



*Brian Stearns, P.E.
Manager – Upstate NY
Site Investigation & Remediation*

October 29, 2018

George Heitzman, P.E.
Assistant Director, Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 11th Floor
Albany, NY 12233-7014

**Subject: Emerging Contaminant Groundwater Sampling Work Plan
National Grid Upstate New York MGP Sites (Index No.: CO 7-20180629-27)**

Dear Mr. Heitzman:

Pursuant to the Department's October 9, 2018 comment letter, National Grid has prepared this letter to serve as the revised final Emerging Contaminant Groundwater Sampling Work Plan (work plan) for select manufactured gas plant (MGP) sites identified in the Department's September 12, 2018 letter.

Background

The Department submitted a May 30, 2018 letter requesting National Grid prepare a work plan to conduct groundwater sampling for 1,4 dioxane and per- and polyfluoroalkyl substances (PFAS) at select MGP sites. The Department also provided guidance with respect to analytical methods and reporting requirements. National Grid provided a revised work plan on September 4, 2018 and the Department approved the revised work plan in their September 12, 2018 letter which also confirmed that a separate work plan was to be developed for the following MGP sites:

- 401078 – Cohoes
- 401079 – Watervliet (5th St.)
- 429008 – Amsterdam River Link Park
- 442057 – Rensselaer
- 447053 – Schenectady (Clinton St.)
- 517014 – Malone
- 558044 – Whitehall
- 622034 – Little Falls
- 727014 – Canastota
- 738049 – Oswego (West Utica St.)
- 738050 – Fulton (Ontario St.)
- 819020 – LeRoy (this site was not identified in the September 12, 2018 letter; however, the Department's site project manager requested that this site be included in the work plan)

In an effort to streamline the process, National Grid submits this letter to serve as the work plan and proposes to utilize the same Quality Assurance Project Plan (QAPP), Field Sampling Plan (FSP), sample collection procedures, laboratory procedures, waste management procedures, and data interpretation and reporting procedures as provided in the September 4, 2018 work plan. The proposed sampling locations for each of the above sites are provided as Attachment A.

Schedule

Following the Department's approval of this work plan, National Grid will begin scheduling the sampling activities. Please note, for the non-owned sites listed above, National Grid is required to discuss the sampling approach with each property owner and potentially update or prepare new access agreements. As such, National Grid cannot provide a schedule at this time. As requested, National Grid will provide at least 1 week advance notification to the Department prior to sampling.

Please do not hesitate to contact me at (315) 428-5731 if you have any questions.

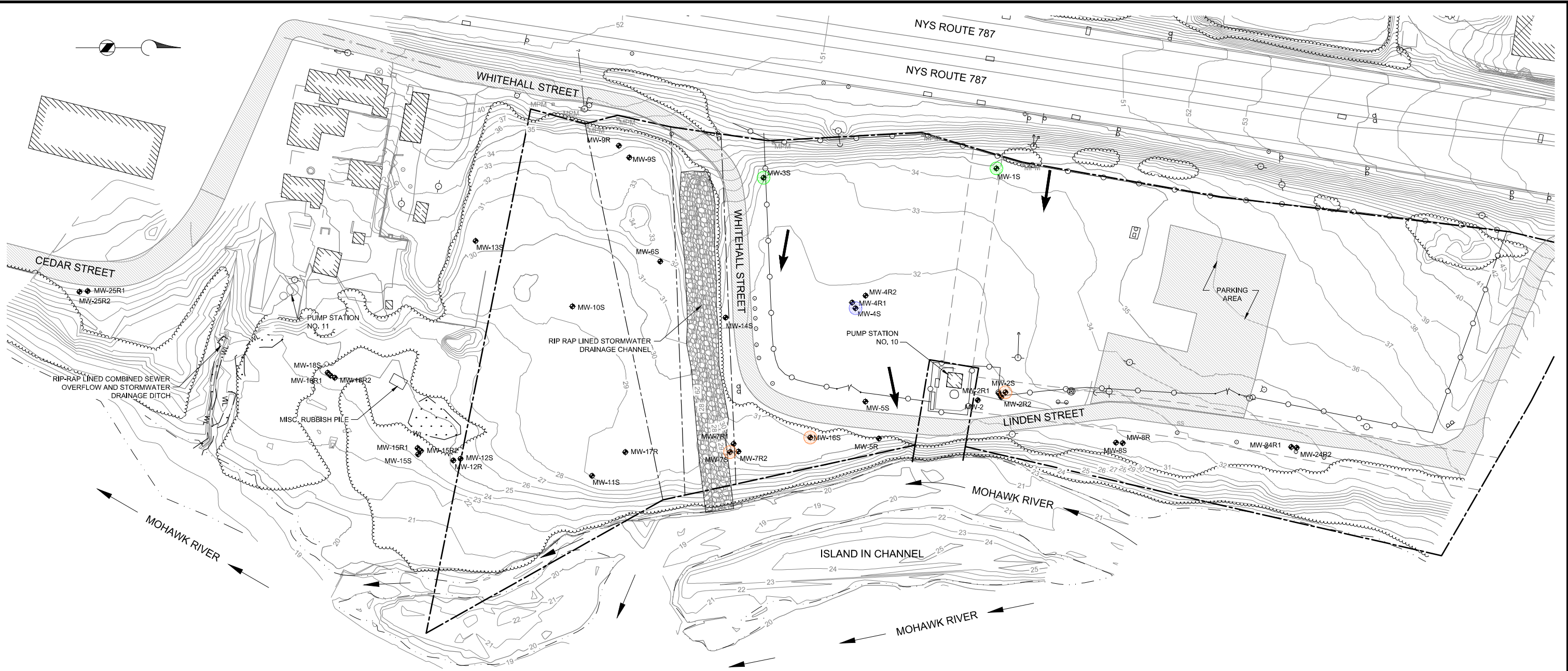
Sincerely,

Brian Stearns

cc: Charles Willard, National Grid
Amen Omorogbe, New York State Department of Environmental Conservation

ATTACHMENT A

Proposed Sampling Locations Emerging Contaminant Sampling Upstate New York



LEGEND:	
	NATIONAL GRID PROPERTY BOUNDARY
	TAX PARCEL BOUNDARY
	CHAIN LINK FENCE (APPROXIMATE)
	GROUND SURFACE ELEVATION CONTOUR (FT., NGVD)
	MOHAWK RIVER SHORELINE
	TREE LINE
	ASPHALT ROAD/PARKING AREAS
	MOHAWK RIVER FLOW DIRECTION
	BUILDING
	MONITORING WELL
	LATH STAKE
	CATCH BASIN/DROP INLET
	UNKNOWN STRUCTURE
	MANHOLE
	UTILITY POLE
	UTILITY POLE W/ GUY WIRE
	LIGHT POLE
	HYDRANT
	SIGN
	PROPOSED UPGRADIENT MONITORING LOCATIONS
	PROPOSED INTERIOR MONITORING LOCATION
	PROPOSED DOWNGRADIENT MONITORING LOCATIONS
	GENERALIZED DIRECTION OF GROUNDWATER FLOW

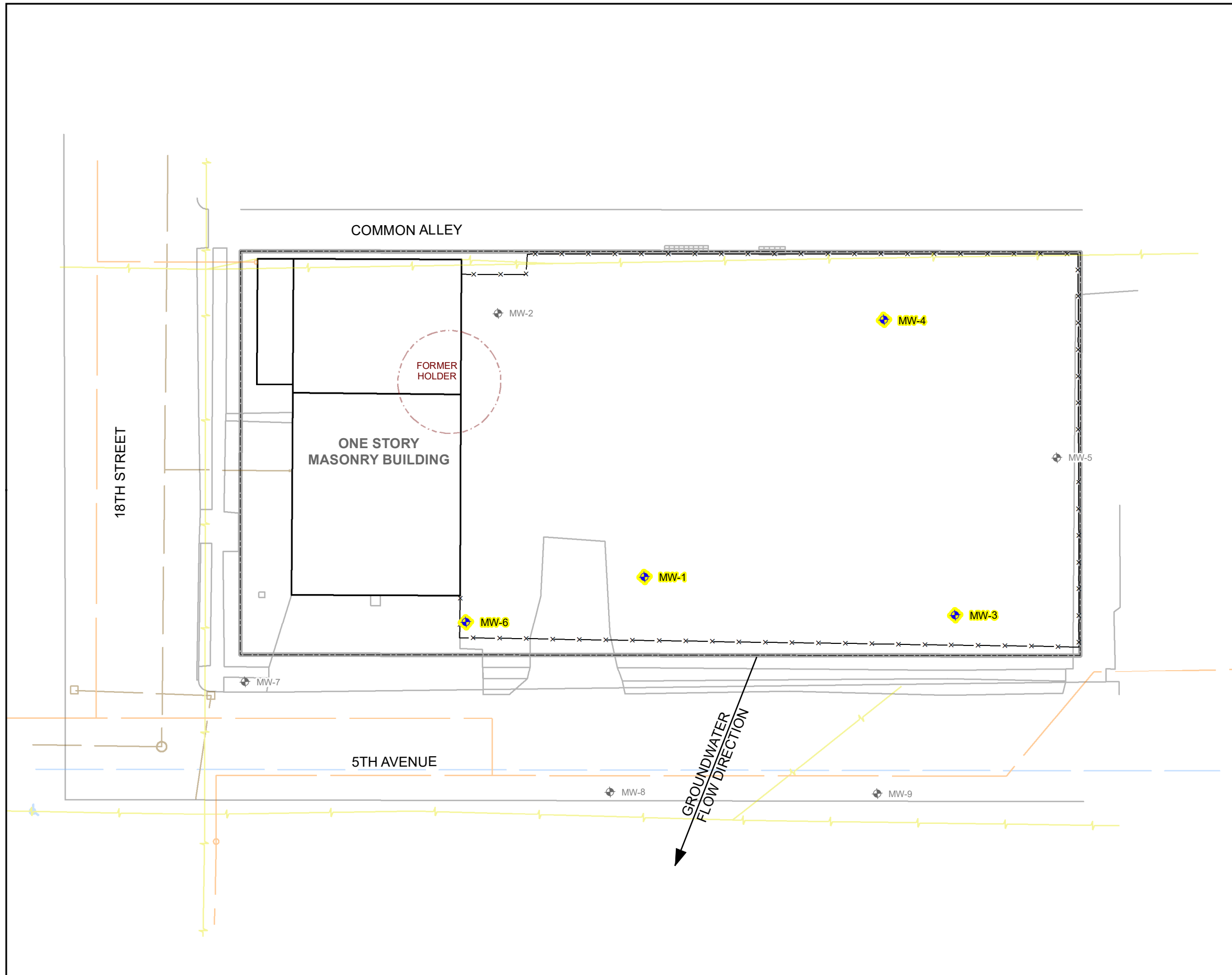


FIGURE 1
PROPOSED EMERGING CONTAMINANT
MONITORING LOCATIONS



SCALE: 1" = 50'
PROJECT: 152020
DATE: September 7, 2018

NATIONAL GRID
COHOES (LINDEN ST.)
FORMER MGP SITE
COHOES, NEW YORK



LEGEND

- PROPOSED PFC AND 1,4-DIOXANE SAMPLE LOCATION
- MONITORING WELL
- GAS LINE
- OVERHEAD UTILITY
- SANITARY STORM SEWER
- WATERLINE
- FENCE
- PROPERTY BOUNDARY
- BUILDING

NATIONAL GRID
WATERVLIET (5TH AVE) SITE
WATERVLIET, NEW YORK

PROPOSED
PFC AND 1,4-DIOXANE
SAMPLING LOCATIONS

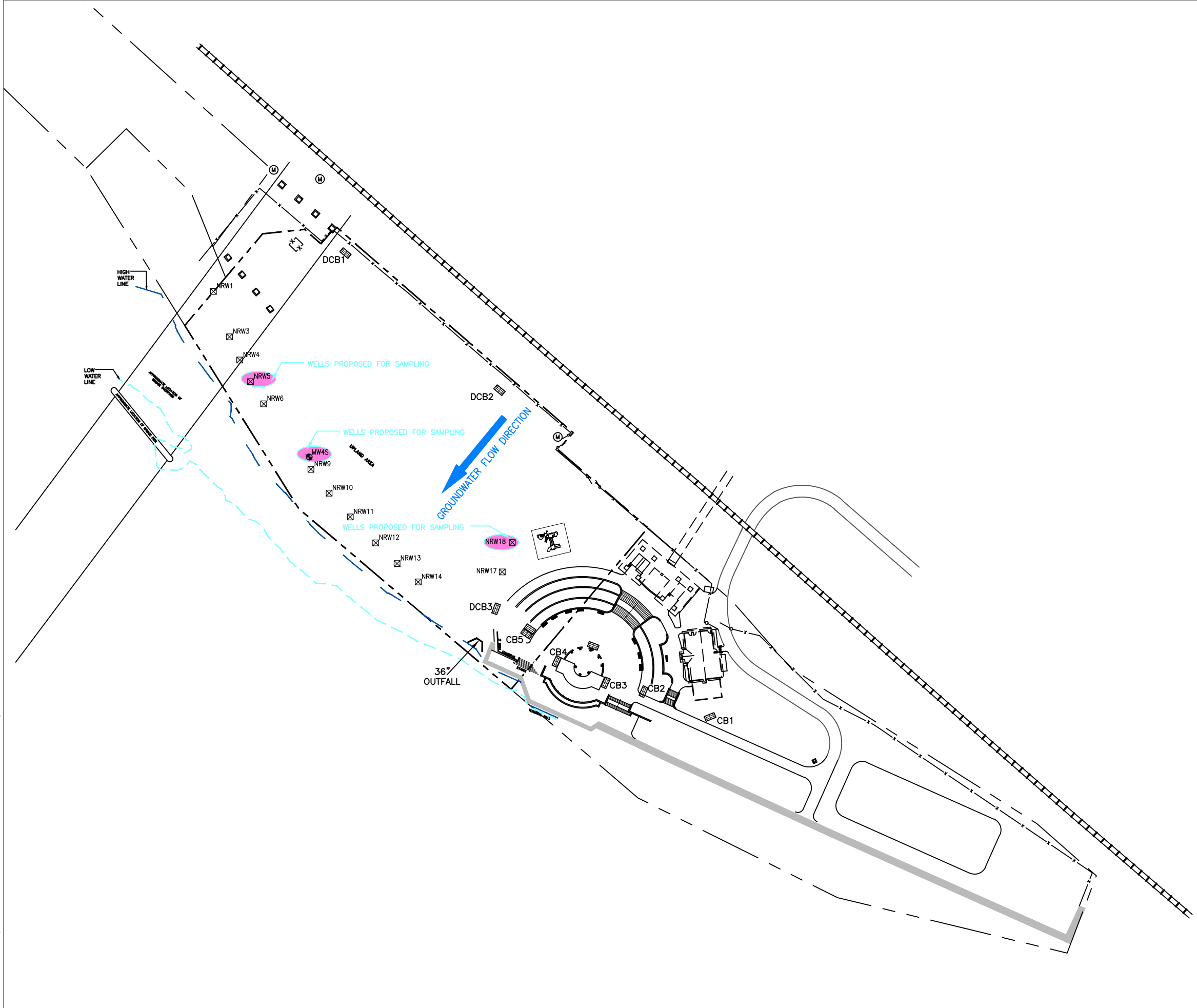


1118.49001
OCTOBER 2018



O'BRIEN & GERE ENGINEERS, INC.

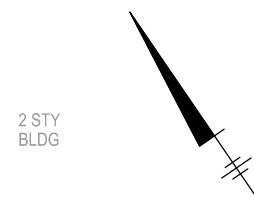
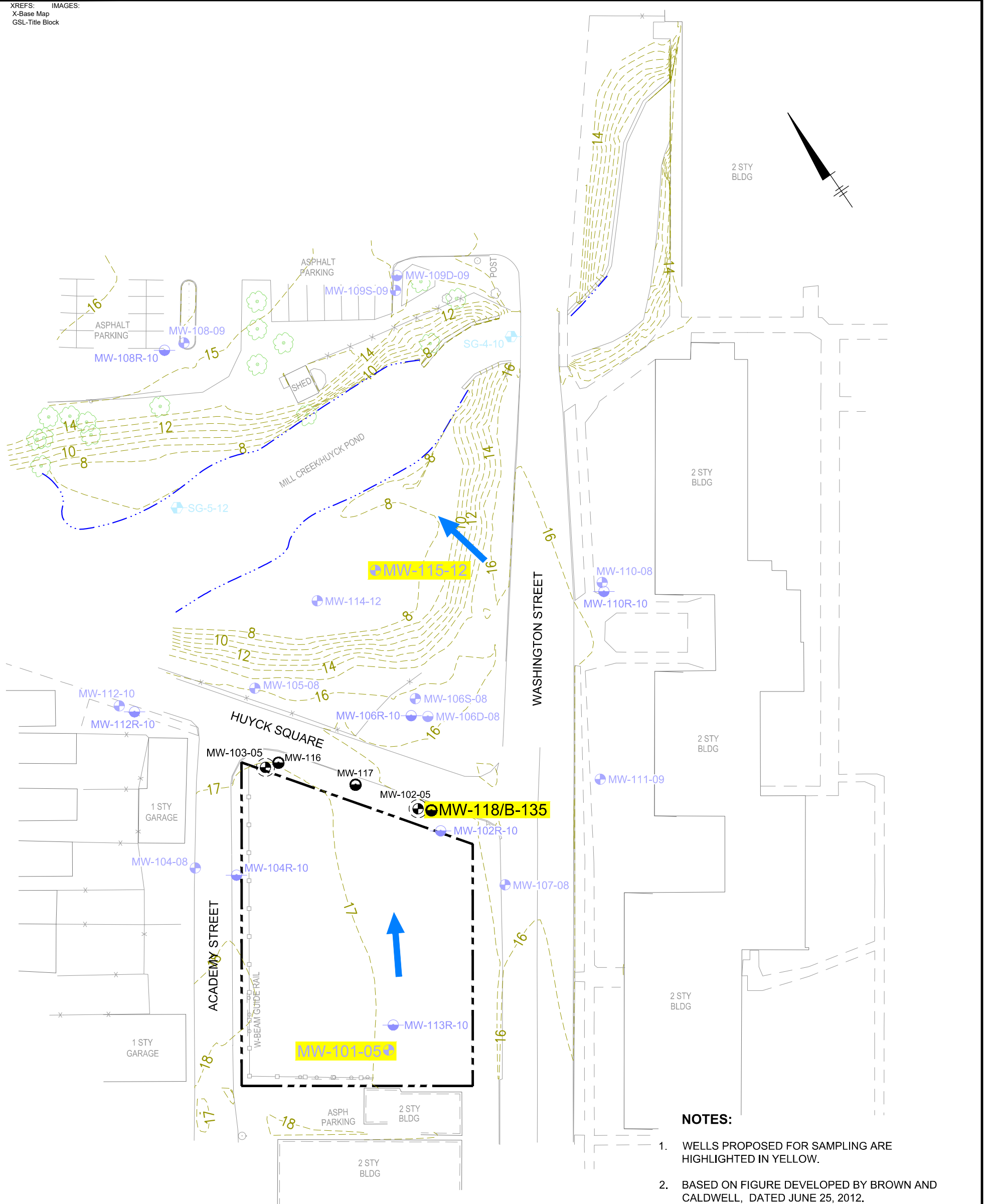
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- LEGEND**
- PROPERTY BOUNDARY
 - x - FENCE
 - ▤ CATCH BASIN
 - (M) UTILITY MANHOLE
 - MONITORING WELL
 - ⊠ RECOVERY WELL
 - WELLS PROPOSED FOR PFAS SAMPLING

Site Map		
National Grid Front Street Amsterdam, New York		
Drawn W.G.S. Designed		Date 9/6/18 Figure
Approved		
		

XREFS: IMAGES:
 X-Base Map
 GSL-Title Block

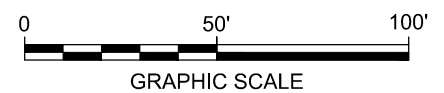


LEGEND:

- RI MONITORING WELL (SHALLOW)
- RI MONITORING WELL (DEEP)
- RI MONITORING WELL (BEDROCK)
- RI STAFF GAUGE
- PAVEMENT EDGE
- GROUND SURFACE
- PROPERTY LINE
- MONITORING WELL DECOMMISSIONED DURING PDI
- PDI MONITORING WELL
- SHALLOW GROUNDWATER FLOW DIRECTION

NOTES:

1. WELLS PROPOSED FOR SAMPLING ARE HIGHLIGHTED IN YELLOW.
2. BASED ON FIGURE DEVELOPED BY BROWN AND CALDWELL, DATED JUNE 25, 2012.
3. BASE MAP DEVELOPED BASED ON DRAWING PROVIDED BY MJ ENGINEERING AND LAND SURVEYING, P.C. (7/25/05, REVISED, 11/17/10).
4. ALL LOCATIONS ARE APPROXIMATE.



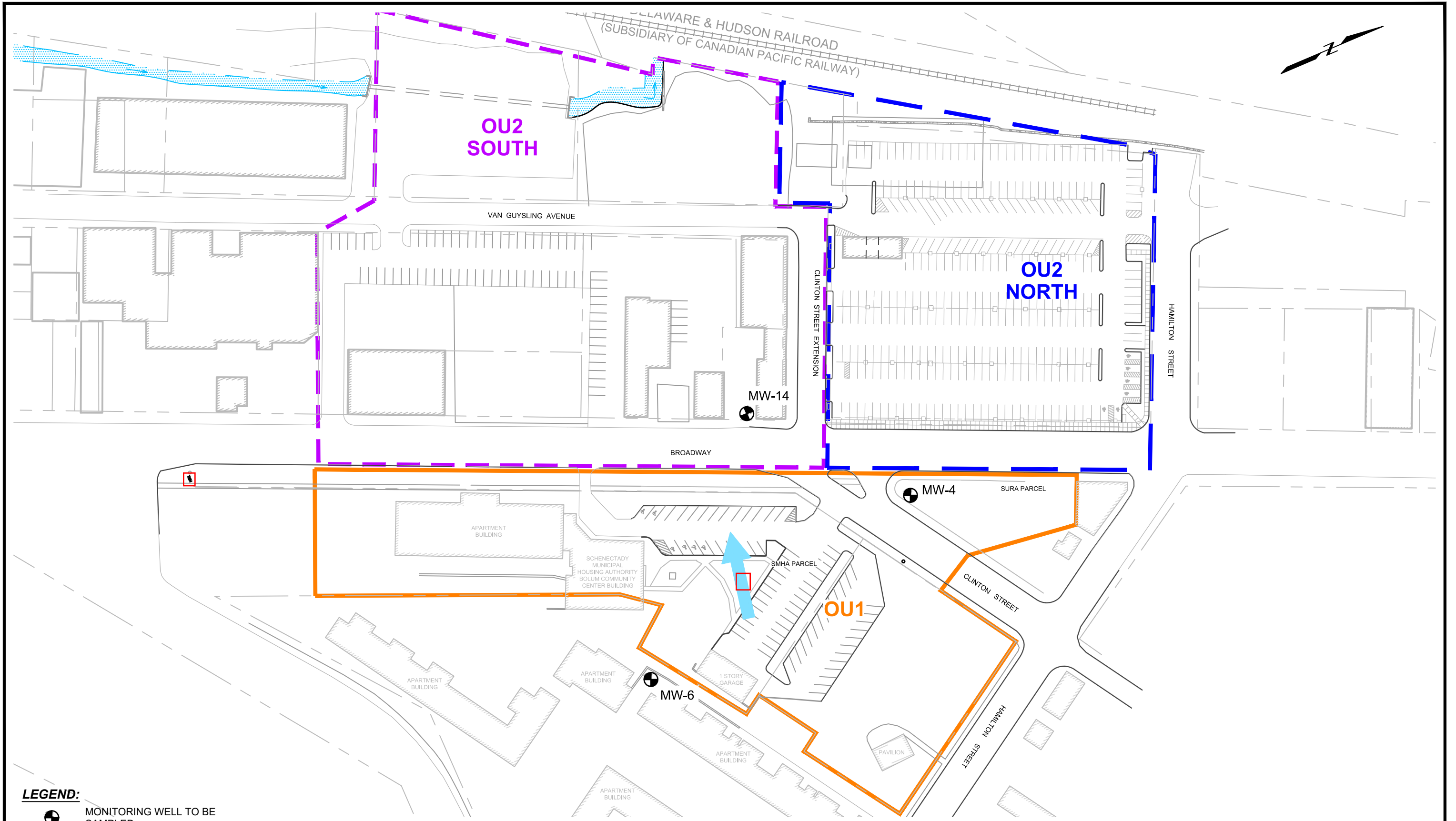
NATIONAL GRID
 RENSSELAER NON-OWNED FORMER MGP SITE
 RENSSELAER, NEW YORK



PROPOSED GROUNDWATER SAMPLING LOCATIONS

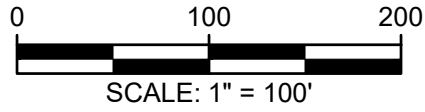


FIGURE

1



LEGEND:
 MONITORING WELL TO BE SAMPLED
 GROUNDWATER FLOW DIRECTION



SOURCE:
 1. PLAN BASED ON MAP PREPARED BY DELTA ENGINEERS AND ARCHITECTS.

Emerging Contaminant Evaluation
 Schenectady Clinton Street Former MGP
 Schenectady, New York

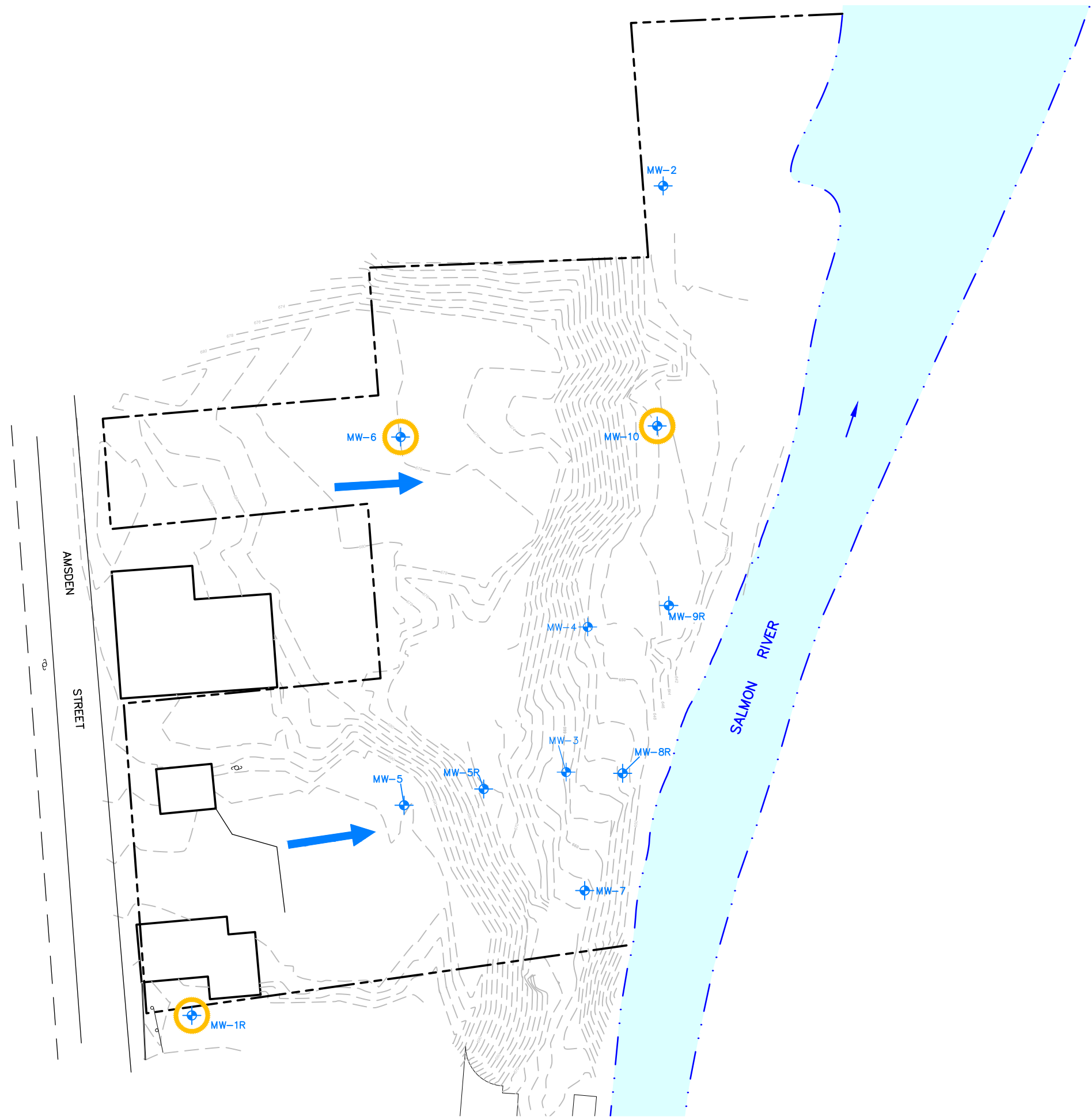



Project 102781







PROPOSED EMERGING
 CONTAMINANT SAMPLING
 LOCATIONS

October 2018

Fig. 1





LEGEND:

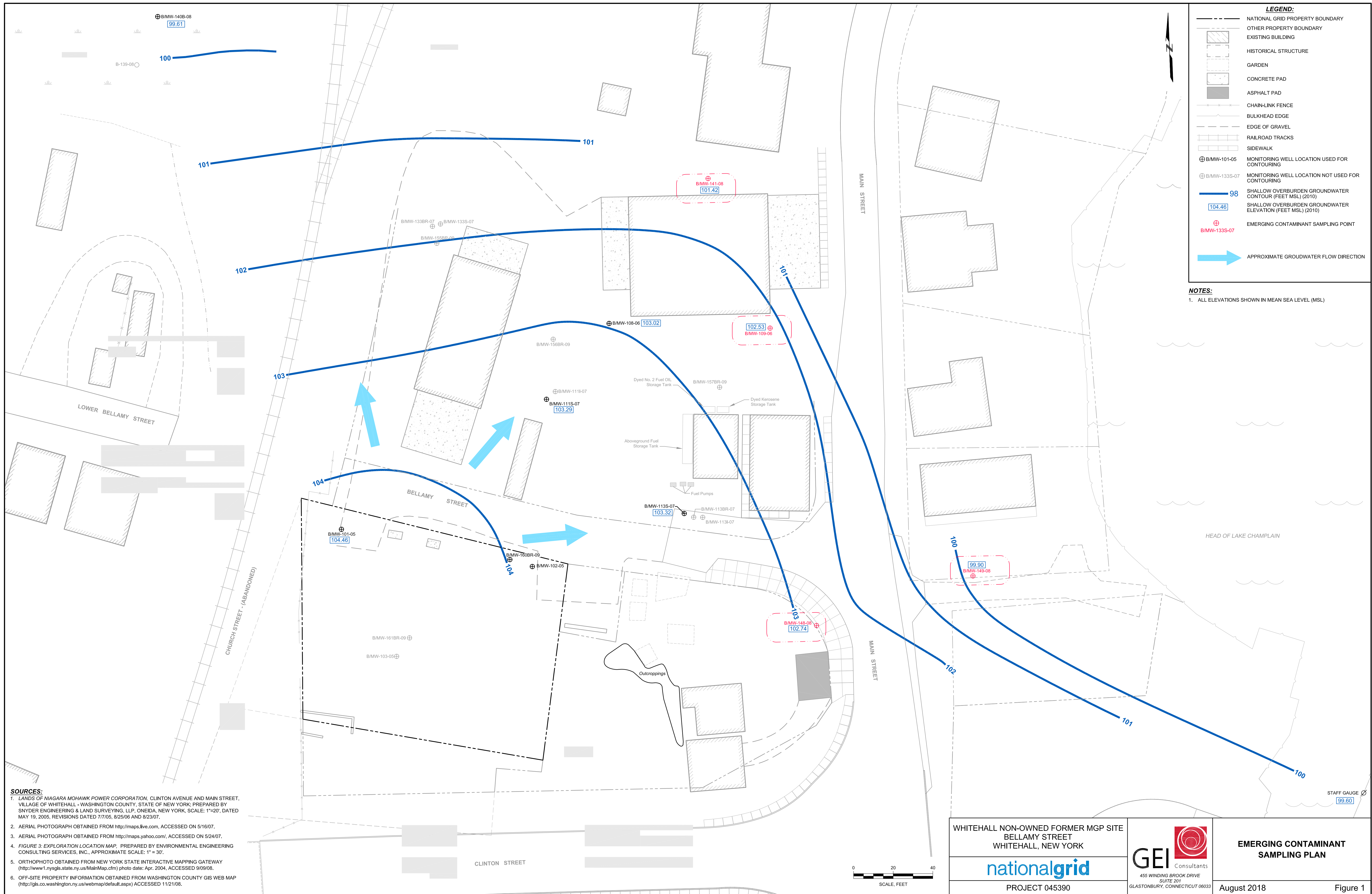
-  MONITORING WELL PROPOSED FOR EMERGENT CONTAMINANT SAMPLING
-  MONITORING WELL LOCATION
-  APPROXIMATE GROUNDWATER FLOW DIRECTION
-  NATIONAL GRID PROPERTY LINE
-  TOPOGRAPHIC CONTOUR (4/04/2009)
-  APPROXIMATE EDGE OF WATER

NOTES:

1. BASE MAP PREPARED FROM SURVEY CONDUCTED BY THE ASSOCIATES, DATED 9/13/10. MAP IS REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE) AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). NORTH ARROW AS SHOWN INDICATES GRID NORTH REFERENCED TO NAD83 AND PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE).
2. ALL LOCATIONS ARE APPROXIMATE.



NATIONAL GRID MALONE (AMSDEN STREET) FORMER MGP SITE	
MONITORING WELLS PROPOSED FOR EMERGENT CONTAMINANT SAMPLING	
 ARCADIS	 Design & Consultancy for natural and built assets
FIGURE 1	



LEGEND:

- NATIONAL GRID PROPERTY BOUNDARY
- OTHER PROPERTY BOUNDARY
- EXISTING BUILDING
- HISTORICAL STRUCTURE
- GARDEN
- CONCRETE PAD
- ASPHALT PAD
- CHAIN-LINK FENCE
- BULKHEAD EDGE
- EDGE OF GRAVEL
- RAILROAD TRACKS
- SIDEWALK
- BMW-101-05 MONITORING WELL LOCATION USED FOR CONTOURING
- BMW-133S-07 MONITORING WELL LOCATION NOT USED FOR CONTOURING
- 98 SHALLOW OVERBURDEN GROUNDWATER CONTOUR (FEET MSL) (2010)
- 104.46 SHALLOW OVERBURDEN GROUNDWATER ELEVATION (FEET MSL) (2010)
- BMW-133S-07 EMERGING CONTAMINANT SAMPLING POINT
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:
 1. ALL ELEVATIONS SHOWN IN MEAN SEA LEVEL (MSL)

- SOURCES:**
1. LANDS OF NIAGARA MOHAWK POWER CORPORATION, CLINTON AVENUE AND MAIN STREET, VILLAGE OF WHITEHALL - WASHINGTON COUNTY, STATE OF NEW YORK; PREPARED BY SNYDER ENGINEERING & LAND SURVEYING, LLP, ONEIDA, NEW YORK, SCALE: 1"=20', DATED MAY 19, 2005, REVISIONS DATED 7/7/05, 8/25/06 AND 8/23/07.
 2. AERIAL PHOTOGRAPH OBTAINED FROM <http://maps.live.com>, ACCESSED ON 5/16/07.
 3. AERIAL PHOTOGRAPH OBTAINED FROM <http://maps.yahoo.com/>, ACCESSED ON 5/24/07.
 4. FIGURE 3: EXPLORATION LOCATION MAP, PREPARED BY ENVIRONMENTAL ENGINEERING CONSULTING SERVICES, INC., APPROXIMATE SCALE: 1" = 30'.
 5. ORTHOPHOTO OBTAINED FROM NEW YORK STATE INTERACTIVE MAPPING GATEWAY (<http://www1.nysgis.state.ny.us/MainMap.cfm>) photo date: Apr. 2004, ACCESSED 9/09/08.
 6. OFF-SITE PROPERTY INFORMATION OBTAINED FROM WASHINGTON COUNTY GIS WEB MAP (<http://gis.co.washington.ny.us/webmap/default.aspx>) ACCESSED 11/21/08.

WHITEHALL NON-OWNED FORMER MGP SITE
 BELLAMY STREET
 WHITEHALL, NEW YORK

nationalgrid

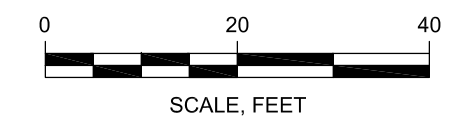
PROJECT 045390

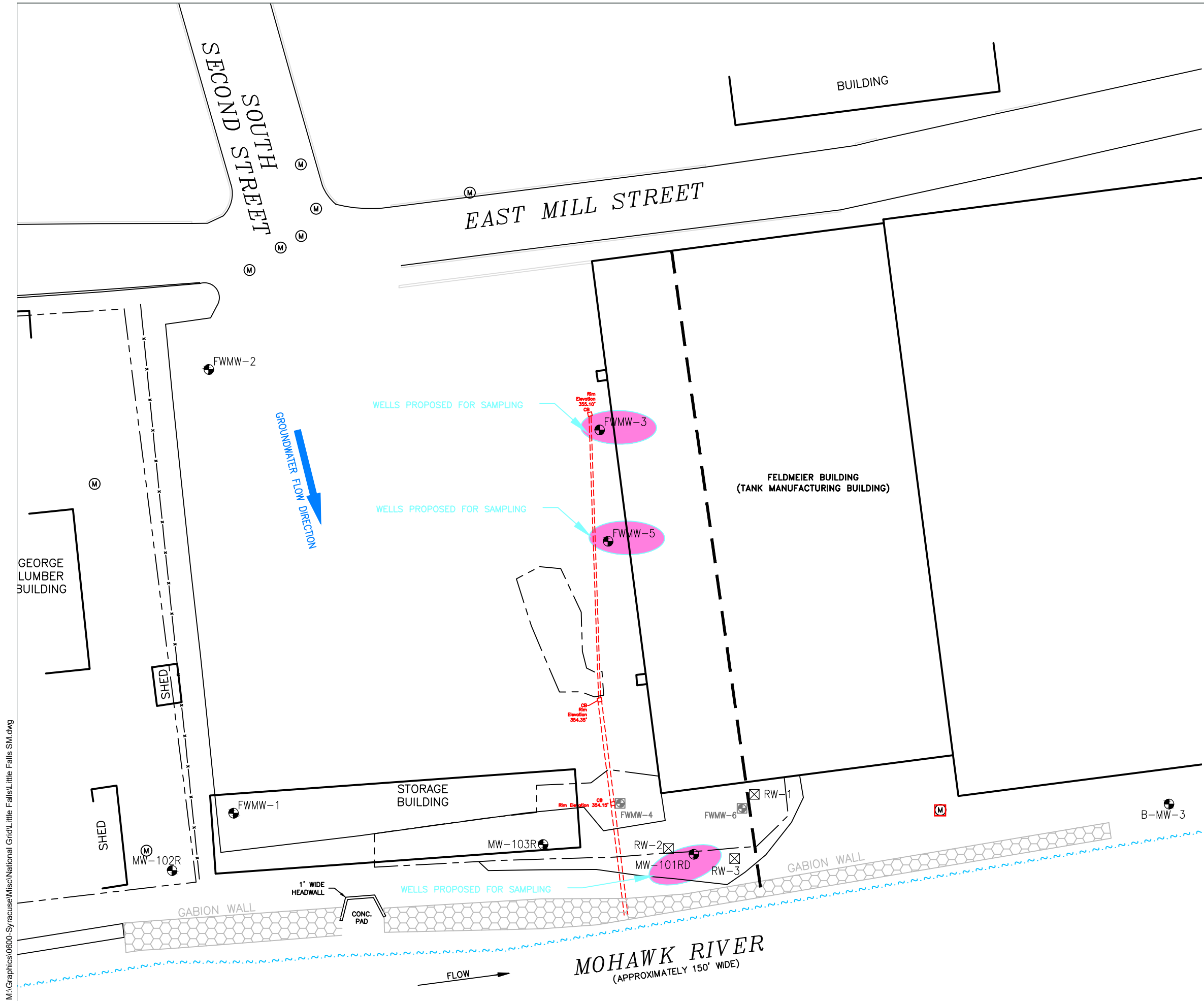
GEI Consultants
 455 WINDING BROOK DRIVE
 SUITE 201
 GLASTONBURY, CONNECTICUT 06033

EMERGING CONTAMINANT SAMPLING PLAN

August 2018

Figure 1





- LEGEND**
- PROPERTY BOUNDARY
 - x — FENCE
 - ~ ~ ~ WATERS EDGE
 - Ⓜ UTILITY MANHOLE
 - ⊙ MONITORING WELL
 - ⊠ RECOVERY WELL
 - ⊞ DESTROYED/ABANDONED WELL
 - WELLS PROPOSED FOR PFAS SAMPLING

M:\Graphics\0600-Syracuse\Misc\National Grid\Little Falls\Little Falls SM.dwg

Site Map		
National Grid Former MGP Site 575 Mill Street Little Falls, New York		
Drawn W.G.S. Designed Approved	 Scale In Feet   <small>Groundwater & Environmental Services, Inc.</small>	Date 9/6/18 Figure

SOURCES:

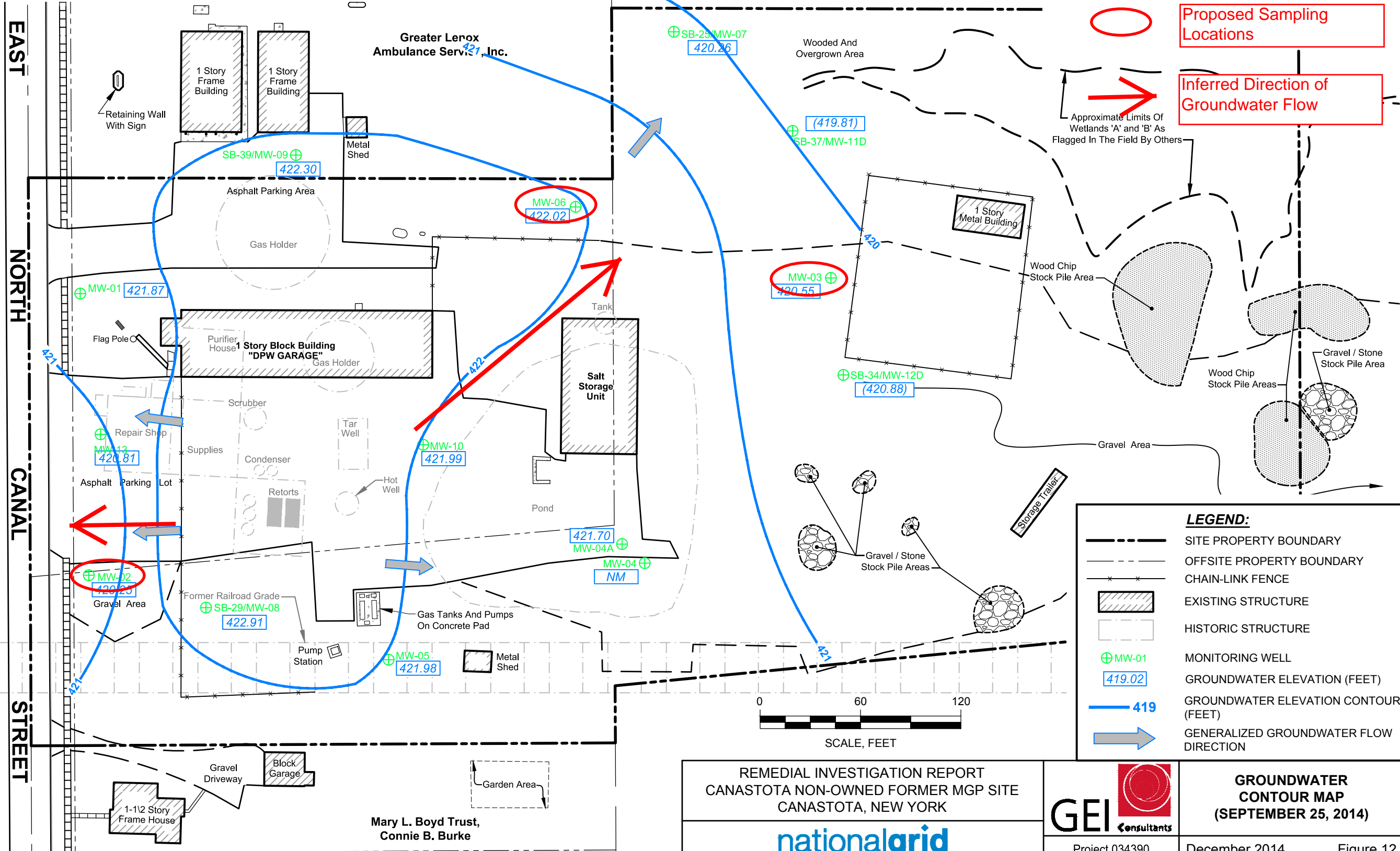
1. PLAN BASED ON SURVEY MAPS SHEETS 1 AND 2: LANDS OF VILLAGE OF CANASTOTA, NORTHEAST CANAL STREET AND ROBERTS STREET, BEING PART OF LOT # 86 OF THE CANASTOTA TRACT, VILLAGE OF CANASTOTA - MADISON COUNTY, STATE OF NEW YORK, PREPARED BY DELTA ENGINEERS, ARCHITECTS & LAND SURVEYORS, 4873 NEW YORK STATE ROUTE #5, VERNON, NY, SCALE: 1" = 30', DATE: 2/10/2010, LAST REVISED SEPTEMBER 26, 2014.
2. 1911 SANBORN FIRE INSURANCE MAP.

NOTES:

1. HORIZONTAL DATUM: NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, (NAD 83).
2. VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).
3. LOCATIONS OF SOME HISTORIC FEATURES ADJUSTED BASED ON FIELD OBSERVATIONS.

NEW YORK STATE ERIE CANAL

EAST NORTH CANAL STREET

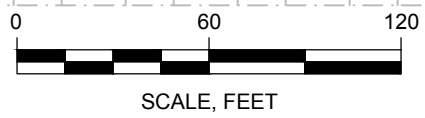


Proposed Sampling Locations

Inferred Direction of Groundwater Flow

LEGEND:

- SITE PROPERTY BOUNDARY
- ... OFFSITE PROPERTY BOUNDARY
- *- CHAIN-LINK FENCE
- [Hatched Box] EXISTING STRUCTURE
- [White Box] HISTORIC STRUCTURE
- ⊕ MW-01 MONITORING WELL
- [419.02] GROUNDWATER ELEVATION (FEET)
- 419 GROUNDWATER ELEVATION CONTOUR (FEET)
- GENERALIZED GROUNDWATER FLOW DIRECTION



REMEDIAL INVESTIGATION REPORT
CANASTOTA NON-OWNED FORMER MGP SITE
CANASTOTA, NEW YORK

nationalgrid



GROUNDWATER CONTOUR MAP
(SEPTEMBER 25, 2014)

December 2014 Figure 12

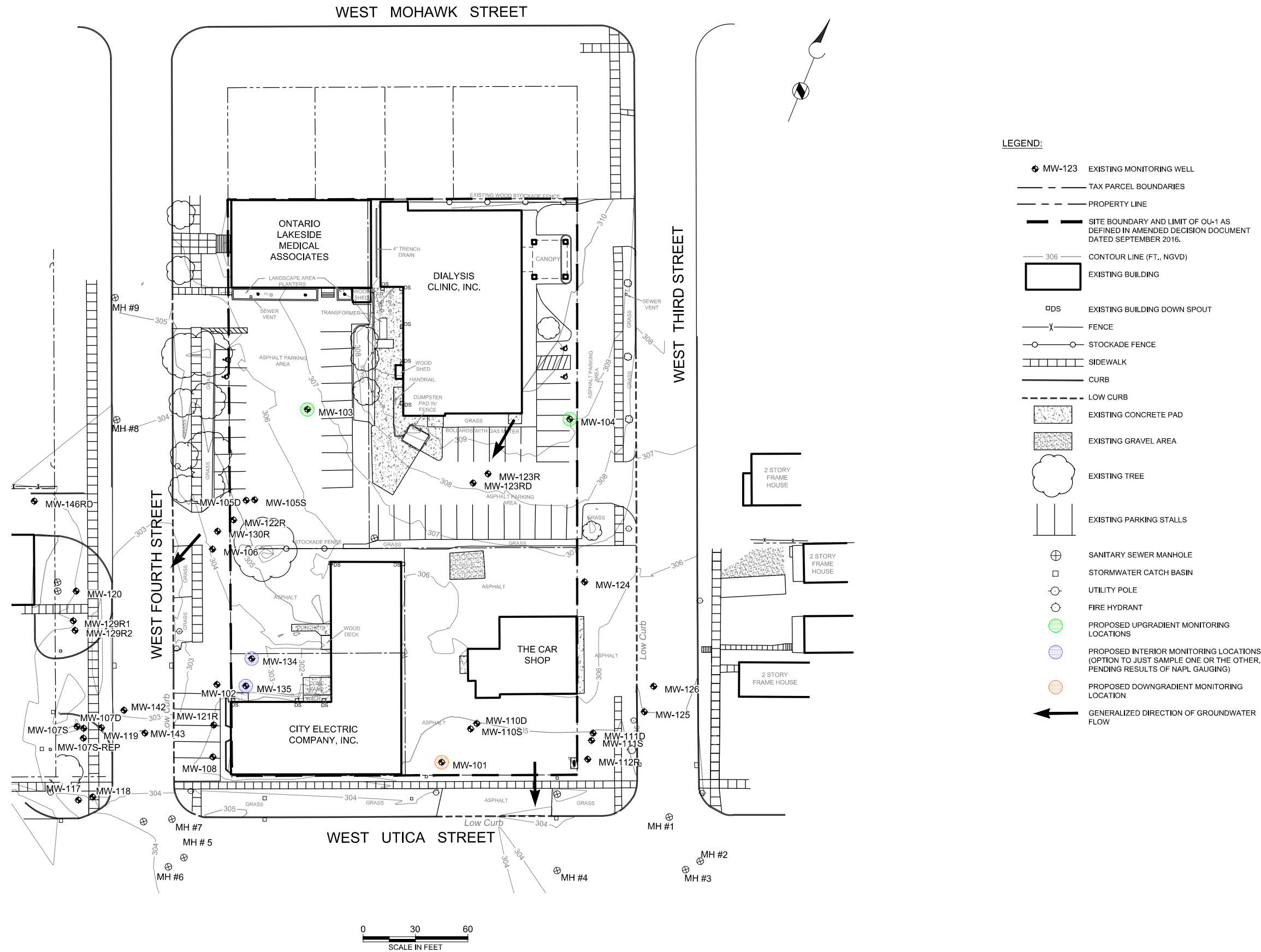


FIGURE 1
PROPOSED EMERGING CONTAMINANT
MONITORING LOCATIONS



SCALE" 1" = 30'

PROJECT: 152592

DATE: September 6, 2018

NATIONAL GRID
OSWEGO (WEST UTICA ST.)
FORMER MGP SITE
OSWEGO, NEW YORK



LEGEND:

- PROPERTY LINE
- - - OSWEGO RIVER SHORELINE. ESTIMATED BASED ON 2015 ORTHOIMAGERY
- 330 --- GROUND SURFACE ELEVATION CONTOUR (FT., NGVD)
- MANHOLE
- POLE
- ⊕ MW-103 MONITORING WELL
- SG-1 STAFF GAUGE
- PZ-3 PIEZOMETER
- PROPOSED UPGRADIENT MONITORING LOCATION
- PROPOSED INTERIOR MONITORING LOCATION
- PROPOSED DOWNGRAIDENT MONITORING LOCATIONS
- ← GENERALIZED DIRECTION OF GROUNDWATER FLOW

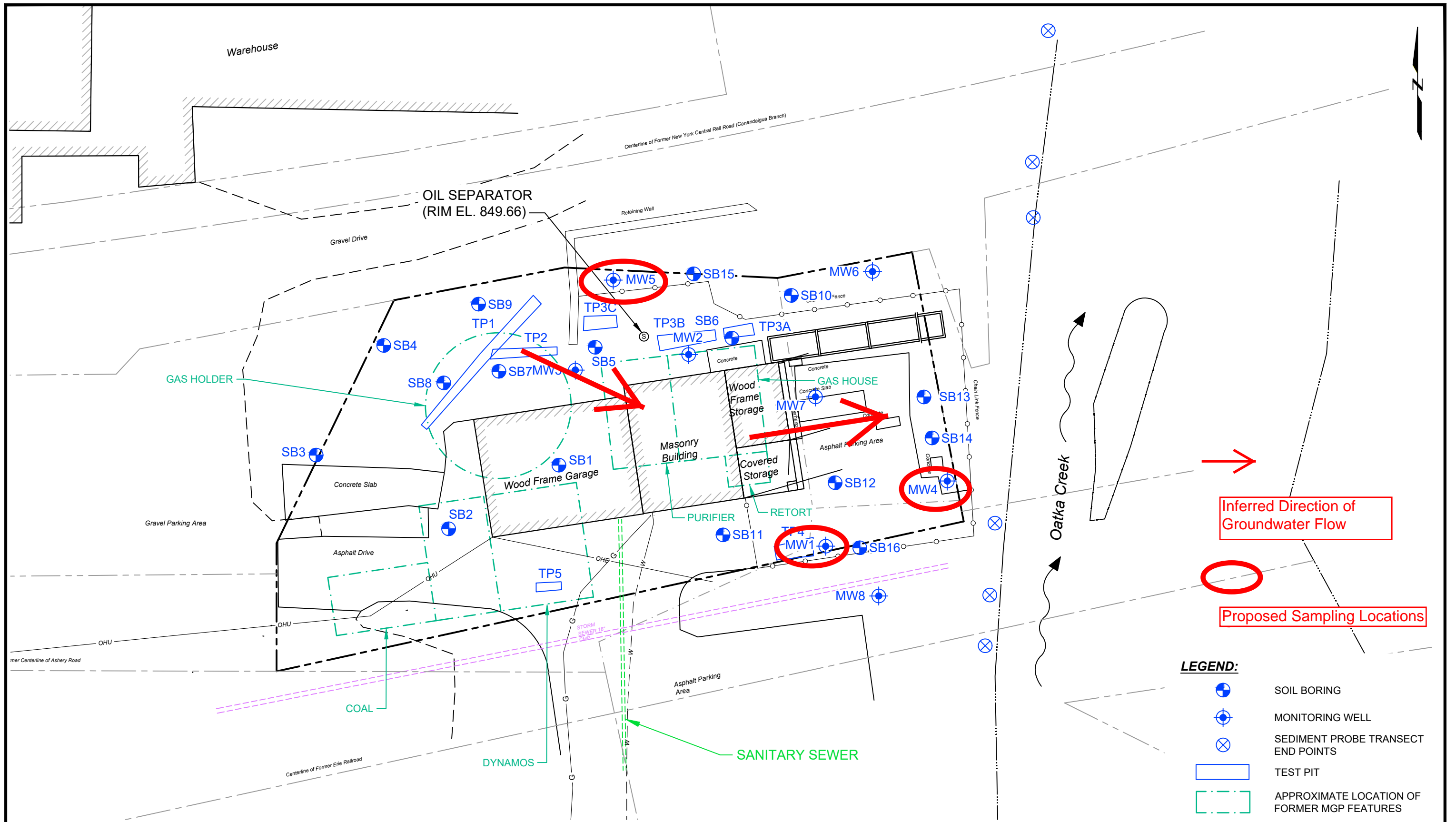
SOURCE:
 BASEMAP DEVELOPED BASED ON DRAWING PREPARED BY SNYDER
 ENGINEERING AND LAND SURVEYING, LLP (JANUARY 11, 2005),
 REVISED BY DELTA ENGINEERS, ARCHITECTS, AND LAND
 SURVEYORS, P.C. (NOVEMBER 2015).



SCALE: 1" = 50'
 DATE: September 6, 2018

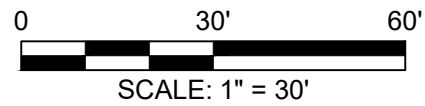
NATIONAL GRID
 FULTON (ONTARIO ST.)
 FORMER MGP SITE
 FULTON, NEW YORK

**PROPOSED EMERGING CONTAMINANT
 MONITORING LOCATIONS**



SOURCES:

1. Survey titled: Former Leroy National Grid MGP Site, Lands of Thomas W. McGinnis, Tax Parcel No. 6.-1-56, 78-1/2 Lake Street, Village of Leroy, Count of Genesee, State of New York, prepared by Thew Associates Land Surveyors, Date: 6/24/2016.
2. 1885, 1892, 1987, 1903 and 1910 Sanborn Fire Insurance Maps, Assembled by EDR, Order Date: 3/17/2015, Inquiry Number 4236142.3.



Remedial Investigation Report
LeRoy Former MGP site
LeRoy, New York

nationalgrid

GEI Consultants

Project 1503890

SUBSURFACE INVESTIGATION POINTS

May 2018

Fig. 5