

**From:** Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>  
**Sent:** Wednesday, September 22, 2021 2:31 PM  
**To:** Krueger, Sarah E - DNR  
**Cc:** Andrew G Cawrse (Andrew.Cawrse@ramboll.com); Prasad, Narendra M  
**Subject:** Former We Energies Appleton MGP Site - Response to WDNR 8/9/21 Notification Letter  
**Attachments:** Appleton MGP Lawrence University Response Letter\_Final.pdf

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Hi Sarah,

Per my vmail from earlier today, please find attached our response to the above referenced correspondence from the Department. As always, please feel free to contact me with any questions.

Thanks,

*Frank Dombrowski*  
*Principal Environmental Consultant*

WEC Energy Group - Business Services  
Environmental Dept. - Land Quality Group  
333 W. Everett St., A231  
Milwaukee, WI 53203  
Office: (414) 221-2156  
Cell: (414) 587-4467  
Fax: (414) 221-2022

*Serving WEC Energy Group, We Energies, Wisconsin Public Service, Michigan Gas Utilities,  
Minnesota Energy Resources, Peoples Gas and North Shore Gas*



**We Energies**  
333 West Everett St., A231 Milwaukee,  
WI 53203  
www.we-energies.com

September 22, 2021

Ms. Sarah Krueger  
Water Resources Management Specialist  
Wisconsin Department of Natural Resources  
2984 Shawano Avenue  
Green Bay, WI 54313

**RE: Notification of Related Groundwater Data  
Former We Energies Appleton MGP Site, 337 Water St., Appleton, WI  
BRRTS Activity No. 02-45-000042**

Dear Ms. Krueger:

On August 9, 2021, we received a “Notification of Related Groundwater Data” letter from Wisconsin Department of Natural Resources (WDNR). The letter states that elevated concentrations of benzene, naphthalene, and ethylbenzene identified in the groundwater at the Lawrence University Academy of Music Property (Bureau for Remediation and Redevelopment Tracking System [BRRTS] Activity No. 02-45-582612) is related to the former We Energies Appleton Manufactured Gas Plant (MGP) site.

We have reviewed historical information for the Lawrence University property as well as the available documentation for the BRRTS case that was prepared by Westwood Infrastructure, Inc (Westwood), and we are unable to understand how the available anecdotal and quantifiable data support the Department’s conclusion that the impacts identified at this property are associated with the former Appleton MGP site. Based on a thorough review of the available information, we note the following:

- There have never been MGP operations on the Lawrence University property. Review of historical aerial photographs and Sanborn maps indicate that the property was developed with a warehouse, saloon, and office building from at least 1886 through 1911. The present day building was constructed in 1942 and was originally utilized as an office building for the Fox River Paper Corporation. This building has been used by Lawrence University since the 1980s. Attached are historical Sanborns and aerials for your review.
- Review of the Westwood reports indicates that there is another source of volatile organic compound (VOC) contamination on the Lawrence university property including, petroleum-based VOCs. This is based on the following results:
  - Benzene groundwater pathway Residual Contaminant Level (RCL) exceedances were detected primarily in the shallow soil samples collected 0-4 feet below ground surface (bgs).
  - Naphthalene, which along with benzene may be a constituent characteristic of MGP-related impacts, was detected in one soil sample (SB303 14-16) at concentrations exceeding the groundwater pathway RCL and non-industrial direct contact RCL. This sample was collected from 14-16 feet bgs, which is below the groundwater table observed at that boring location.
  - Review of the boring log for SB303 indicates that foundry sand, staining, sheen, high photoionization detector (PID) readings, and petroleum odors were identified in the fill material from 13.0-13.5 feet bgs. These observations further indicate that impacted historic fill material is present at the property and is the likely source of the naphthalene soil RCL exceedances observed at this location. In addition, well MW-3 was completed at SB303

and is screened from 4 to 16 feet bgs across the impacted fill material interval, indicating that the impacted fill material is the likely source of groundwater contamination observed at well MW-3. The boring log for SB303 is attached for reference.

The Westwood reports state that significant filling has taken place at the property and that the source of the fill material is unknown. Based on review of the available information, the VOC impacts at the Lawrence University property are mostly located in the shallow (vadose zone) fill material (0-4 feet bgs) which indicates that these impacts are likely due to the contaminated historic fill material and/or historic operations at this property and are not associated with the release at the former Appleton MGP site. The Lawrence University VOC soil analytical results table is attached for reference. Exceedances are highlighted yellow and circled in red on the table.

- The groundwater elevation at well MW-3 on the Lawrence University property was 720.79 on September 10, 2020 and was 720.85 on May 26, 2021. These elevations are higher than the water level elevations typically observed at either well MW-22, which is located on the former MGP property to the southwest, or well MW-24, which is located in the Water Street ROW to the east. This indicates that *well MW-3 is hydraulically up-gradient* of these two wells. Review of the Westwood reports further indicates that the groundwater at the Lawrence University property is flowing towards the Fox River. Based on this information, it appears that MW-3 is up-gradient of the extent of MGP impacts, making it highly unlikely that it could have been impacted by any dissolved phase plume originating from the former MGP property. Please note that no similar impacts were documented in the other wells installed on the property, despite them being within feet of MW-3.
- Groundwater samples collected from the Lawrence University property were not collected concurrently with samples collected from the former Appleton MGP. The groundwater sampling was conducted at the Lawrence University property in September 2020 and May 2021 while the groundwater sampling was conducted at the former Appleton MGP site in April 2020 and April 2021. In addition, it is unknown if the groundwater sampling at the Lawrence University property was conducted with the same methodology, data quality objectives and standard operating procedures as the sampling completed at the former Appleton MGP site. As such, this data is not comparable with the project SI data set.

Based on our review of the historical information and documentation available for the Lawrence University BRRTS case, we do not understand how the results of the investigations at the Lawrence University property demonstrate that dissolved phase impacts from the former MGP facility have impacted the well in question. Significant use of historic fill has taken place at this property and the impacts identified in groundwater at this property have potential on-site sources as evidenced by the non-industrial direct contact and soil to GW pathway exceedances observed by Westwood. Review of the boring log for SB303 indicates that foundry sand, staining, sheen, high PID reading, and petroleum odors were identified within the screen interval of well MW-3 which further indicates that impacted historic fill material is present at the property and is likely responsible for observed groundwater exceedances at this location. Moreover, the data Lawrence University's consultant provided indicates that this well is hydraulically upgradient of our monitoring wells which have historically been utilized to document the dissolved phase plume in the area.

I am respectfully requesting a call with you to discuss the information included in this letter supporting the fact that the contamination on the Lawrence University property is not related to the MGP as WDNR suggests. In the interim, please do not hesitate to contact me at (414) 221-2156 or via email at [frank.dombrowski@wecenergygroup.com](mailto:frank.dombrowski@wecenergygroup.com) if you have any questions or if further information may be needed.

Sincerely,



Frank Dombrowski  
Principal Environmental Consultant  
WEC Energy Group – Business Services  
Environmental Dept.

Enclosures: Attachment A. Historical Aerials  
Attachment B. Historical Sanborn Maps  
Attachment C. Table 1 – Soil Analytical Results Detected Volatile Organic Compounds  
Attachment D. Boring Log for SB303

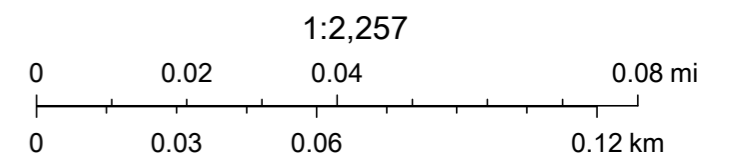
CC: Project File  
A. Cawrse, Ramboll  
B. Hennings, Ramboll

**ATTACHMENT A**  
**HISTORICAL AERIALS**

1938



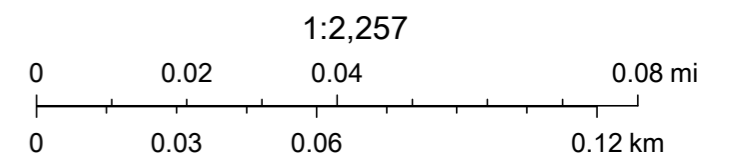
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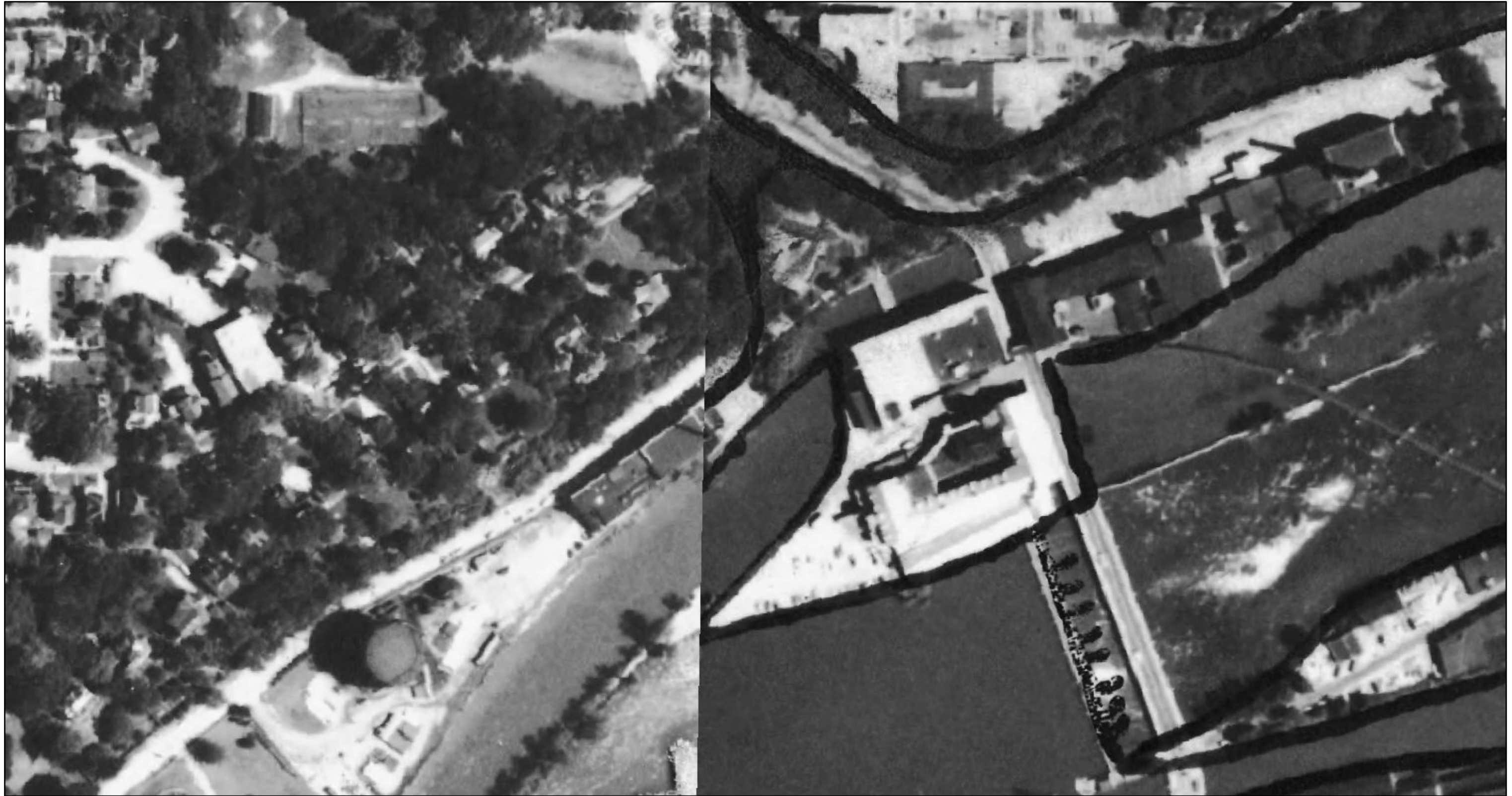
1957



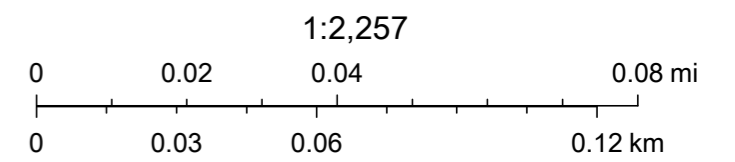
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1964



8/18/2021, 1:52:35 PM

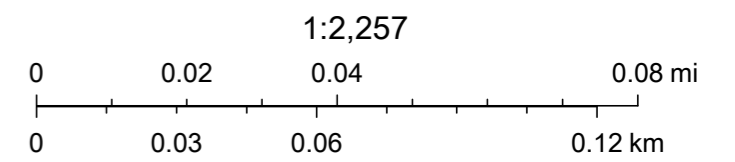




1970



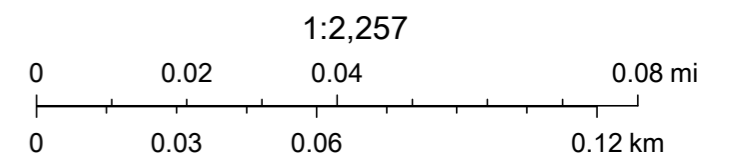
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1980



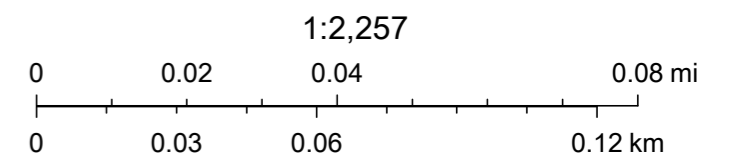
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1992



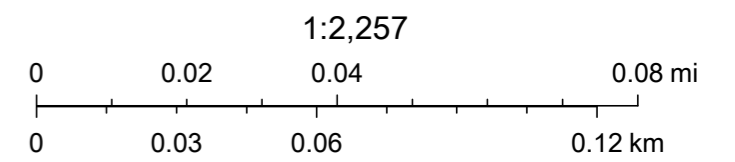
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2000



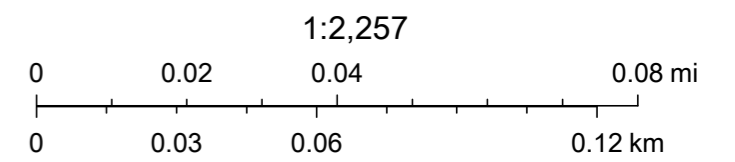
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2010



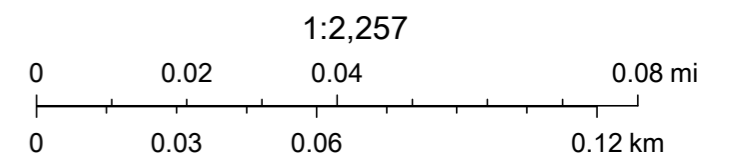
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2014



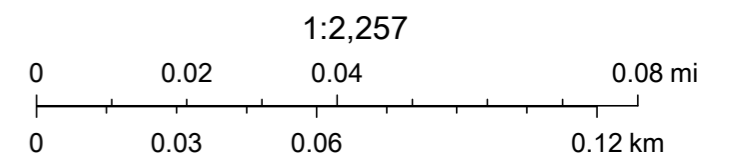
8/18/2021, 1:55:19 PM



2018



8/18/2021, 1:55:37 PM



**ATTACHMENT B**  
**HISTORICAL SANBORN MAPS**



No Exposure.

Bluff

High ST.

WATER

APPLETON GAS LIGHT CO.

A. GAS HOLDER

A. SPLENDID CUSTOM CARDING & DYE HOUSE.

W. Ho. BB.

FOX RIVER FLOUR & PAPER CO.

FOX RIVER FLOUR MILL.

2 RUN OF STONE ROLLERS, 1 (RICHMOND) SMUTTER, 1 (KURTZ'S) COCKLE MACH., 1 (SILVER CREEK) BRUSH MACH., 1 (RICHMOND) BRINDUSTRA, 1 SEPARATOR (BARKHARD & LEX) 1ST., 4 BOLTING CHESTS 2E & 3E, 5 PURIFIERS (NOTES, EXCELSIOR & SMITH) 3D.

WORK DAY & NIGHT. SUNDAY WATCHMAN. 1 FORCE R. HOSE. HEATED BY STOVES. FUEL WOOD & COAL. LIGHTS - HEAD LIGHT OIL.

FLOUR MILL.

OUTAGAMIE MILLS WILLY & CO.

51. 2 1/2 RUN OF STONE ROLLERS, 2 (MONGAN) SMUTTER, 1 COCKLE MACH. 2E, 1 BRUSH MACH. (RICHMOND) 1E, 1 SEPARATOR.

52.

4 PURIFIERS (SMITH & STRONG) 1 & 2, 2 BRINDUSTRA, 1 EXCELSIOR 1B & 2E, 10 BOLTING CHESTS 2E & 3E. WORK DAY & NIGHT. HEATED BY STOVES. FUEL WOOD. LIGHT KEROSENE.

PAPER MILL

HEATED BY STEAM. FUEL COAL. TO BE HOSED.

NOT FINISHED.

Mach. Rm. 1st. Finishing Rm. 2E.

Guaranty & Drainer 2E. Beating 2E. Storage Rm. 2E. Bag Sorting 2E.

Boiler Ho. 1. CH. 96' HIGH.

50.

BRIGGS, WHORTON & BEVERIDGE OR PLANING MILL AND SASH, DOOR & BLIND FAC.

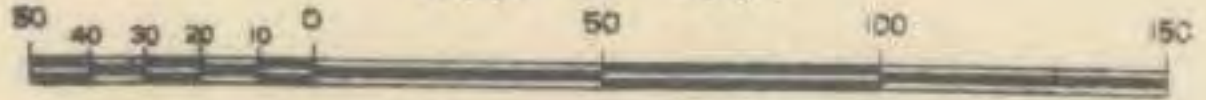
2 NIGHT & SUNDAY WATCHMEN. 200' OF 1 1/2" HOSE. HEATED BY STEAM. FUEL SHAVINGS. NO LIGHTS.

53. Cutting & Moulding Sash, Door & Blind Factory 2E.

54. Planing & Finishing 2E.

1 PLANER, 1 SURFACER, 1 MATCHER, 3 CUT OFF SAWS, 1 PLANER MATCHER COMBINED.

Scale of Feet.



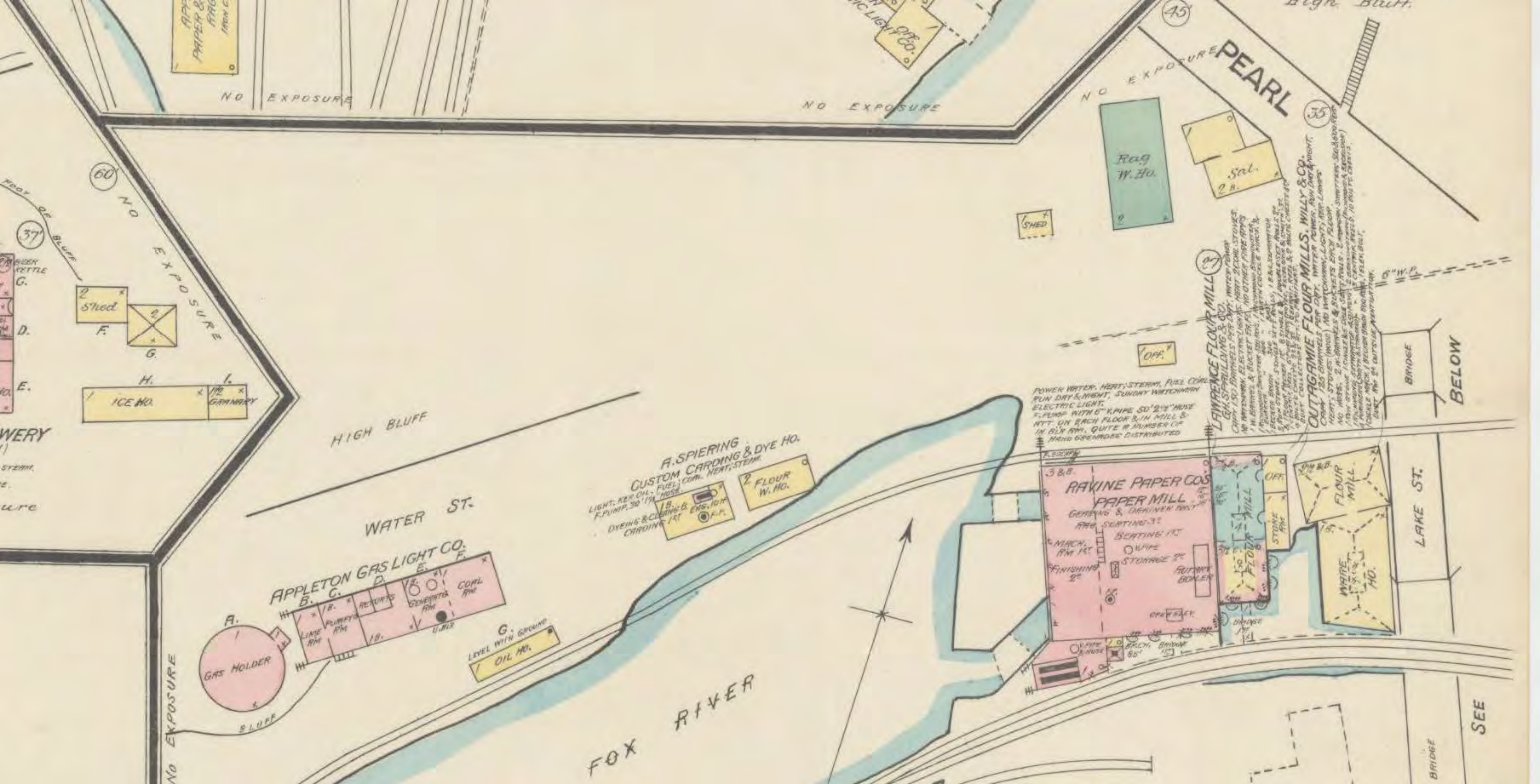
Canal

No Exposure

West's

SEE ABOVE THIS SHEET.

Fox River



45

NO EXPOSURE

NO EXPOSURE

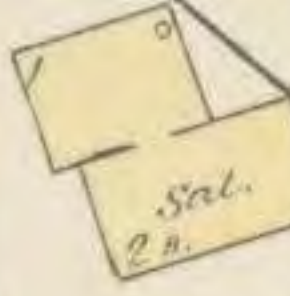
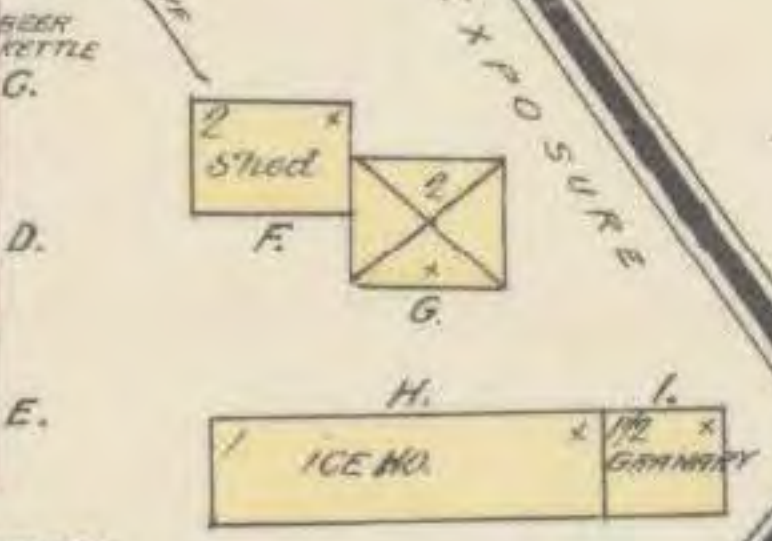
NO EXPOSURE PEARL

35

60

NO EXPOSURE

37

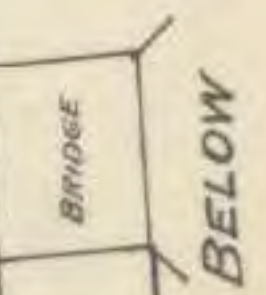


LAWRENCE FLOUR MILL

OUTAGAMIE FLOUR MILLS, MILLY & CO. WATER PUMPERS, RUN DAY & NIGHT.

POWER WATER, HEAT, STEAM, FUEL COAL RUN DAY & NIGHT, SUNDAY WATCHMAN ELECTRIC LIGHT, F. PUMP WITH 6" PIPE 50' 2" HOSE ATT. ON EACH FLOOR 3" IN MILL & IN BLK RM. QUITE A NUMBER OF HAND GRENADES DISTRIBUTED

LAWRENCE FLOUR MILL  
 CHRY. 150 BARRELS PER DAY, WATER POWER  
 GEN. SPALLING & CO.  
 NO. 1000  
 1 M. BARRELS & BUCKET PER DAY, NO OTHER FIRE APPARATUS  
 1 M. BARRELS & BUCKET PER DAY, 1 M. BARRELS COCKLE WAGON  
 1 M. BARRELS & BUCKET PER DAY, 1 M. BARRELS COCKLE WAGON  
 1 M. BARRELS & BUCKET PER DAY, 1 M. BARRELS COCKLE WAGON  
 1 M. BARRELS & BUCKET PER DAY, 1 M. BARRELS COCKLE WAGON



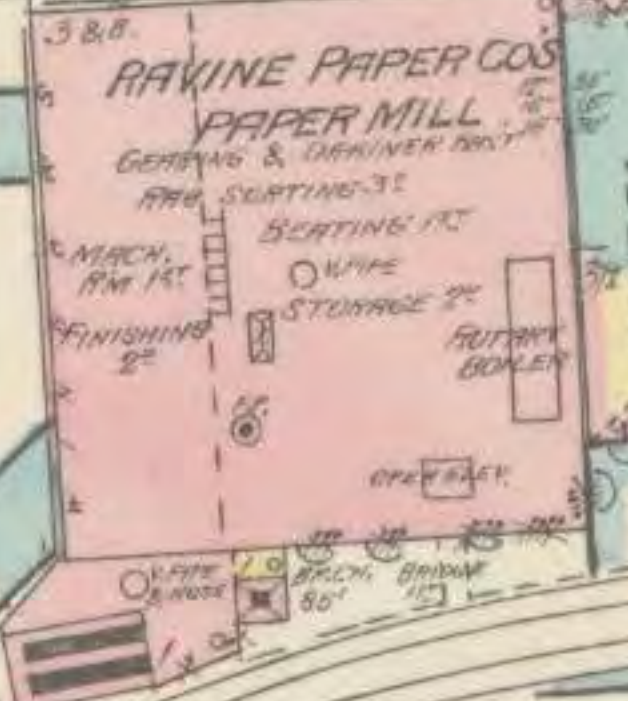
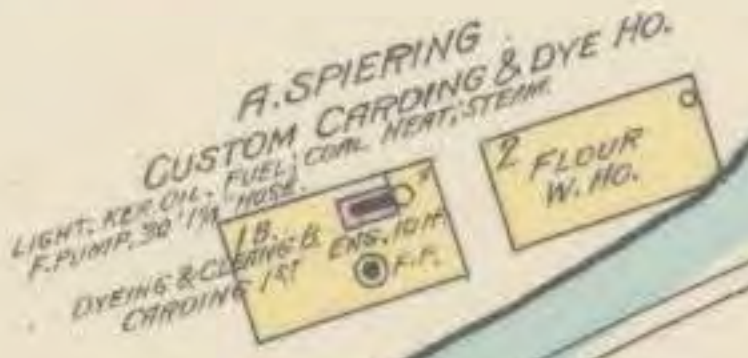
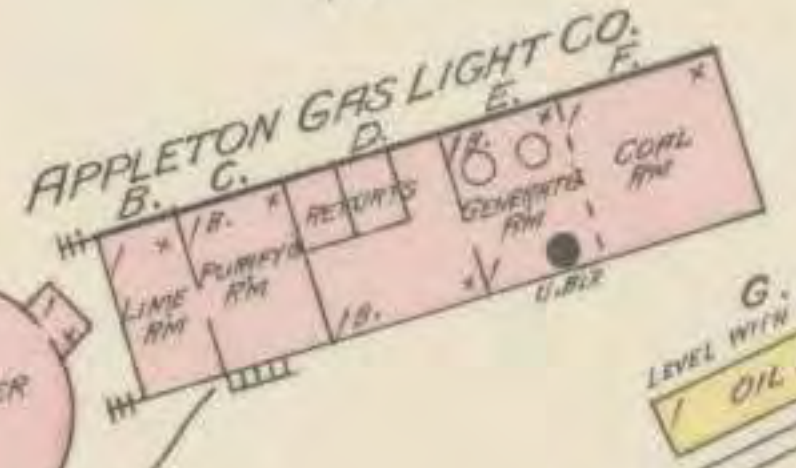
LAKE ST.

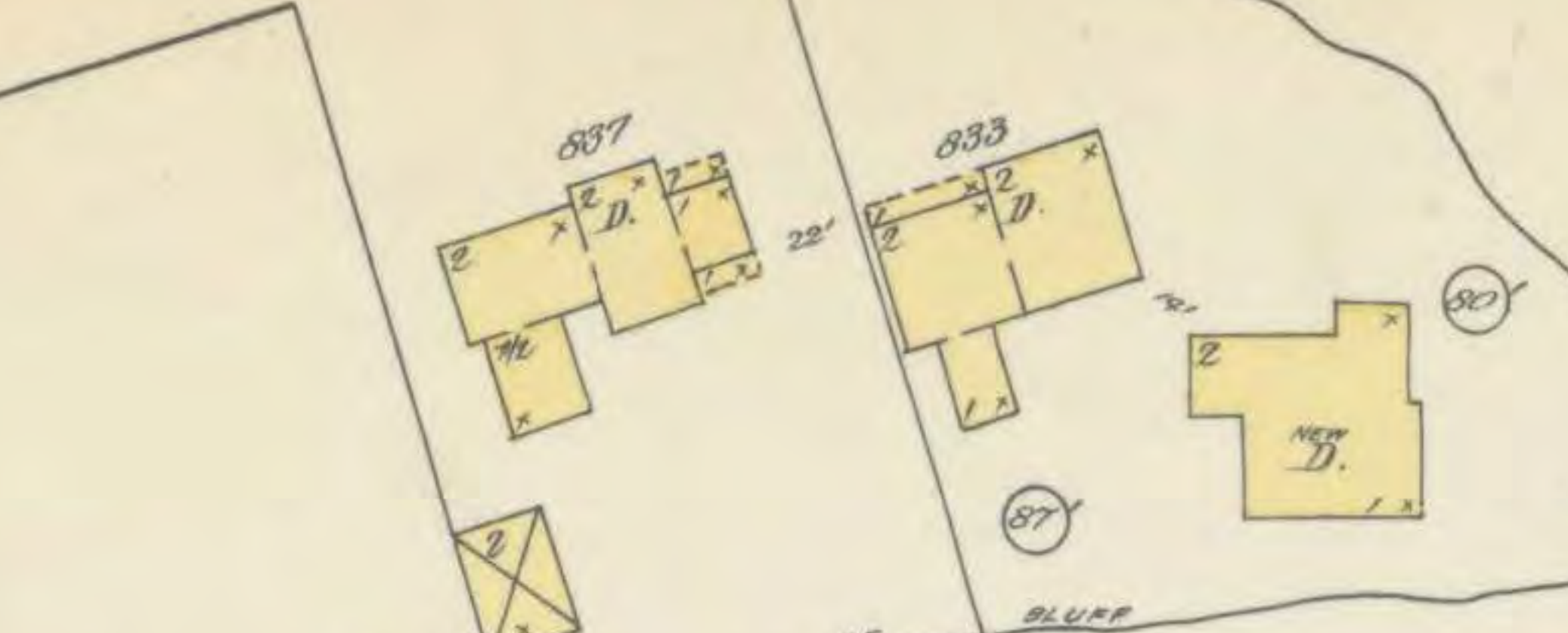
SEE

HIGH BLUFF

WATER ST.

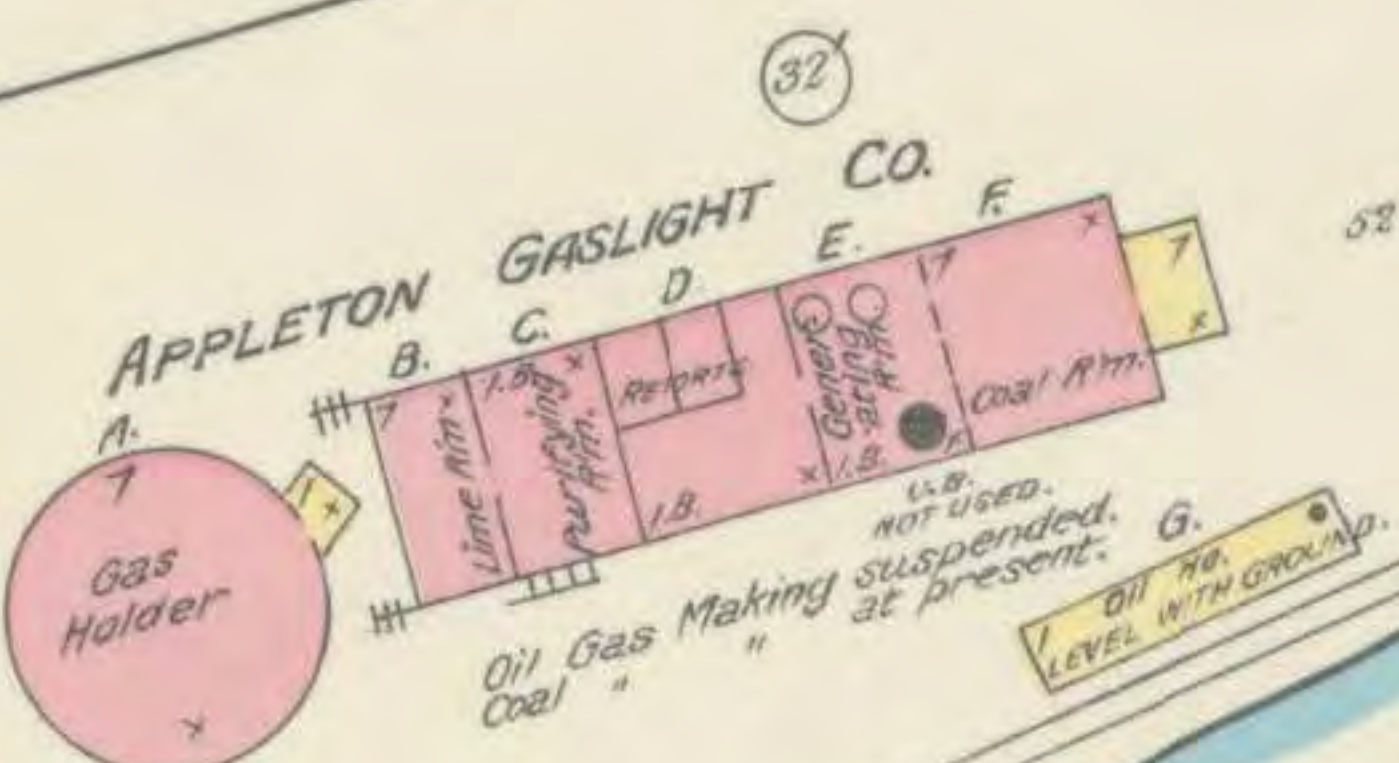
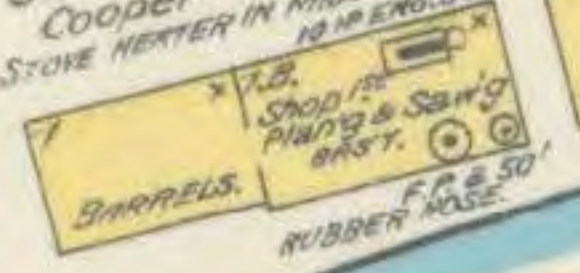
FOX RIVER



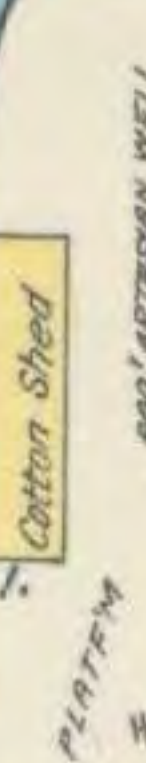


**WATER**

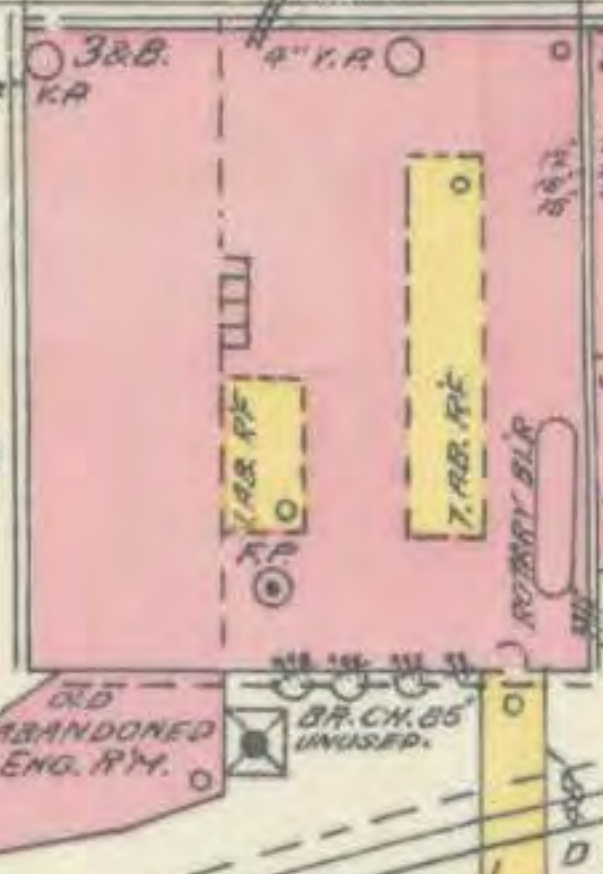
**JOSEPH HORNAR.**  
Cooper Shop.  
STONE WHEELER IN MIDDLE OF SHOP  
10 IN ENO. B.S.T.



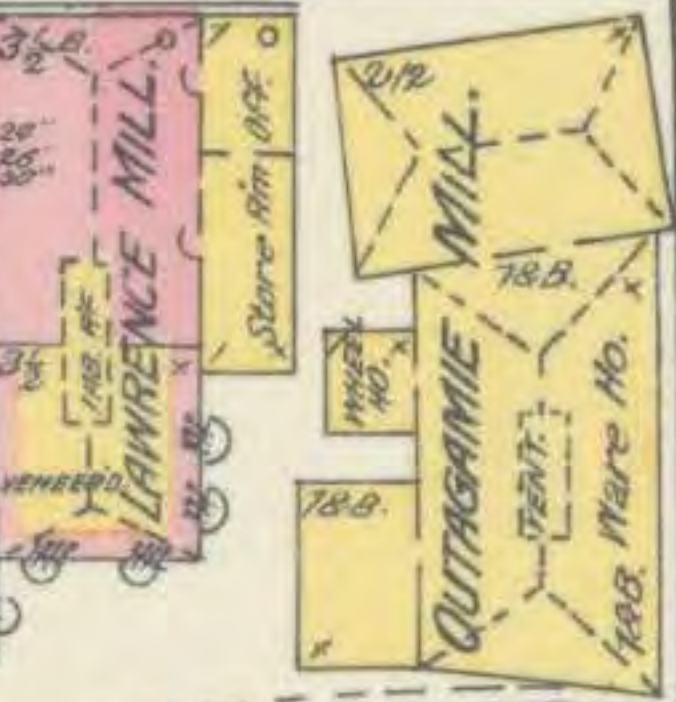
**R. COMPANY.**  
**I. MANAGER.**  
Cap'y 4 Tons per 24 hours.



**RAVINE MILK.**  
WATER POWER. STEAM. HEAT.  
COAL FUEL. RUNS DAY & NIGHT.  
WATCHMAN WITH CLOCK. F.P. WITH  
500' OF HOSE EACH FLOR. 2 5" K.P.S.  
CONNECTED WITH CITY W. PAPES.  
MERRICKER SPARKLES ROLLER  
ROOFS & ALL FLOORS. BY CITY WATER.  
HAND GREENHOUS.

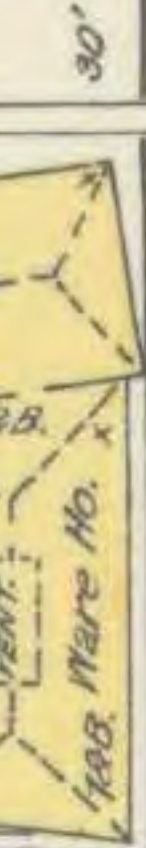


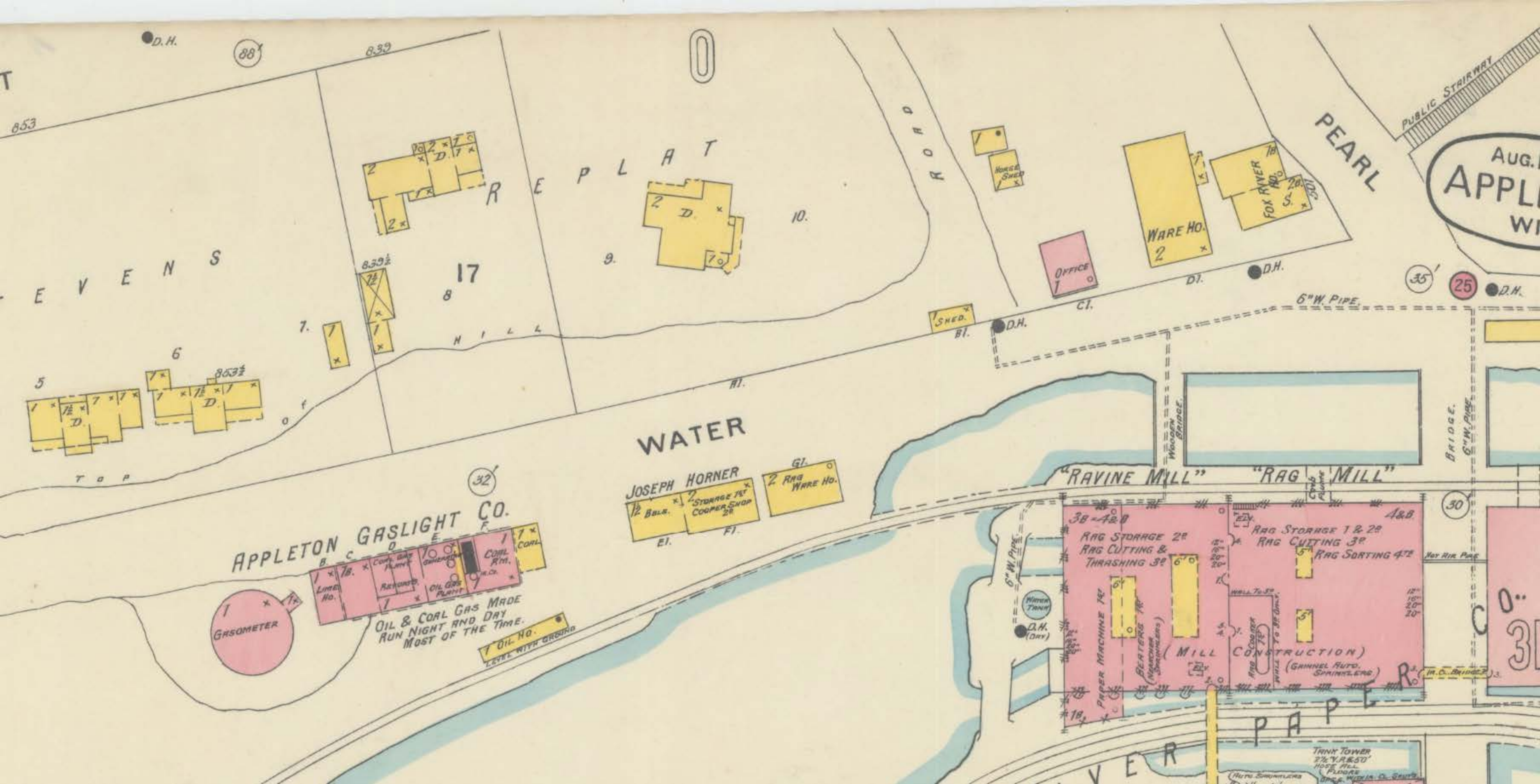
**LAWRENCE FLOUR MILL.**  
G.W. SPAULDING & CO. PROP'R.  
Cap'y 150 BBLs.



WATER POWER. NO WATCHMAN. ELEC.  
LIGHTS. HEAT. COAL STOVES. M. BARRELS  
& BUCKETS EACH FLOOR.  
BAST. - 1 GRANULATOR.  
1 EUROPEAN SMUTTER 600 MEK PER MIN.  
1 ALBERT COCKLE MACH. 600 " " "  
1 RYE SMUTTER.  
1ST 5 SINGLE SETS OF ROLLS. 2 PACKERS. 2 RUN STONE.  
1 BARNARD & LEW SEPARATOR 450 RAY.  
2D & SINGLE & DOUBLE SETS ROLLS. 1 BOLT CHEST. 1 FLOUR DRES.  
3&B EXCELSIOR WHIFFIERS 450 REV'S PER MINUTE. 1 CENTRAL  
4TH 6 CYCLONE MUST COLLECTORS. 1 FLOUR DRESSER. 1 "

**LAKE**





853  
D.H.  
88

853

EVENING

5  
6  
853 1/2

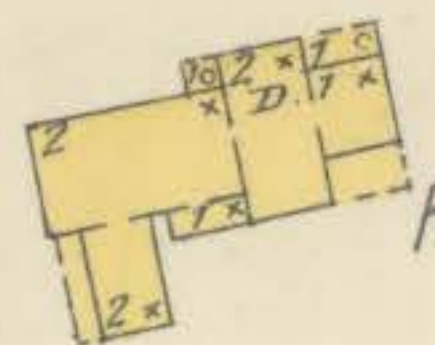
TOP

APPLETON GASLIGHT CO.

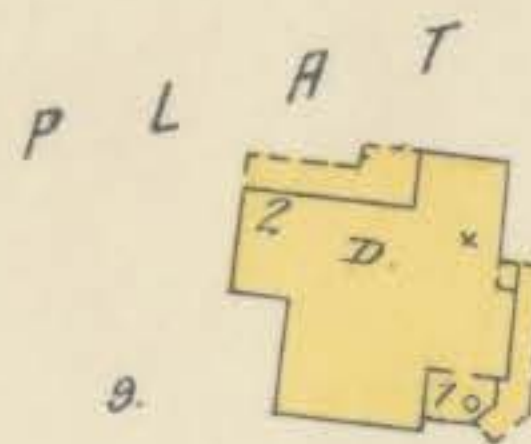


OIL & COAL GAS MADE  
RUN NIGHT AND DAY  
MOST OF THE TIME.

1 OIL No.  
LEVEL WITH GROUND



17



ROAD



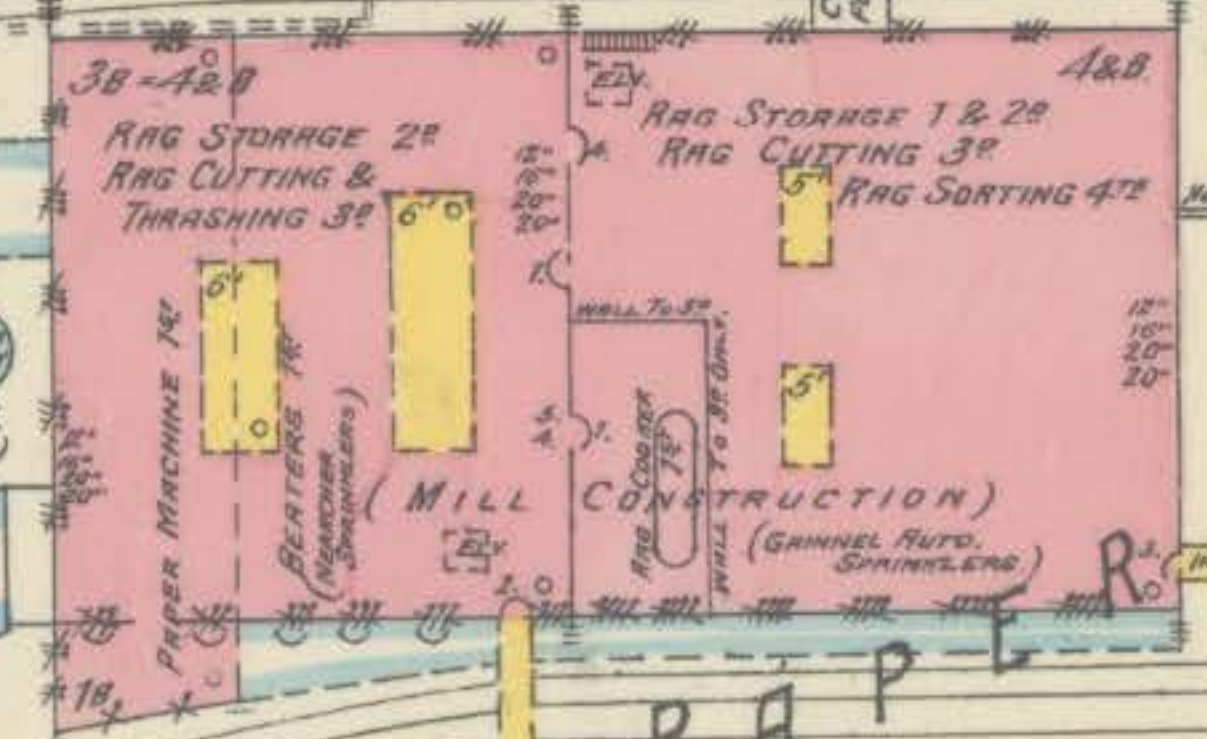
PEARL

PUBLIC STAIRWAY

AUG. APPL. WI.

WATER

"RAVINE MILL" "RAG MILL"

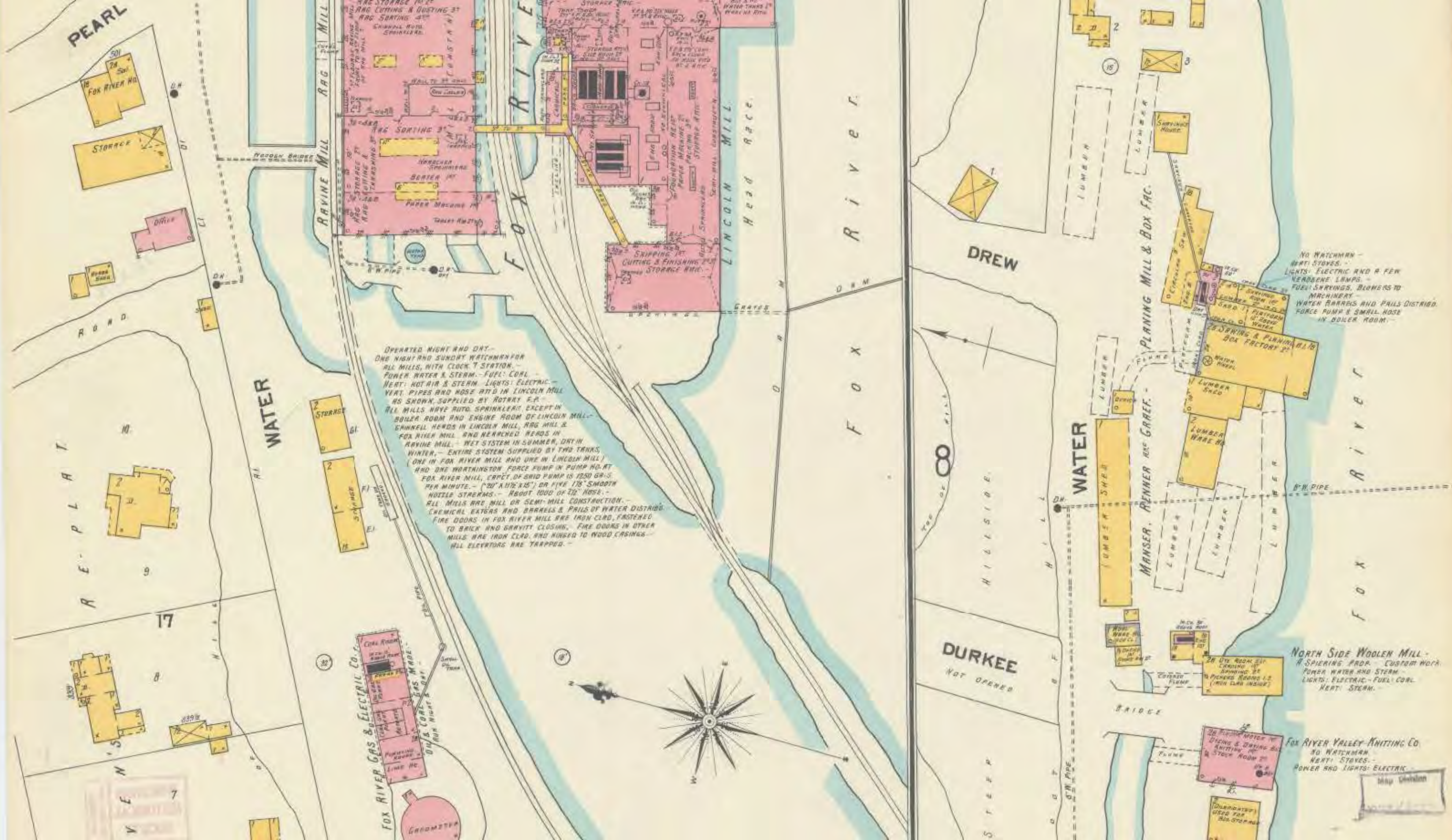


30



VER

PAPER



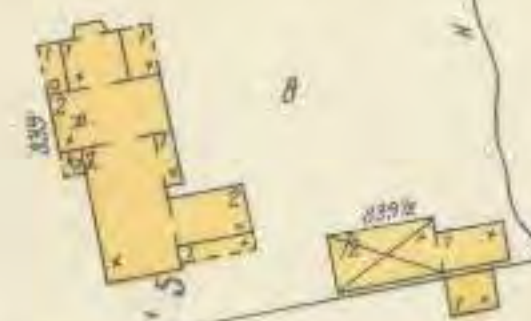
PEARL



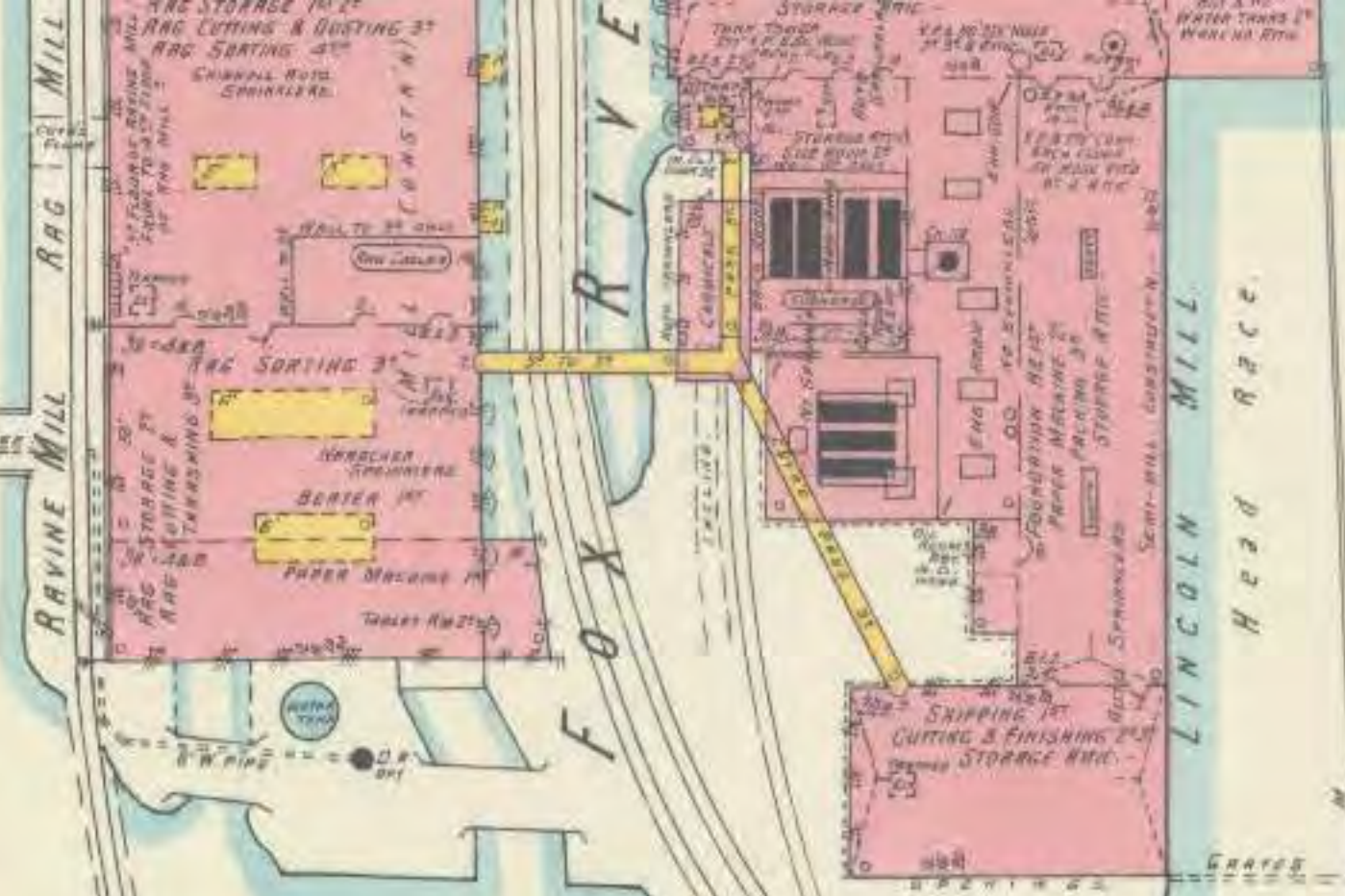
ROAD



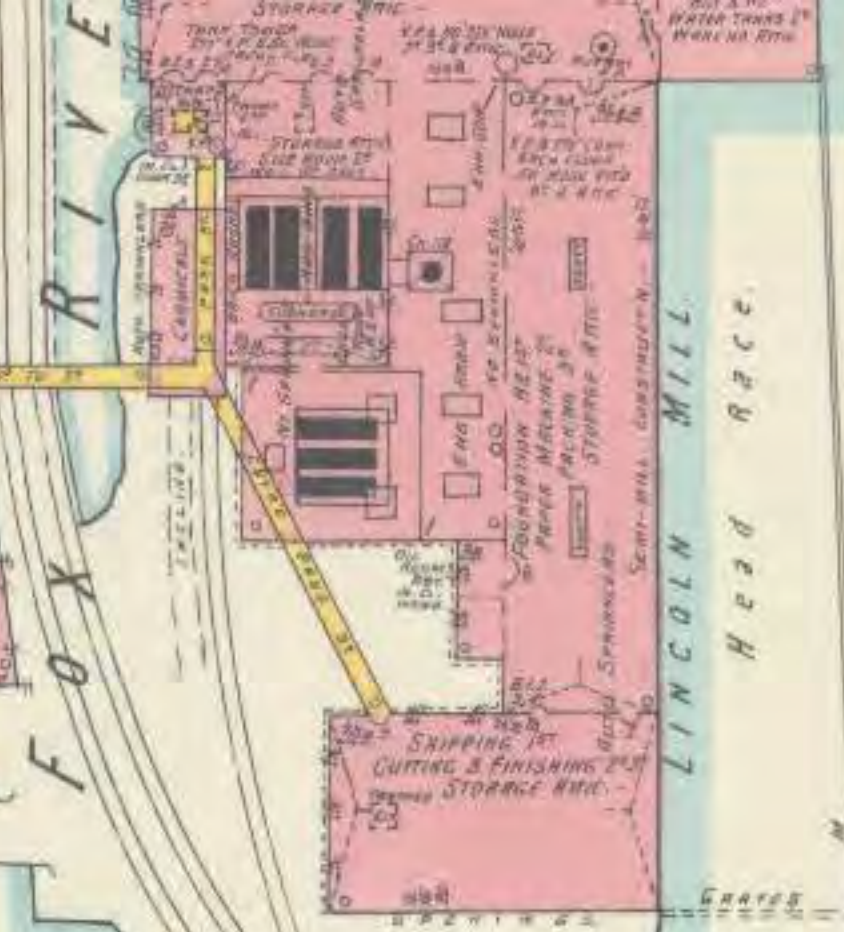
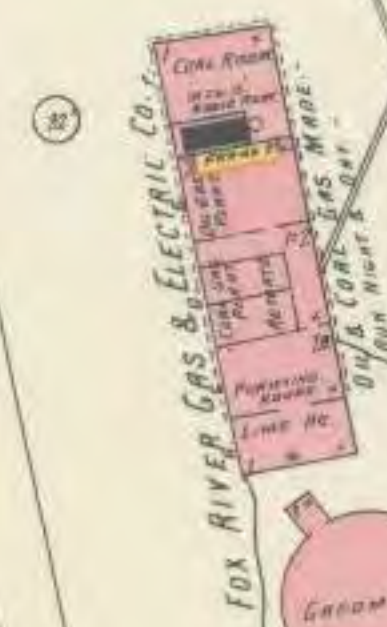
17



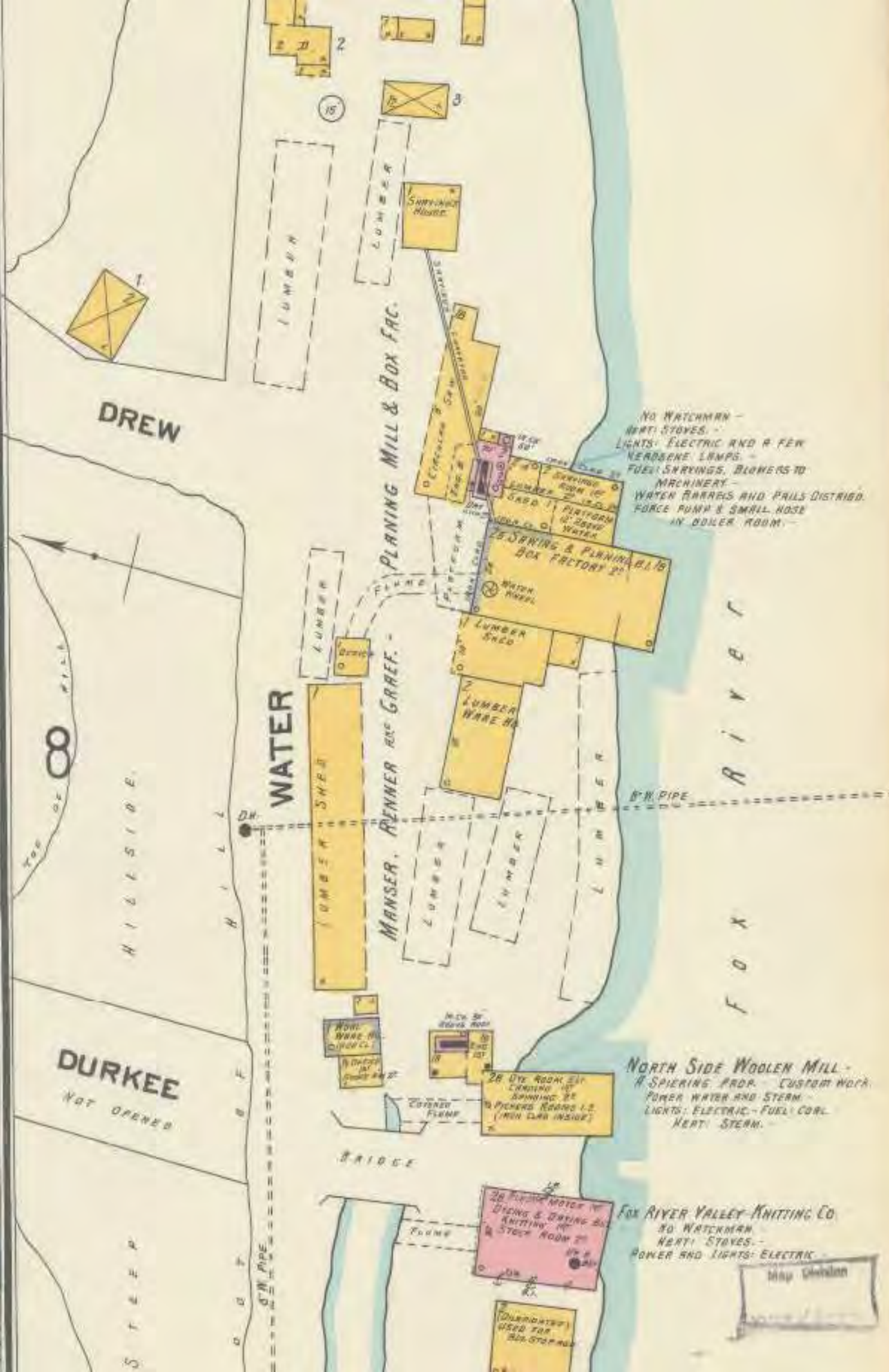
VEEN



OPERATED NIGHT AND DAY -  
 ONE NIGHT AND SUNDAY WATCHMAN FOR  
 ALL MILLS, WITH CLOCK T STATION -  
 POWER WATER & STEAM - FUEL: COAL -  
 HEAT: HOT AIR & STEAM - LIGHTS: ELECTRIC -  
 HEAT: PIPES AND HOSE ATD IN LINCOLN MILL  
 AS SHOWN, SUPPLIED BY ROTARY E.P.  
 ALL MILLS HAVE AUTO. SPRINKLER, EXCEPT IN  
 BOILER ROOM AND ENGINE ROOM OF LINCOLN MILL -  
 CHANNEL HEADS IN LINCOLN MILL, RAG MILL &  
 FOX RIVER MILL, AND HERRING HEADS IN  
 RAVINE MILL - NET SYSTEM IN SUMMER, DRY IN  
 WINTER - ENTIRE SYSTEM SUPPLIED BY TWO TANKS  
 (ONE IN FOX RIVER MILL AND ONE IN LINCOLN MILL)  
 AND ONE WORTHINGTON FORCE PUMP IN PUMP HO. AT  
 FOX RIVER MILL, CAPCY. OF SAID PUMP IS 1250 G.A.S.  
 PER MINUTE - (20" X 14" X 15") OR FIVE 176" SMOOTH  
 NOZZLE STREAMS - ABOUT 1000 OF 20" HOSE -  
 ALL MILLS ARE MILL OR SEMI-MILL CONSTRUCTION -  
 CHEMICAL EXHAUST AND BARRELS & PAILS OF WATER DISTRIB.  
 FIRE DOORS IN FOX RIVER MILL ARE IRON CLAD, FASTENED  
 TO BRICK AND GRAYVIT CLOSING. FIRE DOORS IN OTHER  
 MILLS ARE IRON CLAD, AND NIBBED TO WOOD CASINGS -  
 ALL ELEVATORS ARE TRAPPED -



FOX RIVER



DURKEE  
NOT OPENED

NORTH SIDE WOOLEN MILL -  
 A SPINNING AND A CUSTOM WORK  
 POWER WATER AND STEAM -  
 LIGHTS: ELECTRIC - FUEL: COAL -  
 HEAT: STEAM -

FOX RIVER VALLEY-KNITTING CO.  
 NO WATCHMAN -  
 HEAT: STOVES -  
 POWER AND LIGHTS: ELECTRIC

NO WATCHMAN -  
 HEAT: STOVES -  
 LIGHTS: ELECTRIC AND A FEW  
 KEROSENE LAMPS -  
 FUEL: SPRINKERS, BLOWERS TO  
 MACHINERY -  
 WATER BARRELS AND PAILS DISTRIB.  
 FORCE PUMP & SMALL HOSE  
 IN BOILER ROOM -

32

GREY ST

WATER

LUMBER SHED

GRAEF M'Y'S CO. PLANING MILL & BOX FACTORY

LUMBER PILE

PLANING MILL 1st  
DRESSING SHOP &  
STOCK ROOM 2nd

North Side WOODEN MILL

ROBERTSON  
SHIRT & PANTS CO.

PEARL

ROAD

REPLANT

725 PROSPECT ST

17

STEVENSON

WATER

WISCONSIN TRACTION, HEAT, LIGHT & POWER CO'S GAS PLANT

RAVINE MILL RRG

FOX RIVER

LINCOLN MILL  
Head Race

FOX RIVER

Scale of Feet.

FOX RIVER

**ATTACHMENT C**

**TABLE 1 – SOIL ANALYTICAL RESULTS DETECTED VOLATILE ORGANIC COMPOUNDS**

**Lawrence Univ. Academy of Music Property**

BRRTS #02-45-582612

Table 1 - Soil Analytical Results

Detected Volatile Organic Compounds (VOC) (mg/kg)

| Chemical Name                     |          |            | Ethylbenzene   | n-Propylbenzene | n-Butylbenzene | 1,3,5-Trimethylbenzene | Toluene        | Tetrachloroethene | sec-Butylbenzene | m&p-Xylene     | Benzene         | Naphthalene    | o-Xylene       | 1,2,4-Trimethylbenzene | Isopropylbenzene | p-Isopropyltoluene |
|-----------------------------------|----------|------------|----------------|-----------------|----------------|------------------------|----------------|-------------------|------------------|----------------|-----------------|----------------|----------------|------------------------|------------------|--------------------|
| Non-Industrial Direct Contact RCL |          |            | 8.02           | 264             | 108            | 182                    | 818            | 33                | 145              |                | 1.6             | 5.52           | 434            | 219                    | 268              | 162                |
| Industrial Direct Contact RCL     |          |            | 35.4           | 264             | 108            | 182                    | 818            | 145               | 145              |                | 7.07            | 24.1           | 434            | 219                    | 268              | 162                |
| Soil-to-Groundwater Pathway RCL   |          |            | 1.57           |                 |                |                        | 1.1072         | 0.00454           |                  |                | 0.00512         | 0.658182       |                |                        |                  |                    |
| Sample                            | Depth    | Date       | 100-41-4       | 103-65-1        | 104-51-8       | 108-67-8               | 108-88-3       | 127-18-4          | 135-98-8         | 179601-23-1    | 71-43-2         | 91-20-3        | 95-47-6        | 95-63-6                | 98-82-8          | 99-87-6            |
| SB303 14-16                       | 14-16'   | 8/3/2020   | 0.46           | 0.172           | 0.212          | 0.194                  | < 0.032        | < 0.04            | 0.0288 J         | 0.38           | <b>0.0264 J</b> | <b>7.6</b>     | 0.188          | 0.66                   | 0.264            | 0.098              |
| SB304 2-4                         | 2-4'     | 4/6/2021   | < 0.019        | < 0.019         | < 0.018        | < 0.017                | < 0.032        | < 0.04            | < 0.024          | < 0.083        | < 0.015         | < 0.12         | < 0.028        | < 0.054                | < 0.025          | < 0.026            |
| SB304 6-8                         | 6-8'     | 4/6/2021   | < 0.019        | < 0.019         | < 0.018        | < 0.017                | < 0.032        | < 0.04            | < 0.024          | < 0.083        | < 0.015         | < 0.12         | < 0.028        | < 0.054                | < 0.025          | < 0.026            |
| SB305 2-4                         | 2-4'     | 4/6/2021   | < 0.019        | < 0.019         | < 0.018        | < 0.017                | < 0.032        | <b>0.06 J</b>     | < 0.024          | < 0.083        | < 0.015         | < 0.12         | < 0.028        | < 0.054                | < 0.025          | < 0.026            |
| SB305 6-8                         | 6-8'     | 4/6/2021   | < 0.019        | < 0.019         | < 0.018        | < 0.017                | < 0.032        | < 0.04            | < 0.024          | < 0.083        | < 0.015         | < 0.12         | < 0.028        | < 0.054                | < 0.025          | < 0.026            |
| SB306 2-4                         | 2-4'     | 4/6/2021   | < 0.019        | < 0.019         | < 0.018        | < 0.017                | < 0.032        | < 0.04            | < 0.024          | < 0.083        | < 0.015         | < 0.12         | < 0.028        | < 0.054                | < 0.025          | < 0.026            |
| SB306 8-10                        | 8-10'    | 4/6/2021   | < 0.019        | < 0.019         | < 0.018        | < 0.017                | <b>0.06 J</b>  | < 0.04            | < 0.024          | < 0.083        | < 0.015         | < 0.12         | < 0.028        | < 0.054                | < 0.025          | < 0.026            |
| SB307 1-2                         | 1-2'     | 4/6/2021   | < 0.019        | < 0.019         | < 0.018        | < 0.017                | < 0.032        | < 0.04            | < 0.024          | < 0.083        | <b>0.0165 J</b> | < 0.12         | < 0.028        | < 0.054                | < 0.025          | < 0.026            |
| SB307 3-4                         | 3-4'     | 4/6/2021   | < 0.019        | < 0.019         | < 0.018        | < 0.017                | <b>0.045 J</b> | < 0.04            | < 0.024          | < 0.083        | <b>0.144</b>    | < 0.12         | < 0.028        | < 0.054                | < 0.025          | < 0.026            |
| HA401 1                           | 1-1'     | 10/21/2020 | < 0.019        | < 0.019         | < 0.018        | < 0.017                | <b>0.18</b>    | < 0.04            | < 0.024          | <b>0.091 J</b> | <b>0.57</b>     | < 0.12         | <b>0.044 J</b> | < 0.054                | < 0.025          | < 0.026            |
| HA401 2.5                         | 2.5-2.5' | 10/21/2020 | <b>0.033 J</b> | < 0.019         | < 0.018        | < 0.017                | <b>0.114</b>   | <b>0.056 J</b>    | < 0.024          | <b>0.106 J</b> | <b>0.214</b>    | <b>0.144 J</b> | <b>0.037 J</b> | < 0.054                | < 0.025          | < 0.026            |

December 2018 State of Wisconsin Soil Residual Contaminant Levels (RCL) were used.

RCL = residual contaminant level.

BOLD entries indicate that concentration detected above RCL.





J = Analyte detected between the limit of detection and limit of quantitation.

mg/kg = Milligrams per kilogram

DC = Direct Contact

< = Less than

VOC = Volatile organic compounds

|  |  |
|--|--|
|    | Detects with no exceedances above RCLs     |
|  | Non-Industrial DC RCL exceedance           |
|  | Industrial DC RCL exceedance               |
|  | Soil-to-Groundwater Pathway RCL exceedance |




**ATTACHMENT D**  
**BORING LOG FOR SB303**

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

|   |                            |  |   |  |  |
|---|----------------------------|--|---|--|--|
| Facility/Project Name<br><b>Lawrence University Academy of Music</b>  |                            | License/Permit/Monitoring Number<br>-    |   | Boring Number<br><b>SB303</b>              |  |
| Boring Drilled By: Name of crew chief (first, last) and Firm<br><b>Tony Kapugi<br/>On-site Environmental Services</b>   |                            | Date Drilling Started<br><b>8/3/2020</b> |   | Date Drilling Completed<br><b>8/3/2020</b> |  |
| Drilling Method<br><b>Geoprobe/Direct Push</b>  |                            |  |   |  |  |
| WI Unique Well No.  | DNR Well ID No.            | Common Well Name<br><b>MW-3</b>          | Final Static Water Level<br><b>723.3 Feet MSL</b>   | Surface Elevation<br><b>731.3 Feet MSL</b> | Borehole Diameter<br><b>2.0 inches</b> |
| Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/><br>State Plane <b>561,158 N, 827,629 E S/C/N</b> |                            |  | Local Grid Location<br><input type="checkbox"/> N <input type="checkbox"/> E<br><input type="checkbox"/> S <input type="checkbox"/> W |  |  |
| SE 1/4 of SW 1/4 of Section 26, T 21 N, R 17 E  |                            |  | Lat <b>44° 15' 31.9"</b>  | Long <b>-88° 24' 21.6"</b>                 |  |
| Facility ID   | County<br><b>Outagamie</b> | County Code<br><b>45</b>                 | Civil Town/City/ or Village<br><b>Appleton</b>  |  |  |

| Sample Number and Type | Length Att. & Recovered (in) | Blow Counts | Depth In Feet | Soil/Rock Description And Geologic Origin For Each Major Unit                                   | U S C S | Graphic Log | Well Diagram | PID/FID | Soil Properties      |                  |              |                  |       | RQD/ Comments |                                |
|------------------------|------------------------------|-------------|---------------|---|---------|-------------|--------------|---------|----------------------|------------------|--------------|------------------|-------|---------------|--------------------------------|
|                        |                              |             |               |   |         |             |              |         | Compressive Strength | Moisture Content | Liquid Limit | Plasticity Index | P 200 |               |                                |
| S-1 CS                 | 60<br>30                     |             | 0.5           | SILTY SAND, brown, with organics, soft, moist. Topsoil.   | TOPSOIL |             |              | 0.3     |                      |                  |              |                  |       |               |                                |
|                        |                              |             | 1.0           | SILTY SAND, with some reddish brown silty clay, trace cinders, trace gravel, soft, moist. Fill. |         |             |              | 0.1     |                      |                  |              |                  |       |               | SB303 2-4' collected at 2:16PM |
| S-2 CS                 | 60<br>30                     |             | 5.0           |   | SM      |             |              | 0.8     |                      |                  |              |                  |       |               |                                |
|                        |                              |             | 8.0           | Soil becomes very soft, very moist, yellow brick pieces encountered at 8.5'.                    |         |             |              | 0.5     |                      |                  |              |                  |       |               |                                |
|                        |                              |             | 9.5           | SILTY SAND, brown, trace gravel, very soft, very moist. Fill.                                   | SM      |             |              |         |                      |                  |              |                  |       |               |                                |
|                        |                              |             | 10.0          | SILT, dark brown, some woodchips, trace   | MLS     |             |              |         |                      |                  |              |                  |       |               |                                |


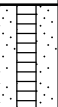

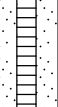




















I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm **OMNNI Associates Inc., a Westwood Company** Tel: (920) 735-6900  
1 N. Systems Drive Appleton, WI 54914 Fax:

Boring Number **SB303**

Use only as an attachment to Form 4400-122.

Page 2 of 2

| Sample             |                                 | Blow Counts | Depth In Feet | Soil/Rock Description<br>And Geologic Origin For<br>Each Major Unit                                       | U S C S | Graphic<br>Log   | Well<br>Diagram   | PID/FID | Soil Properties         |                     |                 |                     |       | RQD/<br>Comments |
|--------------------|---------------------------------|-------------|---------------|---|---------|--|---|---------|-------------------------|---------------------|-----------------|---------------------|-------|------------------|
| Number<br>and Type | Length Att. &<br>Recovered (in) |             |               |   |         |  |   |         | Compressive<br>Strength | Moisture<br>Content | Liquid<br>Limit | Plasticity<br>Index | P 200 |                  |
| S-3<br>CS          | 60<br>36                        |             | 10.5          | sand, very soft, very moist. Fill.  |         |  |   | 0.6     |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 11.0          | SILTY CLAY, brown, very soft, very moist. Fill.   | CL      |    |    |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 12.0          | SILT, brown, some sand, very soft, wet. Fill.   | MLS     |    |    | 119.1   |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 13.0          | SAND, dark brown with black staining, foundry sand, petroleum odor, sheen on water, very soft, wet. Fill. | SW      |    |    |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 13.5          | From 13.5-14.5 feet silty clay, brown, very soft, very moist.   | CL      |    |    | 200.2   |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 14.0          | From 14.5-15 feet boulder.  | BLDRCB  |    |    |         |                         |                     |                 |                     |       |                  |
| S-4<br>CS          | 60<br>60                        |             | 15.0          |   | SW      |   |   |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 15.5          |   | SM      |  |  | 32.2    |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 16.0          | SILTY SAND, reddish brown, intermixed with foundry sand, soft, wet. Fill.                                 | SM      |  |  |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 16.5          | Below 17 feet, no foundry sand.   | SM      |  |  |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 17.0          |   |         |  |   |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 17.5          |   |         |  |   |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 18.0          | SAND, brown, some silt, and gravel, soft, wet.  | SP-SM   |  |  | 1.5     |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 18.5          |   |         |  |   |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 19.0          | SILTY CLAY, brown, some sand, trace gravel, soft, wet.  | CL      |  |  |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 19.5          |   |         |  |   |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             | 20.0          | SAND AND GRAVEL, tan, stiff, wet.   | SW      |  |  |         |                         |                     |                 |                     |       |                  |
|                    |                                 |             |               | End of boring at 20 feet.   |         |  |   |         |                         |                     |                 |                     |       |                  |

SB303  
14-16'  
collected at  
2:19PM

SB303  
18-20'  
collected at  
2:25PM