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QUALITY CONTROL

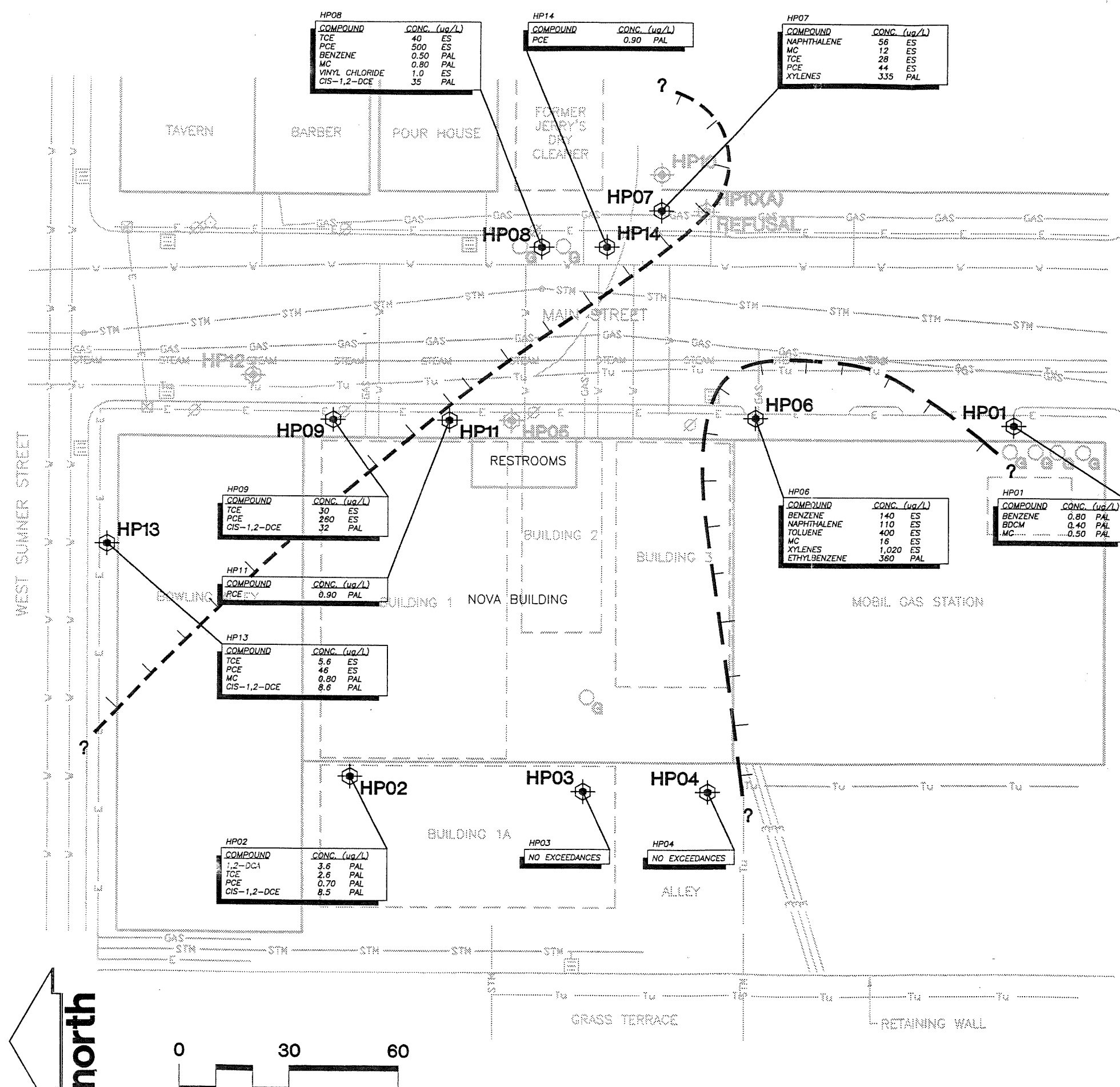
Graphic Standards CCM  
Lead Professional

8-26-98

Technical Review LBL  
Project Manager

9-3-98

Management Review  
Other

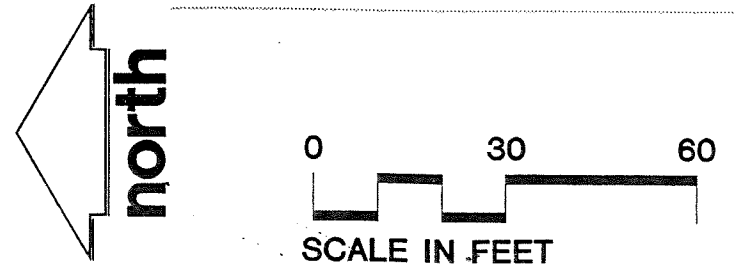


**LEGEND**

- ELECTRIC LINE
- GAS LINE
- UNDERGROUND TELEPHONE LINE
- WATER LINE
- UTILITY POLE
- STORM DRAIN
- APPROXIMATE LOCATION OF HISTORICAL BUILDING
- APPROXIMATE LOCATION OF HISTORICAL GASOLINE STORAGE TANK
- HP01 HYDRAULIC PROBE LOCATION AND NUMBER
- APPROXIMATE BOUNDARY OF PCE CONTAMINATION EXCEEDING NR140 WAC ENFORCEMENT STANDARD
- APPROXIMATE BOUNDARY OF PETROLEUM RELATED VOLATILE ORGANIC COMPOUNDS (PVOCS) EXCEEDING NR140 WAC ENFORCEMENT STANDARDS
- BDCM BROMODICHLOROMETHANE
- DCA DICHLOROETHANE
- DCE DICHLOROETHENE
- MC METHYLENE CHLORIDE
- PCE TETRACHLOROETHENE
- TCE TRICHLOROETHENE
- 1,2-DCA 1,2-DICHLOROETHANE
- TRANS-1,2-DCE TRANS-1,2-DICHLOROETHANE
- ug/L MICROGRAMS PER LITER
- ES EXCEEDANCE OF ENFORCEMENT STANDARD, CHAPTER NR140, WIS. ADM. CODE
- PAL EXCEEDANCE OF PREVENTIVE ACTION LIMIT, CHAPTER NR140, WIS. ADM. CODE

**NOTES**

1. BASE MAP DEVELOPED FROM HARTFORD UTILITIES STORM SEWER PLAN AND PROFILE IN SOUTH MAIN STREET FROM STA 7+50 TO 10+00 PREPARED BY WELCH, HANSON, AND ASSOCIATES, INC. OF OCONOMOWOC, WISCONSIN IN OCTOBER 1979.
2. APPROXIMATE LOCATIONS OF SITE FEATURES AND UTILITY MARKINGS WERE IDENTIFIED BY MONTGOMERY WATSON IN FEBRUARY 1998.
3. APPROXIMATE LOCATIONS OF HISTORICAL BUILDINGS AND OTHER FEATURES OBTAINED FROM SANBORN MAPS DATED 1907, 1913, 1918, 1929, 1949, AND 1987 AND SEWRPC AERIAL PHOTOGRAPHS DATED 1963, 1967, 1970, 1975, AND 1980.
4. LOCATIONS OF HYDRAULIC PROBES BASED ON MONTGOMERY WATSON FIELD OBSERVATIONS ON JUNE 17 AND 19, 1998.



Developed By: [Signature]  
Approved By: [Signature]  
Reviewed By: [Signature]

9-28-98

**GROUNDWATER ANALYTICAL RESULTS - NR140 WAC EXCEEDANCES**

SITE INVESTIGATION  
HARTFORD COMMUNITY DEVELOPMENT AUTHORITY  
NOVA BUILDING  
23 SOUTH MAIN STREET  
HARTFORD, WISCONSIN

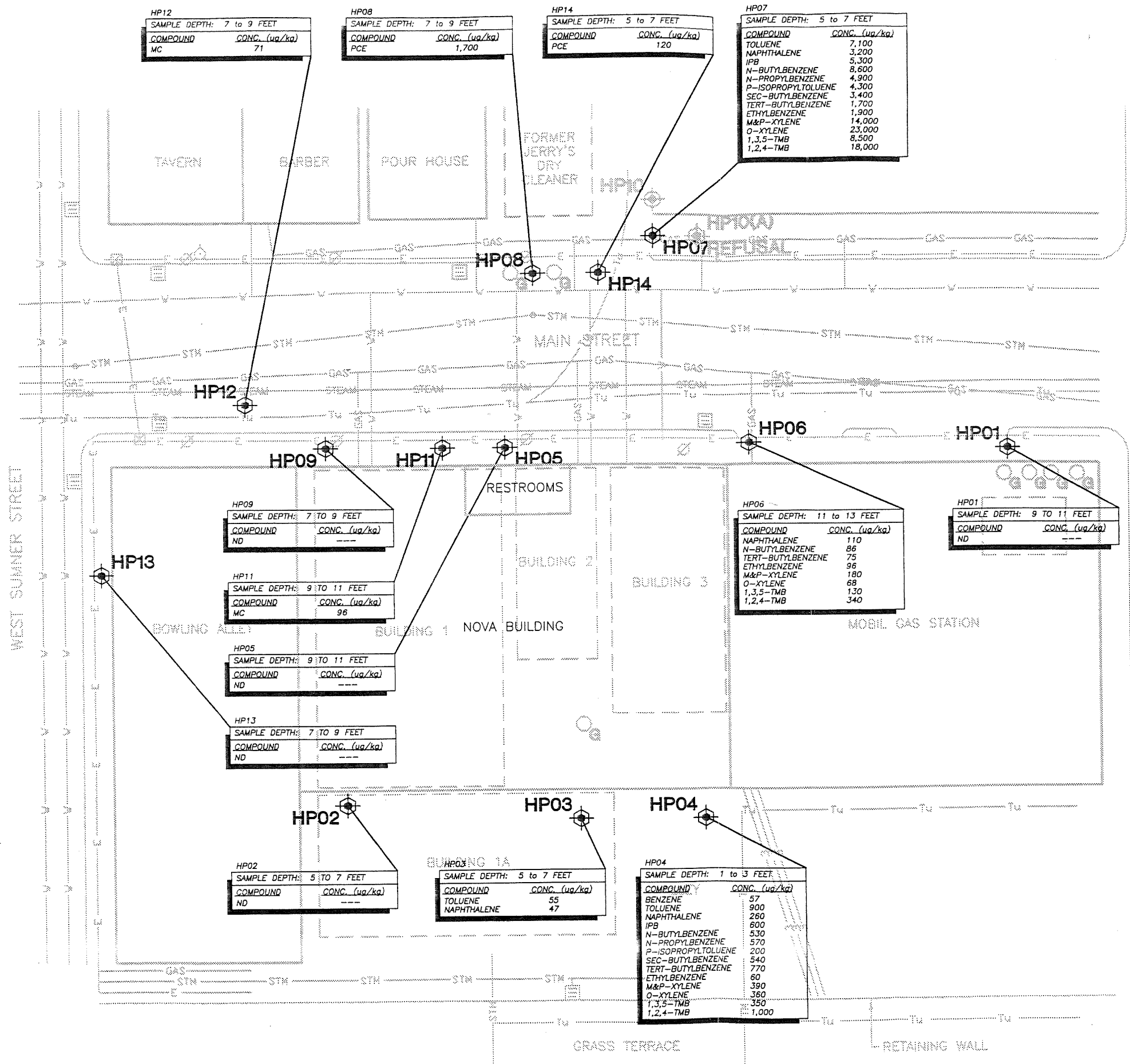
Drawing Number  
1272009  
14160101 **B3**

**MONTGOMERY WATSON**

**FIGURE 4**

Management Review  
 8-26-98  
 Technical Review KDS  
 Project Manager  
 8-26-98  
 9-3-98  
 Graphic Standards CCM  
 Lead Professional LBL  
 QUALITY CONTROL

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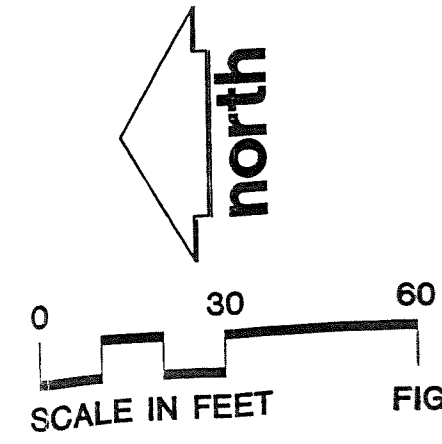


**LEGEND**

- ELECTRIC LINE
- GAS LINE
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- UTILITY POLE
- STORM DRAIN
- APPROXIMATE LOCATION OF HISTORICAL BUILDING
- APPROXIMATE LOCATION OF HISTORICAL GASOLINE STORAGE TANK
- ⊕ HP01 HYDRAULIC PROBE LOCATION AND NUMBER
- IPB ISOPROPYLBENZENE
- MC METHYLENE CHLORIDE
- PCE TETRACHLOROETHENE
- 1,2,4-TMB 1,2,4-TRIMETHYLBENZENE
- 1,3,5-TMB 1,3,5-TRIMETHYLBENZENE
- ND NOT DETECTED
- NOT APPLICABLE
- ug/kg MILLIGRAMS PER KILOGRAM

**NOTES**

1. BASE MAP DEVELOPED FROM HARTFORD UTILITIES STORM SEWER PLAN AND PROFILE IN SOUTH MAIN STREET FROM STA 7+50 TO 10+00 PREPARED BY WELCH, HANSON, AND ASSOCIATES, INC. OF OCONOMCOWOC, WISCONSIN IN OCTOBER 1979.
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4. LOCATIONS OF HYDRAULIC PROBES BASED ON MONTGOMERY WATSON FIELD OBSERVATIONS ON JUNE 17 AND 19, 1998.



SCALE IN FEET

FIGURE 3

Developed By KDS  
 Approved By [Signature]  
 Date 9-28-98  
 Revisions

**SOIL ANALYTICAL RESULTS**

SITE INVESTIGATION  
 HARTFORD COMMUNITY DEVELOPMENT AUTHORITY  
 NOVA BUILDING  
 23 SOUTH MAIN STREET  
 HARTFORD, WISCONSIN

Drawing Number  
 1272009  
 14160101 **B2**

**MONTGOMERY WATSON**

FIGURE 2

Table 1  
Soil Sampling Results Summary - Phase 2.5 Investigation  
STH 83 (Monroe Ave. to Main St.)  
Hartford, WI  
WisDOT I.D. 1330-24-00, TRC Project ID 223909.0000.0000

ANALYTES <sup>(1)</sup>	NR 720 SOIL RCLs <sup>(4)</sup>				SOIL SAMPLE ID AND DEPTH (feet bgs)																				MeOH BLANK	TYPICAL LANDFILL ACCEPTANCE CRITERIA			
	SOIL TO GROUNDWATER <sup>(2)</sup> PATHWAY	DIRECT CONTACT PATHWAY		BACKGROUND SURFICIAL BTV <sup>(5)</sup>	STH 83 AND E. MONROE AVE.				STH 83 AND JEFFERSON AVE.				STH 83 AND SOUTH ST.				STH 83 FROM KOSSUTH ST. TO STH 60												
		NON-INDUSTRIAL <sup>(3)</sup>	INDUSTRIAL <sup>(3)</sup>		GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	GP-10	GP-11	GP-11	GP-12	GP-12	GP-12	GP-13	GP-13	GP-13	GP-14	GP-15			GP-15	GP-16	GP-16
					4' - 6'	2' - 4'	4' - 6'	2' - 4'	2' - 4'	4' - 6'	2' - 4'	4' - 6'	2' - 4'	4' - 6'	2' - 4'	4' - 6'	2' - 4'	8' - 10'	2' - 4'	4' - 6'	6' - 8'	2' - 4'	6' - 8'	4' - 6'			2' - 4'	6' - 8'	2' - 4'
				FILL: SAND & GRAVEL	FILL: SAND & GRAVEL	SAND	CLAY	SAND	FILL: SAND & GRAVEL	FILL: SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: SAND & SOME GRAVEL	FILL: SAND & SOME GRAVEL	FILL: SAND & SOME GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL	FILL: CLAYEY SAND & GRAVEL					
SEPTEMBER 24, 2014																													
SEPTEMBER 24, 2014 & JANUARY 9, 2015																													
SEPTEMBER 24, 2014																													
SEPTEMBER 24, 2014 & JANUARY 9, 2015																													
PID Readings	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	
GRO (mg/kg)	-	-	-	-	<3.8	<0.72	<3.3	<3.4	<0.64	<3.0	<3.4	<0.59	3.7 J	<2.9	<2.9	<0.64	-	<3.2	-	<3.8	-	<0.75	<3.7	-	-	<3.2	-	2,000 mg/kg	
DRO (mg/kg)	-	-	-	-	2.0 J	1.9 J	<1.6	2.5 J	1.9 J	1.5 J	9.6	1.6 J	59	1.6 J	1.6 J	<1.6	-	2.5 J	-	2.0 J	-	<1.8	<1.8	-	-	1.6 J	-	2,000 mg/kg	
PVCs/VOCs (µg/kg)																													
1,2,4-Trimethylbenzene	1,382.1	89,800	219,000	-	<23	<15	<20	<20	<14	<18	<20	<12	24 J	<18	<18	<13	<14	<19	<16	<16	<16	<16	<17	<16	<12	<15	<11	-	
1,3,5-Trimethylbenzene	1,382.1	182,000	182,000	-	<23	<15	<20	<20	<13	<18	<20	<12	21 J	<18	<18	<13	<14	<19	<15	<16	<15	<15	<17	<16	<11	<14	<10	-	
Tetrachloroethene	4.5	30,700	153,000	-	-	<12	-	-	<11	-	-	<9.8	-	-	-	<11	<11	-	<12	97	<13	<12	<14	<13	<9.3	<12	<8.4	-	
Xylenes	3,940	258,000	258,000	-	<45	<4.9	<40	<40	<4.4	<36	<41	21 J	<41	<35	<35	<4.4	<4.6	<38	<5.0	<5.2	<5.1	<5.1	<5.6	<5.3	<3.8	<4.8	<3.4	-	
SVOCs (µg/kg)																													
SVOCs	-	-	-	-	-	ND	-	-	ND	-	-	ND	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	
Metals (mg/kg)																													
Arsenic	0.584	0.613	2.39	8	-	8.5	-	-	2.6	-	-	8.2	-	-	-	0.96 J	-	-	-	-	-	7.3	-	-	-	-	-	100 mg/kg	
Barium	164.8	15,300	100,000	364	-	110	-	-	35	-	-	14	-	-	-	8.3	-	-	-	-	-	77	-	-	-	-	-	2,000 mg/kg	
Cadmium	0.752	70	799	1	-	0.19 J B	-	-	0.095 J B	-	-	0.095 J B	-	-	-	0.035 J B	-	-	-	-	-	0.17 J B	-	-	-	-	-	20 mg/kg	
Chromium	360,000	100,000	100,000	44	-	25	-	-	8.9	-	-	7.5	-	-	-	3.9	-	-	-	-	-	18	-	-	-	-	-	100 mg/kg	
Lead	27	400	800	52	9.1	15	6.0	11	4.1	4.4	15	5.3	80	2.9	2.9	1.9	-	11	-	17	-	12	11	-	-	11	100 mg/kg		
Mercury	0.208	3.13	3.13	-	-	0.043	-	-	<0.0073	-	-	<0.0071	-	-	-	0.018	-	-	-	-	-	0.043	-	-	-	-	-	4 mg/kg	
PCBs (µg/kg)																													
PCBs	-	-	-	-	-	ND	-	-	ND	-	-	ND	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	50,000 µg/kg	
HAZARD INDEX (CUMULATIVE)																													
NON-INDUSTRIAL	1.0	1.0	-	0.0	0.251	0.0	0.0	0.0001	0.0	0.0	0.0001	0.2003	0.0	0.0	0.0013	0.0	0.0	0.0	0.0008	0.0	0.0031	0.0	0.0	0.0	0.0	0.0	-	-	
INDUSTRIAL	1.0	1.0	-	0.0	0.0229	0.0	0.0	0.0	0.0	0.0	0.0	0.1001	0.0	0.0	0.0003	0.0	0.0	0.0	0.0002	0.0	0.0007	0.0	0.0	0.0	0.0	0.0	-	-	
CANCER RISK (CUMULATIVE)																													
NON-INDUSTRIAL	5.00E-05	5.00E-05	-	0.00E+00	1.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	
INDUSTRIAL	5.00E-05	5.00E-05	-	0.00E+00	3.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.90E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	



- Notes:
- PID = Photolionization Detector
  - GRO = Wisconsin Modified Method - Gasoline Range Organics
  - DRO = Wisconsin Modified Method - Diesel Range Organics
  - Total metals analyzed using EPA Method 6010B, except for mercury which was analyzed using EPA Method 7471A
  - VOCs = Volatile Organic Compounds analyzed using EPA Method 8260B
  - µg/kg = micrograms per kilogram (ppb)
  - mg/kg = milligrams per kilogram (ppm)
  - = Sample was not analyzed for given analyte
  - = Suggested standard has not been established for this analyte.
  - J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
  - PVOCs = Petroleum Volatile Organic Compounds analyzed using EPA Method 8260B
  - ND = Not detected in laboratory analysis
  - RCLs = Residual Contaminant Levels
  - PCBs = Polychlorinated Biphenyls analyzed using EPA Method 8082

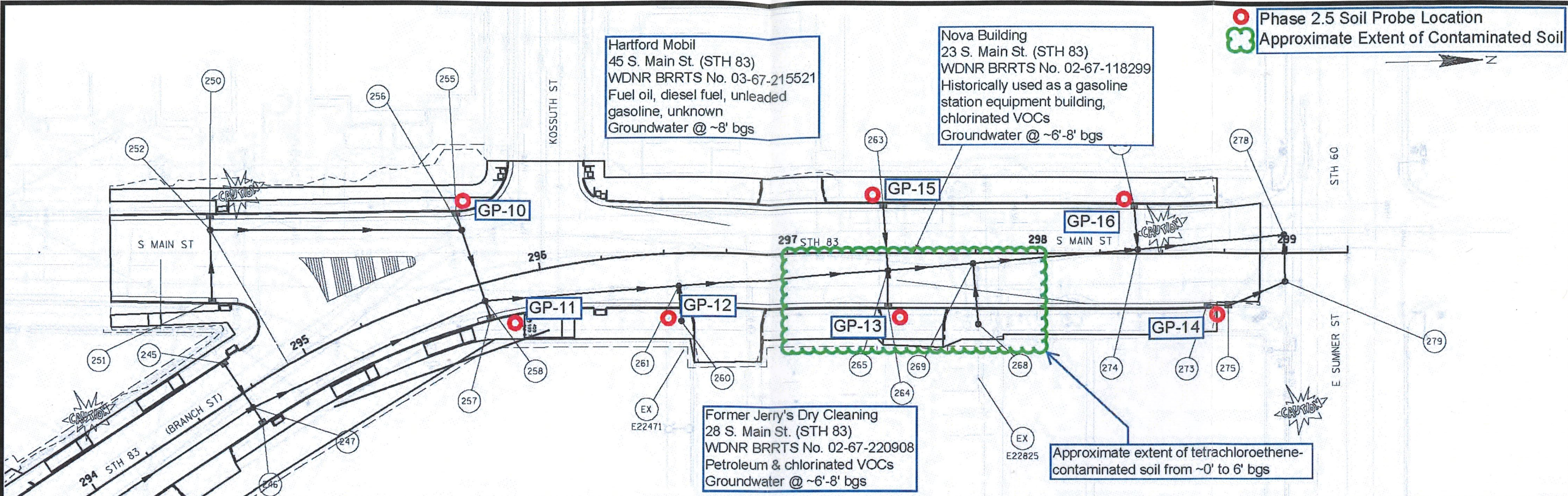
- SVOCs = Semivolatile Organic Compounds analyzed using EPA Method 8270D
- Samples were collected by TRC and analyzed by Test America (WDNR Cert. #998020430)
- Bold = indicates that the analyte and/or sample exceeds the NR 720 RCL for direct contact (non-industrial or industrial), standards for hazard index or cancer risk, and background threshold value if one exists
- Italics = indicates that the analyte exceeds the groundwater pathway RCL and background threshold value if one exists
- B = Compound was found in the blank and sample

Footnotes:

- Only analytes that were detected in at least one sample are shown in the table.
- Value is the generic RCL for the groundwater pathway.
- Value is the generic RCL for exposure by direct contact.
- Calculated from [http://epa-prgs.ornl.gov/cgi-bin/chemicals/cs\\_search](http://epa-prgs.ornl.gov/cgi-bin/chemicals/cs_search) using default exposure assumptions listed in NR 720.12(3)
- Background threshold value (BTV) was taken from the Wisconsin DNR's NR 720 RCL spreadsheet

Created by: Charles Zingsheim 1/14/15  
Checked by: B. Bergmann 1/16/15

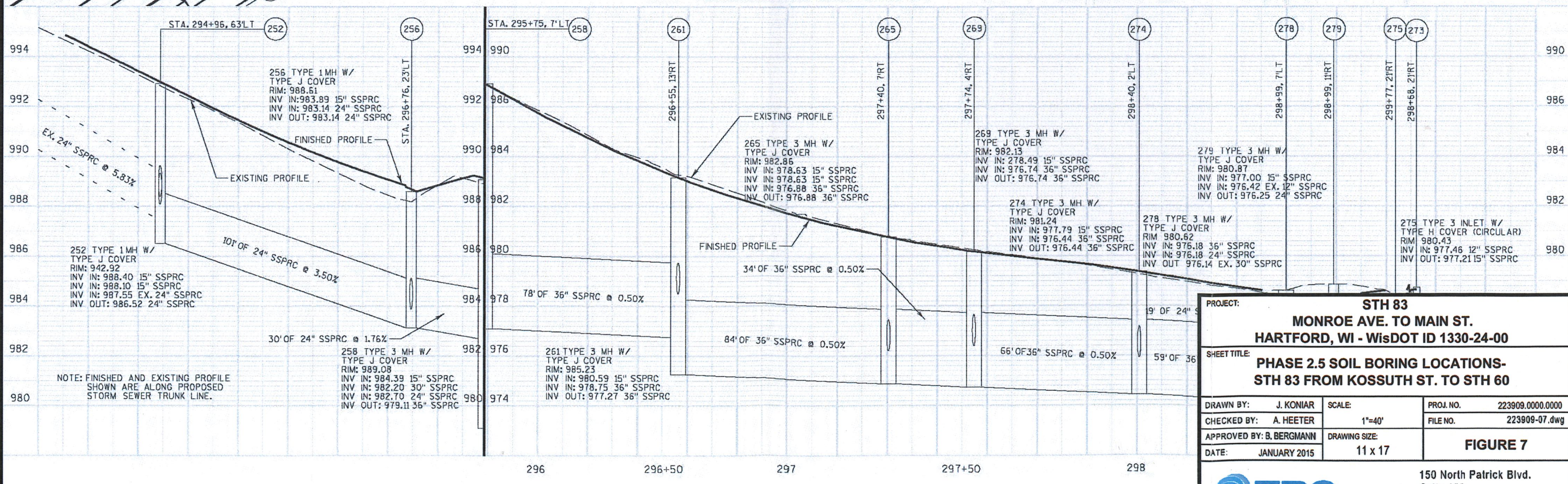
 Phase 2.5 Soil Probe Location  
 Approximate Extent of Contaminated Soil



Attached Xrefs:  
 Attached Images:  
 Layout:

Dwg Size: 0.47 Mb  
 Plot Date: January 16, 2015  
 Plot Time: 9:50 AM

PLOT DATA  
 Drawing Name:  
 Operator Name:  
 Drawing Plot Scale:



PROJECT: <b>STH 83</b>		
MONROE AVE. TO MAIN ST.		
HARTFORD, WI - WisDOT ID 1330-24-00		
SHEET TITLE: <b>PHASE 2.5 SOIL BORING LOCATIONS- STH 83 FROM KOSSUTH ST. TO STH 60</b>		
DRAWN BY: J. KONIAR	SCALE: 1"=40'	PROJ. NO. 223909.0000.0000
CHECKED BY: A. HEETER	DRAWING SIZE: 11 x 17	FILE NO. 223909-07.dwg
APPROVED BY: B. BERGMANN	DATE: JANUARY 2015	
<b>FIGURE 7</b>		

Base Map provided by the WisDOT


 150 North Patrick Blvd.  
 Suite 180  
 Brookfield, WI 53045  
 Phone: 262.879.1212