49606/34124 #2

Remediation and Liability Management Company Inc.

James F. Hartnett
Program Manager

January 20, 2004

Gerald Rider, P.E., Chief
Operation & Maintenance Section
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, New York 12233-7014

Re: Ley Creek PCB Dredgings Site (Registry # 7-34-044)
NYSDEC Order on Consent Index # D-7-0008-97-06
2003 Annual OM&M Inspection Report

Dear Mr. Rider,

Enclosed please find documentation pertaining to the Operation, Maintenance, and Monitoring (OM&M) site inspections that were conducted at the Ley Creek PCB Dredgings Site (Site) in 2003. The OM&M site inspections were performed in accordance with the NYSDEC-approved Operation, Maintenance, and Monitoring Manual for the Site. The documentation enclosed consists of three letter reports, one each for the two site inspections and one for the wetland evaluation.

Deficiencies identified in the site inspection and wetland evaluation letter reports will be addressed by REALM during the upcoming 2004 construction season, as site conditions allow.

Should you or your staff have any questions regarding the contents of this annual OM&M inspection report, please contact me at (315) 289-0031.

Sincerely,

James F. Hartnett /BAK

James F. Hartnett
Remediation Program Manager

Enclosure
cc: James Burke (NYSDEC)
Douglas Crawford (O'Brien & Gere)
Robert Nunes (USEPA)

GM Remediation Team • 6723 Towpath Road. GCOP Suite 255 • Syracuse, NY 13214
Phone (315) 289 0031 • FAX (315) 446 7123 • Email: jim.f.hartnett@gm.com

O'BRIEN & GERE
ENGINEERS, INC.

July 21, 2003

James F. Hartnett
Remediation and Liability Management Company, Inc.
6723 Towpath Road
Glacier Creek, Suite 255
Syracuse, New York 13214

Re: Ley Creek PCB Dredgings Site
June 2003 OM&M Inspection

File: 4966/32343 #2

Dear Jim:

The purpose of this letter report is to document the Operation, Maintenance, and Monitoring (OM&M) site inspection conducted on June 1, 2003 by O'Brien & Gere Engineers, Inc. (O'Brien & Gere) at the Ley Creek PCB Dredgings Site (the Site), located in Syracuse, New York. This inspection was performed in accordance with the NYSDEC-approved OM&M manual, dated September 2001. Attached to this letter report are the OM&M checklist, inspection photographs, and site figures associated with the site inspection.

SITE INSPECTION

On June 1, 2003, an OM&M site inspection was performed at the Site. The inspection checklist along with the comments is attached. The inspection photographs are also attached along with a description of the photographs. The approximate locations of where the photographs were taken are shown in the attached site figures.

The areas of lacking or thinning vegetation observed during the August 2002 site inspection were seeded and fertilized by Royal Environmental, Inc. in September 2002, and have shown improvement of vegetation establishment, but overall vegetation establishment in these areas requires additional improvement. Areas of erosion that received topsoil earlier this year should be seeded and fertilized.

The two areas of the site security fence that were observed to be damaged during the August 2002 site inspection have not been repaired and should be repaired as soon as practicable.

Other observations of items that also require action are as follows:

- Vegetative cover erosion: (Photographs 5, 6, 7, 8, 17, 19, 20, and 32. Figures 1, 3, and 5). Several areas of erosion of the vegetative cover were observed. In general, these areas were within the overflow spillways.

- Burrowing animals: (Photographs 18 and 28. Figures 3 and 5.) A woodchuck hole was observed in the area of catch basin CB-3 and catch basin CB-5/004 during the site inspection.

- Stone access road erosion: (Photograph 9 and 14. Figures 1 and 3.) Erosion of a section of the stone access road near the outlet of catch basin CB-3 was observed.

- Stone access road drainage: (Photographs 10, 11, 15, 16, 23, and 24. Figures 2, 3, and 4.) Several areas of the stone access road were observed to have poor drainage, which was characterized by ponded water being visible within the stone access road.

- Debris accumulation: (Photographs 3 and 13. Figures 1 and 3.) Debris was accumulated around the catch basin CB-1 and the grate for catch basin CB-3 was partially blocked, thus restricting flow.

- Excessive scouring: (Photograph 30. Figure 5.) The excessive scouring that was observed in the August 2002 inspection requires repair.

- Area requiring mowing: The vegetation around the catch basins, monitoring wells, utility poles, guy wires, and along the fence line require mowing.

- Tree establishment: (Photographs 2 and 25. Figures 1, 3, 4, and 5.) Tree saplings were observed in several areas within the seeded wetlands along the stone access road.

- Vegetation within stone access road: (Photograph 27. Figure 5.) A significant amount of vegetation was observed within the stone access road turnaround at the eastern end of the Site.

RECOMMENDATIONS

Vegetation establishment at the Site has continued to improve since the 2000 construction season; however, several areas where topsoil has been placed to address areas of erosion should be seeded and monitored for vegetation establishment (see Figures 3 and 5).

Below is a list of recommended measures to address the observations during the OM&M inspection:

- Apply seed and fertilizer to areas that received topsoil earlier this year
- Repair the damaged site security fence
- Repair eroded areas of the vegetative cover by placement of topsoil and subsequent application of seed and fertilizer
- Remove the woodchucks from the Site, place topsoil in the hole, and apply seed and fertilizer
- Repair the eroded areas and the areas of poor drainage of the stone access road by placement of additional crushed stone
- Improve drainage of the stone access road by constructing small drainage channels to convey ponded water from the stone access road to Ley Creek. This could be

performed by removal of less than 1 foot of vegetative cover material with subsequent replacement of crushed stone.

- Remove the debris around catch basin CB-1 and catch basin CB-3 grate
- Repair area of excessive scouring by removal of rip-rap, placement of compacted crushed stone to meet surrounding grade, and replacement of rip-rap
- Mow/trim the vegetation around all catch basins, monitoring wells, utility poles, guy wires, and along the fence line require mowing
- Remove the trees from the wetland area
- Remove vegetation from the stone access road turnaround.

The next semi-annual OM&M inspection is scheduled to occur in the Fall of 2003.

If you should have any questions pertaining to the information presented in this letter, please feel free to contact me at (315) 437-6100.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Bradley A. Kubiak, P.E.
Project Engineer

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cc: Douglas Crawford, P.E.
Maureen Markert, P.E.

Inspection checklist

Date Performed: **June 1, 2003**	Weather: **Rainy 60 F**
Site Name: **Ley Creek PCB Dredgings site**	Inspector Name: **Bradley A. Kubiak**
Site Location: **Syracuse, New York**	Inspector Signature: Bradley A. Kubiak

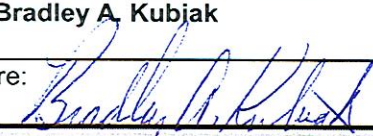
Item	Task	Response Yes	Response No	Comments
Vegetative Cover	**Visually inspect surface conditions.**			
	1. Areas of settlement?		X	
	2. Areas of erosion?	X		Refer to Photographs 5, 6, 7, 8, 17, 19, 20, and 32
	3. Areas where geotextile visible due to erosion?	X		Refer to Photographs 5, 6, and 17
	4. Areas of slope instability?		X	
	5. Lack or thinning vegetation?		X	
	6. Presence of burrowing animals?	X		Refer to Photographs 18 and 28
	7. Areas of damage?		X	
	8. Drainage problems?		X	
	9. Mowing required?	X		Mow around catch basins, monitoring wells, utility poles, guy wires, and along fence line
Access Road	**Visually inspect conditions.**			
	1. Areas of settlement?		X	

Inspection checklist

Date Performed: **June 1, 2003**	Weather: **Rainy 60 F**
Site Name: **Ley Creek PCB Dredgings site**	Inspector Name: **Bradley A. Kubiak**
Site Location: **Syracuse, New York**	Inspector Signature: Bradley A. Kubiak

Item	Task	Response Yes	Response No	Comments
Access Road	2. Areas of erosion?	X		Refer to Photographs 9 and 14
	3. Areas rutted or potholes present?	X		Refer to Photographs 10, 11, 15, 16, 23, and 24
	4. Areas of damage?		X	
Surface Water Drainage	**Visually inspect ditches, catch basins, etc.**			
	1. Accumulation of debris?	X		Refer to Photographs 3 and 13
	2. Excessive scouring?	X		Refer to Photograph 30
	3. Areas of damage?		X	
Ground Water Wells	**Visually inspect conditions.**			
	1. Casings secure and locked?	X		
	2. Areas of damage?		X	
Sanitary sewer access paths	**Visually inspect conditions.**			
	1. Cracks in asphalt?		X	
	2. Manhole covers in place?	X		

Inspection checklist

Date Performed: **June 1, 2003**	Weather: **Rainy 60 F**
Site Name: **Ley Creek PCB Dredgings site**	Inspector Name: **Bradley A. Kubjak**
Site Location: **Syracuse, New York**	Inspector Signature: 

Item	Task	Response Yes	Response No	Comments
Sanitary sewer access paths	3. Debris accumulating in access paths?		X	
Physical Site Security	**Visually inspect fences and gates**			
	1. Signs intact?	X		
	2. Fence breached?		X	
	3. Access gates locked?	X		
	4. Areas of damage?	X		

Note any additional comments.

Saplings observed in multiple areas within wetland (refer to Photographs 2 and 25).

Significant amont of grass growing in stone access road turnaround (refer to Photograph 27).

Vegetation establishment in repaired and seeded last year poor

Minor amounts of debris in ditch along Factory Ave.

Recent minor repairs to cover should be seeded

Vegetation is beginning to establish itself in the stone access road

Photograph 1 - View looking East from western end of Site.

Photograph 2 - View of trees in wetland area

Photograph 3 - View of CB-1 with some trash accumulation.

Photograph 4 - View from CB-1 looking east.

Photograph 5 - View of geotextile visible near outlet of CB-1.

Photograph 6 -View of geotextile visible in CB-1 overflow spillway

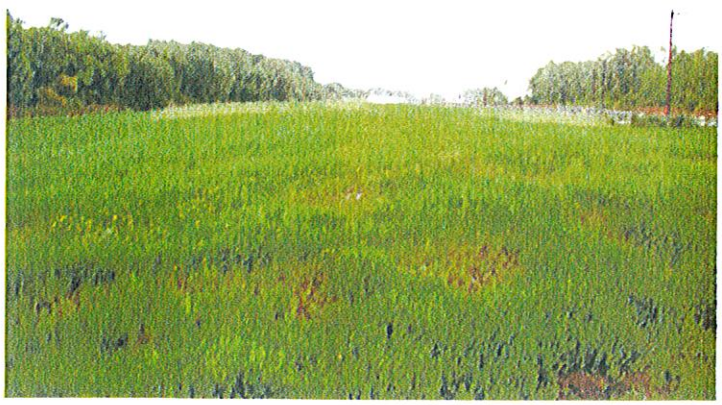
Photograph 7 - View of eroded area near east of outlet for CB-1.

Photograph 8 - View of eroded area west of CB-1 outlet.

Photograph 9 - View of eroded access road near the CB-1 outlet.

Photograph 10 - View of standing water in access road.

Photograph 11 - View of standing water in access road.



Photograph 12 - View looking east from CB-2 overflow spillway.

Photograph 13 - View of grate blockage for CB-2.

Photograph 14 - View of eroded area in access road.

Photograph 15 - View of standing water in access road.

Photograph 16 - View of standing water in access road.

Photograph 17 - View of geotextile visible in CB-3 overflow spillway.

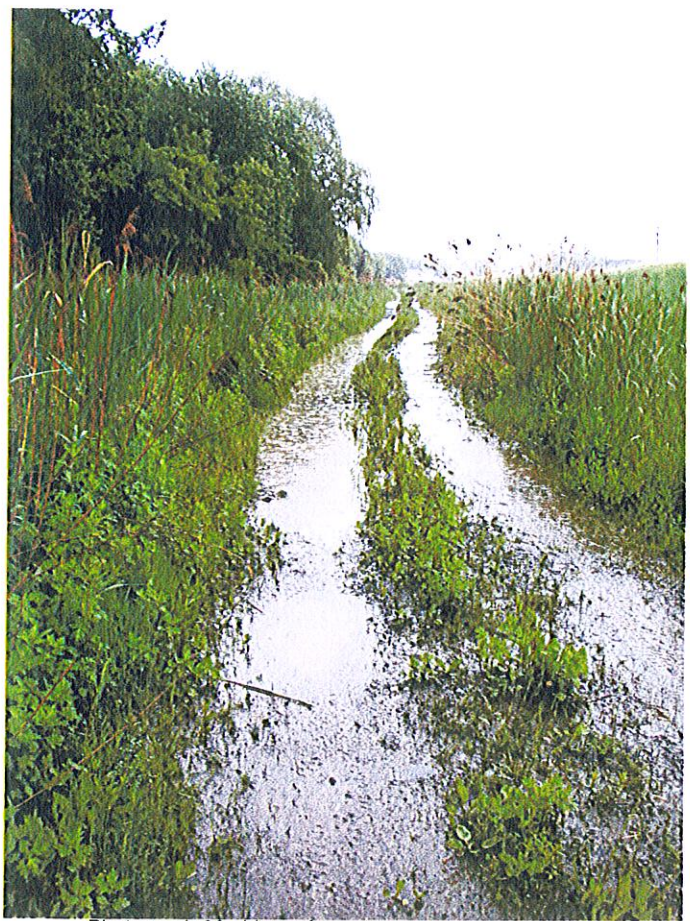
Photograph 18 - View of woodchuck hole west side near CB-3.

Photograph 19 - View of erosion channel near CB-3.

Photograph 20 - View of erosion channel near CB-3.

Photograph 21 - View of CB-3.

Photograph 22 - View looking east from CB-3 overflow spillway.



Photograph 23 - View of standing water in access road.

Photograph 24 - View of standing water in access road.

Photograph 25 - View of trees in wetland area.

Photograph 26 - View of CB-4.

Photograph 27 - View of vegetation in access road turnaround.

Photograph 28 - View of woodchuck hole near CB-5/004.

Photograph 29 - View of CB-5/004.

Photograph 30 - View of excessive scouring near CB-5/004.

Photograph 31 - View looking east from CB-4/003 area.

Photograph 32 - View of erosion in CB-4/003 overflow spillway.

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LANDS NOW OR FORMERLY
NIAGARA MOHAWK POWER CORPORATION
BOOK 598 PAGE 194
BOOK 607 PAGE 126
BOOK 557 PAGE 79

LEY CREEK

12" LIGHT RIP-RAP

AREA OF SAPLINGS IN WETLAND AREA (2)

LANDS NOW OR FORMERLY
NIAGARA MOHAWK POWER CORPORATION
BOOK 598 PAGE 194
BOOK 607 PAGE 126
BOOK 557 PAGE 79

MW-13

AREA TOPSOILED, SEEDED, AND FERTILIZED IN 2002

OVERFLOW SPILLWAY

CB-1

15' DOUBLE SWING GATE

15"X21" CMP-ARCH

HP

15"X21" CMP-ARCH

15"X21" CMP-ARCH

15"X21" CMP-ARCH

FACTORY AVENUE

PK NAIL
BENCHMARK #5
ELEV = 379.15
NORTHING = 1126932.5
EASTING = 941347.3

PK NAIL
BENCHMARK #6
ELEV = 379.08
NORTHING = 1126859.0
EASTING = 940664.8

MATCHLINE "B-B"
FOR CONTINUATION SEE FIG. 2

FIGURE 1

LEGEND

- SEEDED WITH CANARY GRASS
- OHW — OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SAN — SANITARY SEWER
- SMH — SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE (SEE GENERAL NOTE 4)
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-08G7C MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
- ABANDONED MONITORING WELL
- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- (17) PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

JUNE 2003
OM&M INSPECTION
PARTIAL SITE PLAN

1"=40' 40 0 40

FILE NO. 4966.32343.001
JULY 2003

O'BRIEN & GERE
ENGINEERS, INC.

PLOT DATE: 7/21/03

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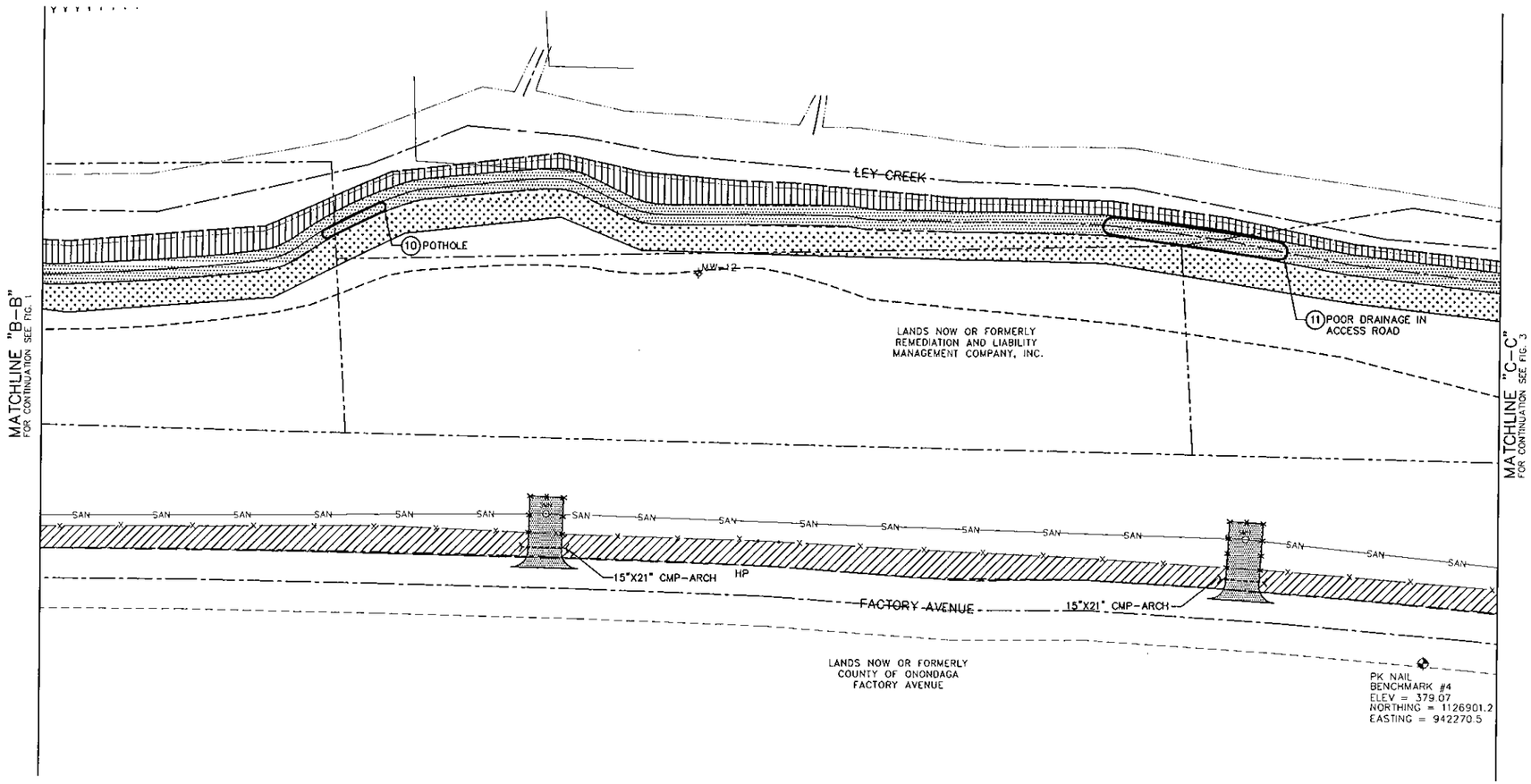
FIGURE 2



LEGEND

- SEEDED WITH CANARY GRASS
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- (17) PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

JUNE 2003
OM&M INSPECTION
PARTIAL SITE PLAN

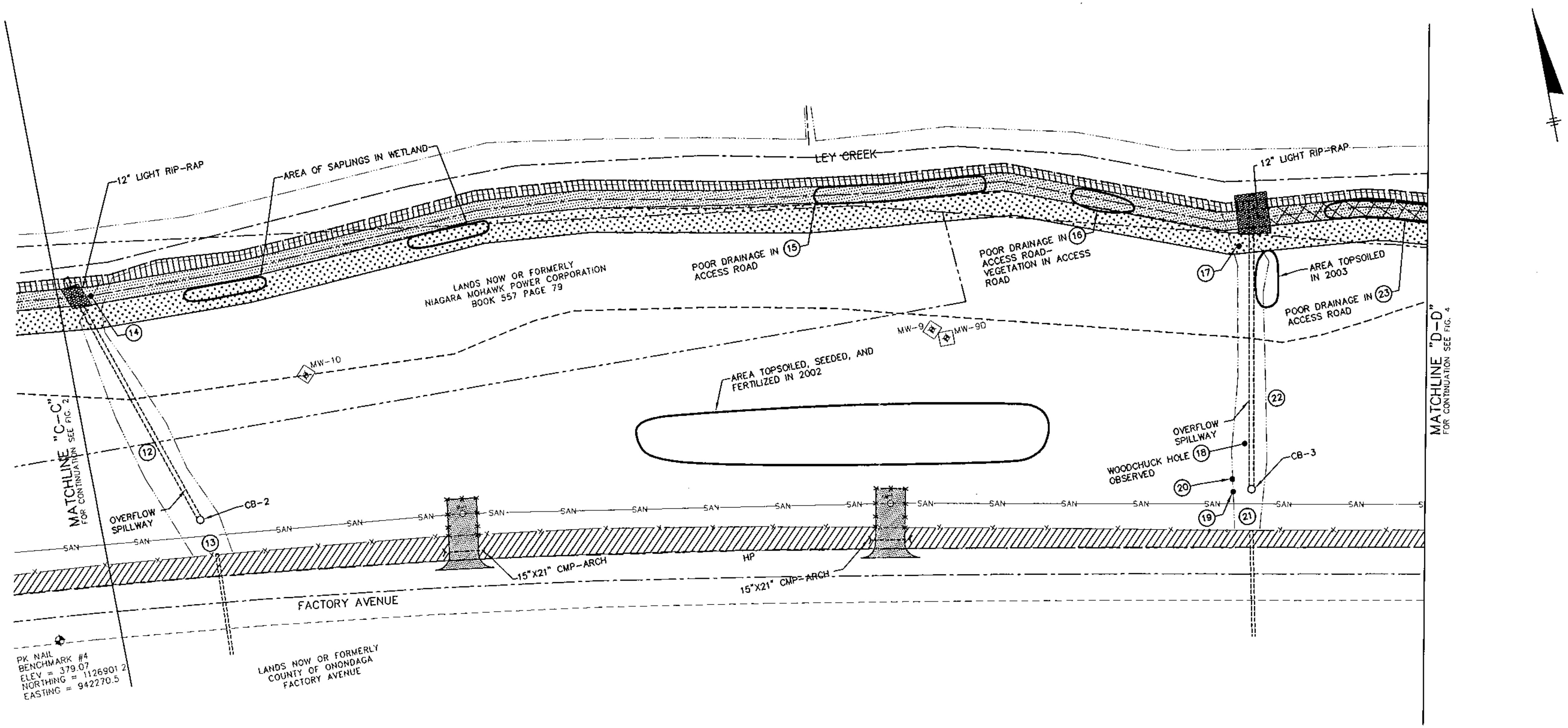
1"=40' 40 0 40

FILE NO. 4966.32343.002
JULY 2003

O'BRIEN & GERE
ENGINEERS, INC.

PLOT DATE: 7/21/03

FIGURE 3



LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
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- (17) PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

JUNE 2003 OM&M INSPECTION PARTIAL SITE PLAN

1"=40' 40 0 40

FILE NO. 4966.32343.003
JULY 2003

O'BRIEN & GERE ENGINEERS, INC.

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PLOT DATE: 7/21/03

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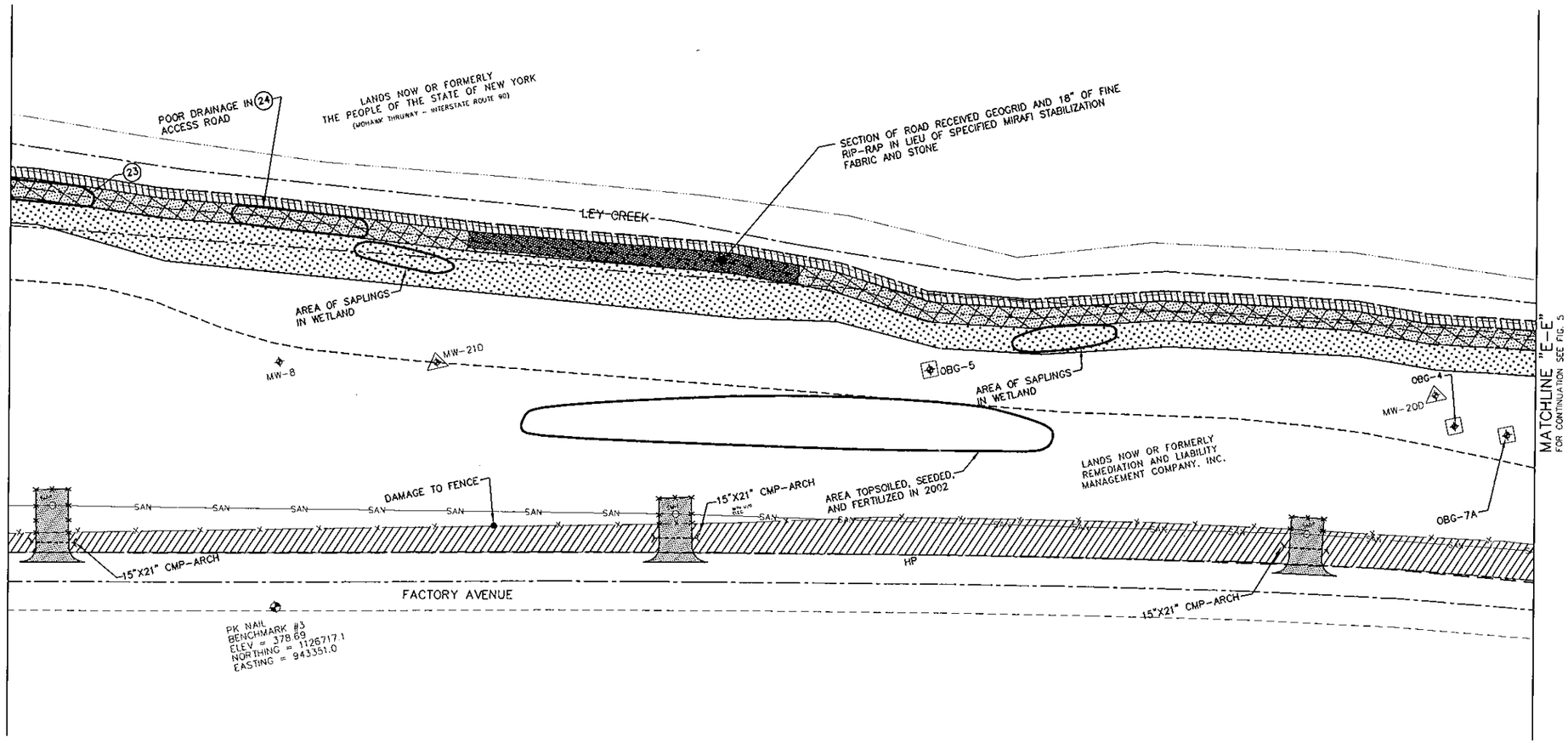

FIGURE 4

LEGEND

- SEEDED WITH CANARY GRASS
- OHW — OVERHEAD WIRES
- PROPERTY BOUNDARY
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- GUY WIRE
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- (17) PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

JUNE 2002 OM&M INSPECTION PARTIAL SITE PLAN

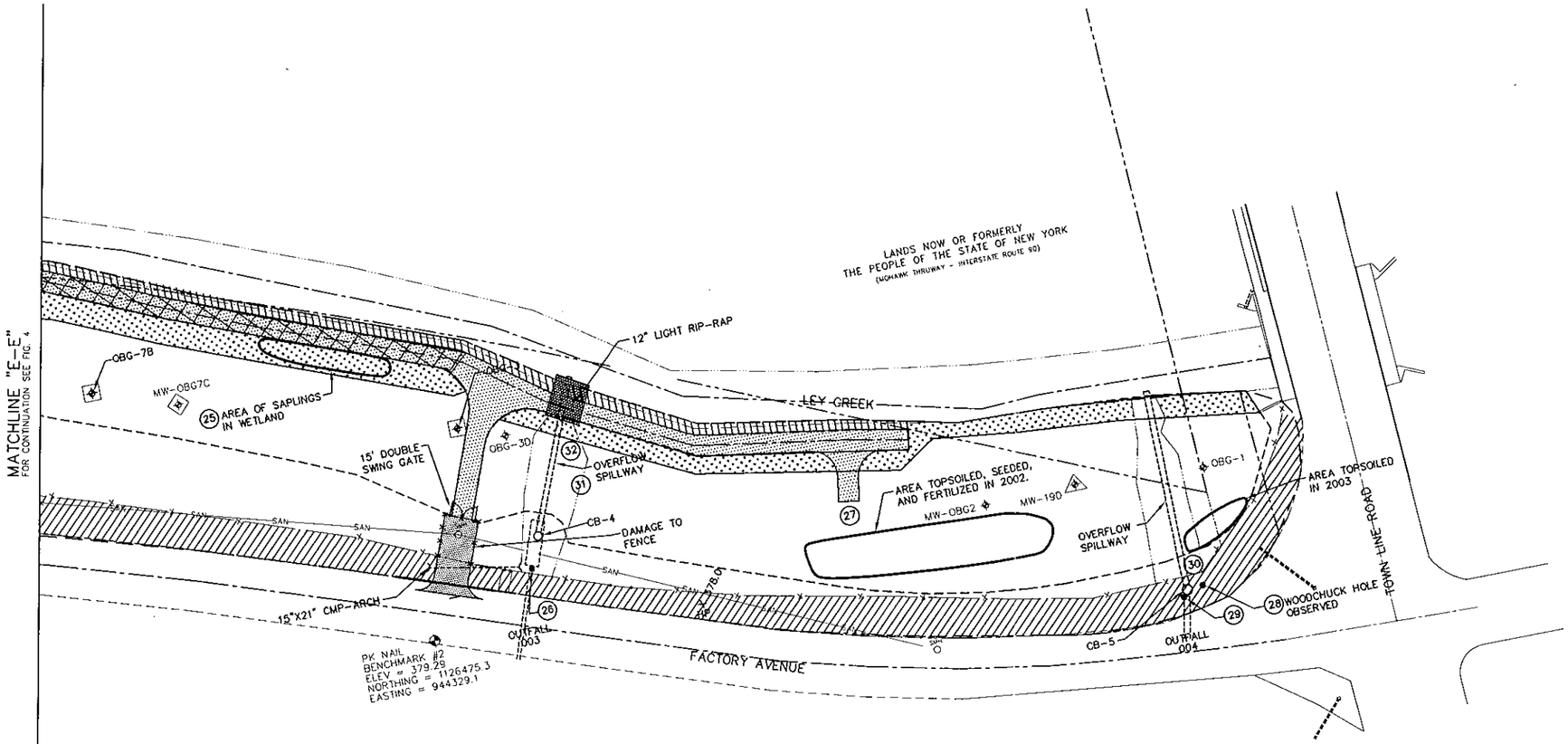
1"=40' 40 0 40

FILE NO. 4966.32343.004
JULY 2003

O'BRIEN & GERE ENGINEERS, INC.

PLOT DATE: 7/21/03

FIGURE 5



LEGEND

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LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

JUNE 2003
OM&M INSPECTION
PARTIAL SITE PLAN

1"=40' 40 0 40

FILE NO. 4966.32343.005
JULY 2003

O'BRIEN & GERE
ENGINEERS, INC.

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PLOT DATE: 7/21/03

O'BRIEN & GERE
ENGINEERS, INC.

January 5, 2004

James F. Hartnett
Remediation and Liability Management Company, Inc.
c/o Blasland, Bouck, & Lee
6723 Towpath Road
Glacier Creek, Suite 255
Syracuse, New York 13214

Re: Ley Creek PCB Dredgings Site
October 2003 OM&M Inspection

File: 4966/32343 #2

Dear Jim:

The purpose of this letter report is to document the Operation, Maintenance, and Monitoring (OM&M) site inspection conducted on October 31, 2003 by O'Brien & Gere at the Ley Creek PCB Dredgings Site (the Site), located in Syracuse, New York. This inspection was performed in accordance with the NYSDEC-approved OM&M manual, dated September 2001. Attached to this letter report are the OM&M checklist, inspection photographs, and site figures associated with the site inspection.

SITE INSPECTION

On October 31, 2003, an OM&M site inspection was performed at the Site. The inspection checklist along with the comments is attached. The inspection photographs are also attached along with a description of the photographs. The approximate locations of where the photographs were taken are shown in the attached site figures.

The areas of lacking or thinning vegetation observed during the August 2002 site inspection were seeded and fertilized by Royal Environmental, Inc. since the June 1, 2003 OM&M inspection, and have shown improvement of vegetation establishment. Overall vegetation establishment in these areas, however, requires additional improvement.

The two areas of the site security fence that were observed to be damaged during the August 2002 site inspection (Figures 4 and 5) have not been repaired and should be repaired as soon as practicable.

Other observations of items that require action are as follows:

- Vegetative cover erosion: (Photograph 9. Figure 3). One area of erosion of the vegetative cover was observed

- Burrowing animals: (Figure 3.) A woodchuck hole observed in the June 2003 inspection, in the area of catch basin CB-3, requires repair

- Stone access road drainage: (Photograph 6. Figure 2.) One area of the stone access road observed during the June 2003 inspection to have rutting and poor drainage, which was characterized by ponded water being visible within the stone access road, requires repair

- Debris accumulation: (Photograph 7. Figures 1 and 3.) Debris was accumulated over the catch basin CB-1 grate and the grate for catch basin CB-2 was fully blocked, thus restricting flow

- Excessive scouring: (Photograph 15. Figure 5.) The excessive scouring that was observed in the August 2002 inspection requires repair

- Area requiring mowing: The vegetation around the catch basins, monitoring wells, utility poles, guy wires, and along the fence line requires mowing

- Vegetation within stone access road: A significant amount of vegetation was observed within the stone access road at the western end of the Site and the stone access road turnaround at the eastern end of the Site.

RECOMMENDATIONS

Vegetation establishment at the Site has continued to improve since the 2000 construction season; however, several areas where topsoil has been placed to address areas of erosion should be seeded and monitored for vegetation establishment.

Below is a list of recommended measures to address the observations during the OM&M inspection:

- Repair the damaged site security fence
- Repair eroded areas of the vegetative cover by placement of topsoil and subsequent application of seed and fertilizer
- Remove the woodchuck(s) from the Site, place topsoil in the hole, and apply seed and fertilizer
- Repair the areas of rutting of the stone access road by placement of additional crushed stone and improve drainage of the stone access road by constructing small drainage channels to convey ponded water from the stone access road to Ley Creek. This could be performed by removal of less than 1 foot of vegetative cover material with subsequent replacement of crushed stone
- Remove the debris around catch basin CB-1 and catch basin CB-2 grate
- Repair the area of excessive scouring by removal of rip-rap, placement of compacted crushed stone to meet surrounding grade, and replacement of rip-rap
- Mow/trim the vegetation around all catch basins, monitoring wells, utility poles, guy wires, and along the fence line
- Remove vegetation from the stone access road and the stone access road turnaround.

The next semi-annual OM&M inspection is scheduled to occur in the Spring of 2004.

If you should have any questions pertaining to the information presented in this letter, please feel free to contact me at (315) 437-6100.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Bradley A. Kubiak, P.E.
Project Engineer

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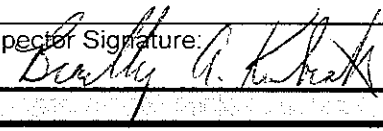
cc: Douglas Crawford, P.E.
Maureen Markert, P.E.

Inspection checklist

Date Performed: **October 31, 2003**	Weather: Sunny **75 F**
Site Name: **Ley Creek PCB Dredgings Site**	Inspector Name: **Bradley A. Kubiak**
Site Location: **Syracuse, New York**	Inspector Signature: 

Item	Task	Response Yes	Response No	Comments
Vegetative Cover	**Visually inspect surface conditions.**			
	1. Areas of settlement?		X	
	2. Areas of erosion?	X		Refer to Photograph 9
	3. Areas where geotextile visible due to erosion?		X	
	4. Areas of slope instability?		X	
	5. Lack or thinning vegetation?		X	
	6. Presence of burrowing animals?	X		Refer to Figure 3
	7. Areas of damage?		X	
	8. Drainage problems?		X	
	9. Mowing required?	X		Mow around catch basins, monitoring wells, utility poles, guy wires, and along fence line
Access Road	**Visually inspect conditions.**			
	1. Areas of settlement?		X	

Inspection checklist

Date Performed: **October 31, 2003**	Weather: Sunny **75 F**
Site Name: **Ley Creek PCB Dredgings Site**	Inspector Name: **Bradley A. Kubiak**
Site Location: **Syracuse, New York**	Inspector Signature: Bradley A. Kubiak

Item	Task	Response Yes	Response No	Comments
Access Road	2. Areas of erosion?		X	
	3. Areas rutted or potholes present?	X		Refer to Photograph 6
	4. Areas of damage?		X	
Surface Water Drainage	**Visually inspect ditches, catch basins, etc.**			
	1. Accumulation of debris?	X		Refer to Photograph 7 and Figures 1 and 3
	2. Excessive scouring?	X		Refer to Photograph 15
	3. Areas of damage?		X	
Ground Water Wells	**Visually inspect conditions.**			
	1. Casings secure and locked?	X		
	2. Areas of damage?		X	
Sanitary sewer access paths	**Visually inspect conditions.**			
	1. Cracks in asphalt?		X	
	2. Manhole covers in place?	X		

Inspection checklist

Date Performed: **October 31, 2003**	Weather: Sunny **75 F**
Site Name: **Ley Creek PCB Dredgings Site**	Inspector Name: **Bradley A. Kubiak**
Site Location: **Syracuse, New York**	Inspector Signature: Bradley A. Kubiak

Item	Task	Response Yes	Response No	Comments
Sanitary sewer access paths	3. Debris accumulating in access paths?		X	
Physical Site Security	**Visually inspect fences and gates**			
	1. Signs intact?	X		
	2. Fence breached?		X	
	3. Access gates locked?	X		
	4. Areas of damage?	X		Refer to Figures 4 and 5

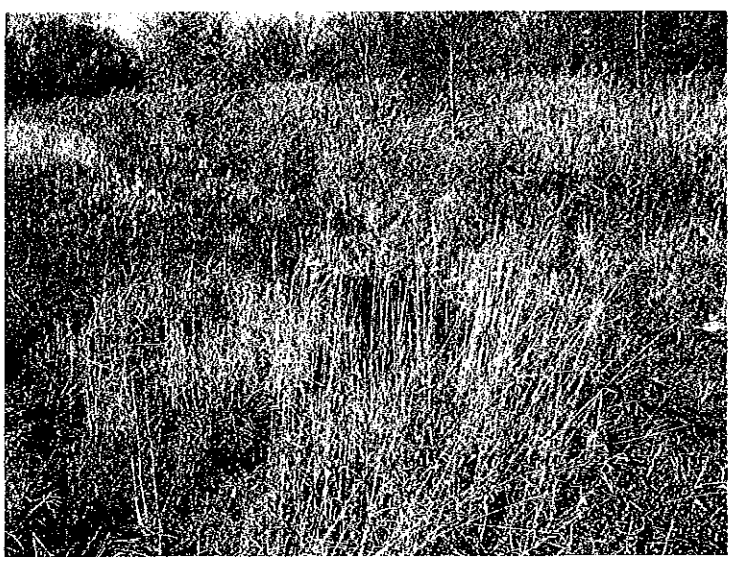
Note any additional comments.

Vegetation is beginning to establish itself in the stone access road

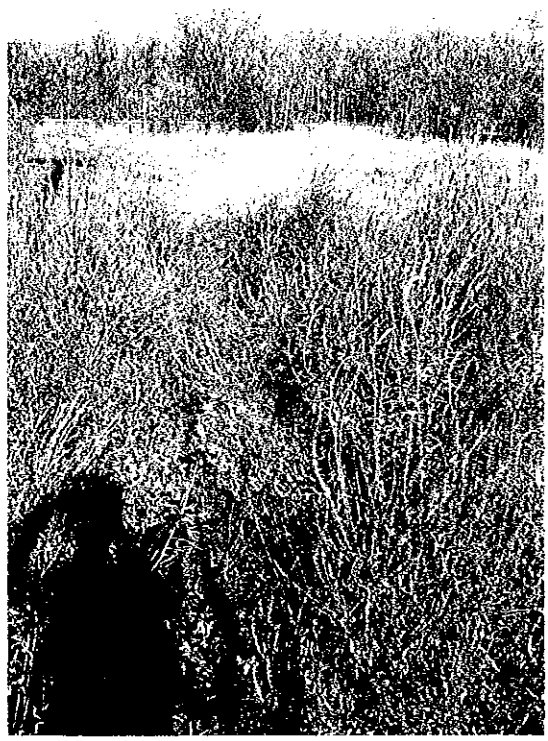
Vegetation establishment of repaired and seeded areas that was performed in Summer 2003 is poor.

Photograph 1- View looking east from western end of the site

Photograph 2- View looking west down stone access road



Photograph 3- View of flooding in access road near CB-1 outlet at Ley Creek



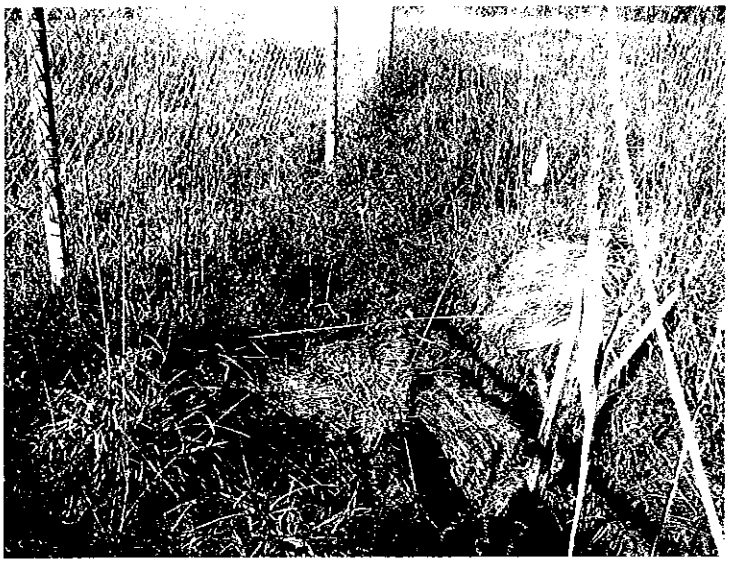
Photograph 4- View looking towards CB-4 from fenceline at Factory Ave

Photograph 5- View looking east from CB-1 overflow spillway

Photograph 6- View of rutting in stone access road

Photograph 7- View of CB-2 with ponded water due to grate blockage

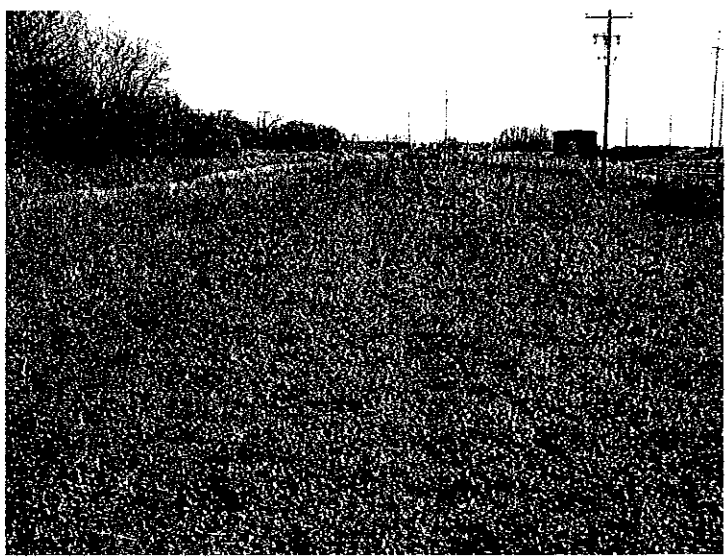
Photograph 8- View looking east from CB-2 overflow spillway



Photograph 9- View of erosion channel near CB-3

Photograph 10- View looking south towards CB-3 from fenceline

Photograph 11- View looking east from CB-3 overflow spillway



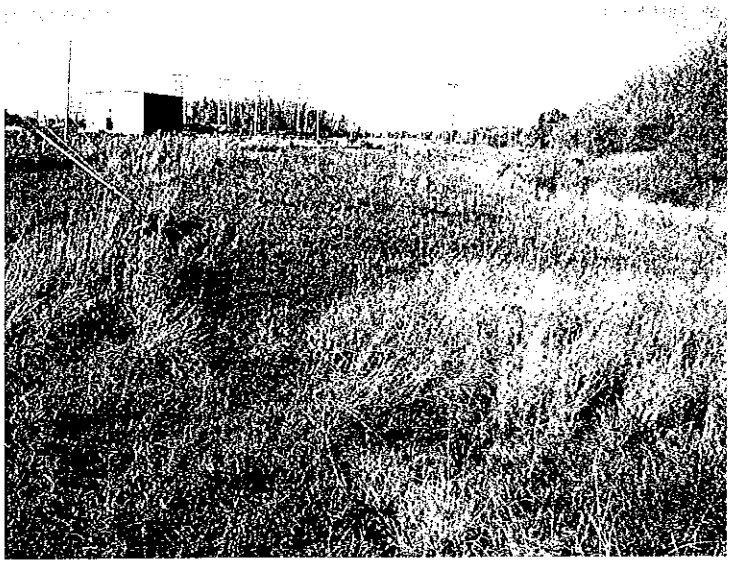
Photograph 12- View looking east from near MW-21D monitoring well

Photograph 13- View looking at CB-4/003

Photograph 14- View looking east from CB-4/003 overflow spillway

Photograph 15- View looking at scoured area south of CB-5/004

Photograph 16- View looking at CB-5/004



Photograph 17- View looking west from CB-5/004 overflow spillway

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FIGURE 1

LANDS NOW OR FORMERLY
NIAGARA MOHAWK POWER CORPORATION
BOOK 598 PAGE 194
BOOK 607 PAGE 126
BOOK 557 PAGE 79

LEY CREEK

12" LIGHT RIP-RAP

LANDS NOW OR FORMERLY
NIAGARA MOHAWK POWER CORPORATION
BOOK 598 PAGE 194
BOOK 607 PAGE 126
BOOK 557 PAGE 79

OVERFLOW SPILLWAY

MW-13

GRATE BLOCKED

CB-1

15' DOUBLE SWING GATE

15"X21" CMP-ARCH

HP

15"X21" CMP-ARCH

15"X21" CMP-ARCH

FACTORY AVENUE

PK NAIL
BENCHMARK #5
ELEV = 379.15
NORTHING = 1126932.5
EASTING = 941347.3

MATCHLINE "B-B"
FOR CONTINUATION SEE FIG. 2

PK NAIL
BENCHMARK #6
ELEV = 379.08
NORTHING = 1126859.0
EASTING = 940664.8

LEGEND

- SEEDED WITH CANARY GRASS
- OHW — OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SAN — SANITARY SEWER
- SMH — SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE (SEE GENERAL NOTE 4)
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-OBG7C — MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
- ABANDONED MONITORING WELL
- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- (17) PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OCTOBER 2003
OM&M INSPECTION
PARTIAL SITE PLAN

1"=40' 40 0 40

FILE NO. 4966.32343.006
DECEMBER 2003

O'BRIEN & GERE
ENGINEERS, INC.

PLOT DATE: 12/31/03

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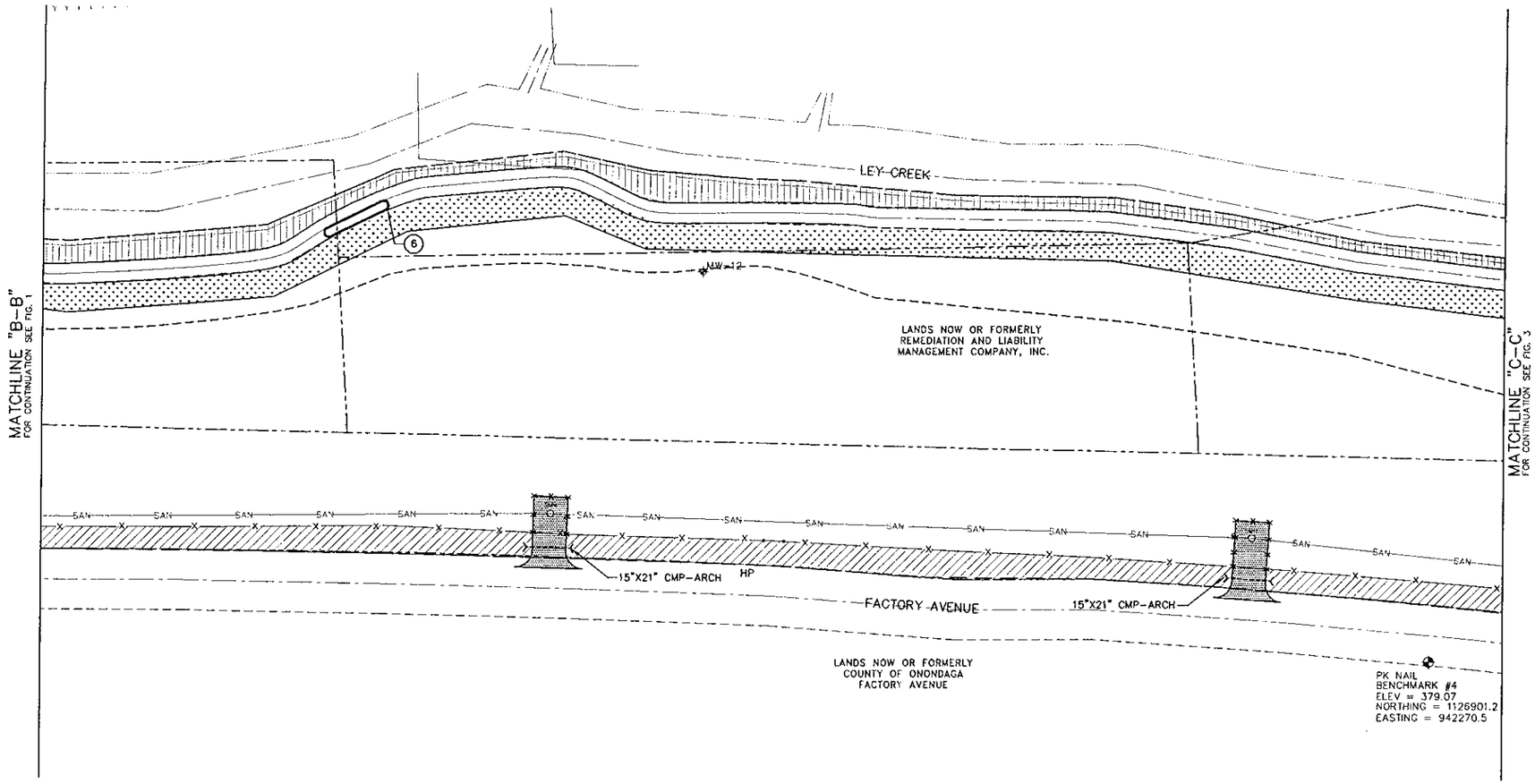

FIGURE 2

LEGEND

- SEEDED WITH CANARY GRASS
- OHW — OVERHEAD WIRES
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- GUY WIRE
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- (17) PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OCTOBER 2003 OM&M INSPECTION PARTIAL SITE PLAN

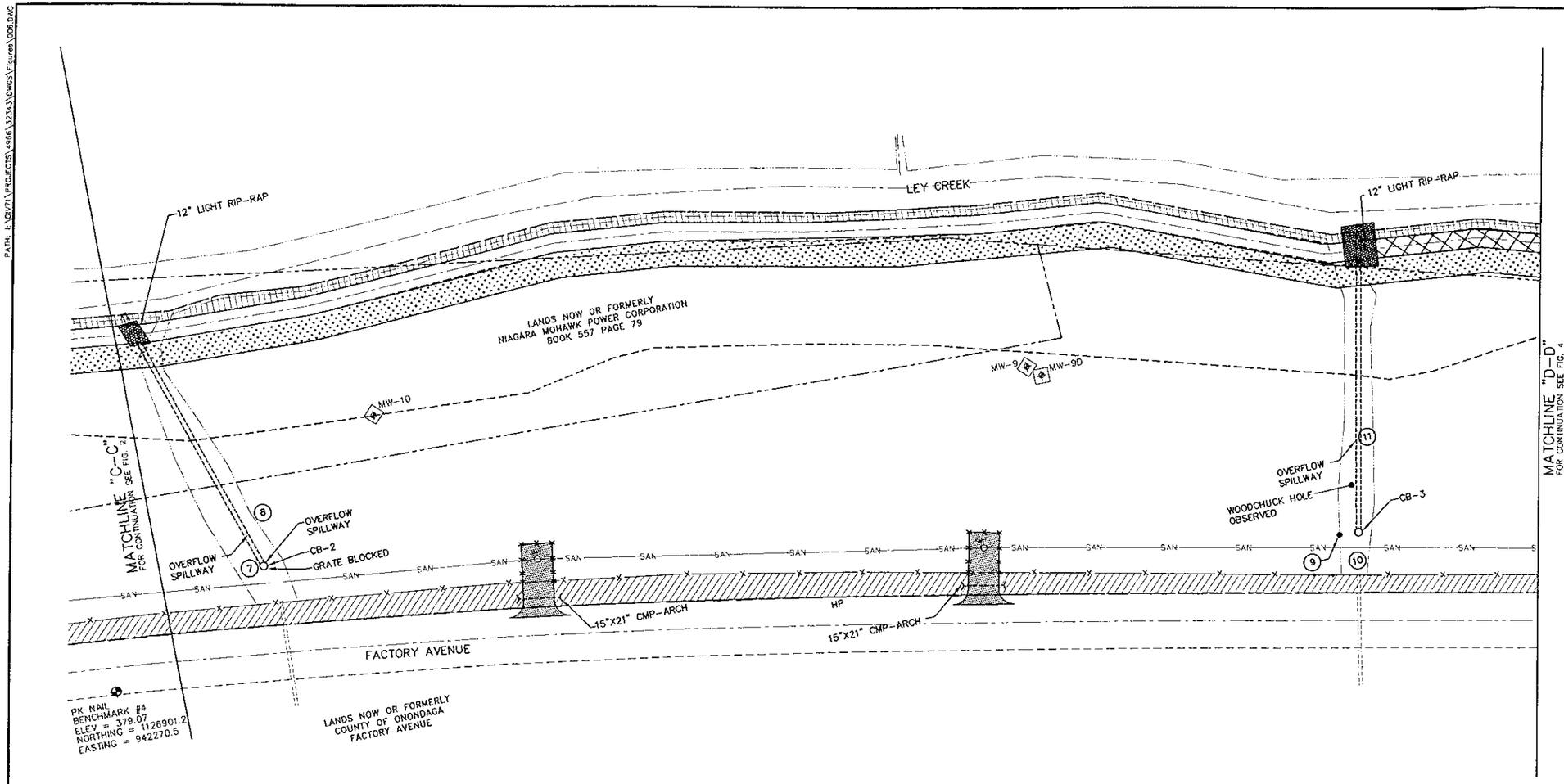
1"=40' 40 0 40

FILE NO. 4966.32343.007
DECEMBER 2003

O'BRIEN & GERE ENGINEERS, INC.

PLOT DATE: 12/31/03

FIGURE 3



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LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OCTOBER 2003 OM&M INSPECTION PARTIAL SITE PLAN

1"=40' 40 0 40

FILE NO. 4966.32343.008
DECEMBER 2003

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PLOT DATE: 12/31/03

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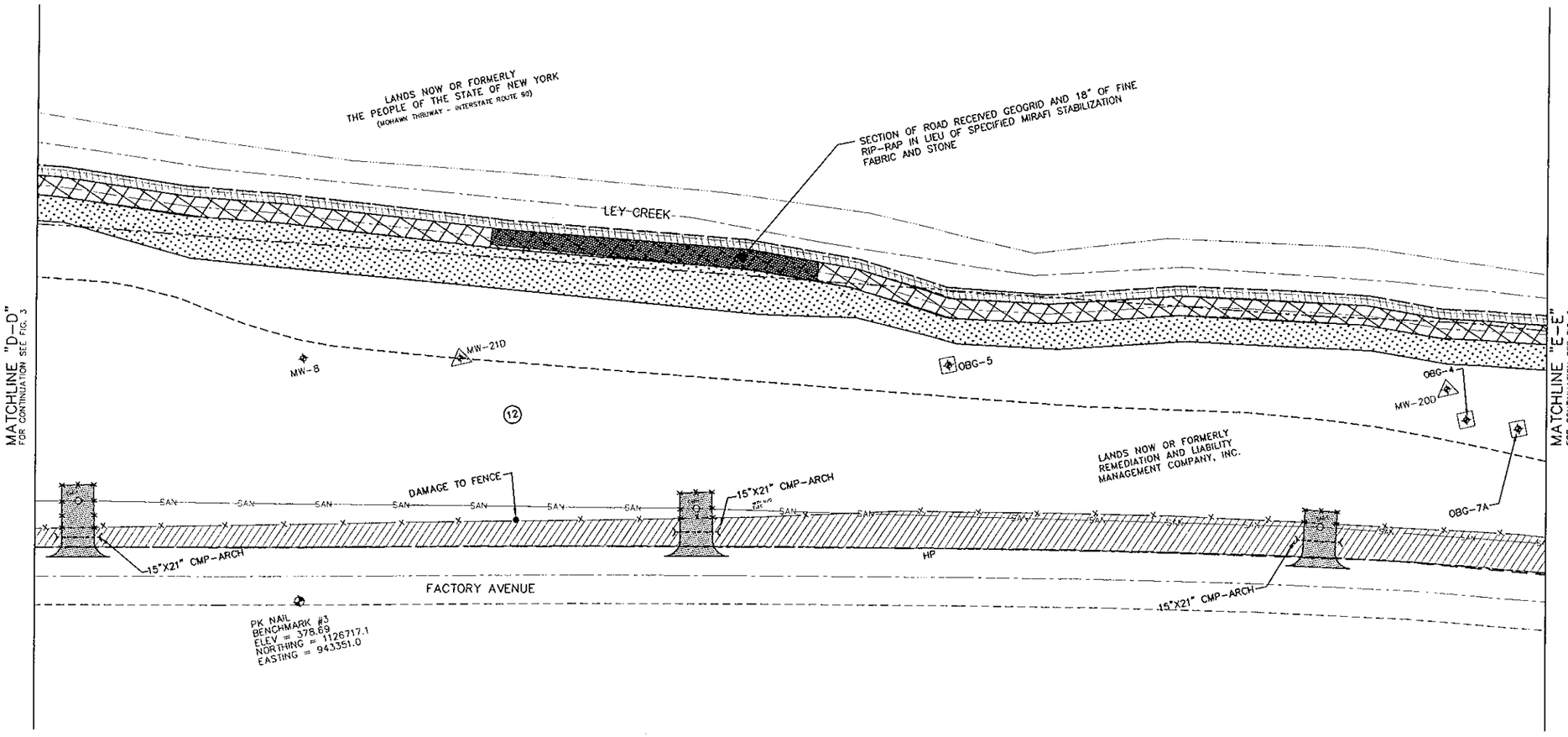
FIGURE 4



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LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OCTOBER 2003 OM&M INSPECTION PARTIAL SITE PLAN

1"=40' 40 0 40

FILE NO. 4966.32343.009
DECEMBER 2003

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ENGINEERS, INC.

PLOT DATE: 12/31/03

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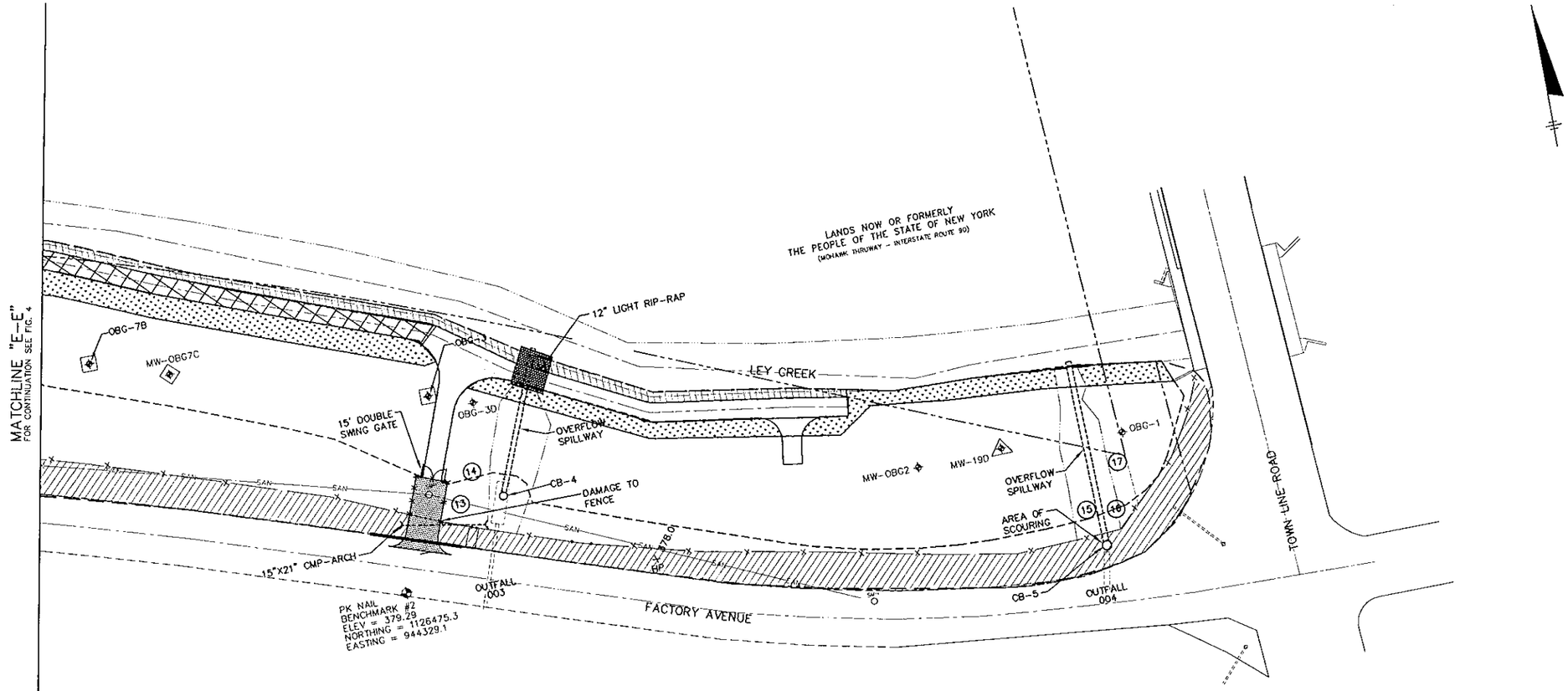
FIGURE 5



LEGEND

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- OVERHEAD WIRES
- PROPERTY BOUNDARY
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LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OCTOBER 2003 OM&M INSPECTION PARTIAL SITE PLAN

1"=40' 40 0 40

FILE NO. 4966.32343.010
DECEMBER 2003

O'BRIEN & GERE ENGINEERS, INC.

PLOT DATE: 12/31/03

O'BRIEN & GERE
ENGINEERS, INC.

January 19, 2004

James F. Hartnett
Remediation and Liability Management Company, Inc.
6723 Towpath Road, Suite 255
P.O. Box 460
Syracuse, New York 13662

Re: Ley Creek PCB Dredgings Site
2003 OM&M Wetland Evaluation

File: 4966/34124 #2

Dear Jim:

This letter presents the results of wetland evaluation efforts performed at the Ley Creek PCB Dredgings Site (the Site), located in Syracuse, New York. Steve Mooney and Ron Chiarello of O'Brien & Gere Engineers, Inc. (O'Brien & Gere) performed the evaluation on October 8, 2003, in accordance with Section 2.6 of the September 2001 *Operation, Maintenance and Monitoring Manual* (OM&M Manual), which was approved by the New York State Department of Environmental Conservation (NYSDEC).

The OM&M Manual specifies that wetland evaluation is to be performed following the first full growing season (2001) and the subsequent four years (2002 through 2005). This wetland evaluation (Year 2003 Evaluation) represents the third full growing season following NYSDEC approval of the *Remedial Action Engineering Report* in 2001.

BACKGROUND

As documented in the *Wetland Assessment Report* for the Site (O'Brien & Gere 1998), eight emergent wetlands, totaling approximately 1.4 acres and dominated by dense stands of common reed (*Phragmites australis*) were identified at the Site prior to implementation of the Remedial Action. These wetlands were considered fringe wetlands based on their location adjacent to Ley Creek. The implementation of the Remedial Action at the Site temporarily eliminated these wetlands. A Wetland Mitigation Plan (letter report dated September 15, 2000), which consisted of the planting of reed canary grass (*Phalaris arundincea*), was prepared by O'Brien & Gere on behalf of General Motors Corporation (GM) and approved by NYSDEC and the United States Environmental Protection Agency (USEPA) for the impacted wetlands at the Site. The Wetland Mitigation Plan was based on an evaluation of pre-remediation Site conditions and anticipated post-remediation site conditions. The wetland mitigation was incorporated in the remedial design. Figures 1 through 5 of this letter report depict the locations of the restored wetland areas at the Site.

INSPECTION ACTIVITIES

In accordance with the OM&M Manual, a site visit was performed by qualified O'Brien & Gere wetland scientists on October 8, 2003 to evaluate the third year conditions of the restored wetlands and to identify maintenance activities that would be required to support the success of the wetland mitigation.

RESTORATION EVALUATION OBJECTIVES AND CRITERIA

This letter report presents the results of the third evaluation effort for the restored wetlands at the Site. Restoration success is based on the target percentage of ground cover and the density of planted species (reed canary grass). The restoration goal for restored wetlands at the Site, as specified in Section 2.6 of the OM&M Manual, is 90% ground cover within the sample plots of seeded (reed canary grass) and wetland species. The performance standard for wetlands restoration at the Site is measured by the percent of established ground cover, either through planting or natural recruitment.

Consistent with the OM&M Manual, four 9 square-foot sample plots were used to evaluate ground cover in the restored wetlands during the 2003 evaluation. Data collected for these sample plots were recorded on field data forms developed by O'Brien & Gere; the completed forms are included as Attachment 1 of this letter report. The sample plot locations are identified on Figures 1 through 5 of this letter report.

In accordance with the OM&M Manual, percent ground cover evaluation plots were located randomly in representative areas along the access road at the Site. The percent vegetative ground cover and percent ground cover by species was visually estimated within each plot and recorded on field data forms (Attachment 1). The data forms included:

- species observed within the sample plot
- percent ground cover for each species observed
- the United States Fish and Wildlife Service (USFWS) indicator status for each species as described in the USFWS NERC-99/18.21 document dated 1988 - *National List of Plant Species That Occur in Wetlands* and the 1995 Northeast Supplement
- total percent ground cover
- percent of the total ground which are hydrophytic species (FAC, FACW, and OBL).

RESULTS AND DISCUSSION

Four ground cover sample plots were evaluated within the restored wetlands at the Site. Data collected from the sample plots are presented on the field data forms included as Attachment 1. The comparison of observed percent ground cover to the restoration goal is presented in Table 1. As depicted on the field data forms and Table 1, Plots #1 and #4 exceeded the target ground cover percentage of 90% for seeded (reed canary grass) and wetland species, excluding invasive wetland species such as *Phragmites australis* (common reed), *Lythrum salicaria* (purple loosestrife), and non-wetland species.

In Plot #1, reed canary grass made up 95% of the total ground cover and in Plot #4, reed canary grass and other desirable wetland species made up 93% of the total ground cover, with reed canary grass comprising 80% of that total. Sample Plots #2 and #3 did not meet the target ground cover percentage but were much improved from conditions observed in 2002. In Plot #2, reed canary grass made up 30% of the total ground cover with another 25% of the ground cover made up of desirable wetland species. In Plot #3, reed canary grass and other desirable wetland species made up 88% of the total ground cover, with reed canary grass comprising 80% of that total. In 2002, the percent of desirable ground cover observed in Plots #2 and #3 was 0%.

As these sample plot results indicate, half of the Site restored wetlands have met the target ground cover percentage of 90% reed canary grass and other desirable wetland species. In contrast to the year 2002 results, in which only one sample plot met the target criteria, the sample plots evaluated indicated that the seeded species (reed canary grass) along with other desirable wetland species, which are present due to natural recruitment, have been established in two of the four evaluated areas and the two sample plots that did not meet the criteria have exhibited much improvement from the 2002 evaluation results. A photograph log of the sample plot areas is included as Attachment 2.

Common reed and purple loosestrife, two highly invasive species, were generally observed in large numbers along the banks of Ley Creek in the Site area; however, although present in Plot #3, it did not appear that these species were dominating the restored wetlands. Neither of these species was present in the sample plots evaluated in 2001. In 2002, both were present in Plot #3, and common reed was present in Plot #4. In 2003, as previously noted, both were present in Plot #3.

CONCLUSIONS AND RECOMMENDATIONS

Evaluation efforts performed during the third full growing season following NYSDEC and USEPA approval of the OM&M Manual at the Ley Creek PCB Dredgings Site indicated that the restored wetlands have improved significantly in 2003 from the observations made during the 2002 evaluation. The restoration goal was met in two of the four sample plots evaluated in 2003 as compared to only one of the sample plots meeting the goal in 2002. Although the restored wetlands appear to be doing well, O'Brien & Gere recommends the following activities be performed within the restored wetlands at the times presented below to deter the establishment of two highly invasive species within the restored wetlands. As previously noted, common reed (*Phragmites australis*) and purple loosestrife (*Lythrum salicaria*) were observed in portions of the restored wetland and along Ley Creek:

- Additional seeding of herbaceous wetland species (reed canary grass) is recommended in the emergent portion of this wetland, and should be performed in late Spring 2004. Fertilizer 6-44-12 should be applied at a rate of 300 lbs per acre and FINN HST soil conditioner should be applied at a rate of 2.5 gallons per acre. Conwed HYDRO MULCH 2000 should be applied at a rate of 2,500 lbs per acre to minimize the potential of newly applied seed/fertilizer/soil conditioner being carried away during high discharge periods within Ley Creek.

The implementation of this recommendation in the 2004 growing season should assist in deterring the establishment of invasive species within the wetlands; accelerate the restoration of the wetlands towards meeting the restoration in portions of the wetlands that do not currently meet the goal (area of Plots #2 and #3); and maintain the current wetland success observed in the areas of Plots #1 and #4. It is possible that the wetland restoration will succeed in meeting the restoration goal and invasive

species will not become established within the restored wetlands without the implementation of this recommendation. The next wetland evaluation will be performed in 2004 in accordance with the OM&M Manual.

If you should have any questions pertaining to the information presented in this letter, please feel free to contact Maureen Markert or me at (315) 437-6100.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Bradley A. Rubiak, P.E.
Project Engineer

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cc: Ronald P. Chiarello
Douglas M. Crawford, P.E.
Maureen S. Markert, P.E.

Table 1. *Summary of Evaluation Criteria Comparisons*

Sample Plot #	**Ground Cover Criterion**[a]	Observed Ground Cover	Observed Desirable Ground Cover[b]
1	**90%**	100%	95%
2	**90%**	97%	55%
3	**90%**	100%	88%
4	**90%**	100%	93%

[a] Ground cover of seeded and wetland-dependent species.

[b]Calculated by subtracting % cover of undesirable wetland species, *i.e., Lythrum salicaria, Phragmites australis*, if present, and non-wetland species from total % ground cover.

Attachment 1

Field Data Forms

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LANDS NOW OR FORMERLY
NIAGARA MOHAWK POWER CORPORATION
BOOK 598 PAGE 194
BOOK 607 PAGE 126
BOOK 557 PAGE 79

LEY CREEK

WETLAND GROUND COVER
SAMPLE PLOT 1

12" LIGHT RIP-RAP

WETLAND GROUND COVER
SAMPLE PLOT 2

LANDS NOW OR FORMERLY
NIAGARA MOHAWK POWER CORPORATION
BOOK 598 PAGE 194
BOOK 607 PAGE 126
BOOK 557 PAGE 79

MW-13

OVERFLOW
SPILLWAY

CB-1

15' DOUBLE
SWING GATE

HP

15"X21" CMP-ARCH

15"X21" CMP-ARCH

15"X21" CMP-ARCH

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EASTING = 941347.3

PK NAIL
BENCHMARK #6
ELE. = 379.08
NORTHING = 1126859.0
EASTING = 940664.8

MATCHLINE "B-B"
FOR CONTINUATION SEE FIG. 2

FIGURE 1

LEGEND

- SEEDED WITH CANARY GRASS
- OHW — OVERHEAD WIRES
- PROPERTY BOUNDARY
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- ABANDONED MONITORING WELL
- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OM&M PARTIAL SITE PLAN WETLAND EVALUATION

1"=40' 40 0 40

FILE NO. 4966.34124.001
JANUARY 2004

O'BRIEN & GERE
ENGINEERS, INC.

PLOT DATE: 1/12/04

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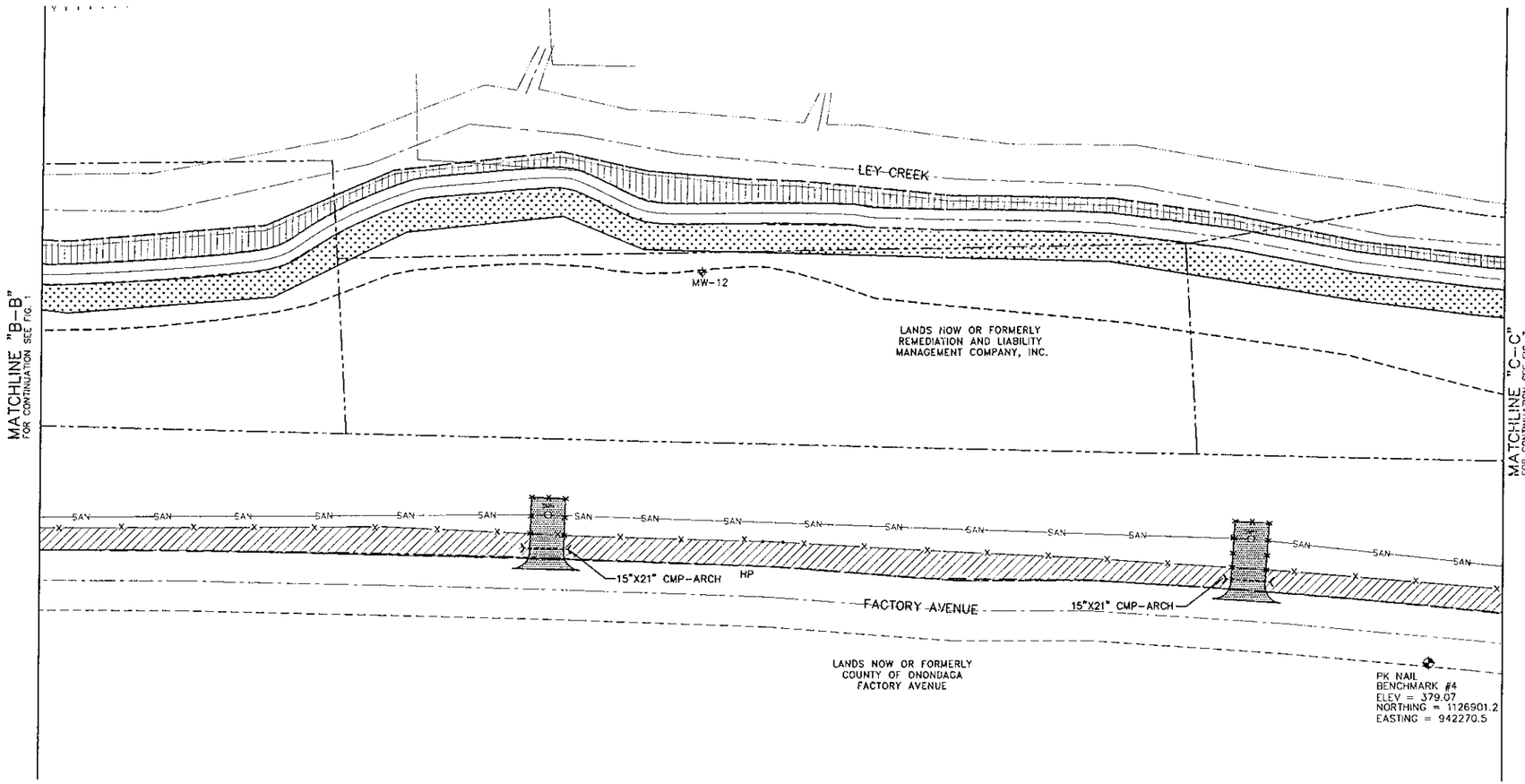

FIGURE 2

LEGEND

- SEEDED WITH CANARY GRASS
- OHW — OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
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- NEW MONITORING WELL
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- LIMITS OF NON-WOVEN GEOTEXTILE
- WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OM&M PARTIAL SITE PLAN WETLAND EVALUATION

1"=40' 40 0 40

FILE NO. 4966.34124.002
JANUARY 2004

O'BRIEN & GERE
ENGINEERS, INC.

PLOT DATE: 1/12/04

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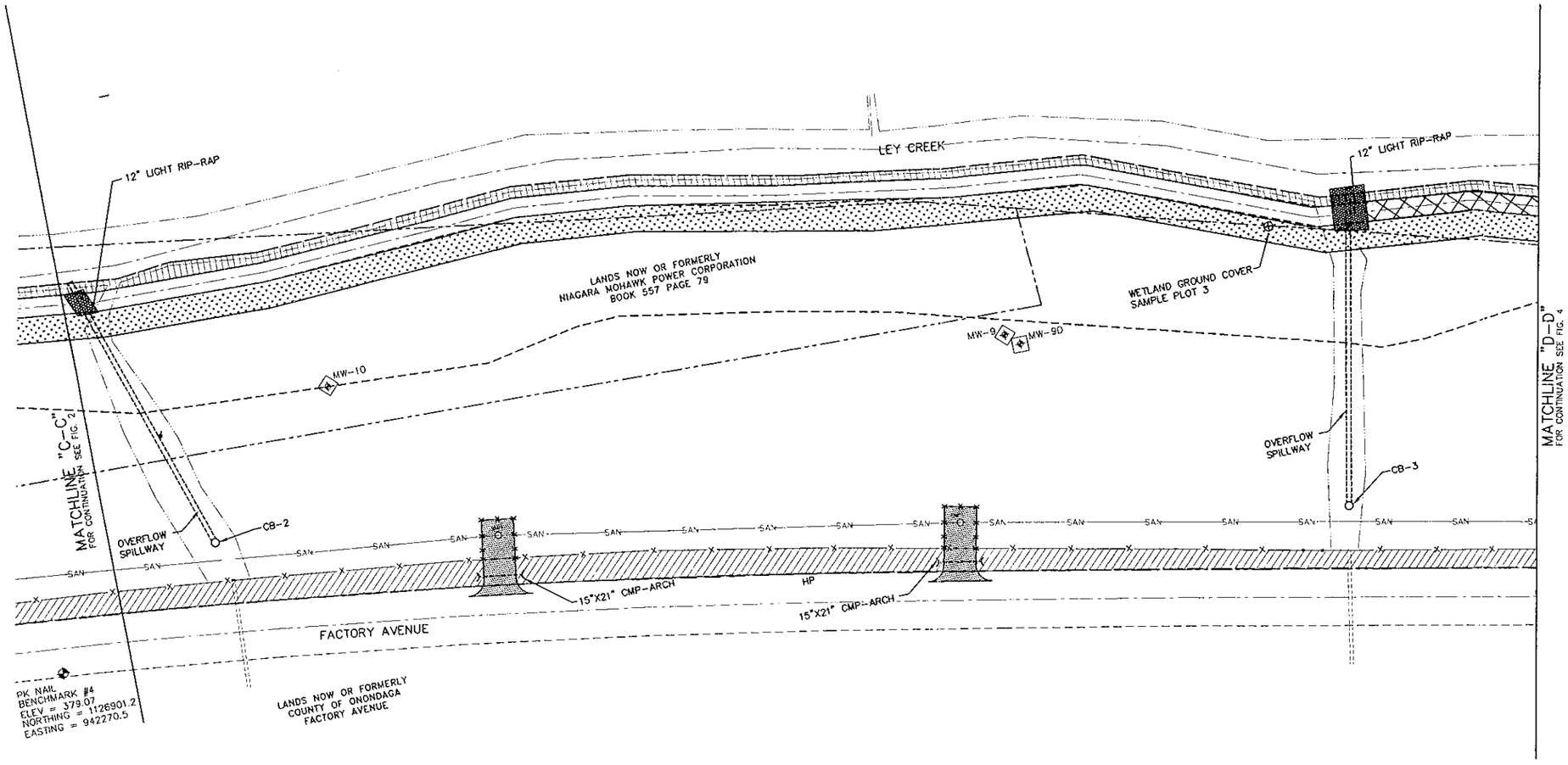
FIGURE 3



LEGEND

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- LIMITS OF NON-WOVEN GEOTEXTILE
- WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OM&M PARTIAL SITE PLAN WETLAND EVALUATION

1"=40' 40 0 40

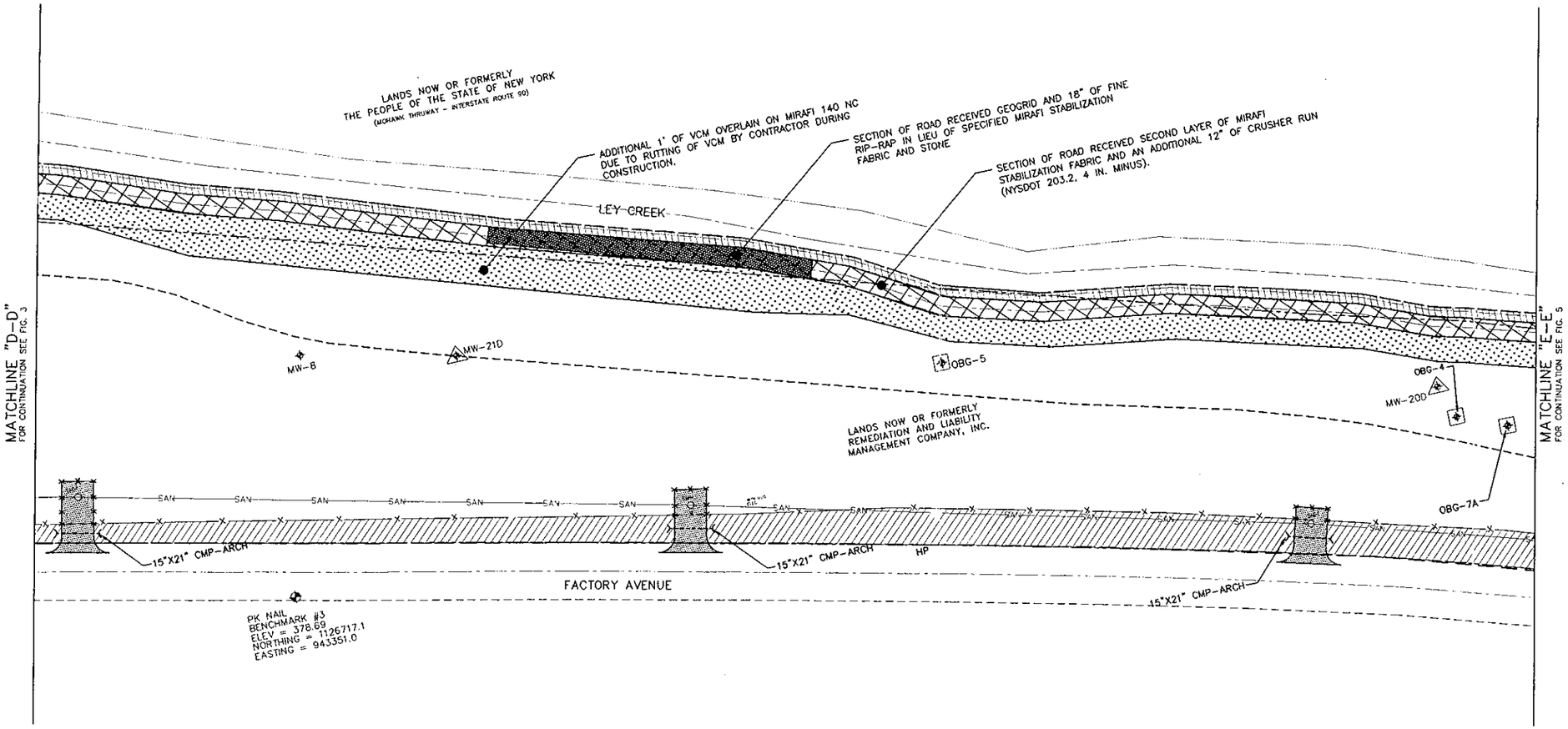
FILE NO. 4966.34124.003
JANUARY 2004

O'BRIEN & GERE ENGINEERS, INC.

PLOT DATE: 1/12/04

PATH: L:\DW71\PROJECTS\4966\34124\DWGS\OM&M\001.DWG

FIGURE 4



LEGEND

- SEEDED WITH CANARY GRASS
- OHW — OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SAN — SANITARY SEWER
- SMH — SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE (SEE GENERAL NOTE 4)
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MW-OBG7C MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
- ABANDONED MONITORING WELL
- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OM&M PARTIAL SITE PLAN WETLAND EVALUATION

1"=40' 40 0 40

FILE NO. 4966.34124.004
JANUARY 2004

O'BRIEN & GERE
ENGINEERS, INC.

PLOT DATE: 1/12/04

PATH: I:\DIV7\PROJECTS\4966\34124\DWGS\OM&M\001.DWG

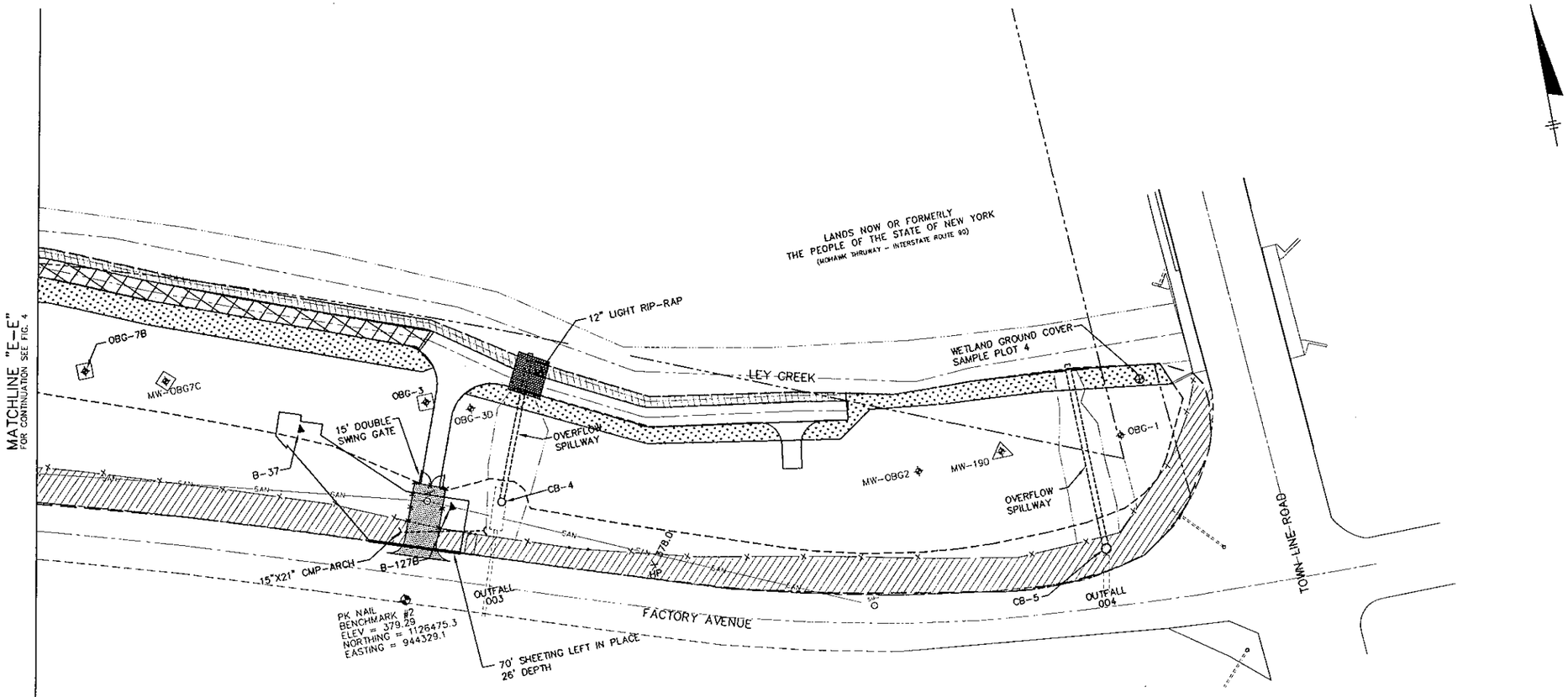


FIGURE 5

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE (SEE GENERAL NOTE 4)
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
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- MW-OBG7C MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
- ABANDONED MONITORING WELL
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- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE
SYRACUSE, NEW YORK
SITE REMEDIATION PROJECT

OM&M PARTIAL SITE PLAN WETLAND EVALUATION

1"=40' 40 0 40

FILE NO. 4966.34124.005
JANUARY 2004

O'BRIEN & GERE
ENGINEERS, INC.

PLOT DATE: 1/12/04

GROUND COVER DATA FORM

Site: GM Ley Creek Site - Restored Wetland
Date: 10/8/2003
Investigator(s): S. Mooney & R. Chiarello
Plot: Plot #1
Wetland type: Emergent

Species	Wetland Indicator Status	Percent cover
Phalaris arundinacea	FACW+	95
Plantago major	FACU	5
	Total ground cover (%)	100
	% desirable ground cover	95[a]
	% ground cover hydrophytic (FAC, FACW and OBL)	95[b]

Note
[a]Calculated by subtracting % cover of undesirable wetland species, *i.e., Lythrum salicaria, Phragmites australis*, if present, and non-wetland (FACU and FACU-) species from total % ground cover.
[b]Calculated by adding percent cover for hydrophytic indicator status and dividing by total ground cover %. This value is an indicator of the predominant vegetation type (hydrophytic or upland) in the sample plot.

Wetland Indicator Status Range
UPL (obligate upland) = probability of occurrence in wetland <1%
FACU (facultative upland) = probability of occurrence in wetland in the range 1 to 33%
FACU- (facultative upland -) = probability of occurrence in wetland in the lower part of the range 1 to 33%
FACU+ (facultative upland +) = probability of occurrence in wetland in the upper part of the range 1 to 33%
FAC (facultative) = probability of occurrence in wetland in the range 34 to 66%
FAC- (facultative -) = probability of occurrence in wetland in the lower part of the range 34 to 66%
FAC+ (facultative +) = probability of occurrence in wetland in the upper part of the range 34 to 66%
FACW (facultative wetland) = probability of occurrence in wetland in the range 67 to 99%
FACW- (facultative wetland -) = probability of occurrence in wetland in the lower part of the range 67 to 99%
FACW+ (facultative wetland +) = probability of occurrence in wetland in the upper part of the range 67 to 99%
OBL (obligate wetland) = probability of occurrence in wetland >99%

GROUND COVER DATA FORM

Site: GM Ley Creek Site - Restored Wetland
Date: 10/8/2003
Investigator(s): S. Mooney & R. Chiarello
Plot: Plot #2
Wetland type: Emergent

Species	Wetland Indicator Status	Percent cover
Phalaris arundinacea	FACW+	30
Aster ericoides	FACU	30
Populus deltoides	FAC	25
Trifolium repens	FACU-	5
Plantago major	FACU	5
Lolium perenne	FACU-	5
	Total ground cover (%)	100
	% desirable ground cover	55[a]
	% ground cover hydrophytic (FAC, FACW and OBL)	55[b]

Note
[a]Calculated by subtracting % cover of undesirable wetland species, *i.e., Lythrum salicaria, Phragmites australis*, if present, and non-wetland species (FACU and FACU-) from total % ground cover.
[b]Calculated by adding percent cover for hydrophytic indicator status and dividing by total ground cover %. This value is an indicator of the predominant vegetation type (hydrophytic or upland) in the sample plot.

Wetland Indicator Status Range
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FACU+ (facultative upland +) = probability of occurrence in wetland in the upper part of the range 1 to 33%
FAC (facultative) = probability of occurrence in wetland in the range 34 to 66%
FAC- (facultative -) = probability of occurrence in wetland in the lower part of the range 34 to 66%
FAC+ (facultative +) = probability of occurrence in wetland in the upper part of the range 34 to 66%
FACW (facultative wetland) = probability of occurrence in wetland in the range 67 to 99%
FACW- (facultative wetland -) = probability of occurrence in wetland in the lower part of the range 67 to 99%
FACW+ (facultative wetland +) = probability of occurrence in wetland in the upper part of the range 67 to 99%
OBL (obligate wetland) = probability of occurrence in wetland >99%

GROUND COVER DATA FORM

Site: GM Ley Creek Site - Restored Wetland
Date: 10/8/2003
Investigator(s): S. Mooney & R. Chiarello
Plot: Plot #3
Wetland type: Emergent

Species	Wetland Indicator Status	Percent cover
Phalaris arundinacea	FACW+	80
Populus deltoides	FAC	4
Lythrum salicaria	FACW+	4
Phragmites australis	FACW	4
Plantago major	FACU	4
Biden frondosa	FACW	4
Total ground cover (%)		100
% desirable ground cover		88[a]
% ground cover hydrophytic (FAC, FACW and OBL)		96[b]

Note
[a]Calculated by subtracting % cover of undesirable wetland species, *i.e., Lythrum salicaria, Phragmites australis*, if present, and non-wetland (FACU and FACU-) species from total % ground cover.
[b]Calculated by adding percent cover for hydrophytic indicator status and dividing by total ground cover %. This value is an indicator of the predominant vegetation type (hydrophytic or upland) in the sample plot.

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FACU+ (facultative upland +) = probability of occurrence in wetland in the upper part of the range 1 to 33%
FAC (facultative) = probability of occurrence in wetland in the range 34 to 66%
FAC- (facultative -) = probability of occurrence in wetland in the lower part of the range 34 to 66%
FAC+ (facultative +) = probability of occurrence in wetland in the upper part of the range 34 to 66%
FACW (facultative wetland) = probability of occurrence in wetland in the range 67 to 99%
FACW- (facultative wetland -) = probability of occurrence in wetland in the lower part of the range 67 to 99%
FACW+ (facultative wetland +) = probability of occurrence in wetland in the upper part of the range 67 to 99%
OBL (obligate wetland) = probability of occurrence in wetland >99%

GROUND COVER DATA FORM

Site: GM Ley Creek Site - Restored Wetland
Date: 10/8/2003
Investigator(s): S. Mooney & R. Chiarello
Plot: Plot #4
Wetland type: Emergent

Species	Wetland Indicator Status	Percent cover
Phalaris arundinacea	FACW+	80
Impatiens sp.	FACW	10
Aster ericoides	FACU	4
Plantago major	FACU	3
Boehmeria cylindrica	FACW+	3
Total ground cover (%)		100
% desirable ground cover		93[a]
% ground cover hydrophytic (FAC, FACW and OBL)		93[b]

Note
[a]Calculated by subtracting % cover of undesirable wetland species, *i.e., Lythrum salicaria, Phragmites australis*, if present, non-wetland (FACU and FACU-) species from total % ground cover.
[b]Calculated by adding percent cover for hydrophytic indicator status and dividing by total ground cover %. This value is an indicator of the predominant vegetation type (hydrophytic or upland) in the sample plot.

Wetland Indicator Status Range
UPL (obligate upland) = probability of occurrence in wetland <1%
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FACU+ (facultative upland +) = probability of occurrence in wetland in the upper part of the range 1 to 33%
FAC (facultative) = probability of occurrence in wetland in the range 34 to 66%
FAC- (facultative -) = probability of occurrence in wetland in the lower part of the range 34 to 66%
FAC+ (facultative +) = probability of occurrence in wetland in the upper part of the range 34 to 66%
FACW (facultative wetland) = probability of occurrence in wetland in the range 67 to 99%
FACW- (facultative wetland -) = probability of occurrence in wetland in the lower part of the range 67 to 99%
FACW+ (facultative wetland +) = probability of occurrence in wetland in the upper part of the range 67 to 99%
OBL (obligate wetland) = probability of occurrence in wetland >99%

Attachment 2

Photograph Log

Photo 1: Looking east at area of restored wetland evaluation Plot #1.
Date photo taken: 10/8/2003

Photo 2: Looking west at area of restore wetland evaluation Plot #2.
Date photo taken: 10/8/2003

Photo 3: Looking west at area of restored wetland evaluation Plot #3.
Date photo taken: 10/8/2003

Photo 4: Looking east at area of restored wetland evaluation Plot #4.
Date photo taken: 10/8/2003