

To: Wisconsin DNR	
Northern Region Headquarters	
107 Sutliff Avenue	
Rhineland, WI 54501-0818	
Date: June 7, 2000	Job No. 1-023-420
Attention: Paula Schneider	
Re: Merrill - East 2 nd Street	



910 West Wingra Drive
Madison, Wisconsin 53715
(608) 251-4843
(608) 251-8655 Fax

- WE ARE SENDING YOU: Attached Under separate cover Copy of letter Change Order
 Shop drawings Prints Plans Samples Specifications

Copies	Date	No.	Description
1	6-1-00		Proposed Phase 2.5 Investigations

THESE ARE TRANSMITTED as checked below:

- | | | |
|--|---|---|
| <input type="checkbox"/> For approval | <input type="checkbox"/> Approved as submitted | <input type="checkbox"/> Resubmit ___ copies for approval |
| <input checked="" type="checkbox"/> For your use | <input type="checkbox"/> Approved as noted | <input type="checkbox"/> Submit ___ copies for distribution |
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| <input type="checkbox"/> For review and comment | <input type="checkbox"/> _____ | |

REMARKS Enclosed is a summary of the Phase 2.5 Investigations that are proposed for East 2nd Street in Merrill. Dave Kircher has reviewed the recommendations and is in agreement with the proposed scope of work. Please review the proposed scope and call me with any questions. Thank you.

COPY TO Dave Kircher, WisDOT - Dist. 7 (w/out enclosure)

SIGNED: Luke T. Hellermann, P.G.

To: WisDOT	
500 Hanson Lake Road	
P.O. Box 777	
Rhineland, WI 54501-0777	
Date: June 5, 2000	Job No. 1-023-420
Attention: Dave Kircher	
Re: Merrill - East 2 nd Street	



- WE ARE SENDING YOU: Attached Under separate cover Copy of letter Change Order
 Shop drawings Prints Plans Samples Specifications

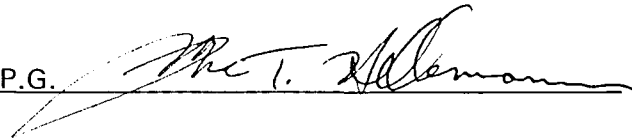
Copies	Date	No.	Description
1	6-1-00		Recommended Phase 2.5 Investigation Scopes with attachments

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit ___ copies for approval
 For your use Approved as noted Submit ___ copies for distribution
 As requested Returned for corrections Return ___ corrected prints
 For review and comment _____

REMARKS Dave, Enclosed is a summary of the known investigation results / contamination data for the various sites along East 2nd Street in Merrill. Based on our review of the data, we prepared recommendations for Phase 2.5 investigations. Please review the data and our recommendations, make changes and comment on the proposed scopes, and please call me with any questions. After we finalize the scopes with your input, we will prepare a cost estimate and then present the proposed scope with costs to the City of Merrill. Thank you.

COPY TO _____

SIGNED: Luke T. Hellermann, P.G. 

Schneider, Paula J

From: Kircher, David
Sent: Thursday, June 01, 2000 2:07 PM
To: McCue, Fredrick; Peterson, Allan
Cc: Schneider, Paula J
Subject: 2-1/2 on 4 sites ,2nd Ave Merrill,Lincoln Co

Informed Strand,Matt Yentz? to proceed on Phase 2-1/2 on 4 sites on subject project.

STH 64/East 2nd Street
I.D. 9996-03-00

Recommended Scope of Services
Phase 2.5 Investigations
June 1, 2000

Initial Comments

The proposed Phase 2.5 investigations are based on recommendations made by Strand in the May 1998 Phase 1 and January 1999 Phase 2 Reports. Phase 2 reports were prepared for the following sites: Cleaners of Merrill, Kanitz Shell, Brickner's Park City Motors, and Wonder Wash.

In addition, Phase 2.5 recommendations are based on the status reviews at several LUST sites along the corridor. The LUST sites reviewed include: Clark Oil, Domino's Pizza, Stillman's, and Adolph's Mobil.

Notes:

Geoprobe sampling equipment will be used to collect soil and groundwater samples.
Plan and profile sheets for the project are attached.
Site plans showing approximate proposed boring locations are attached.
Analytical and field screening data tables are attached.

Proposed Phase 2.5 Investigation

The purpose of a Phase 2.5 investigation is to identify the extent of contamination within the construction project that may impact construction activities, and identify potential disposal options. Phase 2.5 investigation is proposed within the East 2nd Street R/W adjacent to the following sites:

Cleaners of Merrill at 219 E. 2nd Street
Kanitz Shell at 400 E. 2nd Street
Clark Oil at 422 E. 2nd Street
Brickner's Park City Motors at 427 E. 2nd Street
Domino's Pizza at 500/504 E. 2nd Street
Stillman's at 603 E. 2nd Street
Adolph's Mobil at 612 E. 2nd Street
Wonder Wash at 701 E. 2nd Street - 03-35-260859

The following discussion addresses each site investigation in detail.

1. Cleaners of Merrill at 219 E. 2nd Street

PHASE 2.5

No R/W will be acquired.

The site has been a dry cleaner for 30+ years.

Investigation by owner of petroleum-related contamination (gasoline UST) was conducted and DNR has indicated "No Further Action" required.

Phase 2.5 Investigations
STH 64/East 2nd Street, Merrill
ID #9996-03-00

Investigation by owner of the solvent-related soil contamination has not been conducted (PVOC analyses only on soil samples).

The attached Site Plan shows the property, previous and proposed soil boring locations, and utility lines that will be replaced (highlighted).

The depth to groundwater is approximately 11 feet below ground surface (BGS).

Storm sewer and water main work will extend to a depth of approximately 8 feet BGS.

Sanitary sewer work will extend to a depth of approximately 13 feet BGS.

Work will be performed on sanitary and water service lines to the site.

Phase 2 sampling by Strand (SB-7 and SB-8) identified tetrachloroethylene (PCE) in the soil at 440 parts per billion (ppb) and in the groundwater at 7.8 ppb.

Toluene was also detected in the soil and groundwater samples.

Additional sampling is recommended north of the site to define the extent of soil and groundwater contamination within the R/W.

Seven borings are proposed.

B1 through B5:

Locate borings around the perimeter of the Phase 2 borings.

Advance borings to the maximum utility line excavation depth, 15 feet BGS.

Collect soil samples continuously for field screening.

Submit 2 soil samples per boring for analysis for VOCs.

If encountered, collect one groundwater sample from each boring.

Submit groundwater samples for analysis for VOCs.

B6 and B7:

Locate borings near Phase 2 borings SB-7 and SB-8 to better define the shallow PCE soil contamination identified at 4 to 6 feet BGS.

Advance borings to 8 feet BGS (storm sewer excavation adjacent to B6 and B7 will be to approximately 8 feet BGS).

Collect soil samples continuously for field screening.

Submit 1 soil sample from each boring for analysis for VOCs.

Note: Analytical data tables and Site Plans from the Strand Phase 2 report and from investigation conducted by others at this site are attached.

2. Kanitz Shell at 400 E. 2nd Street

PHASE 2.5

No R/W will be acquired.

Site is a former retail gas station and the no investigation has been conducted by owner.

The attached Site Plan shows the property, previous and proposed soil boring locations, and utility lines that will be replaced (highlighted).

Phase 2.5 Investigations
STH 64/East 2nd Street, Merrill
ID #9996-03-00

The depth to groundwater is approximately 10 feet BGS.
Storm sewer and water main work will extend to a depth of approximately 9 feet BGS.
Sanitary sewer work will extend to a depth of approximately 15 feet BGS.
Work will be performed on sanitary and water service lines to the site.

Phase 2 sampling by Strand identified low-level PVOCs in the soil and groundwater.
Additional sampling is recommended south of the site to assess the extent and magnitude of soil and groundwater contamination.
Five borings are proposed.

B1 through B5:

Advance borings to the maximum utility line excavation depth, 15 feet BGS.
Collect soil samples continuously for field screening.
Submit 2 soil samples per boring for analysis for GRO and PVOCs.
If encountered, collect one groundwater sample from each boring.
Submit groundwater samples for analysis for PVOCs.

Note: Analytical data tables and Site Plans from the Strand Phase 2 report are attached.

- 3. Clark Oil at 422 E. 2nd Street (active gas station),
Brickner's Park City Motors at 427 E. 2nd Street (USTs at the site), and
Domino's Pizza at 500/504 E. 2nd Street (former gas station)**

PHASE 2.5

No R/W will be acquired at these sites.

Phase 2 investigation was conducted by Strand at the Brickner's site.

No Phase 2 investigation was conducted at Clark Oil or Domino's sites, tracking of ongoing site investigations was conducted at these locations.

The attached Site Plans shows the properties, previous and proposed soil boring locations, and utility lines that will be replaced (highlighted).

The depth to groundwater is approximately 10 feet BGS near these sites.

Storm sewer and water main work will extend to a depth of approximately 9 feet BGS.

Sanitary sewer work will extend to a depth of approximately 15 feet BGS.

Work will be performed on sanitary and water service lines to the sites.

Note:

These sites are grouped together for discussion, but individual Phase 2.5 Reports are proposed for each site.

Clark Oil:

This site is an Active LUST site.

The DNR indicates no site investigation data has been submitted.

Phase 2.5 Investigations
STH 64/East 2nd Street, Merrill
ID #9996-03-00

The property owner is not responding to Strand calls for status update.
Three borings are proposed along the south edge of the site (B1, B2, and B3).

B1, B2, and B3:

Locate borings along southern edge of site.
Advance borings to the maximum utility line excavation depth, 15 feet BGS.
Collect soil samples continuously for field screening.
Submit 2 soil samples per boring for analysis for GRO, DRO, PVOCs, and lead.
If encountered, collect one groundwater sample from each boring.
Submit groundwater samples for analysis for VOCs, GRO, DRO, and lead.

Brickner's:

Subsequent to Strand's Phase 2 sampling, no investigation has been conducted by the property owner.
Phase 2 sampling identified low-level PVOCs in the soil and groundwater.
Additional sampling is recommended to assess the extent and magnitude of soil and groundwater contamination in the areas of proposed utility line work.
These borings may also be useful in determining the extent of contamination from the Clark Oil site.
Three borings are proposed (B4, B5, and B6).

B4, B5, and B6:

Locate borings around perimeter of Phase 2 borings (SB-1 and SB-2) to better define the petroleum-related contamination.
Advance borings to the maximum utility line excavation depth, 15 feet BGS.
Collect soil samples continuously for field screening.
Submit 2 soil samples per boring for analysis for GRO and PVOCs.
If encountered, collect one groundwater sample from each boring.
Submit groundwater samples for analysis for PVOCs.

Domino's Pizza:

Site investigation by the owner identified soil and groundwater contamination along the south side of the site.
It appears the soil contamination identified may be outside the construction area or below the proposed depth of road work.
Upgrade of the sanitary sewer line ends near southwest corner of the site (excavation to approximately 12 feet BGS).
Only water main is being replaced along the south side with excavation to approximately 9 feet BGS.
Two borings are proposed (B7 and B8).

Phase 2.5 Investigations
STH 64/East 2nd Street, Merrill
ID #9996-03-00

B7 and B8:

Locate borings south of site to assess potential off-site contamination.
Advance borings to the maximum utility line excavation depth, 12 feet BGS.
Collect soil samples continuously for field screening.
Submit 2 soil samples per boring for analysis for GRO and PVOCs.
If encountered, collect one groundwater sample from the boring.
Submit groundwater sample for analysis for PVOCs.

Note: Analytical data tables and Site Plans from the Strand Phase 2 report and from investigations conducted by others are attached.

**4. Stillman's at 603 E. 2nd Street, and
Adolph's Mobil at 612 E. 2nd Street,**

PHASE 2.5

No R/W will be acquired at these sites.

No Phase 2 investigation was conducted at either site, tracking of ongoing site investigations was conducted.

The attached Site Plans shows the properties, previous and proposed soil boring locations, and utility lines that will be replaced (highlighted).

Depth to groundwater is approximately 10 feet BGS at Stillman's and 8 feet BGS at Adolph's.

Water main work will extend to a depth of approximately 9.5 feet BGS.

No storm sewer or sanitary sewer work is proposed in this area.

Work will be performed on the water service lines to the sites.

Stillman's:

Investigation by property owner is complete, closure with a deed restriction was obtained in February 1998.

It appears petroleum contamination extends north of the site into East 2nd Street R/W. Soil impacts within the R/W may be below the maximum road construction depth and may not extend laterally to the area of water main replacement.

It also appears groundwater contamination may not extend to the area of water main replacement.

Additional sampling is recommended to verify the extent of contamination in the R/W. Two borings are proposed (B1 and B2).

B1 and B2:

Locate proposed borings near boring GP16 and to the north of GP16.

Advance borings to the maximum utility line excavation depth, 10 feet BGS.

Collect soil samples continuously for field screening.

Submit 1 soil sample per boring for analysis for GRO, DRO, and PVOCs.

If encountered, collect one groundwater sample from each boring.

Phase 2.5 Investigations
STH 64/East 2nd Street, Merrill
ID #9996-03-00

Submit groundwater samples for analysis for PVOCs.

Adolph's:

Investigation by property owner is complete, closure will be requested soon.
It appears petroleum contamination extends south of the site into East 2nd Street R/W.
Soil impacts within the R/W may be below the maximum road construction depth, but groundwater impacts in the area of water main construction are likely.
Additional sampling is recommended south of the Adolph site to assess the extent of soil and groundwater contamination in the street R/W.
Three borings are proposed (B3, B4, and B5).

B3, B4, and B5:

Locate proposed borings along the south edge of the site.
Advance borings to the maximum utility line excavation depth, 10 feet BGS.
Collect soil samples continuously for field screening.
Submit 1 soil sample per boring for analysis for GRO, DRO, and PVOCs.
If encountered, collect one groundwater sample from each boring.
Submit groundwater samples for analysis for PVOCs.

Note: Analytical data tables, boring logs, and Site Plans from site investigation work performed by others are attached.

5. Wonder Wash at 701 E. 2nd Street

PHASE 2.5

No R/W will be acquired.

This site is a former retail gasoline station.

The attached Site Plan shows the property, previous and proposed soil boring locations, and utility lines that will be replaced (highlighted).

The depth to groundwater is approximately 9 feet BGS.

Storm sewer and water main work will extend to a depth of approximately 9.5 feet BGS.

No sanitary sewer work is proposed.

Work will be performed on water service line to the site.

Phase 2 sampling by Strand identified low-level PVOCs in the soil and groundwater.

Additional sampling is recommended north and east of the site.

Four borings are proposed.

B1 through B4:

Locate borings near and around the perimeter of the Phase 2 borings.

Advance borings to the maximum utility line excavation depth, 10 feet BGS.

Collect soil samples continuously for field screening.

Phase 2.5 Investigations
STH 64/East 2nd Street, Merrill
ID #9996-03-00

Submit 1 soil sample per boring for analysis for GRO and PVOCs.
If encountered, collect one groundwater sample from each boring.
Submit groundwater samples for analysis for PVOCs.

Note: Analytical data tables and Site Plans from the Strand Phase 2 report are attached.

PLAN & PROFILE



NOTE: EXISTING 200mmX250mm CROSS AT STA 1+238.9 SHALL BE CAPPED N&S TO KEEP EXISTING MAIN IN SERVICE.

STA 1+238.9/4.80m LT
200mmx250mm CROSS
200mm W.V. E&W

STA 1L+014.0/2.6m LT
250mm W.V.
CONNECT TO EXISTING 250mm N

STA 0L+086.0/2.4m LT
250mm W.V.
CONNECT TO EXISTING 250mm S

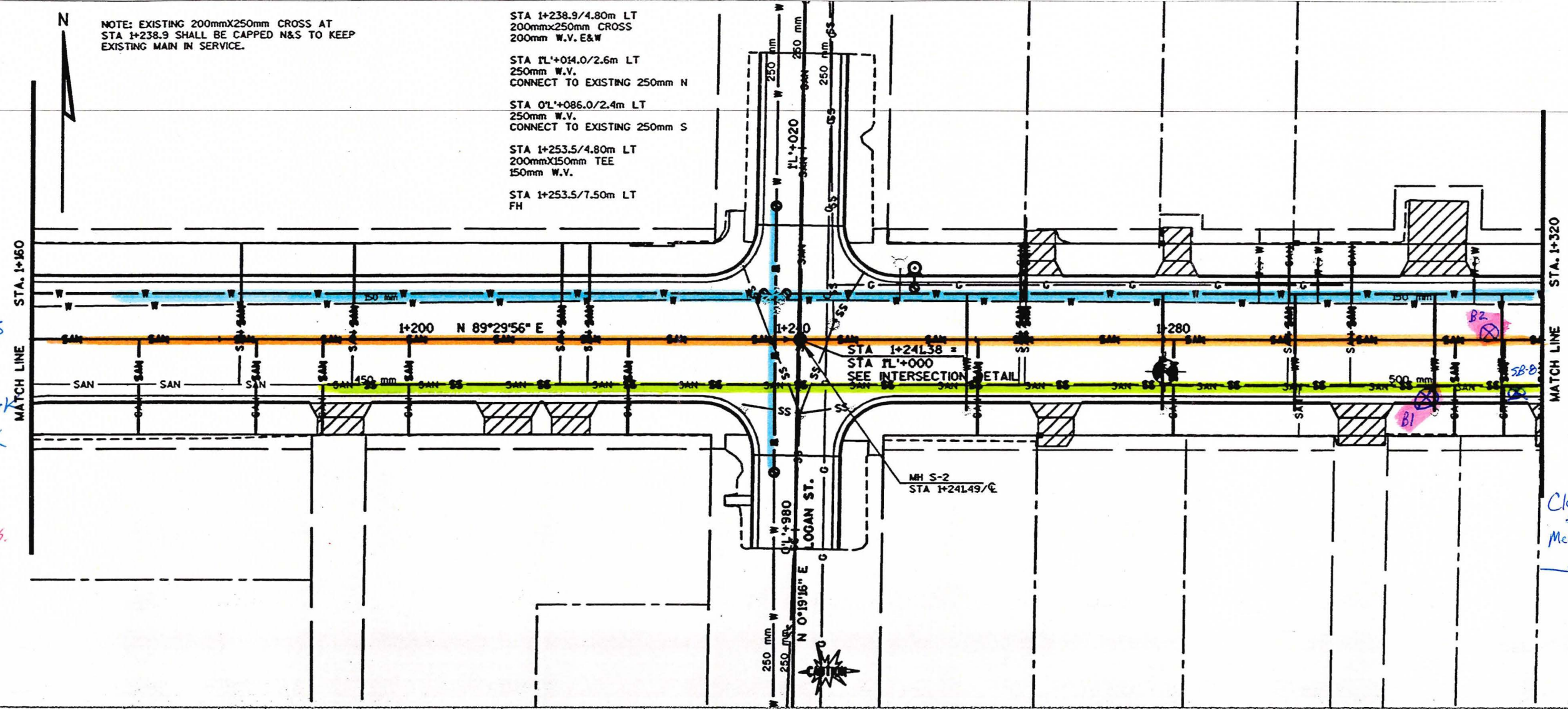
STA 1+253.5/4.80m LT
200mmX150mm TEE
150mm W.V.

STA 1+253.5/7.50m LT
FH

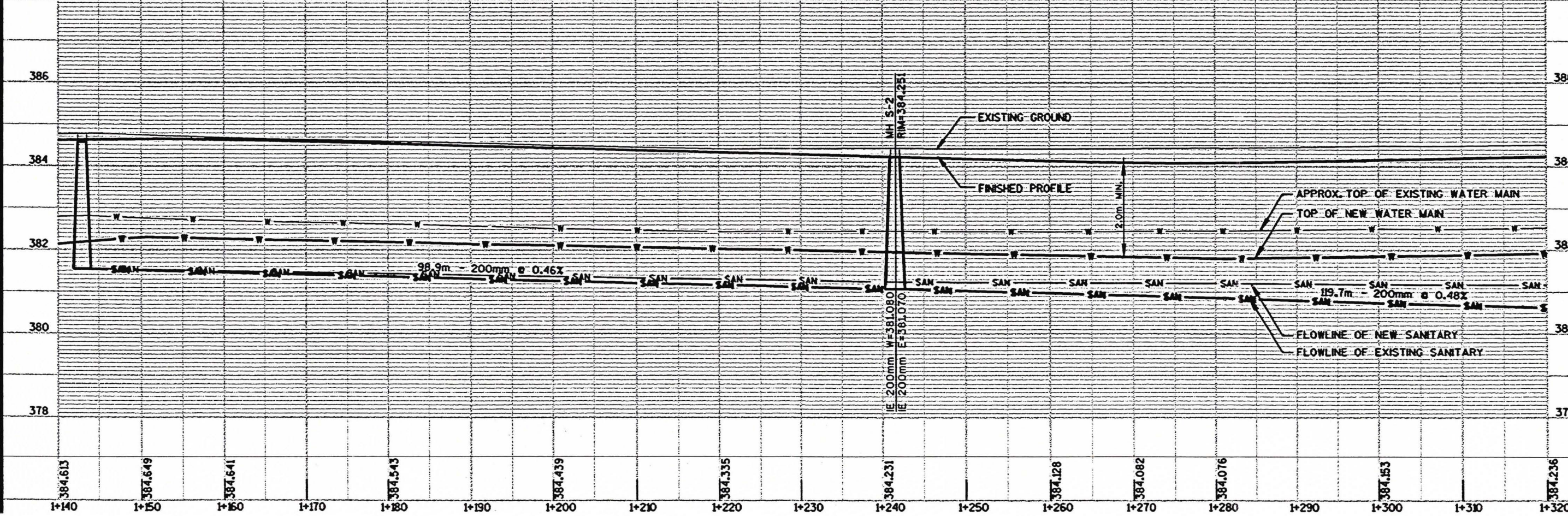
Legend

- Phase 2 Boring
- Proposed Phase 2.5 Boring
- Water Main Work
- Sanitary Work
- Storm Work
- groundwater @ 11' bgs.

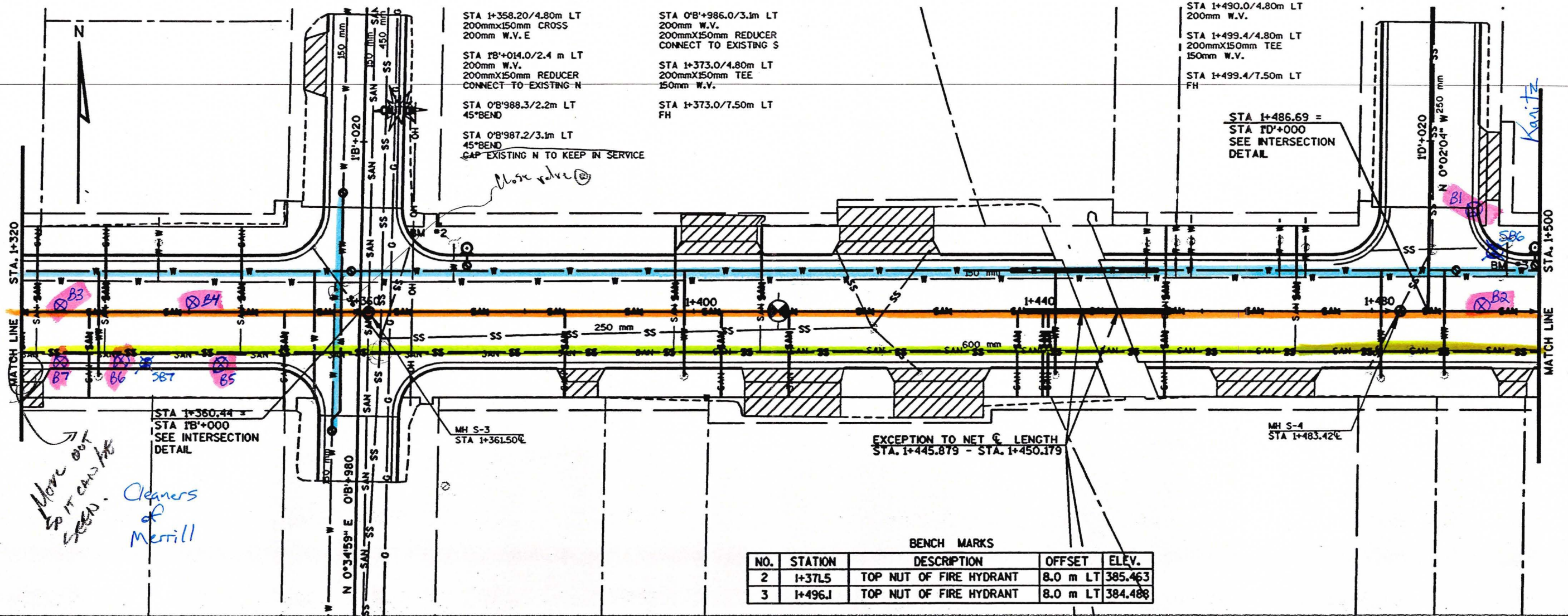
8'
13'
8'



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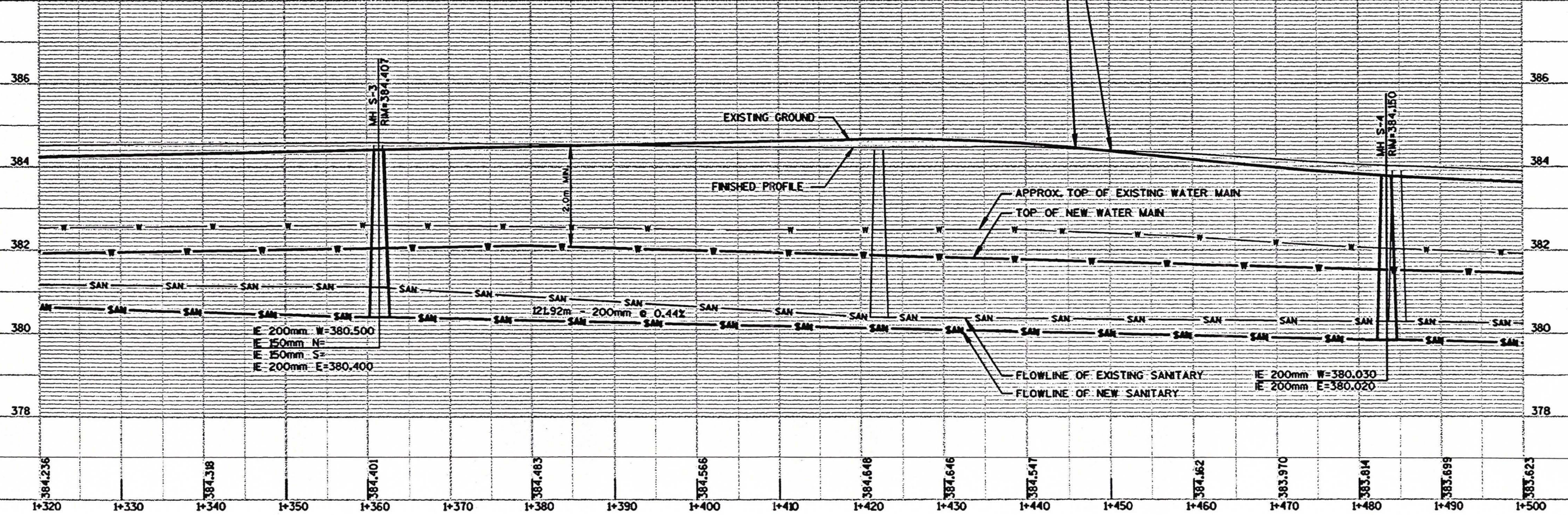


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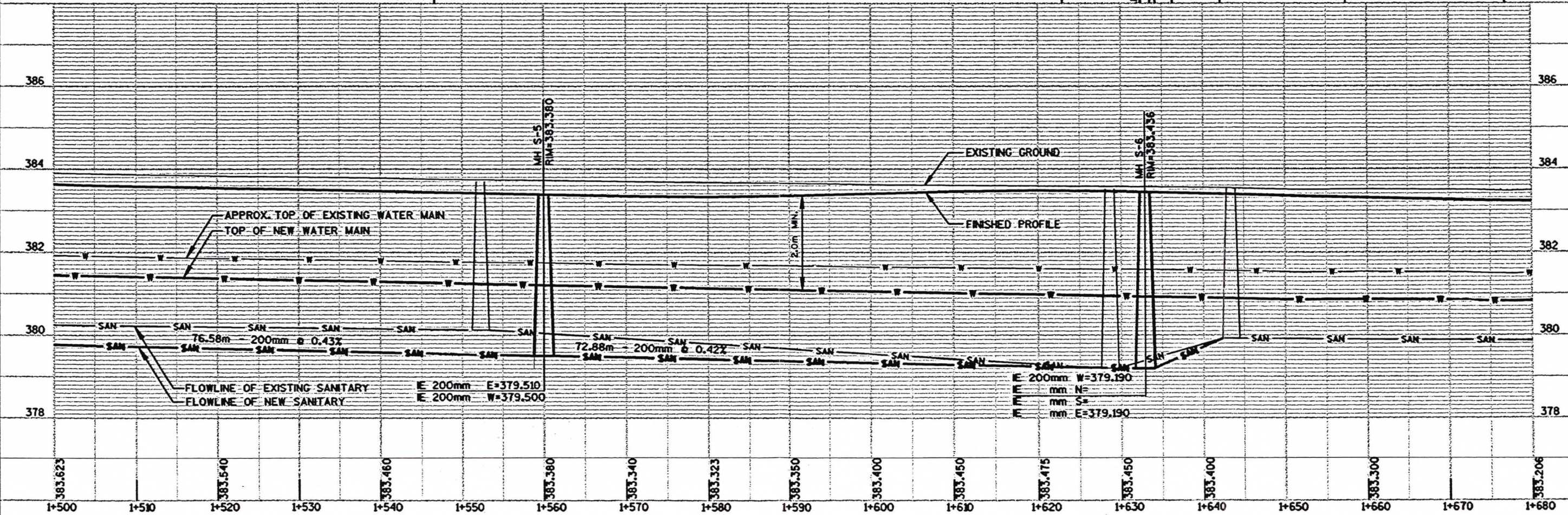
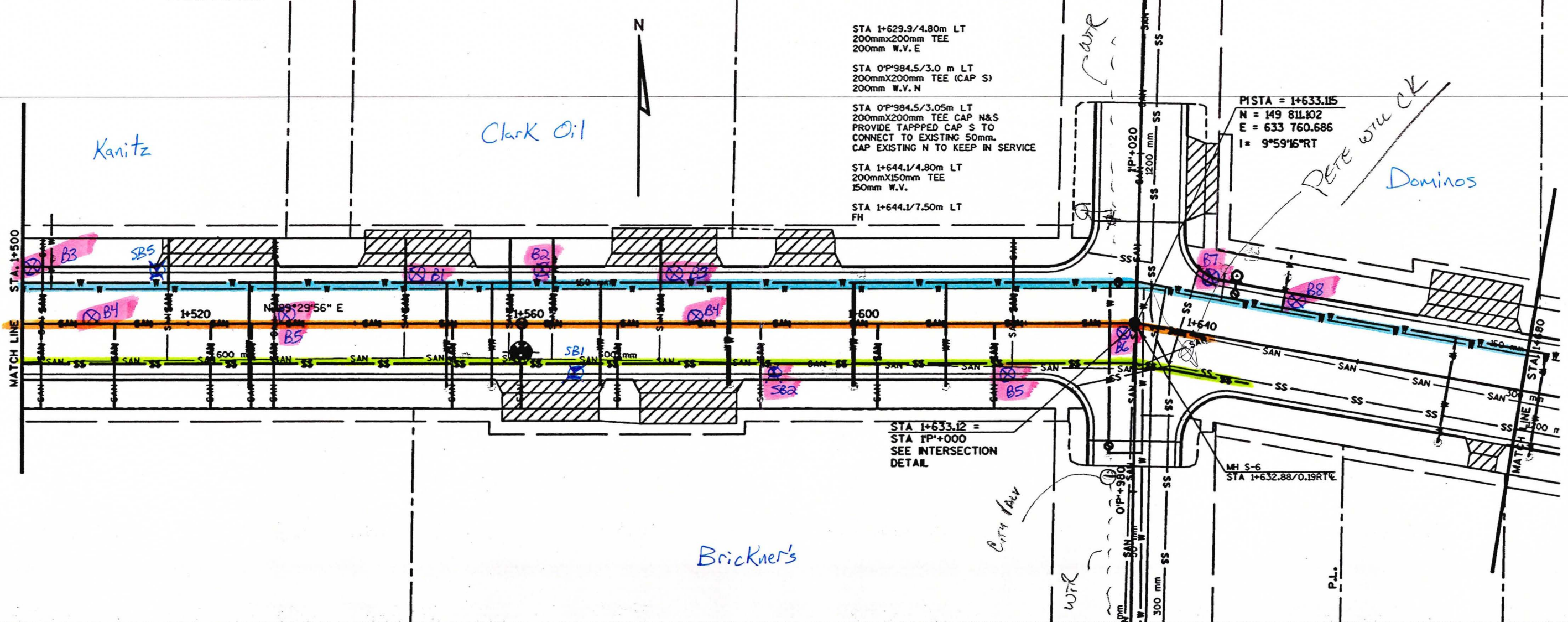


BENCH MARKS

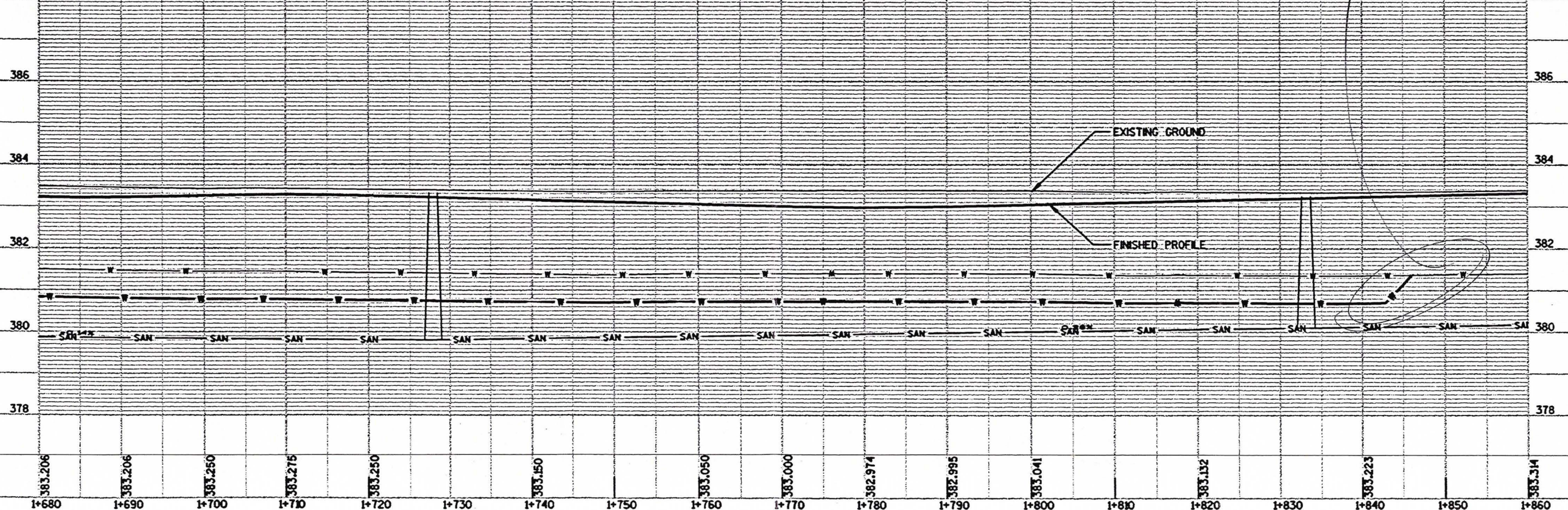
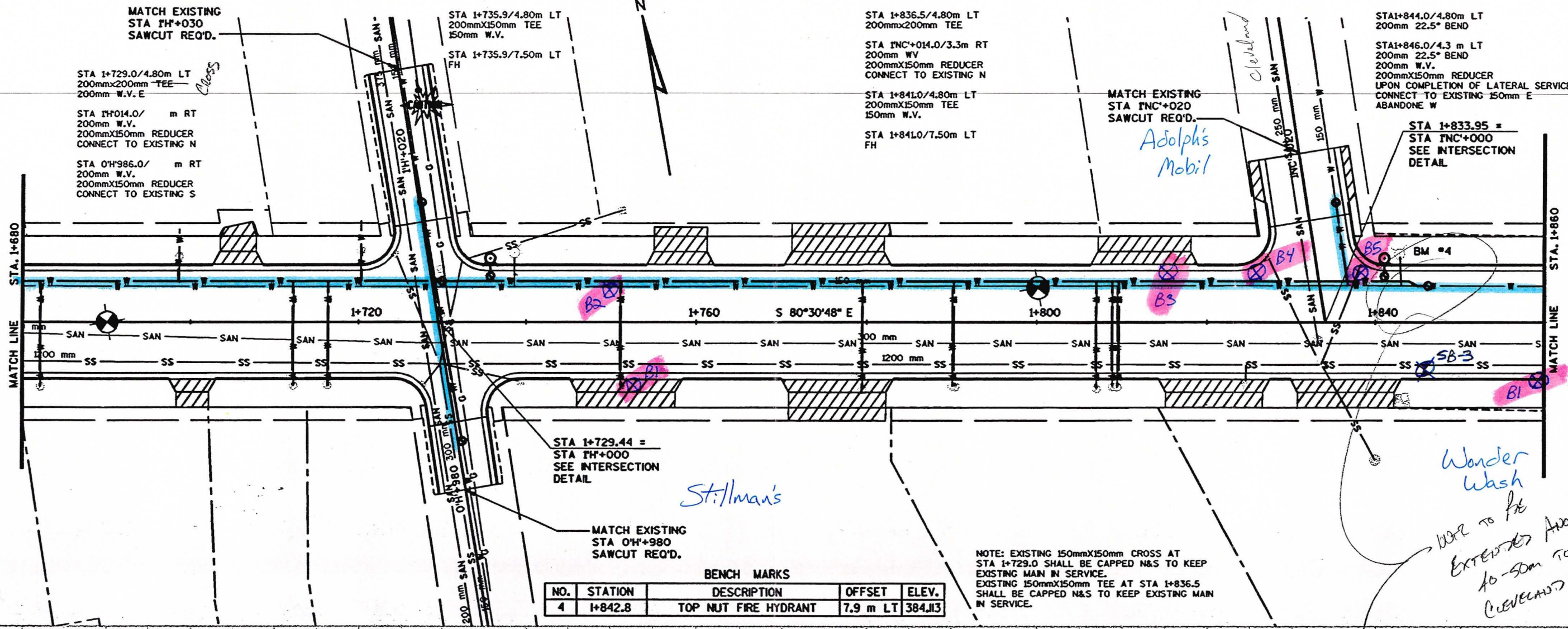
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
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3	1+496.1	TOP NUT OF FIRE HYDRANT	8.0 m LT	384.488



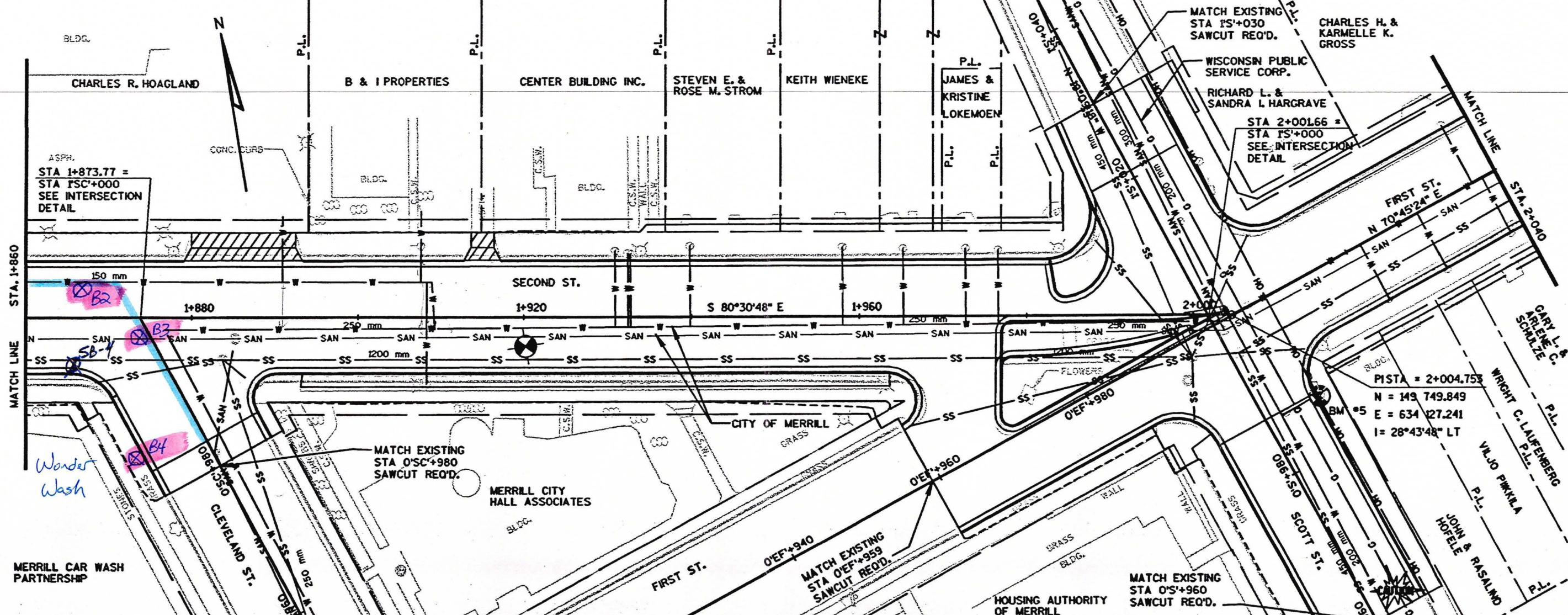
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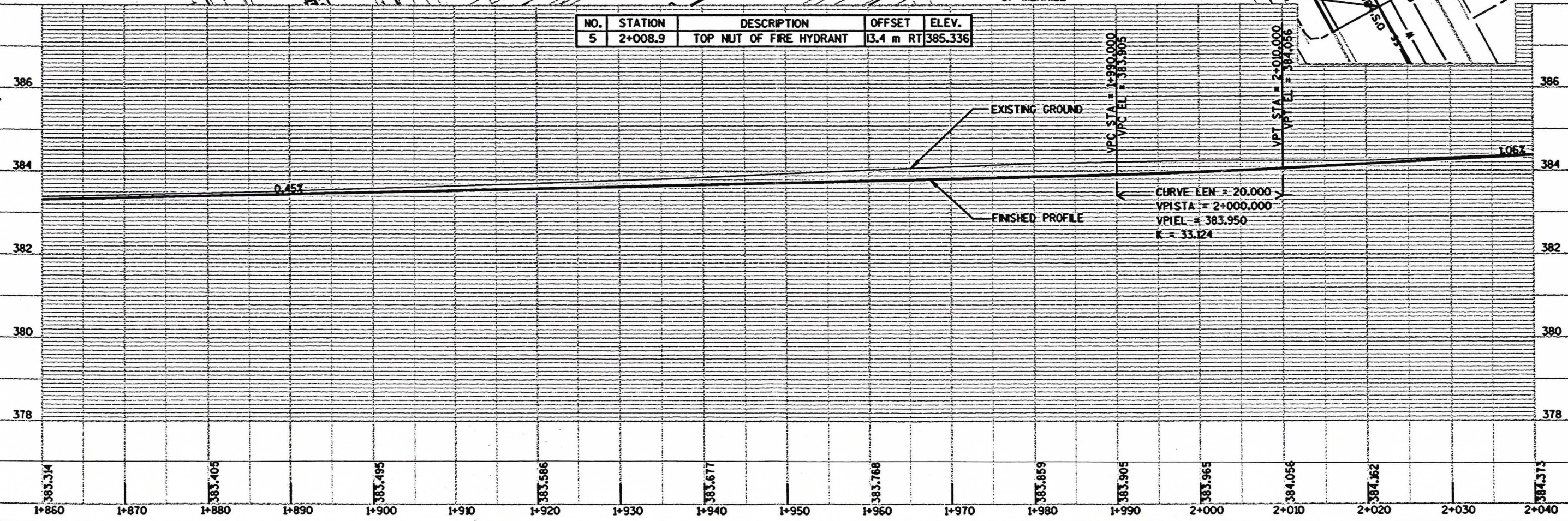
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LS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



| NO. | STATION | DESCRIPTION | OFFSET | ELEV. |
|-----|---------|-------------------------|-----------|---------|
| 5 | 2+008.9 | TOP NUT OF FIRE HYDRANT | 13.4 m RT | 385.336 |



CLEANERS OF MERRILL

Report for City of
Merrill/WisDOT

Phase 2 Environmental Site Assessment

STH 64/East Second Street
Cleaners of Merrill
ID 9996-03-00

Prepared by:

STRAND ASSOCIATES, INC.
Excellence in Engineering Since 1946
910 West Wingra Drive
Madison, WI 53715

February 1999



N

LEGEND

⊗ SOIL BORING LOCATION - Phase 2

⊙ LIGHT POST

⊙ WATER VALVE

⊗ Proposed Phase 2.5 Boring

P.L.
DONALD & VIOLET TAYLOR

HAROLD W. &
DORIS S. DAHLKE

ASPH.

1+040

1B+020

0+960 N 0°34'59" E 0'B+980

BLANE ST.

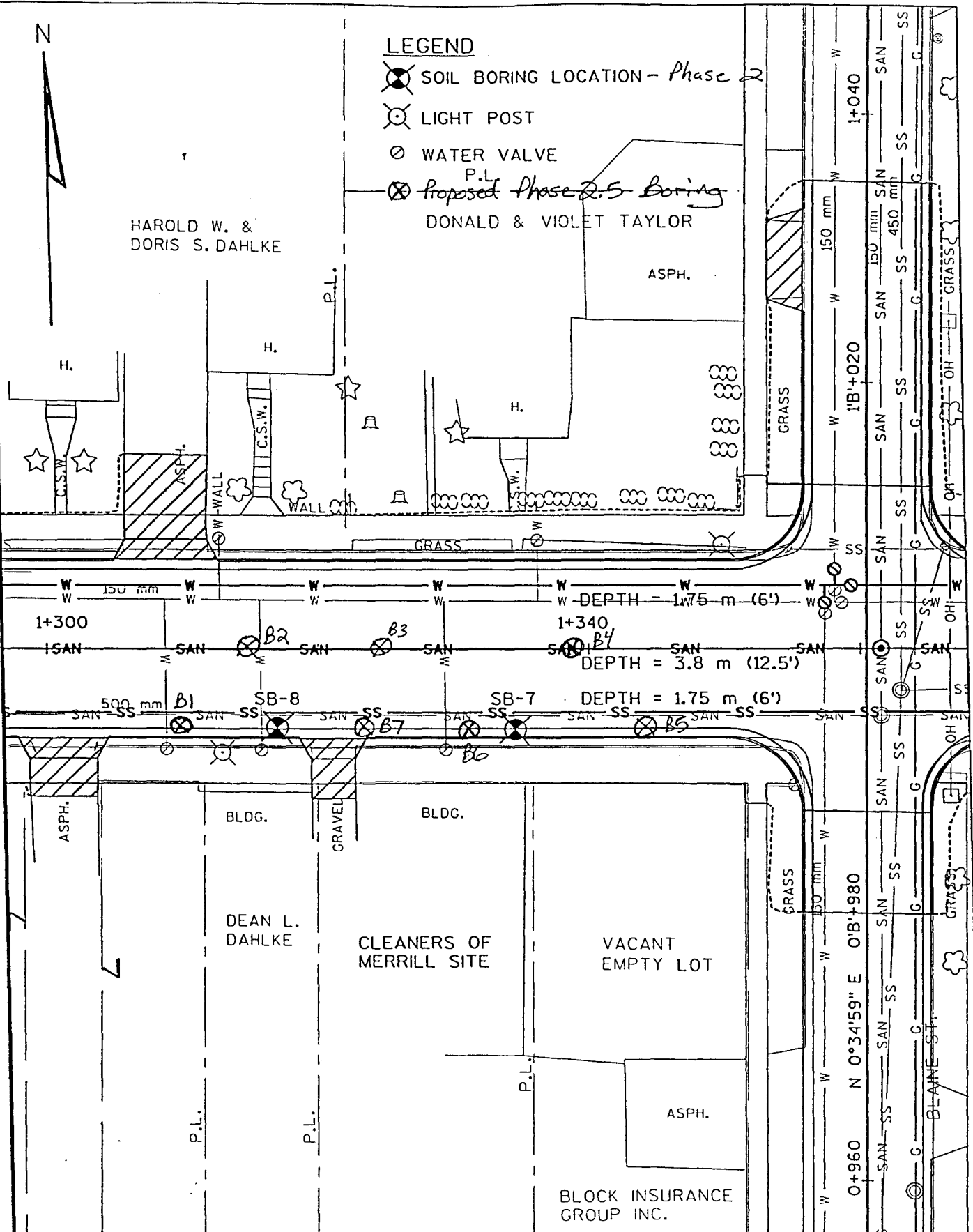


FIGURE 2.01-2

STH 64/EAST SECOND STREET - MERRILL
CLEANERS OF MERRILL
PHASE 2 SITE PLAN



depths (71 and 110 $\mu\text{g}/\text{kg}$, respectively). There were no detections of other VOCs or GRO, in the soil samples analyzed.

No groundwater sample could be obtained at soil boring SB-7 because the borehole collapsed several times and a temporary well could not be installed. The groundwater sample collected from a temporary well installed in soil boring SB-8 was analyzed for VOCs. Groundwater analytical results are presented in Table 3.02-3. A PCE concentration of 7.8 $\mu\text{g}/\text{L}$ was detected in the sample, exceeding NR 140 Enforcement Standard (ES) of 5 $\mu\text{g}/\text{L}$. There were no detections of other VOCs in the sample.

Copies of the laboratory analytical reports for the soil and groundwater samples are included in Appendix D.

Field Screening Results (PID) - Cleaners of Merrill
 STH 64/East Second Street - Merrill, WI

| Sample Depth, Ft. | Boring Number | |
|-------------------|---------------|------|
| | SB-7 | SB-8 |
| 0 - 2 | NR | NR |
| 2 - 4 | 2.4 | 2.0* |
| 4 - 6 | 2.4 | NR |
| 6 - 8 | 2.8* | 1.9 |
| 8 - 10 | 2.8 | NR |
| 10 - 12 | 2.9* | 2.3* |
| 12 - 16 | NR | EOB |
| | EOB | |

Notes:

* Sample retained for laboratory analysis.

NR Not recoverable.

EOB End of boring.

Samples collected November 4, 1998.

**Soil Analytical Results - Cleaners of Merrill
STH 64/East Second Street - Merrill, WI**

| Parameter | NR 720
RCL | Boring Number | | | |
|---|------------------|----------------|------------------|----------------|------------------|
| | | SB-7
6-8 ft | SB-7
10-12 ft | SB-8
2-4 ft | SB-8
10-12 ft |
| GRO, mg/kg | 250 ¹ | <2.6 | <2.6 | <2.7 | <2.7 |
| Detected VOCs, $\mu\text{g}/\text{kg}$: | | | | | |
| Methylene chloride | -- | 66 | 52 | 82 | 81 |
| Tetrachloroethene | -- | <25 | 39 | 440 | <25 |
| Toluene | 1,500 | <25 | 3100 | 71 | 110 |

Notes: Samples collected November 4, 1998.
Limits of Detection (LOD) and Limits of Quantification (LOQ) as specified in laboratory report in Appendix D.

¹ Assumes hydraulic conductivity less than 1×10^{-6} cm/s.

RCL Residual Contaminant Level.

Highlighted value exceeds NR 720 RCL standard.

Methylene chloride is a common lab contaminant and was detected in the methanol blank

**Groundwater Analytical Results - Cleaners of Merrill
STH 64/East Second Street - Merrill, WI**

| <u>Parameter</u> | <u>NR 140
ES/PAL</u> | <u>Temp. Well
SB-8</u> |
|-----------------------------|--------------------------|----------------------------|
| <u>Detected VOCs, µg/l:</u> | | |
| Methylene chloride | 5/0.5 | <0.36 |
| Tetrachloroethene | 5/0.5 | 7.8 |
| Toluene | 343/68.6 | < 0.27 |

Notes: Samples collected November 4, 1998.
 ES Enforcement Standard.
 PAL Preventive Action Limit.
 7.8 Highlighted value exceeds NR 140 ES Standard.



MAR 07 2000

March 6, 2000

City of Merrill
Attn: Mr. Chuck Pierotti
City Engineer
1004 East First Street
Merrill, WI 54452

Subject: Subsurface Investigation Results
The Cleaners of Merrill
219 East Second Street
Merrill, Wisconsin
Maxim Project #9914200


Dear Mr. Pierotti:

On behalf of our client, Mr. Gary Schuster - owner/operator of The Cleaners of Merrill, Maxim is providing a copy of the subsurface investigation report to the City of Merrill. The report details results of subsurface soil and groundwater sampling conducted at the above referenced site on December 30, 1999. Also enclosed is a copy of the WDNR response letter indicating that they are not requiring further investigation at this time.

If you have any questions regarding this project, please feel free to contact me at 715/845-4100.

Sincerely,

MAXIM TECHNOLOGIES, INC.°


Marsha A. Meurette
Environmental Scientist

MAM/mam
F: 8100www.jobs9914200.com
Enclosure

pc: Gary Schuster, 219 East Second Street, Merrill, WI 54452

555 South 72nd Avenue • Wausau, WI 54401 • Telephone: 715/845-4100 • Fax: 715/842-0381

"Providing Cost-Effective Solutions to Clients Nationwide"





February 24, 2000

Wisconsin Department of Natural Resources
Attn: Mr. Bill Schultz
107 Sutliff Avenue
Rhineland, WI 54501-3349

COPY

Subject: Subsurface Investigation / Geoprobe™ Installation
The Cleaners of Merrill
219 East Second Street
Merrill, Wisconsin
Maxim Project #9914200

Dear Mr. Schultz:

In conjunction with the city of Merrill's Highway 64 (East Second Street) roadway expansion project, abbreviated Phase 2 site assessments were conducted in the fall of 1998 by Strand Associates, Inc., in the highway right-of-way at select locations along East Second Street in the city of Merrill, Wisconsin. The Cleaners of Merrill site, owned and operated by Mr. Gary Schuster, was one of the locations assessed by Strand. Phase 2 assessment results indicated a concentration of toluene [3.1 parts-per-million (ppm)] in excess of the NR 720 1.5 ppm toluene cleanup standard was present in one soil boring soil sample (SB-7) collected from 10-12 feet below land surface (bls). SB-7 was installed at the northeast corner of Mr. Schuster's property in the highway right-of-way (Figure 1). A concentration of tetrachloroethene [7.8 parts-per-billion (ppb)] in excess of the NR 140 5 ppb tetrachloroethene (PCE) enforcement standard (ES) was detected in the groundwater sample collected from soil boring (SB-8) installed near the northwest corner of Mr. Schuster's property in the highway right-of-way (Figure 1).

In response to a letter from the Department of Natural Resources requesting further investigation of the dry cleaning solvent and petroleum contamination identified in Strand's assessment, Maxim Technologies, Inc.® (Maxim), conducted additional subsurface investigative activities for Mr. Gary Schuster. On December 30, 1999, Maxim oversaw the installation of five Geoprobe™ borings performed by SGS, Inc., Merrill, Wisconsin, at various locations around The Cleaners site including near the previously installed soil borings. Maxim collected both soil and groundwater samples from each probe with the exception of GP-4, from which a groundwater sample could not be collected due to insufficient sample volume.

Results

Soil samples were submitted for the analysis of gasoline range organics/petroleum volatile organic compounds (GRO/PVOC) and lead (Pb). GRO/PVOC compound concentrations were not detected in excess of corresponding NR 720 residual contaminant levels for any of the five soil probe soil samples. In particular, soil analytical results from GP-1 (19-21 feet bls) placed approximately 1 foot west of SB-7 (which previously exhibited toluene contamination) indicated toluene was not present above the laboratory limit of detection (<0.025 ppm). Soil analytical results also indicated that with the exception of GP-3, concentrations of lead were not detected in excess of the NR 720 50 ppm non-industrial direct contact standard. GP-3, installed in the former 510 gallon leaded gasoline UST grave, exhibited an elevated lead concentration of 117 ppm. Additional results from synthetic precipitation leaching

procedure (SPLP) analysis on GP-3 soil indicate that an in-situ soil concentration of 117 ppm lead may not be fully protective of groundwater since GP-3 exhibited a SPLP-lead result of 17 ppb, which exceeds the 1.5 ppb NR 140 preventive action limit (PAL) and the 15 ppb NR 140 enforcement standard (ES) (Table 1).

Groundwater samples were submitted for the analysis of volatile organic compounds (VOC). A comparison between GP-2 (placed approximately 1-2 feet east of SB-8) and SB-8 which previously exhibited PCE contamination, indicated that PCE (0.733 ppb) was not present in excess of the 5 ppb NR 140 ES. However, GP-3 exhibited a PCE concentration (13.3 ppb) in excess of the ES. No other VOC compounds were detected in excess of corresponding NR 140 standards in any of the remaining soil probes (Table 2).


Conclusions/Recommendations

Based on the close proximity of WDNR listed project sites to The Cleaners site, the nature of the sandy subsurface soils, the analytical results to date indicating site soils are not impacted with petroleum compounds, and given that groundwater is most likely flowing to the south toward the Prairie River, it is likely that the petroleum contamination (toluene) detected in the initial assessment originated from an off-site source. And although an isolated groundwater PCE concentration has been detected in excess of the NR 140 ES, analytical results to date support the conclusion that off-site migration does not appear to be occurring as groundwater samples collected from the perimeter of the property did not exhibit solvent impaction. In addition, various contaminant attenuating processes must be occurring as evidenced by the initial detection of PCE in the groundwater collected from SB-8 in November 1998 and the subsequent groundwater analysis conducted at GP-2 in December 1999 which indicated PCE was not present above the laboratory limit of detection. Lastly, the localized identification of lead in the soil at GP-3 (12-16 feet bls) does not pose a threat of direct contact, however a threat to the groundwater may exist based on SPLP results.

Therefore, based on the minimal degree and extent of lead and PCE impaction identified at The Cleaners site, considering it has been operated as a dry cleaning facility for approximately 30 years, and the apparent isolation of the contamination to within the property boundary, Maxim believes extensive remedial clean-up actions are not warranted. However, on behalf of Mr. Gary Schuster, Maxim respectfully requests WDNR review of site information collected to date, in order to determine whether or not the site could be submitted for a type of restricted case closure (such as with a property deed instrument).

If you have any questions regarding this project, please feel free to contact me at 715/845-4100.

Sincerely,
MAXIM TECHNOLOGIES, INC.®


Marsha A. Meurette
Environmental Scientist

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pc: Gary Schuster, 219 East Second Street, Merrill, WI 54452

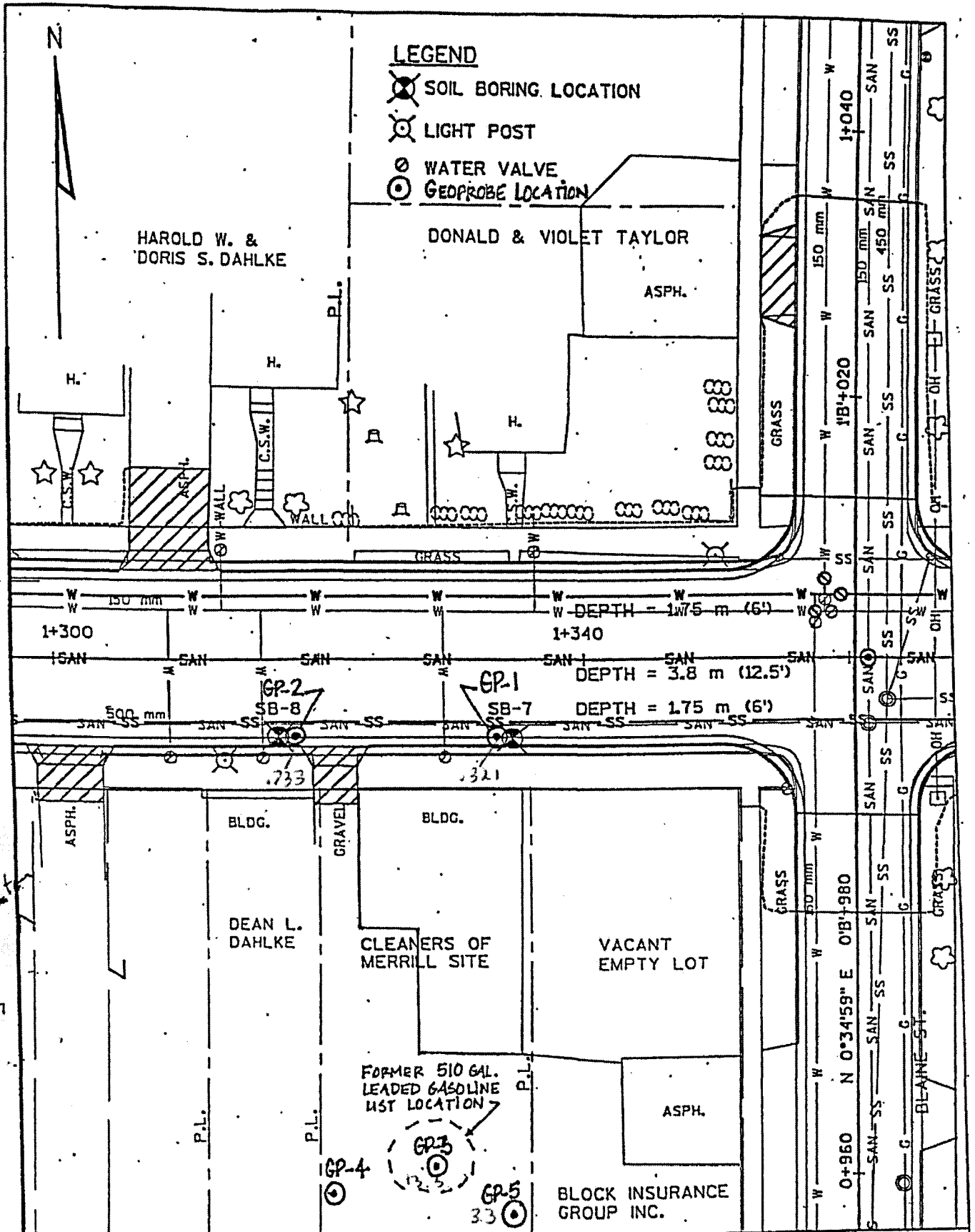


FIGURE
 Scale: 1" = 35'

The Cleaners of Merrill
 219 East Second Street (HWY 64)
 Merrill, Wisconsin
 Maxim Proj. #9914200

Maxim Technologies
 555 S 72nd Ave
 Wausau, WI 54401

TABLE 1
CHEMICAL ANALYSIS OF SOIL AND SOIL LEACHATE
THE CLEANERS OF MERRILL
MERRILL, WISCONSIN
MAXIM #9914200

| BORING ID | SB-7 | GP-1 | SB-8 | GP-2 | GP-3 | GP-4 | GP-5 | NR 720
SOIL
CLEANUP
STANDARDS | |
|--|---------|----------|---------|----------|----------|--------|--------|---|--|
| DEPTH (feet bls) | 10-12 | 19-21 | 2-4 | 12-16 | 12-16 | 12-16 | 12-16 | | |
| DATE SAMPLED | 11/4/98 | 12/30/99 | 11/4/98 | 12/30/99 | 12/30/99 | | | | |
| PARAMETER (ppm) | | | | | | | | | |
| GRO | <2.6 | <5.59 | <2.7 | <6.13 | <5.45 | <6.06 | <6.00 | 100* | |
| Lead | - | 1.04 | - | 0.761 | 117** | 0.909 | <0.636 | 50 - Non-Ind.
500 - Ind.
(direct contact stnds) | |
| PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) | | | | | | | | | |
| Benzene | - | <0.025 | - | <0.025 | <0.025 | <0.025 | <0.025 | 0.0055 | |
| Toluene | 3.100 | <0.025 | 0.071 | <0.025 | <0.025 | <0.025 | <0.025 | 1.5 | |
| Ethylbenzene | - | <0.025 | - | <0.025 | <0.025 | <0.025 | <0.025 | 2.9 | |
| Total Xylenes | - | <0.025 | - | <0.025 | <0.025 | <0.025 | <0.025 | 4.1 | |
| 1,3,5 Trimethylbenzene | - | <0.025 | - | <0.025 | <0.025 | <0.025 | <0.025 | --- | |
| 1,2,4 Trimethylbenzene | - | <0.025 | - | <0.025 | <0.025 | <0.025 | <0.025 | --- | |
| MTBE | - | <0.025 | - | <0.025 | <0.025 | <0.025 | <0.025 | --- | |

GP-1 placed approximately 1 foot west of SB-7, and GP-2 placed approximately 1-2 feet east of SB-8

bls = below land surface

mg/kg = milligrams per kilogram (parts-per-million)

* standard corresponds to permeable soils
(hydraulic conductivity > 10 E-6 cm/s)

Non-Ind. = Non-Industrial residual direct contact standard

ppm = parts per million which is equivalent to milligrams per kilogram (mg/kg)

** value exceeds the non-industrial standard but is less than the industrial standard, however the sample was collected from 12-16 feet below land surface and therefore does not pose a direct contact threat.

Shading indicates a generic soil standard exceedance

- = No value reported

--- = No soil standard currently applicable

Boring locations are depicted in Figure 1

Ind. = Industrial residual direct contact standard

| BORING ID | GP-3 | NR 140
PREVENTIVE
ACTION LIMIT | NR 140
ENFORCEMENT
STANDARD | | |
|--|----------|--------------------------------------|-----------------------------------|--|--|
| DEPTH (feet bls) | 12-16 | | | | |
| DATE SAMPLED | 12/30/99 | | | | |
| PARAMETER (ppb) | | | | | |
| Synthetic Precipitation
Leaching Procedure
SPLP - Lead | 17 | 1.5 | 15 | | |

shading indicates a preventive action limit exceedance

ppb = parts per billion which is equivalent to micrograms per liter (ug/L)

**TABLE 2
CHEMICAL ANALYSIS OF GROUNDWATER
THE CLEANERS OF MERRILL
MERRILL, WISCONSIN
MAXIM #9914200**

| BORING ID | GP-1 | SB-8 | GP-2 | GP-3 | GP-5 | NR 140
PREVENTIVE
ACTION LIMIT | NR 140
ENFORCEMENT
STANDARD |
|---|----------|---------|----------|----------|----------|--------------------------------------|-----------------------------------|
| DATE SAMPLED | 12/30/99 | 11/4/98 | 12/30/99 | 12/30/99 | 12/30/99 | | |
| Volatile Organic Compounds (ppb) | | | | | | | |
| Benzene | <0.15 | - | | <0.75 | 0.168 | 0.5 | 5 |
| Ethylbenzene | <0.5 | - | 0.554 | <2.50 | <0.5 | 140 | 700 |
| MTBE | <0.3 | - | <0.3 | <1.5 | <0.3 | 12 | 60 |
| Methylene chloride | <0.39 | <0.36 | <0.39 | <1.95 | <0.39 | 0.5 | 5 |
| Tetrachloroethylene | 0.321 | 7.8 | 0.733 | 13.3 | 3.3 | 0.5 | 5 |
| Toluene | <0.4 | <0.27 | <0.4 | <2.00 | <0.4 | 68.6 | 343 |
| Trichloroethylene | <0.4 | - | <0.4 | <2.00 | <0.4 | 0.5 | 5 |
| Trimethylbenzenes (1,2,4 & 1,3,5) | <0.4 | - | 0.566 | <2.00 | <0.4 | 96 | 480 |
| Vinyl Chloride | <0.11 | - | <0.11 | <0.55 | <0.11 | 0.02 | 0.2 |
| Xylenes (m & p & o) | 0.704 | - | 1.25 | <2.00 | <0.4 | 124 | 620 |

GP-2 placed approximately 1-2 feet east of SB-8

- = value not reported

Shading indicates an enforcement standard exceedance

A water sample could not be collected from GP-4

No other VOC compounds were detected above the laboratory limit of detection

Boring locations are depicted in Figure 1

ppb = parts per billion which is equivalent to micrograms per liter (ug/L)