NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Boundary Modification Report

7/10/2017

Site Code: 420002 **Site Name:** American Valve Manufacturing
City: Coxsackie **Town:** Coxsackie
Region: 4 **County:** Greene
Current Classification: 04 **Proposed Site Size: 9.839**
Current Site Size (acres): 12.00 **Extra Details:** Landfill
Significant Threat: Previously **Site Type:**
Priority ranking Score: **Project Manager:** Will Welling

Summary of Approvals

Originator/Supervisor: Michael Cruden **10/24/2016**

Regional Hazardous Waste Remedial Engineer: : **11/01/2016**

BEEI of NYSDOH:

CO Bureau Director: Michael Cruden, Director, Remedial Bureau E: **06/29/2017**

Assistant Division Director: Michael J. Ryan, P.E.:

Site Description

Location:
The American Valve Manufacturing (AVM) site is located in the Village of Coxsackie in Greene County, New York. The property is located at 170 Mansion Street (Route 385). The site parcel is accessed from Cato Street and Mansion Street.

Site Features:
Since 1993 the site area has been reported as 12 acres within the 15.6 acre American Valve parcel. The modified site extent covers approximately 9.8 acres. The site now only includes the capped and fenced foundry sand landfill (disposal site). The AVM site is generally bounded by the CSX railroad right-of -way to the west, Cato Street to the northwest and Spencer Boulevard to the south. Presently eight-foot high chain-link fence surrounds the entire parcel perimeter. A new section of fence and two gates has been tied into the old perimeter fence to completely encircle the landfill.

Current Zoning/Use(s):
The site is zoned medium density residential – 2 and community commercial. Residential homes are present on the sides of the site along Cato Street and Spencer Boulevard. The nearest home is approximately 50 feet from the site.

Past Use of the Site:
AVM made valves and pipe fittings at this facility in the past. The facility is reported to have started as an iron

and brass foundry in 1904, and subsequently operated as a brass foundry until its closure in 1986. Waste shell molds, consisting of fine sands and phenolic binders, and non-cohesive spent sands were disposed on the site and various industrial wastes including spent foundry sand were dumped into a landfill on the southern end of the property during the time the company was operating. After the company went out of business, the landfill was abandoned but not properly closed.

NYSDEC conducted a Phase 1 Site Investigation of the Site in 1987. Wehran identified metals and phenols as potential contaminants of concern. In 1989 the New York State Department of Health (NYSDOH) collected surface soil samples from neighboring properties, and sampled a limited number of vegetables from residential gardens. The site was referred to the State Superfund program in 1991 by the Division of Environmental Enforcement and an Interim Remedial Measure (IRM) was completed in 1992.

This interim remedial measure (IRM) addressed off-site erosion of foundry sand from the main disposal area in the southwest portion of the site, called for fencing of the site and for the removal of foundry sand from the sewer line which passed through the site. Foundry sand that had washed off the site were relocated back onto the site and runoff controls were established.

A remedial investigation/feasibility study (RI/FS) was conducted in two phases: June 1993 to October 1994, and January 1995 to February 1997.

In 1998, a subsequent IRM was performed which removed a degreaser pit, contents and associated piping. This action removed the source of the groundwater contamination by volatile compounds.

Operable Units:
The site was divided into two operable units in order to assess media with differing properties. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release. Operable Unit 1 (OU-1) addressed the foundry sand waste. Much of the foundry sand (28,000 cubic yards) was found in the "Main Disposal Area", a large waste pile in the southwest portion of the site. The balance of the foundry sand (43,000 cubic yards) was spread a few feet deep throughout a large area of the site. See Figure 2 from the 1997 ROD.

Operable Unit 2 (OU-2) addressed the groundwater contamination and contaminated building debris. OU-2 consisted of the building complex, solvent contaminated soils beneath and adjacent to the building complex, and the contaminated groundwater beneath and adjacent to the former structure in the southwest portion of the original site. See Figure 7 from the 1999 ROD.

A Record of Decision (ROD) was issued by the NYSDEC in 1997 that described the remedy to be implemented for the foundry sands (OU-1). On- and off-site foundry sand wastes were consolidated in the southern landfill area and then covered with a geomembrane cap as part of the final cleanup for OU-1. This remedial action was completed in 2002.

The RI/FS to address groundwater and building contamination (OU-2) was completed in January of 1999 and a

Site Code: 420002 **Site Name:** American Valve Manufacturing

ROD was signed in March of 1999. The final cleanup plan for OU-2 called for building demolition, treatment of excavated soil via thermal desorption and the natural attenuation of contaminants in groundwater. The building debris including the foundation slab and all concrete piping was disposed of at a permitted off-site facility. The remedy for OU-2 also included management of the site's surface water and development of a long-term site monitoring program.

Geology and Hydrology: The consolidated deposits underlying this portion of Greene County consist of the Ordovician aged Normanskill and Deepkill Shales. Overburden at the site consists of layers of fill, landfill debris, till, silts and clays. The soils are up to 40 feet thick in the area of the site. At depth, these deposits are underlain by glacial till and shale bedrock.

Groundwater at the site is approximately 1 foot below surface at the eastern end of the site and up to 14 feet below surface towards the southwestern portion of the site. At depth the regional groundwater flow is east toward the Hudson River but shallow groundwater at the site flows toward the west.

Contaminants of Concern (Including Materials Disposed)	**Quantity Disposed**
OU 01	
FOUNDRY SAND WITH PHENOLIC BINDERS	0.00
CONTAINING EP TOXIC LEAD (D008)	0.00

Analytical Data Available for : Groundwater, Surface Water, Soil, Sediment, Soil Vapor

Applicable Standards Exceeded for: Groundwater, Soil

Site Environmental Assessment

Nature and Extent of Contamination:

Prior to remediation:
Groundwater: VOCs from the degreaser pit migrated both preferentially through sewers and in the shallow aquifer east off-site into the adjacent residential neighborhood. Significant concentrations did not reach the adjacent neighborhood. Much of the mass of VOCs was in the DNAPL phase in the vadose zone, above the water table. Petroleum and volatile organic compound (VOC) contamination was noted in the shallow groundwater.

Soils: Soils tested beneath the degreaser pit in the southeastern portion of the building and in the former drum crusher pit in the western portion of the building exhibited significant concentrations of TCE, TCA and DCE. Drainage pipes for sewer and storm water management within the building pre-connected to the degreaser pit and conveyed contaminants to the sewer bedding lines along the entire south side of the building. Approximately 9,600 tons of soil which exceeded SCGs were identified beneath and in the vicinity of the building, and associated with sewer bedding outside of the building complex. Lead contamination was also determined to be migrating off-Site by wind and storm water erosion of the foundry sands.

Waste Materials: The foundry sands at the site all contain the constituents of brass (copper, lead, and zinc). Concentrations of heavy metals in the foundry sands were significant (in the percent range), and many were

classified as characteristic hazardous wastes.

Sediment: Sediment was sampled in the drainage area that led away from the site to the west. Concentrations of heavy metals found, although higher than guidelines, were not significantly different than seen in soils sampled in local areas away from the site, and no remediation was required.

Soil Gas: A soil gas survey was conducted to delineate potential plume movement off-site. Although concentrations of VOCs exist in the soil gas at the site, concentrations of VOCs at all off-site locations, near residential structures, were low and did not require additional investigation.

Post-Remediation: Remediation of the site is complete. Exposures to remaining site contaminants within the landfill area are not expected as the area is capped and fenced. Following the demolition of the on-site building, soil contaminated with volatile organic compounds was satisfactorily treated by thermal desorption. Except along the northern property line, all foundry sand and associated metal contamination was removed as part of the original remedial action, consolidated and placed beneath a geomembrane cap at the southern end of the site. Metals and volatile organic compounds at concentrations above groundwater standards persist in groundwater onsite in the vicinity of the landfill. The landfill is fenced and long-term monitoring continues. The area is served by public water.

In 2013 the soil in the flat northern portion of the original site was sampled to confirm that the previous remedial efforts had met the residential soil cleanup criteria. Based upon the soil sampling results, additional soil sampling occurred in 2014. Removal of residual contamination on the northern section of the original site was completed in 2015. This area has been remediated to meet residential SCOs for copper and lead. Confirmation sampling identified multiple locations immediately adjacent to the fence situated at the northern end of the AVM parcel that do contain metals above the residential SCOs, (maximum copper 1940 mg/kg, maximum lead 1300 mg/kg). However, these elevated levels are one foot below the surface on the south side of the fence mainly along an area of heavy vegetation/tree growth and are not readily accessible. Material excavated along the fence adjacent to the Mansion street properties may require handling as a solid waste (foundry sand) and should be disposed appropriately.

Site Health Assessment

The site is completely fenced which restricts public access. Contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Volatile organic compounds may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air or buildings, is referred to as soil vapor intrusion. Because there is no on-site building, inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development. In addition, sampling indicates soil vapor intrusion is not a concern for off-site buildings.

Remedy Description and Cost

Remedy Description for Operable Unit 01

Site Code: 420002 **Site Name:** American Valve Manufacturing

OU1: March 1997: NYSDEC issued a ROD to address foundry sands. The OU-l ROD selected

1- Clearing and grubbing of the site, demolition of small out buildings, salvage of the large fuel storage tanks.
2- Consolidation of foundry sand waste in the southwest portion of the site
3- Construction of a geomembrane cap over the foundry sand waste.
4- Regrading and revegetation of the areas from which the foundry sand was removed.
5- The remedy includes management of site runoff and institutes a long-term monitoring program as part of the operation and maintenance for the site.

Total Cost $2,140,000

Remedy Description for Operable Unit 01A

IRM – 1992 – Foundry sands were relocated from the sewer pipe and from areas off site back onsite. Fencing was established to limit access.

IRM – October 1998 - The removal of high concentration VOC containing liquids and sediments from the interior degreaser pit and associated piping was performed. Sediment samples obtained from the degreaser pit exhibited significant concentrations of TCE, TCA, and DCE. Approximately two cubic yards and 1,200 gallons of contaminated media were extracted from the pit in October 1998 and properly disposed of at a permitted RCRA facility. Once removed, the contaminated pipe sediments within the building complex were eliminated as a source of groundwater contamination.

Total Cost

Remedy Description for Operable Unit 02

OU2: March 1999: The components of the remedy for Operable Unit 2 (the building complex, contaminated soil and groundwater at the site) are as follows:
1) a remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program;
2) Clearing and grubbing of the site with removal and disposal of all asbestos containing materials and PCB containing ballasts, followed by demolition of the building complex. Following demolition, debris was disposed of off-site at an approved landfill.
3) Contaminated soils were excavated and treated with an on-site treatment unit (low temperature thermal desorption) to levels below site cleanup goals. Treated soils were reused on site as backfill or general fill.
4) Following soil source removal, groundwater will naturally attenuate by naturally occurring mechanisms (biodegredation, oxidation, sorption, dilution, and volatilization).
5) Regrading and revegetation was performed in the areas from which the building complex and contaminated soils will be removed.

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6) Since the remedy results in untreated hazardous waste remaining at the site, a long term monitoring program would be instituted. This program would allow the effectiveness of the selected remedy to be monitored and would be a component of the operation and maintenance for the site.

Total Cost $4,959,000

OU 00 **Site Management Plan Approval: 07/30/2010** **Status: ACT**

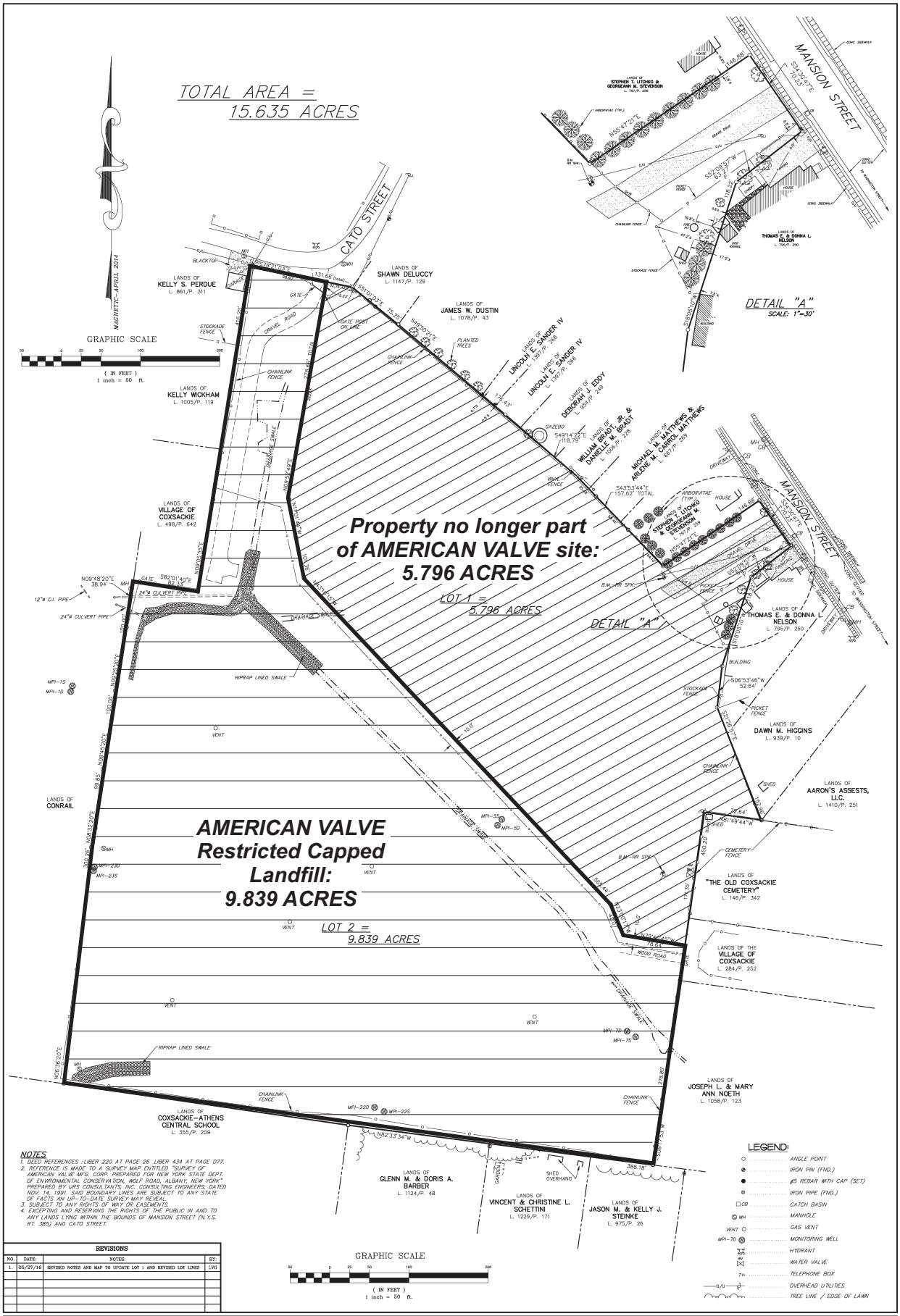
Basis for Boundary Change

Additional residual soil contamination was removed in 2015. The northern portion of the AVM parcel has been cleaned with the objective to meet residential use. A minor amount of soil containing copper and lead above residential SCOs may be encountered at a depth of one foot along the perimeter fence that is situated along the property line bordering the homes on Mansion Street. The remedial actions that have taken place related to this northern portion of the site has resulted in in land suitable for residential use. The portion of the site removed from the site bounds consists of the area of the AVM property north of the landfill, minus the area of an access road on the west and a maintenance buffer around the northern edge of the rip-rap swale which drains the landfill.

American Valve Manufacturing 420002

Site size reduced from 12 acres to 9.839 acres
(delist 2.161 acres)

Boundary_mod_12-2.cdr
6/29/2017



NOTES

1. DEED REFERENCES : LIBER 220 AT PAGE 26 ,LIBER 434 AT PAGE 077.
2. REFERENCE IS MADE TO A SURVEY MAP ENTITLED "SURVEY OF AMERICAN VALVE MFG. CORP. PREPARED FOR NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION, WOLF ROAD, ALBANY, NEW YORK" PREPARED BY URS CONSULTANTS, INC. CONSULTING ENGINEERS, DATED NOV. 14, 1991. SAID BOUNDARY LINES ARE SUBJECT TO ANY STATE OF FACTS AN UP-TO-DATE SURVEY MAY REVEAL.
3. SUBJECT TO ANY RIGHTS OF WAY OR EASEMENTS.
4. EXCEPTING AND RESERVING THE RIGHTS OF THE PUBLIC IN AND TO ANY LANDS LYING WITHIN THE BOUNDS OF MANSION STREET (N.Y.S. RT. 385) AND CATO STREET.

REVISIONS			
NO.	DATE:	NOTES:	BY:
1.	05/27/16	REVISED NOTES AND MAP TO UPDATE LOT 1 AND REVISED LOT LINES	LVG

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

LEGEND:
- ANGLE POINT
- IRON PIN (FND.)
- #5 REBAR WITH CAP (SET)
- IRON PIPE (FND.)
- CB CATCH BASIN
- MH MANHOLE
- VENT GAS VENT
- MPI-7D MONITORING WELL
- HYDRANT
- WATER VALVE
- TB TELEPHONE BOX
- OHU OVERHEAD UTILITIES
- TREE LINE / EDGE OF LAWN

SANTO ASSOCIATES
LAND SURVEYING AND ENGINEERING, P.C.

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1 Barney Road • Suite 109 • Clifton Park, NY 12065
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340 Main Street • P.O. Box 405 • Catskill, NY 12414
Phone: (518) 943-5140 • Fax:(518) 943-5689

SCALE: 1"=50' DWG. NO. CG7605
DATE: 04/02/14
DRAWN BY: LVG CHECKED BY: APM

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S SIGNATURE IN RED SHALL BE CONSIDERED TO BE VALID COPIES.

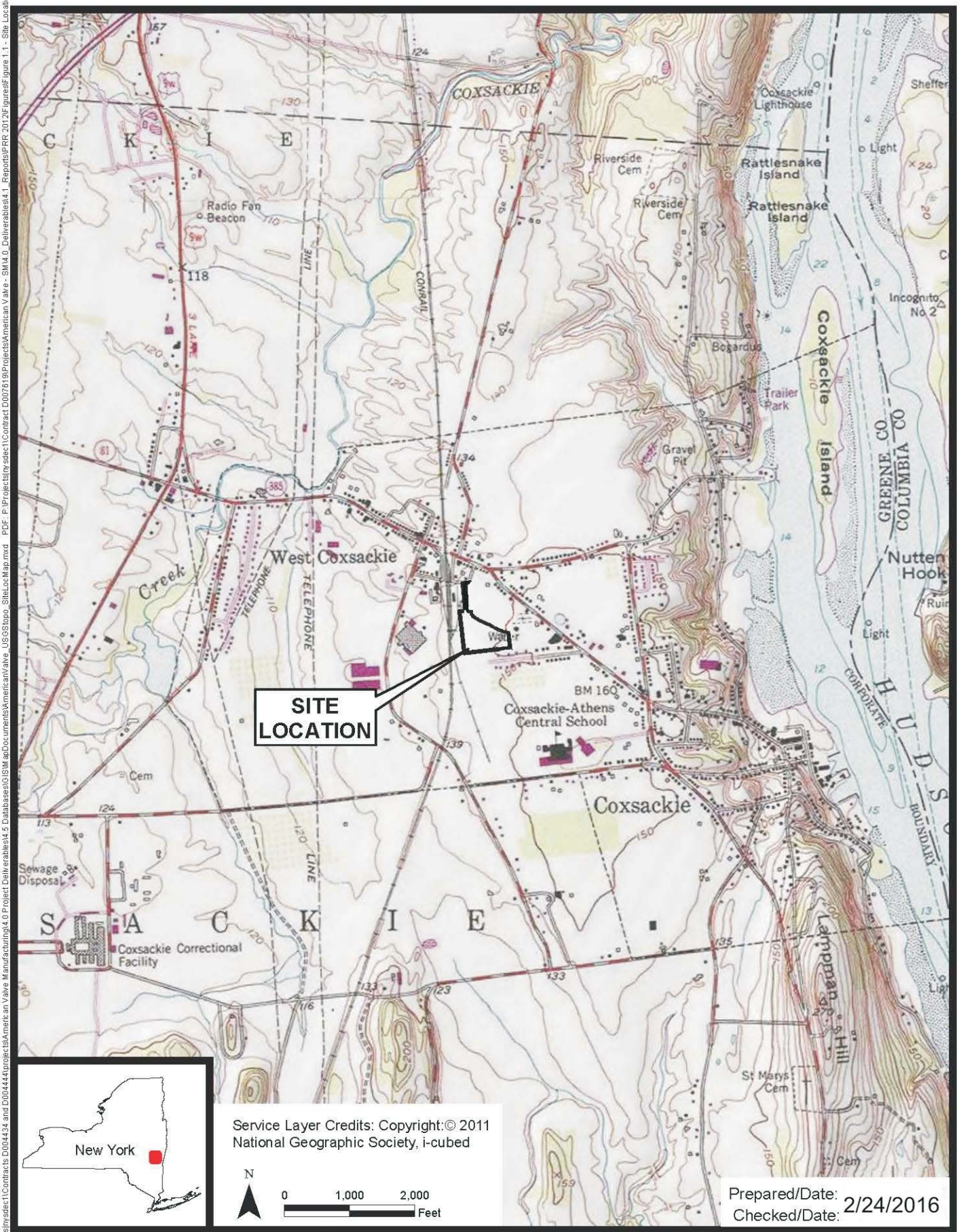
ALAN P. MacDONALD, L.S. LIC. NO. 050370

SUBDIVISION OF LANDS PREPARED FOR

VILLAGE OF COXSACKIE

(AMERICAN VALVE SITE)

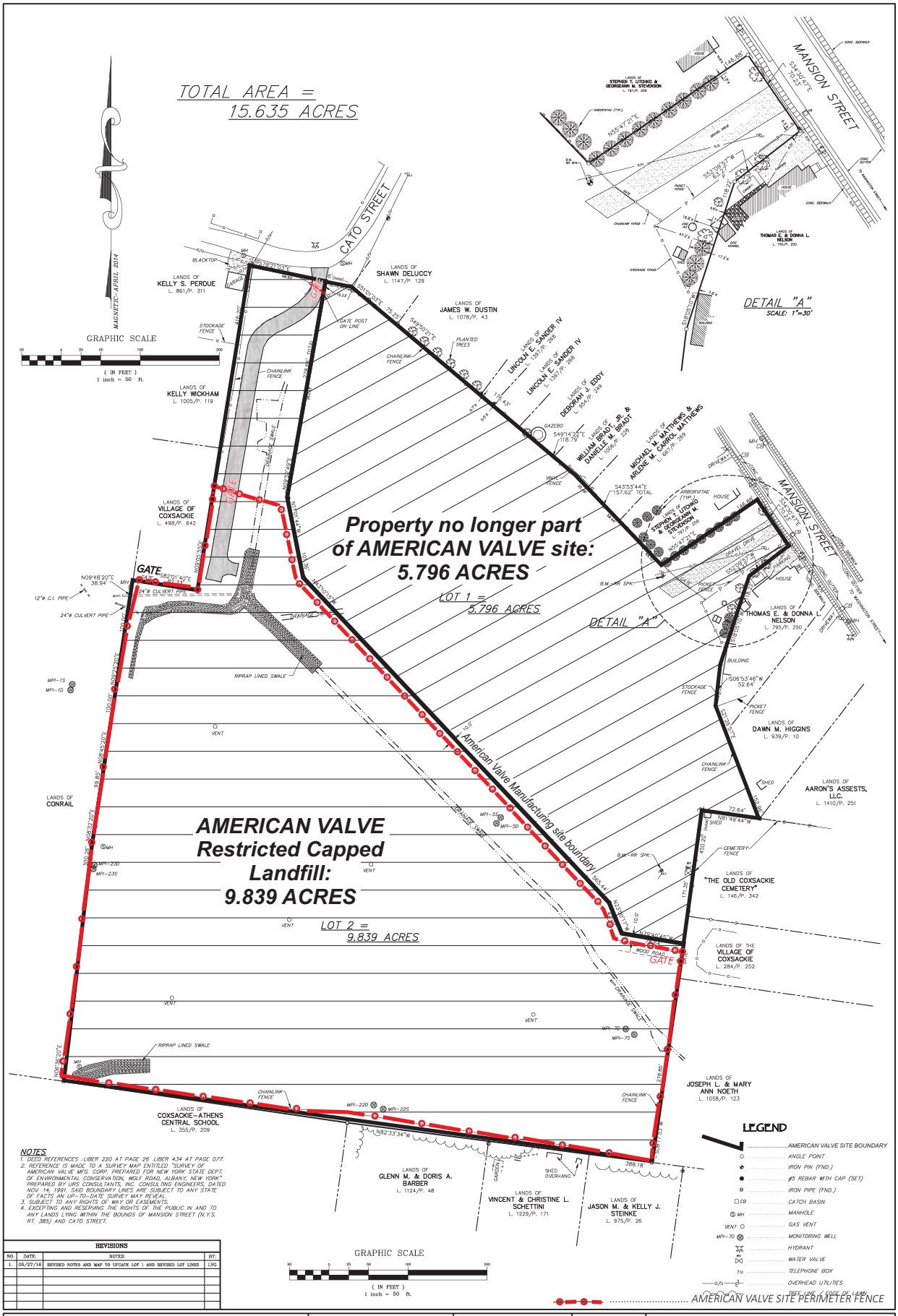
VILLAGE OF COXSACKIE
COUNTY OF GREENE
STATE OF NEW YORK



NYSDEC
AMERICAN VALVE MANUFACTURING
COXSACKIE, NEW YORK

MACTEC

Site Location Map
WB Welling, NYSDEC
Project 3612122252 Figure 1.1



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SITE FIGURE
W.B. WELLING, NYSDEC
11/10/2016

ALYSA P. MacDONALD, L.S. LIC. NO. 050370

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(AMERICAN VALVE SITE)
VILLAGE OF COXSACKIE
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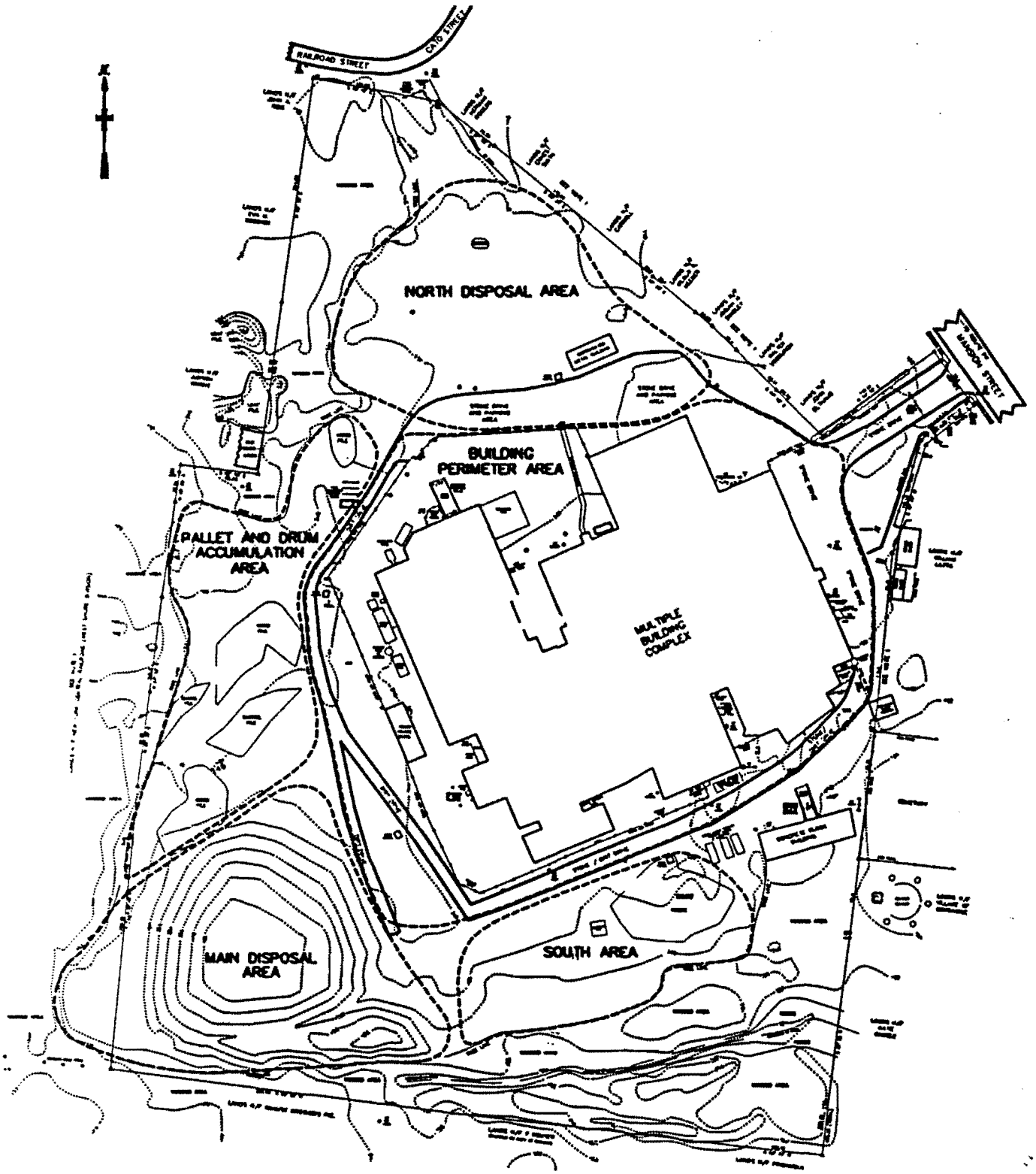
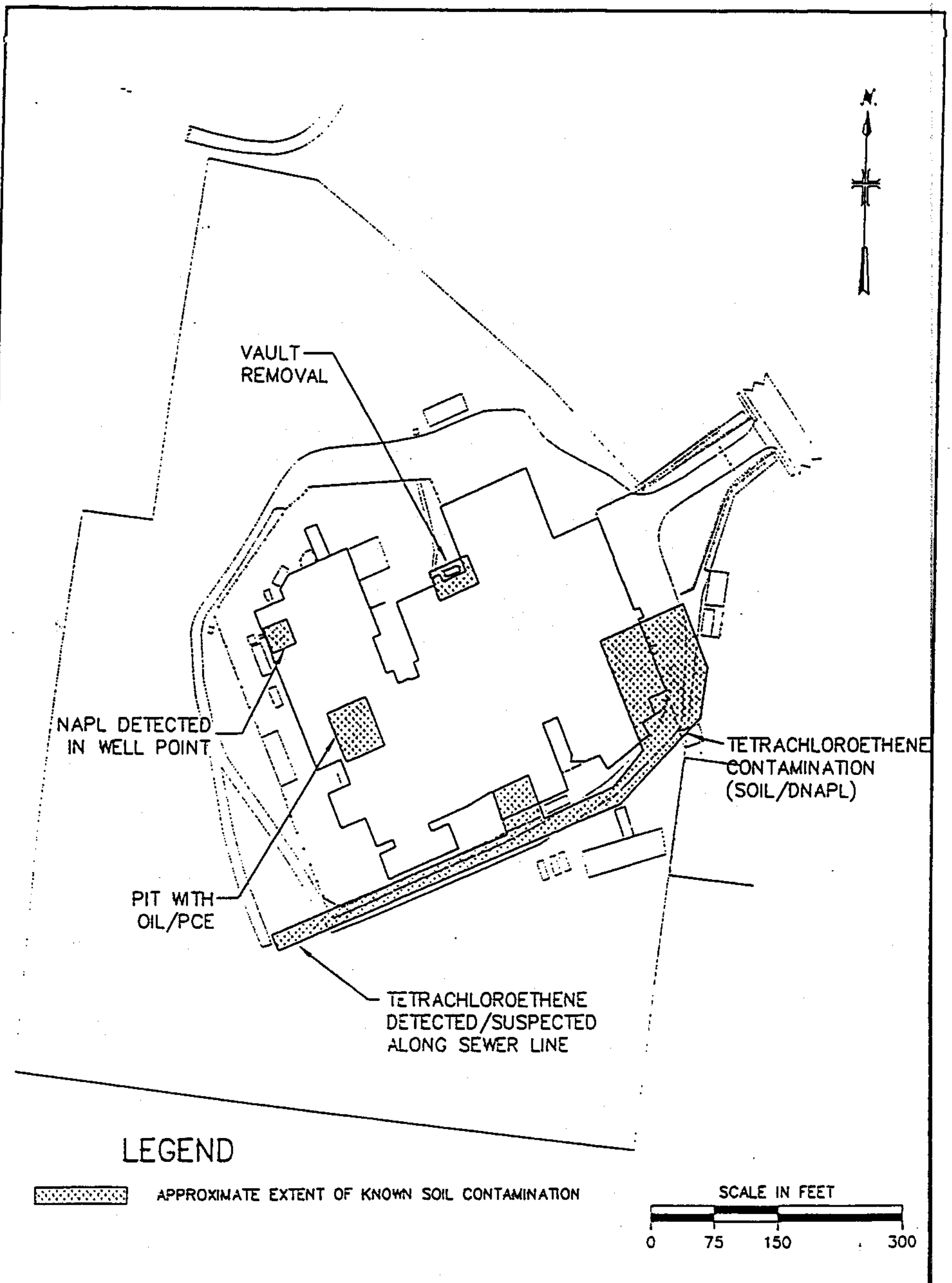


MALCOLM PIRNIE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AMERICAN VALVE MFG. CORP., COXSACKIE, NEW YORK

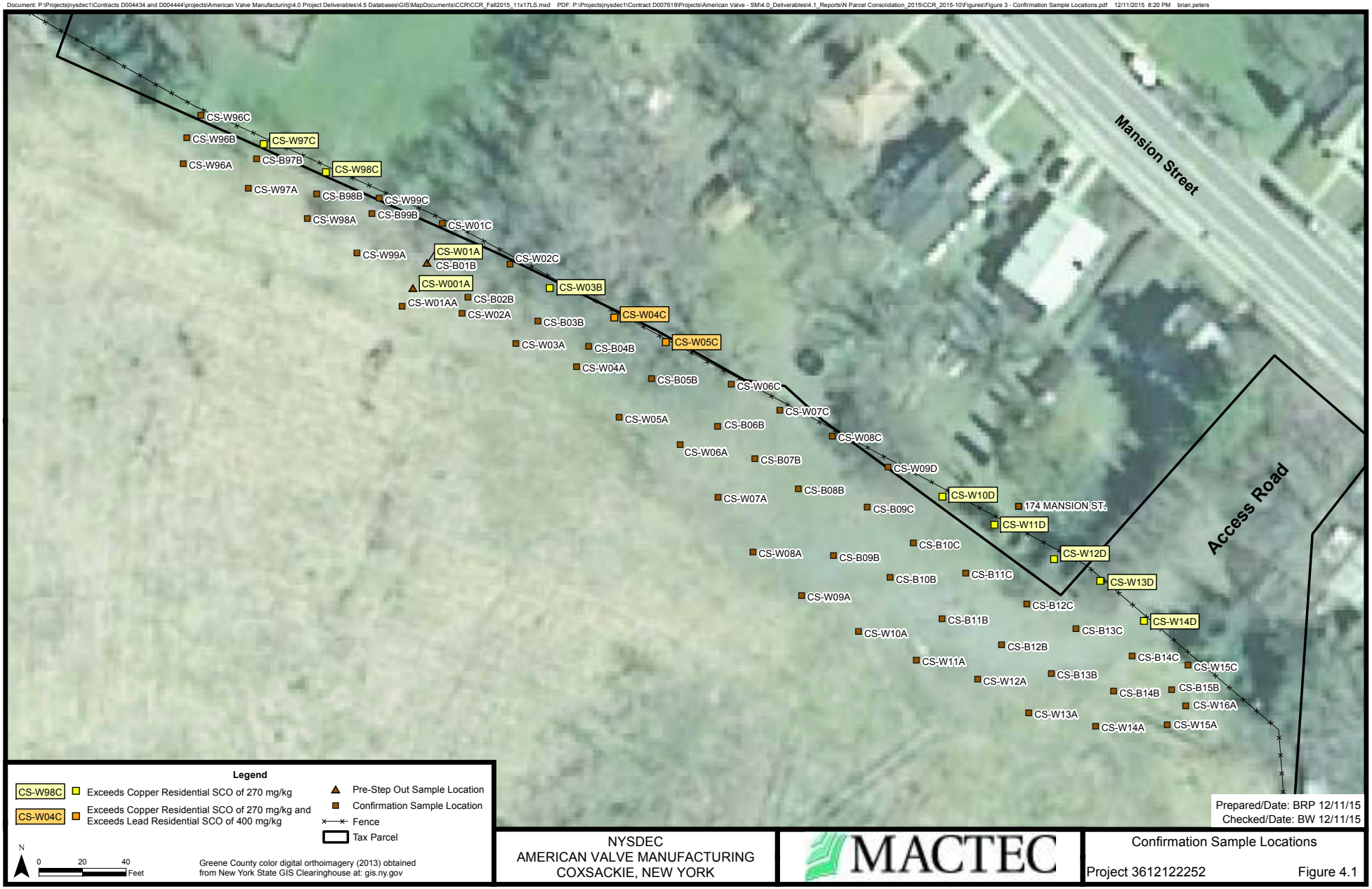
Figure 2



MALCOLM PIRNIE

AMERICAN VALVE MFG. CORP.
COXSACKIE, NEW YORK

Document: P:\Projects\nysdec1\Contracts D004434 and D004444\projects\American Valve Manufacturing\4.0 Project Deliverables\4.5 Databases\GIS\MapDocuments\CCR\CCR_Fall2015_11x17LS.mxd PDF: P:\Projects\nysdec1\Contract D007619\Projects\American Valve - SM\4.0_Deliverables\4.1_Reports\N Parcel Consolidation_2015\CCR_2015-10\Figures\Figure 3 - Confirmation Sample Locations.pdf 12/11/2015 8:20 PM brian.peters



Legend

CS-W98C — Exceeds Copper Residential SCO of 270 mg/kg

CS-W04C — Exceeds Copper Residential SCO of 270 mg/kg and Exceeds Lead Residential SCO of 400 mg/kg

Pre-Step Out Sample Location

Confirmation Sample Location

Fence

Tax Parcel

N

0 20 40 Feet

Greene County color digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: gis.ny.gov

Prepared/Date: BRP 12/11/15
Checked/Date: BW 12/11/15

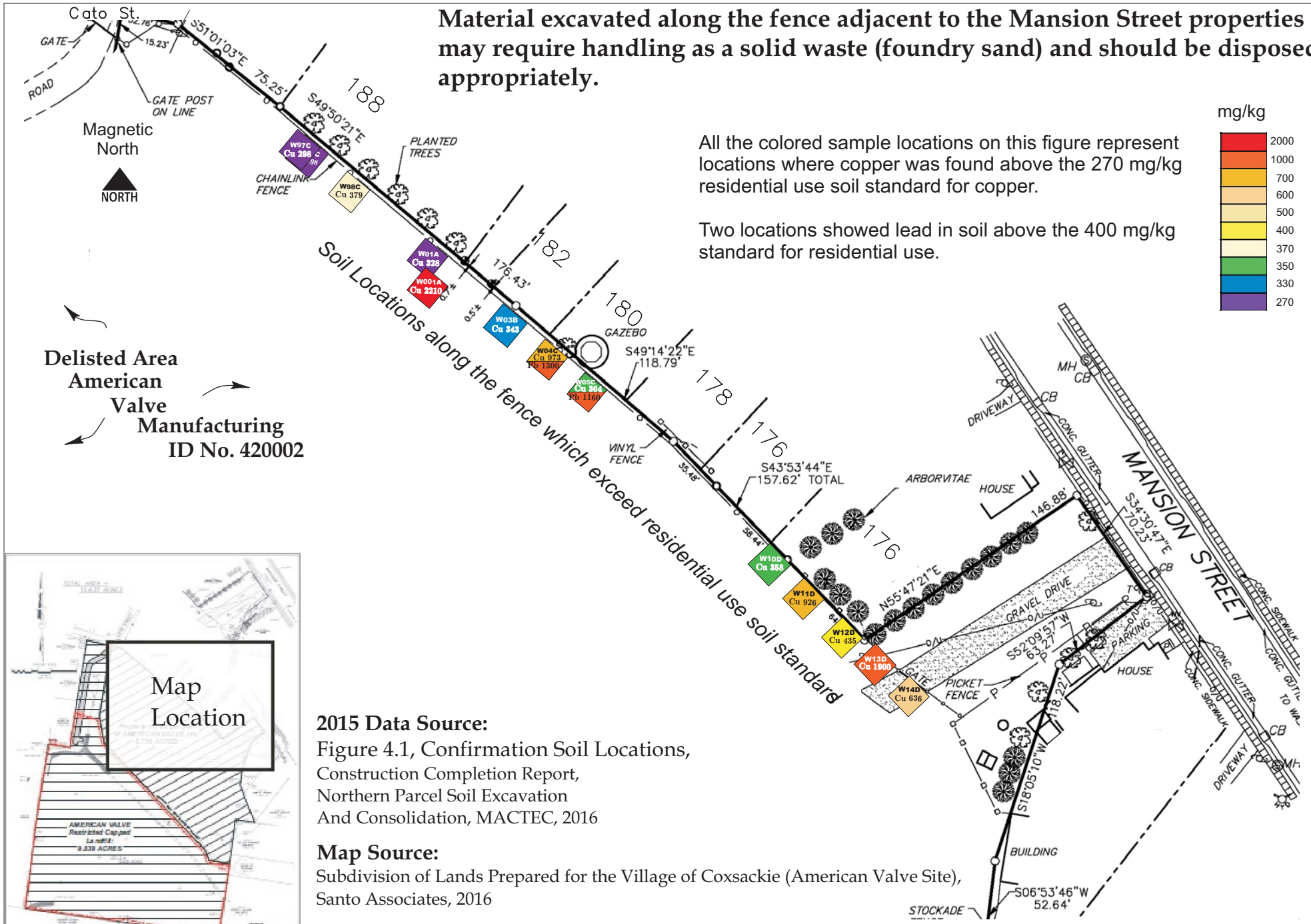
NYSDEC
AMERICAN VALVE MANUFACTURING
COXSACKIE, NEW YORK

MACTEC

Confirmation Sample Locations

Project 3612122252 Figure 4.1

Material excavated along the fence adjacent to the Mansion Street properties may require handling as a solid waste (foundry sand) and should be disposed appropriately.



2015 Data Source:
Figure 4.1, Confirmation Soil Locations,
Construction Completion Report,
Northern Parcel Soil Excavation
And Consolidation, MACTEC, 2016

Map Source:
Subdivision of Lands Prepared for the Village of Coxsackie (American Valve Site),
Santo Associates, 2016

Will Welling , 2016
soi_fence_solid_waste.cdr

Lewandowski, Kelly A (DEC)

From: Cruden, Michael (DEC)
Sent: Monday, July 10, 2017 1:51 PM
To: Lewandowski, Kelly A (DEC); Anderson, Bernadette (DEC)
Cc: Welling, William (DEC)
Subject: FW: Figure for Boundary Mod, American Valve 420002
Attachments: FW: Figure for Boundary Mod, American Valve 420002

Kelly/Bernadette – we discussed with Bob after the BD meeting and he said we can finalize this as a minor modification

Please do so and let us know if more is needed than the attached

---

From: Ryan, Michael (DEC)
Sent: Friday, July 07, 2017 2:38 PM
To: Cruden, Michael (DEC) <michael.cruden@dec.ny.gov>
Subject: RE: Figure for Boundary Mod, American Valve 420002

Mike – Let's discuss after the BD meeting on Monday. I'm inclined to move ahead as proposed.

From: Cruden, Michael (DEC)
Sent: Thursday, June 29, 2017 3:44 PM
To: Ryan, Michael (DEC) <michael.ryan@dec.ny.gov>
Cc: Welling, William (DEC) <william.welling@dec.ny.gov>; Lewandowski, Kelly A (DEC) <kelly.lewandowski@dec.ny.gov>
Subject: FW: Figure for Boundary Mod, American Valve 420002

Mike,

The attached boundary modification package originally started back in March 2016

DOH has never provided concurrence

In the interim, OGC finalized an order with the Village which memorializes the boundary modification.

My recommendation is we complete the process as a minor modification. RHWRE signed off 11/1/2016. I've signed off in UIS.

We would then send the notification (part of attached BM package) DOH requested to adjacent landowners regarding the possibility of encountering foundry sand

Mike

From: Welling, William (DEC)
Sent: Thursday, June 29, 2017 3:11 PM
To: Cruden, Michael (DEC) <michael.cruden@dec.ny.gov>
Subject: Figure for Boundary Mod, American Valve 420002

Mike,

There is a map figure with the order on consent with the village of Coxsackie, “boundary_mod_figure_b&w.pdf,” attached. It says, “Property no longer part of American Valve site: 5.796 acres.” Property no longer part of the site includes our delisted part of the 12 acre site (2.161 acres) and the remainder of the 15.635 acre property parcel owned by American Valve (3.635 acres). 2.161 +3.635 = 5.796. The map figure shows the two numbers, 5.796 and 9.839. We’re keeping 9.839 acres from the original 12 acres (we’re delisting 2.161 acres). Our 2016 testing showed that the entire 5.796 acre portion of the parcel is fit for residential use.

I’ve attached a new figure, “BOUNDARY_MOD_12-2-4.pdf,” which shows the area delisted from the 12 acres and the combined area which will go to the village.

Will Welling
Engineering Geologist 2
Project Manager

518-402-9813 Office
518-791-9603 Cell
William.welling@dec.ny.gov

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Attachments: BOUNDARY_MOD_12-2-4.pdf; boundary_mod_figure_b&w.pdf; FW: For concurrence by 12/20 American Valve 420002- Boundary Modification

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