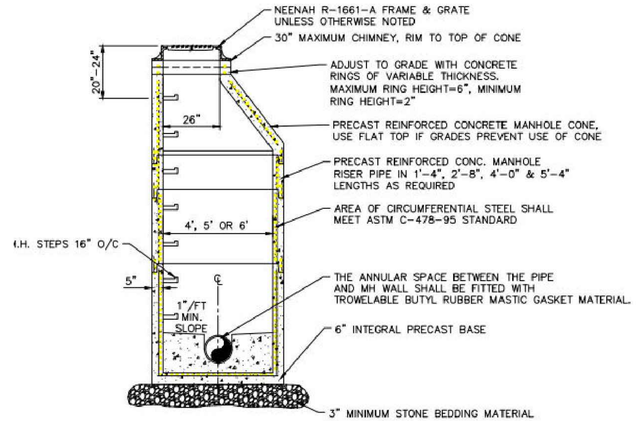
STANDARD CATCH BASIN DETAIL

NOT TO SCALE



CATCH BASIN DETAIL

NOT TO SCALE



STORM MANHOLE NOTES:

1) PRECAST CONCRETE ADJUSTING RINGS TO BE REINFORCED WITH ONE HOOP OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY, RINGS SHALL BE GROOVED TO RECEIVE STEP.

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

3) JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING RUBBER GASKETS OR BUTYL RUBBER MASTIC MATERIAL.

4) 3" MIN. BEDDING MATERIAL REQUIRED UNDER MANHOLE BASE AND BACKFILLED STRUCTURE WITH GRANULAR BACKFILL MATERIAL.

5) SEE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION, FILE NO. 12 FOR PRECAST MANHOLE AND FILE NO. 13 FOR MANHOLE INVERTS, INCLUDING INVERTS OF LATERAL SEWERS THAT CONNECT DIRECTLY TO MANHOLES.

6) REPLACE CONE WITH FLAT TOP SECTION WHEN NECESSARY DUE TO LARGER DIAMETER OF STRUCTURE/VERTICAL RESTRICTIONS.

7-5 STORM MANHOLE
N.T.S.

STORM MANHOLE DETAIL

REV:	8	7	6	5	4	3	2
DATE:							

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THE ORCHARD AT THE ELEGANT FARMER

CONSTRUCTION DETAILS

1545 MAIN STREET
MUKWONAGO, WISCONSIN

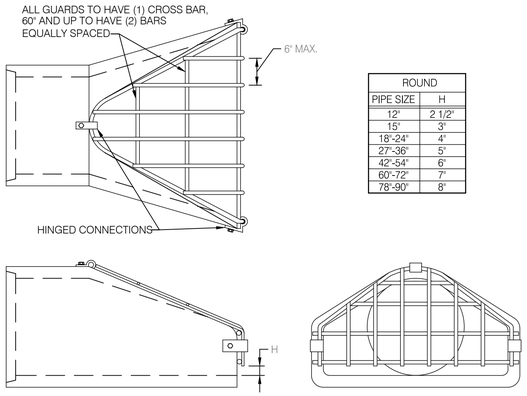
DRAWN BY:	JAH	DATE:
CHECKED BY:	JJJ	6/09/2026
APPROVED BY:	JAH	

PROJECT NO.
1391-001

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XREFS: ..\..\Mike Ekkamo - 911\001 - Kwanis Site\CAD_Endpoint Border-Kwanis Development.dwg, ..\Endpoint 22x34 Border-Elegant Farmer.dwg, ..\..\Design2Construct - 473\002 - 6800 West Layton Avenue\CAD\002-001\City storm MH detail.tif, ..\..\Design2Construct - 473\002 - 6800 West Layton Avenue\CAD\002-001\Erosion Eel.tif, ..\..\Design2Construct - 473\002 - 6800 West Layton Avenue\CAD\002-001\Kwanis Site\CAD_Endpoint Border-Kwanis Development.dwg, ..\Endpoint 22x34 Border-Elegant Farmer.dwg

TRASH GUARDS FOR FLARED END SECTIONS



ROUND	
PIPE SIZE	H
12"	2 1/2"
15"	3"
18"-24"	4"
27"-36"	5"
42"-54"	6"
60"-72"	7"
78"-90"	8"

BAR SIZES							
STANDARD DESIGN				HEAVY DESIGN			
PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE	PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE
12"-24"	3/4"	5/8"	5/8"	12"-18"	3/4"	5/8"	3/4"
27"-48"	7/8"	3/4"	3/4"	21"-42"	7/8"	3/4"	1"
54"-90"	1 1/8"	1"	1"	48"-90"	1 1/8"	1"	1 1/4"
BOLT LENGTH = PIPE WALL THICKNESS + 2 1/2"							

Note:
Hot dip galvanized per ASTM A153.

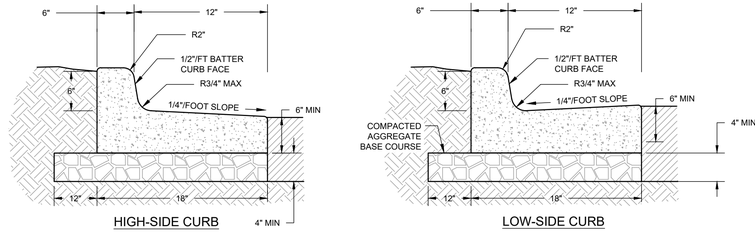
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TRASH GUARDS FOR FLARED END SECTIONS
SCALE NOT TO SCALE DATE DWG. NO. RCP TRASH

TRASH GUARD DETAIL

Late Season Stabilization Requirements for Sites >1 Acre

1. Vegetated Channels (roadside swales and other stormwater conveyances): All planned vegetated channels shall be stabilized with BMPs (erosion control matting, sod, etc.) by no later than November 15 in accordance with DNR technical standards and the criteria listed below. Ditch checks, sediment traps and other sediment control BMPs are only for use *during* channel grading work, and must be replaced with final site stabilization BMPs per the approved plans ASAP. None of these are suitable for controlling erosion/sedimentation of open channels over winter.
2. Timing Determines Requirements and BMPs: The stabilization BMPs that must be implemented depend on the timing of the seeding (cool season grasses), and are organized in three risk categories, as listed below. The later the timing, the lower the success rates are for timely vegetative cover - and therefore the higher the risks of erosion and off-site sediment discharges.
   a. **Risk Level 1: Permanent Vegetation (before September 15):** To ensure successful fall seed germination, topsoil, seed and fertilize all disturbed areas by September 15 in accordance with the following:
      i. *Seeding.* Prepare seedbed and sow seeds per the rates and mixes of Wisconsin Department of Transportation (WisDOT) Roadway Standard Section 630.
      i. *Erosion Control:* Immediately apply mulch, erosion control matting, or other permanent stabilization BMPs as specified in the approved erosion control plans. Application of all erosion control measures shall follow DNR technical standards.
      ii. *Maintenance:* Inspect all seeded areas weekly. Ensure adequate water is provided until full vegetative cover is obtained, and repair any erosion problems, wash outs, etc.
   b. **Risk Level 2: Temporary Vegetation (before October 15):** Due to the cooler soil temperatures and the likelihood of overnight frost conditions, perennial cool season plant growth is slow and survival is at risk from September 15 – October 15. To offer more protection from soil erosion during this period, topsoil, seed and fertilize all disturbed areas by October 15 in accordance with the following:
      i. Seeding: The above noted seeding mix must include a minimum of 2 lbs. per 1,000 sq. ft. of a temporary cover (i.e. winter wheat or annual rye grass for fall plantings) per Section 630.
      ii. *Erosion Control:* Immediately apply mulch, erosion control matting, or other stabilization BMPs as specified in the approved plan, following DNR technical standards. The following are minimum requirements for stabilizing sites during this period. Approved plans may be more restrictive due to site conditions:
         1. *Channel Flow (roadside swales, etc.) and Backslopes:* Stake erosion matting over all the entire channel cross-section and all backslopes using a minimum WisDOT Erosion Control Product Acceptability (PAL) Class 3 Type A matting, unless otherwise called for in the approved plan.
         2. *Other disturbed areas:* Apply Type B Soil Stabilizer, mulch and tackifier from the PAL to all disturbed areas that remain exposed.
         3. *Infalls/Outfalls:* Install sod pads (2 rolls) at all culvert outfalls, and other high-erosion locations in accordance with County standards.
      iii. *Maintenance:* Inspect all seeded areas weekly. Ensure adequate water is provided until full temporary cover is obtained, and repair any erosion problems, wash outs, etc.
   c. **Risk Level 3:** Dormant Seeding (before November 15): For areas not stabilized by October 15, erosion risks are high and additional erosion control measures and oversight are required, as described below. Temporary seeding must still be done, but fall germination and survival may be very limited. For perennial plants, dormant seeding should be done between October 20 and November 15. This means seed germination is planned for the following spring. To offer more protection from soil erosion during this period, topsoil, seed and fertilize all disturbed areas by November 15 in accordance with the following:
      i. *Seeding Rate:* Same seed mix as Risk Level 2 (including temporary cover crop) except the rates for perennial species must applied at 1.5 x WisDOT section 630 rates (apply rates of 3-5 lbs./1000 sq.ft.). Rates are increased to allow for poor germination rates associated with dormant seeding due to frozen conditions.
      ii. *Erosion Control:* In addition to applying topsoil, the above noted seed mix and starter fertilizer, the following are minimum requirements for stabilizing sites during this period. Approved erosion control plans may be more restrictive:
         1. *Channel Flow (roadside swales, etc.) and Backslopes:* Apply Type A soil stabilizer and staked PAL Class 3 Type A erosion matting over the entire channel and all backslopes.
         2. *Other Areas:* Apply Type A Soil Stabilizer from the PAL to all other disturbed areas that remain exposed.
         3. *Infalls/Outfalls:* Install sod pads (2 rolls) at all culvert outfalls, and other high-erosion locations in accordance with County standards.
      iii. *Maintenance:* Inspect all seeded areas weekly. Ensure adequate water is provided until full temporary cover is obtained, and repair any erosion problems, wash outs, etc.
      iv. *Reports:* The Project Engineer shall be responsible for emailing a report to the LRD by 4:30 pm every Wednesday after October 15, which shall include the following information:
         1. Detailed status of all land disturbing and stabilization activities as of the day of the report.
         2. Results of erosion control site inspections since October 15 or the previous report, whichever is shorter.
         3. Any erosion control failures encountered and actions taken to rectify.
         4. Projections for completion of all stabilization activities, including a 10-day plan based on the latest weather predictions.



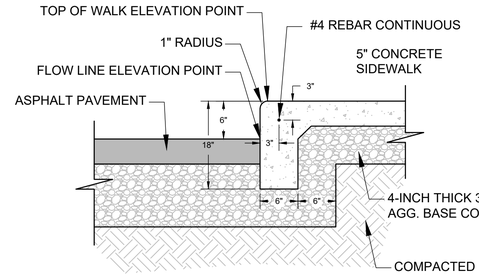
HIGH-SIDE CURB LOW-SIDE CURB

NOTES:
A) 3500 PSI CONCRETE SHALL BE USED IN CONSTRUCTION OF THE CURB & GUTTER.
B) THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE SLOPE OF THE GUTTER PAN.
C) FOR DEPRESSED CURB HEAD SLOPE, USE THE SAME SLOPE AS ADJACENT SIDEWALK.
D) THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDE MINIMUM 6" GUTTER THICKNESS MAINTAINED. TRANSVERSE CONTRACTION JOINTS SHALL BE CUT OR SAWED AT MAXIMUM 20 FOOT INTERVALS.
E) 1/2" PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED TRANSVERSELY IN THE CURB ABUTTING EXISTING CURB AND SIDEWALK, WALLS OR BUILDINGS, AND AT INTERVALS NOT TO EXCEED 300 FEET, WITH PREFERRED LOCATIONS BEING AT RADIUS POINTS OR ANGLE POINTS.

18-IN. CONCRETE CURB & GUTTER

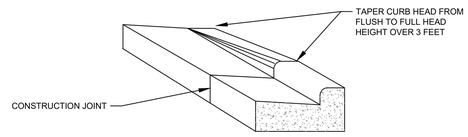
NOT TO SCALE

NOTES:
1. CONSTRUCT IN ACCORDANCE WITH WISDOT STANDARD SPECIFICATIONS.
4. CONCRETE SHALL BE GRADE A AIR ENTRAINED IN ACCORDANCE WITH WISDOT SECTION 501.
5. FINISH, CURE, AND PROTECT CURBING IN ACCORDANCE WITH WISDOT SECTION 601.
6. FINISHED CONCRETE SHALL BE COVERED WITH A LIQUID CURING COMPOUND CONFORMING TO AASHTO M 148, TYPE 2, IN ACCORDANCE WITH WISDOT SECTION 415.
7. AGGREGATE BASE COURSE SHALL BE IN ACCORDANCE WITH WISDOT SECTION 305.



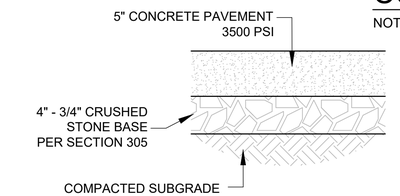
CONCRETE WALK WITH THICKENED EDGE

NOT TO SCALE



CURB & GUTTER TAPER

NOT TO SCALE



CONCRETE SIDEWALK DETAIL

NOT TO SCALE

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THE ORCHARD AT THE ELEGANT FARMER
CONSTRUCTION DETAILS
1545 MAIN STREET
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH	DATE:
CHECKED BY:	JJJ	6/09/2026
APPROVED BY:	JAH	

PROJECT NO.
1391-001

SHEET NO.
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Jul 07, 2026 7:15am PLOTTED BY: jhelmonen SAVED BY: jhelmonen
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CTH "J"
(VARYING WIDTH ROW)

TOWN OF EAST TROY
VILLAGE OF MUKWONAGO

(N77°44'E - Rec'd.) N76°00'27"E 105.01' (103.77' - Rec'd.) IP N82°28'10"E 80.90' (N82°40'E 81.38' - Rec'd.) SIG IP

(S82°40'W - Rec'd.) S82°28'10"W 317.15' (315.90' - Rec'd.)

WB50 - Intermediate Semi-Trailer

S30°56'44"W 79.76' 42.15'

(S82°40'W - Rec'd.) S82°28'10"W 37.61'

IR

EASEMENT RECONSTRUCTION WITH SURVEY & FOR ROAD PURPOSES AND INCIDENTAL PURPOSES (DOC. NO. 1277191)

S31°03'44"W 161.07'

PARCEL B
25,076 S.F.
0.5757 ACRES

358.03' (357.21' - Rec'd.)

(272.43' - Rec'd.) 270.71'

(N00°52'W - Rec'd.) N00°33'33"E

IP IR

S31°03'44"W (S31°29'W - Rec'd.)

S31°03'44"W (S31°29'W - Rec'd.)

246.22'

N58°56'16"W 20.00'

(S82°40'W - Rec'd.)

115.2'

PROPOSED BUILDING

49.9'

85.5'

PARCEL A
94,475 S.F. TO ROW
2.1688 ACRES TO ROW
126,250 S.F. TO CL
2.8983 ACRES TO CL

EXISTING 24' WIDE ACCESS EASEMENT

632.45'

712.35' (710.05' - Rec'd.)

EXISTING FIRE HYDRANT

MAIN STREET / CTH "ES"
(66' ROW)

N37°24'16"E

N37°24'16"E

PROPOSED FIRE HYDRANT

PROPOSED PARKING
(52 STALLS)

S51°58'05"E (S51°59'E - Rec'd.) 157.44'

190.44'

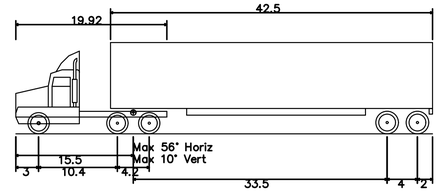
33.00'

EXISTING FIRE HYDRANT

N
0 30' 60'
SCALE 1" = 30'

LEGEND

- MUNICIPAL BOUNDARY
- RIGHT - OF - WAY C/L
- PROPERTY LINE
- OFF-SITE PROPERTY LINE/ROW LINE
- BUILDING
- PAVEMENT/CONCRETE/EDGE OF GRASS
- PAVEMENT MARKING
- GRAVEL
- RETENTION WALL / BLOCK WALL
- FENCE
- RAILROAD TRACKS
- UNDERGROUND COMMUNICATIONS
- GAS LINE
- OVERHEAD ELECTRIC LINE
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- MAJOR CONTOUR, (5' INTERVAL)
- MINOR CONTOUR, (1' INTERVAL)
- CONCRETE
- AIR CONDITIONING UNIT
- COMMUNICATIONS PEDESTAL/BOX
- GAS METER
- LIGHT POLE
- BOLLARD
- IP IRON PIPE FOUND
- IR IRON ROD FOUND
- SIG POSSIBLY MONUMENT SIGNAL
- SIGN
- MANHOLE GENERIC
- SANITARY MANHOLE
- UTILITY POLE
- END OF LOCATE
- CORRUGATED PIPE / END SECTION
- HANDICAP STALL MARKER



WB-50 - Intermediate Semi-Trailer

Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.052ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	17.90°

REV:	DATE:
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ELEGANT FARMER - EVENT VENUE

FIRE TRUCK EXHIBIT

1545 MAIN STREET
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH	DATE:
CHECKED BY:	JJJ	7/07/2026
APPROVED BY:	JAH	

PROJECT NO.
1391-001

SHEET NO.
EX 1

SHOP DRAWINGS / MATERIAL SUBMITTAL FOR REVIEW

PLANT MATERIAL SHOWN ALL SUBMITTALS DENOTE THE FOLLOWING OF THE FIRST PAGE:

A. DATE OF ARCHITECTURAL AND STRUCTURAL DRAWINGS IN WHICH THE SUBMITTAL REFERS.

B. DATE OF REFERENCE MATERIAL IN WHICH THE SUBMITTAL REFERS.

C. DATE OF FIELD VISIT.

D. ALL SUBMITTALS SHALL ONLY SHOW THE PRODUCTS / MATERIALS THAT ARE PLANNED FOR THIS PROJECT.

E. EACH MATERIAL / DETAIL / DRAWINGS THAT ARE BEING SUBMITTED SHALL DENOTE THE ARCHITECTURAL DETAIL / STRUCTURAL DETAIL FROM WHICH IT REFERS.

F. EXAMPLE: YOUR DETAIL (A) REFERS TO ARCHITECTURAL DETAIL "X" ON SHEET "Y" AND/OR REFERS TO STRUCTURAL DETAIL "X" ON SHEET "Y"

G. DENOTE AS ARCH REF: x/Ax.x

H. DENOTED AS STRUC REF: x/Sx.x

I. ANY AND ALL CHANGES TO YOUR ORIGINAL SUBMISSION SHALL BE CLOUDED IN RED, AND HAVE A REVISION DELTA. EACH REVISION SHALL BE CONSECUTIVELY NUMBERED.

J. ALL SUBMISSIONS MUST FIRST MEET THE APPROVAL OF THE GENERAL CONTRACTOR AND BEAR THEIR APPROVAL STAMP.

K. DOOR SUBMISSIONS SHALL USE THE SAME NUMBERING SYSTEM AS THESE DRAWINGS OR WILL NOT BE REVIEWED.

L. WINDOW SUBMISSIONS SHALL USE THE SAME NUMBERING SYSTEM AS THESE DRAWINGS OR WILL NOT BE REVIEWED.

M. FINISH MATERIAL SUBMISSIONS SHALL USE THE SAME NUMBERING SYSTEM AS THESE DRAWINGS.

N. SUBMISSIONS THAT DO NOT SHOW THE ABOVE REQUESTED INFORMATION WILL BE RETURNED WITHOUT A REVIEW.

O. STEEL SUPPLIER / DETAILER TO PROVIDE AN ISOMETRIC DRAWING OF ERECTED STEEL FRAME THAT CLEARLY IDENTIFIES EACH STEEL COMPONENT ASSOCIATED WITH THE SUBMISSION.

P. STEEL SUPPLIER TO MARK EACH FACE OF ANY COLUMN DETAILING WITH THE FOLLOWING;
- P.1. N = NORTH FACE
- P.2. S = SOUTH FACE
- P.3. E = EAST FACE
- P.4. W = WEST FACE.

Q. STEEL SUPPLIER TO DENOTE THE FINISHED FLOOR ELEVATION OF EACH FLOOR AS WELL AS EACH TOP OF BEAM AND/OR JOIST THAT IS RELATIVE TO THE RESPECTIVE COLUMN DETAIL.

R. G.C. SHALL ALLOW FOR NOT LESS THAN (10 + 10 = 20) BUSINESS DAYS FOR RETURN OF ARCHITECTURAL AND STRUCTURAL REVIEW. IF A CONCURRENT REVIEW IS REQUESTED IT WILL NOT BE CONSOLIDATED.

S. G.C. SHALL PROVIDE THEIR COMMENTS IN BLUE INK ONLY.

T. STRUCTURAL ENGINEER SHALL PROVIDE THEIR COMMENTS IN RED INK ONLY.

U. ARCHITECTURAL SHALL PRIMARILY PROVIDE THEIR COMMENTS IN GREEN INK, AS WELL AS IN ANY OTHER CODED AND COLOR CODED REMARKS.

V. OWNER SHALL PROVIDE THEIR COMMENTS IN BLACK INK ONLY.

IN THE EVENT THAT AN INSTALLING CONTRACTOR OR MATERIAL SUPPLIER WOULD LIKE TO REQUEST A MATERIAL ALTERNATE OR MATERIAL SUBSTITUTION, THEY SHALL FOLLOW THE INSTRUCTION ALREADY GIVEN BY THE GENERAL CONTRACTOR, AS WELL AS THE FOLLOWING:

1. SUBMIT THE RESPECTIVE REQUEST TO THE GENERAL CONTRACTOR FOR THEIR & OWNERS VETTING AND COMMENTS:
   a. ON YOUR COMPANY LETTER HEAD:
2. PROJECT NAME.
3. PROJECT NUMBER.
4. NAME OF RELEASE OF DRAWINGS IN WHICH THIS SUBMITTAL REFERS.
5. DATE OF DRAWINGS IN WHICH THIS SUBMITTAL REFERS.
6. THE SPECIFIC SHEET NUMBERS, DETAIL NUMBERS AND DRAWING ITEMS OR SPECIFICATION ITEMS THAT ARE SPECIFICALLY INVOLVED IN YOUR REQUEST.
7. PROVIDE ALL OF THE FULL CONTACT INFORMATION FOR BOTH THE INSTALLING CONTRACTOR & MATERIAL SUPPLIER, INVOLVED IN THE REQUEST.
   - 7.1. IDENTIFY THE ORIGINAL MATERIAL.
   - 7.2. IDENTIFY THE ALTERNATE MATERIAL.
   - 7.3. IN A DETAILED NARRATIVE DESCRIBE ALL OF THE REASONS THIS ALTERNATE SHOULD BE ACCEPTED OVER THE ORIGINAL. CITE LANGUAGE FROM THE MANUFACTURER WRITTEN PUBLICATIONS, AS WELL AS YOUR OWN CORPORATE POSITION.
8. INCLUDED WARRANTY COMPARISONS
9. PRICE IMPLICATIONS TO PROJECT
10. SCHEDULE IMPLICATIONS TO PROJECT
    - 10.1. PROVIDE THE MANUFACTURERS WRITTEN SPECIFICATION. PUBLISHED SALES INFORMATION AND ALL RELEVANT MATERIAL INFORMATION FOR BOTH THE ORIGINAL AND PROPOSED MATERIALS.
    - 10.2. ON BOTH MATERIALS - HIGHLIGHT IN GREEN WHERE THESE MATERIALS ARE OF EQUAL COMPARISON.
    - 10.3. ON THE ORIGINAL MATERIAL - HIGHLIGHT IN YELLOW WHERE THE ORIGINAL IS A LESSER PRODUCT THEN WHAT YOU ARE PROPOSING.
    - 10.4. ON THE PROPOSED MATERIAL - HIGHLIGHT IN PINK WHERE THE PROPOSED IS A LESSER PRODUCT THEN THE ORIGINAL.
11. ONLY AFTER, THIS SUBMISSION HAS MET THE APPROVAL OF THE GENERAL CONTRACTOR (VIA THEIR REVIEW STAMP) AND THE OWNERS APPROVAL (VIA THEIR ORIGINAL SIGNATURE), IS IT TO BE FORWARDED TO THE CORRESPONDING DESIGN REVIEWER.
12. IF THE ABOVE IS NOT SUBMITTED AS A PART OF THE REQUEST, IT SHALL BE RETURNED WITHOUT COMMENT AND RETURNED WITHOUT REVIEW.

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

DIGGERS HOT LINE

WISCONSIN STATUTE 182.0175 (1974) REQUIRES A MINIMUM OF 3 DAYS NOTICE BEFORE YOU EXCAVATE (NOT INCLUDING SATURDAY, SUNDAY OR LEGAL HOLIDAYS)

UNDERGROUND SEWER AND UTILITY INFORMATION AS SHOWN IS OBTAINED FROM THE RECORDS OF MUNICIPALITY AND LOCAL UTILITY COMPANIES. THE ACCURACY OF WHICH CAN NOT BE GUARANTEED OR CERTIFIED TO. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS SURVEY ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

TO OBTAIN LOCATION OF PARTICIPANT'S UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONIN CALL THE MILWAUKEE UTILITY ALERT NETWORK
www.Diggershotline.com
(800)-242-8511
OR

811 Know what's below. Call before you dig.

InSite LANDSCAPE DESIGN, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF InSite LANDSCAPE DESIGN, INC.

ALL COPYRIGHTS TO THESE DRAWINGS ARE RESERVED. THEY MAY NOT BE COPIED, CHANGED, OR ASSIGNED TO ANY THIRD PARTY IN ANY MANNER WITHOUT OBTAINING THE EXPRESSED WRITTEN PERMISSION OF InSite LANDSCAPE DESIGN, INC.

LANDSCAPE PLAN GENERAL NOTES

USDA PLANT HARDINESS ZONE	5a (-20 to -15 Degrees F)
LOT ZONING	
LOT AREA	94,475 SQ. FT. (2.17 Acres)
SITE BUILDING AREA	
TOTAL IMPERVIOUS	
TOTAL GREENSPACE	22,674 SQ. FT. (0.52Acres)
SITE LANDSCAPE PERCENTAGE	24.0%
TOTAL PARKING STALLS	103 STALLS

EXISTING CONDITIONS GENERAL NOTES

1. INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE LANDSCAPE DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. INSITE LANDSCAPE DESIGN, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THEIR NEW WORK. REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE LANDSCAPE ARCHITECT FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE LANDSCAPE ARCHITECT IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA OF DISTURBANCE THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES.
3. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECTS ATTENTION PRIOR TO FABRICATION / CONSTRUCTION BEGINS.
4. VERIFY LOCATION OF ACCESS PANELS w/ MECHANICAL AND ELECTRICAL EQUIPMENT FOR ACCESSIBILITY OF MECHANICAL & ELECTRICAL ITEMS. VERIFY LOCATIONS OF ALL BURIED UTILITIES AND STRUCTURES AND LOCATIONS OF ALL OVERHEAD WIRES.
5. VERIFY LOCATION OF ALL EXISTING EASEMENTS.
6. INSITE LANDSCAPE DESIGN, INC, ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF INSITE LANDSCAPE DESIGN, INC.

DESIGN COMPLIANCE:

DESIGN COMPLIANCE: THIS LANDSCAPE PLAN IS ACCURATE AND IN COMPLIANCE WITH THE VILLAGE OF MUKWONAGO LANDSCAPE REQUIREMENTS SET FOR IN SECTION§ 100-913 General design requirements. § 100-152 B-2 general business district.
(J)General development requirements.
(1)Landscaping. Landscaping plans are subject to plan commission review and approval subject to the following minimum standards. Any alteration to that plan shall be subject to further plan commission review and approval.
(A)The minimum number of trees on a site shall be calculated based on the street frontage; one tree is required for each 20 feet. For lots with 100 feet or less of road frontage; a minimum of five trees shall be planted or retained. A minimum of two trees are to be planted or retained in each front yard and each street side yard.
TOTAL LINIAL FEET OF STREET FRONTAGE = 470.0'
TOTAL NUMBER OF TREES REQUIRED - 24 TREES

100-601Site plan and architectural review standards for all nonsingle-family properties.
(e) Lighting standards.
(3) Shielding of outdoor light fixtures. All outdoor lighting fixtures shall be shielded, except Incandescent fixtures 150 watts or less and other sources of 70 watts or less. Total cut-off luminaries with angles of less than 90° shall be required for all pole and building security lighting. More than the minimal level of shielding may be required.
(4) Height of poles. The height of light poles, including the luminaries, as measured from surface of adjacent grade to top of luminary, shall be 25 feet
(5) Illumination levels. All outdoor lighting shall not exceed the illumination levels recommended by the Illuminating Engineering Society of North America (IES) given below. The lighting level at any property line shall not exceed zero footcandle.

CONTRACTOR NOTE: THE LANDSCAPE CONTRACTOR/GENERAL CONTRACTOR ARE RESPONSIBLE TO INSTALL THE LANDSCAPE AS PER THE APPROVED PLAN. IF ANY CHANGES OR DEVIATIONS ARE MADE FROM THE THIS APPROVED PLAN, THE LANDSCAPE CONTRACTOR / GENERAL CONTRACTOR ARE RESPONSIBLE FOR UPDATING THE PLANS ACCORDINGLY AND SUBMITTING THOSE REVISED PLANS FOR APPROVAL AND "SIGN OFF" WITH THE VILLAGE OF MUKWONAGO. THE LANDSCAPE CONTRACTOR / GENERAL CONTRACTOR ARE ALSO RESPONSIBLE FOR VERIFYING THAT ANY PLANT MATERIAL SUBSTITUTIONS OR MODIFICATIONS THAT ARE MADE TO THE APPROVED LANDSCAPE DESIGN DOCUMENTS WILL NOT CHANGE OR ALTER ANY OF THE REQUIRED SUPPORTING LANDSCAPE REQUIREMENT CALCULATIONS. UPON COMPLETION OF THE CONSTRUCTION PROJECT AND FILE THAT AFFIDAVIT WITH THEVILLAGE OF MUKWONAGO.

LANDSCAPE PLAN GENERAL NOTES

PLANT MATERIAL SHOWN ON LANDSCAPE PLAN IS DEPICTED AT MATURE GROWTH.

1. AT LEAST SEVENTY-TWO HOURS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AS GIVEN BY THE ELECTRIC, GAS, TELEPHONE, WATER, SEWER, AND CABLE TELEVISION COMPANIES, UTILITIES OR ENTITIES. REVIEW WITH OWNER'S REPRESENTATIVE SITE MECHANICAL, SITE ELECTRICAL AND LIGHTING, SITE GRADING AND DRAINAGE, SITE IRRIGATION AND ALL OTHER DRAWINGS PERTAINING TO UNDERGROUND UTILITY LOCATIONS. RECORD SET OF INFORMATION THE SAME AS IN POSSESSION OF OWNER'S REPRESENTATIVE. ALSO REVIEW OWNER'S "MARK SETS" OF ALL OF THESE DRAWINGS IN POSSESSION OF THE CONTRACTOR OR OWNER. MARK ALL SUCH UTILITIES ON THE SITE PRIOR TO COMMENCING. COORDINATE WITH OWNER BEFORE AND DURING CONSTRUCTION. REPAIR ANY DAMAGE TO ANY SYSTEM THAT IS CAUSED BY LANDSCAPE CONTRACTOR AT NO COST TO OWNER.
2. ALL PLANTINGS SPECIFIED FOR THE ELEGANT FARMER EVENT BUILDING - MUKWONAGO PROJECT PLANTING TABLES SHALL COMPLY WITH STANDARDS AS DESCRIBED IN AMERICAN STANDARD OF NURSERY STOCK ANSI Z60.1 2014 AND ANSI STANDARDS FOR PLANTING 2012.
3. ALL DEVIATIONS FROM THE APPROVED ELEGANT FARMER EVENT BUILDING - MUKWONAGO PROJECT PLANS SHALL BE NOTED ON THE RECORD DRAWINGS BY THE CONTRACTOR AND MAY BE EXECUTED ONLY WITH PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE. VERBAL AGREEMENTS OR REVISIONS WITHOUT A CHANGE ORDER WILL NOT BE RECOGNIZED BY LANDSCAPE ARCHITECT AND OWNER.
4. ALL PLANTS MUST BE BID AND SELECTED PER THE SPECIES SPECIFIED ON THE PLANS. ANY SPECIES SUBSTITUTIONS MUST BE APPROVED IN WRITING BY LANDSCAPE ARCHITECT. THE SIZES OF PLANT MATERIAL LISTED HEREIN IS A MINIMUM ACCEPTABLE SIZE. ADDITIONALLY, IF EXCESSIVE PRUNING REDUCES THE CROWN THE PLANT SHALL BE REPLACED.
5. PROTECT PUBLIC FROM CONSTRUCTION WITH BARRIERS AND BARRICADES.
6. ALL AREAS THAT WERE DISTURBED DURING CONSTRUCTION AND AREAS NOT COVERED WITH PAVEMENT, BUILDING, PLANTING BEDS, OR TREE PITS ARE TO BE TOPSOILED 3" DEEP (MIN.) AND SHALL BE SODDED/SEEDED WITH SPECIFIED LAWN GRASS. LANDSCAPE CONTRACTOR SHALL INCLUDE COST PER SQUARE YARD FOR ADDITIONAL SEED OPERATIONS AS MAY BE POSSIBLY REQUIRED TO REESTABLISH ADJACENT TURF GRASS AREAS WHICH MAY BECOME DAMAGED DURING THE CONSTRUCTION PROCESS OR TO REPAIR DAMAGE DONE BY OTHERS.
7. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL MATERIALS, TOOLS, EQUIPMENT, LABOR, AND PLANTS NECESSARY FOR PROPER PLANTING AND INSTALLATION OF ALL LANDSCAPE MATERIAL.
8. QUANTITIES ON PLANT MATERIALS LIST ARE FOR CONVENIENCE OF BIDDING ONLY. CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS AND COVERAGE OF ALL AREAS DELINEATED. THE PLANS ARE TO SUPERSEDE THE PLANT LIST IN ALL CASES.
9. CONTRACTOR IS RESPONSIBLE FOR ALL ESTIMATING AND BIDDING, ALL AREAS, QUANTITIES MATERIALS SHOULD BE FIELD VERIFIED WITH SITE CONDITION.
10. WHERE DISCREPANCIES OCCUR BETWEEN THE LANDSCAPE PLANS AND/OR ARCHITECTURAL AND/OR THE CIVIL DRAWINGS (AND ANY OTHER SITE DRAWINGS) THE DISCREPANCIES MUST BE BROUGHT TO THE LANDSCAPE ARCHITECTS ATTENTION FOR COORDINATION AND RESOLUTION.
11. ALL DISEASED, NOXIOUS OR INAPPROPRIATE MATERIALS SHALL BE REMOVED FROM THE PROPOSED SITE PRIOR TO THE START OF CONSTRUCTION AND DURING THE MAINTENANCE PERIOD.
12. GENERAL CONTRACTOR SHALL LEAVE THE SITE FREE OF CONSTRUCTION DEBRIS.
13. ALL LAWN AND PLANTING AREAS SHALL SLOPE TO DRAIN A MINIMUM OF 2% UNLESS NOTED OTHERWISE AND REVIEWED WITH OWNER'S REPRESENTATIVE FOR FINAL APPROVAL.
14. FINISH GRADES FOR SHRUB AND GROUND COVER AREAS SHALL BE HELD 1" BELOW TOP OF ADJACENT PAVEMENTS AND CURBS, UNLESS NOTED OTHERWISE ON THE PLANS. REFER TO LSP1.2 FOR FURTHER INFORMATION.
15. ALL PERENNIAL, ANNUAL AND GROUND COVER AREAS TO RECEIVE A BLEND OF ORGANIC SOIL AMENDMENTS PRIOR TO PLANTING. TILL THE FOLLOWING MATERIALS INTO EXISTING TOPSOIL TO A DEPTH OF APPROXIMATELY 8". A DEPTH OF 12" IN TREE PITS. PROPORTIONS AND QUANTITIES MAY REQUIRE ADJUSTMENT DEPENDING ON THE CONDITION OF EXISTING SOIL. REFER TO LSP1.2 FOR FURTHER INFORMATION.
    PER EVERY 100 SQUARE FEET ADD: ONE - 2 CUBIC FOOT BALE OF PEAT MOSS, 2 POUNDS OF 5 -10 -5 GARDEN FERTILIZER, 1/4 CUBIC YARD OF COMPOSTED MANURE OR OTHER COMPOSTED, ORGANIC MATERIAL.
16. ALL SHRUBS TO BE POCKET PLANTED WITH A 50/50 MIX OF COMPOSTED, ORGANIC MATERIAL AND EXISTING SOIL. INSTALL TOPSOIL INTO ALL BEDS AS NEEDED TO ACHIEVE PROPER GRADE. REMOVE ALL EXCESSIVE GRAVEL, CLAY AND STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.
17. PLANT ALL TREES SLIGHTLY HIGHER THAN FINISHED GRADE AT ROOT FLARE. BACK FILL HOLE WITH 2/3 EXISTING TOPSOIL AND ORGANIC SOIL AMENDMENTS SPECIFIED IN NOTE 15. AVOID ANY AIR POCKETS. DISCARD ANY GRAVEL CLAY OR STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.
18. ALL TREES TO BE INSTALLED, STAKED AND GUYED ACCORDING TO DETAILS. REFER TO ANSI STANDARDS FOR PLANTING 2012 AND DETAILS ON LSP1.2 FOR FURTHER INFORMATION.
19. PROVIDE A 4'-0" - 5'-0" DIAMETER MULCH RING AT THE ROOT BALL FLARE OF ALL LAWN TREES.
20. ALL PLANTINGS TO BE WATERED AT THE TIME OF PLANTING, THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF PROJECT AS REQUIRED.
21. WHERE SPECIFIED, ALL PLANT BEDS, PITS AND TREE RINGS ARE TO RECEIVE A MINIMUM OF 2" - 3" DRESSING OF SHREDDED HARDWOODM OAK BARK MULCH SHAVINGS FREE OF GROWTH, WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE OR GERMINATION INHIBITING INGREDIENTS. LANDSCAPE CONTRACTOR TO PROVIDE A SAMPLE TO OWNER FOR APPROVAL. CONTRACTOR TO TAKE CARE WITH INSTALLATION NOT TO DAMAGE OR COVER PLANTS. REFER TO LSP1.2 FOR FURTHER INFORMATION.
22. LAWN INSTALLATION: CONTRACTOR TO FURNISH AND PREPARE TOPSOIL (3" MIN) AND SEED BED (REMOVE ALL STONES 1" OR LARGER), APPLY STARTER FERTILIZER AND SEED UNIFORMLY. PROVIDE A MULCH COVERING SUITABLE TO GERMINATE AND ESTABLISH TURF. EROSION CONTROL MESH SHOULD BE USED IN SWALES AND STEEP GRADES WHERE APPLICABLE. METHODS OF INSTALLATION MAY VARY AT THE DISCRETION OF CONTRACTOR. IT IS HIS/HER RESPONSIBILITY TO ESTABLISH AND GUARANTEE A SMOOTH, UNIFORM, QUALITY TURF. IF STRAW MULCH IS USED AS A COVERING, A TACKIFIER MAY BE NECESSARY TO AVOID WIND DAMAGE.
23. **DELUXE 50 GRASS SEED MIX REINDER'S (800) 785-3301**
    20% KENTUCKY BLUE GRASS
    15% NEWPORT KENTUCKY BLUE GRASS
    15% SR 2100 Kentucky Bluegrass
    25% Creeping Red Fescue
    15% Replicator Perennial Ryegrass
    10% Fiesta 4 Perennial Ryegrass
    APPLY AT A RATE OF 200 POUNDS PER ACRE. REFER TO SUPPLIERS SPECIFICATIONS & INSTALLATION CUT SHEETS FOR FURTHER FORMATION
24. DURING THE INITIAL "30 DAY MAINTENANCE PERIOD" THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE AND ON-GOING PLEASANT VISUAL ENVIRONMENT WHEREAS ANY PLANT WHICH IS NOT RESPONDING TO TRANSPLANTING OR THRIVING SHALL IMMEDIATELY BE REPLACED, NEW LAWNS SHALL BE WATERED AND REPAIRED AND WEEDS MUST CONSTANTLY BE REMOVED, NO EXCEPTIONS WILL BE GRANTED.
    MAINTENANCE NOTE:
    MAINTENANCE IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN REQUIRED LANDSCAPING IN ACCORDANCE WITH THE MUNICIPALITY'S PROPERTY MAINTENANCE CODE AND AN APPROVED MAINTENANCE PLAN. THE MAINTENANCE MUST INCLUDE, AT A MINIMUM, METHODS FOR PROVIDING THE FOLLOWING:
    - NECESSARY IRRIGATION (IF REQUIRED)
    - INTEGRATED PEST MANAGEMENT,
    - PROPER FERTILIZATION
    - TREE CARE AND PRUNING, SHRUB TIP CLIPPING AND SHAPING AS REQUIRED
    - REPLACEMENT OF LOST VEGETATION, AND ALL DISEASED, DAMAGED, OR DEAD MATERIAL WILL BE REPLACED BY THE END OF THE FOLLOWING PLANTING SEASON IN PERPETUITY.
    - WEED MANAGEMENT AND BED CARE.
25. ALL NEWLY PLANTED TREES AND SHRUBS ARE TO RECIEVE AN APPLICATION OF AN ANTI-TRANSPIRANT SPRAY THAT WILL EFFECTIVELY REDUCE THE WATER LOSS OF TRANSPIRATION OF PLANT MATERIAL AND REDUCE THE STRESS OF TRANSPLANTATION. IT IS RECOMENDED AS PART OF THE ONGOING MAINTENANCE THAT ANY BROADLEAF EVERGREEN AND CONIFEROUS TREE AND SHRUBS (EXCLUDING ARBORVITAE) RECIEVE AN APPLIATION OF AN ANTI-DESICANT SPRAY TO REDUCE THE LOSS OF MOISTURE DUE TO WINTER DESICCATION.
26. MAINTENANCE. THE OWNER SHALL TEND AND MAINTAIN ALL PLANT MATERIALS IN A HEALTHY GROWING CONDITION AS PER THE APPROVED PLAN. PLANTINGS SHALL BE REPLACED WHEN NECESSARY AND KEPT FREE FROM REFUSE & DEBRIS. ALL PLANTING MATERIAL WHICH IS DYING OR DAMAGED BEYOND RECOVERY SHALL BE REPLACED WITHIN SIX (6) MONTHS OR BY THE NEXT PLANTING SEASON, WHICHEVER COMES FIRST.
27. LANDSCAPE / SITE DEMOLITION CONTRACTOR TO VERIFY LOCATIONS OF EXISTING TREES AND SHRUBS TO BE SALVAGED AND CLEARLY TAG THEM WITH MARKING TAPE AND CONSTRUCTION FENCE.
28. LANDSCAPE / SITE DEMOLITION CONTRACTOR TO VERIFY LOCATIONS OF EXISTING TREES AND SHRUBS TO BE RELOCATED. ALL PLANT MATERIAL TO BE RELOCATED IS TO BE CLEARLY TAGGED WITH MARKING TAPE MOVED BEFORE AND SITE DEMOLITION IS TO BEGIN.
29. *ALTERNATE BID:* DESIGN IRRIGATION SYSTEM TO BE DESIGNED FOR A OVERLAPPING ZONED SPRINKLER HEAD SYSTEM IN ALL LAWN & ISLAND AREAS AND A DRIP SYSTEM FOR ALL FOUNDATION PLANTING AREAS.

EXISTING CONDITIONS GENERAL NOTES

1. INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE ARCHITECTURAL DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. INSITE LANDSCAPE DESIGN, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THEIR NEW WORK. REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE LANDSCAPE ARCHITECT FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE LANDSCAPE ARCHITECT IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.
2. VERIFY LOCATION OF ALL EXISTING UNDERGROUND UTILITIES I.E. WATER, SEWER, ELECTRICAL, TELECOMUNICATION AND ACCESS PANELS FOR ALL UTLITIES AND ALL ASSOCIATED EQUIPMENT FOR ACCESSIBILITY OF THOSE ITEMS.
3. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECTS ATTENTION PRIOR TO FABRICATION / CONSTRUCTION BEGINS.

PHOTOMETRIC PLAN GENERAL NOTES

1. BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POLE PLACEMENTS AND LUMINAIRE ORIENTATION. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO RELEVANT FIELD CONDITIONS.
2. THE DEPICTED ILLUMINATION RESULTS ARE BASED UPON ILLUMINATION MEASUREMENTS AS CALCULATED BY AN INDEPENDENT LABORATORY. LUMINAIRE CHARACTERISTICAL DATA WAS MEASURED UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH APPROVED ILLUMINATION ENGINEERING SOCIETY METHODS. ACTUAL ON-SITE PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRES MAY VARY FROM LABORATORY TEST RESULTS DUE TO VARIATIONS IN: ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.
3. IF EXISTING LUMINAIRES ARE INCLUDED IN THIS REPORT, THEIR ILLUMINATION CHARACTERISTICS ARE BASED UPON A COMBINATION OF CUSTOMER'S PROVIDED SPECIFICATIONS & OUR BEST ESTIMATION.
4. *ALL EXISTING AND NEW CONCRETE LIGHT POLE BASES ARE TO HAVE ALL FORM MARKS REMOVED, GROUND FLUSH AND THE SURFACE IS TO BE PROPERLY PREPARED TO RECEIVE A HAND TROWELED, MASONRY SKIM COAT OF APPROPRIATE THICKNESS TO ACHIEVE A DURABLE SURFACE AND LONG LASTING AESTHETIC.*

LUMINAIRE GENERAL NOTES

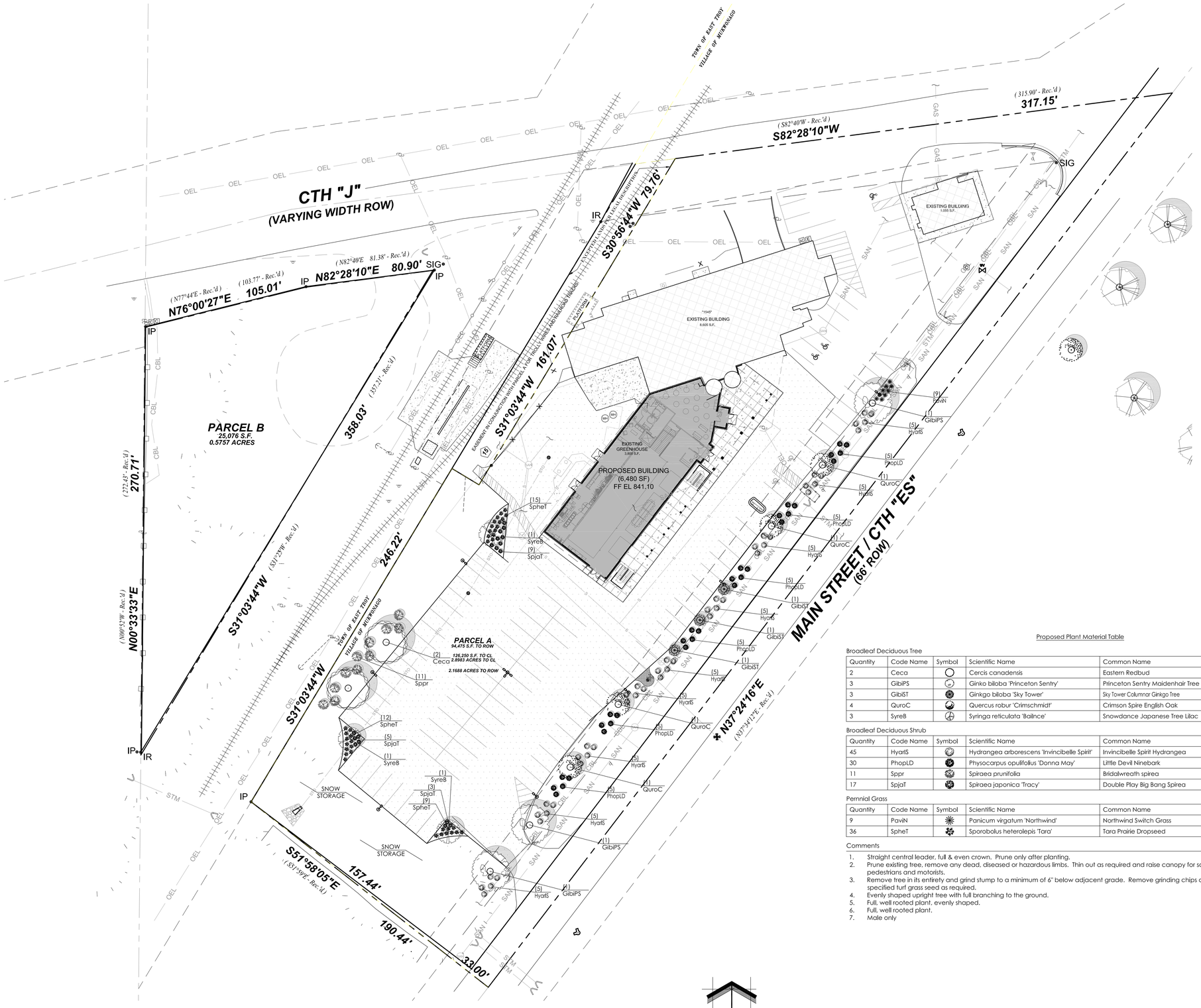
ALL PROPOSED FIXTURE HEADS ARE TO BE DARK-SKY COMPLIANT AND HAVE HARDWARE WITH IESNA FULL CUTOFF HOUSE SIDE SHIELDING WHERE REQUIRED. NEW PROPOSED POLE MOUNTED FIXTURES (HEADS AND TENONS) FINISH IS TO MATCH EXISTING

1. ALL NEW CONCRETE LIGHT POLE BASES ARE TO HAVE ALL EXPOSED FORM MARKS REMOVED, GROUND FLUSH AND THE SURFACE IS TO BE PROPERLY PREPARED TO RECEIVE A HAND TROWELED, MASONRY SKIM COAT OF APPROPRIATE THICKNESS TO ACHIEVE A DURABLE SURFACE AND LONG LASTING AESTHETIC.
2. ALL NEW PROPOSED AREA LIGHT POLES SHALL BE LOCATED 3-0" FROM BACK OF CURB TO THE EDGE OR FACE OF THE REINFORCED LIGHT POLE BASE. UNLESS NOTED OTHERWISE.
3. INSTALLATION CONTRACTOR TO REFER TO ELECTRICAL PLANS FOR CONDUIT ROUTING OF LIGHT POLES AND SIGNAGE LIGHTING CONTROL AND WIRING.
4. CONTRACTOR TO REFER TO REINFORCED LIGHT POLE BASE SECTION AND DETAIL FOR FURTHER INFORMATION.
5. PROPOSED POLE MOUNTED FIXTURES (HEADS AND TENONS) ARE TO HAVE A BLACK FINISH. PHOTOCELL CONTROL AND MOTION SENSOR AT EACH INDIVIDUAL POLE LOCATION.
6. ***ALL EXTERIOR FIXTURES, BOTH BUILDING MOUNTED AND POLE FIXTURES SHALL BE DESIGNED AND INSTALLED SUCH THE THE LIGHT EMITTED FROM THE LUMINARE AT AN ANGLE OF 90 DEGREES ROM VERTICAL (OR MORE) AND NO LIGHT SHALL TRESPASS ACROSS PARCEL BOUNDARIES INTO ADJACENT LOST, BUILDINGS OR STREETS IN EXCESS OF 1.0 FOOT CANDLE OR GREATER.***
7. ALL BUILDING MOUNTED LIGHT FIXTURES ARE TO BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHTS AND LOCATIONS.
8. FOR PURPOSES OF CALCULATING THE BUILDING MOUNTED LIGHTING AND PHOTOMETRIC OUTPUT LUMINAIRE WERE PLACED AT 8'-0", 9'-0" AND 12'-0" ABOVE FINISHED FLOOR ELEVATION AND ALL BUILDING MOUNTED FLOOD LIGHTS COORDINATED WITH THE ARCHITECTURAL ELEVATIONS AND PLACED AT HEIGHTS SPECIFIED ON THE BUILDING ELEVATIONS.
9. FOR PURPOSES OF CALCULATING THE SITE AREA POLE LIGHTING AND PHOTOMETRIC OUTPUT LUMINAIRE WERE PLACED AT 20'-6" ABOVE FINISHED FLOOR ELEVATION AND ALL BUILDING MOUNTED FLOOD LIGHTS COORDINATED WITH THE ARCHITECTURAL ELEVATIONS AND PLACED AT HEIGHTS SPECIFIED ON THE BUILDING ELEVATIONS.

THIS LIGHTING PLAN REPRESENTS ILLUMINATION LEVELS ARE CALCULATED VALUES INCLUDE DIRECT AND INTER-REFLECTED COMPONENT AND ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH THE ILLUMINATING ENGINEERING SOCIETY (IES) APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRES MAY VARY DUE TO CHANGES IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS/LED'S AND OTHER MAY VARY DUE TO CHANGES IN ELECTRICAL VOLTAGE. TOLERANCE IN LAMPS/LED'S AND OTHER VARIABLE FIELD CONDITIONS. CALCULATIONS DO NOT INCLUDE OBSTRUCTIONS SUCH AS BUILDINGS CURBS. LANDSCAPING. OR ANY OTHER ARCHITECTURAL ELEMENTS UNLESS NOTED.

FOLLOW THE LIGHTING SCHEDULE FOR ALL LIGHT FIXTURES, NO SUBSTITUTIONS WILL BE ACCEPTED.

BASE BID MUST REFLECT THE SPECIFIED FIXTURES. SHOULD SUBSTITUTIONS BE PROVIDED TO THE OWNER/LIGHTING DESIGNERS FOR REVIEW AT THE OWNER'S REQUEST. THE CONTRACTOR/DISTRIBUTOR SHALL BE RESPONSIBLE FOR PROVIDING A LIST OF SUBSTITUTIONS ALONG WITH THE FOLLOWING:
- CATALOG CUT SHEETS.
- PHOTOMETRIC REPORTS.
- A NEW POINT BY POINT PHOTOMETRIC CALCULATIONS PLAN OF THE AREAS AFFECTED BY THE SUBSTITUTION.
- INPUT PARAMETERS (MOUNTING HE



1 PROPOSED LANDSCAPE PLAN

SCALE: 1" = 30'-0"

North

Proposed Plant Material Table

Broadleaf Deciduous Tree

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
2	Ceca		Cercis canadensis	Eastern Redbud	2"-Cal - B&B	1
3	GibiPS		Ginko biloba 'Princeton Sentry'	Princeton Sentry Maidenhair Tree	2"-Cal - B&B	1, 7
3	GibiST		Ginkgo biloba 'Sky Tower'	Sky Tower Columnar Ginkgo Tree	2"-Cal - B&B	1
4	QuroC		Quercus robur 'Crimschmidt'	Crimson Spire English Oak	2 1/2"-Cal - B&B	1
3	SyreB		Syringa reticulata 'Bailnce'	Snowdance Japanese Tree Lilac	2"-Cal - B&B	1

Broadleaf Deciduous Shrub

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
45	HyarIS		Hydrangea arborescens 'Invincibelle Spirit'	Invincibelle Spirit Hydrangea	18" - Cont	5
30	PhopLD		Physocarpus opulifolius 'Donna May'	Little Devil Ninebark	18" - Cont	5
11	Sppr		Spiraea prunifolia	Bridalwreath spirea	18" - 24"- Cont	5
17	SpjaT		Spiraea japonica 'Tracy'	Double Play Big Bang Spirea	18" - Cont	5

Pernnial Grass

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
9	PaviN		Panicum virgatum 'Northwind'	Northwind Switch Grass	1-Gal - Cont	6
36	SpheT		Sporobolus heterolepis 'Tara'	Tara Prairie Dropseed	1-Gal - Cont	6

Comments

1. Straight central leader, full & even crown. Prune only after planting.
2. Prune existing tree, remove any dead, diseased or hazardous limbs. Thin out as required and raise canopy for safety and viability for both pedestrians and motorists.
3. Remove tree in its entirety and grind stump to a minimum of 6" below adjacent grade. Remove grinding chips and fill hole with topsoil. Sow with specified turf grass seed as required.
4. Evenly shaped upright tree with full branching to the ground.
5. Full, well rooted plant, evenly shaped.
6. Full, well rooted plant.
7. Male only

InSite Landscape Design

Landscape Consulting
& Master Planning Design Sevices

11525 W. North Avenue, Suite 1B
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Tel (414) 476-1204
www.insitedesigninc.com
mdavis@insitedesigninc.com

Project:

ELEGANT FARMER EVENT BUILDING

1545 Main Street
Mukwonago, WI 53149

Issuance and Revisions:

Date	Number	Description
06/09/26		Plan Commission Submittal
07/09/26		Plan Alternative w/ Remote Parking Lot

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Sheet Title:

PROPOSED LANDSCAPE PLAN AND PLANT MATERIAL TABLE

Date of Drawing:	07/09/26
Scale:	1" = 30'-0"
Drawn By:	MCD
Job Number:	L26-038
Sheet Number:	LSP1.1

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L26-038 - ELEGANT FARMER EVENT BUILDING - 07/09/2026



1 PROPOSED REMOTE PARKING ALTERNATIVE LANDSCAPE PLAN

SCALE: 1" = 30'-0"

North

Proposed Plant Material Table - Remote Parking Lot

Broadleaf Deciduous Tree

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
4	AcpsT		Acer pseudoplatanus 'Tunpetti'	Regal Petticoat Sycamore Maple	2 1/2"-Cal - B&B	
6	CabeEA		Carpinus betulus 'JFS-KW1CB'	Emerald Avenue Hornbeam	2 1/2"-Cal - B&B	
3	Qubi		Quercus bicolor	Swamp White Oak	2 1/2"-Cal - B&B	
2	QuroC		Quercus robur 'Crimschmidt'	Crimson Spire English Oak	2 1/2"-Cal - B&B	

Conifer Evergreen Tree

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
5	Piom		Picea omorika	Serbian Spruce	6' - 7' - B&B	

Comments

1. Straight central leader, full & even crown. Prune only after planting.
2. Prune existing tree, remove any dead, diseased or hazardous limbs. Thin out as required and raise canopy for safety and viability for both pedestrians and motorists.
3. Remove tree in its entirety and grind stump to a minimum of 6" below adjacent grade. Remove grinding chips and fill hole with topsoil. Sow with specified turf grass seed as required.
4. Evenly shaped upright tree with full branching to the ground.
5. Full, well rooted plant, evenly shaped.
6. Full, well rooted plant.
7. Male only

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Project:

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EVENT BUILDING

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Issuance and Revisions:

Date	Number	Description
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Sheet Title:

PROPOSED LANDSCAPE PLAN
AND PLANT MATERIAL TABLE

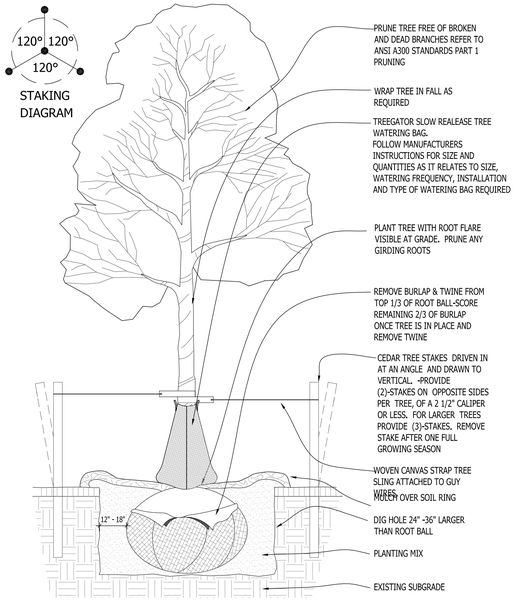
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Date of Drawing: 07/09/26
Scale: 1" = 30'-0"
Drawn By: MCD
Job Number: L26-038
Sheet Number:

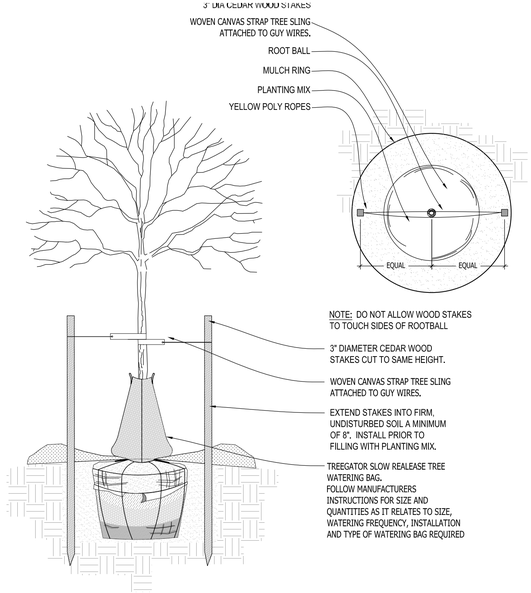
LSP1.2

L26-038 - ELEGANT FARMER EVENT BUILDING - 07/09/2026



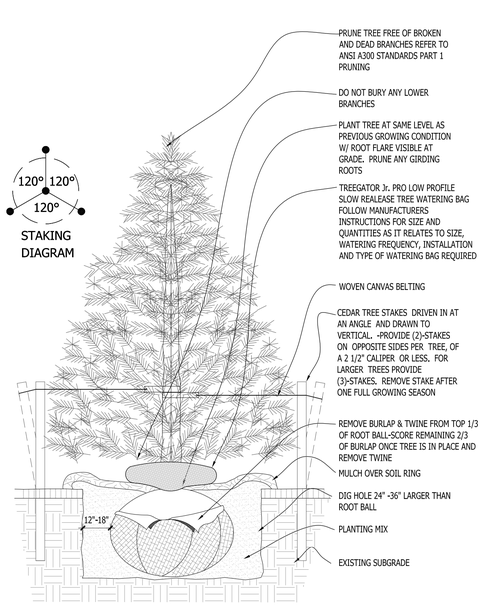
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SCALE: NONE



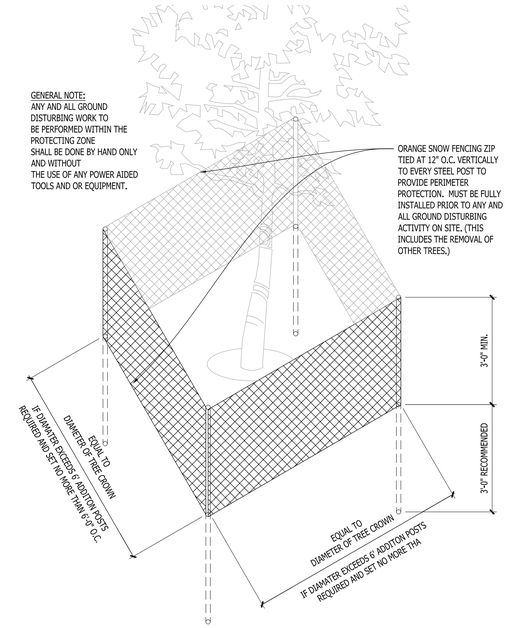
2 DECIDUOUS TREE STAKING PARKING ISLAND/RESTRICTED AREAS

SCALE: NONE



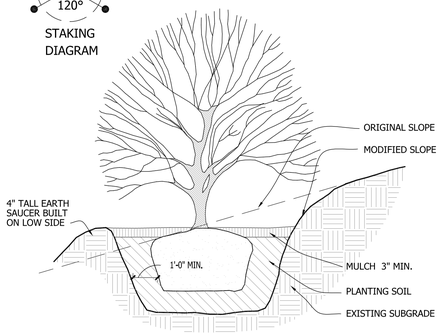
3 CONIFEROUS TREE PLANTING DETAIL

SCALE: NONE



4 EXISTING TREE PROTECTION DETAIL

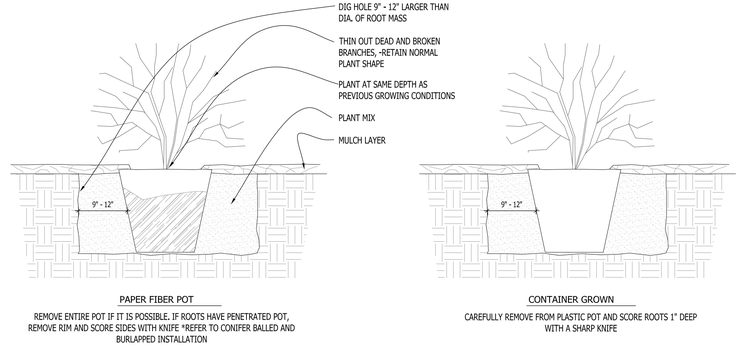
SCALE: NONE



5 SLOPE PLANTING DETAIL

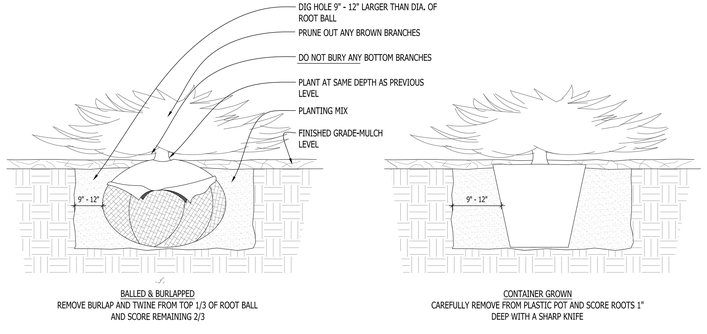
SCALE: NONE

REFER TO TYPICAL DECIDUOUS TREE DETAIL FOR STAKING



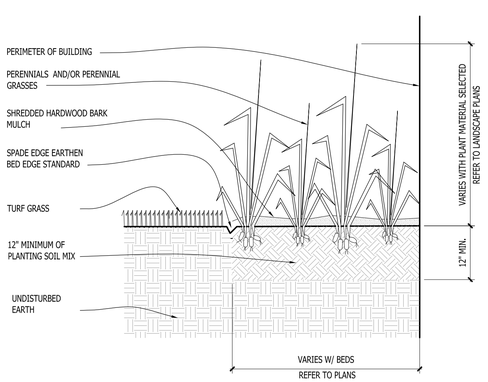
6 DECIDUOUS SHRUB PLANTING DETAIL

SCALE: NONE



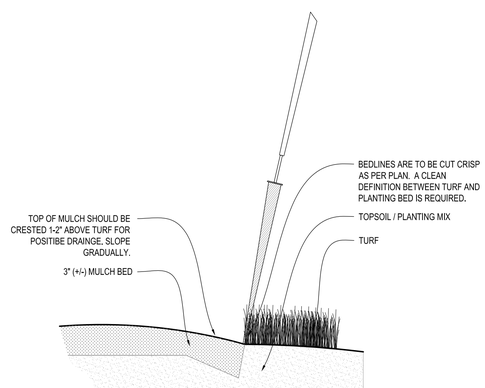
7 CONIFEROUS SHRUB PLANTING DETAIL

SCALE: NONE



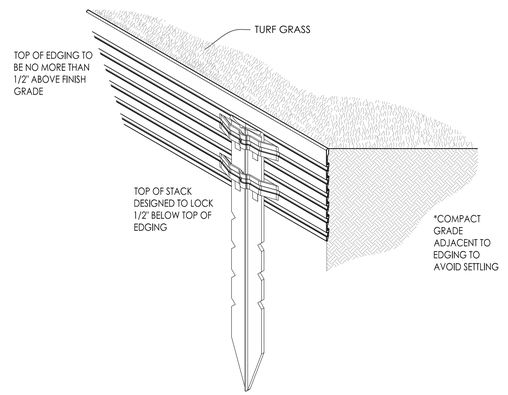
8 PERENNIAL BED PLANTING DETAIL

SCALE: NONE



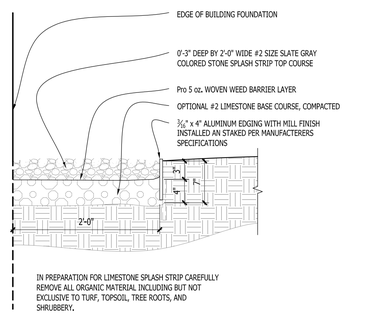
9 SPADE EDGE PLANT BED EDGE DETAIL

SCALE: NONE



10 METAL LANDSCAPE EDGING DETAIL

SCALE: 1/2" = 1'-0"



11 COMPACTED GRAVEL SPLASH STRIP

SCALE: 1" = 1'-0"

InSite LANDSCAPE DESIGN
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Project:

ELEGANT FARMER EVENT BUILDING

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Issuance and Revisions:

Date	Number	Description
06/09/26		Plan Commission Submittal

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Sheet Title:

PROPOSED LANDSCAPE PLAN, PLANTING DETAILS

Date of Drawing:	06/09/26
Scale:	As Noted
Drawn By:	MCD
Job Number:	L26-038

Sheet Number:

LSP1.3

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L26-038 - ELEGANT FARMER EVENT BUILDING - 06/09/2026

LITHONIA LIGHTING

Catalog Number

Notes

Type

FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches. Reflectors are retained by torsion springs. Vertically adjustable mounting brackets with commercial bar hangers provide 5-3/8" total adjustment. Have combination ½"-3/4" and four ½" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out); fits 12 AWG conductors, rated for 90°C.

Accommodates 12"-24" JMT spacing.

Passive cooling thermal management for 25°C standard. Light engine and driver are accessible from above or below ceiling.

Ceiling thickness range 1/2" to 1-1/2".

OPTICS — 55° cutoff to source and source image

LEDs are binned to a 3-step MacAdam Ellipse

80 CRI standard. 90 CRI optional.

A+ CAPABLE LUMINAIRE — This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products. All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity and color temperature tolerance around standard CIE chromaticity coordinates. To learn more about A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

UGR — UGR is zero for fixtures aimed at nadir with a cut-off equal to or less than 65 degree per CIE 115-1996 Discomfort Glare in Interior Lighting. (RAB FAQs)

ELECTRICAL — Adjustable lumen output with four module options.

MVOLT 120/277V 50/60Hz driver (0-10V & 120V Phase Dimming to 10% or 1% min dimming level). DALI driver dimming to 1% also available

FCC CFR Title 47 Part 15 Class A for 277V. FCC CFR Title 47 Part 15 Class B for 120V.

Lumen Maintenance

L90 @ 60,000 hours

LISTINGS — Certified to BS and Canadian safety standards. Wet location, requires covered ceiling. Title 24 compliant (90CRI, up to 3000lm). Wallwash suitable for damp locations only. Drivers are ROHS compliant.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements is this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at www.acuitybrands.com/support/warranty-terms-and-conditions.

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25°C.
Specifications subject to change without notice.

PERFORMANCE DATA

LDN4 AR LS		80CRI							
		30K 80CRI		35K 80CRI		40K 80CRI		50K 80CRI	
Lumen Output	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	570	99	584	101	597	102	616	106
AL01 (750LM)	9	903	102	926	105	946	107	975	110
AL01 (1000LM)	13	1260	98	1297	100	1328	102	1369	104
AL02 (1500LM)	13	1344	108	1379	110	1408	113	1451	115
AL02 (1500LM)	19	1961	105	2007	106	2055	108	2118	111
AL02 (2000LM)	25	2471	99	2528	101	2588	103	2668	105
AL03 (2000LM)	25	2542	101	2603	104	2663	106	2745	109
AL03 (2500LM)	32	3060	98	3140	99	3214	101	3314	103
AL03 (3000LM)	38	3485	90	3566	94	3631	96	3744	98
AL04 (4000LM)	39	4094	106	4178	108	4262	110	4383	111
AL04 (4500LM)	44	4331	103	4413	105	4510	107	4638	108
AL04 (5000LM)	49	4954	100	5055	102	5155	104	5303	105

- Tested in accordance with IESNA LM-79-08 .
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 80 typical

LDN4 SWITCHABLE

4" Open and Wallwash LED IC and Non-IC New Construction Downlight



Open Trim



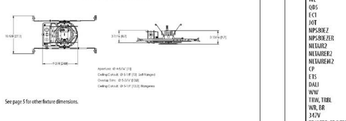
Wallwash Trim

DISTRIBUTIONS



DIMENSIONS

LDN4 500-2000 Lumens



See page 5 for other fixture dimensions.

DOWNLIGHTING LDN4 SWW

LDN4 SWW

Design Select options indicated by this color background.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. **Example:** LDN4 AL02 SWW1 LO1 AR LSS MVOLT UGZ

LDN4									
Series	**Lumens ‡**	**Color Temperature ‡**	**Trim Style**	**Trim Color**	**Flange Color ‡**	**Trim Finish**	**Distribution**	**Voltage**	
LDN4 4" Round	**Adjustable Lumen Output**	**Switchable CCT**	LO1 Downlight	AR Clear	Blank Self-flange	LSS Semi-specular	Blank Medium	MVOLT 120V - 277V	
	AL01 500/750/1000lm	SWW1 3000K /3500K /4000K/5000K	LW1 Wallwash	ABR White-painted	TFSF White	LD Matte diffused	WD Wide	347 347V	
	AL02 1000/1500/2000lm	**Fixed Switchable CCT**		BL Black-painted	TFBL Black	LS Specular	(1.2x1mm)		
	AL03 2000/2500/3000lm	27K 2700K		FRALTRED ‡ RAL paint trim	FRALFBRED RAL paint flange only				
	AL04 4000/4500/5000lm	30K 3000K		CPCFC ‡ Custom paint trim	FCFC Custom paint flange only				
	Fixed Lumen Output	35K 3500K							
	CSAL 500lm	40K 4000K							
	OTAL 750lm	50K 5000K							
	WAL 1000lm								
	TAL 1500lm								
	DAL 2000lm								
	PAL 2500lm								
	THAL 3000lm								
	FAL 4500lm								
	XAL 5000lm								

Driver	Emergency ‡	Control Input ‡	Options
DALT Universal dimming to 10% 0-10V line voltage dimming (120V)	Blank No emergency option	Blank No control option	90CRI High CRI (90+)
DALT1 Universal dimming to 1% 0-10V line voltage dimming (120V)	EL Battery pack (1.0W constant power) Nom 7.2V compliant, integral test switch	NPSWNLTP e2® network power/relay pack with 0-10V dimming	AR Antiglint (BPSS)
DALI 1 DALI dimming to 1%	ELER Battery pack (1.0W constant power) Nom 7.2V compliant, remote test switch	NPSWNLTPDIMF SF/LA e2® network power/relay pack with 0-10V dimming, FC controls fixture; no emergency circuit.	CP ‡ Chicago Plenums
D10 Minimum dimming 10% driver for use with NLTAIR2 Minimum dimming 1% driver for use with JOT	ETSWNLTP Battery pack (1.0W constant power) E20 Compliant, integral test switch	NLTAIR2 2 e2® Enterprise Fixture Control System	
D1 Minimum dimming 1% driver for use with JOT	ETSWNLTPER Battery pack (1.0W constant power) E20 Compliant, remote test switch	NLTAIR2 ISN2 e2® Enterprise Fixture Control System	
	ETSWNLTPER Emergency battery pack. 10W with remote test switch and Bluetooth® SIG enabled technology	NLTAIR2 ISN2 PIR e2® Enterprise Fixture Control System	
	ETS Total Emergency Transfer System	JOT Wireless occupancy sensor and fixture control	

‡ Option Restrictions

Options	Restriction
	Luminaires in Color Temp restriction note: Finish Luminaires and CCT must be specified together (for example: 35K AR BSK).
AT	Standard for CP and PPSS, not available with WW
EWWCPR	Not available with EL, EL6, QBS, CP, 347V, MPSWDT FR, NLTAIR2EL2, NLTAIR2EL6, or AL03 (2000-3000LM) DALI.
EWWCP	Not available with EL, EL6, ELT, QBS, CP, 347V, MPSWDT FR, NLTAIR2EL2, NLTAIR2EL6, AL02 (1000-3000LM) DALI, OR WL.
EWWSURR	Not available with wet location, HA, SHA, OP, 347V, MPSWDT FR, NLTAIR2EL2, NLTAIR2EL6, AL02 (1000-3000LM) DALI, OR AL03 (2000-3000LM) DALI, OR AL04 (4000-5000LM). Top access installation or 12.5" plenum clearance required for roomside installation. Not available with integral test switch.
ELER	Not available with EL, EL6, QBS, CP, 347V, MPSWDT FR, NLTAIR2EL2, NLTAIR2EL6, or AL03 (2000-3000LM) DALI.
EGS	Not Available with CP, QBS, ELT, EWWCP, or EWWCPR.
WL	Not available with 347V, AR CP & wet locations, except SWW (lamp). IP55 rated.
QBS	Not Available with CP, ELT, EWWCP, or EWWCPR.
ECT	Not Available with CP, QBS, ELT, EWWCP, or EWWCPR.
JOT	Not available with CP, MPSWDT, MPSWDT FR, NLTAIR2, NLTAIRER2, NLTAIRER2, UGZ, or DALI drivers. Max 4500lmnes. Fixed lumens and CCT only.
MPSWLT	Not available with CP, QBS, DALI, OR EL6 drivers. 120V OR 277V only. Not available with 347V
MPSWLTER	Not available with CP, QBS, EL6, EWWCP, EWWCPR, DALI, OR EL6 drivers. See EL924 Sequence of Operations table.
NLTAIR2	Not available with CP, QBS, EL6, EWWCP, EWWCPR, 347V, JOT, MPSWLT, MPSWLTER, NLTAIR2EL, NLTAIRER2, DALI, OR EL6 drivers. Not available with square trim.
CP	Not available with, QBS, ELT, EL6, EL6R, EWWCP, EWWCPR, 347V, JOT, MPSWLT, MPSWLTER, NLTAIR2, NLTAIRER2, DALI, OR EL6 drivers. Not available with square trim.
ETS	Not available with, QBS, ELR, EWWCP, EWWCPR, 347V, JOT, MPSWLT, MPSWLTER, NLTAIR2, NLTAIRER2, DALI, OR EL6 drivers.
DALI	Not available with fixed lumens or CCT. Max 4500 lumens.
WW	Not available with WL, EL, EWWCP.
TDBL TRBL	Available with clear (BK) reflector only.
WR, BR	Not available with a reflector finish.
347V	Not available with CP, QBS, EL, ELR, EWWCP, EWWCPER, NLTAIR2EL, ETS, MPSWLT, MPSWLTER, 40 AT ROUND TRIM, OS (LEAKING ROUND TRIM), AND 40 ROUND TRIM.
TRIMFRD, FRDTRD	DALTRD for pricing only. Replace with applicable RAL matte and finish when ready to order. See the RAL EXCHART for available color options.
TCFC, FCFC	CPC options for pricing only. Custom color chip needs to be sent in to your Customer Resolution specialist before order can be processed. Click HERE for more details

LDN4 SWW

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LDN4 SWW

Accessories: Order as a separate/catalog number.
LO4 AR ** TRIM 4" clear, specular reflector (** specify finish LS, LSS, or LS)
LO4 SWT TRIM 4" white reflector
LO4 BR TRIM 4" Black reflector
LW4 AR ** TRIM 4" wallwash clear, specular reflector (** specify finish LS, LSS, or LS)
LW4 WR TRIM 4" wallwash white reflector
LW4 BR TRIM 4" wallwash black reflector
GRA4-6-LE Oversized trim ring with 6" outside diameter
SLG4 Sloped Ceiling Adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SLG4A 10D.

design select

Items marked by a dashed background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Aluminum order quantity for design select load time is 256

EMERGENCY BATTERY PACK OPTIONS - FIELD INSTALLABLE

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
BLB OPU 2RA	7W	120	890	3 Term Shelter / 2 Hour Runtime
BLB EPU4 A	19W	90	3,200	
BLB PU20HE SD A*	30W	90	3,200	Title 24 Self Diagnostic
BLB PU15HE SD A*	15W	90	1800	Title 24 Self Diagnostic
BLB EPU10 A	29W	90	2400	Title 20
BLB PU20HE SD A	28W	90	2900	Title 24 Self Diagnostic
ELB PU20HE SD A*	30W	90	3,200	347-480V AC Input, Title 20, Self Diagnostic
ELB PU15HE SD A*	15W	90	1800	347-480V AC Input, Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field installation outside to the future.
* Minimum delivered lumens subject to assistive production chart for increased future mounting heights.
** The CPU delivered emergency illumination output forms legacy NATIONAL fluorescent emergency fixtures.
Please contact us at techsupport.lighting@acuitybrands.com for any Emergency Battery related questions.

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LDN4 SWW

PHOTOMETRY

LDN4 AR LS		90CRI							
		30K 90CRI		35K 90CRI		40K 90CRI		50K 90CRI	
Lumen Output	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	498	87	513	88	526	90	539	92
AL01 (750LM)	9	789	89	810	90	832	93	853	94
AL01 (1000LM)	11	1101	86	1131	88	1160	89	1191	91
AL02 (1500LM)	11	1131	93	1206	97	1238	99	1270	100
AL02 (1500LM)	19	1711	93	1763	95	1809	96	1854	97
AL02 (2000LM)	25	2159	87	2218	89	2276	91	2335	92
AL03 (2000LM)	25	2221	90	2282	92	2342	94	2402	95
AL03 (2500LM)	32	2682	85	2755	87	2827	89	2900	91
AL03 (3000LM)	38	3096	83	3179	83	3263	85	3344	86
AL04 (4000LM)	39	3298	88	3468	90	3557	91	3512	92
AL04 (4500LM)	44	3751	85	3827	87	3904	89	3982	90
AL04 (5000LM)	49	4029	83	4162	84	4295	86	4287	87

LDN4 SW LS		80CRI							
		30K 80CRI		35K 80CRI		40K 80CRI		50K 80CRI	
Lumen Output	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	560	97	574	99	587	101	606	105
AL01 (750LM)	9	888	100	908	101	930	103	959	106
AL01 (1000LM)	11	1241	97	1273	98	1305	100	1346	102
AL02 (1500LM)	11	1271	106	1352	108	1324	110	1427	111
AL02 (1500LM)	19	1928	103	1977	105	2030	106	2083	109
AL03 (2000LM)	25	2429	98	2485	99	2544	101	2622	104
AL03 (2500LM)	25	2499	101	2557	101	2618	105	2699	102
AL03 (3000LM)	32	3017	96	3087	98	3160	99	3258	102
AL03 (3000LM)	38	3420	93	3500	95	3585	96	3700	99
AL04 (4000LM)	39	4021	104	4112	106	4195	108	4326	109
AL04 (4500LM)	44	4449	101	4529	103	4630	105	4636	105
AL04 (5000LM)	49	4818	98	4927	100	5035	102	5085	103

LDN4 SW AR LS		90CRI							
		30K 90CRI		35K 90CRI		40K 90CRI		50K 90CRI	
Lumen Output	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	459	85	501	87	517	89	539	90
AL01 (750LM)	9	736	87	797	89	818	91	839	93
AL01 (1000LM)	11	1089	84	1179	86	1148	88	1178	90
AL02 (1500LM)	11	1155	93	1186	95	1217	97	1248	99
AL02 (1500LM)	19	1685	90	1721	92	1777	94	1822	95
AL02 (2000LM)	25	2122	85	2180	87	2238	89	2295	91
AL03 (2000LM)	25	2188	88	2243	90	2302	92	2362	94
AL03 (2500LM)	32	2637	84	2708	86	2780	87	2851	89
AL03 (3000LM)	38	2998	80	3076	81	3152	83	3228	85
AL03 (3000LM)	39	3146	86	3174	88	3182	90	3136	91
AL04 (4000LM)	44	3692	84	3768	86	3843	88	3883	88
AL04 (5000LM)	49	4035	83	4067	83	4579	85	4530	86

LUMEN OUTPUT MULTIPLIERS - FINISH	
Specular (LS)	1.05
Semi-specular (LSS)	1.00
Matte-diffuse (LD)	0.85

LUMEN OUTPUT MULTIPLIERS - CCT				
3000K	3500K	4000K	5000K	
0.98	1.0	1.05	1.03	

LUMEN OUTPUT MULTIPLIERS - CRI	
80	1.0
90	0.874

HOW TO ESTIMATE DELIVERED LUMENS IN EMERGENCY MODE

Use the formula below to estimate the delivered lumens in emergency mode.

Delivered Lumens = 1.25 x P x LPW

P = Output power of emergency driver. P = 10W for PS10SSCP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet

The LPW rating is also available at Designlight Consortium.

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1 LITHONIA LIGHTING LDN4 4" DIAMETER OPEN RECESSED CANOPY CAN - FIXTURE A

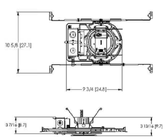
1 LITHONIA LIGHTING LDN4 4" DIAMETER OPEN RECESSED CANOPY CAN - CONTINUED

LDN4 SWW

* All dimensions are in inches (centimeters) unless otherwise noted.

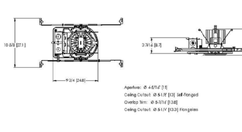
LDN4 SWW1 IC RATING	
AL01	IC
AL02	NON-IC
AL03	NON-IC

LDN4 SWW1 500-2000 Lumens



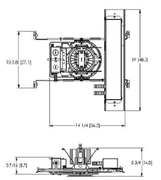
Aperture: Ø 4.65/4" [11]
Ceiling Cutout: Ø 5-1/8" [13] Self-Flanged
Overlap Trim: Ø 5-7/16" [13.8]
Ceiling Cutout: Ø 5-1/4" [13.2] Flangeless

LDN4 SWW1 2500-4000 Lumens



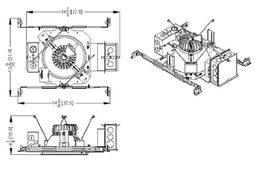
Aperture: Ø 4.65/4" [11]
Ceiling Cutout: Ø 5-1/8" [13] Self-Flanged
Overlap Trim: Ø 5-7/16" [13.8]
Ceiling Cutout: Ø 5-1/4" [13.2] Flangeless

LDN4 SWW1 EL



Aperture: Ø 4.65/4" [11]
Ceiling Cutout: Ø 5-1/8" [13] Self-Flanged
Overlap Trim: Ø 5-7/16" [13.8]
Ceiling Cutout: Ø 5-1/4" [13.2] Flangeless

LDN4 SWW1 CP 500-3000 Lumens



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2 GE EVOLVE EWLS SERIES WALL PACK LUMINARIE

EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER



EWLS L Series
LED Wall Pack

The Evolve® LED L Series Wall Pack (EWLS), The Evolve LED L-Series Wall Pack, EWLS, is a designed replacement for 50W to 250W HID, while offering significant energy savings in a long-life LED wall pack. Two-screw housing design enables a fast and simplified installation. The low-watt Egress package is designed to meet recommended illuminance requirements for egress applications such as side and rear exit doors in commercial buildings. Available with Emergency Battery Backup option.

Construction

Housing:	Aluminum die cast enclosure. Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Color: Black, Dark Bronze, Gray & White (RAL & custom colors available) Optional = Coastal Finish
Weight:	8 lbs (4 kg)

Optical System

Lumens:	1,700 to 7,000
Distribution:	Asymmetric Forward
Efficacy:	107- 148 LPW
CCT:	2700, 3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V & 347V
Input Frequency:	60/60Hz
Power Factor:	> 90% at rated watts
Total Harmonic Distortion:	< 20% at rated watts

Surge Protection

Surge Protection	10kV/5kA (Standard) 3kV/1.5kA (EMBB)

*Per ANSI C136.2-2015

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	DISTRIBUTION	LXX/10(K) @ HOURS		
		25,000 HR	50,000 HR	60,000 HR
17, 25 & 40	AF	L99	L99	L99
70	AF	L94	L87	L85

Note: Projected Lxx based on LM80 (> 10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Luminaire Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°F)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C
Vibration:	3G per ANSI C136.31-2010
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V
Sensors:	Photo Electric Sensors (PE) available Motion Sensor

Warranty

☐ 5 Year (Standard)

Emergency Battery Backup

Provides reliable emergency operations when there is a loss to normal power, supported by Independent Secondary Battery.

- Hold-Up Time: 90 minutes @ 1,400 lumens.
- Meet egress light level and uniformity requirements
- Not available in 347V
- Operating Temperature (for EMBB models) 0° to 40°C
- 3kV/1.5kA surge protection for EMBB models.

Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/search to confirm qualifications.

IP66 Optical

Current

LED.com

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EVOLVE

EWLS L Series
LED Wall Pack

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

Ordering Information

EWLS 02 0 40 AF 70 40 N 3 CB DKBZ

PROD. ID	GEN	VOLTAGE	OPTIC CODE	DISTRIBUTION	CRI SWITCH	CCT	DIMMING	PE FUNCTION	MOUNTING	COLOR	OPTIONS
E = Evolve W = Wallpack LS = L-Series	02	0 = 120-277V 1 = 120V 2 = 208V 3 = 240V 4 = 277V* 8 = 120-240V* D = 347V*	17 = 1,700 lm* 25 = 2,500 lm 40 = 4,000 lm 70 = 7,000 lm	AF = Asymmetric Forward	7 = 70	27 = 2700K 30 = 3000K 40 = 4000K 50 = 5000K	N = No External Dimming Leads D = External Dimming Leads*	1 = None 3 = Button PE*	CB = Conduit Box Mount* FM = Flush Mount	BKDK = Black DKBZ = Dark Bronze GRAY = Gray	EMBB = Emergency Battery Backup*^ M = Motion Sensor (Wattstopper)*^ ^ XXX = Special Options W = Non-Graphical White Box

* Specify single voltage if Button PE option is selected.
^ Optic code 17 - Not offered in 120-277V use 120 347V
^ Select 2700K or 3000K CCT for IDA approved units
* Must be selected when ordering with Button PE, Motion Sensor, 347V or Emergency Battery Backup
^ Not available with motion sensor
* Not available in 347V
^ Button PE not available with EMBB. Button PE not available with M Motion Sensor. Motion sensor includes dusk-to-dawn control as well as motion control.
^ SKU PSER-002 (Base 187654) needed for programming sensor.
* Must select Controls "N" with Motion Sensor "M"

OPTIC CODE	DISTRIBUTION	TYPICAL INITIAL LUMENS			TYPICAL SYSTEM WATTAGE		BUG RATINGS 2700K-5000K
		2700K	3000K	4000K/5000K	120-277V	347V	B-U-G
17	AF	1400	1600	1700	12	14	B1-U0-G0
25		2200	2400	2500	17	19	B1-U0-G1
40		3500	3800	4000	27	29	B1-U0-G1
70		6100	6700	7000	52	54	B2-U0-G1
EMBB	-	1300	1400	1400	-	-	B1-U0-G0

For additional information on EWLS IES files, please refer to LED.com

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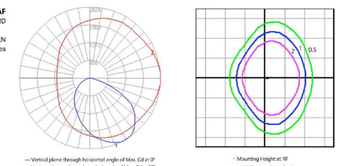
EVOLVE

EWLS L Series
LED Wall Pack

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

70AF
ASYMMETRIC FORWARD

7000 LUMEN
EWLS02_70AF750_ _-120-277VIes

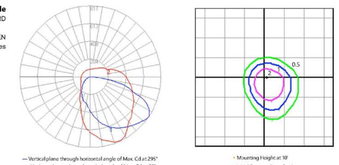


— Vertical plane through horizontal angle of Max. Cd at 0°
— Horizontal cone through vertical angle of Max. Cd at 27°

- Mounting Height at 10'
- Install Footcandle at Grade
- Light Level: 0.5fc, 1fc, 2fc

EMBB Mode
ASYMMETRIC FORWARD

1400 LUMEN
EWLS02_EMBB_ _ _Ies



— Vertical plane through horizontal angle of Max. Cd at 296°
— Horizontal cone through vertical angle of Max. Cd at 55°

- Mounting Height at 10'
- Install Footcandle at Grade
- Light Level: 0.5fc, 1fc, 2fc

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InSite Landscape Design
Landscape Consulting & Master Planning Design Sevices
11525 W. North Avenue, Suite 1B
Wauwatosa, WI 53226
Tel (414) 476-1204
www.insitedesigninc.com
mdavis@insitedesigninc.com

Project:

ELEGANT FARMER EVENT BUILDING

1545 Main Street
Mukwonago, WI 53149

Issuance and Revisions:

Date	Number	Description
06/09/26		Plan Commission Submittal

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Sheet Title:

PROPOSED BUILDING MOUNTED LIGHT FIXTURES

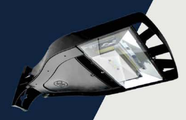
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Drawn By:	MCD
Job Number:	L26-038
Sheet Number:	PHO1.2

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L26-038 - ELEGANT FARMER EVENT BUILDING - 06/09/2026

EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER



EACL® Series
LED Area Light/Compact Low Wattage

Current's EAL Series of Area Light Luminaires offer a wide range of optical patterns, color temperatures, lumen packages, and mounting configurations to optimize area light applications, as well as provide versatility in lighting design within the same form factor.

Construction

Housing:	Die-cast aluminum housing with integral heat sink for maximum heat transfer
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze Gray, White (RAL & custom colors available) Optional coastal finish available.
Weight:	18 lbs (8.16 kg) Max depending on configuration

Optical System

Lumens:	2,900 - 20,400
Distribution:	Asymmetric Forwarc Type IV Asymmetric Wide Type III Asymmetric Narrow/Auto Type II
Efficacy:	123 - 143 LPW
CCT:	3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V & 347-480V
Input Frequency:	50/60Hz
Power Factor:	> 90% at rated watts
Total Harmonic Distortion:	< 20% at rated watts

Surge Protection*

TYPICAL (120 STIMES)	ENHANCED (40 STIMES)
☐ 6kV/3kA*	☐ 10kV/5kA*

*Per ANSI C136.2-2015

Warranty

☐ 5 Year (Standard)

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	LXX(10K) @ HOURS		
	25,000 HR	50,000 HR	60,000 HR
A2, A3, A4, B2, B3, B4, C2, C3, C4D2, D3, D4, E2, E3, E4, F2, F3, F4	L94	L90	L88
H2,H3, H4	L97	L96	L96

Note: Projected Lxx based on LM80 (> 10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Luminaire Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C
Vibration:	3G vibration per ANSI C136.31-2018
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V ☐ Optional - DALI (Option U) ☐
Sensors:	Photo Electric Sensors (PS) available LightGrid and Daintree Compatible

DLC LISTED

Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/search to confirm qualifications.

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1 GE EVOLVE EACL SERIES AREA LUMINARIES

EVOLVE

EACL® Series
LED Area Light/Compact Low Wattage

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

Ordering Information

EACL	01	0	F4	AF	7	50	N	D	D1	GRAY	

PROD. ID	GEN	VOLTAGE	OPTIC CODE	DISTRIBUTION	CRI (MIN)	CCT	DIMMING[2]	CONTROLS	MOUNTING ARM	COLOR	OPTIONS
E = Evolve AC = Compact Area Light L = Low Voltage	01	0 = 120-277V[1] H = 347-480V 1 = 1kW 2 = 2kW 3 = 3kW 4 = 4kW D = 347V	Ax= 3000 lm Bx=5000 lm Cx=7500 lm Dx=10000 lm Ex=10000 lm Fx=13500 lm Gx=15000 lm Hx=20000 lm	AF = Asymmetric Forward AW = Asymmetric Wide AN = Asymmetric Narrow/Auto	7 = 70	30 = 3000K[4] 40 = 4000K 50 = 5000K	N = Dimming thru PE receptacle D = External Dimming 1[0]-0ft cable X = No External Dimming Leads	1 = None A = ANSI 7-pin PE receptacle (no control) D = ANSI 7-pin PE receptacle with shorting cap pinned[5] E = ANSI C136.41 7-pin with Non-Dimming PE Control[6]	D1 = Universal Mounting Arm, fitted for round or square pole mounting[7] K1 = Knuckle Slipfitter for 1.9 in - 2.3in. OD Tenon[8][9] S1 = Knuckle Slipfitter for 2.3in. - 2.6in OD Tenon[8][9] V1 = Knuckle Wall Mount.[8]	GRAY = Gray BLCK = Black DKBZ = Dark Bronze WHITE = White	F = Fusing HR = Motion Sensor w/ LightGrid H2 = Motion Sensor (Dashless)[9] H4 = Motion Sensor (Wattstopper) J = cULCanada L = Tool-Less Entry SA = Enhanced Surge Protection (10kV/5kA) U = DALI dimming[3] V = 3-Position Terminal Block Y = Coastal Finish* XXX = Special Options

[1] Not Available with Fusing, Must Choose a Discrete Voltage with "F" Option Code
[2] Note Standard Dimming is 0-10V
[3] PE Control only available for 120-277V, 347V or 480V Discrete Voltage.
[4] Supplied with 0ft leads
[5] Supplied with 1[0]-ft Cable
[6] Restricted Aiming Angle of 0-45°
[7] Compatible with LightGrid Wireless Control Nodes, Not Compatible with Motion Sensor Control
[8] H2 Sensor is not available in High Voltage (347V, 480V or 347-480V)
[9] Recommended for installations within 750 feet from coast. Leadtime varies, check with factory.
[10] Select 3000K CCT for IDA approved fixtures.

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EVOLVE

EACL® Series
LED Area Light/Compact Low Wattage

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

OPTICAL CODE	DIST CODE	CLASSIFICATION	TYPICAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATING	
			3000K	4000K &5000K	120-277V	347-480V	3000K	4000K &5000K
A4	AF	TYPE IV	2900	2900	31	23	B1-U0-G1	B1-U0-G1
B4			4900	4900	36	38	B1-U0-G1	B1-U0-G1
C4			7300	7300	55		B1-U0-G2	B1-U0-G2
D4			9800	9800	73		B2-U0-G2	B2-U0-G2
E4			12200	12200	95		B2-U0-G2	B2-U0-G2
F4			14700	14700	123		B2-U0-G2	B2-U0-G2
H4			19000	19000	163		B3-U0-G3	B3-U0-G3
A3	AW	TYPE II	2900	3000	31	23	B1-U0-G1	B1-U0-G1
B3			4800	5100	36	38	B1-U0-G1	B1-U0-G1
C3			7400	7400	55		B1-U0-G2	B1-U0-G2
D3			9900	10200	73		B2-U0-G2	B2-U0-G2
E3			12400	12700	95		B2-U0-G2	B2-U0-G2
F3			14900	15300	122		B2-U0-G2	B2-U0-G2
H3			19000	20400	163		B3-U0-G2	B3-U0-G2
A2	AN	TYPE II	2900	3000	31	23	B1-U0-G1	B1-U0-G1
B2			4900	5000	36	38	B1-U0-G1	B1-U0-G1
C2			7300	7500	55		B2-U0-G1	B2-U0-G2
D2			9800	10100	73		B2-U0-G2	B2-U0-G2
E2			12300	12600	95		B2-U0-G2	B2-U0-G2
F2			14700	15100	122		B3-U0-G2	B3-U0-G3
H2			19100	20200	163		B3-U0-G3	B3-U0-G3

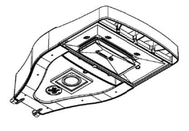
For additional information on Non-Shielded and Shielded EACL IES files, please refer to LED.com

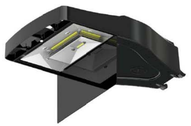
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EVOLVE

EACL® Series
LED Area Light/Compact Low Wattage

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER





PE Accessories (To Be Order Separately)

SAP NUMBER	PART NUMBER	DESCRIPTION
93031852	WANS - 277	ANSI 3K-41 Dimming PE Daintree Enable, 105-305v
93031853	WANS - 480	ANSI 3K-41 Dimming PE Daintree Enable, 312-530v
93029237	PED-MV-LED-7	ANSI/C136.41 Dimming PE, 120-277V
93029238	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V

SAP NUMBER	PART NUMBER	DESCRIPTION
28299	PECOTL	STANDARD 120-277V
28294	PECOTL	STANDARD 480V
80436	PECOTL	STANDARD 347V
73291	SOCL-PECTL	Shorting cap

Back Light Shied

SHIELD ORIENTATIONS	CUTOFF DISTANCE	SHIELD ORDER LOGIC
Back	Long	ELS-EACL-REL-BLCK

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2 GE EVOLVE EACL SERIES LUMINARIES SHEILDING

EVOLVE

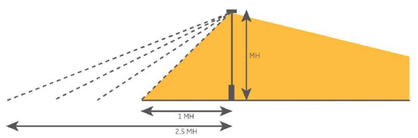
EACL Series Luminaires
Shielding Specification & Ordering Guide

The next evolution of the **Evolve**® LED Area Light delivers even better trespass control. Current's exclusive reflective optical ring design produces superior vertical illuminace and efficiently directs the light without wasteful and unwelcomed light spill into neighboring properties. Due to the extensive variation of parking lot configurations coupled with tightening ordinances,

Current now offers a full array of shielding to accommodate challenging sites.

The shielding options available for the Evolve® Area Light focus on the following applications:

- Left & Right Cutoff
- Front Cutoff
- Backlight Control & B-U-G Improvement



Within each of the shielding families, there are multiple shielding cutoff levels that are categorized in mounting height (MH) increments. Current accommodates cutoff distance from the pole from 1MH to 2.5 MH in 0.5 MH increments. The shields that are listed are for the most common applications. Please contact the manufacturer if your need is not listed.

All shields can be installed easily in the field. The next evolution of the Evolve® LED Area Light and shielding options will help you meet any parking lot challenge.

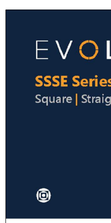
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3 GE EVOLVE EACL SERIES LUMINARIES SHEILDING

EVOLVE

SSSE Series Poles
Square | Straight | Steel

Project Name
Date Type
Notes



APPLICATIONS
Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location.

CONSTRUCTION

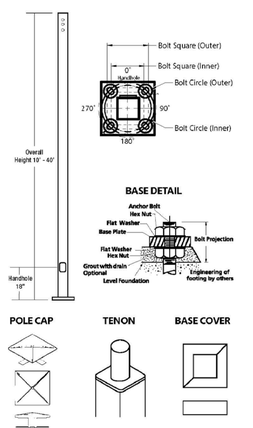
Shaft:	One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners. Minimum yield of 46,000 psi (ASTM-A500, Grade B). Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded to pole shaft having minimum yield of 36,000 psi (ASTM A36)
Base Cover:	Two-piece square aluminum base cover included standard
Pole Cap:	Pole shaft supplied with removable cover when applicable. Tenon and post-top configurations also available
Hand Hole:	Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening). Mounting provisions for grounding lug located behind gasketed cover
Anchor Bolts:	Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
Anchor Bolt Part Numbers:	• 3/4 x 30 x 3 — TAB-30-M38 • 1 x 36 x 4 — TAB-36-M38

FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available: RAL number preferable

10 DAY - EVOLVE EXPRESS SHIP PROGRAM

- Ships in 10 days
- Limit of 15 poles



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4 GE EVOLVE SSSE SERIES POLES

EVOLVE

SSSE Series Poles
Square | Straight | Steel
Ordering Information

Project Name
Date Type
Notes

Example: SSSE25-40A-2-E2-DKBZ-UL

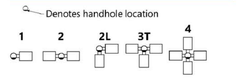
SSSE	20	40	B		E2	GRAY	

SERIES	HEIGHT	SHAFT	THICKNESS	MOUNTING	POLE DRILLING	FINISH	OPTIONS
SSSE = Evolve Square Straight Steel Pole	**10** = 10 Ft. **12** = 12 ft. **14** = 14 ft. **16** = 16 ft. **18** = 18 ft. **20** = 20 ft. **25** = 25 ft. **30** = 30 ft. **35** = 35 ft. **40** = 40 ft.	**40** = 4" Square **60** = 6" Square	**A** = 0.125" **B** = 0.135" **C** = 0.179"	**1** = Single arm mount **2** = Two fixtures at 180° **2L** = Two fixtures at 90° **3T** = Three fixtures at 90° **3Y** = Three fixtures at 120° **4** = Four fixtures at 90° **TA[1]** = Tenon (2.38" OD x 4" Tall) **TB[1]** = Tenon (2.88" OD x 4" Tall) **TC[1]** = Tenon (3.5" OD x 6" Tall) **TR[1]** = Removable Tenon (2.38" x 4") **OT** = Open Top (includes pole cap)	**E2** = Evolve Square Pole **UDP04[2]** = 1/2in I-HDW range: 1.69 - 2.24 **UDP02[2]** = 1/2in I-HDW range: 1.69 - 2.24 **UDP03[2]** = 1/8in I-HDW range: 2.25 - 2.99 **UDP04[2]** = 1/2in I-HDW range: 2.25 - 2.99 **UDP05[2]** = 1/8in I-HDW range: 3.00 - 3.75 **UDP06[2]** = 9/16in I-HDW range: 3.00 - 3.75 **UDP07[2]** = 1/8in I-HDW range: 3.76 - 4.49 **UDP08[2]** = 9/16in I-HDW range: 3.76 - 4.49 **UDP09[2]** = 1/8in I-HDW range: 4.50 - 5.49 **UDP10[2]** = 5/16in I-HDW range: 4.50 - 5.49 **UDP11[2]** = 3/8in I-HDW range: 5.50 - 6.00 **UDP12[2]** = 5/16in I-HDW range: 5.50 - 6.00	**DKBZ** = Dark Bronze **BLCK** = Black **GRAY** = Gray *Contact factory for custom color options*	**GFCI** = 20 Amp GFCI Receptacle and Cover **EHH[3]** = Extra Handhole **C05[4]** = 0.5" Coupling **C07[4]** = 0.75" Coupling **C20[4]** = 2" Coupling **MPB[5]** = Mid-pole Luminaire Bracket **VM1** = 1st mode vibration damper **VM2[6]** = 2nd mode vibration damper **LAB** = Lexis Anchor Bolts **UL** = UL Certified

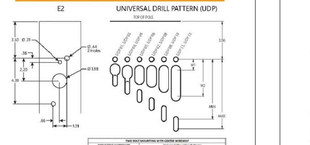
NOTES:
1. Removable tenon used in conjunction with side arm mounting. Limit specify desired arm.
2. Specify option location using MOUNTING ORIENTATION logic shown on this page.
3. Not available with VM1 = Mode Vibration Damper.
4. VM1 recommended on poles 20' and taller with EPA of less than 1. Field installed.
5. UDP allow mounting of most popular fixtures on the market.
6. Factory Installed.

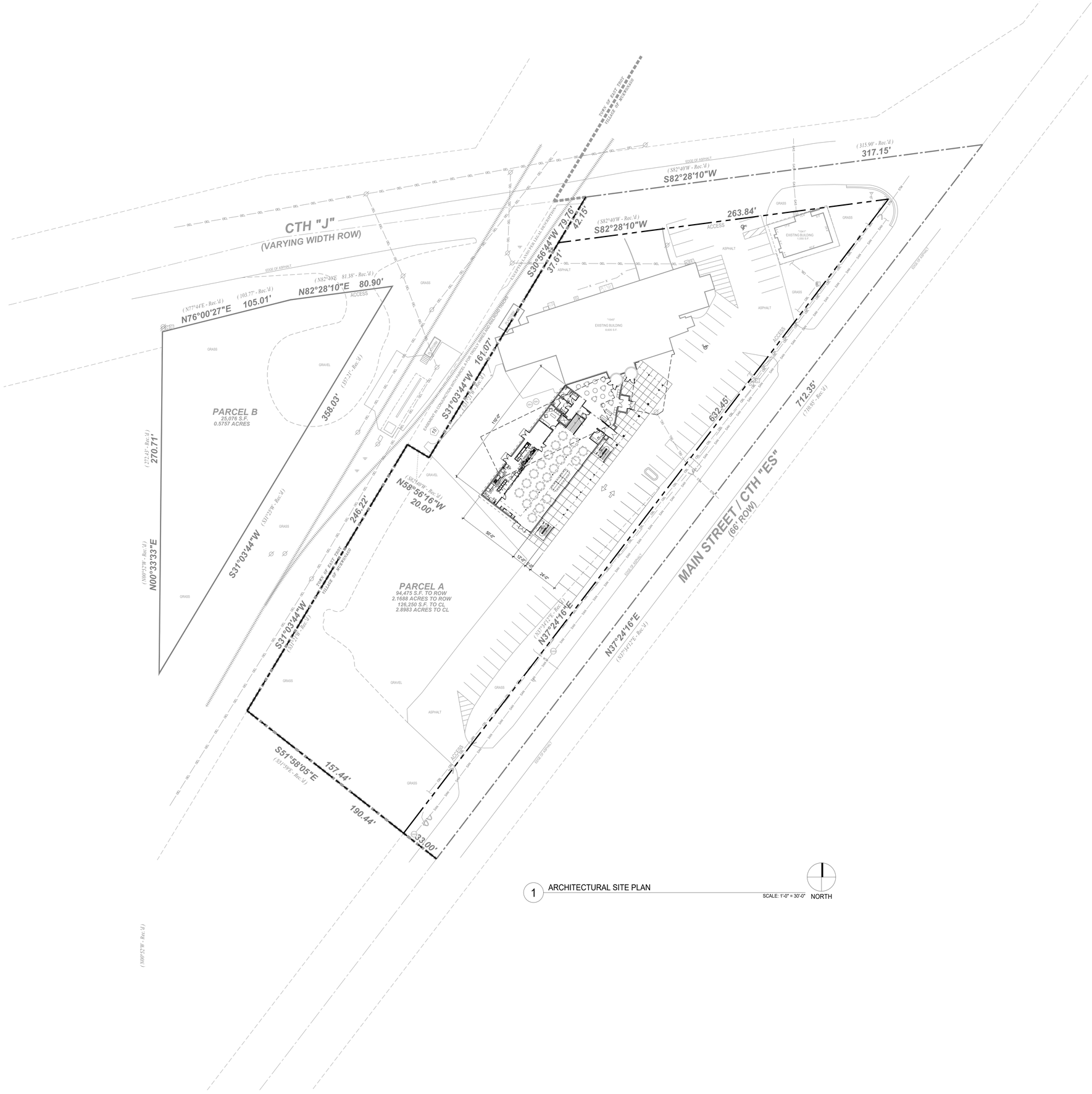
Indicates availability in the **EXS 10 Day Evolve Express Ship Program**

MOUNTING ORIENTATION



DRILL PATTERNS





1 ARCHITECTURAL SITE PLAN

SCALE: 1'-0" = 30'-0"

NORTH

David C. Baum
Architect
311 East Chicago Ste 310
Milwaukee, WI. 53202

© David C. Baum

ELEGANT FARMER - THE ORCHARD

1545 MAIN STREET
MUKWONAGO, WISCONSIN 53149

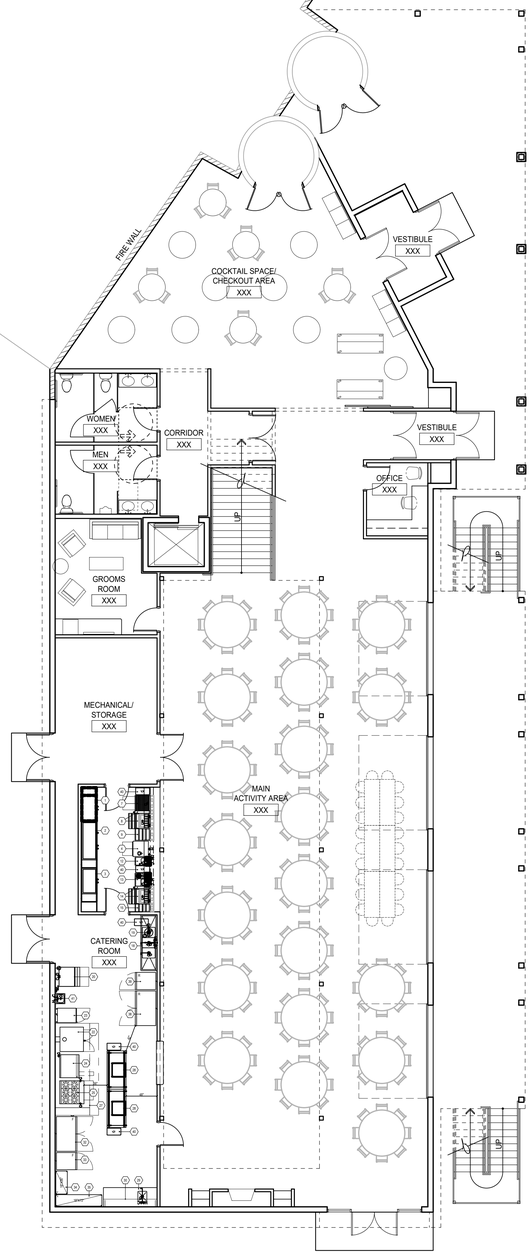
NO.	DATE	DESCRIPTION

PROJECT #: 4030-26

DATE: APRIL 17, 2026

ARCHITECTURAL
SITE PLAN

A0.1

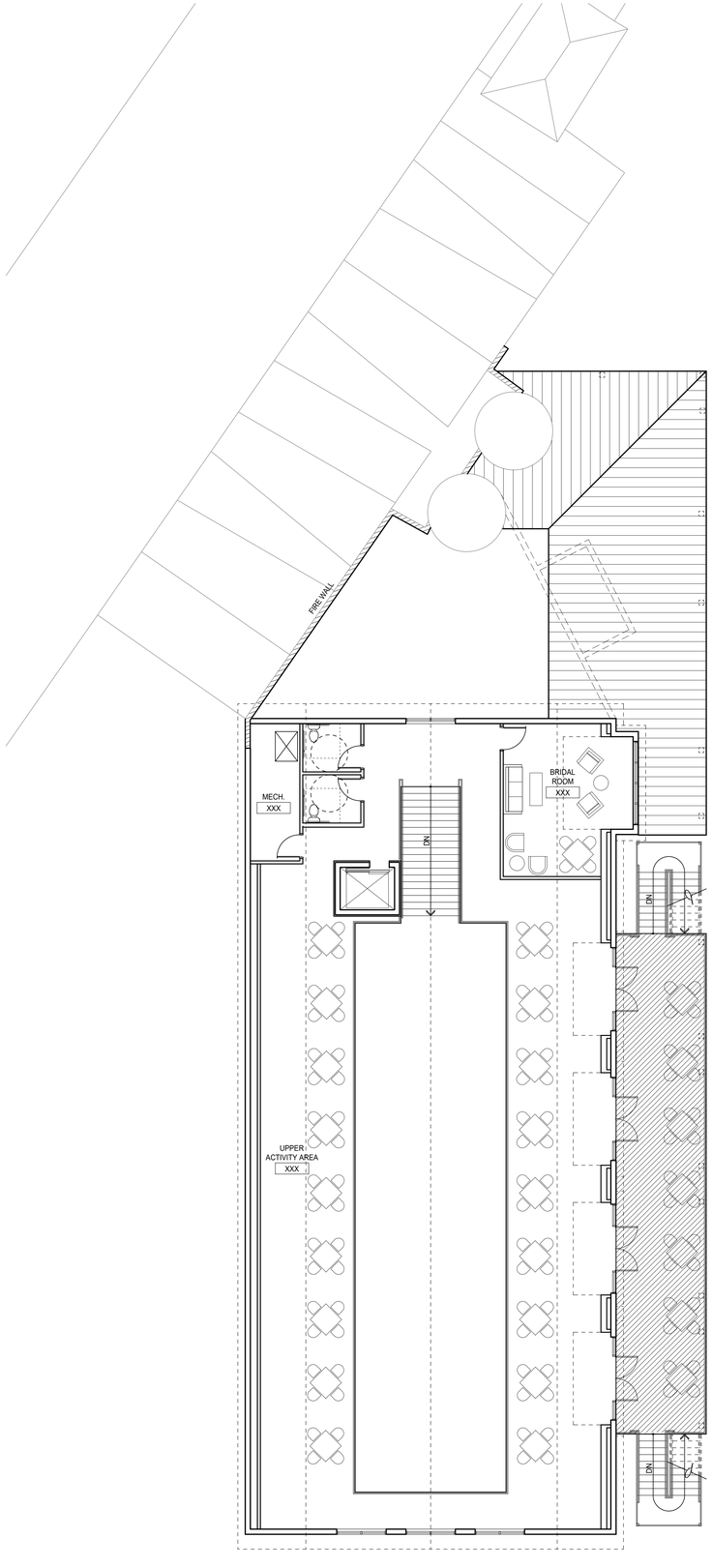


1 GROUND FLOOR PLAN

SCALE: 1/8" = 1'-0"

PLAN NORTH

TRUE NORTH



2 UPPER LEVEL PLAN

SCALE: 1/8" = 1'-0"

PLAN NORTH

TRUE NORTH

David C. Baum
Architect
311 East Chicago Ste 310
Milwaukee, WI. 53202

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ELEGANT FARMER - THE ORCHARD

1545 MAIN STREET
MUKWONAGO, WISCONSIN 53149

NO.	DATE	DESCRIPTION

PROJECT #: 4030-26

DATE: APRIL 17, 2026

GROUND FLOOR AND
UPPER ELVEL PLAN

A1.1



1 EAST ELEVATION - OPTION 2
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



3 WEST ELEVATION
SCALE: 1/8" = 1'-0"



4 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



5 BUILDING SECTION LOOKING NORTH
SCALE: 1/8" = 1'-0"

David C. Baum
Architect
311 East Chicago Ste 310
Milwaukee, WI. 53202

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ELEGANT FARMER - THE ORCHARD

1545 MAIN STREET
MUKWONAGO, WISCONSIN 53149

NO.	DATE	DESCRIPTION

PROJECT #: 4030-26

DATE: APRIL 17, 2026

EXTERIOR ELEVATIONS AND SECTIONS

A2.1

PLAN COMMISSION STAFF REPORT

TO: Village of Mukwonago Plan Commission

FROM: Peter Gesch, P.E., Ruekert & Mielke, Inc.

REPORT DATE: July 13, 2026

MEETING DATE: July 21, 2026, 6:30 P.M.

SUBJECT: Bear Crossing – CSM Review

BASIC INFORMATION	
Project:	Bear Crossing CSM
Applicant:	Anderson Commercial Group
Professional Land Surveyor:	Endpoint Solutions
Request:	CSM Application Approval
Staff Recommendation:	Approve with Conditions

PARCEL DATA/CHARACTERISTICS	
Tax Key:	MUKV1963996005 and MUKV 1963996006
Existing Acreage:	8.29 Acres Total Combined
Current Use:	Open Space / Parkland
Proposed Use:	Business
Reason for Request:	CSM Approval
Land Use Classification:	Business
Zoning Classification:	B-2 General Business District

Project Summary & Overview

Anderson Commercial Group is developing the former Kiwanis Park site located at the NW corner of STH 83 and CTH NN. This development will consist of potentially seven retail/business sites and one storm water outlot with a shared private access roadway through the center.

The proposed CSM is consistent with the Village's recent ordinance modification allowing CSMs to be implemented for commercial/business zoned properties in excess of four lots.

Staff have reviewed the CSM and have prepared the attached comment document. All comments must be addressed prior to final approval by staff and signature by Village officials.

The applicant has also prepared the provided easement declarations for the shared access drive to the Animal Hospital that will be modified by this development as well as a shared easement and declaration document for the main access road and storm water to be shared in responsibility for maintenance and on-going obligations by the individual lot owners within this development.

Staff Review

Engineering:	See attached PLS review comments to address prior to signature and recording.
Public Works	No comments.
Utilities	No comments.
Police	No comments.
Fire:	No comments.
Building Inspection	No comments.
Planning	No comments.

Recommended Action

Staff recommends the Village Board approve the CSM as outlined in the attached resolution.

Attachments

1. Proposed CSM
2. Supporting Application Documents

VILLAGE OF MUKWONAGO
WAUKESHA AND WALWORTH COUNTIES

RESOLUTION NO. 2026-49

A RESOLUTION FOR A CSM REVIEW FOR BEAR CROSSING, LOCATED AT THE NW CORNER OF STH 83 AND CTH NN, PARCELS MUKV1963996005 AND MUKV1963996006

WHEREAS, pursuant to Section 45, Article IV of the Mukwonago Code of Ordinances, an application for a CSM Review has been submitted, which application was filed in the office of the Village Clerk, Village of Mukwonago, Wisconsin, and

WHEREAS, the application has been submitted by Anderson Commercial Group, and

WHEREAS, the applicant is seeking approval of a CSM for the purpose of creating multiple business/commercial development lots, and

WHEREAS, the proposed CSM conforms to the requirements of the Village of Mukwonago Zoning Code for the district in which the property resides.

NOW, THEREFORE, BE IT RESOLVED by the Village Board of the Village of Mukwonago, Wisconsin hereby approves the CSM for the Bear Crossing Development, based upon the plans submitted to the Village, subject to the conditions listed below:

1. The applicant shall revise the CSM per the staff comments enumerated in the staff report and resubmit for staff approval prior to signature and recording.
2. The CSM shall be recorded with the Waukesha County Register of Deeds within 30 days of its approval.

Passed and adopted by the Village of Mukwonago Village Board this 5th day of August, 2026.

VILLAGE OF MUKWONAGO

By: _____
Fred Winchowky, Village President

Attest: _____
Lana Kropf, Village Clerk

CSM Review Comments – Bear Crossing CSM, Village of Mukwonago
Reviewed by B. Rozite 6/24/2026 (*reviewer's comments in italics*)

Per. Ch. 236, Wis. Stats. And Ch. A-E7, Wis. Admin. Code:
s. 236.20(2)(c) Where the exterior boundary lines show bearings or lengths that vary from those recorded in abutting plats or certified surveys there shall be the following note placed along the lines, "recorded as (show recorded bearing or length or both)."

Record bearings and distances from Certified Survey Map Nos. 7903, 8751, 5713 and 5558 must be shown along the boundaries of this CSM.

s. 236.34(1m)(d) SURVEYOR'S CERTIFICATE:

-The area at the end of the legal description, shown as 321,555 square feet or 7.3819 acres, computes to 361,061 square feet or 8.289 acres. The reviewer can provide a map check as verification, if needed.

- Change "City of Franklin Milwaukee County" in the last line to "Village of Mukwonago."

Per Ch. 45 Land Division Ordinance, Village of Mukwonago:
§ 45-94. Additional information required.

(a)(6) The setback or building lines required by the planning commission.

§ 45-116. Lots.

(c) Access. Every lot shall front or abut on a public street for the required distance for the district in which it is located.

It is assumed that access to STH "83" will be restricted and access to Lots 1, 2 and 3 would be by an access easement. On the final CSM, the proposed shape of the access easement shall be shown, including width, bearings, and distances. A note regarding any required restrictions of access to both S.T.H. "83" and C.T.H. "NN", if applicable, should also be added on the final CSM.

General Comments:

1) We recommend using a larger text size for the two USPLS corner descriptions on Sheet 1.

2) Southwest of this CSM "Outlot 1" is misspelled.

*3) On Sheet 2, it appears that the Document Number for the 30' Permanent Sanitary Easement should be 155955**5**.*

4) In the Owner's Certificate on Sheet 4, the phrase "in accordance with the requirements of Chapter 236 of the Wisconsin State Statutes" *is not required and can be removed." In the notary paragraph, we recommend changing "*personal representative of the estate of _____*" to "*agent for MEE Development #1 and agent for ACG Development #5*," or something similar.*

*5) In the Village Plan Commission Certificate on Sheet 5, change "*plan*" to "***P***lan" and change the deputy-clerk's name to* Shay Zerfas.

6) *In the Village Board Certificate on Sheet 5, change* “plan Commission” *to* “Board” *and change the village-clerk-treasurer’s name to* Lana Kropf.

PROJECT SUMMARY

Date:	June 9, 2026
Owner:	ACG Development #5 LLC
Project:	Bear Crossing – CSM
Site Address:	Hwy 83 and Hwy NN (NWC)
	Mukwonago, WI

Reason for CSM Application

The above site is proposing to divide the property into 4 lots and one outlot (Stormwater).

PROJECT SUMMARY

Date:	June 9, 2026
Owner:	ACG Development #5 LLC
Project:	Bear Crossing – Site Improvements
Site Address:	Hwy 83 and Hwy NN (NWC)
	Mukwonago, WI

Reason for Site Plan Application

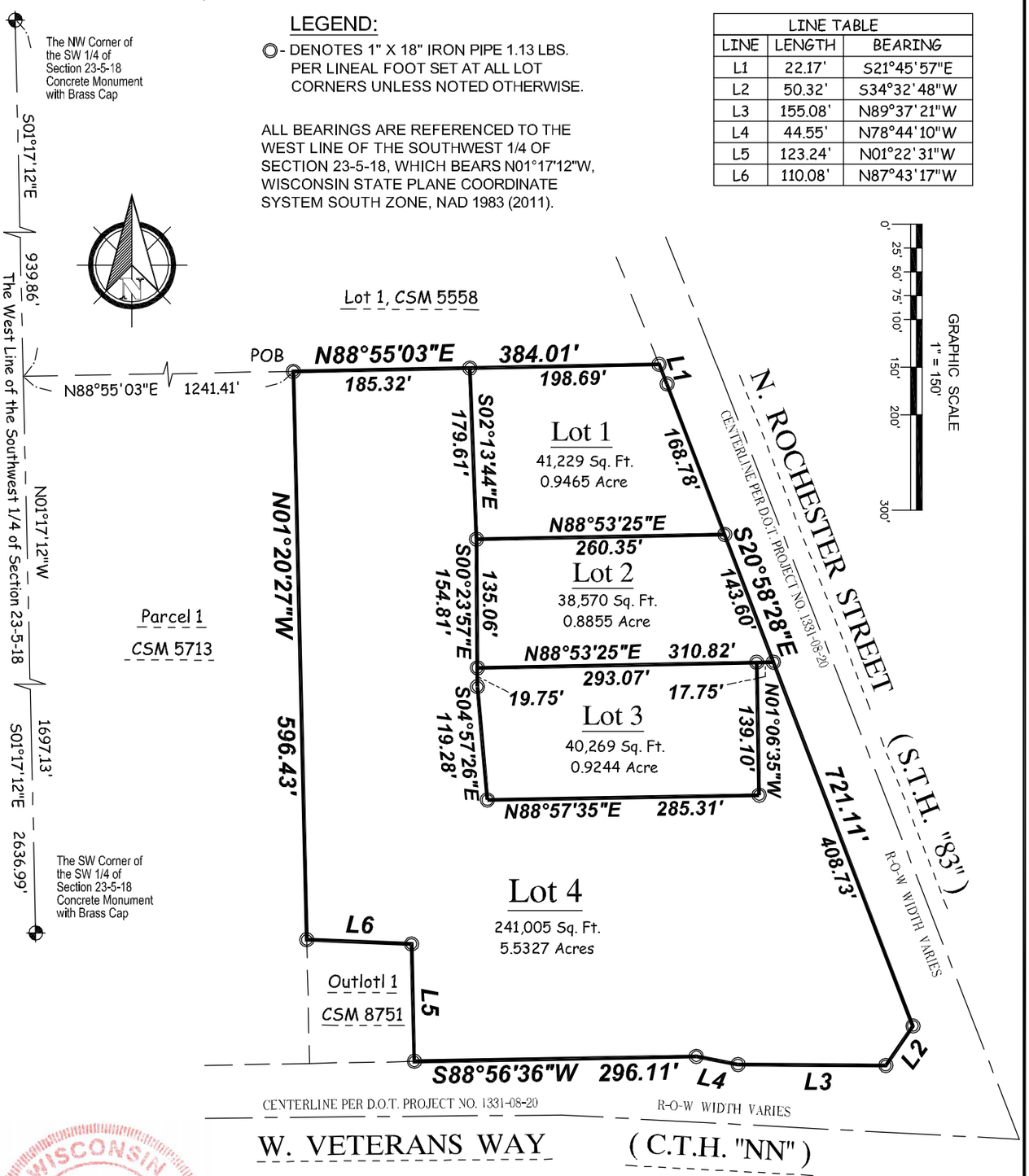
The above site is proposing to prepare the existing property for future commercial development. The proposed improvements include a 30-foot-wide private access road, sidewalk, grading, stormwater facility construction and utility installation (sanitary, water, storm).

As part of this phase of the development, a new access to the property north of the site (Parcel MUKV1963996001) will be constructed, as well as modifications to their parking lot.

Parcel ID: MUKV1963996006 & MUKV1963996005

CERTIFIED SURVEY MAP NO._____

BEING A REDIVISION OF PARCEL 2B OF CERTIFIED SURVEY MAP NO. 7903, RECORDED AS DOCUMENT NO. 2089494 ON DECEMBER 27, 1995 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, AND LOT 1 OF CERTIFIED SURVEY MAP NO. 8751, RECORDED AS DOCUMENT NO. 2452781 ON APRIL 21, 1999 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, BEING CORRECTED BY AFFIDAVIT OF CORRECTION, RECORDED AS DOCUMENT NO. 2468459 ON MAY 28, 1999, ALL LOCATED IN THE NORTHEAST 1/4, NORTHWEST 1/4, SOUTHEAST 1/4 AND SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.



WISCONSIN MARC C. PASSARELLI S-2817 FRANKLIN, WI LAND SURVEYOR

SUBDIVED BY & PREPARED FOR:

MEE DEVELOPMENT #1, LLC
ACG DEVELOPMENT #5, LLC
5000 S. TOWNE DRIVE, SUITE 100
NEW BERLIN, WI 53151-7956

Endpoint Solutions
6871 S. Lovers Lane, Franklin, WI 53132
Phone: (414) 427-1200 endpointsolutions.com
info@endpointcorporation.com

JOB NO. 911-001

INSTRUMENT DRAFTED BY : MARC C. PASSARELLI P.L.S. #2817

DATE : 07/28/2026

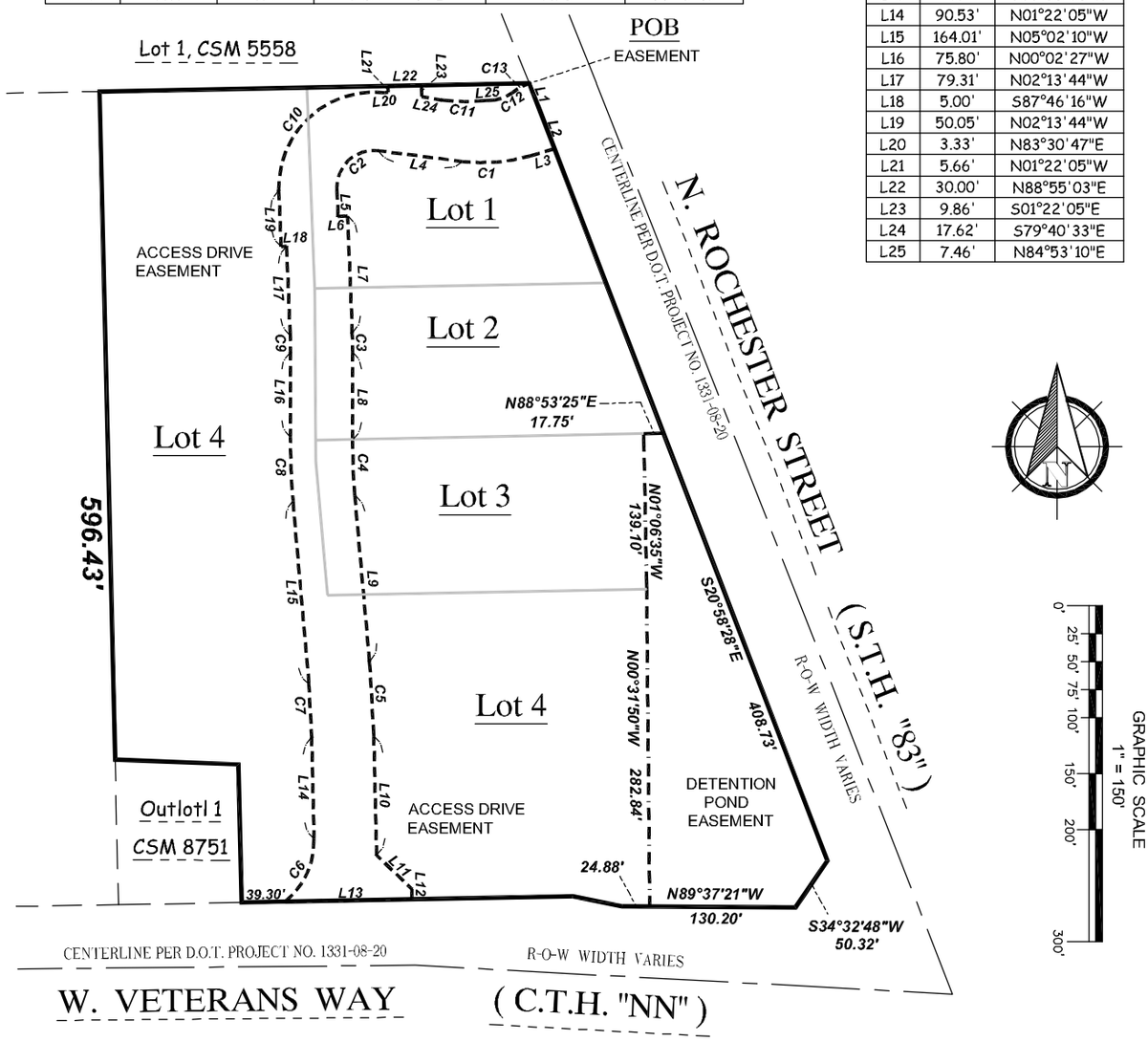
SHEET 1 OF 6

CERTIFIED SURVEY MAP NO._____

BEING A REDIVISION OF PARCEL 2B OF CERTIFIED SURVEY MAP NO. 7903, RECORDED AS DOCUMENT NO. 2089494 ON DECEMBER 27, 1995 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, AND LOT 1 OF CERTIFIED SURVEY MAP NO. 8751, RECORDED AS DOCUMENT NO. 2452781 ON APRIL 21, 1999 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, BEING CORRECTED BY AFFIDAVIT OF CORRECTION, RECORDED AS DOCUMENT NO. 2468459 ON MAY 28, 1999, ALL LOCATED IN THE NORTHEAST 1/4, NORTHWEST 1/4, SOUTHEAST 1/4 AND SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.

CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH	DELTA
C1	61.22'	148.50'	S85°23'48"W	60.79'	23°37'13"
C2	56.40'	32.50'	S47°29'20"W	49.59'	99°26'09"
C3	17.53'	450.50'	S01°06'52"E	17.52'	2°13'44"
C4	50.31'	500.00'	S02°11'57"E	50.29'	5°45'53"
C5	66.89'	1032.00'	S03°13'29"E	66.88'	3°42'49"
C6	63.68'	70.50'	N24°30'25"E	61.53'	51°45'00"
C7	47.75'	976.50'	N02°46'08"W	47.74'	2°48'06"
C8	57.01'	555.50'	N02°08'29"W	56.99'	5°52'49"
C9	15.37'	395.00'	N01°06'52"W	15.37'	2°13'44"
C10	145.80'	84.50'	N47°12'02"E	128.37'	98°51'32"
C11	40.75'	189.50'	S88°57'13"E	40.67'	12°19'14"
C12	16.57'	27.50'	N67°37'31"E	16.32'	34°31'17"
C13	17.87'	45.00'	N60°40'20"E	17.76'	22°45'23"

LINE TABLE		
LINE	LENGTH	BEARING
L1	22.17'	S21°45'57"E
L2	40.36'	S20°58'28"E
L3	22.89'	S73°35'12"W
L4	75.81'	N82°47'35"W
L5	25.05'	S02°13'44"E
L6	8.50'	N87°46'16"E
L7	104.31'	S02°13'44"E
L8	77.58'	S00°01'35"E
L9	148.38'	S05°04'53"E
L10	106.56'	S01°22'05"E
L11	43.50'	S46°22'05"E
L12	9.28'	S01°22'05"E
L13	113.11'	S88°56'36"W
L14	90.53'	N01°22'05"W
L15	164.01'	N05°02'10"W
L16	75.80'	N00°02'27"W
L17	79.31'	N02°13'44"W
L18	5.00'	S87°46'16"W
L19	50.05'	N02°13'44"W
L20	3.33'	N83°30'47"E
L21	5.66'	N01°22'05"W
L22	30.00'	N88°55'03"E
L23	9.86'	S01°22'05"E
L24	17.62'	S79°40'33"E
L25	7.46'	N84°53'10"E



SUBDIVED BY &
PREPARED FOR:

MEE DEVELOPMENT #1, LLC
ACG DEVELOPMENT #5, LLC
5000 S. TOWNE DRIVE, SUITE 100
NEW BERLIN, WI 53151-7956

WISCONSIN
MARC C. PASSARELLI
S-2817
FRANKLIN, WI
LAND SURVEYOR

JOB NO. 911-001

Endpoint Solutions

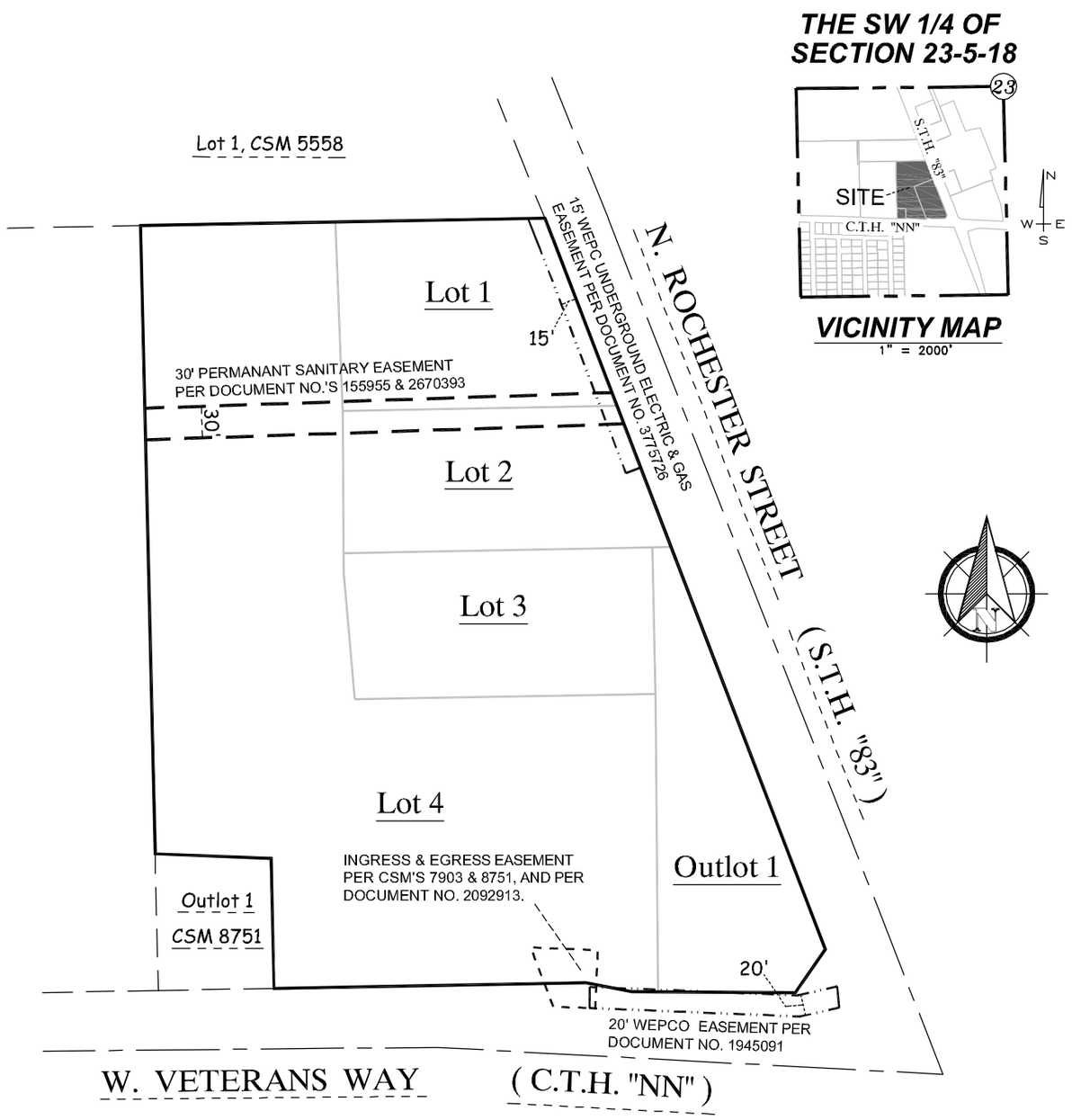
6871 S. Lovers Lane, Franklin, WI 53132
Phone: (414) 427-1200 endpointsolutions.com
info@endpointcorporation.com

INSTRUMENT DRAFTED BY :
MARC C. PASSARELLI P.L.S. #2817

DATE : 07/28/2026 **SHEET 2 OF 6**

CERTIFIED SURVEY MAP NO._____

BEING A REDIVISION OF PARCEL 2B OF CERTIFIED SURVEY MAP NO. 7903, RECORDED AS DOCUMENT NO. 2089494 ON DECEMBER 27, 1995 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, AND LOT 1 OF CERTIFIED SURVEY MAP NO. 8751, RECORDED AS DOCUMENT NO. 2452781 ON APRIL 21, 1999 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, BEING CORRECTED BY AFFIDAVIT OF CORRECTION, RECORDED AS DOCUMENT NO. 2468459 ON MAY 28, 1999, ALL LOCATED IN THE NORTHEAST 1/4, NORTHWEST 1/4, SOUTHEAST 1/4 AND SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.



WISCONSIN
MARC C. PASSARELLI
S-2817
FRANKLIN, WI
LAND SURVEYOR

SUBDIVED BY &
PREPARED FOR:
MEE DEVELOPMENT #1, LLC
ACG DEVELOPMENT #5, LLC
5000 S. TOWNE DRIVE, SUITE 100
NEW BERLIN, WI 53151-7956

GRAPHIC SCALE
1" = 150'
0' 25' 50' 75' 100' 150' 200' 300'

Endpoint Solutions
6871 S. Lovers Lane, Franklin, WI 53132
Phone: (414) 427-1200 endpointsolutions.com
info@endpointcorporation.com

JOB NO. 911-001

INSTRUMENT DRAFTED BY : MARC C. PASSARELLI P.L.S. #2817

DATE : 07/28/2026

SHEET 3 OF 6

CERTIFIED SURVEY MAP NO._____

BEING A REDIVISION OF PARCEL 2B OF CERTIFIED SURVEY MAP NO. 7903, RECORDED AS DOCUMENT NO. 2089494 ON DECEMBER 27, 1995 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, AND LOT 1 OF CERTIFIED SURVEY MAP NO. 8751, RECORDED AS DOCUMENT NO. 2452781 ON APRIL 21, 1999 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, BEING CORRECTED BY AFFIDAVIT OF CORRECTION, RECORDED AS DOCUMENT NO. 2468459 ON MAY 28, 1999, ALL LOCATED IN THE NORTHEAST 1/4, NORTHWEST 1/4, SOUTHEAST 1/4 AND SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

I, MARC C. PASSARELLI, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY: THAT I HAVE SURVEYED, DIVIDED AND MAPPED A REDIVISION OF PARCEL 2B OF CERTIFIED SURVEY MAP NO. 7903, RECORDED AS DOCUMENT NO. 2089494 ON DECEMBER 27, 1995 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, AND LOT 1 OF CERTIFIED SURVEY MAP NO. 8751, RECORDED AS DOCUMENT NO. 2452781 ON APRIL 21, 1999 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, BEING CORRECTED BY AFFIDAVIT OF CORRECTION, RECORDED AS DOCUMENT NO. 2468459 ON MAY 28, 1999, ALL LOCATED IN THE NORTHEAST 1/4, NORTHWEST 1/4, SOUTHEAST 1/4 AND SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN. SAID LAND DESCRIBED BELOW TO-WIT:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4 OF SECTION 23; THENCE NORTH 01°17'12" WEST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 1697.13 FEET; THENCE NORTH 88°55'03" EAST, 1241.41 FEET TO THE NORTHWEST CORNER OF LOT 1 OF CERTIFIED SURVEY MAP NO. 8751, BEING THE POINT OF BEGINNING OF THE LANDS TO BE DESCRIBED HEREINAFTER; THENCE NORTH 88°55'03" EAST ALONG THE NORTH LINE OF SAID LOT 1, 384.01 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF STATE TRUNK HIGHWAY "83"; THENCE SOUTH 21°45'57" EAST ALONG SAID WESTERLY LINE, 22.17 FEET; THENCE SOUTH 20°58'28" EAST ALONG SAID WESTERLY LINE, 721.11 FEET; THENCE SOUTH 34°32'48" WEST, 50.32 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF COUNTY TRUNK HIGHWAY "NN"; THENCE NORTH 89°37'21" WEST ALONG SAID NORTH LINE, 155.08 FEET; THENCE NORTH 78°44'10" WEST ALONG SAID NORTH LINE, 44.55 FEET; THENCE SOUTH 88°56'36" WEST ALONG SAID NORTH LINE, 296.11 FEET TO THE SOUTHEAST CORNER OF OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 8751; THENCE NORTH 01°22'31" WEST ALONG THE EAST LINE OF SAID OUTLOT 1, 123.24 FEET TO THE NORTHEAST CORNER OF SAID OUTLOT 1; THENCE NORTH 87°43'17" WEST ALONG THE NORTH LINE OF SAID OUTLOT 1, 110.08 FEET TO THE NORTHWEST CORNER OF SAID OUTLOT 1; THENCE NORTH 01°20'27" WEST ALONG THE WEST LINE OF SAID LOT 1, 596.43 FEET TO THE POINT OF BEGINNING. CONTAINING 321,555 SQUARE FEET (7.3819 ACRES) OF LAND.

THAT SUCH MAP IS A TRUE REPRESENTATION OF ALL EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND THE LAND COMBINATION THEREOF MADE.

THAT I HAVE FULLY COMPLIED WITH THE PROVISIONS OF CHAPTER 236 OF THE WISCONSIN STATE STATUTES AND ORDINANCES OF THE CITY OF FRANKLIN, MILWAUKEE COUNTY IN SURVEYING, COMBINING AND MAPPING THE SAME.

Marc. C. Passarelli S - 2817

07/28/2026
Date



Endpoint Solutions
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Phone: (414) 427-1200 endpointsolutions.com
info@endpointcorporation.com

INSTRUMENT DRAFTED BY : MARC C. PASSARELLI JOB NO. 911-001 SHEET 4 OF 6

CERTIFIED SURVEY MAP NO._____

BEING A REDIVISION OF PARCEL 2B OF CERTIFIED SURVEY MAP NO. 7903, RECORDED AS DOCUMENT NO. 2089494 ON DECEMBER 27, 1995 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, AND LOT 1 OF CERTIFIED SURVEY MAP NO. 8751, RECORDED AS DOCUMENT NO. 2452781 ON APRIL 21, 1999 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, BEING CORRECTED BY AFFIDAVIT OF CORRECTION, RECORDED AS DOCUMENT NO. 2468459 ON MAY 28, 1999, ALL LOCATED IN THE NORTHEAST 1/4, NORTHWEST 1/4, SOUTHEAST 1/4 AND SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.

OWNER'S CERTIFICATE :

MEE DEVELOPMENT #1, LLC, and ACG DEVELOPMENT #5, LLC, both Limited Liability Companies, hereby certifies that they have caused the land described above to be surveyed, divided and mapped as represented on this map in accordance with the requirements of Chapter 236 of the Wisconsin State Statutes, and that this map is required to be submitted to the following for approval or objection:

Village of Mukwonago:

Witness the hand and seal of said owner this _____day of _____, 20_____.

_____ Agent for MEE Development #1

_____ Agent for ACG Development #5

STATE OF WISCONSIN)
COUNTY OF WAUKESHA):SS

Personally came before me this _____day of _____, 20_____, the

above named _____, _____
individually and as personal representative of the estate of _____, to me be known to be the persons who executed the forgoing instrument and acknowledged the same.

My commission expires:_____

_____ Notary Public

WISCONSIN MARC C. PASSARELLI S-2817 FRANKLIN, WI LAND SURVEYOR

Endpoint Solutions
6871 S. Lovers Lane, Franklin, WI 53132
Phone: (414) 427-1200 endpointsolutions.com
info@endpointcorporation.com

INSTRUMENT DRAFTED BY : MARC C. PASSARELLI DATE : 07/28/2026 SHEET 5 OF 6

CERTIFIED SURVEY MAP NO._____

BEING A REDIVISION OF PARCEL 2B OF CERTIFIED SURVEY MAP NO. 7903, RECORDED AS DOCUMENT NO. 2089494 ON DECEMBER 27, 1995 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, AND LOT 1 OF CERTIFIED SURVEY MAP NO. 8751, RECORDED AS DOCUMENT NO. 2452781 ON APRIL 21, 1999 AT THE WAUKESHA COUNTY REGISTER OF DEEDS, BEING CORRECTED BY AFFIDAVIT OF CORRECTION, RECORDED AS DOCUMENT NO. 2468459 ON MAY 28, 1999, ALL LOCATED IN THE NORTHEAST 1/4, NORTHWEST 1/4, SOUTHEAST 1/4 AND SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 18 EAST, IN THE VILLAGE OF MUKWONAGO, WAUKESHA COUNTY, WISCONSIN.

VILLAGE OF MUKWONAGO PLAN COMMISSION APPROVAL

This land division is hereby approved by the Village of Mukwonago plan Commission, signed on this _____ day of _____, 20____.

_____ _____

Fred Winchowky, Chairman Linda Gourdoux, Deputy Clerk - Treasurer

VILLAGE OF MUKWONAGO BOARD APPROVAL

This land division is hereby approved by the Village of Mukwonago plan Commission, signed on this _____ day of _____, 20____.

_____ _____

Fred Winchowky, Village President Diana Dykstra, Village Clerk - Treasurer

WISCONSIN
MARC C. PASSARELLI
S-2817
FRANKLIN, WI
LAND SURVEYOR

Endpoint Solutions
6871 S. Lovers Lane, Franklin, WI 53132
Phone: (414) 427-1200 endpointsolutions.com
info@endpointcorporation.com

INSTRUMENT DRAFTED BY : MARC C. PASSARELLI DATE : 07/28/2026 SHEET 6 OF 6

ISSUED FOR MUNICIPAL REVIEW

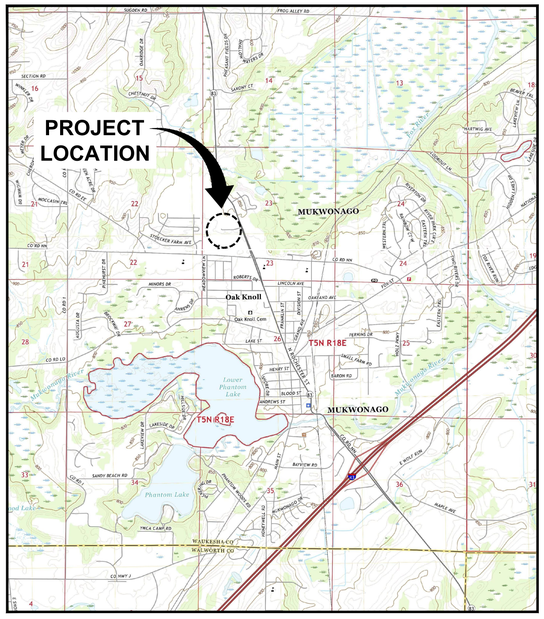
SITE PREP

BEAR CROSSING
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

CALL OR CLICK 3 WORKING DAYS BEFORE YOU DIG

Help Us... Help You... Protect Your Facilities!

CALL 811 BEFORE YOU DIG 811 SAFE DIGGING PARTNER



LOCATION MAP
0 3000' 6000' N



SITE MAP
0 1000' 2000' N

DATE ISSUED

JUNE 9, 2026

Endpoint Solutions

CONTACTS

OWNER:
ANDERSON COMMERCIAL GROUP
5000 S. TOWNE DRIVE, SUITE 100
NEW BERLIN, WISCONSIN
CONTACT: RAY GOODDEN
PHONE: 414-858-5203
EMAIL: RGOODDEN@ACGWI.COM

ENGINEER:
ENDPOINT SOLUTIONS CORP.
6871 S. LOVERS LANE
FRANKLIN, WI 53132
CONTACT: JASON HEINONEN, P.E.
PHONE: 414-858-1920
EMAIL: JASON@ENDPOINTCORPORATION.COM

DRAWING SHEET INDEX

CS	COVER SHEET
C1	PRE-CONSTRUCTION CONDITIONS - OVERALL
C2	PRE-CONSTRUCTION CONDITIONS - NORTH
C3	PRE-CONSTRUCTION CONDITIONS - SOUTH
C4	DEMOLITION PLAN - OVERALL
C5	DEMOLITION PLAN - NORTH
C6	DEMOLITION PLAN - SOUTH
C7	PROPOSED SITE PLAN - OVERALL
C8	PROPOSED SITE PLAN - NORTH
C9	PROPOSED SITE PLAN - SOUTH
C10	PROPOSED GRADING PLAN - OVERALL
C11	PROPOSED GRADING PLAN - NORTH
C12	PROPOSED GRADING PLAN - SOUTH
C13	PROPOSED UTILITY PLAN- OVERALL
C14	PROPOSED UTILITY PLAN - NORTH
C15	PROPOSED UTILITY PLAN - SOUTH
C16	EROSION CONTROL NOTES & DETAILS
C17	GENERAL CONSTRUCTION NOTES
C18	CONSTRUCTION DETAILS
C19	CONSTRUCTION DETAILS

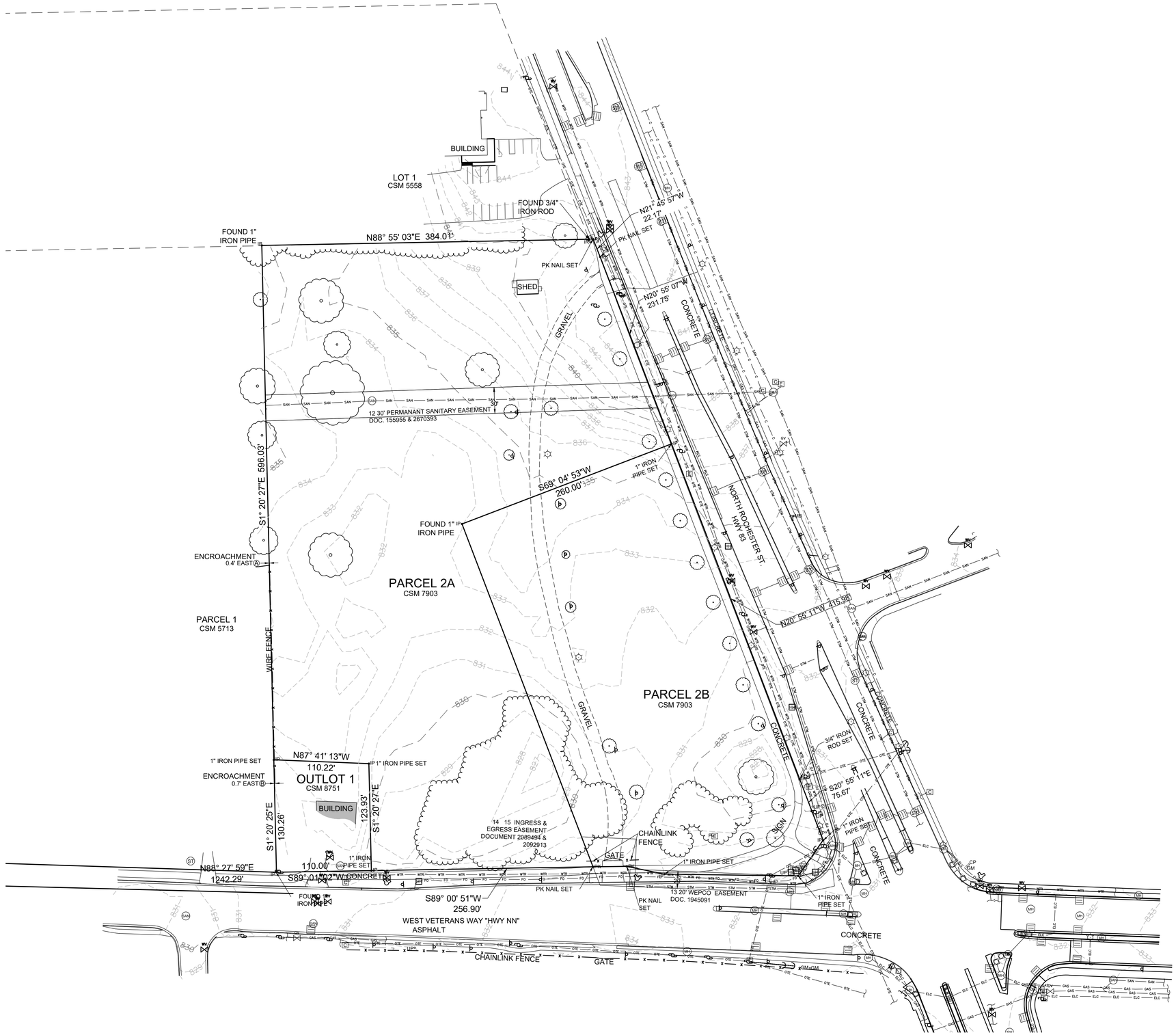
REVISION LOG

REVISION	ISSUE DATE	REVISED SHEETS	ISSUED FOR

P:\Mikko Erkamma - 9111001 - Kwamis Site\CAD\CS_911-020-001 Cover Sheet.dwg

SOURCE: GOOGLE MAPS, USGS

I:\Mike Erkamma - 911\001 - Kiwanis Site\CAD\Sht Lay\911-001-001 Pre-construction Conditions - Overall.dwg Layout
IMAGES: T:\Template Forms\CADD\Logos\Endpoint\Endpoint Solutions Hi-Res.jpg; ..\..\..\Campbell Const - 560\004 - Culvers East Troy\CAD\0a0e5283d6ef4a469ef54d75b0c71ee1.tif; T:\Template Forms\CADD\Logos\Endpoint\Endpoint Solutions Hi-Res.jpg;
XREFS: \911-001-001 Survey Basemap.dwg; _Endpoint Border-Kiwanis Development.dwg



- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OVERHEAD ELECTRIC LINE
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND ELECTRIC
- GAS LINE
- SEWER LINE (SANITARY)
- STORM SEWER
- WATER MAIN / WATER SERVICE
- MAJOR CONTOUR, (5' INTERVAL)
- MINOR CONTOUR, (1' INTERVAL)
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- ASPHALT
- MULCH
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- BOLLARD
- CULVERT (SIZE & TYPE VARIES)
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- GAS METER
- HAND HOLE STRUCTURE
- AIR CONDITIONING UNIT / HVAC SYSTEM
- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

N

0 60 120

SCALE IN FEET

REV:	DATE:
6	
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2	
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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING
PRE-CONSTRUCTION CONDITIONS (OVERALL)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH/JJJ	DATE:
CHECKED BY:	JJJ	06/09/2026
APPROVED BY:	JAH	

PROJECT NO.
911-001

SHEET NO.
C1

P:\Mikko Krampa - 911\001 - Kwanis Site\CAD\SHT1 - 24x36\911-001 Pre-construction Conditions - North.dwg, Layout!
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PARCEL 2A
CSM 7903

PARCEL 2B
CSM 7903

OUTLOT 1
CSM 8751

BUILDING

FOUND 1" IP
IRON PIPE

1" IRON PIPE SET

S69° 04' 53"W
260.00'

S1° 20' 27"E 596.03'

WIRE FENCE

GRAVEL

NORTH ROCHESTER ST.
HWY 83

CONCRETE

N20° 55' 11"W 415.98'

S20° 55' 11"E
75.67'

RIM 836.20
830.73 NW 30" CONC
830.71 SE 30" CONC
831.10 NE 12" CONC
831.36 SW 12" CONC

RIM 833.18
829.88 NW 6" HDPE
829.65 ENE 10" CONC

RIM 833.43 (DEBRIS)
829.48 NE 12" CONC
829.68 SW 12" CONC

RIM 833.60 (DEBRIS)
829.95 NE 12" CONC
830.45 SW 12" CONC

RIM 832.91
830.07 NW 6" HDPE
830.05 SE 6" HDPE
829.29 SW 12" CONC

RIM 833.01
831.02 SE 6" HDPE
829.48 ENE 10" CONC

RIM 833.20
828.26 NW 30" CONC
827.79 SE 30" CONC
829.62 NE 12" CONC
829.04 SW 12" CONC

RIM 830.15
827.79 NW 6" HDPE
827.86 SE 6" HDPE
827.33 ENE 10" CONC

RIM 831.45 (DEBRIS)
828.34 NW 6" HDPE
828.20 NE 6" HDPE
827.90 SW 12" CONC

RIM 831.85
826.29 SE 30" CONC
NW, NE NO VIS

RIM 831.26
825.98 E 16" CONC
826.08 SW 16" CONC

RIM 830.92
FILLED W/DEBRIS

RIM 830.86
825.92 E 16" CONC
825.90 W 16" CONC
828.21 SE 6" HDPE

RIM 831.33 (BROKEN)
825.48 NE 16" CONC
825.63 W 16" CONC

RIM 830.53
826.42 NE 16" CONC
826.54 W 16" CONC

RIM 830.64
836.90 NW 16" CONC
826.91 SE 6" HDPE
825.47 SW 16" CONC
825.38 NE 16" CONC

RIM 831.13
825.14 SW 16" CONC
825.04 SE 30" CONC
NW, NE NO VIS

RIM 830.58
828.61 NW 10" CONC
828.14 SE 6" HDPE
827.20 SE 14" CONC

RIM 830.52
826.11 W 10" CONC
826.00 S 14" CONC

RIM 832.13
827.96 E 10" CONC

3/4" IRON ROD SET

1" IRON PIPE SET

SIGN

CHAINLINK FENCE

GATE

PK NAIL SET

14 15 INGRESS & EGRESS EASEMENT DOCUMENT 2089494 & 2092913

13 20' WEPCO EASEMENT DOC. 1945091

WEST VETERANS WAY "HWY NN"
ASPHALT

CONCRETE

CP
GM

N87° 41' 13"W
110.22'

S1° 20' 25"E
130.26'

123.93'
S1° 20' 27"E

110.00'
S89° 01' 49"W

S89° 00' 51"W
256.90'

N
0 30 60
SCALE IN FEET

- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OVERHEAD ELECTRIC LINE
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND ELECTRIC
- GAS LINE
- SEWER LINE (SANITARY)
- STORM SEWER
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- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

REV:	DATE:
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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING
PRE-CONSTRUCTION CONDITIONS (SOUTH)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C3

I:\Mikko Eskamma - 911\00 - Kwamis Site\AU\JAH\00_911-00_Pre-construction Conditions - South.dwg, Layout1
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SHEETS: \911-001-001 Survey Basemap.dwg, _Endpoint Border-Kwamis Development.dwg

- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
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- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

N

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SCALE IN FEET

REV:	DATE:
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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING

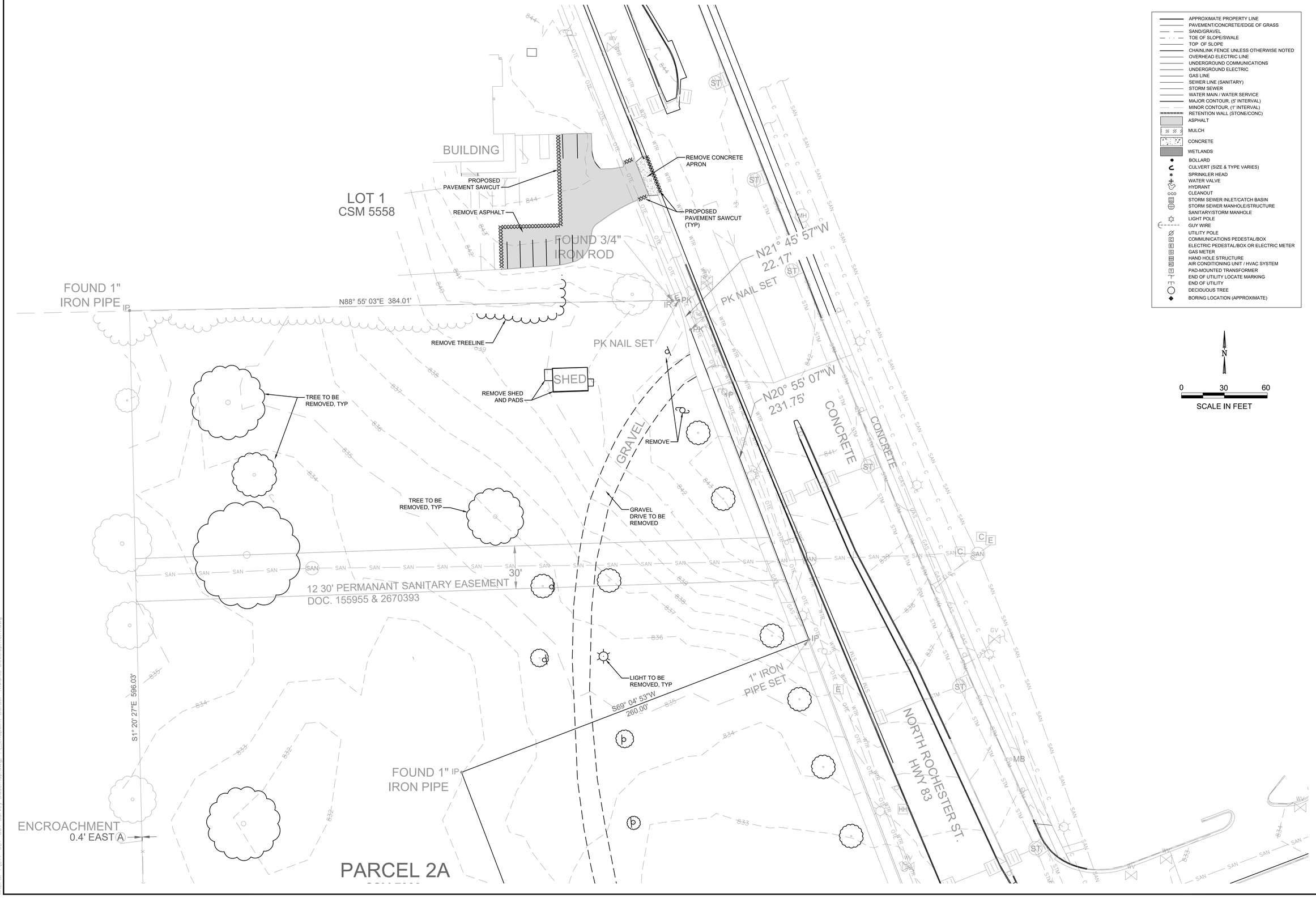
DEMOLITION PLAN (OVERALL)

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C4



REV:	DATE:
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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING
DEMOLITION PLAN (NORTH)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE:
CHECKED BY: JJJ	06/09/2026
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C5

P:\Wikko Erkamma - 911\001 - Kwamis Site\CAD\SHT Dwg\911-001 Demolition Plan - North.dwg Layout:
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XREFS: \911-001-001 Survey Basemap.dwg; _Endpoint Border-Kwanis Development.dwg

PARCEL 2A
CSM 7903

PARCEL 2B
CSM 7903

OUTLOT 1
CSM 8751

FOUND 1" IP
IRON PIPE

1" IRON PIPE SET

S69° 04' 53"W
260.00'

S1° 20' 27"E 596.03'

WIRE FENCE

TREES TO BE REMOVED, TYP

GRAVEL DRIVE TO BE REMOVED

LIGHT TO BE REMOVED, TYP

GRAVEL

NORTH ROCHESTER ST.
HWY 83

N20° 55' 11"W 415.98'

3/4" IRON ROD SET

S20° 55' 11"E
75.67'

1" IRON PIPE SET

CONCRETE

SIGN

N87° 41' 13"W
110.22'

1" IRON PIPE SET

S1° 20' 25"E
130.26'

S1° 26' 27"E
123.93'

14 15 INGRESS & EGRESS EASEMENT DOCUMENT 2089494 & 2092913

CHAINLINK FENCE

GATE TO BE REMOVED

GATE

PK NAIL SET

1" IRON PIPE SET

110.00'
S89° 01' 02"W

1" IRON PIPE SET

CONCRETE

20' 13 20' WEPCO EASEMENT DOC. 1945091

FOUND 1" IRON PIPE

S89° 00' 51"W
256.90'

PK NAIL SET

1" IRON PIPE SET

WEST VETERANS WAY "HWY NN"
ASPHALT

CHAINLINK FENCE

GATE

CONCRETE

CP

GM

- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OVERHEAD ELECTRIC LINE
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND ELECTRIC
- GAS LINE
- SEWER LINE (SANITARY)
- STORM SEWER
- WATER MAIN / WATER SERVICE
- MAJOR CONTOUR, (5' INTERVAL)
- MINOR CONTOUR, (1' INTERVAL)
- RETENTION WALL (STONE/CONC)
- ASPHALT
- MULCH
- CONCRETE
- WETLANDS
- BOLLARD
- CULVERT (SIZE & TYPE VARIES)
- SPRINKLER HEAD
- WATER VALVE
- HYDRANT
- CLEANOUT
- STORM SEWER INLET/CATCH BASIN
- STORM SEWER MANHOLE/STRUCTURE
- SANITARY/STORM MANHOLE
- LIGHT POLE
- GUY WIRE
- UTILITY POLE
- COMMUNICATIONS PEDESTAL/BOX
- ELECTRIC PEDESTAL/BOX OR ELECTRIC METER
- GAS METER
- HAND HOLE STRUCTURE
- AIR CONDITIONING UNIT / HVAC SYSTEM
- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

N

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SCALE IN FEET

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FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING

DEMOLITION PLAN (SOUTH)

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

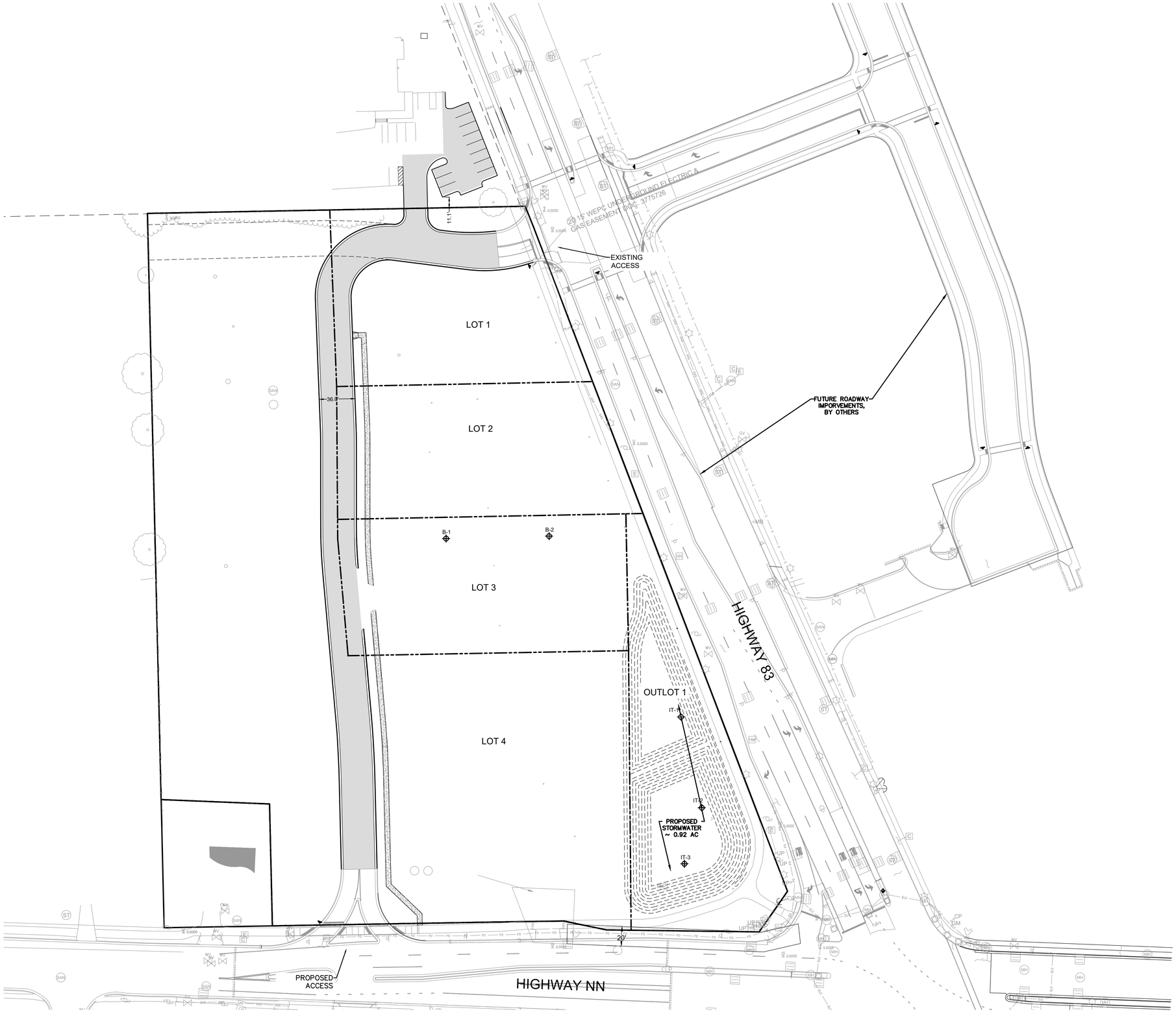
DRAWN BY: JAH/JJJ	DATE:
CHECKED BY: JJJ	06/09/2026
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C6

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- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OVERHEAD ELECTRIC LINE
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND ELECTRIC
- GAS LINE
- SEWER LINE (SANITARY)
- STORM SEWER
- WATER MAIN / WATER SERVICE
- MAJOR CONTOUR, (5' INTERVAL)
- MINOR CONTOUR, (1' INTERVAL)
- RETENTION WALL (STONE/CONC)
- ASPHALT
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- AIR CONDITIONING UNIT / HVAC SYSTEM
- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

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SCALE IN FEET

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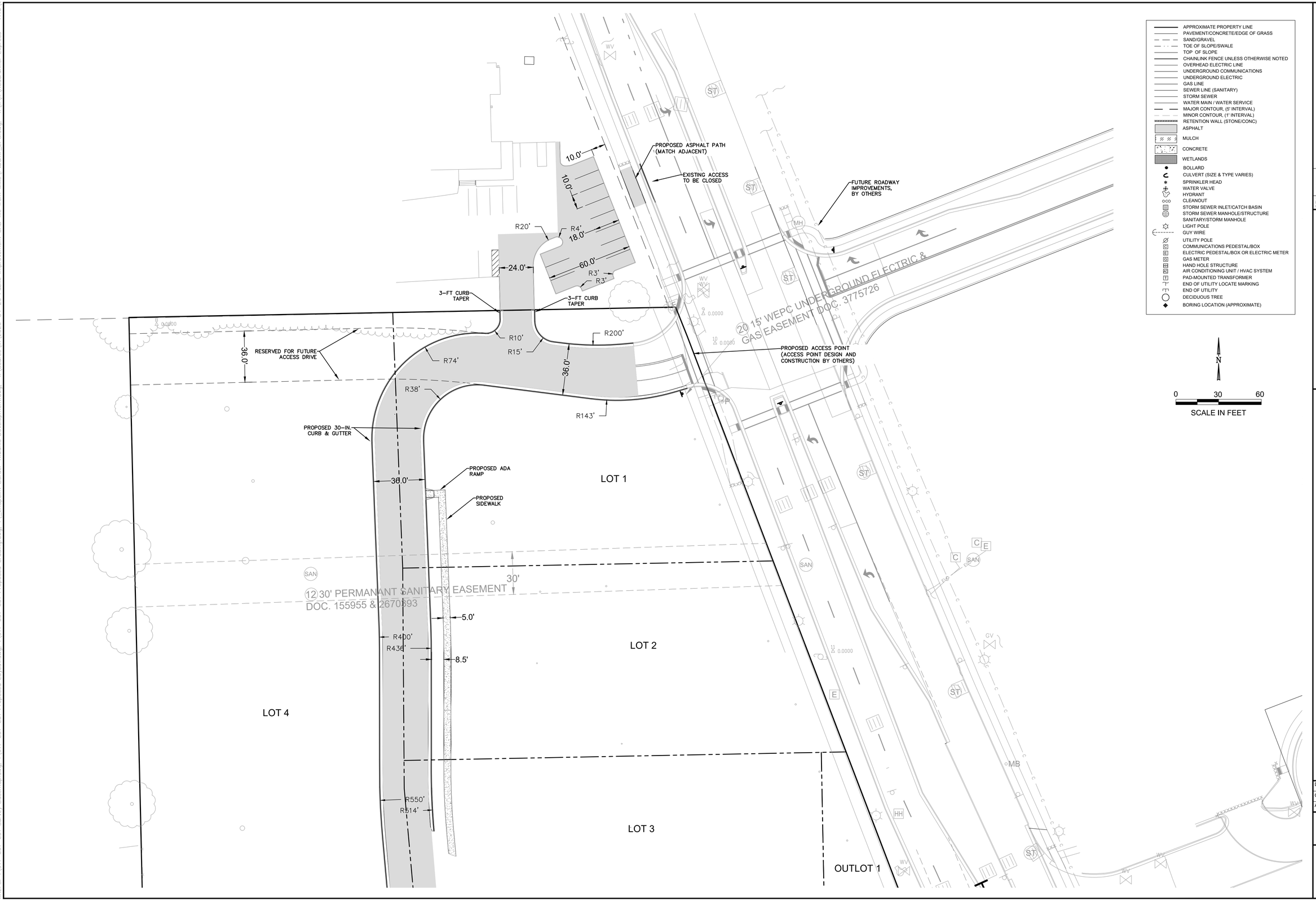
Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING
PROPOSED SITE PLAN (OVERALL)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C7



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BEAR CROSSING

PROPOSED SITE PLAN (NORTH)

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

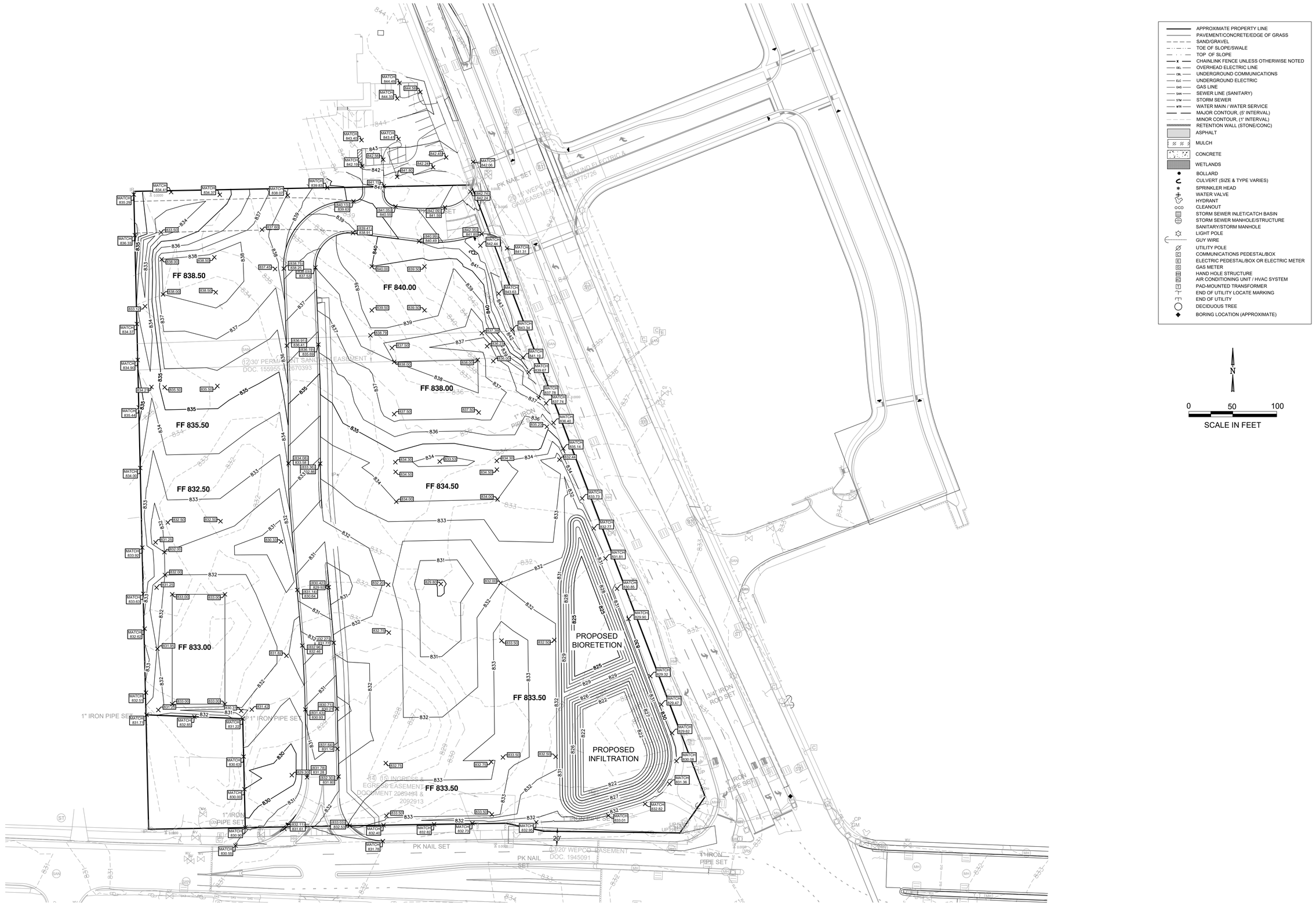
DRAWN BY: JAH/JJJ	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C8

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PHONE: (414) 427-1200

BEAR CROSSING
PROPOSED GRADING PLAN (OVERALL)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C10

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PROPOSED SILT FENCE (TYP) (SEE DETAILS)

PROPOSED 30-IN. CURB & GUTTER

PROPOSED INLET PROTECTION, TYP (SEE DETAILS)

PROPOSED INLET PROTECTION, TYP (SEE DETAILS)

20 15' WEPC UNDERGROUND ELECTRIC & GAS EASEMENT DOC. 3775726

APPROXIMATE PROPERTY LINE
PAVEMENT/CONCRETE/EDGE OF GRASS
SAND/GRAVEL
TOE OF SLOPE/SWALE
TOP OF SLOPE
CHAINLINK FENCE UNLESS OTHERWISE NOTED
OVERHEAD ELECTRIC LINE
UNDERGROUND COMMUNICATIONS
UNDERGROUND ELECTRIC
GAS LINE
SEWER LINE (SANITARY)
STORM SEWER
WATER MAIN / WATER SERVICE
MAJOR CONTOUR, (5' INTERVAL)
MINOR CONTOUR, (1' INTERVAL)
RETENTION WALL (STONE/CONC)
ASPHALT
MULCH
CONCRETE
WETLANDS
BOLLARD
CULVERT (SIZE & TYPE VARIES)
SPRINKLER HEAD
WATER VALVE
HYDRANT
CLEANOUT
STORM SEWER INLET/CATCH BASIN
STORM SEWER MANHOLE/STRUCTURE
SANITARY/STORM MANHOLE
LIGHT POLE
GUY WIRE
UTILITY POLE
COMMUNICATIONS PEDESTAL/BOX
ELECTRIC PEDESTAL/BOX OR ELECTRIC METER
GAS METER
HAND HOLE STRUCTURE
AIR CONDITIONING UNIT / HVAC SYSTEM
PAD-MOUNTED TRANSFORMER
END OF UTILITY LOCATE MARKING
END OF UTILITY
DECIDUOUS TREE
BORING LOCATION (APPROXIMATE)

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SCALE IN FEET

CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCE AND EROSION CONTROL AS SHOWN ON PLAN. MAINTAIN AS NECESSARY DURING CONSTRUCTION. INSPECT FOLLOWING RAIN EVENTS.
2. GRADE SITE AND CONSTRUCT IMPROVEMENTS.
3. STABILIZE DISTURBED GROUND WITH TEMPORARY SEED, FERTILIZER, AND MULCH.
4. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL BMPs WHEN DISTURBED AREAS ARE PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.

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FRANKLIN, WI 53132
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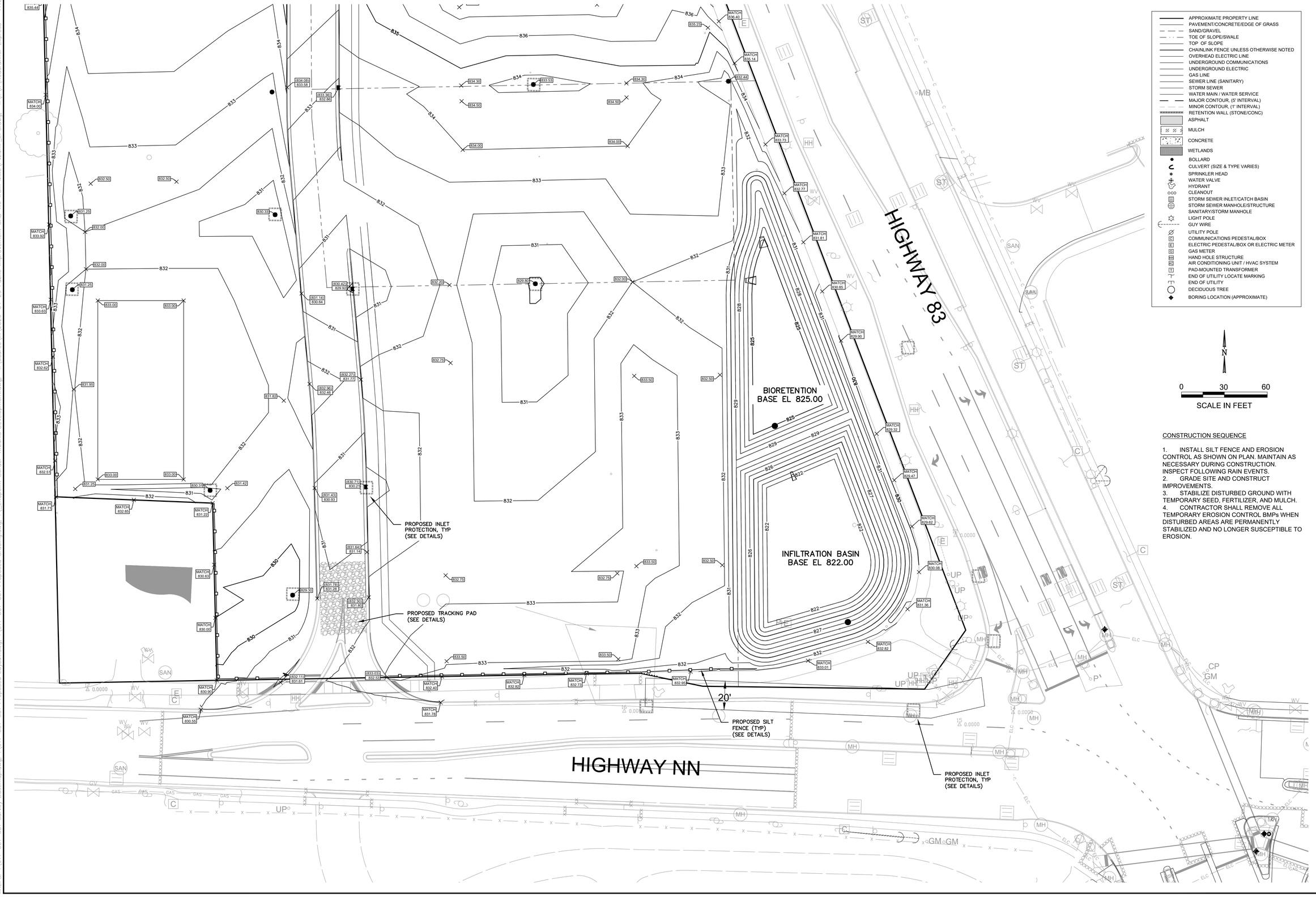
BEAR CROSSING
PROPOSED GRADING PLAN (NORTH)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE:
CHECKED BY: JJJ	06/09/2026
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C11

P:\Mikko Erkamma - 911\001 - Kwamis Site\CAD\SHT 01-911-001 Proposed Grading Plan - South.dwg, Layout!
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CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCE AND EROSION CONTROL AS SHOWN ON PLAN. MAINTAIN AS NECESSARY DURING CONSTRUCTION. INSPECT FOLLOWING RAIN EVENTS.
2. GRADE SITE AND CONSTRUCT IMPROVEMENTS.
3. STABILIZE DISTURBED GROUND WITH TEMPORARY SEED, FERTILIZER, AND MULCH.
4. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL BMPs WHEN DISTURBED AREAS ARE PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.

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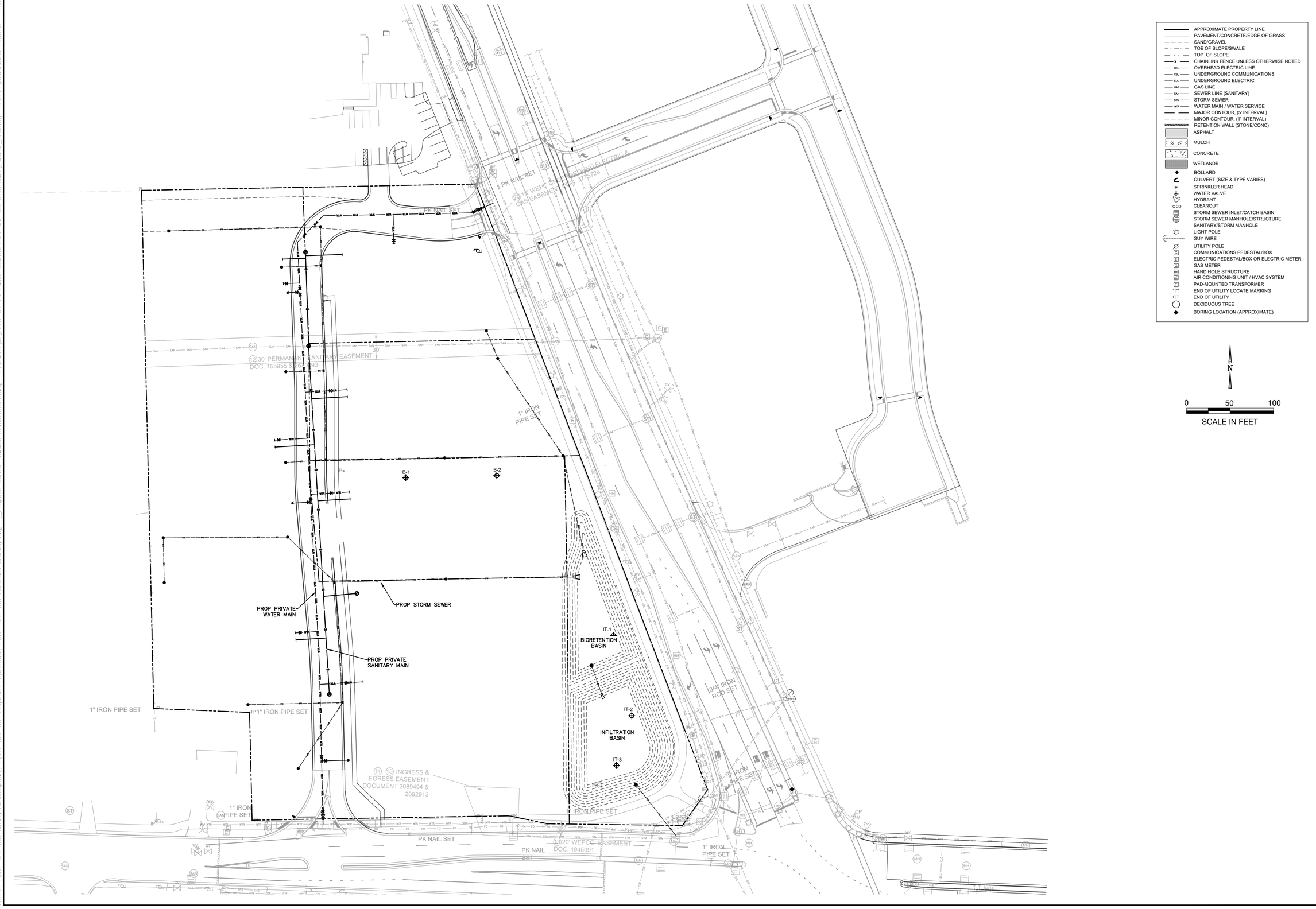
Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING
PROPOSED GRADING PLAN (SOUTH)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH/JJJ	DATE:
CHECKED BY:	JJJ	06/09/2026
APPROVED BY:	JAH	

PROJECT NO.
911-001

SHEET NO.
C12



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Endpoint Solutions
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BEAR CROSSING
PROPOSED UTILITY PLAN (OVERALL)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY:	JAH/JJJ	DATE:
CHECKED BY:	JJJ	06/09/2026
APPROVED BY:	JAH	

PROJECT NO.
911-001

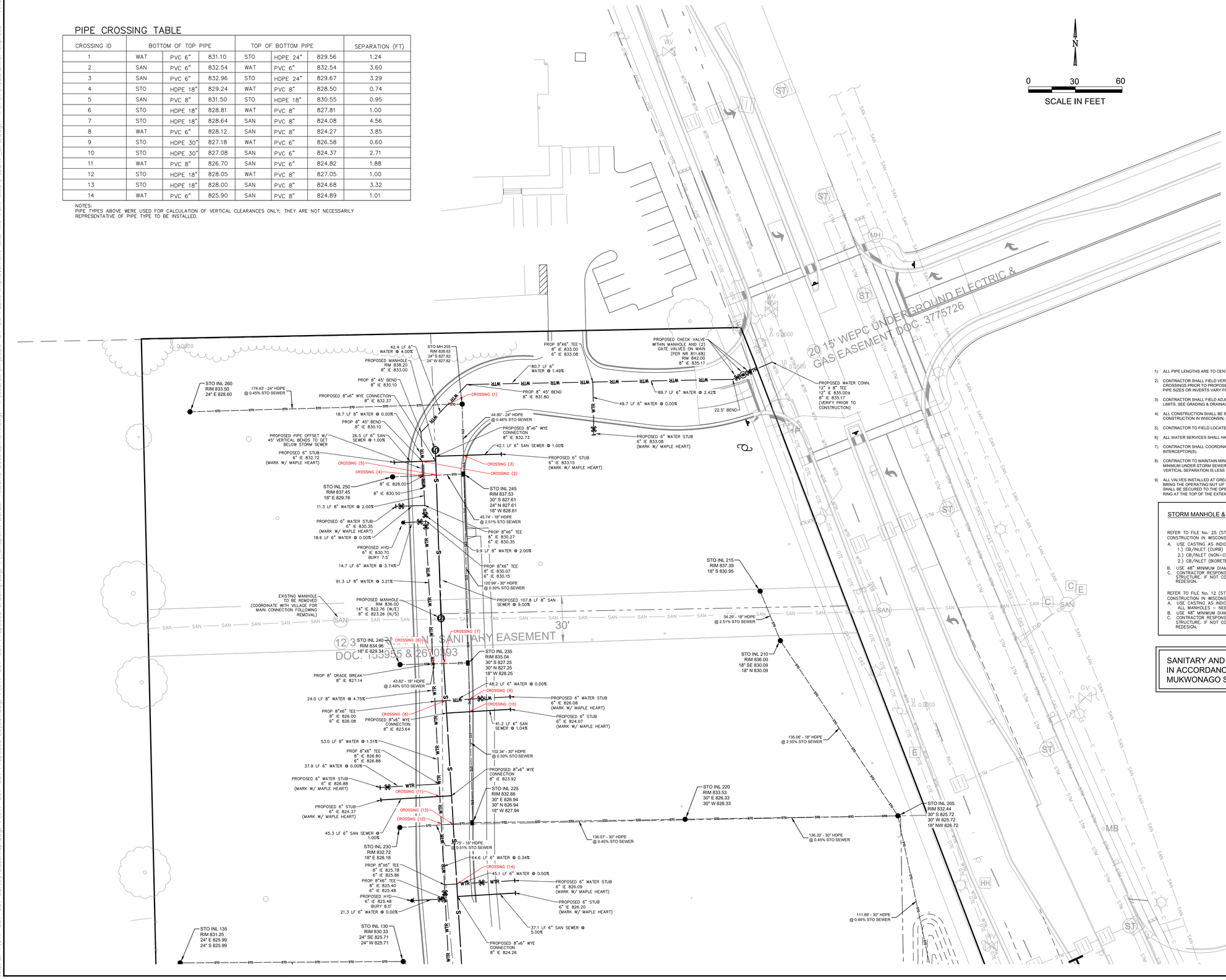
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...\Source\V\2026-04-29 Public Improvement CAD file from Mike\Plans\EPS.dwg; \\...\Roadrunner Express - 11\EVC

PIPE CROSSING TABLE

CROSSING ID	BOTTOM OF TOP PIPE			TOP OF BOTTOM PIPE			SEPARATION (FT)
1	WAT	PVC 6"	831.10	STO	HDPE 24"	829.56	1.24
2	SAN	PVC 6"	832.54	WAT	PVC 6"	832.54	3.60
3	SAN	PVC 6"	832.96	STO	HDPE 24"	829.67	3.29
4	STO	HDPE 18"	829.24	WAT	PVC 8"	828.50	0.74
5	SAN	PVC 8"	831.50	STO	HDPE 18"	830.55	0.95
6	STO	HDPE 18"	828.81	WAT	PVC 8"	827.81	1.00
7	STO	HDPE 18"	828.64	SAN	PVC 8"	824.08	4.56
8	WAT	PVC 6"	828.12	SAN	PVC 8"	824.27	3.85
9	STO	HDPE 30"	827.18	WAT	PVC 6"	826.58	0.60
10	STO	HDPE 30"	827.08	SAN	PVC 6"	824.37	2.71
11	WAT	PVC 8"	826.70	SAN	PVC 6"	824.82	1.88
12	STO	HDPE 18"	828.05	WAT	PVC 8"	827.05	1.00
13	STO	HDPE 18"	828.00	SAN	PVC 8"	824.68	3.32
14	WAT	PVC 6"	825.90	SAN	PVC 8"	824.89	1.01

NOTES:
PIPE TYPES ABOVE WERE USED FOR CALCULATION OF VERTICAL CLEARANCES ONLY; THEY ARE NOT NECESSARILY REPRESENTATIVE OF PIPE TYPE TO BE INSTALLED.



- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OVERHEAD ELECTRIC LINE
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND ELECTRIC
- GAS LINE
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- STORM SEWER
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- AIR CONDITIONING UNIT / HVAC SYSTEM
- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

1) ALL PIPE LENGTHS ARE TO CENTER OF EXISTING OR PROPOSED STRUCTURE.
2) CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED POINTS OF CONNECTION TO EXISTING PIPE, STRUCTURES OR KNOWN CROSSINGS PRIOR TO PROPOSED UTILITY CONSTRUCTION. CONTACT ENGINEER FOR POSSIBLE REDESIGN IF EXISTING PIPE SIZES OR INVERTS VARY FROM THIS PLAN.
3) CONTRACTOR SHALL FIELD ADJUST ALL EXISTING UTILITY STRUCTURES TO PROPOSED GRADE WITHIN THE PROJECT LIMITS. SEE GRADING & DRAINAGE PLANS FOR PROPOSED RIM GRADES.
4) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
5) CONTRACTOR TO FIELD LOCATE ALL EXISTING LATERAL LOCATIONS & ELEVATIONS PRIOR TO UTILITY CONSTRUCTION.
6) ALL WATER SERVICES SHALL HAVE MINIMUM 6.0' OF COVER.
7) CONTRACTOR SHALL COORDINATE FINAL SIZING WITH THE OWNER PRIOR TO PROCUREMENT OF THE GREASE INTERCEPTOR(S).
8) CONTRACTOR TO MAINTAIN MINIMUM 18" CLEARANCE WHEN WATER MAIN CROSSES UNDER SANITARY SEWER, AND 6" MINIMUM UNDER STORM SEWER. PROVIDE 2" INSULATION BETWEEN WATER MAIN AND SEWER CROSSINGS WHERE THE VERTICAL SEPARATION IS LESS THAN 2.0'.
9) ALL VALVES INSTALLED AT GREATER THAN 8 FEET OF DEPTH SHALL BE PROVIDED WITH VALVE STEM EXTENSIONS TO BRING THE OPERATING NUT UP TO A NORMAL DEPTH (EQUIVALENT TO A VALVE AT 8 FEET OF DEPTH). THE EXTENSION SHALL BE SECURED TO THE OPERATING NUT WITH AT LEAST 2 SET SCREWS DRILLED INTO THE NUT. PROVIDE A CENTERING RING AT THE TOP OF THE EXTENSION.

STORM MANHOLE & INLET NOTES:

REFER TO FILE No. 25 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, EXCEPT:
A. USE CASTING AS INDICATED BELOW (UNLESS INDICATED OTHERWISE ON PLAN):
   1.) CB/INLET (CURB) – NEENAH R-3229-A W/ TYPE C GRATE
   2.) CB/INLET (NON-CURB) – NEENAH R-2501-G
   2.) CB/INLET (BIORETENTION OUTLET STRUCTURE) – HAALA CONE GRATE TOP (OR EQUAL)
B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN (OR APPROVED)
C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

REFER TO FILE No. 12 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN) , EXCEPT:
A. USE CASTING AS INDICATED BELOW:
   ALL MANHOLES – NEENAH R-1642
B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN (OR APPROVED)
C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

SANITARY AND WATER TO BE INSTALLED IN ACCORDANCE WITH VILLAGE OF MUKWONAGO SPECIFICATIONS.

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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING
PROPOSED UTILITY PLAN (NORTH)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO. 911-001

SHEET NO. C14

H:\Mikka Erkamma - 911\01 - Kwanis Site\AUTOCAD 14_911-001 Proposed Utility Plan - North.dwg Layout!
IMAGES: T:\Template Forms\CADD\Logos\Endpoint\Endpoint Solutions Hi-Res.jpg; ..\..\..\Campbell Const - 560\004 - Culvers East Troy\CAD\0a0e5283d6ef4a469ef54d75b0c716ee.tif; T:\Template Forms\CADD\Logos\Endpoint\Endpoint Solutions Hi-Res.jpg

PIPE CROSSING TABLE

CROSSING ID	BOTTOM OF TOP PIPE			TOP OF BOTTOM PIPE			SEPARATION (FT)
15	STO	HDPE 24"	825.63	WAT	PVC 8"	824.34	1.29
16	STO	HDPE 24"	825.60	SAN	PVC 8"	825.27	0.33
17	STO	HDPE 24"	825.60	SAN	PVC 8"	825.49	0.11
18	SAN	PVC 8"	825.24	WAT	PVC 8"	823.67	1.57
19	SAN	PVC 8"	825.31	WAT	PVC 6"	823.78	1.53
20	STO	HDPE 24"	825.80	WAT	PVC 6"	823.78	2.02
21	STO	HDPE 24"	825.89	WAT	PVC 8"	824.37	1.52
22	STO	HDPE 24"	825.93	WAT	PVC 8"	824.37	1.56

NOTES:
PIPE TYPES ABOVE WERE USED FOR CALCULATION OF VERTICAL CLEARANCES ONLY; THEY ARE NOT NECESSARILY REPRESENTATIVE OF PIPE TYPE TO BE INSTALLED.

- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OVERHEAD ELECTRIC LINE
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND ELECTRIC
- GAS LINE
- SEWER LINE (SANITARY)
- STORM SEWER
- WATER MAIN / WATER SERVICE
- MAJOR CONTOUR, (5' INTERVAL)
- MINOR CONTOUR, (1' INTERVAL)
- RETENTION WALL (STONE/CONC)
- ASPHALT
- MULCH
- CONCRETE
- WETLANDS
- BOLLARD
- CULVERT (SIZE & TYPE VARIES)
- SPRINKLER HEAD
- WATER VALVE
- HYDRANT
- CLEANOUT
- STORM SEWER INLET/CATCH BASIN
- STORM SEWER MANHOLE/STRUCTURE
- SANITARY/STORM MANHOLE
- LIGHT POLE
- GUY WIRE
- UTILITY POLE
- COMMUNICATIONS PEDESTAL/BOX
- ELECTRIC PEDESTAL/BOX OR ELECTRIC METER
- GAS METER
- HAND HOLE STRUCTURE
- AIR CONDITIONING UNIT / HVAC SYSTEM
- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

N

0 30 60

SCALE IN FEET

SANITARY AND WATER TO BE INSTALLED IN ACCORDANCE WITH VILLAGE OF MUKWONAGO SPECIFICATIONS.

1) ALL PIPE LENGTHS ARE TO CENTER OF EXISTING OR PROPOSED STRUCTURE.
2) CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED POINTS OF CONNECTION TO EXISTING PIPE, STRUCTURES OR KNOWN CROSSINGS PRIOR TO PROPOSED UTILITY CONSTRUCTION. CONTACT ENGINEER FOR POSSIBLE REDESIGN IF EXISTING PIPE SIZES OR INVERTS VARY FROM THIS PLAN.
3) CONTRACTOR SHALL FIELD ADJUST ALL EXISTING UTILITY STRUCTURES TO PROPOSED GRADE WITHIN THE PROJECT LIMITS. SEE GRADING & DRAINAGE PLANS FOR PROPOSED RIM GRADES.
4) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
5) CONTRACTOR TO FIELD LOCATE ALL EXISTING LATERAL LOCATIONS & ELEVATIONS PRIOR TO UTILITY CONSTRUCTION.
6) ALL WATER SERVICES SHALL HAVE MINIMUM 6.0' OF COVER.
7) CONTRACTOR SHALL COORDINATE FINAL SIZING WITH THE OWNER PRIOR TO PROCUREMENT OF THE GREASE INTERCEPTOR(S).
8) CONTRACTOR TO MAINTAIN MINIMUM 18" CLEARANCE WHEN WATER MAIN CROSSES UNDER SANITARY SEWER, AND 6" MINIMUM UNDER STORM SEWER. PROVIDE 2" INSULATION BETWEEN WATER MAIN AND SEWER CROSSINGS WHERE THE VERTICAL SEPARATION IS LESS THAN 0.0'.
9) ALL VALVES INSTALLED AT GREATER THAN 8 FEET OF DEPTH SHALL BE PROVIDED WITH VALVE STEM EXTENSIONS TO BRING THE OPERATING NUT UP TO A NORMAL DEPTH (EQUIVALENT TO A VALVE AT 8 FEET OF DEPTH). THE EXTENSION SHALL BE SECURED TO THE OPERATING NUT WITH AT LEAST 2 SET SCREWS DRILLED INTO THE NUT. PROVIDE A CENTERING RING AT THE TOP OF THE EXTENSION.

STORM MANHOLE & INLET NOTES:

REFER TO FILE No. 25 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, EXCEPT:
A. USE CASTING AS INDICATED BELOW (UNLESS INDICATED OTHERWISE ON PLAN):
   1.) CB/INLET (CURB) – NEENAH R–3229–A W/ TYPE C GRATE
   2.) CB/INLET (NON–CURB) – NEENAH R–2501–G
   2.) CB/INLET (BIORETENTION OUTLET STRUCTURE) – HAALA CONE GRATE TOP (OR EQUAL)
B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN (OR APPROVED)
C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

REFER TO FILE No. 12 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN) , EXCEPT:
A. USE CASTING AS INDICATED BELOW:
   ALL MANHOLES – NEENAH R–1642
B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN (OR APPROVED)
C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

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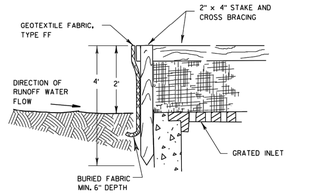
BEAR CROSSING
PROPOSED UTILITY PLAN (SOUTH)
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

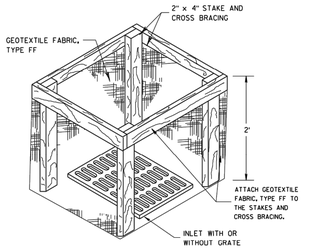
DRAWN BY: JAH/JJJ	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO. 911-001

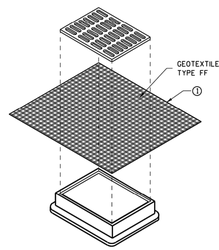
SHEET NO. C15

8E10: Inlet Protection Type A, B, C and D

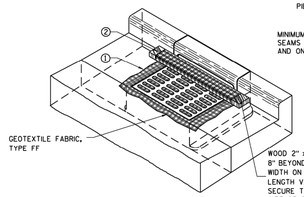




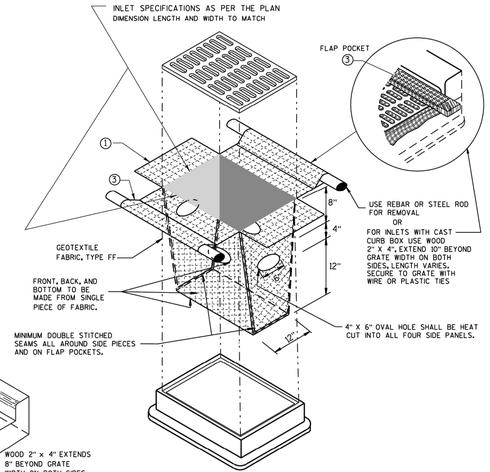
INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE B (WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

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

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

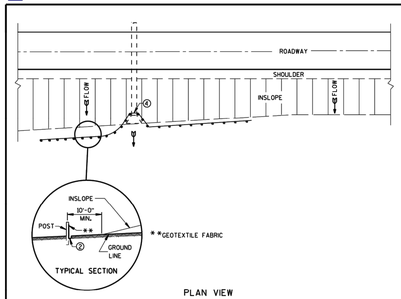
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

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

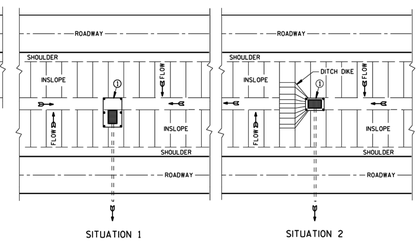
INLET PROTECTION TYPE A, B, C AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-6-02 DATE	/S/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 10-2

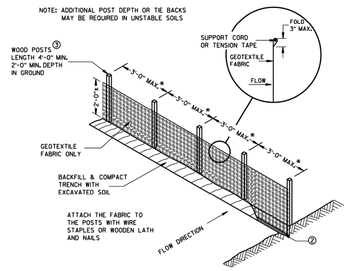
8E9: Silt Fence



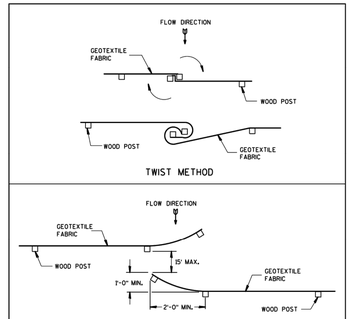
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE AT MEDIAN SURFACE DRAINS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

GENERAL NOTES

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

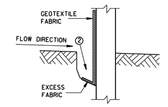
① HORIZONTAL BRACE REQUIRED WITH 2" x 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

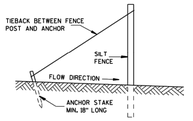
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" x 1½" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



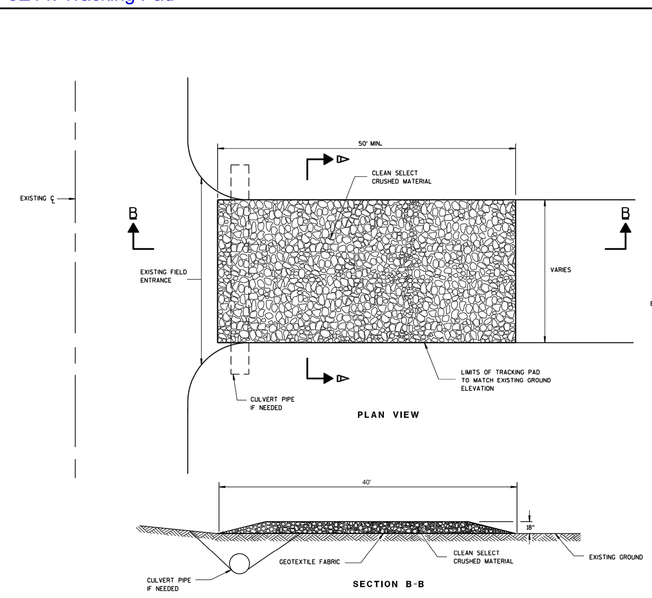
SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

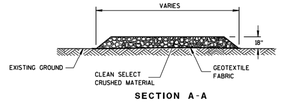
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-29-05 DATE	/S/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 9-6

SILT FENCE
NOT TO SCALE

8E14: Tracking Pad





TRACKING PAD

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3-24-201 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 14-1

TRACKING PAD
NOT TO SCALE

EROSION AND SEDIMENT CONTROL

1. CONSTRUCT AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) CHAPTERS NR 151 AND NR 216, WISCONSIN ADMINISTRATIVE CODE, AND APPROPRIATE WDNR TECHNICAL STANDARDS. EROSION AND SEDIMENT CONTROL PRODUCTS SHALL BE LISTED IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION PRODUCT ACCEPTABILITY LIST (WisDOT PAL). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF THESE STATE REQUIREMENTS, TECHNICAL STANDARDS, AND WisDOT PAL.
2. IMPLEMENT EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) PRIOR TO SOIL DISTURBING ACTIVITIES (E.G., CLEARING, GRUBBING, TOPSOIL STRIPING, EXCAVATION, MATERIAL STOCKPILING, ETC.). INSTALL EROSION CONTROL MEASURES AROUND STOCKPILE LOCATIONS.
3. MINIMIZE DISTURBED AREA BY PHASING OR SEQUENCING CONSTRUCTION AND PRESERVING EXISTING VEGETATION WHERE POSSIBLE.
4. DIVERT STORM WATER AWAY FROM DISTURBED OR EXPOSED AREAS WHEN POSSIBLE.
5. PROTECT ADJACENT PROPERTIES WITH SEDIMENT BALE BARRIERS OR SILT FENCE UNTIL CONSTRUCTION IS COMPLETE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS 1055 OR 1056, RESPECTIVELY.
6. INSTALL A GRAVEL TRACKING PAD IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1057. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEPT AND/OR SCRAPED PERIODICALLY TO REMOVE SOIL, DIRT, AND/OR DUST. ADJACENT ROADS ARE TO CLEANED IMMEDIATELY IF ANY SEDIMENT TRANSFER AND TRACKING OCCURS.
6. PROTECT INLETS, CATCH BASINS, AND OTHER CONVEYANCE STRUCTURES WITH STRAW BALES, FILTER FABRIC, OR OTHER APPROPRIATE MEASURES IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1060. TYPE D INLET PROTECTION SHALL BE USED IN STORM STRUCTURES IN THE PUBLIC RIGHT-OF-WAY, WHENEVER POSSIBLE.
7. DURING DEWATERING ACTIVITIES, UTILIZE A COMPARTMENTED CONTAINER, SETTLING BASIN, FILTER, OR OTHER APPROPRIATE BEST MANAGEMENT PRACTICE FOR TREATING SEDIMENT-LADEN WATER PRIOR TO DISCHARGE OFF-SITE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061.
8. INSPECT THE SITE REGULARLY AND PROPERLY MAINTAIN BMPS, ESPECIALLY AFTER RAINSTORMS. AT MINIMUM, INSPECTIONS OF CONSTRUCTION BMPS ARE REQUIRED AT LEAST ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS AFTER A PRECIPITATION EVENT OF 0.5 INCH OR MORE.
9. BMPS MUST BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION OR NOTIFICATION OF A PROBLEM.
10. KEEP THE CONSTRUCTION SITE CLEAN BY PUTTING TRASH IN TRASH CANS, KEEPING STORAGE BINS COVERED, AND PREVENTING OR REMOVING EXCESS SEDIMENT ON ROADS AND OTHER IMPERVIOUS SURFACES.
11. SITE RESTORATION AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF INACTIVITY.

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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING

EROSION CONTROL NOTES & DETAILS

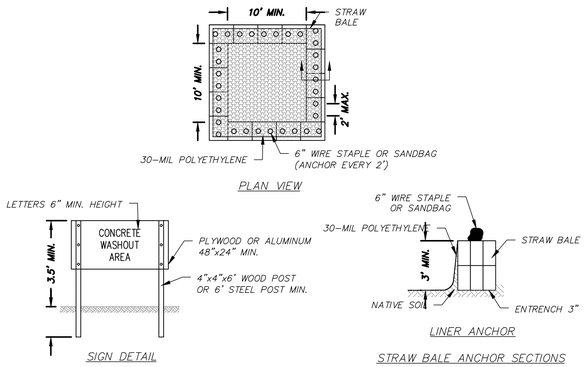
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO. 911-001

SHEET NO. C16

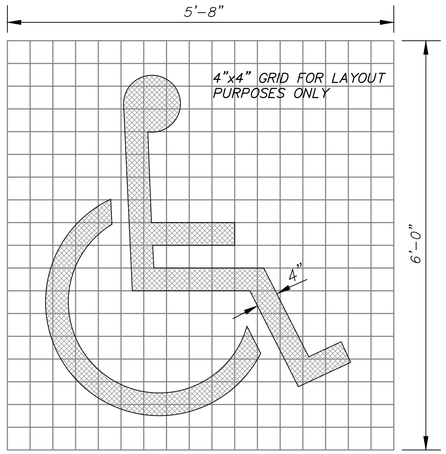
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XREFS: ..\Endpoint Border-Kiwanis Development.dwg



NOTES:
1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.
3. EACH STRAW BALE IS TO BE STAKED IN PLACE USING (2) 2"x2"x4' WOODEN STAKES.

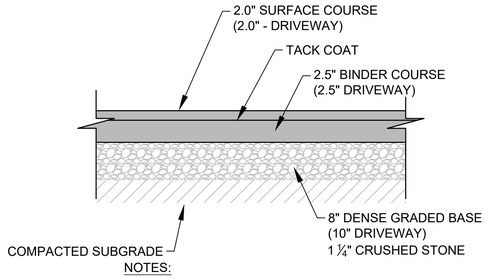
TEMPORARY CONCRETE WASHOUT FACILITY - STRAW BALE

NOT TO SCALE



PAINTED ADA SYMBOL

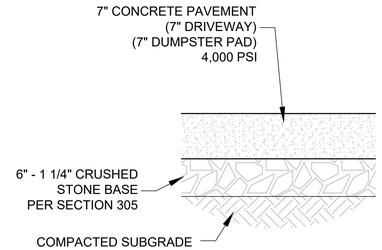
NOT TO SCALE



NOTES:
1. PAVEMENT TO BE INSTALLED PER GEOTECHNICAL REPORT.
2. ALL NON PARKING STALL AREAS TO BE DRIVEWAY SECTION.

TYPICAL ASPHALT PAVEMENT

NOT TO SCALE



NOTES:
1. PAVEMENT TO BE INSTALLED PER GEOTECHNICAL REPORTS.

TYPICAL CONCRETE PAVEMENT

NOT TO SCALE

GENERAL GRADING NOTES

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE D.O.T. STANDARD SPECIFICATIONS, LOCAL ORDINANCES AND SPECIFICATIONS, AND RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.
2. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATIONS OF ALL GRADING AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT.
3. GRADING SHALL CONSIST OF CLEARING AND GRUBBING EXISTING VEGETATION, STRIPPING TOPSOIL, REMOVAL OF EXISTING PAVEMENT OR FOUNDATIONS, IMPORTING OR EXPORTING MATERIAL TO ACHIEVE AND ON-SITE EARTHWORK BALANCE, GRADING THE PROPOSED BUILDING PADS AND PAVEMENT AREAS, SCARIFYING AND FINAL COMPACTION OF THE PAVEMENT SUBGRADE, AND PLACEMENT OF TOPSOIL.
4. THE CONTRACTOR SHALL MAINTAIN SITE DRAINAGE THROUGHOUT CONSTRUCTION.
5. THE CONTRACTOR SHALL VERIFY NO PONDING RESULTS FROM CONSTRUCTION.
6. EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AS PART OF THIS PROJECT. CONSTRUCTION ACTIVITIES MUST COMPLY WITH ALL PROVISIONS OF LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS THE SITE SPECIFIC SWPPP (IF APPLICABLE). ALL LAND DISTURBING ACTIVITIES MAY BE SUBJECT TO INSPECTION BY LOCAL AUTHORITIES AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.
7. CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE EXTENT POSSIBLE. CONTRACTOR RESPONSIBLE FOR RESTORATION OF ALL DISTURBED AREAS.
8. RUBBISH, TRASH, GARBAGE, LITTER OR OTHER SUCH MATERIALS SHALL BE DISPOSED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE SITE THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE REMOVAL OF CONSTRUCTION WASTE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
9. SILT FENCE AND OTHER EROSION CONTROL FACILITIES MUST BE INSTALLED PRIOR TO CONSTRUCTION OR ANY OTHER LAND DISTURBING ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL FACILITIES ONCE THE SITE HAS STABILIZED.
10. NO FILL SHALL BE PLACED ON A WET OR SOFT SUBGRADE. THE SUBGRADE SHALL BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE ANY MATERIAL IS PLACED.
11. ALL FILL SHALL BE CONSIDERED STRUCTURAL FILL AND SHALL BE PLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT
12. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.
13. TEMPORARY EROSION CONTROL MATTING SHALL BE PLACED ON ALL SLOPES THAT ARE STEEPER THAT 4:1.
14. ALL PROPOSED CONTOURS REPRESENT FINAL FINISHED GRADE ELEVATIONS.

GENERAL NOTES

1. THE BIDDER WILL BE SOLELY RESPONSIBLE FOR QUANTITIES AND ESTIMATE OF WORK REQUIRED AND SHALL STATE SUCH QUANTITIES IN THEIR BID.
2. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC, FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION OF THIS PROJECT.
3. SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. SOIL CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT IS AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
5. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THE WORK. THE CONTRACTOR SHALL CONDUCT THEIR WORK ACCORDING TO THE REQUIREMENTS OF THE PERMITS.
6. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE FIELD CONDITIONS WITH DRAWINGS.
7. CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES DURING CONSTRUCTION. ANY PROPERTY (PRIVATE OR PUBLIC) WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR. THE COST OF THE RESTORATION IS CONSIDERED INCIDENTAL, AND SHOULD BE INCLUDED IN THE BID PRICES.
8. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY INFORMATION SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL DIGGER'S HOTLINE TO REQUEST FIELD STAKING OF EXISTING UTILITIES AND NOTIFY THE UTILITIES OF THE PROJECT COMPONENTS.
9. CONTRACTOR SHALL ENSURE ALL MUD AND DEBRIS IS NOT DEPOSITED ONTO THE ADJACENT ROADWAYS PER THE REQUIREMENT OF THE AGENCY HAVING JURISDICTION ON THE ROADWAYS.
10. SUBMITTALS:
    - A. SHOP DRAWINGS AND/OR MANUFACTURER'S PRODUCT DATA SUBMITTALS ARE REQUIRED ONLY IF THE PRODUCT OR METHOD OF CONSTRUCTION:
        - a. IS DIFFERENT FROM THAT SPECIFIED OR
        - b. IS PART OF THE WORK THAT WILL BE DEDICATED AS A PUBLIC UTILITY OR ROADWAY AT THE END OF THE PROJECT OR
        - c. IF REQUIRED BY THE MUNICIPAL ENGINEER.
    - B. FOR UTILITY OR ROAD WORK THAT WILL BE DEDICATED TO A MUNICIPALITY, CONTRACTOR MUST MAKE SUBMITTALS TO THE MUNICIPALITY AS WELL AS ENGINEER.

PRIVATE UTILITIES

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO WISCONSIN ADMINISTRATIVE CODE, SECTION SPS 382-384, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
2. PROPOSED SANITARY SEWER, WATER MAIN, AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT A POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. STORM SEWER CONNECTING TO EXTERIOR DOWN SPOUTS SHALL BE PER DETAILS ON THE ARCHITECTURAL PLANS. THE EXACT LOCATION OF ALL DOWN SPOUTS SHALL BE PER THE ARCHITECTURAL PLANS.
3. MATERIALS FOR STORM SEWER SHALL BE AS FOLLOWS:

   STORM SEWER PIPE 30" OR LARGER SHALL BE REINFORCED CONCRETE, ASTM C-76, CLASS III OR GREATER, WITH ELASTOMERIC SEALS CONFORMING TO ASTM C-443.

   STORM SEWER PIPE 24" OR LESS SHALL BE EITHER:
   A) POLYVINYL CHLORIDE (PVC) PIPE, ASTM D-3034, SDR 35, WITH ELASTOMERIC PUSH-ON JOINTS CONFORMING TO ASTM D-3212.

   B) REINFORCED CONCRETE, ASTM C-76, CLASS III OR GREATER, WITH ELASTOMERIC SEALS CONFORMING TO ASTM C-443.

   TRENCH SECTION SHALL BE CLASS "C" FOR CONCRETE AND CLASS "B" FOR ALL OTHER MATERIALS.

   INLETS SHALL BE SOLID CONCRETE BLOCK OR PRE CAST REINFORCED CONCRETE, ASTM C-478.
6. MATERIALS FOR SANITARY SEWER SHALL BE AS FOLLOWS:

   SANITARY SEWER PIPE SHALL BE PVC, ASTM D-3034, SDR-35 WITH RUBBER GASKETED JOINTS, CONFORMING TO ASTM D-3212.

   TRENCH SECTION SHALL BE CLASS "B" BEDDING. CRUSHED STONE CHIPS SHALL BE USED FOR BEDDING MATERIAL. PREFABRICATED WYE CONNECTIONS ARE REQUIRED FOR SANITARY LATERALS
7. MATERIALS FOR WATER SERVICE SHALL BE AS FOLLOWS:

   WATER SERVICE SHALL BE CLASS 55 DUCTILE IRON (DI), ASTM A-377, WITH ELASTOMERIC JOINTS (AWWA C-111), WITH A VALVE AT THE SUPPLY MAIN OR C900 PVC PRESSURE RATED FOR WATER.

   TRENCH SECTION SHALL CONFORM TO SECTION 4.3.C, FILE NO. 38 OF THE STANDARD SPECIFICATIONS. SAND OR STONE CHIP BEDDING MATERIAL IS REQUIRED.
8. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER & WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.
9. UPON COMPLETION OF FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED-UP PRINTS SHOWING ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE OWNER.
11. TRACER WIRE SHALL BE INSTALLED ON ALL BURIED NON-METALLIC SANITARY SEWERS, PRIVATE SANITARY INTERCEPTOR MAIN SEWERS, STORM BUILDING SEWERS, AND PRIVATE STORM INTERCEPTOR MAIN SEWERS THAT DISCHARGE TO MUNICIPAL MAINS. TRACER WIRE SHALL ALSO BE INSTALLED ON ALL BURIED NON-METALLIC WATER SERVICES AND PRIVATE WATER MAINS CONNECTED TO MUNICIPAL SUPPLY SYSTEMS. TRACER WIRE SHALL BE IN ACCORDANCE WITH SPS 382.30(11)(h) AND SPS 382.36(7)(d)10.b.

PAVING

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS, AND THE GEOTECHNICAL REPORT.
2. PAVING SHALL CONSIST OF FINE GRADING PAVEMENT AREAS, INSTALLATION OF CRUSHED STONE BASE, CONCRETE AND/OR BITUMINOUS PAVEMENT, PAVEMENT MARKING, AND CLEANUP. ALL MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR.
3. AGGREGATES USED IN THE HMA SHALL BE IN ACCORDANCE WITH SUBSECTION 460.2.2.3 OF THE STANDARD SPECIFICATIONS.
4. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS: SECTION 415 FOR CONCRETE PAVEMENT AND SECTION 602 FOR CONCRETE SIDEWALKS.
5. RESTORATION OF PUBLIC SIDEWALKS SHALL BE JOINT TO JOINT.
6. PAVEMENT MARKINGS SHALL BE PAINT IN ACCORDANCE WITH SECTION 646 OF THE STANDARD SPECIFICATIONS. THE FOLLOWING ITEMS SHALL BE PAINTED WITH COLORS NOTED BELOW:

   PARKING STALLS: WHITE
   PEDESTRIAN CROSSWALKS: WHITE
   ADA SYMBOLS: WHITE OR PER LOCAL CODE

REV:	DATE:
6	
5	
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3	
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1	
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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING

GENERAL CONSTRUCTION NOTES

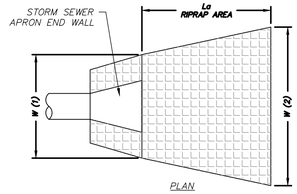
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

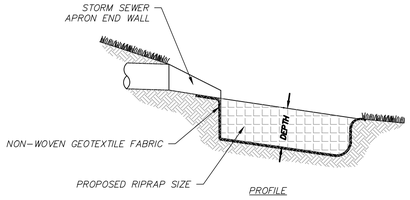
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CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C17

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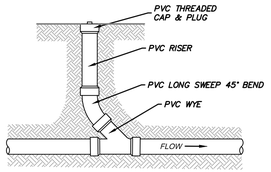




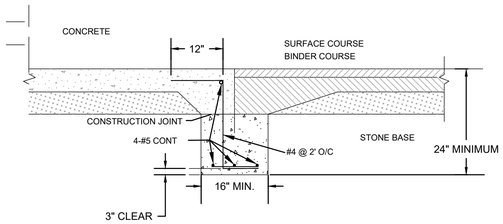
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W (2)	___	___
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DEPTH	___	___

RIPRAP DETAIL

NOTE:
1. NON-WOVEN GEOTEXTILE TO BE TYPE HR, PER SECTION 606 (STATE HIGHWAY SPECS).
2. RIPRAP PER SECTION 606 (STATE HIGHWAY SPECS)

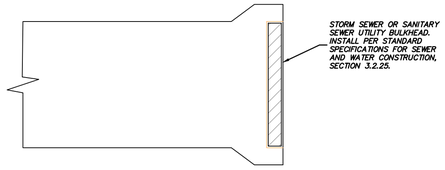


CLEAN-OUT STRUCTURE



CONCRETE/ASPHALT JOINT DETAIL

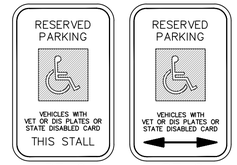
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CONNECTIONS FOR FUTURE SEWERS SHALL BE BULKHEADED IN THE FOLLOWING MANNER:

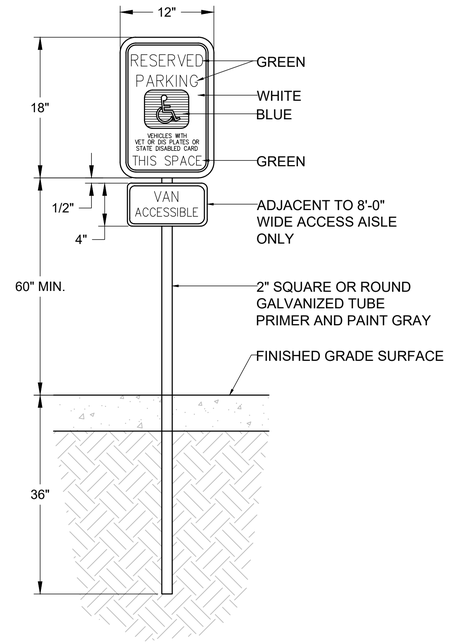
- ALL TEES, WYES, SOCKETS AND BELL AND SPIGOT PIPE SEWERS 24 INCHES OR SMALLER IN DIAMETER SHALL BE BULKHEADED WITH PRECAST MORTAR DISC STOPPERS FOR CONCRETE PIPE AND APPROVED PLUGS OR CAPS FOR PLASTIC PIPE. THE STOPPERS SHALL HAVE A THICKNESS EQUAL TO THE WALL OF THE MAIN SEWER, OR 1-1/2 INCHES, WHICHEVER IS THINNER. PLASTIC PLUGS SHALL NOT BE SOLVENT WELDED INTO ANY FITTINGS.
- CONNECTIONS 27 INCHES IN DIAMETER AND LARGER SHALL BE BULKHEADED WITH AN 8-INCH WALL, USING CLAY OR CONCRETE BRICK, OR PRE-FABRICATED REINFORCED CONCRETE.
- ALL BULKHEADS AND STOPPERS INSTALLED IN SANITARY SEWERS SHALL BE WATERTIGHT.

BULKHEAD DETAIL



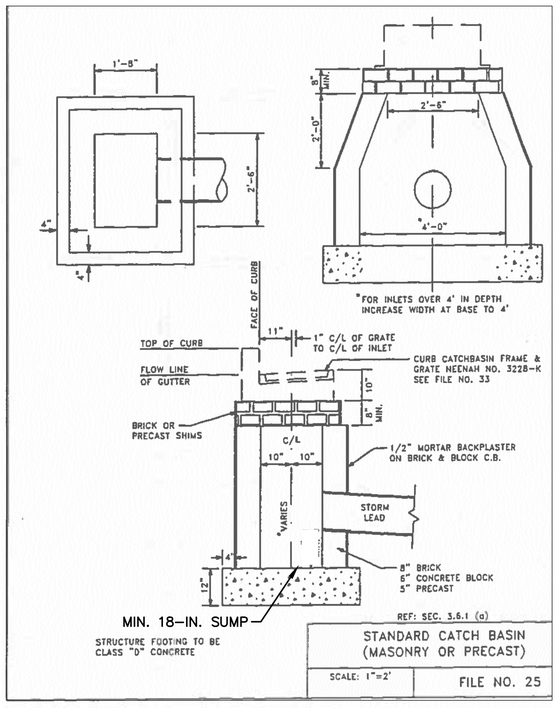
ACCESSIBLE PARKING SIGNS

NOT TO SCALE



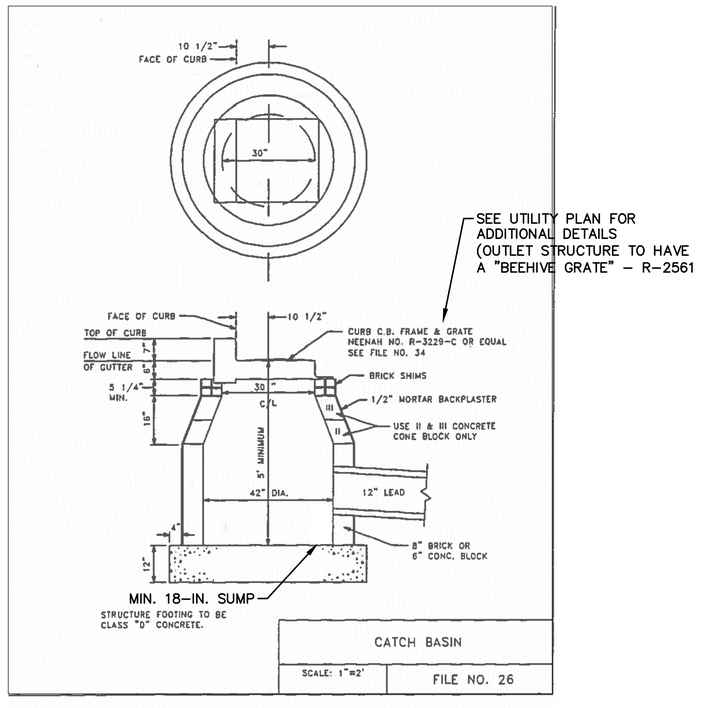
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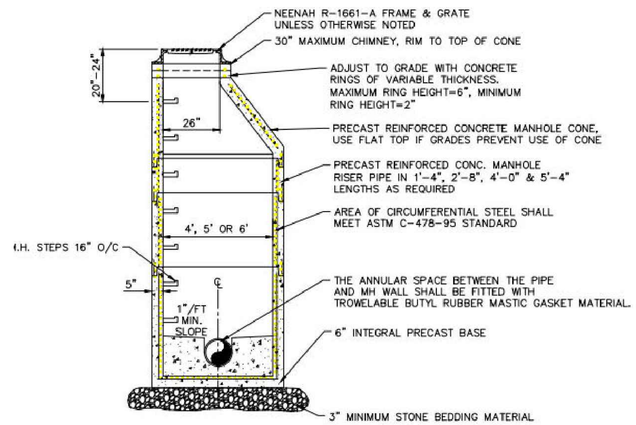
STANDARD CATCH BASIN DETAIL

NOT TO SCALE



CATCH BASIN DETAIL

NOT TO SCALE



STORM MANHOLE NOTES:

1) PRECAST CONCRETE ADJUSTING RINGS TO BE REINFORCED WITH ONE HOOP OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY, RINGS SHALL BE GROOVED TO RECEIVE STEP.

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

3) JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING RUBBER GASKETS OR BUTYL RUBBER MASTIC MATERIAL.

4) 3" MIN. BEDDING MATERIAL REQUIRED UNDER MANHOLE BASE AND BACKFILLED STRUCTURE WITH GRANULAR BACKFILL MATERIAL.

5) SEE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION, FILE NO. 12 FOR PRECAST MANHOLE AND FILE NO. 13 FOR MANHOLE INVERTS, INCLUDING INVERTS OF LATERAL SEWERS THAT CONNECT DIRECTLY TO MANHOLES.

6) REPLACE CONE WITH FLAT TOP SECTION WHEN NECESSARY DUE TO LARGER DIAMETER OF STRUCTURE/VERTICAL RESTRICTIONS.

(7-5) STORM MANHOLE
N.T.S.

STORM MANHOLE DETAIL

REV:	6	5	4	3	2	1	0
DATE:							

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6871 S. LOVERS LANE
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BEAR CROSSING

CONSTRUCTION DETAILS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

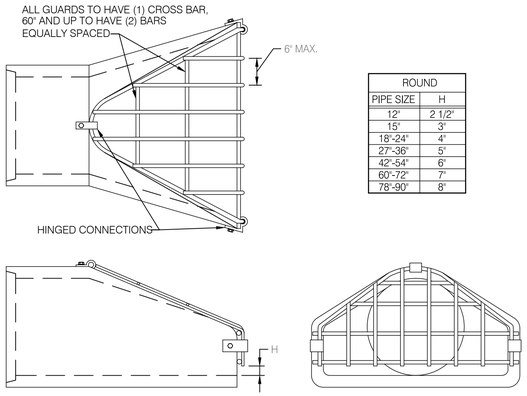
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APPROVED BY:	JAH	

PROJECT NO.
911-001

SHEET NO.
C18

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TRASH GUARDS FOR FLARED END SECTIONS



ROUND	
PIPE SIZE	H
12"	2 1/2"
15"	3"
18"-24"	4"
27"-36"	5"
42"-54"	6"
60"-72"	7"
78"-90"	8"

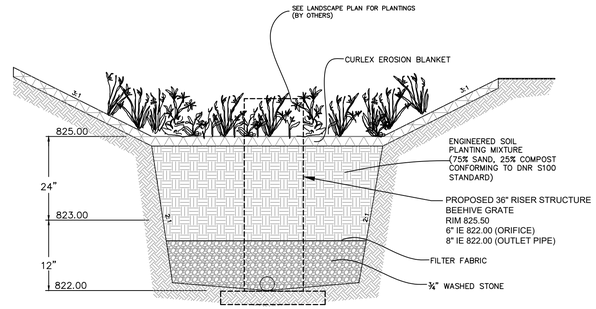
BAR SIZES							
STANDARD DESIGN				HEAVY DESIGN			
PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE	PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE
12"-24"	3/4"	5/8"	5/8"	12"-18"	3/4"	5/8"	3/4"
27"-48"	7/8"	3/4"	3/4"	21"-42"	7/8"	3/4"	1"
54"-90"	1 1/8"	1"	1"	48"-90"	1 1/8"	1"	1 1/4"
BOLT LENGTH = PIPE WALL THICKNESS + 2 1/2"							

Note:
Hot dip galvanized per ASTM A153.

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TRASH GUARDS FOR FLARED END SECTIONS			
SCALE NOT TO SCALE	DATE	DWG. NO.	RCP TRASH

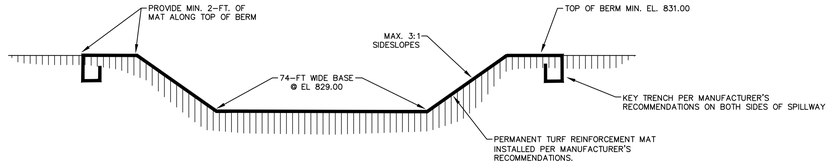
TRASH GUARD DETAIL



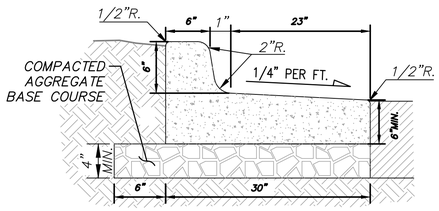
NOTES:
1. CONSTRUCT IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS.
2. IF USING SUPPLIER PROVIDED SOIL MIX, PRIOR TO CONSTRUCTION CONTRACTOR SHALL SUBMIT TO ENGINEER SUPPLIER CERTIFICATION THAT THE SOIL MIXTURE & COMPOST USED IN BIOSWALE MEET S100 AND 1004 REQUIREMENTS.
3. FOLLOWING SITE STABILIZATION, IF THERE ARE ANY CLOGGED/PONDING AREAS WITHIN THE BIORETENTION BASIN, THOSE AREAS SHALL HAVE THE TOP 1 FOOT OF MATERIAL REMOVED AND REPLACED WITH NEW ENGINEERED SOIL AND MULCH.
4. ALL PRACTICAL MEASURES TO PREVENT COMPACTION IN BIORETENTION AREA SHALL BE TAKEN. HEAVY MACHINERY SHOULD NOT BE OPERATED WITHIN THE BIORETENTION BASIN LIMITS. THE USE OF SPECIALIZED EQUIPMENT TO AVOID UNNECESSARY COMPACTION MAY BE NECESSARY.

BIORETENTION BASIN DETAIL

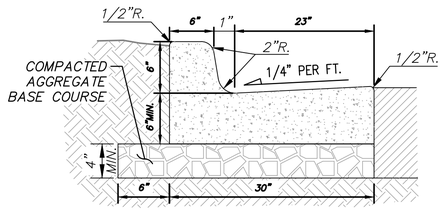
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EMERGENCY SPILLWAY DETAIL



HIGH-SIDE CURB



LOW-SIDE CURB

NOTES:
A) 3500 PSI CONCRETE SHALL BE USED IN CONSTRUCTION OF THE CURB & GUTTER.
B) THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE SLOPE OF THE GUTTER PAN.
C) FOR DEPRESSED CURB HEAD SLOPE, USE THE SAME SLOPE AS ADJACENT SIDEWALK.
D) THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDE MINIMUM 6" GUTTER THICKNESS MAINTAINED. TRANSVERSE CONTRACTION JOINTS SHALL BE CUT OR SAWED AT MAXIMUM 20 FOOT INTERVALS.
E) 1/2" PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED TRANSVERSELY IN THE CURB ABUTTING EXISTING CURB AND SIDEWALK, WALLS OR BUILDINGS, AND AT INTERVALS NOT TO EXCEED 300 FEET, WITH PREFERRED LOCATIONS BEING AT RADIUS POINTS OR ANGLE POINTS.

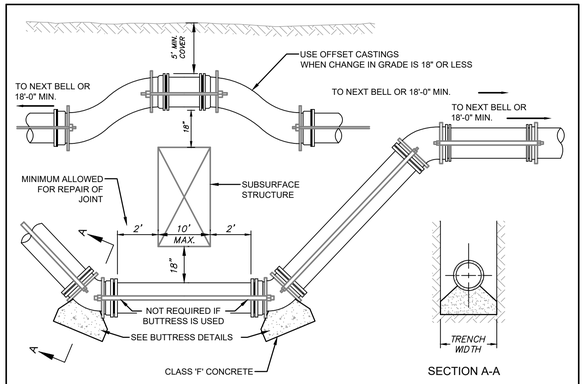
30" CONCRETE CURB & GUTTER DETAIL

(NOT TO SCALE)

NOTES:
1. CONSTRUCT IN ACCORDANCE WITH WISDOT STANDARD SPECIFICATIONS.
4. CONCRETE SHALL BE GRADE A AIR ENTRAINED IN ACCORDANCE WITH WISDOT SECTION 501.
5. FINISH, CURE, AND PROTECT CURBING IN ACCORDANCE WITH WISDOT SECTION 601.
6. FINISHED CONCRETE SHALL BE COVERED WITH A LIQUID CURING COMPOUND CONFORMING TO AASHTO M 148, TYPE 2, IN ACCORDANCE WITH WISDOT SECTION 415.
7. AGGREGATE BASE COURSE SHALL BE IN ACCORDANCE WITH WISDOT SECTION 305.

Late Season Stabilization Requirements for Sites >1 Acre

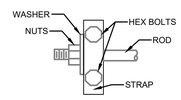
1. Vegetated Channels (roadside swales and other stormwater conveyances): All planned vegetated channels shall be stabilized with BMPs (erosion control matting, sod, etc.) by no later than November 15 in accordance with DNR technical standards and the criteria listed below. Ditch checks, sediment traps and other sediment control BMPs are only for use *during* channel grading work, and must be replaced with final site stabilization BMPs per the approved plans ASAP. None of these are suitable for controlling erosion/sedimentation of open channels over winter.
2. Timing Determines Requirements and BMPs: The stabilization BMPs that must be implemented depend on the timing of the seeding (cool season grasses), and are organized in three risk categories, as listed below. The later the timing, the lower the success rates are for timely vegetative cover - and therefore the higher the risks of erosion and off-site sediment discharges.
   a. **Risk Level 1: Permanent Vegetation (before September 15):** To ensure successful fall seed germination, topsoil, seed and fertilize all disturbed areas by September 15 in accordance with the following:
      i. *Seeding.* Prepare seedbed and sow seeds per the rates and mixes of Wisconsin Department of Transportation (WisDOT) Roadway Standard Section 630.
      i. *Erosion Control:* Immediately apply mulch, erosion control matting, or other permanent stabilization BMPs as specified in the approved erosion control plans. Application of all erosion control measures shall follow DNR technical standards.
      ii. *Maintenance:* Inspect all seeded areas weekly. Ensure adequate water is provided until full vegetative cover is obtained, and repair any erosion problems, wash outs, etc.
   b. **Risk Level 2: Temporary Vegetation (before October 15):** Due to the cooler soil temperatures and the likelihood of overnight frost conditions, perennial cool season plant growth is slow and survival is at risk from September 15 – October 15. To offer more protection from soil erosion during this period, topsoil, seed and fertilize all disturbed areas by October 15 in accordance with the following:
      i. Seeding: The above noted seeding mix must include a minimum of 2 lbs. per 1,000 sq. ft. of a temporary cover (i.e. winter wheat or annual rye grass for fall plantings) per Section 630.
      ii. *Erosion Control:* Immediately apply mulch, erosion control matting, or other stabilization BMPs as specified in the approved plan, following DNR technical standards. The following are minimum requirements for stabilizing sites during this period. Approved plans may be more restrictive due to site conditions:
         1. *Channel Flow (roadside swales, etc.) and Backslopes:* Stake erosion matting over all the entire channel cross-section and all backslopes using a minimum WisDOT Erosion Control Product Acceptability (PAL) Class 3 Type A matting, unless otherwise called for in the approved plan.
         2. *Other disturbed areas:* Apply Type B Soil Stabilizer, mulch and tackifier from the PAL to all disturbed areas that remain exposed.
         3. *Infalls/Outfalls:* Install sod pads (2 rolls) at all culvert outfalls, and other high-erosion locations in accordance with County standards.
      iii. *Maintenance:* Inspect all seeded areas weekly. Ensure adequate water is provided until full temporary cover is obtained, and repair any erosion problems, wash outs, etc.
   c. **Risk Level 3:** Dormant Seeding (before November 15): For areas not stabilized by October 15, erosion risks are high and additional erosion control measures and oversight are required, as described below. Temporary seeding must still be done, but fall germination and survival may be very limited. For perennial plants, dormant seeding should be done between October 20 and November 15. This means seed germination is planned for the following spring. To offer more protection from soil erosion during this period, topsoil, seed and fertilize all disturbed areas by November 15 in accordance with the following:
      i. *Seeding Rate:* Same seed mix as Risk Level 2 (including temporary cover crop) except the rates for perennial species must applied at 1.5 x WisDOT section 630 rates (apply rates of 3-5 lbs./1000 sq.ft.). Rates are increased to allow for poor germination rates associated with dormant seeding due to frozen conditions.
      ii. *Erosion Control:* In addition to applying topsoil, the above noted seed mix and starter fertilizer, the following are minimum requirements for stabilizing sites during this period. Approved erosion control plans may be more restrictive:
         1. *Channel Flow (roadside swales, etc.) and Backslopes:* Apply Type A soil stabilizer and staked PAL Class 3 Type A erosion matting over the entire channel and all backslopes.
         2. *Other Areas:* Apply Type A Soil Stabilizer from the PAL to all other disturbed areas that remain exposed.
         3. *Infalls/Outfalls:* Install sod pads (2 rolls) at all culvert outfalls, and other high-erosion locations in accordance with County standards.
      iii. *Maintenance:* Inspect all seeded areas weekly. Ensure adequate water is provided until full temporary cover is obtained, and repair any erosion problems, wash outs, etc.
      iv. *Reports:* The Project Engineer shall be responsible for emailing a report to the LRD by 4:30 pm every Wednesday after October 15, which shall include the following information:
         1. Detailed status of all land disturbing and stabilization activities as of the day of the report.
         2. Results of erosion control site inspections since October 15 or the previous report, whichever is shorter.
         3. Any erosion control failures encountered and actions taken to rectify.
         4. Projections for completion of all stabilization activities, including a 10-day plan based on the latest weather predictions.



RODS AND WASHERS TO BE A.S.T.M. A-575 MERCHANT QUALITY .17-.24 CARBON. NUTS TO BE AM. STD. HEAVY HOT PRESSED. TIE RODS, BOLTS, NUTS, BANDS, AND WASHERS TO BE FURNISHED AND APPLIED BY CONTRACTOR. ALL STEEL MATERIAL TO BE THOROUGHLY COATED WITH BITUMASTIC EQUAL TO KOPPERS NO. 505

NOTE:
PIPE AND FITTINGS TO BE WRAPPED WITH POLYETHYLENE BEFORE PLACEMENT OF STRAPPING AND BUTTRESSES.

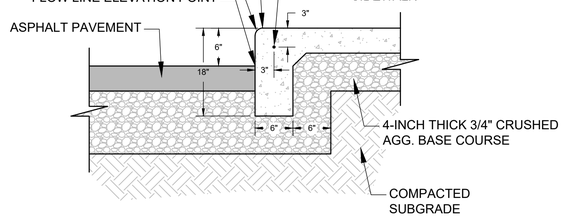
STRAPPING MATERIAL						
PIPE SIZE	D CLAMP ID	RODS NO.	RODS DIA.	STRAP	BOLT DIA.	WASHER
6	7.10	2	3/4	1/2 X 2	3/4	1/2 X 3 X 5
8	9.30	2	3/4	1/2 X 2	3/4	1/2 X 3 X 5
12	13.50	2	3/4	1/2 X 2 1/2	1	1/2 X 3 X 5
16	17.80	4	3/4	1/2 X 3	1	1/2 X 3 X 5



NOTE:
DETAIL FOR USE WITH PUBLIC FACILITIES PROJECTS WITHIN PUBLIC ROW.

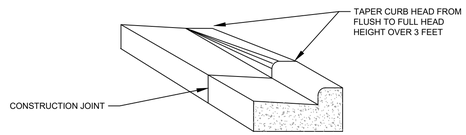
REF: SEC. 4.10.18 CHAP. 4.9.0

STRAPPING WATER MAIN OFFSETS 6" THRU 16"	
NOT TO SCALE MARCH 1980	FILE NO. 47



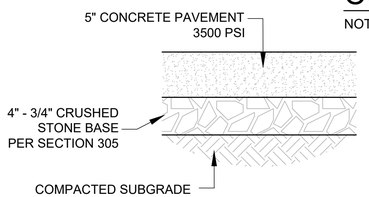
CONCRETE WALK WITH THICKENED EDGE

NOT TO SCALE



CURB & GUTTER TAPER

NOT TO SCALE



CONCRETE SIDEWALK DETAIL

NOT TO SCALE

REV:	DATE:
6	
5	
4	
3	
2	
1	
0	

Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING
CONSTRUCTION DETAILS
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JJJ	DATE:
CHECKED BY: JJJ	06/09/2026
APPROVED BY: JAH	

PROJECT NO.
911-001

SHEET NO.
C19

P:\Mikko Erkamma - 911\001 - Kiwanis Site\CAD\SHT C19_911-001-001 Construction Details.dwg Layout1
IMAGES: ..\..\Campbell Const - 560\004 - Culvers East Troy\CAD\0a0a5283a6af4a469ef54d75b0c716ee.tif, T:\Template Forms\CADD\Logos\Endpoint\Endpoint Solutions Hi-Res.jpg;
XREFS: ..\Endpoint Border-Kiwanis Development.dwg

Stormwater Management Plan for

Bear Crossing

Mukwonago, Wisconsin

Project No. 911-001



June 10, 2026

Stormwater Management Plan for

Bear Crossing
Highway 83 and Highway NN
Mukwonago, Wisconsin

Prepared by

Endpoint Solutions
6871 South Lovers Lane
Franklin, Wisconsin 53132

Prepared for

Mikko Erkamaa
142 E. Capitol Drive, Suite 200
Hartland, WI 53029

EXECUTIVE SUMMARY

The intent of this document is to present the results of the stormwater management plan for the proposed development at the northwest corner of Highway 83 and Highway NN in the Village of Mukwonago, Waukesha County, WI.

The results of this report provide the water quantity, water quality and infiltration calculations required by the Village of Mukwonago and the State of Wisconsin.

- See Table 1 for water quantity summary
- See Table 2 for water quality summary
- See Table 2 for water infiltration summary

Table 1 – Water Quantity

Storm Event	Existing	Required	Proposed
1-yr	0.01	0.01	0.00
2-yr	0.02	0.02	0.00
10-yr	0.07	0.02	0.00
100-yr	0.24	0.07	0.00

Table 2 – Proposed SLAMM Output

	Total Suspended Solids	Percent Reduction
Proposed Site w/o Controls	**3,855 lbs.**	
Proposed Site with Controls	**0 lbs.**	**100.00%**

	Total Phosphorus	Percent Reduction
Proposed Site w/o Controls	**6.548 lbs.**	
Proposed Site with Controls	**0 lbs.**	**100.00%**

Table 3 – Infiltration Results

	Stay-On Depth
Pre-Developed	15.91 in.
75% of Pre-Developed	**11.93 in.**
Post-Developed	**29.02 in.**

INTRODUCTION

Endpoint Solutions has been retained by Mikko Erkamaa to prepare a stormwater management plan for the proposed development at the northwest corner of Highway 83 and Highway NN in the Village of Mukwonago, Waukesha County, Wisconsin.

Stormwater management for this site is regulated by the Village of Mukwonago and the Wisconsin Department of Natural Resources (WDNR) NR 151, Wisconsin Administrative Code. The analysis presented in this report addresses water quality, water quantity and infiltration.

METHOD OF ANALYSIS

Hydrologic analysis included in this report was performed using the HydroCAD hydrologic simulation computer model, version 10.20 by HydroCAD Software Solutions LLC. The discharges were generated using the SCS Dimensionless Unit Hydrograph Method for a 24-hour duration storm. Model parameters include drainage area, SCS runoff curve number, time of concentration and 24-hour precipitation with an MSE Type III distribution.

The runoff curve number is determined by the soils, vegetation cover and impervious cover to estimate runoff in the SCS Method. Higher curve numbers mean more potential runoff. Composite curve numbers were determined from the existing and proposed land cover types.

The time of concentration is the time required for water to flow from the most remote part of the drainage area to the point of discharge. The water moves through the watershed or subbasin as sheet flow, shallow concentrated flow, open channel flow or any combination of these aforementioned items.

Table 4 – Design Storm Events

Frequency (years)	Duration (hours)	Rainfall Depth (inches)
1	24	2.40
2	24	2.70
10	24	3.81
100	24	6.18

EXISTING SITE CONDITIONS

The existing property is approximately 8.2 acres and is almost entirely undeveloped greenspace, with the exception of one existing garage building and an access drive. Site grades are generally flat to moderate, with average slopes ranging from approximately 1 to 7 percent.

NRCS soil mapping indicates the site consists primarily of Miami Loam and Casco Loam soils, both classified as Hydrologic Soil Group B soils (see Appendix A). The property is

divided into two existing watersheds (see Appendix F), both of which drain southward via overland flow into two existing low-lying depressional areas that function as natural stormwater kettles. Existing conditions were modeled assuming "good hydrologic conditions," and the maximum runoff curve number (RCN) for "Grassland" was used in accordance with Village of Mukwonago Code Section 34-111. Modeling of the existing kettles as stormwater management devices demonstrates that runoff from storm events up to and including the 100-year storm event remains on-site and does not discharge off the property.

In addition to runoff generated from the subject property, there is also a considerable amount of off-site drainage from adjacent upstream properties that historically flows onto and through the site. This off-site drainage was incorporated into the hydrologic and hydraulic modeling and treated as pass-through flow within the proposed stormwater management design. Because the existing site does not currently discharge runoff off-site, accounting for the additional off-site tributary drainage within the proposed stormwater management system created a unique design challenge and increased the required stormwater storage volume beyond what would otherwise be necessary for the proposed development alone. Nevertheless, the proposed stormwater management facilities were ultimately designed to successfully accommodate both on-site and off-site tributary drainage while maintaining compliance with applicable stormwater management requirements.

Design storms utilized in the existing hydrology model include the 1-year, 2-year, 10-year, and 100-year, 24-hour storm events. See Table 5 for a summary of existing hydrology results. A complete summary of the modeling output is included in Appendix B of this report.

Table 5 – Existing Hydrology Summary

Watershed ID	Area (acres)	Composite RCN	Tc (minutes)	Peak Discharge (cfs)			
				1-year	2-year	10-year	100-year
E-1	5.529	62	7.0	0.82	1.68	6.47	20.79
O-1	1.970	74	6.0	2.40	2.89	5.15	10.91
O-2	0.592	61	6.0	0.06	0.15	0.67	2.24
O-3	0.078	65	6.0	0.03	0.05	0.12	0.34
Existing Kettle (West)	8.169	---	---	0.00	0.00	0.00	0.00
E-2	2.586	65	6.0	1.04	1.53	4.02	11.08
O-4	0.249	61	6.0	0.03	0.06	0.28	0.94
Existing Kettle (East)	2.835	---	---	0.00	0.00	0.00	0.00
E-3	0.064	61	6.0	0.01	0.02	0.07	0.24
E-TOTAL	11.068	---	---	0.01	0.02	0.07	0.24

PROPOSED SITE CONDITIONS

Runoff generated by the developed site is divided into one proposed watershed (P-1) with the ultimate full build-out of the development (see Proposed Hydrology Exhibit in Appendix F). The entirety of the proposed site drains to the proposed regional stormwater management facilities located at the southeast corner of the property. The proposed stormwater management system has been designed to accommodate ultimate full build-out conditions for all future lots within the development so that as individual lots come online, the associated impervious surfaces and runoff are already accounted for within the regional stormwater management facilities.

For hydrologic modeling purposes, Watershed P-1 was modeled assuming 75% impervious coverage, which represents the maximum allowable impervious area permitted under the B-2 Zoning District in accordance with Code Section 100-152. In addition to runoff generated from the proposed development, as indicated above, a considerable amount of existing off-site drainage from adjacent upstream properties was also incorporated into the proposed stormwater management analysis and accounted for within the regional stormwater facilities.

The proposed storm sewer system and drainage swales were designed to safely convey the 100-year storm event, even though conveyance of the 10-year storm event is the minimum requirement of the applicable municipal code. This higher level of design was incorporated to ensure the proposed regional stormwater management facilities function properly during larger storm events and to provide adequate system capacity under ultimate full build-out conditions.

WATER QUANTITY AND QUALITY DESIGN

Water quantity requirements are regulated by the Wisconsin Department of Natural Resources (WDNR) under NR 151 of the Wisconsin Administrative Code, as well as by the Village of Mukwonago. Per Village of Mukwonago requirements, the proposed development is classified as a “new development,” which requires the post-development 100-year peak discharge rate to be reduced to the existing 10-year peak discharge rate, the post-development 10-year peak discharge rate to be reduced to the existing 2-year peak discharge rate, the post-development 2-year peak discharge rate to not exceed the existing 2-year peak discharge rate, and the post-development 1-year peak discharge rate to not exceed the existing 1-year peak discharge rate. The WDNR requirements are less stringent than the Village standards; therefore, this report focuses primarily on compliance with the Village of Mukwonago stormwater management requirements.

See Table 6 for the proposed watersheds and resulting peak discharges which occur prior to detention.

Table 6 – Proposed Hydrology Summary (before detention)

Watershed ID	Area (acres)	Composite RCN	Tc (minutes)	Peak Discharge (cfs)			
				1-year	2-year	10-year	100-year
P-1	8.179	89	6.0	20.93	23.92	35.65	62.16
O-1	1.970	74	6.0	2.40	2.89	5.15	10.91
O-2	0.592	61	6.0	0.06	0.15	0.67	2.24
O-3	0.078	65	6.0	0.03	0.05	0.12	0.34
O-4*	0.182	61	6.0	0.02	0.05	0.21	0.69
O-4**	0.067	61	6.0	0.01	0.02	0.08	0.25
P-TOTAL	11.068	---	---	23.42	27.03	41.84	76.55

An interconnected stormwater management system consisting of a bioretention basin and an infiltration basin was utilized to provide the required water quantity control, water quality treatment, and infiltration. The upstream bioretention basin provides the primary water quality treatment through filtration, storage, and infiltration prior to discharging to the downstream infiltration basin. The bioretention basin includes a riser outlet structure with an outlet rim elevation set 6 inches above the basin bottom to promote infiltration and extended detention prior to discharge. The outlet structure conveys runoff to the downstream infiltration basin for additional storage and infiltration capacity.

For larger storm events, the bioretention basin includes an emergency overflow spillway set at Elevation 829.0 that discharges directly into the downstream infiltration basin once the storage capacity of the bioretention basin is exceeded. The downstream infiltration basin provides additional infiltration and stormwater storage and includes an emergency riser structure with an outlet pipe connection to the back of an existing inlet structure within Highway NN. However, modeling demonstrates that runoff from storm events up to and including the 100-year storm event remains fully contained on-site and does not discharge to the public storm sewer system. The outlet connection to Highway NN only becomes active during storm events exceeding the 100-year design storm.

Although stormwater management systems are not typically required to be designed for events greater than the 100-year storm, the proposed design incorporates additional overflow protection measures as good engineering practice. Specifically, the emergency overflow route along the east side of the infiltration basin will be stabilized with a turf reinforcement mat (TRM) to prevent erosion and protect against potential embankment failure during extreme storm events exceeding the design capacity of the system.

See Tables 7, 8, and 9 for proposed peak discharge rates and routed water surface elevations following detention.

Table 7 – Bioretention Basin

Detention	Storm Event	Discharge (cfs)	Maximum Elevation	Storage (cu. ft.)
Bioretention (Top EL: 831.00) (Spillway EL: 829.00) (Base EL: 825.00) (Invert EL: 822.00)	1-yr	18.95	826.24	9,199
	2-yr	19.39	826.45	10,273
	10-yr	22.62	827.51	16,691
	100-yr	63.23	829.34	31,125

Table 8 – Infiltration Basin

Detention	Storm Event	Discharge (cfs)	Maximum Elevation	Storage (cu. ft.)
Infiltration (Top EL:831.00) (Spillway EL: 831.00) (Base EL: 822.00)	1-yr	0.00	825.07	23,554
	2-yr	0.00	825.56	28,257
	10-yr	0.00	827.34	47,852
	100-yr	0.00	830.92	99,646

Table 9 – Discharge Rates Summary (after detention)

TOTAL SITE

Storm Event	Existing	Required	Proposed
1-yr	0.01	0.01	0.00
2-yr	0.02	0.02	0.00
10-yr	0.07	0.02	0.00
100-yr	0.24	0.07	0.00

Water quality requirements are regulated by WDNR NR 151 of the Wisconsin Administrative Code, as well as the Village of Mukwonago Municipal Code. The Village of Mukwonago requires that best management practices (BMPs) for new developments be designed to achieve an 80% reduction in total suspended solids (TSS), based on average annual rainfall conditions, as compared to no runoff management controls.

Phosphorus reduction calculations are also included in the summary below. While the Village of Mukwonago Municipal Code does not establish a specific phosphorus reduction performance standard for this development, phosphorus loading information is required to be documented as part of this stormwater management report.

An analysis using the approved WINSLAMM model to verify TSS and Total Phosphorus removal rates has been conducted. The model utilized the bioretention basin and infiltration basin to provide all of the treatment. For detailed calculations, see Appendix C.

Table 10 below summarizes the SLAMM output data.

Table 10 – Proposed SLAMM Output

	Total Suspended Solids	Percent Reduction
Proposed Site w/o Controls	**3,855 lbs.**	
Proposed Site with Controls	**0 lbs.**	**100.00%**

	Total Phosphorus	Percent Reduction
Proposed Site w/o Controls	**6.548 lbs.**	
Proposed Site with Controls	**0 lbs.**	**100.00%**

INFILTRATION REQUIREMENTS

This site is required to infiltrate sufficient runoff volume so that the post-development infiltration volume is at least 75% of the pre-development infiltration volume (or depth), based on an average annual rainfall, and provided no more than 2 percent of the post-construction site is the effective infiltration area. The bioretention basin and infiltration basin are being proposed in areas that utilizes an acceptable rate of infiltration, based on the results of the soil borings performed by Geotest.

The bioretention Basin and infiltration basin are located within Borings 7 & 10 (see Appendix E) that contained soils that were classified as Silty Sand according to the USDA classification system. Based on Table 2 of DNR Technical Standard 1002, Silty Sand infiltration rate of 3.60 in/hr was used for the bioretention basin and infiltration design.

Varying degrees of soil corrections may be necessary during bioretention basin and infiltration basin construction. Based on the results of the soil borings performed, over-exaction of topsoil and sand with silt (and possibly other unsuitable materials) may be necessary. In order to permit infiltration into the underlying soils, the topsoil and all unsuitable materials should be removed and replaced with soil having less or equal to least 20% fines and a minimum infiltration rate of 3.60 in/hr for both the bioretention basin and infiltration basin after being placed and compacted.

Below is a brief list of variables needed to calculate pre-developed and post-developed infiltration depths on an average annual basis. See Appendix D for supporting calculations.

Pre-Developed Stay-On Depth (Ave. Annual Basis on 11.068 Ac.) = 15.91 inches
75% of Pre-Developed Stay-On Depth = 15.91 x 75% = **11.93 inches**

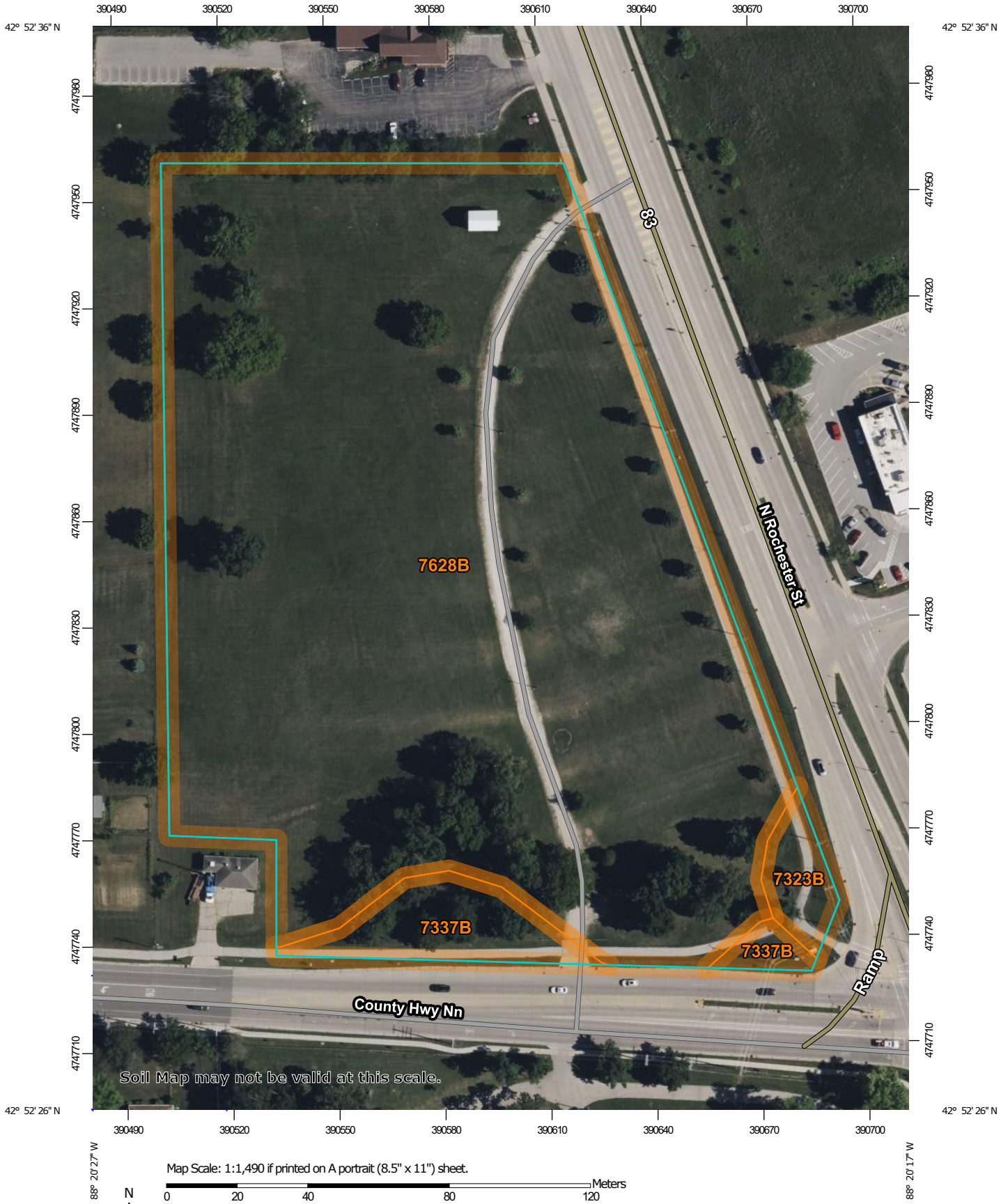
Post-Developed Stay-On Depth (Ave. Annual Basis on 11.068 Ac.) = **29.02 inches**

The post-developed stay-on depth of 29.02 inches far exceeds the required 75% target stay-on depth of 11.93 inches.

APPENDICES

Appendix A – NRCS Soil Map
Appendix B – Storm Water Quantity Calculations - HydroCAD
Appendix C – Storm Water Quality Calculations – WinSLAMM
Appendix D – Infiltration Stay-On Results - WinSLAMM
Appendix E – Geotechnical Report
Appendix F – Hydrology Exhibit
Appendix G – Civil Plans

Appendix A – NRCS Soil Map



Map Scale: 1:1,490 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

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

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Waukesha County, Wisconsin
Survey Area Data: Version 4, Sep 10, 2025

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

Date(s) aerial images were photographed: Jul 30, 2022—Aug 18, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7323B	Casco loam, 2 to 6 percent slopes	0.1	1.8%
7337B	Fox loam, 2 to 6 percent slopes	0.4	4.7%
7628B	Miami loam, sandy loam substratum, 2 to 6 percent slopes	7.8	93.5%
Totals for Area of Interest		**8.4**	**100.0%**

Hydrologic Soil Group and Surface Runoff

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

Report—Hydrologic Soil Group and Surface Runoff

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff–Waukesha County, Wisconsin			
Map symbol and soil name	**Pct. of map unit**	**Surface Runoff**	**Hydrologic Soil Group**
7323B—Casco loam, 2 to 6 percent slopes			
Casco	85	Low	B

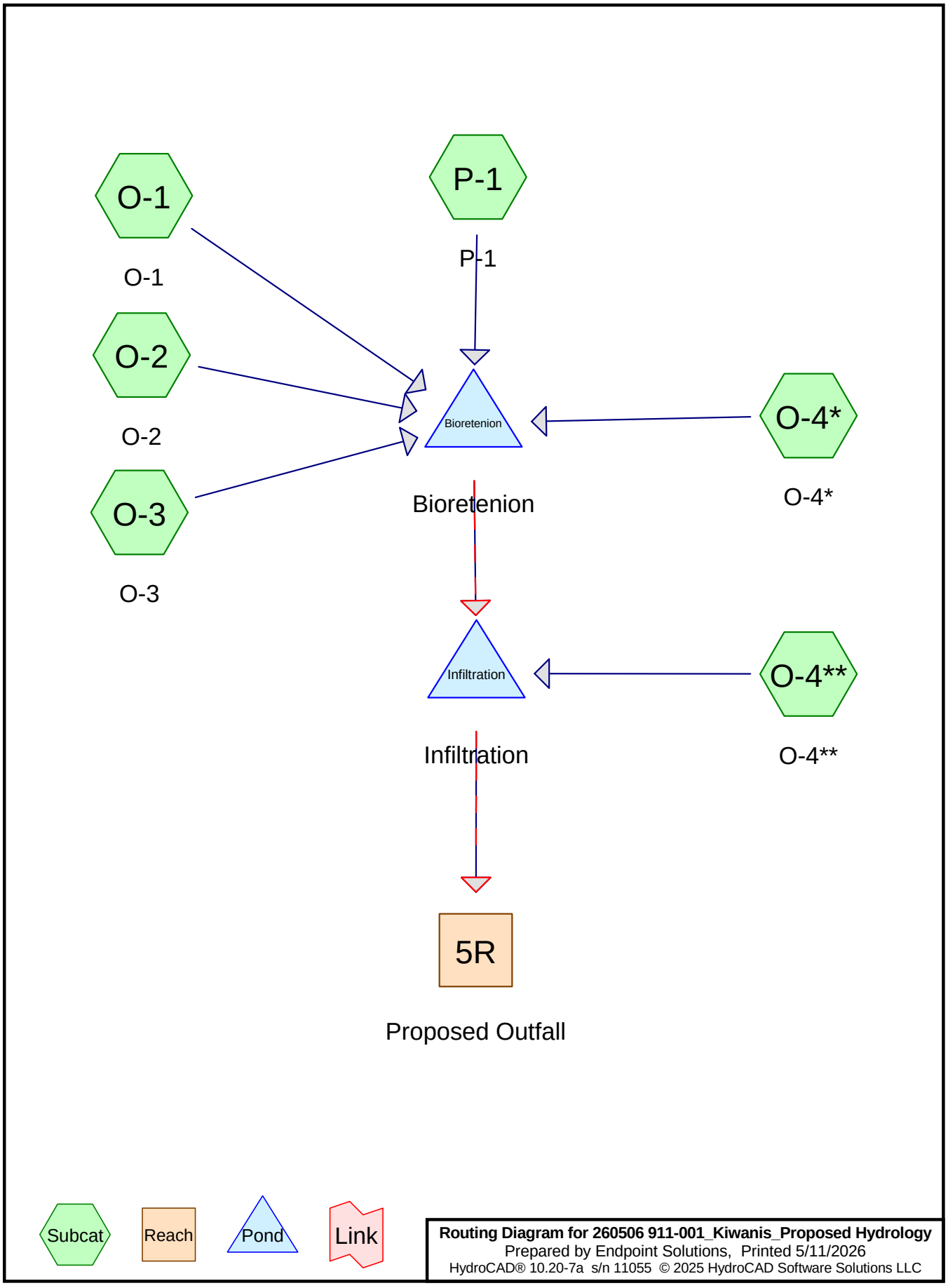
Hydrologic Soil Group and Surface Runoff–Waukesha County, Wisconsin			
Map symbol and soil name	**Pct. of map unit**	**Surface Runoff**	**Hydrologic Soil Group**
7337B—Fox loam, 2 to 6 percent slopes			
Fox	93	Low	C
7628B—Miami loam, sandy loam substratum, 2 to 6 percent slopes			
Miami	100	—	B

Data Source Information

Soil Survey Area: Waukesha County, Wisconsin
Survey Area Data: Version 4, Sep 10, 2025

Appendix B -

Storm Water Quantity Calculations - HydroCAD


O-1
P-1
O-1
P-1
O-2
Bioretenion
O-4*
O-2
Bioretenion
O-4*
O-3
O-3
Infiltration
O-4**
Infiltration
O-4**
5R
Proposed Outfall
Subcat
Reach
Pond
Link
Routing Diagram for 260506 911-001_Kiwanis_Proposed Hydrology
Prepared by Endpoint Solutions, Printed 5/11/2026
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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment O-1: O-1 Runoff Area=85,801 sf 34.71% Impervious Runoff Depth=0.86"
Flow Length=308' Tc=6.0 min CN=WQ Runoff=2.40 cfs 0.142 af

Subcatchment O-2: O-2 Runoff Area=25,778 sf 0.00% Impervious Runoff Depth=0.17"
Flow Length=224' Tc=6.0 min CN=61 Runoff=0.06 cfs 0.008 af

Subcatchment O-3: O-3 Runoff Area=3,411 sf 10.67% Impervious Runoff Depth=0.38"
Flow Length=45' Slope=0.0290 '/' Tc=6.0 min CN=WQ Runoff=0.03 cfs 0.002 af

Subcatchment O-4*: O-4* Runoff Area=7,908 sf 0.00% Impervious Runoff Depth=0.17"
Flow Length=30' Slope=0.0730 '/' Tc=6.0 min CN=61 Runoff=0.02 cfs 0.003 af

Subcatchment O-4: O-4**** Runoff Area=2,932 sf 0.00% Impervious Runoff Depth=0.17"
Flow Length=30' Slope=0.0830 '/' Tc=6.0 min CN=61 Runoff=0.01 cfs 0.001 af

Subcatchment P-1: P-1 Runoff Area=356,263 sf 75.00% Impervious Runoff Depth=1.67"
Tc=6.0 min CN=WQ Runoff=20.93 cfs 1.138 af

Reach 5R: Proposed Outfall Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond Bioretenion: Bioretenion Peak Elev=826.24' Storage=9,199 cf Inflow=23.41 cfs 1.293 af
Discarded=1.00 cfs 0.464 af Primary=18.95 cfs 0.830 af Secondary=0.00 cfs 0.000 af Outflow=19.95 cfs 1.293 af

Pond Infiltration: Infiltration Peak Elev=825.07' Storage=23,554 cf Inflow=18.95 cfs 0.831 af
Discarded=1.05 cfs 0.831 af Primary=0.00 cfs 0.000 af Outflow=1.05 cfs 0.831 af

Total Runoff Area = 11.067 ac Runoff Volume = 1.294 af Average Runoff Depth = 1.40"
38.32% Pervious = 4.241 ac 61.68% Impervious = 6.826 ac

Summary for Subcatchment O-1: O-1

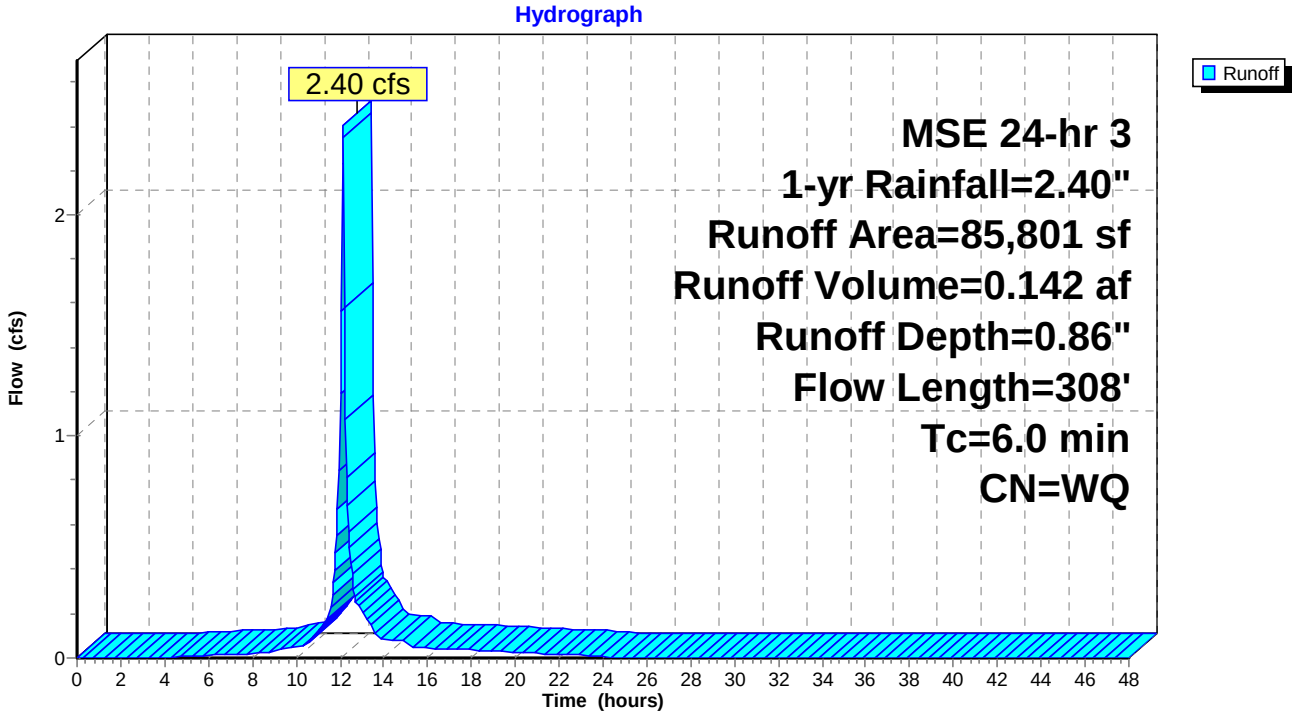
Runoff = 2.40 cfs @ 12.13 hrs, Volume= 0.142 af, Depth= 0.86"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-yr Rainfall=2.40"

Area (sf)	CN	Description
56,023	61	>75% Grass cover, Good, HSG B
24,161	98	Paved parking, HSG B
5,617	98	Roofs, HSG B
85,801		Weighted Average
56,023		65.29% Pervious Area
29,778		34.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	150	0.0730	2.30		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
1.5	158	0.0126	1.81		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.6	308	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-1: O-1



Summary for Subcatchment O-2: O-2

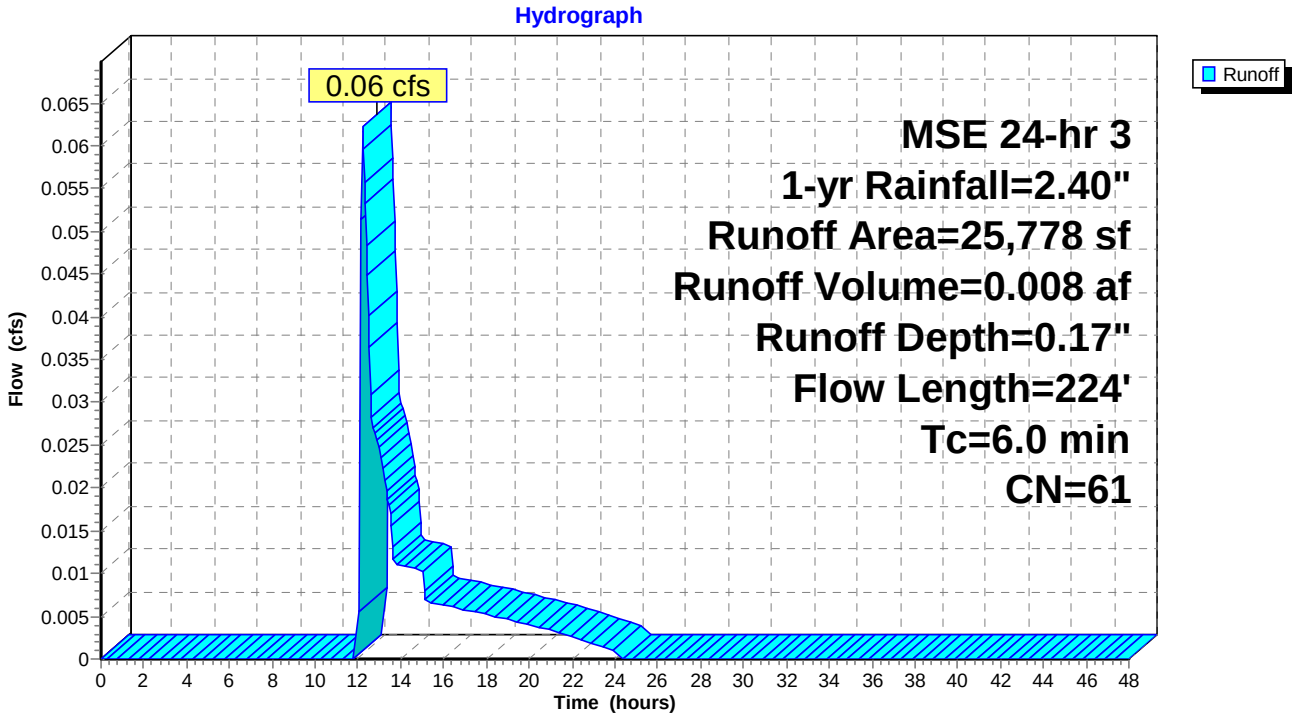
Runoff = 0.06 cfs @ 12.22 hrs, Volume= 0.008 af, Depth= 0.17"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-yr Rainfall=2.40"

Area (sf)	CN	Description
25,778	61	>75% Grass cover, Good, HSG B
25,778		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	150	0.0300	1.61		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.7	74	0.0135	1.87		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.3	224	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-2: O-2



Summary for Subcatchment O-3: O-3

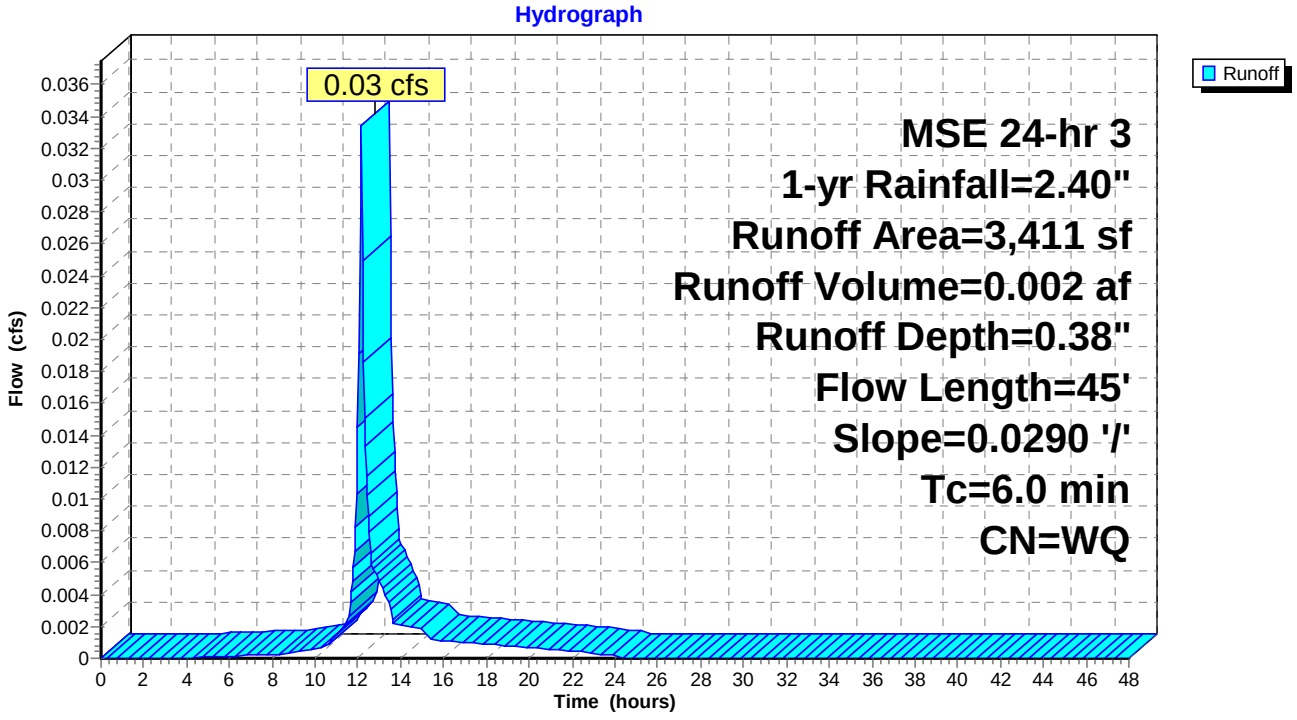
Runoff = 0.03 cfs @ 12.14 hrs, Volume= 0.002 af, Depth= 0.38"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-yr Rainfall=2.40"

Area (sf)	CN	Description
3,047	61	>75% Grass cover, Good, HSG B
364	98	Roofs, HSG B
3,411		Weighted Average
3,047		89.33% Pervious Area
364		10.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	45	0.0290	1.25		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.6	45	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-3: O-3



Summary for Subcatchment O-4*: O-4*

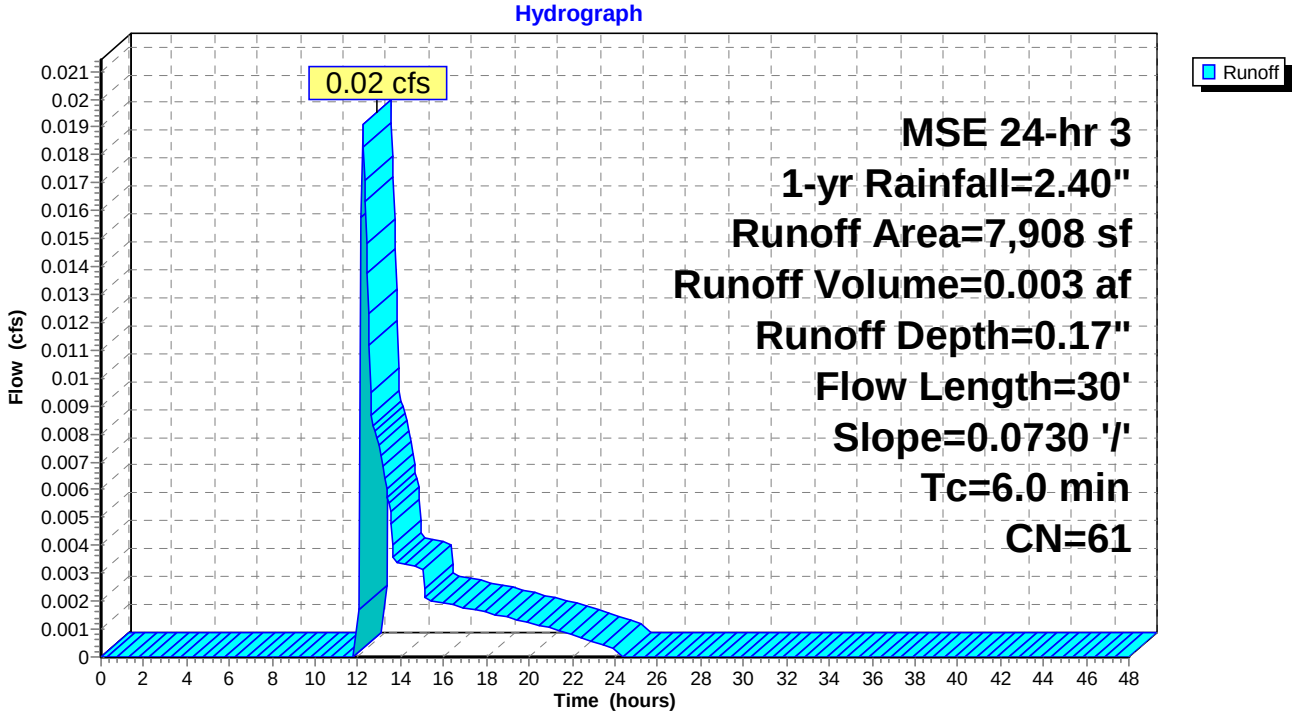
Runoff = 0.02 cfs @ 12.22 hrs, Volume= 0.003 af, Depth= 0.17"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-yr Rainfall=2.40"

Area (sf)	CN	Description
7,908	61	>75% Grass cover, Good, HSG B
7,908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0730	1.67		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.3	30	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-4*: O-4*



Summary for Subcatchment O-4**: O-4**

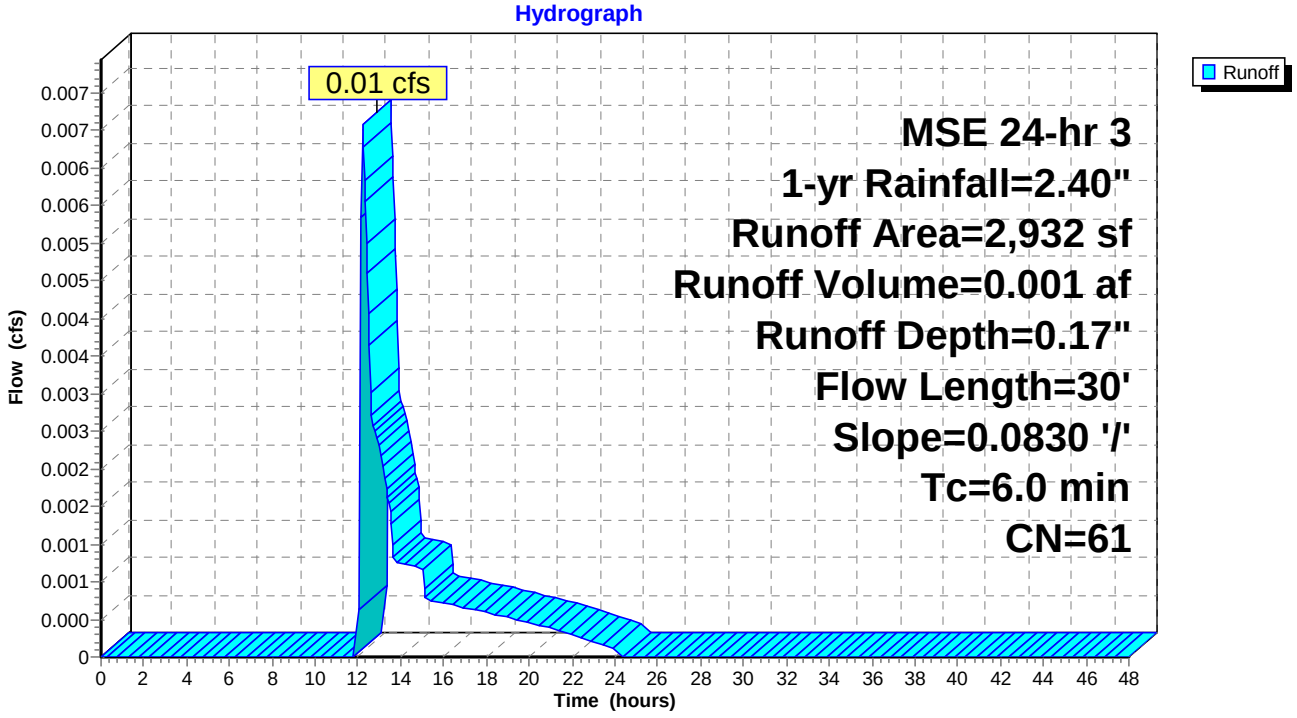
Runoff = 0.01 cfs @ 12.22 hrs, Volume= 0.001 af, Depth= 0.17"
Routed to Pond Infiltration : Infiltration

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-yr Rainfall=2.40"

Area (sf)	CN	Description
2,932	61	>75% Grass cover, Good, HSG B
2,932		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0830	1.75		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.3	30	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-4**: O-4**



Summary for Subcatchment P-1: P-1

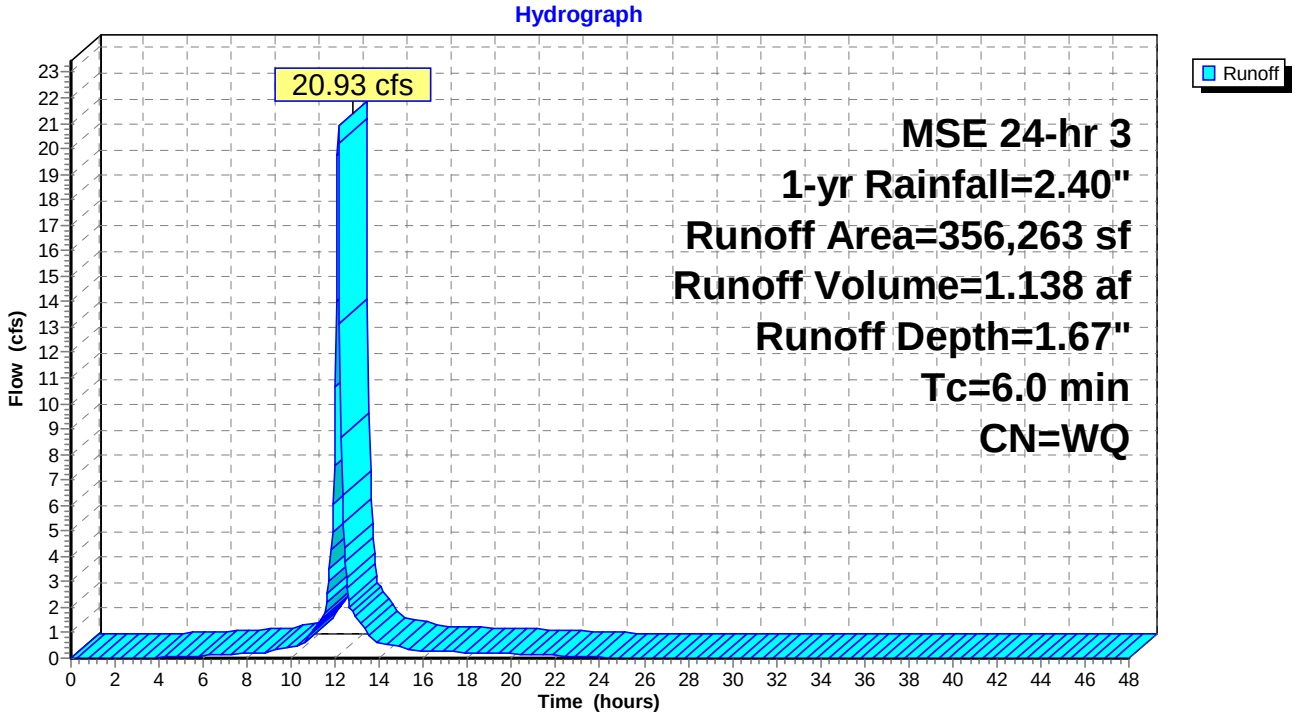
Runoff = 20.93 cfs @ 12.13 hrs, Volume= 1.138 af, Depth= 1.67"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-yr Rainfall=2.40"

Area (sf)	CN	Description
267,197	98	Paved parking, HSG B
89,066	61	>75% Grass cover, Good, HSG B
356,263		Weighted Average
89,066		25.00% Pervious Area
267,197		75.00% Impervious Area

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

Subcatchment P-1: P-1

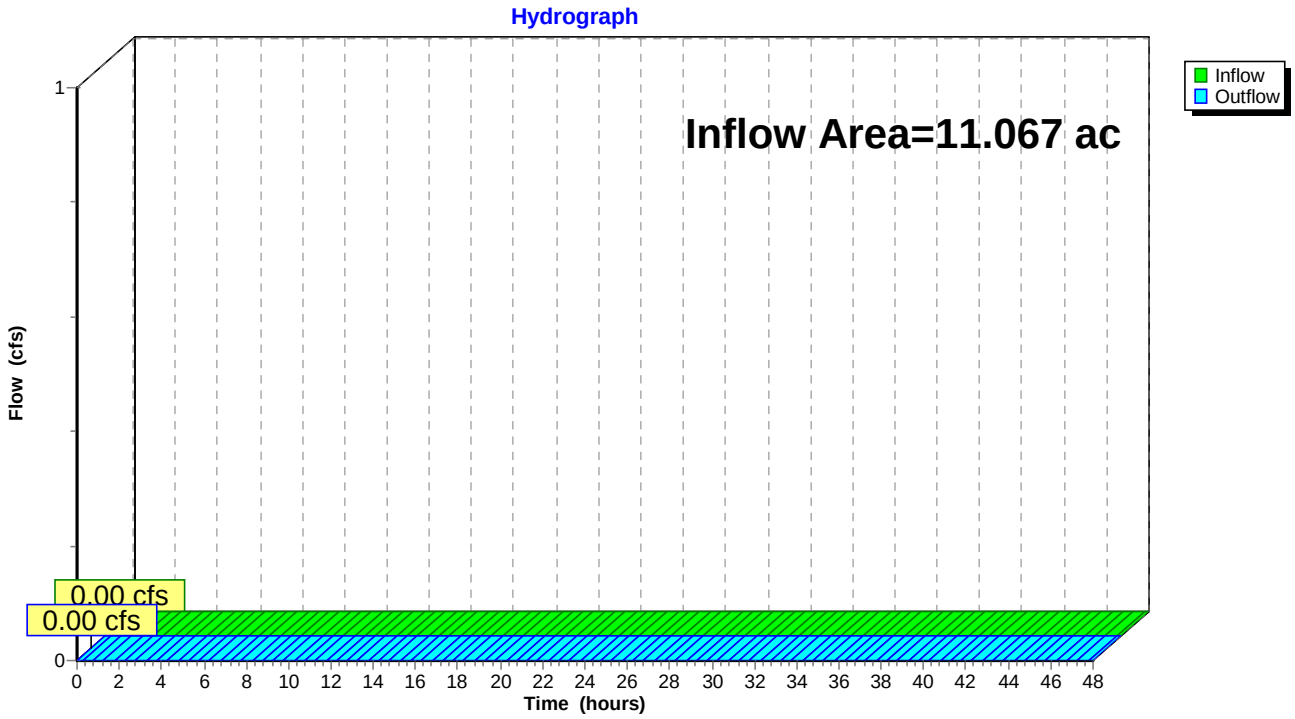


Summary for Reach 5R: Proposed Outfall

Inflow Area = 11.067 ac, 61.68% Impervious, Inflow Depth = 0.00" for 1-yr event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Reach 5R: Proposed Outfall



Summary for Pond Bioretenion: Bioretenion

Inflow Area = 11.000 ac, 62.05% Impervious, Inflow Depth = 1.41" for 1-yr event
Inflow = 23.41 cfs @ 12.13 hrs, Volume= 1.293 af
Outflow = 19.95 cfs @ 12.17 hrs, Volume= 1.293 af, Atten= 15%, Lag= 2.5 min
Discarded = 1.00 cfs @ 12.17 hrs, Volume= 0.464 af
Primary = 18.95 cfs @ 12.17 hrs, Volume= 0.830 af
Routed to Pond Infiltration : Infiltration
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Pond Infiltration : Infiltration

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 826.24' @ 12.17 hrs Surf.Area= 9,134 sf Storage= 9,199 cf

Plug-Flow detention time= 15.5 min calculated for 1.293 af (100% of inflow)
Center-of-Mass det. time= 15.4 min (779.1 - 763.7)

Volume	Invert	Avail.Storage	Storage Description
#1	825.00'	44,777 cf	**Custom Stage Data (Conic)** Listed below (Recalc)
#2	822.00'	3,542 cf	**Custom Stage Data (Conic)** Listed below (Recalc) 11,805 cf Overall x 30.0% Voids
		48,318 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
825.00	3,935	0	0	3,935
826.00	4,937	4,427	4,427	4,964
827.00	6,059	5,488	9,915	6,117
828.00	7,313	6,676	16,591	7,404
829.00	8,674	7,984	24,575	8,801
830.00	10,092	9,374	33,949	10,260
831.00	11,580	10,827	44,777	11,793

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
822.00	3,935	0	0	3,935
823.00	3,935	3,935	3,935	4,157
824.00	3,935	3,935	7,870	4,380
825.00	3,935	3,935	11,805	4,602

Device	Routing	Invert	Outlet Devices
#1	Primary	822.00'	**18.0" Round Outlet Pipe** L= 34.7' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 822.00' / 822.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	822.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	825.50'	**36.0" Horiz. Riser** C= 0.600 Limited to weir flow at low heads
#4	Secondary	829.00'	**74.0' long x 5.0' breadth Weir to Infiltration Basin** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65

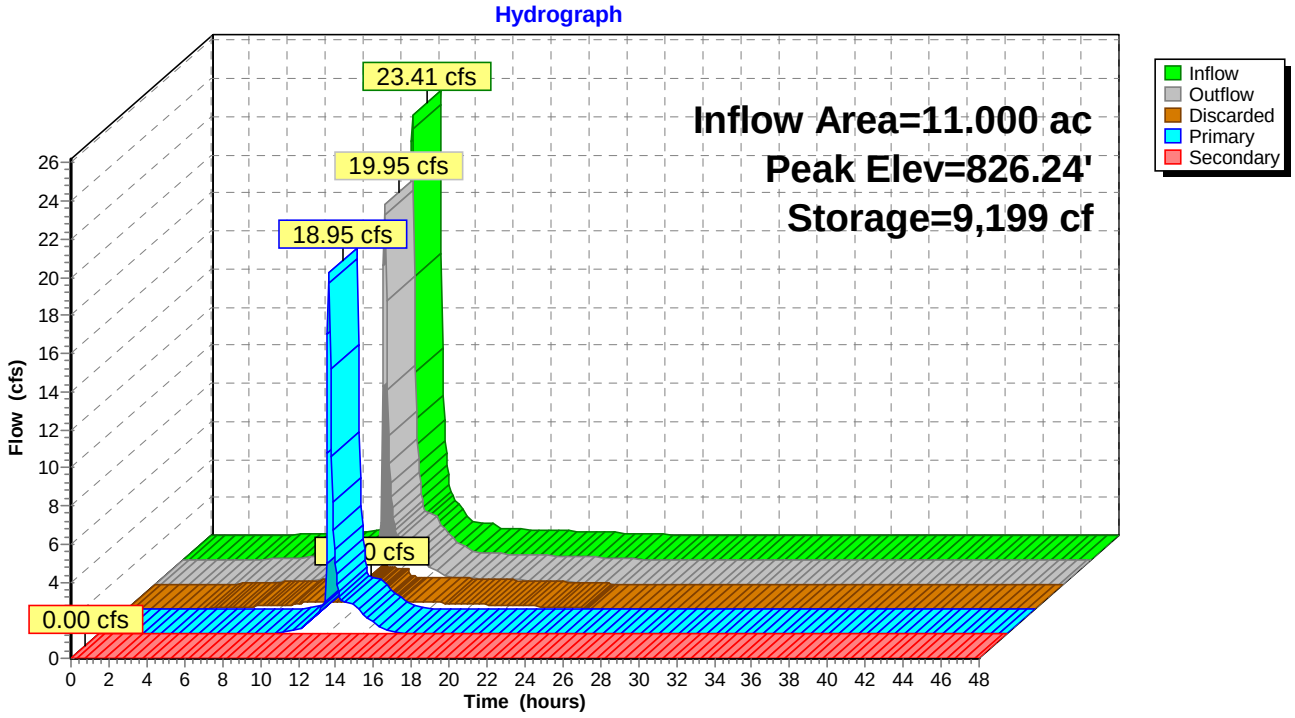
2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#5 Discarded 822.00' **3.600 in/hr Exfiltration over Surface area**
Conductivity to Groundwater Elevation = 815.00'

Discarded OutFlow Max=1.00 cfs @ 12.17 hrs HW=826.22' (Free Discharge)
└**5=Exfiltration** (Controls 1.00 cfs)

Primary OutFlow Max=18.64 cfs @ 12.17 hrs HW=826.22' (Free Discharge)
└**1=Outlet Pipe** (Barrel Controls 18.64 cfs @ 10.55 fps)
└**2=Orifice/Grate** (Passes < 1.88 cfs potential flow)
└**3=Riser** (Passes < 18.89 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=822.00' (Free Discharge)
└**4=Weir to Infiltration Basin** (Controls 0.00 cfs)

Pond Bioretenion: Bioretenion



Summary for Pond Infiltration: Infiltration

Inflow Area = 11.067 ac, 61.68% Impervious, Inflow Depth = 0.90" for 1-yr event
Inflow = 18.95 cfs @ 12.17 hrs, Volume= 0.831 af
Outflow = 1.05 cfs @ 13.98 hrs, Volume= 0.831 af, Atten= 94%, Lag= 108.3 min
Discarded = 1.05 cfs @ 13.98 hrs, Volume= 0.831 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach 5R : Proposed Outfall

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 825.07' @ 13.98 hrs Surf.Area= 9,325 sf Storage= 23,554 cf

Plug-Flow detention time= 247.3 min calculated for 0.830 af (100% of inflow)
Center-of-Mass det. time= 247.2 min (999.5 - 752.3)

Volume	Invert	Avail.Storage	Storage Description
#1	822.00'	101,058 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

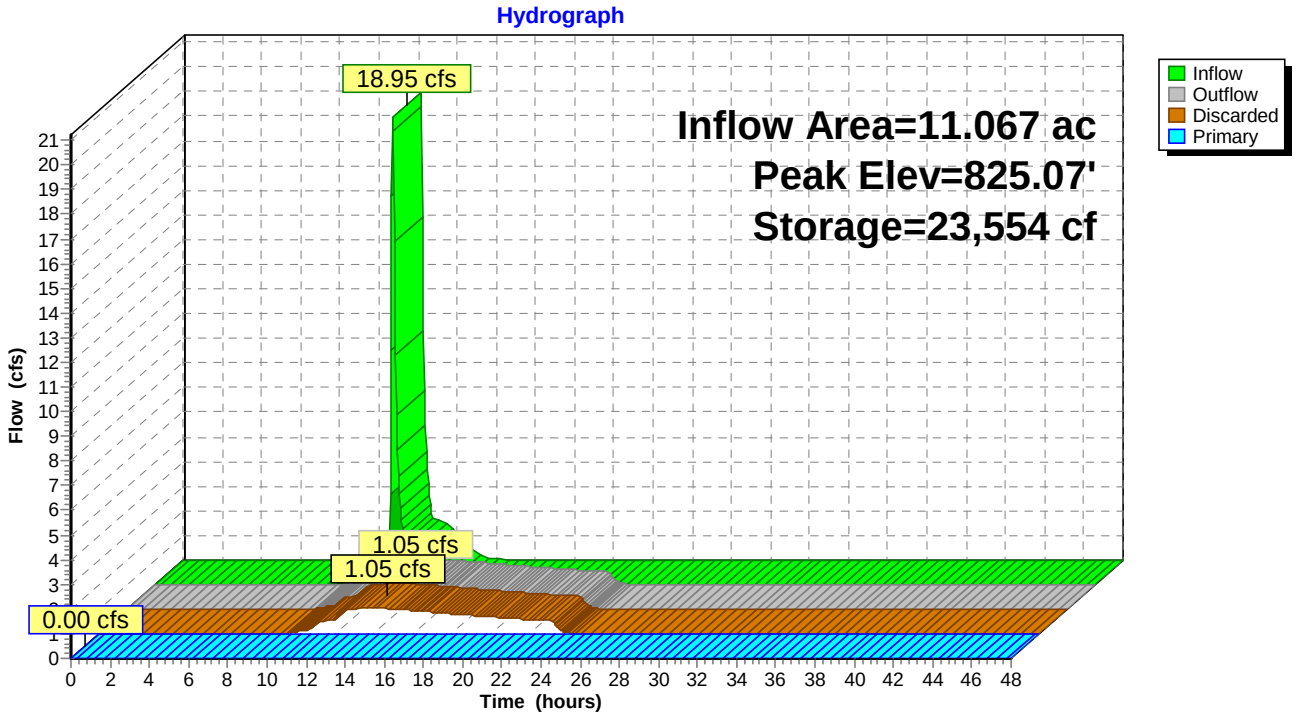
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
822.00	6,140	0	0	6,140
823.00	7,114	6,621	6,621	7,156
824.00	8,151	7,627	14,248	8,238
825.00	9,251	8,695	22,943	9,387
826.00	10,413	9,826	32,769	10,601
827.00	11,635	11,018	43,787	11,878
828.00	12,922	12,273	56,060	13,223
829.00	14,280	13,595	69,656	14,643
830.00	15,691	14,980	84,636	16,119
831.00	17,165	16,422	101,058	17,662

Device	Routing	Invert	Outlet Devices
#1	Primary	826.50'	**12.0" Round Outlet Pipe** L= 75.2' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 826.50' / 826.10' S= 0.0053 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Discarded	822.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 815.00'
#3	Device 1	830.95'	**36.0" Horiz. Riser** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.05 cfs @ 13.98 hrs HW=825.07' (Free Discharge)
└**2=Exfiltration** (Controls 1.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=822.00' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
└**3=Riser** (Controls 0.00 cfs)

Pond Infiltration: Infiltration



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment O-1: O-1 Runoff Area=85,801 sf 34.71% Impervious Runoff Depth=1.03"
Flow Length=308' Tc=6.0 min CN=WQ Runoff=2.89 cfs 0.168 af

Subcatchment O-2: O-2 Runoff Area=25,778 sf 0.00% Impervious Runoff Depth=0.26"
Flow Length=224' Tc=6.0 min CN=61 Runoff=0.15 cfs 0.013 af

Subcatchment O-3: O-3 Runoff Area=3,411 sf 10.67% Impervious Runoff Depth=0.49"
Flow Length=45' Slope=0.0290 '/' Tc=6.0 min CN=WQ Runoff=0.05 cfs 0.003 af

Subcatchment O-4*: O-4* Runoff Area=7,908 sf 0.00% Impervious Runoff Depth=0.26"
Flow Length=30' Slope=0.0730 '/' Tc=6.0 min CN=61 Runoff=0.05 cfs 0.004 af

Subcatchment O-4: O-4**** Runoff Area=2,932 sf 0.00% Impervious Runoff Depth=0.26"
Flow Length=30' Slope=0.0830 '/' Tc=6.0 min CN=61 Runoff=0.02 cfs 0.001 af

Subcatchment P-1: P-1 Runoff Area=356,263 sf 75.00% Impervious Runoff Depth=1.92"
Tc=6.0 min CN=WQ Runoff=23.92 cfs 1.306 af

Reach 5R: Proposed Outfall Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond Bioretenion: Bioretenion Peak Elev=826.45' Storage=10,273 cf Inflow=27.02 cfs 1.495 af
Discarded=1.04 cfs 0.505 af Primary=19.39 cfs 0.989 af Secondary=0.00 cfs 0.000 af Outflow=20.43 cfs 1.495 af

Pond Infiltration: Infiltration Peak Elev=825.56' Storage=28,257 cf Inflow=19.41 cfs 0.991 af
Discarded=1.15 cfs 0.991 af Primary=0.00 cfs 0.000 af Outflow=1.15 cfs 0.991 af

Total Runoff Area = 11.067 ac Runoff Volume = 1.496 af Average Runoff Depth = 1.62"
38.32% Pervious = 4.241 ac 61.68% Impervious = 6.826 ac

Summary for Subcatchment O-1: O-1

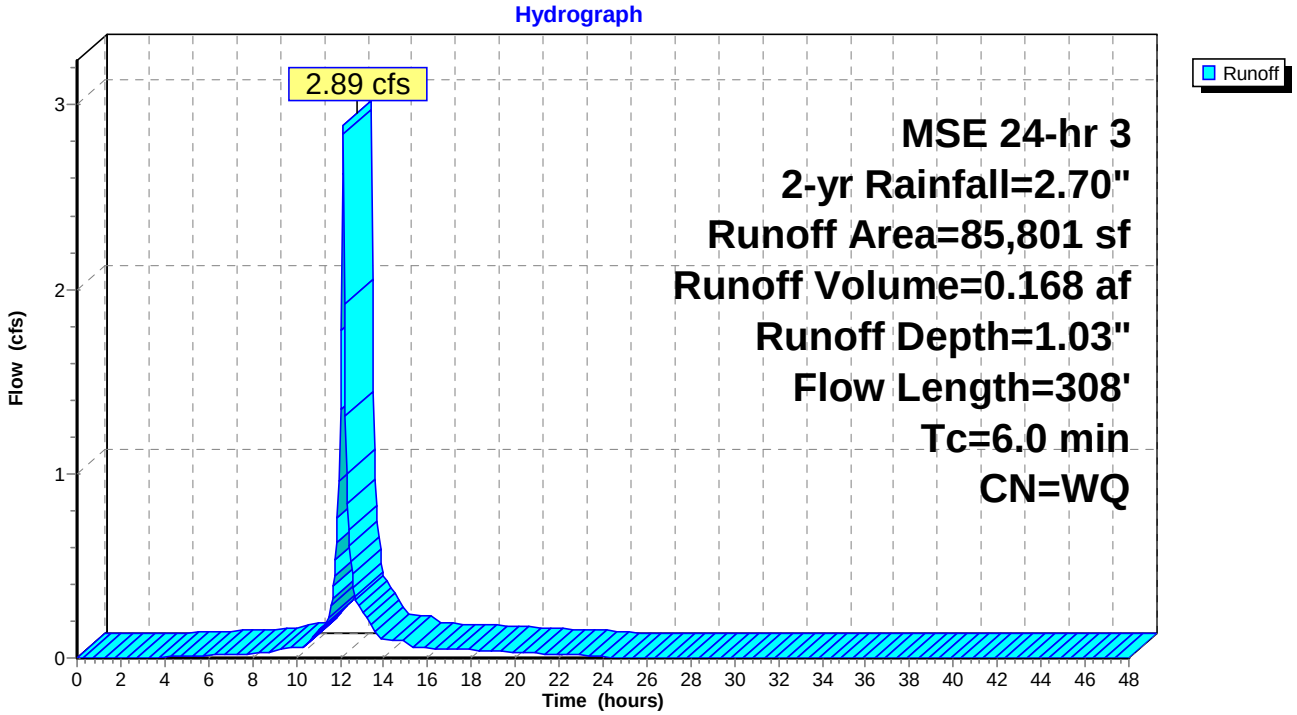
Runoff = 2.89 cfs @ 12.13 hrs, Volume= 0.168 af, Depth= 1.03"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-yr Rainfall=2.70"

Area (sf)	CN	Description
56,023	61	>75% Grass cover, Good, HSG B
24,161	98	Paved parking, HSG B
5,617	98	Roofs, HSG B
85,801		Weighted Average
56,023		65.29% Pervious Area
29,778		34.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	150	0.0730	2.30		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
1.5	158	0.0126	1.81		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.6	308	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-1: O-1



Summary for Subcatchment O-2: O-2

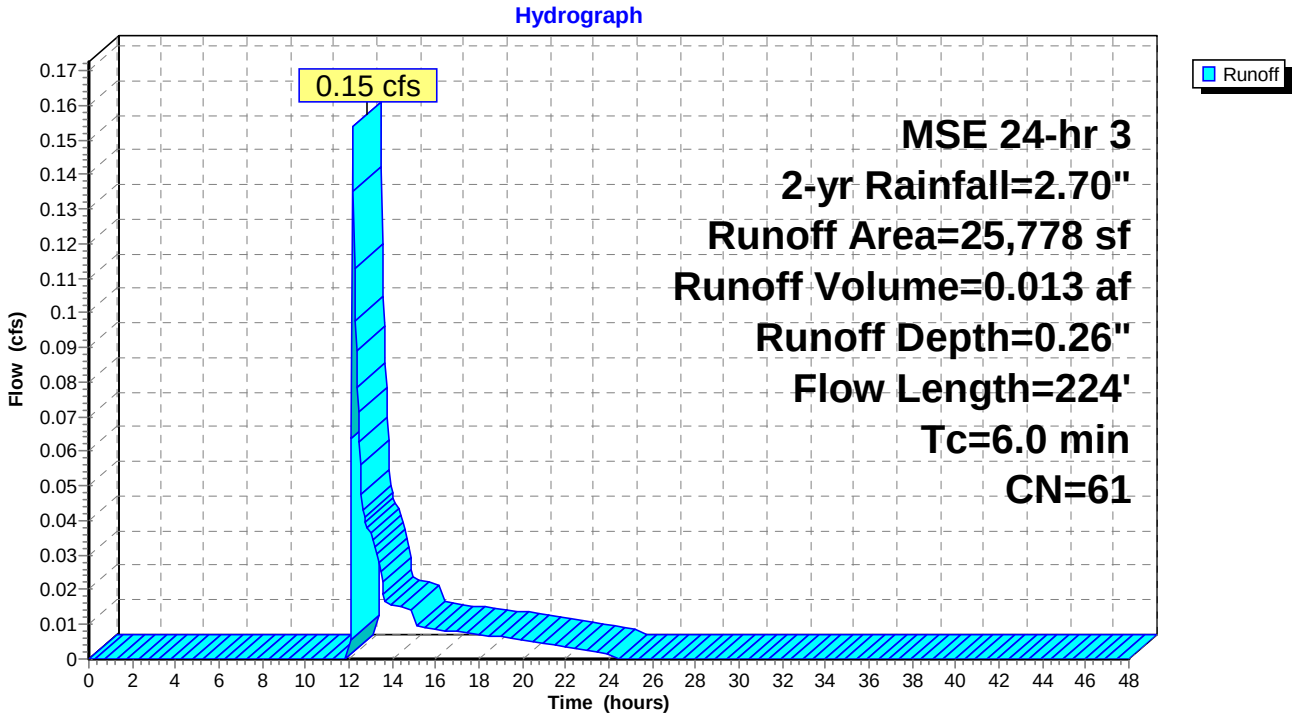
Runoff = 0.15 cfs @ 12.17 hrs, Volume= 0.013 af, Depth= 0.26"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-yr Rainfall=2.70"

Area (sf)	CN	Description
25,778	61	>75% Grass cover, Good, HSG B
25,778		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	150	0.0300	1.61		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.7	74	0.0135	1.87		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.3	224	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-2: O-2



Summary for Subcatchment O-3: O-3

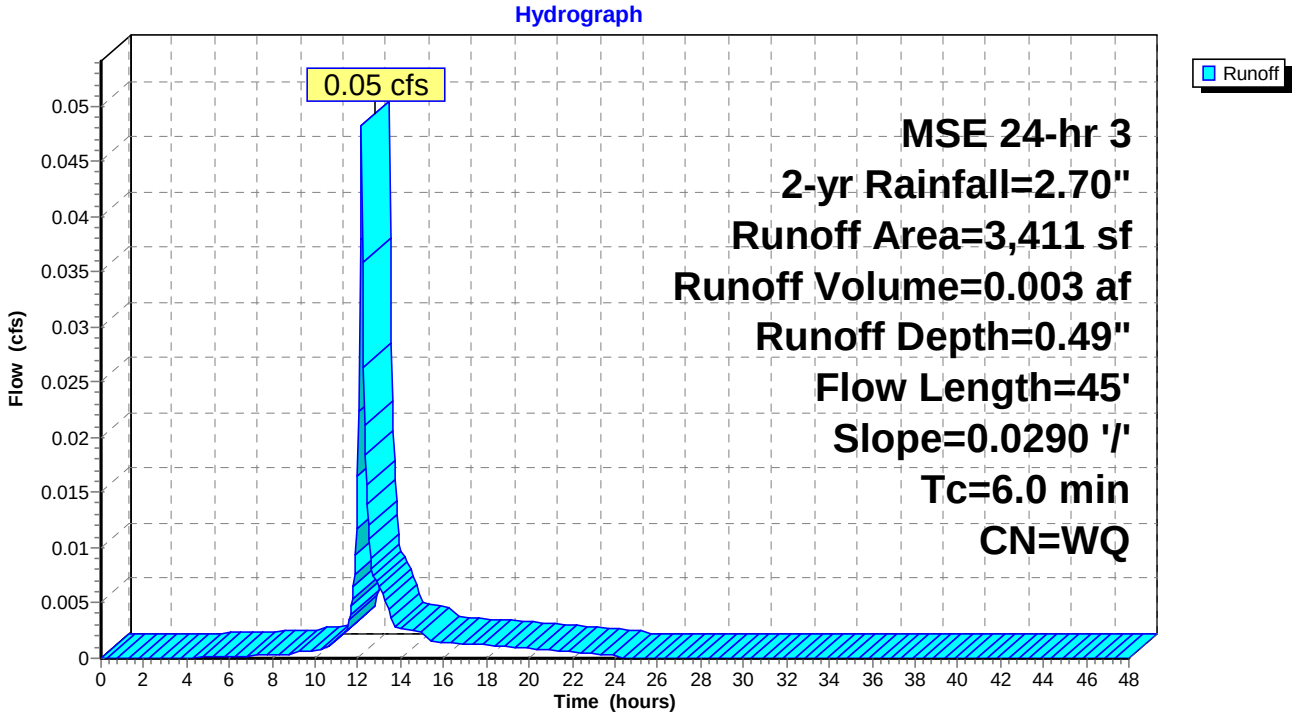
Runoff = 0.05 cfs @ 12.15 hrs, Volume= 0.003 af, Depth= 0.49"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-yr Rainfall=2.70"

Area (sf)	CN	Description
3,047	61	>75% Grass cover, Good, HSG B
364	98	Roofs, HSG B
3,411		Weighted Average
3,047		89.33% Pervious Area
364		10.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	45	0.0290	1.25		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.6	45	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-3: O-3



Summary for Subcatchment O-4*: O-4*

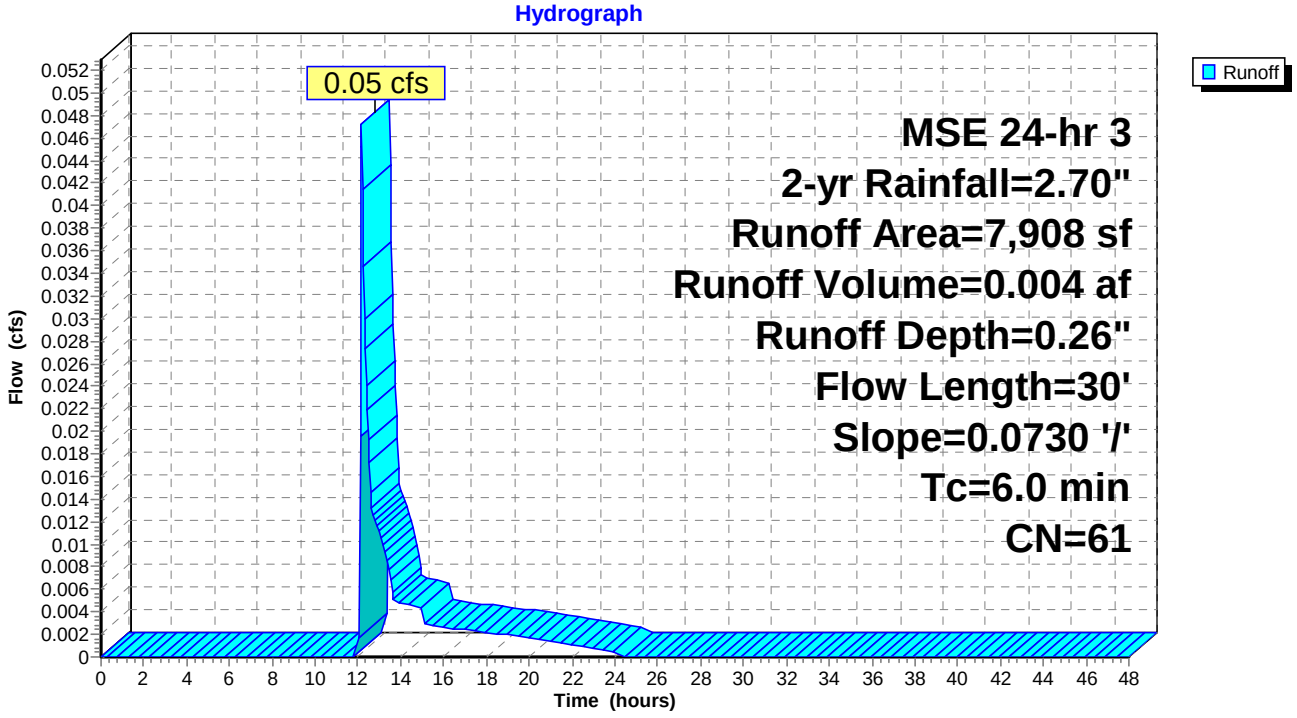
Runoff = 0.05 cfs @ 12.17 hrs, Volume= 0.004 af, Depth= 0.26"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-yr Rainfall=2.70"

Area (sf)	CN	Description
7,908	61	>75% Grass cover, Good, HSG B
7,908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0730	1.67		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.3	30	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-4*: O-4*



Summary for Subcatchment O-4**: O-4**

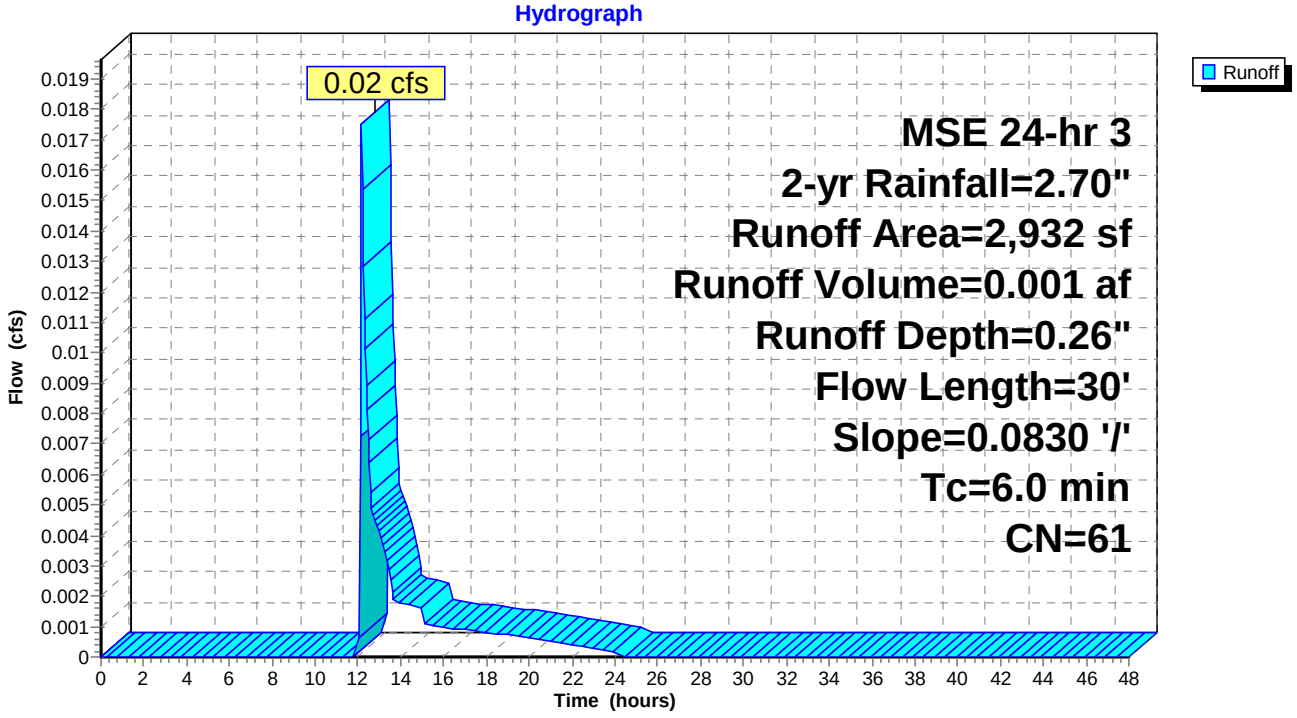
Runoff = 0.02 cfs @ 12.17 hrs, Volume= 0.001 af, Depth= 0.26"
Routed to Pond Infiltration : Infiltration

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-yr Rainfall=2.70"

Area (sf)	CN	Description
2,932	61	>75% Grass cover, Good, HSG B
2,932		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0830	1.75		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.3	30	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-4**: O-4**



Summary for Subcatchment P-1: P-1

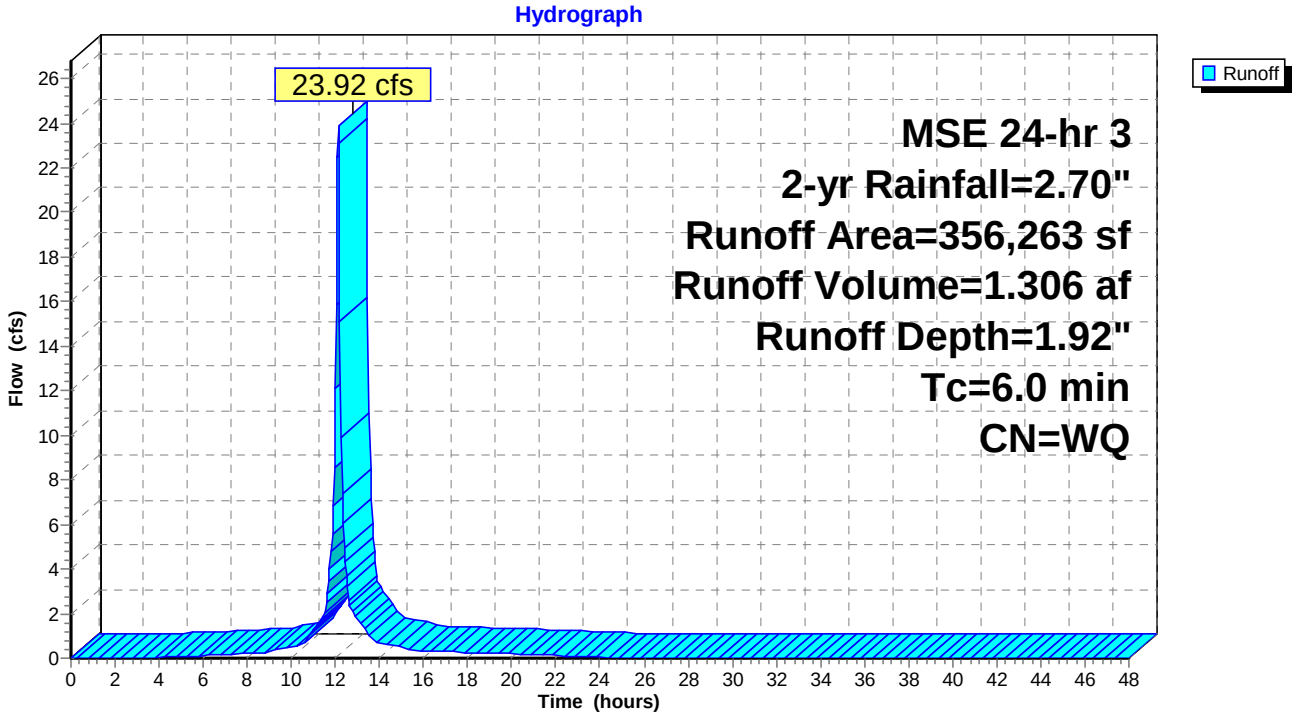
Runoff = 23.92 cfs @ 12.13 hrs, Volume= 1.306 af, Depth= 1.92"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-yr Rainfall=2.70"

Area (sf)	CN	Description
267,197	98	Paved parking, HSG B
89,066	61	>75% Grass cover, Good, HSG B
356,263		Weighted Average
89,066		25.00% Pervious Area
267,197		75.00% Impervious Area

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

Subcatchment P-1: P-1

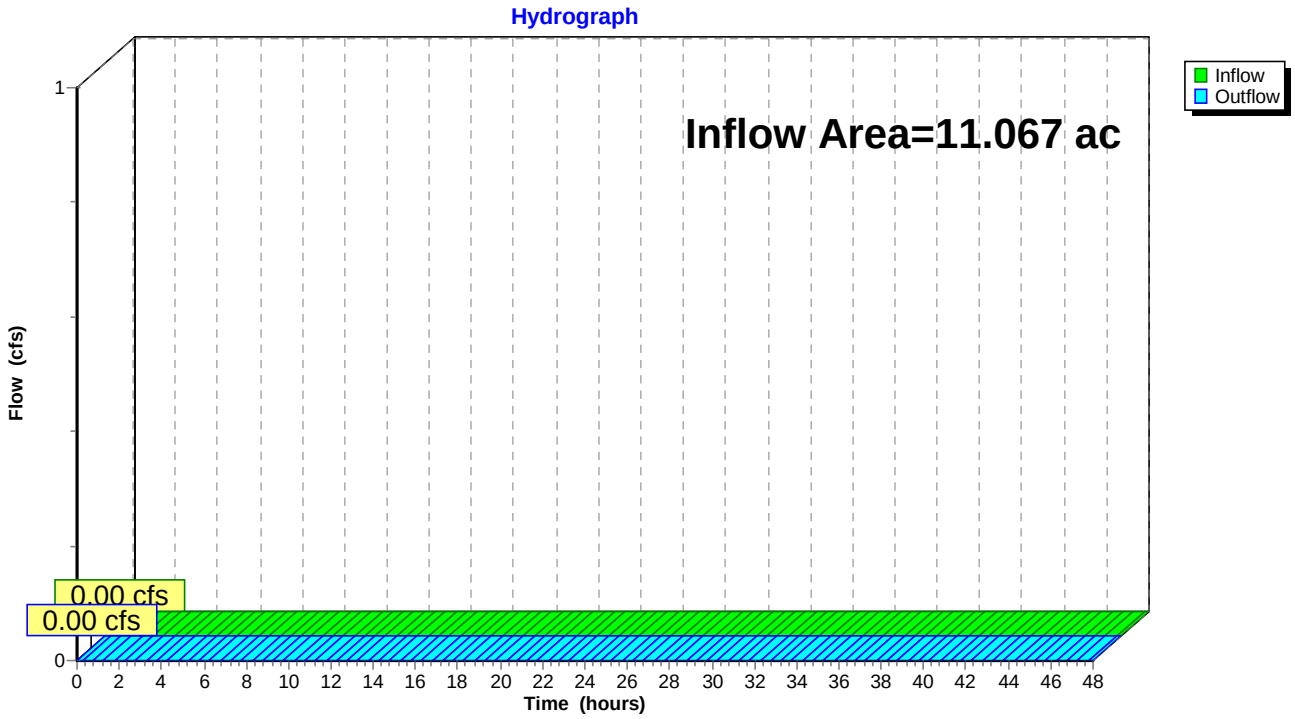


Summary for Reach 5R: Proposed Outfall

Inflow Area = 11.067 ac, 61.68% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Reach 5R: Proposed Outfall



Summary for Pond Bioretenion: Bioretenion

Inflow Area = 11.000 ac, 62.05% Impervious, Inflow Depth = 1.63" for 2-yr event
Inflow = 27.02 cfs @ 12.13 hrs, Volume= 1.495 af
Outflow = 20.43 cfs @ 12.18 hrs, Volume= 1.495 af, Atten= 24%, Lag= 3.3 min
Discarded = 1.04 cfs @ 12.18 hrs, Volume= 0.505 af
Primary = 19.39 cfs @ 12.18 hrs, Volume= 0.989 af
Routed to Pond Infiltration : Infiltration
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Pond Infiltration : Infiltration

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 826.45' @ 12.18 hrs Surf.Area= 9,357 sf Storage= 10,273 cf

Plug-Flow detention time= 15.2 min calculated for 1.493 af (100% of inflow)
Center-of-Mass det. time= 15.2 min (778.1 - 762.8)

Volume	Invert	Avail.Storage	Storage Description
#1	825.00'	44,777 cf	**Custom Stage Data (Conic)** Listed below (Recalc)
#2	822.00'	3,542 cf	**Custom Stage Data (Conic)** Listed below (Recalc) 11,805 cf Overall x 30.0% Voids
		48,318 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
825.00	3,935	0	0	3,935
826.00	4,937	4,427	4,427	4,964
827.00	6,059	5,488	9,915	6,117
828.00	7,313	6,676	16,591	7,404
829.00	8,674	7,984	24,575	8,801
830.00	10,092	9,374	33,949	10,260
831.00	11,580	10,827	44,777	11,793

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
822.00	3,935	0	0	3,935
823.00	3,935	3,935	3,935	4,157
824.00	3,935	3,935	7,870	4,380
825.00	3,935	3,935	11,805	4,602

Device	Routing	Invert	Outlet Devices
#1	Primary	822.00'	**18.0" Round Outlet Pipe** L= 34.7' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 822.00' / 822.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	822.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	825.50'	**36.0" Horiz. Riser** C= 0.600 Limited to weir flow at low heads
#4	Secondary	829.00'	**74.0' long x 5.0' breadth Weir to Infiltration Basin** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65

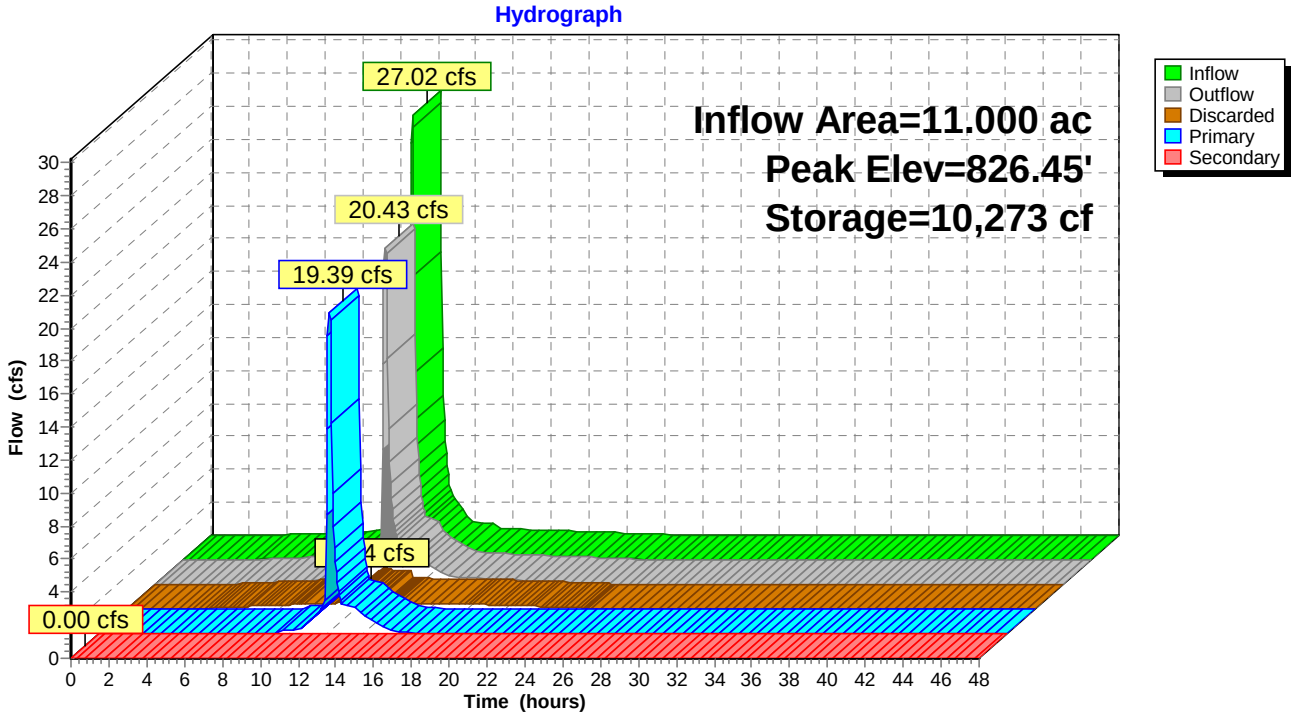
			2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#5	Discarded	822.00'	**3.600 in/hr Exfiltration over Surface area**
			Conductivity to Groundwater Elevation = 815.00'

Discarded OutFlow Max=1.04 cfs @ 12.18 hrs HW=826.42' (Free Discharge)
└**5=Exfiltration** (Controls 1.04 cfs)

Primary OutFlow Max=19.30 cfs @ 12.18 hrs HW=826.42' (Free Discharge)
└**1=Outlet Pipe** (Barrel Controls 19.30 cfs @ 10.92 fps)
└**2=Orifice/Grate** (Passes < 1.93 cfs potential flow)
└**3=Riser** (Passes < 27.17 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=822.00' (Free Discharge)
└**4=Weir to Infiltration Basin** (Controls 0.00 cfs)

Pond Bioretenion: Bioretenion



Summary for Pond Infiltration: Infiltration

Inflow Area = 11.067 ac, 61.68% Impervious, Inflow Depth = 1.07" for 2-yr event
Inflow = 19.41 cfs @ 12.18 hrs, Volume= 0.991 af
Outflow = 1.15 cfs @ 14.03 hrs, Volume= 0.991 af, Atten= 94%, Lag= 110.8 min
Discarded = 1.15 cfs @ 14.03 hrs, Volume= 0.991 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach 5R : Proposed Outfall

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 825.56' @ 14.03 hrs Surf.Area= 9,888 sf Storage= 28,257 cf

Plug-Flow detention time= 275.5 min calculated for 0.990 af (100% of inflow)
Center-of-Mass det. time= 275.5 min (1,028.3 - 752.9)

Volume	Invert	Avail.Storage	Storage Description
#1	822.00'	101,058 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

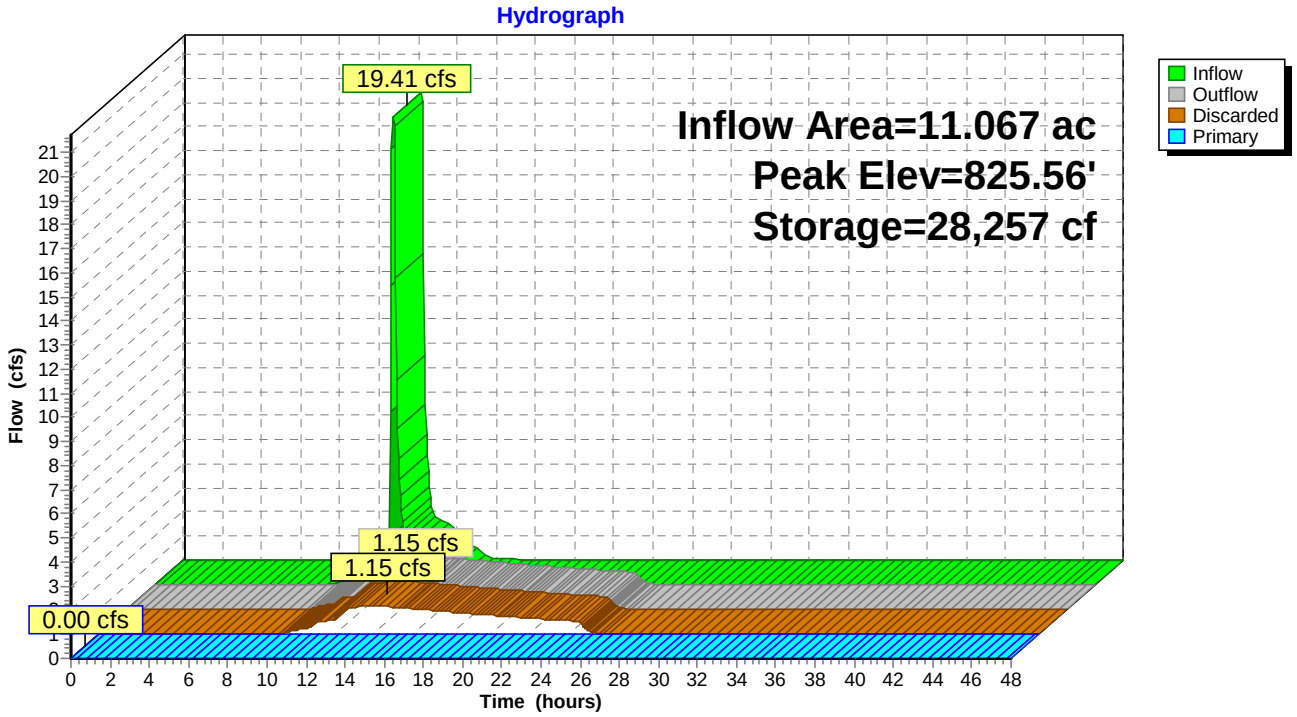
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
822.00	6,140	0	0	6,140
823.00	7,114	6,621	6,621	7,156
824.00	8,151	7,627	14,248	8,238
825.00	9,251	8,695	22,943	9,387
826.00	10,413	9,826	32,769	10,601
827.00	11,635	11,018	43,787	11,878
828.00	12,922	12,273	56,060	13,223
829.00	14,280	13,595	69,656	14,643
830.00	15,691	14,980	84,636	16,119
831.00	17,165	16,422	101,058	17,662

Device	Routing	Invert	Outlet Devices
#1	Primary	826.50'	**12.0" Round Outlet Pipe** L= 75.2' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 826.50' / 826.10' S= 0.0053 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Discarded	822.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 815.00'
#3	Device 1	830.95'	**36.0" Horiz. Riser** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.15 cfs @ 14.03 hrs HW=825.56' (Free Discharge)
└**2=Exfiltration** (Controls 1.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=822.00' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
└**3=Riser** (Controls 0.00 cfs)

Pond Infiltration: Infiltration



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment O-1: O-1 Runoff Area=85,801 sf 34.71% Impervious Runoff Depth=1.71"
Flow Length=308' Tc=6.0 min CN=WQ Runoff=5.15 cfs 0.281 af

Subcatchment O-2: O-2 Runoff Area=25,778 sf 0.00% Impervious Runoff Depth=0.72"
Flow Length=224' Tc=6.0 min CN=61 Runoff=0.67 cfs 0.035 af

Subcatchment O-3: O-3 Runoff Area=3,411 sf 10.67% Impervious Runoff Depth=1.02"
Flow Length=45' Slope=0.0290 '/' Tc=6.0 min CN=WQ Runoff=0.12 cfs 0.007 af

Subcatchment O-4*: O-4* Runoff Area=7,908 sf 0.00% Impervious Runoff Depth=0.72"
Flow Length=30' Slope=0.0730 '/' Tc=6.0 min CN=61 Runoff=0.21 cfs 0.011 af

Subcatchment O-4: O-4**** Runoff Area=2,932 sf 0.00% Impervious Runoff Depth=0.72"
Flow Length=30' Slope=0.0830 '/' Tc=6.0 min CN=61 Runoff=0.08 cfs 0.004 af

Subcatchment P-1: P-1 Runoff Area=356,263 sf 75.00% Impervious Runoff Depth=2.86"
Tc=6.0 min CN=WQ Runoff=35.65 cfs 1.950 af

Reach 5R: Proposed Outfall Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond Bioretenion: Bioretenion Peak Elev=827.51' Storage=16,691 cf Inflow=41.76 cfs 2.284 af
Discarded=1.25 cfs 0.626 af Primary=22.62 cfs 1.658 af Secondary=0.00 cfs 0.000 af Outflow=23.87 cfs 2.284 af

Pond Infiltration: Infiltration Peak Elev=827.34' Storage=47,852 cf Inflow=22.67 cfs 1.662 af
Discarded=1.54 cfs 1.662 af Primary=0.00 cfs 0.000 af Outflow=1.54 cfs 1.662 af

Total Runoff Area = 11.067 ac Runoff Volume = 2.288 af Average Runoff Depth = 2.48"
38.32% Pervious = 4.241 ac 61.68% Impervious = 6.826 ac

Summary for Subcatchment O-1: O-1

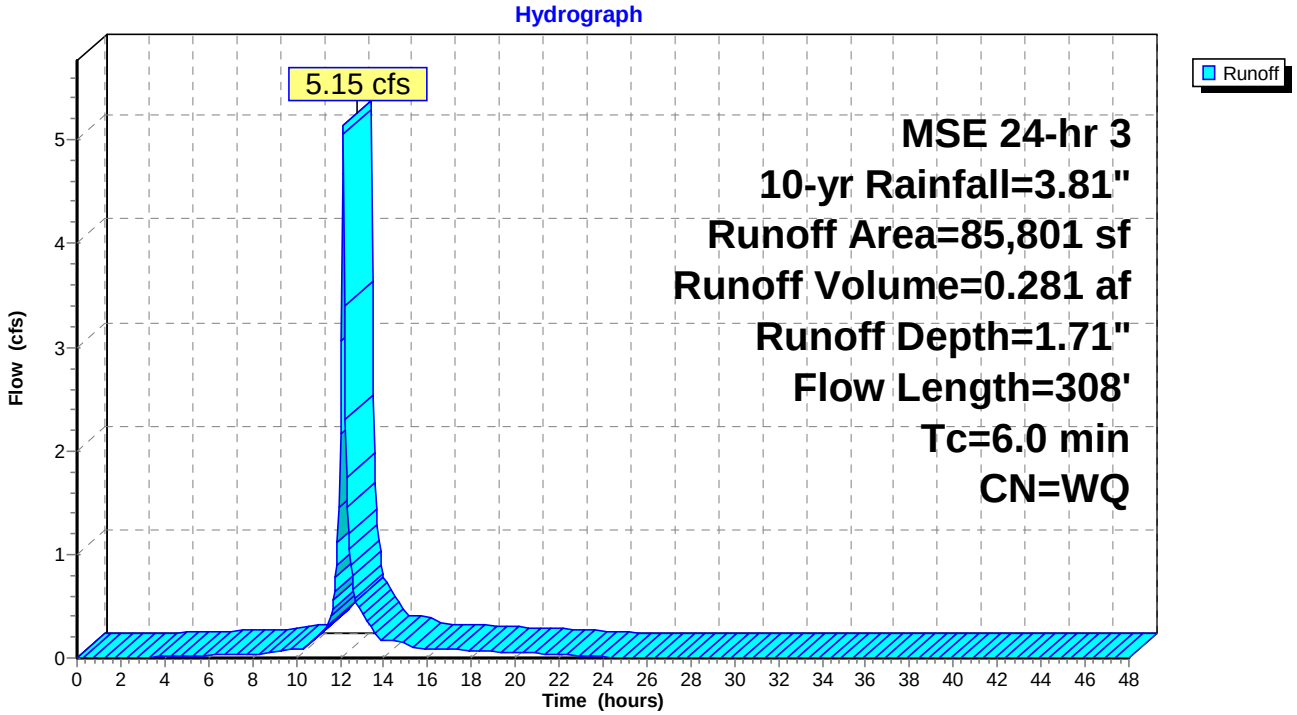
Runoff = 5.15 cfs @ 12.13 hrs, Volume= 0.281 af, Depth= 1.71"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-yr Rainfall=3.81"

Area (sf)	CN	Description
56,023	61	>75% Grass cover, Good, HSG B
24,161	98	Paved parking, HSG B
5,617	98	Roofs, HSG B
85,801		Weighted Average
56,023		65.29% Pervious Area
29,778		34.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	150	0.0730	2.30		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
1.5	158	0.0126	1.81		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.6	308	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-1: O-1



Summary for Subcatchment O-2: O-2

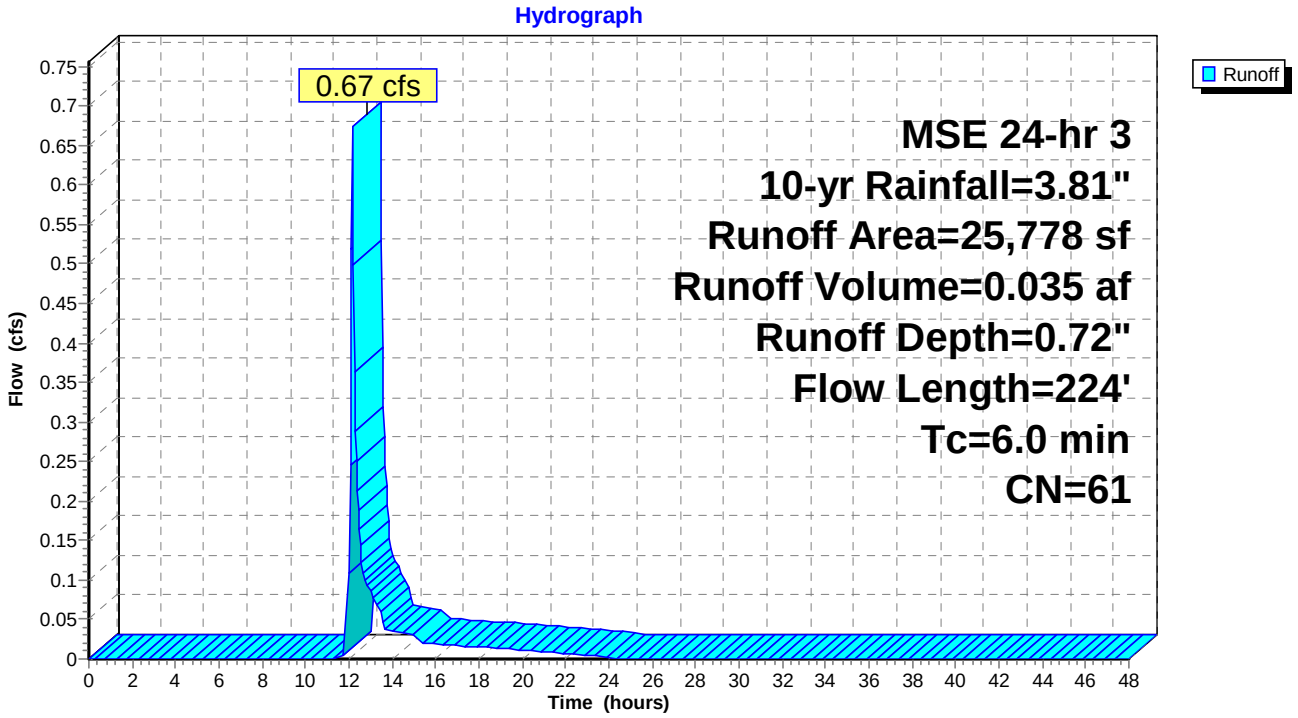
Runoff = 0.67 cfs @ 12.15 hrs, Volume= 0.035 af, Depth= 0.72"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-yr Rainfall=3.81"

Area (sf)	CN	Description
25,778	61	>75% Grass cover, Good, HSG B
25,778		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	150	0.0300	1.61		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.7	74	0.0135	1.87		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.3	224	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-2: O-2



Summary for Subcatchment O-3: O-3

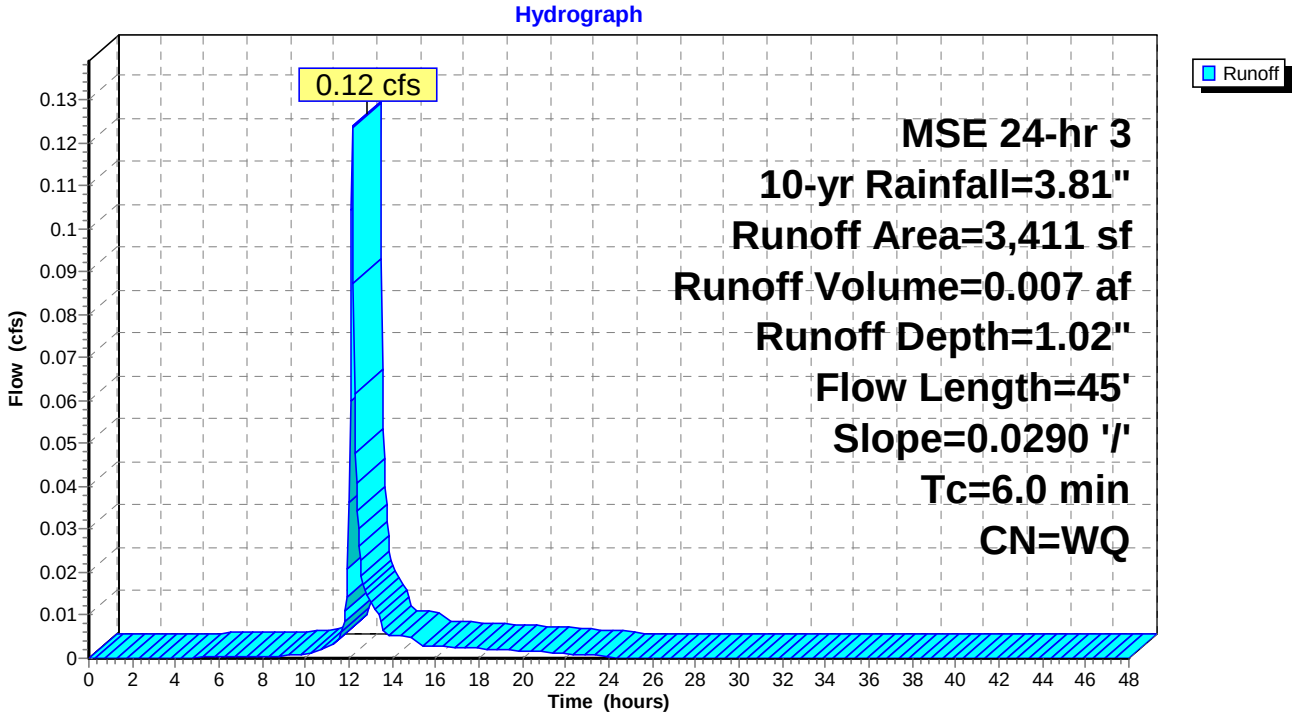
Runoff = 0.12 cfs @ 12.14 hrs, Volume= 0.007 af, Depth= 1.02"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-yr Rainfall=3.81"

Area (sf)	CN	Description
3,047	61	>75% Grass cover, Good, HSG B
364	98	Roofs, HSG B
3,411		Weighted Average
3,047		89.33% Pervious Area
364		10.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	45	0.0290	1.25		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.6	45	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-3: O-3



Summary for Subcatchment O-4*: O-4*

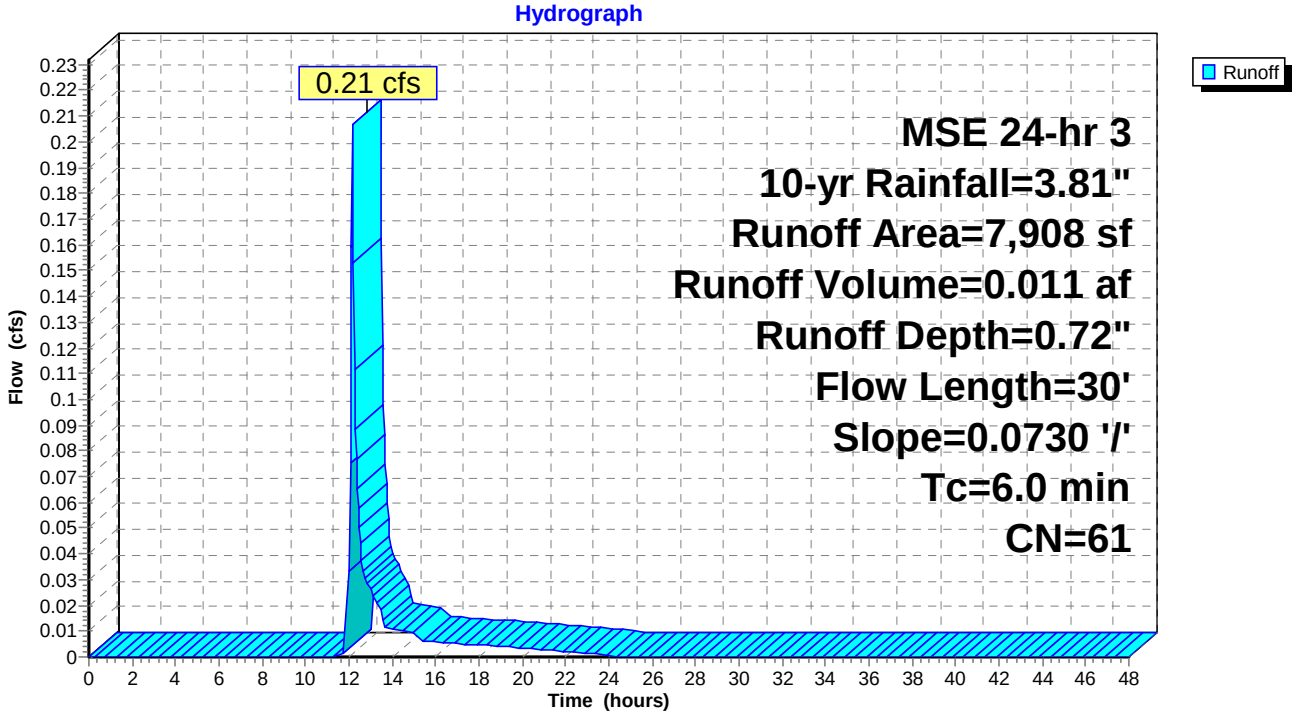
Runoff = 0.21 cfs @ 12.15 hrs, Volume= 0.011 af, Depth= 0.72"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-yr Rainfall=3.81"

Area (sf)	CN	Description
7,908	61	>75% Grass cover, Good, HSG B
7,908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0730	1.67		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.3	30	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-4*: O-4*



Summary for Subcatchment O-4**: O-4**

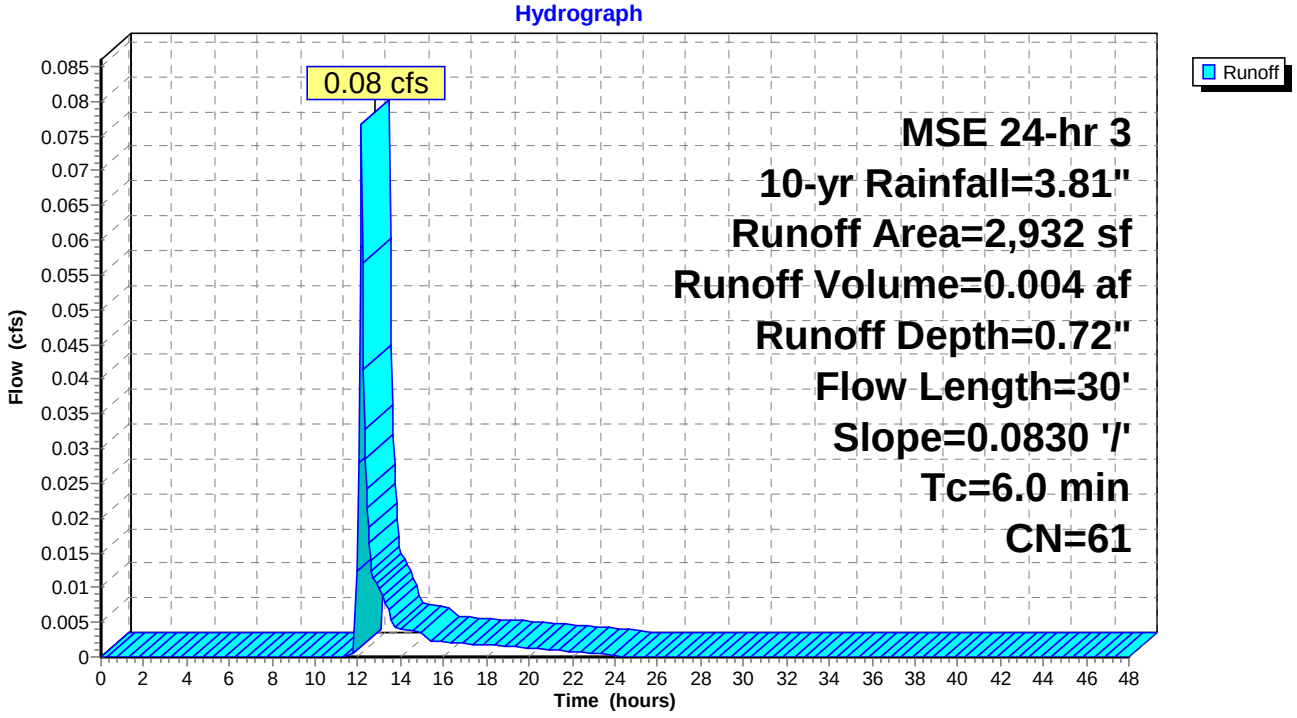
Runoff = 0.08 cfs @ 12.15 hrs, Volume= 0.004 af, Depth= 0.72"
Routed to Pond Infiltration : Infiltration

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-yr Rainfall=3.81"

Area (sf)	CN	Description
2,932	61	>75% Grass cover, Good, HSG B
2,932		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0830	1.75		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.3	30	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-4**: O-4**



Summary for Subcatchment P-1: P-1

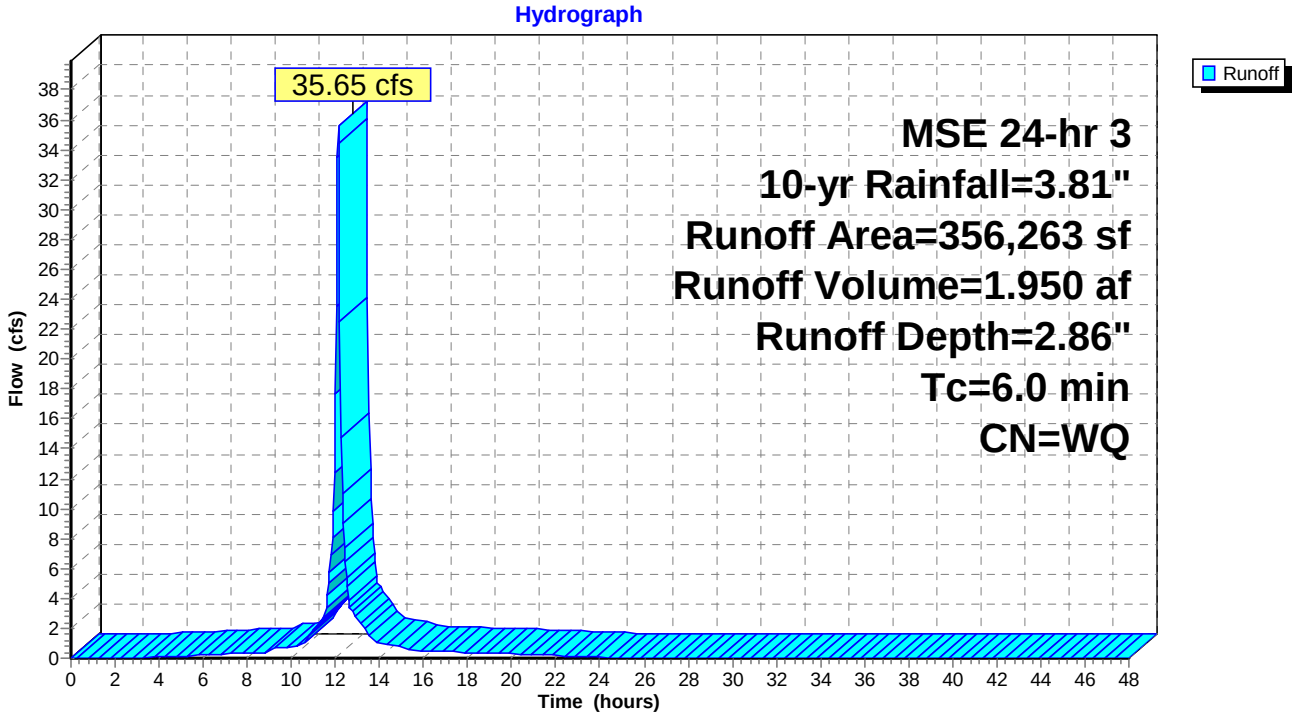
Runoff = 35.65 cfs @ 12.13 hrs, Volume= 1.950 af, Depth= 2.86"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-yr Rainfall=3.81"

Area (sf)	CN	Description
267,197	98	Paved parking, HSG B
89,066	61	>75% Grass cover, Good, HSG B
356,263		Weighted Average
89,066		25.00% Pervious Area
267,197		75.00% Impervious Area

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

Subcatchment P-1: P-1

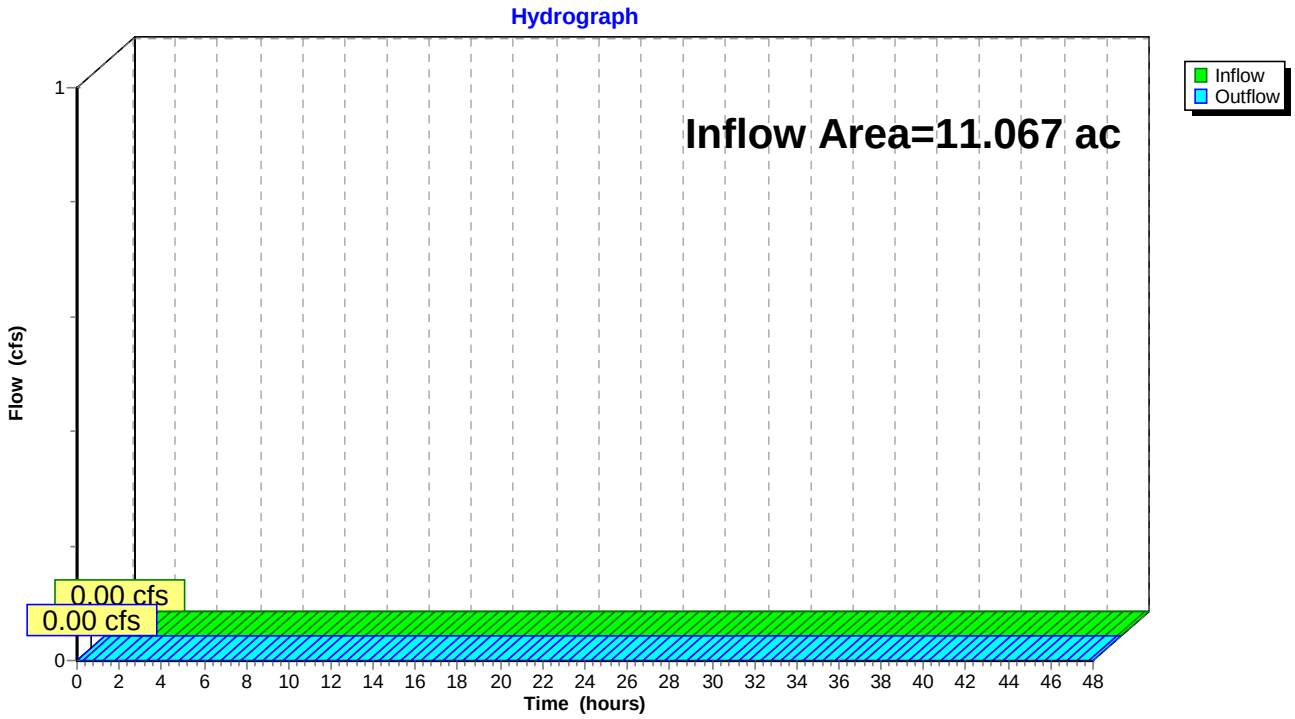


Summary for Reach 5R: Proposed Outfall

Inflow Area = 11.067 ac, 61.68% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Reach 5R: Proposed Outfall



Summary for Pond Bioretenion: Bioretenion

Inflow Area = 11.000 ac, 62.05% Impervious, Inflow Depth = 2.49" for 10-yr event
Inflow = 41.76 cfs @ 12.13 hrs, Volume= 2.284 af
Outflow = 23.87 cfs @ 12.22 hrs, Volume= 2.284 af, Atten= 43%, Lag= 5.3 min
Discarded = 1.25 cfs @ 12.22 hrs, Volume= 0.626 af
Primary = 22.62 cfs @ 12.22 hrs, Volume= 1.658 af
Routed to Pond Infiltration : Infiltration
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Pond Infiltration : Infiltration

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 827.51' @ 12.22 hrs Surf.Area= 10,616 sf Storage= 16,691 cf

Plug-Flow detention time= 15.1 min calculated for 2.281 af (100% of inflow)
Center-of-Mass det. time= 15.1 min (775.6 - 760.5)

Volume	Invert	Avail.Storage	Storage Description
#1	825.00'	44,777 cf	**Custom Stage Data (Conic)** Listed below (Recalc)
#2	822.00'	3,542 cf	**Custom Stage Data (Conic)** Listed below (Recalc) 11,805 cf Overall x 30.0% Voids
		48,318 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
825.00	3,935	0	0	3,935
826.00	4,937	4,427	4,427	4,964
827.00	6,059	5,488	9,915	6,117
828.00	7,313	6,676	16,591	7,404
829.00	8,674	7,984	24,575	8,801
830.00	10,092	9,374	33,949	10,260
831.00	11,580	10,827	44,777	11,793

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
822.00	3,935	0	0	3,935
823.00	3,935	3,935	3,935	4,157
824.00	3,935	3,935	7,870	4,380
825.00	3,935	3,935	11,805	4,602

Device	Routing	Invert	Outlet Devices
#1	Primary	822.00'	**18.0" Round Outlet Pipe** L= 34.7' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 822.00' / 822.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	822.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	825.50'	**36.0" Horiz. Riser** C= 0.600 Limited to weir flow at low heads
#4	Secondary	829.00'	**74.0' long x 5.0' breadth Weir to Infiltration Basin** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65

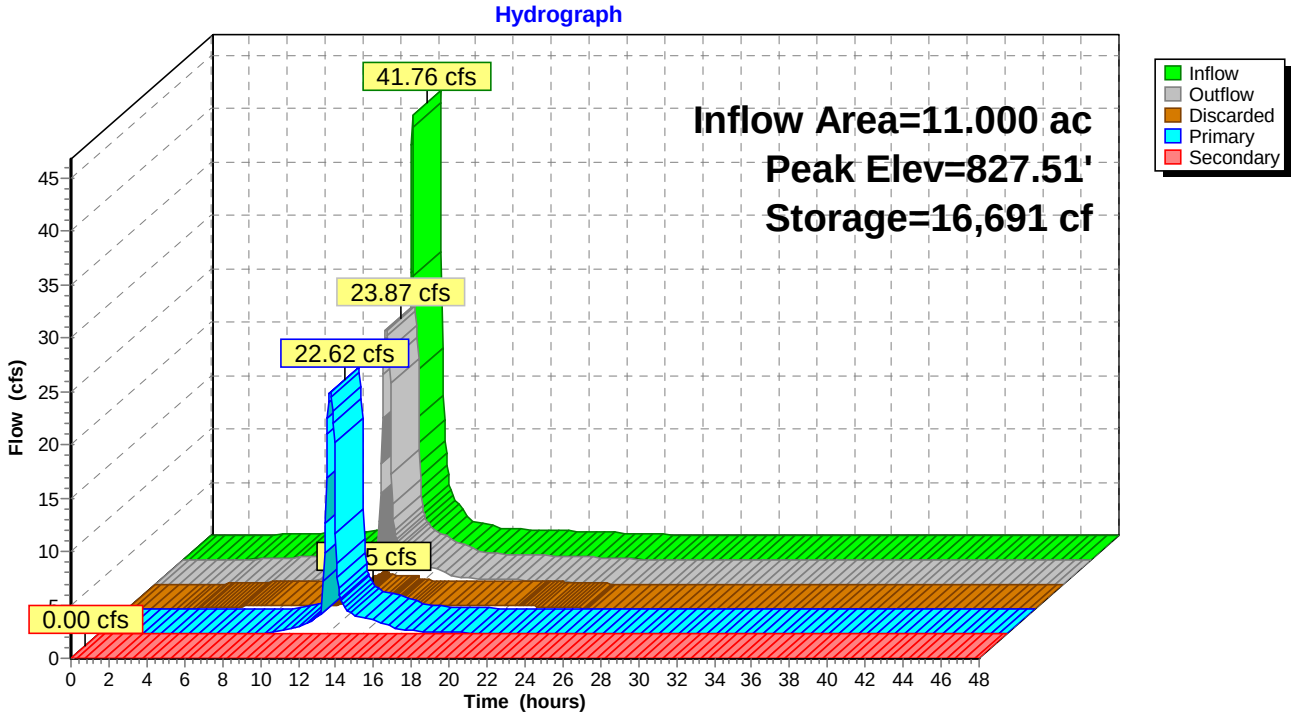
			2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#5	Discarded	822.00'	**3.600 in/hr Exfiltration over Surface area**
			Conductivity to Groundwater Elevation = 815.00'

Discarded OutFlow Max=1.24 cfs @ 12.22 hrs HW=827.47' (Free Discharge)
└**5=Exfiltration** (Controls 1.24 cfs)

Primary OutFlow Max=22.51 cfs @ 12.22 hrs HW=827.47' (Free Discharge)
└**1=Outlet Pipe** (Barrel Controls 22.51 cfs @ 12.74 fps)
└**2=Orifice/Grate** (Passes < 2.16 cfs potential flow)
└**3=Riser** (Passes < 47.77 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=822.00' (Free Discharge)
└**4=Weir to Infiltration Basin** (Controls 0.00 cfs)

Pond Bioretenion: Bioretenion



Summary for Pond Infiltration: Infiltration

Inflow Area = 11.067 ac, 61.68% Impervious, Inflow Depth = 1.80" for 10-yr event
Inflow = 22.67 cfs @ 12.22 hrs, Volume= 1.662 af
Outflow = 1.54 cfs @ 14.04 hrs, Volume= 1.662 af, Atten= 93%, Lag= 109.2 min
Discarded = 1.54 cfs @ 14.04 hrs, Volume= 1.662 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach 5R : Proposed Outfall

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 827.34' @ 14.04 hrs Surf.Area= 12,069 sf Storage= 47,852 cf

Plug-Flow detention time= 364.1 min calculated for 1.660 af (100% of inflow)
Center-of-Mass det. time= 364.2 min (1,123.6 - 759.4)

Volume	Invert	Avail.Storage	Storage Description
#1	822.00'	101,058 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

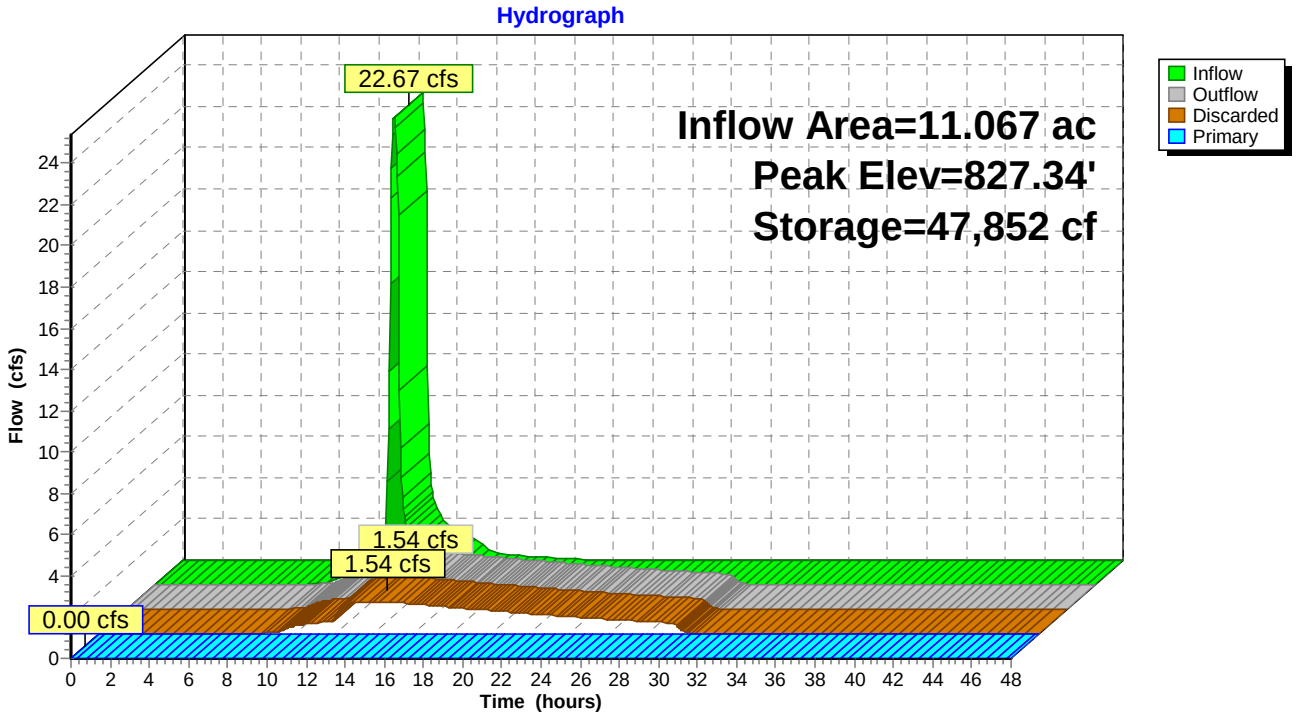
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
822.00	6,140	0	0	6,140
823.00	7,114	6,621	6,621	7,156
824.00	8,151	7,627	14,248	8,238
825.00	9,251	8,695	22,943	9,387
826.00	10,413	9,826	32,769	10,601
827.00	11,635	11,018	43,787	11,878
828.00	12,922	12,273	56,060	13,223
829.00	14,280	13,595	69,656	14,643
830.00	15,691	14,980	84,636	16,119
831.00	17,165	16,422	101,058	17,662

Device	Routing	Invert	Outlet Devices
#1	Primary	826.50'	**12.0" Round Outlet Pipe** L= 75.2' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 826.50' / 826.10' S= 0.0053 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Discarded	822.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 815.00'
#3	Device 1	830.95'	**36.0" Horiz. Riser** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.54 cfs @ 14.04 hrs HW=827.34' (Free Discharge)
└**2=Exfiltration** (Controls 1.54 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=822.00' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
└**3=Riser** (Controls 0.00 cfs)

Pond Infiltration: Infiltration



Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment O-1: O-1 Runoff Area=85,801 sf 34.71% Impervious Runoff Depth=3.45"
Flow Length=308' Tc=6.0 min CN=WQ Runoff=10.91 cfs 0.566 af

Subcatchment O-2: O-2 Runoff Area=25,778 sf 0.00% Impervious Runoff Depth=2.13"
Flow Length=224' Tc=6.0 min CN=61 Runoff=2.24 cfs 0.105 af

Subcatchment O-3: O-3 Runoff Area=3,411 sf 10.67% Impervious Runoff Depth=2.53"
Flow Length=45' Slope=0.0290 '/' Tc=6.0 min CN=WQ Runoff=0.34 cfs 0.017 af

Subcatchment O-4*: O-4* Runoff Area=7,908 sf 0.00% Impervious Runoff Depth=2.13"
Flow Length=30' Slope=0.0730 '/' Tc=6.0 min CN=61 Runoff=0.69 cfs 0.032 af

Subcatchment O-4: O-4**** Runoff Area=2,932 sf 0.00% Impervious Runoff Depth=2.13"
Flow Length=30' Slope=0.0830 '/' Tc=6.0 min CN=61 Runoff=0.25 cfs 0.012 af

Subcatchment P-1: P-1 Runoff Area=356,263 sf 75.00% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=WQ Runoff=62.16 cfs 3.400 af

Reach 5R: Proposed Outfall Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond Bioretenion: Bioretenion Peak Elev=829.34' Storage=31,125 cf Inflow=76.30 cfs 4.120 af
Discarded=1.65 cfs 0.806 af Primary=27.29 cfs 3.099 af Secondary=35.94 cfs 0.214 af Outflow=64.88 cfs 4.120 af

Pond Infiltration: Infiltration Peak Elev=830.92' Storage=99,646 cf Inflow=63.41 cfs 3.325 af
Discarded=2.45 cfs 3.325 af Primary=0.00 cfs 0.000 af Outflow=2.45 cfs 3.325 af

Total Runoff Area = 11.067 ac Runoff Volume = 4.132 af Average Runoff Depth = 4.48"
38.32% Pervious = 4.241 ac 61.68% Impervious = 6.826 ac

Summary for Subcatchment O-1: O-1

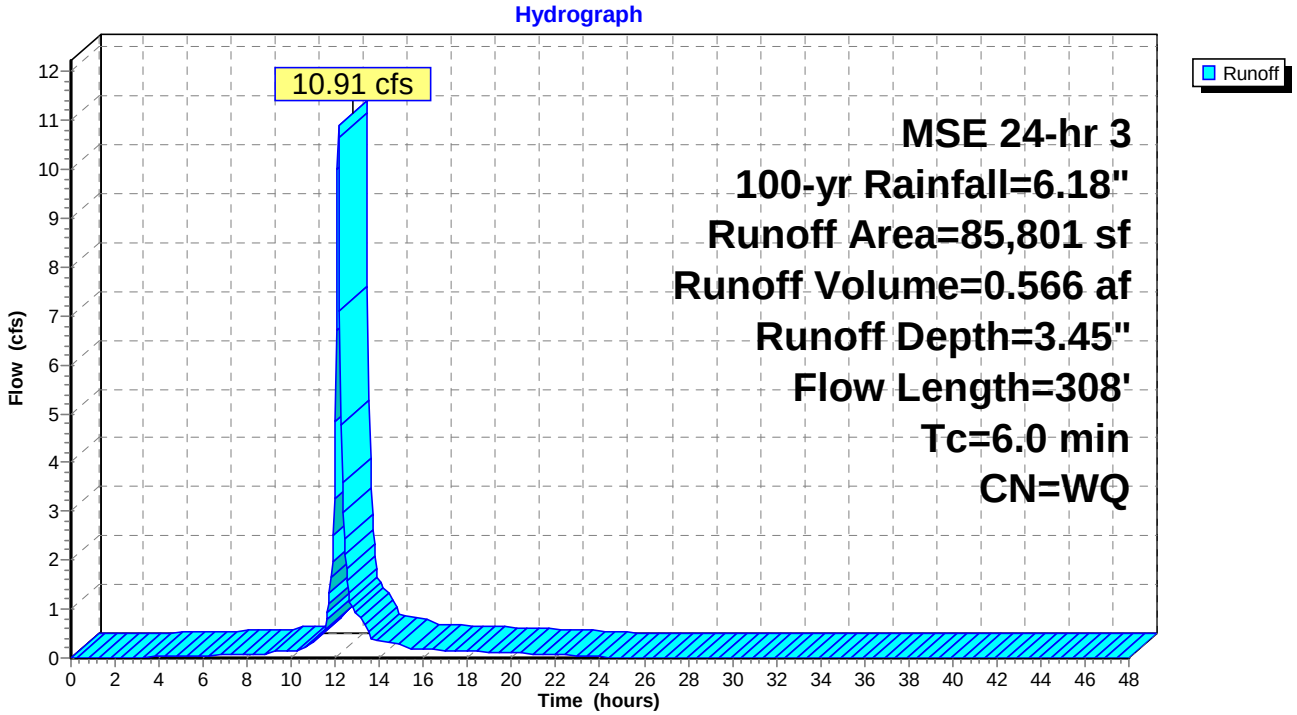
Runoff = 10.91 cfs @ 12.13 hrs, Volume= 0.566 af, Depth= 3.45"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.18"

Area (sf)	CN	Description
56,023	61	>75% Grass cover, Good, HSG B
24,161	98	Paved parking, HSG B
5,617	98	Roofs, HSG B
85,801		Weighted Average
56,023		65.29% Pervious Area
29,778		34.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	150	0.0730	2.30		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
1.5	158	0.0126	1.81		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.6	308	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-1: O-1



Summary for Subcatchment O-2: O-2

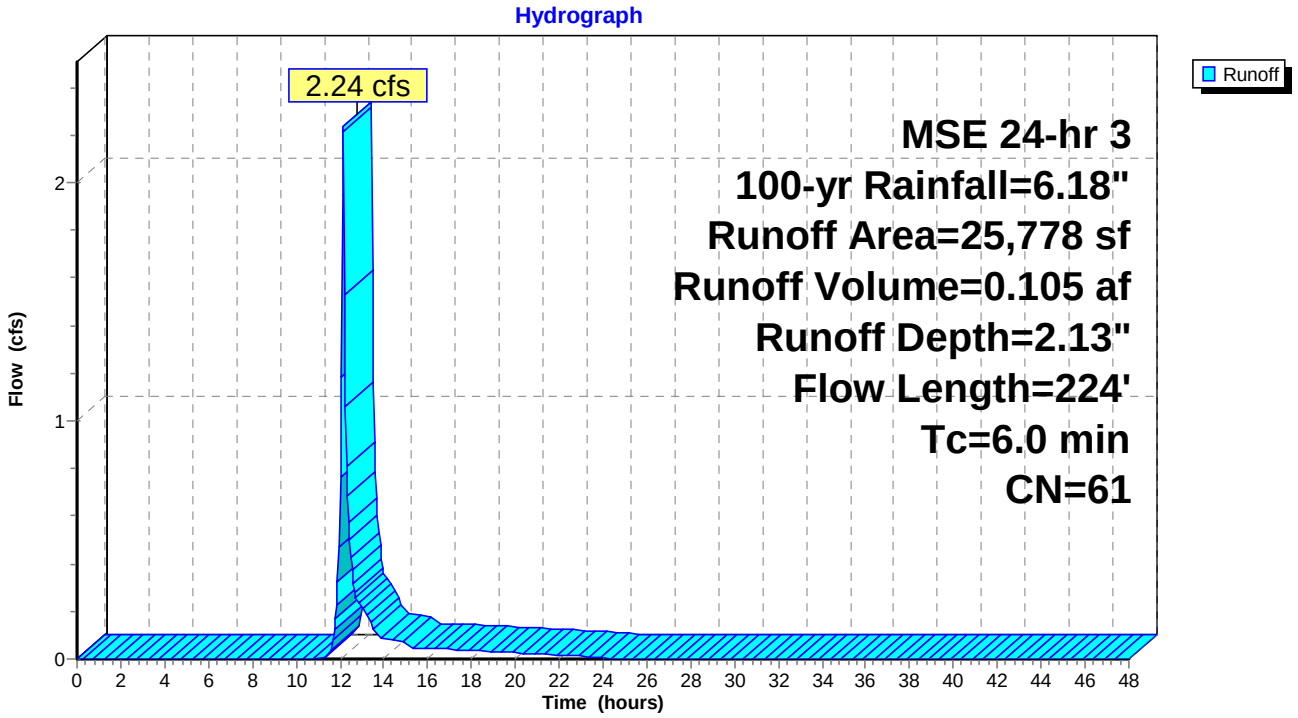
Runoff = 2.24 cfs @ 12.14 hrs, Volume= 0.105 af, Depth= 2.13"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.18"

Area (sf)	CN	Description
25,778	61	>75% Grass cover, Good, HSG B
25,778		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	150	0.0300	1.61		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.7	74	0.0135	1.87		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
2.3	224	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-2: O-2



Summary for Subcatchment O-3: O-3

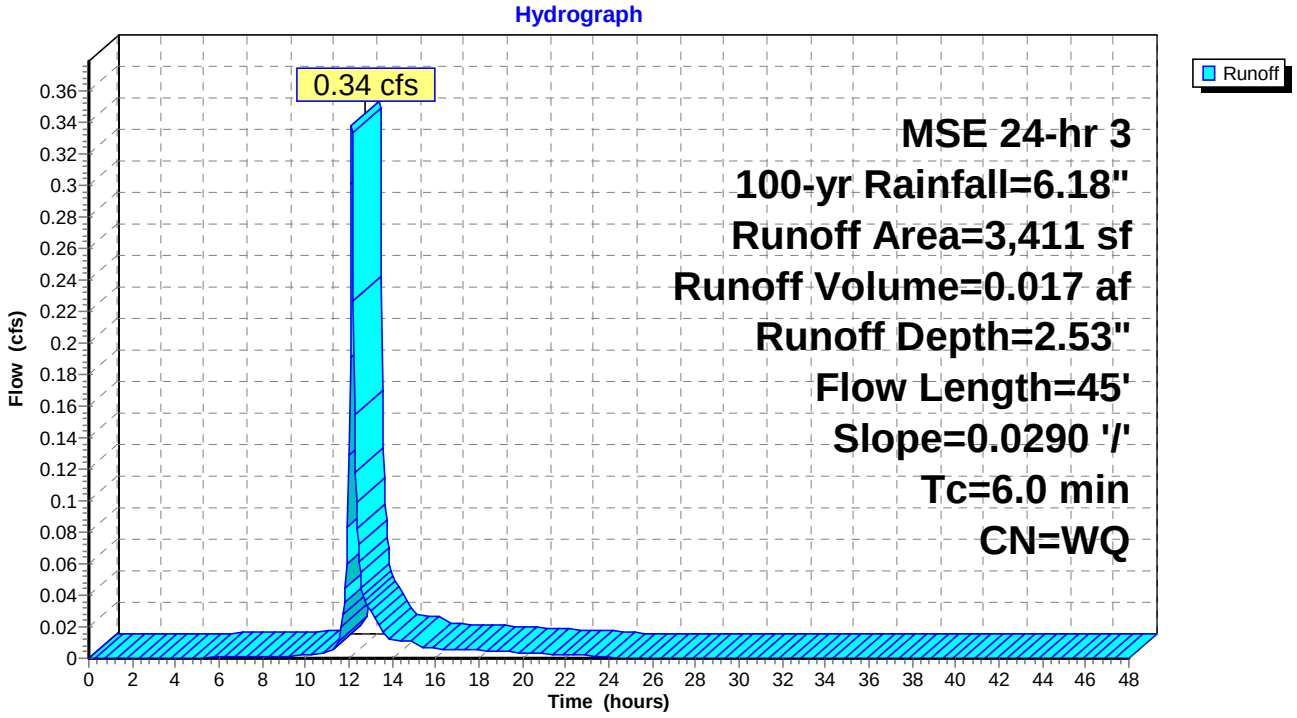
Runoff = 0.34 cfs @ 12.14 hrs, Volume= 0.017 af, Depth= 2.53"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.18"

Area (sf)	CN	Description
3,047	61	>75% Grass cover, Good, HSG B
364	98	Roofs, HSG B
3,411		Weighted Average
3,047		89.33% Pervious Area
364		10.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	45	0.0290	1.25		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.6	45	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-3: O-3



Summary for Subcatchment O-4*: O-4*

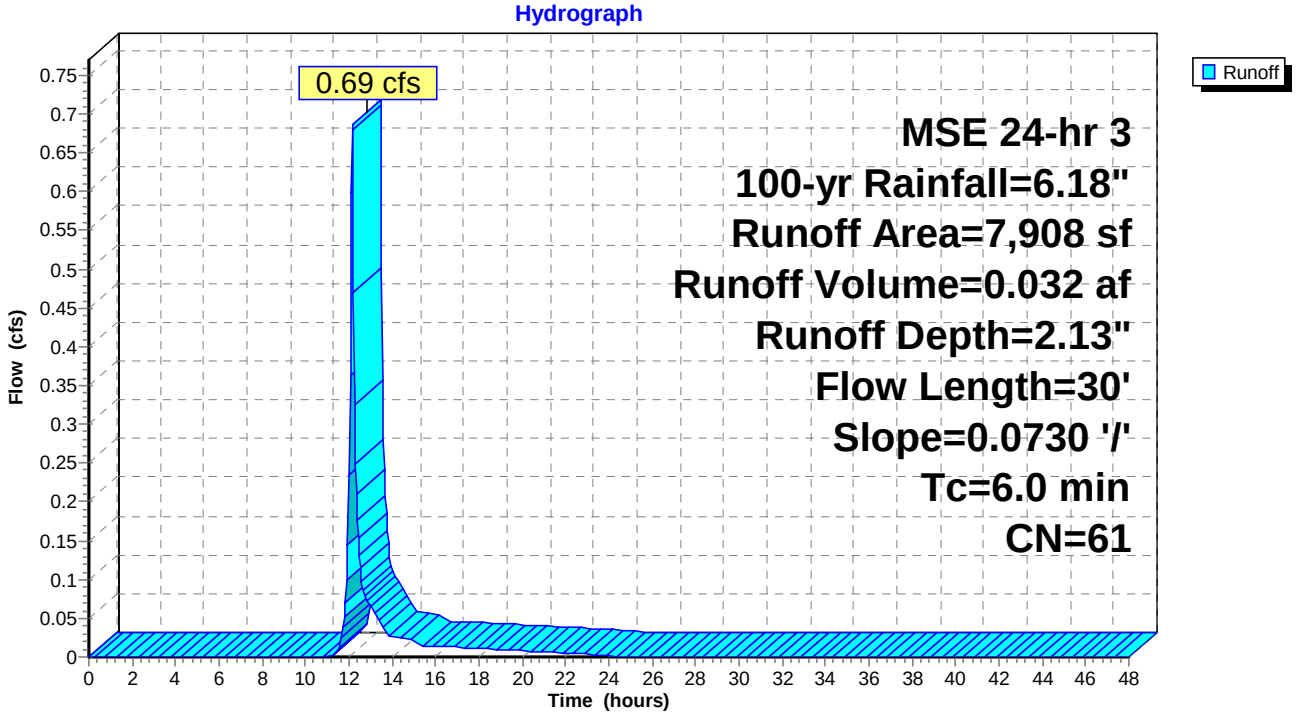
Runoff = 0.69 cfs @ 12.14 hrs, Volume= 0.032 af, Depth= 2.13"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.18"

Area (sf)	CN	Description
7,908	61	>75% Grass cover, Good, HSG B
7,908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0730	1.67		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.3	30	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-4*: O-4*



Summary for Subcatchment O-4**: O-4**

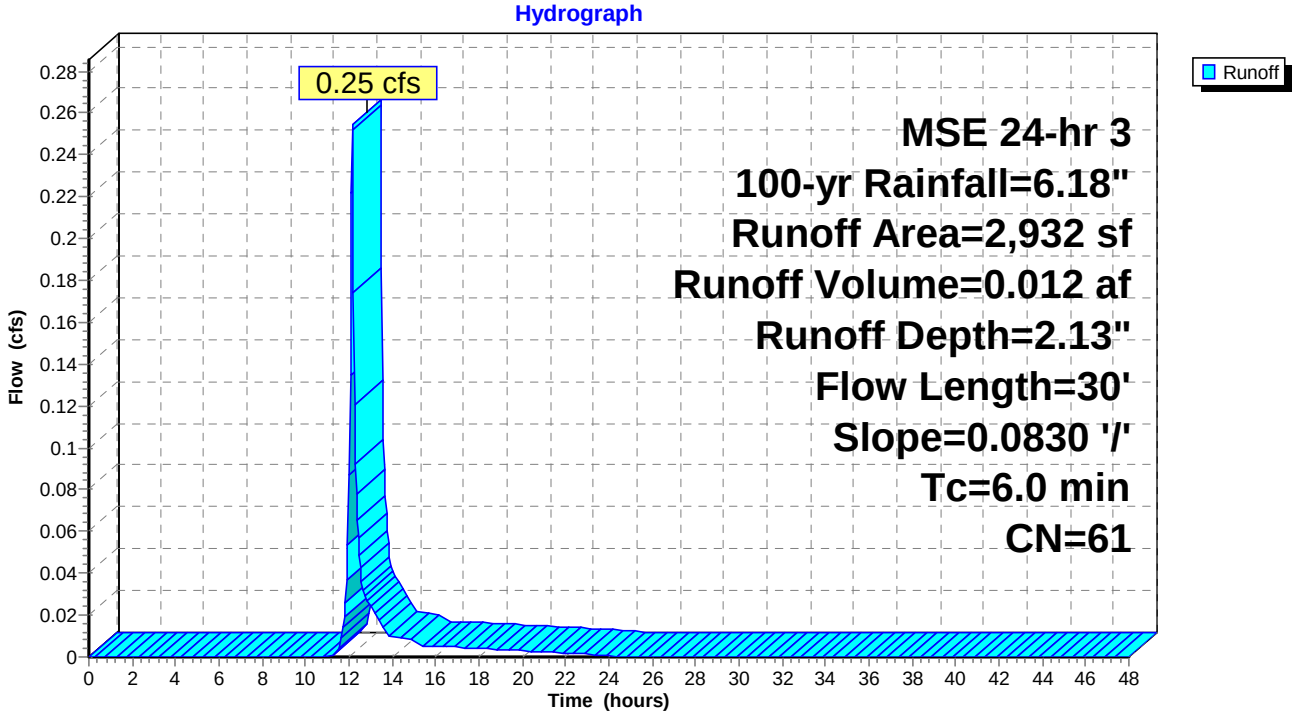
Runoff = 0.25 cfs @ 12.14 hrs, Volume= 0.012 af, Depth= 2.13"
Routed to Pond Infiltration : Infiltration

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.18"

Area (sf)	CN	Description
2,932	61	>75% Grass cover, Good, HSG B
2,932		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	30	0.0830	1.75		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.3	30	Total, Increased to minimum Tc = 6.0 min			

Subcatchment O-4**: O-4**



Summary for Subcatchment P-1: P-1

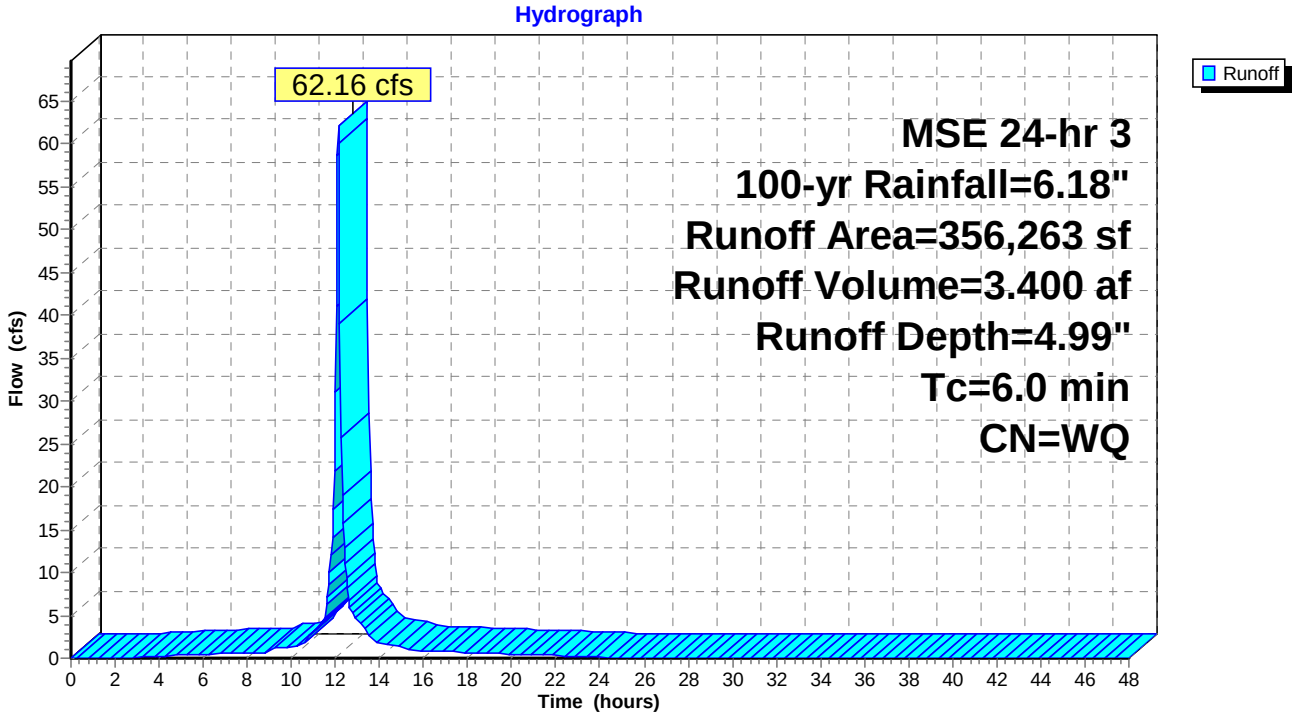
Runoff = 62.16 cfs @ 12.13 hrs, Volume= 3.400 af, Depth= 4.99"
Routed to Pond Bioretenion : Bioretenion

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-yr Rainfall=6.18"

Area (sf)	CN	Description
267,197	98	Paved parking, HSG B
89,066	61	>75% Grass cover, Good, HSG B
356,263		Weighted Average
89,066		25.00% Pervious Area
267,197		75.00% Impervious Area

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

Subcatchment P-1: P-1

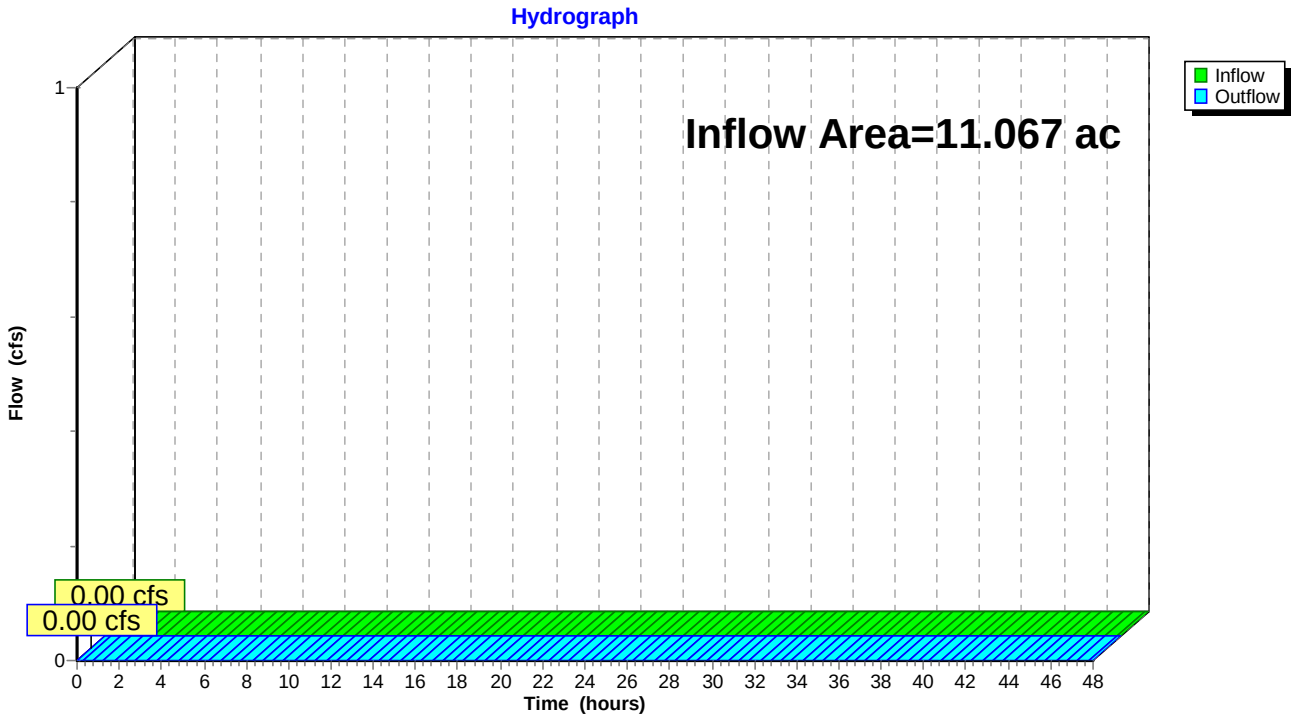


Summary for Reach 5R: Proposed Outfall

Inflow Area = 11.067 ac, 61.68% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Reach 5R: Proposed Outfall



Summary for Pond Bioretenion: Bioretenion

Inflow Area = 11.000 ac, 62.05% Impervious, Inflow Depth = 4.49" for 100-yr event
Inflow = 76.30 cfs @ 12.13 hrs, Volume= 4.120 af
Outflow = 64.88 cfs @ 12.20 hrs, Volume= 4.120 af, Atten= 15%, Lag= 4.3 min
Discarded = 1.65 cfs @ 12.20 hrs, Volume= 0.806 af
Primary = 27.29 cfs @ 12.20 hrs, Volume= 3.099 af
Routed to Pond Infiltration : Infiltration
Secondary = 35.94 cfs @ 12.20 hrs, Volume= 0.214 af
Routed to Pond Infiltration : Infiltration

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 829.34' @ 12.20 hrs Surf.Area= 13,076 sf Storage= 31,125 cf

Plug-Flow detention time= 15.4 min calculated for 4.115 af (100% of inflow)
Center-of-Mass det. time= 15.4 min (772.8 - 757.4)

Volume	Invert	Avail.Storage	Storage Description
#1	825.00'	44,777 cf	**Custom Stage Data (Conic)** Listed below (Recalc)
#2	822.00'	3,542 cf	**Custom Stage Data (Conic)** Listed below (Recalc) 11,805 cf Overall x 30.0% Voids
		48,318 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
825.00	3,935	0	0	3,935
826.00	4,937	4,427	4,427	4,964
827.00	6,059	5,488	9,915	6,117
828.00	7,313	6,676	16,591	7,404
829.00	8,674	7,984	24,575	8,801
830.00	10,092	9,374	33,949	10,260
831.00	11,580	10,827	44,777	11,793

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
822.00	3,935	0	0	3,935
823.00	3,935	3,935	3,935	4,157
824.00	3,935	3,935	7,870	4,380
825.00	3,935	3,935	11,805	4,602

Device	Routing	Invert	Outlet Devices
#1	Primary	822.00'	**18.0" Round Outlet Pipe** L= 34.7' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 822.00' / 822.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	822.00'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	825.50'	**36.0" Horiz. Riser** C= 0.600 Limited to weir flow at low heads
#4	Secondary	829.00'	**74.0' long x 5.0' breadth Weir to Infiltration Basin** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65

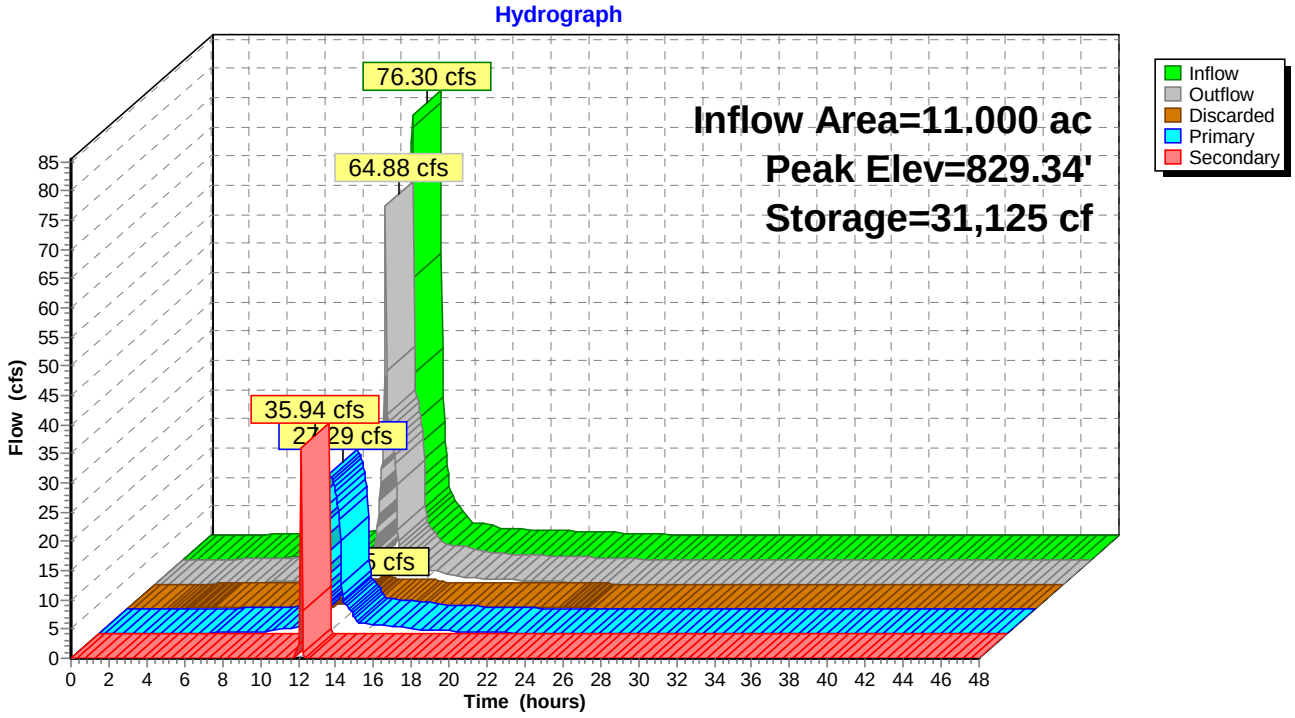
			2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#5	Discarded	822.00'	**3.600 in/hr Exfiltration over Surface area**
			Conductivity to Groundwater Elevation = 815.00'

Discarded OutFlow Max=1.65 cfs @ 12.20 hrs HW=829.33' (Free Discharge)
└**5=Exfiltration** (Controls 1.65 cfs)

Primary OutFlow Max=27.29 cfs @ 12.20 hrs HW=829.33' (Free Discharge)
└**1=Outlet Pipe** (Barrel Controls 27.29 cfs @ 15.44 fps)
  └**2=Orifice/Grate** (Passes < 2.52 cfs potential flow)
  └**3=Riser** (Passes < 66.65 cfs potential flow)

Secondary OutFlow Max=35.21 cfs @ 12.20 hrs HW=829.34' (Free Discharge)
└**4=Weir to Infiltration Basin** (Weir Controls 35.21 cfs @ 1.42 fps)

Pond Bioretenion: Bioretenion



Summary for Pond Infiltration: Infiltration

Inflow Area = 11.067 ac, 61.68% Impervious, Inflow Depth = 3.61" for 100-yr event
Inflow = 63.41 cfs @ 12.20 hrs, Volume= 3.325 af
Outflow = 2.45 cfs @ 13.61 hrs, Volume= 3.325 af, Atten= 96%, Lag= 84.4 min
Discarded = 2.45 cfs @ 13.61 hrs, Volume= 3.325 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach 5R : Proposed Outfall

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 830.92' @ 13.61 hrs Surf.Area= 17,041 sf Storage= 99,646 cf

Plug-Flow detention time= 495.5 min calculated for 3.322 af (100% of inflow)
Center-of-Mass det. time= 496.0 min (1,261.4 - 765.4)

Volume	Invert	Avail.Storage	Storage Description
#1	822.00'	101,058 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

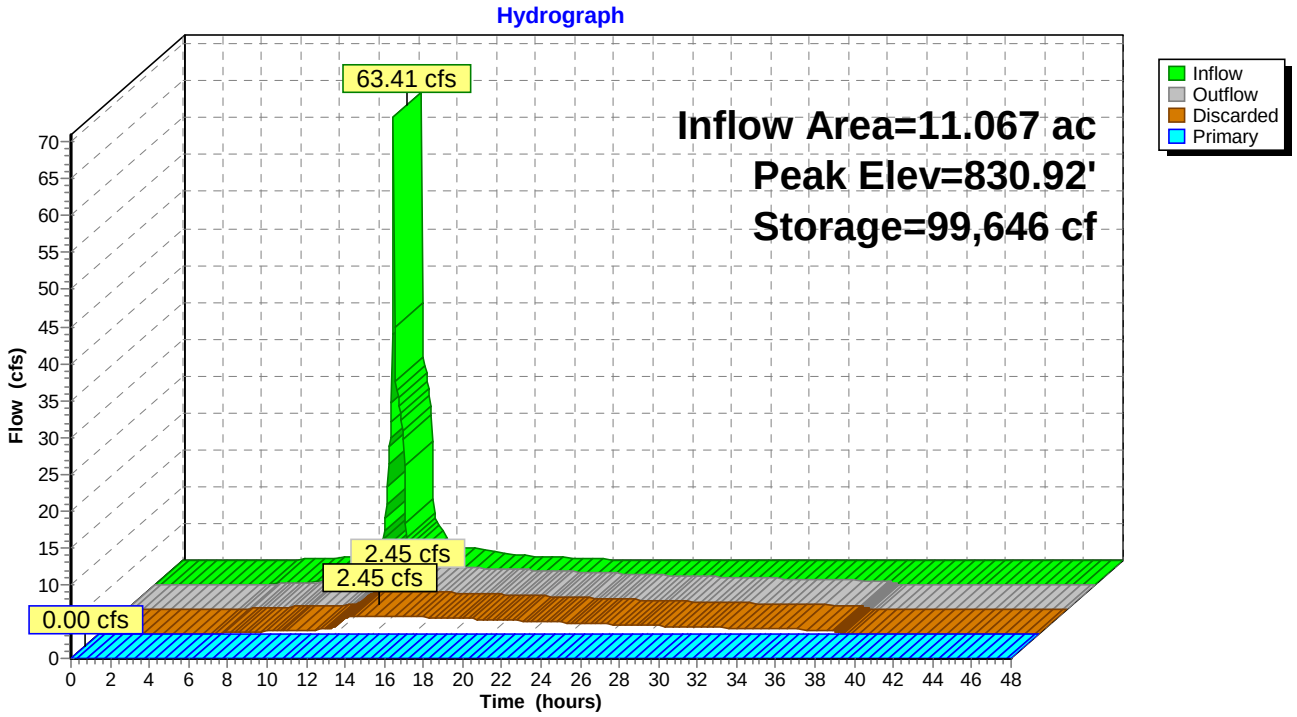
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
822.00	6,140	0	0	6,140
823.00	7,114	6,621	6,621	7,156
824.00	8,151	7,627	14,248	8,238
825.00	9,251	8,695	22,943	9,387
826.00	10,413	9,826	32,769	10,601
827.00	11,635	11,018	43,787	11,878
828.00	12,922	12,273	56,060	13,223
829.00	14,280	13,595	69,656	14,643
830.00	15,691	14,980	84,636	16,119
831.00	17,165	16,422	101,058	17,662

Device	Routing	Invert	Outlet Devices
#1	Primary	826.50'	**12.0" Round Outlet Pipe** L= 75.2' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 826.50' / 826.10' S= 0.0053 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Discarded	822.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 815.00'
#3	Device 1	830.95'	**36.0" Horiz. Riser** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.45 cfs @ 13.61 hrs HW=830.92' (Free Discharge)
└**2=Exfiltration** (Controls 2.45 cfs)

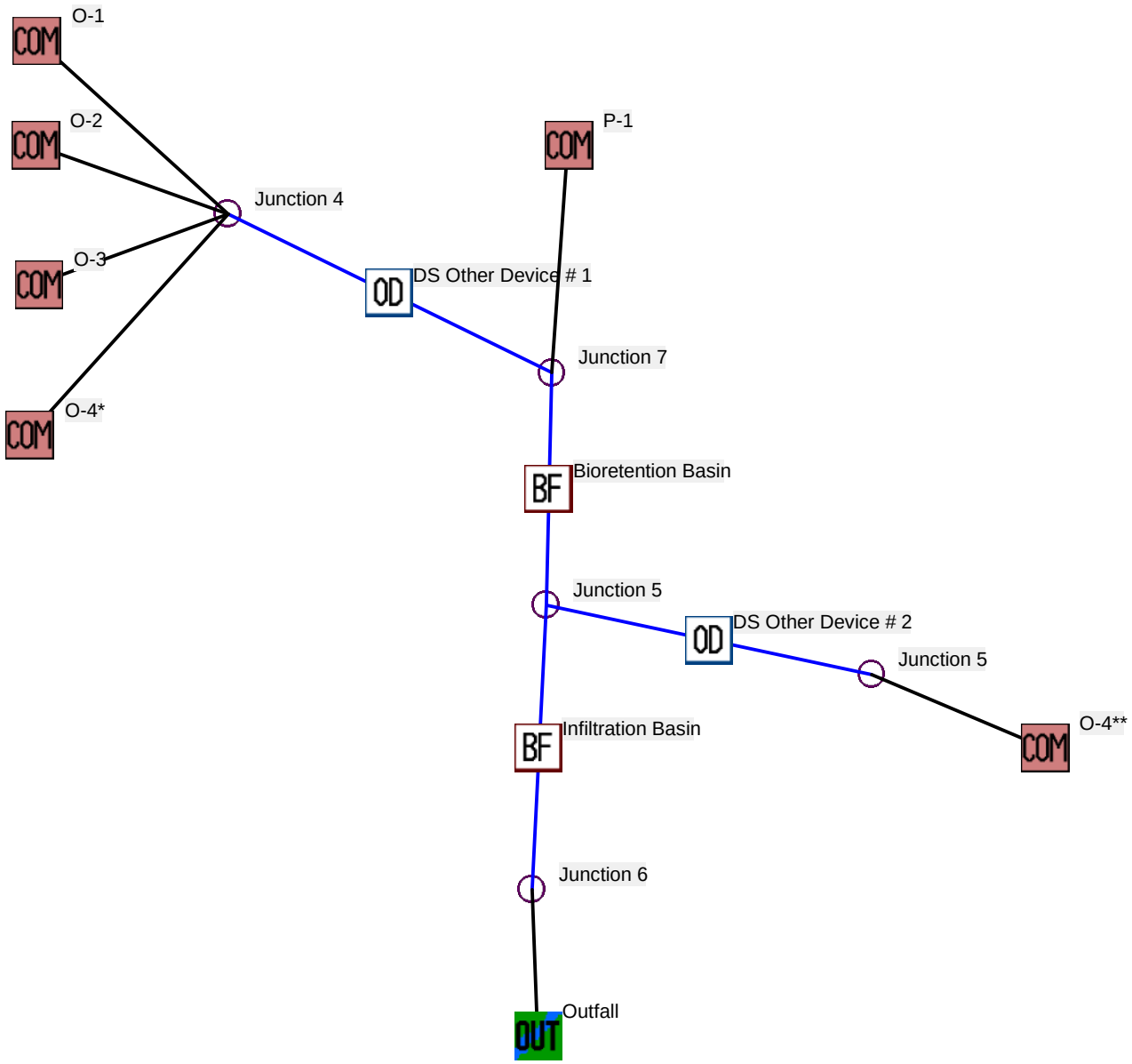
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=822.00' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
└**3=Riser** (Controls 0.00 cfs)

Pond Infiltration: Infiltration



Appendix C -

Storm Water Quality Calculations - WinSLAMM


O-1
O-2
O-3
O-4*
Junction 4
DS Other Device # 1
P-1
Junction 7
Bioretention Basin
Junction 5
DS Other Device # 2
Junction 5
O-4**
Infiltration Basin
Junction 6
Outfall

Data file name: P:\Mikko Erkamma - 911\001 - Kiwaniis Site\Engineering\Stormwater\SLAMM\260511 911-001_Kiwanis.mdb
WinSLAMM Version 10.5.0
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:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations
Seed for random number generator: -42
Study period starting date: 03/28/69 Study period ending date: 12/06/69
Date: 05-11-2026 Time: 16:29:08
Site information:

LU# 1 - Commercial: P-1 Total area (ac): 8.179
13 - Paved Parking 1: 6.134 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 2.045 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Commercial: O-1 Total area (ac): 1.970
1 - Roofs 1: 0.129 ac. Flat Connected PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
13 - Paved Parking 1: 0.555 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 1.286 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Commercial: O-2 Total area (ac): 0.592
45 - Large Landscaped Areas 1: 0.592 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 4 - Commercial: O-3 Total area (ac): 0.078
1 - Roofs 1: 0.008 ac. Flat Connected PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.070 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 5 - Commercial: O-4* Total area (ac): 0.182
45 - Large Landscaped Areas 1: 0.182 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 6 - Commercial: O-4** Total area (ac): 0.067
45 - Large Landscaped Areas 1: 0.067 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) - Infiltration Basin
1. Top area (square feet) = 17165
2. Bottom aea (square feet) = 6140
3. Depth (ft): 10
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 3.6
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 0
12. Engineered soil depth (ft) = 0
13. Engineered soil porosity = 0.3
14. Percent solids reduction due to flow through engineered soil = 0
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0
Soil Data Soil Type Fraction in Eng. Soil
User-Defined Media Type 1.000
Biofilter Outlet/Discharge Characteristics:
Outlet type: Broad Crested Weir
1. Weir crest length (ft): 10
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 9
Outlet type: Vertical Stand Pipe
1. Stand pipe diameter (ft): 3
2. Stand pipe height above datum (ft): 8.95

Control Practice 2: Biofilter CP# 2 (DS) - Bioretention Basin
1. Top area (square feet) = 11580
2. Bottom aea (square feet) = 3935
3. Depth (ft): 8
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 3.6
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 1
10. Porosity of rock filled volume = 0.3
11. Engineered soil infiltration rate: 8
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.3
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil
User-Defined Media Type 1.000

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir
1. Weir crest length (ft): 74
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 7

Outlet type: Vertical Stand Pipe
1. Stand pipe diameter (ft): 3
2. Stand pipe height above datum (ft): 3.5

Outlet type: Drain Tile/Underdrain
1. Underdrain outlet diameter (ft): 0.5
2. Invert elevation above datum (ft): 0
3. Number of underdrain outlets: 1

Control Practice 3: Other Device CP# 1 (DS) - DS Other Device # 1
Fraction of drainage area served by device (ac) = 1.00
Particulate Concentration reduction fraction = 1.00
Filterable Concentration reduction fraction = 0.00
Runoff volume reduction fraction = 0

Control Practice 4: Other Device CP# 2 (DS) - DS Other Device # 2
Fraction of drainage area served by device (ac) = 1.00
Particulate Concentration reduction fraction = 1.00
Filterable Concentration reduction fraction = 0.00
Runoff volume reduction fraction = 0

SLAMM for Windows Version 10.5.0
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Data file name: P:\Mikko Erkamma - 911\001 - Kiwaniis Site\Engineering\Stormwater\SLAMM\260511 911-001_Kiwanis.mdb
WinSLAMM Version 10.5.0
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
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
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
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load % Reduction calculations
Seed for random number generator: -42
Study period starting date: 03/28/69 Study period ending date: 12/06/69
Model Run Start Date: 03/28/69 Model Run End Date: 12/06/69
Date of run: 05-11-2026 Time of run: 16:30:17
Total Area Modeled (acres): 11.068
Years in Model Run: 0.67

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of all Land Uses without Controls:	529584	-	116.6	3855	-
Outfall Total with Controls:	0	100.00%	0	0	100.00%
Annualized Total After Outfall Controls:	0			0	

Pollutant	Conc. No Controls	Conc. With Controls	Conc. Units	Pollutant Yield No Controls	Pollutant Yield With Controls	Pol. Yield Units	Percent Reduction
Particulate Solids	116.6	0	mg/L	3855	0	lbs	100.00 %
Total Phosphorus	0.1981	0	mg/L	6.548	0	lbs	100.00 %

. Percent Solids Reduction due to Engineered Media Not Used
Biofilter # 2 is expected to clog in 2.64 years.. Percent Solids Reduction due to Engineered Media = 80

Appendix D -

Infiltration Stay-On Results - WinSLAMM

Pre-Developed Stay-On Depth

Land Uses | Junctions

Runoff Volume (cf) | Part. Solids Yield (lbs)

Data File: P:\Mikko Erkamma - 911\001 - Kiwaniis Site\Engineering\Stormwater\SLAMM\260511 911-001_Kiwanis_Pre Development In

Rain File: WI Milwaukee 69.RAN

Date: 05-11-26 Time: 4:10:37 PM

Site Description:

Runoff Volume Total (cf) at the Outfall

Rain Number	Start Date	Rain Total (in)	Outfall Total (cf)	Rv	Total Losses (in.)	Calculated CN*	Event Peak Flow (cfs)
70	07/18/69	0.01	21.59	0.054	0.01	99.7	0.019
71	07/23/69	0.11	1302	0.295	0.08	98.7	0.573
72	07/26/69	1.37	28651	0.521	0.66	92.3	12.601
73	07/27/69	1.38	28904	0.521	0.66	92.3	1.017
74	07/31/69	0.04	341.4	0.212	0.03	99.4	0.150
75	08/04/69	0.03	194.3	0.161	0.03	99.5	0.085
76	08/07/69	0.10	1149	0.286	0.07	98.8	0.144
77	08/09/69	0.08	864.2	0.269	0.06	99.0	0.253
78	08/16/69	0.32	4870	0.379	0.20	97.1	2.142
79	09/04/69	0.36	5631	0.389	0.22	96.8	0.495
80	09/05/69	0.74	13351	0.449	0.41	94.7	5.872
81	09/14/69	0.01	21.59	0.054	0.01	99.7	0.019
82	09/15/69	0.03	194.3	0.161	0.03	99.5	0.171
83	09/16/69	0.03	194.3	0.161	0.03	99.5	0.085
84	09/23/69	0.16	2092	0.325	0.11	98.3	0.368
85	09/25/69	0.01	21.59	0.054	0.01	99.7	0.019
86	09/29/69	0.84	15591	0.462	0.45	94.2	2.743
87	10/06/69	0.01	21.59	0.054	0.01	99.7	0.019
88	10/06/69	0.01	21.59	0.054	0.01	99.7	0.019
89	10/09/69	0.05	455.4	0.227	0.04	99.3	0.134
90	10/10/69	0.14	1767	0.314	0.10	98.4	0.389
91	10/10/69	1.34	27895	0.518	0.65	92.4	1.753
92	10/12/69	1.63	35328	0.539	0.75	91.5	1.243
93	10/15/69	0.16	2092	0.325	0.11	98.3	0.184
94	10/19/69	0.44	7170	0.406	0.26	96.3	0.573
95	10/19/69	0.35	5438	0.387	0.21	96.9	0.683
96	10/21/69	0.02	86.34	0.107	0.02	99.6	0.076
97	10/24/69	0.01	21.59	0.054	0.01	99.7	0.019
98	10/30/69	0.32	4870	0.379	0.20	97.1	0.268
99	11/02/69	0.77	14014	0.453	0.42	94.6	0.352
100	11/11/69	0.05	455.4	0.227	0.04	99.3	0.100
101	11/11/69	0.04	341.4	0.212	0.03	99.4	0.150
102	11/13/69	0.03	194.3	0.161	0.03	99.5	0.057
103	11/17/69	0.15	1927	0.320	0.10	98.4	0.565
104	11/18/69	0.02	86.34	0.107	0.02	99.6	0.013
105	11/19/69	0.01	21.59	0.054	0.01	99.7	0.019
106	11/26/69	0.07	718.0	0.255	0.05	99.1	0.211
Minimum:		0.01	21.59	0.054	0.01	90.4	0.013
Maximum:		1.96	43744	0.556	0.87	99.7	12.601
Average:		0.33	5950	0.288	0.18	93.8	2.901
Total:		29.02	529582		15.91		

* Note: NRCS does not recommend using CN method for rains < 0.5 in.
See 'PreDevelopment Areas and CN' Help for more info.

Pre-Developed Stay-On Depth = 15.91 inches

75% of Pre-Developed Stay-On Depth = 11.93 inches

Post-Developed Stay-On Depth

Land Uses | Junctions

Runoff Volume (cf) | Part. Solids Yield (lbs)

Data File: P:\Mikko Erkamma - 911\001 - Kiwaniis Site\Engineering\Stormwater\SLAMM\260511 911-001_Kiwanis.mdb
Rain File: WI Milwaukee 69.RAN
Date: 05-11-26 Time: 4:09:42 PM
Site Description:

Runoff Volume Total (cf) at the Outfall

Rain Number	Start Date	Rain Total (in)	Outfall Total (cf)	Rv	Total Losses (in.)	Calculated CN*	Event Peak Flow (cfs)
70	07/18/69	0.01	0	0.000	0.01	n/a	0.000
71	07/23/69	0.11	0	0.000	0.11	n/a	0.000
72	07/26/69	1.37	0	0.000	1.37	n/a	0.000
73	07/27/69	1.38	0	0.000	1.38	n/a	0.000
74	07/31/69	0.04	0	0.000	0.04	n/a	0.000
75	08/04/69	0.03	0	0.000	0.03	n/a	0.000
76	08/07/69	0.10	0	0.000	0.10	n/a	0.000
77	08/09/69	0.08	0	0.000	0.08	n/a	0.000
78	08/16/69	0.32	0	0.000	0.32	n/a	0.000
79	09/04/69	0.36	0	0.000	0.36	n/a	0.000
80	09/05/69	0.74	0	0.000	0.74	n/a	0.000
81	09/14/69	0.01	0	0.000	0.01	n/a	0.000
82	09/15/69	0.03	0	0.000	0.03	n/a	0.000
83	09/16/69	0.03	0	0.000	0.03	n/a	0.000
84	09/23/69	0.16	0	0.000	0.16	n/a	0.000
85	09/25/69	0.01	0	0.000	0.01	n/a	0.000
86	09/29/69	0.84	0	0.000	0.84	n/a	0.000
87	10/06/69	0.01	0	0.000	0.01	n/a	0.000
88	10/06/69	0.01	0	0.000	0.01	n/a	0.000
89	10/09/69	0.05	0	0.000	0.05	n/a	0.000
90	10/10/69	0.14	0	0.000	0.14	n/a	0.000
91	10/10/69	1.34	0	0.000	1.34	n/a	0.000
92	10/12/69	1.63	0	0.000	1.63	n/a	0.000
93	10/15/69	0.16	0	0.000	0.16	n/a	0.000
94	10/19/69	0.44	0	0.000	0.44	n/a	0.000
95	10/19/69	0.35	0	0.000	0.35	n/a	0.000
96	10/21/69	0.02	0	0.000	0.02	n/a	0.000
97	10/24/69	0.01	0	0.000	0.01	n/a	0.000
98	10/30/69	0.32	0	0.000	0.32	n/a	0.000
99	11/02/69	0.77	0	0.000	0.77	n/a	0.000
100	11/11/69	0.05	0	0.000	0.05	n/a	0.000
101	11/11/69	0.04	0	0.000	0.04	n/a	0.000
102	11/13/69	0.03	0	0.000	0.03	n/a	0.000
103	11/17/69	0.15	0	0.000	0.15	n/a	0.000
104	11/18/69	0.02	0	0.000	0.02	n/a	0.000
105	11/19/69	0.01	0	0.000	0.01	n/a	0.000
106	11/26/69	0.07	0	0.000	0.07	n/a	0.000
Minimum:		0.01	0	0.000	0.01	9999999.0	0.000
Maximum:		1.96	0	0.000	1.96	0.0	0.000
Average:		0.33	0	0.000	0.33		
Total:		29.02	0		29.02		

* Note: NRCS does not recommend using CN method for rains < 0.5 in.
See 'PreDevelopment Areas and CN' Help for more info.

Post-Developed Stay-On Depth = 29.02 inches

Appendix E – Geotechnical Report

2135 South 116th Street
West Allis, WI 53227

May 6, 2024

Jason Heinonen
Endpoint Solutions Corp.
6871 South Lovers Lane
Franklin, WI 53132

Subject: Geotechnical Consulting Services - *revised*
Kiwanis Park Development
Veterans Way & Hwy 83, Mukwonago, Wisconsin

Dear Mr. Heinonen:

GeoTest, Inc. (GeoTest) has prepared this geotechnical engineering report related to the above-referenced project. This report describes the subsurface exploration and laboratory testing programs and presents recommendations regarding civil and structural engineering design aspects of the project, as well as other construction considerations.

Project Description

Endpoint Solutions is part of the design team retained to create conceptual plans for the development of the Kiwanis Park property located at the northwest corner of Veterans Way and Hwy 83 in Mukwonago, Wisconsin. The location of the project is illustrated on Figure 1 in Appendix A.

Specific development plans have not been created, but a conceptual plan consisting of eight slab-on-grade buildings is illustrated on Figure 2 in Appendix A. The development would certainly include asphalt parking and drive areas and stormwater management systems.

The property is currently undeveloped parkland. The ground surface is mostly covered with grass, besides an asphalt driveway and a few trees. The ground surface is relatively flat, sloping downward from the northeast corner to the south with an elevation difference of about 15 feet.

Structural loads will be dependent on the buildings and could range from light for single-story commercial to moderate for multi-story office or residential. To advance this analysis, we assumed finished floor elevations would be near the existing ground elevations and the site will a maximum of 3 feet of grade changes.

Scope of Work

Geotechnical Subsurface Exploration

The geotechnical exploration program consisted of ten borings drilled to depths of 20 feet below the existing ground surface. The boring locations are identified on the Boring

Location Diagram (Figure 2) in Appendix A. The ground surface elevations at the boring locations were surveyed by Endpoint Solutions Corp.

The borings were drilled using conventional hollow-stem augers. Soil samples were obtained at 2.5-foot intervals to a depth of 10 feet and 5-foot intervals thereafter. The soil samples were obtained by split-barrel sampling procedures, in general accordance with ASTM D1586. Representative portions of the samples were sealed in glass jars and returned to GeoTest for laboratory testing and classification.

Descriptive logs for each boring, which describe the method of borehole advancement, sample types, sample depths, and observations regarding soil and groundwater conditions, were prepared at the time of drilling. These logs were utilized by a GeoTest geotechnical engineer as an aid to prepare the final boring logs and cross-section included in Appendix B.

Water level information, if encountered, was noted during drilling.

All drilling and sampling procedures are described in Appendix C.

Laboratory Testing

A GeoTest geotechnical engineer examined and visually classified each sample, based on texture and plasticity, in accordance with the Unified Soil Classification System (USCS) and the US Department of Agriculture (USDA) soil classification system. The engineer grouped like soil samples into strata that are illustrated on the soil boring logs and completed the *Soil Evaluation – Stormwater Infiltration* form (SBD 10793) for B-8 and B-9. The notes included on the boring logs and SBD 10793 form and charts describing these systems of classification are included in Appendix B.

The laboratory testing program consisted of the following:

- Water content testing on all samples.
- Calibrated hand penetrometer testing (Q_p) on all cohesive (clay) samples.
- Percent passing the #200 sieve (P200) on one sample in the anticipated stormwater pond area.

The laboratory test results are presented on the final boring logs included in Appendix B. All laboratory procedures are described in Appendix C.

The recovered soil samples will be retained for 60 days after the date of this report. Unless other instructions as to their disposition are received, they will be discarded at that point.

Soil and Groundwater Conditions

The following narrative is a generalization of the subsurface conditions encountered at the borings. Soil conditions can vary in areas between the boring locations. For a more-detailed description of the subsurface conditions encountered at each boring location, please refer to the attached boring logs and cross-section in Appendix B.

Topsoil was encountered at the boring locations, with the thickness ranging from 7 to 12 inches. The underlying soil profile consisted mostly of native clays to a depth of about 2.5 feet overlying stratified layers of sands with variable portions of clay, silt, and gravel. Some sand layers contained occasional cobbles and boulders.

The native clays were present in the northwest portion of the property (B-2 through B-5). The near surface soils at B-6 and B-8 through B-10 were sands with clay fines.

Clay fill was present at one boring (B-1) to a depth of about 2.5 feet. This fill was similar to the native clays, suggesting they were generated from past grading operations when the park was created. Therefore, other areas of fill may exist.

The shallow native cohesive (clay) soils exhibited stiff consistencies, with Q_p values ranging from 3,000 pounds per square foot (psf) to 3,500 psf. The average was 3,250 psf for the four samples.

The predominant granular (sandy) soils exhibited loose to dense relative densities, with N-values that ranged from 4 to sampler refusal. The overall average was 42. Of the fifty-five samples, two (4%) were less than 10 (loose) and forty-eight (87%) were greater than 30 (dense). The four shallow clayey-to silty sand samples exhibited the lowest N-values, with an average of 8.

Typically, moisture contents are considered high if they are above 15% in sands and above 20% in clays. The moisture contents in the clay samples ranged from 13.1% to 18.5%.

The moisture contents in the sandy samples varied greatly, depending on the fine content. Where they included clay, the moistures ranged from 13.7% to 16.9%. Where there was higher silt content, the moistures ranged from 6.0% to 22.2%. The soils that contained few fines had moistures that ranged from 2.0% to 6.7%. Of all the sandy samples, only six (11%) were above 15%, and these were in the shallower layers.

Groundwater Conditions

Free groundwater was not encountered during drilling. The elevated moisture contents measured in the silty sand layer encountered at depths of 6 to 8 feet at B-3 and B-10 suggests the possibility of perched water.

Fluctuations in the groundwater table elevation should be expected with variations in precipitation, evapotranspiration, surface runoff, etc. Also, shallow perched groundwater conditions should be expected where relatively permeable granular soils are underlain by relatively impermeable cohesive soils, especially following precipitation events.

Analysis and Recommendations

There are four primary issues that should be considered when planning this project.

- Fill materials exist on portions of the property, which are likely associated with past site grading activities. Typically, fills are a concern for structural support because they could have been placed inconsistently and not sufficiently compacted, potentially causing excessive total and/or differential settlements for foundations. They can also cause grading and support challenges for floor slabs and pavements.
- Lower-strength native soils were present at several boring locations at shallow depths, which could affect foundation performance.
- Clayey soils were present on the property at the surface, which are sensitive to construction activity, and actions to stabilize the subgrade during construction should be planned.
- Shallow perched water could exist that would impact some excavations.

Foundation Support

Based on the subsurface conditions encountered at the borings, buildings can be supported on shallow spread footings that bear on either suitable native soils or engineered fill. The bottom-of-footing elevations would be dependent on the design site grades, but the footings could bear within undocumented fills or lower-strength native soils. Therefore, occasional areas of over-excavation may be required if unsuitable (fill or low strength) soils are present at the base of the footing excavations.

The foundations can be designed using an allowable bearing capacity value of 2,000 psf to 5,000 psf, depending on the footing elevations. Based on the subsurface conditions, properly designed and constructed footings should experience total and differential settlements of less than 1 inch and ¾ inch, respectively.

Traditionally, perimeter footings and interior footings in unheated areas should bear at a depth of at least 48 inches below the final exterior grade to provide adequate frost protection. If desired, exterior footings can bear at shallower depths by following ASCE 32-01 (American Society of Civil Engineers, Design and Construction of Frost-Protected Shallow Foundations, 2001). Interior footings not subject to frost can bear directly beneath the floor slab.

Seismic Design

The soil conditions present at a site are utilized in determining the Seismic Design Category (SDC) for structures. Part of selecting the SDC is determining the Site Class

for the soils, which categorizes common soil conditions into broad classes, where typical ground motion attenuation and amplification effects are assigned. Site Class is determined based on the average properties of the soil within 100 feet of the ground surface. Geotechnical engineers use a variety of parameters to characterize the engineering properties of these soils, including general soil classifications (e.g., hard rock, soft clay, etc.), N-values, and laboratory testing.

Site Class A includes hard rock that is typically found only in the eastern United States. The types of rock typically found in the western states include various volcanic deposits, sandstones, shales, and granites that commonly have the characteristic appropriate to either Site Class B or C. Sites with very dense sands and gravels or very stiff to hard clay deposits also may qualify as Site Class C. Sites with relatively stiff cohesive or medium dense non-cohesive soils, including mixtures of clays, silts, and sands, are categorized as Site Class D. Site Class D is the most common site class throughout the United States. Sites along rivers or other waterways underlain by deep soft clay deposits are categorized as Site Class E. Sites where soils are subject to liquefaction or other ground instabilities are categorized as Site Class F and site-specific analyses are required.

Based on the types of soils present at the boring locations at this property, and their apparent engineering properties, Site Class D is assigned to the site, as defined in the International Building Code (2015) Section 1613.

Floor Slab Support

The existing soils are suitable for support of concrete floor slabs. However, the floor slabs area should be proof-rolled and soft areas removed or improved prior to the placement of base course materials. An average subgrade modulus value of 150 pounds per cubic inch (pci) is appropriate.

Pavement Design

The Wisconsin Asphalt Pavement Association (WAPA) Design Guide should be utilized to design the new asphalt surface parking areas. Traffic Class I was assumed for parking areas that are mainly used by light passenger vehicles and Traffic Class II for medium-loaded drive areas.

Based on the soil conditions encountered at the boring locations, the minimum pavement section should consist of the following:

Material	Traffic Class I	Traffic Class II	WisDOT Specification
Asphalt Surface Course	2 inches	2 inches	Section 460
Asphalt Binder Course	2 inches	2.5 inches	Section 460
Dense Graded Base Course	8 inches	10 inches	Section 305

The pavement sections above are not intended to support on-going construction traffic. Also, the pavement sections presented above should not be used for areas that experience heavy truck traffic, equipment or truck parking areas, entrances and exit aprons, or trash-dumpster loading zones. In these areas, a Portland Cement Concrete (PCC) pavement should be used. The PCC layer thickness is recommended to be 7 inches with a minimum of 6-inch-thick crushed stone base course. The reinforcement details for PCC layers and final pavement section should be designed by the project design engineer.

Hot Mix Asphalt (HMA) and base course materials should be placed and compacted following the project requirements and guidelines of WisDOT Standard Specifications for Highway and Structure Construction, section 460.3.

These recommendations assume the subgrade is prepared as described in this report. Additional corrective action may be warranted at the time of construction, depending on the site conditions. The installation of a non-woven geotextile fabric as a separating layer between the finished subgrade and base course stone is recommended to increase the longevity of the pavements.

All pavements require regular maintenance and repair to maintain the serviceability of the pavement. However, after 20 years of service, a normal pavement structure is likely to deteriorate to a point where pavement rehabilitation may be required to maintain the serviceability.

Engineered Fill, Wall, and Utility Trench Backfill

All engineered fill, wall, and utility trench backfill should consist of inorganic materials, free of debris, not exceed 3 inches in size, and should be placed in 8 to 10-inch loose lifts compacted to a minimum of 95 percent of the maximum dry density (Modified Proctor). The fill should be moisture conditioned to be within 3± percent of the optimum moisture content.

The on-site soils can be reused as engineered fill, assuming they do not include deleterious materials (organic soils, wet soils, etc.). However, due to the moisture sensitive nature of clays, their use could pose construction challenges regarding achieving the required compaction requirements. The grading contractor may choose to use a granular soil that can be more easily compacted and would be less sensitive to moisture levels.

Stormwater Management

Stormwater management fixtures will likely be situated in the vicinity of B-7, B-8, B-9, and B-10. Based on the USDA soil descriptions of the borings drilled in those areas, the prevailing soils were classified as “Coarse Sand”. The estimated static infiltration rate based on the Standard 1002 – Table 2 would be 3.60 inches per hour (in/hr). The

Wisconsin Department of Safety and Professional Services (DSPS) "Soil Evaluation – Stormwater Infiltration" form (SBD 10793) is included in Appendix B.

Construction Considerations

All loose, wet, disturbed, or otherwise unsuitable surface soils should be stripped from structural and engineered fill areas prior to any construction activities. The exposed subgrade soils and all engineered fills should be observed, tested, and documented by a representative of the geotechnical engineer. Large structural areas, such as building, engineered fill, and pavement areas, should be proof-rolled to identify low-strength or disturbed areas that need to be removed or improved.

Footing excavations and all structural subgrade soils should be evaluated to confirm the bearing materials are consistent with those identified in this report and anticipated by the structural engineer. If unanticipated conditions are encountered, the geotechnical and structural engineers should be notified immediately. All footing pads must bear upon suitable native soils or engineered fill soils that have been confirmed in the field by a representative of the geotechnical engineer. Where unsuitable bearing soils, such as fill, organic, disturbed, wet, frozen, or low-strength (less than the design bearing capacity) soils are encountered, the excavation should be extended to competent bearing soil. If extended, the footing pads can be constructed at the base of the excavations, or the excavations can be backfilled with clean, crushed stone or lean concrete.

The clay and low-strength clayey sand soils on-site will be sensitive to disturbances from construction activity and increases in moisture content due to their clay and silt content. Increases in the moisture content of these soils can cause significant reduction in soil strength and support capabilities. In addition, moisture sensitive soils that become wet will likely impact grading and compaction schedules. Care should be taken during construction to protect these soils from moisture or disturbance from equipment. Placing a working subbase layer of 3-inch crushed stone or utilizing a cement stabilization program in areas subjected to construction traffic could be beneficial and reduce the potential need to strip disturbed soils.

It is possible that excavations could encounter shallow perched water, especially during or after wet weather. Filtered sump pumps and drawing water from sump pits should be adequate to remove water that collects in excavations. Excavated sump pits should be lined with a geotextile and filled with open-graded, free- draining aggregate.

Surface water should not be allowed to collect in excavations or on prepared subgrades during or after construction. Areas should be sloped to facilitate removal of collected surface runoff. Positive site drainage should be provided to reduce infiltration of surface water around the perimeter of structures and within pavement areas.

Excavation walls may need to be sloped or braced for stability and safety reasons. The Owner and Contractor should be aware of, and become familiar with, applicable local,

state, and federal safety regulations, including current OSHA Excavation and Trench Safety Standards. Construction-site safety generally is the responsibility of the Contractor, who should also be responsible for the means, methods, and sequencing of construction operations.

The Contractor should be aware that slope height, slope inclination, or excavation depths should in no case exceed those specified in local, state, or federal safety regulations, (e.g., OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926), or successor regulations. The soils encountered in the borings are mostly Type B and C soils when applying the OSHA regulations. Such regulations are strictly enforced, and if they are not followed, the Owner, Contractor, and/or earthwork Subcontractor(s) could be liable for substantial penalties.

General Qualifications

The services provided by GeoTest on this project were performed with the degree of skill and care typically performed by other members of the geotechnical engineering profession, practicing in this locale, at this time. No other warranty, expressed or implied, is given.

We appreciate the opportunity to provide geotechnical engineering services. If you have any questions, or require any further assistance, please feel free to contact us.

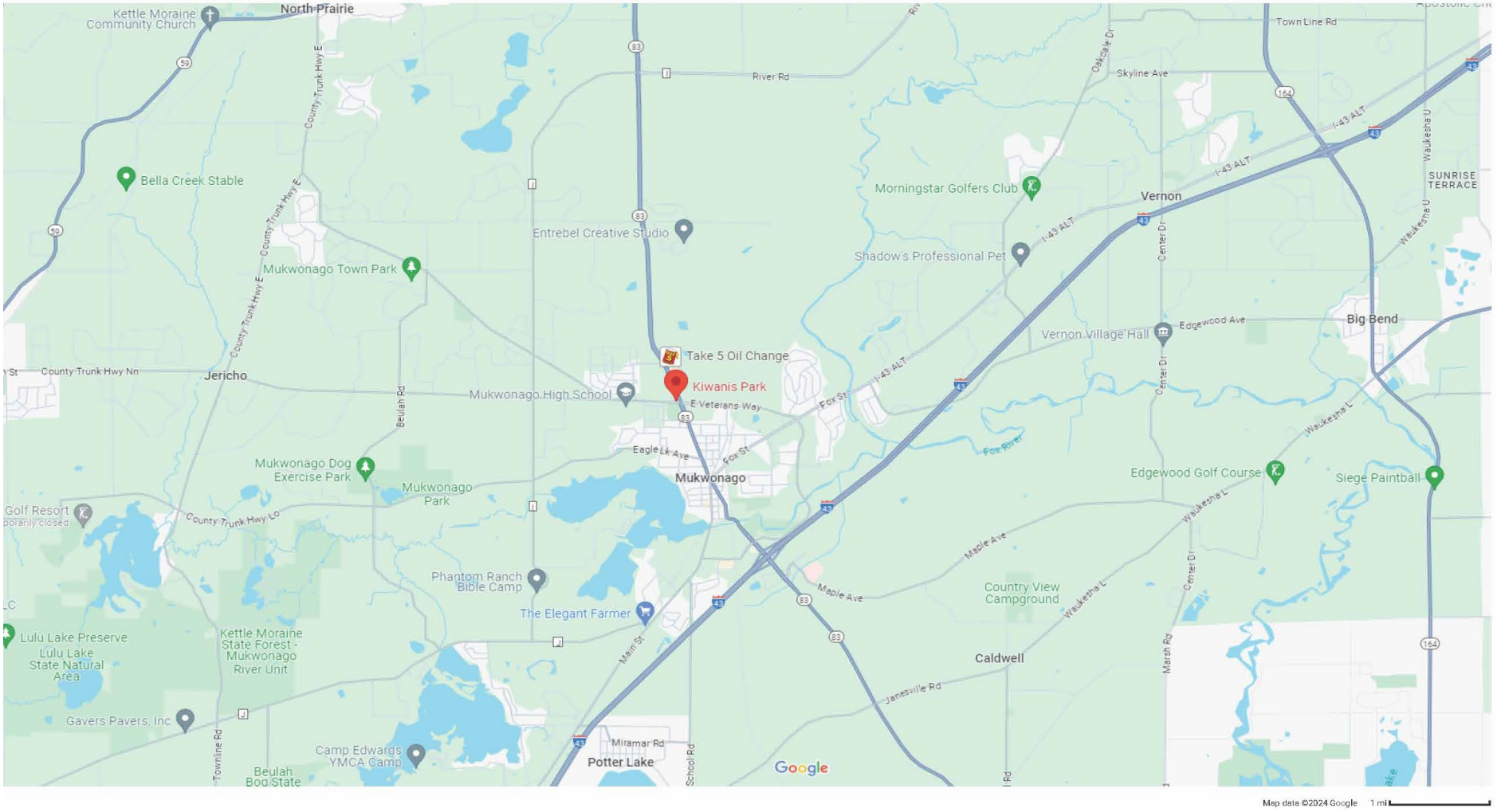
Sincerely,



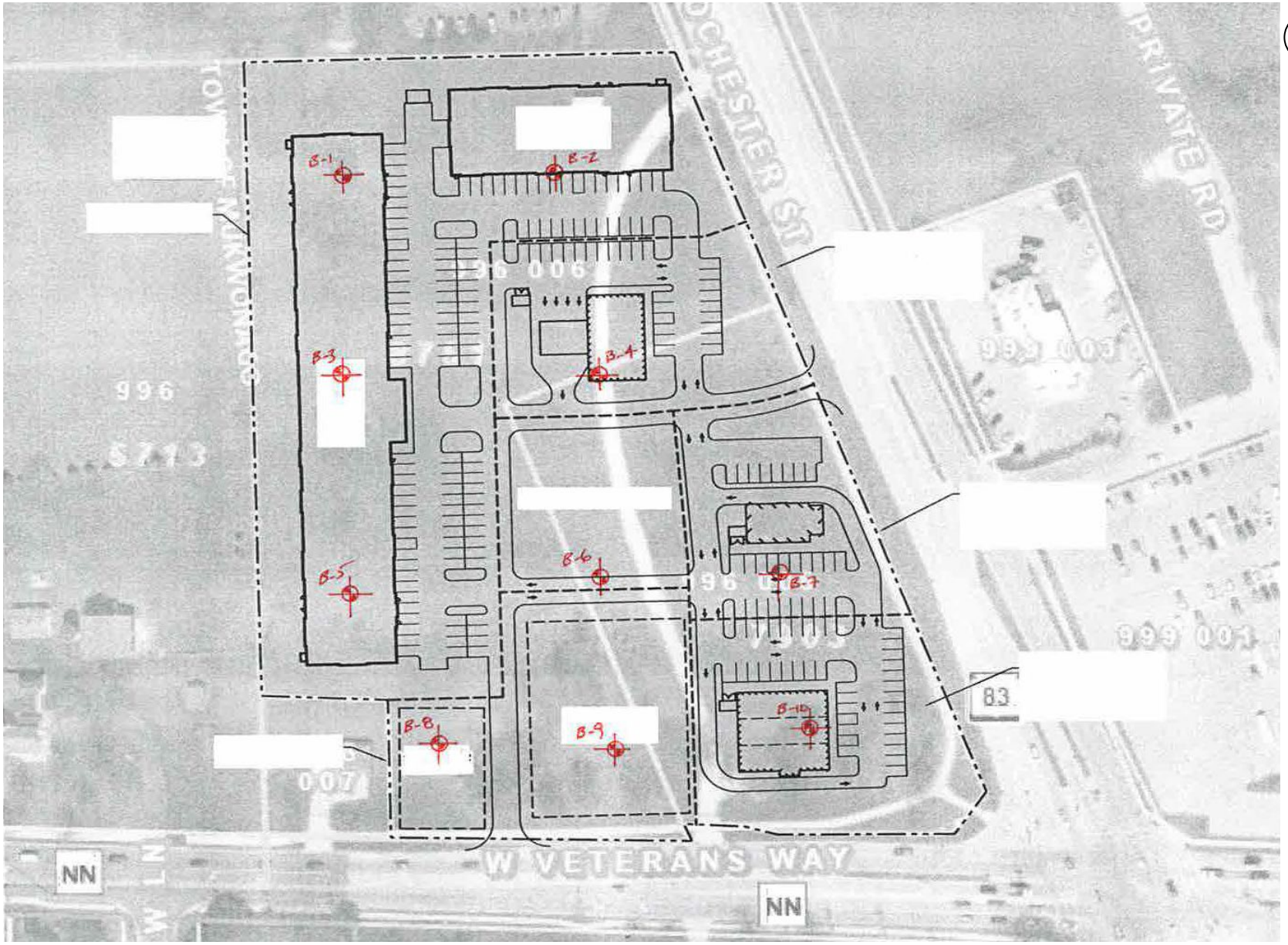
Michael D. Frede, P.E.
Technical Director/Senior Engineer

Appendix A

- Figure 1 – Site Location Diagram
- Figure 2 – Boring Location Diagram



GeoTest	**Project Name:** Kiwanis Park **Project Location:** Veterens Way & Hwy 83 Mukwonago, Wisconsin Waukesha County	**Project No.:** 8095 **Date:** 4/12/24 **Drawn By:** MDF **Scale:** NTS	**FIGURE 1** **Site Location Diagram**



GeoTest	**Project Name:**	Kiwanis Park	**Project No.:**	8095	**FIGURE 2** **Boring Location Diagram**
	Project Location:	Veterens Way & Hwy 83 Mukwonago, Wisconsin Waukesha County	**Date:** **Drawn By:** **Scale:**	4/12/24 MDF NTS	

Appendix B

- General Notes
- Boring Logs
  - B-1 through B-10
- Legend
- Cross-section
- Unified Soil Classification System (USCS)
- Soil Evaluation – Stormwater Infiltration Form (SBD 10793)
  - B-8
  - B-9
- United States Department of Agriculture (USDA) Soil Classification System

General Notes

Drilling and Sampling Abbreviations:

AD	Solid-Stem Auger	**OS**	Osterberg Sampler, 3-inch-O.D. Shelby Tube
AS	Auger Sample	**PMT**	Pressuremeter Test (In Situ)
BS	Bulk Sample	**RD**	Rotary Drilling
DD	Diamond Core Drilling	**SS**	Split-Spoon Sampler, 1.375-inch-I.D., 2-inch-O.D. (Unless otherwise noted)
FT	Fish Tail		
GP	Geoprobe	**ST**	Shelby Tube Sampler, 2-inch-O.D. (Unless otherwise noted)
GS	Giddings Sampler	**VS**	Vane Shear
HA	Hand-Auger Drilling	**WOH**	Weight of Hammer
HS	Hollow-Stem Auger	**WS**	Wash Sample

Standard Penetration ("N"): Blows per foot of a 140-pound hammer falling 30 inches on a 2-inch-O.D. split-spoon sampler, except where otherwise noted.

Water Level Measurement Abbreviations:

AAR	After Auger Removal	**BCR**	Before Casing Removal	**WS**	While Sampling
AB	After Boring	**DCI**	Dry Cave In		
ACR	After Casing Removal	**WCI**	Wet Cave In		
BAR	Before Auger Removal	**WD**	While Drilling		
BCI	Before Casing Installation	**WL**	Water Level		

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In relatively pervious soils, the observed water levels are considered a reliable indicator of groundwater positions. In relatively impervious soils, the accurate determination of groundwater elevations may not be possible, even after several days of observations. In this case, other indicators of groundwater position, such as sealed observation wells or piezometers, may be required.

Gradation Description and Terminology:

Coarse-grained granular soils have more than 50% of their dry weight retained on a #200 sieve (0.074 mm); they include boulders, cobbles, gravel, sand, and combinations thereof. Fine-grained soils have less than 50% of their dry weight retained on a #200 sieve. Fine-grained granular soils are non-cohesive, and include silt; fine-grained cohesive soils include silty clay, and clay.

Major Component of Sample	Size Range	Description of Components Present in Sample	Percent of Dry Weight
Boulders	Over 8" (200 mm)	Trace	<5
Cobbles	8" to 3" (200 to 75 mm)	Few	5 - 10
Gravel	3" to #4 sieve (75 to 4.76 mm)	Little	15 - 25
Sand	#4 to #200 sieve (4.76 to 0.074 mm)	Some	30 - 45
Silt	Passing #200 sieve (0.074 to 0.005 mm)		
Clay	Smaller than 0.005 mm		

Consistency of Cohesive Soils

Unconfined Compressive Strength, Qu, tsf	Consistency
<0.25	Very Soft
0.25 - 0.49	Soft
0.50 - 0.99	Firm
1.00 - 1.99	Stiff
2.00 - 3.99	Very Stiff
>4.00	Hard

Relative Density of Granular Soils

N, Blows per 12 inches	Relative Density
0 - 3	Very Loose
4 - 9	Loose
10 - 29	Medium Dense
30 - 49	Dense
50 - 80	Very Dense
>80	Extremely Dense

GeoTest	**Client:** Endpoint Solutions **Project:** Kiwanis Park, #8095 **Address:** Veterans Way & Hwy 83, Mukwonago, WI	**BORING LOG** **Boring No.** B-1 **Page:** 1 of 1

Drilling Start Date:	**2/14/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/14/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**834.1**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87616, -88.34042**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	Blow Counts	Recovery (ft)	N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 7 inches of Clayey Topsoil									834
			SS	2 2 3	1.00	5	(0.50') Fill: Lean CLAY (CL); trace fine-coarse gravel, little fine-coarse sand, some silt, mostly clay, medium plasticity, stiff, moist, brown	18.1						1.75		
			SS	10 14 14	1.50	28	(2.50') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	4								830
5			SS	18 18 14	1.50	32		3.4								
			SS	15 18 25	1.50	43		3.2								825
10																
			SS	16 17 23	1.50	40		3								820
15																
			SS	17 18 19	1.50	37		5.3								815
20							(20.00') Boring terminated									810
25																

NOTES:

GeoTest	**Client:** Endpoint Solutions **Project:** Kiwanis Park, #8095 **Address:** Veterans Way & Hwy 83, Mukwonago, WI	**BORING LOG** **Boring No.** B-2 **Page:** 1 of 1

Drilling Start Date:	**2/14/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/14/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**839.8**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87616, -88.33966**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 10 inches of Clayey Topsoil									839
			SS	3 4 4	0.80	8	(1.00') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, stiff, moist, brown	18.5						1.5		
			SS	6 6 9	1.50	15	(2.50') Silty SAND (SM); mostly fine-coarse grained sand, trace fine-coarse gravel, little silt, medium dense, moist, brown	10.2								
5			SS	23 27 33	1.50	60	(5.50') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	3.8								835
			SS	22 25 27	1.20	52		3								
10																830
			SS	18 14 11	1.50	25		2.5								
15																825
			SS	48 52	0.70	52		2								
20							(20.00') Boring terminated									820
25																815

NOTES:

GeoTest	**Client:** Endpoint Solutions **Project:** Kiwanis Park, #8095 **Address:** Veterans Way & Hwy 83, Mukwonago, WI	**BORING LOG** **Boring No.** B-3 **Page:** 1 of 1

Drilling Start Date:	**2/14/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/14/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**832.9**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87560, -88.34040**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 12 inches of Clayey Topsoil									832.9
			SS	2 2 2	1.00	4	(1.00') Lean CLAY (CL); few fine-coarse gravel, trace fine sand, some silt, mostly clay, medium plasticity, stiff, moist, brown	16.3						1.75		
			SS	4 5 15	0.80	20	(2.50') Poorly graded SAND with silt (SP-SM); mostly fine-medium grained sand, trace fine gravel, few silt, medium dense, moist, brown	6.7								830
5			SS	13 13 13	1.50	26	(6.00') Silty SAND (SM); mostly fine grained sand, trace fine gravel, little silt, medium dense, moist, brown	16.7								825
			SS	20 28 35	1.10	63	(8.50') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	5.1								
10																820
			SS	50	0.20											
15																815
			SS	16 19 25	1.50	44										
20								3.6								810
							(20.00') Boring terminated									
25																

NOTES:

GeoTest	**Client:** Endpoint Solutions **Project:** Kiwanis Park, #8095 **Address:** Veterans Way & Hwy 83, Mukwonago, WI	**BORING LOG** **Boring No.** B-4 **Page:** 1 of 1

Drilling Start Date:	**2/15/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/15/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**834.7**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87562, -88.33950**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	Blow Counts	Recovery (ft)	N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 9 inches of Clayey Topsoil									834.7
			SS	2 3 5	1.00	8	(0.50') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, stiff, moist, brown	16.1						1.5		
			SS	23 26 27	1.50	53	(2.50') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	3								
5			SS	18 29 23	1.50	52		3.4								830
			SS	23 23 22	1.50	45		3.9								825
10																
			SS	36 39 50	1.30	89		4.1								820
15																
			SS	28 35 30	1.50	65		4.7								815
20							(20.00') Boring terminated									
																810
25																

NOTES:

GeoTest	**Client:** Endpoint Solutions **Project:** Kiwanis Park, #8095 **Address:** Veterans Way & Hwy 83, Mukwonago, WI	**BORING LOG** **Boring No.** B-5 **Page:** 1 of 1

Drilling Start Date:	**2/14/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/14/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**832**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87501, -88.34042**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0			SS	2 3 3	0.90	6	(0.00') Topsoil: 9 inches of Clayey Topsoil (0.50') Lean CLAY (CL); trace fine-coarse gravel, few fine-coarse sand, some silt, mostly clay, medium plasticity, stiff, moist, brown	13.1						1.75		830
5			SS	10 25 14	1.00	39	(2.50') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	4.4								
			SS	35 41 29	1.50	70		2.5								825
			SS	30 20 24	1.50	44										
10								3.3								820
			SS	26 26 30	1.50	56										
15								3.1								815
			SS	30												
20							(20.00') Boring terminated									810
25																

NOTES:

GeoTest	**Client:** Endpoint Solutions **Project:** Kiwanis Park, #8095 **Address:** Veterans Way & Hwy 83, Mukwonago, WI	**BORING LOG** **Boring No.** B-6 **Page:** 1 of 1

Drilling Start Date:	**2/15/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/15/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**832.5**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87505, -88.33956**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	Blow Counts	Recovery (ft)	N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 12 inches of Clayey Topsoil									832.5
			SS	3 5 5	1.00	10	(1.00') Silty, Clayey SAND (SC-SM); mostly fine-coarse grained sand, trace fine-coarse gravel, little silt, little clay, medium dense, moist, brown	15.5								
			SS	27 45 28	0.80	73	(3.00') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, well-graded, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	2.2								
5			SS	38 31 20	1.30	51		2.1								825
			SS	22 31 34	1.50	65	(8.00') Silty SAND (SM); mostly fine grained sand, little silt, dense, slightly moist, brown	6								
10							(11.00') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, well-graded, dense, slightly moist, brown									820
			SS	30												
15																815
			SS	27 33 40	1.50	73		2.8								
20							(20.00') Boring terminated									810
25																

NOTES:

GeoTest	**Client:** Endpoint Solutions **Project:** Kiwanis Park, #8095 **Address:** Veterans Way & Hwy 83, Mukwonago, WI	**BORING LOG** **Boring No.** B-7 **Page:** 1 of 1

Drilling Start Date:	**2/14/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/14/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**832.7**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87504, -88.33901**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	Blow Counts	Recovery (ft)	N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 7 inches of Clayey Topsoil									832.7
			SS	2 2 8	0.50	10	(0.50') Silty SAND (SM); mostly fine grained sand, trace fine gravel, little silt, loose, moist, brown	17.2								
			SS	14 14 15	1.50	29	(2.50') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	3								830
5			SS	18 26 30	1.50	56		2.2								825
			SS	14 11 10	1.50	21		2.3								
10																820
			SS	14 28 23	1.20	51	(13.00') Silty SAND (SM); mostly fine grained sand, little silt, dense, slightly moist, brown	6.1								
15							(16.00') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, well-graded, dense, slightly moist, brown									815
			SS	23 29 33	1.50	62		3								
20							(20.00') Boring terminated									810
25																

NOTES:

GeoTest	Client: Endpoint Solutions	BORING LOG
	Project: Kiwanis Park, #8095	Boring No. B-8
	Address: Veterans Way & Hwy 83, Mukwonago, WI	Page: 1 of 1

Drilling Start Date:	**2/14/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/14/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**830.2**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87463, -88.34020**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 9 inches of Clayey Topsoil									830
			SS	2 5 6	0.80	11	(0.50') Silty, Clayey SAND (SC-SM); mostly fine-coarse grained sand, trace fine-coarse gravel, little silt, little clay, medium dense, moist, dark brown	16.9								
			SS	8 9 11	0.10	20	(3.00') Poorly graded SAND with silt (SP-SM); mostly fine-medium grained sand, trace fine gravel, few silt, medium dense, moist, brown	6.8								
5			SS	22 23 28	0.70	51	(5.00') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, well-graded, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	3								825
			SS	11 12 11	1.10	23		3								
10																820
							(12.00') Silty SAND (SM); mostly fine grained sand, little silt, dense, moist, brown									
			SS	13 21 23	1.50	44		9.9								
15																815
							(16.00') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, well-graded, dense, slightly moist, brown									
			SS	35 44 42	1.20	86		4.6								
20							(20.00') Boring terminated									810
25																

NOTES:

GeoTest	Client: Endpoint Solutions	BORING LOG
	Project: Kiwanis Park, #8095	Boring No. B-9
	Address: Veterans Way & Hwy 83, Mukwonago, WI	Page: 1 of 1

Drilling Start Date:	**2/15/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/15/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**829.7**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87463, -88.33954**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0							(0.00') Topsoil: 9 inches of Clayey Topsoil									829.7
			SS	2 2 5	1.40	7	(0.50') Silty, Clayey SAND (SC-SM); mostly fine-coarse grained sand, trace fine-coarse gravel, little silt, little clay, loose, moist, dark brown	13.7								
			SS	15 19 21	1.10	40	(2.50') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	3.5								
5			SS	20 36 33	0.90	69		2.8								825
			SS	11 15 16	1.50	31		2.6								
10																820
							(12.00') Silty SAND (SM); mostly fine grained sand, little silt, dense, slightly moist, brown	6.7					19.8			
15			SS	18 16 17	1.50	33										815
							(16.00') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown									
			SS	15 18 21	1.00	39		2.8								
20							(20.00') Boring terminated									810
25																805

NOTES:

GeoTest	**Client:** Endpoint Solutions **Project:** Kiwanis Park, #8095 **Address:** Veterans Way & Hwy 83, Mukwonago, WI	**BORING LOG** **Boring No.** B-10 **Page:** 1 of 1

Drilling Start Date:	**2/14/24**	Boring Depth (ft):	**20**
Drilling End Date:	**2/14/24**	Boring Diameter (in):	**6.0**
Drilling Company:	**J&J Soil Testing**	Sampling Method(s):	**Split Spoon**
Drilling Method:	**Hollow Stem Auger**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**CME 25**	DTW After Drilling (ft):	**N/A**
Driller:	**Jeff Peschel**	Ground Surface Elev. (ft):	**828.4**
Logged By:	**Michael Frede**	Location (Lat, Long):	**42.87463, -88.33954**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	COLLECT: Sample Type	COLLECT: Blow Counts	COLLECT: Recovery (ft)	COLLECT: N Value RQD%	SOIL/ROCK VISUAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	Liquid Limit	Plastic Limit	Plasticity Index (PI)	#200 Sieve (%)	Pocket Penetrometer (tsf)	Unconfined Compressive Strength (tsf)	ELEVATION (ft)
0			SS	2 2 2	1.20	4	(0.00') Topsoil: 9 inches of Clayey Topsoil (0.50') Silty, Clayey SAND (SC-SM); mostly fine-coarse grained sand, trace fine-coarse gravel, little silt, little clay, loose, moist, dark brown	15.4								828
			SS	8 12 19	0.80	31	(3.50') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, medium dense, slightly moist, brown	5.1								825
5			SS	4 6 8	1.50	14	(6.00') Silty SAND (SM); mostly fine grained sand, some silt, medium dense, moist, brown	22.2								
			SS	15 23 30	1.30	53	(8.00') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, dense, slightly moist, brown, occasional fine sand seams, occasional cobbles and boulders	3								820
10							(12.00') Silty SAND (SM); mostly fine grained sand, little silt, dense, slightly moist, brown									
			SS	15 16 17	1.50	33		6.9								815
15							(16.00') Well-graded SAND with silt (SW-SM); mostly fine-coarse grained sand, few fine-coarse gravel, few silt, well-graded, dense, slightly moist, brown									
			SS	15 15 15	1.50	30		2.7								810
20							(20.00') Boring terminated									
																805
25																

NOTES:

BORING AND WELL LOG LEGEND

SURFACE
- ASPHALT
- CONCRETE
- FILL
- TOPSOIL
- AIR
- ICE

USCS
- Well-graded GRAVEL (GW)
- Poorly graded GRAVEL (GP)
- Silty GRAVEL (GM)
- Clayey GRAVEL (GC)
- Silty, Clayey GRAVEL (GC-GM)
- Well-graded GRAVEL with silt (GW-GM)
- Poorly graded GRAVEL with silt (GP-GM)
- Well-graded GRAVEL with clay (GW-GC)
- Poorly graded GRAVEL with clay (GP-GC)
- Well-graded SAND (SW)
- Poorly graded SAND (SP)
- Silty SAND (SM)
- Clayey SAND (SC)
- Silty, Clayey SAND (SC-SM)
- Well-graded SAND with silt (SW-SM)
- Poorly graded SAND with silt (SP-SM)
- Well-graded SAND with clay (SW-SC)
- Poorly graded SAND with clay (SP-SC)
- SILT (ML)
- Lean CLAY (CL)
- Silty CLAY (CL-ML)
- Organic SOIL (OL)
- Elastic SILT (MH)
- Fat CLAY (CH)
- Organic SOIL (OH)
- Organic SOIL (OL/OH)
- PEAT (PT)
- BEDROCK
- IGNEOUS Rock
- METAMORPHIC Rock
- SEDIMENTARY Rock
- WATER

Non-USCS
- Gravel
- Sand
- Silt
- Clayey Silt
- Silt & Clay
- Clay & Silt
- Silty Clay
- Clay
- Boulders
- Cobbles
- Peastone
- Glacial Till
- Iron Ore
- Wood
- Peat
- Saprolite
- Ash
- Waste

Volume Descriptors
- Trace = <5%
- Few = 5-10%
- Little = 15-25%
- Some = 30-45%
- Mostly = >=50%

Water Levels
- Water Level During Drilling
- Water Level at End of Drilling/in Completed Well

Well/Boring Completion
- Cap
- Riser
- Screen
- End Plug
- Annular Seal
- Sanitary Seal (Bentonite Slurry/Chips/Pellets/Powder, Other)
- Filter Pack (Sand, Gravel, Other)
- Backfill

Sample Type
- GR — Grab
- EN — Encore
- SS — Split Spoon
- SH — Shelby Tube
- CO — Core Barrel
- DP — Direct Push
- ID — Lab Sample and ID

Soil/Rock Contact Lines
- Inferred
- Abrupt
- Gradational

NOTES:
- The boring was backfilled with soils cuttings and bentonite chips upon completion.
- The stratification lines represent approximate boundaries between soil types
- The elevations are considered accurate to 1/2 foot.

Elevation (ft)

840
835
830
825
820
815
810

B-1
B-2
B-3
B-4
B-5
B-6
B-7
B-8
B-9
B-10

Distance (ft)

79 | 111 | 87 | 110 | 76 | 60 | 14 | 69 | 0

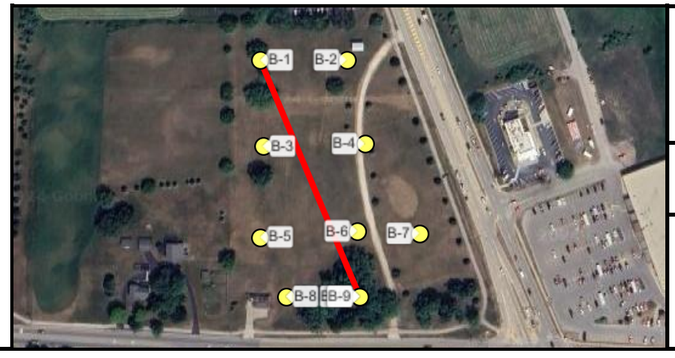
Horizontal scale: 10 feet
Vertical scale: 10 feet

Legend

- Topsoil
- FILL
- Well-graded SAND with silt (SW-SM)
- Silty Clayey, SAND (SC-SM)
- Silty SAND (SM)
- Lean CLAY (CL)
- Poorly graded SAND with silt (SP-SM)

- Water Level During Drilling
- Water Level at End of Drilling
- Cap
- Screen
- Annular Seal
- Sanitary Seal
- Filter Pack
- Backfill

Built with Google Maps



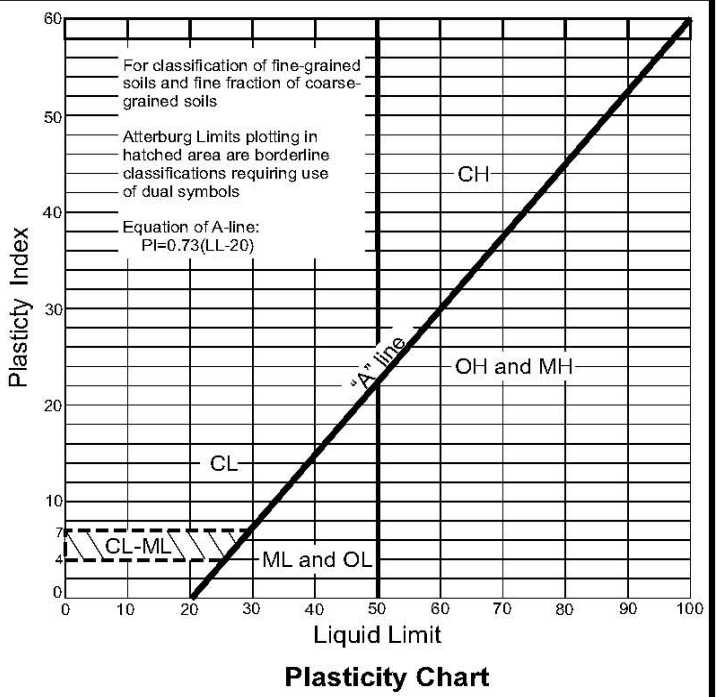
GeoTest

GEOLOGIC CROSS SECTION

Endpoint Solutions
Kiwanis Park
#8095
Veterans Way & Hwy 83
Mukwonago, Wisconsin

Major Divisions			Group symbols	Typical Names	Laboratory classification criteria	
Coarse-grained soils (More than half of material is larger than No. 200 sieve size)	Gravels (More than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines	Not meeting all gradation requirements for GW	
		Gravels with fines (Appreciable amount of fines)	GM d u	Silty gravels, gravel-sand-silt mixtures	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. Between 4 and 7 are borderline cases requiring use of dual symbols
			GC	Clayey gravels, gravel-sand-clay mixtures	Atterberg limits above "A" line or P.I. greater than 7	
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
			SP	Poorly graded sands, gravelly sands, little or no fines	Note meeting all gradation requirements for SW	
		Sands with fines (Appreciable amount of fines)	SM d u	Silty sand, sand-silt mixtures	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in hatched zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
			SC	Clayey sands, sand-clay mixtures	Atterberg limits above "A" line or P.I. greater than 7	
Fine-grained soils (More than half 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 or clayey fine sands or clayey silts with slight plasticity		
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silt clays, lean clays		
			OL	Organic silts and organic silty clays of low plasticity		
	Silts and clays (Liquid limit greater than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soil, 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		

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

Wisconsin Department of Safety and Professional Services
Division of Industry Services
4822 Madison Yards Way
PO Box 7302
Madison, WI 53707

Phone: 608-266-2112
Web: http://dsps.wi.gov
Email: dsps@wisconsin.gov

Program: Plumbing
Web: https://dsps.wi.gov/Pages/Programs/Plumbing

Soil and Site Evaluation – Stormwater Infiltration

In accordance with SPS 382.365, 385, Wis. Adm. Code, and WDNR Standard 1002

Attach a complete site plan on paper not less than 8 ½ x 11 inches in size. Plan must include, but is not limited to: vertical and horizontal reference point (BM); direction and percent of slope; scale or dimensions; north arrow; and BM referenced to nearest road.

PLEASE PRINT ALL INFORMATION

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m)]

County: Waukesha

Parcel I.D.: 1963-996-005 & 1963-996-006

Reviewed By:

Reviewed Date:

Property Owner: Kiwanis Club

Property Owner's Mailing Address: P.O. Box 111

City	State	Zip Code	Phone Number
Mukwonago	WI	53149	

PROPERTY LOCATION

Govt. Lot ____ ¼ ____ ¼ ____ S ____ T ____ N ____ R ____ E (or) W

Lot #, Block #, Subd. Name or CSM #: LOT 1 CSM 7903 & LOT 2B CMS 8751

Municipality: Mukwonago ☐ City ■ Village ☐ Town

Nearest Road: Hwy 83

Drainage area _____ ☐sq. ft ☐acres

Test site suitable for (check all that apply):

☐Site not suitable ☐Bioretention ☐Subsurface Dispersal System

☐Reuse ☐Irrigation ☐Other _____

HYDRAULIC APPLICATION TEST METHOD

■ Morphological Evaluation

☐ Double Ring Infiltrometer

☐ Other: (specify)

_____

SOIL MOISTURE

Date of soil borings: 2/14/24 & 2/15/24

USDA-NRCS WETS Value:

☐ Dry = 1

■ Normal = 2

☐ Wet = 3

B-8 #OBS. ☐ Pit ■ Boring Ground Surface Elevation 830.2 ft. Elevation of Limiting Factor na ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
A	9	5Y 3/1		Topsoil						
B	36	7.5YR 2/1		SL	MA	FI		0-5	30-50	0.50
C	60	10YR 8.2		LS	MA	VFI		0-5	5-10	1.63
C	144	10YR 5/3		COS	MA	HA		10-20	5-10	3.60
C	192	10YR 5/6		LFS	MA	VFI		0-5	15-25	0.50
C	240	10YR 5/3		COS	MA	HA		10-20	5-10	3.60

Comments:

B-9 #OBS. ☐ Pit ■ Boring Ground Surface Elevation 829.7 ft. Elevation of Limiting Factor na ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
A	9	5Y 3/1		Topsoil						
B	30	7.5YR 2/1		SL	MA	FI		0-5	30-50	0.50
C	144	10YR 5/3		COS	MA	HA		10-20	5-10	3.60
C	192	10YR 5/6		LFS	MA	VFI		0-5	15-25	0.50
C	240	10YR 5/3		COS	MA	HA		10-20	5-10	3.60

Comments:

B-7 #OBS. ☐ Pit ■ Boring Ground Surface Elevation 832.7 ft. Elevation of Limiting Factor na ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
A	7	5Y3/1		Topsoil						
B	30	10yr 4/3		LFS	MA	FR		0-5	15-25	0.50
C	156	10YR 5/3		COS	MA	HA		10-20	5-10	3.60
C	192	10YR 5/6		LFS	MA	VFI		0-5	15-25	0.50
C	240	10YR 5/3		COS	MA	HA		10-20	5-10	3.60

Comments:

B-10 #OBS. ☐ Pit ☐ Boring Ground Surface Elevation 828.4 ft. Elevation of Limiting Factor na ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
A	9			Topsoil						
B	42	7.5 YR 2/1		SL	MA	FI		0-5	30-50	0,50
C	72	10YR 5/3		COS	MA	HA		10-20	5-10	3.60
C	96	10YR 5/6		LFS	MA	FI		0-5	15-25	0.50
C	144	10YR 5/3		COS	MA	HA		10-20	5-10	3.60
C	192	10YR 5/6		LFS	MA	VFI		0-5	15-25	0.50
C	240	10YR 5/3		COS	MA	HA		10-20	5-10	3.60

Comments:

____ #OBS. ☐ Pit ☐ Boring Ground Surface Elevation _____ ft. Elevation of Limiting Factor _____ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr

Comments:

____ #OBS. ☐ Pit ☐ Boring Ground Surface Elevation _____ ft. Elevation of Limiting Factor _____ ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr

Comments:

Overall Site Comments:

Michael Frede, P.E. — Name (Please Print)

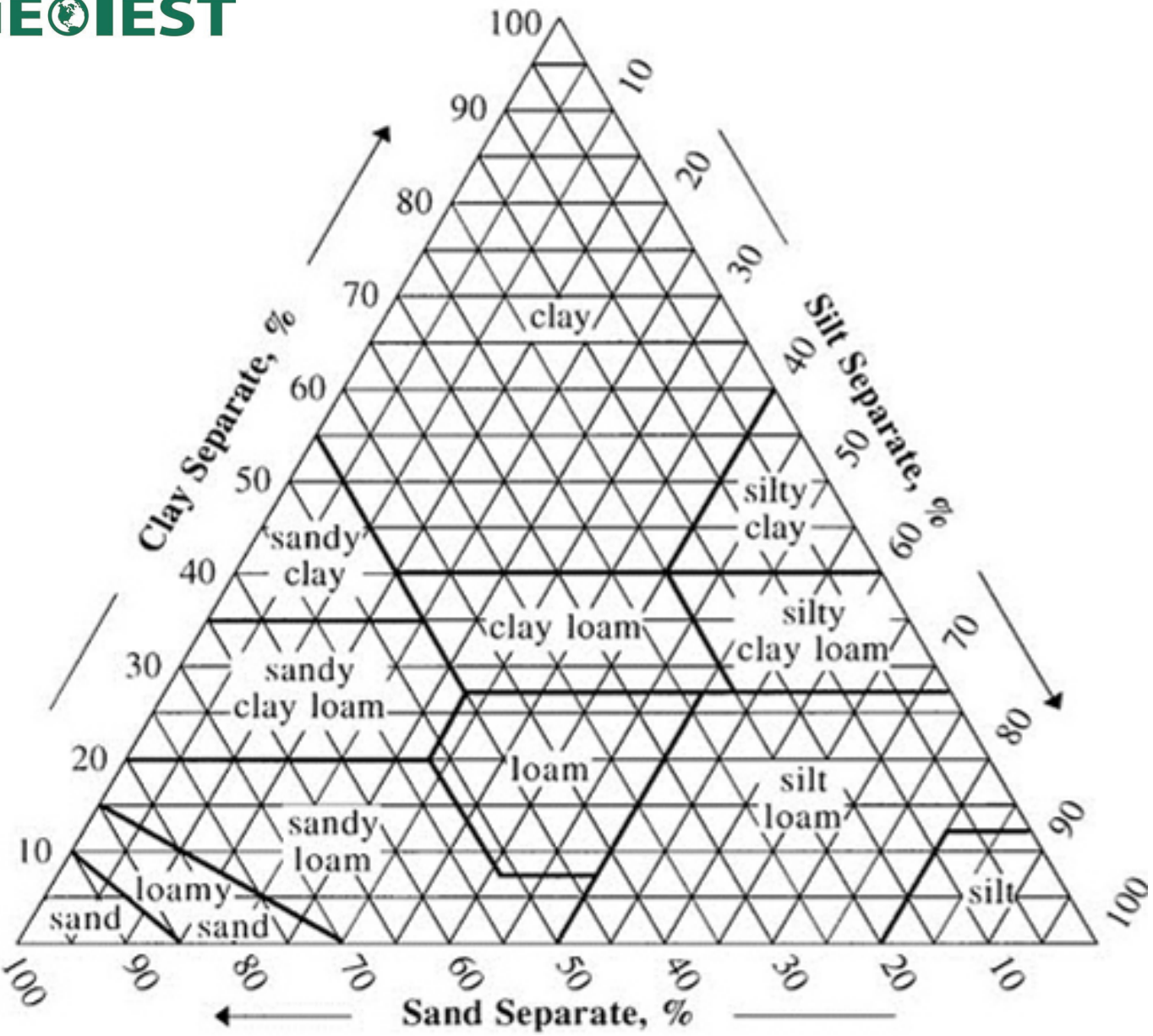
Michael Frede — Signature

25897-6 — Credential Number

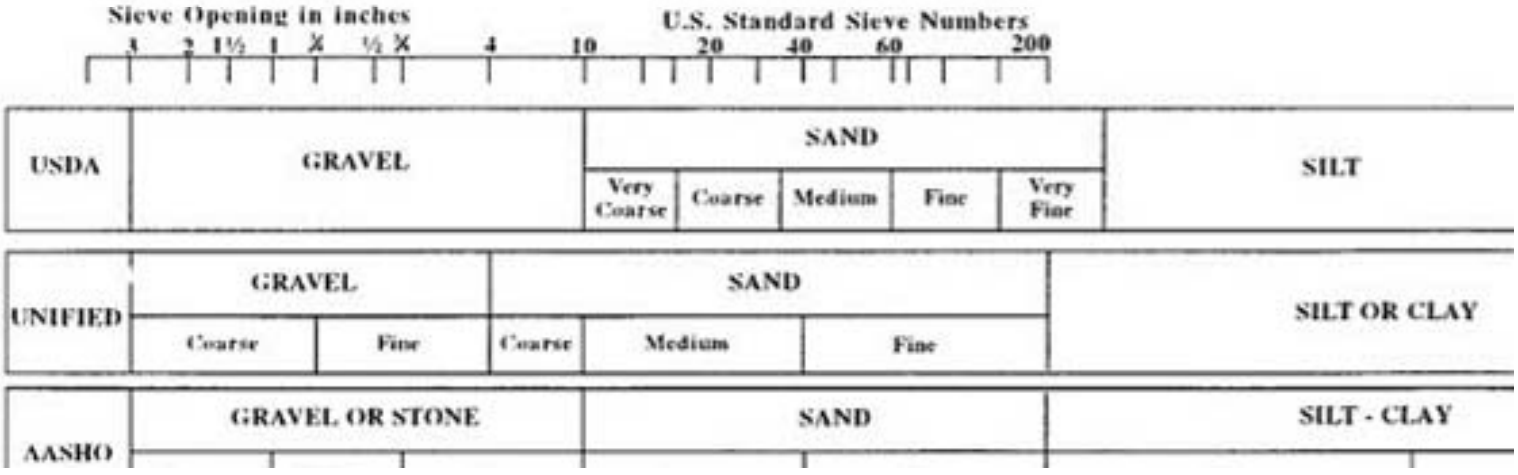
2135 S. 116th Street, West Allis, WI 53227 — Address

2/15/24 — Date Evaluation Conducted

414-321-8378 — Phone Number



COMPARISON OF PARTICLE SIZE SCALES



United States Department of Agriculture (USDA) Classification System

Appendix C

- Drilling Procedures
- Sampling Procedures
- Laboratory Procedures

Hand-Auger Drilling (HA)

A sampling device is driven into the soil to the desired sample depth by a sledge hammer. After extracting the sample, the hole is advanced by a hand auger until the next sampling depth is reached. The manual driving of the sampler, especially into cohesive soils, may result in some sample disturbance. However, there are some situations where this method is the only viable option.

Solid-Stem Auger Drilling (AD)

Continuous flight augers are turned and hydraulically advanced by a truck- or track-mounted unit to create a borehole. In solid-stem auger drilling, casing and drilling mud are not typically used to maintain an open borehole.

Hollow-Stem Auger Drilling (HS)

Continuous flight augers having open stems are used to advance the borehole. The open stem allows the sampling tool to be used without removing the augers from the borehole. Hollow-stem augers maintain an open borehole during the sampling operations. This sampling method is not appropriate for geotechnical investigation beneath the water table, especially in granular soils.

Rotary Drilling (RD)

Various cutting bits, in conjunction with circulating drilling fluid, are used to advance the borehole. Surface casing is used to maintain sidewall stability in the top several meters of the borehole, and to facilitate the circulation of the drilling fluid into the mud tank.

Diamond Core Drilling (DD)

A double-tube or triple-tube core barrel with a diamond bit cuts an annular space around a cylinder of rock or cemented material. When the coring has proceeded to the desired core run length, the core is broken off and the sample is retained by a core catcher just above the diamond bit. Samples recovered by this procedure are placed in sturdy core boxes in sequential order.

Auger Sampling (AS)

Soil samples are obtained as cuttings from the auger flights as they are lifted from the borehole. Auger samples provide a general indication of subsurface conditions; however, they do not provide undisturbed samples, nor do they provide samples from specific depths. Due to the possible loss of soil components, or the mixing of soil components from various elevations, auger samples may not be representative of in-situ soil conditions.

Split-Barrel Sampling (SS) - ASTM Standard D-1586-84

A 2-inch-O.D. split-barrel sampler is driven into the soil a distance of 18 inches by a 140-pound hammer free-falling 30 inches. The first 6 inches of penetration is usually considered a seating drive. The Standard Penetration Resistance value is the number of blows of the hammer over the final 12 inches of driving. This value provides an indication of the in-place relative density of granular soils. The indication should be considered qualitative, since many variables such as drill crews, drill rigs, drilling procedures, and hammer-rod-sampler assemblies can significantly affect the Standard Penetration Resistance value. A representative portion of the soil sample is recovered from the split-barrel sampler, placed in a sample jar, and delivered to our laboratory for further examination and possible testing.

Shelby Tube Sampling Procedure (ST) - ASTM Standard D-1587-83

A 2- or 3-inch-diameter thin-walled seamless steel tube having a sharp cutting edge is hydraulically pushed into the soil to obtain a relatively undisturbed sample. This procedure is generally used for cohesive soils. The Shelby tubes are carefully handled to minimize sample disturbance, and delivered to a laboratory where the soil is extruded from the tube, examined, and tested.

American Society for Testing and Materials

ASTM 1586
Standard Method for Penetration Test and Split-Barrel Sampling of Soils[1]

This standard is issued under the fixed designation D 1586; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of the last revision. A number in parentheses indicates the year of the last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This method has been approved for use by agencies of the Department of Defense and for listing in the DOD Index of Specifications and Standards.

1. Scope

1.1 This method describes the procedure, generally known as the Standard Penetration (SPT), for driving a split-barrel sampler to obtain a representative soil sample and a measure of the resistance of the soil to penetration of the sampler.

1.2 This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. For a specific precautionary statement, see 5.4.1.

1.3 The values stated in inch-pound units are to be regarded as the standard.

2. Applicable Documents

2.1 ASTM Standards:

D2487 Test Method for Classification of Soils for Engineering Purposes[2]

D2488 Practice for Description and Identification of Soils (Visual-Manual Procedure)[2]

D4220 Practice for Preserving and Transporting Soil Samples[2]

3. Descriptions of Terms Specific to This Standard

3.1 anvil--that portion of the drive-weight assembly while the hammer strikes and through which the hammer energy passes into the drill rods.

3.2 cathead--the rotating drum or windlass in the rope-cathead lift system around which the operator wraps a rope to lift and drop the hammer by successively tightening and loosening the rope turns around the drum

3.3 drill rods--rods used to transmit downward force and torque to the drill bit while drilling a borehole.

3.4 drive-weight assembly--a device consisting of the hammer, hammer fall guide, the anvil, any hammer drop system.

3.5 hammer--that portion of the drive-weight assembly consisting of the 140 ± 2 lb (63.5 ± 1 kg) impact weight which is successfully lifted and dropped to provide the energy that accomplishes the sampling and penetration.

3.6 hammer drop system--that portion of the drive-weight assembly by which the operator accomplishes the lifting and dropping of the hammer to produce the blow.

3.7 hammer fall guide--that part of the drive-weight assembly used to guide the fall of the hammer.

3.8 N-value--the blowcount representation of the penetration resistance of the soil. The N-value, reported in blows per foot, equals the sum of the number of blows required to drive the sampler over the depth interval of 6 to 18 in. (150 to 450 mm) (see 7.3).

3.9 ΔN--the number of blows obtained from each of the 6-in. (150-mm) intervals os sampler penetration (see 7.3).

3.10 number of rope turns--the total contact angle between the rope and the cathead at the beginning of the operator's rope slackening to drop the hammer; divided by 360° (see Fig. 1).

3.11 sampling rods--rods that connect the drive-weight assembly to the sampler. Drill rods are often used for this purpose.

3.12 SPT--abbreviation for Standard Penetration Test, a term by which engineers commonly refer to this method.

4. Significance and Use

4.1 This method provides a soil sample for identification purposes and for laboratory tests appropriate for soil obtained from a sampler that may produce large shear strain disturbance in the sample.

4.2 This method is used extensively in a great variety of geotechnical exploration projects. Many local correlations and widely published correlations which relate SPT blowcount, or N-value, and the engineering behavior of earthworks and foundation are available.

5. Apparatus

5.1 Drilling Equipment--Any drilling equipment that provides at the time of sampling a suitably clean open hole before insertion of the sampler and ensures that the penetration test is performed on undistributed soil shall be acceptable. The following pieces of equipment have proven to be suitable for advancing a borehole in some subsurface conditions.

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[1] This method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of subcommittee D18.02 on Sampling and Related Field Testing for Soil Investigations.

Current edition approved Sept. 11, 1984. Published November 1984. Originally published as D1586-58T. Last previous edition D1586-67 (1974).

[2] Annual Book of ASTM Standards, Vol 04.08.

5.1.1 Drag, Chopping and Fishtail Bits, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used in conjunction with open-hole rotary drilling or casing-advancement drilling methods. To avoid disturbance of the underlying soil, bottom discharge bits are not permitted; only side discharging bits are permitted.

5.1.2 Roller-Cone Bits, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used in conjunction with open-hole rotary drilling or casing-advancement drilling methods if the drilling fluid discharge is deflected.

5.1.3 Hollow-Stem Continuous Flight Augers, with or without a center bit assembly, may be used to drill the boring. The inside diameter of the hollow-stem augers shall be less than 6.5 in. (162 mm) and greater that 2.2 in. (56 mm).

5.1.4 Solid, Continuous Flight, Bucket and Hand Augers, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used if the soil on the side of the boring does not cave into the sampler or sampling rods during the sampling.

5.2 Sampling Rods--Flush-joint steel drill rods shall be used to connect the split-barrel sampler to the drive-weight assembly. The sampling rod shall have a stiffness (moment of inertia) equal to or greater than that of a parallel wall "A" rod (a steel rod which has an outside diameter of 1 5/8 in. (41.2 mm) and an inside diameter of 1 1/8 in. (28.5 mm).

NOTE 1--Recent research and comparative testing indicates the type rod used, with stiffness ranging from "A" size rod to "N" size rod, will usually have a negligible effect on the N-values to depths of at least 100 ft. (30 m).

5.3 Split-Barrel Sampler--The sampler shall be constructed with the dimensions indicated in Fig. 2. The driving shoe shall be hardened steel and shall be replaced or repaired when it becomes dented or distorted. The use of liners to produce a constant inside diameter of 1 3/8 in. (35 mm) is permitted, but shall be noted on the penetration record if used. The use of a sampler retainer basket is permitted, and should also be noted on the penetration record if used.

NOTE 2--Both theory and available test datas suggest that N-values may increase 10 to 30% when liners are used.

5.4 Drive-Weight Assembly:

5.4.1 Hammer and Anvil--The hammer shall weigh 140 ± 2 lb (63.5 ± 1 kg) and shall be a solid rigid metallic mass. The hammer shall strike the anvil and make steel on steel contact when it is dropped. A hammer fall guide permitting a free fall shall be used. Hammers used with the cathead and rope method shall have an unimpeded overlift capacity of at least 4 in. (100 mm). For safety reasons, the use of hammer assembly with an internal anvil is encouraged.

NOTE 3--It is suggested that the hammer fall guide be permanently marked to enable the operator or inspector to judge the hammer drop height.

5.4.2 Hammer Drop System--Rope-cathead, trip, semi-automatic, or automatic hammer drop systems may be used, providing the lifting apparatus will not cause penetration of the sampler while re-engaging and lifting the hammer.

5.5 Accessory Equipment--Accessories such as labeled, sample containers, data sheets, and groundwater level measuring devices shall be provided in accordance with the requirements of the project and other ASTM standards.

6. Drilling Procedure

6.1 The boring shall be advanced incrementally to permit intermittent or continuous sampling. Test intervals and locations are normally stipulated by the project engineer or geologist. Typically, the intervals selected are 5 ft. (1.5 m) or less in homogeneous strata with test and sampling locations at every change of strata.

6.2 Any drilling procedure that provides a suitably clean and stable hole before insertion of the sampler and assures that the penetration test is performed on essentially undisturbed soil shall be acceptable. Each of the following procedures have proven to be acceptable for some subsurface conditions. The subsurface conditions anticipated should be considered when selecting the drilling method to be used.

6.2.1 Open-hole rotary drilling method.

6.2.2 Continuous flight hollow-stem auger method.

6.2.3 Wash boring method.

6.2.4 Continuous flight solid auger method.

6.3 Several drilling methods produce unacceptable borings. The process of jetting through an open tube sampler and then sampling when the desired depth is reached shall not be permitted. The continuous flight solid auger method shall not be used for advancing the boring below a water table or below the upper confining bed of a confined non-cohesive stratum that is under artesian pressure. Casing may not be advanced below the sampling elevation prior to sampling. Advancing a boring with bottom discharge bits is not permissible. It is not permissible to advance the boring for subsequent insertion of the sampler solely by means of previous sampling with the SPT sampler.

6.4 The drilling fluid within the boring or hollow-stem augers shall be maintained at or above the in situ groundwater level at all times during drilling, removal of drill rods, and sampling.

7. Sampling and Testing Procedure

7.1 After the boring has been advanced to the desired sampling elevation and excessive cuttings have been removed, prepare for the test with the following sequence of operations.

7.1.1 Attach the split-barrel sampler to the sampling rods and lower into borehole. Do not allow the sampler to drop onto the soil to be sampled.

7.1.2 Position the hammer above and attach the anvil to the top of the sampling rods. This may be done before the sampling rods and sampler are lowered into the borehole.

7.1.3 Rest the dead weight of the sampler, rods, anvil, and drive weight on the bottom of the boring and apply a seating blow. If excessive cuttings are encountered at the bottom of the boring, remove the sampler and sampling rods from the boring and remove the cuttings.

7.1.4 Mark the drill rods in three successive 6-in. (0.15-m) increments so that the advance of the sampler under the impact of the hammer can be easily observed for each 6-in. (0.15-m) increment.

7.2 Drive the sampler with blows from the 140-lb (63.5-kg) hammer and count the number of blows applied in

each 6-in. (0.15-m) increment until one of the following occurs:

7.2.1 A total of 50 blows have been applied during any one of the three 6-in. (0.15-m) increments described in 7.1.4.

7.2.2 A total of 100 blows have been applied.

7.2.3 There is no observed advance of the sampler during the application of 10 successive blows of the hammer.

7.2.4 The sampler is advanced the complete 18 in. (0.45 m) without the limiting blow counts occurring as described in 7.2.1, 7.2.2, or 7.2.3.

7.3 Record the number of blows required to effect each 6 in. (0.15 m) of penetration or fraction thereof. The first 6 in. is considered to be a seating drive. The sum of the number of blows required for the second and third 6 in. of penetration is termed the "standard penetration resistance", or the "N-value". If the sampler is driven less than 18 in. (0.45 m), as permitted in 7.2.1, 7.2.2, or 7.2.3, the number of blows per each complete 6 in. (0.15-m) increment and per each partial increment shall be recorded on the boring log. For partial increments, the depth of penetration shall be reported to the nearest 1 in. (25 mm), in addition to the number of blows. If the sampler advances below the bottom of the boring under the static weight of the hammer, this information should be noted on the boring log.

7.4 The raising and dropping of the 140-lb (63.5-kg) hammer shall be accomplished using either the following two methods:

7.4.1 By using a trip, automatic, or semi-automatic hammer drop system which lifts the 140-lb (63.5 kg) hammer and allows it to drop 30 ± 1.0 in. (0.76 m ± 25 mm) unimpeded.

7.4.2 By using a cathead to pull a rope attached to the hammer. When the cathead and rope method is used the system and operation shall conform to the following:

7.4.2.1 The cathead shall be essentially free of rust, oil, or grease and have a diameter in the range of 6 to 10 in. (150 to 250 mm).

7.4.2.2 The cathead should be operated at a minimum speed of rotation of 100 RPM, or the approximate speed of rotation shall be reported on the boring log.

7.4.2.3 No more than 2 1/4 rope turns on the cathead may be used during the performance of the penetration test, as shown in Fig. 1.

NOTE 4--The operator should generally use either 1 3/4 of 2 1/4 rope turns, depending upon whether or not the rope comes off the top (1 3/4 turns) or the bottom (2 1/4 turns) of the cathead. It is generally known and accepted that 2 3/4 or more rope turns considerably impedes the fall of the hammer and should not be used to perform the test. The cathead rope should be maintained in a relatively dry, clean, and unfrayed condition.

7.4.2.4 For each hammer blow, a 30-in. (0.76 m) lift and drop shall be employed by the operator. The operation of pulling and throwing the rope shall be performed rhythmically without holding the rope at the top of the stroke.

7.5 Bring the sampler to the surface and open. Record the percent recovery or length of sample recovered. Describe the soil samples recovered as to composition, color, stratification, and condition, then place one or more representative portions of the sample into sealable moisture-proof containers (jars) without ramming or distorting any apparent stratification. Seal each container to prevent evaporation of soil moisture. Affix labels to the containers bearing job designation, boring number, sample depth, and the blow count per 6-in. (0.15 m) increment. Protect the samples against extreme temperature changes. If there is a soil change within the jar for each stratum and note its location in the sampler barrel.

8. Report

8.1 Drilling information shall be recorded in the filed and shall include the following:

8.1.1 Name and location of job,

8.1.2 Names of crew,

8.1.3 Type and make of drilling machine,

8.1.4 Weather conditions,

8.1.5 Date and time of start and finish of boring,

8.1.6 Boring number and location (station and coordinates, if available and applicable),

8.1.7 Surface evaluation, if applicable

8.1.8 Method of advancing and cleaning the boring,

8.1.9 Method of keeping boring open,

8.1.10 Depth of water surface and drilling depth at time of a noted loss of drilling fluid, and time and date when reading or notation was made,

8.1.11 Location of strata changes,

8.1.12 Size of casing, depth of cased portion of boring,

8.1.13 Equipment and method of driving sampler,

8.1.14 Type of sampler and length and inside diameter of barrel (note use of liners),

8.1.15 Size, type and section length of the sampling rods, and

8.1.16 Remarks.

8.2 Data obtained for each sample shall be recorded in the field and shall include the following:

8.2.1 Sample depth and, if utilized, the sample number,

8.2.2 Description of soil,

8.2.3 Strata changes within sample,

8.2.4 Sampler penetration and recovery lengths, and

8.2.5 Number of blows per 6-in. (0.15 m) or partial increment.

9. Precision and Bias

9.1 Variations in N-values of 100% or more have been observed when using different standard penetration test apparatus and drillers for adjacent borings in the same soil formation. Current opinion, based on field experience, indicates that when using the same apparatus and driller N-values in the same soil can be reproduced with coefficient or variation of about 10%.

9.2 The use of faulty equipment, such as extremely massive or damaged anvil, a rusty cathead, a low speed cathead, an old, oily rope, or massive or poorly lubricated rope sheaves can significantly contribute to differences in N-values obtained between operator-drill rig systems.

9.3 The variability in N-values produced by different drill rigs and operators may be reduced by measuring the part of the hammer energy delivered into the drilling rods from the sampler and adjusting N on the basis of comparative energies. A method for energy measurement and N-value adjustment is currently under development.

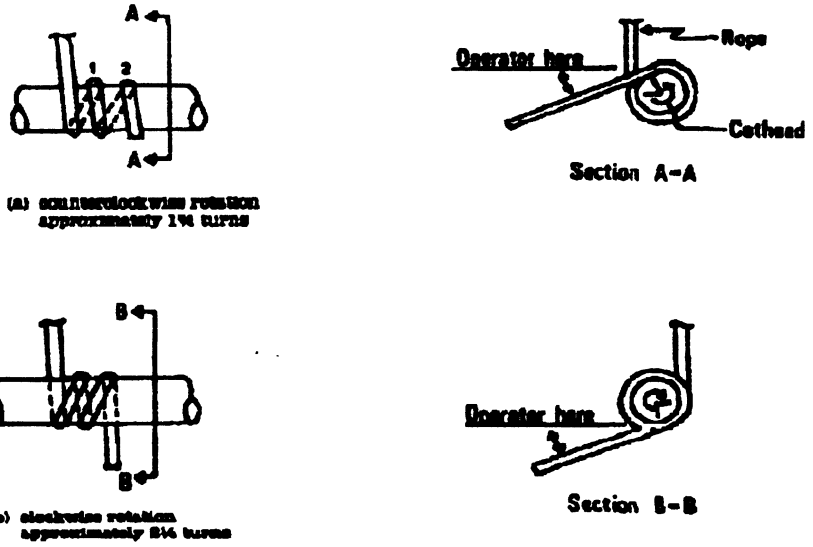
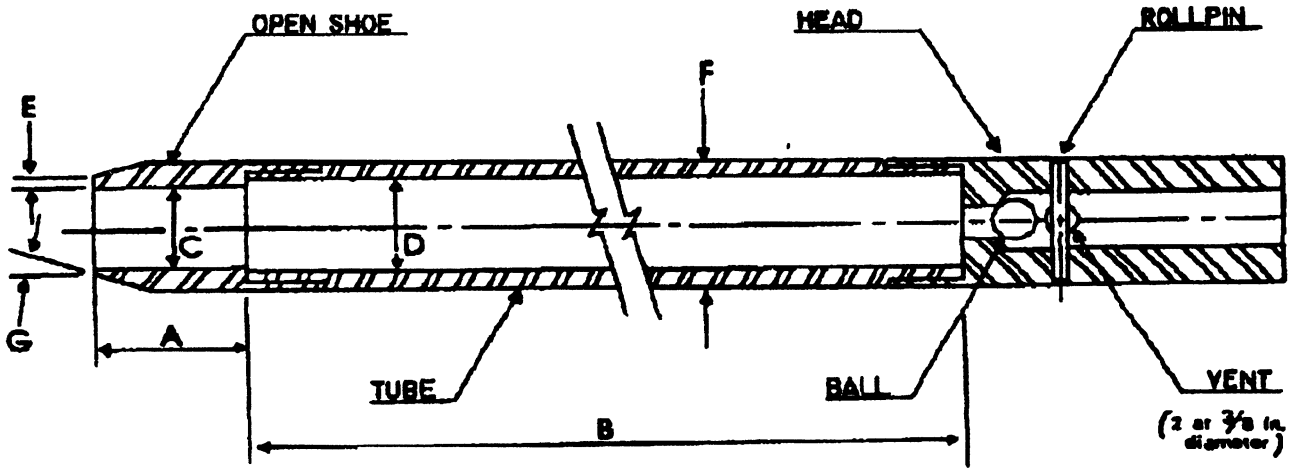


FIG. 1 Definitions of the number of rope turns and the angle for (a) counterclockwise rotation and (b) clockwise rotation of the cathead



A = 1.0 to 2.0 in. (25 to 50 mm)
B = 18.0 to 30.0 in. (0.457 to 0.762 m)
C = 1.375 ± 0.005 in. (34.93 ± 0.13 mm)
D = 1.50 ± 0.05 - 0.00 in. (38.1 ± 1.3 - 0.0 mm)
E = 0.10 ± 0.02 in. (2.54 ± 0.25 mm)
F = 2.00 ± 0.05 - 0.00 in. (50.8 ± 1.3 - 0.0 mm)
G = 16.0° to 23.0°

The 1 1/2 in. (38 mm) inside diamter split barrel may be used with a 16-gage wall thickness split liner. The penetrating end of the drive shoe may be slightly rounded. Metal or plastic retainers may be used to retain soil samples.

FIG. 2 Split-Barrel Sampler

The American Society for Testing and Materials takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, 1916 Race St., Philadelphia, PA 19103.

Water Content (W_c)

The water content of a soil is determined by weighing a moist soil sample, drying it in an oven for approximately 24 hours, and reweighing the sample to determine the moisture loss. The water content is the ratio of the weight of water in the soil to the weight of the dry soil. Water content is typically expressed as a percentage.

Calibrated Hand Penetrometer (Q_p)

In the calibrated hand penetrometer test, the unconfined compressive strength of a soil is estimated to a maximum value of 4.5 tons per square foot (tsf) by measuring the resistance of the soil sample to penetration by a spring-calibrated plunger. The hand penetrometer test device has been carefully calibrated by its manufacturer with the results of numerous unconfined compressive strength tests. This test provides a quick, simple, and low-cost testing procedure from which soil strength can be estimated.

Unconfined Compression Test (Q_u)

In the unconfined compression strength test, an undisturbed cylinder of soil is loaded axially until the soil fails to carry additional load, or until 20% strain has been reached, whichever occurs first. The undrained shear strength of a cohesive soil is usually considered to equal half of the unconfined compressive strength.

Dry Density (γ_d)

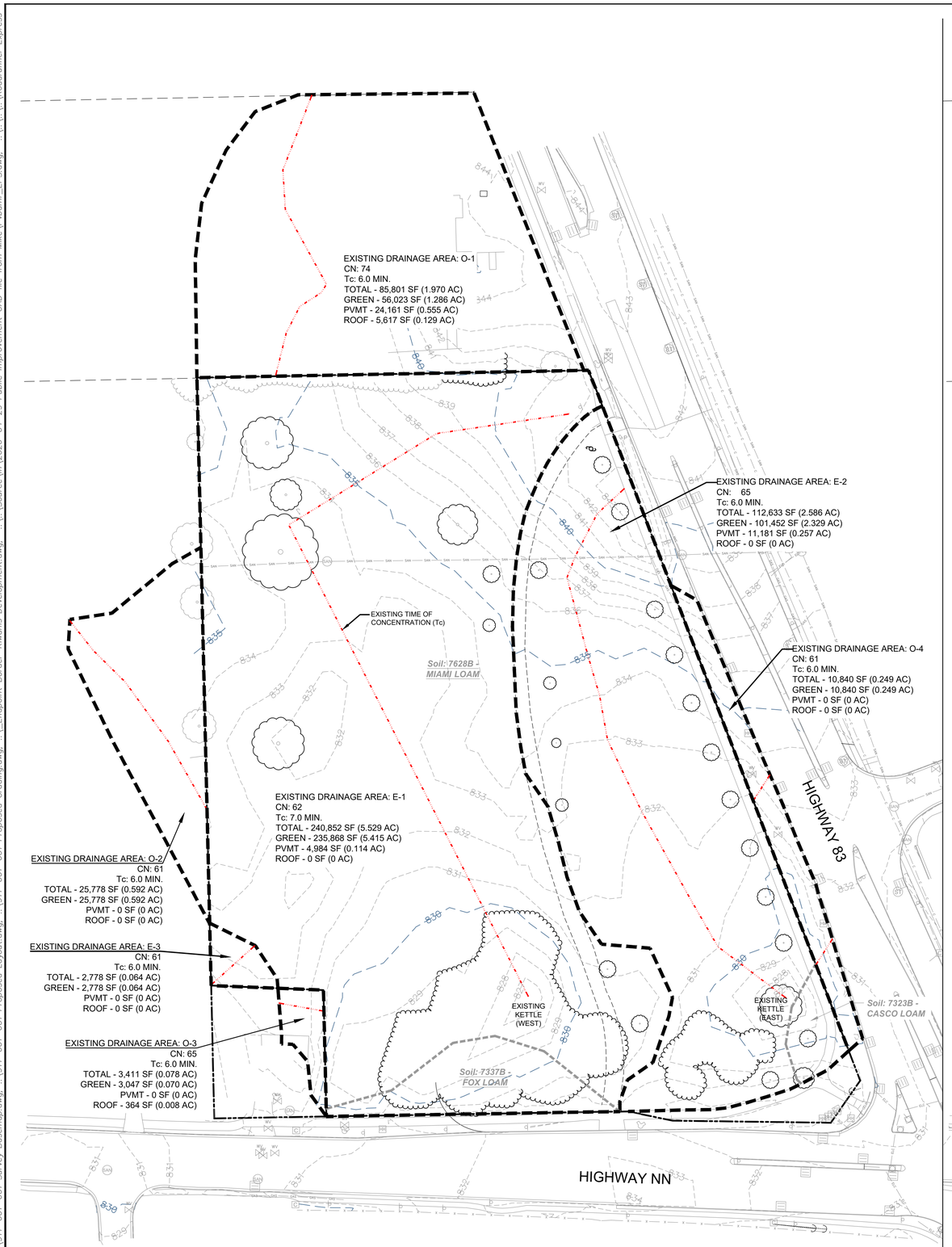
The dry density of a soil is the weight of dry soil in a unit volume. The soil's total unit weight is typically calculated by weighing a cylinder of soil, and dividing the weight by the cylinder's volume as calculated by measuring the cylinder's height and diameter at several locations. The soil's dry density is then determined by correcting the cylinder's weight to account for its water content measured as described above. Use of this value is often made when estimating the degree of compaction of a soil.

Classification of Samples

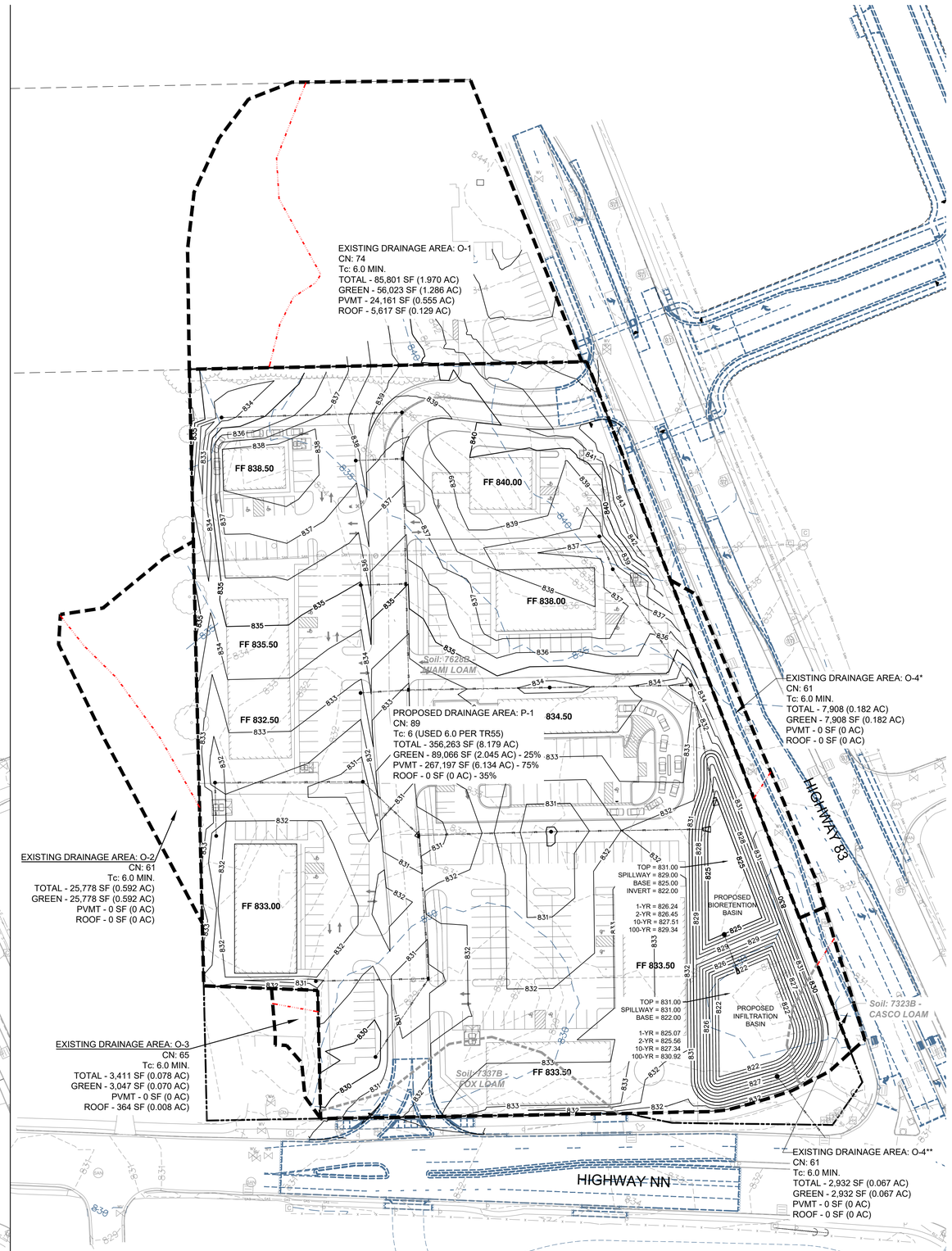
Soil samples are classified on the basis of their texture and plasticity in accordance with the Unified Soil Classification System (USCS). The two-letter designator in parentheses following each soil description on the boring logs represents the applicable unified classification. If the designator is capitalized, the classification has been confirmed by the appropriate index testing. If the designator is lower-case, the classification has been visually estimated.

Appendix F -

Hydrology Exhibit



EXISTING HYDROLOGY CONDITIONS



PROPOSED HYDROLOGY CONDITIONS

REV:	DATE:
6	.
5	.
4	.
3	.
2	.
1	.
0	.

Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

BEAR CROSSING

HYDROLOGY EXHIBIT

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: JAH/JET	DATE:
CHECKED BY: JAH	06/10/2026
APPROVED BY: ...	

PROJECT NO.
911-001

SHEET NO.
HX1.0

May 11, 2026 4:36pm PLOTTED BY: Jeffery SAVED BY: jeffery
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Document Number Name and Return Address Adam A. Bardosy Mallery s.c. 731 North Jackson Street, Suite 900 Milwaukee, Wisconsin 53202	**EASEMENT AGREEMENT**	
See attached. Parcel Identification Number (PIN)		Recording Area

THIS AGREEMENT is made as of _____, 2026 by ACG DEVELOPMENT #5, LLC and MEE DEVELOPMENT #1 LLC, each a Wisconsin limited liability company (collectively, "Grantor"), and MAH PROPERTY LLC, a Wisconsin limited liability company ("Grantee"). (Grantor and Grantee are sometimes referred to together below as the "Owners," each an "Owner.")

RECITALS

A. Grantor owns certain real estate legally described on Exhibit A to this Agreement ("Grantor's Parcel").

B. Grantee owns certain real estate legally described on Exhibit B to this Agreement ("Grantee's Parcel"). (Grantor's Parcel and Grantee's Parcel are sometimes referred to together below as the "Parcels," each a "Parcel.")

C. Grantor desires to grant to Grantee, and Grantee desires to obtain from Grantor, a driveway easement over the driveway area depicted as the "Driveway Easement Area" on the site plan attached to this Declaration as Exhibit C (the "Site Plan"), on the terms set forth below.

AGREEMENTS

In consideration of the foregoing recitals and other value received, the receipt and sufficiency of which the Owners acknowledge, THE OWNERS AGREE AS FOLLOWS:

1. Driveway Easement. Effective as of the date Grantor completes construction of the Driveway Improvements defined below (the "Driveway Installation Date"), Grantor, for purposes of vehicular ingress and egress over and across the Driveway Easement Area, grants to Grantee for the benefit of Grantee's Parcel a permanent, non-exclusive easement over the Driveway Easement Area.

2. Driveway Construction and Maintenance. Grantor, at its sole cost, shall install the initial driveway within the Driveway Easement Area (the "Driveway Improvements"), as substantially depicted on the Site Plan, in a good and workmanlike manner and in compliance with all applicable laws, codes, and regulations. Grantor, at no cost to Grantee, shall also: (1) maintain the Driveway Improvements in good condition, normal wear and tear excepted, and promptly remove all snow from them and repair all damage to them; and (2) promptly replace the Driveway Improvements with improvements of equal or better quality at the ends of their useful lives. Notwithstanding the foregoing, Grantee, at Grantee's expense, shall promptly repair all damage to the Driveway Improvements caused by the misuse of the Driveway Improvements by Grantee or its agents or contractors, or by any current or future tenant, occupant, customer, user or invitee of Grantee's Parcel.

3. Use. The Driveway Improvements shall not be used by any Owner or its agents or contractors, or by any current or future tenant, occupant, customer, user or invitee of such Owner's Parcel: (a) in any manner that unreasonably interferes with the use of the Driveway Improvements, for ingress and egress purposes, by the other Owner, or by any current or future tenant, occupant, customer, user or invitee of such other Owner's Parcel; or (b) for the parking or storage of trucks, tractors, trailers, boats, campers, motor vehicles, machinery or equipment, or any other personal property.

4. Insurance. Grantee shall at all times following the Driveway Installation Date maintain public liability insurance covering claims for bodily injury or death or property damage occurring in, on, or about the Driveway Easement Area in coverage amounts not less than $1,000,000.00 per occurrence, and $2,000,000.00 annual aggregate, and shall name Grantor and Grantor's mortgagee as additional insureds under such insurance policy. Upon Grantor's request, Grantee shall provide to Grantor a certificate evidencing such insurance coverage. Such insurance policy shall be written by companies authorized to transaction business in the State of Wisconsin and shall otherwise be reasonably satisfactory Grantor.

5. Indemnification. Each Owner shall indemnify, defend and hold harmless the other Owner for, from, and against any and all third-party claims and related expenses, damages, and liabilities, including, without limitation, reasonable attorneys' fees, incurred as a result of the indemnifying Owner's actual or alleged negligence, intentional misconduct, or default in connection with this Agreement, except to the extent such claims are caused by the negligence, intentional misconduct, or default in connection with this Agreement by the other Owner.

6. Work on Grantee's Parcel. Grantor, at Grantor's sole expense, shall close off the existing access driveway located on Grantee's Parcel that currently connects Grantee's Parcel to Highway 83, and perform other related work on Grantee's Parcel, all in substantial compliance with the plans and specifications set forth on the attached Exhibit D (the "De-Construction Work"). Grantor shall commence the De-Construction Work following the Driveway Installation Date, and complete the De-Construction Work within one hundred eighty (180) days following the Driveway Installation Date (the "De-Construction Deadline"), provided the De-Construction Deadline may be extended for a period not to exceed ninety (90) days for delays beyond Grantor's reasonable control. Grantor shall perform the De-Construction Work in a good and workmanlike manner and in compliance with all applicable laws, codes, and regulations, and shall utilize

commercially reasonable efforts throughout the performance of the De-Construction Work to avoid unreasonable disruption to Grantee's business operations. Grantee grants Grantor a temporary, non-exclusive easement over Grantee's Parcel as reasonably necessary to perform the De-Construction Work. Grantor shall provide Grantee at least ten (10) days' written notice prior to commencing the De-Construction Work. Grantor shall not permit any liens to be filed against Grantee's Parcel in connection with the De-Construction Work, and shall cause any such lien to be released of record or bonded over within thirty (30) days of filing. Grantor, throughout the performance of the De-Construction Work, shall maintain, or cause its contractors performing the work to maintain: (a) workers' compensation coverage in the minimum statutory amounts; and (b) public liability insurance covering claims for bodily injury or death or property damage occurring on Grantee's Parcel in coverage amounts not less than $1,000,000.00 per occurrence, and $2,000,000.00 annual aggregate, and shall name Grantee and Grantee's mortgagee as additional insureds under such insurance policy. Grantor, prior to commencing any construction on Grantee's Parcel and otherwise upon Grantee's request, shall provide certificates of each insurance policy Grantor is required to maintain under this paragraph. Each such insurance policy shall be written by companies authorized to transact business in the State of Wisconsin and shall otherwise be reasonably satisfactory Grantee. Grantor, at Grantor's expense, will promptly repair all damage to Grantee's Parcel or improvements caused by Grantor or its contractors in connection with the De-Construction Work. Furthermore, Grantor shall indemnify, hold harmless, and defend Grantee for, from, and against any and all expenses, damages, and liabilities (including, without limitation, reasonable attorneys' fees) suffered or incurred by Grantee as a result of any damage to property or injury or death to persons caused by Grantor or its contractors in connection with the De-Construction Work. Following completion of the De-Construction Work, Grantor shall have no obligation to perform any work on Grantee's Parcel, and the easement set forth in this paragraph shall automatically terminate.

7. Consideration. In consideration of Grantee's obligations under this Agreement, Grantor, within thirty (30) days following full execution of this Agreement by the Owners, shall pay to Grantee, in immediately available funds, a sum equal to Seventy-Five Thousand Dollars ($75,000.00).

8. Enforcement. If any Owner fails to perform any of its obligations under this Agreement, the other Owner may give the non-performing Owner written notice of default. If the non-performing Owner fails to cure the default within thirty (30) days after receipt (or refusal to accept delivery) of the notice of default, the other Owner may cure the default for the account of the non-performing Owner. In such event, the non-performing Owner shall reimburse the curing Owner for the reasonable, out-of-pocket expenses incurred by the curing Owner in connection with curing the non-performing Owner's default, within ten (10) business days after delivery by the curing Owner to the non-performing Owner, in writing, of reasonable evidence of such expenses. Expenses not reimbursed when due shall bear interest from such due date until paid at the rate of twelve percent (12%) per year. Furthermore, the expenses and accrued interest shall be secured by a lien in favor of the curing Owner against the non-performing Owner's Parcel, which may be foreclosed in the manner of a real estate mortgage. However, any such lien shall at all times be subordinate to the lien of any first mortgage that may encumber the non-performing Owner's Parcel from time to time.

9. Covenant Running with Land. This Agreement shall run with the land and shall bind and benefit the Owners and their respective successors and assigns, including all parties hereafter having any interest in the Parcels.

10. Entire Agreement; Amendment. This Agreement constitutes the entire agreement between the Owners relative to the subject matter of this Agreement. This Agreement may be terminated or amended only in writing, signed by the Owners, and recorded with the appropriate recorder's office.

11. Notices. All notices and other communications provided for in this Agreement shall be in writing, and shall be effective upon mailing by (A) certified or registered U.S. Mail, return receipt requested, postage prepaid, or (B) overnight delivery via Federal Express, United Parcel Service or any other reputable national overnight courier service. Any such notice or communication must be addressed to the recipient Owner's mailing address (as set forth in the most recent available real estate tax bill for the recipient Owner's Parcel), or to such other address as either party shall designate in writing to the other as provided in this Agreement.

12. Remedies. No breach of this Agreement shall entitle any Owner to cancel, rescind or otherwise terminate this Agreement, but this limitation shall not affect, in any manner, any other rights or remedies which the Owners may have by reason of any breach of this Agreement.

13. No Waiver. No waiver of any breach of any of the easements, covenants and/or agreements contained in this Agreement shall be construed as, or constitute, a waiver of any other breach of the same or any other covenant or agreement.

14. Severance. If any term or provision of this Agreement shall, to any extent, be held invalid or unenforceable, the remaining terms and provisions of this Agreement shall not be affected thereby, but each remaining term and provision shall be valid and enforced to the fullest extent permitted by law.

15. Governing Law. This Agreement shall be construed and enforced in accordance with the laws of the State of Wisconsin without regard to conflict of laws principles.

16. No Agency. Nothing in this Agreement shall be deemed or construed by either party or by any third person to create the relationship of principal and agent or of limited or general partners or of joint venturers or of any other association between the parties.

17. Collection Costs. In any legal action to enforce performance of the obligations of any Owner under this Agreement, the prevailing Owner shall be entitled to reimbursement from the losing Owner of all reasonable attorneys' fees, together with all necessary costs and disbursements, incurred by the prevailing Owner in connection with the action.

[Signatures on following page.]

Dated as of the date first written above.

GRANTOR:

ACG DEVELOPMENT #5, LLC

By: _____
Steve Anderson, Sole Member

MEE DEVELOPMENT #1 LLC

By: _____
Mikko Erkamaa, Sole Member

ACKNOWLEDGMENTS

STATE OF WISCONSIN)
) SS
COUNTY OF WAUKESHA)

This instrument was acknowledged before me on _____, 2026 by Steve Anderson, as Sole Member of ACG Development #5, LLC.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

STATE OF _____)
) SS
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2026 by Mikko Erkamaa, as Sole Member of MEE Development #1 LLC.

_____
Name: _____
Notary Public, State of _____
My commission _____.

GRANTEE:

MAH PROPERTY LLC

By: _____
Name: _____
Title: _____

ACKNOWLEDGMENT

STATE OF WISCONSIN)
) SS
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2026 by _____, as _____ of MAH Property LLC.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

CONSENT OF MORTGAGEE

Citizens Bank, mortgagee of Grantor's Parcel defined in the foregoing Easement Agreement, consents to the execution and recording of such Easement Agreement and agrees that the lien of its mortgage and other security against Grantor's Parcel shall be subject and subordinate to the rights created under such Easement Agreement, other than the lien rights created under such Easement Agreement.

Dated _____, 2026.

CITIZENS BANK

By: _____
Ryan M. Lilly, First Vice President

ACKNOWLEDGMENT

STATE OF WISCONSIN)
) ss
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2026 by Ryan M. Lilly, as First Vice President of Citizens Bank.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

Drafted by Adam A. Bardosy
Mallery s.c.
Suite 900
731 North Jackson Street
Milwaukee, Wisconsin 53202

EXHIBIT A

LEGAL DESCRIPTION OF GRANTOR'S PARCEL

PARCEL A:
Parcel 2B of Certified Survey Map No. 7903 recorded in the office of the Register of Deeds for Waukesha County, Wisconsin, on December 27, 1995 in Volume 68 of Certified Survey Maps, at Pages 151 to 153, inclusive, as Document No. 2089494, being a part of the Northeast 1/4, Northwest 1/4, Southeast 1/4 and Southwest 1/4 of the Southwest 1/4 of Section 23, Town 5 North, Range 18 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin, being a redivision of Parcel 2 as recorded in Certified Survey Map No. 5713, as Document No. 1515508.
EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin Department of Transportation in Deed by Corporation recorded July 6, 2001 as Document No. 2672832, as corrected by an Affidavit of Correction recorded August 24, 2004 as Document No. 3197842, and as further corrected by an Affidavit of Correction recorded May 23, 2006 as Document No. 3389563.
FURTHER EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin, Department of Transportation in Deed by Corporation recorded December 9, 2003 as Document No. 3107595.

PARCEL B:
Lot 1 of Certified Survey Map No. 8751 recorded in the office of the Register of Deeds for Waukesha County, Wisconsin, on April 21, 1999 in Volume 77 of Certified Survey Maps, at Pages 320 to 322, inclusive, as Document No. 2452781, being a redivision of Parcel 2A of Certified Survey Map No. 7903, being a part of the Southwest 1/4 and Southeast 1/4 of the Southwest 1/4 of Section 23, Town 5 North, Range 18 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin, as corrected by an Affidavit of Correction recorded May 28, 1999 as Document No. 2468459.
EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin Department of Transportation in Deed by Corporation recorded June 12, 2001 as Document No. 2664701, as corrected by an Affidavit of Correction recorded August 24, 2004, as Document No. 3197843.
FURTHER EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin, Department of Transportation in Deed by Corporation recorded December 3, 2003 as Document No. 3104965.

For informational purposes only:
Property Address: Vacant land, no address assigned, Mukwonago, WI
Tax Key Number: MUKV 1963.996.005 (Parcel A) and MUKV 1963.996.006 (Parcel B)

EXHIBIT B

LEGAL DESCRIPTION OF GRANTEE'S PARCEL

Lot One (1) of Certified Survey Map No. 5558, recorded in the Office of Register of Deeds for Waukesha County, Wisconsin on July 22, 1988, as Document No. 1491618, and corrected by Surveyor's Affidavit of Correction recorded as Document No. 1497445, being a part of the Northeast One-quarter (1/4) and Northwest One-quarter (1/4) of the Southwest One-quarter (1/4) of Section 23, Township Five (5) North, Range Eighteen (18) East, Village of Mukwonago, Waukesha County, Wisconsin.
Excepting therefrom that portion conveyed by Warranty Deed recorded as Document No. 3728600.

Tax Key Number: MUKV1963996001

EXHIBIT C

SITE PLAN

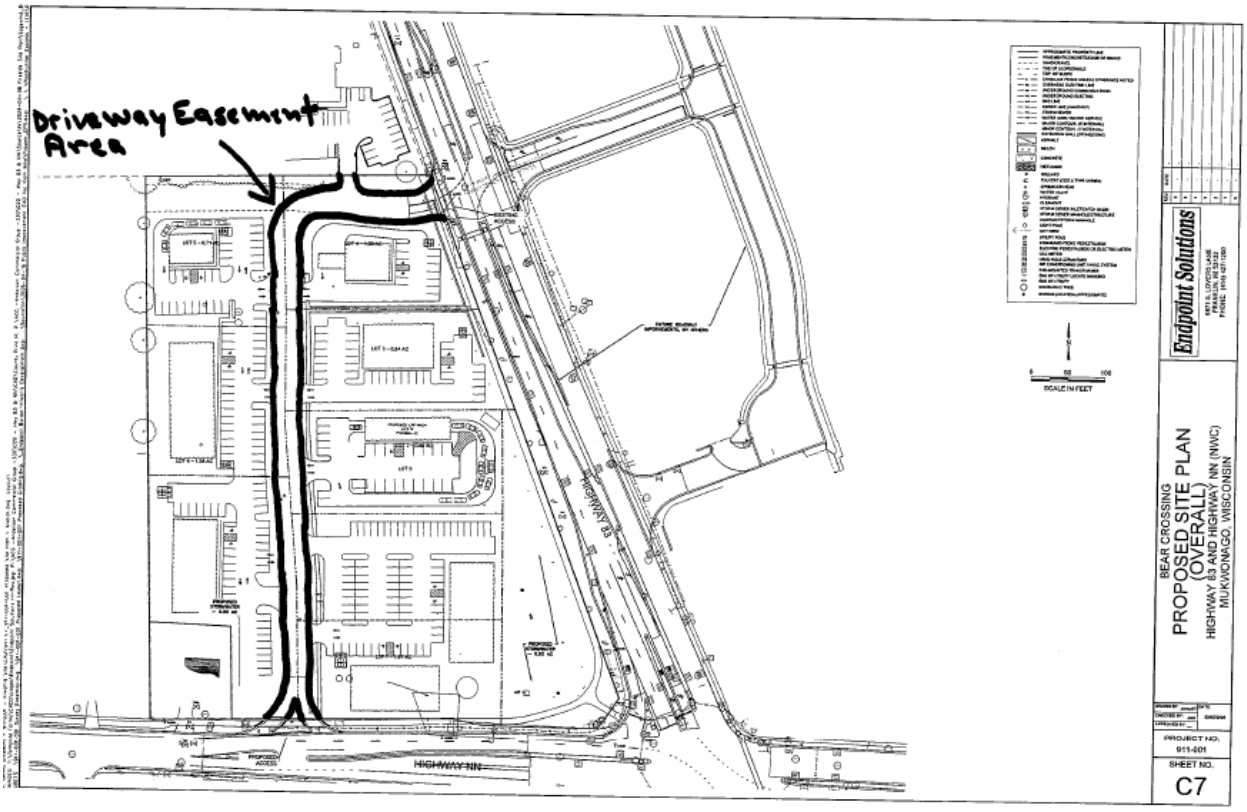
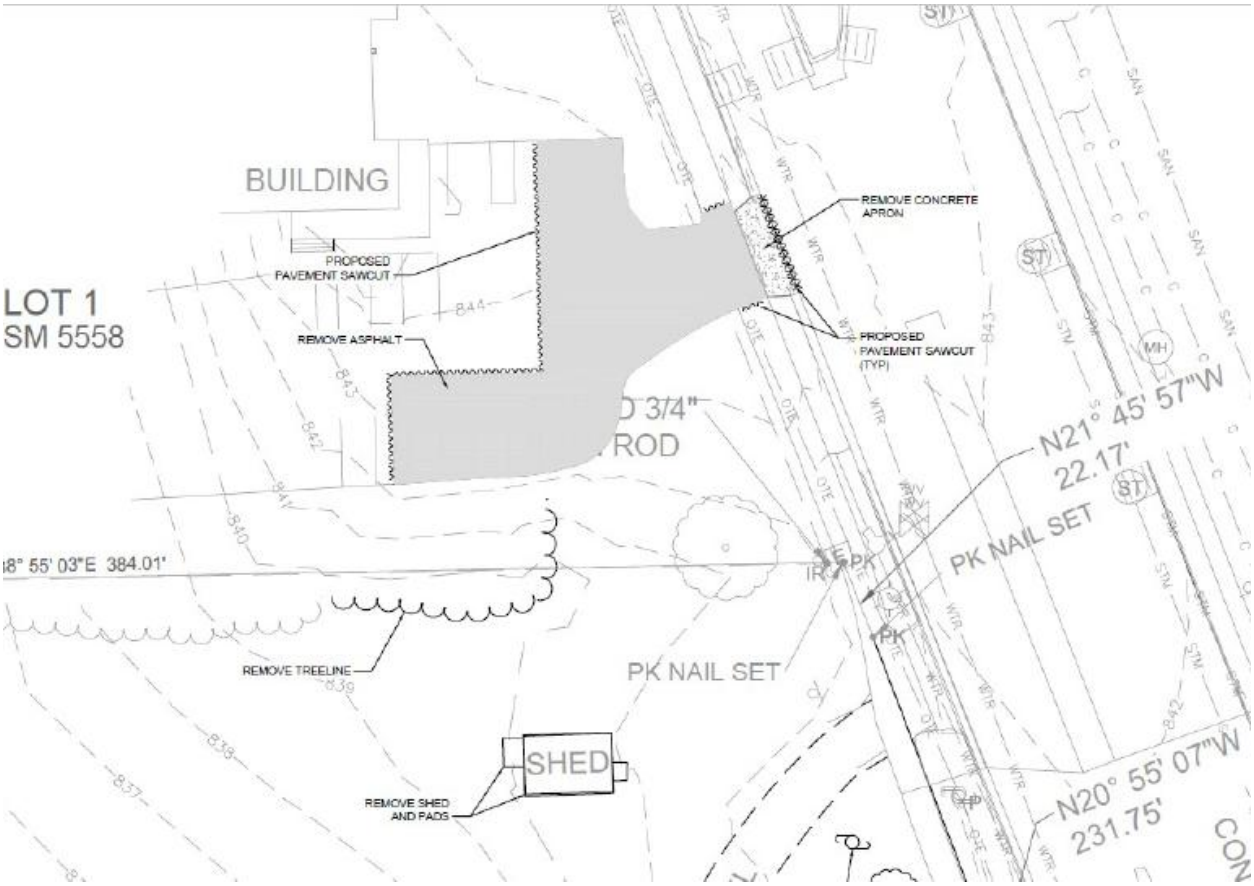


EXHIBIT D

PLANS AND SPECIFICATIONS FOR DE-CONSTRUCTION WORK

[Preliminary sketch below. Final plans and specs to follow.]



Document Number Name and Return Address Adam A. Bardosy Mallery s.c. Suite 900 731 North Jackson Street Milwaukee, Wisconsin 53202	**DECLARATION OF COVENANTS, EASEMENTS, AND RESTRICTIONS**	
See attached Exhibit A. Lot Identification Number (PIN)		Recording Area

THIS DECLARATION (this "Declaration") is made as of _____, 2026 by ACG DEVELOPMENT #5, LLC, a Wisconsin limited liability company, and MEE DEVELOPMENT #1 LLC, a Wisconsin limited liability company (collectively, "Declarant").

RECITALS

A. Declarant owns the real estate described on Exhibit A to this Declaration (the "Project").

B. On or about the date of this Declaration, Declarant will subdivide the Project into five (5) adjoining lots (collectively the "Lots," each a "Lot") pursuant to the Certified Survey Map attached as Exhibit B to this Declaration (the "CSM"). In accordance with the labels used on the CSM, the Lots are sometimes referred to individually in this Declaration as Lot 1, Lot 2, Lot 3, Lot 4, and Outlot 1. Each lot created by any future subdivision of any Lot shall also constitute a "Lot" under this Declaration.

C. The Lots are subject to that certain Stormwater Maintenance Agreement dated _____, 2026, which was recorded in the office of the Register of Deeds of Waukesha County, Wisconsin, on _____, 2026, as Document No. _____ (as may be amended from time to time, the "SWMA"). Declarant is recording this Declaration in part to allocate among the owners of the Lots (collectively the "Owners," each an "Owner") the rights and obligations of the owner(s) of the Lots under the SWMA.

D. Declarant further desires to provide for certain additional easements and restrictions affecting the Lots, all as more particularly described below.

DECLARATION

In consideration of the foregoing recitals and for other value received, DECLARANT DECLARES AS FOLLOWS:

I. SWMA

1.1 Rights. The rights of the owner(s) of the Lots under the SWMA shall accrue to the Owners as follows:

(a) The rights to enforce and, to the extent applicable, exercise self-help as a remedy under, the SWMA shall accrue to Declarant. The other Owners of the Lots shall reimburse Declarant for their "Allocated Shares," as defined in Exhibit C to this Declaration, of the costs of enforcement and self-help (subject to any right of reimbursement from owners of real estate other than the Lots under the SWMA) in the same manner as if such costs were Reimbursable Costs (as defined below).

(b) Declarant, acting alone from time to time, is authorized to dedicate to any appropriate municipal authority any and all water and sanitary sewer utility mains, pipes, components, and facilities installed on any of the Lots pursuant to the SWMA. Any Owner, including Declarant, requested to make any such dedication at any time shall promptly notify all other Owners, including Declarant, of such request and shall provide the other Owners with copies of all written materials received in connection with such request. Declarant shall also notify all other Owners in writing before making any such dedication.

1.2 Monetary Obligations. The obligations of the Owner(s) of the Lots to pay costs under the SWMA ("SWMA Operating Costs") shall be allocated among the Owners in Allocated Shares as described in Exhibit C. All Owners shall pay their Allocated Shares of all SWMA Operating Costs before delinquency. All parties who are Owners from time to time shall cooperate in reasonable efforts to ensure that Operating Costs are billed to the Owners in accordance with their Allocated Shares. If any Owner is billed for SWMA Operating Costs other than in accordance with its Allocated Share, all Owners shall cooperate so that each Owner pays its full Allocated Share, but only its Allocated Share, of the SWMA Operating Costs before delinquency.

1.3 Other Obligations. Declarant shall be responsible for performing all other obligations of the Owner(s) of the Lots under the SWMA. Declarant shall bear all costs of the original installation of any improvements to the Lots that is part of such obligations under the SWMA. The other Owners shall reimburse Declarant for their Allocated Shares of the costs of subsequent maintenance, repair, replacement, and removal of such improvements ("Reimbursable Costs"). Whenever Declarant incurs Reimbursable Costs, each other Owner shall reimburse Declarant for its Allocated Share of the Reimbursable Costs within fifteen (15) days after receipt of Declarant's written request for reimbursement, which shall include copies of all invoices for which reimbursement is sought and a description of the method of calculating the Owner's Allocated Share.

II. EASEMENTS

2.1 SWMA. Declarant establishes a permanent, non-exclusive easement in favor of Declarant over those parts of the Lots that are reasonably necessary for the purpose of performing Declarant's obligations under the SWMA in accordance with the preceding Article.

2.2 Access. Declarant establishes permanent, non-exclusive reciprocal easements for the benefit of the Lots for vehicular and pedestrian access among the Lots and to and from Highway 83 and Highway NN over the driveway depicted on the Site Plan attached to this Declaration as Exhibit D (the "Site Plan") that connects the Project to Highway 83 and Highway NN (the "Driveway Easement Area"), and over all future entry ways, driveways, and drive aisles located within the Project.

2.3 Storm Water.

(a) Declarant establishes a non-exclusive easement for the benefit of the Lots for surface and subsurface drainage and detention of storm water over, through, and upon those portions of and improvements to the Lots that are to be used for such purposes (the "Stormwater System Improvements") as shown in Grading and Erosion Control Plan and Grading Detail, Project No. _____, Sheet Nos. _____, prepared by Endpoint Solutions dated _____, 2026, last revised on _____, 2026 (the "Grading Plan"), and for the installation, maintenance, repair, removal, and replacement from time to time of the Stormwater System Improvements. Such easement shall be permanent except with respect to any earthwork or other improvements designed "temporary" on the Grading Plan, which the Owner(s) of the affected Lot(s) may remove subject to compliance with the SWMA and applicable law.

(b) No surface or subsurface drainage or detention of storm water from any Lot shall be permitted over, through, or upon any portions of or improvements to any of the other Lots, other than by use of the Stormwater System Improvements.

(c) Each Owner shall at its sole cost maintain the grading of the unimproved areas of its Lot(s) in material conformity in all respects with the Grading Plan.

2.4 Utilities. Declarant establishes a permanent, non-exclusive easement for the benefit of each of the Lots for the purpose of installing, maintaining, repairing, removing, and replacing from time to time underground facilities for the shared provision of water, sewer, natural gas, electric, telephone, cable, internet, and other utility services (together, "Utility Improvements") to the Lots, together with hookups and laterals for service to individual Lots ("Lateral Lines"). For purposes of this Declaration, Lateral Lines do not constitute part of the Utility Improvements. With respect to water and sanitary sewer utilities, the foregoing easement shall be confined to the area(s) in which the water and sanitary sewer main lines service the Project, such area(s) anticipated to be underneath or alongside the Driveway Easement Area. With respect to other utilities, the foregoing easement shall be confined to areas that are located outside of the burdened Lot's building(s) or building pad(s) and that do not interfere with the construction or operation of the burdened Lot in a commercially unreasonable manner.

2.5 Signage. Declarant establishes a permanent, non-exclusive easement for the benefit of the Lots for installation (at Declarant's option and without obligation), maintenance, repair, removal, and replacement from time to time of one monument or pylon sign within Outlot 1, together with electrical service to such sign (the "Identification Sign").

2.6 Releases. Each Owner (each a "Releasor") releases each other Owner (each a "Releasee") from any and all liability for damage to improvements or personal property owned by the Releasor and installed on the Releasee's Lot(s) pursuant to this Declaration, and no insurer of any Releasor shall have right of subrogation against any Releasee for any such damage. However, the foregoing releases shall not apply to the extent inconsistent with any explicit repair or indemnification obligations under this Declaration or any instrument described in Paragraph 2.4(b), above.

2.7 Indemnification. Each Owner shall defend and indemnify the other Owners against any and all third-party claims and related expenses, damages, and liabilities incurred as a result of the actual or alleged negligence, intentional misconduct, or default under this Declaration on the part of the indemnitor or the indemnitor's agents.

III. WORK REQUIREMENTS

All work performed pursuant to this Declaration shall be performed in a good and workmanlike manner and in accordance with all applicable laws. If any Owner, including Declarant, performs any such work on any other Owner's Lot, such Owner shall (1) provide the other Owner with at least fifteen (15) days' prior written notice before commencing the work, except in emergencies; (2) provide the other Owner with written evidence of commercially reasonably insurance coverage (including coverage of contractors) before commencing the work; (3) promptly repair all damage to such Lot caused by the work; and (4) indemnify and defend the other Owner against any and all claims, costs, damages, and liabilities arising out of the work, including causing any and all construction lien claims against such Lot to be discharged of record within forty-five (45) days after filing.

IV. USE RESTRICTIONS

4.1 General. The Lots may not be used in any manner that materially interferes with the use of the easements created under this Declaration, provided that Owners may temporarily close any or all of the easement areas on their Lot(s) from time to time for maintenance, repair, and replacement purposes without liability to any other Owner. Except in emergencies, an Owner performing any such work shall give fifteen (15) days' prior written notice to the other Owners of any such closure on such Owner's Lot. No such temporary closure shall prevent reasonable access among the Lots and to and from public roads to which any Lot has legal access.

4.2 Exclusive. For as long as Beckett, LLC, a Wisconsin limited liability company, owns Lot 2 or North Shore Bank (or its successors or assigns) operates Lot 2 for a Banking Use (as defined below), no Lot other than Lot 2 shall be used for a Banking Use (as defined below). This covenant shall run with the land and shall be binding upon all parties and persons having any interest in the Project for an initial period of forty (40) years from the date this Declaration is

recorded, and thereafter shall be automatically extended for successive periods equal to the full duration of the statutory limitation period in effect at such time for actions to enforce easements or covenants restricting the use of real estate (currently codified at Section 893.33(6), Wis. Stats., but including any future amendments, modifications or re-numbering of that section). This covenant may be enforced by the Owner of Lot 2, and its respective successors and assigns. This covenant shall apply to any use of the Project or any portion thereof (except for Lot 2) by any party, including without limitation, any Owner, tenant or licensee. For purposes of this Declaration, a "Banking Use" shall mean a chartered bank, savings and loan, or credit union, any banking operations, and any other use offering mortgage services, lending, check cashing or other banking services.

V. OPERATIONAL COVENANTS

5.1 Driveway Improvements. Declarant, at its sole cost, shall install the initial roadway within the Driveway Easement Area, as depicted on the Site Plan. Declarant shall also: (1) maintain all driveways installed from time to time within the Driveway Easement Area (together, "Driveway Improvements") in good condition, normal wear and tear excepted, and promptly remove all snow from them and repair all damage to them; and (2) promptly replace the Driveway Improvements with improvements of equal or better quality at the ends of their useful lives. The other Owners shall reimburse Declarant for their Allocated Shares of maintenance, repair, and replacement costs in the same manner as if such costs were Reimbursable Costs.

5.2 Stormwater System Improvements. Declarant shall install the initial Stormwater System Improvements at its sole cost. Declarant shall also (1) maintain the Stormwater System Improvements in good condition, normal wear and tear excepted, and promptly repair all damage to them; and (2) promptly replace the Stormwater System Improvements with improvements of equal or better quality at the ends of their useful lives. The other Owners shall reimburse Declarant for their Allocated Shares of maintenance, repair, and replacement costs in the same manner as if such costs were Reimbursable Costs as defined above.

5.3 Utility Improvements.

(a) Declarant shall (1) maintain all privately-owned Utility Improvements installed in the Utility Easement Area from time to time in good condition, normal wear and tear excepted, and promptly repair all damage to them; and (2) promptly replace such Utility Improvements with improvements of equal or better quality at the ends of their useful lives. The other Owners shall reimburse Declarant for their Allocated Shares of maintenance, repair, and replacement costs in the same manner as if such costs were Reimbursable Costs.

(b) The Utility Improvements include only improvements for the shared provision of services to the Lots. All improvements, including Lateral Lines, providing service only to an individual Lot shall be installed, and maintained in good condition, by the Owner of such Lot, at such Owner's sole expense.

5.4 Signage.

(a) If Declarant in its sole discretion elects to install the Identification Sign, then the Identification Sign shall be installed by Declarant at its sole cost, subject to approval of its design, dimensions, and other specifications by the Owners (if different from Declarant), which shall not be unreasonably withheld, conditioned or delayed, and by the Village of Mukwonago. Declarant shall also (1) maintain the Identification Sign in good condition, normal wear and tear excepted, and promptly repair all damage to it; and (2) promptly replace the Identification Sign with a sign of equal or better quality at the end of its useful life. The other Owners shall reimburse Declarant for their Allocated Shares of maintenance, repair, and replacement costs in the same manner as if such costs were Reimbursable Costs.

(b) The Owner(s) to whose Lot(s) charges for electricity for the Identification Signs are metered shall promptly pay all such charges. The other Owners shall within 10 business days after billing reimburse the paying Owner(s) for their Allocated Shares of all such charges in the same manner as if such charges were Reimbursable Costs.

(c) Any other sign(s) desired by any Owner shall be installed by such Owner at such Owner's sole expense on such Owner's Lot.

(d) The total available panel area on the Identification Sign shall be allocated among the Lots in accordance with their respective Allocated Shares. Each Owner shall pay all costs in connection with the fabrication, installation, maintenance, repair, removal, and replacement of its panel on the Identification Sign.

5.5 Administrative Fee. Whenever Declarant is owed reimbursement of costs by any other Owner under this Declaration (excluding interest and collection costs as provided below), Declarant shall also be entitled to, and each Owner obligated for such reimbursement shall pay its Allocated Share of, an administrative fee equal to the sum of (a) the lesser of 15% of the aggregate project costs or $15,000.00; plus (b) 10% of the amount by which the aggregate project costs exceed $100,000.00. For purposes of this Section, "aggregate project costs" means the aggregate costs of any one construction, maintenance, repair, replacement, or demolition project.

VI. ENFORCEMENT

6.1 Right to Enforce. This Declaration may be enforced by (a) Declarant or (b) any other Owner (each an "Enforcing Owner"), provided that except in cases of enforcement against Declarant, the Enforcing Owner first gives Declarant a written request for enforcement, and Declarant fails to take enforcement action within fifteen (15) days after receiving such request. Neither Declarant nor any other Owner shall have any liability at law or in equity to any person or entity for failure to enforce this Declaration.

6.2 Self-Help. In addition to all other rights and remedies at law and in equity, if any owner (the "Non-Performing Owner"), including Declarant, fails to perform any of its obligations under this Declaration (other than an obligation for payment of money), Declarant or the Enforcing Owner may give the Non-Performing Owner written notice of default. If the Non-Performing

Owner fails to cure the default within fifteen (15) days after receipt (or refusal to accept delivery) of the notice of default (24 hours in cases of emergency), Declarant or the Enforcing Owner may cure the default for the Non-Performing Owner's account. The Non-Performing Owner shall reimburse Declarant or the Enforcing Owner for its reasonable costs of doing so within fifteen (15) days after receipt of reasonable evidence of the costs.

6.3 Interest. All costs and fees owed by one Owner to another Owner under this Declaration and not paid when due shall bear interest from the date due at 4% over the prime rate published from time to time by in The Wall Street Journal (Midwest Edition), adjusting as and when such prime rate changes.

6.4 Collection Costs. In any legal action to enforce performance of the obligations of any Owner (including Declarant) under this Declaration, the prevailing party or parties shall be entitled to reimbursement by the losing party or parties of all reasonable attorneys' fees together with all necessary costs and disbursements incurred in connection with the action.

6.5 Lien. All costs and fees owed by one Owner to Declarant or another Owner under this Declaration shall be secured by a lien upon the Lot(s) owned by the Owner obligated for payment in favor of the Owner (including Declarant) entitled to payment, which may be foreclosed in the manner of a real estate mortgage. However, any such lien shall at all times be subordinate to the lien of any real estate mortgage that encumbers the affected Lot(s) at the time the sums secured by such lien become payable under this Declaration.

6.6 No Waiver. The failure of Declarant or any other Owner to enforce any provision of this Declaration shall not be deemed to be a waiver of the right to do so thereafter nor of the right to enforce any other provision.

6.7 Inspection. Subject to the rights of tenants, Declarant may from time to time at any reasonable hour or hours, enter and inspect any Lot to ascertain compliance with this Declaration.

6.8 Ground Lessees. Any Owner may assign the enforcement rights contained in this Section to a lessee under a ground lease of the entirety of such Owner's Lot.

6.9 Estoppel Certificates. Each Owner shall deliver, within ten (10) business days after written request, to a prospective purchaser or mortgagee of any Lot, a certificate as to the existence and status of any claims it may have against the Owner of such Lot under this Declaration.

VII. OUTLOT 1

Automatically during the entire period in which any Owner owns a Lot, such Owner shall be deemed to own an undivided percentage interest in Outlot 1 equal to such Lot's Allocated Share. Ownership of Outlot 1 shall remain undivided at all times. No Owner may bring a suit for partition of Outlot 1. Any deed, instrument, matter, circumstance, action, occurrence or proceeding in any manner affecting a Lot also shall affect, in like manner, the undivided percentage interest in Outlot 1 appurtenant to such Lot, and any conveyance, encumbrance, judicial sale, or other transfer (voluntary or involuntary) of any undivided percentage interest in Outlot 1 will be void unless the

Lot to which such undivided percentage interest is allocated is also transferred. Declarant shall keep and maintain Outlot 1 in safe and sightly condition, and the other Owners shall reimburse Declarant for their Allocated Shares of Declarant's costs of such work in the same manner as if such costs were Reimbursable Costs.

VIII. MISCELLANEOUS PROVISIONS

7.1 Role of Declarant. The rights and responsibilities of Declarant under this Declaration shall accrue to: (a) the original Declarant for as long as Declarant owns a Lot; or (b) the Owner of the largest Lot within the Project, measured at the time Declarant ceases to own any Lot. Otherwise, the rights and responsibilities of Declarant as "Declarant" under this Declaration shall not pass with title to any Lot except by express, recorded assignment to another Owner by the original or a subsequent Declarant. Such assignment may be included in an instrument of conveyance, in which case the assignee shall be deemed to have accepted the assignment by accepting the instrument, or in a separate instrument, in which case the assignee's written acceptance must be included in the instrument. The Declarant must be an Owner of at least one Lot. The rights and responsibilities of the Declarant may not be divided among multiple Owners.

7.2 No Agency. The relationship of Declarant and the other Owners created by this Declaration shall not constitute or be construed as a partnership, principal-agent relationship, joint venture, or other cooperative enterprise between or among Declarant and any of the other Owners. In no event shall Declarant be deemed an agent of any other Owner. Declarant shall have no authority to enter into any contract on behalf of any other Owner or bind or obligate any other Owner to any contract or obligation, express or implied.

7.3 Subdivision. For as long as Declarant owns any Lot, no Owner other than Declarant may subdivide any Lot, by certified survey map, subdivision plat, metes and bounds, or otherwise. Declarant may at any time and from time to time subdivide any Lot(s) owned by Declarant to the maximum extent permitted by applicable law.

7.4 Site Plan. The Lot boundaries depicted on the Site Plan are approximate. The precise boundaries of the Lots are set forth in the CSM.

7.5 Modification. Except as provided above, this Declaration may be terminated, extended, modified, or amended, as to the Lots or any portion of the Lots, only by a recorded agreement signed by the Owners of Lots. For as long as Declarant owns a Lot, Declarant's signature shall also be required on any such agreement.

7.6 Severability. If any provision of this Declaration is held to be invalid by any court, the invalidity of such provision shall not affect the remaining provisions of this Declaration, and they shall continue in full force and effect.

7.7 Binding Effect. The covenants, easements and restrictions created under this Declaration shall run with the land and shall bind and benefit Declarant and all future owners of each of the Lots and their respective heirs, personal representatives, successors, and assigns.

[Signature on following page.]

Dated as of the date first written above.

DECLARANT:

ACG DEVELOPMENT #5, LLC

By: _____
Steve Anderson, Sole Member

MEE DEVELOPMENT #1 LLC

By: _____
Michael Erkamaa, Sole Member

ACKNOWLEDGMENTS

STATE OF WISCONSIN)
) SS
COUNTY OF WAUKESHA)

This instrument was acknowledged before me on _____, 2026 by Steve Anderson, Sole Member of ACG Development #5, LLC.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

STATE OF WISCONSIN)
) SS
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2026 by Michael Erkamaa, Sole Member of MEE Development #1 LLC.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

CONSENT OF MORTGAGEE

Citizens Bank, mortgagee of the Project defined in the foregoing Declaration, consents to the execution and recording of this Declaration and agrees that the lien of its mortgage and other security against the Project shall be subject and subordinate to the rights created under this Declaration, other than the lien rights created under the Declaration.

Dated _____, 2026.

CITIZENS BANK

By: _____
Ryan M. Lilly, First Vice President

ACKNOWLEDGMENT

STATE OF WISCONSIN)
) ss
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2026 by Ryan M. Lilly, as First Vice President of Citizens Bank.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

Drafted by Adam A. Bardosy
Mallery s.c.
Suite 900
731 North Jackson Street
Milwaukee, Wisconsin 53202

EXHIBIT A

LEGAL DESCRIPTION OF THE PROJECT

PARCEL A:
Parcel 2B of Certified Survey Map No. 7903 recorded in the office of the Register of Deeds for Waukesha County, Wisconsin, on December 27, 1995 in Volume 68 of Certified Survey Maps, at Pages 151 to 153, inclusive, as Document No. 2089494, being a part of the Northeast 1/4, Northwest 1/4, Southeast 1/4 and Southwest 1/4 of the Southwest 1/4 of Section 23, Town 5 North, Range 18 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin, being a redivision of Parcel 2 as recorded in Certified Survey Map No. 5713, as Document No. 1515508.
EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin Department of Transportation in Deed by Corporation recorded July 6, 2001 as Document No. 2672832, as corrected by an Affidavit of Correction recorded August 24, 2004 as Document No. 3197842, and as further corrected by an Affidavit of Correction recorded May 23, 2006 as Document No. 3389563.
FURTHER EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin, Department of Transportation in Deed by Corporation recorded December 9, 2003 as Document No. 3107595.

PARCEL B:
Lot 1 of Certified Survey Map No. 8751 recorded in the office of the Register of Deeds for Waukesha County, Wisconsin, on April 21, 1999 in Volume 77 of Certified Survey Maps, at Pages 320 to 322, inclusive, as Document No. 2452781, being a redivision of Parcel 2A of Certified Survey Map No. 7903, being a part of the Southwest 1/4 and Southeast 1/4 of the Southwest 1/4 of Section 23, Town 5 North, Range 18 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin, as corrected by an Affidavit of Correction recorded May 28, 1999 as Document No. 2468459.
EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin Department of Transportation in Deed by Corporation recorded June 12, 2001 as Document No. 2664701, as corrected by an Affidavit of Correction recorded August 24, 2004, as Document No. 3197843.
FURTHER EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin, Department of Transportation in Deed by Corporation recorded December 3, 2003 as Document No. 3104965.

For informational purposes only:
Property Address: Vacant land, no address assigned, Mukwonago, WI
Tax Key Number: MUKV 1963.996.005 (Parcel A) and MUKV 1963.996.006 (Parcel B)

EXHIBIT B

CSM

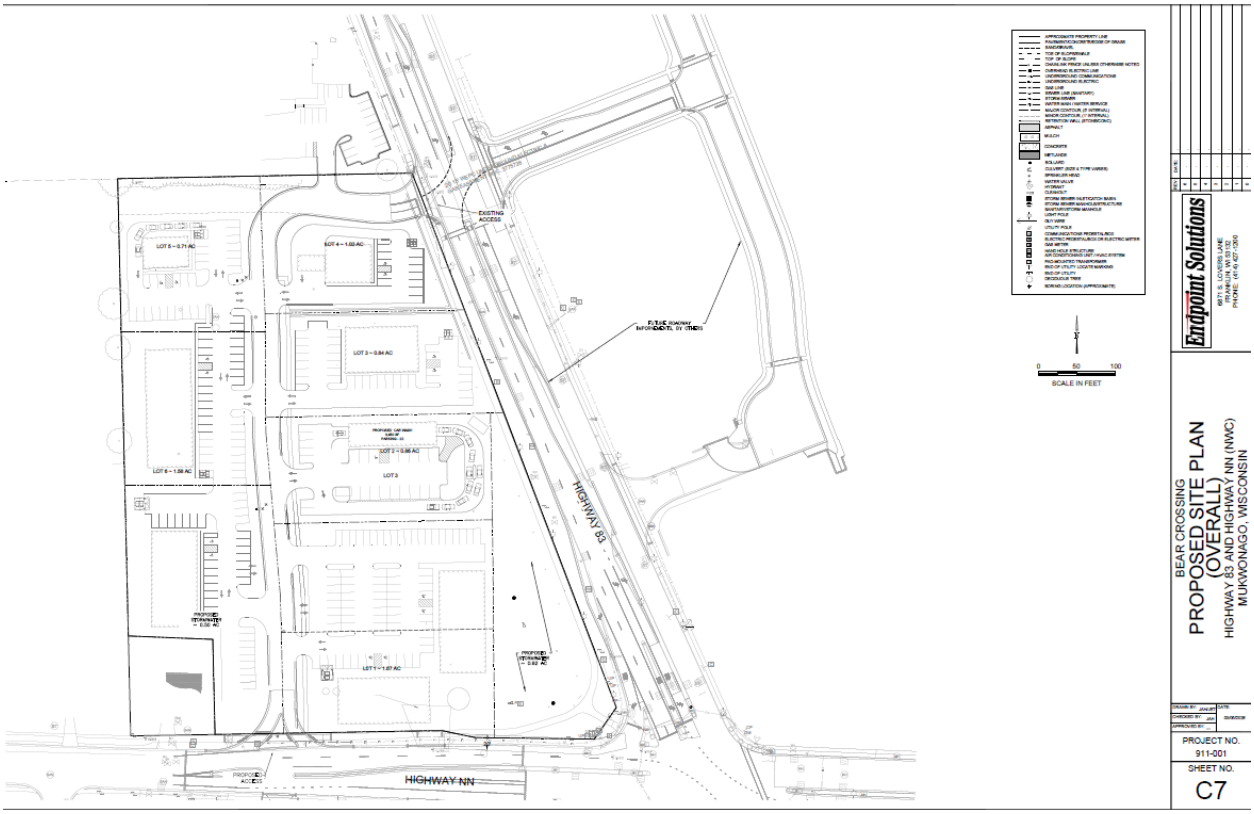
EXHIBIT C

ALLOCATED SHARES

Each Lot's "Allocated Share" shall be equal to the percentage derived by dividing the acreage of such Lot by the total acreage of all Lots (excluding Outlot 1) within the Project, rounded up to the nearest whole number.

EXHIBIT D

SITE PLAN



MPD INFILTROMETER
www.upstreamtechnologies.us

Infiltration Report

Point of Beginning, Inc.

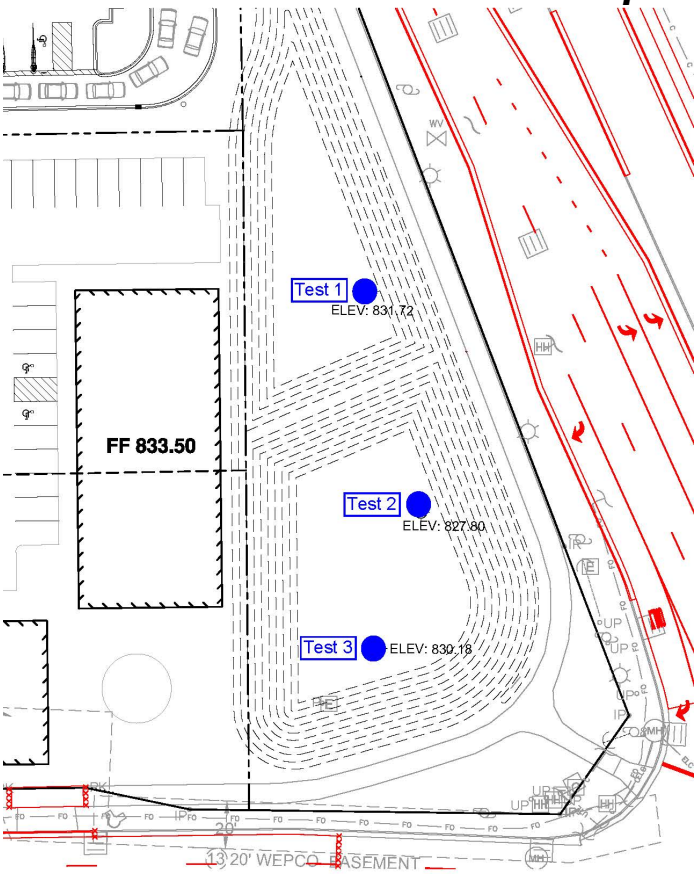
Kiwanis Park - 26.2075 - Mukwonago, WI

Point of Beginning

K_{sat} best-fit site average:

314 mm/hr or 12.4 in/hr

GPS Infiltration Test Site Map



Test Name	Date	Ksat (mm/hr)	Ksat (in/hr)	C (mm)	RMS Error of Regression (s)	Normalized RMS
TEST 1	06/04/2026 11:15:25	493	19.4	-130.7	0.2	0.07%
TEST 2	06/04/2026 10:53:33	839	33.0	-117.4	0.04	0.03%
TEST 3	06/04/2026 09:11:12	37	1.44	-141.0	1.7	0.04%

Infiltration Report

Point of Beginning, Inc.

Kiwanis Park - 26.2075 - Mukwonago, WI

This report summarizes the results of a set of Modified Philip Dunne (MPD) Infiltrometer tests performed at the above referenced site. Point of Beginning, Inc. personnel performed the field tests. The software used to compute saturated hydraulic conductivity (K_{sat}) and generate this report assumes that the field personnel used infiltrometers manufactured by Upstream Technologies Inc. and followed the procedures outlined in “Manual – Modified Philip - Dunne Infiltrometer” by Ahmed, Gulliver, and Nieber.

The following paragraphs describe the individual tests, input values used in the analysis, and methods used to compute the K_{sat} value.

After individual K_{sat} values were calculated, the method used to determine the overall site K_{sat}value ($K_{best\text{-}fit}$) is described in "Effective Saturated Hydraulic Conductivity of an Infiltration-Based Stormwater Control Measure" by Weiss and Gulliver 2015, "A relationship to more consistently and accurately predict the best-fit value of saturated hydraulic conductivity used a weighted sum of 0.32 times the arithmetic mean and 0.68 times the geometric mean."

METHOD USED TO COMPUTE K_{sat}

The MPD Infiltrometer software uses the following procedure described in "The Comparison of Infiltration Devices and Modification of the Philip-Dunne Permeameter for the Assessment of Rain Gardens" by Rebecca Nestigen, University of Minnesota, November 2007.

The steps are as follows:

1. For each measurement of head, use the following equation to find the corresponding distance to the sharp wetting front.

$$[H_0 - H(t)]r_1^2 = \frac{\theta_1 - \theta_2}{3}[2[R(t)]^3 + 3[R(t)]^2 L_{max} - L_{max}^3 - 4r_0^3]$$

2. Estimate the change in head with respect to time and the change in wetting front distance with respect to time by using the backward difference for all values of R(t) equal to or greater than the distance $\sqrt{r_1^2 + L_{max}^2}$

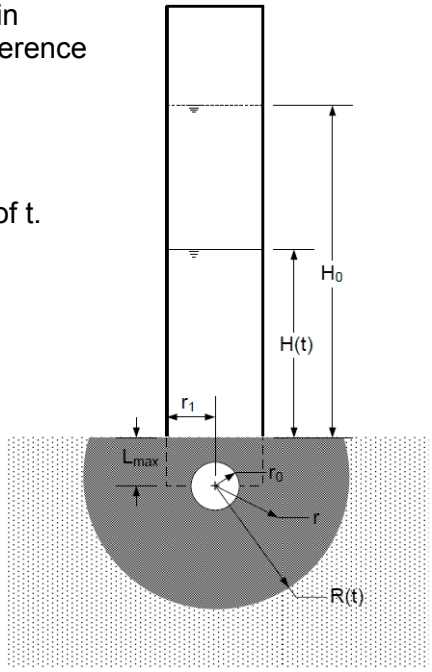
3. Make initial guesses for K and C.

4. Solve the following equations for ΔP(t) at each incremental value of t.

$$\Delta P(t) = \frac{\pi^2}{8}\left\{\theta_1 - \theta_0 \frac{[R(t)^2] + [R(t)]L_{max}}{K}\frac{dr}{dt} - 2r_0^2\right\}\frac{ln[\frac{R(t)[r_0 + L_{max}]}{r_0[R(t) + L_{max}]}]}{L_{max}}$$

$$\Delta P(t) = C - H(t) - L_{max} + \frac{L_{max}}{K}\frac{dh}{dt}$$

5. Minimize the absolute difference between the two solutions found in Step 4 by adjusting the values of K and C.



Parameters for Equations

Θ_0 = volumetric water content of soil before MPD test

Θ_1 = volumetric water content of soil after MPD test

MPD INFILTROMETER
www.upstreamtechnologies.us

Infiltration Report

Point of Beginning, Inc.

Kiwanis Park - 26.2075 - Mukwonago, WI

Point of Beginning

TEST 1

Date	6/4/2026
Time	11:15 AM
Latitude	42.875047
Longitude	-88.338719
Initial Volumetric Moisture	10.00 %
Final Volumetric Moisture	60.00 %
Cylinder Size	3 Liter

TEST 1 Results

Map Pin #	1
Test Number	34378
Ksat - mm/hr	493
Ksat - in/hr	19.4
Capillary Pressure C mm	-130.7
RMS Error of Regression	0.2
Normalized RMS	0.07%

Readings

#	Time	Head	#	Time	Head
1	0 s	32.35 cm	26	249 s	13.2 cm
2	9 s	31.26 cm	27	259 s	12.66 cm
3	19 s	30.2 cm	28	269 s	12.12 cm
4	29 s	29.23 cm	29	279 s	11.59 cm
5	39 s	28.3 cm	30	289 s	11.07 cm
6	49 s	27.4 cm	31	299 s	10.56 cm
7	59 s	26.51 cm	32	309 s	10.07 cm
8	69 s	25.64 cm	33	319 s	9.58 cm
9	79 s	24.79 cm	34	329 s	9.1 cm
10	89 s	23.96 cm	35	339 s	8.64 cm
11	99 s	23.15 cm	36	349 s	8.18 cm
12	109 s	22.36 cm	37	359 s	7.73 cm
13	119 s	21.61 cm	38	369 s	7.28 cm
14	129 s	20.86 cm	39	379 s	6.84 cm
15	139 s	20.14 cm	40	389 s	6.42 cm
16	149 s	19.43 cm	41	399 s	5.99 cm
17	159 s	18.74 cm	42	409 s	5.58 cm
18	169 s	18.07 cm			
19	179 s	17.42 cm			
20	189 s	16.77 cm			
21	199 s	16.14 cm			
22	209 s	15.52 cm			
23	219 s	14.93 cm			
24	229 s	14.33 cm			
25	239 s	13.75 cm			

MPD INFILTROMETER
www.upstreamtechnologies.us

Infiltration Report

Point of Beginning, Inc.

Kiwanis Park - 26.2075 - Mukwonago, WI

Point of Beginning

TEST 2

Date	6/4/2026
Time	10:53 AM
Latitude	42.874705
Longitude	-88.338695
Initial Volumetric Moisture	10.00 %
Final Volumetric Moisture	60.00 %
Cylinder Size	3 Liter

TEST 2 Results

Map Pin #	2
Test Number	34377
Ksat - mm/hr	839
Ksat - in/hr	33.0
Capillary Pressure C mm	-117.4
RMS Error of Regression	0.04
Normalized RMS	0.03%

Readings

#	Time	Head
1	0 s	27.33 cm
2	8 s	26.13 cm
3	18 s	24.66 cm
4	28 s	23.3 cm
5	38 s	21.99 cm
6	48 s	20.72 cm
7	58 s	19.51 cm
8	68 s	18.35 cm
9	78 s	17.25 cm
10	88 s	16.17 cm
11	98 s	15.16 cm
12	108 s	14.18 cm
13	118 s	13.24 cm
14	128 s	12.34 cm
15	138 s	11.47 cm
16	148 s	10.62 cm
17	158 s	9.8 cm
18	168 s	9.02 cm
19	178 s	8.24 cm
20	188 s	7.49 cm
21	198 s	6.78 cm
22	208 s	6.07 cm

MPD INFILTROMETER
www.upstreamtechnologies.us

Infiltration Report

Point of Beginning, Inc.

Kiwanis Park - 26.2075 - Mukwonago, WI

Point of Beginning

TEST 3

Date	6/4/2026
Time	9:11 AM
Latitude	0.000000
Longitude	0.000000
Initial Volumetric Moisture	10.00 %
Final Volumetric Moisture	60.00 %
Cylinder Size	3 Liter

TEST 3 Results

Map Pin #	3
Test Number	34376
Ksat - mm/hr	37
Ksat - in/hr	1.44
Capillary Pressure C mm	-141.0
RMS Error of Regression	1.7
Normalized RMS	0.04%

Readings

#	Time	Head	#	Time	Head	#	Time	Head	#	Time	Head
1	0 s	34.14 cm	26	250 s	32.4 cm	51	500 s	30.76 cm	76	750 s	29.08 cm
2	10 s	34.08 cm	27	260 s	32.34 cm	52	510 s	30.69 cm	77	760 s	29.01 cm
3	20 s	34.0 cm	28	270 s	32.28 cm	53	520 s	30.63 cm	78	770 s	28.94 cm
4	30 s	33.93 cm	29	280 s	32.2 cm	54	530 s	30.56 cm	79	780 s	28.88 cm
5	40 s	33.86 cm	30	290 s	32.14 cm	55	540 s	30.5 cm	80	790 s	28.8 cm
6	50 s	33.79 cm	31	300 s	32.07 cm	56	550 s	30.43 cm	81	800 s	28.74 cm
7	60 s	33.72 cm	32	310 s	32.01 cm	57	560 s	30.37 cm	82	810 s	28.68 cm
8	70 s	33.66 cm	33	320 s	31.95 cm	58	570 s	30.3 cm	83	820 s	28.6 cm
9	80 s	33.59 cm	34	330 s	31.88 cm	59	580 s	30.23 cm	84	830 s	28.54 cm
10	90 s	33.51 cm	35	340 s	31.82 cm	60	590 s	30.17 cm	85	840 s	28.47 cm
11	100 s	33.45 cm	36	350 s	31.75 cm	61	600 s	30.09 cm	86	850 s	28.4 cm
12	110 s	33.37 cm	37	360 s	31.69 cm	62	610 s	30.03 cm	87	860 s	28.34 cm
13	120 s	33.31 cm	38	370 s	31.62 cm	63	620 s	29.97 cm	88	870 s	28.26 cm
14	130 s	33.23 cm	39	380 s	31.55 cm	64	630 s	29.89 cm	89	880 s	28.2 cm
15	140 s	33.17 cm	40	390 s	31.49 cm	65	640 s	29.83 cm	90	890 s	28.13 cm
16	150 s	33.1 cm	41	400 s	31.41 cm	66	650 s	29.76 cm	91	900 s	28.06 cm
17	160 s	33.03 cm	42	410 s	31.35 cm	67	660 s	29.69 cm	92	910 s	28.0 cm
18	170 s	32.96 cm	43	420 s	31.29 cm	68	670 s	29.62 cm	93	920 s	27.92 cm
19	180 s	32.89 cm	44	430 s	31.21 cm	69	680 s	29.55 cm	94	930 s	27.86 cm
20	190 s	32.82 cm	45	440 s	31.15 cm	70	690 s	29.49 cm	95	940 s	27.79 cm
21	200 s	32.76 cm	46	450 s	31.08 cm	71	700 s	29.41 cm	96	950 s	27.73 cm
22	210 s	32.68 cm	47	460 s	31.02 cm	72	710 s	29.35 cm	97	960 s	27.66 cm
23	220 s	32.61 cm	48	470 s	30.96 cm	73	720 s	29.28 cm	98	970 s	27.59 cm
24	230 s	32.54 cm	49	480 s	30.89 cm	74	730 s	29.21 cm	99	980 s	27.53 cm
25	240 s	32.48 cm	50	490 s	30.83 cm	75	740 s	29.15 cm	100	990 s	27.46 cm

Infiltration Report

Point of Beginning, Inc.

Kiwanis Park - 26.2075 - Mukwonago, WI

TEST 3 Readings continued

#	Time	Head	#	Time	Head	#	Time	Head	#	Time	Head
101	1000 s	27.4 cm	133	1320 s	25.35 cm	165	1640 s	23.38 cm	197	1960 s	21.53 cm
102	1010 s	27.33 cm	134	1330 s	25.29 cm	166	1650 s	23.32 cm	198	1970 s	21.47 cm
103	1020 s	27.26 cm	135	1340 s	25.23 cm	167	1660 s	23.26 cm	199	1980 s	21.41 cm
104	1030 s	27.2 cm	136	1350 s	25.17 cm	168	1670 s	23.19 cm	200	1990 s	21.36 cm
105	1040 s	27.13 cm	137	1360 s	25.11 cm	169	1680 s	23.14 cm	201	2000 s	21.31 cm
106	1050 s	27.07 cm	138	1370 s	25.04 cm	170	1690 s	23.07 cm	202	2010 s	21.25 cm
107	1060 s	27.0 cm	139	1380 s	24.98 cm	171	1700 s	23.02 cm	203	2020 s	21.19 cm
108	1070 s	26.94 cm	140	1390 s	24.92 cm	172	1710 s	22.96 cm	204	2030 s	21.14 cm
109	1080 s	26.88 cm	141	1400 s	24.86 cm	173	1720 s	22.9 cm	205	2040 s	21.08 cm
110	1090 s	26.8 cm	142	1410 s	24.8 cm	174	1730 s	22.85 cm	206	2050 s	21.03 cm
111	1100 s	26.75 cm	143	1420 s	24.74 cm	175	1740 s	22.79 cm	207	2060 s	20.97 cm
112	1110 s	26.67 cm	144	1430 s	24.67 cm	176	1750 s	22.72 cm	208	2070 s	20.91 cm
113	1120 s	26.61 cm	145	1440 s	24.61 cm	177	1760 s	22.67 cm	209	2080 s	20.86 cm
114	1130 s	26.56 cm	146	1450 s	24.54 cm	178	1770 s	22.61 cm	210	2090 s	20.81 cm
115	1140 s	26.48 cm	147	1460 s	24.49 cm	179	1780 s	22.55 cm	211	2100 s	20.74 cm
116	1150 s	26.42 cm	148	1470 s	24.43 cm	180	1790 s	22.49 cm	212	2110 s	20.69 cm
117	1160 s	26.37 cm	149	1480 s	24.36 cm	181	1800 s	22.44 cm	213	2120 s	20.64 cm
118	1170 s	26.3 cm	150	1490 s	24.3 cm	182	1810 s	22.37 cm	214	2130 s	20.58 cm
119	1180 s	26.23 cm	151	1500 s	24.24 cm	183	1820 s	22.33 cm	215	2140 s	20.53 cm
120	1190 s	26.17 cm	152	1510 s	24.18 cm	184	1830 s	22.27 cm	216	2150 s	20.48 cm
121	1200 s	26.11 cm	153	1520 s	24.12 cm	185	1840 s	22.21 cm	217	2160 s	20.42 cm
122	1210 s	26.05 cm	154	1530 s	24.05 cm	186	1850 s	22.15 cm	218	2170 s	20.37 cm
123	1220 s	25.98 cm	155	1540 s	23.99 cm	187	1860 s	22.09 cm	219	2180 s	20.32 cm
124	1230 s	25.92 cm	156	1550 s	23.94 cm	188	1870 s	22.04 cm	220	2190 s	20.26 cm
125	1240 s	25.85 cm	157	1560 s	23.87 cm	189	1880 s	21.98 cm	221	2200 s	20.21 cm
126	1250 s	25.79 cm	158	1570 s	23.81 cm	190	1890 s	21.92 cm	222	2210 s	20.16 cm
127	1260 s	25.73 cm	159	1580 s	23.75 cm	191	1900 s	21.86 cm	223	2220 s	20.11 cm
128	1270 s	25.67 cm	160	1590 s	23.69 cm	192	1910 s	21.81 cm	224	2230 s	20.06 cm
129	1280 s	25.61 cm	161	1600 s	23.63 cm	193	1920 s	21.75 cm	225	2240 s	20.01 cm
130	1290 s	25.55 cm	162	1610 s	23.56 cm	194	1930 s	21.7 cm	226	2250 s	19.95 cm
131	1300 s	25.48 cm	163	1620 s	23.51 cm	195	1940 s	21.64 cm	227	2260 s	19.9 cm
132	1310 s	25.42 cm	164	1630 s	23.45 cm	196	1950 s	21.58 cm	228	2270 s	19.85 cm

Infiltration Report

Point of Beginning, Inc.

Kiwanis Park - 26.2075 - Mukwonago, WI

TEST 3 Readings continued

#	Time	Head	#	Time	Head	#	Time	Head	#	Time	Head
229	2280 s	19.78 cm	261	2600 s	18.17 cm	293	2920 s	16.57 cm	325	3240 s	15.08 cm
230	2290 s	19.73 cm	262	2610 s	18.11 cm	294	2930 s	16.52 cm	326	3250 s	15.02 cm
231	2300 s	19.68 cm	263	2620 s	18.07 cm	295	2940 s	16.47 cm	327	3260 s	14.98 cm
232	2310 s	19.62 cm	264	2630 s	18.02 cm	296	2950 s	16.42 cm	328	3270 s	14.94 cm
233	2320 s	19.57 cm	265	2640 s	17.96 cm	297	2960 s	16.38 cm	329	3280 s	14.88 cm
234	2330 s	19.52 cm	266	2650 s	17.92 cm	298	2970 s	16.32 cm	330	3290 s	14.84 cm
235	2340 s	19.46 cm	267	2660 s	17.87 cm	299	2980 s	16.28 cm	331	3300 s	14.8 cm
236	2350 s	19.42 cm	268	2670 s	17.81 cm	300	2990 s	16.23 cm	332	3310 s	14.75 cm
237	2360 s	19.37 cm	269	2680 s	17.76 cm	301	3000 s	16.18 cm	333	3320 s	14.7 cm
238	2370 s	19.32 cm	270	2690 s	17.72 cm	302	3010 s	16.14 cm	334	3330 s	14.66 cm
239	2380 s	19.26 cm	271	2700 s	17.66 cm	303	3020 s	16.09 cm	335	3340 s	14.61 cm
240	2390 s	19.22 cm	272	2710 s	17.62 cm	304	3030 s	16.05 cm	336	3350 s	14.57 cm
241	2400 s	19.17 cm	273	2720 s	17.57 cm	305	3040 s	15.99 cm	337	3360 s	14.52 cm
242	2410 s	19.11 cm	274	2730 s	17.52 cm	306	3050 s	15.95 cm	338	3370 s	14.48 cm
243	2420 s	19.07 cm	275	2740 s	17.46 cm	307	3060 s	15.91 cm	339	3380 s	14.44 cm
244	2430 s	19.02 cm	276	2750 s	17.41 cm	308	3070 s	15.85 cm	340	3390 s	14.38 cm
245	2440 s	18.96 cm	277	2760 s	17.37 cm	309	3080 s	15.81 cm	341	3400 s	14.34 cm
246	2450 s	18.92 cm	278	2770 s	17.31 cm	310	3090 s	15.77 cm	342	3410 s	14.3 cm
247	2460 s	18.87 cm	279	2780 s	17.27 cm	311	3100 s	15.72 cm	343	3420 s	14.26 cm
248	2470 s	18.81 cm	280	2790 s	17.22 cm	312	3110 s	15.67 cm	344	3430 s	14.2 cm
249	2480 s	18.76 cm	281	2800 s	17.16 cm	313	3120 s	15.62 cm	345	3440 s	14.16 cm
250	2490 s	18.72 cm	282	2810 s	17.11 cm	314	3130 s	15.58 cm	346	3450 s	14.12 cm
251	2500 s	18.67 cm	283	2820 s	17.07 cm	315	3140 s	15.52 cm	347	3460 s	14.08 cm
252	2510 s	18.61 cm	284	2830 s	17.01 cm	316	3150 s	15.48 cm	348	3470 s	14.03 cm
253	2520 s	18.57 cm	285	2840 s	16.96 cm	317	3160 s	15.44 cm	349	3480 s	13.99 cm
254	2530 s	18.52 cm	286	2850 s	16.91 cm	318	3170 s	15.4 cm	350	3490 s	13.95 cm
255	2540 s	18.46 cm	287	2860 s	16.86 cm	319	3180 s	15.34 cm	351	3500 s	13.91 cm
256	2550 s	18.42 cm	288	2870 s	16.81 cm	320	3190 s	15.3 cm	352	3510 s	13.85 cm
257	2560 s	18.37 cm	289	2880 s	16.77 cm	321	3200 s	15.25 cm	353	3520 s	13.81 cm
258	2570 s	18.31 cm	290	2890 s	16.72 cm	322	3210 s	15.2 cm	354	3530 s	13.77 cm
259	2580 s	18.27 cm	291	2900 s	16.66 cm	323	3220 s	15.16 cm	355	3540 s	13.72 cm
260	2590 s	18.22 cm	292	2910 s	16.62 cm	324	3230 s	15.11 cm	356	3550 s	13.68 cm

Infiltration Report

Point of Beginning, Inc.

Kiwanis Park - 26.2075 - Mukwonago, WI

TEST 3 Readings continued

#	Time	Head	#	Time	Head	#	Time	Head	#	Time	Head
357	3560 s	13.64 cm	389	3880 s	12.3 cm	421	4200 s	11.04 cm	453	4520 s	9.84 cm
358	3570 s	13.6 cm	390	3890 s	12.26 cm	422	4210 s	11.0 cm	454	4530 s	9.8 cm
359	3580 s	13.55 cm	391	3900 s	12.22 cm	423	4220 s	10.97 cm	455	4540 s	9.76 cm
360	3590 s	13.51 cm	392	3910 s	12.18 cm	424	4230 s	10.92 cm	456	4550 s	9.73 cm
361	3600 s	13.46 cm	393	3920 s	12.15 cm	425	4240 s	10.89 cm	457	4560 s	9.69 cm
362	3610 s	13.42 cm	394	3930 s	12.11 cm	426	4250 s	10.85 cm	458	4570 s	9.66 cm
363	3620 s	13.37 cm	395	3940 s	12.06 cm	427	4260 s	10.81 cm	459	4580 s	9.61 cm
364	3630 s	13.33 cm	396	3950 s	12.02 cm	428	4270 s	10.77 cm	460	4590 s	9.57 cm
365	3640 s	13.29 cm	397	3960 s	11.98 cm	429	4280 s	10.74 cm	461	4600 s	9.54 cm
366	3650 s	13.24 cm	398	3970 s	11.93 cm	430	4290 s	10.7 cm	462	4610 s	9.51 cm
367	3660 s	13.2 cm	399	3980 s	11.9 cm	431	4300 s	10.67 cm	463	4620 s	9.46 cm
368	3670 s	13.16 cm	400	3990 s	11.86 cm	432	4310 s	10.62 cm	464	4630 s	9.43 cm
369	3680 s	13.12 cm	401	4000 s	11.82 cm	433	4320 s	10.58 cm	465	4640 s	9.39 cm
370	3690 s	13.07 cm	402	4010 s	11.78 cm	434	4330 s	10.55 cm	466	4650 s	9.37 cm
371	3700 s	13.04 cm	403	4020 s	11.74 cm	435	4340 s	10.51 cm	467	4660 s	9.33 cm
372	3710 s	12.99 cm	404	4030 s	11.7 cm	436	4350 s	10.48 cm	468	4670 s	9.28 cm
373	3720 s	12.96 cm	405	4040 s	11.66 cm	437	4360 s	10.43 cm	469	4680 s	9.25 cm
374	3730 s	12.91 cm	406	4050 s	11.63 cm	438	4370 s	10.4 cm	470	4690 s	9.22 cm
375	3740 s	12.87 cm	407	4060 s	11.58 cm	439	4380 s	10.37 cm	471	4700 s	9.19 cm
376	3750 s	12.83 cm	408	4070 s	11.54 cm	440	4390 s	10.33 cm	472	4710 s	9.14 cm
377	3760 s	12.79 cm	409	4080 s	11.51 cm	441	4400 s	10.28 cm	473	4720 s	9.11 cm
378	3770 s	12.74 cm	410	4090 s	11.47 cm	442	4410 s	10.25 cm	474	4730 s	9.07 cm
379	3780 s	12.7 cm	411	4100 s	11.43 cm	443	4420 s	10.21 cm	475	4740 s	9.03 cm
380	3790 s	12.66 cm	412	4110 s	11.39 cm	444	4430 s	10.17 cm	476	4750 s	9.0 cm
381	3800 s	12.63 cm	413	4120 s	11.35 cm	445	4440 s	10.13 cm	477	4760 s	8.96 cm
382	3810 s	12.58 cm	414	4130 s	11.32 cm	446	4450 s	10.09 cm	478	4770 s	8.92 cm
383	3820 s	12.54 cm	415	4140 s	11.27 cm	447	4460 s	10.06 cm	479	4780 s	8.89 cm
384	3830 s	12.5 cm	416	4150 s	11.23 cm	448	4470 s	10.03 cm	480	4790 s	8.86 cm
385	3840 s	12.46 cm	417	4160 s	11.2 cm	449	4480 s	9.99 cm	481	4800 s	8.83 cm
386	3850 s	12.42 cm	418	4170 s	11.16 cm	450	4490 s	9.95 cm	482	4810 s	8.78 cm
387	3860 s	12.38 cm	419	4180 s	11.11 cm	451	4500 s	9.91 cm	483	4820 s	8.75 cm
388	3870 s	12.34 cm	420	4190 s	11.08 cm	452	4510 s	9.88 cm	484	4830 s	8.72 cm

Infiltration Report

Point of Beginning, Inc.

Kiwanis Park - 26.2075 - Mukwonago, WI

TEST 3 Readings continued

#	Time	Head	#	Time	Head	#	Time	Head
485	4840 s	8.67 cm	517	5160 s	7.52 cm	549	5480 s	6.38 cm
486	4850 s	8.63 cm	518	5170 s	7.48 cm	550	5490 s	6.34 cm
487	4860 s	8.6 cm	519	5180 s	7.45 cm	551	5500 s	6.31 cm
488	4870 s	8.57 cm	520	5190 s	7.41 cm	552	5510 s	6.27 cm
489	4880 s	8.53 cm	521	5200 s	7.38 cm	553	5520 s	6.24 cm
490	4890 s	8.49 cm	522	5210 s	7.34 cm	554	5530 s	6.21 cm
491	4900 s	8.45 cm	523	5220 s	7.3 cm	555	5540 s	6.17 cm
492	4910 s	8.42 cm	524	5230 s	7.27 cm	556	5550 s	6.14 cm
493	4920 s	8.38 cm	525	5240 s	7.23 cm	557	5560 s	6.1 cm
494	4930 s	8.35 cm	526	5250 s	7.2 cm	558	5570 s	6.07 cm
495	4940 s	8.31 cm	527	5260 s	7.15 cm	559	5580 s	6.03 cm
496	4950 s	8.27 cm	528	5270 s	7.12 cm	560	5590 s	6.0 cm
497	4960 s	8.24 cm	529	5280 s	7.09 cm	561	5600 s	5.97 cm
498	4970 s	8.2 cm	530	5290 s	7.05 cm	562	5610 s	5.93 cm
499	4980 s	8.16 cm	531	5300 s	7.01 cm	563	5620 s	5.9 cm
500	4990 s	8.13 cm	532	5310 s	6.98 cm			
501	5000 s	8.09 cm	533	5320 s	6.94 cm			
502	5010 s	8.06 cm	534	5330 s	6.91 cm			
503	5020 s	8.02 cm	535	5340 s	6.88 cm			
504	5030 s	7.98 cm	536	5350 s	6.84 cm			
505	5040 s	7.95 cm	537	5360 s	6.8 cm			
506	5050 s	7.91 cm	538	5370 s	6.77 cm			
507	5060 s	7.88 cm	539	5380 s	6.74 cm			
508	5070 s	7.85 cm	540	5390 s	6.7 cm			
509	5080 s	7.8 cm	541	5400 s	6.66 cm			
510	5090 s	7.77 cm	542	5410 s	6.63 cm			
511	5100 s	7.73 cm	543	5420 s	6.59 cm			
512	5110 s	7.7 cm	544	5430 s	6.56 cm			
513	5120 s	7.65 cm	545	5440 s	6.52 cm			
514	5130 s	7.62 cm	546	5450 s	6.48 cm			
515	5140 s	7.59 cm	547	5460 s	6.45 cm			
516	5150 s	7.55 cm	548	5470 s	6.42 cm			

Document Number Name and Return Address Adam A. Bardosy Mallery s.c. Suite 900 731 North Jackson Street Milwaukee, Wisconsin 53202	**DECLARATION OF COVENANTS, EASEMENTS, AND RESTRICTIONS**	
See attached Exhibit A. Lot Identification Number (PIN)		Recording Area

THIS DECLARATION (this "Declaration") is made as of _____, 2026 by ACG DEVELOPMENT #5, LLC, a Wisconsin limited liability company, and MEE DEVELOPMENT #1 LLC, a Wisconsin limited liability company (collectively, "Declarant").

RECITALS

A. Declarant owns the real estate described on Exhibit A to this Declaration (the "Project").

B. On or about the date of this Declaration, Declarant will subdivide the Project into five (5) adjoining lots (collectively the "Lots," each a "Lot") pursuant to the Certified Survey Map attached as Exhibit B to this Declaration (the "CSM"). In accordance with the labels used on the CSM, the Lots are sometimes referred to individually in this Declaration as Lot 1, Lot 2, Lot 3, Lot 4, and Outlot 1. Each lot created by any future subdivision of any Lot shall also constitute a "Lot" under this Declaration.

C. The Lots are subject to that certain Stormwater Maintenance Agreement dated _____, 2026, which was recorded in the office of the Register of Deeds of Waukesha County, Wisconsin, on _____, 2026, as Document No. _____ (as may be amended from time to time, the "SWMA"). Declarant is recording this Declaration in part to allocate among the owners of the Lots (collectively the "Owners," each an "Owner") the rights and obligations of the owner(s) of the Lots under the SWMA.

D. Declarant further desires to provide for certain additional easements and restrictions affecting the Lots, all as more particularly described below.

DECLARATION

In consideration of the foregoing recitals and for other value received, DECLARANT DECLARES AS FOLLOWS:

I. SWMA

1.1 Rights. The rights of the owner(s) of the Lots under the SWMA shall accrue to the Owners as follows:

(a) The rights to enforce and, to the extent applicable, exercise self-help as a remedy under, the SWMA shall accrue to Declarant. The other Owners of the Lots shall reimburse Declarant for their "Allocated Shares," as defined in Exhibit C to this Declaration, of the costs of enforcement and self-help (subject to any right of reimbursement from owners of real estate other than the Lots under the SWMA) in the same manner as if such costs were Reimbursable Costs (as defined below).

(b) Declarant, acting alone from time to time, is authorized to dedicate to any appropriate municipal authority any and all water and sanitary sewer utility mains, pipes, components, and facilities installed on any of the Lots pursuant to the SWMA. Any Owner, including Declarant, requested to make any such dedication at any time shall promptly notify all other Owners, including Declarant, of such request and shall provide the other Owners with copies of all written materials received in connection with such request. Declarant shall also notify all other Owners in writing before making any such dedication.

1.2 Monetary Obligations. The obligations of the Owner(s) of the Lots to pay costs under the SWMA ("SWMA Operating Costs") shall be allocated among the Owners in Allocated Shares as described in Exhibit C. All Owners shall pay their Allocated Shares of all SWMA Operating Costs before delinquency. All parties who are Owners from time to time shall cooperate in reasonable efforts to ensure that Operating Costs are billed to the Owners in accordance with their Allocated Shares. If any Owner is billed for SWMA Operating Costs other than in accordance with its Allocated Share, all Owners shall cooperate so that each Owner pays its full Allocated Share, but only its Allocated Share, of the SWMA Operating Costs before delinquency.

1.3 Other Obligations. Declarant shall be responsible for performing all other obligations of the Owner(s) of the Lots under the SWMA. Declarant shall bear all costs of the original installation of any improvements to the Lots that is part of such obligations under the SWMA. The other Owners shall reimburse Declarant for their Allocated Shares of the costs of subsequent maintenance, repair, replacement, and removal of such improvements ("Reimbursable Costs"). Whenever Declarant incurs Reimbursable Costs, each other Owner shall reimburse Declarant for its Allocated Share of the Reimbursable Costs within fifteen (15) days after receipt of Declarant's written request for reimbursement, which shall include copies of all invoices for which reimbursement is sought and a description of the method of calculating the Owner's Allocated Share.

II. EASEMENTS

2.1 SWMA. Declarant establishes a permanent, non-exclusive easement in favor of Declarant over those parts of the Lots that are reasonably necessary for the purpose of performing Declarant's obligations under the SWMA in accordance with the preceding Article.

2.2 Access. Declarant establishes permanent, non-exclusive reciprocal easements for the benefit of the Lots for vehicular and pedestrian access among the Lots and to and from Highway 83 and Highway NN over the driveway depicted on the Site Plan attached to this Declaration as Exhibit D (the "Site Plan") that connects the Project to Highway 83 and Highway NN (the "Driveway Easement Area"), and over all future entry ways, driveways, and drive aisles located within the Project.

2.3 Storm Water.

(a) Declarant establishes a non-exclusive easement for the benefit of the Lots for surface and subsurface drainage and detention of storm water over, through, and upon those portions of and improvements to the Lots that are to be used for such purposes (the "Stormwater System Improvements") as shown in Grading and Erosion Control Plan and Grading Detail, Project No. _____, Sheet Nos. _____, prepared by Endpoint Solutions dated _____, 2026, last revised on _____, 2026 (the "Grading Plan"), and for the installation, maintenance, repair, removal, and replacement from time to time of the Stormwater System Improvements. Such easement shall be permanent except with respect to any earthwork or other improvements designed "temporary" on the Grading Plan, which the Owner(s) of the affected Lot(s) may remove subject to compliance with the SWMA and applicable law.

(b) No surface or subsurface drainage or detention of storm water from any Lot shall be permitted over, through, or upon any portions of or improvements to any of the other Lots, other than by use of the Stormwater System Improvements.

(c) Each Owner shall at its sole cost maintain the grading of the unimproved areas of its Lot(s) in material conformity in all respects with the Grading Plan.

2.4 Utilities. Declarant establishes a permanent, non-exclusive easement for the benefit of each of the Lots for the purpose of installing, maintaining, repairing, removing, and replacing from time to time underground facilities for the shared provision of water, sewer, natural gas, electric, telephone, cable, internet, and other utility services (together, "Utility Improvements") to the Lots, together with hookups and laterals for service to individual Lots ("Lateral Lines"). For purposes of this Declaration, Lateral Lines do not constitute part of the Utility Improvements. With respect to water and sanitary sewer utilities, the foregoing easement shall be confined to the area(s) in which the water and sanitary sewer main lines service the Project, such area(s) anticipated to be underneath or alongside the Driveway Easement Area. With respect to other utilities, the foregoing easement shall be confined to areas that are located outside of the burdened Lot's building(s) or building pad(s) and that do not interfere with the construction or operation of the burdened Lot in a commercially unreasonable manner.

2.5 Signage. Declarant establishes a permanent, non-exclusive easement for the benefit of the Lots for installation (at Declarant's option and without obligation), maintenance, repair, removal, and replacement from time to time of one monument or pylon sign within Outlot 1, together with electrical service to such sign (the "Identification Sign").

2.6 Releases. Each Owner (each a "Releasor") releases each other Owner (each a "Releasee") from any and all liability for damage to improvements or personal property owned by the Releasor and installed on the Releasee's Lot(s) pursuant to this Declaration, and no insurer of any Releasor shall have right of subrogation against any Releasee for any such damage. However, the foregoing releases shall not apply to the extent inconsistent with any explicit repair or indemnification obligations under this Declaration or any instrument described in Paragraph 2.4(b), above.

2.7 Indemnification. Each Owner shall defend and indemnify the other Owners against any and all third-party claims and related expenses, damages, and liabilities incurred as a result of the actual or alleged negligence, intentional misconduct, or default under this Declaration on the part of the indemnitor or the indemnitor's agents.

III. WORK REQUIREMENTS

All work performed pursuant to this Declaration shall be performed in a good and workmanlike manner and in accordance with all applicable laws. If any Owner, including Declarant, performs any such work on any other Owner's Lot, such Owner shall (1) provide the other Owner with at least fifteen (15) days' prior written notice before commencing the work, except in emergencies; (2) provide the other Owner with written evidence of commercially reasonably insurance coverage (including coverage of contractors) before commencing the work; (3) promptly repair all damage to such Lot caused by the work; and (4) indemnify and defend the other Owner against any and all claims, costs, damages, and liabilities arising out of the work, including causing any and all construction lien claims against such Lot to be discharged of record within forty-five (45) days after filing.

IV. USE RESTRICTIONS

4.1 General. The Lots may not be used in any manner that materially interferes with the use of the easements created under this Declaration, provided that Owners may temporarily close any or all of the easement areas on their Lot(s) from time to time for maintenance, repair, and replacement purposes without liability to any other Owner. Except in emergencies, an Owner performing any such work shall give fifteen (15) days' prior written notice to the other Owners of any such closure on such Owner's Lot. No such temporary closure shall prevent reasonable access among the Lots and to and from public roads to which any Lot has legal access.

4.2 Exclusive. For as long as Beckett, LLC, a Wisconsin limited liability company, owns Lot 2 or North Shore Bank (or its successors or assigns) operates Lot 2 for a Banking Use (as defined below), no Lot other than Lot 2 shall be used for a Banking Use (as defined below). This covenant shall run with the land and shall be binding upon all parties and persons having any interest in the Project for an initial period of forty (40) years from the date this Declaration is

recorded, and thereafter shall be automatically extended for successive periods equal to the full duration of the statutory limitation period in effect at such time for actions to enforce easements or covenants restricting the use of real estate (currently codified at Section 893.33(6), Wis. Stats., but including any future amendments, modifications or re-numbering of that section). This covenant may be enforced by the Owner of Lot 2, and its respective successors and assigns. This covenant shall apply to any use of the Project or any portion thereof (except for Lot 2) by any party, including without limitation, any Owner, tenant or licensee. For purposes of this Declaration, a "Banking Use" shall mean a chartered bank, savings and loan, or credit union, any banking operations, and any other use offering mortgage services, lending, check cashing or other banking services.

V. OPERATIONAL COVENANTS

5.1 Driveway Improvements. Declarant, at its sole cost, shall install the initial roadway within the Driveway Easement Area, as depicted on the Site Plan. Declarant shall also: (1) maintain all driveways installed from time to time within the Driveway Easement Area (together, "Driveway Improvements") in good condition, normal wear and tear excepted, and promptly remove all snow from them and repair all damage to them; and (2) promptly replace the Driveway Improvements with improvements of equal or better quality at the ends of their useful lives. The other Owners shall reimburse Declarant for their Allocated Shares of maintenance, repair, and replacement costs in the same manner as if such costs were Reimbursable Costs.

5.2 Stormwater System Improvements. Declarant shall install the initial Stormwater System Improvements at its sole cost. Declarant shall also (1) maintain the Stormwater System Improvements in good condition, normal wear and tear excepted, and promptly repair all damage to them; and (2) promptly replace the Stormwater System Improvements with improvements of equal or better quality at the ends of their useful lives. The other Owners shall reimburse Declarant for their Allocated Shares of maintenance, repair, and replacement costs in the same manner as if such costs were Reimbursable Costs as defined above.

5.3 Utility Improvements.

(a) Declarant shall (1) maintain all privately-owned Utility Improvements installed in the Utility Easement Area from time to time in good condition, normal wear and tear excepted, and promptly repair all damage to them; and (2) promptly replace such Utility Improvements with improvements of equal or better quality at the ends of their useful lives. The other Owners shall reimburse Declarant for their Allocated Shares of maintenance, repair, and replacement costs in the same manner as if such costs were Reimbursable Costs.

(b) The Utility Improvements include only improvements for the shared provision of services to the Lots. All improvements, including Lateral Lines, providing service only to an individual Lot shall be installed, and maintained in good condition, by the Owner of such Lot, at such Owner's sole expense.

5.4 Signage.

(a) If Declarant in its sole discretion elects to install the Identification Sign, then the Identification Sign shall be installed by Declarant at its sole cost, subject to approval of its design, dimensions, and other specifications by the Owners (if different from Declarant), which shall not be unreasonably withheld, conditioned or delayed, and by the Village of Mukwonago. Declarant shall also (1) maintain the Identification Sign in good condition, normal wear and tear excepted, and promptly repair all damage to it; and (2) promptly replace the Identification Sign with a sign of equal or better quality at the end of its useful life. The other Owners shall reimburse Declarant for their Allocated Shares of maintenance, repair, and replacement costs in the same manner as if such costs were Reimbursable Costs.

(b) The Owner(s) to whose Lot(s) charges for electricity for the Identification Signs are metered shall promptly pay all such charges. The other Owners shall within 10 business days after billing reimburse the paying Owner(s) for their Allocated Shares of all such charges in the same manner as if such charges were Reimbursable Costs.

(c) Any other sign(s) desired by any Owner shall be installed by such Owner at such Owner's sole expense on such Owner's Lot.

(d) The total available panel area on the Identification Sign shall be allocated among the Lots in accordance with their respective Allocated Shares. Each Owner shall pay all costs in connection with the fabrication, installation, maintenance, repair, removal, and replacement of its panel on the Identification Sign.

5.5 Administrative Fee. Whenever Declarant is owed reimbursement of costs by any other Owner under this Declaration (excluding interest and collection costs as provided below), Declarant shall also be entitled to, and each Owner obligated for such reimbursement shall pay its Allocated Share of, an administrative fee equal to the sum of (a) the lesser of 15% of the aggregate project costs or $15,000.00; plus (b) 10% of the amount by which the aggregate project costs exceed $100,000.00. For purposes of this Section, "aggregate project costs" means the aggregate costs of any one construction, maintenance, repair, replacement, or demolition project.

VI. ENFORCEMENT

6.1 Right to Enforce. This Declaration may be enforced by (a) Declarant or (b) any other Owner (each an "Enforcing Owner"), provided that except in cases of enforcement against Declarant, the Enforcing Owner first gives Declarant a written request for enforcement, and Declarant fails to take enforcement action within fifteen (15) days after receiving such request. Neither Declarant nor any other Owner shall have any liability at law or in equity to any person or entity for failure to enforce this Declaration.

6.2 Self-Help. In addition to all other rights and remedies at law and in equity, if any owner (the "Non-Performing Owner"), including Declarant, fails to perform any of its obligations under this Declaration (other than an obligation for payment of money), Declarant or the Enforcing Owner may give the Non-Performing Owner written notice of default. If the Non-Performing

Owner fails to cure the default within fifteen (15) days after receipt (or refusal to accept delivery) of the notice of default (24 hours in cases of emergency), Declarant or the Enforcing Owner may cure the default for the Non-Performing Owner's account. The Non-Performing Owner shall reimburse Declarant or the Enforcing Owner for its reasonable costs of doing so within fifteen (15) days after receipt of reasonable evidence of the costs.

6.3 Interest. All costs and fees owed by one Owner to another Owner under this Declaration and not paid when due shall bear interest from the date due at 4% over the prime rate published from time to time by in The Wall Street Journal (Midwest Edition), adjusting as and when such prime rate changes.

6.4 Collection Costs. In any legal action to enforce performance of the obligations of any Owner (including Declarant) under this Declaration, the prevailing party or parties shall be entitled to reimbursement by the losing party or parties of all reasonable attorneys' fees together with all necessary costs and disbursements incurred in connection with the action.

6.5 Lien. All costs and fees owed by one Owner to Declarant or another Owner under this Declaration shall be secured by a lien upon the Lot(s) owned by the Owner obligated for payment in favor of the Owner (including Declarant) entitled to payment, which may be foreclosed in the manner of a real estate mortgage. However, any such lien shall at all times be subordinate to the lien of any real estate mortgage that encumbers the affected Lot(s) at the time the sums secured by such lien become payable under this Declaration.

6.6 No Waiver. The failure of Declarant or any other Owner to enforce any provision of this Declaration shall not be deemed to be a waiver of the right to do so thereafter nor of the right to enforce any other provision.

6.7 Inspection. Subject to the rights of tenants, Declarant may from time to time at any reasonable hour or hours, enter and inspect any Lot to ascertain compliance with this Declaration.

6.8 Ground Lessees. Any Owner may assign the enforcement rights contained in this Section to a lessee under a ground lease of the entirety of such Owner's Lot.

6.9 Estoppel Certificates. Each Owner shall deliver, within ten (10) business days after written request, to a prospective purchaser or mortgagee of any Lot, a certificate as to the existence and status of any claims it may have against the Owner of such Lot under this Declaration.

VII. OUTLOT 1

Automatically during the entire period in which any Owner owns a Lot, such Owner shall be deemed to own an undivided percentage interest in Outlot 1 equal to such Lot's Allocated Share. Ownership of Outlot 1 shall remain undivided at all times. No Owner may bring a suit for partition of Outlot 1. Any deed, instrument, matter, circumstance, action, occurrence or proceeding in any manner affecting a Lot also shall affect, in like manner, the undivided percentage interest in Outlot 1 appurtenant to such Lot, and any conveyance, encumbrance, judicial sale, or other transfer (voluntary or involuntary) of any undivided percentage interest in Outlot 1 will be void unless the

Lot to which such undivided percentage interest is allocated is also transferred. Declarant shall keep and maintain Outlot 1 in safe and sightly condition, and the other Owners shall reimburse Declarant for their Allocated Shares of Declarant's costs of such work in the same manner as if such costs were Reimbursable Costs.

VIII. MISCELLANEOUS PROVISIONS

7.1 Role of Declarant. The rights and responsibilities of Declarant under this Declaration shall accrue to: (a) the original Declarant for as long as Declarant owns a Lot; or (b) the Owner of the largest Lot within the Project, measured at the time Declarant ceases to own any Lot. Otherwise, the rights and responsibilities of Declarant as "Declarant" under this Declaration shall not pass with title to any Lot except by express, recorded assignment to another Owner by the original or a subsequent Declarant. Such assignment may be included in an instrument of conveyance, in which case the assignee shall be deemed to have accepted the assignment by accepting the instrument, or in a separate instrument, in which case the assignee's written acceptance must be included in the instrument. The Declarant must be an Owner of at least one Lot. The rights and responsibilities of the Declarant may not be divided among multiple Owners.

7.2 No Agency. The relationship of Declarant and the other Owners created by this Declaration shall not constitute or be construed as a partnership, principal-agent relationship, joint venture, or other cooperative enterprise between or among Declarant and any of the other Owners. In no event shall Declarant be deemed an agent of any other Owner. Declarant shall have no authority to enter into any contract on behalf of any other Owner or bind or obligate any other Owner to any contract or obligation, express or implied.

7.3 Subdivision. For as long as Declarant owns any Lot, no Owner other than Declarant may subdivide any Lot, by certified survey map, subdivision plat, metes and bounds, or otherwise. Declarant may at any time and from time to time subdivide any Lot(s) owned by Declarant to the maximum extent permitted by applicable law.

7.4 Site Plan. The Lot boundaries depicted on the Site Plan are approximate. The precise boundaries of the Lots are set forth in the CSM.

7.5 Modification. Except as provided above, this Declaration may be terminated, extended, modified, or amended, as to the Lots or any portion of the Lots, only by a recorded agreement signed by the Owners of Lots. For as long as Declarant owns a Lot, Declarant's signature shall also be required on any such agreement.

7.6 Severability. If any provision of this Declaration is held to be invalid by any court, the invalidity of such provision shall not affect the remaining provisions of this Declaration, and they shall continue in full force and effect.

7.7 Binding Effect. The covenants, easements and restrictions created under this Declaration shall run with the land and shall bind and benefit Declarant and all future owners of each of the Lots and their respective heirs, personal representatives, successors, and assigns.

[Signature on following page.]

Dated as of the date first written above.

DECLARANT:

ACG DEVELOPMENT #5, LLC

By: _____
Steve Anderson, Sole Member

MEE DEVELOPMENT #1 LLC

By: _____
Michael Erkamaa, Sole Member

ACKNOWLEDGMENTS

STATE OF WISCONSIN)
) SS
COUNTY OF WAUKESHA)

This instrument was acknowledged before me on _____, 2026 by Steve Anderson, Sole Member of ACG Development #5, LLC.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

STATE OF WISCONSIN)
) SS
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2026 by Michael Erkamaa, Sole Member of MEE Development #1 LLC.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

CONSENT OF MORTGAGEE

Citizens Bank, mortgagee of the Project defined in the foregoing Declaration, consents to the execution and recording of this Declaration and agrees that the lien of its mortgage and other security against the Project shall be subject and subordinate to the rights created under this Declaration, other than the lien rights created under the Declaration.

Dated _____, 2026.

CITIZENS BANK

By: _____
Ryan M. Lilly, First Vice President

ACKNOWLEDGMENT

STATE OF WISCONSIN)
) ss
COUNTY OF _____)

This instrument was acknowledged before me on _____, 2026 by Ryan M. Lilly, as First Vice President of Citizens Bank.

_____
Name: _____
Notary Public, State of Wisconsin
My commission _____.

Drafted by Adam A. Bardosy
Mallery s.c.
Suite 900
731 North Jackson Street
Milwaukee, Wisconsin 53202

EXHIBIT A

LEGAL DESCRIPTION OF THE PROJECT

PARCEL A:
Parcel 2B of Certified Survey Map No. 7903 recorded in the office of the Register of Deeds for Waukesha County, Wisconsin, on December 27, 1995 in Volume 68 of Certified Survey Maps, at Pages 151 to 153, inclusive, as Document No. 2089494, being a part of the Northeast 1/4, Northwest 1/4, Southeast 1/4 and Southwest 1/4 of the Southwest 1/4 of Section 23, Town 5 North, Range 18 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin, being a redivision of Parcel 2 as recorded in Certified Survey Map No. 5713, as Document No. 1515508.
EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin Department of Transportation in Deed by Corporation recorded July 6, 2001 as Document No. 2672832, as corrected by an Affidavit of Correction recorded August 24, 2004 as Document No. 3197842, and as further corrected by an Affidavit of Correction recorded May 23, 2006 as Document No. 3389563.
FURTHER EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin, Department of Transportation in Deed by Corporation recorded December 9, 2003 as Document No. 3107595.

PARCEL B:
Lot 1 of Certified Survey Map No. 8751 recorded in the office of the Register of Deeds for Waukesha County, Wisconsin, on April 21, 1999 in Volume 77 of Certified Survey Maps, at Pages 320 to 322, inclusive, as Document No. 2452781, being a redivision of Parcel 2A of Certified Survey Map No. 7903, being a part of the Southwest 1/4 and Southeast 1/4 of the Southwest 1/4 of Section 23, Town 5 North, Range 18 East, in the Village of Mukwonago, County of Waukesha, State of Wisconsin, as corrected by an Affidavit of Correction recorded May 28, 1999 as Document No. 2468459.
EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin Department of Transportation in Deed by Corporation recorded June 12, 2001 as Document No. 2664701, as corrected by an Affidavit of Correction recorded August 24, 2004, as Document No. 3197843.
FURTHER EXCEPTING THEREFROM that portion conveyed to the State of Wisconsin, Department of Transportation in Deed by Corporation recorded December 3, 2003 as Document No. 3104965.

For informational purposes only:
Property Address: Vacant land, no address assigned, Mukwonago, WI
Tax Key Number: MUKV 1963.996.005 (Parcel A) and MUKV 1963.996.006 (Parcel B)

EXHIBIT B

CSM

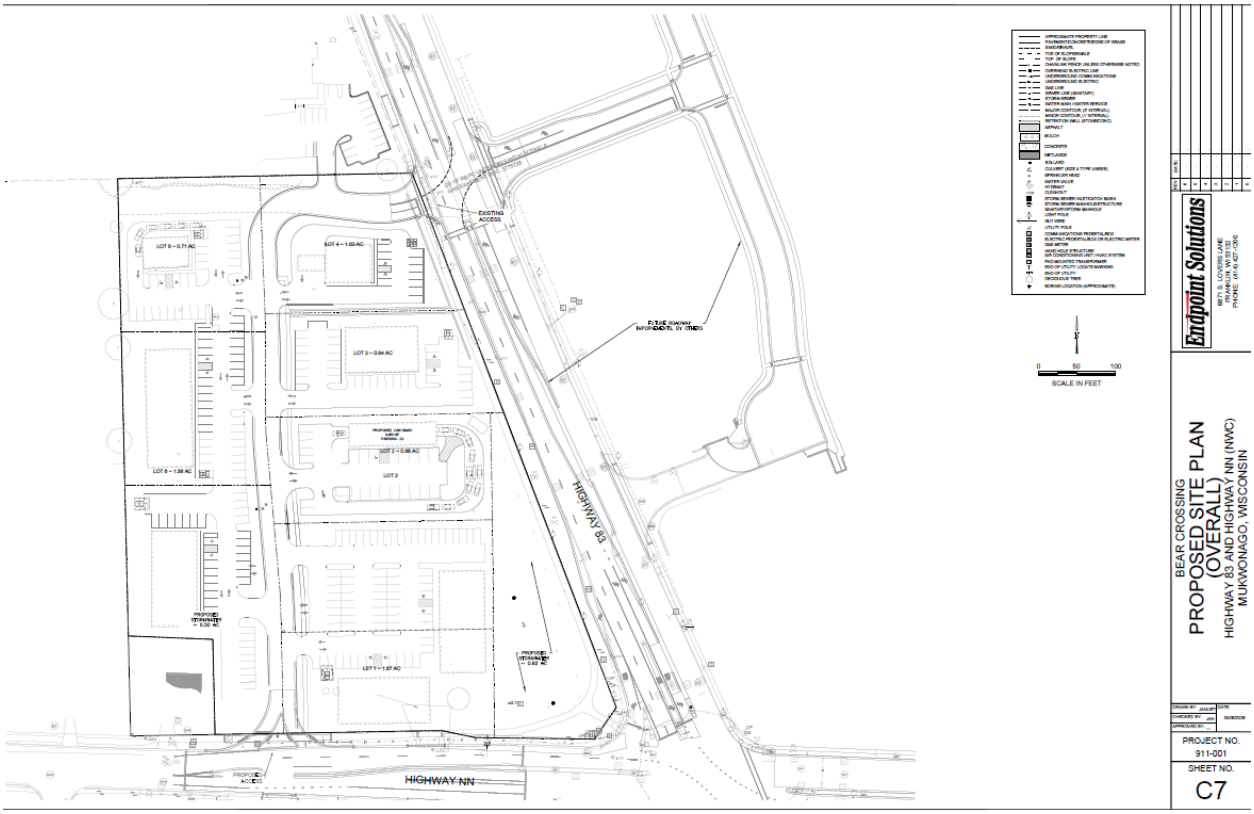
EXHIBIT C

ALLOCATED SHARES

Each Lot's "Allocated Share" shall be equal to the percentage derived by dividing the acreage of such Lot by the total acreage of all Lots (excluding Outlot 1) within the Project, rounded up to the nearest whole number.

EXHIBIT D

SITE PLAN



PLAN COMMISSION STAFF REPORT

TO: Village of Mukwonago Plan Commission

FROM: Peter Gesch, P.E., Ruekert & Mielke, Inc.

REPORT DATE: July 13, 2026

MEETING DATE: July 21, 2026, 6:30 P.M.

SUBJECT: Roadrunner Express Carwash – Site Plan & Architectural Review & Conditional Use

BASIC INFORMATION	
Project:	Roadrunner Express Carwash
Applicant:	Carl Goede
Consulting Engineer:	Endpoint Solutions
Consulting Architect:	Haag Muller, Inc.
Request:	Site Plan & Architectural Review & Conditional Use
Staff Recommendation:	Approve with Conditions

PARCEL DATA/CHARACTERISTICS	
Tax Key:	Lot 3 of Future CSM for Parcels MUKV1963996005 and MUKV1963996006
Acreage:	0.92 Acres
Current Use:	Open Space / Parkland
Proposed Use:	Free-Standing Car Wash
Reason for Request:	New Development
Land Use Classification:	Business
Zoning Classification:	B-2 General Business District

Project Summary & Overview

The

Conditional Use Request

Attached to this staff report is the justification questions for a Conditional Use Permit that have been answered by the applicant. The Planning Commission shall take these into consideration when making their decisions and recommendations.

Conditional Use Process / Findings

The established review procedures are that the Plan Commission shall hold a public hearing and make a recommendation to the Village Board whom makes the final decision.

Following the close of the public hearing, the Plan Commission may recommend (1) approval, (2) approval with conditions, or (3) denial.

If approval is recommended, the Plan Commission can recommend conditions deemed necessary to protect public health, safety, and welfare. The Plan Commission, in passing on the matter, will need to make the following determinations consistent with Section 100-354 of Mukwonago's Zoning Regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
3. The establishment, maintenance or operation of the conditional use is compatible with surrounding properties, whether in the same or different zoning districts. In making this determination, the Plan Commission and Village Board must determine whether the petitioner has demonstrated there are no adverse effects on surrounding properties or that potentially adverse effects have been eliminated or reduced to an acceptable level. Approaches that could be employed to mitigate potentially adverse effects will depend on the particular circumstances but may include:
    a. Adjusting the location of the use, or parts thereof, on the subject property;
    b. Limiting hours of operation;
    c. Limiting the size or scope of the use, or parts thereof;
    d. Controlling how the use is managed on an ongoing basis;
    e. Providing additional landscaping;
    f. Providing additional screening; and
    g. Limiting operations conducted out-of-doors, if otherwise allowed
4. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
5. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
6. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner / tenant has shown compliance with the requirements set forth in the Village's zoning regulations for specified use.

The Village Board will carefully review the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

These findings are incorporated into the draft conditional use order which is attached.

The Plan Commission shall approve a conditional use application if the terms and conditions of the zoning regulations are met. However, in the event the terms and conditions of the ordinance are not consented to and complied with by the applicant, the Commission may deny the application. In addition, the Commission may deny the application or place conditions on it if substantial evidence, as defined in §62.23(7) Wis. Stats. is presented. That evidence must demonstrate the inability of the applicant to comply with or meet the conditions of the zoning regulations or that the conditions to be applied by the Plan Commission are necessary to protect the public health, safety or welfare of the community based upon the presentation of substantial evidence. Potential motion for approval to Recommend to the Village Board approval of the project as a conditional use as set forth in the attached conditional use order as drafted, provided the Village Attorney approves the final form of the conditional use order.

Staff Review

Engineering:

- Final civil plans will need to be provided and approved by staff prior to issuance of Building permits, including an erosion control plan.
- Preconstruction conditions sheet should be updated to reflect the new CSM.

Public Works No comments at this time.

Utilities No comments at this time.

Police No comments at this time.

Fire

- No exterior access is currently shown to the fire sprinkler room. Exterior access must be provided per Ordinance requirements.

Building Inspection No comments at this time.

Planning

- All signage will require a Village Sign permit.
- The proposed water feature, if not installed at the time of development, will require a future SPAR application submittal for review and approval.
- Photometric plan shows the proposed lighting exceeding zero footcandles at the western lot line. Applicant shall revise or provide justification that the individual site lighting for each commercial site will provide the illumination for the private road. Height of fixtures should be noted on the plans not to exceed 25-ft from grade.
- Parking and car was lane stacking is adequate for the site development.

Recommended Action

Conditional Use Permit
Staff recommends the Planning Commission recommend to the Village Board approval of a conditional use permit as set forth in the provided resolution.

To – Grant a Conditional Use Permit for a Free-Standing Car Wash facility with the following on-going conditions deemed necessary to protect the health, safety, and welfare:

1. Ongoing conditions of approval. The following conditions shall constitute an ongoing obligation:
    a. Any modifications to the site, buildings, site improvements, shall require the conditional use application being updated.
2. The following conditions are also true and are consistent with Section 100-354 of Mukwonago's zoning regulations:
    a. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.
    b. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.
    c. The establishment, maintenance or operation of the conditional use is compatible with surrounding properties, whether in the same or different zoning districts.
    d. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.
    e. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.
    a. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

Site Plan and Architectural Review
Staff Recommends the Planning Commission Approve a resolution for the Site Plan and Architectural Review, as set forth in the attached resolution with the included conditions.

Attachments

1. Application and Development Information
2. Plans and Site Drawings

RESOLUTION 2026-50

Village of Mukwonago Order Granting a Conditional Use and Prescribing Conditions for a free-standing car wash facility (Roadrunner Express) on PARCEL ID #, Mukwonago, WI

WHEREAS, CARL GOEDE, (hereinafter "property owner") as the current owner and operator of the Roadrunner Express Car Wash Facility, owns the property identified as parcel PARCEL ID #, (hereinafter "subject property") in the Village of Mukwonago, more particularly described as follows:

LEGAL DESCRIPTION

WHEREAS, the property owner has, consistent with the Village of Mukwonago's zoning regulations, submitted a conditional use application for a free-standing car wash known as Roadrunner Express per Section 100-251, and

WHEREAS, upon receipt of the petition submitted by the property owner and future purchaser, the Village Clerk properly referred such petition to the Plan Commission; and

WHEREAS, allowing for required public notice, the Plan Commission conducted a public hearing on July 21, 2026, to consider the petitioner's request; and

WHEREAS, members of the public in attendance were given ample opportunity to provide comment regarding the petitioner's request; and

Return to:
Lana Kropf, Clerk-Treasurer
Village of Mukwonago
440 River Crest Court
Mukwonago, WI 53149

Parcel Number: PARCEL ID #

WHEREAS, the Plan Commission passed a motion recommending to the Village Board that the conditional use be approved subject to certain conditions; and

WHEREAS, the Plan Commission, in passing on the matter, has made the following determinations consistent with Section 100-354 of Mukwonago's zoning regulations:

1. The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety or welfare of the Village.

2. The uses, values and enjoyment of other property in the surrounding neighborhood that are already permitted shall be, in no foreseeable manner, substantially impaired or diminished by the establishment, maintenance or operation of the conditional use.

3. The establishment of the conditional use will not impede the normal and ordinary development and improvement of the surrounding property for uses permitted within the district and/or which are consistent with the standards in the Comprehensive Plan.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the use.

5. Adequate measures have been taken or will be taken providing ingress and egress to minimize traffic congestion on public streets so as not to diminish the level of service of any intersection which is impacted by traffic arising from the conditional use.

In addition, the property owner has shown compliance with the requirements set forth in the Village's zoning regulations for the specified use.

WHEREAS, the Village Board has carefully reviewed the recommendation of the Plan Commission and concurs with the Plan Commission's findings set forth above, provided the conditional use is operated pursuant to the conditions of approval set forth in this order.

NOW THEREFORE, IT IS HEREBY DETERMINED AND ORDERED AS FOLLOWS:

1. **Authorized uses**. Subject to the terms and conditions of this approval and the sections of the zoning code that apply, the property owner is authorized to construct a free-standing car wash for Roadrunner Express Car Wash.

2. **Issuance of permit required**. The zoning administrator is authorized to issue the property owner a conditional use permit when all conditions enumerated in section 3 have been satisfied to his or her satisfaction. Such permit is the last approval before the property owner/tenant can begin to establish the use as authorized herein.

3. **Initial conditions of approval.** The following conditions shall be satisfied prior to the issuance of the conditional use permit:

   a. The property owner must submit site/architectural plans to the Village for review and obtain approval of the same within 9 months of the date of this decision.

   b. The property owner must accept the terms and conditions of this conditional use order in its entirety in writing within 6 months of the date of this decision. Prior to such expiration, the property owner may request an extension to this time period, and the Village Clerk may approve an extension with good cause.

   c. This order must be recorded against the subject property in the Waukesha County or Walworth County register of deeds office (only if subsections 3(a) through 3(b) have been satisfied).

In the event the requirements enumerated in subsections 3(a) and 3(b) above are not satisfied, this order shall automatically be null and void without any further action by the Village of Mukwonago on the aforementioned date.

4. **Ongoing conditions of approval**. The following conditions shall constitute an ongoing obligation:

   a. Any modifications to the site, buildings, and site improvements shall require the conditional use application being updated.

5. **Expansion or changes.** The conditional use hereby authorized shall be confined to the subject property without extension or expansion. Any expansion or change in use shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

6. **Modification of property boundary lines**. The property owner shall not change the size and/or shape of the subject property by any means without the approval of the Village Board. If the Village Board determines that a proposed change is substantial with regard to the overall size of the parcel and/or configuration, such change shall require issuance of a new conditional use approval pursuant to the requirements in effect at the time of application.

7. **Plans and related matters**. Unless otherwise expressly stated herein, plans that are specifically required by this conditional use order may be amended upon the prior approval of the Plan Commission if the Plan Commission finds the amendment to be minor and consistent with the conditional use order and permit. Any change in any plan that the Plan Commission feels, in its sole discretion to be substantial, shall require a new conditional use approval and all procedures in place at the time must be followed.

8. **Inspection**. The property owner shall allow Village of Mukwonago staff, officials, and other authorized agents to inspect the subject property, at any reasonable time and for any proper purpose related to compliance

with this conditional use order.

9. **Discontinuance**. Should the conditional use be discontinued in use for 365 consecutive days the use shall be terminated as set forth in the Village of Mukwonago's zoning regulations.

10. **Private rights**. This approval is given under the Village of Mukwonago's zoning regulations and is not to be interpreted to abrogate any private rights other property owners may have pursuant to deed restrictions or restrictive covenants.

11. **Interpretation**. If any aspect of this conditional use order is in conflict with any other aspect of the conditional use order, the more restrictive provisions shall be controlling, as determined by the Plan Commission.

12. **Other permits**. This order shall not be deemed to constitute a building permit, or constitute any other license or permit required by Village ordinance, or other local, state, or federal law.

13. **Severability**. In the event a court of competent jurisdiction determines that a paragraph or phrase of this conditional use order is unlawful, illegal, or unconstitutional, said determination as to the particular phrase or paragraph shall not void the rest of the conditional use order and the remainder shall continue in full force and effect.

14. **Heirs, successors, and assigns**. This conditional use order shall be binding upon the property owner and their heirs, successors, and assigns. Upon a change in ownership, the property owner shall notify the Village Clerk.

15. **Ongoing review**. This conditional use may be reviewed by the Plan Commission with notice to the property owner at any time upon complaint or upon Plan Commission initiative. If it is determined that the authorized use is no longer compatible, or that the provisions of this approval have not been complied with, the Village Board may revoke or amend this order after recommendation by the Plan Commission and holding of a public hearing.

16. **Amendment**. The property owner may propose an amendment to this conditional use order at anytime by submitting a written petition to the Village Clerk, which shall be reviewed pursuant to the requirements in effect at the time of application.

17. **Violation**. Any violation of this order may be treated as a violation of Mukwonago's zoning regulations and each day of each violation of each condition herein shall be treated as a separate violation.

18. **Acceptance.** GRANTEES hereby accept the said Conditional Use Grant and covenant strictly to comply with all the terms and conditions thereof. GRANTEES acknowledge that, in accordance with the provisions of the Zoning Code, failure to comply with any conditions of the Conditional Use Grant is cause for the termination of said Grant by the Village. GRANTEES also acknowledge that approval of the Conditional Use Grant allows the appropriate Village officials to conduct reasonable and routine inspections of the property. This Covenant shall run with the land and shall be binding on the GRANTEES and all persons claiming any estate or interest in the Premises by, through or under the GRANTEES, as long as the said Premises are used as described in the Conditional Use Grant

The remainder of this page intentionally left blank.

Approved this 5th day of August, 2026.

BY THE VILLAGE BOARD OF THE VILLAGE OF MUKWONAGO

_____
Fred Winchowky, Village President

Attest: _____
Lana Kropf, Village Clerk-Treasurer

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally came before me this ____ day of _____ 2026, the persons described above, Fred Winchowky, Village President, and Lana Kropf, Village Clerk, to me known to be the persons who executed the foregoing instrument and to me known to be such Village President and Village Clerk of the Village of Mukwonago and acknowledged that they executed the foregoing instrument as such officers of said municipal corporation by its authority and pursuant to the authorization by the Village Board from their meeting on the ____ day of _____, 2026.

_____
NOTARY PUBLIC

_____
My Commission Expires:

The remainder of this page left intentionally blank.

Acceptance by Property Owner

I, _____ verify that I am an authorized agent for CARL GOEDE, Owner and Operator of Roadrunner Express Car Wash, accepts the terms stated herein.

Dated this _____ day of _____, 2026

_____
_____, agent

STATE OF WISCONSIN, WAUKESHA/WALWORTH COUNTY

Personally, came before me this ____ day of _____, 2026, the above-named person, _____ to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____
NOTARY PUBLIC

_____
My Commission Expires:

Drafted by Peter Gesch, Contracted Village Planner at the direction of the Mukwonago Village Board.

PROJECT SUMMARY

Date:	June 9, 2026
Owner:	Roadrunner Express
Project:	Car Wash
Site Address:	Hwy 83 and Hwy NN (NWC)
	Mukwonago, WI

Reason for Site Plan Application

The above site is proposing to build a car was at the overall development at the northwest corner of Highway 83 and Highway NN. The car wash would include two pay stations, an emergency bypass lane, vacuum stalls, parking stalls and associated drive lanes.

Business Operations

Our business is an eco-friendly exterior Express Tunnel Car Wash featuring a premium self-serve pet grooming station, 17 self-serve vacuum stalls, floor mat cleaning stations, and complimentary microfiber towels and window cleaner. We combine cutting-edge vehicle cleaning technology with a convenient pet care solution, creating a unique community hub for multi-purpose cleaning. We operate seven days a week within the hours of 7:00 AM to 7:00 PM, fully staffed with 3 to 4 dedicated team members per day to ensure seamless operations, minimal wait times, and exceptional customer service. Founded 30 years ago, our company remains a proudly local, family-owned, and operated business. This new location builds upon three decades of trusted community relationships, operational expertise, and a deep-rooted commitment to local service excellence. We are dedicated to our small-town roots and look forward to giving back to the community with local events and fundraising involvement.

Our Core Service Offerings include:

Exterior Express Tunnel: Fast, high-efficiency automated wash tunnel engineered for maximum throughput and consistent, spot-free results.
Complimentary Amenities: Free access to high-powered self-serve vacuums, specialized mat cleaning stations, premium microfiber towels, and professional window cleaner with every wash.
Self-Serve Pet Wash: Dedicated, climate-controlled grooming units equipped with professional-grade tubs, shampoos, and blow dryers for hassle-free pet care.

Operational Scale & Market Potential

The facility is engineered to comfortably sustain any volume of traffic, projecting an average volume of 112 vehicles per day. By bundling elite vehicle care with self-serve pet grooming, the business targets two massive, high-frequency consumer markets. This dual-revenue model maximizes land utility, increases the average dollar spent per customer visit, and drives powerful cross-promotional opportunities. To drive predictable, recurring monthly revenue, the facility features a premium Subscription Membership Program. This program offers seamless, multi-site synergy, allowing members to utilize their unlimited wash passes interchangeably between this new express tunnel and our existing location across town. This multi-location footprint increases the value proposition for customers, drastically increases brand loyalty, and provides a powerful competitive advantage in the local market.

Industry-Leading Water Reclamation & Eco-Sustainability

We operate with a strict commitment to environmental stewardship, utilizing an advanced water conservation system designed to reduce municipal water consumption and eliminate runoff:

200 GPM Reclamation System: A heavy-duty reclamation system capable of processing 200 gallons of premium recycled water per minute, removing solids and impurities for safe, odor-free reuse in the main wash cycles.

Further, this system utilizes underground settling tanks that capture sediment and debris for sustainable removal and environmentally responsible disposal reducing potential impacts on municipal waste water

Spot-Free Water Capture: All reject and cast-off water generated during the reverse osmosis (spot-free) filtration process is fully captured and routed back into the wash system.

Softener Regeneration Recycling: Wastewater from the water softener regeneration process is systematically trapped, treated, and reused, ensuring virtually zero wasted water.

Conditional Use Responses

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

The proposed conditional use for an expansion of an established locally owned and operated business is in line with the goals of the Mukwonago Comprehensive plan in that it will allow a thriving local business that has been operating in and supporting the community for 30 years to continue to do so as the community continues to grow. Local business is essential to maintaining the small-town atmosphere in line with the Village Comprehensive Plan. We are eager to integrate with other community organizations to support community cohesion. Examples of recent partnerships include partnering with the local food pantry for our annual food drive and partnering with Brooklife church to expand our offering of free car washes to all mothers for mother's day.

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

The proposed conditional use, in its specific location, is in harmony with the goals of the Village to improve traffic flow, expand retail business, and increase downtown attractiveness. The new development in its whole will add to the attractiveness of the community by expanding business offerings along the main arteries of Mukwonago at HWY83 and HWY NN. This development in itself is significant for the community, and no less significant is the need for local business integration. Our proposed conditional use will help improve traffic flow by offering an alternate service location for our established and growing customer base helping to reduce the traffic of community members traveling across town for our service. This community is unique in its traffic patterns and we aim to alleviate unnecessary congestion by expanding our service offerings to a location that benefits our current customer base as well as the community goal to improve traffic flow as a whole. Further, our business model processes customers quickly and efficiently which will attract business for the other retail offerings within and surrounding this development.

C.Does the proposed conditional use, in its proposed location and as depicted on the required site plan (see Section100-354 (a), (b), and (c), result in any substantial or undue adverse impact on nearby property, the character of the neighborhood, environmental factors, traffic factors, parking, public improvements, public property or rights-of-way, or other matters affecting the public health, safety, or general welfare, either as they now exist or as they may in the future be developed as a result of the implementation of the provisions of the Zoning Ordinance, the Comprehensive Plan, or any other plan, program, map ordinance adopted or under consideration pursuant to official notice by the Village or other governmental agency having jurisdiction to guide development?

The proposed conditional use will not result in any substantial or undue adverse impact on nearby property or the surrounding community. Our existing site is a great example of the impact we will have on the community. We are sure to maintain our business as a clean and attractive site for the good of our business model, but this will also help achieve the essential key baseline metric of a well maintained and safe community as designated in the Village's strategic plan. Over the years we have continued to improve, expand, and maintain our facilities to ensure we are a net positive on the community. In recent years we have commissioned extensive landscaping projects to improve both our site functionality and curb appeal. Our landscape water feature is highly regarded amongst our customers and often attracts visitors without any purchase exemplifying our commitment to an attractive and clean community.

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

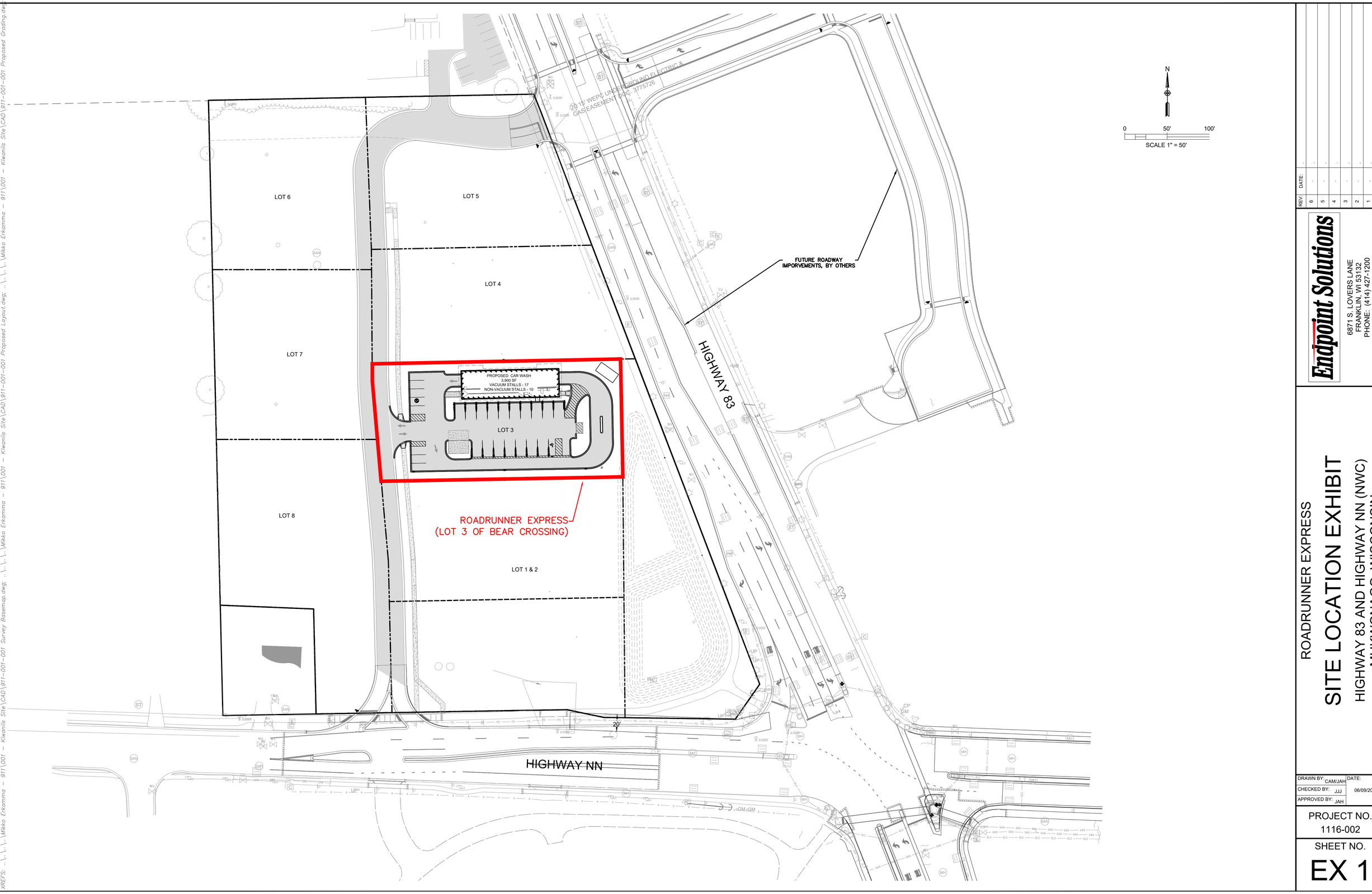
The proposed conditional use is in a well suited retail environment ensuring it does not negatively alter the neighborhood. The high traffic area is in line with our efficient processing model. Further, the proposal includes measures to minimize traffic congestion and prevent parking on public streets, ensuring safe access and egress. Operating hours will fall within the typical retail window of 7AM to 8PM eliminating any possible late night traffic/noise concerns. After hours lighting of the property will contribute to the essential key baseline metric of a safe community as designated in the Village's strategic plan.

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

The proposed conditional use will utilize state of the art technologies in water management and reclamation to minimize impact on water services. Modern reclaim systems allow for substantial reductions in water consumption. These systems also utilize a sediment capture process reducing the overall impact on sewer systems and the environment. Underground tanks for processing of waste water will be used to safeguard and maximize this effort.

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

We believe the benefits of the proposed conditional use largely outweigh potential impacts on the local community. The proposed conditional use is designed to implement mitigating strategies to ensure any impacts are reduced or eliminated entirely. Adequate space around the entrance/exit of the property and excellent on site visibility ensure the property is easy and safe to navigate. Further, reasonable efforts to reduce environmental impacts are made using modern technology and practices.



REV:	DATE:
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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

ROADRUNNER EXPRESS

SITE LOCATION EXHIBIT

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY:	CAM/JAH	DATE:
CHECKED BY:	JJJ	06/09/2026
APPROVED BY:	JAH	

PROJECT NO.
1116-002

SHEET NO.
EX 1

ISSUED FOR MUNICIPAL REVIEW

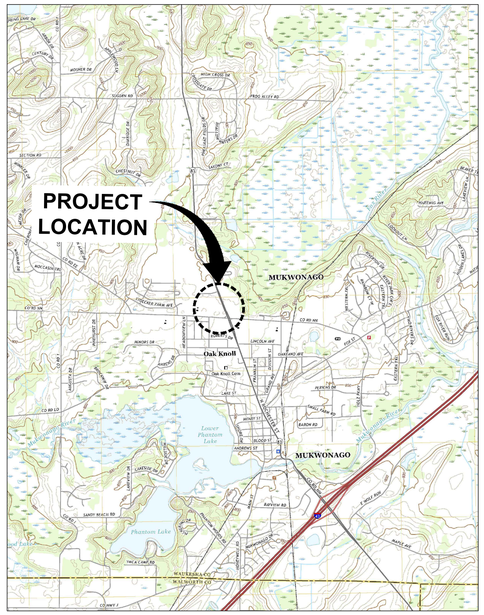
PROPOSED SITE IMPROVEMENTS

ROADRUNNER EXPRESS
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

CALL OR CLICK 3 WORKING DAYS BEFORE YOU DIG

Help Us... Help You... Protect Your Facilities!

811 CALL 811 BEFORE YOU DIG SAFE DIGGING PARTNER



LOCATION MAP
0 2000' 4000'
N



SITE MAP
0 500' 1000'
N

DATE ISSUED

JUNE 9, 2026

Endpoint Solutions

CONTACTS

OWNER:
CARL GOEDE
ROADRUNNER EXPRESS
811 S. ROCHESTER ST.
MUKWONAGO, WI
PHONE: 262-363-1899
EMAIL: CARLGOEDE@GMAIL.COM

ARCHITECT:
HAAG MULLER, INC.
101 E. GRAND AVENUE
PORT WASHINGTON, WI 53074
CONTACT: STEPHEN JESKE
PHONE: 262-268-1200
EMAIL: SJESKE@HAAGMULLER.COM

ENGINEER/AGENT:
ENDPOINT SOLUTIONS CORP.
6871 S. LOVERS LANE
FRANKLIN, WI 53132
CONTACT: JASON HEINONEN, P.E.
PHONE: 414-858-1920
EMAIL: JASON@ENDPOINTCORPORATION.COM

DRAWING SHEET INDEX

CS	COVER SHEET
C1	PRE-CONSTRUCTION CONDITIONS
C2	PROPOSED SITE PLAN
C3	PROPOSED GRADING PLAN
C4	PROPOSED UTILITY PLAN
C5	EROSION CONTROL NOTES & DETAILS
C6	GENERAL CONSTRUCTION NOTES
C7	CONSTRUCTION DETAILS
C8	CONSTRUCTION DETAILS

WISCONSIN JASON A. HEINONEN E-37110 WAUKESHA WI PROFESSIONAL ENGINEER

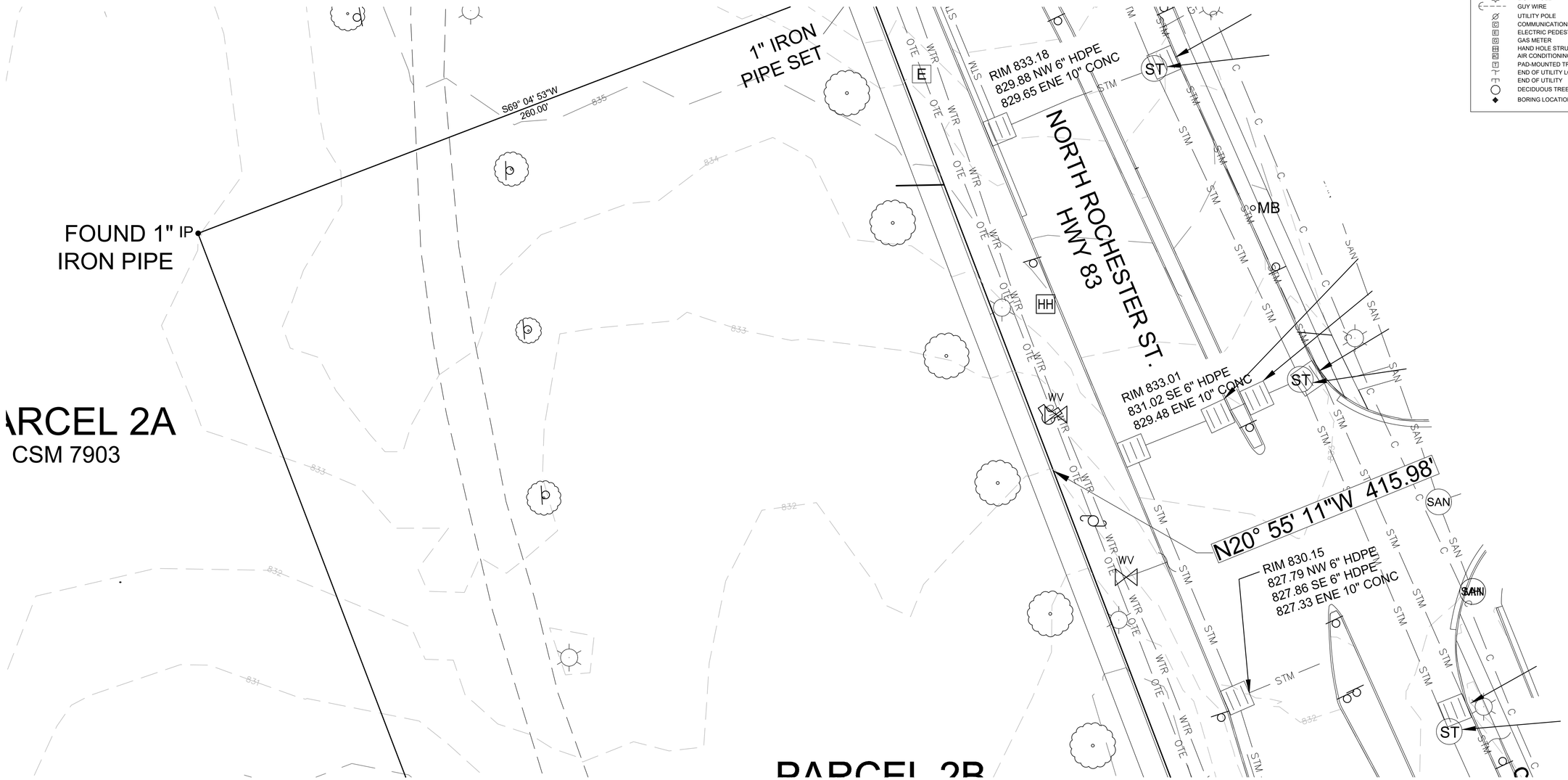
06/09/2026

REVISION LOG

REVISION	ISSUE DATE	REVISED SHEETS	ISSUED FOR

SOURCE: GOOGLE MAPS, USGS

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ROADRUNNER EXPRESS

PRE-CONSTRUCTION CONDITIONS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY:	CAM/JAH	DATE: 06/09/2026
CHECKED BY:	JJJ	
APPROVED BY:	JAH	

PROJECT NO.
1116-002

SHEET NO.
C1

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PARKING CALCULATIONS	
PROPOSED STANDARD PARKING	9
PROPOSED ACCESSIBLE PARKING	1
TOTAL PROPOSED PARKING	10

*PER ADA PARKING, FOR 1–25 STALLS PROVIDED THERE SHALL BE 1 ACCESSIBLE STALLS.

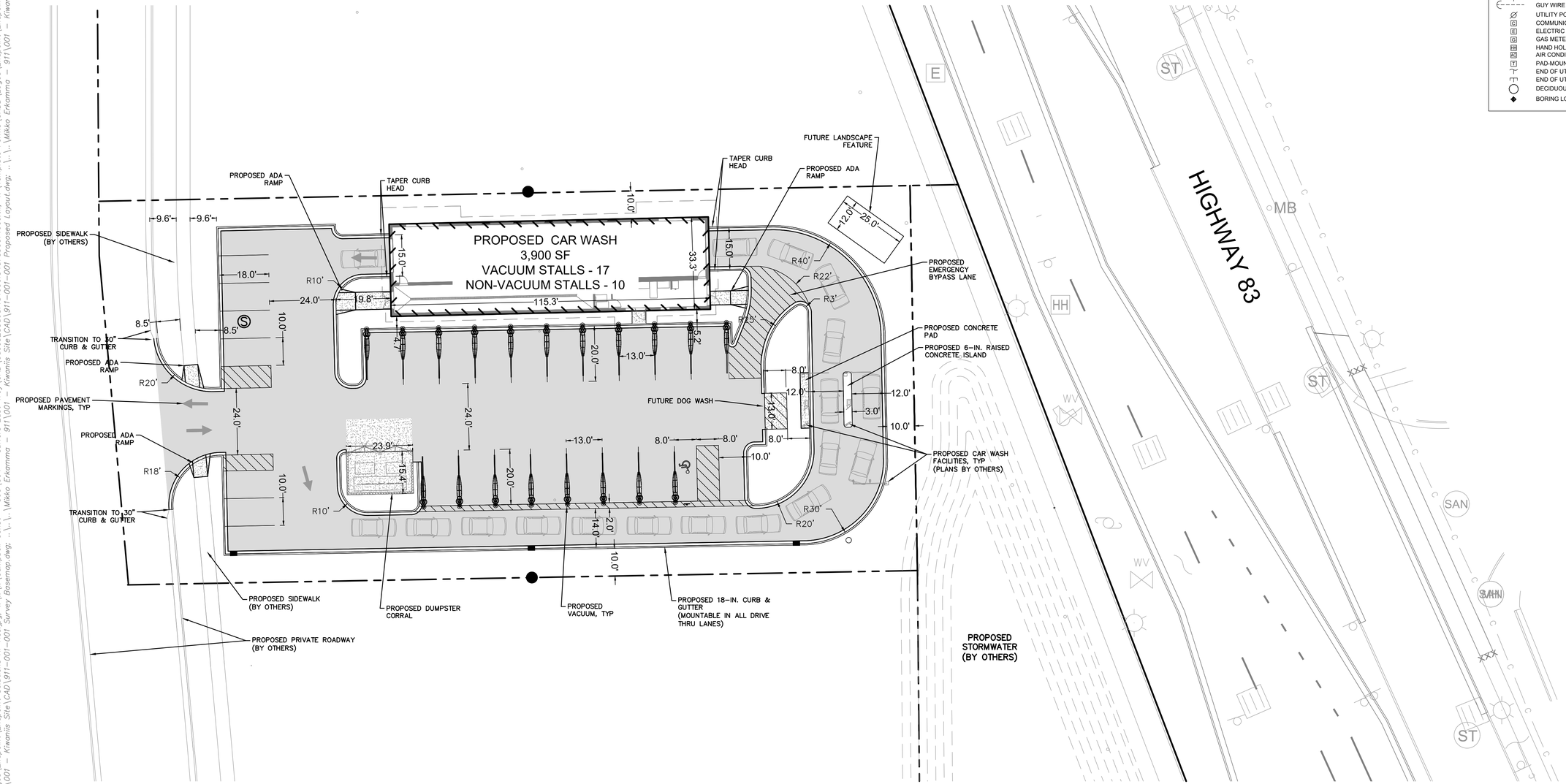
SITE DATA	
TOTAL PROPERTY AREA	40,263 SF (0.92 AC)
FLOOR AREA	3,900 SF (0.09 AC)
FLOOR AREA RATIO	9.7%
IMPERVIOUS AREA	29,270 SF (0.67 AC)
IMPERVIOUS AREA RATIO	72.7%
ZONING	B–2, GENERAL BUSINESS

N

0 20' 40'

SCALE 1" = 20'

- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OEL OVERHEAD ELECTRIC LINE
- OHL UNDERGROUND COMMUNICATIONS
- ELC UNDERGROUND ELECTRIC
- GAS GAS LINE
- SAN SEWER LINE (SANITARY)
- STM STORM SEWER
- WTR WATER MAIN / WATER SERVICE
- MAJOR CONTOUR, (5' INTERVAL)
- MINOR CONTOUR, (1' INTERVAL)
- ASPHALT
- CONCRETE
- WATER VALVE
- HYDRANT
- STORM SEWER INLET/CATCH BASIN
- STORM SEWER MANHOLE/STRUCTURE
- SANITARY/STORM MANHOLE
- LIGHT POLE
- GUY WIRE
- UTILITY POLE
- COMMUNICATIONS PEDESTAL/BOX
- ELECTRIC PEDESTAL/BOX OR ELECTRIC METER
- GAS METER
- HAND HOLE STRUCTURE
- AIR CONDITIONING UNIT / HVAC SYSTEM
- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)



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ROADRUNNER EXPRESS

PROPOSED SITE PLAN

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: CAM/JAH	DATE: 06/09/2026
CHECKED BY: JJJ	
APPROVED BY: JAH	

PROJECT NO.
1116-002

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CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCE AND EROSION CONTROL AS SHOWN ON PLAN. MAINTAIN AS NECESSARY DURING CONSTRUCTION. INSPECT FOLLOWING RAIN EVENTS.
2. GRADE SITE AND CONSTRUCT IMPROVEMENTS.
3. STABILIZE DISTURBED GROUND WITH TEMPORARY SEED, FERTILIZER, AND MULCH.
4. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL BMPs WHEN DISTURBED AREAS ARE PERMANENTLY STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION.

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0 20' 40'

SCALE 1" = 20'

- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OEL OVERHEAD ELECTRIC LINE
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- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

PROPOSED CAR WASH
3,900 SF
FF 834.50

PROPOSED SILT FENCE (TYP) (SEE DETAILS)

FUTURE LANDSCAPE FEATURE

PROPOSED SIDEWALK (BY OTHERS)

PROPOSED SIDEWALK CONNECTION

PROPOSED EMERGENCY BYPASS LANE

PROPOSED TRACKING PAD (SEE DETAILS)

PROPOSED CONTOURS, TYP

PROPOSED INLET PROTECTION, TYP (SEE DETAILS)

PROPOSED SILT FENCE (TYP) (SEE DETAILS)

OVERALL DEVELOPMENT GRADING (BY OTHERS)

PROPOSED STORMWATER (BY OTHERS)

HIGHWAY 83

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ROADRUNNER EXPRESS

PROPOSED GRADING PLAN

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY:	CAM/JAH	DATE: 06/09/2026
CHECKED BY:	JJJ	
APPROVED BY:	JAH	

PROJECT NO.
1116-002

SHEET NO.
C3

1) ALL PIPE LENGTHS ARE TO CENTER OF EXISTING OR PROPOSED STRUCTURE.

2) CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED POINTS OF CONNECTION TO EXISTING PIPE, STRUCTURES OR KNOWN CROSSINGS PRIOR TO PROPOSED UTILITY CONSTRUCTION. CONTACT ENGINEER FOR POSSIBLE REDESIGN IF EXISTING PIPE SIZES OR INVERTS VARY FROM THIS PLAN.

3) CONTRACTOR SHALL FIELD ADJUST ALL EXISTING UTILITY STRUCTURES TO PROPOSED GRADE WITHIN THE PROJECT LIMITS. SEE GRADING & DRAINAGE PLANS FOR PROPOSED RIM GRADES.

4) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

5) CONTRACTOR TO FIELD LOCATE ALL EXISTING LATERAL LOCATIONS & ELEVATIONS PRIOR TO UTILITY CONSTRUCTION.

6) ALL WATER SERVICES SHALL HAVE MINIMUM 6.0' OF COVER.

7) CONTRACTOR SHALL COORDINATE FINAL SIZING WITH THE OWNER PRIOR TO PROCUREMENT OF THE GREASE INTERCEPTOR(S).

8) CONTRACTOR TO MAINTAIN MINIMUM 18" CLEARANCE WHEN WATER MAIN CROSSES UNDER SANITARY SEWER, AND 6" MINIMUM UNDER STORM SEWER. PROVIDE 2" INSULATION BETWEEN WATER MAIN AND SEWER CROSSINGS WHERE THE VERTICAL SEPARATION IS LESS THAN 2.0'.

9) ALL VALVES INSTALLED AT GREATER THAN 8 FEET OF DEPTH SHALL BE PROVIDED WITH VALVE STEM EXTENSIONS TO BRING THE OPERATING NUT UP TO A NORMAL DEPTH (EQUIVALENT TO A VALVE AT 8 FEET OF DEPTH). THE EXTENSION SHALL BE SECURED TO THE OPERATING NUT WITH AT LEAST 2 SET SCREWS DRILLED INTO THE NUT. PROVIDE A CENTERING RING AT THE TOP OF THE EXTENSION.

N

0 20' 40'

SCALE 1" = 20'

- APPROXIMATE PROPERTY LINE
- PAVEMENT/CONCRETE/EDGE OF GRASS
- SAND/GRAVEL
- TOE OF SLOPE/SWALE
- TOP OF SLOPE
- CHAINLINK FENCE UNLESS OTHERWISE NOTED
- OVERHEAD ELECTRIC LINE
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND ELECTRIC
- GAS LINE
- SEWER LINE (SANITARY)
- STORM SEWER
- WATER MAIN / WATER SERVICE
- MAJOR CONTOUR, (5' INTERVAL)
- MINOR CONTOUR, (1' INTERVAL)
- ASPHALT
- CONCRETE
- WATER VALVE
- HYDRANT
- STORM SEWER INLET/CATCH BASIN
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- COMMUNICATIONS PEDESTAL/BOX
- ELECTRIC PEDESTAL/BOX OR ELECTRIC METER
- GAS METER
- HAND HOLE STRUCTURE
- AIR CONDITIONING UNIT / HVAC SYSTEM
- PAD-MOUNTED TRANSFORMER
- END OF UTILITY LOCATE MARKING
- END OF UTILITY
- DECIDUOUS TREE
- BORING LOCATION (APPROXIMATE)

STO INL 235
RIM 835.04
30" S 827.25
30" N 827.25
18" W 828.25

43.82' - 18" HDPE
@ 2.49% STO SEWER

34.29' - 18" HDPE
@ 2.51% STO SEWER

STO INL 210
RIM 836.00
18" SE 830.09
18" N 830.09

135.06' - 18" HDPE
@ 2.50% STO SEWER

102.34' - 30" HDPE
@ 0.30% STO SEWER

STO INL 225
RIM 832.86
30" E 826.94
30" N 826.94
18" W 827.94

46.75' - 18" HDPE
@ 3.51% STO SEWER

STO INL 220
RIM 833.53
30" E 826.33
30" W 826.33

WATER CONN TO EXIST STUB W/ 6" X2" REDUCER
6" IE 826.09
2" IE 826.17
(VERIFY PRIOR TO CONSTRUCTION)

FUTURE LANDSCAPE FEATURE

STO INL 205
RIM 832.44
30" S 825.72
30" W 825.72
18" NW 826.72

136.07' - 30" HDPE
@ 0.45% STO SEWER

136.32' - 30" HDPE
@ 0.45% STO SEWER

PROPOSED CAR WASH
3,900 SF
FF 834.50

54.2 LF 2-IN.
WATER @ 3.38%

2-IN. WATER
POC IE 828.00

6-IN. SANITARY
POC IE 829.00

6-IN. STORM
POC IE 831.00

PROPOSED EMERGENCY BYPASS LANE

54.2 LF 6-IN.
SANITARY @ 5.38%

PROP SAMPLING MH
RIM 832.80
6" IE 826.20
0.1-FT DROP IN MH
(PER SWS 3.5.5(F)
AND FILE NO. 23)

78.9 LF 6-IN. STORM
SEWER @ 4.44%

SANITARY CONN TO
EXIST STUB
6" IE 826.20
(VERIFY PRIOR TO
CONSTRUCTION)

PROP INL
RIM 831.74
18" S 826.50
12" W/E 827.00
6" N 827.50

PROP INL
RIM 831.05
12" 827.50

STO INL 110
RIM 835.92
24" E 825.56
24" NW 826.00
24" S 825.56

127.63' - 24" HDPE
@ 0.20% STO SEWER

147.43' - 24" HDPE
@ 0.20% STO SEWER

75.14' - 24" HDPE
@ 0.20% STO SEWER

10.9 LF 18-IN. STORM
SEWER @ 1.80%

107.6 LF 12-IN. STORM
SEWER @ 0.46%

95.8 LF 12-IN. STORM
SEWER @ 1.04%

PROP INL
RIM 831.89
12" 828.00

STO INL 105
RIM 829.80
24" E 825.30
24" W 825.30

CORED CONNECTION TO
EXIST MH
18" IE 826.80

PROPOSED
STORMWATER
(BY OTHERS)

138.72' - 24" HDPE
@ 0.20% STO SEWER

111.89' - 30" HDPE
@ 0.64% STO SEWER

STO FES 200
30" N 825.00

STO FES 100
24" W 825.00

HIGHWAY 83

STORM MANHOLE & INLET NOTES:

REFER TO FILE No. 25 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, EXCEPT:
A. USE CASTING AS INDICATED BELOW (UNLESS INDICATED OTHERWISE ON PLAN):
1.) CB/INLET (CURB) – NEENAH R-3229-A W/ TYPE C GRATE
2.) CB/INLET (NON-CURB) – NEENAH R-2501-G
2.) CB/INLET (BIORETENTION OUTLET STRUCTURE) – HAALA CONE GRATE TOP (OR EQUAL)
B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN (OR APPROVED)
C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

REFER TO FILE No. 12 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN) , EXCEPT:
A. USE CASTING AS INDICATED BELOW:
ALL MANHOLES – NEENAH R-1642
B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN (OR APPROVED)
C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

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ROADRUNNER EXPRESS

PROPOSED UTILITY PLAN

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

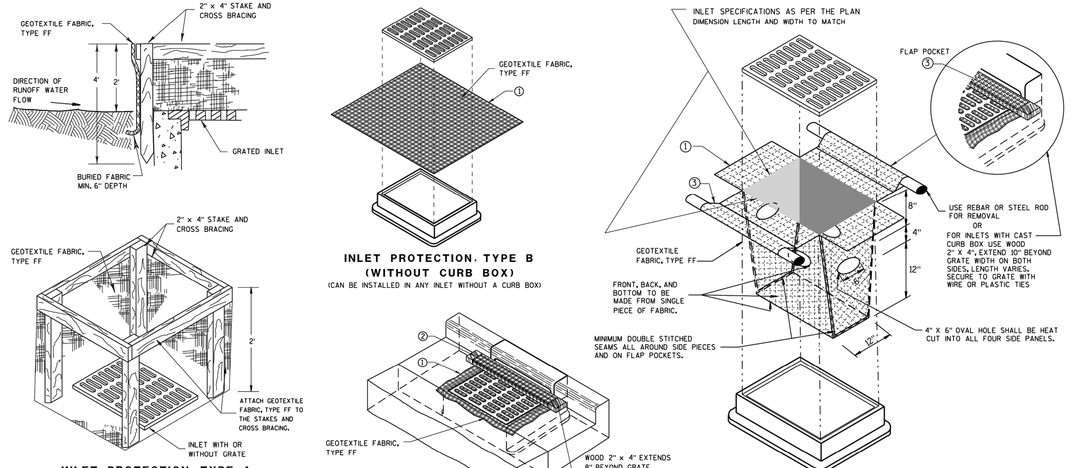
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PROJECT NO.
1116-002

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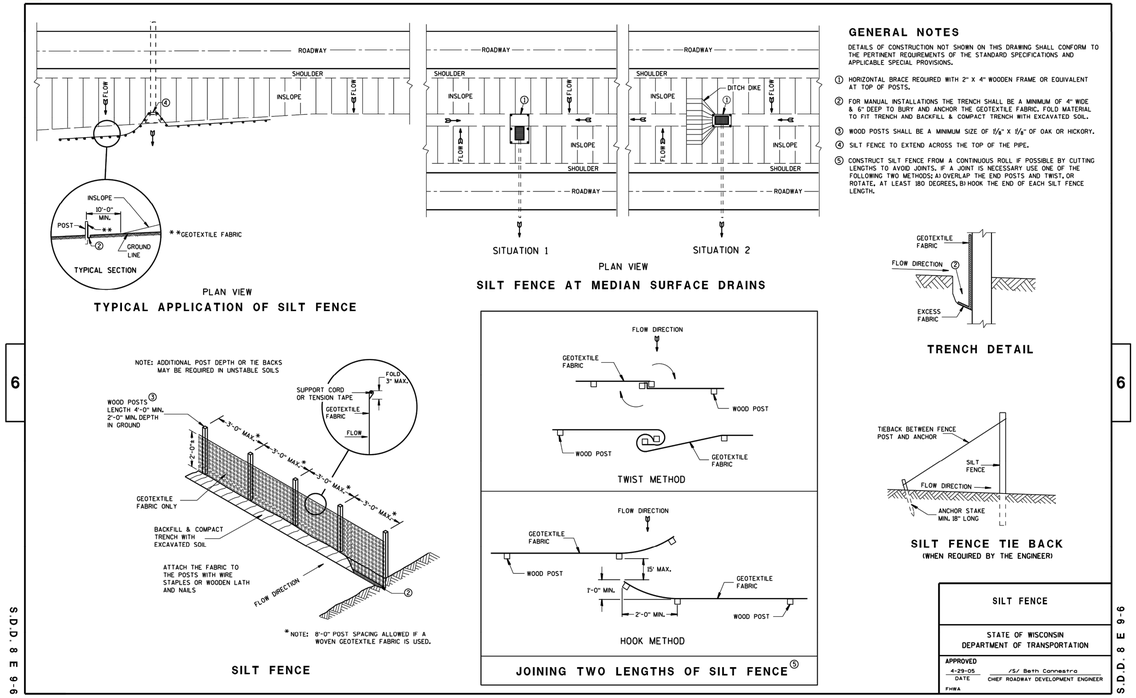
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8E10: Inlet Protection Type A, B, C and D



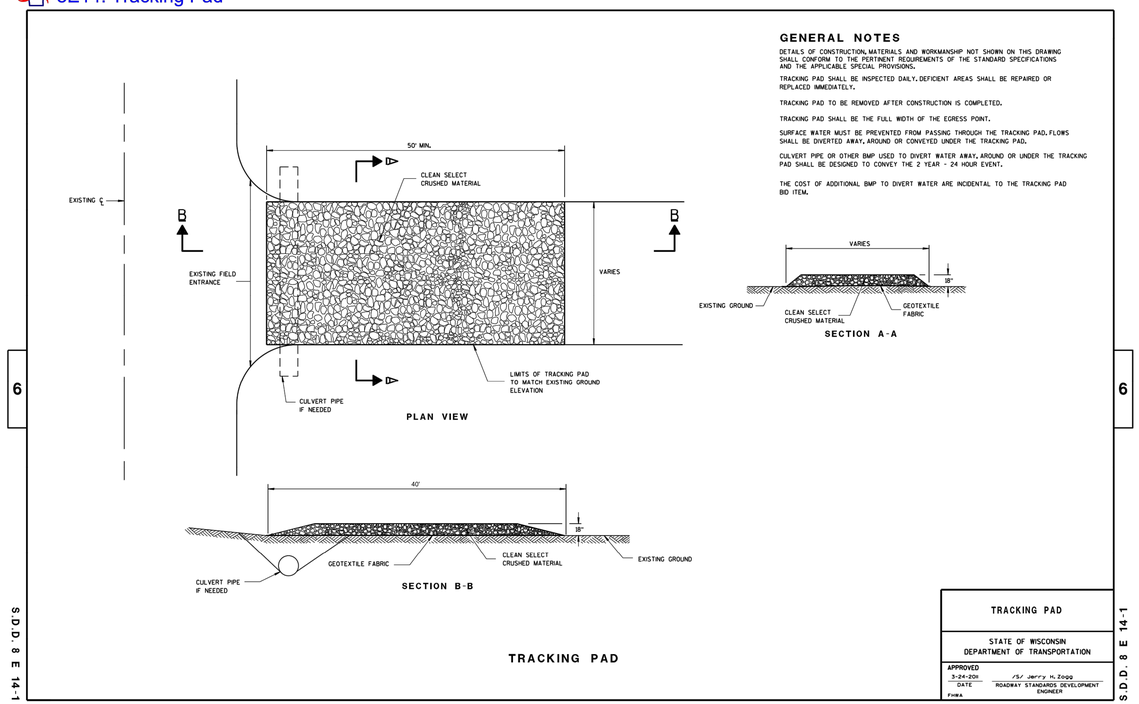
INLET PROTECTION
NOT TO SCALE

8E9: Silt Fence



SILT FENCE
NOT TO SCALE

8E14: Tracking Pad



TRACKING PAD
NOT TO SCALE

EROSION AND SEDIMENT CONTROL

1. CONSTRUCT AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) CHAPTERS NR 151 AND NR 216, WISCONSIN ADMINISTRATIVE CODE, AND APPROPRIATE WDNR TECHNICAL STANDARDS. EROSION AND SEDIMENT CONTROL PRODUCTS SHALL BE LISTED IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION PRODUCT ACCEPTABILITY LIST (WisDOT PAL). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF THESE STATE REQUIREMENTS, TECHNICAL STANDARDS, AND WisDOT PAL.
2. IMPLEMENT EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) PRIOR TO SOIL DISTURBING ACTIVITIES (E.G., CLEARING, GRUBBING, TOPSOIL STRIPING, EXCAVATION, MATERIAL STOCKPILING, ETC.). INSTALL EROSION CONTROL MEASURES AROUND STOCKPILE LOCATIONS.
3. MINIMIZE DISTURBED AREA BY PHASING OR SEQUENCING CONSTRUCTION AND PRESERVING EXISTING VEGETATION WHERE POSSIBLE.
4. DIVERT STORM WATER AWAY FROM DISTURBED OR EXPOSED AREAS WHEN POSSIBLE.
5. PROTECT ADJACENT PROPERTIES WITH SEDIMENT BALE BARRIERS OR SILT FENCE UNTIL CONSTRUCTION IS COMPLETE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS 1055 OR 1056, RESPECTIVELY.
6. INSTALL A GRAVEL TRACKING PAD IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1057. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEPT AND/OR SCRAPED PERIODICALLY TO REMOVE SOIL, DIRT, AND/OR DUST. ADJACENT ROADS ARE TO CLEANED IMMEDIATELY IF ANY SEDIMENT TRANSFER AND TRACKING OCCURS.
6. PROTECT INLETS, CATCH BASINS, AND OTHER CONVEYANCE STRUCTURES WITH STRAW BALES, FILTER FABRIC, OR OTHER APPROPRIATE MEASURES IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1060. TYPE D INLET PROTECTION SHALL BE USED IN STORM STRUCTURES IN THE PUBLIC RIGHT-OF-WAY, WHENEVER POSSIBLE.
7. DURING DEWATERING ACTIVITIES, UTILIZE A COMPARTMENTED CONTAINER, SETTLING BASIN, FILTER, OR OTHER APPROPRIATE BEST MANAGEMENT PRACTICE FOR TREATING SEDIMENT-LADEN WATER PRIOR TO DISCHARGE OFF-SITE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061.
8. INSPECT THE SITE REGULARLY AND PROPERLY MAINTAIN BMPS, ESPECIALLY AFTER RAINSTORMS. AT MINIMUM, INSPECTIONS OF CONSTRUCTION BMPS ARE REQUIRED AT LEAST ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS AFTER A PRECIPITATION EVENT OF 0.5 INCH OR MORE.
9. BMPS MUST BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION OR NOTIFICATION OF A PROBLEM.
10. KEEP THE CONSTRUCTION SITE CLEAN BY PUTTING TRASH IN TRASH CANS, KEEPING STORAGE BINS COVERED, AND PREVENTING OR REMOVING EXCESS SEDIMENT ON ROADS AND OTHER IMPERVIOUS SURFACES.
11. SITE RESTORATION AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF INACTIVITY.

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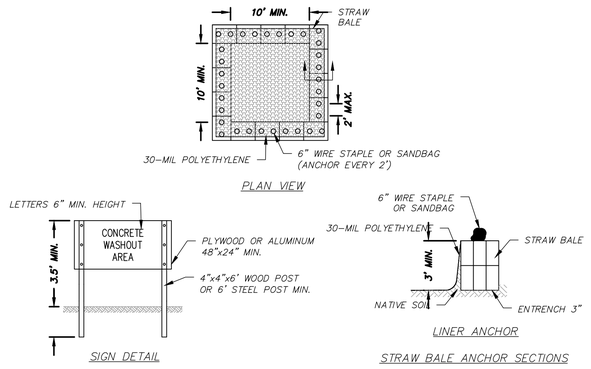
ROADRUNNER EXPRESS
EROSION CONTROL DETAILS
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY: CAM/JAH	DATE: 06/09/2026
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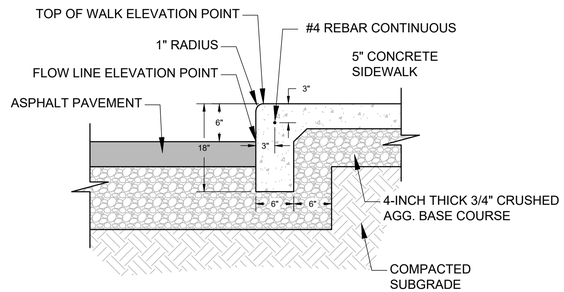
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NOTES:
1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.
3. EACH STRAW BALE IS TO BE STAKED IN PLACE USING (2) 2"x2"x4' WOODEN STAKES.

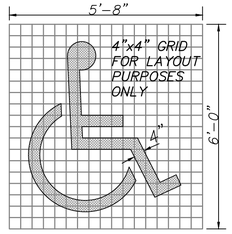
TEMPORARY CONCRETE WASHOUT FACILITY - STRAW BALE

NOT TO SCALE



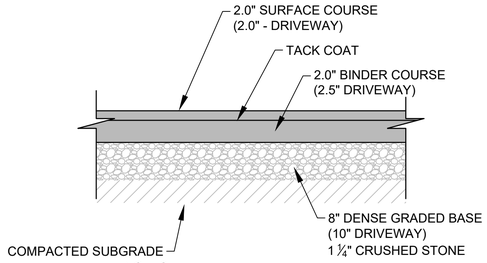
SIDEWALK WITH INTEGRAL CURB

NOT TO SCALE



PAINTED ADA SYMBOL

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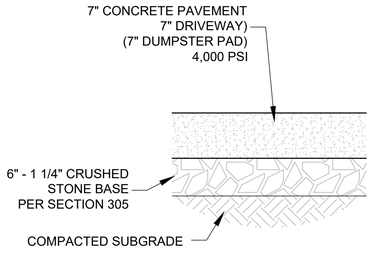


NOTES:

1. PAVEMENT TO BE INSTALLED PER GEOTECHNICAL REPORT.
2. ALL NON PARKING STALL AREAS TO BE DRIVEWAY SECTION.

TYPICAL ASPHALT PAVEMENT

NOT TO SCALE

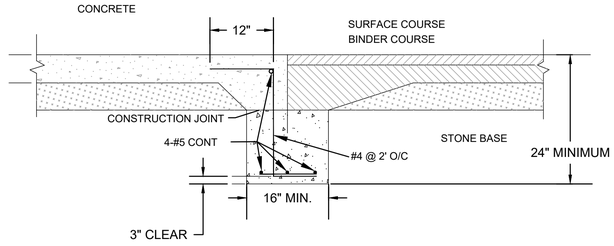


NOTES:

1. PAVEMENT TO BE INSTALLED PER GEOTECHNICAL REPORT.

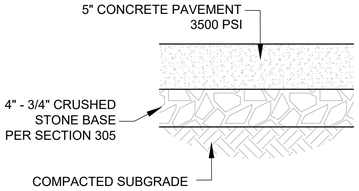
TYPICAL CONCRETE PAVEMENT

NOT TO SCALE



CONCRETE/ASPHALT JOINT DETAIL

NOT TO SCALE



CONCRETE SIDEWALK DETAIL

NOT TO SCALE

GENERAL GRADING NOTES

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE D.O.T. STANDARD SPECIFICATIONS, LOCAL ORDINANCES AND SPECIFICATIONS, AND RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.
2. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATIONS OF ALL GRADING AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT.
3. GRADING SHALL CONSIST OF CLEARING AND GRUBBING EXISTING VEGETATION, STRIPPING TOPSOIL, REMOVAL OF EXISTING PAVEMENT OR FOUNDATIONS, IMPORTING OR EXPORTING MATERIAL TO ACHIEVE AND ON-SITE EARTHWORK BALANCE, GRADING THE PROPOSED BUILDING PADS AND PAVEMENT AREAS, SCARIFYING AND FINAL COMPACTION OF THE PAVEMENT SUBGRADE, AND PLACEMENT OF TOPSOIL.
4. THE CONTRACTOR SHALL MAINTAIN SITE DRAINAGE THROUGHOUT CONSTRUCTION.
5. EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AS PART OF THIS PROJECT. CONSTRUCTION ACTIVITIES MUST COMPLY WITH ALL PROVISIONS OF LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS THE SITE SPECIFIC SWPPP (IF APPLICABLE). ALL LAND DISTURBING ACTIVITIES MAY BE SUBJECT TO INSPECTION BY LOCAL AUTHORITIES AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.
6. CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE EXTENT POSSIBLE. CONTRACTOR RESPONSIBLE FOR RESTORATION OF ALL DISTURBED AREAS.
7. RUBBISH, TRASH, GARBAGE, LITTER OR OTHER SUCH MATERIALS SHALL BE DISPOSED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE SITE THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE REMOVAL OF CONSTRUCTION WASTE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
8. SILT FENCE AND OTHER EROSION CONTROL FACILITIES MUST BE INSTALLED PRIOR TO CONSTRUCTION OR ANY OTHER LAND DISTURBING ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL FACILITIES ONCE THE SITE HAS STABILIZED.
9. NO FILL SHALL BE PLACED ON A WET OR SOFT SUBGRADE. THE SUBGRADE SHALL BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE ANY MATERIAL IS PLACED.
10. ALL FILL SHALL BE CONSIDERED STRUCTURAL FILL AND SHALL BE PLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT
11. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.
12. TEMPORARY EROSION CONTROL MATTING SHALL BE PLACED ON ALL SLOPES THAT ARE STEEPER THAT 4:1.
13. ALL PROPOSED CONTOURS REPRESENT FINAL FINISHED GRADE ELEVATIONS.

GENERAL NOTES

1. THE BIDDER WILL BE SOLELY RESPONSIBLE FOR QUANTITIES AND ESTIMATE OF WORK REQUIRED AND SHALL STATE SUCH QUANTITIES IN THEIR BID.
2. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC, FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION OF THIS PROJECT.
3. SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. SOIL CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT IS AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
5. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THE WORK. THE CONTRACTOR SHALL CONDUCT THEIR WORK ACCORDING TO THE REQUIREMENTS OF THE PERMITS.
6. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE FIELD CONDITIONS WITH DRAWINGS.
7. CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES DURING CONSTRUCTION. ANY PROPERTY (PRIVATE OR PUBLIC) WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR. THE COST OF THE RESTORATION IS CONSIDERED INCIDENTAL, AND SHOULD BE INCLUDED IN THE BID PRICES.
8. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY INFORMATION SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL DIGGER'S HOTLINE TO REQUEST FIELD STAKING OF EXISTING UTILITIES AND NOTIFY THE UTILITIES OF THE PROJECT COMPONENTS.
9. CONTRACTOR SHALL ENSURE ALL MUD AND DEBRIS IS NOT DEPOSITED ONTO THE ADJACENT ROADWAYS PER THE REQUIREMENT OF THE AGENCY HAVING JURISDICTION ON THE ROADWAYS.
10. SUBMITTALS:
    - A. SHOP DRAWINGS AND/OR MANUFACTURER'S PRODUCT DATA SUBMITTALS ARE REQUIRED ONLY IF THE PRODUCT OR METHOD OF CONSTRUCTION:
        - a. IS DIFFERENT FROM THAT SPECIFIED OR
        - b. IS PART OF THE WORK THAT WILL BE DEDICATED AS A PUBLIC UTILITY OR ROADWAY AT THE END OF THE PROJECT OR
        - c. IF REQUIRED BY THE MUNICIPAL ENGINEER.
    - B. FOR UTILITY OR ROAD WORK THAT WILL BE DEDICATED TO A MUNICIPALITY, CONTRACTOR MUST MAKE SUBMITTALS TO THE MUNICIPALITY AS WELL AS ENGINEER.

PRIVATE UTILITIES

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO WISCONSIN ADMINISTRATIVE CODE, SECTION SPS 382-384, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
2. PROPOSED SANITARY SEWER, WATER MAIN, AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT A POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. STORM SEWER CONNECTING TO EXTERIOR DOWN SPOUTS SHALL BE PER DETAILS ON THE ARCHITECTURAL PLANS. THE EXACT LOCATION OF ALL DOWN SPOUTS SHALL BE PER THE ARCHITECTURAL PLANS.
3. MATERIALS FOR STORM SEWER SHALL BE AS FOLLOWS:

   STORM SEWER PIPE 30" OR LARGER SHALL BE REINFORCED CONCRETE, ASTM C-76, CLASS III OR GREATER, WITH ELASTOMERIC SEALS CONFORMING TO ASTM C-443.

   STORM SEWER PIPE 24" OR LESS SHALL BE EITHER:
   A) POLYVINYL CHLORIDE (PVC) PIPE, ASTM D-3034, SDR 35, WITH ELASTOMERIC PUSH-ON JOINTS CONFORMING TO ASTM D-3212.

   B) REINFORCED CONCRETE, ASTM C-76, CLASS III OR GREATER, WITH ELASTOMERIC SEALS CONFORMING TO ASTM C-443.

   TRENCH SECTION SHALL BE CLASS "C" FOR CONCRETE AND CLASS "B" FOR ALL OTHER MATERIALS.

   INLETS SHALL BE SOLID CONCRETE BLOCK OR PRE CAST REINFORCED CONCRETE, ASTM C-478.
6. MATERIALS FOR SANITARY SEWER SHALL BE AS FOLLOWS:

   SANITARY SEWER PIPE SHALL BE PVC, ASTM D-3034, SDR-35 WITH RUBBER GASKETED JOINTS, CONFORMING TO ASTM D-3212.

   TRENCH SECTION SHALL BE CLASS "B" BEDDING. CRUSHED STONE CHIPS SHALL BE USED FOR BEDDING MATERIAL. PREFABRICATED WYE CONNECTIONS ARE REQUIRED FOR SANITARY LATERALS
7. MATERIALS FOR WATER SERVICE SHALL BE AS FOLLOWS:

   WATER SERVICE SHALL BE CLASS 55 DUCTILE IRON (DI), ASTM A-377, WITH ELASTOMERIC JOINTS (AWWA C-111), WITH A VALVE AT THE SUPPLY MAIN OR C900 PVC PRESSURE RATED FOR WATER.

   TRENCH SECTION SHALL CONFORM TO SECTION 4.3.C, FILE NO. 38 OF THE STANDARD SPECIFICATIONS. SAND OR STONE CHIP BEDDING MATERIAL IS REQUIRED.
8. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER & WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. THE COST OF THIS GRANULAR MATERIAL AND ITS COMPACTION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PROPOSED UTILITY.
9. UPON COMPLETION OF FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED-UP PRINTS SHOWING ALL CHANGES MADE DURING THE CONSTRUCTION PROCESS. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE OWNER.
11. TRACER WIRE SHALL BE INSTALLED ON ALL BURIED NON-METALLIC SANITARY SEWERS, PRIVATE SANITARY INTERCEPTOR MAIN SEWERS, STORM BUILDING SEWERS, AND PRIVATE STORM INTERCEPTOR MAIN SEWERS THAT DISCHARGE TO MUNICIPAL MAINS. TRACER WIRE SHALL ALSO BE INSTALLED ON ALL BURIED NON-METALLIC WATER SERVICES AND PRIVATE WATER MAINS CONNECTED TO MUNICIPAL SUPPLY SYSTEMS. TRACER WIRE SHALL BE IN ACCORDANCE WITH SPS 382.30(11)(h) AND SPS 382.36(7)(d)10.b.

PAVING

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, AND THE LOCAL ORDINANCES AND SPECIFICATIONS, AND THE GEOTECHNICAL REPORT.
2. PAVING SHALL CONSIST OF FINE GRADING PAVEMENT AREAS, INSTALLATION OF CRUSHED STONE BASE, CONCRETE AND/OR BITUMINOUS PAVEMENT, PAVEMENT MARKING, AND CLEANUP. ALL MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR.
3. AGGREGATES USED IN THE HMA SHALL BE IN ACCORDANCE WITH SUBSECTION 460.2.2.3 OF THE STANDARD SPECIFICATIONS.
4. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS: SECTION 415 FOR CONCRETE PAVEMENT AND SECTION 602 FOR CONCRETE SIDEWALKS.
5. RESTORATION OF PUBLIC SIDEWALKS SHALL BE JOINT TO JOINT.
6. PAVEMENT MARKINGS SHALL BE PAINT IN ACCORDANCE WITH SECTION 646 OF THE STANDARD SPECIFICATIONS. THE FOLLOWING ITEMS SHALL BE PAINTED WITH COLORS NOTED BELOW:

   PARKING STALLS: WHITE
   PEDESTRIAN CROSSWALKS: WHITE
   ADA SYMBOLS: WHITE OR PER LOCAL CODE

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DATE:							

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6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

ROADRUNNER EXPRESS

GENERAL CONSTRUCTION NOTES

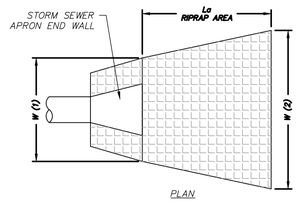
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

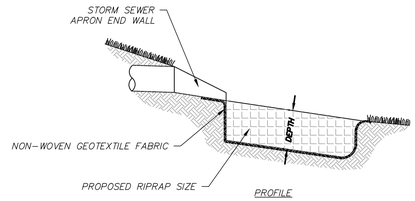
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CHECKED BY: JJJ	06/09/2026
APPROVED BY: JAH	

PROJECT NO.
1116-002

SHEET NO.
C6

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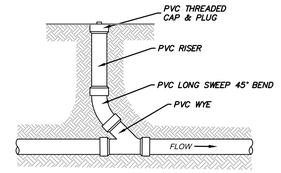




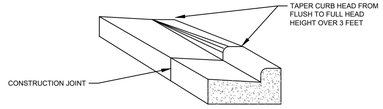
DIMENSION	OUTLET				
	B-1 (WEST)	B-1 (EAST)	FES 100	FES 200	FES 300
La	19'	15'	14'	13'	13'
W (1)	3'	3'	6'	3'	4'
W (2)	11'	8'	11'	8'	9'
d50	6"	6"	6"	6"	6"
DEPTH	12"	12"	12"	12"	12"

RIPRAP DETAIL

NOTE:
1. NON-WOVEN GEOTEXTILE TO BE TYPE HR, PER SECTION 606 (STATE HIGHWAY SPECS).
2. RIPRAP PER SECTION 606 (STATE HIGHWAY SPECS)

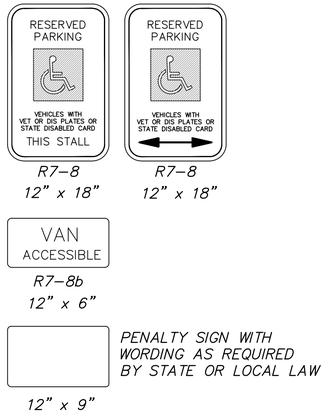


CLEAN-OUT STRUCTURE



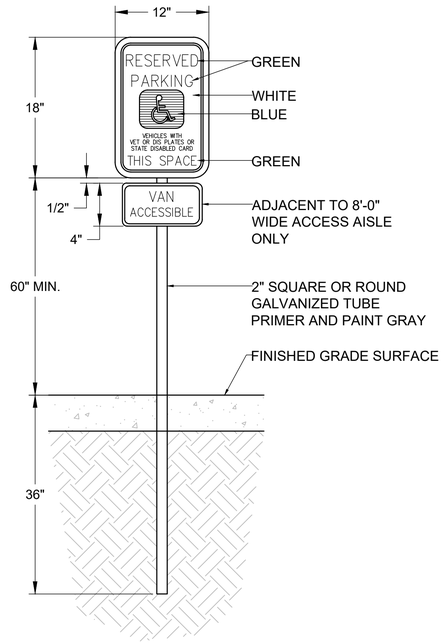
CURB & GUTTER TAPER

NOT TO SCALE



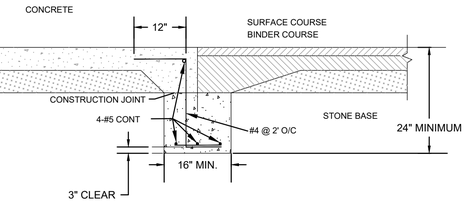
ACCESSIBLE PARKING SIGNS

NOT TO SCALE



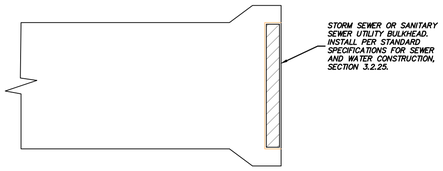
ACCESSIBLE PARKING SIGN

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CONCRETE/ASPHALT JOINT DETAIL

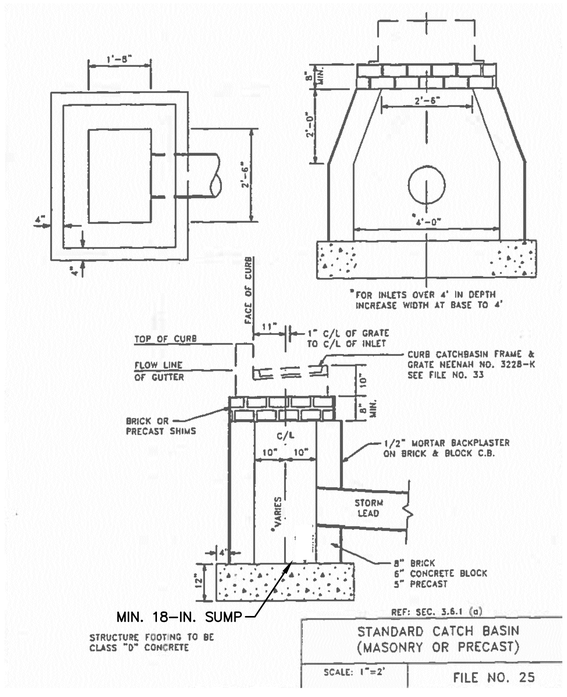
NOT TO SCALE



CONNECTIONS FOR FUTURE SEWERS SHALL BE BULKHEADED IN THE FOLLOWING MANNER:

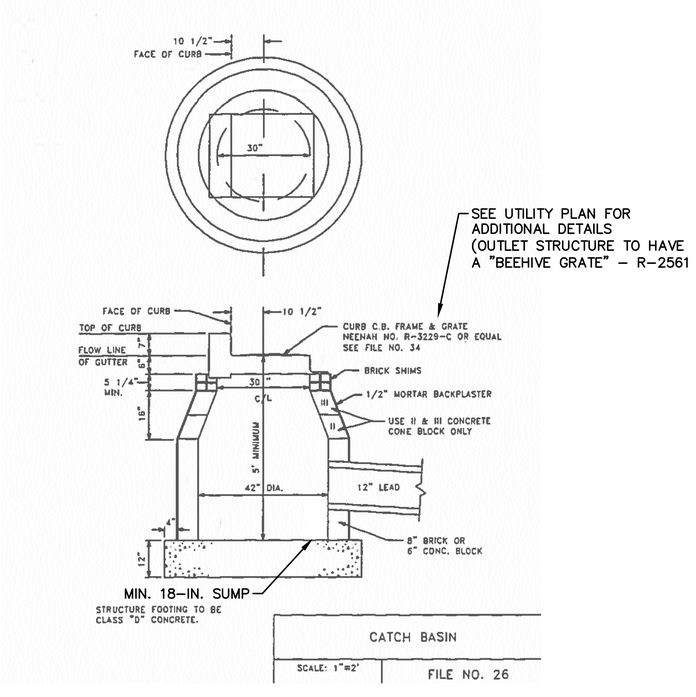
- ALL TEES, WYES, SOCKETS AND BELL AND SPIGOT PIPE SEWERS 24 INCHES OR SMALLER IN DIAMETER SHALL BE BULKHEADED WITH PRECAST MORTAR DISC STOPPERS FOR CONCRETE PIPE AND APPROVED PLUGS OR CAPS FOR PLASTIC PIPE. THE STOPPERS SHALL HAVE A THICKNESS EQUAL TO THE WALL OF THE MAIN SEWER, OR 1-1/2 INCHES, WHICHEVER IS THINNER. PLASTIC PLUGS SHALL NOT BE SOLVENT WELDED INTO ANY FITTINGS.
- CONNECTIONS 27 INCHES IN DIAMETER AND LARGER SHALL BE BULKHEADED WITH AN 8-INCH WALL, USING CLAY OR CONCRETE BRICK, OR PREFABRICATED REINFORCED CONCRETE.
- ALL BULKHEADS AND STOPPERS INSTALLED IN SANITARY SEWERS SHALL BE WATERTIGHT.

BULKHEAD DETAIL



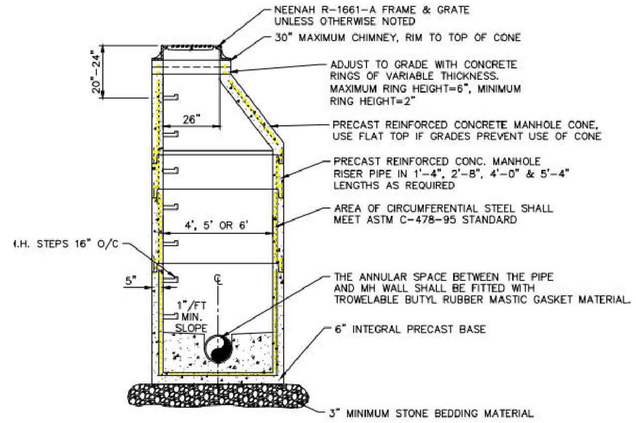
STANDARD CATCH BASIN DETAIL

NOT TO SCALE



CATCH BASIN DETAIL

NOT TO SCALE



STORM MANHOLE NOTES:

1) PRECAST CONCRETE ADJUSTING RINGS TO BE REINFORCED WITH ONE HOOP OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY, RINGS SHALL BE GROOVED TO RECEIVE STEP.

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

3) JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING RUBBER GASKETS OR BUTYL RUBBER MASTIC MATERIAL.

4) 3" MIN. BEDDING MATERIAL REQUIRED UNDER MANHOLE BASE AND BACKFILLED STRUCTURE WITH GRANULAR BACKFILL MATERIAL.

5) SEE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION, FILE NO. 12 FOR PRECAST MANHOLE AND FILE NO. 13 FOR MANHOLE INVERTS, INCLUDING INVERTS OF LATERAL SEWERS THAT CONNECT DIRECTLY TO MANHOLES.

6) REPLACE CONE WITH FLAT TOP SECTION WHEN NECESSARY DUE TO LARGER DIAMETER OF STRUCTURE/VERTICAL RESTRICTIONS.

(7-5) STORM MANHOLE N.T.S.

STORM MANHOLE DETAIL

REV:	DATE:
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ROADRUNNER EXPRESS

CONSTRUCTION DETAILS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

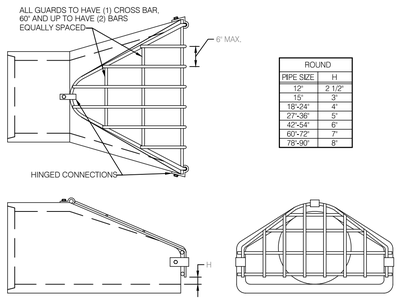
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APPROVED BY: JAH	

PROJECT NO. 1116-002

SHEET NO. C7

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TRASH GUARDS FOR FLARED END SECTIONS



ROUND	
PIPE SIZE	H
12"	2 1/2"
15"	3"
18"-24"	4"
27"-36"	5"
42"-54"	6"
60"-72"	7"
78"-90"	8"

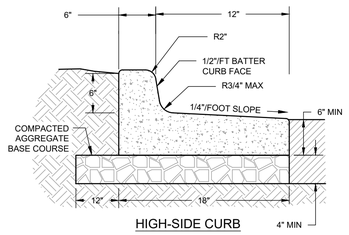
BAR SIZES							
STANDARD DESIGN				HEAVY DESIGN			
PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE	PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE
12"-24"	3/4"	5/8"	5/8"	12"-18"	3/4"	5/8"	3/4"
27"-48"	7/8"	3/4"	3/4"	21"-42"	7/8"	3/4"	1"
54"-90"	1 1/8"	1"	1"	48"-90"	1 1/8"	1"	1 1/4"
BOLT LENGTH = PIPE WALL THICKNESS + 2 1/2"							

Note:
Hot dip galvanized per ASTM A153.

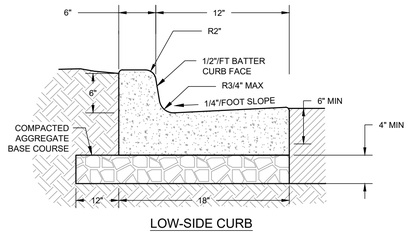
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TRASH GUARDS FOR FLARED END SECTIONS
SCALE NOT TO SCALE DATE DWG. NO. RCP TRASH

TRASH GUARD DETAIL



HIGH-SIDE CURB



LOW-SIDE CURB

NOTES:
A) 3500 PSI CONCRETE SHALL BE USED IN CONSTRUCTION OF THE CURB & GUTTER.
B) THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE SLOPE OF THE GUTTER PAN.
C) FOR DEPRESSED CURB HEAD SLOPE, USE THE SAME SLOPE AS ADJACENT SIDEWALK.
D) THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDE MINIMUM 6" GUTTER THICKNESS MAINTAINED. TRANSVERSE CONTRACTION JOINTS SHALL BE CUT OR SAWED AT MAXIMUM 20 FOOT INTERVALS.
E) 1/2" PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED TRANSVERSELY IN THE CURB ABUTTING EXISTING CURB AND SIDEWALK, WALLS OR BUILDINGS, AND AT INTERVALS NOT TO EXCEED 300 FEET, WITH PREFERRED LOCATIONS BEING AT RADIUS POINTS OR ANGLE POINTS.

18-IN. CONCRETE CURB & GUTTER

NOT TO SCALE

NOTES:
1. CONSTRUCT IN ACCORDANCE WITH WISDOT STANDARD SPECIFICATIONS.
4. CONCRETE SHALL BE GRADE A AIR ENTRAINED IN ACCORDANCE WITH WISDOT SECTION 501.
5. FINISH, CURE, AND PROTECT CURBING IN ACCORDANCE WITH WISDOT SECTION 601.
6. FINISHED CONCRETE SHALL BE COVERED WITH A LIQUID CURING COMPOUND CONFORMING TO AASHTO M 148, TYPE 2, IN ACCORDANCE WITH WISDOT SECTION 415.
7. AGGREGATE BASE COURSE SHALL BE IN ACCORDANCE WITH WISDOT SECTION 305.

REV:	DATE:
6	
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Endpoint Solutions
6871 S. LOVERS LANE
FRANKLIN, WI 53132
PHONE: (414) 427-1200

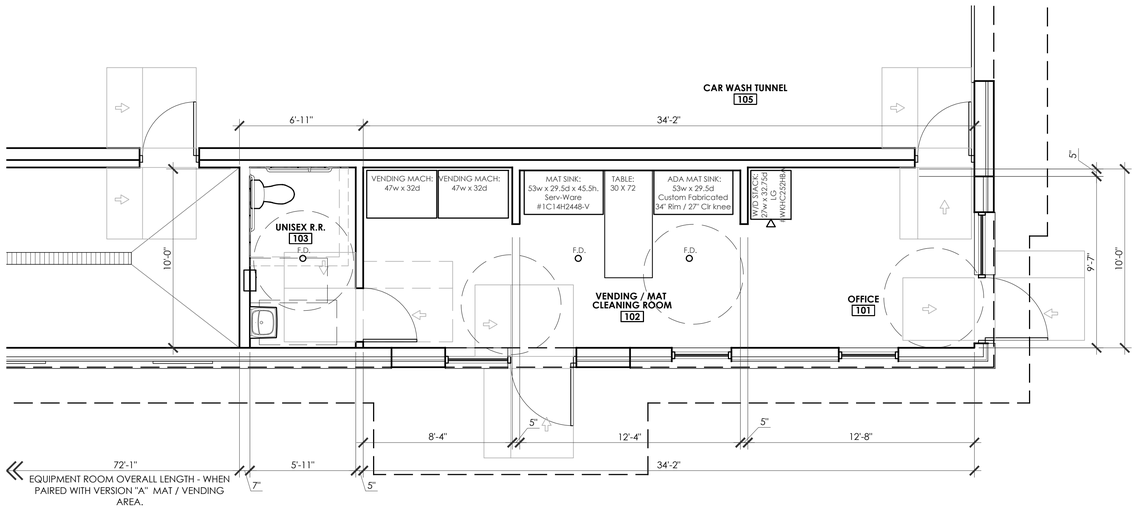
ROADRUNNER EXPRESS
CONSTRUCTION DETAILS
HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN

DRAWN BY:	CAM/JAH	DATE:
CHECKED BY:	JJJ	06/09/2026
APPROVED BY:	JAH	

PROJECT NO.
1116-002

SHEET NO.
C8

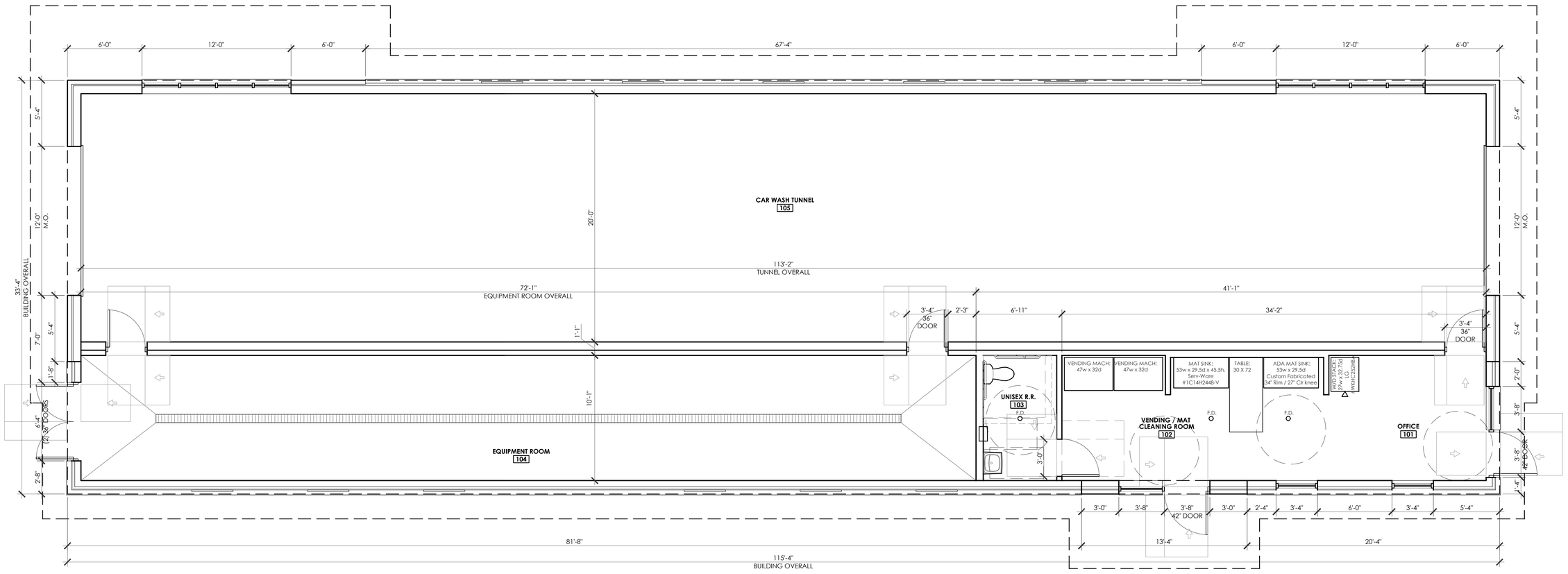
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XREFS: _Endpoint Border-Roadrunner Express.dwg



1 A-101 **PARTIAL FLOOR PLAN - FOCUSED ON CUSTOMER AREA**

SCALE: 1/4" = 1'-0"

N



N

2 A-101 **OVERALL FLOOR PLAN**

SCALE: 1/8" = 1'-0"

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Port Washington, Wisconsin 53074
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FLOOR PLAN

NEW CONSTRUCTION

ROAD RUNNER EXPRESS CAR WASH

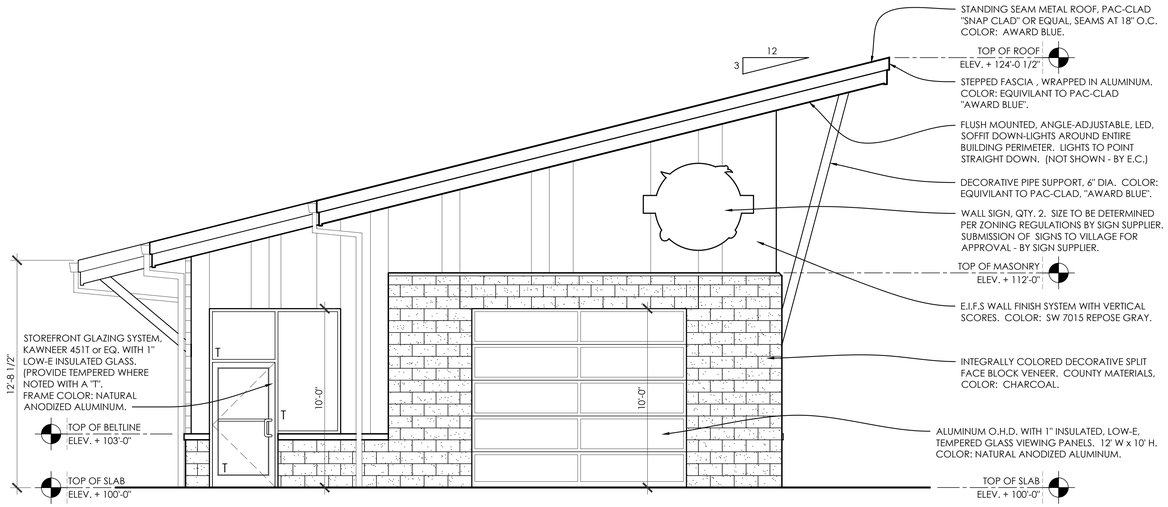
HIGHWAY 83 and HIGHWAY NN (NWC)

VILLAGE OF MUKWONAGO, WISCONSIN 53149

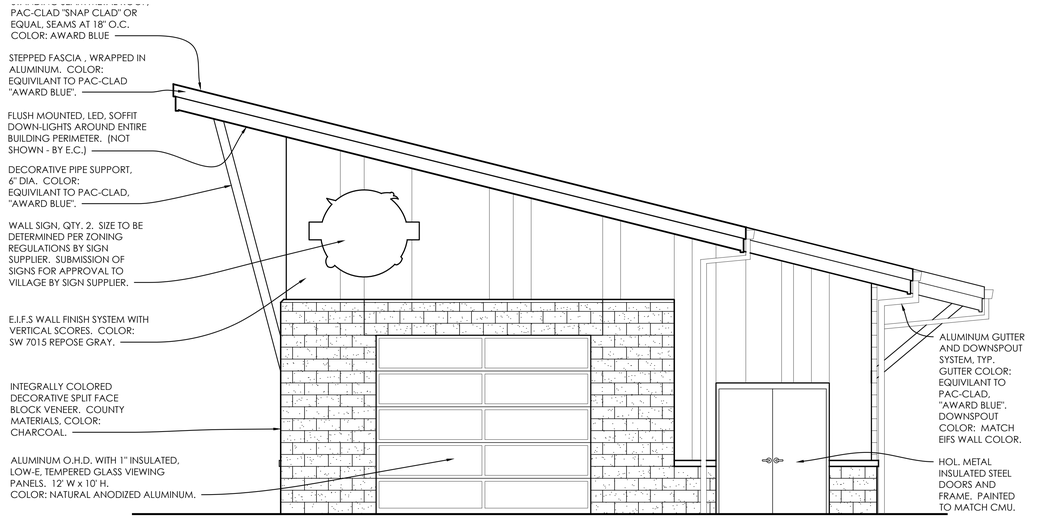
REVISIONS TO DRAWING SET		
NO.	DATE	DESCRIPTION
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DATE:	06-05-26
PROJ. NO:	2604114
DRAWN BY:	SJ
SHEET	

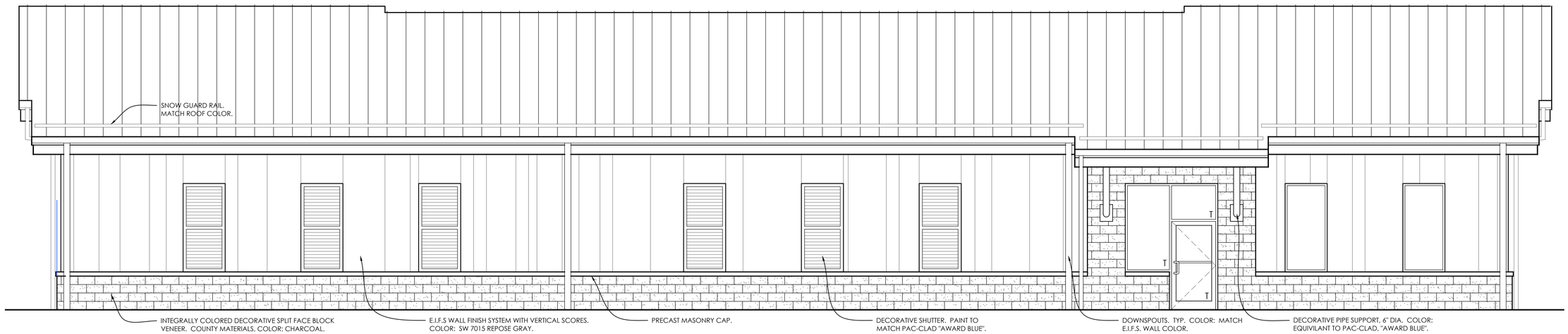
A-101



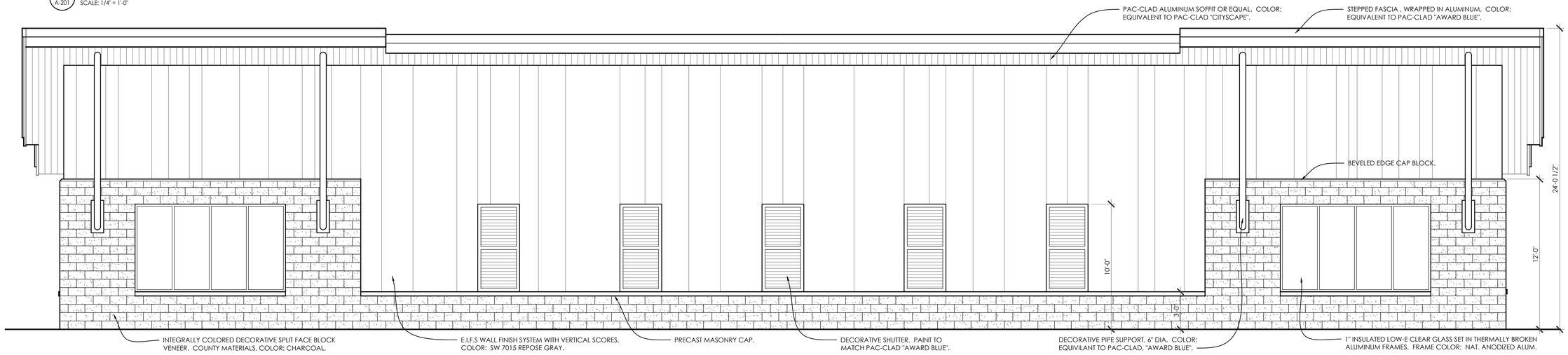
1 A-201 **EAST ELEVATION - FACING N. ROCHESTER ST. (HWY. 83)**
SCALE: 1/4" = 1'-0"



2 A-201 **WEST ELEVATION**
SCALE: 1/4" = 1'-0"



3 A-201 **SOUTH ELEVATION**
SCALE: 1/4" = 1'-0"



4 A-201 **NORTH ELEVATION**
SCALE: 1/4" = 1'-0"

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ELEVATIONS
NEW CONSTRUCTION
ROAD RUNNER EXPRESS CAR WASH
HIGHWAY 83 and HIGHWAY NN (NWC)
VILLAGE OF MUKWONAGO, WISCONSIN 53149

REVISIONS TO DRAWING SET		
NO.	DATE	DESCRIPTION
1		

DATE:	06-05-26
PROJ. NO:	2604114
DRAWN BY:	SJ
SHEET	

A-201

NOTE: RENDERINGS SHOWN FOR REFERENCE ONLY. RENDERINGS ARE USED TO UNDERSTAND THE OVERALL CONCEPT, MATERIALS AND COLORS. SEE THE 2D B/W ELEVATIONS ON A-201 FOR 100% ACCURATE DETAILING OF THIS BUILDING.



1 R-201 **EAST ELEVATION - FACING N. ROCHESTER ST. (HWY. 83)**
SCALE: N.T.S.



2 R-201 **WEST ELEVATION**
SCALE: N.T.S.



3 R-201 **SOUTH ELEVATION**
SCALE: N.T.S.



4 R-201 **NORTH ELEVATION**
SCALE: N.T.S.

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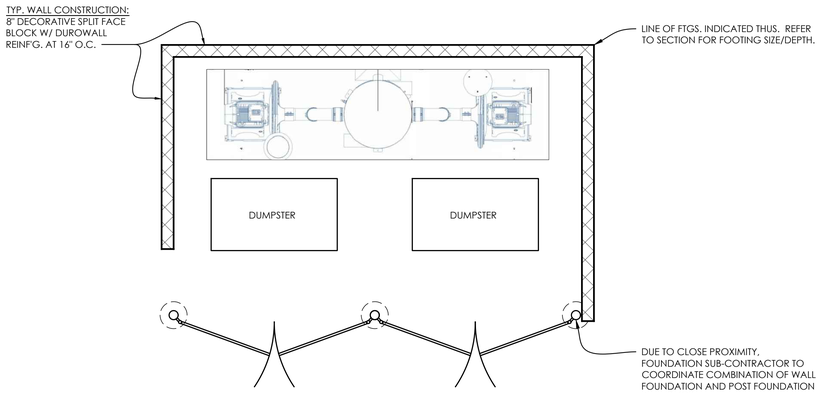
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RENDERED ELEVATIONS
NEW CONSTRUCTION
ROAD RUNNER EXPRESS CAR WASH
HIGHWAY 83 and HIGHWAY NN (NWC)
VILLAGE OF MUKWONAGO, WISCONSIN 53149

REVISIONS TO DRAWING SET		
NO.	DATE	DESCRIPTION
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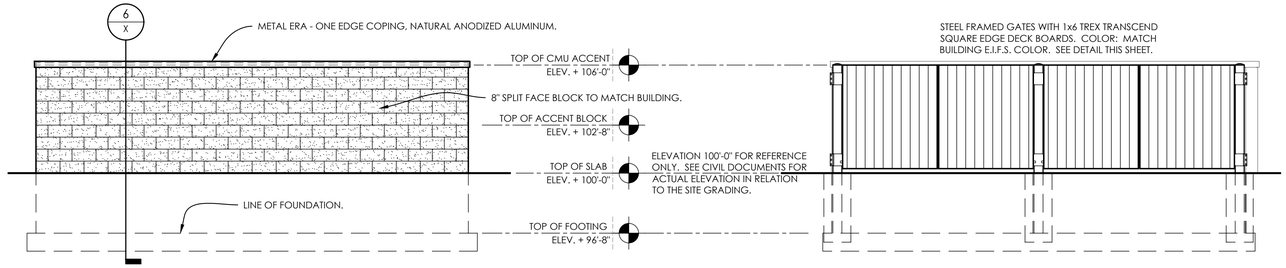
DATE:	06-05-26
PROJ. NO:	2604114
DRAWN BY:	SJ
SHEET	

R-201



1 A-501 **TRASH ENCLOSURE PLAN**
SCALE: 1/4" = 1'-0"

N



2 A-501 **REAR ELEVATION**
SCALE: 1/4" = 1'-0"

3 A-501 **FRONT ELEVATION**
SCALE: 1/4" = 1'-0"

MASONRY GENERAL NOTES:

1. BLOCK IS TO MATCH THAT USED ON MAIN BUILDING.
2. ALL MASONRY IS TO BE SET IN RUNNING BOND PATTERN W/ CONCAVE MORTAR JOINTS.
3. PROVIDE INTEGRAL WATER-RESISTANT SEALER W/ MORTAR. ALL MORTAR COLOR IS TO MATCH THAT IS USED ON BUILDING.

4 A-501 **RIGHT ELEVATION**
SCALE: 1/4" = 1'-0"

5 A-501 **LEFT ELEVATION**
SCALE: 1/4" = 1'-0"

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TRASH ENCLOSURE PLANS AND DETAILS

NEW CONSTRUCTION

ROAD RUNNER EXPRESS CAR WASH
HIGHWAY 83 and HIGHWAY NN (NWC)
VILLAGE OF MUKWONAGO, WISCONSIN 53149

REVISIONS TO DRAWING SET		
NO.	DATE	DESCRIPTION
-		

DATE:	06-05-26
PROJ. NO:	2604114
DRAWN BY:	SJ
SHEET	

A-501

SHOP DRAWINGS / MATERIAL SUBMITTAL FOR REVIEW

PLANT MATERIAL SHOWN ALL SUBMITTALS DENOTE THE FOLLOWING OF THE FIRST PAGE:

A. DATE OF ARCHITECTURAL AND STRUCTURAL DRAWINGS IN WHICH THE SUBMITTAL REFERS.

B. DATE OF REFERENCE MATERIAL IN WHICH THE SUBMITTAL REFERS.

C. DATE OF FIELD VISIT.

D. ALL SUBMITTALS SHALL ONLY SHOW THE PRODUCTS / MATERIALS THAT ARE PLANNED FOR THIS PROJECT.

E. EACH MATERIAL / DETAIL / DRAWINGS THAT ARE BEING SUBMITTED SHALL DENOTE THE ARCHITECTURAL DETAIL / STRUCTURAL DETAIL FROM WHICH IT REFERS.

F. EXAMPLE: YOUR DETAIL (A) REFERS TO ARCHITECTURAL DETAIL "X" ON SHEET "Y" AND/OR REFERS TO STRUCTURAL DETAIL "X" ON SHEET "Y"

G. DENOTE AS ARCH REF: x/Ax.x

H. DENOTED AS STRUC REF: x/Sx.x

I. ANY AND ALL CHANGES TO YOUR ORIGINAL SUBMISSION SHALL BE CLOUDED IN RED, AND HAVE A REVISION DELTA. EACH REVISION SHALL BE CONSECUTIVELY NUMBERED.

J. ALL SUBMISSIONS MUST FIRST MEET THE APPROVAL OF THE GENERAL CONTRACTOR AND BEAR THEIR APPROVAL STAMP.

K. DOOR SUBMISSIONS SHALL USE THE SAME NUMBERING SYSTEM AS THESE DRAWINGS OR WILL NOT BE REVIEWED.

L. WINDOW SUBMISSIONS SHALL USE THE SAME NUMBERING SYSTEM AS THESE DRAWINGS OR WILL NOT BE REVIEWED.

M. FINISH MATERIAL SUBMISSIONS SHALL USE THE SAME NUMBERING SYSTEM AS THESE DRAWINGS.

N. SUBMISSIONS THAT DO NOT SHOW THE ABOVE REQUESTED INFORMATION WILL BE RETURNED WITHOUT A REVIEW.

O. STEEL SUPPLIER / DETAILER TO PROVIDE AN ISOMETRIC DRAWING OF ERECTED STEEL FRAME THAT CLEARLY IDENTIFIES EACH STEEL COMPONENT ASSOCIATED WITH THE SUBMISSION.

P. STEEL SUPPLIER TO MARK EACH FACE OF ANY COLUMN DETAILING WITH THE FOLLOWING:
- P.1. N = NORTH FACE
- P.2. S = SOUTH FACE
- P.3. E = EAST FACE
- P.4. W = WEST FACE.

Q. STEEL SUPPLIER TO DENOTE THE FINISHED FLOOR ELEVATION OF EACH FLOOR AS WELL AS EACH TOP OF BEAM AND/OR JOIST THAT IS RELATIVE TO THE RESPECTIVE COLUMN DETAIL.

R. G.C. SHALL ALLOW FOR NOT LESS THAN (10 + 10 = 20) BUSINESS DAYS FOR RETURN OF ARCHITECTURAL AND STRUCTURAL REVIEW. IF A CONCURRENT REVIEW IS REQUESTED IT WILL NOT BE CONSOLIDATED.

S. G.C. SHALL PROVIDE THEIR COMMENTS IN BLUE INK ONLY.

T. STRUCTURAL ENGINEER SHALL PROVIDE THEIR COMMENTS IN RED INK ONLY.

U. ARCHITECTURAL SHALL PRIMARILY PROVIDE THEIR COMMENTS IN GREEN INK, AS WELL AS IN ANY OTHER CODED AND COLOR CODED REMARKS.

V. OWNER SHALL PROVIDE THEIR COMMENTS IN BLACK INK ONLY.

IN THE EVENT THAT AN INSTALLING CONTRACTOR OR MATERIAL SUPPLIER WOULD LIKE TO REQUEST A MATERIAL ALTERNATE OR MATERIAL SUBSTITUTION, THEY SHALL FOLLOW THE INSTRUCTION ALREADY GIVEN BY THE GENERAL CONTRACTOR, AS WELL AS THE FOLLOWING:

1. SUBMIT THE RESPECTIVE REQUEST TO THE GENERAL CONTRACTOR FOR THEIR & OWNERS VETTING AND COMMENTS:
   a. ON YOUR COMPANY LETTER HEAD:
2. PROJECT NAME.
3. PROJECT NUMBER.
4. NAME OF RELEASE OF DRAWINGS IN WHICH THIS SUBMITTAL REFERS.
5. DATE OF DRAWINGS IN WHICH THIS SUBMITTAL REFERS.
6. THE SPECIFIC SHEET NUMBERS, DETAIL NUMBERS AND DRAWING ITEMS OR SPECIFICATION ITEMS THAT ARE SPECIFICALLY INVOLVED IN YOUR REQUEST.
7. PROVIDE ALL OF THE FULL CONTACT INFORMATION FOR BOTH THE INSTALLING CONTRACTOR & MATERIAL SUPPLIER, INVOLVED IN THE REQUEST.
   - 7.1. IDENTIFY THE ORIGINAL MATERIAL.
   - 7.2. IDENTIFY THE ALTERNATE MATERIAL.
   - 7.3. IN A DETAILED NARRATIVE DESCRIBE ALL OF THE REASONS THIS ALTERNATE SHOULD BE ACCEPTED OVER THE ORIGINAL. CITE LANGUAGE FROM THE MANUFACTURER WRITTEN PUBLICATIONS, AS WELL AS YOUR OWN CORPORATE POSITION.
8. INCLUDED WARRANTY COMPARISONS
9. PRICE IMPLICATIONS TO PROJECT
10. SCHEDULE IMPLICATIONS TO PROJECT
    - 10.1. PROVIDE THE MANUFACTURERS WRITTEN SPECIFICATION, PUBLISHED SALES INFORMATION AND ALL RELEVANT MATERIAL INFORMATION FOR BOTH THE ORIGINAL AND PROPOSED MATERIALS.
    - 10.2. ON BOTH MATERIALS - HIGHLIGHT IN GREEN WHERE THESE MATERIALS ARE OF EQUAL COMPARISON.
    - 10.3. ON THE ORIGINAL MATERIAL - HIGHLIGHT IN YELLOW WHERE THE ORIGINAL IS A LESSER PRODUCT THEN WHAT YOU ARE PROPOSING.
    - 10.4. ON THE PROPOSED MATERIAL - HIGHLIGHT IN PINK WHERE THE PROPOSED IS A LESSER PRODUCT THEN THE ORIGINAL.
11. ONLY AFTER, THIS SUBMISSION HAS MET THE APPROVAL OF THE GENERAL CONTRACTOR (VIA THEIR REVIEW STAMP) AND THE OWNERS APPROVAL (VIA THEIR ORIGINAL SIGNATURE), IS IT TO BE FORWARDED TO THE CORRESPONDING DESIGN REVIEWER.
12. IF THE ABOVE IS NOT SUBMITTED AS A PART OF THE REQUEST, IT SHALL BE RETURNED WITHOUT COMMENT AND RETURNED WITHOUT REVIEW.

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

DIGGERS HOT LINE

WISCONSIN STATUTE 182.0175 (1974) REQUIRES A MINIMUM OF 3 DAYS NOTICE BEFORE YOU EXCAVATE (NOT INCLUDING SATURDAY, SUNDAY OR LEGAL HOLIDAYS)

UNDERGROUND SEWER AND UTILITY INFORMATION AS SHOWN IS OBTAINED FROM THE RECORDS OF MUNICIPALITY AND LOCAL UTILITY COMPANIES. THE ACCURACY OF WHICH CAN NOT BE GUARANTEED OR CERTIFIED TO. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS SURVEY ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

TO OBTAIN LOCATION OF PARTICIPANT'S UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONIN CALL THE MILWAUKEE UTILITY ALERT NETWORK www.Diggersnotline.com (800)-242-8511 OR

811 Know what's below. Call before you dig.

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LANDSCAPE PLAN GENERAL NOTES

USDA PLANT HARDINESS ZONE	5a (-20 to -15 Degrees F)
LOT ZONING	
LOT AREA	
SITE BUILDING AREA	
TOTAL IMPERVIOUS	
TOTAL GREENSPACE	
SITE LANDSCAPE PERCENTAGE	
TOTAL PARKING STALLS	

EXISTING CONDITIONS GENERAL NOTES

1. INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE LANDSCAPE DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. INSITE LANDSCAPE DESIGN, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THEIR NEW WORK. REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE LANDSCAPE ARCHITECT FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE LANDSCAPE ARCHITECT IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA OF DISTURBANCE THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES.
3. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECTS ATTENTION PRIOR TO FABRICATION / CONSTRUCTION BEGINS.
4. VERIFY LOCATION OF ACCESS PANELS w/ MECHANICAL AND ELECTRICAL EQUIPMENT FOR ACCESSIBILITY OF MECHANICAL & ELECTRICAL ITEMS. VERIFY LOCATIONS OF ALL BURIED UTILITIES AND STRUCTURES AND LOCATIONS OF ALL OVERHEAD WIRES.
5. VERIFY LOCATION OF ALL EXISTING EASEMENTS.
6. INSITE LANDSCAPE DESIGN, INC, ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF INSITE LANDSCAPE DESIGN, INC.

DESIGN COMPLIANCE:

DESIGN COMPLIANCE: THIS LANDSCAPE PLAN IS ACCURATE AND IN COMPLIANCE WITH THE VILLAGE OF MUKWONAGO LANDSCAPE REQUIREMENTS SET FOR IN SECTION§ 100-913 General design requirements. § 100-152 B-2 general business district.
(J)General development requirements.
(1)Landscaping. Landscaping plans are subject to plan commission review and approval subject to the following minimum standards. Any alteration to that plan shall be subject to further plan commission review and approval.
(A)The minimum number of trees on a site shall be calculated based on the street frontage; one tree is required for each 20 feet. For lots with 100 feet or less of road frontage; a minimum of five trees shall be planted or retained. A minimum of two trees are to be planted or retained in each front yard and each street side yard.
TOTAL LINIAL FEET OF STREET FRONTAGE = 139
TOTAL NUMBER OF TREES REQUIRED - 7 TREES

100-601Site plan and architectural review standards for all nonsingle-family properties.
(e) Lighting standards.
(3) Shielding of outdoor light fixtures. All outdoor lighting fixtures shall be shielded, except Incandescent fixtures 150 watts or less and other sources of 70 watts or less. Total cut-off luminaries with angles of less than 90° shall be required for all pole and building security lighting. More than the minimal level of shielding may be required.
(4) Height of poles. The height of light poles, including the luminaries, as measured from surface of adjacent grade to top of luminary, shall be 25 feet
(5) Illumination levels. All outdoor lighting shall not exceed the illumination levels recommended by the Illuminating Engineering Society of North America (IES) given below. The lighting level at any property line shall not exceed zero footcandle.

CONTRACTOR NOTE: THE LANDSCAPE CONTRACTOR/GENERAL CONTRACTOR ARE RESPONSIBLE TO INSTALL THE LANDSCAPE AS PER THE APPROVED PLAN. IF ANY CHANGES OR DEVIATIONS ARE MADE FROM THE THIS APPROVED PLAN, THE LANDSCAPE CONTRACTOR / GENERAL CONTRACTOR ARE RESPONSIBLE FOR UPDATING THE PLANS ACCORDINGLY AND SUBMITTING THOSE REVISED PLANS FOR APPROVAL AND "SIGN OFF" WITH THE VILLAGE OF MUKWONAGO. THE LANDSCAPE CONTRACTOR / GENERAL CONTRACTOR ARE ALSO RESPONSIBLE FOR VERIFYING THAT ANY PLANT MATERIAL SUBSTITUTIONS OR MODIFICATIONS THAT ARE MADE TO THE APPROVED LANDSCAPE DESIGN DOCUMENTS WILL NOT CHANGE OR ALTER ANY OF THE REQUIRED SUPPORTING LANDSCAPE REQUIREMENT CALCULATIONS. UPON COMPLETION OF THE CONSTRUCTION PROJECT AND FILE THAT AFFIDAVIT WITH THEVILLAGE OF MUKWONAGO.

LANDSCAPE PLAN GENERAL NOTES

PLANT MATERIAL SHOWN ON LANDSCAPE PLAN IS DEPICTED AT MATURE GROWTH.

1. AT LEAST SEVENTY-TWO HOURS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AS GIVEN BY THE ELECTRIC, GAS, TELEPHONE, WATER, SEWER, AND CABLE TELEVISION COMPANIES, UTILITIES OR ENTITIES. REVIEW WITH OWNER'S REPRESENTATIVE SITE MECHANICAL, SITE ELECTRICAL AND LIGHTING, SITE GRADING AND DRAINAGE, SITE IRRIGATION AND ALL OTHER DRAWINGS PERTAINING TO UNDERGROUND UTILITY LOCATIONS. RECORD SET OF INFORMATION THE SAME AS IN POSSESSION OF OWNER'S REPRESENTATIVE. ALSO REVIEW OWNER'S "MARK SETS" OF ALL OF THESE DRAWINGS IN POSSESSION OF THE CONTRACTOR OR OWNER. MARK ALL SUCH UTILITIES ON THE SITE PRIOR TO COMMENCING. COORDINATE WITH OWNER BEFORE AND DURING CONSTRUCTION. REPAIR ANY DAMAGE TO ANY SYSTEM THAT IS CAUSED BY LANDSCAPE CONTRACTOR AT NO COST TO OWNER.
2. ALL PLANTINGS SPECIFIED FOR THE KIWANIS LOT SPLIT - ROAD RUNNER EXPRESS - MUKWONAGO PROJECT PLANTING TABLES SHALL COMPLY WITH STANDARDS AS DESCRIBED IN AMERICAN STANDARD OF NURSERY STOCK ANSI Z60.1 2014 AND ANSI STANDARDS FOR PLANTING 2012.
3. ALL DEVIATIONS FROM THE APPROVED KIWANIS LOT SPLIT - ROAD RUNNER EXPRESS - MUKWONAGO PROJECT PLANS SHALL BE NOTED ON THE RECORD DRAWINGS BY THE CONTRACTOR AND MAY BE EXECUTED ONLY WITH PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE. VERBAL AGREEMENTS OR REVISIONS WITHOUT A CHANGE ORDER WILL NOT BE RECOGNIZED BY LANDSCAPE ARCHITECT AND OWNER.
4. ALL PLANTS MUST BE BID AND SELECTED PER THE SPECIES SPECIFIED ON THE PLANS. ANY SPECIES SUBSTITUTIONS MUST BE APPROVED IN WRITING BY LANDSCAPE ARCHITECT. THE SIZES OF PLANT MATERIAL LISTED HEREIN IS A MINIMUM ACCEPTABLE SIZE. ADDITIONALLY, IF EXCESSIVE PRUNING REDUCES THE CROWN THE PLANT SHALL BE REPLACED.
5. PROTECT PUBLIC FROM CONSTRUCTION WITH BARRIERS AND BARRICADES.
6. ALL AREAS THAT WERE DISTURBED DURING CONSTRUCTION AND AREAS NOT COVERED WITH PAVEMENT, BUILDING, PLANTING BEDS, OR TREE PITS ARE TO BE TOPSOILED 3" DEEP (MIN.) AND SHALL BE SODDED/SEEDED WITH SPECIFIED LAWN GRASS. LANDSCAPE CONTRACTOR SHALL INCLUDE COST PER SQUARE YARD FOR ADDITIONAL SEED OPERATIONS AS MAY BE POSSIBLY REQUIRED TO REESTABLISH ADJACENT TURF GRASS AREAS WHICH MAY BECOME DAMAGED DURING THE CONSTRUCTION PROCESS OR TO REPAIR DAMAGE DONE BY OTHERS.
7. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL MATERIALS, TOOLS, EQUIPMENT, LABOR, AND PLANTS NECESSARY FOR PROPER PLANTING AND INSTALLATION OF ALL LANDSCAPE MATERIAL.
8. QUANTITIES ON PLANT MATERIALS LIST ARE FOR CONVENIENCE OF BIDDING ONLY. CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS AND COVERAGE OF ALL AREAS DELINEATED. THE PLANS ARE TO SUPERSEDE THE PLANT LIST IN ALL CASES.
9. CONTRACTOR IS RESPONSIBLE FOR ALL ESTIMATING AND BIDDING, ALL AREAS, QUANTITIES MATERIALS SHOULD BE FIELD VERIFIED WITH SITE CONDITION.
10. WHERE DISCREPANCIES OCCUR BETWEEN THE LANDSCAPE PLANS AND/OR ARCHITECTURAL AND/OR THE CIVIL DRAWINGS (AND ANY OTHER SITE DRAWINGS) THE DISCREPANCIES MUST BE BROUGHT TO THE LANDSCAPE ARCHITECTS ATTENTION FOR COORDINATION AND RESOLUTION.
11. ALL DISEASED, NOXIOUS OR INAPPROPRIATE MATERIALS SHALL BE REMOVED FROM THE PROPOSED SITE PRIOR TO THE START OF CONSTRUCTION AND DURING THE MAINTENANCE PERIOD.
12. GENERAL CONTRACTOR SHALL LEAVE THE SITE FREE OF CONSTRUCTION DEBRIS.
13. ALL LAWN AND PLANTING AREAS SHALL SLOPE TO DRAIN A MINIMUM OF 2% UNLESS NOTED OTHERWISE AND REVIEWED WITH OWNER'S REPRESENTATIVE FOR FINAL APPROVAL.
14. FINISH GRADES FOR SHRUB AND GROUND COVER AREAS SHALL BE HELD 1" BELOW TOP OF ADJACENT PAVEMENTS AND CURBS, UNLESS NOTED OTHERWISE ON THE PLANS. REFER TO LSP1.2 FOR FURTHER INFORMATION.
15. ALL PERENNIAL, ANNUAL AND GROUND COVER AREAS TO RECEIVE A BLEND OF ORGANIC SOIL AMENDMENTS PRIOR TO PLANTING. TILL THE FOLLOWING MATERIALS INTO EXISTING TOPSOIL TO A DEPTH OF APPROXIMATELY 8". A DEPTH OF 12" IN TREE PITS. PROPORTIONS AND QUANTITIES MAY REQUIRE ADJUSTMENT DEPENDING ON THE CONDITION OF EXISTING SOIL. REFER TO LSP1.2 FOR FURTHER INFORMATION.
    PER EVERY 100 SQUARE FEET ADD: ONE - 2 CUBIC FOOT BALE OF PEAT MOSS, 2 POUNDS OF 5 -10 -5 GARDEN FERTILIZER, 1/4 CUBIC YARD OF COMPOSTED MANURE OR OTHER COMPOSTED, ORGANIC MATERIAL.
16. ALL SHRUBS TO BE POCKET PLANTED WITH A 50/50 MIX OF COMPOSTED, ORGANIC MATERIAL AND EXISTING SOIL. INSTALL TOPSOIL INTO ALL BEDS AS NEEDED TO ACHIEVE PROPER GRADE. REMOVE ALL EXCESSIVE GRAVEL, CLAY AND STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.
17. PLANT ALL TREES SLIGHTLY HIGHER THAN FINISHED GRADE AT ROOT FLARE. BACK FILL HOLE WITH 2/3 EXISTING TOPSOIL AND ORGANIC SOIL AMENDMENTS SPECIFIED IN NOTE 15. AVOID ANY AIR POCKETS. DISCARD ANY GRAVEL CLAY OR STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.
18. ALL TREES TO BE INSTALLED, STAKED AND GUYED ACCORDING TO DETAILS. REFER TO ANSI STANDARDS FOR PLANTING 2012 AND DETAILS ON LSP1.2 FOR FURTHER INFORMATION.
19. PROVIDE A 4'-0" - 5'-0" DIAMETER MULCH RING AT THE ROOT BALL FLARE OF ALL LAWN TREES.
20. ALL PLANTINGS TO BE WATERED AT THE TIME OF PLANTING, THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF PROJECT AS REQUIRED.
21. WHERE SPECIFIED, ALL PLANT BEDS, PITS AND TREE RINGS ARE TO RECEIVE A MINIMUM OF 2" - 3" DRESSING OF SHREDDED HARDWOODM OAK BARK MULCH SHAVINGS FREE OF GROWTH, WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE OR GERMINATION INHIBITING INGREDIENTS. LANDSCAPE CONTRACTOR TO PROVIDE A SAMPLE TO OWNER FOR APPROVAL. CONTRACTOR TO TAKE CARE WITH INSTALLATION NOT TO DAMAGE OR COVER PLANTS. REFER TO LSP1.2 FOR FURTHER INFORMATION.
22. LAWN INSTALLATION: CONTRACTOR TO FURNISH AND PREPARE TOPSOIL (3" MIN) AND SEED BED (REMOVE ALL STONES 1" OR LARGER), APPLY STARTER FERTILIZER AND SEED UNIFORMLY. PROVIDE A MULCH COVERING SUITABLE TO GERMINATE AND ESTABLISH TURF. EROSION CONTROL MESH SHOULD BE USED IN SWALES AND STEEP GRADES WHERE APPLICABLE. METHODS OF INSTALLATION MAY VARY AT THE DISCRETION OF CONTRACTOR. IT IS HIS/HER RESPONSIBILITY TO ESTABLISH AND GUARANTEE A SMOOTH, UNIFORM, QUALITY TURF. IF STRAW MULCH IS USED AS A COVERING, A TACKIFIER MAY BE NECESSARY TO AVOID WIND DAMAGE.
23. **DELUXE 50 GRASS SEED MIX REINDER'S (800) 785-3301**
    20% KENTUCKY BLUE GRASS
    15% NEWPORT KENTUCKY BLUE GRASS
    15% SR 2100 Kentucky Bluegrass
    25% Creeping Red Fescue
    15% Replicator Perennial Ryegrass
    10% Fiesta 4 Perennial Ryegrass
    APPLY AT A RATE OF 200 POUNDS PER ACRE. REFER TO SUPPLIERS SPECIFICATIONS & INSTALLATION CUT SHEETS FOR FURTHER FORMATION
24. DURING THE INITIAL "30 DAY MAINTENANCE PERIOD" THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE AND ON-GOING PLEASANT VISUAL ENVIRONMENT WHEREAS ANY PLANT WHICH IS NOT RESPONDING TO TRANSPLANTING OR THRIVING SHALL IMMEDIATELY BE REPLACED. NEW LAWNS SHALL BE WATERED AND REPAIRED AND WEEDS MUST CONSTANTLY BE REMOVED, NO EXCEPTIONS WILL BE GRANTED.
    MAINTENANCE NOTE:
    MAINTENANCE IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN REQUIRED LANDSCAPING IN ACCORDANCE WITH THE MUNICIPALITY'S PROPERTY MAINTENANCE CODE AND AN APPROVED MAINTENANCE PLAN. THE MAINTENANCE MUST INCLUDE, AT A MINIMUM, METHODS FOR PROVIDING THE FOLLOWING:
    - NECESSARY IRRIGATION (IF REQUIRED)
    - INTEGRATED PEST MANAGEMENT,
    - PROPER FERTILIZATION
    - TREE CARE AND PRUNING, SHRUB TIP CLIPPING AND SHAPING AS REQUIRED
    - REPLACEMENT OF LOST VEGETATION, AND ALL DISEASED, DAMAGED, OR DEAD MATERIAL WILL BE REPLACED BY THE END OF THE FOLLOWING PLANTING SEASON IN PERPETUITY.
    - WEED MANAGEMENT AND BED CARE.
25. ALL NEWLY PLANTED TREES AND SHRUBS ARE TO RECIEVE AN APPLICATION OF AN ANTI-TRANSPIRANT SPRAY THAT WILL EFFECTIVELY REDUCE THE WATER LOSS OF TRANSPIRATION OF PLANT MATERIAL AND REDUCE THE STRESS OF TRANSPLANTATION. IT IS RECOMENDED AS PART OF THE ONGOING MAINTENANCE THAT ANY BROADLEAF EVERGREEN AND CONIFEROUS TREE AND SHRUBS (EXCLUDING ARBORVITAE) RECIEVE AN APPLIATION OF AN ANTI-DESICANT SPRAY TO REDUCE THE LOSS OF MOISTURE DUE TO WINTER DESICCATION.
26. MAINTENANCE. THE OWNER SHALL TEND AND MAINTAIN ALL PLANT MATERIALS IN A HEALTHY GROWING CONDITION AS PER THE APPROVED PLAN. PLANTINGS SHALL BE REPLACED WHEN NECESSARY AND KEPT FREE FROM REFUSE & DEBRIS. ALL PLANTING MATERIAL WHICH IS DYING OR DAMAGED BEYOND RECOVERY SHALL BE REPLACED WITHIN SIX (6) MONTHS OR BY THE NEXT PLANTING SEASON, WHICHEVER COMES FIRST.
27. LANDSCAPE / SITE DEMOLITION CONTRACTOR TO VERIFY LOCATIONS OF EXISTING TREES AND SHRUBS TO BE SALVAGED AND CLEARLY TAG THEM WITH MARKING TAPE AND CONSTRUCTION FENCE.
28. LANDSCAPE / SITE DEMOLITION CONTRACTOR TO VERIFY LOCATIONS OF EXISTING TREES AND SHRUBS TO BE RELOCATED. ALL PLANT MATERIAL TO BE RELOCATED IS TO BE CLEARLY TAGGED WITH MARKING TAPE MOVED BEFORE AND SITE DEMOLITION IS TO BEGIN.
29. *ALTERNATE BID:* DESIGN IRRIGATION SYSTEM TO BE DESIGNED FOR A OVERLAPPING ZONED SPRINKLER HEAD SYSTEM IN ALL LAWN & ISLAND AREAS AND A DRIP SYSTEM FOR ALL FOUNDATION PLANTING AREAS.

EXISTING CONDITIONS GENERAL NOTES

1. INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE ARCHITECTURAL DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. INSITE LANDSCAPE DESIGN, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THEIR NEW WORK. REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE LANDSCAPE ARCHITECT FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE LANDSCAPE ARCHITECT IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.
2. VERIFY LOCATION OF ALL EXISTING UNDERGROUND UTILITIES I.E. WATER, SEWER, ELECTRICAL, TELECOMUNICATION AND ACCESS PANELS FOR ALL UTLITIES AND ALL ASSOCIATED EQUIPMENT FOR ACCESSIBILITY OF THOSE ITEMS.
3. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECTS ATTENTION PRIOR TO FABRICATION / CONSTRUCTION BEGINS.

PHOTOMETRIC PLAN GENERAL NOTES

1. BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POLE PLACEMENTS AND LUMINAIRE ORIENTATION. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO RELEVANT FIELD CONDITIONS.
2. THE DEPICTED ILLUMINATION RESULTS ARE BASED UPON ILLUMINATION MEASUREMENTS AS CALCULATED BY AN INDEPENDENT LABORATORY. LUMINAIRE CHARACTERISTICAL DATA WAS MEASURED UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH APPROVED ILLUMINATION ENGINEERING SOCIETY METHODS. ACTUAL ON-SITE PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRES MAY VARY FROM LABORATORY TEST RESULTS DUE TO VARIATIONS IN: ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.
3. IF EXISTING LUMINAIRES ARE INCLUDED IN THIS REPORT, THEIR ILLUMINATION CHARACTERISTICS ARE BASED UPON A COMBINATION OF CUSTOMER'S PROVIDED SPECIFICATIONS & OUR BEST ESTIMATION.
4. *ALL EXISTING AND NEW CONCRETE LIGHT POLE BASES ARE TO HAVE ALL FORM MARKS REMOVED, GROUND FLUSH AND THE SURFACE IS TO BE PROPERLY PREPARED TO RECEIVE A HAND TROWELED, MASONRY SKIM COAT OF APPROPRIATE THICKNESS TO ACHIEVE A DURABLE SURFACE AND LONG LASTING AESTHETIC.*

LUMINAIRE GENERAL NOTES

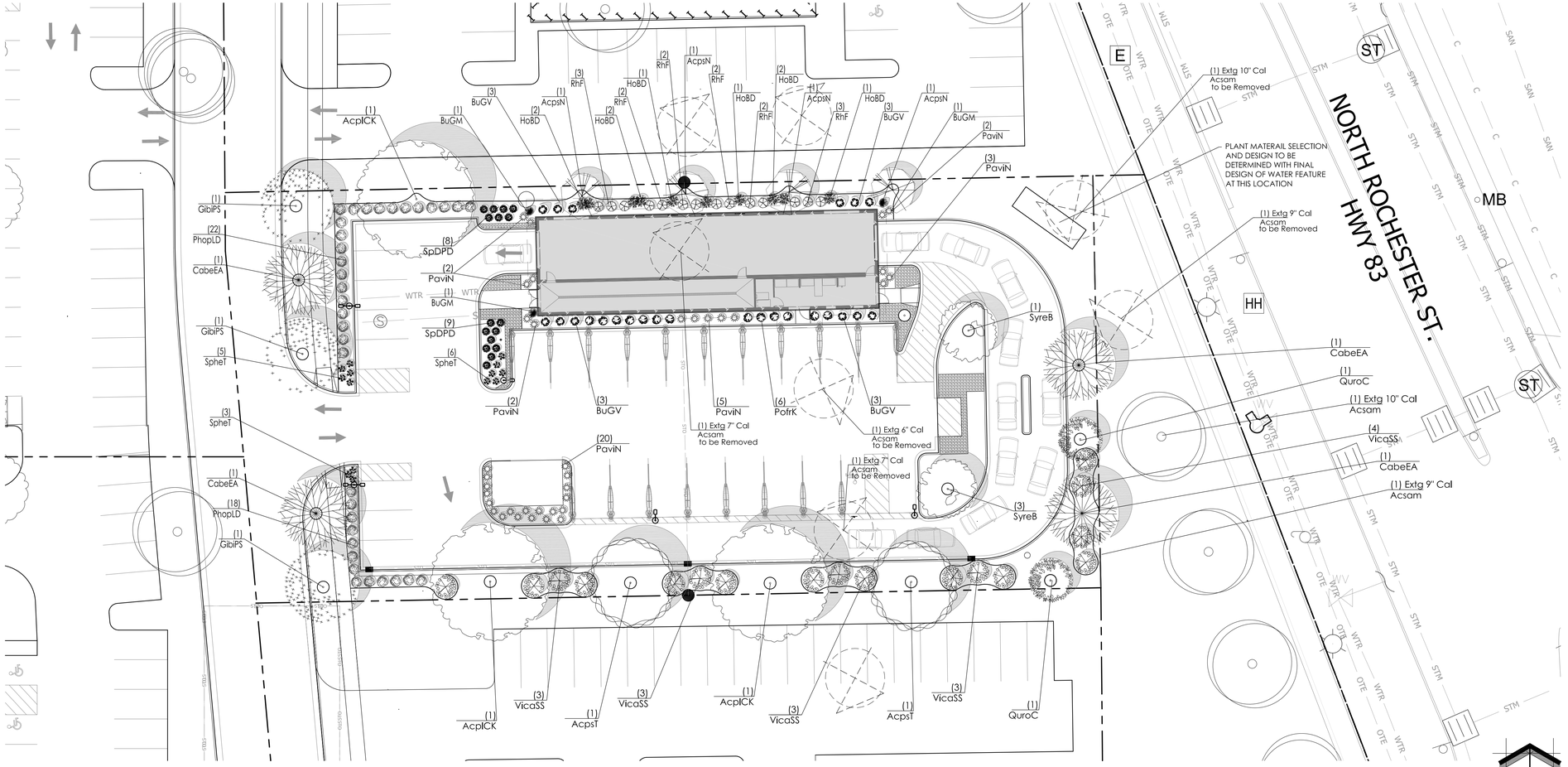
ALL PROPOSED FIXTURE HEADS ARE TO BE DARK-SKY COMPLIANT AND HAVE HARDWARE WITH IESNA FULL CUTOFF HOUSE SIDE SHIELDING WHERE REQUIRED. NEW PROPOSED POLE MOUNTED FIXTURES (HEADS AND TENONS) FINISH IS TO BE BLACK

1. ALL NEW CONCRETE LIGHT POLE BASES ARE TO HAVE ALL EXPOSED FORM MARKS REMOVED, GROUND FLUSH AND THE SURFACE IS TO BE PROPERLY PREPARED TO RECEIVE A HAND TROWELED, MASONRY SKIM COAT OF APPROPRIATE THICKNESS TO ACHIEVE A DURABLE SURFACE AND LONG LASTING AESTHETIC.
2. ALL NEW PROPOSED AREA LIGHT POLES SHALL BE LOCATED 3-0" FROM BACK OF CURB TO THE EDGE OR FACE OF THE REINFORCED LIGHT POLE BASE. UNLESS NOTED OTHERWISE.
3. INSTALLATION CONTRACTOR TO REFER TO ELECTRICAL PLANS FOR CONDUIT ROUTING OF LIGHT POLES AND SIGNAGE LIGHTING CONTROL AND WIRING.
4. CONTRACTOR TO REFER TO REINFORCED LIGHT POLE BASE SECTION AND DETAIL FOR FURTHER INFORMATION.
5. PROPOSED POLE MOUNTED FIXTURES (HEADS AND TENONS) ARE TO HAVE A BLACK FINISH. PHOTOCELL CONTROL AND MOTION SENSOR AT EACH INDIVIDUAL POLE LOCATION.
6. ***ALL EXTERIOR FIXTURES, BOTH BUILDING MOUNTED AND POLE FIXTURES SHALL BE DESIGNED AND INSTALLED SUCH THE THE LIGHT EMITTED FROM THE LUMINARE AT AN ANGLE OF 90 DEGREES ROM VERTICAL (OR MORE) AND NO LIGHT SHALL TRESPASS ACROSS PARCEL BOUNDARIES INTO ADJACENT LOST, BUILDINGS OR STREETS IN EXCESS OF 1.0 FOOT CANDLE .***
7. ALL BUILDING MOUNTED LIGHT FIXTURES ARE TO BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHTS AND LOCATIONS.
8. FOR PURPOSES OF CALCULATING THE BUILDING MOUNTED LIGHTING AND PHOTOMETRIC OUTPUT LUMINAIRE WERE PLACED AT 8'-0", 9'-0" AND 12'-0" ABOVE FINISHED FLOOR ELEVATION AND ALL BUILDING MOUNTED FLOOD LIGHTS COORDINATED WITH THE ARCHITECTURAL ELEVATIONS AND PLACED AT HEIGHTS SPECIFIED ON THE BUILDING ELEVATIONS.
9. FOR PURPOSES OF CALCULATING THE SITE AREA POLE LIGHTING AND PHOTOMETRIC OUTPUT LUMINAIRE WERE PLACED AT 20'-6" ABOVE FINISHED FLOOR ELEVATION AND ALL BUILDING MOUNTED FLOOD LIGHTS COORDINATED WITH THE ARCHITECTURAL ELEVATIONS AND PLACED AT HEIGHTS SPECIFIED ON THE BUILDING ELEVATIONS.

THIS LIGHTING PLAN REPRESENTS ILLUMINATION LEVELS ARE CALCULATED VALUES INCLUDE DIRECT AND INTER-REFLECTED COMPONENT AND ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH THE ILLUMINATING ENGINEERING SOCIETY (IES) APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINARES MAY VARY DUE TO CHANGES IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS/LED'S AND OTHER MAY VARY DUE TO CHANGES IN ELECTRICAL VOLTAGE. TOLERANCE IN LAMPS/LED'S AND OTHER VARIABLE FIELD CONDITIONS. CALCULATIONS DO NOT INCLUDE OBSTRUCTIONS SUCH AS BUILDINGS CURBS, LANDSCAPING, OR ANY OTHER ARCHITECTURAL ELEMENTS UNLESS NOTED.

FOLLOW THE LIGHTING SCHEDULE FOR ALL LIGHT FIXTURES, NO SUBSTITUTIONS WILL BE ACCEPTED.

BASE BID MUST REFLECT THE SPECIFIED FIXTURES. SHOULD SUBSTITUTIONS BE PROVIDED TO THE OWNER/LIGHTING DESIGNERS FOR REVIEW AT THE OWNER'S REQUEST, THE CONTRACTOR/DISTRIBUTOR SHALL BE RESPONSIBLE FOR PROVIDING A LIST OF SUBSTITUTIONS ALONG WITH THE FOLLOWING:
- CATALOG CUT SHEETS,
- PHOTOMETRIC REPORTS,
- A NEW POINT BY POINT PHOTOMETRIC CALCULATIONS PLAN OF THE AREAS AFFECTED BY THE SUBSTITUTION.
- INPUT PARAMETERS (MOUNTING HEIGHT, CALCULATION PLANE HEIGHT, REFLECTANCE, LIGHT LUMEN DEPREC



1 PROPOSED LANDSCAPE PLAN

SCALE: 1" = 20'-0"

Proposed Plant Material Table - Road Runner Express

Broadleaf Deciduous Tree

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
3	AcplCK		Acer Platanoidees 'Crimson King'	Crimson King Norway Maple	2 1/2"-Cal - B&B	1
3	AcpsT		Acer pseudoplatanus 'Tunpetti'	Regal Petticoat Sycamore Maple	2 1/2"-Cal - B&B	1
3	AcpsN		Acer pseudosieboldianum 'Northwind'	Northwind Korean Maple	2"-Cal - B&B	1
4	CabeEA		Carpinus betulus 'JFS-KW1CB'	Emerald Avenue Hornbeam	2 1/2"-Cal - B&B	1
3	GibiPS		Ginko biloba 'Princeton Sentry'	Princeton Sentry Maidenhair Tree	2 1/2"-Cal - B&B	1, 8
2	QuroC		Quercus robur 'Crimschmidt'	Crimson Spire English Oak	2 1/2"-Cal - B&B	1
2	SyreB		Syringa reticulata 'BailInce'	Snowdance Japanese Tree Lilac	2"-Cal - B&B	1
1	Acsam		Acer saccharum	Sugar maple	Existing 10" Cal	3
1	Acsam		Acer saccharum	Sugar maple	Existing 9" Cal	3
1	Acsam		Acer saccharum	Sugar maple	Extg 9" Cal Demo	4
1	Acsam		Acer saccharum	Sugar maple	Extg 10" Cal Demo	4
1	Acsam		Acer saccharum	Sugar maple	Extg 6" Cal Demo	4
2	Acsam		Acer saccharum	Sugar maple	Extg 7" Cal Demo	4

Broadleaf Deciduous Shrub

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
35	PhopLD		Physocarpus opulifolius 'Donna May'	Little Devil Ninebark	18" - Cont	6
13	PofrK		Potentilla fruticosa 'Kupinpa'	Happy Face Pink Paradise Cinquefoil	18" - Cont	6
16	SpDPD		Spiraea x NCSX2	Double Play Doozie Spiraea	18" - Cont	6
17	VicaSS		Viburnum Carlesii 'J.N.Select S'	Sugar n' Spice Koreanspice Viburnum	24" - 30" - B&B	6

Broadleaf Evergreen Shrub

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
3	BuGM		Buxus 'Green Mountain'	Green Mountain Boxwood	24" - 30" - Cont	6
12	BuGV		Buxus 'Green Velvet'	Green Velvet Boxwood	18" - Cont	6
14	RhF		Rhododendron x 'Firestorm'	Firestorm Rhododendron	18" - Cont	6

Perennial Grass

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
36	PaviN		Panicum virgatum 'Northwind'	Northwind Switch Grass	1-Gal - Cont	7
14	SpheT		Sporobolus heterolepis 'Tara'	Tara Prairie Dropseed	1-Gal - Cont	7

Perennial

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
10	HoBD		Hosta x 'Big Daddy'	Big Daddy Plantail Lily	1-Gal - Cont	7

Comments

1. Straight central leader, full & even crown. Prune only after planting.
2. Well balanced, multi-stemmed tree with a minimum of (3) strong canes and full appearance.
3. Prune existing tree, remove any dead, diseased or hazardous limbs. Thin out as required and raise canopy for safety and viability for both pedestrians and motorists.
4. Remove tree in its entirety and grind stump to a minimum of 6" below adjacent grade. Remove grinding chips and fill hole with topsoil. Sow with specified turf grass seed as required.
5. Evenly shaped upright tree with full branching to the ground.
6. Full, well rooted plant, evenly shaped.
7. Full, well rooted plant.
8. Male only
9. Tree-form, Single Stem Specimen

InSite Landscape Design

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& Master Planning Design Sevices

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Project:

ROAD RUNNER EXPRESS

N. Rochester Street
& W. Verterans Way
Mukwonago, WI

Issuance and Revisions:

Date	Number	Description
05/29/26		Client Review Submittal
06/08/26		Plan Commission Submittal

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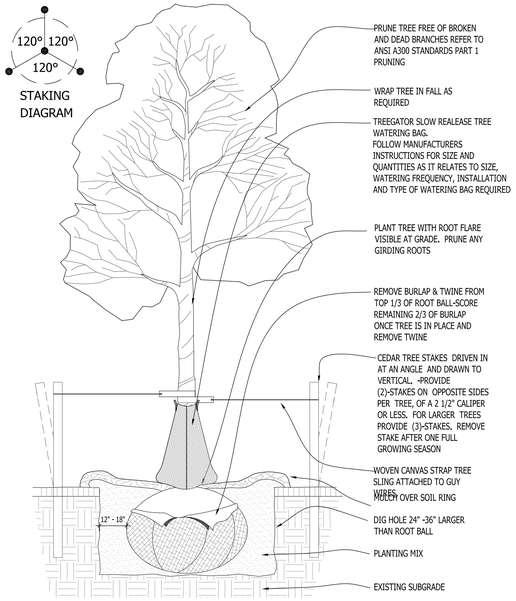
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Sheet Title:

PROPOSED LANDSCAPE PLAN, GENERAL NOTES, AND PLANT MATERIAL TABLE

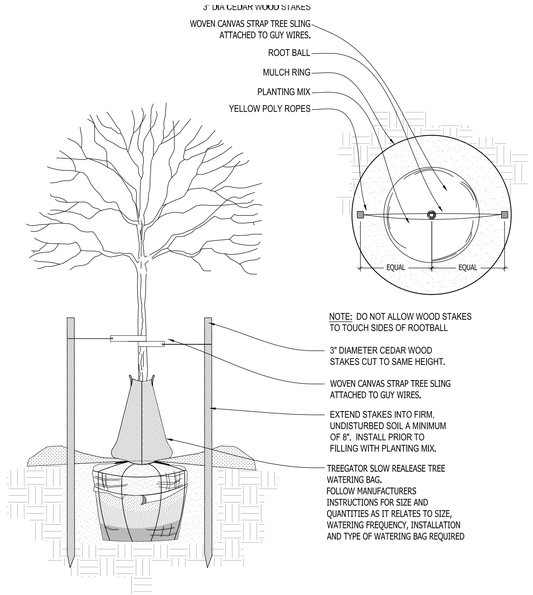
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Scale:	1" = 20'-0"
Drawn By:	MCD
Job Number:	L26-012
Sheet Number:	LSP1.1

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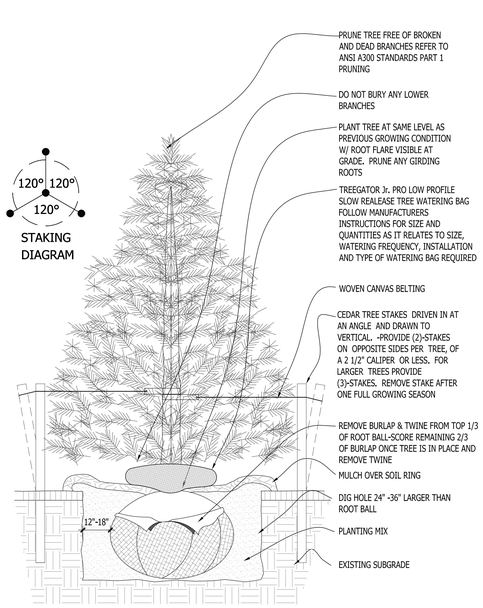
1 DECIDUOUS TREE PLANTING DETAIL

SCALE: NONE



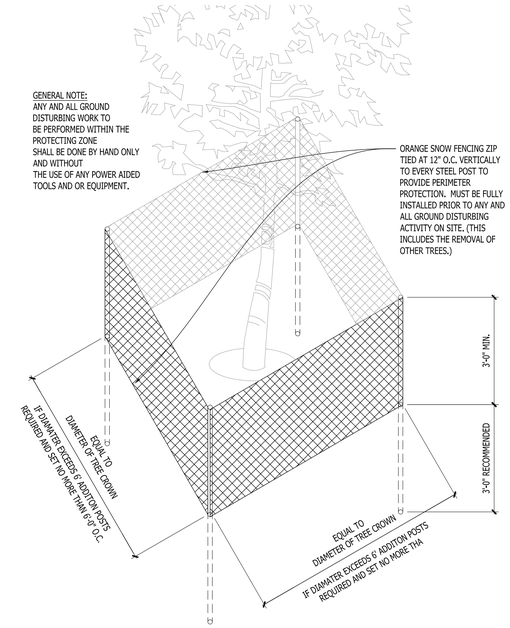
2 DECIDUOUS TREE STAKING PARKING ISLAND/RESTRICTED AREAS

SCALE: NONE



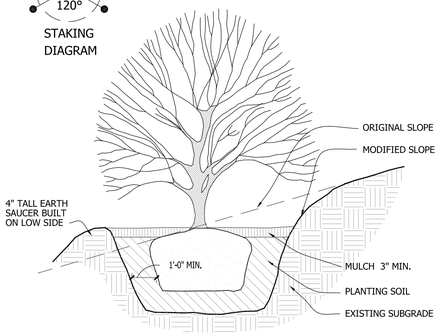
3 CONIFEROUS TREE PLANTING DETAIL

SCALE: NONE



4 EXISTING TREE PROTECTION DETAIL

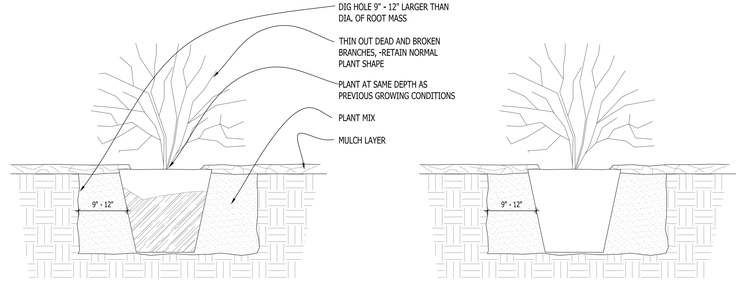
SCALE: NONE



5 SLOPE PLANTING DETAIL

SCALE: NONE

REFER TO TYPICAL DECIDUOUS TREE DETAIL FOR STAKING



PAPER FIBER POT

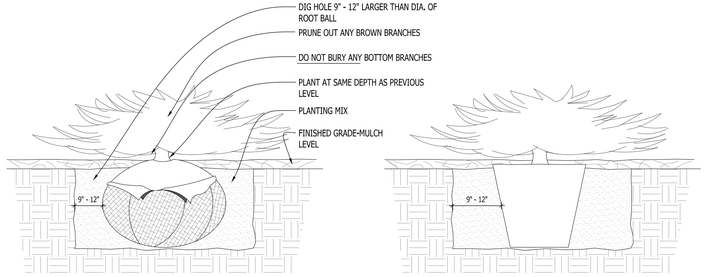
REMOVE ENTIRE POT IF IT IS POSSIBLE. IF ROOTS HAVE PENETRATED POT, REMOVE RIM AND SCORE SIDES WITH KNIFE *REFER TO CONIFER BALLED AND BURLAPPED INSTALLATION

CONTAINER GROWN

CAREFULLY REMOVE FROM PLASTIC POT AND SCORE ROOTS 1" DEEP WITH A SHARP KNIFE

6 DECIDUOUS SHRUB PLANTING DETAIL

SCALE: NONE



BALLED & BURLAPPED

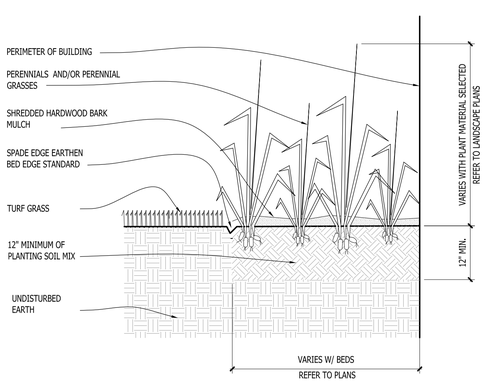
REMOVE BURLAP AND TWINE FROM TOP 1/3 OF ROOT BALL AND SCORE REMAINING 2/3

CONTAINER GROWN

CAREFULLY REMOVE FROM PLASTIC POT AND SCORE ROOTS 1" DEEP WITH A SHARP KNIFE

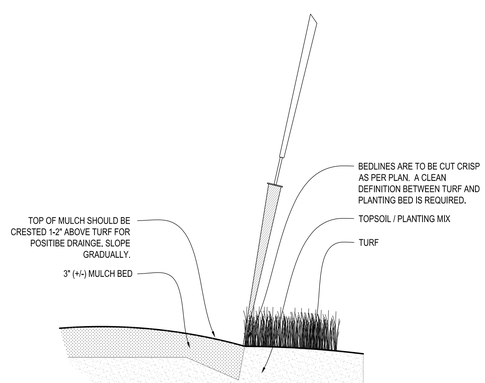
7 CONIFEROUS SHRUB PLANTING DETAIL

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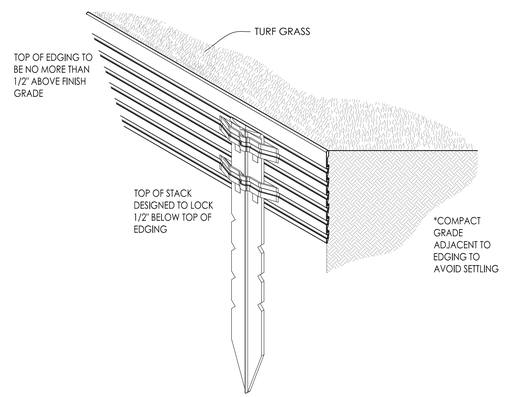
8 PERENNIAL BED PLANTING DETAIL

SCALE: NONE



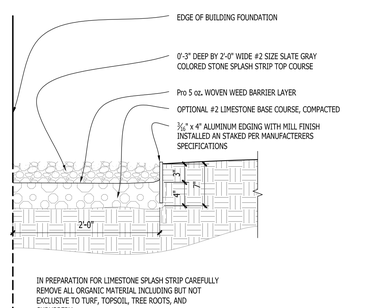
9 SPADE EDGE PLANT BED EDGE DETAIL

SCALE: NONE



10 METAL LANDSCAPE EDGING DETAIL

SCALE: 1/2" = 1'-0"



11 COMPACTED GRAVEL SPLASH STRIP

SCALE: 1" = 1'-0"

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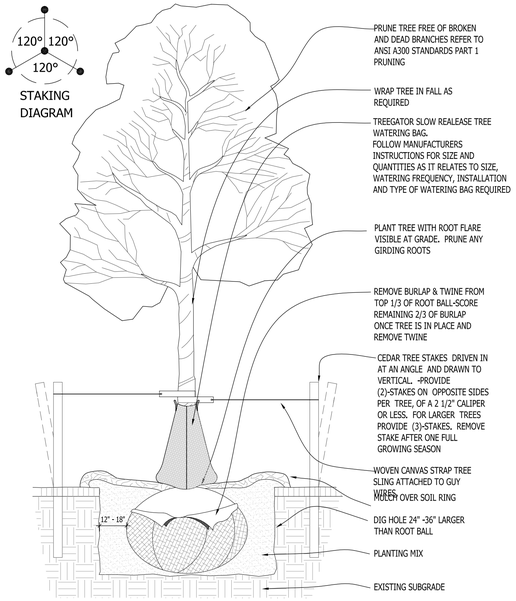
PROPOSED LANDSCAPE PLAN, PLANTING DETAILS

Date of Drawing:	06/08/26
Scale:	As Noted
Drawn By:	MCD
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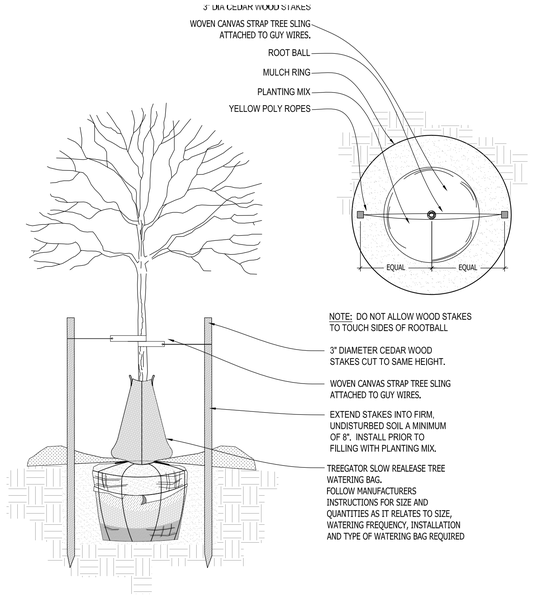
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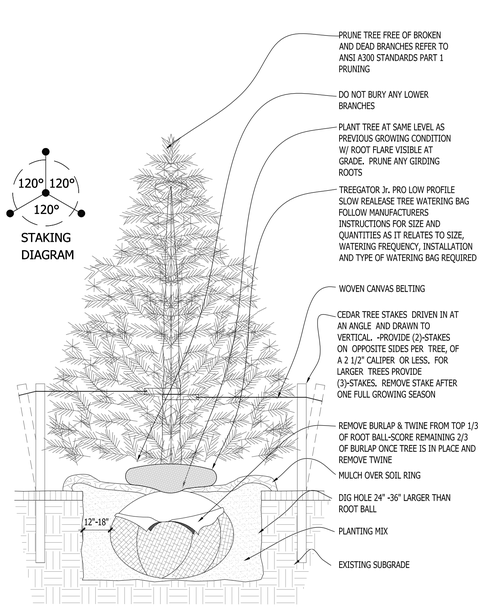
1 DECIDUOUS TREE PLANTING DETAIL

SCALE: NONE



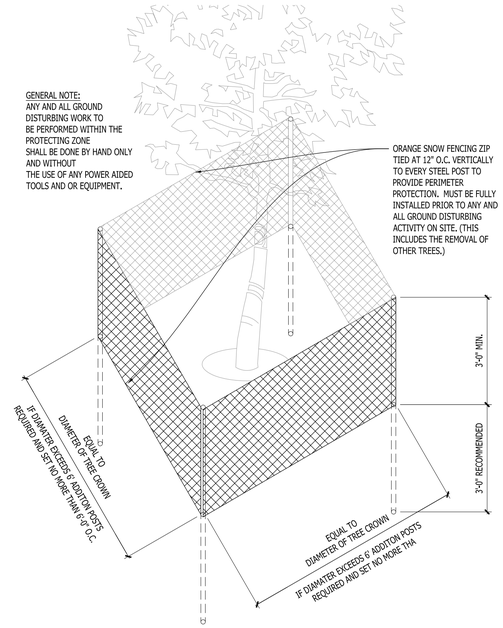
2 DECIDUOUS TREE STAKING PARKING ISLAND/RESTRICTED AREAS

SCALE: NONE



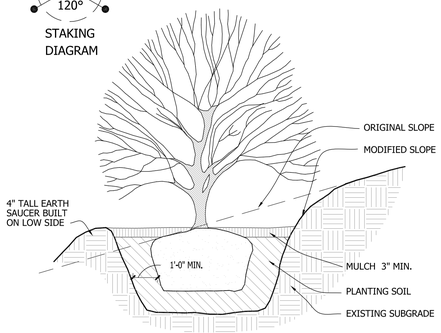
3 CONIFEROUS TREE PLANTING DETAIL

SCALE: NONE



4 EXISTING TREE PROTECTION DETAIL

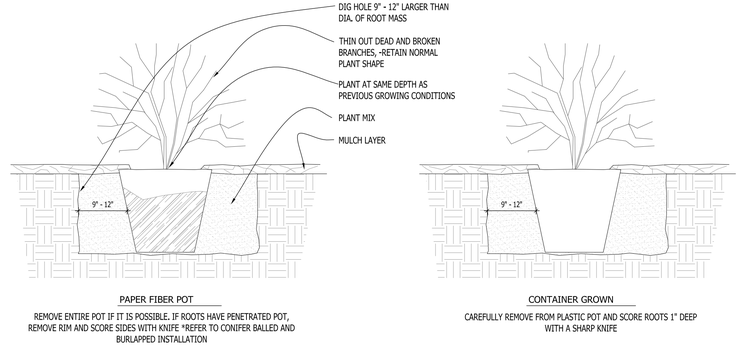
SCALE: NONE



5 SLOPE PLANTING DETAIL

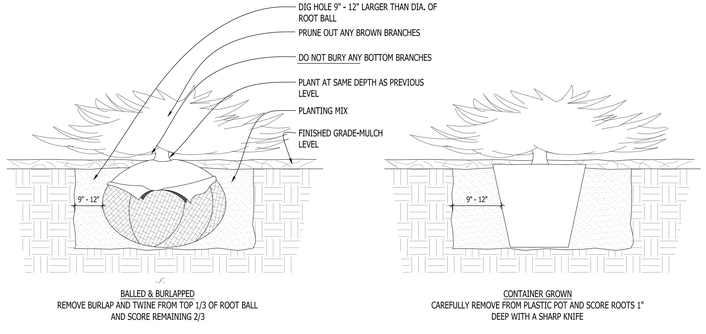
SCALE: NONE

REFER TO TYPICAL DECIDUOUS TREE DETAIL FOR STAKING



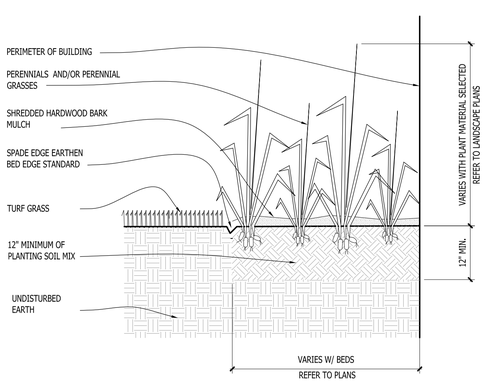
6 DECIDUOUS SHRUB PLANTING DETAIL

SCALE: NONE



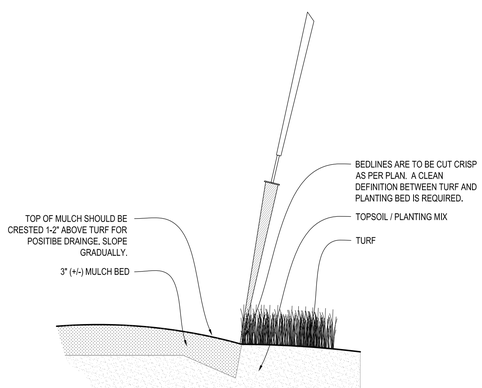
7 CONIFEROUS SHRUB PLANTING DETAIL

SCALE: NONE



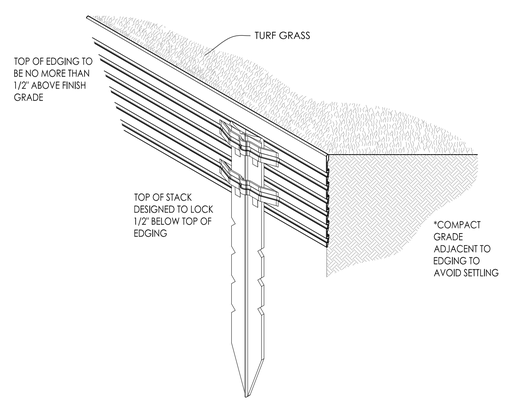
8 PERENNIAL BED PLANTING DETAIL

SCALE: NONE



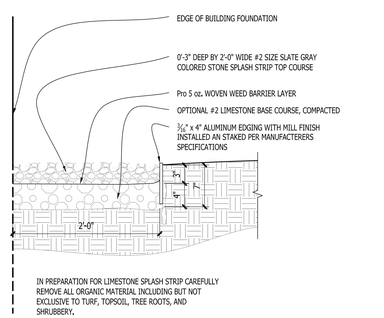
9 SPADE EDGE PLANT BED EDGE DETAIL

SCALE: NONE



10 METAL LANDSCAPE EDGING DETAIL

SCALE: 1/2" = 1'-0"



11 COMPACTED GRAVEL SPLASH STRIP

SCALE: 1" = 1'-0"

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Project:

ROAD RUNNER EXPRESS

N. Rochester Street
& W. Verterans Way
Mukwonago, WI

Issuance and Revisions:

Date	Number	Description
05/29/26		Client Review Submittal
06/08/26		Plan Commission Submittal

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Sheet Title:

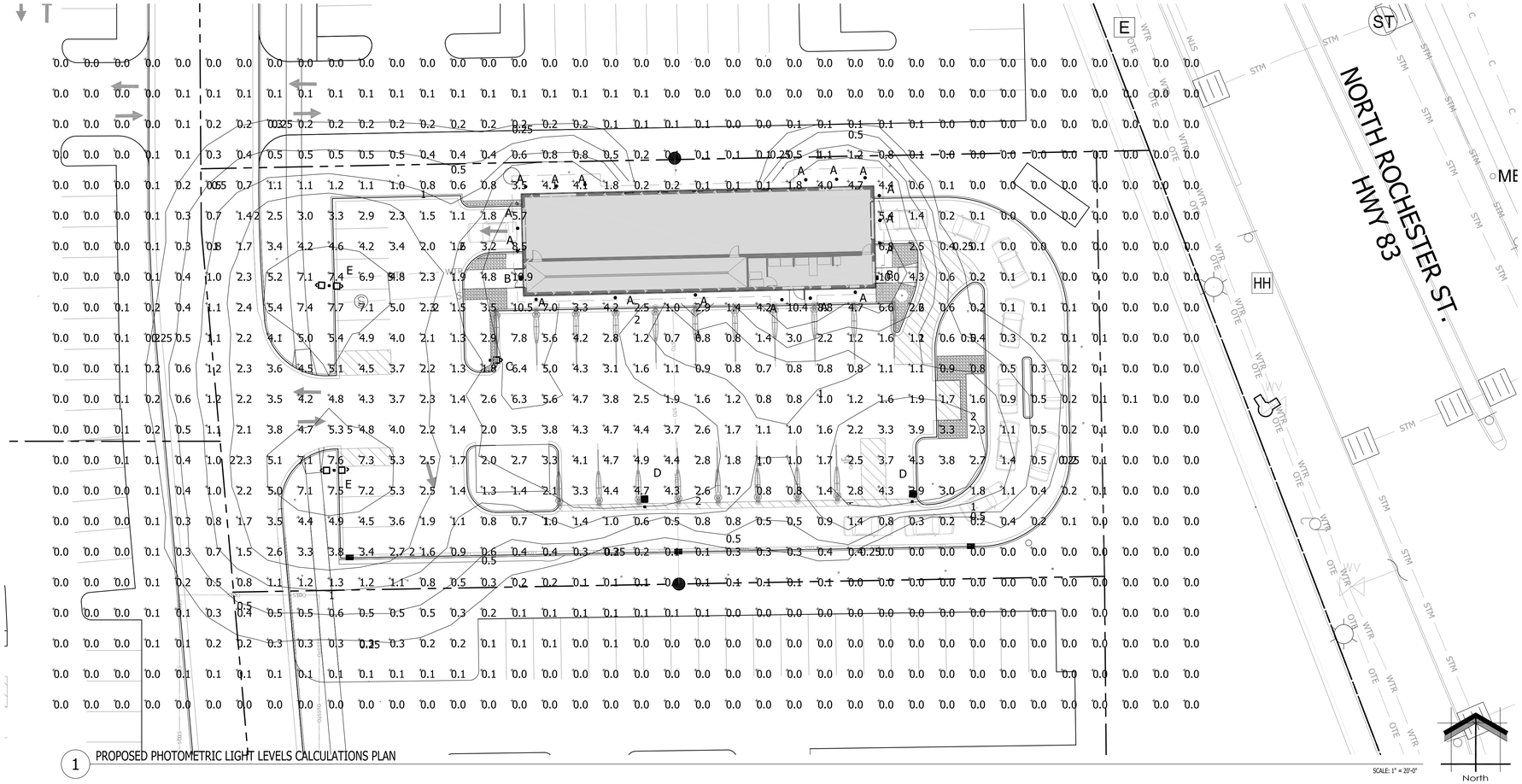
PROPOSED LANDSCAPE PLAN, PLANTING DETAILS

Date of Drawing:	06/08/26
Scale:	As Noted
Drawn By:	MCD
Job Number:	L26-012
Sheet Number:	LSP1.3

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L26-012 - ROAD RUNNER EXPRESS - 06/08/2026



1 PROPOSED PHOTOMETRIC LIGHT LEVELS CALCULATIONS PLAN

LUMINAIRE SCHEDULE - ROAD RUNNER EXPRESS

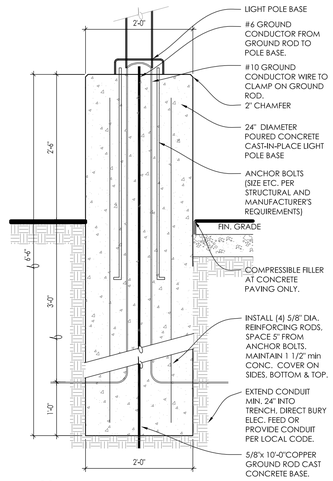
Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
	A	18	LDN4 27/07 LW4 BR	4IN, LDN WALLWASH, 2700K, 750LM, BLACK, CRI80	LEDs	LDN4 27_07 LW4 BR.ies	Absolute	1.00	8.6
	B	2	EWLS02_40AF740 _____-120-277V	EWLS02 WALL PACK	LEDs	EWLS02_40A F740_____-120-277V.ies	Absolute	1.00	27
	C	1	EACL01_F4AF750 _____ WITH ELS--EAC-ABL-BLCK	EACL AREA LIGHT	LEDs	EACL01_F4AF 750_____-ELS-EAC-ABL-BLCK.ies	Absolute	1.00	122
	D	2	EACL01_D3AW740 _____ WITH ELS--EAC-ABL-BLCK	EACL AREA LIGHT	LEDs	EACL01_D3A W740_____-ELS-EAC-ABL-BLCK.ies	Absolute	1.00	73
	E	2	EACL01_D3AW740 _____	EACL AREA LIGHT	LEDs	EACL01_D3A W740_____.	Absolute	1.00	146

STATISTICS

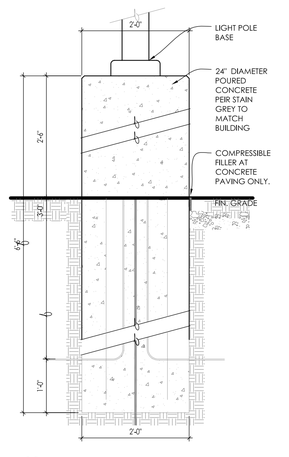
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.2 fc	10.9 fc	0.0 fc	N / A	N / A

LUMINAIRE FIXTURE NOTES

1. FIXTURE "C" (1) IS A NEW POLE LOCATION w/ NEW FORWARD THROW POST TOP FIXTURE (SINGLE HEAD AND TENON). FIXTURE ARE TO BE INSTALLED ON A NEW 2'-6" TALL REINFORCED POURED CONCRETE FOUNDATION AND NEW 18'-0" SQUARE BLACK POLE .
2. FIXTURE "D" (2) IS A NEW POLE LOCATION w/ NEW POST TOP FIXTURE w/ FULL CUTOFF HOUSE SIDE SHIELDING (SINGLE HEAD AND TENON). FIXTURE ARE TO BE INSTALLED ON A NEW 2'-6" TALL REINFORCED POURED CONCRETE FOUNDATION AND NEW 18'-0" SQUARE BLACK POLE .
3. FIXTURE "E" (2) IS A NEW POLE LOCATION w/ NEW FORWARD THROW POST TOP FIXTURE (TWIN HEAD AND TENONS). FIXTURE ARE TO BE INSTALLED ON A NEW 2'-6" TALL REINFORCED POURED CONCRETE FOUNDATION AND NEW 18'-0" SQUARE BLACK POLE .



2 LIGHT POLE BASE - SECTION
SCALE: 3/4"=1'-0"



3 LIGHT POLE BASE - ELEVATION
SCALE: 3/4"=1'-0"

ALL EXISTING AND NEW CONCRETE LIGHT POLE BASES ARE TO HAVE ALL FORM MARKS REMOVED, GROUND FLUSH AND THE SURFACE IS TO BE PROPERLY PREPARED TO RECEIVE A HAND TROWELED, MASONRY SKIM COAT OF APPROPRIATE THICKNESS TO ACHIEVE A DURABLE SURFACE AND LONG LASTING AESTHETIC.

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mdavis@insitedesigninc.com

Project:

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Mukwonago, WI

Issuance and Revisions:

Date	Number	Description
05/29/26		Client Review Submittal
06/08/26		Plan Commission Submittal

TO OBTAIN LOCATION OF PARTICIPANT'S UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
DIGGERS HOT LINE
WISCONSIN STATUTE 182.0175 (1974) REQUIRES A MINIMUM OF 3 DAYS NOTICE BEFORE YOU EXCAVATE (NOT INCLUDING SATURDAY, SUNDAY OR LEGAL HOLIDAYS)
UNDERGROUND SEWER AND UTILITY INFORMATION AS SHOWN IS OBTAINED FROM THE RECORDS OF MUNICIPALITY AND LOCAL UTILITY COMPANIES. THE ACCURACY OF WHICH CAN NOT BE GUARANTEED OR CERTIFIED TO. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS SURVEY ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONIN CALL THE MILWAUKEE UTILITY ALERT NETWORK www.Diggershotline.com (800)-242-8511 OR
811 Know what's below. Call before you dig.
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Sheet Title:

PROPOSED PHOTOMETRIC LIGHT LEVEL CALCULATIONS PLAN, GENERAL NOTES, AND LIGHT FIXTURE TABLE

Date of Drawing:	06/08/26
Scale:	1" = 20'-0"
Drawn By:	MCD
Job Number:	L26-012
Sheet Number:	PHO1.1

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L26-012 - ROAD RUNNER EXPRESS - 06/08/2026

LITHONIA LIGHTING

Catalog Number

Notes

Type

LDN4 SWITCHABLE

4" Open and Wallwash LED IC and Non-IC New Construction Downlight



Open Trim



Wallwash Trim

FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches. Reflectors are retained by torsion springs. Vertically adjustable mounting brackets with commercial bar hangers provide 3-3/8" total adjustment. Fuse combination 5/3-3/4" and four ½" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out). No. 12 AWG conductors, rated for 90°C.

Accommodates 1/2"-24" joist spacing.

Passive cooling thermal management for 25°C standard. Light engine and drivers are accessible from above or below ceiling.

Ceiling thickness range 1/2" to 1-1/2".

OPTICS — 55° cutoff to source and source image

LEDs are binned to a 3-step MacAdam Ellipse

80 CRI standard. 90 CRI optional.

A+ CAPABLE LUMINAIRE — This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products. All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity and color temperature tolerance around standard CIE chromaticity coordinates. To learn more about A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

UGR — UGR is zero for fixtures aimed at nadir with a cut-off equal to or less than 45 degree per CIE 117-1996 Discomfort Glare in Interior Lighting. (R-81 FA).

ELECTRICAL — Adjustable lumen output with four module options.

MVOLT 120/277V 50/60Hz driver (0-10V & 120V Phase Dimming to 10% or 1% min dimming level). EM2 driver dimming to 5% also available.

FCC CFR Title 47 Part 15 Class A for 277V. FCC CFR Title 47 Part 15 Class B for 120V.

Lumen Maintenance

L80 @ 60,000 hours

LISTINGS — Certified to IES and Canadian safety standards. Wet location, requires covered ceiling. Title 24 compliant (90CRI, up to 1000lm). Wallwash suitable for damp locations only. Drivers are ROHS compliant.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements is this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at www.acuitybrands.com/support/warranty-terms-and-conditions.

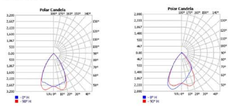
Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25°C.
Specifications subject to change without notice.

PERFORMANCE DATA

LDN4 AF LS		80CRI							
		30K/80CRI		35K/80CRI		40K/80CRI		50K/80CRI	
Lumen Output	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	570	99	584	101	597	103	616	106
AL01 (750LM)	9	903	103	926	105	946	107	975	108
AL01 (1000LM)	13	1268	98	1297	100	1328	102	1369	104
AL02 (1500LM)	13	1344	108	1375	110	1408	113	1451	115
AL02 (1750LM)	19	1961	105	2007	106	2055	108	2118	111
AL02 (2000LM)	20	2471	99	2528	101	2588	103	2668	103
AL03 (2500LM)	25	2542	103	2601	104	2663	106	2745	109
AL03 (2750LM)	32	3060	98	3130	99	3204	101	3304	103
AL03 (3000LM)	30	3405	90	3566	94	3631	96	3744	98
AL04 (4000LM)	39	4084	106	4178	108	4262	110	4383	111
AL04 (4500LM)	44	4331	103	4431	105	4518	107	4738	108
AL04 (5000LM)	49	4914	100	5015	102	5113	104	5361	105

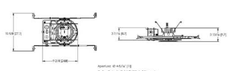
- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 80 typical

DISTRIBUTIONS



DIMENSIONS

LDN4 500-2000 Lumens



See page 5 for other fixture dimensions.

DOWNLIGHTING

LDN4 SWW

1 LITHONIA LIGHTING LDN4 4" DIAMETER OPEN RECESSED CANOPY CAN - FIXTURE A

LDN4 SWW

Create/Select options indicated by this color background.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. **Example:** LDN4 AL02 SWW1 L04 AR LSS MVOLT UGZ

LDN4									
Series	Lumens 1	Color Temperature 1	Trim Style	Trim Color	Flange Color 1	Trim Finish	Distribution	Voltage
LDN4 4" Round	Adjustable Lumen Output AL01 500/750/1000lm AL02 1000/1500/2000lm AL03 2000/2500/3000lm AL04 4000/4500/5000lm Fixed Lumen Output 4SQAL 500lm 6TAL 750lm 9AAL 1000lm 15AL 1500lm 20AL 2000lm 25AL 2500lm 30AL 3000lm 40AL 4000lm 45AL 4500lm 50AL 5000lm	Switchable CCT SWW1 3000K/3500K/4000K/5000K Fixed Switchable CCT 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	LOK Downlight LWA Wallwash	AR Alzak WRW White-painted BK Black-painted TRADTRD 1 RAL paint trim FCPC 1 Custom paint trim	BKFL Self-flange Black TTSF Self-flange White TFBL Flange only Black TRADTFD RAL paint flange only FCPC Custom paint flange only	LSS Semi-specular LD Matte diffused LS Specular	BKMD Medium Wide (120/347) WD Wide (120/347)	120V 120V - 277V 347V 347V - 480V STD Step-down transformer supplied

Driver	Emergency 2	Control Input 3	Options
DALI Universal dimming to 10% 0-10V line voltage dimming (120V)	Blank No emergency option	Blank No control option	90CRI High CRI (90+)
DALI1 Universal dimming to 1% 0-10V line voltage dimming (120V)	EL Battery pack (1.0W constant power) Nom 120V compliant, integral test switch	NPSOKIT 4-right® network, power/relay pack with 0-10V dimming	AT Antiglint (IP55)
D10 Minimum dimming 10% driver for use with MOTUS Minimum dimming 1% driver for use with JOT	ELR Battery pack (1.0W constant power) Nom 120V compliant, remote test switch	NPSOKITE 4-right® network, power/relay pack with 0-10V dimming, ER controls fixtures on emergency circuit. Controls fixtures on emergency circuit.	CP 6 Chicago Plenums
D1 Minimum dimming 1% driver for use with JOT	E10WCP Battery pack (1.0W constant power) E20 Compliant, integral test switch	ALLSKIL2 4-right® AE enabled	
	E10WCPR Battery pack (1.0W constant power) E20 Compliant, remote test switch	ALLSKILE2 4-right® AE Dimming Pack Wireless Controls. Controls fixtures on emergency circuit.	
	E10WCSER Emergency battery pack. 90W with remote test switch and Bluetooth technology	ALLSKILEM2 4-right® AE Dimming Pack Wireless Controls, IR/24 Emergency. Operates, via power interrupt detection.	
	E15 Battery pack (1.0W constant power) Total Emergency Transfer System	JOT Wireless room control with "Just One Touch" pairing	

Option Restrictions

Options	Restriction
	Luminaire/Color Temp restriction note: Field Luminaire and CCT must be specified further (for example: 3.5K, 4K, 5K).
AT	Standard for CP and PPSS, not available with WW
E10WCPR	Not available with ELR, EL, QBS, CP, 347V, NPSOKIT, ER, NLTAIRE2, NLTAIRE2, or AL03 (2000-3000K) DALI.
E10WCP	Not available with ELR, EL, QBS, CP, 347V, NPSOKIT, ER, NLTAIRE2, NLTAIRE2, AL03 (2000-3000K) DALI, OR SVL.
E10WCSER	Not available with overlocation, EL, ELR, QBS, CP, 347V, NPSOKIT, ER, NLTAIRE2, NLTAIRE2, AL03 & AL04 DALI, OR 3000-4500 lumens in 277V. Top access installation or 12.5" plenum clearance required for nonreside installation. Not available with integral test switch.
ELR	Not Available with EL, QBS, CP, 347V, NPSOKIT, ER, NLTAIRE2, NLTAIRE2, or AL03 (2000-3000K) DALI.
EGS	Not Available with CP, QBS, ELR, E10WCP, or E10WCPR.
WL	Not Available with WW, AR CP & wet locations, except SWW (lamp), IP55 rated.
QBS	Not Available with CP, ELR, E10WCP, or E10WCPR.
ECI	Not Available with CP, QBS, ELR, E10WCP, or E10WCPR.
JOT	Not available with CP, NPSOKIT, NPSOKITE, NLTAIRE2, NLTAIRE2, NLTAIRE2HG, UGZ, or DALI drivers. 4lux 4500lumens. Fixed lumens and CCT only.
NPSOKIT, NPSOKITE	Not Available with CP, QBS, DALI, D1, OR D10 drivers. 120V OR 277V only. Not available with 347V.
NLTAIRE2	Not available with CP, QBS, ELR, E10WCP, E10WCPR, DALI, D1, OR D10 drivers. See IES 9291 Sequence of Operations table.
CP	Not available with 4SQS, 6TS, 8AS, ELR, E10WCP, E10WCPR, 347V, SVE, NPSOKIT, NPSOKITE, NLTAIRE2, NLTAIRE2, NLTAIRE2HG, D1, OR D10 drivers. Not available with square trim.
ETS	Not available with 4SQS, ELR, E10WCP, E10WCPR, 347V, SVE, NPSOKIT, NPSOKITE, NLTAIRE2, NLTAIRE2, DALI, D1, OR D10 drivers
DALI	Not available with fixed lumens or CCT, 4lux 4500 lumens.
WW	Not available with WL, EL, E10WCP.
TDBL, TDBL	Available with clear (optic) reflector only.
WH, BK	Not available with a reflector finish.
347V	Not available with CP, QBS, EL, ELR, E10WCP, E10WCPR, NLTAIRE2, ETS, NPSOKIT, NPSOKITE, AL01 ROUND TRIM, 4SQ LEAVES ROUND TRIM, AND 6TAI ROUND TRIM.
TRADTRD, FCUTRD	TRADTRD for pairing only. Requires width-applicable RAL matte paint and finish when ready to order. See the RAL ERO SHEET for available color options.
TCPC, FCPC	CPC options for pricing only. Custom color chip needs to be sent in to your Customer Resolution specialist before order can be processed. Click HERE for more details

LDN4 SWW

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LDN4 SWW

Accessories: Order as a separate catalog number.
L04 AR 4" TRIM 4" classic specular reflector (** specify finish LS, LSS, or LS)
L04 WL TRIM 4" white reflector
L04 BK TRIM 4" black reflector
L04 WR ** TRIM 4" wallwash clear, specular reflector (** specify finish LS, LSS, or LS)
L04 WWL TRIM 4" wallwash white reflector
L04 BK TRIM 4" wallwash black reflector
GBA4-6 LE Oversized trim ring with 6" outside diameter
SLA4 Sloped Ceiling Adapter. Degree of slope must be specified (5D: 5DL 7DL 20D 25D, 30DL Etc SEAG MD.

design select

Items marked by a dashed background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Aluminum order quantity for design select load time is 25G

EMERGENCY BATTERY PACK OPTIONS - FIELD INSTALLABLE

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
BLR DP7 28 A	7W	120	840	3 Form Shelter / 7 Hour Runtime
BLR DP30 A	30W	90	3,300	
BLR DP7 0 HE SD A *	30W	90	3,300	Title 20, Self Diagnostic
BLR DP15 HE SD A *	15W	90	1,800	Title 20, Self Diagnostic
BLR DP20 HE A	20W	90	2400	Title 20
BLR DP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic
BLR HEP15W SD A *	15W	90	1,200	347-480V AC Input, Title 20, Self Diagnostic
BLR HEP15HE SD A *	15W	90	1,800	347-480V AC Input, Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field installation/retrofit to the fixture.
* Minimum delivered lumens subject to available production run for increased fixture mounting height.
** The DP10 delivered emergency illumination output forms legacy NICD lumen fluorescent emergency fixtures
Please contact us at ITechSupport@acuitybrands.com for any Emergency Battery related questions.

LDN4 SWW

PHOTOMETRY

LDN4 AF LS		90CRI							
		30K/90CRI		35K/90CRI		40K/90CRI		50K/90CRI	
Lumen Output	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	498	87	512	88	536	90	539	92
AL01 (750LM)	9	789	89	810	90	832	93	853	94
AL01 (1000LM)	13	1108	86	1138	88	1168	89	1198	91
AL02 (1500LM)	13	1131	91	1206	97	1138	99	1270	100
AL02 (1750LM)	19	1711	91	1763	93	1802	95	1854	97
AL02 (2000LM)	25	2159	87	2218	89	2281	91	2335	92
AL03 (2500LM)	25	2222	90	2282	92	2342	94	2402	95
AL03 (2750LM)	32	2682	85	2755	87	2827	89	2900	91
AL03 (3000LM)	30	2946	83	3029	85	3113	88	3194	86
AL04 (4000LM)	39	3398	88	3498	90	3597	93	3572	92
AL04 (4500LM)	44	3753	85	3827	87	3904	89	3982	90
AL04 (5000LM)	49	4039	83	4162	84	4285	86	4287	87

LDN4 SWW AR LS		80CRI							
		30K/80CRI		35K/80CRI		40K/80CRI		50K/80CRI	
Lumen Output	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	560	97	574	99	587	101	606	105
AL01 (750LM)	9	888	100	908	101	930	103	959	106
AL01 (1000LM)	13	1246	97	1275	98	1305	100	1346	102
AL02 (1500LM)	13	1271	106	1352	108	1284	110	1427	111
AL02 (1750LM)	19	1921	103	1973	105	2020	106	2083	109
AL02 (2000LM)	25	2429	98	2485	99	2544	101	2623	104
AL03 (2500LM)	25	2499	103	2557	105	2618	105	2699	107
AL03 (2750LM)	32	3017	96	3087	98	3160	99	3258	102
AL03 (3000LM)	30	3312	93	3506	97	3589	99	3700	102
AL04 (4000LM)	39	4011	104	4132	106	4195	108	4326	109
AL04 (4500LM)	44	4449	101	4529	103	4636	105	4626	105
AL04 (5000LM)	49	4838	98	4937	100	5035	102	5085	103

LDN4 SWW AR LS		90CRI							
		30K/90CRI		35K/90CRI		40K/90CRI		50K/90CRI	
Lumen Output	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
AL01 (500LM)	6	490	85	501	87	517	89	530	90
AL01 (750LM)	9	776	87	797	89	818	91	839	93
AL02 (1000LM)	13	1089	84	1119	86	1148	88	1178	90
AL02 (1500LM)	13	1135	93	1186	95	1237	97	1298	99
AL02 (1750LM)	19	1685	90	1731	92	1777	94	1822	95
AL02 (2000LM)	25	2132	85	2189	87	2248	89	2295	91
AL03 (2500LM)	25	2188	88	2241	90	2302	92	2362	94
AL03 (2750LM)	32	2637	84	2708	86	2780	87	2853	89
AL03 (3000LM)	30	2904	80	3026	85	3252	83	3238	85
AL04 (4000LM)	39	3546	86	3634	88	3682	90	3536	91
AL04 (4500LM)	44	3690	84	3768	86	3843	88	3883	88
AL04 (5000LM)	49	4035	81	4097	83	4159	85	4230	86

LUMEN OUTPUT MULTIPLIERS - FINISH

Specular (LS)	1.05
Semi-specular (LSS)	1.00
Matte diffuse (LD)	0.85

LUMEN OUTPUT MULTIPLIERS - CCT

3000K	3500K	4000K	5000K
0.98	1.0	1.00	1.00

LUMEN OUTPUT MULTIPLIERS - CRI

80	1.0
90	0.874

HOW TO ESTIMATE DELIVERED LUMENS IN EMERGENCY MODE

Use the formula below to estimate the delivered lumens in emergency mode.

Delivered Lumens = 1.25 x P x LPW

P = Ouput power of emergency driver. P = 10W for PS10SSCP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet
The LPW rating is also available at Designlight Consortium.

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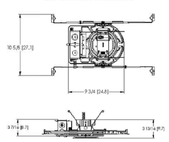
1 LITHONIA LIGHTING LDN4 4" DIAMETER OPEN RECESSED CANOPY CAN - CONTINUED

LDN4 SWW

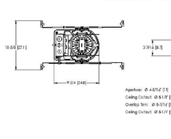
* All dimensions are in inches (centimeters) unless otherwise noted.

LDN4 SWW1 IC RATING	
AL01	IC
AL02	NON-IC
AL03	NON-IC

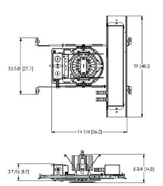
LDN4 SWW1 500-2000 Lumens



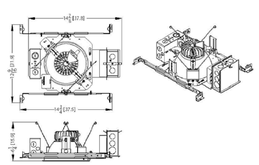
LDN4 SWW1 2500-4000 Lumens



LDN4 SWW1 EL



LDN4 SWW1 CP 500-3000 Lumens



Aperture: Ø 4.65/4" [11]
Ceiling Cutout: Ø 5.1/8" [13] Self-Flanged
Overlap Trim: Ø 5.7/16" [138]
Ceiling Cutout: Ø 6.1/4" [153] Flangeless

LITHONIA LIGHTING

LDN4 SWW

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2 GE EVOLVE EWLS SERIES WALL PACK LUMINARIE

EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER



EWLS L Series
LED Wall Pack

The Evolve® LED L Series Wall Pack (EWLS), The Evolve LED L-Series Wall Pack, EWLS, is a designed replacement for 50W to 250W HID, while offering significant energy savings in a long-life LED wall pack. Two-screw housing design enables a fast and simplified installation. The low-watt Egress package is designed to meet recommended illuminance requirements for egress applications such as side and rear exit doors in commercial buildings. Available with Emergency Battery Backup option.

Construction

Housing:	Aluminum die cast enclosure. Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Color: Black, Dark Bronze, Gray & White (RAL & custom colors available) Optional = Coastal Finish
Weight:	8.8lbs (4 kg)

Optical System

Lumens:	1700 to 7,000
Distribution:	Asymmetric Forward
Efficacy:	117- 148 LPW
CCT:	2700, 3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V & 347V
Input Frequency:	50/60Hz
Power Factor:	> 90% at rated watts
Total Harmonic Distortion:	< 20% at rated watts

Surge Protection

Surge Protection	10kV/5kA (Standard) 3kV/1.5kA (EMBB)

*Per ANSI C136.2-2015

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

Lumen Codes	Distribution	Lxx(Hrs) @ Hours		
		25,000 HR	50,000 HR	60,000 HR
17, 25 & 40	AF	L99	L99	L99
70	AF	L94	L87	L85

Note: Projected Lxx based on LM80 (> 10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Luminaire Ambient Temperature Factor

Ambient Temp (°C)	Initial Flux Factor	Ambient Temp (°C)	Initial Flux Factor
10	1.02	-20	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C
Vibration:	3G per ANSI C136.31-2010
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V
Sensors:	Photo Electric Sensors (PE) available Motion Sensor

Warranty

5 Year (Standard)

Emergency Battery Backup

Provides reliable emergency operations when there is a loss to normal power, supported by Independent Secondary Battery.

- Hold-Up Time: 90 minutes @ 1,400 lumens.
- Meet egress light level and uniformity requirements
- Not available in 347V
- Operating Temperature (for EMBB models) 0° to 40°C
- 3kV/1.5kA surge protection for EMBB models.

Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/search to confirm qualifications.

PIR Optical

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EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

EWLS L Series
LED Wall Pack

Ordering information

EWLS02 0 40 AF 70 40 N 3 CB DKBZ

PROD. ID	GEN	VOLTAGE	OPTIC CODE	DISTRIBUTION	CRI (MIN)	CCT	DIMMING	PE FUNCTION	MOUNTING	COLOR	OPTIONS
E = Evolve W = Wallpack LS = L-Series	02	0 = 120-277V 1 = 120V 2 = 208V 3 = 240V 4 = 277V 8 = 120-240V* D = 347V	17 = 1700 lm* 25 = 2500 lm 40 = 4000 lm 70 = 7000 lm	AF = Asymmetric Forward	7 = 70	27 = 2700K 30 = 3000K 40 = 4000K 50 = 5000K	N = No External Dimming Leads D = External Dimming Leads*	1 = None 3 = Button PE*	CB = Conduit Box Mtg.* 4 FM = Flush Mount	BLCK = Black DKBZ = Dark Bronze GRAY = Gray	EMBB = Emergency Battery Backup*5 M = Motion Sensor (WMBMSupport)*6,7 XXX = Special Options W = Non-Graphical White Box

1 Specify single voltage if Button PE option is selected.
2 Optic code 17 - Not offered in 120-277V, use 120-240V
3 Select 2700K or 3000K CCT for ISA approved units
4 Must be selected when ordering with Button PE, Motion Sensor, 347V or Emergency Battery Backup
5 Not available with motion sensor
6 Not available in 347V
7 Button PE not available with EMBB. Button PE not available with H Motion Sensor. Motion sensor includes dusk-to-dawn control as well as motion control.
8 WS FSIR-100 (Stock 187034) needed for programming sensor.
9 Must select Controls "N" with Motion Sensor "H"

OPTIC CODE	DISTRIBUTION	TYPICAL INITIAL LUMENS			TYPICAL SYSTEM WATTAGE		BUG RATINGS 2700K-5000K
		2700K	3000K	4000K/5000K	120-277V	347V	B-U-G
17	AF	1400	1600	1700	12	14	B1-U0-G0
25		2200	2400	2500	17	18	B1-U0-G1
40		3500	3800	4000	27	29	B1-U0-G1
70		6100	6700	7000	52	54	B2-U0-G1
EMBB	-	1300	1400	1400	-	-	B1-U0-G0

For additional information on EWLS IES files, please refer to LED.com

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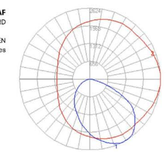
EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

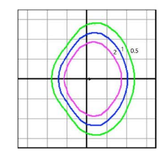
EWLS L Series
LED Wall Pack

70AF
ASYMMETRIC FORWARD

7000 LUMEN
EWLS02_70AF750_-_-120-277Vies



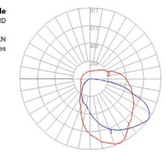
— Vertical plane through horizontal angle of Max. Cd at 9°
— Horizontal plane through vertical angle of Max. Cd at 27°



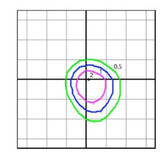
- Mounting Height at 18'
- Install Footcandle at Grade
- Light Level: 0.5fc, 1fc, 2fc

EMBB Mode
ASYMMETRIC FORWARD

1400 LUMEN
EWLS02_EMBB_-_-ies



— Vertical plane through horizontal angle of Max. Cd at 296°
— Horizontal plane through vertical angle of Max. Cd at 93°



- Mounting Height at 18'
- Install Footcandle at Grade
- Light Level: 0.5fc, 1fc, 2fc

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Project:

ROAD RUNNER EXPRESS

N. Rochester Street & W. Verterans Way
Mukwonago, WI

Issuance and Revisions:

Date	Number	Description
05/29/26		Client Review Submittal
06/08/26		Plan Commission Submittal

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Sheet Title:

PROPOSED BUILDING MOUNTED LIGHT FIXTURES

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These progress documents reflect progress & intent & may be subject to change, including additional notes and detail. These are not final construction documents and should not be used for final bidding or construction-related purposes.

Date of Drawing:	06/08/26
Scale:	NONE
Drawn By:	MCD
Job Number:	L26-012
Sheet Number:	PHO1.2

L26-012 - ROAD RUNNER EXPRESS - 06/08/2026

EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER



EACL® Series
LED Area Light/Compact Low Wattage

Current's EAL Series of Area Light Luminaires offer a wide range of optical patterns, color temperatures, lumen packages, and mounting configurations to optimize area light applications, as well as provide versatility in lighting design within the same form factor.

Construction

Housing:	Die-cast aluminum housing with integral heat sink for maximum heat transfer
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze Gray, White (RAL & custom colors available) Optional coastal finish available.
Weight:	18 lbs (8.16 kg) Max depending on configuration

Optical System

Lumens:	2,900 - 20,400
Distribution:	Asymmetric Forwarc Type IV Asymmetric Wide Type III Asymmetric Narrow/Auto Type II
Efficacy:	123 - 143 LPW
CCT:	3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V & 347-480V
Input Frequency:	50/60Hz
Power Factor:	> 90% at rated watts
Total Harmonic Distortion:	< 20% at rated watts

Surge Protection*

TYPICAL (120 STIMES)	ENHANCED (40 STIMES)
☐ 6kV/3kA*	☐ 10kV/5kA*

*Per ANSI C136.2-2015

Warranty

☐ 5 Year (Standard)

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	LXX(100K) @ HOURS		
	25,000 HR	50,000 HR	60,000 HR
A2, A3, A4, B2, B3, B4, C2, C3, C4D2, D3, D4, E2, E3, E4, F2, F3, F4	L94	L90	L88
H2,H3, H4	L97	L96	L96

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Luminaire Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C
Vibration:	3G vibration per ANSI C136.31-2018
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V ☐ Optional - DALI (Option U) ☐
Sensors:	Photo Electric Sensors (PS) available LightGrid and Daintree Compatible

DLC LISTED

Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/search to confirm qualifications.

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1 GE EVOLVE EACL SERIES AREA LUMINARIES

EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

EACL® Series
LED Area Light/Compact Low Wattage

Ordering Information

EACL	01	0	F4	AF	7	50	N	D	D1	GRAY	
PROD. ID	GEN	VOLTAGE	OPTIC CODE	DISTRIBUTION	CRI (MIN)	CCT	DIMMING[2]	CONTROLS	MOUNTING ARM	COLOR	OPTIONS
E = Evolve AC = Compact Area Light L = Low Voltage	01	0 = 120-277V H = 347-480V 1 = 120V 2 = 208V 3 = 240V 4 = 277V 5 = 480V D = 347V	Ax= 3000 lm Bx=5000 lm Cx=7500 lm Dx=10000 lm Ex=10000 lm Fx=13500 lm Gx=15000 lm Hx=20000 lm	AF = Asymmetric Forward AW = Asymmetric Wide AN = Asymmetric Narrow/Auto	7 = 70	30 = 3000K* 40 = 4000K 50 = 5000K	N = Dimming thru PE receptacle D = External Dimming 1[0]-Slft cable X = No External Dimming Leads	1 = None A = ANSI 7-pin PE receptacle (no control) D = ANSI 7-pin PE receptacle with shorting cap (private)-5 E = ANSI C136.41 7-pin with Non-Dimming PE Control*	C1 = Integral Slip-Fitter for 1.25"-2" Pipe (Width: OD - 2.375 in. OD)* D1 = Universal Mounting Arm, fitted for round or square pole mounting* K1 = Knuckle Slipfitter for 1.9 in.- 2 in. OD Tenon** S1 = Knuckle Slipfitter for 2.3in. - 2.6in OD Tenon** V1 = Knuckle Wall Mount.**	GRAY = Gray BLCK = Black DKBZ = Dark Bronze WHITE = White	F = Fusing HR = Motion Sensor w/ LightGrid H2 = Motion Sensor (Dartnet)* H3 = Motion Sensor (Wattstopper) J = cULCanada L = Tool-Less Entry PA = Enhanced Surge Protection (10kV/5kA) U = DALI dimming* V = 3-Position Terminal Block Y = Coastal Finish* XXX = Special Options

[1] Not Available with Fusing, Must Choose a Discrete Voltage with "F" Option Code
[2] Note Standard Dimming is 0-10V
[3] PE Control only available for 120-277V, 347V or 480V Discrete Voltage.
[4] Supplied with 0ft leads
[5] Supplied with 16ft 7c Cable
[6] Restricted Aiming Angle of 0-45°

* Compatible with LightGrid Wireless Control Nodes, Not Compatible with Motion Sensor Control
** H2 Sensor is not available in High Voltage (347V, 480V or 347-480V)
*** Recommended for installations within 750 feet from coast. Leadtime varies, check with factory.
**** Select 3000K CCT for IDA approved fixtures.

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EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

EACL® Series
LED Area Light/Compact Low Wattage

OPTICAL CODE	DIST CODE	CLASSIFICATION	TYPICAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATING	
			3000K	4000K &5000K	120-277V	347-480V	3000K	4000K &5000K
A4	AF	TYPE IV	2900	2900	31	23	B1-U0-G1	B1-U0-G1
B4			4900	4900	36	38	B1-U0-G1	B1-U0-G1
C4			7300	7300	55		B1-U0-G2	B1-U0-G2
D4			9800	9800	73		B2-U0-G2	B2-U0-G2
E4			12300	12300	95		B2-U0-G2	B2-U0-G2
F4			14700	14700	103		B2-U0-G2	B2-U0-G2
H4			19000	19000	163		B3-U0-G3	B3-U0-G3
A3	AW	TYPE II	2900	3000	21	23	B1-U0-G1	B1-U0-G1
B3			4900	5100	36	38	B1-U0-G1	B1-U0-G1
C3			7400	7400	55		B1-U0-G2	B1-U0-G2
D3			9900	10200	73		B2-U0-G2	B2-U0-G2
E3			12400	12700	95		B2-U0-G2	B2-U0-G2
F3			14900	15300	102		B2-U0-G2	B2-U0-G2
H3			19000	20400	163		B3-U0-G3	B3-U0-G3
A2	AN	TYPE II	2900	3000	21	23	B1-U0-G1	B1-U0-G1
B2			4900	5000	36	38	B1-U0-G1	B1-U0-G1
C2			7300	7500	55		B1-U0-G1	B1-U0-G1
D2			9800	10100	73		B2-U0-G2	B2-U0-G2
E2			12300	12600	95		B2-U0-G2	B2-U0-G2
F2			14700	15100	102		B3-U0-G3	B3-U0-G3
H2			19800	20200	163		B3-U0-G3	B3-U0-G3

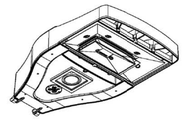
For additional information on Non-Shielded and Shielded EACL IES files, please refer to LED.com

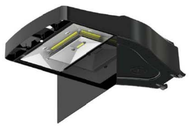
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EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

EACL® Series
LED Area Light/Compact Low Wattage





PE Accessories (To Be Order Separately)

SAP NUMBER	PART NUMBER	DESCRIPTION
93139152	WANS - 277	ANSI 3IE-dl Dimming PE Daintree Enable, 105-305v
93139363	WANS - 480	ANSI 3IE-dl Dimming PE Daintree Enable, 312-530v
93029237	PED-MV-LED-7	ANSI/C136.41 Dimming PE, 120-277V
93029238	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V

SAP NUMBER	PART NUMBER	DESCRIPTION
28299	PECDTL	STANDARD 120-277V
28294	PECDTL	STANDARD 480V
80458	PECDTL	STANDARD 347V
73291	SOCL-PECTL	Shorting cap

Back Light Shied

SHIELD ORIENTATIONS	CUTOFF DISTANCE	SHIELD ORDER LOGIC
Back	Long	ELS-EACL-REL-BLCK

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2 GE EVOLVE EACL SERIES LUMINARIES SHEILDING

EVOLVE

EACL Series Luminaires
Shielding Specification & Ordering Guide

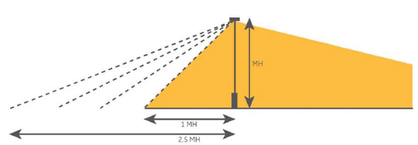


The next evolution of the **Evolve®** LED Area Light delivers even better trespass control. Current's exclusive reflective optical ring design produces superior vertical illuminance and efficiently directs the light without wasteful and unwelcomed light spill into neighboring properties. Due to the extensive variation of parking lot configurations coupled with tightening ordinances,

Current now offers a full array of shielding to accommodate challenging sites.

The shielding options available for the Evolve® Area Light focus on the following applications:

- Left & Right Cutoff
- Front Cutoff
- Backlight Control & B-U-G Improvement



Within each of the shielding families, there are multiple shielding cutoff levels that are categorized in mounting height (MH) increments. Current accommodates cutoff distance from the pole from 1MH to 2.5 MH in 0.5 MH increments. The shields that are listed are for the most common applications. Please contact the manufacturer if your need is not listed.

All shields can be installed easily in the field. The next evolution of the Evolve® LED Area Light and shielding options will help you meet any parking lot challenge.

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3 GE EVOLVE EACL SERIES LUMINARIES SHEILDING

EVOLVE

SSSE Series Poles
Square | Straight | Steel

Project Name
Date Type
Notes



APPLICATIONS
Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location.

CONSTRUCTION

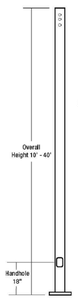
Shaft:	One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners. Minimum yield of 46,000 psi (ASTM-A500, Grade B). Longitudinal weld seam to appear flush with shaft side wall. Steel base plate with axial bolt circle slots welded to pole shaft having minimum yield of 36,000 psi (ASTM A36)
Base Cover:	Two-piece square aluminum base cover included standard
Pole Cap:	Pole shaft supplied with removable cover when applicable. Tenon and post-top configurations also available
Hand Hole:	Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening). Mounting provisions for grounding lug located behind gasketed cover
Anchor Bolts:	Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
Anchor Bolt Part Numbers:	• 3/4"x 30 x 3 — TAB-30-M38 • 1 x 36 x 4 — TAB-36-M38

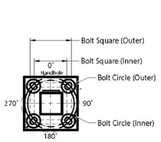
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in multiple standard colors; Custom colors available: RAL number preferable

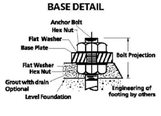
10 DAY - EVOLVE EXPRESS SHIP PROGRAM

- Ships in 10 days
- Limit of 15 poles

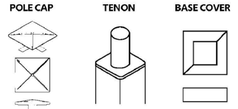




BASE DETAIL



POLE CAP | **TENON** | **BASE COVER**



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4 GE EVOLVE SSSE SERIES POLES

EVOLVE

SSSE Series Poles
Square | Straight | Steel
Ordering Information

Project Name
Date Type
Notes

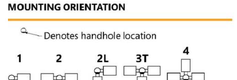
Example: SSSE25-40A-2-E2-DKBZ-UL

SSSE	20	40	B		E2	GRAY	
SERIES	HEIGHT	SHAFT	THICKNESS	MOUNTING	POLE DRILLING	FINISH	OPTIONS
SSSE = Evolve Square Straight Steel Pole*	**10 - 10 Ft.** **12 - 12 Ft.** **14 - 14 Ft.** **16 - 16 Ft.** **18 - 18 Ft.** **20 - 20 Ft.** **25 - 25 Ft.** **30 - 30 Ft.** **35 - 35 Ft.** **40 - 40 Ft.**	**40** 4" square **40** 4" Square **40** 4" Square **40** 4" Square **40** 4" Square **50** 5" Square **60** 6" Square **40** 4" Square **50** 5" Square **60** 6" Square **40** 4" Square **50** 5" Square **60** 6" Square **40** 4" Square **50** 5" Square **60** 6" Square **60** 6" Square	**A** -0.125" **A** -0.125" **A** -0.125" **A** -0.125" **B** - .188" **B** - .188" **B** - .188" **B** - .188" **B** - .188" **B** - .188" **A** -0.125" **B** - .188" **B** - .188" **C** - .25" **B** - .188" **B** - .188" **C** - .25" **B** - .188" **B** - .188"	1 = Single arm mount 2 = Two fixtures at 180° 2L = Two fixtures at 90° 3T = Three fixtures at 90° 3Y = Three fixtures at 120° 4 = Four fixtures at 90° **TA**[2] = Tenon (2.38" OD x 4" Tall) **TB**[2] = Tenon (2.88" OD x 4" Tall) **TC**[2] = Tenon (3.5" OD x 6" Tall) **TR**[1] = Removable Tenon (2.38" x 4") **OT** = Open Top (includes pole cap)	**E2** = Evolve Square Pole **UDP07**[3] = 1/8in HDW rango 1.69 - 2.24 **UDP02**[3] = 1/2in HDW rango 1.69 - 2.24 **UDP03**[3] = 1/8in HDW rango 2.25 - 2.99 **UDP04**[3] = 1/2in HDW rango 2.25 - 2.99 **UDP05**[3] = 1/8in HDW rango 3.00 - 3.75 **UDP00**[3] = 5/16in HDW rango 3.00 - 3.75 **UDP07**[3] = 1/8in HDW rango 3.76 - 4.49 **UDP08**[3] = 5/16in HDW rango 3.76 - 4.49 **UDP09**[3] = 1/8in HDW rango 4.50 - 5.49 **UDP10**[3] = 5/16in HDW rango 4.50 - 5.49 **UDP11**[3] = 3/8in HDW rango 5.50 - 6.00 **UDP12**[3] = 5/16in HDW rango 5.50 - 6.00	**DKBZ** = Dark Bronze **BLCK** = Black **GRAY** = Gray ** Contact factory for custom color options*	**GFI**[4] = 20 Amp GFCI Receptacle and Cover **EHH**[4] = Extra Handhole **C05**[5] = 0.5" Coupling **C07**[5] = 0.75" Coupling **C20**[5] = 2" Coupling **MPB**[6] = Mid-pole Luminaire Bracket **VM1** = 1st mode vibration damper **VM2**[4] = 2nd mode vibration damper **LAB** = Less Anchor Bolts **UL** = UL Certified

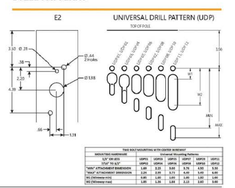
NOTES:
1. Removable tenon used in conjunction with side arm mounting. Field specify desired arm.
2. Specify option location using MOUNTING ORIENTATION logic shown on this page.
3. Not available with VM1 = Mode Vibration Damper
4. VM1 recommended on poles 20' and taller with EPA of less than 1. Field installed.
5. UDP allow mounting of most popular fixtures on the market
6. Factory installed.

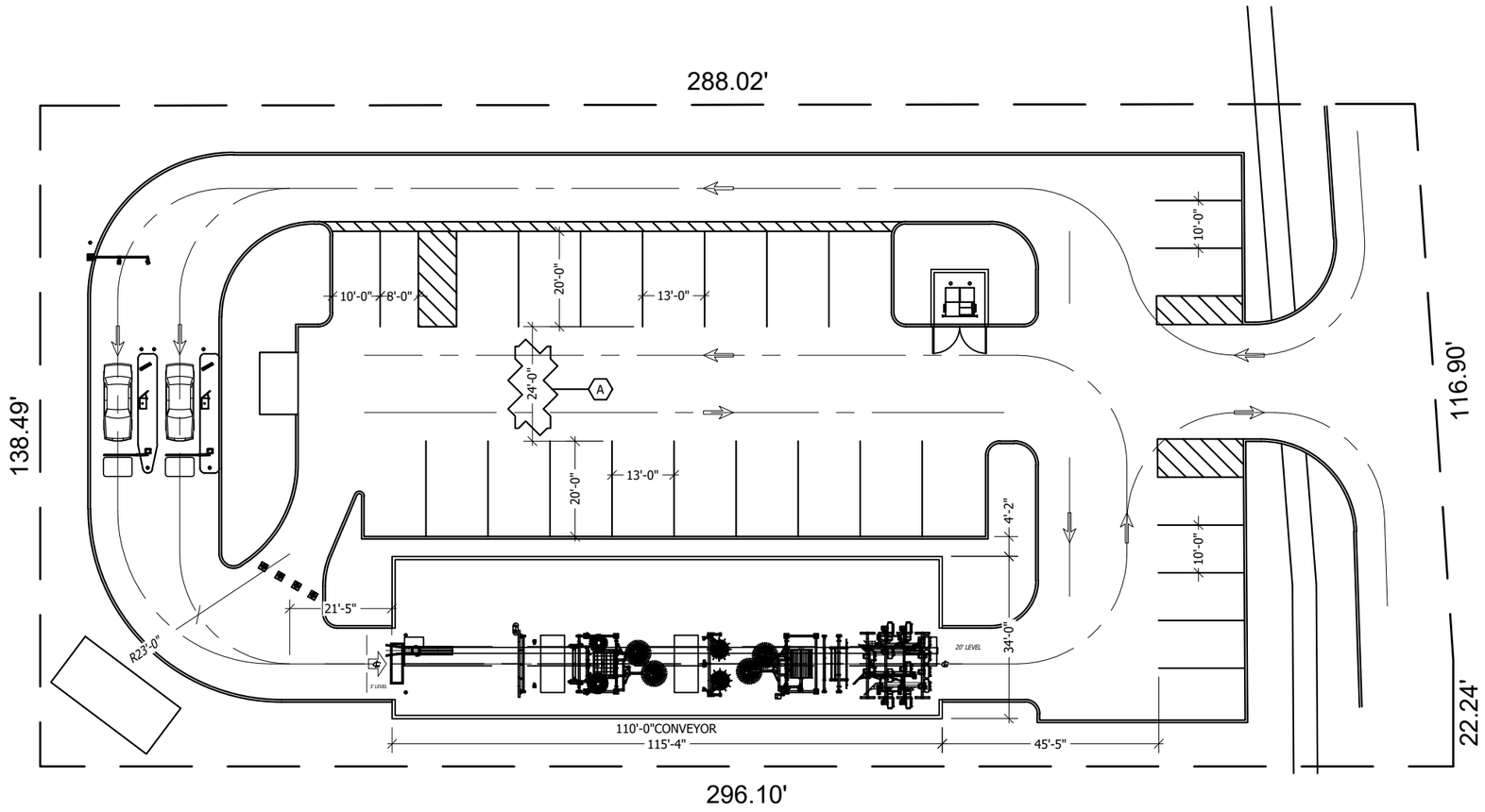
Indicates availability in the **EXS 10 Day Evolve Express Ship Program**

MOUNTING ORIENTATION



DRILL PATTERNS


E2
UNIVERSAL DRILL PATTERN (UDP)
TOP (STEEL)
Ø .44 (11mm)
Ø 1.188
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Ø 400.06
Ø 400.56
Ø 401.06



SITE DESIGN REQUIREMENTS	
DESCRIPTION	STANDARD
TURNING RADIUS	23'
CENTERLINE TO CURB	6'
END OF TUNNEL TO EXIT CURB	35' MINIMUM
POS TO START OF CORRELATOR	
1 POS STRAIGHT TO CORRELATOR	40'
2 POS STRAIGHT TO CORRELATOR	55'
3 POS STRAIGHT TO CORRELATOR	65'
END OF TURN FROM POS TO CORRELATOR	14'
VACUUMS	
STRAIGHT (SINGLE)	27'
STRAIGHT (DOUBLE)	30'
ANGLED (SINGLE)	16'
ANGLED (DOUBLE)	24'
REAR OF VACS TO BUILDING	5'

DIMENSION DOES NOT SATISFY DESIGN REQUIREMENTS. THE OWNER MAY PROCEED WITH THE DESIGN AS INDICATED WITH THE UNDERSTANDING THAT THE HIGHLIGHTED ELEMENTS ARE NOT RECOMMENDED

SITE DESIGN NOTES:

1. IT IS RECOMMENDED THAT THE ENTIRETY OF THE SITE FLATWORK BE POURED CONCRETE. AT A MINIMUM, CONCRETE IS REQUIRED AT ENTRANCE AND EXIT SLABS TO/FROM CAR WASH TUNNEL AND AT THE PAY STATION ISLAND DRIVE LANES. SEE STRUCTURAL DRAWINGS FOR MORE INFORMATION.
2. PROVIDE CURB RAMP NEAR EQUIPMENT ROOM EXTERIOR DOORS TO FACILITATE THE MOVEMENT OF EQUIPMENT, MATERIALS, CHEMICALS, ETC. INTO THE BUILDING.
3. DESIGN SITE DRAINAGE SUCH THAT EXIT PAD SLOPE REQUIREMENTS ARE MET IN THE DIRECTION OF TRAVEL AND WATER DOES NOT COLLECT IN THE EXIT DRIVE. EXCESS WATER WILL DRAIN FROM CARS AS THEY LEAVE THE WASH TUNNEL.
4. 5' SETBACKS ARE REPRESENTATIVE ONLY. SETBACKS AND ALL OTHER ASPECTS OF THE SITE DEVELOPMENT MUST COMPLY WITH LOCAL AUTHORITIES.

DESIGN RECOMMENDATIONS/COMMENTS
(A) DRIVE LANE BETWEEN VACS TOO NARROW (28'-30' RECOMMENDED)

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DATE	REV	DESCRIPTION	DWN
05.29.26	-	PROJECT CREATED	DJP
06.03.26	-1-	PRESENTATION SET	DJP

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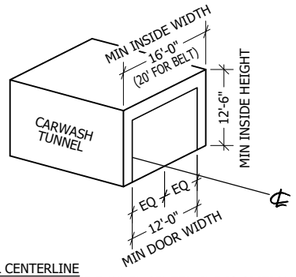
265230P-A5 | ROAD RUNNER EXPRESS MUKWONA.

SITE PLAN & DESIGN REQUIREMENTS

CITY:	STATE/COUNTRY:	DATE:	SCALE:	REV:
MUKWONAGO	WI	06.03.26	1" = 30'	-1-

WG-011

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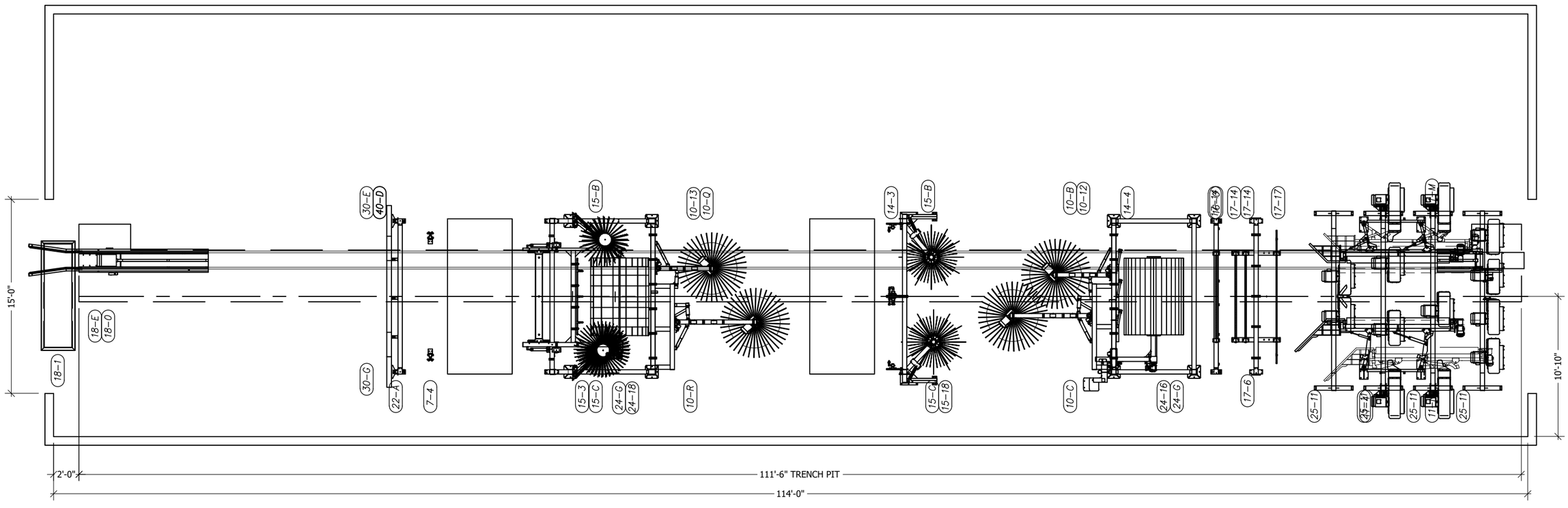


℄ TUNNEL CENTERLINE
THE LOCATION OF THE TUNNEL CENTERLINE IS CRITICAL AND IS DEFINED BY THE CENTER OF THE EXIT DOOR. TUNNEL ENTRY AND EXIT DOORS MUST ALIGN.

TUNNEL CENTERLINE DETERMINES EQUIPMENT CENTERLINE.

2 TUNNEL CENTERLINE
SCALE: N.T.S.

BUILDING DESIGN REQUIREMENTS	
DESCRIPTION	STANDARD
TUNNEL	
INSIDE WIDTH	≥ 20'
INSIDE HEIGHT	≥ 14'
ENTRY/EXIT DOOR WIDTH	14'
EDGE OF DOOR TO TUNNEL WALL	≥ 3'
EQUIPMENT ROOM	
INSIDE WIDTH	≥ 10' (8' MIN)
INSIDE HEIGHT	≥ 14' (11' MIN)
DOOR WIDTH	≥ 72"
DOOR HEIGHT	8' MINIMUM



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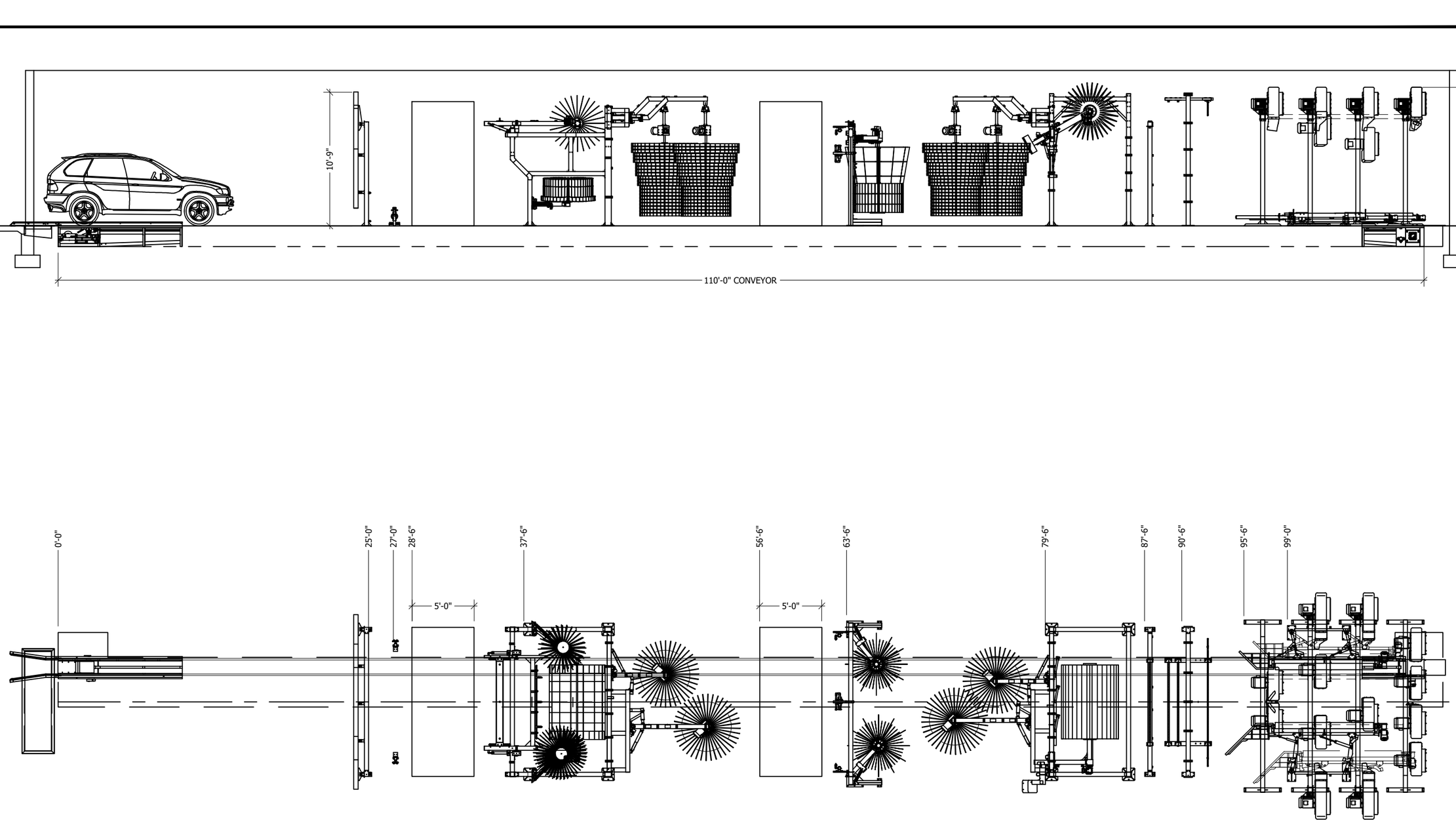
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06.03.26	-1-	PRESENTATION SET	DJP

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265230P-A5	ROAD RUNNER EXPRESS MUKWONA.	
EQUIPMENT LAYOUT DRAFT		WG-012

CITY:	STATE/COUNTRY:	DATE:	SCALE:	REV:
MUKWONAGO	WI	06.03.26	1/8"=1'	-1-

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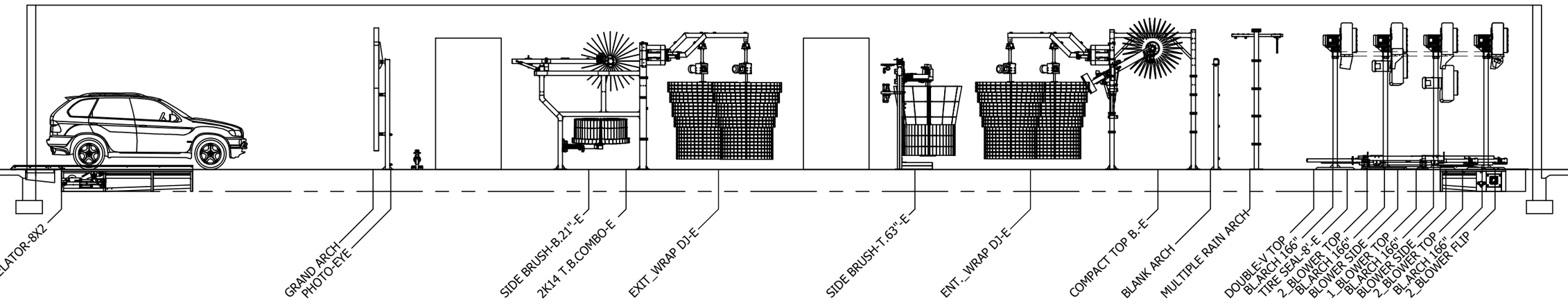
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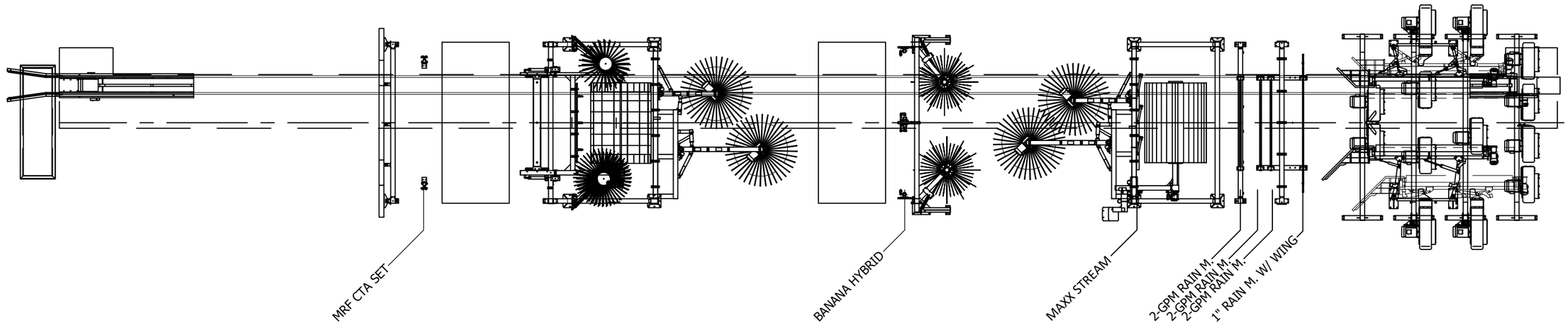
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265230P-A5	ROAD RUNNER EXPRESS MUKWONA.
TUNNEL LAYOUT DRAFT	WQ-311

CITY:	STATE/COUNTRY:	DATE:	SCALE:	REV:
MUKWONAGO	WI	06.03.26	1/8"=1'	-1-

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265230P-A5 | ROAD RUNNER EXPRESS MUKWONA.

TUNNEL DESCRIPTION & CHEMICAL
DRAFT

WQ-312

CITY:	STATE/COUNTRY:	DATE:	SCALE:	REV:
MUKWONAGO	WI	06.03.26	1/8"=1'	-1-

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GENERAL NOTES

Preliminary Drawings:
Preliminary drawings may be provided with a quote to indicate the location of vacuum equipment, piping, and hoses. Drawings may be used in direct coordination with Architects' and Engineers' plans for city/AHJ/client approval. Accurate and complete site plans must be provided to ensure the quality of your vacuum area to coordinate issues such as vacuum parking space width/angle, traffic flow, and hose reach.

Drawings are preliminary until the final system order is signed by the client.

Changes made to a vacuum system without Vacutech's consultation voids all Vacutech responsibility as well as the system warranty.

INSTALLATION NOTES

Installation By Others:
Installation drawings are provided with each project. Most projects require 2 or more installers and a forklift. Buried pipe, footings and concrete equipment pad(s) should be completed before installing Vacutech systems. J-bolt template kits for footings for vacuum arches and stanchions are available for purchase from Vacutech. Refer to drawings for footing requirements. Changes to vacuum piping, vacuum equipment location, and vacuum equipment enclosure will effect the performance of your system. Changes made to a vacuum system without Vacutech's consultation voids all Vacutech responsibility and the system warranty.

Vacutech System Install:
Vacutech offers installation as an option when bidding a project.

Please note that the scope of Vacutech's installation only includes work above ground. Vacutech will install vacuum arches/stanchions to concrete footings, install vacuum piping and set vacuum equipment in place.

Vacutech does not dig trenches, auger footings, dig/backfill/bury pipe or conduit, or provide any work below grade.

Vacutech does not pour footings, install J-bolts, install concrete trenches with covers, pour concrete pads, pour grout or do concrete work of any kind. Vacutech does not do core drilling through walls or patch any type of wall coring.

Vacutech does not do any type of roof penetration sealing. I.e. rubber boots, flat room mating, or any other type of material.

Vacutech does not wire lights, producers, disconnects, VFDs , starters or any other electrical component. Vacutech does not pull wire through conduits. These items must be done by a Licensed Electrician.

WARRANTY NOTES

CHANGES MADE TO VACUUM SYSTEM WITHOUT VACUTECH CONSULTATION VOIDS ALL VACUTECH RESPONSIBILITY AND SYSTEM WARRANTY

Equipment warranty information: (if applicable)
When vacuum equipment is installed in an enclosure with 4 walls and a roof it must be ventilated. Enclosure door must be louvered and an exhaust fan with thermostat set at 85°f must be installed to turn over air every 15 min. Vacuum producer must be exhausted outside with metallic pipe no smaller than 6" with exhaust pipe opening protected from elements. Equipment pad must be flat and level.

Variable frequency drive (VFD) warranty information: (if applicable)
VFDs must be wired from main distribution panel in separate conduit (sized per code; based on producer H.P. and voltage) to each VFD and from each VFD to producer motor.

A separate conduit, sized per code, must also be installed from VFD to vacuum pressure transducer installed on filter separator. If two (2) or more VFD's are installed in one (1) enclosure, a separate conduit must be installed for each VFD. Install separate conduit from enclosure to each producer motor, and each filter separator if there is more than one (1).

PIPE NOTES

Piping systems above ground
Piping system shall be schedule 40 (or sch 80) solid core PVC or ABS plastic pipe, with plastic D.W.V. (drain, waste and vent) fittings. Zinc, aluminum, or galvanized tubing, with directional flow zinc fittings of no less than 16 gauge, designed specifically for central vacuum systems are also acceptable.

Buried piping systems cast iron no-hub
In-ground piping systems that are subject to ground freeze/thaw conditions or excessive movement shall be cast iron with no-hub fittings and no-hub couplings (w/ stainless steel band).

Buried piping systems PVC sch 40 (or sch 80)
In-ground piping systems using PVC pipe shall be sch 40 (or sch 80) solid core, with PVC D.W.V.(drain, waste, and vent) fittings. Plastic pipe installed in-ground have a potential of possible cracking and wear. All plastic pipe systems in-ground must be below freeze line.

System notes:
All interior surfaces shall be free of burrs and obstructions for a non-restrictive air flow.ABS and PVC piping shall be cut straight and removed of burrs. Piping shall be attached together using a primer, and a cement (clear PVC cement for PVC/ black abs cement for abs) for a 100% tight seal.

Overhead piping systems shall be supported by means of approved pipe hangers, and shall be installed at a maximum of six feet O.C. when using abs or PVC pipe and ten feet when using zinc or aluminum tubing. All fittings supporting vacuum drop/hose assemblies shall be supported with within one foot on each side of fitting connection.

Piping systems shall be tested to hold 10 psi for a minimum of 24 hours.

When vacuum system is installed in potentially explosive environment, the following may be required as a minimum: Explosion proof motor Class I - Group D & Class II - Group E, F & G. Aluminum piping with zinc fittings. Primary and filtered separators and hose assemblies require special grounding. Verify all conditions.

PVC and ABS plastic pipe are not U.V. rated and will discolor and soften/cause bowing when exposed to direct sunlight. It is recommended that all exposed plastic pipe and fittings be primed and painted to help prevent this. It is recommended to use zinc, or aluminum tubing and zinc fittings be used when exposed to sun.

Plastic pipe exposed to elements:
PVC pipe will become brittle at 40° f and can crack/split when moving debris collides with it, it is recommended to use cast iron, zinc, or aluminum tubing for colder conditions.

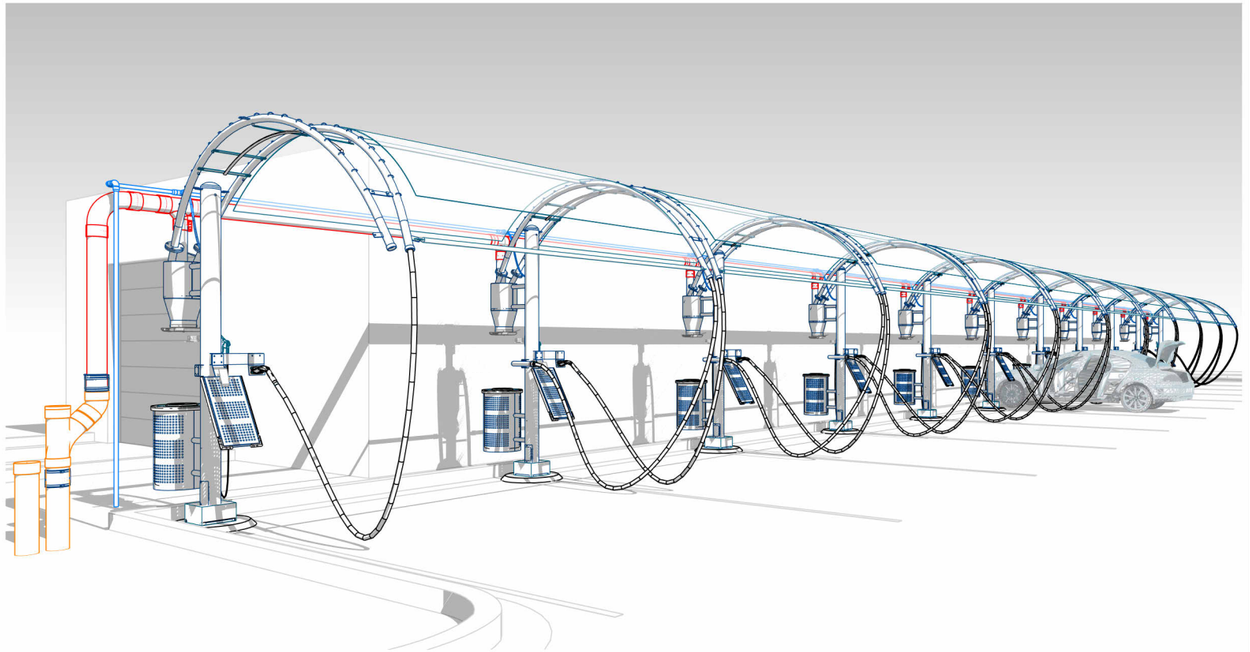
ADDITIONAL NOTES

VFD Systems:
Instructions for wiring VFD to producer and Filter Separator are available for your electrician. After wiring is complete, call our customer service to complete programming.

Arch Systems: How Awnings are ordered (Cooloroo/Weblon)
Step 1: Arches are to be completely installed on site.
Step 2: After installation, Vacutech will send an awning measurement form to be filled out with instructions on how and where to measure. The awning form must be filled out entirely, signed, dated, and faxed or emailed to Vacutech for production.
Step 3: Awnings are shipped to site w/ instructions.

Maintenance:
System longevity under continuous operation is extended by regular maintenance. Issues commonly result from failure to remove obstructions in the piping system, replace damaged or worn parts, or not regularly changing filter bags. Refer to Vacutech maintenance instructions

Assign a person to central vacuum maintenance:
To ensure continued trouble free central vacuum system operation and to avoid downtime during periods of heavy use, assign an employee to follow a strict maintenance schedule. Refer to Vacutech recommended maintenance schedule.



VACUTECH

Elevation: 977' ASL

AN NCS COMPANY

SHEET INDEX		
NO.	**NAME**	**REV.**
V001	COVER SHEET	1
V101	OVERALL SITE PLAN	1
V111	VACUUM SITE PLAN	1
V121	VACUUM SITE ISOMETRIC	1
V201	PIPE LAYOUT	1
V211	PIPE ISOMETRIC	1
V301	PARKING ELEVATION	1
V302	ADA PARKING ELEVATION	1
V311	ARCH NUMBERING PLAN	1
V401	FOOTING LOCATION PLAN	1
V402	BASEPLATE TEMPLATE	1

SHEET INDEX		
NO.	**NAME**	**REV.**
V411	FOOTING DETAIL	1
V601	EQUIPMENT SITE PLAN	1
V611	EQUIP. SITE ISOMETRIC	1
V621	EQUIPMENT ELEVATION	1
V701	EQUIPMENT DETAILS	1
V702	ELECTRICAL DIAGRAM	1
V711	ENCLOSURE DETAIL	1
V721	PIPE DETAILS	1
V722	TRENCH DETAILS	1
V731	VFD DETAILS	1

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WEB: www.vacutechllc.com

ROADRUNNER EXPRESS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN 53149

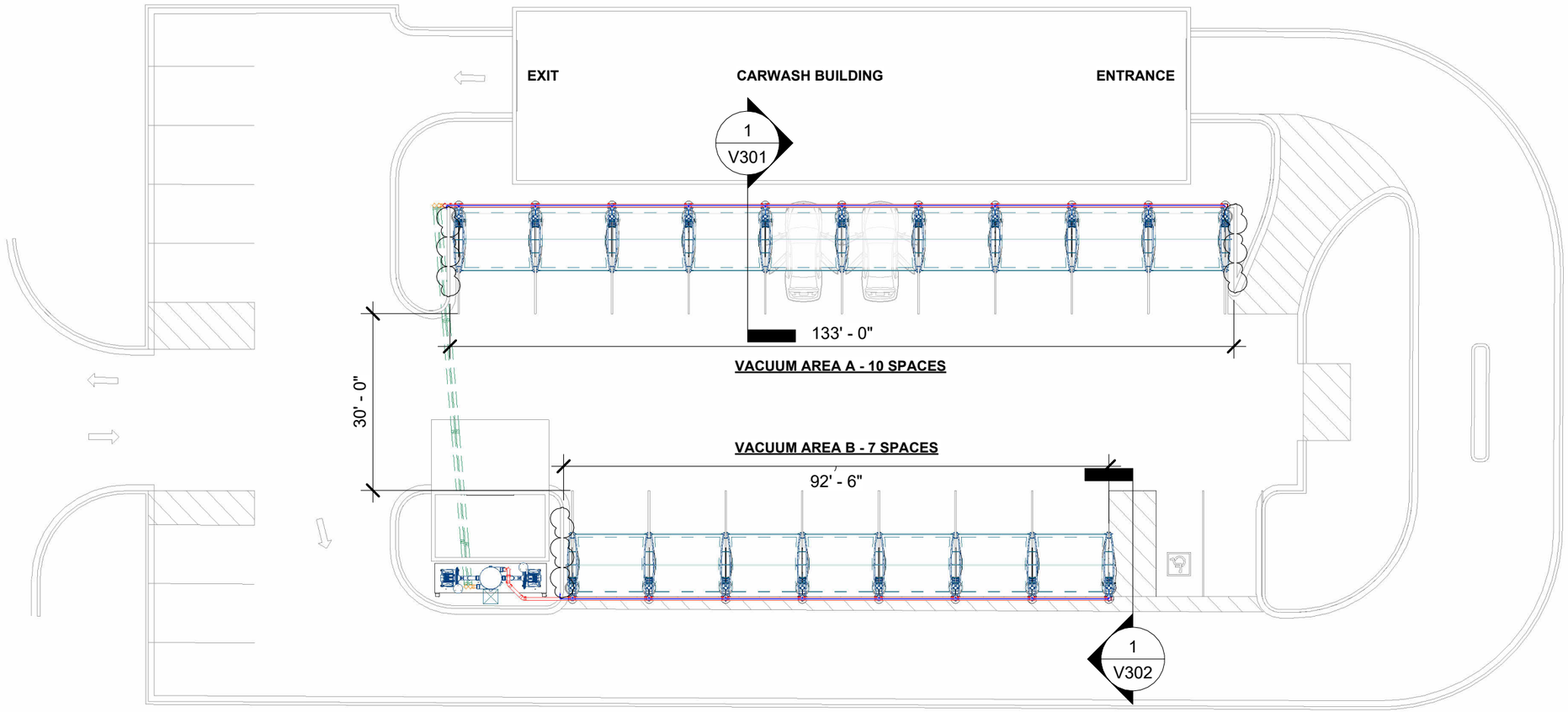
#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

COVER SHEET

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V001

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CONSTRUCTION NOTES

GENERAL NOTES:
a. ALL DIMENSIONS TO BE FIELD VERIFIED BY OWNER
b. IF VACUUM EQUIPMENT IS ENCLOSED WITH ROOF/CEILING, REFER TO VENTILATION REQUIREMENTS UNDER EQUIPMENT WARRANTY INFORMATION
c. PIER DESIGN AND REINFORCEMENT FOR CONCEPTUAL USE ONLY. CONSULT STRUCTURAL ENGINEER IN YOUR AREA FOR SPECIFIC DESIGN CRITERIA.
d. COMPLY WITH ALL STATE/ COUNTY BUILDING CODES IN YOUR AREA

EQUIPMENT & MATERIAL:
a. RUN COMPRESSED AIR TO AIR COMPRESSOR LOCATION (BY OTHERS)
b. WALL PENETRATION: CORE DRILLING MAY BE REQUIRED FIELD VERIFY HEIGHT
c. 19'Lx5'Wx4"H MINIMUM FLAT AND LEVEL CONCRETE FLOOR SPACE REQUIRED FOR VACUUM EQUIPMENT
d. 30"x30" MINIMUM SPACE REQUIRED TO REMOVE DEBRIS BUCKET FROM FILTER SEPARATOR

VACUUM & PLUMBING:
a. SUPPORT SCHEDULE 40 PVC OVERHEAD DRY/WET VACUUM PIPE EVERY 6' MAXIMUM; USE UNISTRUT & CLAMP OR OTHER SUPPORT (**PROVIDED BY OTHERS)**
b. ALL FITTINGS TO BE **'DWV'**

NOTE: CURBS HAVE BEEN ADJUSTED TO ALLOW FOR EQUAL PARKING SPACING AND VACUTECH'S RECOMMENDED 1'-6" FROM CENTER OF FOOTING TO FACE OF CURB TO ALLOW FOR ADEQUATE FOOTING SPACING.

1 OVERALL SITE PLAN

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#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

OVERALL SITE PLAN

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

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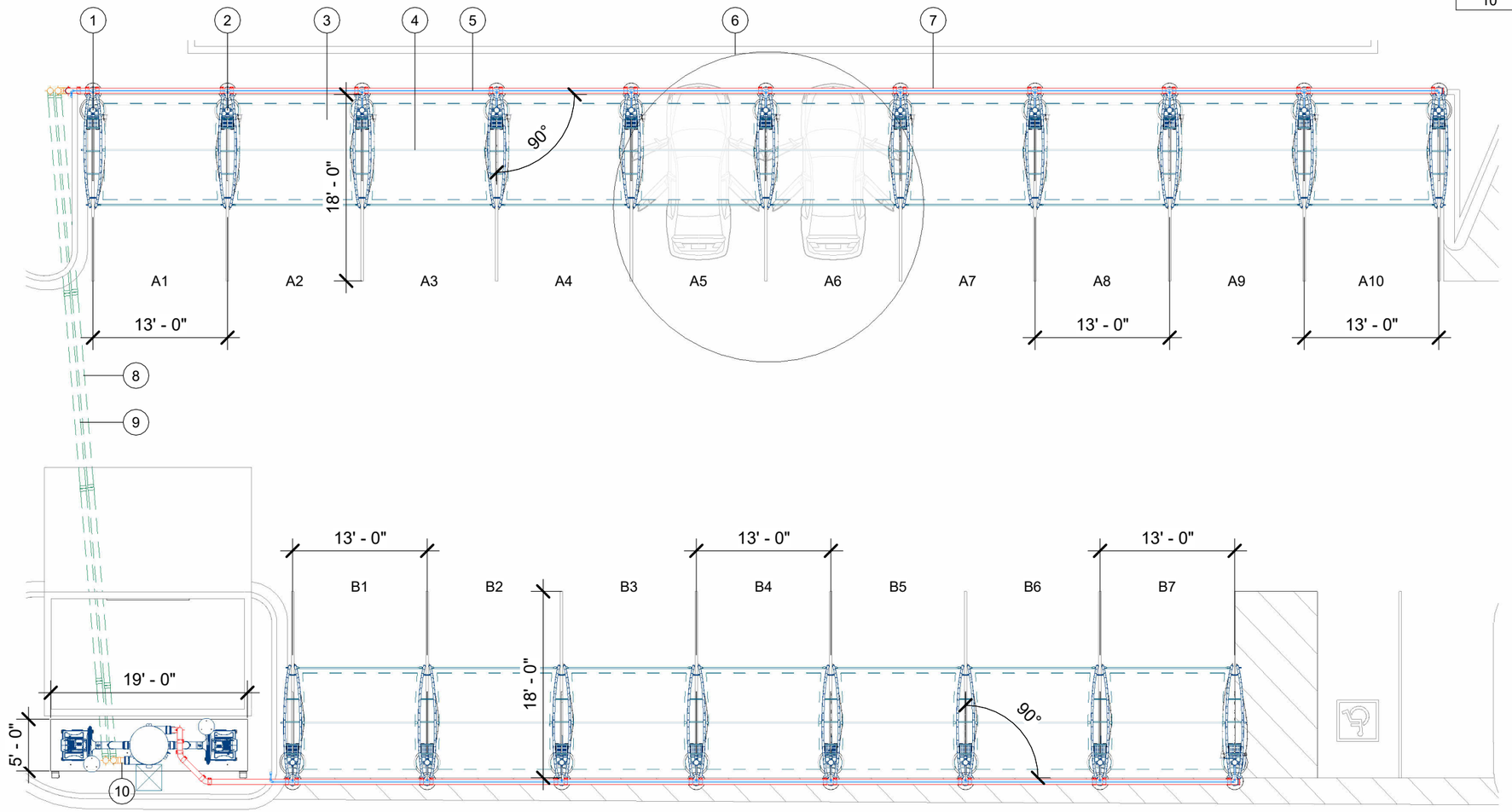
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VACUUM EQUIPMENT A & B

QTY	ITEM
2	T-FORCE (2211) PRODUCER
2	T-FORCE OUTDOOR MUFFLER
1	45x96 FILTER SEPARATOR

SITE PLAN

ITEM	DESCRIPTION
1	SINGLE USER UMBRELLA ARCH AT ENDS OF VACUUM SPACES
2	DUAL USER UMBRELLA ARCH BETWEEN VACUUM SPACES
3	FABRIC AWNING
4	9' - 16'-6" ADJUSTABLE CROSSBAR
5	1" OVERHEAD AIR TUBE
6	15' HOSE REACH
7	6" OVERHEAD ALUMINUM VACUUM TUBE
8	6" SCH. 40 SOLID CORE PVC BURIED PRIMARY VACUUM PIPE (BY OTHERS)
9	6" SCH. 40 SOLID CORE PVC BURIED BACK-UP VACUUM PIPE (BY OTHERS)
10	6" OVERHEAD SCH. 40 SOLID CORE PVC VACUUM PIPE



1 SITE PLAN

VACUUM AREA A

QTY	ITEM
2	SINGLE USER UMBRELLA ARCH
9	DUAL USER UMBRELLA ARCH
10	CREVICE VACUUM TOOL & HOLDER
10	DUO LOCK TOOL & HANGER
10	CLAW TOOL EXTENSION BRACKET
20	1-1/2"x15' RAPIDLOCK HOSE
11	AIR NOZZLE & HOSE
11	13" MAT RACK W/ DOOR PROTECTION
11	30 GALLON WASTE RECEPTACLE
11	6' LED LIGHT
11	AIR TOOL HANGER
20	9' - 16'-6" ADJUSTABLE CROSSBAR
10	FABRIC AWNING

VACUUM AREA B

QTY	ITEM
7	SINGLE USER UMBRELLA ARCH
1	DUAL USER UMBRELLA ARCH
8	CREVICE VACUUM TOOL & HOLDER
1	DUO LOCK TOOL & HANGER
1	ADA TOOL BRACKET W/ AIR HANGER
1	CLAW TOOL EXTENSION BRACKET
9	1-1/2"x15' RAPIDLOCK HOSE
8	AIR NOZZLE & HOSE
8	13" MAT RACK W/ DOOR PROTECTION
8	30 GALLON WASTE RECEPTACLE
8	6' LED LIGHT
8	AIR TOOL HANGER
14	9' - 16'-6" ADJUSTABLE CROSSBAR
7	FABRIC AWNING

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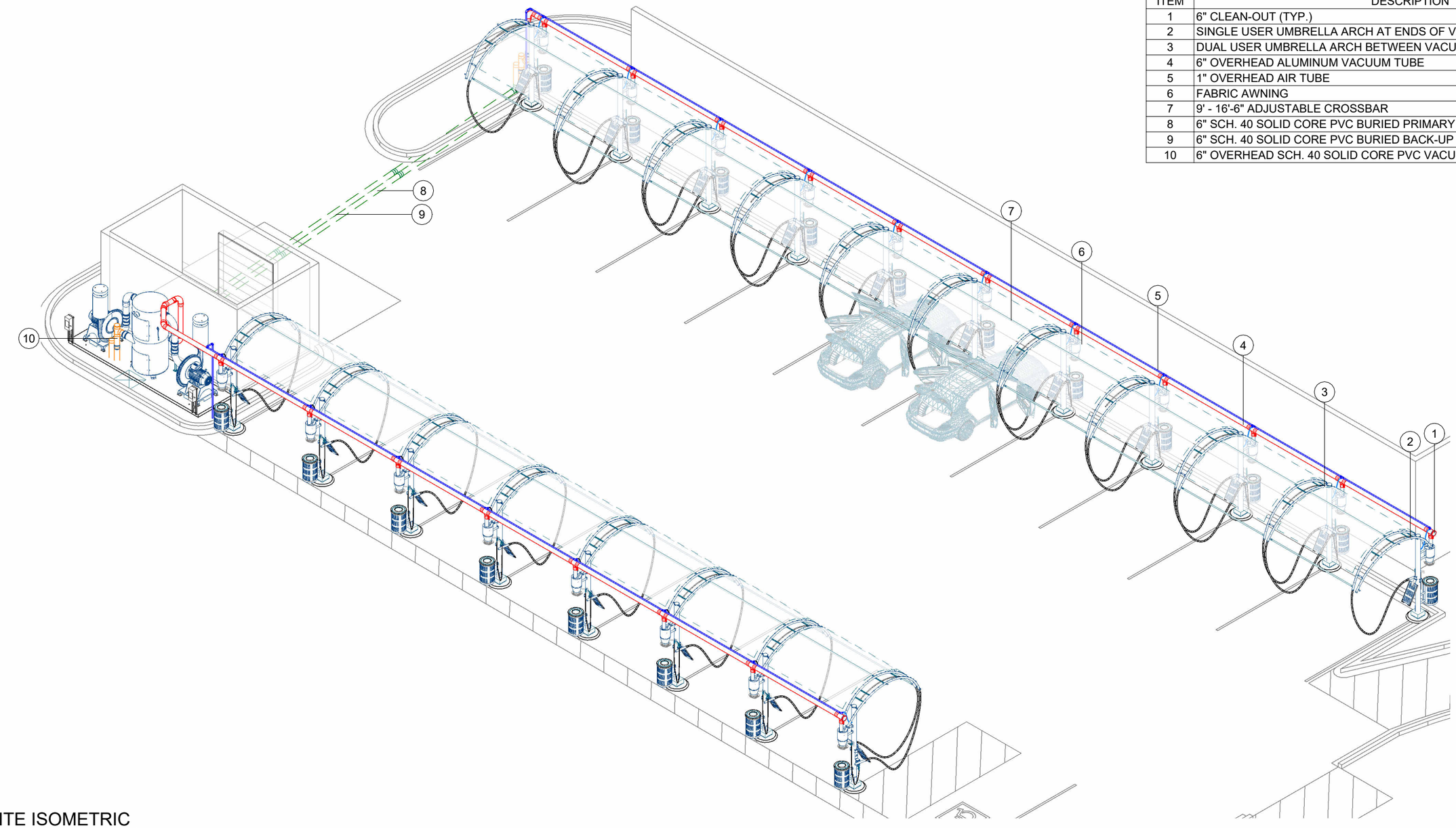
VACUUM SITE PLAN

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V111

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SITE ISOMETRIC	
ITEM	DESCRIPTION
1	6" CLEAN-OUT (TYP.)
2	SINGLE USER UMBRELLA ARCH AT ENDS OF VACUUM SPACES
3	DUAL USER UMBRELLA ARCH BETWEEN VACUUM SPACES
4	6" OVERHEAD ALUMINUM VACUUM TUBE
5	1" OVERHEAD AIR TUBE
6	FABRIC AWNING
7	9' - 16'-6" ADJUSTABLE CROSSBAR
8	6" SCH. 40 SOLID CORE PVC BURIED PRIMARY VACUUM PIPE (BY OTHERS)
9	6" SCH. 40 SOLID CORE PVC BURIED BACK-UP VACUUM PIPE (BY OTHERS)
10	6" OVERHEAD SCH. 40 SOLID CORE PVC VACUUM PIPE



1 SITE ISOMETRIC

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PHONE: (307) 675-1982
EMAIL: vacinfo@ncswash.com
WEB: www.vacutechllc.com

ROADRUNNER EXPRESS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN 53149

#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

VACUUM SITE ISOMETRIC

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

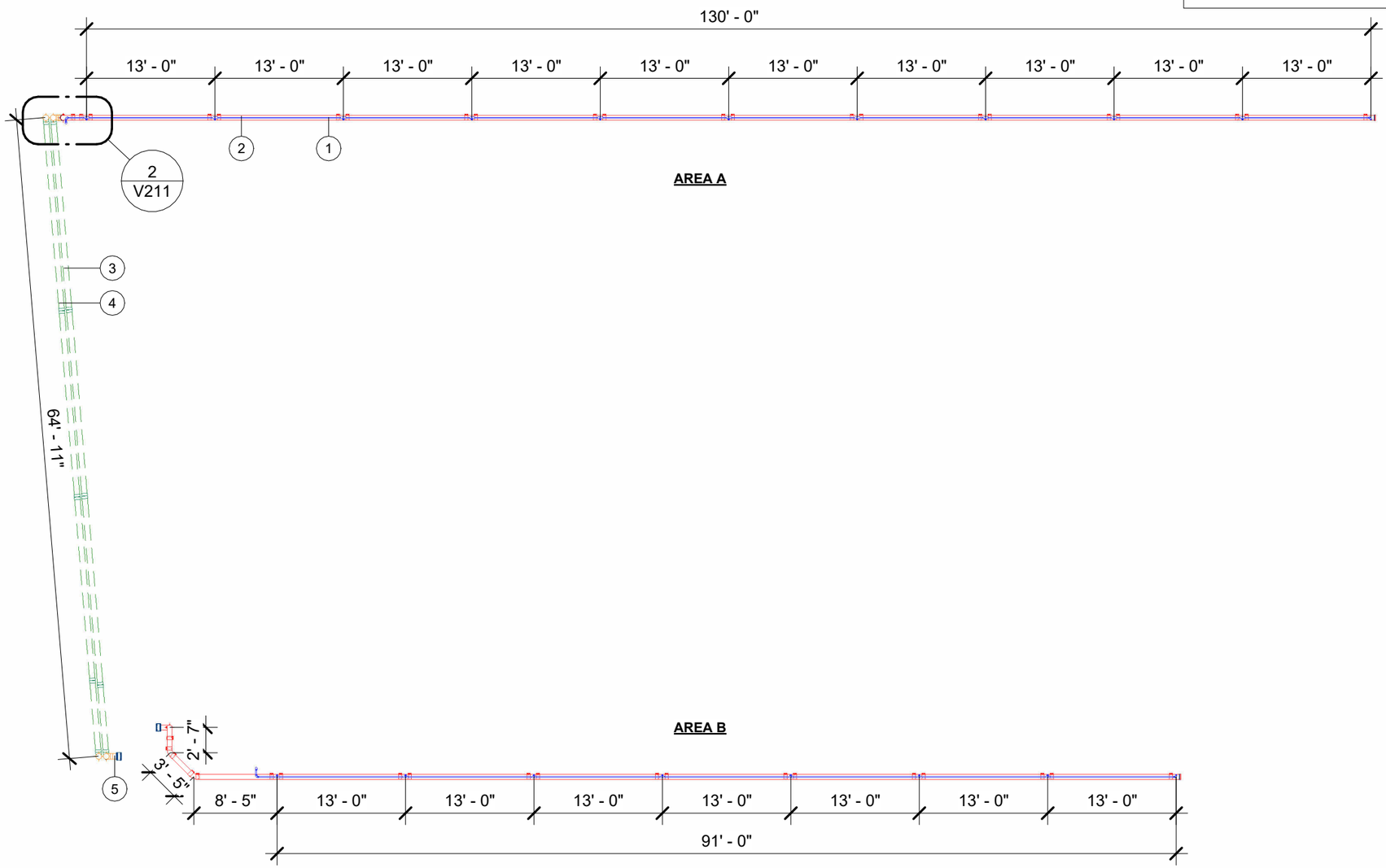
V121

5/19/2026 2:11:18 PM

PIPE LAYOUT	
ITEM	DESCRIPTION
1	1" OVERHEAD AIR TUBE
2	6" OVERHEAD ALUMINUM VACUUM TUBE
3	6" SCH. 40 SOLID CORE PVC BURIED PRIMARY VACUUM PIPE (BY OTHERS)
4	6" SCH. 40 SOLID CORE PVC BURIED BACK-UP VACUUM PIPE (BY OTHERS)
5	6" OVERHEAD SCH. 40 SOLID CORE PVC VACUUM PIPE

PIPE NOTES:

a. FIELD VERIFY ALL DIMENSIONS
b. SUPPORT SCHEDULE 40 PVC OVERHEAD DRY/WET VACUUM PIPE EVERY 6' MAXIMUM; USE UNISTRUT & CLAMP OR OTHER SUPPORT (**PROVIDED BY OTHERS)**
c. RUN COMPRESSED AIR TO AIR COMPRESSOR LOCATION **(BY OTHERS)**
d. COMPRESSED AIR RECOMMENDED WORKING PRESSURE IS 75PSIG AND 10SCFM AT INTERFACE
e. WALL PENETRATION: CORE DRILLING MAY BE REQUIRED FIELD VERIFY HEIGHT
f. REFER TO SHEET V721 FOR PIPE ASSEMBLY CUTSHEETS
g. ALL FITTINGS TO BE '**DWV**'



1 PIPE LAYOUT

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ROADRUNNER EXPRESS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN 53149

#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

PIPE LAYOUT

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V201

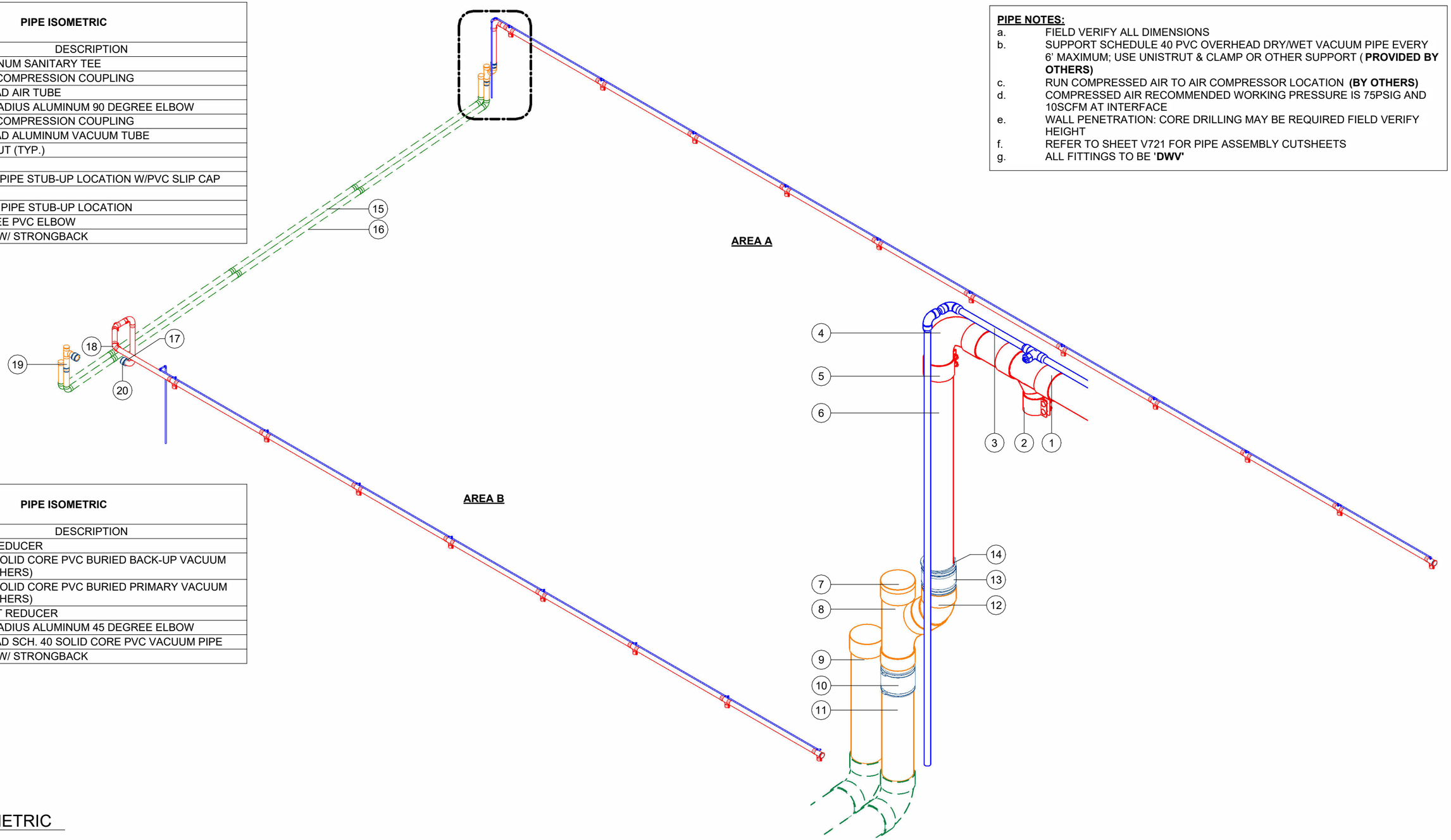
5/19/2026 2:11:18 PM

PIPE ISOMETRIC	
ITEM	DESCRIPTION
1	6"x4" ALUMINUM SANITARY TEE
2	4" METFLO COMPRESSION COUPLING
3	1" OVERHEAD AIR TUBE
4	6" SHORT RADIUS ALUMINUM 90 DEGREE ELBOW
5	6" METFLO COMPRESSION COUPLING
6	6" OVERHEAD ALUMINUM VACUUM TUBE
7	6" CLEAN-OUT (TYP.)
8	6" PVC WYE
9	6" BACK-UP PIPE STUB-UP LOCATION W/PVC SLIP CAP
10	6" FERNCO
11	6" PRIMARY PIPE STUB-UP LOCATION
12	6" 45 DEGREE PVC ELBOW
13	6" FERNCO W/ STRONGBACK

PIPE ISOMETRIC	
ITEM	DESCRIPTION
14	6" DONUT REDUCER
15	6" SCH. 40 SOLID CORE PVC BURIED BACK-UP VACUUM PIPE (BY OTHERS)
16	6" SCH. 40 SOLID CORE PVC BURIED PRIMARY VACUUM PIPE (BY OTHERS)
17	8"x6" DONUT REDUCER
18	6" SHORT RADIUS ALUMINUM 45 DEGREE ELBOW
19	6" OVERHEAD SCH. 40 SOLID CORE PVC VACUUM PIPE
20	8" FERNCO W/ STRONGBACK

PIPE NOTES:

a. FIELD VERIFY ALL DIMENSIONS
b. SUPPORT SCHEDULE 40 PVC OVERHEAD DRY/WET VACUUM PIPE EVERY 6' MAXIMUM; USE UNISTRUT & CLAMP OR OTHER SUPPORT (**PROVIDED BY OTHERS)**
c. RUN COMPRESSED AIR TO AIR COMPRESSOR LOCATION **(BY OTHERS)**
d. COMPRESSED AIR RECOMMENDED WORKING PRESSURE IS 75PSIG AND 10SCFM AT INTERFACE
e. WALL PENETRATION: CORE DRILLING MAY BE REQUIRED FIELD VERIFY HEIGHT
f. REFER TO SHEET V721 FOR PIPE ASSEMBLY CUTSHEETS
g. ALL FITTINGS TO BE **'DWV'**



1 PIPE ISOMETRIC

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ROADRUNNER EXPRESS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN 53149

#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

PIPE ISOMETRIC

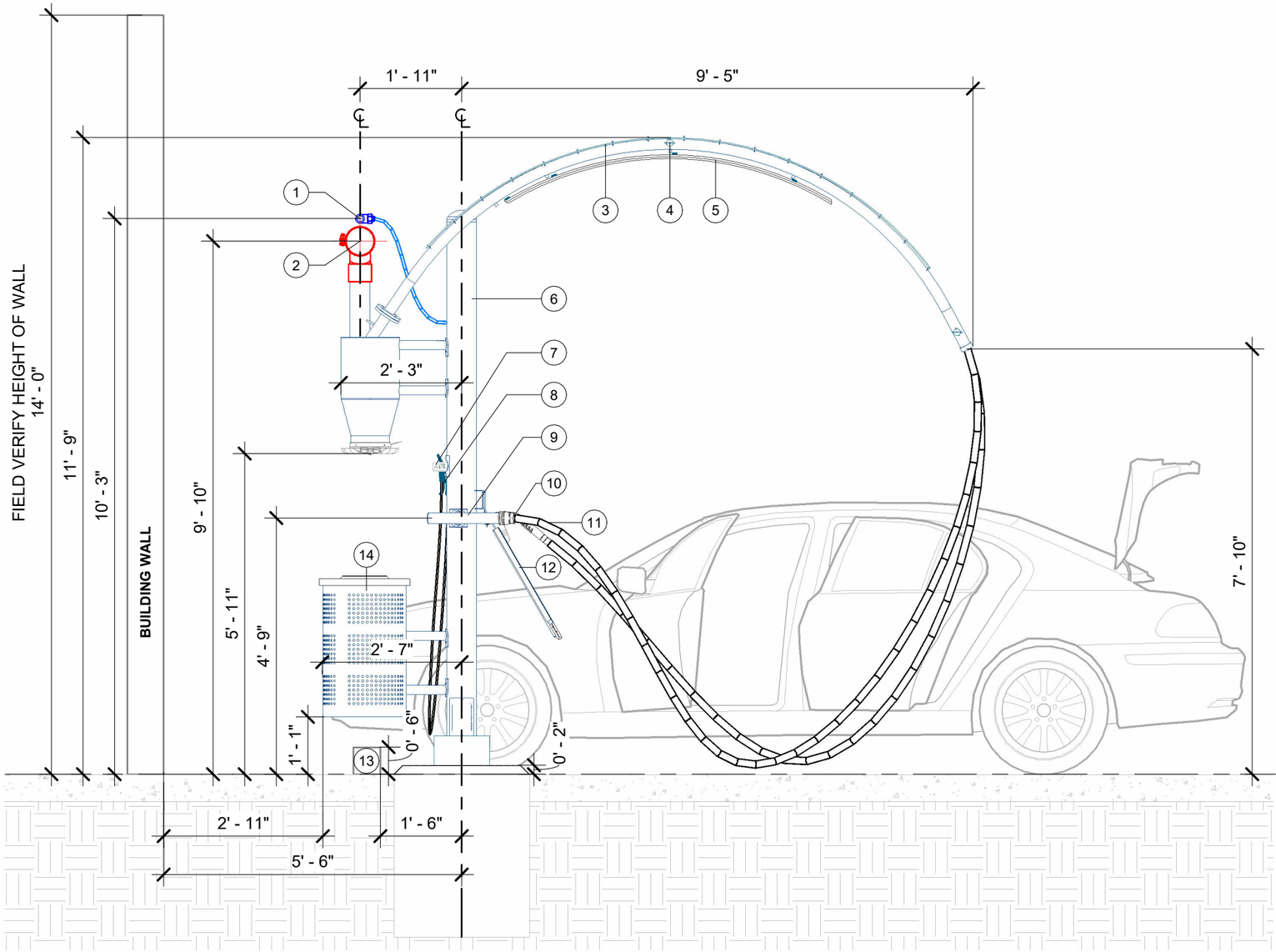
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Date	5/13/26
Drawn By	FM
Checked By	RY

V211

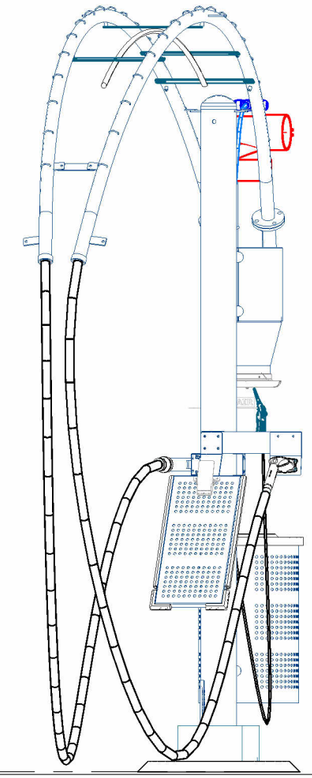
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FIELD VERIFY ALL DIMENSIONS

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1 PARKING ELEVATION



F.G.
0' - 0"

PARKING ELEVATION

ITEM	DESCRIPTION
1	1" OVERHEAD AIR TUBE
2	6" OVERHEAD ALUMINUM VACUUM TUBE
3	FABRIC AWNING
4	9' - 16'-6" ADJUSTABLE CROSSBAR
5	6' LED LIGHT
6	DUAL USER UMBRELLA ARCH
7	AIR TOOL HANGER
8	AIR NOZZLE & HOSE
9	CREVICE VACUUM TOOL
10	DUO LOCK VACUUM TOOL
11	1-1/2"x15' RAPIDLOCK HOSE
12	13" MAT RACK W/ DOOR PROTECTION
13	CURB
14	30 GALLON WASTE RECEPTACLE

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PARKING ELEVATION

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

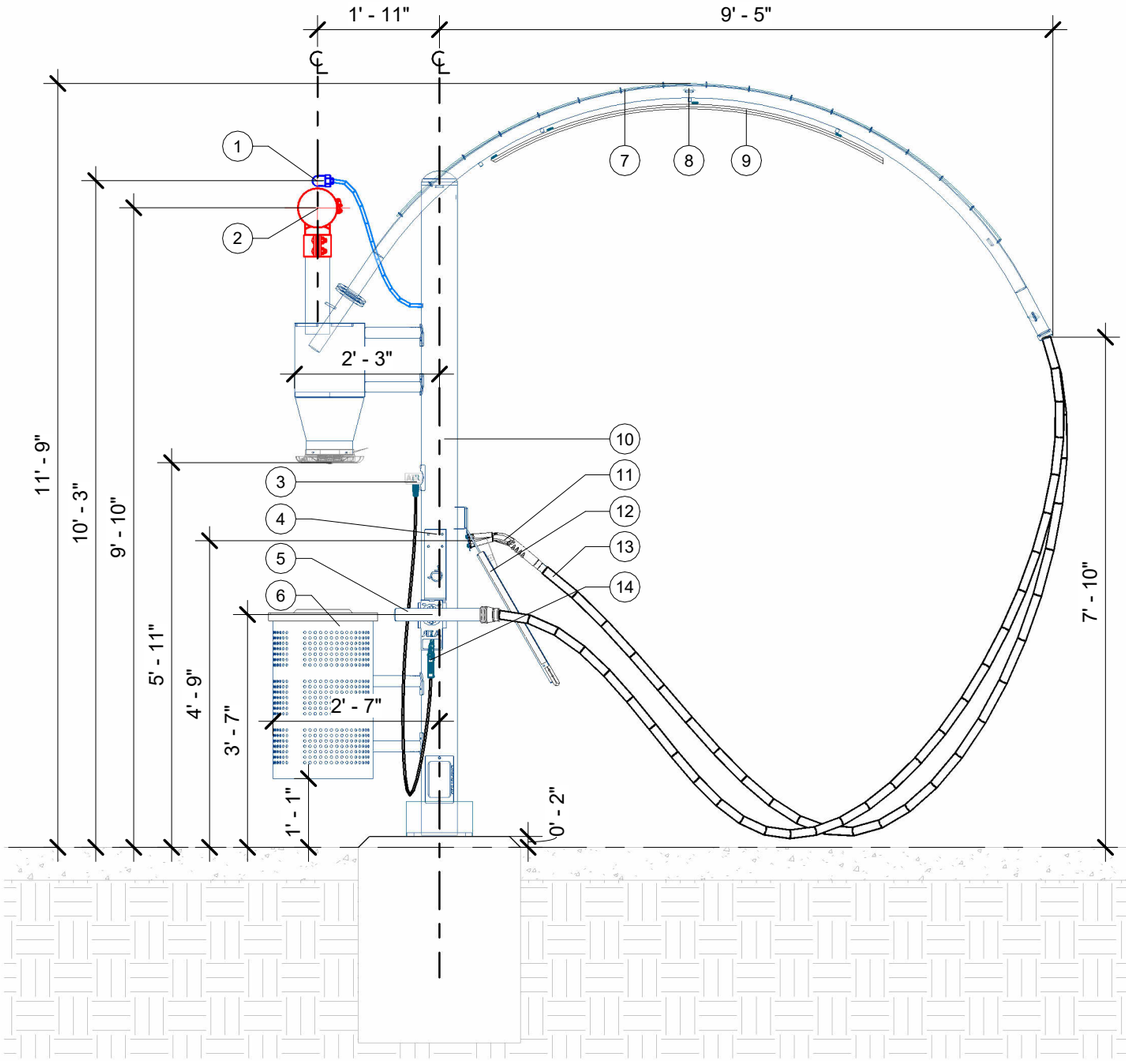
V301

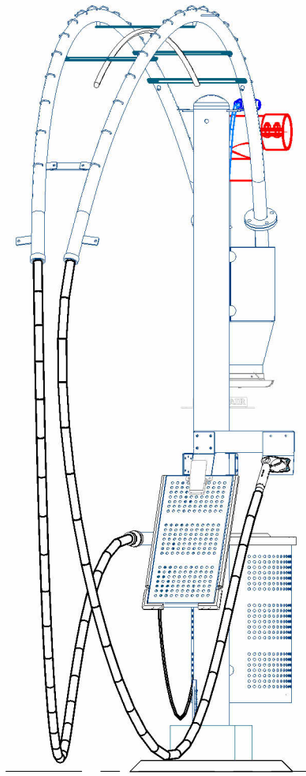
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FIELD VERIFY ALL DIMENSIONS

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ADA VACUUM TOOL SHALL BE NO HIGHER THAN 48" ABOVE FINISHED GRADE FOR ADA VACUUM SPACES





F.G.
0' - 0"

ADA PARKING ELEVATION

ITEM	DESCRIPTION
1	1" OVERHEAD AIR TUBE
2	6" OVERHEAD ALUMINUM VACUUM TUBE
3	AIR TOOL HANGER
4	ADA TOOL/AIR MOUNT BRACKET
5	CREVICE VACUUM TOOL
6	30 GALLON WASTE RECEPTACLE
7	FABRIC AWNING
8	9' - 16'-6" ADJUSTABLE CROSSBAR
9	6' LED LIGHT
10	DUAL USER UMBRELLA ARCH
11	DUO LOCK VACUUM TOOL
12	13" MAT RACK W/ DOOR PROTECTION
13	1-1/2"x15' RAPIDLOCK HOSE
14	AIR NOZZLE & HOSE

1 ADA PARKING ELEVATION

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MUKWONAGO, WISCONSIN 53149

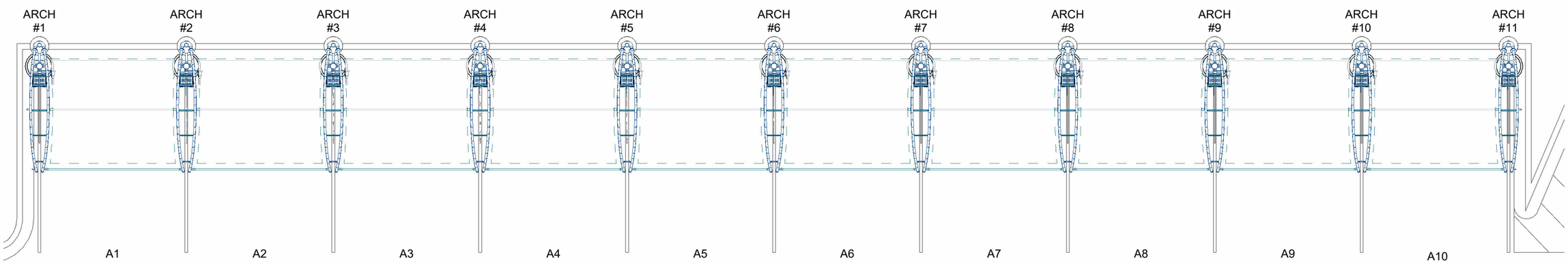
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1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

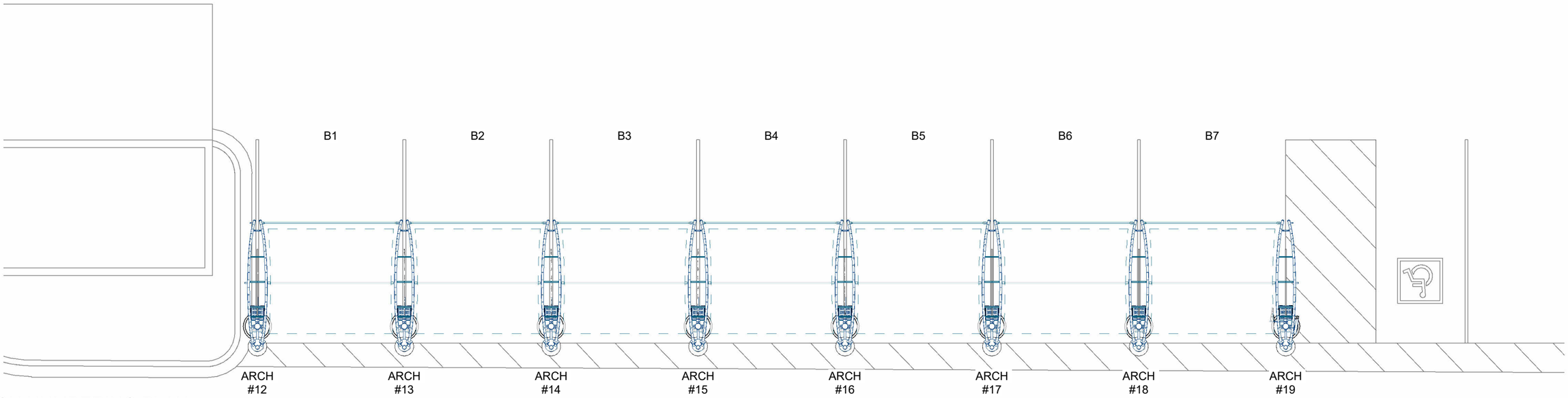
ADA PARKING ELEVATION

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V302

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1 ARCH NUMBERING PLAN

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ARCH NUMBERING PLAN

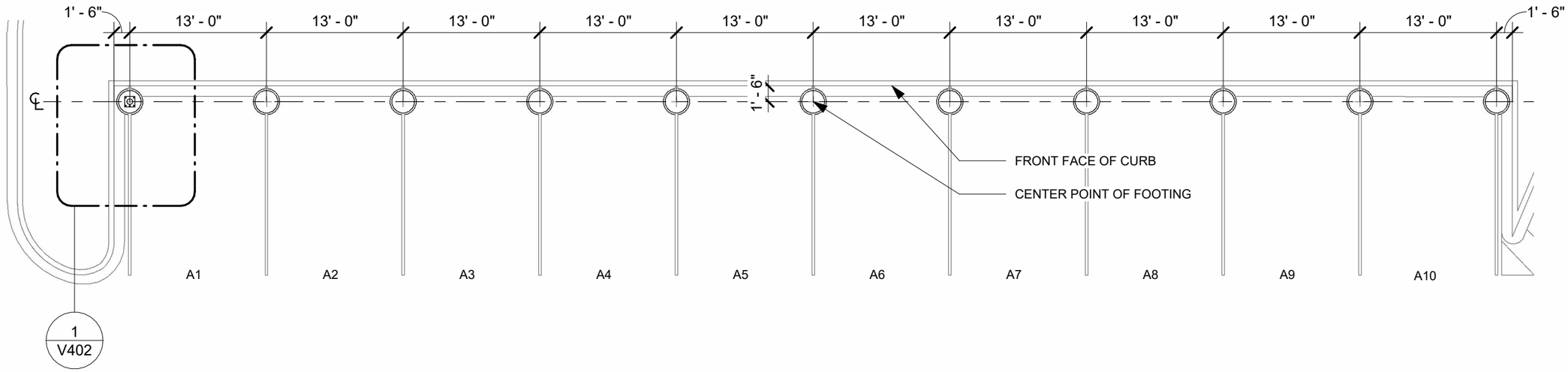
Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

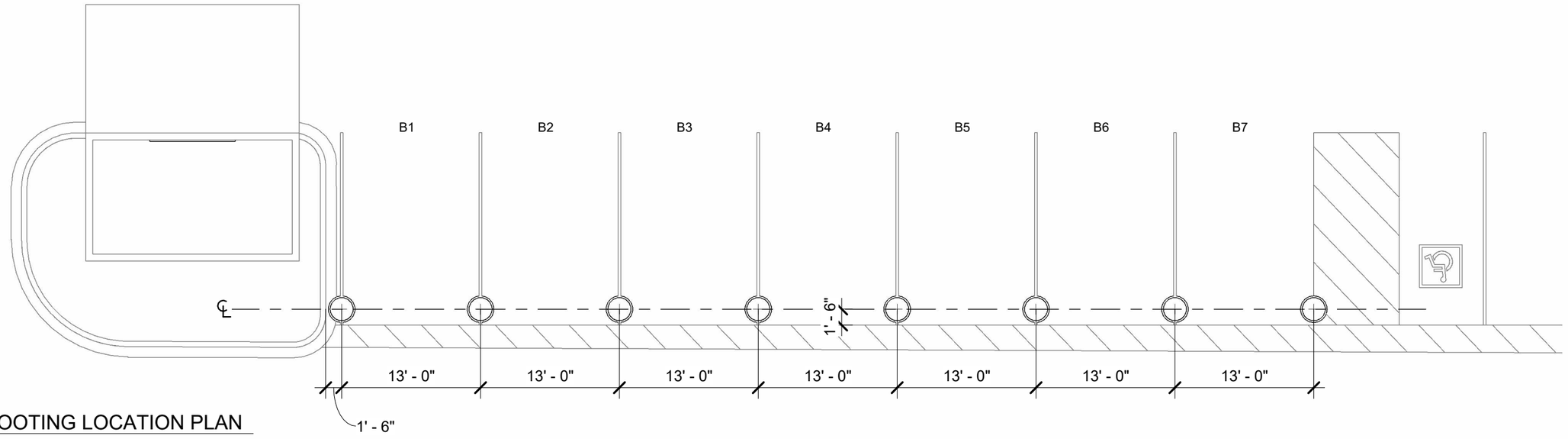
V311

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FIELD VERIFY ALL DIMENSIONS

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1 FOOTING LOCATION PLAN

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ROADRUNNER EXPRESS

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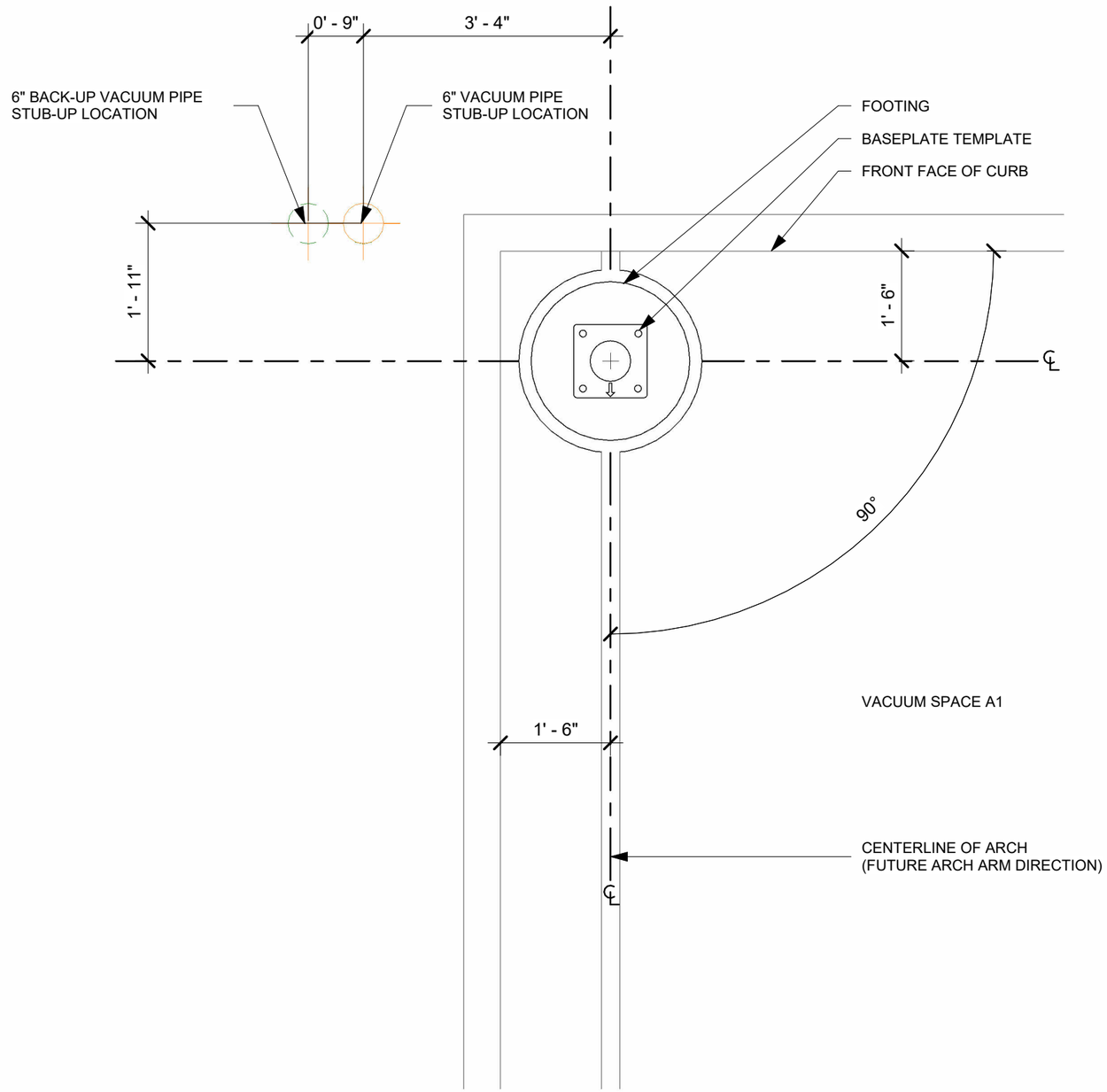
#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

FOOTING LOCATION PLAN

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V401

5/19/2026 2:11:25 PM



1 BASEPLATE TEMPLATE ORIENTATION

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ROADRUNNER EXPRESS

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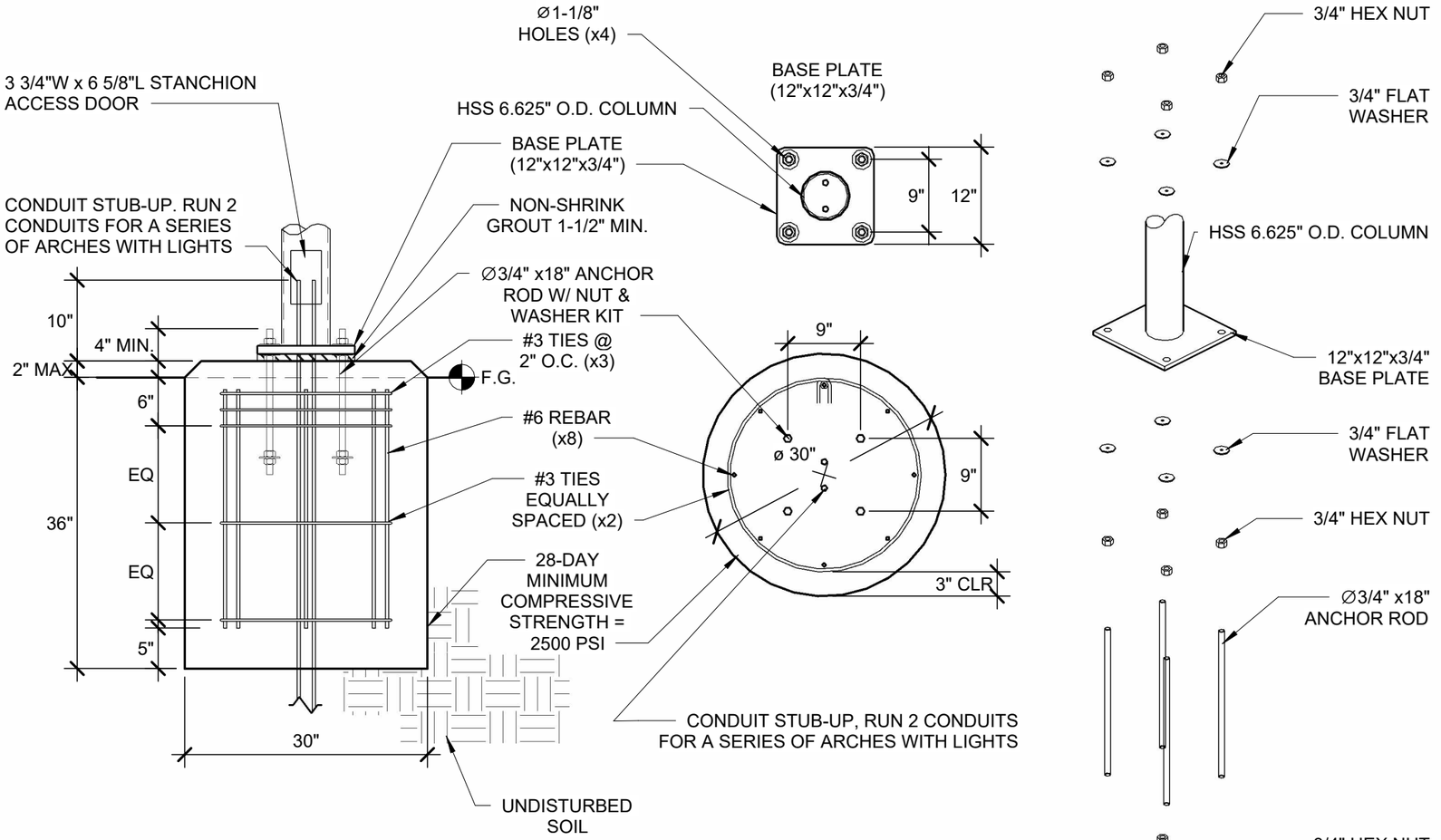
BASEPLATE TEMPLATE

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V402

5/19/2026 2:11:25 PM

CONSTRUCTION NOTES:
REFER TO SHEET V721 FOR ASSEMBLY CUTSHEETS



NOTE:
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1 PIER FOOTING - UMBRELLA ARCH

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#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

FOOTING DETAIL

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

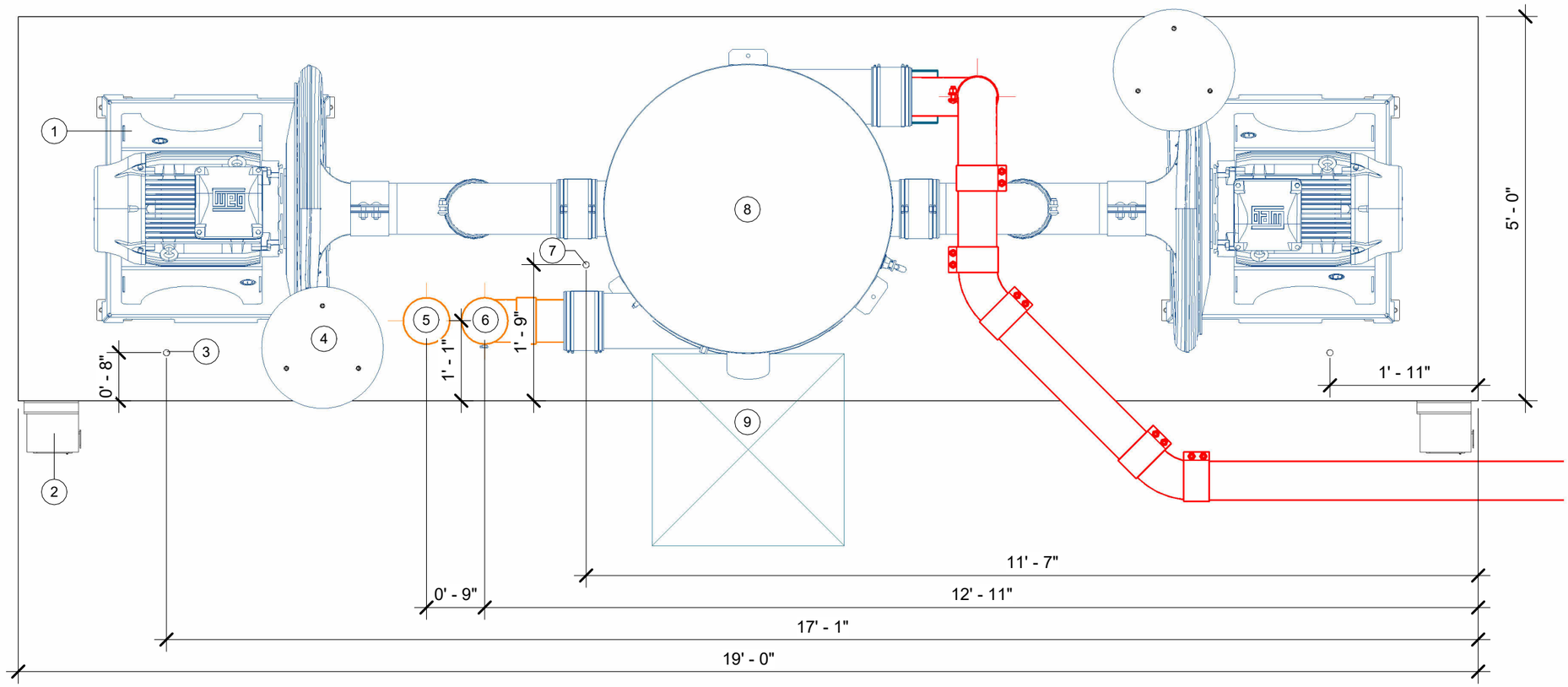
V411

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EQUIPMENT SITE PLAN	
ITEM	DESCRIPTION
1	T-FORCE (2211) PRODUCER
2	RECOMMENDED DISCONNECT LOCATION (WITHIN SIGHT OF PRODUCER), CLEARANCE REQUIRED IN FRONT
3	RECOMMENDED PRODUCER MOTOR CONDUIT STUB-UP LOCATION, SIZE PER N.E.C.
4	8" T-FORCE OUTDOOR EXHAUST MUFFLER
5	6" BACK-UP VACUUM PIPE STUB-UP LOCATION
6	6" VACUUM PIPE STUB-UP LOCATION
7	3/4" CONDUIT STUB-UP LOCATION FOR TRANSDUCER WIRE; SEE CONDUIT REQUIREMENT FOR VFD & PRODUCER
8	45x96 FILTER SEPARATOR
9	30"x30" MINIMUM SPACE REQUIRED TO REMOVE DEBRIS BUCKET

EQUIPMENT NOTES:

- **19'Lx5'Wx4"H MINIMUM FLAT AND LEVEL CONCRETE FLOOR SPACE REQUIRED FOR VACUUM EQUIPMENT**
- WALL PENETRATION: CORE DRILLING MAY BE REQUIRED FIELD VERIFY HEIGHT
- NOTE: IF VACUUM EQUIPMENT IS ENCLOSED WITH ROOF/CEILING, REFER TO VENTILATION REQUIREMENTS UNDER EQUIPMENT WARRANTY INFORMATION
- EXHAUST PRODUCER TO OUTSIDE AIR OR ATMOSPHERE W/ 8 " ALUMINUM TUBE OR METAL PIPE
- FIELD VERIFY ALL DIMENSIONS
- SEE POWER EQUIPMENT DETAILS ON V701
- SEE VFD DETAILS ON V731



1 EQUIPMENT PLAN

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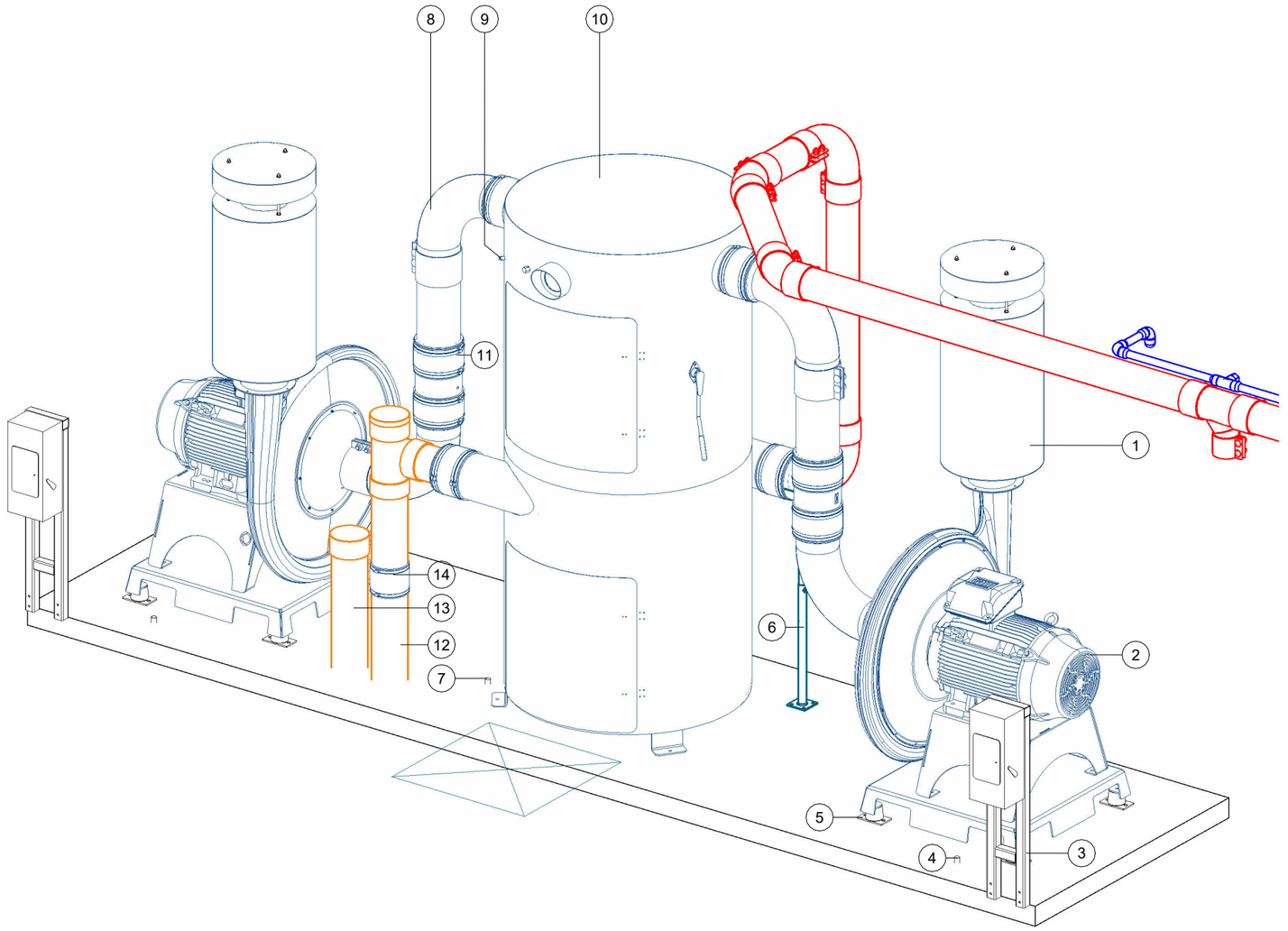
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EQUIPMENT SITE PLAN

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V601

5/19/2026 2:11:27 PM



EQUIPMENT NOTES:

- **19'Lx5'Wx4"H MINIMUM FLAT AND LEVEL CONCRETE FLOOR SPACE REQUIRED FOR VACUUM EQUIPMENT**
- WALL PENETRATION: CORE DRILLING MAY BE REQUIRED FIELD VERIFY HEIGHT
- NOTE: IF VACUUM EQUIPMENT IS ENCLOSED WITH ROOF/CEILING, REFER TO VENTILATION REQUIREMENTS UNDER EQUIPMENT WARRANTY INFORMATION
- EXHAUST PRODUCER TO OUTSIDE AIR OR ATMOSPHERE W/ 8 " ALUMINUM TUBE OR METAL PIPE
- FIELD VERIFY ALL DIMENSIONS
- SEE POWER EQUIPMENT DETAILS ON V701
- SEE VFD DETAILS ON V731

EQUIPMENT SITE ISOMETRIC

ITEM	DESCRIPTION
1	8" T-FORCE OUTDOOR EXHAUST MUFFLER
2	T-FORCE (2211) PRODUCER
3	RECOMMENDED DISCONNECT LOCATION (WITHIN SIGHT OF PRODUCER), CLEARANCE REQUIRED IN FRONT
4	RECOMMENDED PRODUCER MOTOR CONDUIT STUB-UP LOCATION, SIZE PER N.E.C.
5	PRODUCER VIBRATION ISOLATOR
6	SEPARATOR PIPE SUPPORT
7	3/4" CONDUIT STUB-UP LOCATION FOR TRANSDUCER WIRE; SEE CONDUIT REQUIREMENT FOR VFD & PRODUCER
8	8" SEPARATOR/PRODUCER HOOK-UP KIT (ALUMINUM)
9	TRANSDUCER CONNECTION LOCATION ON SEPARATOR
10	45x96 FILTER SEPARATOR
11	8" STEEL CHECK VALVE
12	6" VACUUM PIPE STUB-UP LOCATION - AREA A
13	6" BACK-UP VACUUM PIPE STUB-UP LOCATION - AREA A
14	6" FERNCO

1 EQUIPMENT ISOMETRIC

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EQUIP. SITE ISOMETRIC

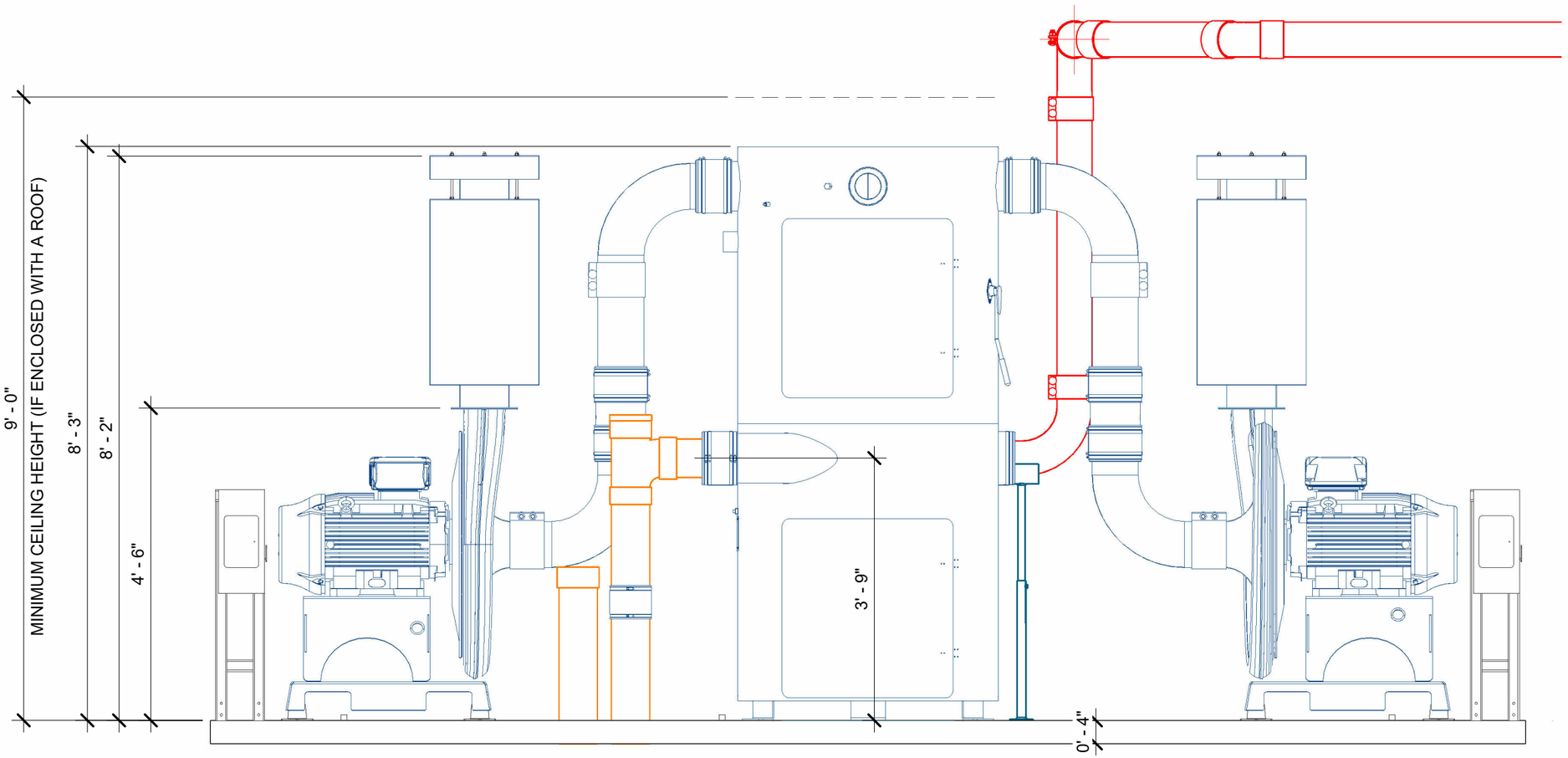
Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V611

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EQUIPMENT NOTES:

- **19'Lx5'Wx4"H MINIMUM FLAT AND LEVEL CONCRETE FLOOR SPACE REQUIRED FOR VACUUM EQUIPMENT**
- WALL PENETRATION: CORE DRILLING MAY BE REQUIRED FIELD VERIFY HEIGHT
- NOTE: IF VACUUM EQUIPMENT IS ENCLOSED WITH ROOF/CEILING, REFER TO VENTILATION REQUIREMENTS UNDER EQUIPMENT WARRANTY INFORMATION
- EXHAUST PRODUCER TO OUTSIDE AIR OR ATMOSPHERE W/ 8 " ALUMINUM TUBE OR METAL PIPE
- FIELD VERIFY ALL DIMENSIONS
- SEE POWER EQUIPMENT DETAILS ON V701
- SEE VFD DETAILS ON V731



1 EQUIPMENT ELEVATION

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ROADRUNNER EXPRESS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN 53149

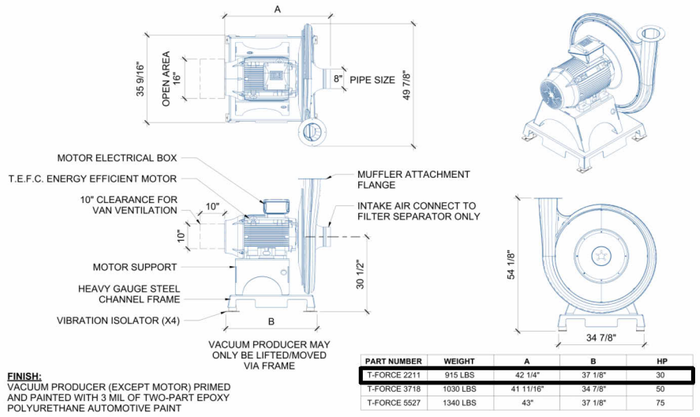
#	Revision	By	Chk	Date
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EQUIPMENT ELEVATION

Project Number	1632273
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Drawn By	FM
Checked By	RY

V621

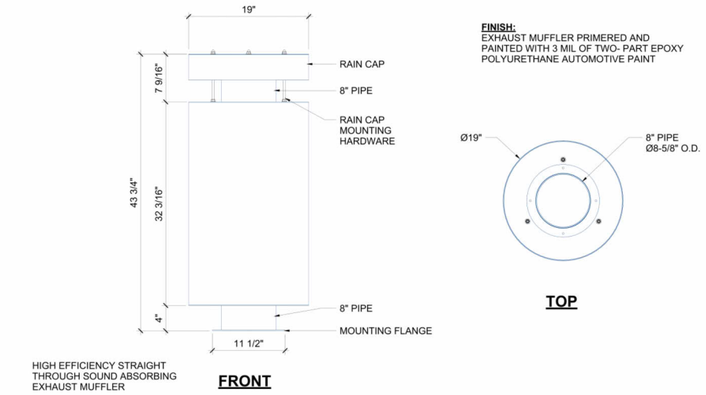
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FINISH:
VACUUM PRODUCER (EXCEPT MOTOR) PRIMED AND PAINTED WITH 3 MIL OF TWO-PART EPOXY POLYURETHANE AUTOMOTIVE PAINT

PART NUMBER	WEIGHT	A	B	HP
T-FORCE 2211	915 LBS	42 1/4"	37 1/8"	30
T-FORCE 3718	1030 LBS	41 11/16"	34 7/8"	50
T-FORCE 5527	1340 LBS	43"	37 1/8"	75

1 PRODUCER - T-FORCE



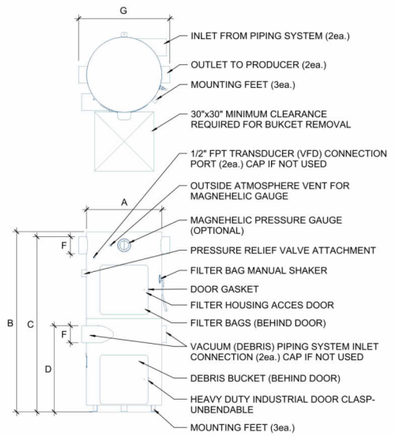
FINISH:
EXHAUST MUFFLER PRIMERED AND PAINTED WITH 3 MIL OF TWO- PART EPOXY POLYURETHANE AUTOMOTIVE PAINT

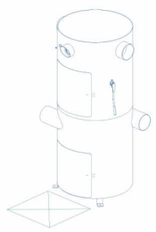
TOP

HIGH EFFICIENCY STRAIGHT THROUGH SOUND ABSORBING EXHAUST MUFFLER

FRONT

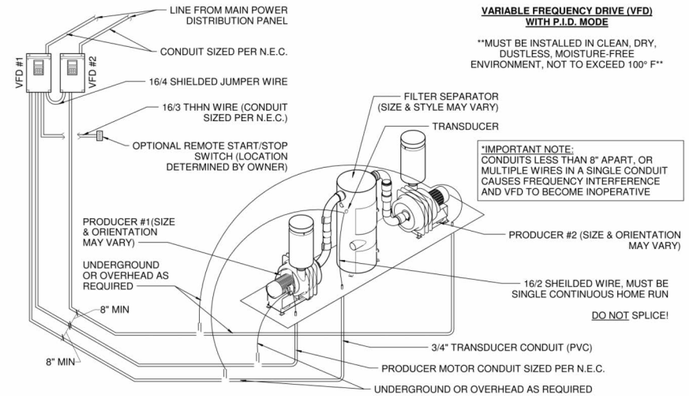
2 EXHAUST MUFFLER - T-FORCE OUTDOOR





MODEL	DIMENSIONS							APPROX. WEIGHT (LBS)
	A	B	C	D	E	F	G	
3160	31"	62"	61"	35"	6" IPS	6" IPS	41"	320
3179	31"	81"	79"	35"	6" IPS	6" IPS	41"	370
3888	38"	90"	88"	42"	6/8" IPS	6/8" IPS	48"	570
4596	45"	98"	86"	49"	8" IPS	8" IPS	55"	800
50108	50"	111"	108"	54"	8" IPS	8" IPS	60"	1420

3 SEPARATOR - FILTER



VARIABLE FREQUENCY DRIVE (VFD) WITH P.I.D. MODE

MUST BE INSTALLED IN CLEAN, DRY, DUSTLESS, MOISTURE-FREE ENVIRONMENT, NOT TO EXCEED 100° F

*IMPORTANT NOTE:
CONDUITS LESS THAN 8" APART, OR MULTIPLE WIRES IN A SINGLE CONDUIT CAUSES FREQUENCY INTERFERENCE AND VFD TO BECOME INOPERATIVE

4 CONDUIT - DUAL VFD - NEMA 12

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#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

EQUIPMENT DETAILS

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V701

5/19/2026 2:11:30 PM

DISCLAIMER:

DIAGRAMS ARE CONSISTENT WITH NATIONAL ELECTRIC CODE (NEC) FOR A SINGLE VACUUM PRODUCER CIRCUIT. MODIFICATIONS MAY BE REQUIRED FOR VARIATIONS IN THE CIRCUIT CONFIGURATION AND TO MEET LOCAL CODE REQUIREMENTS. NECESSARY MODIFICATIONS ARE THE RESPONSIBILITY OF THE OWNER.

OPTIONAL REMOTE SWITCH:
-START/STOP
-PHOTO EYE
-DETECTOR LOOP

CIRCUIT BREAKER
(UL489 INVERSE TIME)

50-100 AMP
3 POLE

LOAD CENTER
DISTRIBUTION
PANEL

VFD

NON-FUSED
DISCONNECT

600 V
60 A

NOTE:
DISCONNECT ONLY REQUIRED WHEN CIRCUIT BREAKER IS NOT LOCATED WITHIN LINE OF SIGHT OF MOTOR

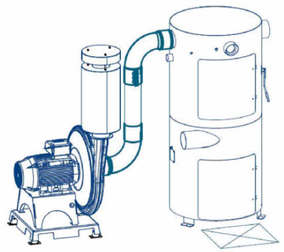
SERVICE
DISCONNECT

THHN COPPER
(NEC SIZING)

#8 AWG

VACUUM PRODUCER
AND SEPARATOR

Power:	22 KW
Voltage:	460 V
FLA:	40 A
Phases:	3 PH
Frequency:	60 HZ



8" MINIMUM SEPARATION

NOTE:

1. DIAGRAM DISPLAYS THE REQUIREMENTS FOR AN INDIVIDUAL VACUUM PRODUCER MOTOR.
2. ALL MOTOR (LOAD) AND POWER (LINE) WIRES MUST BE RUN IN SEPARATE CONDUITS.
3. ALWAYS FOLLOW ALL NATIONAL AND LOCAL ELECTRICAL CODES.

2 WIRE TWISTED PAIR SHIELDED CABLE (24-16 AWG). (HOME RUN, NO SPLICING!) RUN IN SEPARATE (DEDICATED) METALLIC CONDUIT FROM VFD TO VACUUM TRANSDUCER LOCATION ON FILTER SEPARATOR.

1 ELECTRICAL DIAGRAM - T-FORCE - VFD - 22KW 460V

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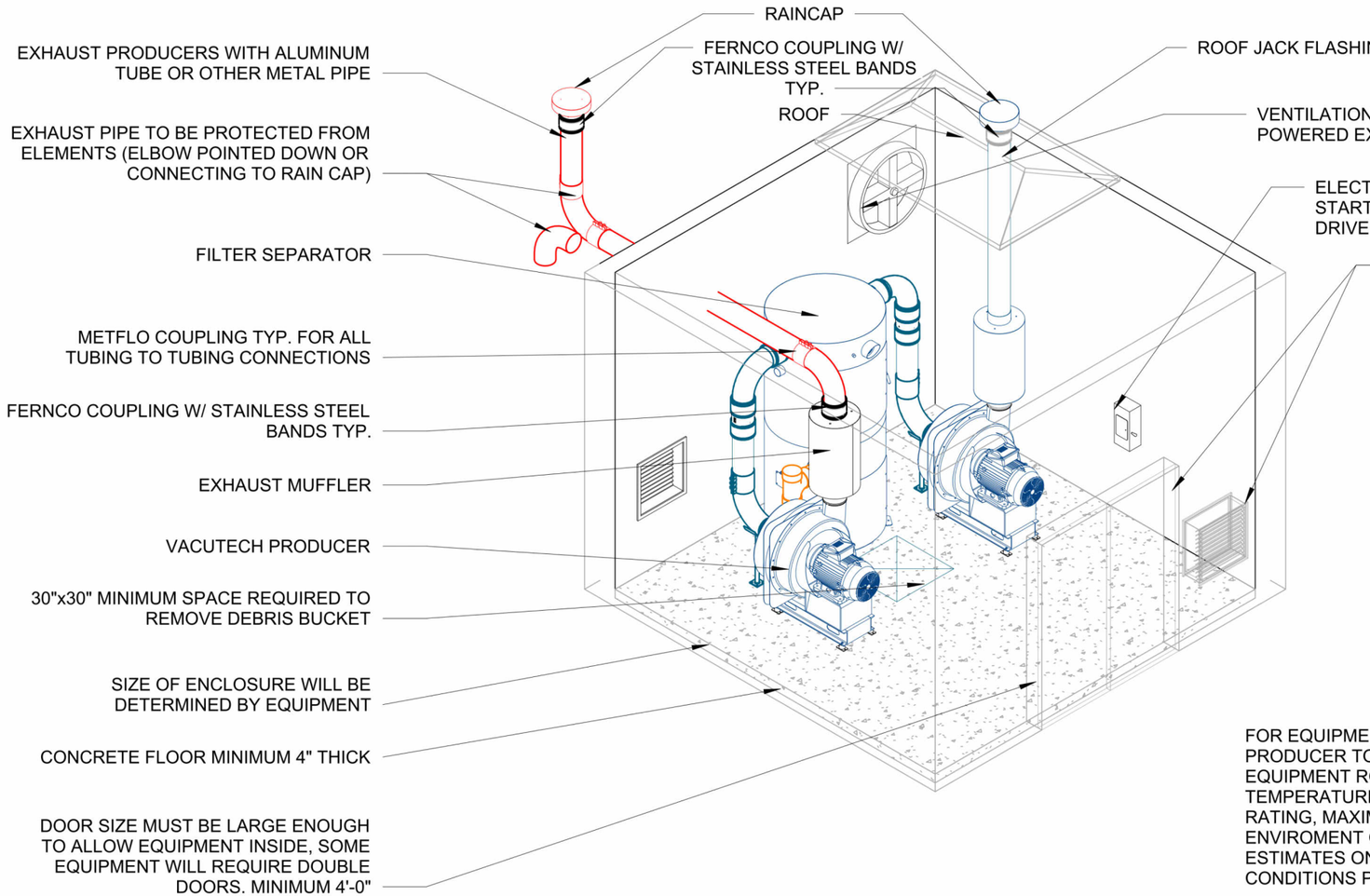
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ELECTRICAL DIAGRAM

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

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NOTE: THIS IMAGE IS ON FOR DEMONSTRATION PURPOSES TO EASILY SHOW DIFFERENT PRODUCER EXHAUST METHODS

	ACROSS THE LINE STARTER		VARIABLE FREQUENCY DRIVE (VFD)	
HP	HEAT LOAD (BTU/HR)	REQUIRED AIR FLOW (CFM)	HEAT LOAD (BTU/HR)	REQUIRED AIR FLOW (CFM)
10	12722	915	2544	284
15	19084	1373	3817	426
20	25444	1830	5089	568
25	31805	2288	6361	710
30	38166	2745	7633	852
40	50889	3660	10178	1163
50	63611	4575	12722	1420
60	7633	5490	15267	1704
75	95416	6863	19083	2130
100	127222	9150	25444	2840

FOR EQUIPMENT ROOMS WITH MULTIPLE PRODUCER SETUPS, ADD THE CFM REQUIREMENT PER PRODUCER TO DETERMINE TOTAL CFM REQUIREMENT FOR THE EQUIPMENT ROOM. THIS ASSUMES EQUIPMENT ROOM DIMENSIONS 15'x15X WITH 10' CEILINGS. THIS ASSUMES AN OUTSIDE AIR TEMPERATURE OF 90°F AND A MAXIMUM ROOM TEMPERATURE OF 104°F (NEMA CLASS F INSULATION RATING, MAXIMUM TEMPERATURE) AND DOES NOT ACCOUNT FOR RADIANT HEATING FROM THE ENVIROMENT OR ANY OTHER EQUIPMENT INSTALLED IN THE EQUIPMENT ROOM. THESE VALUES ARE ESTIMATES ONLY AND DEPEND ON EQUIPMENT ROOM DIMENSIONS, GEOGRAPHIC LOCATION AND SITE CONDITIONS PLEASE CONSULT YOUR MECHANICAL HVAC DESIGNER AND ASHRAE STANDARDS.

VACUUM EQUIPMENT INSTALLED IN AN ENCLOSURE WITH 4 WALLS AND A ROOF MUST BE ADEQUATELY VENTILATED OR ROOM CONDITIONED IN ORDERED TO PROPERLY DISSIPATE THE HEAT GENERATED BY THE MECHANICAL AND ELECTRICAL EQUIPMENT. IMPROPER VENTILATION AND HEAT DISSIPATION CAN AND WILL RESULT IN DAMAGE TO THE MECHANICAL AND ELECTRICAL EQUIPMENT INCLUDING VFD'S, MOTOR STARTERS, ELECTRIC MOTORS AND VACUUM PRODUCERS. PLEASE REFERENCE THE HEAT GENERATION TABLE INCLUDED IN THIS DETAIL TO DETERMINE THE AMOUNT OF HEAT LOAD THAT THE PRODUCER(S) AND STARTING EQUIPMENT WILL GENERATE AND THE CORRESPONDING REQUIRED AIR FLOW OF EXHAUST AND AIR INTAKE TO DISSIPATE THE HEAT GENERATED BY THE VACUTECH EQUIPMENT. IF ADDITIONAL EQUIPMENT IS INSTALLED IN THE EQUIPMENT ROOM (AIR COMPRESSORS, ELECTRICAL PANELS, TUNNEL CONTROLS, ETC.) PLEASE CONSULT YOUR HVAC DESIGN ENGINEER FOR PROPER TEMPERATURE CONTROL DESIGN OF YOUR EQUIPMENT ROOM. OPERATING TEMPERATURES ABOVE 104°F (TYPICAL MAXIMUM ENVIROMENTAL TEMPERATURE FOR ELECTRICAL EQUIPMENT) WILL SHORTEN THE LIFE SPAN OF THE VACUUM EQUIPMENT AND MAY INVALIDATE THE VACUTECH LLC WARRANTY.

THE VACUUM PRODUCER MUST BE EXHAUSTED OUTSIDE WITH METALLIC PIPE NO SMALLER THAN THE DIAMETER OF THE EXHAUST OUTLET OF THE PRODUCER. THE EXHAUST PIPE OPENING MUST BE PROTECTED FROM ELEMENTS. IF EXHAUST DISTANCE IS GREATER THAN 20 FEET USE ONE PIPE SIZE LARGER AFTER 10 FEET OF RUN (I.E. FOR A 20 FOOT RUN OF 8" EXHAUST, USE 8" FOR FIRST 10 FEET AND 10" FOR REMAININNING 10 FEET OF THE OVERALL 20 FOOT RUN).

1 ENCLOSURE - TYPICAL REQUIREMENTS

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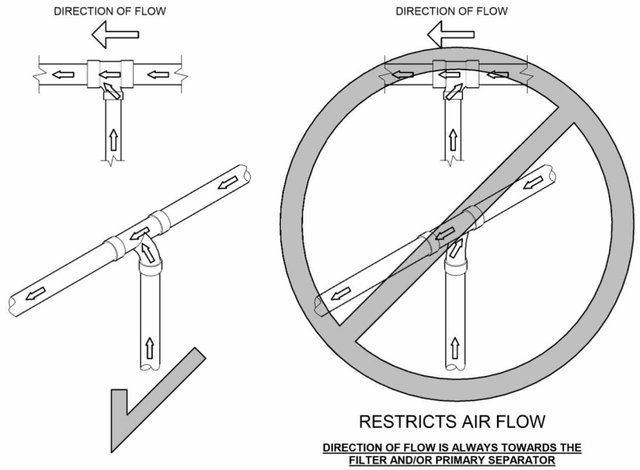
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ENCLOSURE DETAIL

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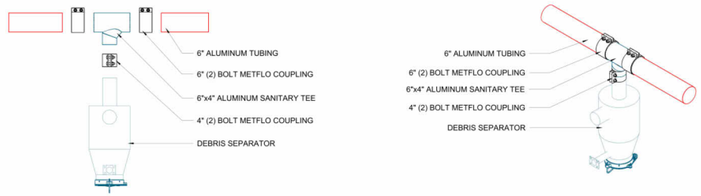
V711

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1 PIPE - PIPE FLOW

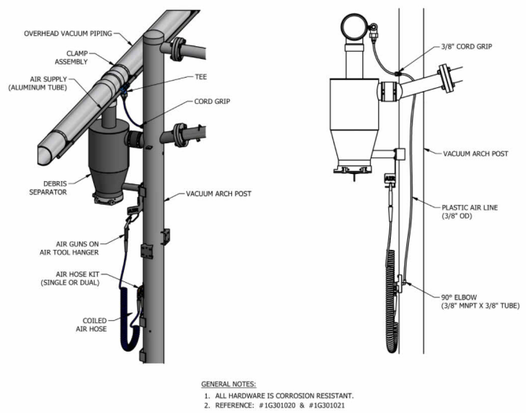
ALUMINUM SANITARY TEE & ALUMINUM TUBING CONNECTION



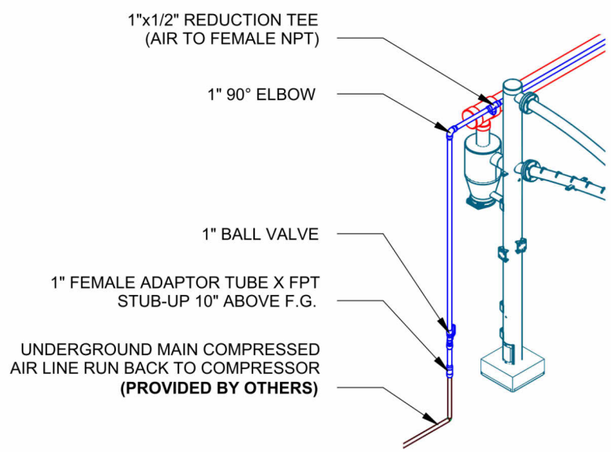
2 PIPE - 6x4 ALUMINUM TEE KIT

PIPE NOTES:

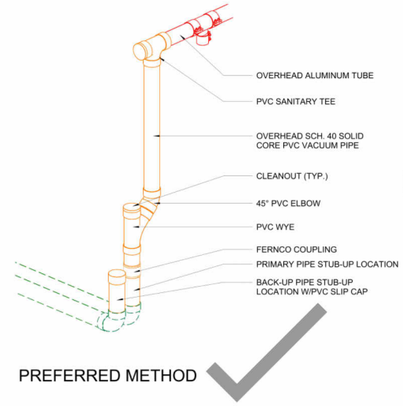
a. FIELD VERIFY ALL DIMENSIONS
b. SUPPORT SCHEDULE 40 PVC OVERHEAD DRY/WET VACUUM PIPE EVERY 6' MAXIMUM; USE UNISTRUT & CLAMP OR OTHER SUPPORT (**PROVIDED BY OTHERS)**
c. RUN COMPRESSED AIR TO AIR COMPRESSOR LOCATION **(BY OTHERS)**
d. COMPRESSED AIR RECOMMENDED WORKING PRESSURE IS 75PSIG AND 10SCFM AT INTERFACE
e. WALL PENETRATION: CORE DRILLING MAY BE REQUIRED FIELD VERIFY HEIGHT
f. REFER TO SHEET V721 FOR PIPE ASSEMBLY CUTSHEETS
g. ALL FITTINGS TO BE '**DWV**'



3 PIPE - RAPID AIR INSTALLATION



4 PIPE - RAPID AIR STUB-UP



5 PIPE - STUB-UPCONNECTION - UG STUB-UP TO TRUNK LINE

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PIPE DETAILS

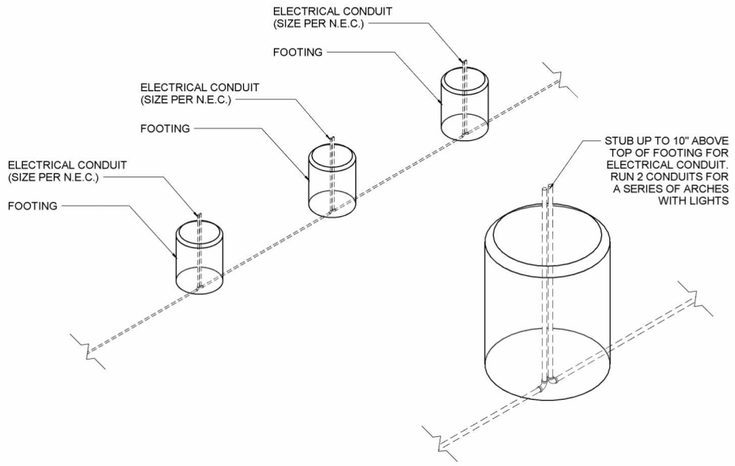
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V721

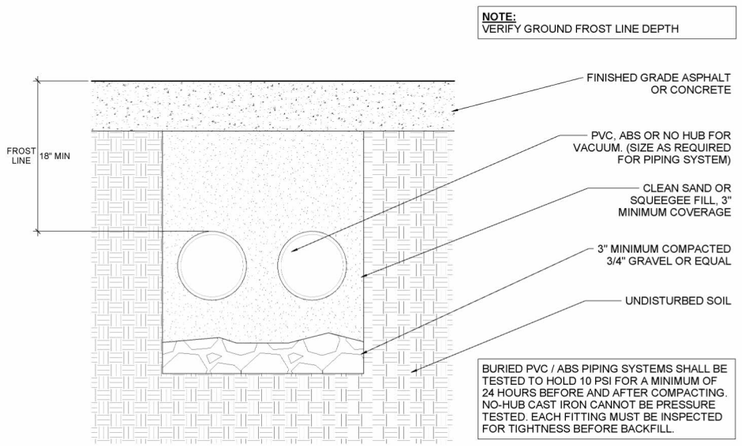
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PIPE NOTES:

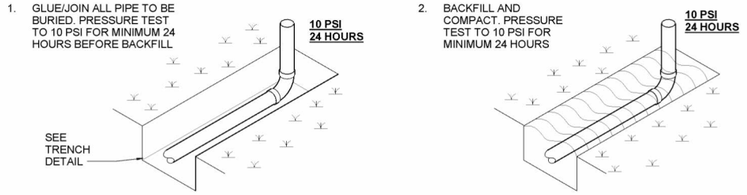
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g. ALL FITTINGS TO BE **'DWV'**



1 TRENCH - CONDUIT STUB-UP



2 TRENCH - DUAL LINE



3 TRENCH - PRESSURE TEST

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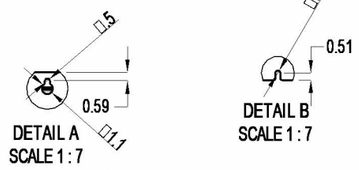
TRENCH DETAILS

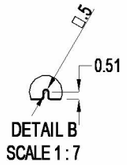
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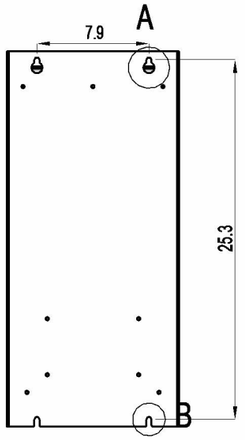
V722

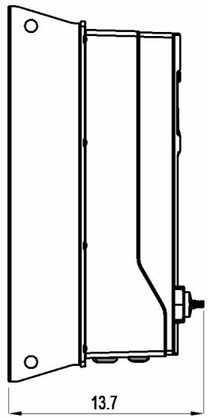
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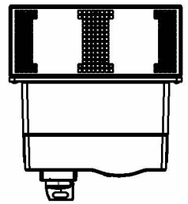
Variable Frequency Drive (VFD) - 30 HP , 480V - NERA 12					
Voltage	Power	Height	Width	Depth	Weight
480V	30 HP	26.4	12.1	13.7	66.2

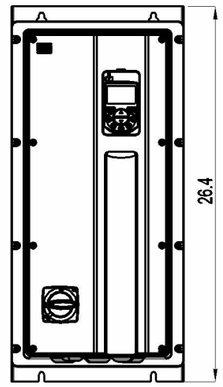


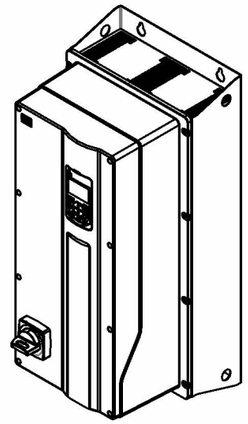


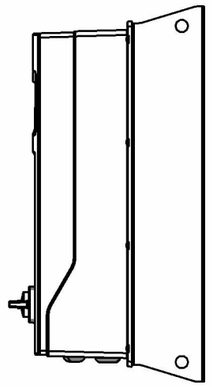


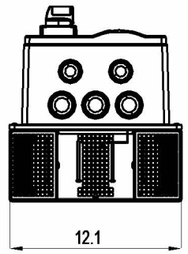












VFD NOTES

'VFD' OR 'VARIABLE FREQUENCY DRIVE' IS AN OPTIONAL STARTER CONTROL.

- *CONDUIT FOR TRANSDUCER MUST BE 8" AWAY FROM ALL OTHER WIRING/CONDUIT AND MUST BE A HOME RUN (NO SPLICING) THAT SHALL NOT EXCEED 100'.*
- *ALL CONDUIT RUNS FOR VACUUM SYSTEM VFD(s) & MOTOR(s) MUST BE IN A SEPARATE CONDUIT A MINIMUM OF 12" APART.*

WEG ELECTRIC NEMA 12 VARIABLE FREQUENCY DRIVE (VFD)

AVOID:

- DIRECT EXPOSURE TO SUNLIGHT, RAIN, HIGH HUMIDITY, OR SEA-AIR
- INFLAMMABLE OR CORROSIVE GASES OR LIQUIDS
- EXCESS VIBRATION
- DUST, METALLIC PARTICLES, AND OIL MIST

WARRANTY INFORMATION

VFD NOT TO BE OPERATED IN CONDITIONS OUTSIDE OF THOSE SPECIFIED IN 'OPERATING CONDITIONS'.

EACH VFD MUST BE WIRED FROM THE MAIN DISTRIBUTION PANEL IN SEPARATE CONDUIT (SIZED PER NEC) TO EACH VFD AND FROM EACH VFD TO PRODUCER MOTOR.

OPERTATING CONDITIONS	
MIN. TEMPERATURE:	14 °F [-10 °C]
MAX. TEMPERATURE:	104 °F [40 °C]
HUMIDITY:	5% TO 95% NON-CONDENSING

1 VFD - 1B001123 - NEMA 12 - 30 HP 460V

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ROADRUNNER EXPRESS

HIGHWAY 83 AND HIGHWAY NN (NWC)
MUKWONAGO, WISCONSIN 53149

#	Revision	By	Chk	Date
1	UPDATED POWER EQUIPMENT LOCATION, UPDATED FROM INDOOR EXHAUST TO AN OUTDOOR EXHAUST	RY	TD	5/19/26

VFD DETAILS

Project Number	1632273
Date	5/13/26
Drawn By	FM
Checked By	RY

V731

5/19/2026 2:11:33 PM



Signal Blue [RAL 5005]


AI-generated content

RESOLUTION 2026-52

A resolution confirming the Village President's appointments to various committees and commissions for Village of Mukwonago

WHEREAS the appointments are as follows:

Joint Protective Services Committee
Remove Trustee Darlene Johnson and Add Trustee Ken Johnson; term to expire 2027

BE IT RESOLVED by the Village Board for the Village of Mukwonago, that the proper official(s) confirm the Village President's appointments to various committees and commissions for Village of Mukwonago.

Dated and approved this 19th day of August, 2026.

_____
Fred Winchowky, Village President

Attest: _____
Lana Kropf, WCMC, Village Clerk-Treasurer