

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BROOKLYN-QUEENS AQUIFER FEASIBILITY STUDY

CITIZENS ADVISORY COMMITTEE MEETING: March 6, 2003

MINUTES

The tenth meeting of the Brooklyn-Queens Aquifer (BQA) Feasibility Study Citizens Advisory Committee (CAC) was held on Thursday, March 6, 2003 at Hillside Manor Comprehensive Care Center. (See Attachment A for Attendance List.)

Helen Neuhaus, Helen Neuhaus & Associates Inc., opened the meeting by welcoming Dr. Alan Rabideau, State University of New York (SUNY) at Buffalo, and Scientific Review Panel (SRP) member. Following adoption of the Minutes of the February 6th CAC meeting without changes, Ms. Neuhaus facilitated a brief discussion of follow-up items from that meeting. These included the following:

- A CAC tour of the New York City Department of Environmental Protection (NYCDEP) water quality laboratory at Lefrak City has been scheduled for Thursday, March 13th. A shuttlebus will leave from St. Benedict the Moor Church for the lab at 6:00 p.m. Ms. Neuhaus asked for a show of hands of those planning to attend.
- Ms. Neuhaus stated that all raw footage for the video of the Station 6 Pilot Plant has been shot. Noting that members of the team have viewed portions of the tape and found it impressive so far, she further observed that three days of filming will result in a 12-15 minute program.
- Ms. Neuhaus indicated that materials requested at the previous meeting were distributed.

Project Update

West Side Corporation

Donald Cohen, Malcolm Pirnie, Inc., reported that the New York State Department of Environmental Conservation's (NYSDEC) 90% Design Report for the remediation of the West Side Corporation (WSC) site has been completed and forwarded to his firm and the SRP for review. The Report includes: a conceptual description of Electrical Resistance Heating (ERH) and how the remediation will go forward; a set of drawings and maps of the ERH probes and monitoring wells; contractual documents; and a Limited Site Data Report, which Mr. Cohen described as an updated version of the Remedial Investigation/Feasibility Study. He noted that a summary of the Design Report was distributed to CAC members.

Mr. Cohen indicated that NYSDEC is not represented at tonight's meeting due to the inclement weather and several retirements within the department. He added that Dave Chiusano will replace Shive Mittal on this project and will attend future CAC meetings.

Mr. Cohen then described the major components of the ERH system. Probes will heat the contaminated groundwater to near boiling, driving it to extraction wells at the surface. Blowers

in the well will act as a vacuum for vapors, which will be treated using a catalytic oxidation system. Air quality both on site and in the surrounding area will be monitored for increased levels of perchloroethylene (PCE).

Mr. Cohen stated that the 90% Design Report will be finalized once NYSDEC receives and incorporates comments from Malcolm Pirnie and the SRP. The contract is expected to go out to bid this spring, with work anticipated to start in late summer. It was also reported that NYSDEC has been in contact with the owner of the WSC in order to obtain a written access agreement. Deputy Commissioner Doug Greeley, NYCDEP, added that, even if the owner does not agree to provide access, NYSDEC has the authority to enter any property that presents a hazardous condition in order to remediate the problem.

Mr. Cohen indicated that during a conference call held earlier in the day, he and Dr. Rabideau discussed the Design Report with NYSDEC staff. He observed that the Department was very responsive to their comments. On another front, the legal agreement between NYCDEP and NYSDEC has been drafted and will be reviewed by Malcolm Pirnie. Mr. Cohen stated that this is an important step, as it allows NYCDEP to provide funding for the clean-up.

Dr. Rabideau was asked to comment on the Design Report. He stated that he was originally concerned about the source of the contamination; however, NYSDEC has built in additional testing mechanisms that will lead to a better understanding of this issue. Dr. Rabideau also noted that after reading the Report, most of his questions concerning the use of ERH technology related to performance standards. These questions were largely answered during the conference call with NYSDEC and Malcolm Pirnie, which covered NYSDEC's written specifications for the contractor. In response to a question from Linda Hazel, Dr. Rabideau indicated that he has no concerns about the contamination going below the clay level, since that level slopes upward. Instead, he explained that his concern related to the depth of the ERH probes, an issue that he believes NYSDEC has satisfactorily addressed.

Referring to other members of the SRP who have received the Design Report, Ms. Neuhaus stated that Gil Hanson (SUNY Stony Brook) had no comments and that she would solicit comments from Paul Lioy (University of Medicine and Dentistry of New Jersey) and Jack Caravanos (Hunter College).

In response to questions from Irving Hicks, Mr. Cohen indicated that the level of contamination at Source Area #1--the 60' x 100' area where the original PCE holding tanks were located--is higher than that of the surrounding area. A brief discussion followed regarding PCE and laws governing its use. Kenneth Gill noted that California has passed legislation outlawing the use of PCE in dry cleaning. Commissioner Greeley stated that NYCDEP has been working with dry cleaning businesses for the past several years to encourage them to use more environmentally-friendly processes.

Station 24

Mr. Cohen reported that a "Process Selection Memo" describing the method that will be used to treat PCE-contaminated water pumped from Station 24 has been prepared and is currently being reviewed by NYCDEP. It will then be forwarded to the CAC and SRP. The memorandum details

the procedure by which the water will be filtered through a Granulated Activated Carbon (GAC) system and released into the sewers. Stating that GAC provides effective, clean treatment, Mr. Cohen assured CAC members that there will be no emissions resulting from this process. However, there will be some construction activity involving the installation of six carbon containers. In response to a question from Ms. Hazel, Mr. Cohen noted these containers will be similar to those operating on Francis Lewis Boulevard. Ms. Hazel and Richard Hellenbrecht asked about the disposal of the spent carbon. Mr. Cohen explained that it will be removed by truck approximately every three weeks, depending on the level of contamination captured in the GAC. Vendors will then recycle the carbon by burning off the contaminants.

In response to Ms. Hazel's question about the number of wells at Station 24, Mr. Cohen indicated that analysis has shown that one well will be adequate at the beginning. However, because the well, which was installed near the WSC last summer, is seven feet shallower than expected, the amount of water that can be pumped at any given time will be limited. A second well, to be located at the southwest corner of Station 24, will therefore be required once pumping begins at Station 6. Mr. Cohen explained that during the first stage, 550-600 gallons per minute will be pumped. During the second stage, as much as 1500 gallons per minute will be pumped. Clarifying a point raised by Yvonne Reddick, Mr. Cohen said that the wells will operate 24 hours a day and that NYCDEP will upgrade the sewers to ensure that they can handle the flow. Irving Hicks thanked Commissioner Greeley for NYCDEP's ongoing work on area sewers. In response to Michael Turner's question regarding backup for possible pump failure, Mr. Cohen explained that this will not be an issue during the first three years, since the Station 6 wells won't be pumping during this time. During the second stage, adequate redundancy will be built into the plan to ensure that the system remains operational at all times.

Station 6 Pilot Plant

Nicole Brown, Malcolm Pirnie, reported that while the Pilot Plant has closed, the final days of operation were caught on video. Six technical memoranda describing test results are being prepared and will be presented at the April CAC meeting.

Station 6 Demonstration Plant

As an introduction to a discussion of the CAC's "wish list" for the Station 6 Demonstration Plant, Mr. Cohen presented a large sketch of the site with a footprint of the proposed plant. (See Attachment B for copies of the sketch.) He noted that the property is approximately 150' across and 400'-500' long. Observing that the site is quite narrow, Mr. Cohen explained that NYCDEP staff, equipment, parking and possibly community space will all have to fit within those dimensions. He added that all existing buildings will be torn down. Ms. Reddick expressed her preference for coordinating the color scheme of the new plant with the new homes being constructed nearby so that the building blends into the community.

Phil Zimmerman, an architect with Malcolm Pirnie, then engaged the CAC in a dialogue on the plant, beginning with his vision for the facility. After noting his experience with this type of public project, he shared his principal goals, which are summarized below:

- The architecture should express and communicate what the process is all about - in the larger sense.

- The structure must be a good neighbor and recognize its unique place in the community. It must offer welcoming forms that reach out to the community and are enjoyable to live near.
- The architecture must be “transparent” in the sense that it expresses an openness and willingness to let everyone know that what is going on here is a positive thing while recognizing the need for security in a post “9/11” world.

Mr. Zimmerman then presented a few sample sketches that he had drafted in order to look at how the building could fit the site and meet the goals. He emphasized that these were preliminary ideas only.

Ms. Hazel asked about specifications for Well #6. Mr. Zimmerman noted that although Well #6 was incorporated into the sketches, he did not know its exact space requirements. In response to further questions about the size, height and layout of the plant, he explained that the preliminary plan does not exceed the 35’ height restriction; it accommodates 24,000 square feet of process space and 24,000 square feet of facility space; and it provides a community pavilion that offers space to learn and see how the process works. In providing an overview of his sketches, Mr. Zimmerman explained that the first level of the building, which would be reached via a depressed access road, would contain DEP shops and the process area. The second level would feature a 1600 square foot visitors’ pavilion that could include computers, a library, and other educational opportunities. This area, which would not have direct access into the plant for security reasons, would offer views into the process area and other pavilions. Mr. Zimmerman expressed his hope that the third level could be used to make a statement about the project by using form, texture, and color to depict the function of the facility and tell the story of the project.

Ms. Hazel expressed her desire to see a waterfall at the site. In response, Mr. Zimmerman observed that while some people enjoy waterfalls, others dislike the noise. Ms. Hazel stated that the surrounding community should be consulted on this question and all other matters relating to the design of the building. Councilman Leroy Comrie suggested that a public meeting be held with local residents and offered to co-sponsor the meeting with NYCDEP. It was decided that plans for this meeting will be finalized following Mr. Zimmerman’s more detailed presentation of his concept for the Demonstration Plant at the April CAC meeting.

In preparation for the April meeting, Mr. Zimmerman asked the CAC to focus on the visitors’ area: what are the important components? what type of exhibits--interactive or passive? does the CAC envision internet connection or videos? He reiterated that his draft plan does not allow for public tours of the basement levels due to security and Americans with Disabilities Act concerns.

Ms. Neuhaus remarked that the students who toured the Pilot Plant were very excited about the project. She noted the importance of creating a bridge to keep the next generation interested in water quality issues while the demonstration plant is being built and encouraged the CAC to brainstorm ways of doing so.

Ms. Brown initiated a discussion of the approvals and actions needed before construction of the Demonstration Plant can begin. These include a New York City Department of Health permit for public water improvements; public review under the City Environmental Quality Review Act (CEQRA); an air quality permit for Station 6; permits for sewer connections for waste streams from Stations 6 and 24; New York City Art Commission approval; New York City Department of Buildings permits; a variance from the New York City Board of Standards and Appeals (BSA); and a Long Island well permit for Station 24. She noted that each of these processes can take up to several months and reminded the CAC that the project team is not ready to start the permitting process, because it is only at the very beginning of planning.

Mr. Zimmerman further described the Art Commission process, recommending that the design be brought to the Commission at three stages: the conceptual level, which will allow the Commission to determine if the design is “on track”; the preliminary design level; and for final approval, which is when the “signed and sealed” project documents are delivered. In response to his question of whether to bring the design to the CAC or the Art Commission first, Mr. Cohen suggested that the Commission’s requirements and the CAC’s wishes be melded together before the first Commission meeting. Answering a question from Mr. Hellenbrecht, Mr. Zimmerman stated that the Commission meets once a month. Councilman Comrie requested that he be informed when the Demonstration Plant project goes to the Commission so that he can attend in support of the community.

Ms. Reddick offered the Community Board’s support in shepherding the project through the BSA process. Mr. Cohen added that presentations would be made to the elected officials and Community Boards. In response to Councilman Comrie’s question regarding the projected start of construction, Mark Lanaghan, NYCDEP, stated that construction is expected to begin in 2005 and end in 2006. In response to Mr. Turner’s suggestion that two designs be brought to the community in order to give people a choice, Ms. Neuhaus observed that residents should be part of the process from the conceptual stage on. She stated “nobody knows better what’s best for the community than the people who live there”. Ms. Hazel echoed this thought, adding her opinion that there is no need for two designs. Ms. Neuhaus concluded the discussion by recommending that the CAC “brainstorm” further with Mr. Zimmerman at the April meeting.

New Business

Aquifer Storage and Recovery

In response to an article in the *New York Observer* that was brought to the team’s attention by Mr. Hellenbrecht, Commissioner Greeley stated that Mayor Michael Bloomberg and NYCDEP Commissioner Christopher Ward are about to announce a multi-year initiative to ensure the viability of the City’s water supply. The initiative will include the construction of the Kensico Aqueduct, which will bring water downstate from the Kensico Reservoir and the development of an Aquifer Storage and Recovery (ASR) system, which will inject fresh water into the Lloyd Aquifer to be stored for future use. Commissioner Greeley explained that the ASR system of “banking” water, which is used in 38 states across the country, has been under discussion by NYCDEP for several years. It would collect excess water from spring run-off and other rainy times, store it in the aquifer and recover it during dry spells. He indicated that the Department hopes to launch an ASR pilot program next year.

Addressing Mr. Hellenbrecht's concern that pumping millions of gallons of water into the ground would result in flooding, Mr. Cohen stated that flooding would only occur if the water was injected into the upper aquifer. However, he noted, the water would be injected into the Lloyd Aquifer, which is a 500'-700' deep "confined" aquifer. This means that it is surrounded by clay, which prevents the water from escaping and protects it from contamination. Mr. Cohen stated that discussions have been held with NYSDEC and the New York State Department of Health to obtain permission to start testing. The process is complicated, because there is no existing regulatory framework to guide this first ASR program in New York State.

In response to a question from Ms. Hazel, Mr. Cohen indicated that the stored water, which would come from upstate reservoirs, would be used by New York City residents only. In response to Mr. Gill's question regarding the estimated amount of leakage from the existing aqueducts, Commissioner Greeley answered 39 million gallons per day. He added that the department has purchased a remote-control-operated "submarine" to investigate the leakage problem. Mr. Hellenbrecht thanked the team for explaining the proposed program.

Other New Business

Ms. Neuhaus communicated Commissioner Greeley's suggestion that the CAC be provided with a presentation regarding drinking water and public health. SRP members would be involved in this discussion, which would cover a range of issues previously raised by the CAC, including nitrates, sodium, standards, testing protocols and the overall issue of the groundwater system's effect on community health. After CAC members confirmed their interest in this topic, she encouraged them to think about specific areas they would like to see covered.

Ms. Hazel asked if the CAC would see data regarding all of the wells during the March 13th tour of the NYCDEP laboratory. Commissioner Greeley answered that wells contaminated with heavy metals are not on line and have not been tested. He indicated that there are records for these wells, adding that the only on line wells are the "A List" wells.

The next CAC meeting is scheduled for **Thursday, April 3rd at 7 p.m.** at the Hillside Manor Comprehensive Care Center, 188-11 Hillside Avenue, Jamaica Estates.

Follow-up Items

1. Determine which SRP members should be present at the April, May and June CAC meetings and invite them to attend the meetings. Responsibility: Malcolm Pirnie, CAC, HNA.
2. Forward conceptual design memo for Station 24 treatment process to SRP members and the CAC. Responsibility: Malcolm Pirnie, HNA.
3. Forward Station 6 Pilot Plant Technical Memoranda to SRP members and the CAC when complete. Responsibility: Malcolm Pirnie, HNA.
4. Contact Paul Lioy and Jack Caravanos to determine if they have any comments on NYSDEC's West Side Corporation (WSC) 90% Design Report. Responsibility: HNA.
5. Schedule meeting with residents in vicinity of Station 6 to discuss plans for demonstration plant. Responsibility: DEP, Malcolm Pirnie, HNA, CAC.

6. Arrange for Phil Zimmerman, architect, Malcolm Pirnie, Inc., to present more developed concepts for Station 6 demonstration plant at April CAC meeting. Responsibility: Malcolm Pirnie.
7. Schedule presentation to elected officials and Community Board #12 to review concepts for Station 6 demonstration plant. Responsibility: HNA, DEP, Malcolm Pirnie.
8. Schedule Public Health Presentation for CAC. Committee members to advise on topics to be covered. Responsibility: DEP, HNA, Malcolm Pirnie, CAC.
9. Schedule presentation to Community Board #12 (tentatively May or June) to review results of Station 6 Pilot Plant. Responsibility: Yvonne Reddick, HNA.
10. Continue to consider “wish list” of elements (community use(s), landscaping, etc.) for inclusion in Station 6 demonstration plant. Responsibility: CAC.

Brooklyn-Queens Aquifer Feasibility Study
Citizens Advisory Committee
Thursday, March 6, 2003

Attendance List

CAC Members/Alternates

Linda Caleb Hazel
A Better Day Inc./St. Benedict The Moor/
St. Bonaventure

Manuel Caughman
Community Board #12/Brinkerhoff Action
Association

The Honorable Leroy Comrie
New York City Council

Kenneth Gill
Addisleigh Park Civic Association

Richard C. Hellenbrecht
Community Board #13

Irving Hicks
Brinkerhoff Action Association

Yvonne Reddick
Community Board #12

Michael Turner
Resident

Scientific Review Panel

Alan Rabideau
State University of New York at Buffalo

Guests

Sarah Hicks
Resident

Project Team

Nicole Brown
Malcolm Pirnie, Inc.

Don Cohen
Malcolm Pirnie, Inc.

Doug Greeley
New York City Department of
Environmental Protection

Natasha Harper
New York City Department of
Environmental Protection

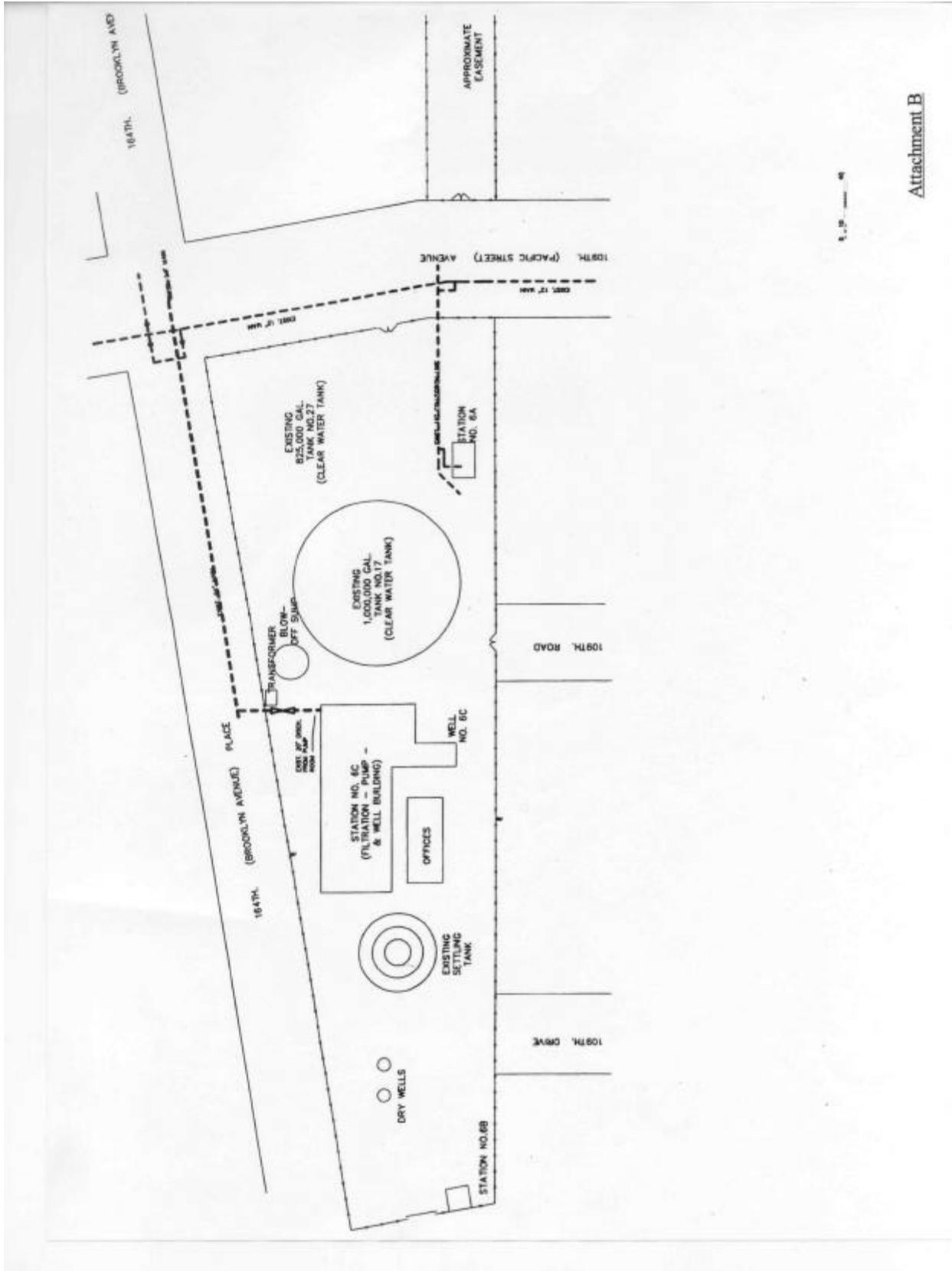
Mark Lanaghan
New York City Department of
Environmental Protection

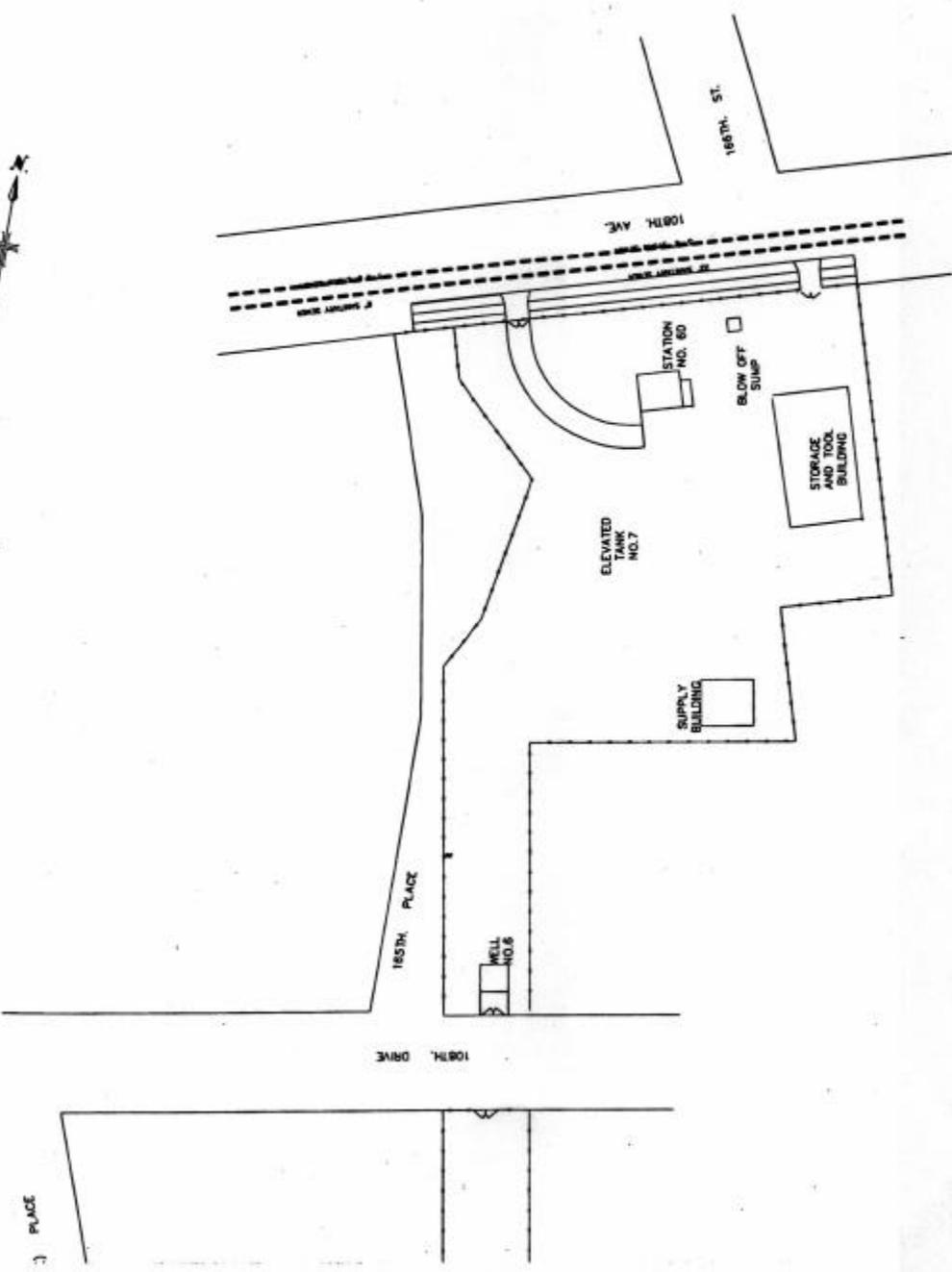
Helen Neuhaus
Helen Neuhaus & Associates Inc.

Denise Woodin
Helen Neuhaus & Associates Inc.

Anita Wright
Helen Neuhaus & Associates Inc.

Bill Yulinsky
New York City Department of
Environmental Protection





168TH PLACE

108TH DRIVE

168TH PLACE

WELL NO. 6

ELEVATED TANK NO. 7

SUPPLY BUILDING

STORAGE AND TOOL BUILDING

BLOW OFF SUMP

STATION NO. 60

108TH AVE.

168TH ST.