

December 31, 2002

Project Reference #7376

Ms. Gina Keenan  
Wisconsin Department of Natural Resources  
Southeast Region  
Milwaukee Service Center  
2300 N. Dr. ML King Drive  
PO Box 12436  
Milwaukee, WI 53212-0436

Re: **WORK PLAN ADDENDUM**  
Westbrook Shopping Center  
2136 E. Moreland Blvd.  
Waukesha, WI  
BRR-DERP FID #268488800

Dear Ms. Keenan:

In compliance with ch. NR169.21 (2)(e) Wis. Adm. Code, this letter has been prepared as an addendum to the Wisconsin Department of Natural Resources (WDNR) approved Sigma Environmental Services, Inc. (Sigma) August 28, 2001, work plan for subsurface investigation work at the West Brook Shopping Center. Sigma has implemented and completed the following: 1) the installation and sampling of four Geoprobe soil borings within the on-site structure to 20 feet below ground surface (bgs) with continuous sampling, 2) the advancement of four hollow stem soil borings with continuous soil sample collection and the completion of the four borings as ch. NR141 Wis. Adm. Code compliant groundwater monitoring wells, 3) well development, 4) site survey, 5) soil and groundwater disposal, and 6) the collection of up to three rounds of groundwater monitoring. Based on a review of the analytical data generated, tetrachloroethene was detected on-site in soil samples [up to 2,590 micrograms per kilograms] and groundwater samples [up to 19.9 micrograms per liter] at elevated levels. Considering the location of the detected contamination with respect to the property lines and the direction of groundwater flow (north northwest), a potential exists that impacts have migrated off-site (see attached analytical data and figures presented as Attachment 1).

In an attempt to meet the requirements of Chapter NR 716 Wis. Adm. Code and delineate the extent of identified impacts, Sigma recommends the installation of two additional monitoring wells and the completion of two rounds of groundwater monitoring for the entire monitoring well network. Two select soil samples from each boring will be submitted for laboratory analysis of EPA Method 8021 or 8260 Volatile Organic Compounds (VOCs). Upon completion of soil boring/well installation activities, each of the wells will be properly developed and the entire monitoring well network sampled for EPA Method 8021 or 8260 VOCs. All proposed wells would be tied into the site survey to assist in groundwater flow calculations and the



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WBLP

delineation of the extent of impacts. All site data generated will be included in a comprehensive site investigation report.

The scope of work and associated costs to complete the above referenced activities and delineate the extent of identified impacts are anticipated to exceed the original proposed scope of work and cost by more than \$3,000. Presented as Attachment 2 to this letter is a breakout of anticipated additional and total project site investigation costs. Please note, Sigma has identified a discrepancy between original proposed project costs (\$18,665) and the WDNR cost total (\$25,065) approved in the WDNR March 25, 2002 letter (see Attachment 3). We believe this discrepancy is due to a typo. Considering the current project status and total project costs incurred to date (\$18,228) Sigma has proceeded with the assumption that \$18,665 is the correct approved total.

To assist your evaluation and approval of the requested additional project costs, Sigma would like to provide the following additional breakdown and clarification of tasks completed and costs incurred to date.

Original Scope of Work

The original scope of work was based on limited site information and generally consisted of: 1) work plan preparation and submittal to WDNR, 2) the installation of five "15" foot soil borings/monitoring wells, 3) a site survey, and 4) "one" round of well sampling. *Costs projected and approved for these tasks was \$12,660.* Additionally as part of the original proposal, Sigma proposed the completion of a comprehensive site investigation remedial action option report for \$6,005.

Site activities completed are as follows: 1) the installation of four geoprobe soil borings within the on-site structure to depth of approximately 20 feet including soil sample collection *[geoprobe soil borings were installed within the on-site structure due to limited access to potential source areas (former dry cleaning machine locations) utilizing conventional hollow stem soil boring techniques]*, 2) the installation of three groundwater monitoring wells to 30 feet *[the additional depth of the monitoring well (30 feet vs. the proposed 15 feet) was required to reach the groundwater table]*, 3) the installation of one additional groundwater monitoring well to approximately 25 feet bgs *(the fourth monitoring well was installed based on the evaluation of data including groundwater flow direction collected from the three existing monitoring wells and in an attempt to adequately delineate the extent of impacts to soil and groundwater)*, 4) the completion of a site survey, and 5) the collection of up to three rounds of groundwater monitoring samples *(up to three rounds of groundwater monitoring were completed to establish groundwater quality conditions in the initial three wells and the additional fourth well, to confirm low level and no detection levels of analytes, and to verify groundwater flow direction)*. **Costs for the completion of these tasks totaled approximately \$18,000.** It is important to note, due to not having delineated identified contaminants in accordance with ch. NR700-736 Wis. Adm. Code and the completion of additional site activities not presented in the original scope of work (geoprobe borings to evaluate source areas, deeper wells, additional groundwater monitoring and soil sample collection), Sigma has not completed the site investigation report as referenced above.

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Proposed Additional Scope of Work

Utilizing existing site data, Sigma has recommended the following additional site activities generally consisting of: 1) work plan preparation, 2) establishing off-site access for well installation, 3) the installation of two additional groundwater monitoring wells to approximately 25 feet, 4) the collection of two complete rounds of groundwater monitoring data from the entire monitoring well network, and 5) the completion of a limited addendum site survey. ***Estimated costs for the completion of these tasks totals \$10,113.*** Upon completion of the above referenced additional tasks, Sigma has recommended the compilation of all site environmental data generated for this project into a comprehensive site investigation and remedial action option report as required under NR 700-736 and NR 169 for a cost of ***\$3,820.*** ***The total proposed change order cost is \$13,933.*** It is Sigma's opinion, that the costs presented under the original scope of work and additional scope of work are consistent with each other, with site conditions encountered, and tasks performed.

Upon your review of the attached information should you have any questions, please contact our office at (414) 768-7144.

Respectfully submitted,

SIGMA ENVIRONMENTAL SERVICES, INC.

  
James M. Westerman, CHMM  
Senior Project Manager

  
Randy E. Boness, P.G.  
Geo-sciences Group Leader

Attachment

cc: Mr. Greg Butts – Realty Management Consultants, Inc.  
Mr. Donald Gallo – Reinhart, Boerner, & Van Deuren S.C.

**ATTACHMENT 1**

Table 2  
 Soil Analytical Results  
 WBLP (Former Basket Dry Cleaner)  
 Waukesha, Wisconsin  
 Project Reference #7379

Parameter	Units	Boring 1		Boring2	GP-1			GP-2		GP-3		GP-4			NR 746 Table 1 RCL
		1/24/2002	1/24/2002	1/24/2002	4-6	10-12	18-19.5	4-6	18-20	2-4	14-16	2-4	6-8	16-18	
Volatile Organic Compounds															
Carbon Tetrachloride	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Chlorobenzene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Chloroethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Chloroform	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Chloromethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
2-Chlorotoluene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
4-Chlorotoluene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,2-Dichlorobenzene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,3-Dichlorobenzene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,4-Dichlorobenzene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Dichlorodifluoromethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,1-Dichloroethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,2-Dichloroethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
1,1-Dichloroethene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
cis-1,2-Dichloroethene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
trans-1,2-Dichloroethene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,1,2,2-Tetrachloroethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Tetrachloroethene	µg/kg	230	600	50	861	2590	391	340	232	ND	165	87.1	230	900	NS
1,2,3-Trichlorobenzene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,2,4-Trichlorobenzene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,1,1-Trichloroethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,1,2-Trichloroethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Trichloroethene	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Trichlorofluoromethane	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Vinyl Chloride	µg/kg	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS

notes:  
 µg/kg = micrograms per kilogram  
 ND = Not Detected  
 BOLD = Detected compounds  
 NS = No Established Standard  
 NR 746 Table 1 = Indicators of Residual Petroleum Product in Soil Pores

Table 2  
Soil Analytical Results  
WBLP (Former Baskin Cleaner)  
Waukesha, Wisconsin  
Project Reference #7376

Parameter	Units	MW-1			MW-2			MW-3			MW-4			NR 746
Date		05/08/2002			05/08/2002			05/08/2002			10/23/02			Table 1
Depth	Feet	4-6	12-14	24-26	2-4	14-16	24-26	4-6	12-14	20-22	1-3	11-13	17-21	RCL
<b>Volatile Organic Compounds</b>														
Carbon Tetrachloride	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Chlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Chloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Chloroform	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Chloromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
2-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
4-Chlorotoluene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,2-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,3-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,4-Dichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Dichlorodifluoromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,1-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,2-Dichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
1,1-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
cis-1,2-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
trans-1,2-Dichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,1,2,2-Tetrachloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Tetrachloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	641	710	NS
1,2,3-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,2,4-Trichlorobenzene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,1,1-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
1,1,2-Trichloroethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Trichloroethene	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Trichlorofluoromethane	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS
Vinyl Chloride	µg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS

notes:

µg/kg = micrograms per kilogram

ND = Not Detected

BOLD = Detected compounds

NS = No Established Standard

NR 746 Table 1 = Indicators of Residual Petroleum Product in Soil Pores

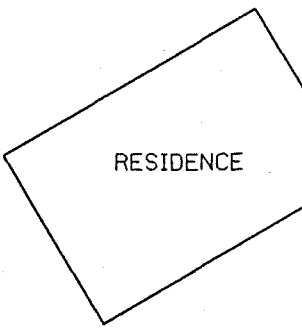
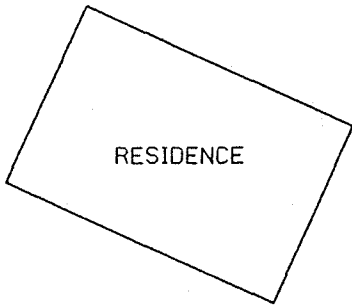
Table 3  
 Groundwater Analytical Results  
 WBEP (Former Bask Dry Cleaner)  
 Waukesha, Wisconsin  
 Project Reference #7376

Parameter	Units	MW-1			MW-2			MW-3			MW-4	NR 140	NR 140
		05/16/2002	7/11/2002	10/31/2002	05/16/2002	7/11/2002	10/31/2002	05/16/2002	7/11/2002	10/31/2002	10/31/02	ES	PAL
Volatile Organic Compounds													
Carbon Tetrachloride	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5	0.5
Chlorobenzene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NS	NS
Chloroethane	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	400	80
Chloroform	µg/l	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	<0.140	6	0.6
Chloromethane	µg/l	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	3	0.3
2-Chlorotoluene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NS	NS
4-Chlorotoluene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NS	NS
1,2-Dichlorobenzene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	600	60
1,3-Dichlorobenzene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1250	125
1,4-Dichlorobenzene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	75	15
Dichlorodifluoromethane	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1000	200
1,1-Dichloroethane	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	850	85
1,2-Dichloroethane	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5	0.5
1,1-Dichloroethene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7	0.7
cis-1,2-Dichloroethene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	70	7
trans-1,2-Dichloroethene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	100	20
1,1,2,2-Tetrachloroethane	µg/l	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	<0.350	0.2	0.02
Tetrachloroethene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.599	19.9	5	0.5
1,2,3-Trichlorobenzene	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NS	NS
1,2,4-Trichlorobenzene	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	70	14
1,1,1-Trichloroethane	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	200	40
1,1,2-Trichloroethane	µg/l	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	<0.160	5	0.5
Trichloroethene	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5	0.5
Trichlorofluoromethane	µg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NS	NS
Vinyl Chloride	µg/l	<0.170	<0.170	<0.170	<0.170	<0.170	<0.170	<0.170	<0.170	<0.170	<0.170	0.2	0.02

Notes:

- µg/l = microgram per liter
- NA = Not Analyzed
- NS = No Standard
- NR 140 = Wisconsin Administrative Code Chapter NR 140
- ES = Enforcement Standard
- PAL = Preventative Action Limit
- BOLD** = Concentration above ES
- BOLD** = Concentration above PAL

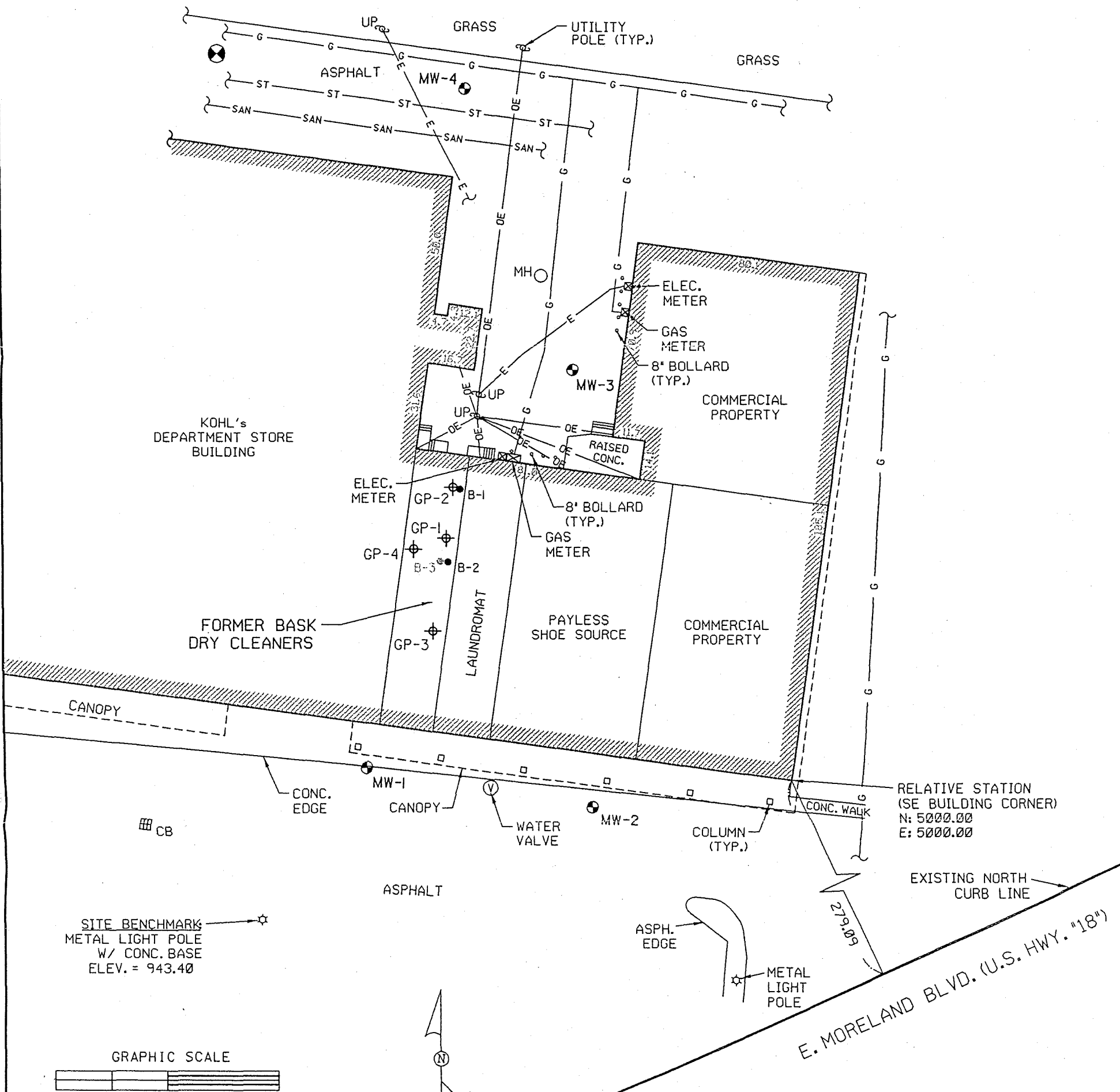
CAPELLA CT.



**LEGEND**

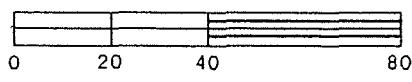
- SB ● = SOIL BORING LOCATION
- GP ⊕ = GEOPROBE BORING LOCATION
- MW ⊙ = MONITORING WELL LOCATION
- MH ○ = MANHOLE
- CB ▣ = CATCH BASIN
- UP ⊕ = UTILITY POLE
- ☆ = LIGHT POLE
- ⊕ = UTILITY VALVE
- G— = UNDERGROUND GAS LINE
- E— = UNDERGROUND ELECTRIC LINE
- OE— = OVERHEAD ELECTRIC LINE
- ST— = UNDERGROUND STORM SEWER LINE
- SAN— = UNDERGROUND SANITARY SEWER LINE
- ⊙ = PROPOSED MONITORING WELL

NOTE: SITE FEATURES NORTH OF THIS LINE NOT TO SCALE



SITE BENCHMARK  
METAL LIGHT POLE  
W/ CONC. BASE  
ELEV. = 943.40

GRAPHIC SCALE



- NOTES:
1. SITE FEATURES BASED ON SURVEY DATED 6-18-02, BY LAND INFORMATION SERVICES, INC.
  2. BORINGS NOT INCLUDED IN SURVEY.

FORMER BASK DRY CLEANERS  
E. MORELAND BLVD., WAUKESHA, WI

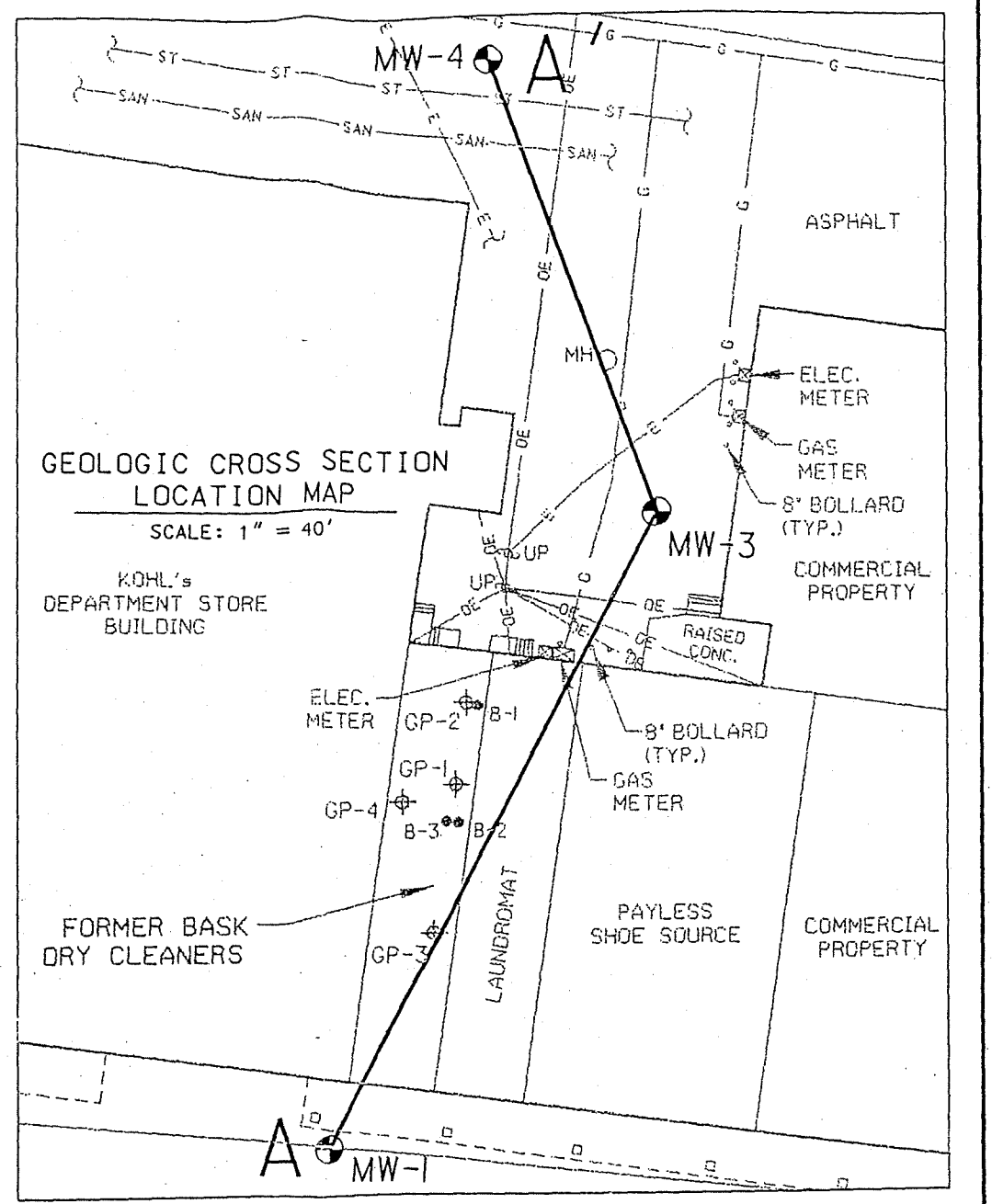
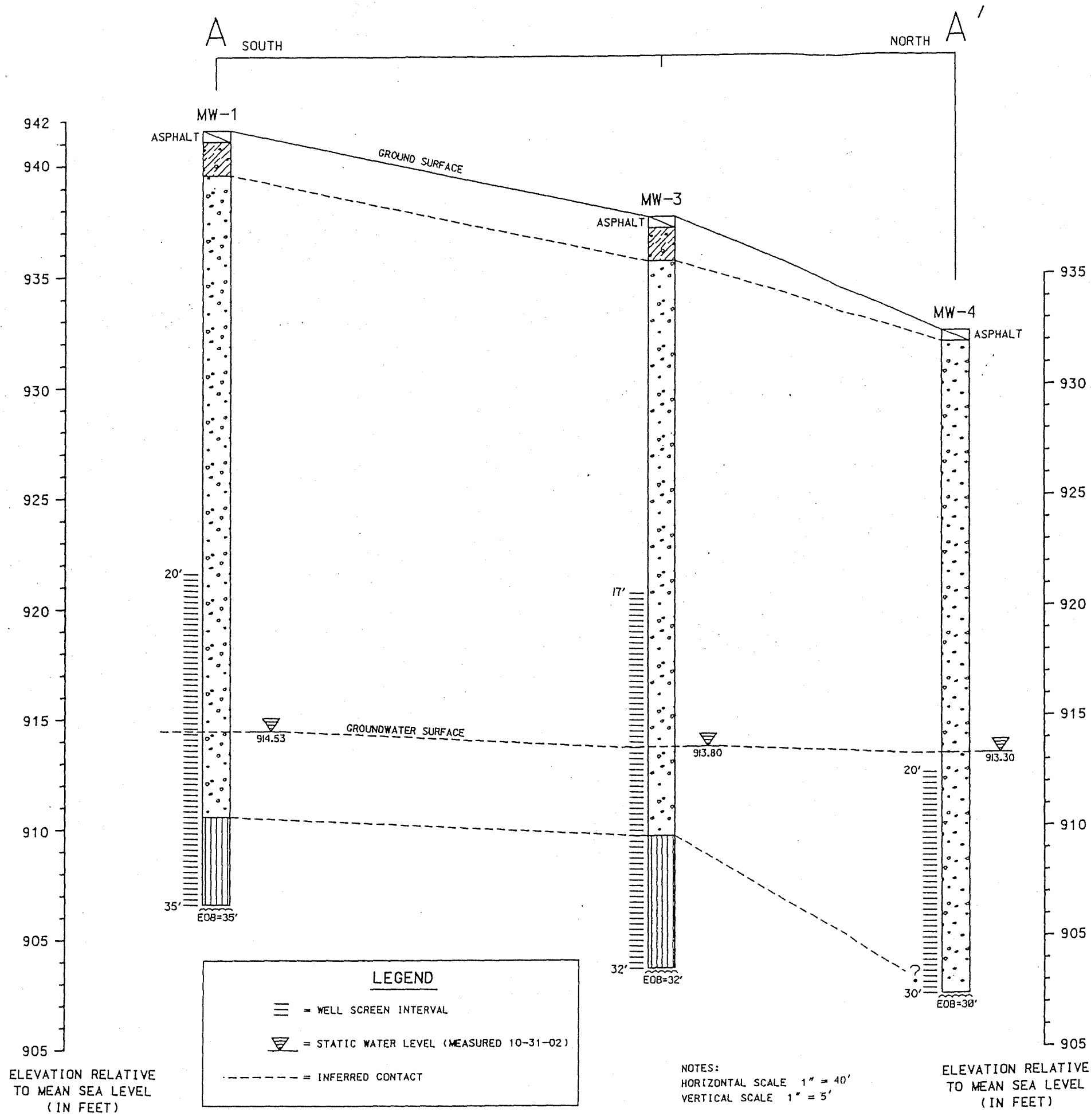


DATE: 11-13-02 | DR. BY: BEB | DR.# 7376-001 | SCALE: 1" = 40'

SITE PLAN MAP

FIGURE 2

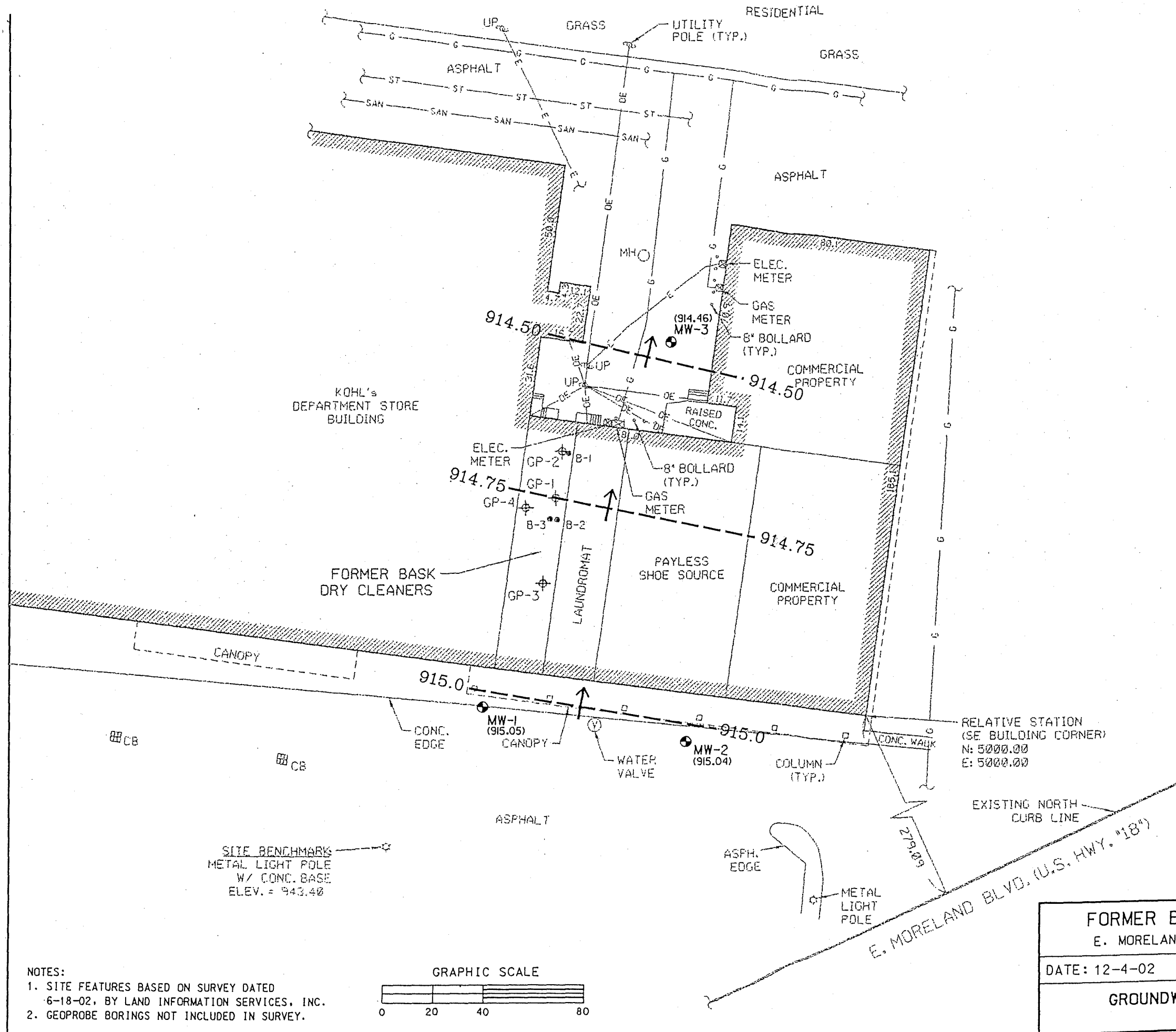




**USCS SYMBOLS**

	GC -- CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES.
	SW - WELL - SORTED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES.
	ML - INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH

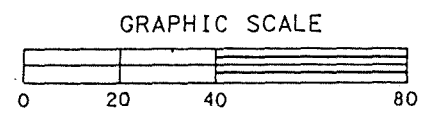
FORMER BASK DRY CLEANERS E. MORELAND BLVD... WAUKESHA, WI			
DATE: 12-4-02	DR. BY: BEB	DR. # 7376-010	SCALE: SEE NOTES
GEOLOGIC CROSS SECTION A - A'			FIGURE 3



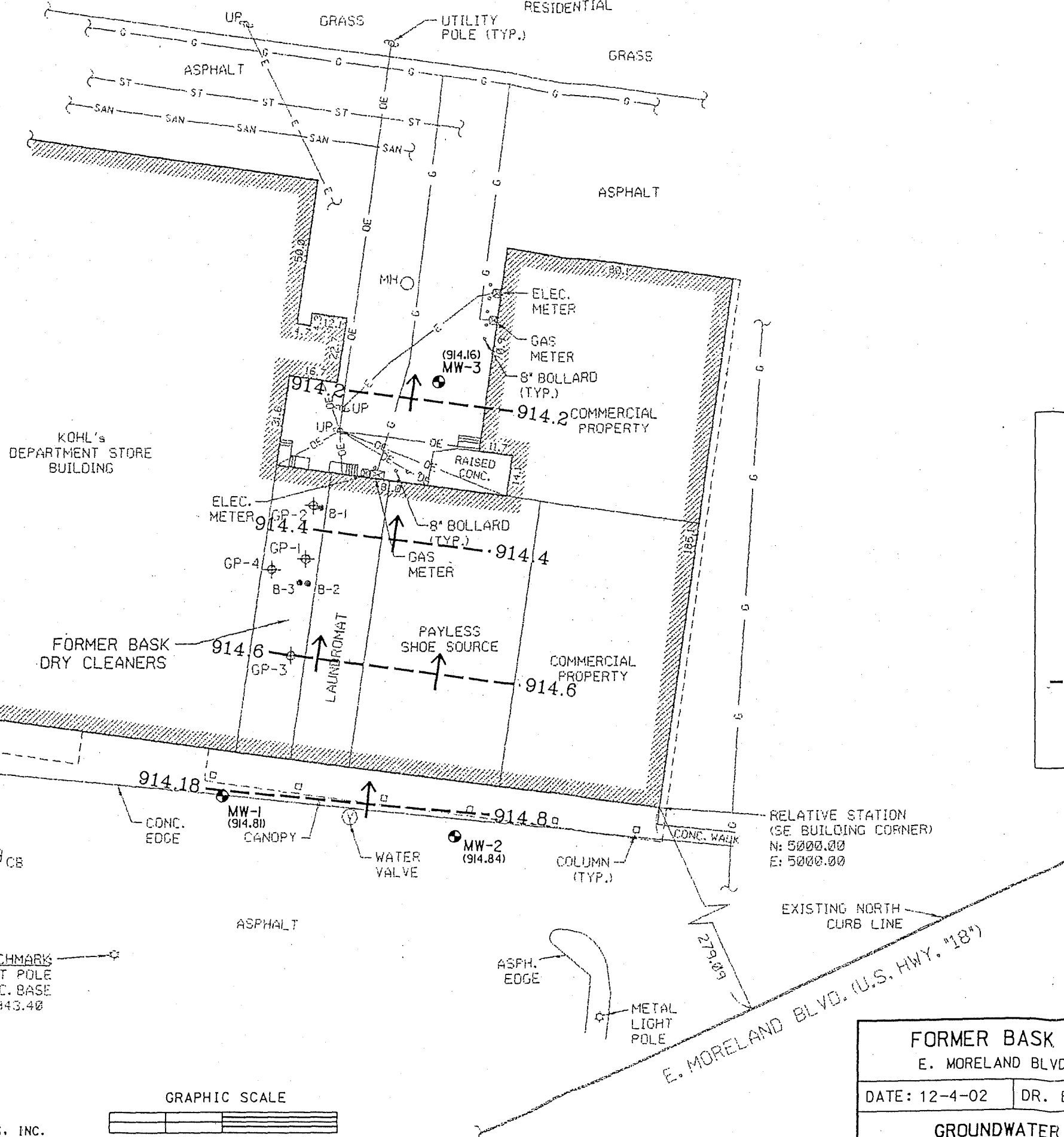
**LEGEND**

- SB ● = SOIL BORING LOCATION
- GP ⊕ = GEOPROBE BORING LOCATION
- MW ⊕ = MONITORING WELL LOCATION
- MH ○ = MANHOLE
- CB ⊞ = CATCH BASIN
- UP ⊕ = UTILITY POLE
- ☆ = LIGHT POLE
- ⊕ = UTILITY VALVE
- G— = UNDERGROUND GAS LINE
- E— = UNDERGROUND ELECTRIC LINE
- OE— = OVERHEAD ELECTRIC LINE
- - - = GROUNDWATER CONTOUR LINE. CONTOUR INTERVAL = 0.25'
- ( ) = STATIC GROUNDWATER LEVEL (5-16-02)
- = GROUNDWATER FLOW DIRECTION

**NOTES:**  
 1. SITE FEATURES BASED ON SURVEY DATED 6-18-02, BY LAND INFORMATION SERVICES, INC.  
 2. GEOPROBE BORINGS NOT INCLUDED IN SURVEY.

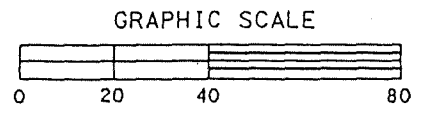


<b>FORMER BASK DRY CLEANERS</b> E. MORELAND BLVD., WAUKESHA, WI			 ENVIRONMENTAL SERVICES INC.
DATE: 12-4-02	DR. BY: BEB	DR. # 7376-002	SCALE: 1" = 40'
<b>GROUNDWATER CONTOUR MAP</b> (5-16-02)			<b>FIGURE 4</b>



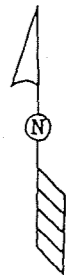
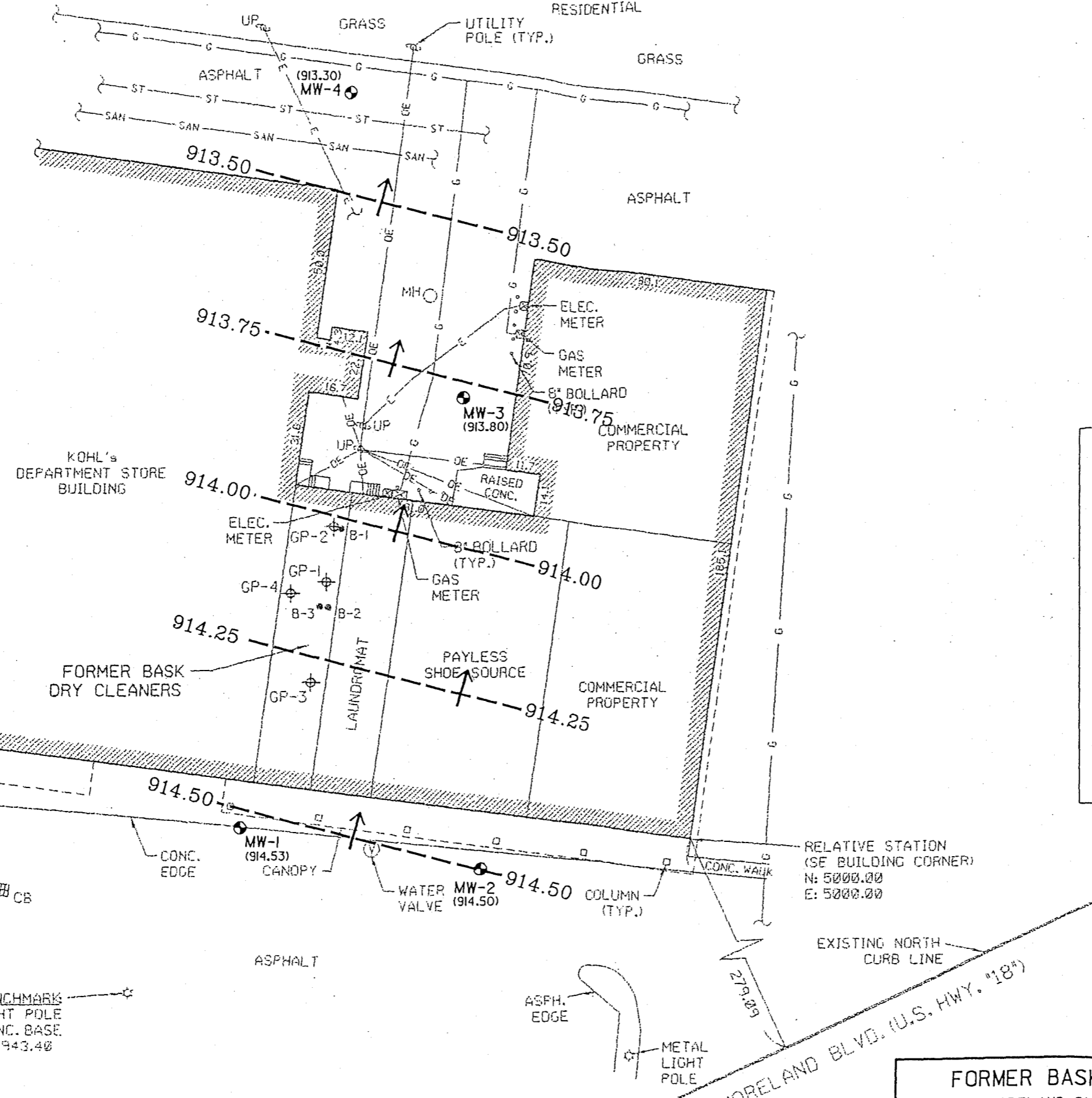
LEGEND	
SB ●	= SOIL BORING LOCATION
GP ⊕	= GEOPROBE BORING LOCATION
MW ⊕	= MONITORING WELL LOCATION
MH ○	= MANHOLE
CB ▣	= CATCH BASIN
UP ⊕	= UTILITY POLE
☆	= LIGHT POLE
⊙	= UTILITY VALVE
—G—	= UNDERGROUND GAS LINE
—E—	= UNDERGROUND ELECTRIC LINE
—OE—	= OVERHEAD ELECTRIC LINE
- - -	= GROUNDWATER CONTOUR LINE. CONTOUR INTERVAL = 0.20'
( )	= STATIC GROUNDWATER LEVEL (7-11-02)
→	= GROUNDWATER FLOW DIRECTION

SITE BENCHMARK  
METAL LIGHT POLE  
W/ CONC. BASE  
ELEV. = 943.40



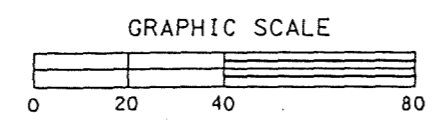
NOTES:  
1. SITE FEATURES BASED ON SURVEY DATED 6-18-02, BY LAND INFORMATION SERVICES, INC.  
2. GEOPROBE BORINGS NOT INCLUDED IN SURVEY.

FORMER BASK DRY CLEANERS E. MORELAND BLVD., WAUKESHA, WI		SIGMA ENVIRONMENTAL SERVICES INC.	
DATE: 12-4-02	DR. BY: BEB	DR. # 7376-005	SCALE: 1" = 40'
GROUNDWATER CONTOUR MAP (7-11-02)			FIGURE 5



LEGEND	
SB ⊙	= SOIL BORING LOCATION
GP ⊕	= GEOPROBE BORING LOCATION
MW ⊙	= MONITORING WELL LOCATION
MH ○	= MANHOLE
CB ⊞	= CATCH BASIN
UP ⊕	= UTILITY POLE
☆	= LIGHT POLE
⊕	= UTILITY VALVE
— G —	= UNDERGROUND GAS LINE
— E —	= UNDERGROUND ELECTRIC LINE
— OE —	= OVERHEAD ELECTRIC LINE
- - -	= GROUNDWATER CONTOUR LINE, CONTOUR INTERVAL = 0.25'
( )	= STATIC GROUNDWATER LEVEL (10-31-02)
→	= GROUNDWATER FLOW DIRECTION

SITE BENCHMARK  
METAL LIGHT POLE  
W/ CONC. BASE  
ELEV. = 943.40



NOTES:  
1. SITE FEATURES BASED ON SURVEY DATED 6-18-02, BY LAND INFORMATION SERVICES, INC.  
2. GEOPROBE BORINGS NOT INCLUDED IN SURVEY.

FORMER BASK DRY CLEANERS E. MORELAND BLVD., WAUKESHA, WI			
DATE: 12-4-02	DR. BY: BEB	DR.# 7376-006	
GROUNDWATER CONTOUR MAP (10-31-02)			FIGURE 6

MW-4		10-23-02		
DEPTH	2'-4'	6'-8'	16'-18'	
cis-1,2-DICHLOROETHENE	ND	ND	ND	
trans-1,2-DICHLOROETHENE	ND	ND	ND	
TETRACHLOROETHENE	ND	641	710	
TRICHLOROETHENE	ND	ND	ND	
VINYL CHLORIDE	ND	ND	ND	

MW-3		5-8-02		
DEPTH	4'-6'	12'-14'	20'-22'	
cis-1,2-DICHLOROETHENE	ND	ND	ND	
trans-1,2-DICHLOROETHENE	ND	ND	ND	
TETRACHLOROETHENE	ND	ND	ND	
TRICHLOROETHENE	ND	ND	ND	
VINYL CHLORIDE	ND	ND	ND	

GP-2		4-9-02		
DEPTH	4'-6'	18'-20'		
cis-1,2-DICHLOROETHENE	ND	ND		
trans-1,2-DICHLOROETHENE	ND	ND		
TETRACHLOROETHENE	340	232		
TRICHLOROETHENE	ND	ND		
VINYL CHLORIDE	ND	ND		

B-1		1-24-02	
DEPTH	1'	7'	
cis-1,2-DICHLOROETHENE	<25	<25	
trans-1,2-DICHLOROETHENE	<25	<25	
TETRACHLOROETHENE	230	600	
TRICHLOROETHENE	<25	<25	
VINYL CHLORIDE	<25	<25	

GP-4		4-9-02		
DEPTH	2'-4'	6'-8'	16'-18'	
cis-1,2-DICHLOROETHENE	ND	ND	ND	
trans-1,2-DICHLOROETHENE	ND	ND	ND	
TETRACHLOROETHENE	87.1	230	900	
TRICHLOROETHENE	ND	ND	ND	
VINYL CHLORIDE	ND	ND	ND	

GP-1		4-9-02		
DEPTH	4'-6'	10'-12'	18'-19.5'	
cis-1,2-DICHLOROETHENE	ND	ND	ND	
trans-1,2-DICHLOROETHENE	ND	ND	ND	
TETRACHLOROETHENE	861	2,590	391	
TRICHLOROETHENE	ND	ND	ND	
VINYL CHLORIDE	ND	ND	ND	

GP-3		4-9-02		
DEPTH	2'-4'	18'-20'		
cis-1,2-DICHLOROETHENE	ND	ND		
trans-1,2-DICHLOROETHENE	ND	ND		
TETRACHLOROETHENE	ND	165		
TRICHLOROETHENE	ND	ND		
VINYL CHLORIDE	ND	ND		

MW-2		5-8-02		
DEPTH	2'-4'	14'-16'	24'-26'	
cis-1,2-DICHLOROETHENE	ND	ND	ND	
trans-1,2-DICHLOROETHENE	ND	ND	ND	
TETRACHLOROETHENE	ND	ND	ND	
TRICHLOROETHENE	ND	ND	ND	
VINYL CHLORIDE	ND	ND	ND	

**ANALYTICAL KEY**  
ALL CONCENTRATIONS EXPRESSED IN MICROGRAMS PER KILOGRAM (ug/kg)

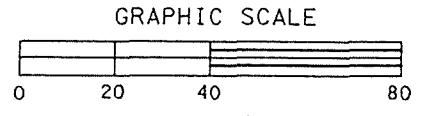
MW-1		5-8-02		
DEPTH	4'-6'	6'-8'	24'-26'	
cis-1,2-DICHLOROETHENE	ND	ND	ND	
trans-1,2-DICHLOROETHENE	ND	ND	ND	
TETRACHLOROETHENE	ND	ND	ND	
TRICHLOROETHENE	ND	ND	ND	
VINYL CHLORIDE	ND	ND	ND	

B-2		1-24-02	
DEPTH	1'		
cis-1,2-DICHLOROETHENE	<25		
trans-1,2-DICHLOROETHENE	<25		
TETRACHLOROETHENE	50		
TRICHLOROETHENE	<25		
VINYL CHLORIDE	<25		

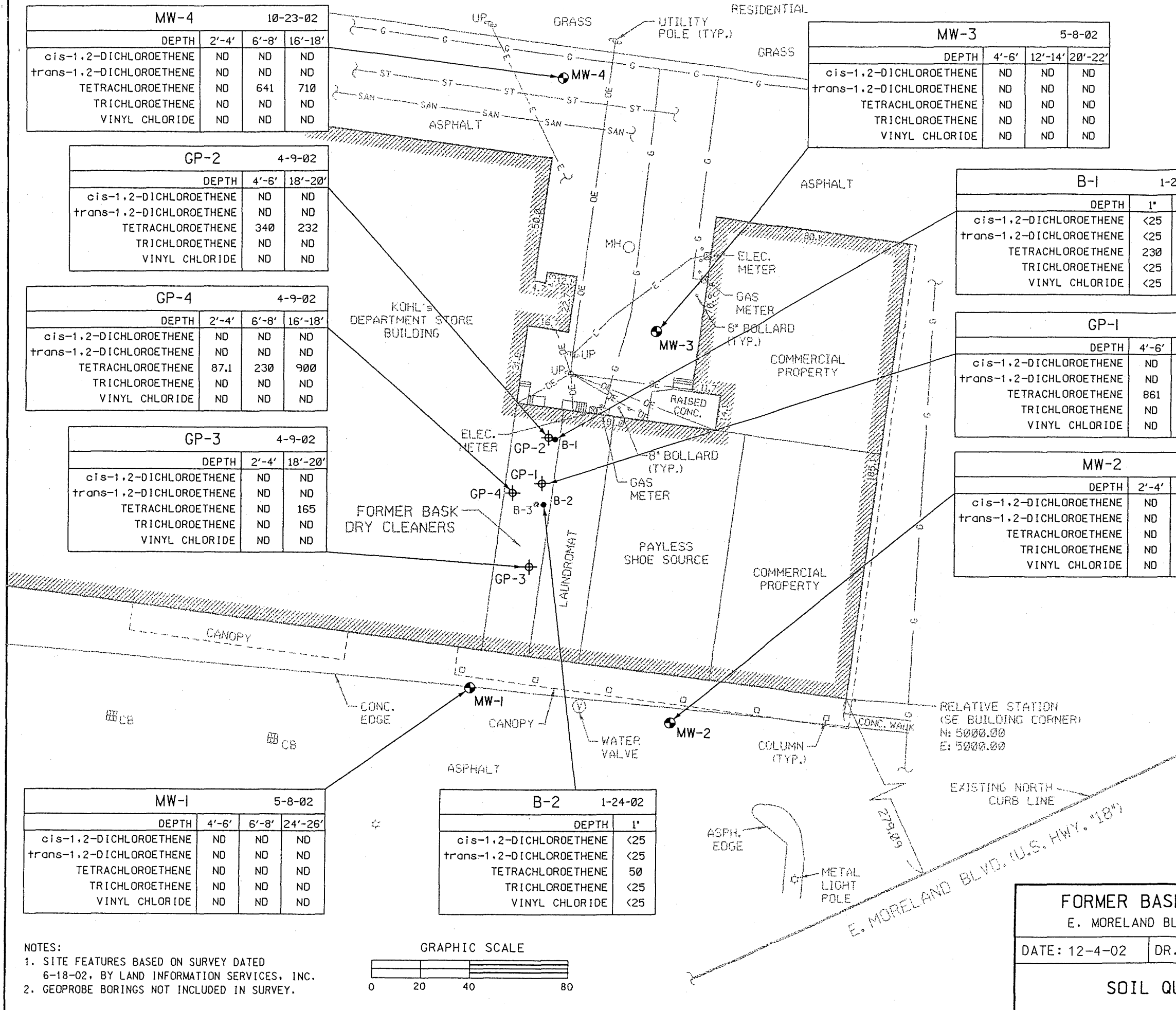
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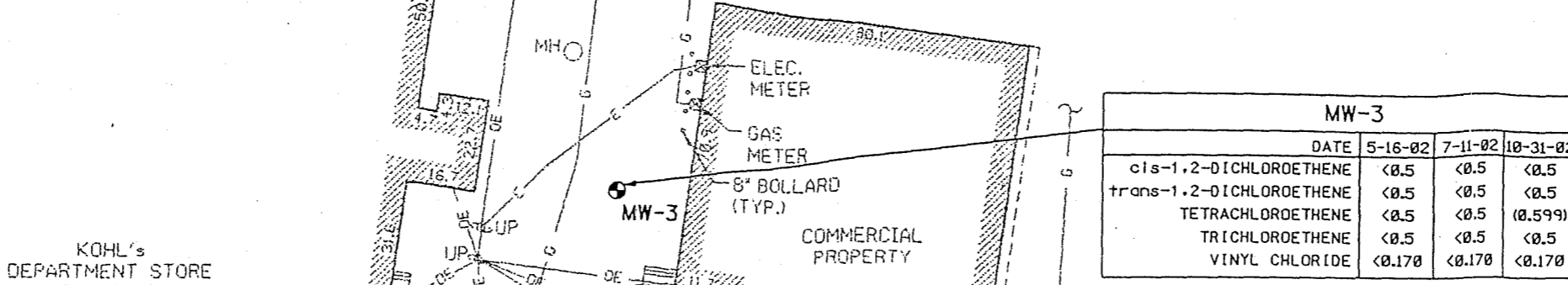
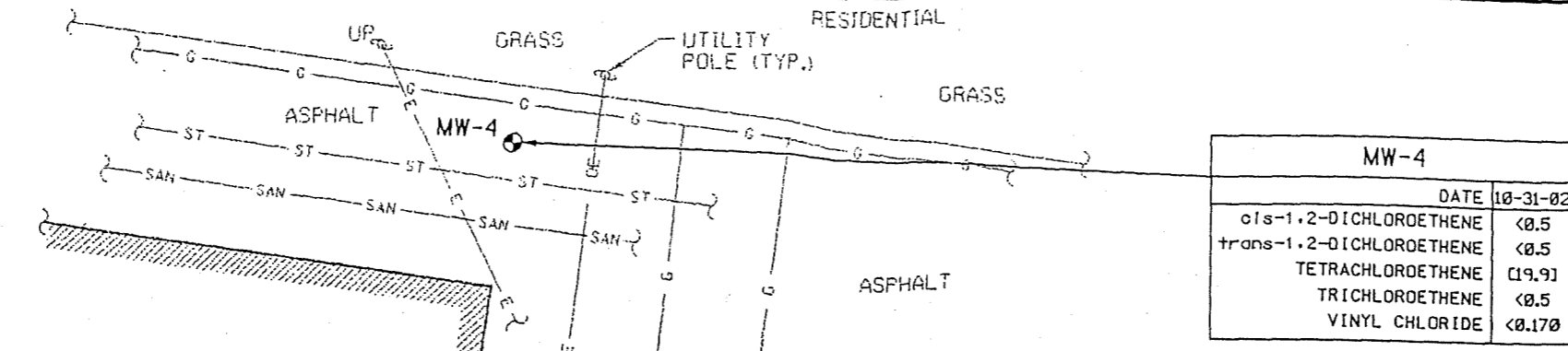
- SB ● = SOIL BORING LOCATION
- GP ⊕ = GEOPROBE BORING LOCATION
- MW ⊙ = MONITORING WELL LOCATION
- MH ○ = MANHOLE
- CB ▣ = CATCH BASIN
- UP ⊕ = UTILITY POLE
- ☆ = LIGHT POLE
- ⊕ = UTILITY VALVE
- G— = UNDERGROUND GAS LINE
- E— = UNDERGROUND ELECTRIC LINE
- OE— = OVERHEAD ELECTRIC LINE

**NOTES:**  
1. SITE FEATURES BASED ON SURVEY DATED 6-18-02, BY LAND INFORMATION SERVICES, INC.  
2. GEOPROBE BORINGS NOT INCLUDED IN SURVEY.



FORMER BASK DRY CLEANERS E. MORELAND BLVD., WAUKESHA, WI			
DATE: 12-4-02	DR. BY: BEB	DR.# 7376-008	SCALE: 1" = 40'
SOIL QUALITY MAP			FIGURE 7





MW-1			
DATE	5-16-02	7-11-02	10-31-02
cis-1,2-DICHLOROETHENE	<0.5	<0.5	<0.5
trans-1,2-DICHLOROETHENE	<0.5	<0.5	<0.5
TETRACHLOROETHENE	<0.5	<0.5	<0.5
TRICHLOROETHENE	<0.5	<0.5	<0.5
VINYL CHLORIDE	<0.170	<0.170	<0.170

MW-2			
DATE	5-16-02	7-11-02	10-31-02
cis-1,2-DICHLOROETHENE	<0.5	<0.5	<0.5
trans-1,2-DICHLOROETHENE	<0.5	<0.5	<0.5
TETRACHLOROETHENE	<0.5	<0.5	<0.5
TRICHLOROETHENE	<0.5	<0.5	<0.5
VINYL CHLORIDE	<0.170	<0.170	<0.170

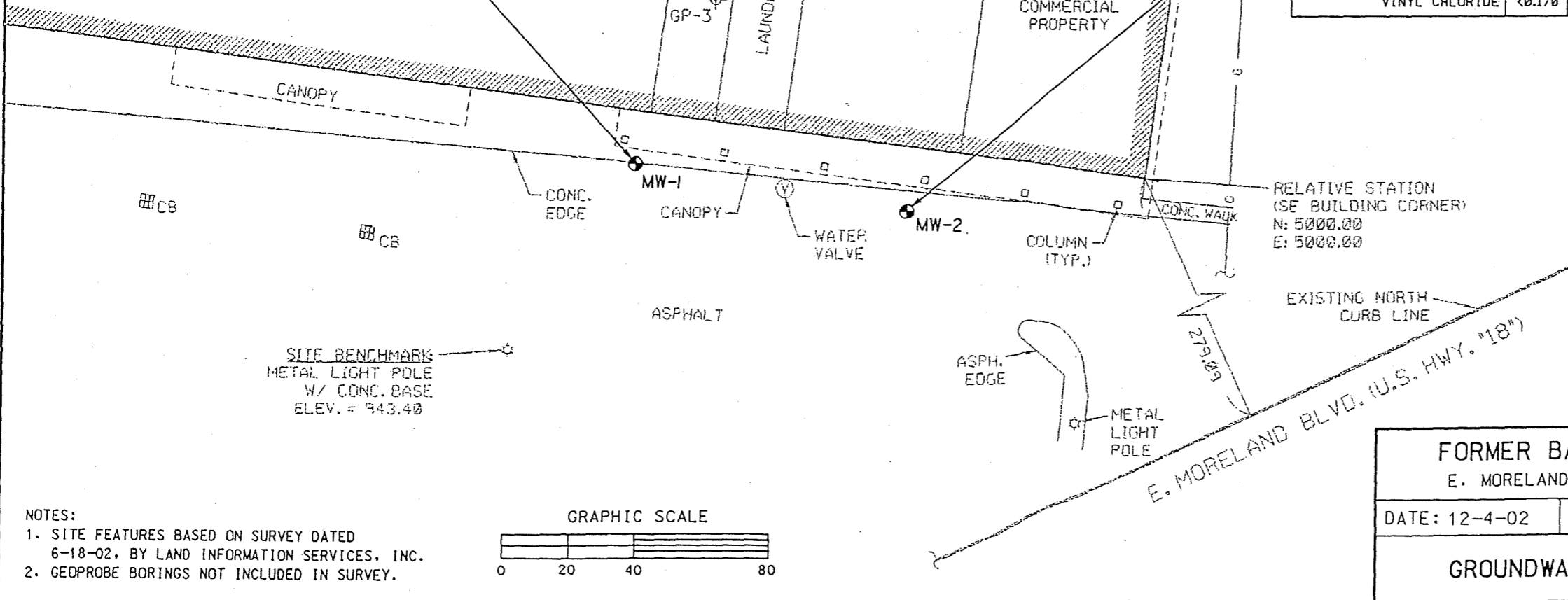
**ANALYTICAL KEY**

( ) = EXCEEDS NR 140 PAL  
 [ ] = EXCEEDS NR 140 ES

ALL CONCENTRATIONS EXPRESSED IN MICROGRAMS PER LITER (ug/l)

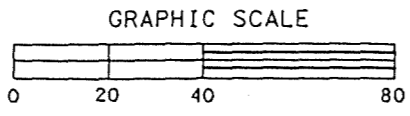
**LEGEND**

- SB \* = SOIL BORING LOCATION
- GP ⊕ = GEOPROBE BORING LOCATION
- MW ⊙ = MONITORING WELL LOCATION
- MH ○ = MANHOLE
- CB ▣ = CATCH BASIN
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- G— = UNDERGROUND GAS LINE
- E— = UNDERGROUND ELECTRIC LINE
- OE— = OVERHEAD ELECTRIC LINE



**NOTES:**

- SITE FEATURES BASED ON SURVEY DATED 6-18-02, BY LAND INFORMATION SERVICES, INC.
- GEOPROBE BORINGS NOT INCLUDED IN SURVEY.



FORMER BASK DRY CLEANERS		SIGMA ENVIRONMENTAL SERVICES INC.	
E. MORELAND BLVD., WAUKESHA, WI			
DATE: 12-4-02	DR. BY: BEB	DR. # 7376-007	SCALE: 1" = 40'
GROUNDWATER QUALITY MAP			FIGURE 8

**ATTACHMENT 2**

**WBLP**  
**2136 E. Moreland Blvd**  
**Waukesha, WI**  
**Project Reference #7376**

Task	Consulting Costs		Commodity Services		Total Cost
	Total Labor Costs	Equipment & Expenses	Sub-Contracting Expenses	Analytical Expenses	
<b>1 Work Plan Preparation</b>					
Project Coordination	\$210				\$210
Work Plan Preparation	\$485				\$485
Subtotal Task 1	\$695	\$0	\$0	\$0	\$695
<b>2 Subsurface Investigation</b>					
Project Coordination	\$945				\$945
Field Supervision of Soil Boring/Well Installation	\$650		\$3,000	\$260	\$3,910
Well Development and Sampling (two rounds)	\$1,200	\$868		\$910	\$2,978
Site Survey	\$0		\$500		\$500
Waste Disposal	\$240		\$530		\$770
Data Analysis	\$315				\$315
Subtotal Task 2	\$3,350	\$868	\$4,030	\$1,170	\$9,418
<b>3 Report Preparation/Data Evaluation/Project Coordination</b>					
Report Prep./Field Doc./Proj. Coordination	\$3,330				\$3,330
DERP Claim Preparation	\$490				\$490
Subtotal Task 3	\$3,820	\$0	\$0	\$0	\$3,820
<b>Proposed Sigma Consulting Costs</b>					\$8,733
<b>Proposed Commodity Services Costs</b>					\$5,200
<b>Total Proposed Change Order Costs</b>					\$13,933
<b>Previous Approved Project Costs</b>					\$18,665
<b>Total Projected Project Costs Through SI</b>					\$32,598



Equipment Expenses		WBLP		
Task	Type of Equipment	Units	Rate	Cost

<b>1</b> <u>Work Plan Preparation</u>				
	NONE			\$0
				<u>subtotal=</u> \$0

<b>2</b> <u>Subsurface Investigation</u>				
	Mobilization	3 visits (45 miles e	\$0.50 mile	\$68
	FID	1 day	\$70 day	\$70
	Sample Supplies	3 day	\$50 day	\$150
	DO Meter	2 day	\$35 day	\$70
	Redox Meter	2 day	\$35 day	\$70
	Iron Kits	12 units	\$5 each	\$60
	Bailer Kits	12 units	\$15 each	\$180
	Drums	4 units	\$35 each	\$140
	Water Level Indicator	2 day	\$30 day	\$60
				<u>subtotal=</u> \$868

<b>3</b> <u>Report Preparation/Data Evaluation/Project Coordination</u>				
	NONE			\$0
				<u>subtotal=</u> \$0

SUBCONTRACTING EXPENSES		WBLP		
Type of Service		Units	Rate	Cost

<b>1</b> <u>Work Plan Preparation</u>				
	NONE			\$0
				<u>subtotal=</u> \$0

<b>2</b> <u>Subsurface Investigation</u>				
	Subcontracted:			
	Soil Boring Monitoring Well Installation (Two borings/two wells to 25' bgs)	Lump Sum	\$3,000	\$3,000
	Site Survey	Lump Sum	\$500	\$500
	Water Disposal	100 gal.	\$0.20 gal	\$20
	Soil Disposal	6 drums	\$85 drum	\$510
				<u>subtotal=</u> \$4,030

<b>3</b> <u>Report Preparation/Data Evaluation/Project Coordination</u>				
	NONE			\$0
				<u>subtotal=</u> \$0

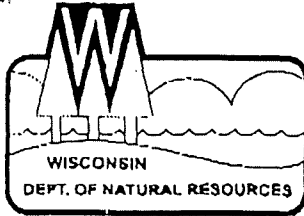
LABORATORY ANALYTICAL		WBLP	
Type of Analysis	Samples	Rate	Cost

<b>1 <u>Work Plan Preparation</u></b>			
NONE			\$0
			<i>subtotal= \$0</i>

<b>2 <u>Subsurface Investigation</u></b>			
(Samples include appropriate QA/QC requirements)			
Soil:			
VOC	4 samples	\$65 sample	\$260
			<i>subtotal= \$260</i>
Groundwater (one round):			
VOCs	14 samples	\$65 sample	\$910
			<i>subtotal= \$910</i>

<b>3 <u>Report Preparation/Data Evaluation/Project Coordination</u></b>			
NONE			\$0
			<i>subtotal= \$0</i>

**ATTACHMENT 3**



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor  
Darrell Bazzell, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region  
Milwaukee Service Center  
2300 N. Dr. ML King Drive, PO Box 12436  
Milwaukee, Wisconsin 53212-0436  
Telephone 414-263-8500  
FAX 414-263-8716  
TDD 414-263-8713

March 25, 2002

Mr. David Baskerville  
Bask, Inc.  
121 South Hamilton Street, Suite U  
P.O. Box 1298  
Madison, Wisconsin 53701

SUBJECT: Approval of DERP site investigation at Westbrook Shopping Center, 2136 East Moreland  
Boulevard, Waukesha, Wisconsin: BRR-DERP FID#268188800.

Dear Mr. Baskerville:

We have reviewed the proposal submitted on your behalf by Reinhart, Boerner & Van Deuren, S.C. In this proposal, three environmental consultants have submitted bid proposals to complete an environmental investigation at the Westbrook Shopping Center. It is Reinhart, Boerner & Van Deuren's, S.C. opinion that Sigma Environmental's proposal was the most complete and cost effective of the three proposals. Based on the information provided, we concur with this assessment and approve Sigma Environmental's subsurface investigation plan for the Westbrook Shopping Center for a total cost of approximately \$25,065.

If during the implementation of Sigma's subsurface investigation, it is determined that additional investigation is necessary above the approved amount of \$25,065, it will be necessary to submit to the department another proposal justifying the additional investigation, with details on the additional costs of the investigation. If you have any questions regarding this letter, you may contact me at (414) 263-8589.

Sincerely,

Gina Keenan  
Hydrogeologist

cc: Mark Treter-Reinhart, Boerner, Van Deuren, S.C.  
SER case file

