



Fee must accompany application  
 \$2,900 with public improvements  
 \$1,960 no public improvements

Paid \_\_\_\_\_ Date \_\_\_\_\_

# CERTIFIED SURVEY MAP APPLICATION

Pursuant to Section 18.06 of the Municipal Code

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

**1 APPLICANT OR AGENT**  
 Steve Schulz, PMP  
 \_\_\_\_\_  
 c/o Gehl Foods, LLC  
 \_\_\_\_\_  
 N116W15970 Main Street  
 \_\_\_\_\_  
 Germantown, WI 53022  
 \_\_\_\_\_  
 Phone (262 ) 735-7139  
 \_\_\_\_\_  
 Fax ( ) \_\_\_\_\_  
 E-Mail sschulz@gehlfoods.com

**PROPERTY OWNER**  
 Gordon J. Whiting  
 \_\_\_\_\_  
 Angelo Gordon  
 \_\_\_\_\_  
 111 South Wacker Drive  
 \_\_\_\_\_  
 Chicago, IL 60606  
 \_\_\_\_\_  
 Phone (312 ) 763-5100  
 \_\_\_\_\_

**PROPERTY ADDRESS OR GENERAL LOCATION**

**TAX KEY NUMBER**

**2**

N116W15970 Main Street, Germantown, WI	
--	--

**3 PURPOSE OF LAND SPLIT**

To incorporate OL 19 & 20 on the northeast corner of Main Street and Church Street into the abutting Lot 1	Will the land split require rezoning? Yes
	From B3 & M1 To PDD

**4 READ AND INITIAL THE FOLLOWING:**

- \_\_\_\_\_ I understand that the Certified Survey Map is not valid until recorded at the Washington County Register of Deeds. The Village will record the document and charge the applicant all applicable recording fees.
- \_\_\_\_\_ I understand that the Map will not be placed on the Village Board agenda until all the technical corrections to the CSM are made, the payment of any outstanding impact fees are paid to the Village Clerk's Department, and the original signed and stamped copy of the Map is submitted on the proper paper.
- \_\_\_\_\_ I understand that parcels created outside the Sewer Service Area will require a soil test. I also understand that all properties abutting a State Highway will require DOT approval and I will be responsible for securing such approval prior to recording.
- \_\_\_\_\_ I understand all delinquent property taxes on any of the properties involved shall be paid prior to recording.

**5 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!**

Applicant \_\_\_\_\_ Date \_\_\_\_\_ Owner \_\_\_\_\_ Date \_\_\_\_\_



**Village of**  
  
**Germantown**  
*Willkommen*

**FEES MUST BE PAID AT TIME OF APPLICATION**

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

Date Paid: \_\_\_\_\_ Received by: \_\_\_\_\_

## REZONING & PDD APPLICATION

Pursuant to Section 17.51 of the Municipal Code

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

**1 APPLICANT OR AGENT**  
 Steve Schulz, PMP  
 \_\_\_\_\_  
 c/o Gehl Foods, LLC  
 \_\_\_\_\_  
 N116W15970 Main Street  
 \_\_\_\_\_  
 Germantown, WI 53022  
 \_\_\_\_\_  
 Phone ( 262 ) 735-7139  
 \_\_\_\_\_  
 Fax ( ) \_\_\_\_\_  
 E-Mail sschulz@gehlfoods.com

**PROPERTY OWNER**  
 Gordon J. Whiting  
 \_\_\_\_\_  
 Angelo Gordon  
 \_\_\_\_\_  
 111 South Wacker Drive  
 \_\_\_\_\_  
 Chicago, IL 60606  
 \_\_\_\_\_  
 Phone ( 312 ) 763-5100  
 \_\_\_\_\_

<b>2 PROPERTY ADDRESS OR GENERAL LOCATION</b>	<b>TAX KEY NUMBER</b>
N116W15970 Main Street, Germantown, WI 53022	221964001

**3 REZONING REQUEST**

FROM B3 & M1	TO PDD
-----------------	-----------

**4 METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY – REQUIRED**

Attach pages as necessary

See attached

## PURPOSE OF REZONING REQUEST

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

To combine separate lots into a PDD for purposes of adding a building addition and parking and also bringing us back into compliance with green space requirements.

## 6 SUPPORTING DOCUMENTATION:

- Plat of Survey (1:100)
- Site Plan and elevations for new construction (can be conceptual)
- \_\_\_\_\_
- \_\_\_\_\_

## 7 READ AND INITIAL THE FOLLOWING:

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

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

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

## 8 SIGNATURES – ALL APPLICATIONS MUST BE SIGNED BY OWNER!

\_\_\_\_\_  
Applicant Date

\_\_\_\_\_  
Owner Date



June 17, 2019

Mr. Retzlaff

Gehl Foods, LLC is proposing a PDD for our properties and a building addition at our facility located at N116W15970 Main Street.

*Project Description:*

Marketplace demand is driving a need to expand the Gehl's Main Street manufacturing facility. To meet this need, Gehl's is proposing a building expansion that will allow for the immediate installation of two new low acid aseptic cartoning lines. The building addition and two new lines will require an increase of 30-35 employees. This installation allows Gehl's to increase capacity in a highly constrained market and allows our company some redundancy with our California-based manufacturing facility. The proposed building expansion also allows for future growth within the facility. After the first two lines are installed, we would be able to install two additional new lines and replace a current aging production line with newer, more efficient technology.

Other than increased employment, additional benefits to the Village would be increases in property taxes, water consumption, sanitary waste flow, electricity and natural gas. There would also be taxes on the building materials and incidental benefits from all the contractors working in the area for a period of about 18 months.

The addition will be approx. 22,500 square feet which will square off our existing building to the southwest (the corner of Main & Church Streets). There will be four houses razed to make room for this addition. All four houses are currently owned by Gehl's or Angelo Gordon. Angelo Gordon will take possession of all the properties in the coming weeks.

If there are any questions or more information required, please feel free to contact me.

Thanks,

**Steve Schulz, PMP | Sr. Project Leader**

Office: 262.735.7139 | email: [sschulz@gehlfoods.com](mailto:sschulz@gehlfoods.com)

Gehl Foods, LLC | N116 W15970 Main Street, Germantown, WI 53022

Gehl Foods Inc. is requesting the following parcels be rezoned from M-1 and B-3 to PDD:

Main Street Plant:

Address: N116 W15970, N116 W16060 and N116 W16076 Main Street

Tax Parcels: GTNV\_221964001, GTNV\_22110561, GTNV\_22191057

Existing Zoning: M-1 and B-3

Proposed Zoning: PDD

Legal Description: Outlot 19 and 20 of Assessor's Plat, and Lot 1 CSM 6802, in the Northeast ¼ of Section 22, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin.

(The parcels will be combined with a new CSM)

Parcel Area: 9.51 acres

Existing Impervious Area: 7.63 acres (80%)

Proposed Impervious Area: 7.85 Acres (83%)

Reason for Rezoning:

To construct a building addition to the Plant at the southwest corner of the site and to expand and improve the parking lot for the employees.

Benefits to the Village:

Taxes; Jobs; Additional parking on site removes need to use Main Street parking spaces, improved storm water management and drainage as a result of constructed a new bio-retention basin on site, increase landscape area near the new building addition. Gehl Foods, Inc. is also willing to convey or dedicate the parcel on the south east corner of the block (Outlot 8 of Assessor's Plat) to the Village for the realignment of the Main Street and Fond Du Lac Avenue intersection and creation of Community Greenspace in accordance with the "Connection of Saxony Village" Plan.

Requested Variation from the base Zoning requirements:

To increase the Impervious surface from a Maximum 80% to a maximum of 85%.

Crusader Court Plant:

Address: N116 W11736 Crusader Court

Tax Parcel: GTNV\_221963

Existing Zoning: M-1

Proposed Zoning: PDD

Legal Description: Lot 1 CSM 5470, in the Northeast ¼ of Section 22, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin.

Parcel Area: 7.21 acres

Existing Impervious Area: 3.74 acres (52%)

Proposed Impervious Area: 3.74 Acres (52%)

Reason for Rezoning:

There are no proposed and anticipated improvements for this parcel. It is included on the rezoning request to offset the total impervious area for this and the Main Street Properties.

Benefits to the Village:

As a condition for the approval of the PDD zoning, Gehl Foods Inc. agrees to limit the total impervious area for both the Main Street Plant site and the Crusader Court site to 80% or less, matching the underlining zoning.

Requested Variation from the based Zoning:

None

Main St and Park Ave. Office Site:

Address: N116 W16150 Main Street

Tax Parcel: GTNV\_221091

Existing Zoning: B-3

Proposed Zoning: PDD

Legal Description: Lot 2 CSM 5648, in the Northeast ¼ of Section 22, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin.

Parcel Area: 0.64 acres

Existing Impervious Area: 0.33 acres (52%)

Proposed Impervious Area: 0.51 Acres (80%)

Reason for Rezoning:

To expand and improve the parking lot for the employees.

Benefits to the Village:

Taxes; Jobs; Additional parking on site removes need to use Main Street parking spaces, improved storm water management and drainage as a result of constructed a new bio-retention basin on site.

Requested Variation from the base Zoning requirements:

To reduce the parking setback

Total Land Area: 17.36 acres

Total Existing Impervious Area: 11.70 acres (67%)

Total Proposed Impervious Area: 12.10 acres (70%)

Net Increase in Impervious Area: 0.40 acres

**LEGAL DESCRIPTION**  
 LOT 1 OF CERTIFIED SURVEY MAP No. 6802, OUTLOT 19 AND OUTLOT 20 OF ASSESSOR'S PLAT (SW ¼ NE ¼), IN THE VILLAGE OF GERMANTOWN, IN THE SOUTHWEST ¼ OF THE NORTHEAST ¼ AND SOUTHEAST ¼ OF THE NORTHEAST ¼ OF SECTION 22, TOWNSHIP 9 NORTH, RANGE 20 EAST, WASHINGTON COUNTY, WISCONSIN

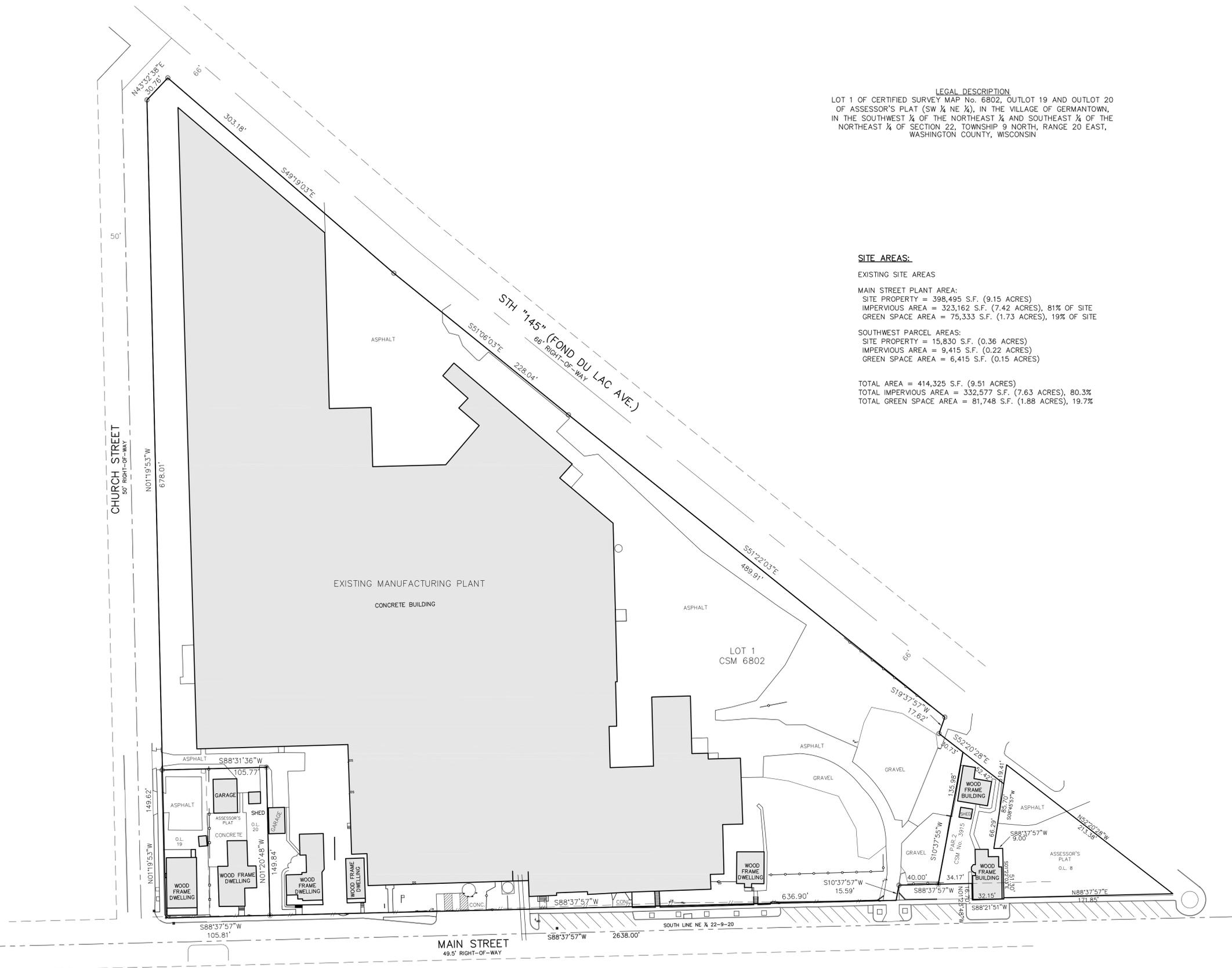
**SITE AREAS:**

**EXISTING SITE AREAS**

**MAIN STREET PLANT AREA:**  
 SITE PROPERTY = 398,495 S.F. (9.15 ACRES)  
 IMPERVIOUS AREA = 323,162 S.F. (7.42 ACRES), 81% OF SITE  
 GREEN SPACE AREA = 75,333 S.F. (1.73 ACRES), 19% OF SITE

**SOUTHWEST PARCEL AREAS:**  
 SITE PROPERTY = 15,830 S.F. (0.36 ACRES)  
 IMPERVIOUS AREA = 9,415 S.F. (0.22 ACRES)  
 GREEN SPACE AREA = 6,415 S.F. (0.15 ACRES)

**TOTAL AREA = 414,325 S.F. (9.51 ACRES)**  
**TOTAL IMPERVIOUS AREA = 332,577 S.F. (7.63 ACRES), 80.3%**  
**TOTAL GREEN SPACE AREA = 81,748 S.F. (1.88 ACRES), 19.7%**



**GEHLS FOODS**  
 N116 W16150 MAIN ST. GERMANTOWN, WI

CJE NO.: I542-02R1-EX  
 JUNE 12, 2019

**EXISTING  
 SITE PLAN**

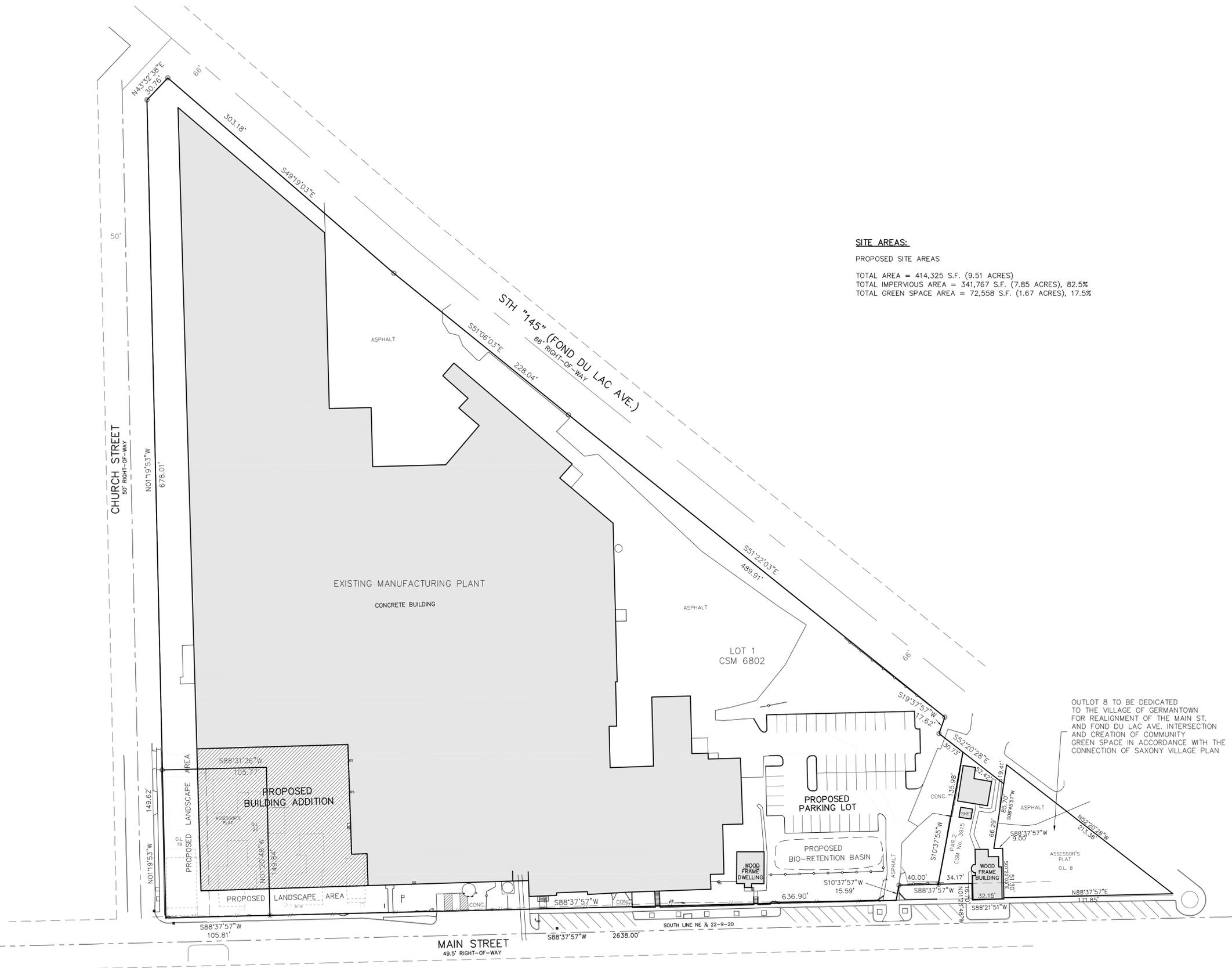
**SV1.0**



**SITE AREAS:**

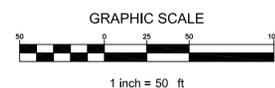
PROPOSED SITE AREAS

TOTAL AREA = 414,325 S.F. (9.51 ACRES)  
 TOTAL IMPERVIOUS AREA = 341,767 S.F. (7.85 ACRES), 82.5%  
 TOTAL GREEN SPACE AREA = 72,558 S.F. (1.67 ACRES), 17.5%



OUTLOT 8 TO BE DEDICATED TO THE VILLAGE OF GERMANTOWN FOR REALIGNMENT OF THE MAIN ST. AND FOND DU LAC AVE. INTERSECTION AND CREATION OF COMMUNITY GREEN SPACE IN ACCORDANCE WITH THE CONNECTION OF SAXONY VILLAGE PLAN

CJE NO.: 1542-02RI  
 JUNE 12, 2019



**GEHLS FOODS**  
 N116 W16150 MAIN ST. GERMANTOWN, WI

**SITE PLAN**

**C1.0**

# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

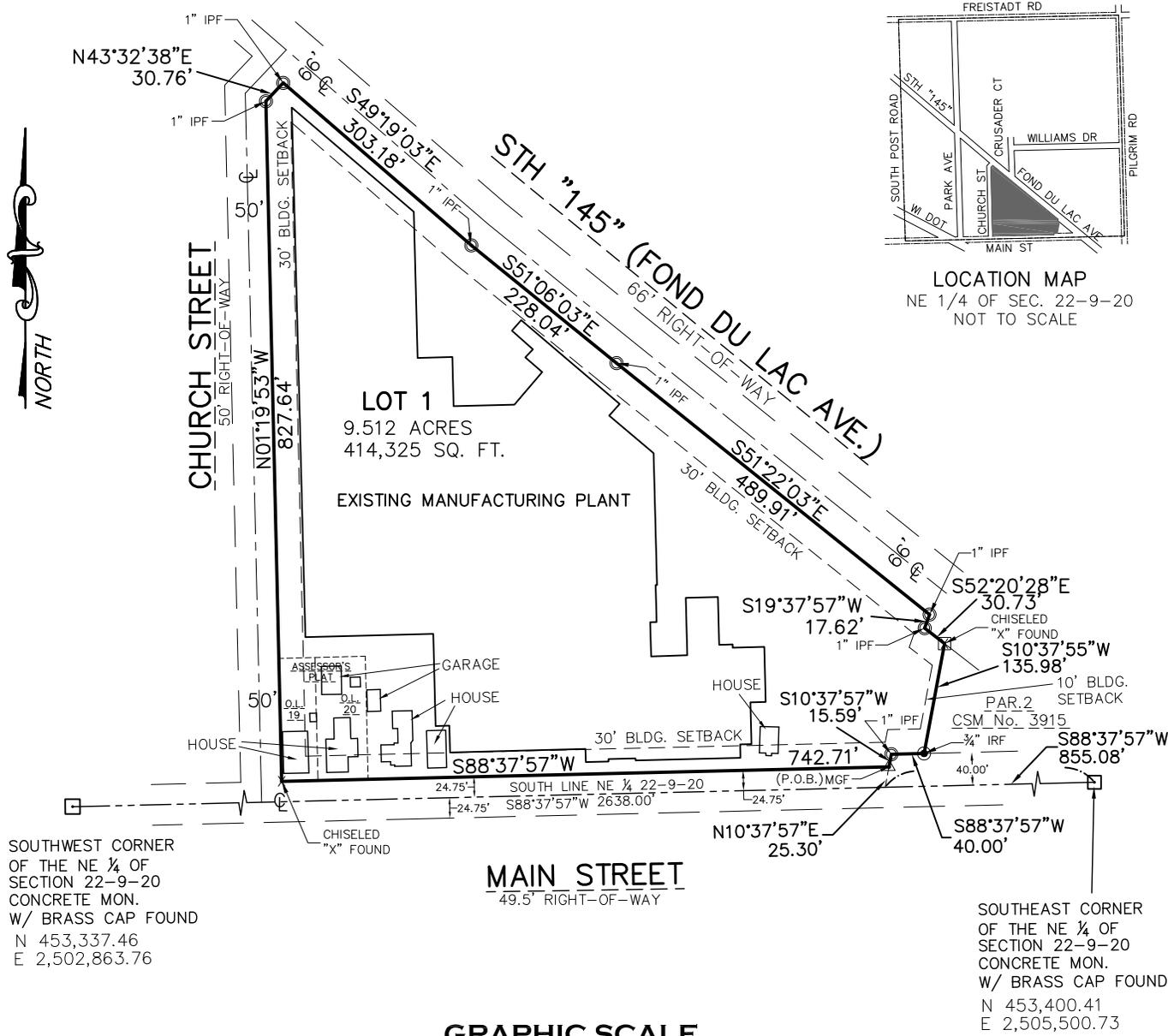
BEING A REDIVISION OF LOT 1 OF CERTIFIED SURVEY MAP No. 6802, OUTLOT 19 AND  
OUTLOT 20 OF ASSESSOR'S PLAT (SW ¼ NE ¼), IN THE VILLAGE OF GERMANTOWN,  
IN THE SOUTHWEST ¼ OF THE NORTHEAST ¼ AND SOUTHEAST ¼ OF THE  
NORTHEAST ¼ OF SECTION 22, TOWNSHIP 9 NORTH, RANGE 20 EAST, WASHINGTON  
COUNTY, WISCONSIN

- IPF - INDICATES IRON PIPE FOUND
- ⊙ IRF - INDICATES IRON ROD FOUND
- △ MGF - INDICATES MAG NAIL FOUND
- R.A. - INDICATES A DIMENSION AS PREVIOUSLY RECORDED IN OTHER DOCUMENTS.

ALL DIMENSIONS SHOWN ARE MEASURED TO THE NEAREST  
HUNDREDTH OF A FOOT.

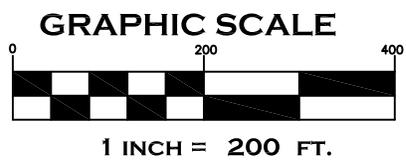
ALL BEARINGS SHOWN ARE REFERENCED TO SOUTH LINE OF THE NE  
¼ OF SECTION 22, T9N, R20E, WISCONSIN STATE PLANE COORDINATE  
SYSTEM GRID, SOUTH ZONE, AND ALL BEARINGS ARE REFERENCED  
TO GRID NORTH.

EXISTING BUILDINGS ENCROACH ONTO EXISTING BUILDING SETBACK  
AS DEFINED BY VILLAGE ZONING CODE ON MAY 30, 2017.



SOUTHWEST CORNER  
OF THE NE ¼ OF  
SECTION 22-9-20  
CONCRETE MON.  
W/ BRASS CAP FOUND  
N 453,337.46  
E 2,502,863.76

SOUTHEAST CORNER  
OF THE NE ¼ OF  
SECTION 22-9-20  
CONCRETE MON.  
W/ BRASS CAP FOUND  
N 453,400.41  
E 2,505,500.73



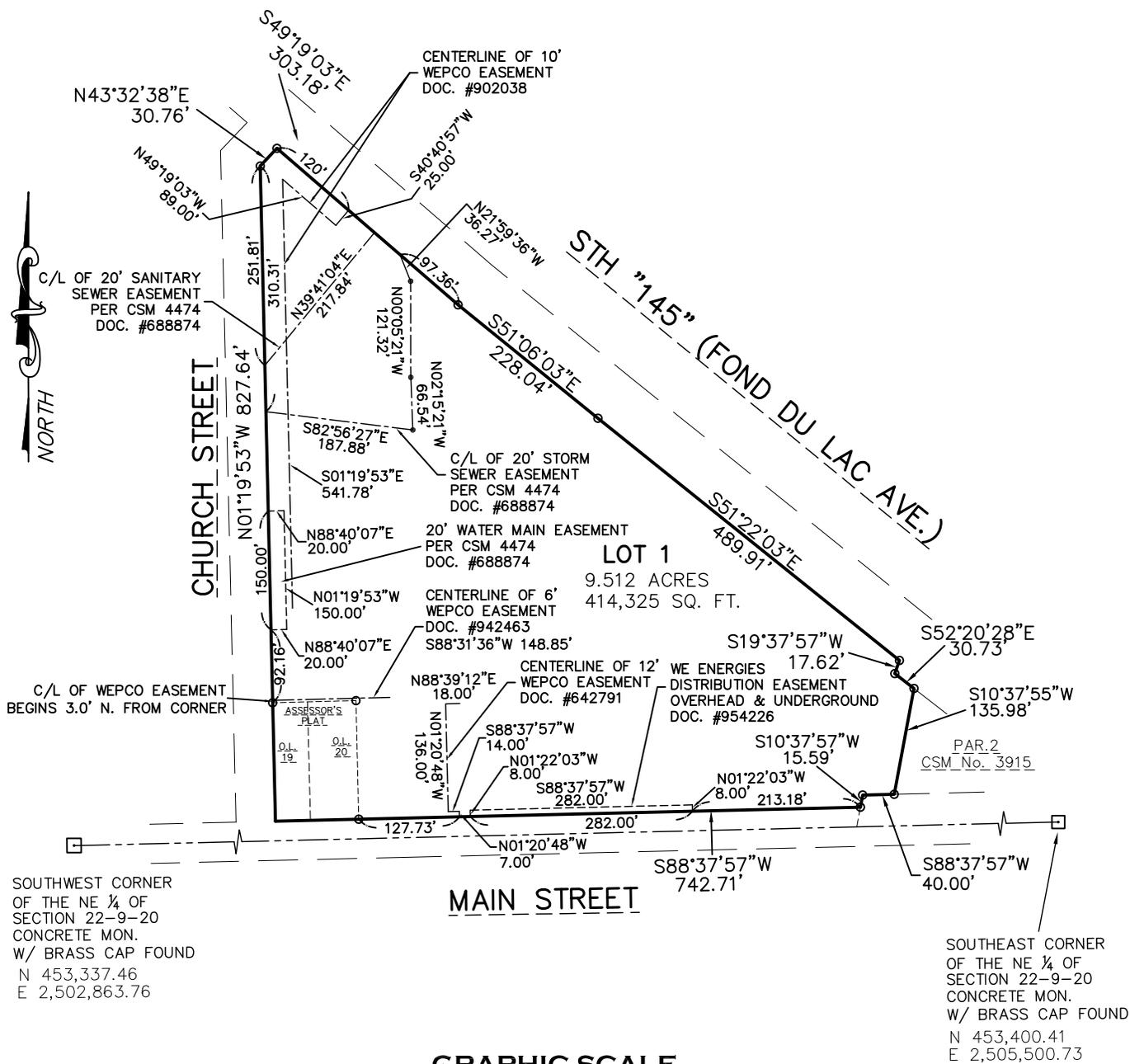
**CJ**  
engineering  
civil design and consulting  
9205 W. Center Street  
Suite 214  
Milwaukee, WI 53222  
PH. (414) 443-1312  
www.cj-engineering.com

OWNER:  
GEHL FOODS, LLC  
N116 W15970 MAIN STREET  
GERMANTOWN, WI 53022  
(262) 251-8570

# CERTIFIED SURVEY MAP NO.

BEING A REDIVISION OF LOT 1 OF CERTIFIED SURVEY MAP No. 6802, OUTLOT 19 AND OUTLOT 20 OF ASSESSOR'S PLAT (SW ¼ NE ¼), IN THE VILLAGE OF GERMANTOWN, IN THE SOUTHWEST ¼ OF THE NORTHEAST ¼ AND SOUTHEAST ¼ OF THE NORTHEAST ¼ OF SECTION 22, TOWNSHIP 9 NORTH, RANGE 20 EAST, WASHINGTON COUNTY, WISCONSIN

## EXISTING EASEMENTS



**CJ**  
**engineering**  
civil design and consulting  
9205 W. Center Street  
Suite 214  
Milwaukee, WI 53222  
PH. (414) 443-1312  
www.cj-engineering.com

# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

BEING A REDIVISION OF LOT 1 OF CERTIFIED SURVEY MAP No. 6802, OUTLOT 19 AND OUTLOT 20 OF ASSESSOR'S PLAT (SW ¼ NE ¼), IN THE VILLAGE OF GERMANTOWN, IN THE SOUTHWEST ¼ OF THE NORTHEAST ¼ AND SOUTHEAST ¼ OF THE NORTHEAST ¼ OF SECTION 22, TOWNSHIP 9 NORTH, RANGE 20 EAST, WASHINGTON COUNTY, WISCONSIN

## SURVEYOR'S CERTIFICATE

I, CHRISTOPHER JACKSON, A PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY:

THAT I HAVE SURVEYED, MAPPED AND COMBINED LOT 1 OF CERTIFIED SURVEY MAP No. 4474, OUTLOT 21, EXCEPT THE NORTH 42 FEET OF ASSESSOR'S PLAT (SW ¼ NE ¼), AND PARCEL 1 OF CERTIFIED SURVEY MAP No. 3915 IN THE VILLAGE OF GERMANTOWN, IN THE SOUTHWEST ¼ OF THE NORTHEAST ¼ AND SOUTHEAST ¼ OF THE NORTHEAST ¼ OF SECTION 22, TOWNSHIP 9 NORTH, RANGE 20 EAST, WASHINGTON COUNTY, WISCONSIN:

COMMENCING AT THE SOUTHEAST CORNER OF SAID NORTHEAST ¼ OF SECTION 22, THENCE S 88°37'57" W 855.08 FEET ALONG THE SOUTH LINE OF SAID NE 1/4 SECTION; THENCE 10°37'57" E 25.30 FEET TO THE NORTH R.O.W. LINE OF MAIN STREET AND THE POINT OF BEGINNING OF LANDS TO BE DESCRIBED; THENCE S 88°37'57" W ALONG SAID NORTH LINE 742.71 FEET TO THE EAST R.O.W. LINE OF CHURCH STREET; THENCE N 01°19'53" W ALONG SAID EAST R.O.W. LINE 827.64 FEET; THENCE N 43°32'38" E CONTINUING ALONG SAID EAST LINE, 30.76 FEET TO THE SOUTH R.O.W. LINE OF FOND DU LAC AVENUE (S.T.H. "145"); THENCE S 49°19'03" E ALONG SAID SOUTH R.O.W. LINE, 303.18 FEET; THENCE S 51°06'03" E CONTINUING ALONG SAID SOUTH R.O.W. LINE, 228.04 FEET; THENCE S 51°22'03" E CONTINUING ALONG SAID SOUTH R.O.W. LINE, 489.91 FEET; THENCE S 19°37'57" W, 17.62 FEET; THENCE S 52°20'28" E, 30.73 FEET; THENCE S 10°37'55" W, 135.98 FEET; THENCE S 88°37'57" W, 40.00 FEET; THENCE S 10°37'57" W, 15.59 FEET TO THE NORTH R.O.W. LINE OF MAIN STREET AND THE POINT OF BEGINNING.

CONTAINING: 414,325 SQUARE FEET OR 9.512 ACRES

THAT I HAVE MADE SUCH SURVEY, MAP AND LAND COMBINATION BY THE DIRECTION OF GEHL FOODS, LLC., OWNERS OF SAID LAND.

THAT SUCH MAP IS A CORRECT REPRESENTATION OF ALL EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND THE COMBINATION THEREOF MADE.

THAT I HAVE FULLY COMPLIED WITH THE PROVISIONS OF CHAPTER 236 OF THE STATUTES OF THE STATE OF WISCONSIN AND THE REGULATIONS OF THE VILLAGE OF GERMANTOWN IN SURVEYING, MAPPING AND COMBINING THE SAME.

DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
CHRISTOPHER A. JACKSON  
PROFESSIONAL LAND SURVEYOR, S-2851  
STATE OF WISCONSIN

# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

BEING A REDIVISION OF LOT 1 OF CERTIFIED SURVEY MAP No. 6802, OUTLOT 19 AND OUTLOT 20 OF ASSESSOR'S PLAT (SW ¼ NE ¼), IN THE VILLAGE OF GERMANTOWN, IN THE SOUTHWEST ¼ OF THE NORTHEAST ¼ AND SOUTHEAST ¼ OF THE NORTHEAST ¼ OF SECTION 22, TOWNSHIP 9 NORTH, RANGE 20 EAST, WASHINGTON COUNTY, WISCONSIN

## CORPORATE OWNER'S CERTIFICATE

GEHL FOODS, LLC, A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF WISCONSIN AS OWNER, DOES HEREBY CERTIFY THAT SAID COMPANY CAUSED THE LAND DESCRIBED ON THIS MAP TO BE SURVEYED, DIVIDED AND MAPPED AS REPRESENTED ON THIS MAP.

IN WITNESS WHEREOF, GEHL FOODS, LLC, HAS CAUSED THESE PRESENTS TO BE SIGNED BY ERIC BERINGAUSE, ITS CHIEF EXECUTIVE OFFICER (CEO), AND COUNTERSIGNED BY TIM PREUNINGER, ITS CHIEF FINANCIAL OFFICER (CFO), AND ITS CORPORATE SEAL TO BE AFFIXED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
ERIC BERINGAUSE, CEO

\_\_\_\_\_  
TIM PREUNINGER, CFO

STATE OF WISCONSIN) SS  
WASHINGTON COUNTY)

PERSONALLY CAME BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_, ERIC BERINGAUSE AND TIM PREUNINGER, TO ME KNOWN TO BE THE CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER OF GEHL FOODS, LLC. AND THE PERSONS WHO EXECUTED THE FOREGOING INSTRUMENT AS SUCH OFFICERS OF SAID CORPORATION AND ACKNOWLEDGED THE SAME.

\_\_\_\_\_  
NOTARY PUBLIC, STATE OF WISCONSIN  
MY COMMISSION EXPIRES \_\_\_\_\_, 20\_\_

## VILLAGE OF GERMANTOWN PLANNING COMMISSION APPROVAL

THIS CERTIFIED SURVEY MAP IS HEREBY APPROVED BY THE PLANNING COMMISSION OF THE VILLAGE OF GERMANTOWN ON THIS \_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_.

\_\_\_\_\_  
DEAN WOLTER, CHAIRMAN

\_\_\_\_\_  
DATE

\_\_\_\_\_  
LAURA A. JOHNSON, SECRETARY

\_\_\_\_\_  
DATE

## VILLAGE OF GERMANTOWN BOARD APPROVAL

THIS CERTIFIED SURVEY MAP, BEING A DIVISION OF NE ¼ SECTION 26, TOWNSHIP 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN, HAVING BEEN APPROVED BY THE PLANNING COMMISSION BEING THE SAME, IS HEREBY APPROVED AND ACCEPTED BY THE VILLAGE BOARD OF TRUSTEES OF THE VILLAGE OF GERMANTOWN ON THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
DEAN WOLTER, VILLAGE PRESIDENT

\_\_\_\_\_  
DATE

\_\_\_\_\_  
ELIZABETH KNAACK, VILLAGE CLERK

\_\_\_\_\_  
DATE



Lot Size: 314,068 sq. ft. (7.21 Acres)

Exist. Pavement: 55,808 sq. ft. (17.8%)

Exist. Bldg.: 107,141 sq. ft. (34.1%)

Exist. Coverage: 162,949 sq. ft. (51.9%)

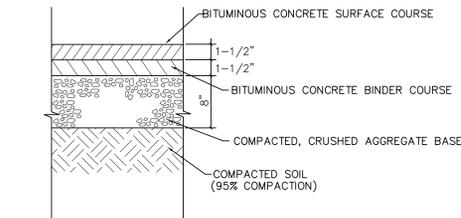
Zone M-1 maximum coverage: 80%



**SITE PLAN**

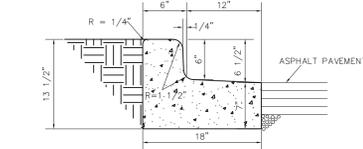


<p>N116 W15970 Main Street Germantown, WI 53022 262.251.8570</p>	Dr. By: SMS	REVISIONS
	App. By:	△
	Date:	△
	Dept.: Engineering	△
<p><b>PLAT PLAN</b> W116 N11736 Crusader Court Germantown, WI</p>		△
Location	Release: 01	Print Date:
	Drawing No.	of



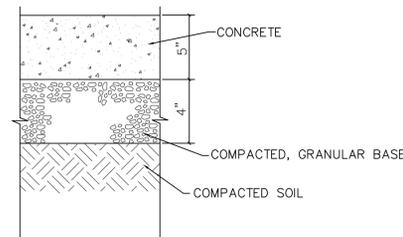
ASPHALT PAVEMENT

NOT TO SCALE



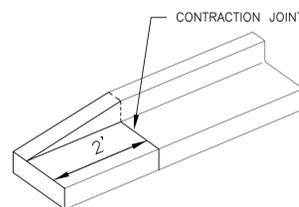
CONCRETE CURB & GUTTER DETAIL

NOT TO SCALE



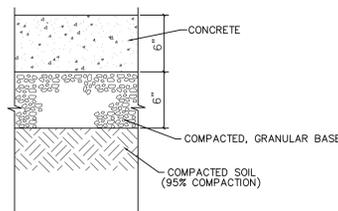
CONCRETE SIDEWALK

NOT TO SCALE



END SECTION CURB TAPER

NOT TO SCALE



CONCRETE PAVEMENT  
(DUMPSTER AREA)

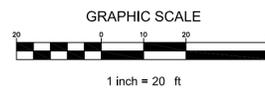
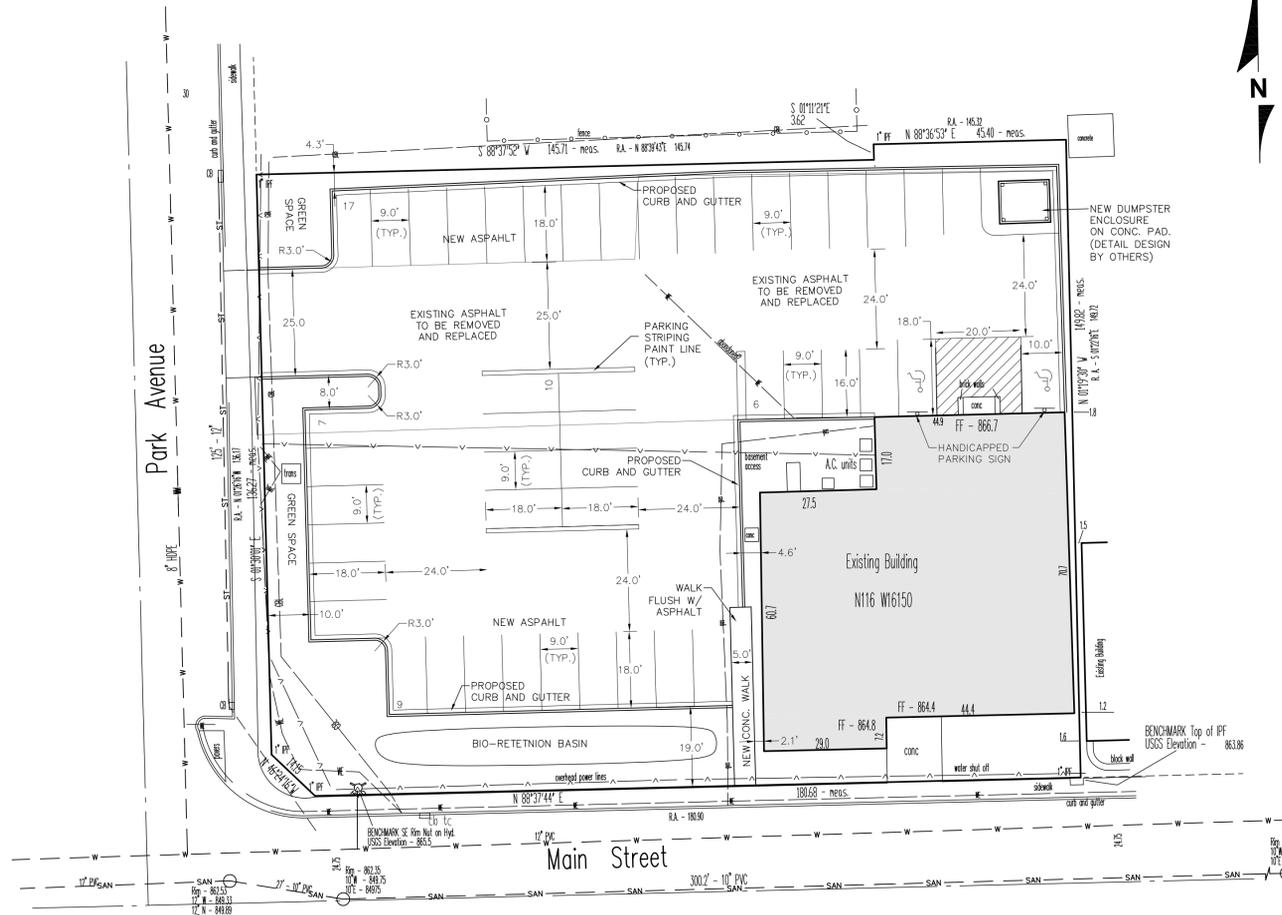
NOT TO SCALE

NOTE:  
 SIGN REQUIRED AT EACH  
 H.C. ACCESSIBLE  
 PARKING STALL

- GREEN IN COLOR
- WHITE BACKGROUND
- BLUE IN COLOR
- GALVANIZED POLE
- GRADE
- 2 1/2" O.D. STEEL PIPE
- 8" DIA. CONCRETE BASE

HANDICAPPED PARKING SIGN DETAIL

NOT TO SCALE



NOTES:

1. ALL EXISTING CONDITIONS ARE PER THE SURVEY BY ON TARGET SURVEYING DATED 08-01-15.
2. AREAS:  
 SITE PROPERTY = 28,023 S.F. (0.643 ACRES)  
 EXISTING IMPERVIOUS AREA = 14,430 S.F. (0.331 ACRES) 52%  
 PROPOSED IMPERVIOUS AREA = 22,310 S.F. (0.512 ACRES) 80%  
 NET INCREASE IN IMPERVIOUS AREA = 7,880 S.F. (0.181 ACRES)  
 DISTURBED AREA = 19,075 S.F. (0.438 ACRES)
3. PARKING:  
 46 SPACES (44 REGULAR AND 2 HANDICAPPED)

NOTE:

CONTRACTOR SHALL PERFORM THE WORK IN CONFORMANCE WITH THE VILLAGE STANDARDS AND SPECIFICATIONS:

SECTION 3.0: GRADING AND EROSION CONTROL REQUIREMENTS:  
<http://www.village.germantown.wi.us/DocumentCenter/View/74>

SECTION 4.0: STORM SEWER CONVEYANCE SYSTEM REQUIREMENTS:  
<http://www.village.germantown.wi.us/DocumentCenter/View/75>

SECTION 5.0: SANITARY SEWER SYSTEM REQUIREMENTS:  
<http://www.village.germantown.wi.us/DocumentCenter/View/76>

SECTION 6.0: WATER DISTRIBUTION SYSTEM REQUIREMENTS:  
<http://www.village.germantown.wi.us/DocumentCenter/View/77>

SECTION 7.0: STORM WATER MANAGEMENT REQUIREMENTS:  
<http://www.village.germantown.wi.us/DocumentCenter/View/78>

SECTION 8.0: ROADWAY REQUIREMENTS:  
<http://www.village.germantown.wi.us/DocumentCenter/View/79>



CJE NO.: I529R3  
 JUNE 10, 2019

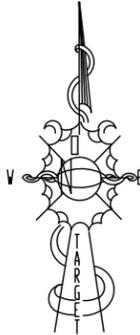
SITE PLAN

**C1.0**  
 SHEET 1 OF 2

**GEHLS HQ BUILDING**  
 N116 W16150 MAIN ST. GERMANTOWN, WI

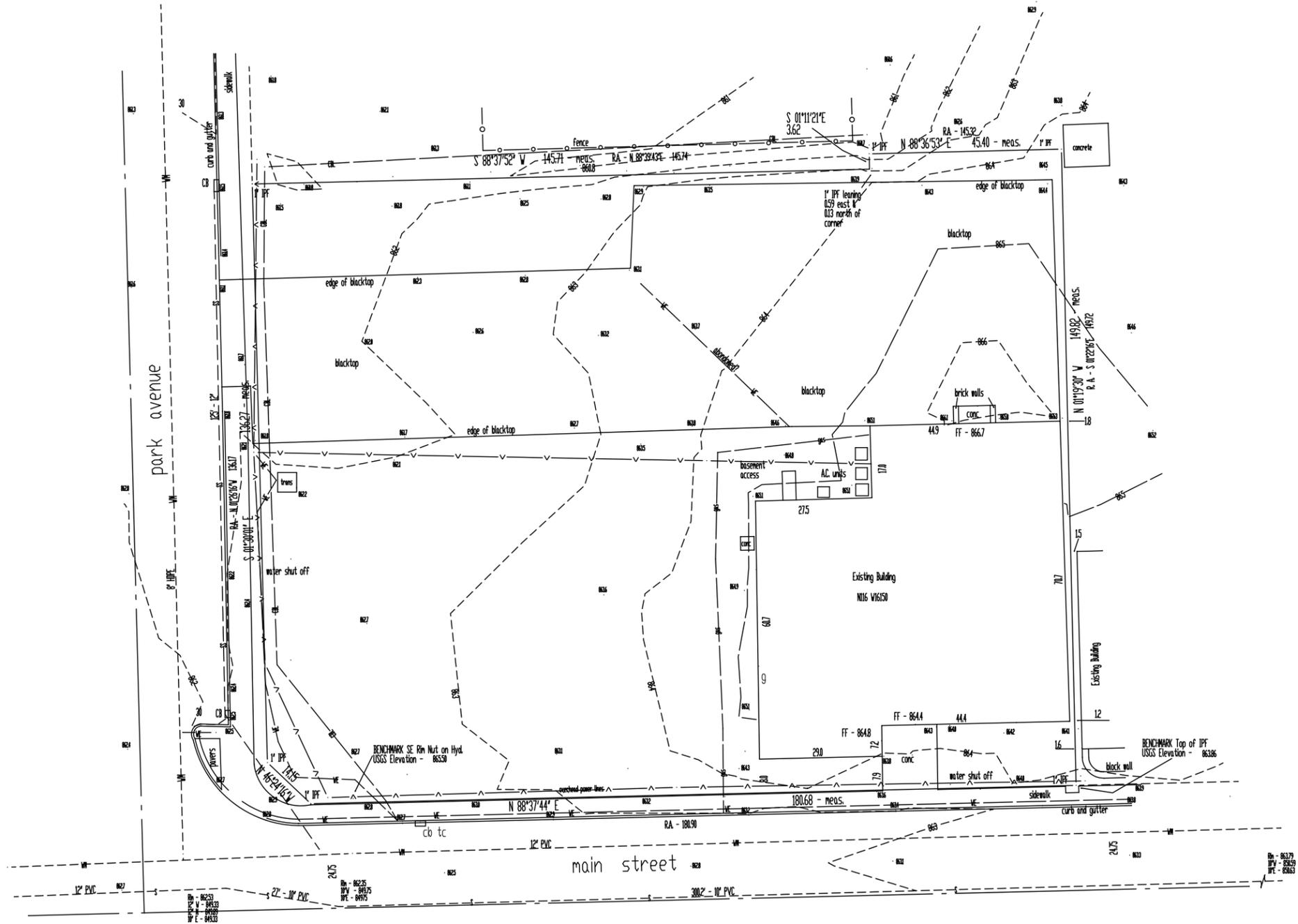
PLAT OF SURVEY  
FOR  
Gehl Foods

Lot 2 of Certified Survey Map No. 5648, as recorded in Volume 41 on Pages 45 through 48 of Certified Survey Maps of Washington County, being a division of all of Lot 1 and 2 in Map of Walterlin's Addition to South Germantown and all of Outlot 3 and 4 of Assessor's Plat of the Village of Germantown SW 1/4, NE 1/4 Section 22, all being located in the SW 1/4 of the NE 1/4 of Section 22, Town 9 North, Range 20 East, in the Village of Germantown, Washington County, Wisconsin.



Scale - 1" = 30'

North is referenced to the Wisconsin Coordinate Grid System, South Zone, the north right-of-way line of Main Street having a recorded bearing of S 88°37'44" W.



State of Wisconsin )  
Washington County) ss.

I hereby certify that I have made a survey of the above described property and that this map is a true and correct representation thereof and shows the size and location of the property, its exterior boundaries, the location and dimensions of all visible structures thereon, apparent easements and roadways, and visible encroachments, if any.

Dated this 1st day of August 2015

Michael J. Schief S-2471

IPF - Indicates Iron Pipe Found  
RA - Indicates a dimension as previously recorded in other documents.  
Meas. - Indicates a field measured dimension.

Underground elevations for existing utilities are shown from Village of Germantown As-Built drawings.

- indicates a power pole
- indicates a hydrant
- 862 • indicates a ground elevation
- trans indicates an electric transformer
- indicates a water valve
- indicates a manhole
- indicates a street light
- WM — indicates watermain
- S — indicates sanitary sewer
- SS — indicates storm sewer
- VE — indicates underground electric lines
- CBL — indicates underground cable lines
- GAS — indicates underground gas lines
- / — indicates overhead power lines



**Fee must accompany application**

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

PAID \_\_\_\_\_ DATE \_\_\_\_\_

## SITE PLAN REVIEW APPLICATION

Pursuant to Section 17.43 of the Municipal Code

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

<p><b>1</b> APPLICANT OR AGENT</p> <p><u>Steve Schulz</u></p> <p><u>Gehl Foods, LLC</u></p> <p><u>N116W15970 Main Street</u></p> <p><u>Germantown, WI 53022</u></p> <p>Phone ( 262 ) <u>735-7139</u></p> <p>E-Mail <u>sschulz@gehlfoods.com</u></p>	<p>PROPERTY OWNER</p> <p><u>Gordon J. Whiting</u></p> <p><u>Angelo Gordon</u></p> <p><u>111 South Wacker Drive</u></p> <p><u>36th floor</u></p> <p><u>Chicago, IL 60606</u></p> <p>Phone ( 312 ) <u>763-5100</u></p> <p>E-Mail _____</p>
---	--

**2** PROPERTY ADDRESS

<p>N116W15970 Main Street</p> <p>N116W16060 Main Street</p>	<p>N116W16076 Main Street</p>
---	-------------------------------

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

North	South	East	West

**4** READ AND INITIAL THE FOLLOWING:

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

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

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

**5** SIGNATURES – ALL APPLICATION MUST BE SIGNED BY OWNER!

<p><u>SJS</u></p> <p>Applicant</p>	<p><u>6.4.19</u></p> <p>Date</p>	<p>_____</p> <p>Owner</p>	<p>_____</p> <p>Date</p>
------------------------------------	----------------------------------	---------------------------	--------------------------



June 4, 2019

Mr. Retzlaff

Gehl Foods, LLC is requesting a Plan Commission Consultation to discuss a proposed addition at our facility located at N116W15970 Main Street. Our goal is to submit a PDD application and the building addition application for approval at the August 12<sup>th</sup> Planning Commission meeting.

This requested consultation will be for design review of the building addition only.

*Project Description:*

Gehl's has a need to add production space to keep up to date on current marketing requirements. The proposed addition will give us the potential of adding five new production lines (while only removing one outdated line). The new increase in production will also increase employment by approx. 30 people for the four new lines. The fifth new line and the line being removed will balance out on employment.

The addition will be approx. 22,500 square feet which will square off our existing building to the southwest (the corner of Main & Church Streets). There will be four houses razed to make room for this addition. All four houses are currently owned by Gehl's or Angelo Gordon. Angelo Gordon will take possession of all the properties in the coming weeks.

July 19, 2019

Mr. Retzlaff

On Monday, July 15<sup>th</sup>, I submitted the missing engineering drawings from CJ engineering for the PDD application submitted on June 17<sup>th</sup>, 2019. One addition that we made was to relocate the sidewalk to the north and install the paver brick stamped concrete that was done in other areas on Main Street. Moving the sidewalk will allow people to walk side-by-side and not have to negotiate the utility poles and streetlamps. We also added the standard street trees to the paver brick area. Another benefit to the new addition will be better seating areas for the various Germantown parades. Lastly, this will drastically improve the vision triangle on Church Street and Main Street. Many drivers assume there is no one coming from the east on Main as they start turning west off of Church onto Main. I know I have been cut-off there many times over the years.

Today, July 19<sup>th</sup>, I delivered the revised design for the Gehl addition. The initial design was poorly received by the Plan Commission with a recommendation to come back with something



fabulous. The design I delivered today is my interpretation of fabulous. I realize this is way past the deadline for the August meeting, but it was my understanding from the June consult with the Plan Commission that the PDD would not be approved until a design was approved. Due to the PDD being on the agenda for August, I thought I had better show some design improvements on the addition. It is my hope that this new design can replace the old rejected design that was submitted for site plan approval on June 17.

If there are any questions or more information required, please feel free to contact me.

Thanks,

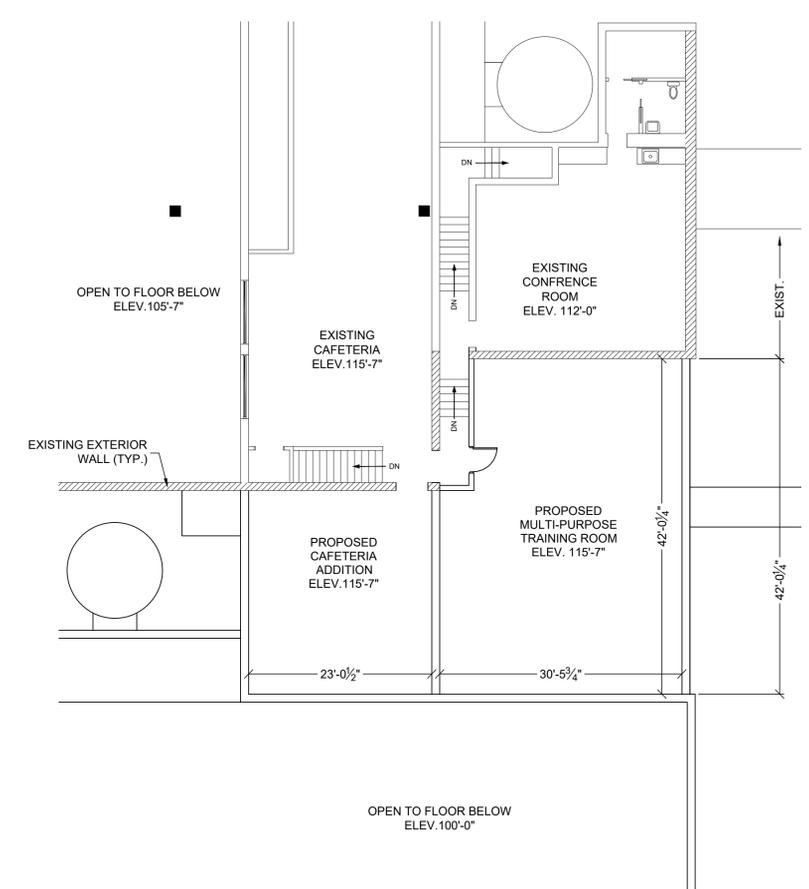
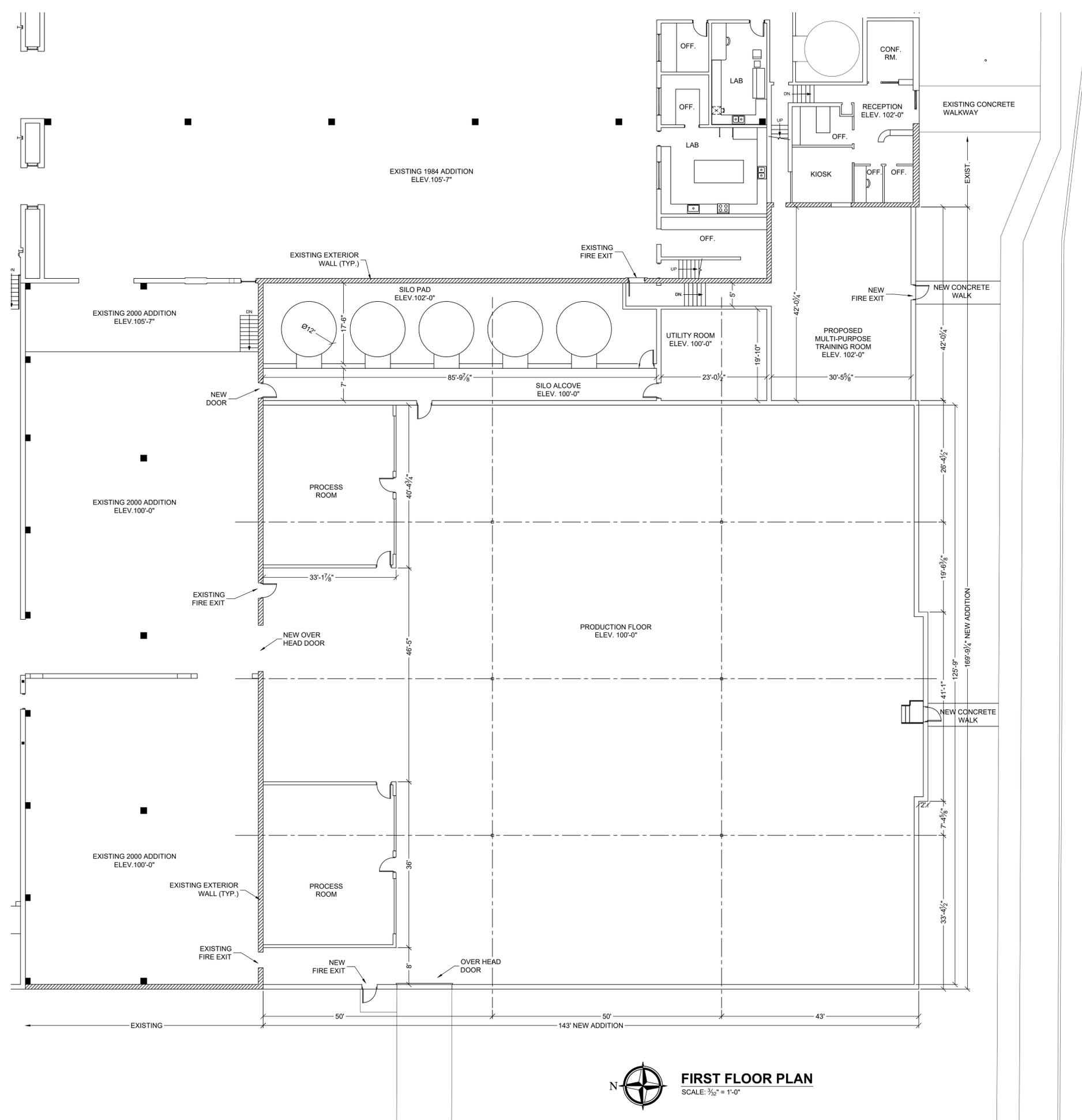
**Steve Schulz, PMP | Sr. Project Leader**

Office: 262.735.7139 | email: [sschulz@gehlfoods.com](mailto:sschulz@gehlfoods.com)

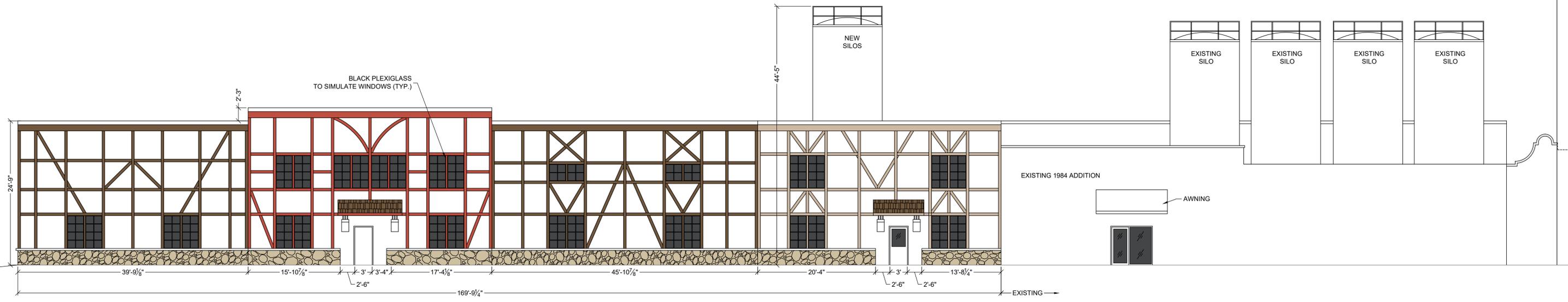
Gehl Foods, LLC | N116 W15970 Main Street, Germantown, WI 53022



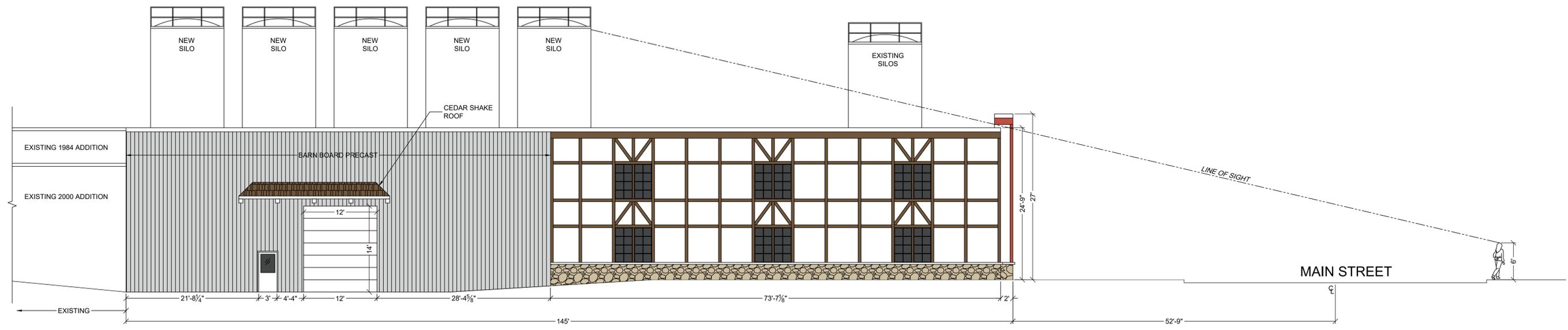
[www.gehlfoods.com](http://www.gehlfoods.com)



Sheet Title:	<b>PARTIAL FLOOR PLAN</b>
Project:	<b>PROPOSED BUILDING ADDITION</b>
Description:	Revised per review
Drawn/Team ID:	
Detail/Team Description:	



**SOUTH ELEVATION**  
 SCALE: 1/8" = 1'-0"



**WEST ELEVATION**  
 SCALE: 1/8" = 1'-0"

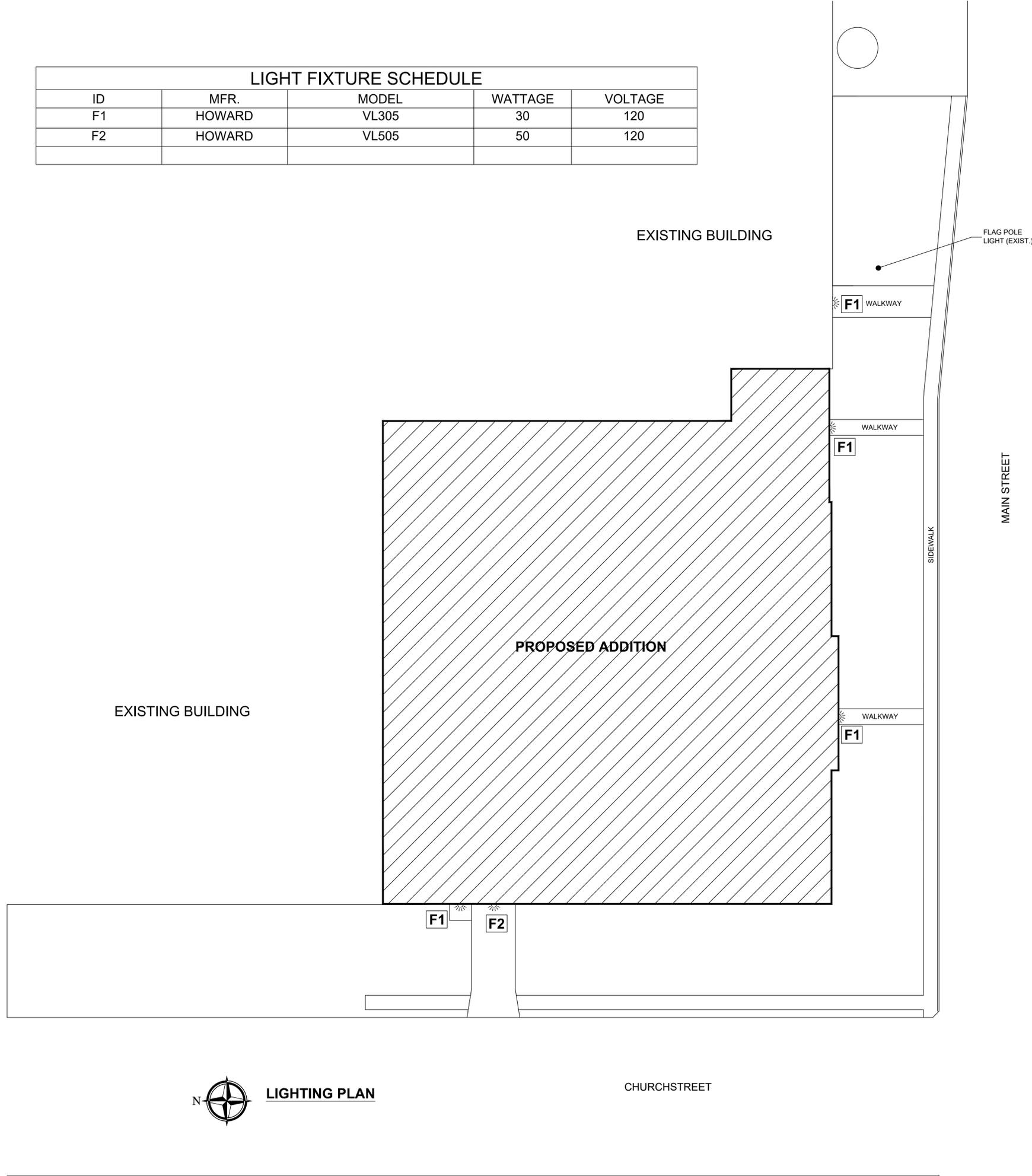
**ELEVATIONS**  
**PROPOSED BUILDING ADDITION**

Sheet Title: ELEVATIONS  
 Project: PROPOSED BUILDING ADDITION  
 Description: Revised per review  
 Date/Team ID: [blank]  
 Date/Team Description: [blank]

Edit Date: 7.18.19  
 Edit Time:  
 Version Author: SSCHULZ  
 Version Editor:  
 Drawing No.

2 of 2

LIGHT FIXTURE SCHEDULE				
ID	MFR.	MODEL	WATTAGE	VOLTAGE
F1	HOWARD	VL305	30	120
F2	HOWARD	VL505	50	120



**HOWARD**  
LIGHTING PRODUCTS

Specification Sheet

## VL Series

**Versalite LED Wallpack**  
12, 30, 50, 80, and 120W (120-277V)  
40W and 100W (347-480V)

**Description**  
Versalite VL Series Wallpack offers great energy savings compared to HID systems. It features a heavy-duty, spring-loaded hinge, which provides the flexibility of focusing light near the mounting surface (wallpack) or projecting light forward (flood).

**Features**

- Die-Cast Housing
- Bronze polyester powder coat finish
- 69,000 hours maintenance-free operation to L<sub>50</sub>\*
- Wall mount for wallpacks
- Heavy-duty, spring-loaded hinge provides vertical adjustability of the luminaire housing up to 65°.
- Adjustability provides for a range of lighting effects from full-cutoff downlight to forward throw.
- Knurled notches securely retain rotated position even in demanding environments.

\*L<sub>50</sub> hours are IES TM-21-11 calculated hours.

**Ordering Information**

Model	Watts (W)	Lumens	Lm/W	CCT/ CRI	Voltage
VL125	12	1,320	111	5000K; CRI 83	120 - 277V
VL305	30	3,290	119		
VL505	50	5,280	107		
VL805	80	9,240	115		
VL1205	120	14,220	115		
VL405 <sup>1</sup>	40	4,200	115	347 - 480V	
VL1005 <sup>1</sup>	100	12,130	122		

<sup>1</sup>Not DLC listed. Not in stock, call for lead times.

**Photometry**

**Applications**

**Wall Mount:**

- Loading Docks
- Entrances
- Parking Areas
- Perimeter
- Underpasses

**Flood Applications:**

- Signage
- Building Façade
- Displays
- Security Lighting

**Warranty and Listings**

- cULus listed for wet locations (-20°C to 40°C / -4°F to 104°F). ROHS compliant.
- P65 rated.
- Complies with FCC Part 15, class B.
- Complies with EN61000-4-5, surge immunity (1kV).
- 5-year warranty on all electronics and housing.

**Mounting Options**

**Dimensions**

Models	L (in.)	W (in.)	H (in.)
VL125	6	5	3.5
VL305, VL405, VL505	9	7.6	4.5
VL805, VL1005, VL1205	13	11	5.5

Specifications subject to change without notice. Howard Lighting Products | 580 Eastview Drive | Laurel, MS 39443 (toll free) 800.756.3456 | (direct) 601.422.0033 | (fax) 601.422.1652 www.HowardLightingProducts.com

Page 1 of 1  
Rev: 3/9/2018

N116 W15970 Main Street  
Germanstown, WI  
262.251.8570

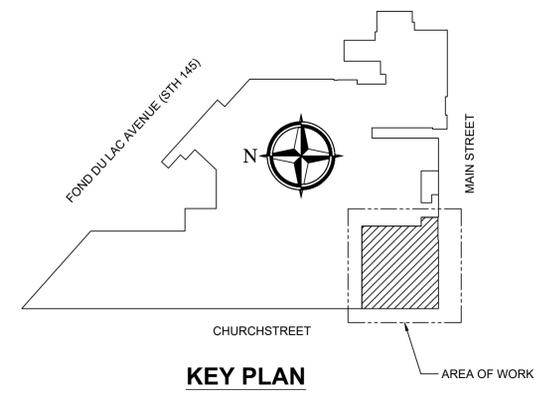
Author: SSCHULZ

Edited By:

Date Created: 6.16.19

Type:

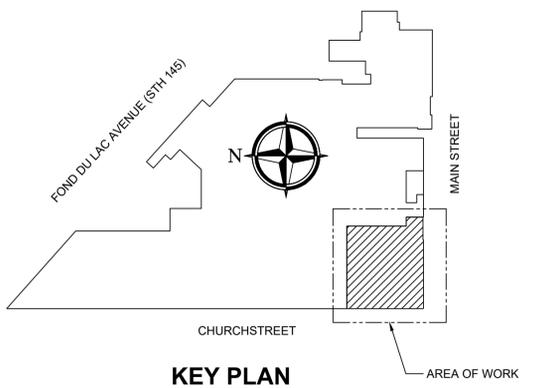
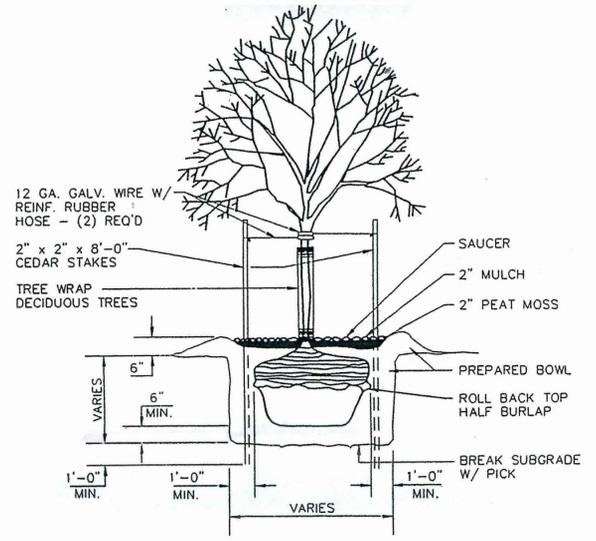
Notes:



Sheet Title: **LIGHTING PLAN**  
 Project: **PROPOSED BUILDING ADDITION**  
 Description: **Revised per review**  
 Date/Time: **7.18.19**  
 Version Author:  
 Version Editor:  
 Drawing No.

3 of 4

PLANTING SCHEDULE		
QTY.	SPECIES	SIZE
1	CRABAPPLE (MALUS 'ADAMS')	3" CAL., B&B
2	AMURE MAPLE (ACER GINNALA)	10' HT., M.T., B&B
5	GERMANTOWN STREET TREES	6' HT., B&B
1	SERBIAN SPRUCE (PICEA OMORIKA)	6' HT., B&B
6	ARBORVITAE (THUJA OCCIDENTALIS)	8' HT., B&B
15	HOSTA (PLANTAIN LILY)	6" POT



**LANDSCAPE PLAN**

**LANDSCAPE PLAN**  
**PROPOSED BUILDING ADDITION**

Sheet Title: LANDSCAPE PLAN  
 Project: PROPOSED BUILDING ADDITION  
 Description: Revised per review  
 Datestream ID:  
 Datestream Description:

Edit Date: 7.18.19  
 Edit Time:  
 Version Author:  
 Version Editor:  
 Drawing No.

**LEGAL DESCRIPTION**  
 LOT 1 OF CERTIFIED SURVEY MAP No. 6802, OUTLOT 19 AND OUTLOT 20 OF ASSESSOR'S PLAT (SW ¼ NE ¼), IN THE VILLAGE OF GERMANTOWN, IN THE SOUTHWEST ¼ OF THE NORTHEAST ¼ AND SOUTHEAST ¼ OF THE NORTHEAST ¼ OF SECTION 22, TOWNSHIP 9 NORTH, RANGE 20 EAST, WASHINGTON COUNTY, WISCONSIN

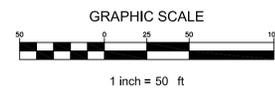
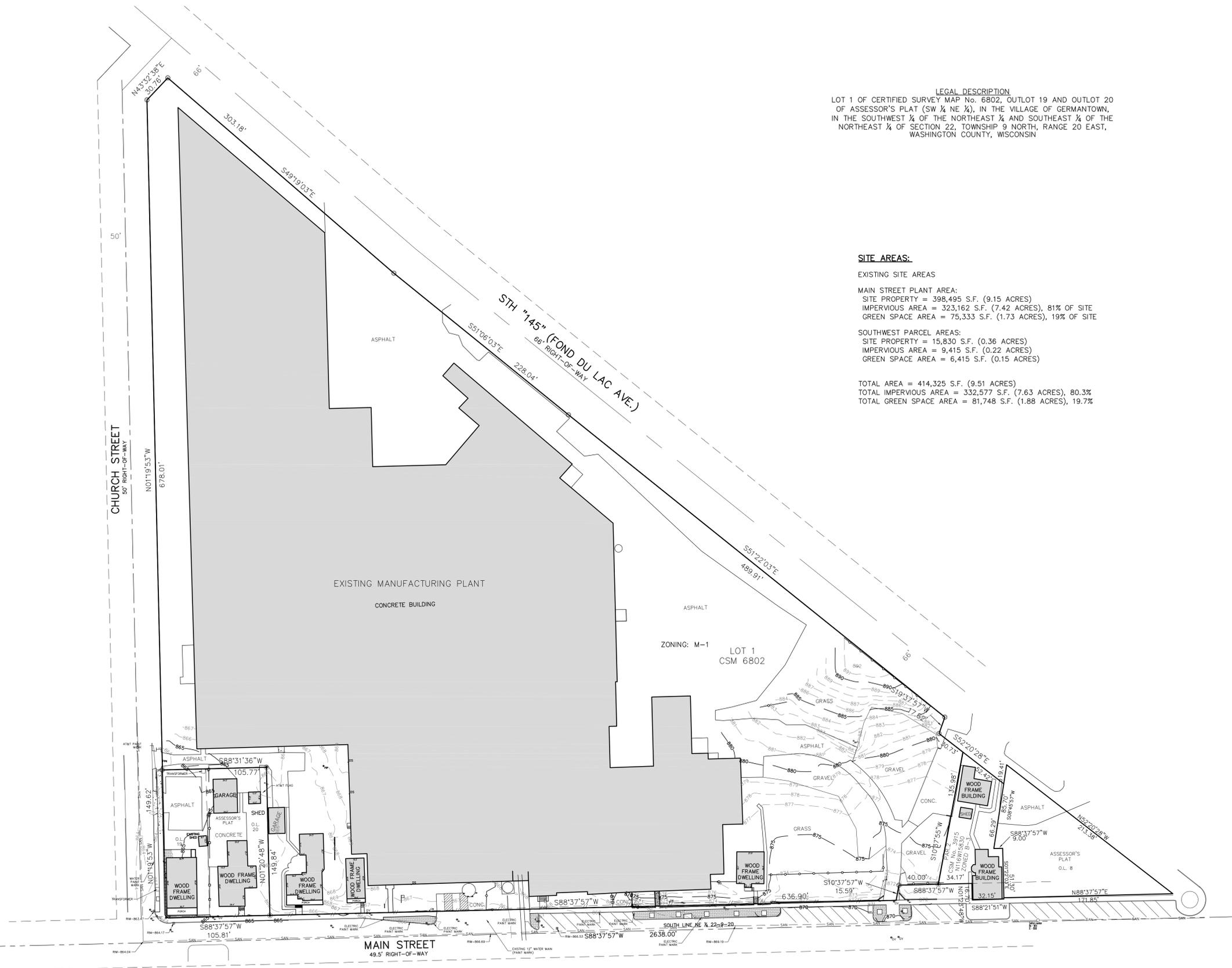
**SITE AREAS:**

**EXISTING SITE AREAS**

**MAIN STREET PLANT AREA:**  
 SITE PROPERTY = 398,495 S.F. (9.15 ACRES)  
 IMPERVIOUS AREA = 323,162 S.F. (7.42 ACRES), 81% OF SITE  
 GREEN SPACE AREA = 75,333 S.F. (1.73 ACRES), 19% OF SITE

**SOUTHWEST PARCEL AREAS:**  
 SITE PROPERTY = 15,830 S.F. (0.36 ACRES)  
 IMPERVIOUS AREA = 9,415 S.F. (0.22 ACRES)  
 GREEN SPACE AREA = 6,415 S.F. (0.15 ACRES)

**TOTAL AREA = 414,325 S.F. (9.51 ACRES)**  
**TOTAL IMPERVIOUS AREA = 332,577 S.F. (7.63 ACRES), 80.3%**  
**TOTAL GREEN SPACE AREA = 81,748 S.F. (1.88 ACRES), 19.7%**

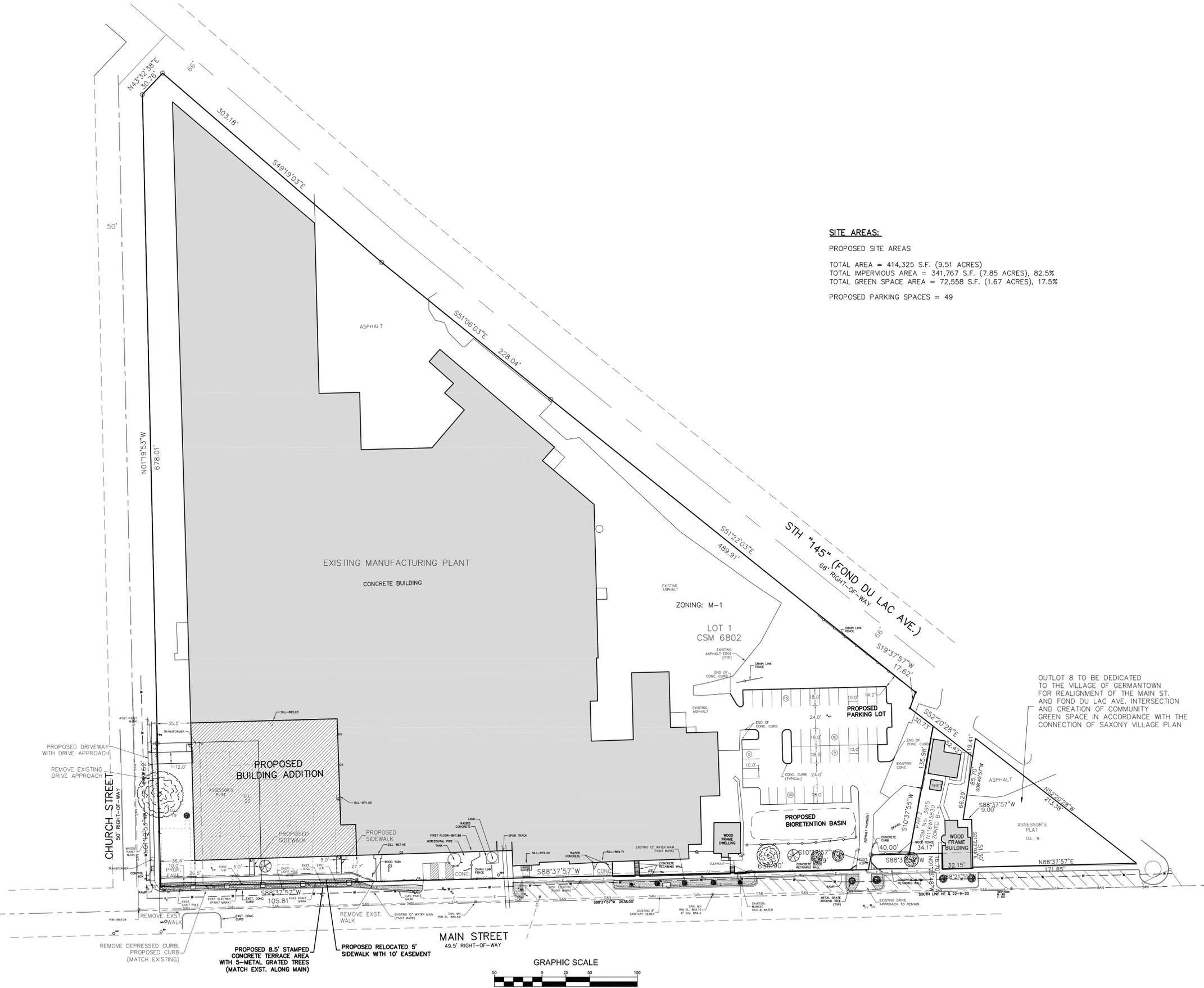


**GEHLS FOODS**  
 N116 W16150 MAIN ST. GERMANTOWN, WI

CJE NO.: I542-02R1-EX  
 JULY 15, 2019

**EXISTING  
 SITE PLAN**

**SV1.0**

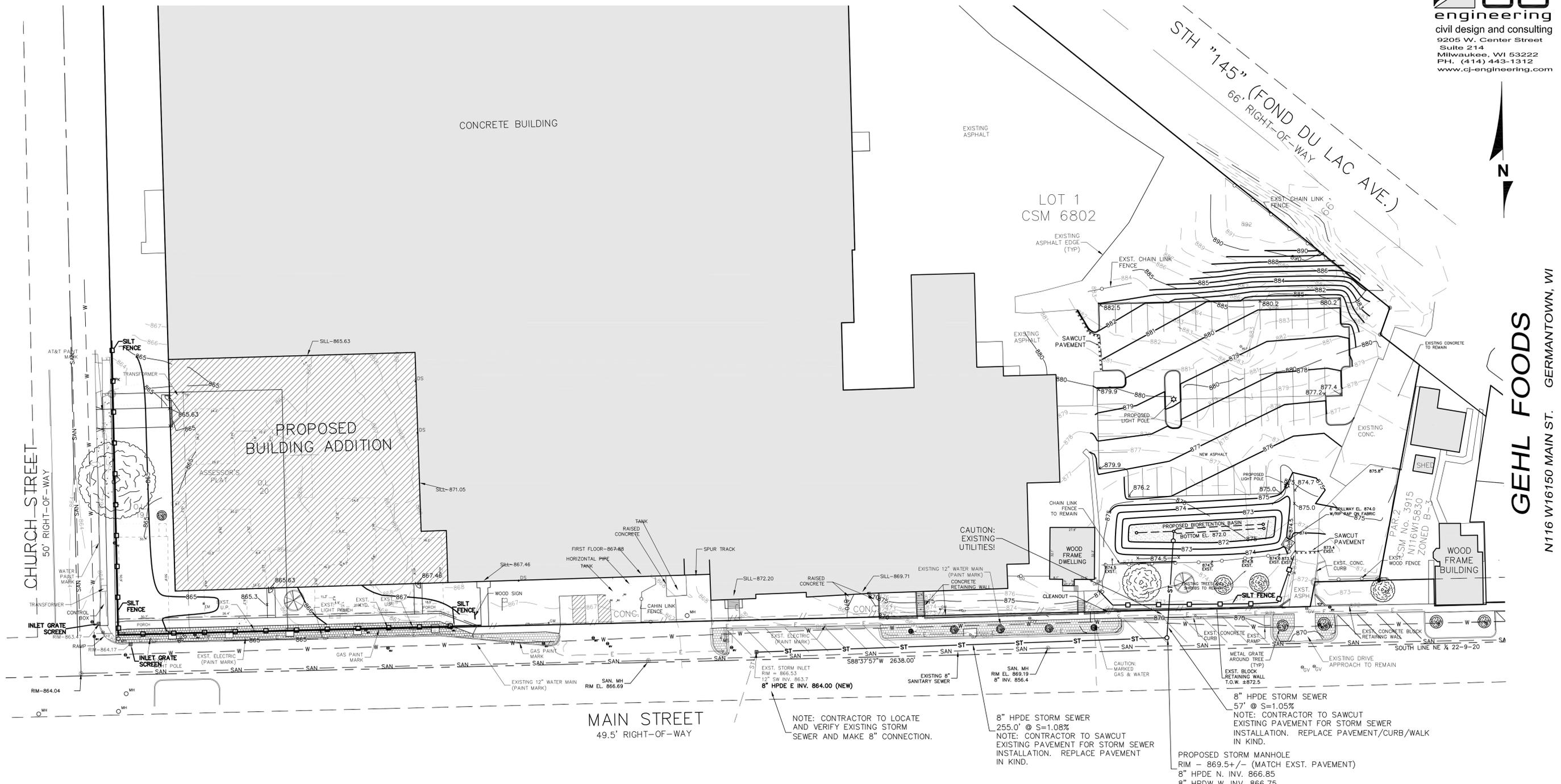


**SITE AREAS:**  
 PROPOSED SITE AREAS  
 TOTAL AREA = 414,325 S.F. (9.51 ACRES)  
 TOTAL IMPERVIOUS AREA = 341,767 S.F. (7.85 ACRES), 82.5%  
 TOTAL GREEN SPACE AREA = 72,558 S.F. (1.67 ACRES), 17.5%  
 PROPOSED PARKING SPACES = 49

OUTLOT 8 TO BE DEDICATED TO THE VILLAGE OF GERMANTOWN FOR REALIGNMENT OF THE MAIN ST. AND FOND DU LAC AVE. INTERSECTION AND CREATION OF COMMUNITY GREEN SPACE IN ACCORDANCE WITH THE CONNECTION OF SAXONY VILLAGE PLAN

CJE NO.: 1542-02RI  
 JUNE 12, 2019

**GEHL FOODS**  
 N116 W16150 MAIN ST. GERMANTOWN, WI



**GEHL FOODS**  
 N716 W16150 MAIN ST. GERMANTOWN, WI

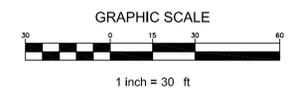
**EROSION CONTROL MAINTENANCE NOTES**

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY 2" RUNOFF-PRODUCTION RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES ABOUT 0.5 FT. DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
3. ALL SEEDED AREAS WILL BE WATERED, FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
4. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING BEFORE THE END OF EACH DAY.

LEGEND	
--- 864 ---	EXISTING CONTOUR
— 863 —	PROPOSED CONTOUR
x 862.5	PROPOSED ELEVATION
— ST —	PROPOSED STORM SEWER
— S —	PROPOSED SILT FENCE

**NOTES:**

1. ALL EXISTING CONDITIONS ARE PER THE SURVEY BY ON TARGET SURVEYING.
2. AREAS:  
 WEST AREA:  
 DISTURBED AREA = 35,386 S.F. (0.81 ACRES)  
 NET INCREASE IN IMPERVIOUS AREA = 8,910 S.F. (0.20 ACRES)  
 EAST AREA:  
 DISTURBED AREA = 28,415 S.F. (0.65 ACRES)  
 NET INCREASE IN IMPERVIOUS AREA = 2,687 S.F. (0.06 ACRES)
3. SILT FENCE AND INLET GRATE SCREENS TO BE INSTALLED PRIOR TO ANY LAND DISTURBANCE.



**SITE GRADING, UTILITY AND EROSION CONTROL PLAN**

CJE NO.: 1542-02R1  
 JULY 15, 2019

**C2.0**  
 SHEET 2 OF 3

TO OBTAIN LOCATIONS OF  
 PARTICIPANT'S UNDERGROUND  
 FACILITIES, REFER TO  
 DIG IN WISCONSIN

**CALL DIGGERS HOTLINE**  
 1-800-246-8011  
 TOLL FREE  
 MISC. UTILITIES: 800-371-0700  
 POLYETHYLENE: 800-200-0443  
 NOTICE: BE SURE TO EXCAVATE  
 MILW. AREA 259-1181





9205 W. Center Street, Suite 214  
Milwaukee, WI 53222  
Ph: (414) 443-1312

## ***STORM WATER MANAGEMENT PLAN***

FOR

### ***Gehl Foods***

Main Street,  
Germantown, WI 53022

July 15, 2019

PREPARED BY:  
Randall S. Bruckner, PE  
CJ Engineering  
9205 W. Center Street Suite 214  
Milwaukee, WI 53222  
Ph. 414-443-1312

CJE Job No.: 1542-02r0-SWMP

## TABLE OF CONTENTS

- 1.) Introduction
- 2.) SWMP Requirements
- 3.) Developed Site Area & Cover
- 4.) 24-Hour Rainfall Values
- 5.) Method of Analysis
- 6.) Drainage Summary
- 7.) Water Quality
- 8.) Conclusion
- 9.) Appendix
  - A. Existing Conditions
    - i. Existing Site Geotechnical Report
    - ii. HydroCAD / TR-55 calculations – Existing Conditions
    - iii. SWMP – Existing Conditions plan
  - B. Proposed Conditions
    - i. SWMP – Proposed Conditions Plan
    - ii. HydroCAD / TR-55 calculations – Proposed Conditions
    - iii. WinSLAMM for Windows version 10.2.0 Water Quality
  - C. Maintenance Requirements

## Introduction:

The proposed redevelopment of a part of Gehl's property located at N116 W15970 Main Street will consist of two separate areas along the east and west sides of their Main Street Plant. The east area consists of the construction of a new asphalt parking lot at the east side of the existing plant that will replace an existing gravel parking lot. Approximately 2,687 s.f. of impervious surface will be added as a part of the parking lot redevelopment. Total disturbed area as a part of the east side redevelopment is 0.65 acres.

The second area of development will occur on the west side of the plant at the northeast intersection of Main Street and Church Street. The redevelopment will consist of the removal of three residential homes along with their subsequent garages and sheds and all other impervious surfaces such as drives and walks. The west area consists of a 22,591 s.f. building addition along with two side walk connections along Main Street and a proposed driveway entrance along Church Street. As a part of the redevelopment along Main Street, the existing sidewalk is to be relocated onto the subject property with an easement to allow additional street plantings and stamped concrete for visual enhancement. Approximately 8,910 s.f. of impervious surface will be added as a part of the parking lot redevelopment. Total disturbed area as a part of the east side redevelopment is 0.81 acres.

Between the east and west developments, a total of 1.46 acres will be disturbed with a total of 0.26 acres of added impervious.

In order to meet to the storm water management requirements of NR 151, Village of Germantown and MMSD, a new bioretention will be constructed along the south side of the east parking lot redevelopment that will accept the runoff from the proposed parking lot. Discharge from the proposed bio-basin will through an 8" storm sewer. Since there is not existing public storm sewer within Main Street near the proposed parking lot, the proposed 8" storm sewer will be installed within Main Street to an existing Public storm sewer 250' to the west. Furthermore, the west redevelopment will be analyzed as undetained for the runoff calculations.

## Allowable runoff requirements:

Based on a redevelopment total of 1.46 acres disturbed and a total of 0.26 acres of added impervious surface:

## MMSD Green Infrastructure Requirement:

The proposed redevelopment includes the construction of a proposed building expansion, a parking lot, driveway and walks. A total of 46,724 s.f. of impervious surface is proposed for the redevelopment. In order to meet storm water management requirements, a biofiltration basin is being proposed.

Per Chapter MMSD 120-7-6.5, the development must include green infrastructure with a detention volume equal to at least ½" multiplied by the total area of new or redeveloped impervious surface.

Required Volume:

$0.0416 \text{ feet} \times 46,724 \text{ feet}^2 = 1,944 \text{ ft}^3$  required detention volume

Proposed Volume (per included HydroCAD calculations):

Bioretention Basin =  $5,213 \text{ ft}^3$  (at elevation 874.0, spillway elevation)

### WDNR NR151 Requirements:

Per NR151.12(5)(b)1., by design, BMPs shall be employed to maintain or reduce the peak runoff discharge rates, to the maximum extent practical, as compared to pre-development conditions for the 2-year, 24-hour design storm.

Per NR151.122 Table 1, for redevelopment, by design, reduce to the maximum extent practical, the total suspended solids load from parking areas and roads by 40%.

Per NR151.124(3)(b)3, redevelopment areas are exempt from Infiltration Requirements.

Developed Site: (See the Proposed Conditions Plan: Appendix “B”).

Cover & CN: CN 74, >75% Grass Cover, Good, HSG C.  
CN 98, Paved Parking & Roofs & Streets.  
CN 98, Pond Surface Area.

Total analyzed Area: **1.60 ACRES**

### 24-Hour Rainfall Values:

2-Year: 2.67”

10-Year: 3.84”

100-Year: 6.40”

All rainfall data provided by the Village of Germantown

### Method of Analysis:

The storm water runoff quantity was calculated using the methods outlines in TR-55 (“Urban Hydrology for Small Watersheds” by the U.S. Department of Agriculture’s Soil Conservation Services). Calculations were performed with the “HydroCAD 10.00 computer software. Water quality calculations were done using WinSLAMM for Windows version 10.2.0.

Drainage Summary: (See Summary of Calculations in Appendix)

Area	2 Year Storm	10 Year Storm	100 Year Storm
<b>Existing Conditions</b>			
East Subcatchment #1	1.96 cfs	3.30 cfs	6.26 cfs
West Subcatchment #2	1.82 cfs	3.11 cfs	5.98 cfs
Reach (total existing flow)	<b>3.76 cfs</b>	<b>6.36 cfs</b>	<b>12.14 cfs</b>
<b>Proposed Conditions</b>			

East Subcatchment #1 – (to bioretention basin)	2.18 cfs	3.60 cfs	6.73 cfs
Bioretention Basin	1.34 cfs	1.56 cfs	1.96 cfs
West Subcatchment #2 – (undetained)	1.74 cfs	2.72 cfs	4.86 cfs
<b>Reach (Total Proposed Flow)</b>	<b>3.07 cfs</b>	<b>4.29cfs</b>	<b>6.82 cfs</b>
<b>Total required Flow</b>	<b>3.76 cfs</b>		

Water Quality:

Based on the proposed construction bioretention basin, the site exceeds the WDNR requirements and Village of Germantown for redevelopment for water quality by removing over 40% of the total suspended solids (TSS) prior to discharge off site, as quantified using WinSLAMM for Windows version 10.2.0 (See appendix for calculation results). The TSS out of each area and total removal as a part of the series of site is as summarized below:

	Before Drainage System	After Controls	% Reduction
Total	355.1 lbs.	110.3 lbs.	<b>68.94%</b>

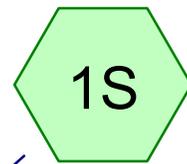
Conclusion:

Per MMSD and WDNR requirements, the basin and site have been designed and evaluated to meet the requirements of redevelopment for disturbing over 1 acre but under 0.5 acres of additional impervious surface. Furthermore, the bioretention basin will also remove over 40% of TSS from the runoff after redevelopment. Therefore, the proposed redevelopment meets and exceeds the storm water management and water quality requirements for the Village of Germantown, MMSD and NR 151.

# **APPENDIX**



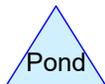
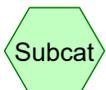
Existing West  
Subcatchment 2 - area  
matches proposed



Existing East  
Subcatchment 1 - area  
matches proposed



Total Existing Flow



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Page 2

## Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.794	74	>75% Grass cover, Good, HSG C (1S, 3S)
0.622	98	Paved parking, gravel parking & roofs (1S, 3S)
0.184	98	Roofs (3S)
<b>1.600</b>	<b>86</b>	<b>TOTAL AREA</b>

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Type II 24-hr 2-yr Rainfall=2.67"

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**Summary for Subcatchment 1S: Existing East Subcatchment 1 - area matches proposed**

Runoff = 1.96 cfs @ 12.00 hrs, Volume= 0.101 af, Depth= 1.45"

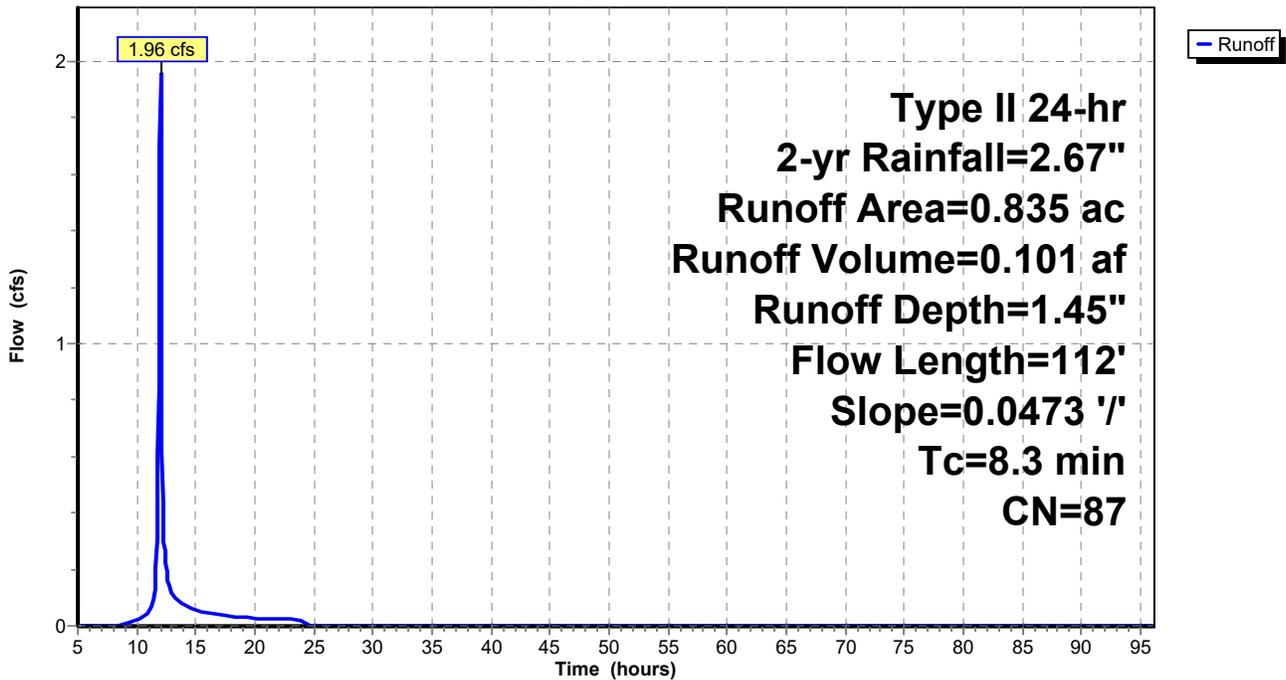
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 2-yr Rainfall=2.67"

Area (ac)	CN	Description
0.435	98	Paved parking, gravel parking & roofs
0.400	74	>75% Grass cover, Good, HSG C
0.835	87	Weighted Average
0.400		47.90% Pervious Area
0.435		52.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	112	0.0473	0.22		Sheet Flow, A-B Grass: Short n= 0.150 P2= 2.67"

**Subcatchment 1S: Existing East Subcatchment 1 - area matches proposed**

Hydrograph



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Type II 24-hr 2-yr Rainfall=2.67"

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**Summary for Subcatchment 3S: Existing West Subcatchment 2 - area matches proposed**

Runoff = 1.82 cfs @ 11.97 hrs, Volume= 0.088 af, Depth= 1.38"

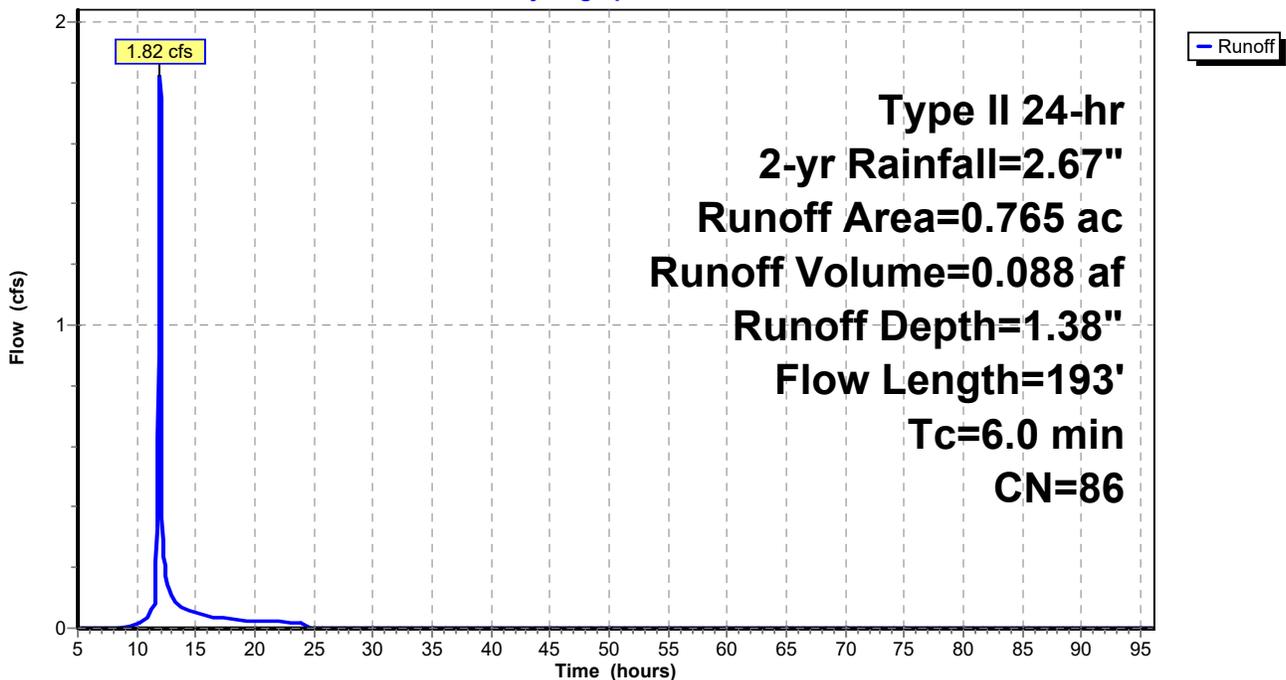
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
Type II 24-hr 2-yr Rainfall=2.67"

Area (ac)	CN	Description
0.187	98	Paved parking, gravel parking & roofs
* 0.184	98	Roofs
0.394	74	>75% Grass cover, Good, HSG C
0.765	86	Weighted Average
0.394		51.50% Pervious Area
0.371		48.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	47	0.0390	0.17		<b>Sheet Flow, C-D</b> Grass: Short n= 0.150 P2= 2.67"
1.1	82	0.0207	1.22		<b>Sheet Flow, D-E</b> Smooth surfaces n= 0.011 P2= 2.67"
0.4	64	0.0172	2.66		<b>Shallow Concentrated Flow, E-F</b> Paved Kv= 20.3 fps
6.0	193	Total			

**Subcatchment 3S: Existing West Subcatchment 2 - area matches proposed**

Hydrograph



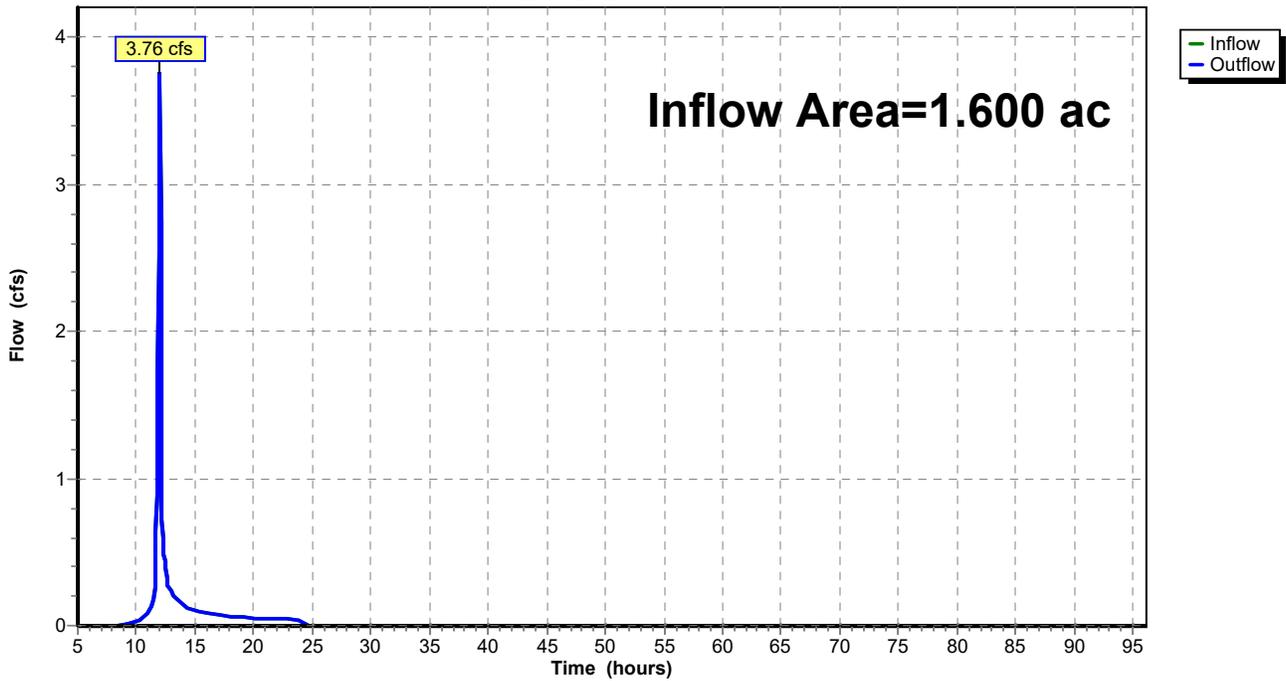
### Summary for Reach 4R: Total Existing Flow

Inflow Area = 1.600 ac, 50.38% Impervious, Inflow Depth = 1.42" for 2-yr event  
Inflow = 3.76 cfs @ 11.98 hrs, Volume= 0.189 af  
Outflow = 3.76 cfs @ 11.98 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs

### Reach 4R: Total Existing Flow

Hydrograph



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Type II 24-hr 10-yr Rainfall=3.84"

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**Summary for Subcatchment 1S: Existing East Subcatchment 1 - area matches proposed**

Runoff = 3.30 cfs @ 11.99 hrs, Volume= 0.173 af, Depth= 2.49"

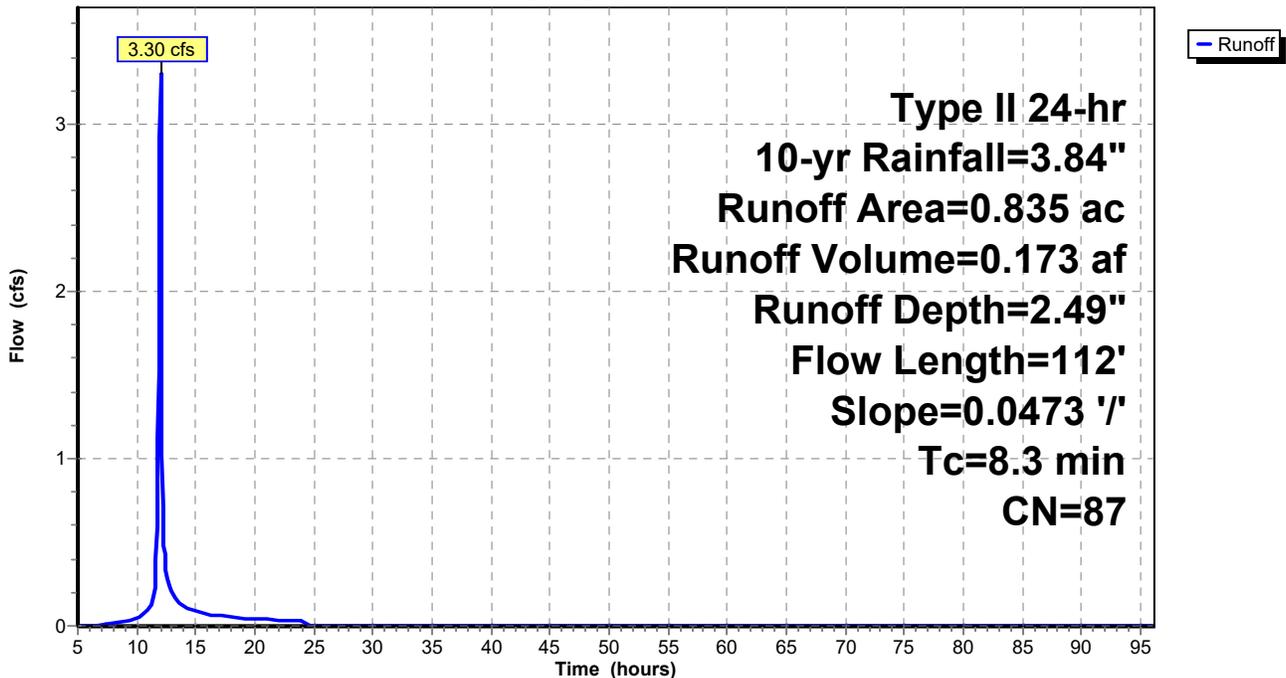
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-yr Rainfall=3.84"

Area (ac)	CN	Description
0.435	98	Paved parking, gravel parking & roofs
0.400	74	>75% Grass cover, Good, HSG C
0.835	87	Weighted Average
0.400		47.90% Pervious Area
0.435		52.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	112	0.0473	0.22		Sheet Flow, A-B Grass: Short n= 0.150 P2= 2.67"

**Subcatchment 1S: Existing East Subcatchment 1 - area matches proposed**

Hydrograph



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Type II 24-hr 10-yr Rainfall=3.84"

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**Summary for Subcatchment 3S: Existing West Subcatchment 2 - area matches proposed**

Runoff = 3.11 cfs @ 11.97 hrs, Volume= 0.153 af, Depth= 2.40"

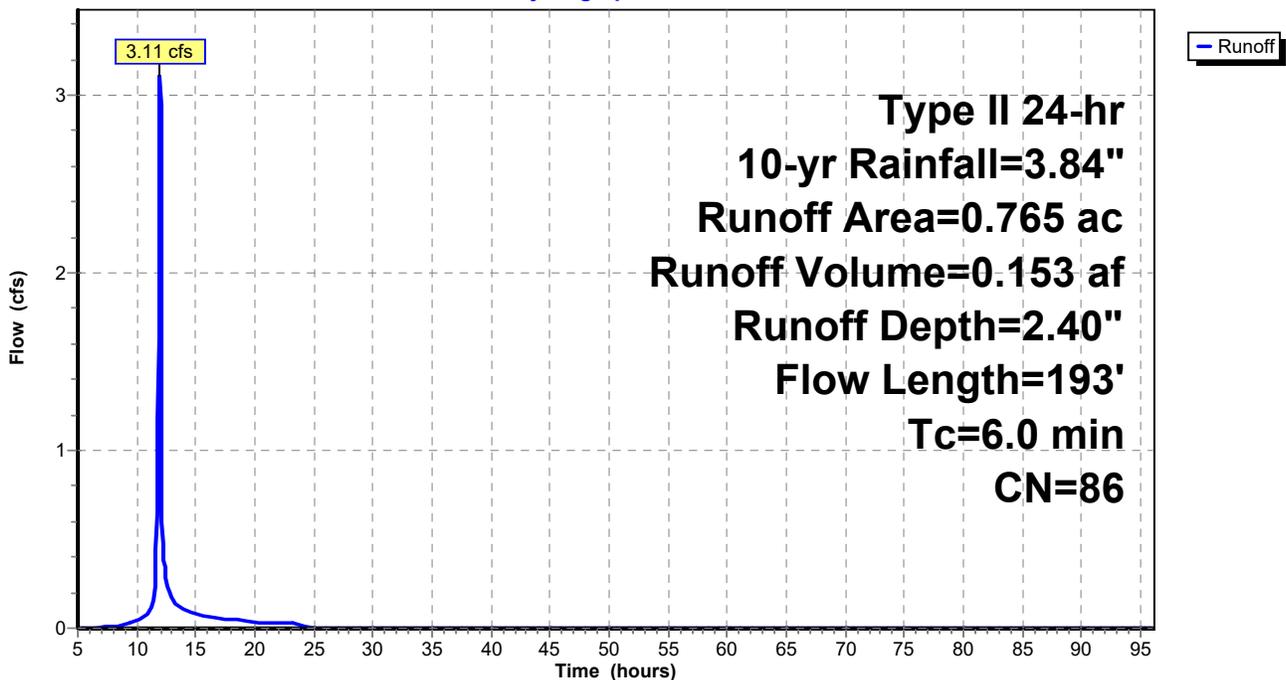
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-yr Rainfall=3.84"

Area (ac)	CN	Description
0.187	98	Paved parking, gravel parking & roofs
* 0.184	98	Roofs
0.394	74	>75% Grass cover, Good, HSG C
0.765	86	Weighted Average
0.394		51.50% Pervious Area
0.371		48.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	47	0.0390	0.17		<b>Sheet Flow, C-D</b> Grass: Short n= 0.150 P2= 2.67"
1.1	82	0.0207	1.22		<b>Sheet Flow, D-E</b> Smooth surfaces n= 0.011 P2= 2.67"
0.4	64	0.0172	2.66		<b>Shallow Concentrated Flow, E-F</b> Paved Kv= 20.3 fps
6.0	193	Total			

**Subcatchment 3S: Existing West Subcatchment 2 - area matches proposed**

Hydrograph



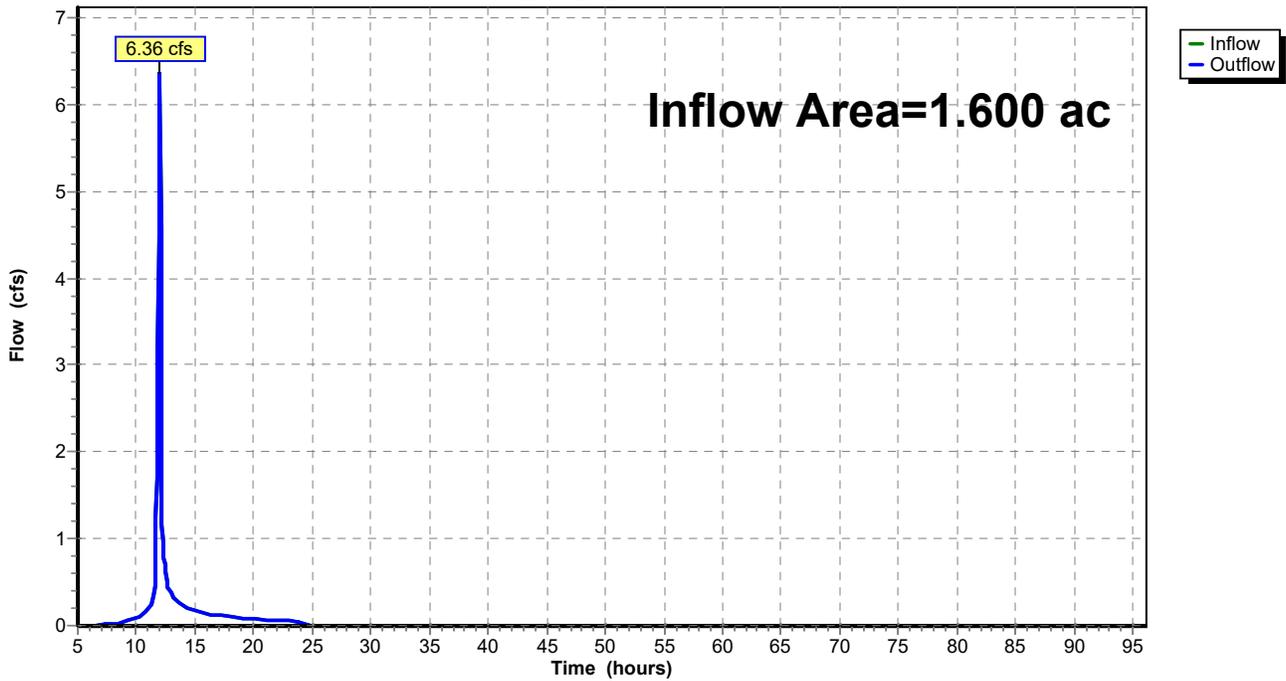
### Summary for Reach 4R: Total Existing Flow

Inflow Area = 1.600 ac, 50.38% Impervious, Inflow Depth = 2.45" for 10-yr event  
Inflow = 6.36 cfs @ 11.98 hrs, Volume= 0.326 af  
Outflow = 6.36 cfs @ 11.98 hrs, Volume= 0.326 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs

### Reach 4R: Total Existing Flow

Hydrograph



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Type II 24-hr 100-yr Rainfall=6.40"

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**Summary for Subcatchment 1S: Existing East Subcatchment 1 - area matches proposed**

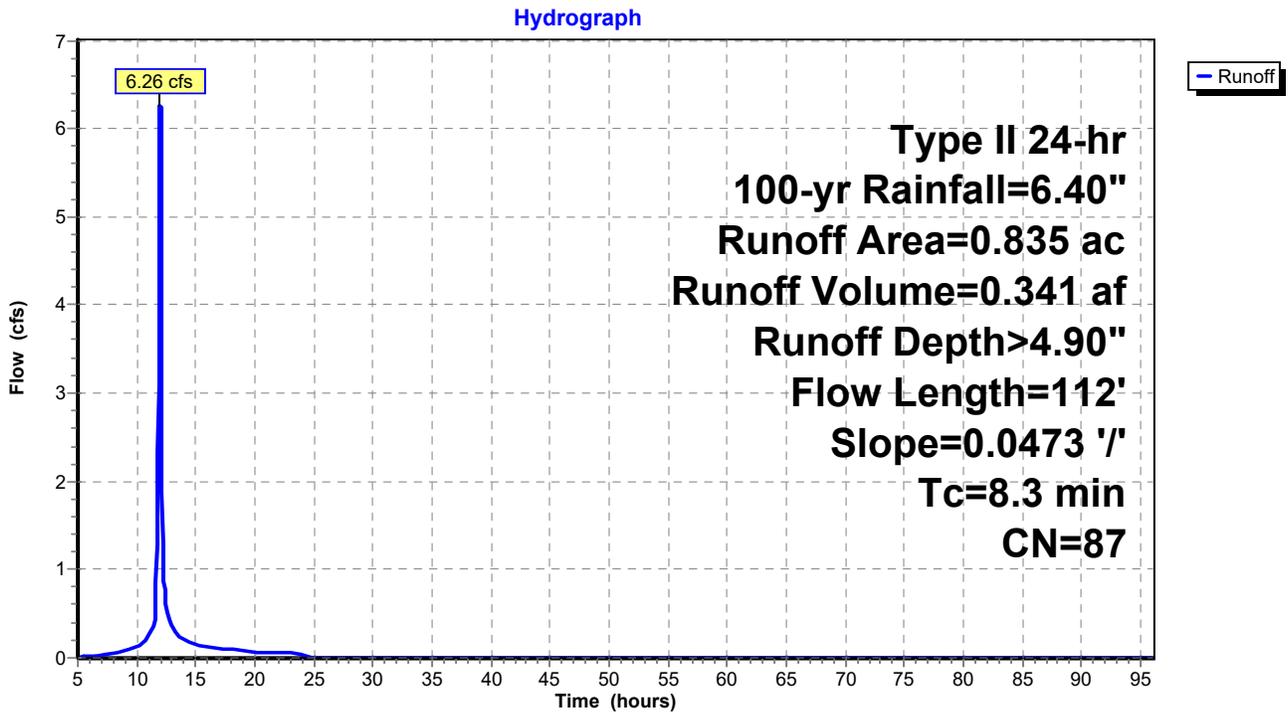
Runoff = 6.26 cfs @ 11.99 hrs, Volume= 0.341 af, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-yr Rainfall=6.40"

Area (ac)	CN	Description
0.435	98	Paved parking, gravel parking & roofs
0.400	74	>75% Grass cover, Good, HSG C
0.835	87	Weighted Average
0.400		47.90% Pervious Area
0.435		52.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	112	0.0473	0.22		Sheet Flow, A-B Grass: Short n= 0.150 P2= 2.67"

**Subcatchment 1S: Existing East Subcatchment 1 - area matches proposed**



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Type II 24-hr 100-yr Rainfall=6.40"

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**Summary for Subcatchment 3S: Existing West Subcatchment 2 - area matches proposed**

Runoff = 5.98 cfs @ 11.97 hrs, Volume= 0.305 af, Depth> 4.79"

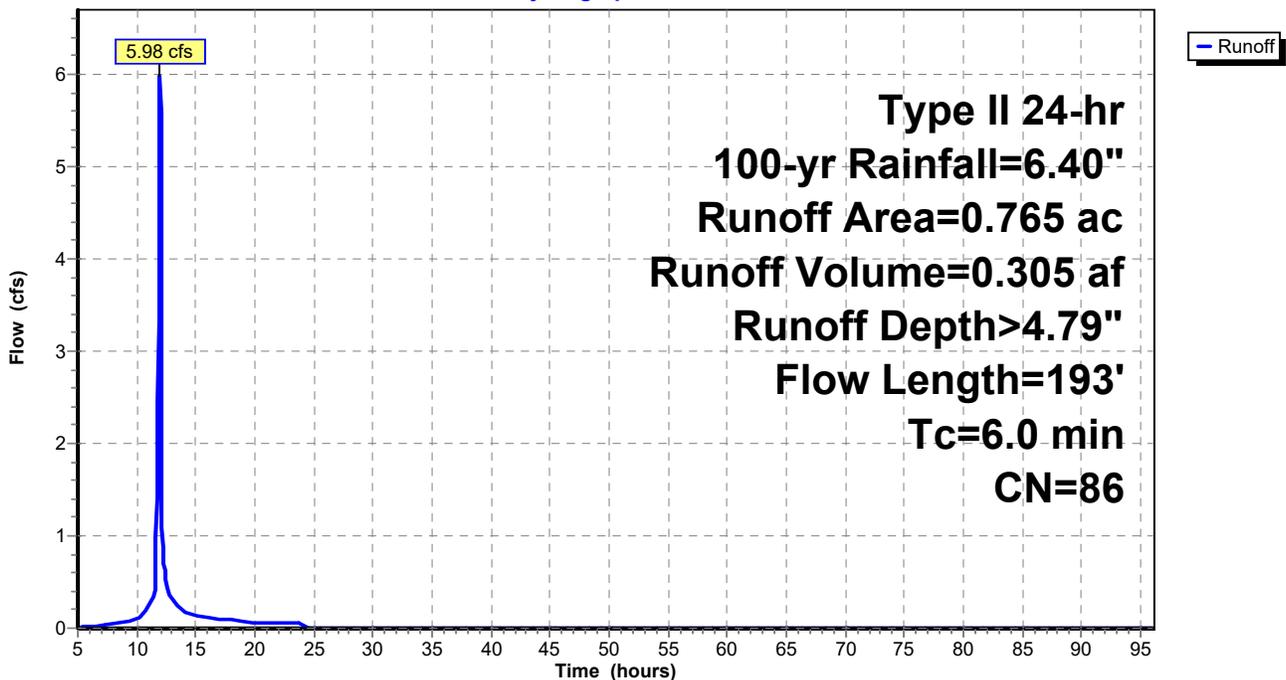
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-yr Rainfall=6.40"

Area (ac)	CN	Description
0.187	98	Paved parking, gravel parking & roofs
* 0.184	98	Roofs
0.394	74	>75% Grass cover, Good, HSG C
0.765	86	Weighted Average
0.394		51.50% Pervious Area
0.371		48.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	47	0.0390	0.17		<b>Sheet Flow, C-D</b> Grass: Short n= 0.150 P2= 2.67"
1.1	82	0.0207	1.22		<b>Sheet Flow, D-E</b> Smooth surfaces n= 0.011 P2= 2.67"
0.4	64	0.0172	2.66		<b>Shallow Concentrated Flow, E-F</b> Paved Kv= 20.3 fps
6.0	193	Total			

**Subcatchment 3S: Existing West Subcatchment 2 - area matches proposed**

Hydrograph



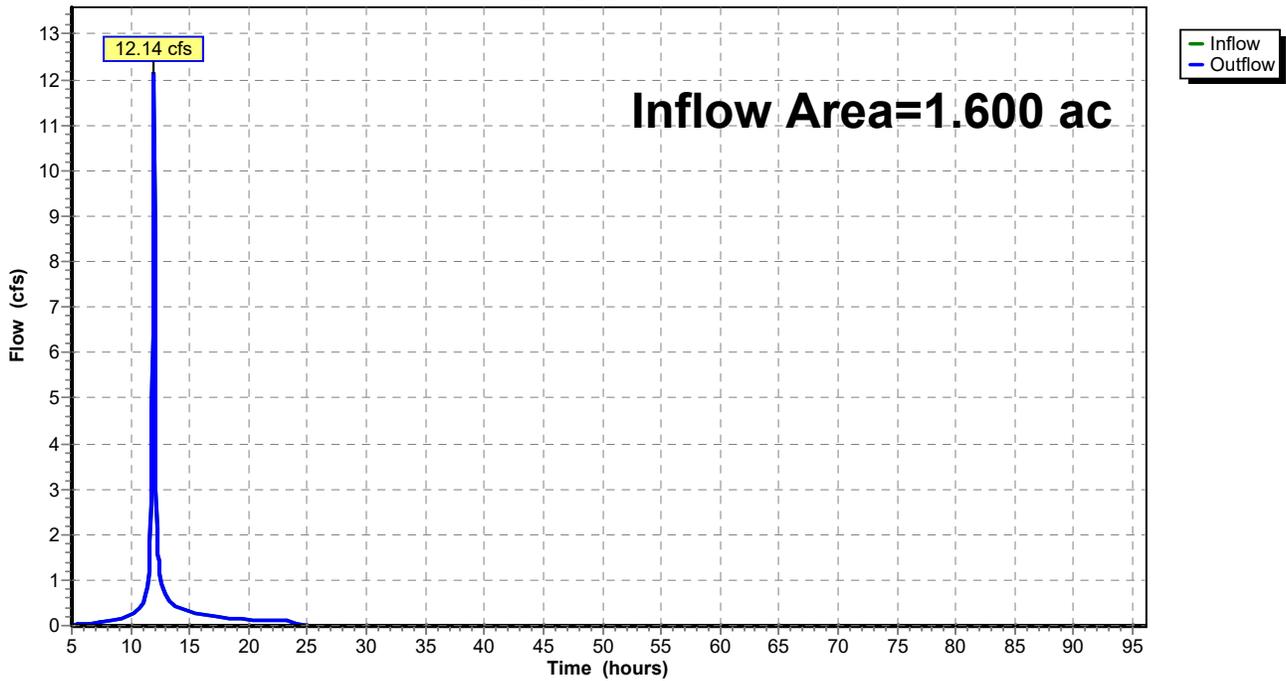
### Summary for Reach 4R: Total Existing Flow

Inflow Area = 1.600 ac, 50.38% Impervious, Inflow Depth > 4.84" for 100-yr event  
Inflow = 12.14 cfs @ 11.98 hrs, Volume= 0.646 af  
Outflow = 12.14 cfs @ 11.98 hrs, Volume= 0.646 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs

### Reach 4R: Total Existing Flow

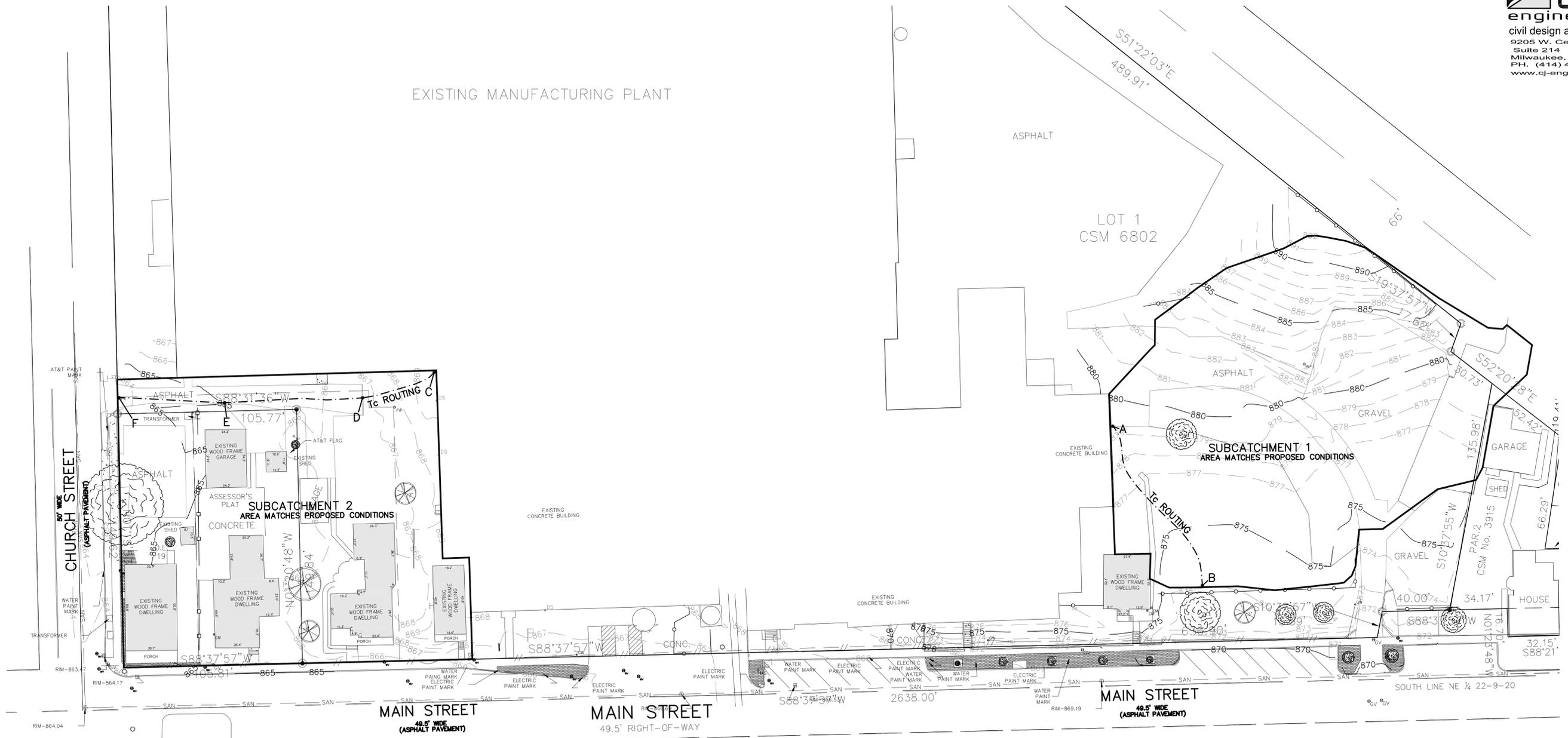
Hydrograph



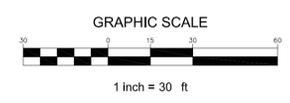


**GEHLS FOODS**  
 N116 W16150 MAIN ST. GERMANTOWN, WI

EXISTING MANUFACTURING PLANT



LEGEND	
--- 864 ---	EXISTING CONTOUR
— 863 —	PROPOSED CONTOUR
— ST —	PROPOSED STORM SEWER
— [ ] —	PROPOSED SILT FENCE



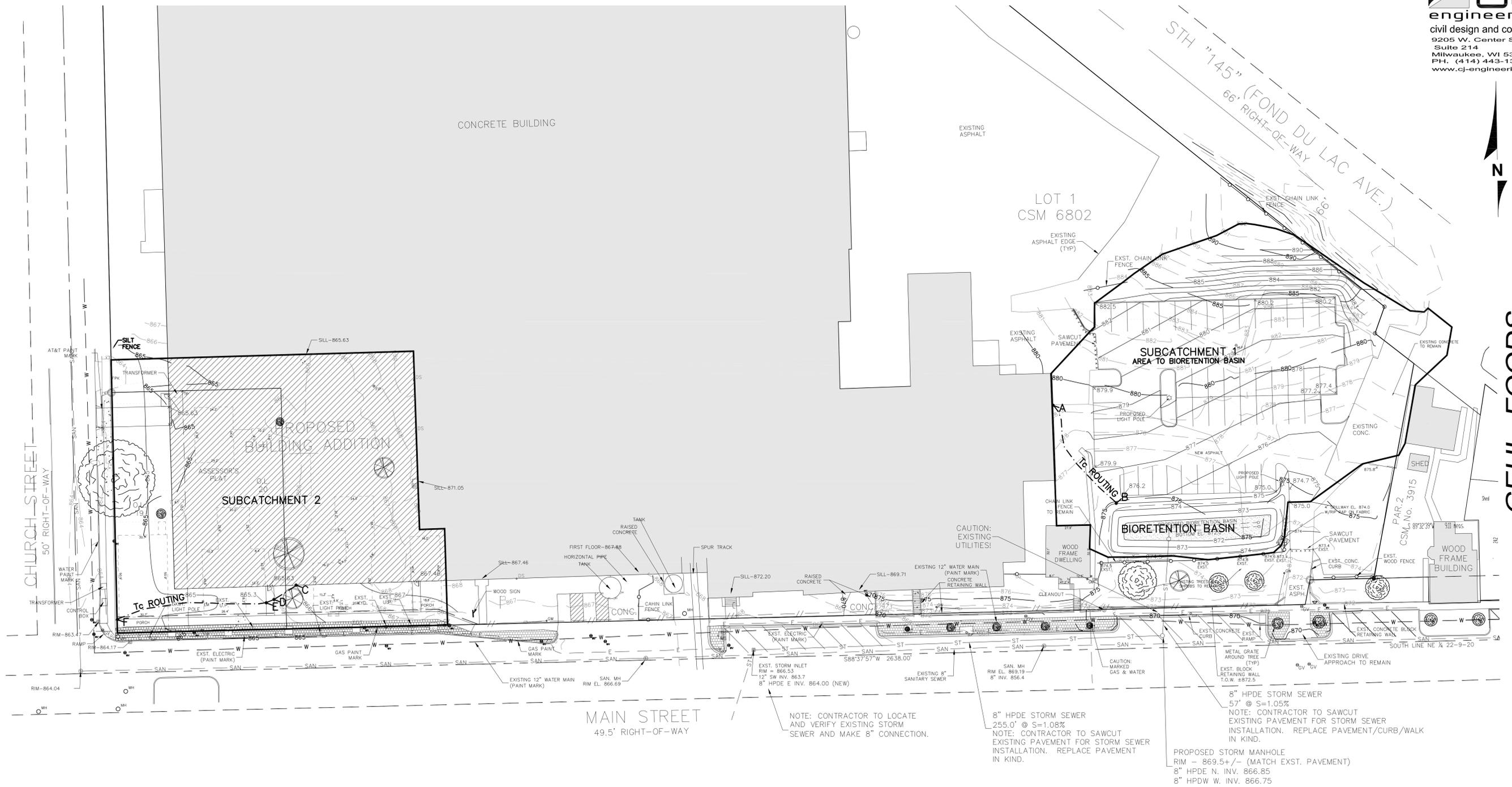
**EXISTING CONDITIONS**

TO OBTAIN LOCATIONS OF  
 PARTICIPANT'S UNDERGROUND  
 FACILITIES REFER TO  
 DIG IN WISCONSIN

**CALL DIGGERS NOTLINE**  
 1-800-442-7811  
 TOLL FREE  
 WIS. STATUTE: 88.02(7)(10) &  
 88.02(7)(11) 3/1/2009 3/1/12  
 NOTICE: BEFORE YOU EXCAVATE  
 CALL AREA 259-1181



**GEHL FOODS**  
 N716 W16150 MAIN ST. GERMANTOWN, WI



CONCRETE BUILDING

LOT 1  
 CSM 6802

STH "145" (FOND DU LAC AVE.)  
 66' RIGHT-OF-WAY

PROPOSED  
 BUILDING ADDITION  
 SUBCATCHMENT 2

SUBCATCHMENT 1  
 AREA TO BIORETENTION BASIN

BIORETENTION BASIN

SHED

WOOD FRAME BUILDING

CHURCH STREET  
 50' RIGHT-OF-WAY

MAIN STREET  
 49.5' RIGHT-OF-WAY

NOTE: CONTRACTOR TO LOCATE  
 AND VERIFY EXISTING STORM  
 SEWER AND MAKE 8" CONNECTION.

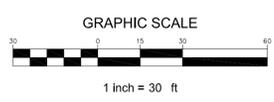
8" HPDE STORM SEWER  
 255.0' @ S=1.08%  
 NOTE: CONTRACTOR TO SAWCUT  
 EXISTING PAVEMENT FOR STORM SEWER  
 INSTALLATION. REPLACE PAVEMENT  
 IN KIND.

8" HPDE STORM SEWER  
 57' @ S=1.05%  
 NOTE: CONTRACTOR TO SAWCUT  
 EXISTING PAVEMENT FOR STORM SEWER  
 INSTALLATION. REPLACE PAVEMENT/CURB/WALK  
 IN KIND.  
 PROPOSED STORM MANHOLE  
 RIM = 869.5+/- (MATCH EXST. PAVEMENT)  
 8" HPDE N. INV. 866.85  
 8" HPDW W. INV. 866.75

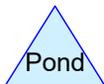
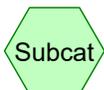
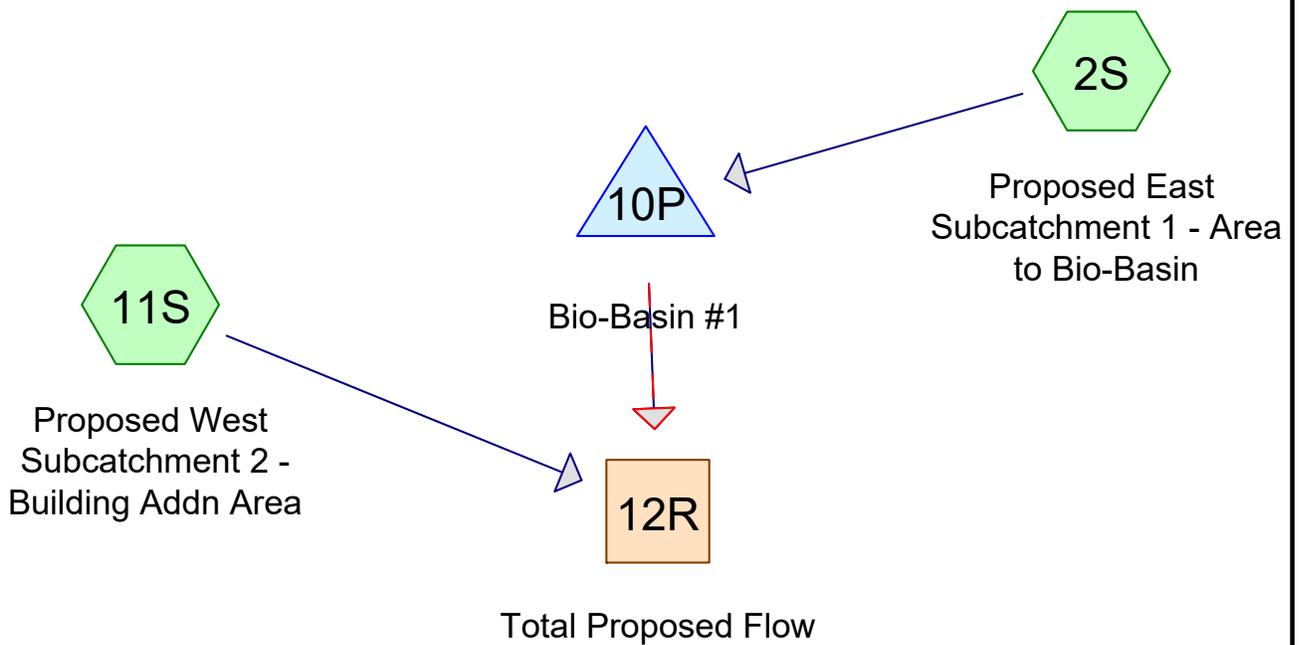


LEGEND	
--- 864 ---	EXISTING CONTOUR
— 863 —	PROPOSED CONTOUR
x 862.5	PROPOSED ELEVATION
— ST —	PROPOSED STORM SEWER
— S —	PROPOSED SILT FENCE

- NOTES:
- ALL EXISTING CONDITIONS ARE PER THE SURVEY BY ON TARGET SURVEYING.
  - AREAS  
 WEST AREA:  
 DISTURBED AREA = 35,386 S.F. (0.81 ACRES)  
 NET INCREASE IN IMPERVIOUS AREA = 8,910 S.F. (0.20 ACRES)  
 EAST AREA:  
 DISTURBED AREA = 28,415 S.F. (0.65 ACRES)  
 NET INCREASE IN IMPERVIOUS AREA = 2,687 S.F. (0.06 ACRES)
  - SILT FENCE AND INLET GRATE SCREENS TO BE INSTALLED PRIOR TO ANY LAND DISTURBANCE.



**PROPOSED CONDITIONS**



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Page 2

## Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.527	74	>75% Grass cover, Good, HSG C (2S, 11S)
0.497	98	Paved parking & roofs (2S)
0.057	98	Proposed Drives-Walks (11S)
0.519	98	Proposed Roof (11S)
<b>1.600</b>	<b>90</b>	<b>TOTAL AREA</b>

**CJE1542-02R0-PROPOSED-EXISTING**

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Type II 24-hr 2-yr Rainfall=2.67"

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**Summary for Subcatchment 2S: Proposed East Subcatchment 1 - Area to Bio-Basin**

Runoff = 2.18 cfs @ 11.97 hrs, Volume= 0.106 af, Depth= 1.53"

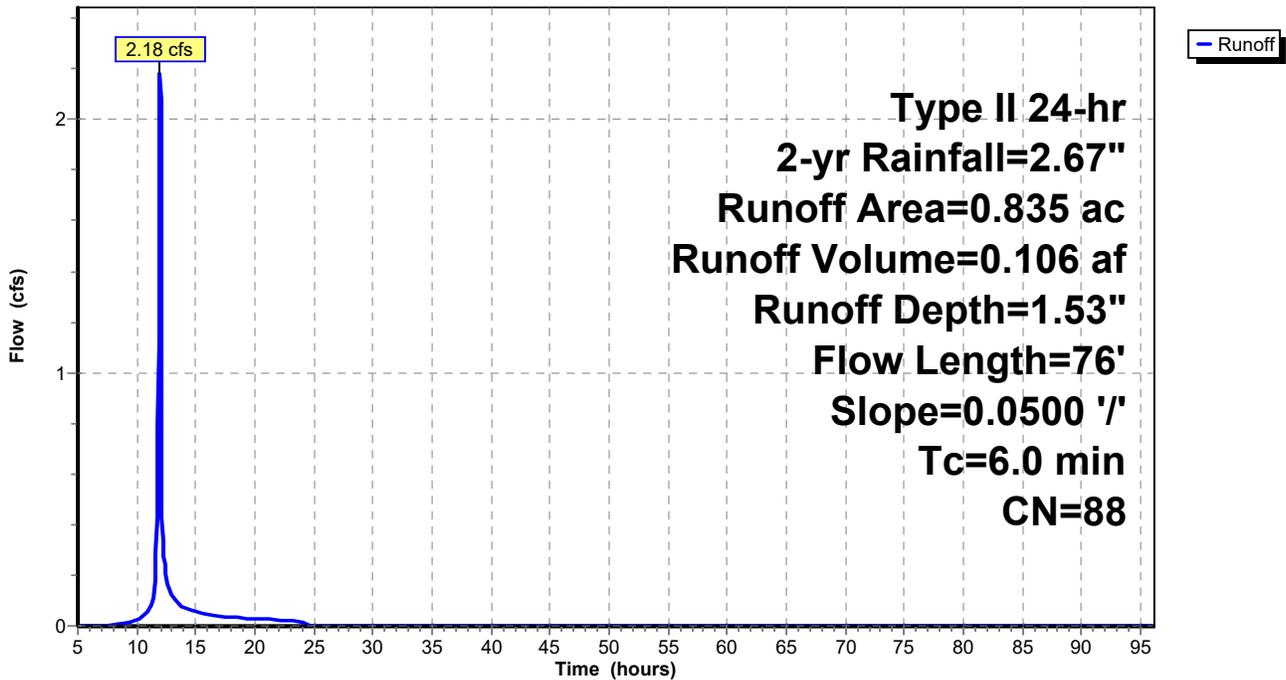
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 2-yr Rainfall=2.67"

Area (ac)	CN	Description
0.497	98	Paved parking & roofs
0.338	74	>75% Grass cover, Good, HSG C
0.835	88	Weighted Average
0.338		40.48% Pervious Area
0.497		59.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	76	0.0500	0.21		Sheet Flow, A-B Grass: Short n= 0.150 P2= 2.67"

**Subcatchment 2S: Proposed East Subcatchment 1 - Area to Bio-Basin**

Hydrograph



**CJE1542-02R0-PROPOSED-EXISTING**

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Type II 24-hr 2-yr Rainfall=2.67"

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**Summary for Subcatchment 11S: Proposed West Subcatchment 2 - Building Addn Area**

Runoff = 1.74 cfs @ 12.08 hrs, Volume= 0.118 af, Depth= 1.85"

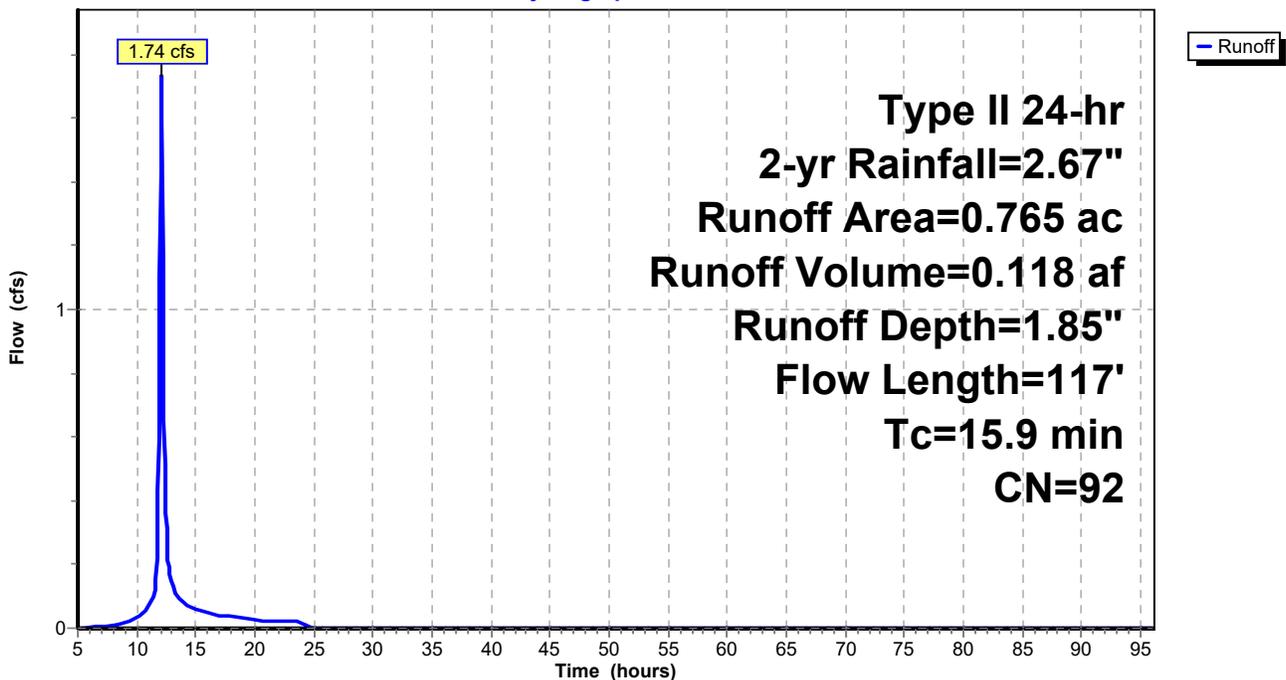
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
Type II 24-hr 2-yr Rainfall=2.67"

Area (ac)	CN	Description
* 0.519	98	Proposed Roof
* 0.057	98	Proposed Drives-Walks
0.189	74	>75% Grass cover, Good, HSG C
0.765	92	Weighted Average
0.189		24.71% Pervious Area
0.576		75.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	17	0.0290	0.13		<b>Sheet Flow, C-D</b> Grass: Short n= 0.150 P2= 2.67"
0.1	5	0.0200	0.69		<b>Sheet Flow, D-E</b> Smooth surfaces n= 0.011 P2= 2.67"
13.6	95	0.0100	0.12		<b>Sheet Flow, E-F</b> Grass: Short n= 0.150 P2= 2.67"
15.9	117	Total			

**Subcatchment 11S: Proposed West Subcatchment 2 - Building Addn Area**

Hydrograph



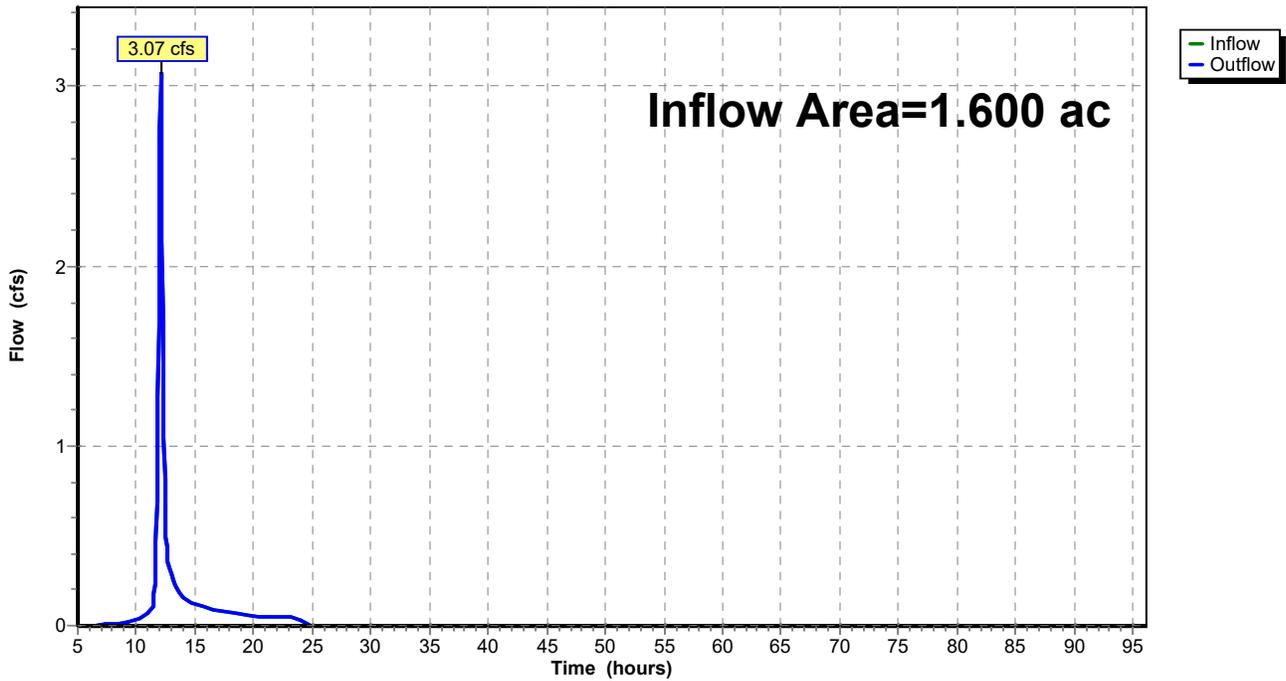
### Summary for Reach 12R: Total Proposed Flow

Inflow Area = 1.600 ac, 67.06% Impervious, Inflow Depth = 1.63" for 2-yr event  
Inflow = 3.07 cfs @ 12.07 hrs, Volume= 0.218 af  
Outflow = 3.07 cfs @ 12.07 hrs, Volume= 0.218 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs

### Reach 12R: Total Proposed Flow

Hydrograph



**Summary for Pond 10P: Bio-Basin #1**

Inflow Area = 0.835 ac, 59.52% Impervious, Inflow Depth = 1.53" for 2-yr event  
 Inflow = 2.18 cfs @ 11.97 hrs, Volume= 0.106 af  
 Outflow = 1.34 cfs @ 12.05 hrs, Volume= 0.100 af, Atten= 38%, Lag= 5.0 min  
 Primary = 1.34 cfs @ 12.05 hrs, Volume= 0.100 af  
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
 Peak Elev= 872.01' @ 12.05 hrs Surf.Area= 1,192 sf Storage= 1,052 cf

Plug-Flow detention time= 60.7 min calculated for 0.100 af (94% of inflow)  
 Center-of-Mass det. time= 25.3 min ( 844.9 - 819.6 )

Volume	Invert	Avail.Storage	Storage Description	
#1	869.00'	6,876 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
869.00	1,180	0.0	0	0
869.01	1,180	33.0	4	4
870.00	1,180	33.0	386	389
870.01	1,180	27.0	3	393
871.99	1,180	27.0	631	1,023
872.00	1,180	100.0	12	1,035
873.00	2,060	100.0	1,620	2,655
874.00	3,055	100.0	2,558	5,213
874.50	3,600	100.0	1,664	6,876

Device	Routing	Invert	Outlet Devices
#1	Primary	867.45'	<b>8.0" Round Culvert</b> L= 312.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 867.45' / 864.00' S= 0.0111 1/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	869.75'	<b>6.0" Round Culvert</b> L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 869.75' / 869.65' S= 0.0200 1/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#3	Device 1	872.50'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600
#4	Device 1	873.85'	<b>24.0" Horiz. Orifice/Grate</b> C= 0.600 in 24.0" Grate (100% open area) Limited to weir flow at low heads
#5	Secondary	874.00'	<b>10.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

**Primary OutFlow** Max=1.34 cfs @ 12.05 hrs HW=872.01' (Free Discharge)

1=Culvert (Passes 1.34 cfs of 1.77 cfs potential flow)

2=Culvert (Inlet Controls 1.34 cfs @ 6.82 fps)

3=Orifice/Grate (Controls 0.00 cfs)

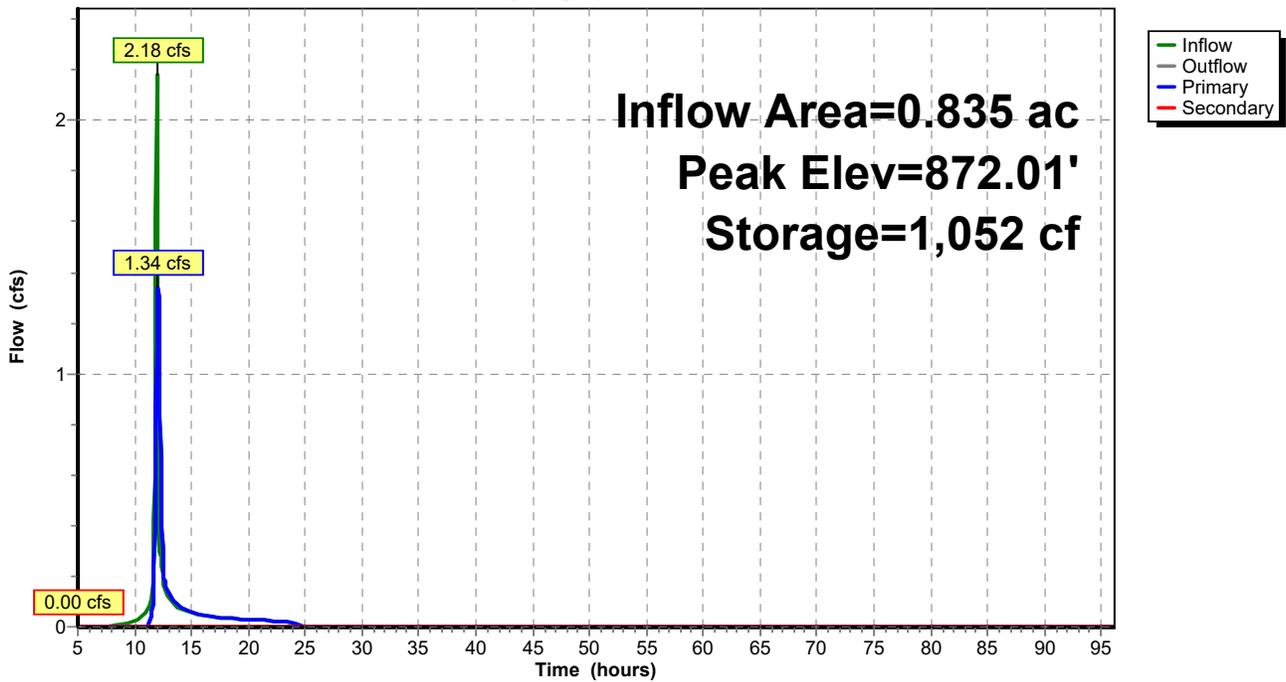
4=Orifice/Grate (Controls 0.00 cfs)

**Secondary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=869.00' (Free Discharge)

5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

### Pond 10P: Bio-Basin #1

Hydrograph



**CJE1542-02R0-PROPOSED-EXISTING**

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Type II 24-hr 10-yr Rainfall=3.84"

Printed 7/12/2019

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**Summary for Subcatchment 2S: Proposed East Subcatchment 1 - Area to Bio-Basin**

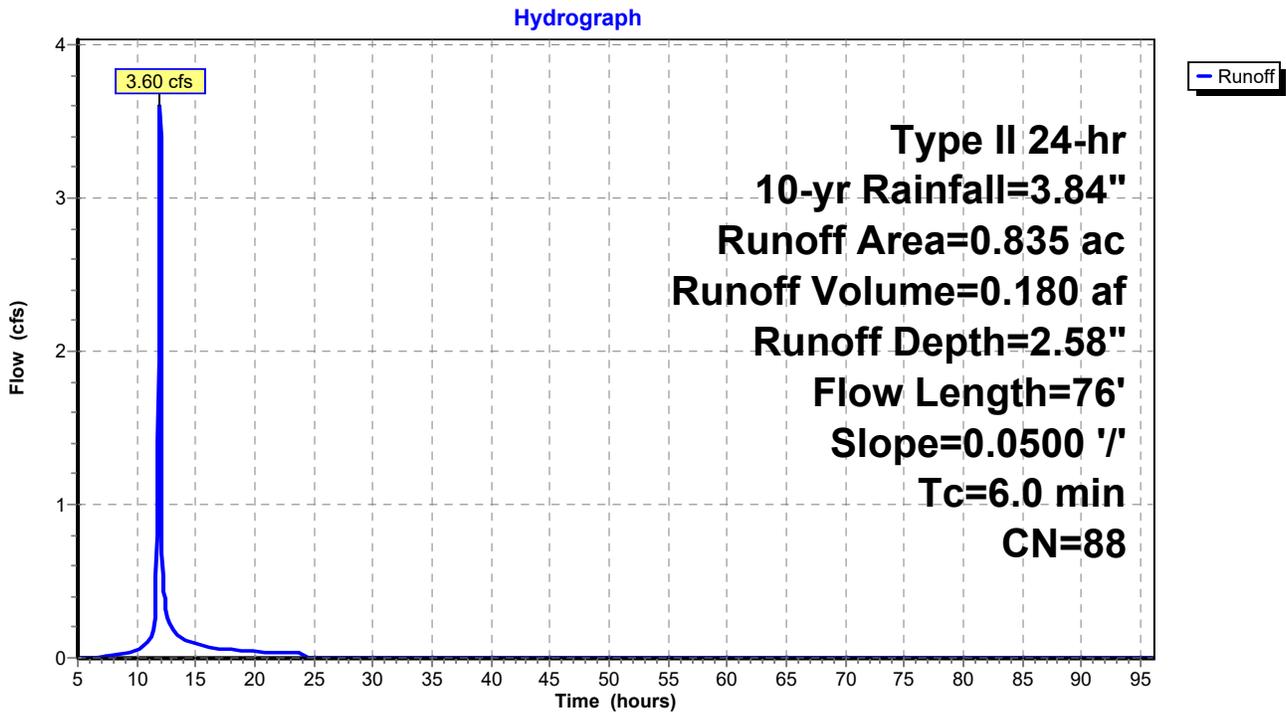
Runoff = 3.60 cfs @ 11.97 hrs, Volume= 0.180 af, Depth= 2.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-yr Rainfall=3.84"

Area (ac)	CN	Description
0.497	98	Paved parking & roofs
0.338	74	>75% Grass cover, Good, HSG C
0.835	88	Weighted Average
0.338		40.48% Pervious Area
0.497		59.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	76	0.0500	0.21		Sheet Flow, A-B Grass: Short n= 0.150 P2= 2.67"

**Subcatchment 2S: Proposed East Subcatchment 1 - Area to Bio-Basin**



**CJE1542-02R0-PROPOSED-EXISTING**

Prepared by CJ Engineering

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Type II 24-hr 10-yr Rainfall=3.84"

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**Summary for Subcatchment 11S: Proposed West Subcatchment 2 - Building Addn Area**

Runoff = 2.72 cfs @ 12.07 hrs, Volume= 0.189 af, Depth> 2.96"

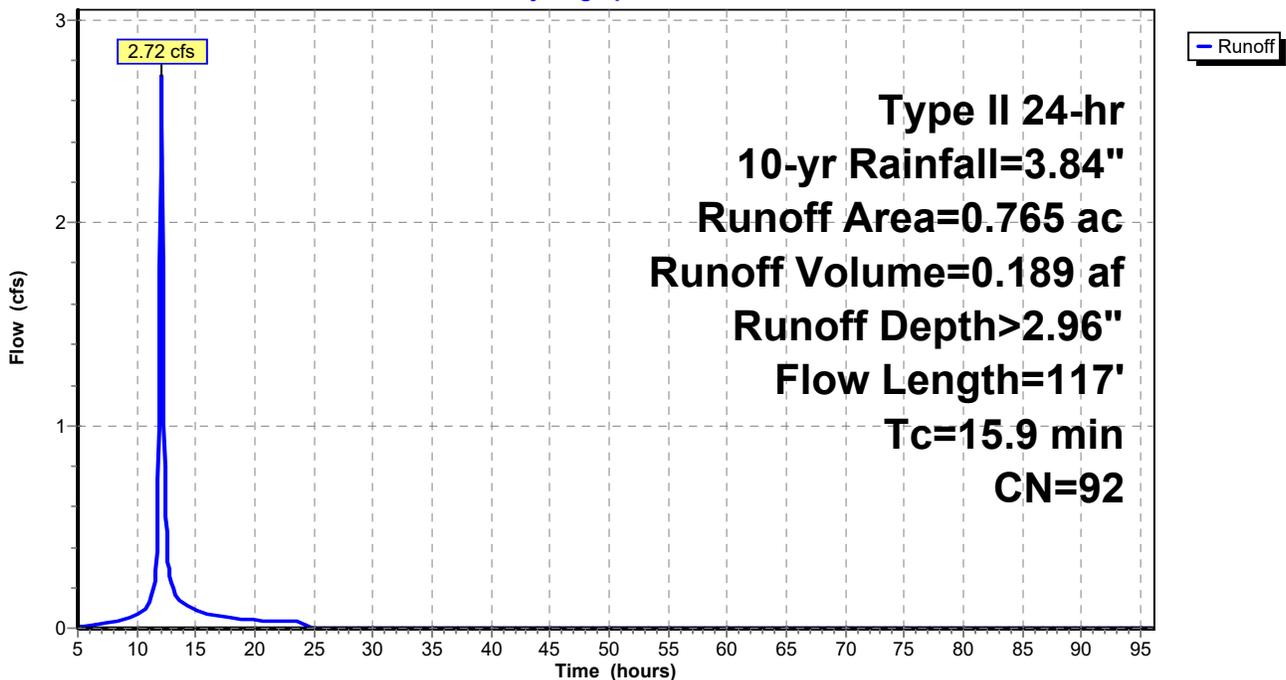
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-yr Rainfall=3.84"

Area (ac)	CN	Description
* 0.519	98	Proposed Roof
* 0.057	98	Proposed Drives-Walks
0.189	74	>75% Grass cover, Good, HSG C
0.765	92	Weighted Average
0.189		24.71% Pervious Area
0.576		75.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	17	0.0290	0.13		<b>Sheet Flow, C-D</b> Grass: Short n= 0.150 P2= 2.67"
0.1	5	0.0200	0.69		<b>Sheet Flow, D-E</b> Smooth surfaces n= 0.011 P2= 2.67"
13.6	95	0.0100	0.12		<b>Sheet Flow, E-F</b> Grass: Short n= 0.150 P2= 2.67"
15.9	117	Total			

**Subcatchment 11S: Proposed West Subcatchment 2 - Building Addn Area**

Hydrograph



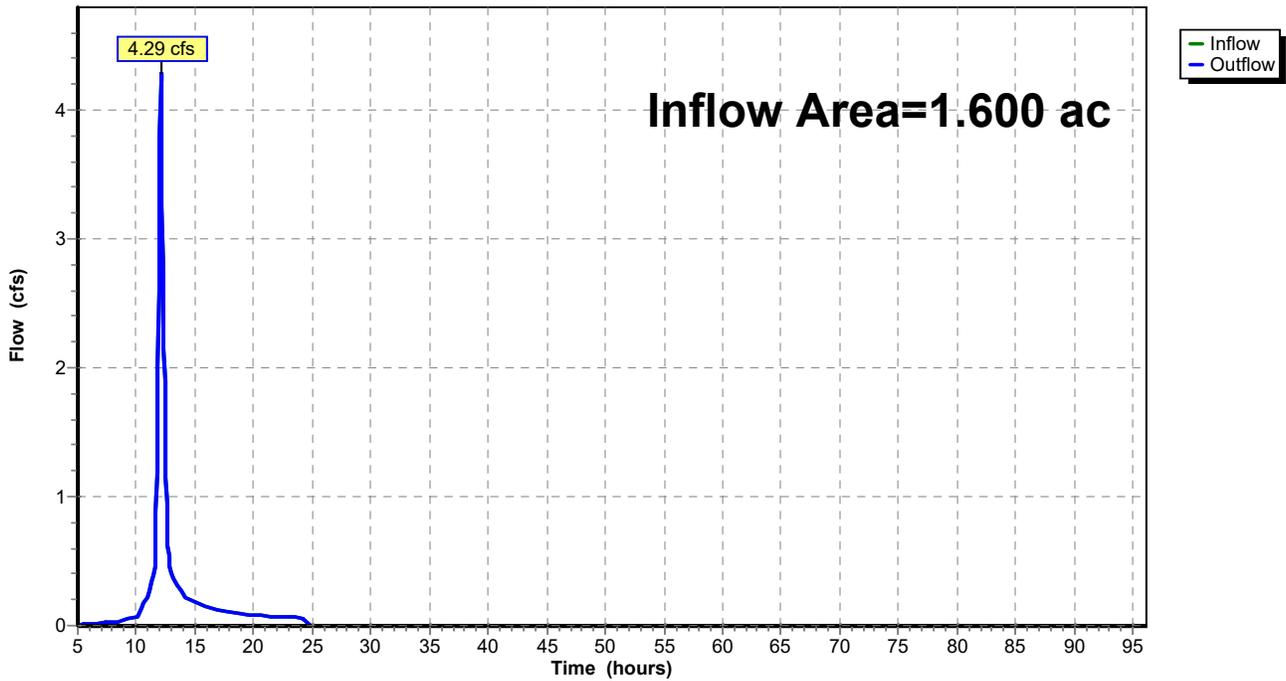
### Summary for Reach 12R: Total Proposed Flow

Inflow Area = 1.600 ac, 67.06% Impervious, Inflow Depth > 2.71" for 10-yr event  
Inflow = 4.29 cfs @ 12.07 hrs, Volume= 0.362 af  
Outflow = 4.29 cfs @ 12.07 hrs, Volume= 0.362 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs

### Reach 12R: Total Proposed Flow

Hydrograph



**CJE1542-02R0-PROPOSED-EXISTING**

Type II 24-hr 10-yr Rainfall=3.84"

Prepared by CJ Engineering

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**Summary for Pond 10P: Bio-Basin #1**

Inflow Area = 0.835 ac, 59.52% Impervious, Inflow Depth = 2.58" for 10-yr event  
 Inflow = 3.60 cfs @ 11.97 hrs, Volume= 0.180 af  
 Outflow = 1.56 cfs @ 12.08 hrs, Volume= 0.173 af, Atten= 57%, Lag= 6.8 min  
 Primary = 1.56 cfs @ 12.08 hrs, Volume= 0.173 af  
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
 Peak Elev= 872.61' @ 12.08 hrs Surf.Area= 1,716 sf Storage= 1,916 cf

Plug-Flow detention time= 46.0 min calculated for 0.173 af (96% of inflow)  
 Center-of-Mass det. time= 23.4 min ( 828.1 - 804.7 )

Volume	Invert	Avail.Storage	Storage Description	
#1	869.00'	6,876 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
869.00	1,180	0.0	0	0
869.01	1,180	33.0	4	4
870.00	1,180	33.0	386	389
870.01	1,180	27.0	3	393
871.99	1,180	27.0	631	1,023
872.00	1,180	100.0	12	1,035
873.00	2,060	100.0	1,620	2,655
874.00	3,055	100.0	2,558	5,213
874.50	3,600	100.0	1,664	6,876

Device	Routing	Invert	Outlet Devices
#1	Primary	867.45'	<b>8.0" Round Culvert</b> L= 312.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 867.45' / 864.00' S= 0.0111 1/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	869.75'	<b>6.0" Round Culvert</b> L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 869.75' / 869.65' S= 0.0200 1/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#3	Device 1	872.50'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600
#4	Device 1	873.85'	<b>24.0" Horiz. Orifice/Grate</b> C= 0.600 in 24.0" Grate (100% open area) Limited to weir flow at low heads
#5	Secondary	874.00'	<b>10.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

**Primary OutFlow** Max=1.55 cfs @ 12.08 hrs HW=872.60' (Free Discharge)

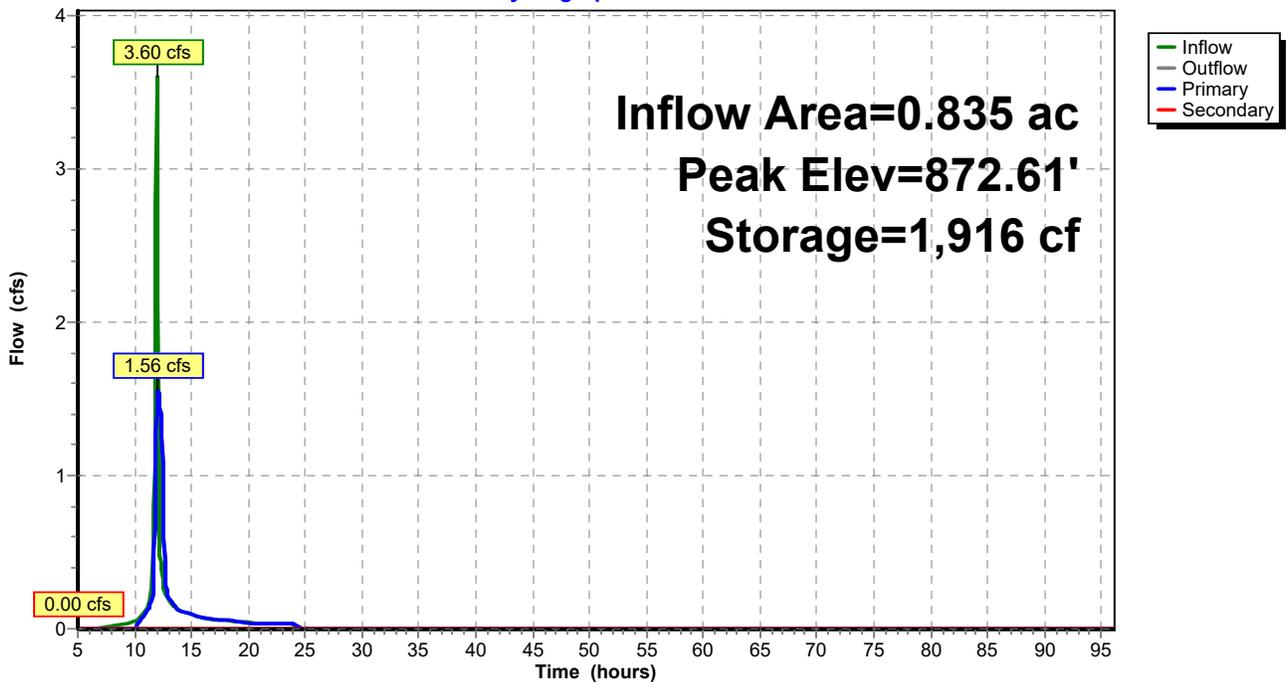
- 1=Culvert (Passes 1.55 cfs of 1.84 cfs potential flow)
- 2=Culvert (Inlet Controls 1.52 cfs @ 7.76 fps)
- 3=Orifice/Grate (Orifice Controls 0.03 cfs @ 1.07 fps)
- 4=Orifice/Grate ( Controls 0.00 cfs)

**Secondary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=869.00' (Free Discharge)

- 5=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

### Pond 10P: Bio-Basin #1

Hydrograph



**Summary for Subcatchment 2S: Proposed East Subcatchment 1 - Area to Bio-Basin**

Runoff = 6.73 cfs @ 11.96 hrs, Volume= 0.348 af, Depth> 5.00"

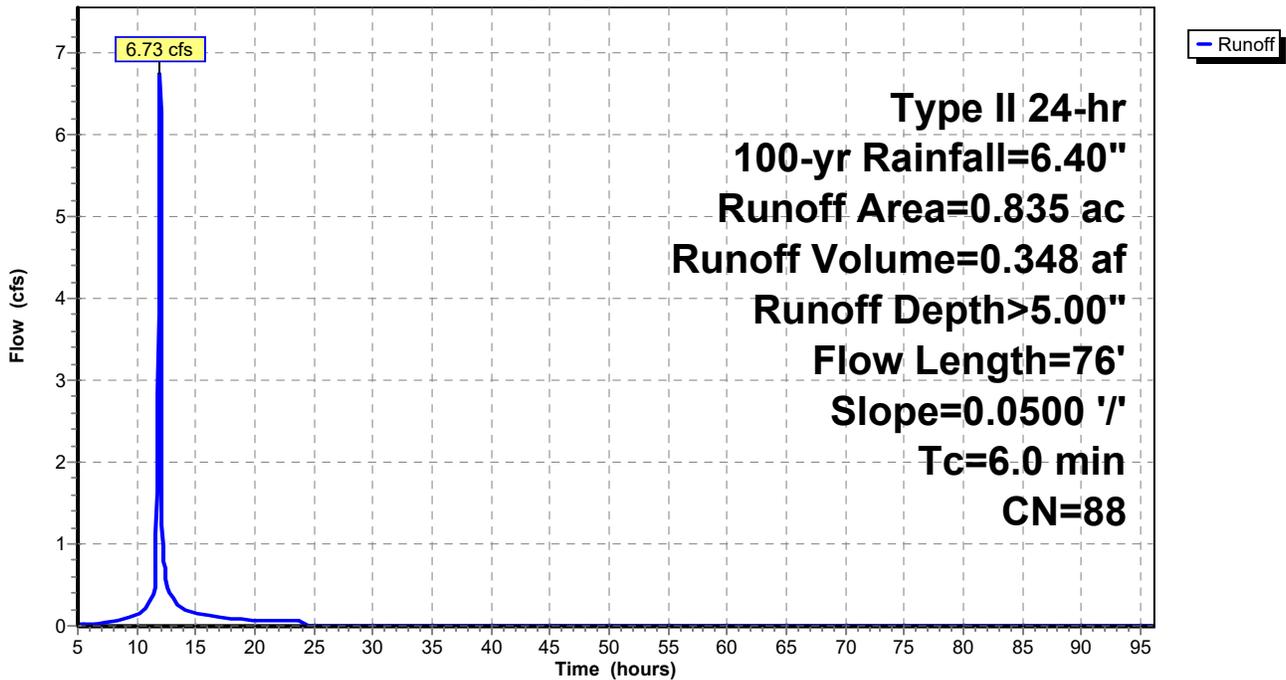
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 100-yr Rainfall=6.40"

Area (ac)	CN	Description
0.497	98	Paved parking & roofs
0.338	74	>75% Grass cover, Good, HSG C
0.835	88	Weighted Average
0.338		40.48% Pervious Area
0.497		59.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	76	0.0500	0.21		Sheet Flow, A-B Grass: Short n= 0.150 P2= 2.67"

**Subcatchment 2S: Proposed East Subcatchment 1 - Area to Bio-Basin**

Hydrograph



**CJE1542-02R0-PROPOSED-EXISTING**

Prepared by CJ Engineering

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Type II 24-hr 100-yr Rainfall=6.40"

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**Summary for Subcatchment 11S: Proposed West Subcatchment 2 - Building Addn Area**

Runoff = 4.86 cfs @ 12.07 hrs, Volume= 0.346 af, Depth> 5.42"

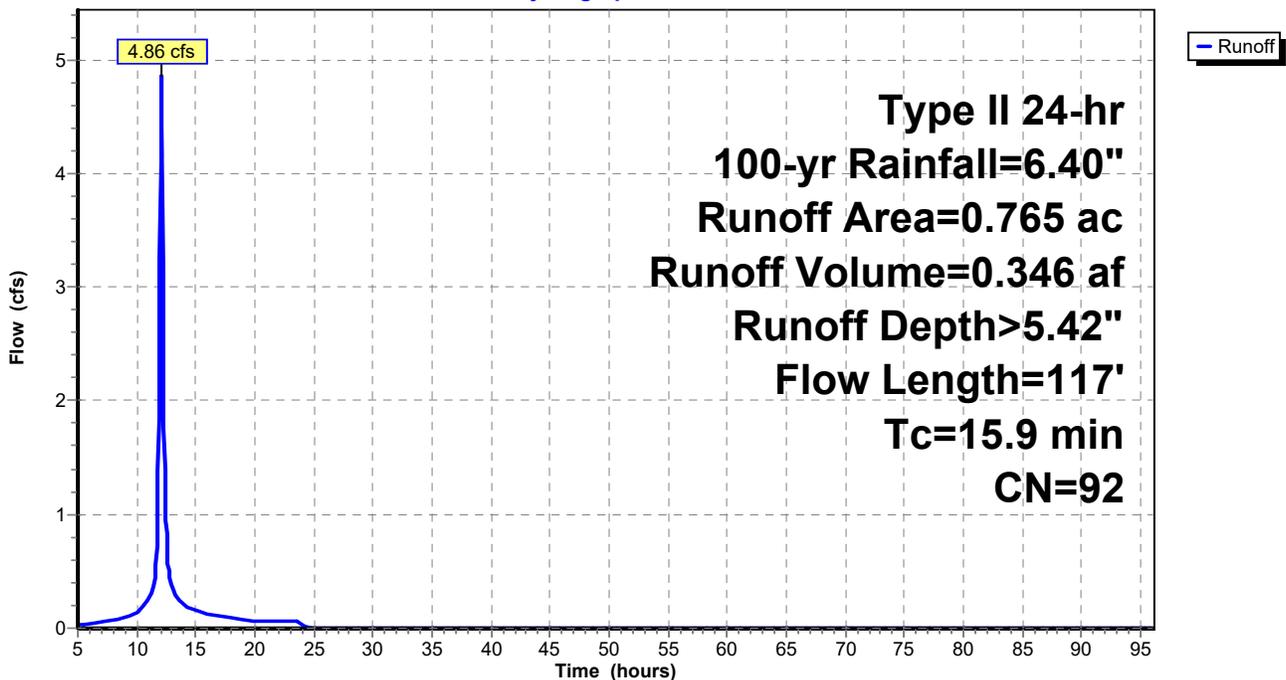
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-yr Rainfall=6.40"

Area (ac)	CN	Description
* 0.519	98	Proposed Roof
* 0.057	98	Proposed Drives-Walks
0.189	74	>75% Grass cover, Good, HSG C
0.765	92	Weighted Average
0.189		24.71% Pervious Area
0.576		75.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.2	17	0.0290	0.13		<b>Sheet Flow, C-D</b> Grass: Short n= 0.150 P2= 2.67"
0.1	5	0.0200	0.69		<b>Sheet Flow, D-E</b> Smooth surfaces n= 0.011 P2= 2.67"
13.6	95	0.0100	0.12		<b>Sheet Flow, E-F</b> Grass: Short n= 0.150 P2= 2.67"
15.9	117	Total			

**Subcatchment 11S: Proposed West Subcatchment 2 - Building Addn Area**

Hydrograph



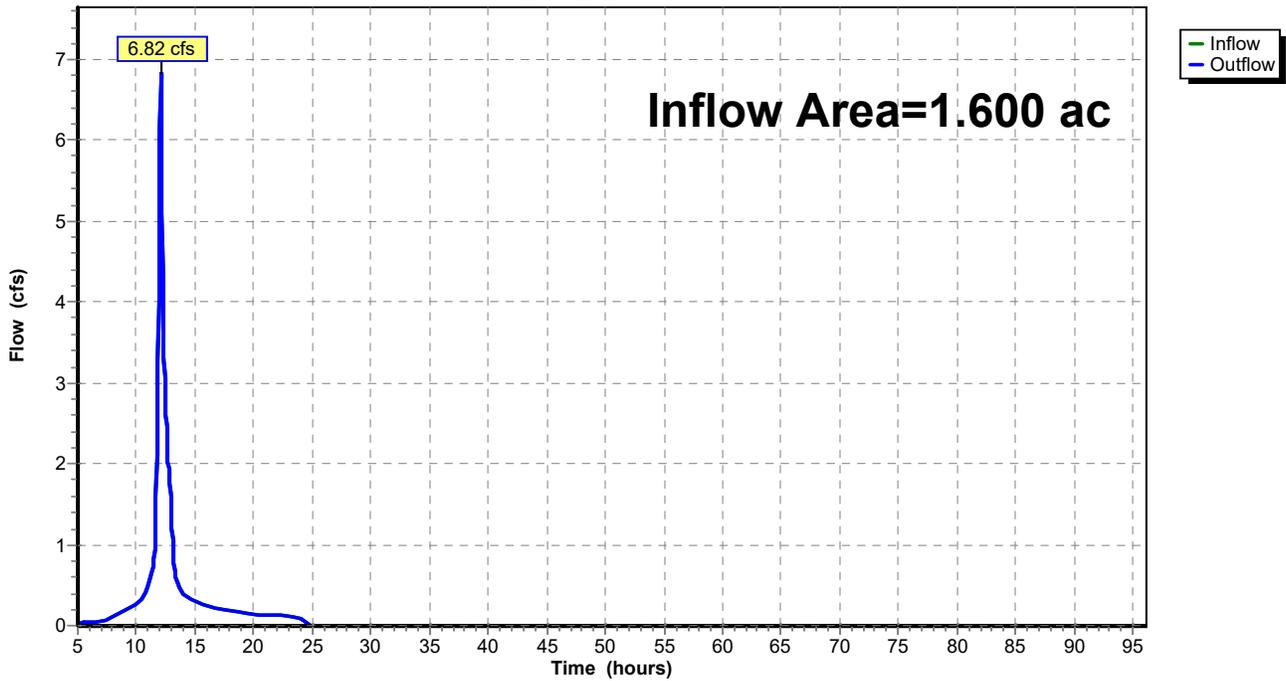
### Summary for Reach 12R: Total Proposed Flow

Inflow Area = 1.600 ac, 67.06% Impervious, Inflow Depth > 5.15" for 100-yr event  
Inflow = 6.82 cfs @ 12.07 hrs, Volume= 0.687 af  
Outflow = 6.82 cfs @ 12.07 hrs, Volume= 0.687 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs

### Reach 12R: Total Proposed Flow

Hydrograph



**Summary for Pond 10P: Bio-Basin #1**

Inflow Area = 0.835 ac, 59.52% Impervious, Inflow Depth > 5.00" for 100-yr event  
 Inflow = 6.73 cfs @ 11.96 hrs, Volume= 0.348 af  
 Outflow = 1.96 cfs @ 12.11 hrs, Volume= 0.341 af, Atten= 71%, Lag= 8.8 min  
 Primary = 1.96 cfs @ 12.11 hrs, Volume= 0.341 af  
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-96.00 hrs, dt= 0.05 hrs  
 Peak Elev= 873.68' @ 12.11 hrs Surf.Area= 2,736 sf Storage= 4,283 cf

Plug-Flow detention time= 36.2 min calculated for 0.341 af (98% of inflow)  
 Center-of-Mass det. time= 24.1 min ( 811.2 - 787.0 )

Volume	Invert	Avail.Storage	Storage Description	
#1	869.00'	6,876 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
869.00	1,180	0.0	0	0
869.01	1,180	33.0	4	4
870.00	1,180	33.0	386	389
870.01	1,180	27.0	3	393
871.99	1,180	27.0	631	1,023
872.00	1,180	100.0	12	1,035
873.00	2,060	100.0	1,620	2,655
874.00	3,055	100.0	2,558	5,213
874.50	3,600	100.0	1,664	6,876

Device	Routing	Invert	Outlet Devices
#1	Primary	867.45'	<b>8.0" Round Culvert</b> L= 312.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 867.45' / 864.00' S= 0.0111 1/8" Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	869.75'	<b>6.0" Round Culvert</b> L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 869.75' / 869.65' S= 0.0200 1/8" Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#3	Device 1	872.50'	<b>6.0" Vert. Orifice/Grate</b> C= 0.600
#4	Device 1	873.85'	<b>24.0" Horiz. Orifice/Grate</b> C= 0.600 in 24.0" Grate (100% open area) Limited to weir flow at low heads
#5	Secondary	874.00'	<b>10.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

**Primary OutFlow** Max=1.96 cfs @ 12.11 hrs HW=873.67' (Free Discharge)

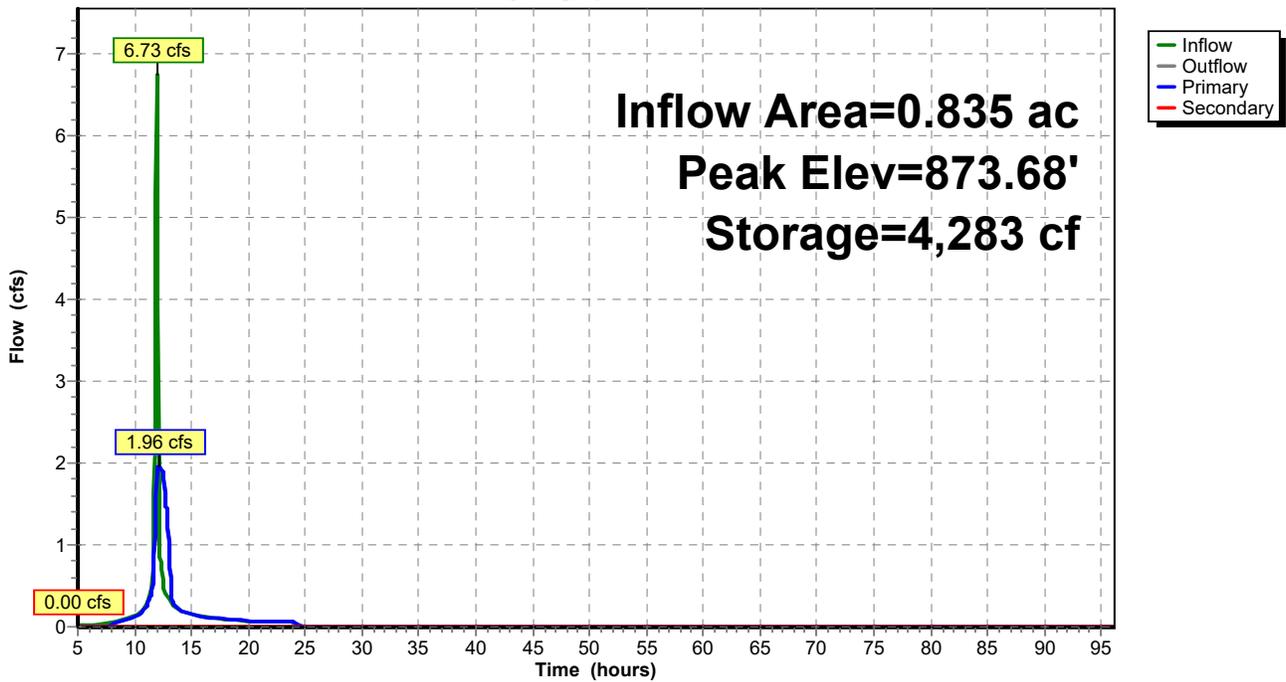
- 1=Culvert (Barrel Controls 1.96 cfs @ 5.63 fps)
- 2=Culvert (Passes < 1.81 cfs potential flow)
- 3=Orifice/Grate (Passes < 0.91 cfs potential flow)
- 4=Orifice/Grate ( Controls 0.00 cfs)

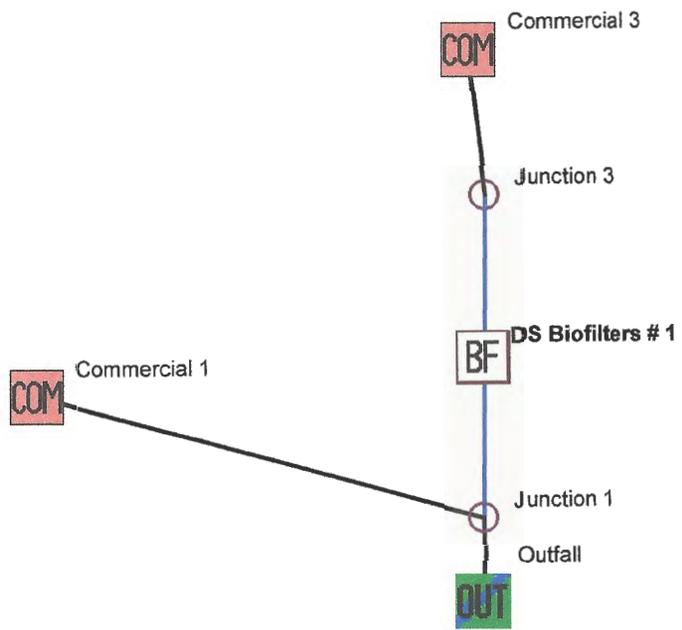
**Secondary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=869.00' (Free Discharge)

- 5=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)

**Pond 10P: Bio-Basin #1**

Hydrograph





Data file name: Z:\WinSLAMMCJE1542-02R0.mdb  
WinSLAMM Version 10.2.0  
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN  
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI\_AVG01.pscx  
Runoff Coefficient file name: C:\WinSLAMM Files\WI\_SL06 Dec06.rsvx  
Residential Street Delivery file name: C:\WinSLAMM Files\WI\_Res and Other Urban Dec06.std  
Institutional Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std  
Commercial Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std  
Industrial Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std  
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI\_Res and Other Urban Dec06.std  
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std  
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False  
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI\_GEO03.ppdx  
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv  
Cost Data file name:  
Seed for random number generator: -42  
Study period starting date: 01/05/69      Study period ending date: 12/31/69  
Start of Winter Season: 12/02      End of Winter Season: 03/12  
Date: 07-12-2019      Time: 10:22:07  
Site information:

LU# 1 - Commercial: Commercial 1      Total area (ac): 0.057  
13 - Paved Parking 1: 0.057 ac.      Connected      Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Commercial: Commercial 3      Total area (ac): 0.497  
13 - Paved Parking 1: 0.497 ac.      Connected      Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) - DS Biofilters # 1

1. Top area (square feet) = 3600
2. Bottom area (square feet) = 1180
3. Depth (ft): 5.5
4. Biofilter width (ft) - for Cost Purposes Only: 20
5. Infiltration rate (in/hr) = 0.02
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 = 0.33
11. Engineered soil infiltration rate: 1.6
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.27
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 Soil Type      1.000

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 6
2. Weir crest width (ft): 10
3. Height of datum to bottom of weir opening: 5

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 2
2. Stand pipe height above datum (ft): 4.85

Outlet type: Surface Discharge Pipe

1. Surface discharge pipe outlet diameter (ft): 0.5
2. Pipe invert elevation above datum (ft): 3.5
3. Number of surface pipe outlets: 1

Outlet type: Drain Tile/Underdrain

1. Underdrain outlet diameter (ft): 0.5
2. Invert elevation above datum (ft): 1
3. Number of underdrain outlets: 1

SLAMM for Windows Version 10.2.0  
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Data file name: Z:\WinSLAMM\CJE1542-02R0.mdb  
 Data file description:  
 Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN  
 Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI\_AVG01.pscx  
 Runoff Coefficient file name: C:\WinSLAMM Files\WI\_SL06 Dec06.rsvx  
 Residential Street Delivery file name: C:\WinSLAMM Files\WI\_Res and Other Urban Dec06.std  
 Institutional Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std  
 Commercial Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std  
 Industrial Street Delivery file name: C:\WinSLAMM Files\WI\_Com Inst Indust Dec06.std  
 Other Urban Street Delivery file name: C:\WinSLAMM Files\WI\_Res and Other Urban Dec06.std  
 Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std  
 Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI\_GE003.ppd  
 Start of Winter Season: 12/02 End of Winter Season: 03/12  
 Model Run Start Date: 01/05/69 Model Run End Date: 12/31/69  
 Date of run: 07-12-2019 Time of run: 10:21:52  
 Total Area Modeled (acres): 0.554  
 Years in Model Run: 0.99

	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:	43759	-	130.0	355.1	-
Outfall Total with Controls:	35017	19.98%	50.44	110.3	68.94%
Annualized Total After Outfall Controls:	35503			111.8	

Pollutant	Concentration - Yield Percent	Concentration - With Controls	Conc. Units	Pollutant Yield No Controls	Pollutant Yield With Controls	Pol.
Particulate Solids	130.0 68.94 %	50.44	mg/L	355.1	110.3	lbs
Particulate Phosphorus	0.1850 68.95 %	0.07178	mg/L	0.5054	0.1569	lbs

# Minimum Storm Water Practice Maintenance Requirements

## WET DETENTION BASINS

### System Description:

The wet detention basins are designed to together remove Total Suspended Solids (TSS) in the site runoff and to reduce pre-development downstream peak flows. Swales function to convey runoff to the basins, as well as filter pollutants, especially from smaller storms. To function correctly, the pond size, water level and outlet structures must be maintained as specified in the approved plans.

### Minimum Maintenance Requirements:

To ensure the proper function of the storm water management practices described above, the following activities must be completed:

1. All outlet structures and pipes must be checked monthly to ensure there is no blockage from floating debris or ice, especially the washed stone in front of the orifices and the trash rack on the risers in the main part of the basins. Any blockage must be removed immediately. The washed stone must be replaced when it becomes clogged.
2. Grass swales shall be preserved to allow free flowing of surface runoff in accordance with approved grading plans. No buildings or other structures are allowed in these areas. No grading or filling is allowed that may interrupt flows in any way.
3. Grass swales, inlets and outlets must be checked at least twice yearly (spring and fall) and after heavy rains for signs of erosion. Any eroding areas must be repaired immediately to prevent premature sediment build-up in the basin. Erosion matting is recommended for repairing grassed areas.
4. NO trees are to be planted or allowed to grow on the earthen berms. Tree root systems can reduce soil compaction and cause berm failure. The berms must be inspected annually and any woody vegetation removed.
5. If floating algae or weed growth becomes a nuisance (decay odors, etc.), it must be removed from the basin and deposited where it cannot drain back into the basin. Removal of the vegetation from the water reduces re-growth the following season (by harvesting the nutrients). Wetland vegetation must be maintained along the waters edge for safety and pollutant removal purposes.
6. The basins are to be cleaned out prior to the depth of sediment reaching the dewatering hole. All removed sediment must be placed in an appropriate upland disposal site and stabilized (grass cover) to prevent sediment from washing back into the basin.
7. No grading or filling of the basins or berms other than for sediment removal is allowed, unless otherwise approved by the Village of Germantown.
8. To promote more effective infiltration, mowing in the drainage ways, detention basins, and wetland fringe areas should be minimized. If mowing is deemed necessary, the mowing heights should be no shorter than six (6) inches. Restricting any mowing to late summer or autumn will minimize mortality to ground nesting birds. To discourage the presence of nuisance waterfowl (i.e. Canada Geese), a minimum 30-foot wide no-mow fringe shall be maintained around all detention basins, where possible.
9. After Vegetation is 70% established, the use of herbicides/pesticides is to be discontinued along the swales & basins.

## BIORETENTION BASIN

### System Description:

Bioretention basins are designed to reduce peak flows and reduce runoff total suspended solids (TSS) from the site by intercepting the runoff and allowing it to seep (infiltrate) into the engineered soil layer and through the perforated under-drain pipe. To function correctly, the bioretention basins size, depth, outlet standpipe and under-drain pipe must be maintained.

### Minimum Maintenance Requirements:

To ensure the proper function of the bioretention basin, the following list of maintenance activities are required to be performed by the owner or authorized qualified representative:

1. A minimum of 70% soil cover made up of plants must be maintained on the bioretention basin bottom. The basin sides shall be a turf grass. Maintain plants and grasses per qualified landscape

- contractor recommendations.
2. Seasonal (early spring) inspection of the soil surface for the presence of sodium accumulation due to the introduction of chlorides for winter maintenance of the parking lot should occur. It is also recommended that the soil be flushed with 1" of clean water 3-4 times each spring. Consider reducing sodium/salting or use sodium alternatives.
  3. The basin and all components (outlet standpipe, outlet pipe, vegetation and spillway) should be inspected after each heavy rain of 1.5" or more. If the basin is not draining properly (within 72 hours), further inspection may be required by persons with expertise in storm water management and/or soils.
    - If basin is not draining, the 6" drain tile should be cleared of any blockages or obstructions. Clear blockages in the underdrain pipe, if present through the underdrain cleanout. Expose the stone and soil immediately around the pipe, clear blockages and replace per approved design. Also examine outlet orifice through the dual treated planks within the pond outlet manhole. Remove any sediment accumulated within the manhole and orifice.
    - If soil testing shows that the soil surface has become crusted, sealed or compacted, Engineered soil should be replaced. Expose 6" drain tile and verify it is clear of obstructions. Remove and replace engineered soil per WDNR specifications. Replace bioretention plantings per approved Landscape Plan for the project.
    - If sedimentation is determined to be causing the failure, the accumulated sediment must be removed and the area replanted in accordance with the approved Landscape Plan for the project. Sediment removed shall be deposited offsite at an appropriate soil disposal facility.
  4. All outlet pipes, other flow control devices within the basin outlet manhole must be kept free of debris. Any blockage must be removed immediately.
  5. Any eroding areas must be repaired immediately to prevent premature sediment build-up in the system. Erosion matting is recommended for repairing grassed areas.
  6. Heavy equipment and vehicles must be kept off of the bottom and side slopes of bioretention basin to prevent soil compaction. Soil compaction will reduce infiltration and may cause failure of the basin, resulting in ponding and possible growth of wetland plants.
  7. No unauthorized trees are to be planted or allowed to grow on the earthen berms or bottom of the basin. On the berms, tree root systems can reduce soil compaction and cause berm failure. On the basin bottom, trees may shade out the native grasses. Woody vegetation must be removed.
  8. Check for invasive species growth and remove per species specific recommended practices.
  9. No grading or filling of the basin or berms other than for sediment removal is allowed.
  10. One required inspection a year shall be conducted in spring (between March 15th and April 15th). An inspection form must be completed and documented by a qualified person that represents the Owner. Any needed maintenance must be documented and scheduled for immediate repair. All repairs must be documented, preferably with photographs.
  11. Snow shall not be dumped directly onto the conditioned planting bed.
  12. See chart below for maintenance activity and frequency:

Activity	Frequency
Water Plants	As necessary during first growing season
Water as necessary during dry periods	As needed after first growing season
Re-mulch void areas	As needed
Treat diseased trees and shrubs	As needed
Inspect soil and repair eroded areas	Monthly
Remove litter and debris	Monthly
Add additional mulch	Once per year