UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL

January 20, 2011

Mr. William Cassidy
Manager
Longfin LLC dba Holgate Partners
1 Barnard Valley Road, P.O. Box 427
Nantucket, MA 02554

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000.Dream land Theater Construction site located at 17 South Water Street, Nantucket, MA 02554, Nantucket County, Authorization # MAG910412.

Dear Mr. Cassiddy:

Based on the review of a Notice of Intent (NOI) submitted on behalf of The Nantucket Dream land Foundation by the firm GZA GeoEnvironmental Inc., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants for which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the check list does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/mass.html#dgp.

Also, please note that the metals arsenic, copper, lead, nickel, selenium, zinc and iron included on the list are dilution dependent pollutants and subject to limitations based on a dilution factor range (DFR). With the absence of dilution for tidal water, EPA determined that the DFR for each parameter is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities) Therefore, the limits for arsenic of 36ug/L,

copper of 3.7ug/L, lead of 8.5ug/L, nickel of 8.2ug/L, selenium of 71ug/L, zinc of 85.6ug/L and iron of 1,000 ug/L, are required to achieve permit compliance at your site.

Finally, please note the list of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. Recertification's can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on March 31, 2011. You are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

David M. Webster, Chief
Industrial Permits Branch

Enclosure

cc: Kathleen Keohane, MassDEP
Alfred Jones, GZA

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Permit Number:	**MAG910412- Reissuance**
Date Permit Issued:	January, 2011
Facility/Site Name:	Dream Land Theater Construction
Facility/Site Address:	17 South Water Street, Nantucket, MA 02554, Nantucket County
	Email address of owner: Pattyroggeveen@nantackelandtheater.org; Phone n:508-332-4822
Legal Name of Operator:	Longfin LLC dba Holdgate Partners
Operator contact name, title, and Address:	William Cassidy, Manager
	1 Barnard Valley Road, P.O. Box 427, Nantucket, MA 02554 Email: Not provided; Phone n:5082284266
Estimated Date of Completion:	March 31, 2011
Category and Sub-Category:	Category III- Contaminated Construction Dewatering. Sub-category B. Known Contaminated Sites
Receiving Water:	Nantucket Harbor

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing **, Me#60.2/ML 5ug/L
	2. Total Residual Chlorine (TRC) [1]	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) [2, 3]	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 5ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l /Me#8260C/ ML 10ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only (ug/L)/ Me#8260C/ ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only (ug/L) /Me#8260C/ ML 10ug/L
	14. Naphthalene [5]	20 ug/L /Me#8260C/ ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) [6]	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	d. Benzo(k)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene [5]	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
√	38. Chloride	Monitor only/Me# 300.0/ ML 0.1ug/L

	Metal parameter	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11]			
		Freshwater	Saltwater		
	39. Antimony	5.6/10mL			
√	40. Arsenic **	10/20mL	36/20mL		
	41. Cadmium **	0.2/10ml	8.9/10mL		
	42. Chromium III (trivalent) **	48.8/15mL	100/15mL		
	43. Chromium VI (hexavalent) **	11.4/10mL	50.3/10mL		

	Metal parameter	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11]			
		Freshwater	Saltwater		
√	44. Copper **	5.2/15mL	3.7/15mL		
√	45. Lead **	1.3/20mL	8.5/20mL		
	46. Mercury **	0.9/0.2mL	1.1/0.2mL		
√	47. Nickel **	29/20mL	8.2/20mL		
√	48. Selenium **	5/20mL	71/20mL		
	49. Silver	1.2/10mL	2.2/10mL		
√	50. Zinc **	66.6/15mL	85.6/15mL		
√	51. Iron	1,000/20mL			

	Other Parameters	Limit
√	52. Instantaneous Flow	Site specific in CFS
√	53. Total Flow	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab[13]
√	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab[13]
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab[13]
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab[14]
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab[14]
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab[14]
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab[14]
	61. Maximum Change in Temperature in MA – Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab[14]
	62. Maximum Change in Temperature in MA – Any Class SA water body - Coastal	1.5°F; 1/Month/Grab[14]
	63. Maximum Change in Temperature in MA – Any Class SB water body - July to September	1.5°F; 1/Month/Grab[14]
	64. Maximum Change in Temperature in MA – Any Class SB water body - October to June	4°F; 1/Month/Grab[14]

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.
[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).
[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.
[11] For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.
[12] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).
[13] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.
[14] Temperature sampling per Method 170.1

GZA
GeoEnvironmental, Inc.

Engineers and
Scientists

December 8, 2010
File No. 19030.90

Mr. Victor Alvarez
United States Environmental Protection Agency – Region 1
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

133 Federal Street
3d Floor
Boston
Massachusetts
02110
671-963-1000
FAX 781-482-6868
http://www.gza.com

Re: Submittal of Notice of Intent (NOI)
Construction Excavation Dewatering – Dreamland Theater
17 South Water Street
Nantucket, Massachusetts
MassDEP - RTN Nos. 4-20318 and 4-20530

Dear Mr. Alvarez:

GZA GeoEnvironmental, Inc. (GZA), on behalf of The Nantucket Dreamland Foundation, has prepared this Notice of Intent (NOI) for application of a National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for proposed dewatering activities at the above referenced location. This NOI is being submitted for performing construction-related excavation dewatering at the site. The enclosed NOI form (Attachment 1) provides required information on the general site conditions, proposed treatment system, discharge location and receiving water, and analytical results for testing performed on a groundwater sample at the site.

GZA previously submitted an NOI to the EPA for dewatering discharge on April 15, 2009. The NOI was subsequently approved by the EPA on April 29, 2009 by written notice to the previous site contractor Shawmut Design and Construction. A Notice of Change (NOC) was submitted by GZA to the EPA in March 2010 (on behalf of the project) to request a permit transfer from Shawmut Design and Construction to Holgate Partners (the new site contractor). This NOC was approved by the EPA via email on March 23, 2010.

This NOI is being submitted such that we continue dewatering operating at the site under the new 2010 RGP without a lapse in permit coverage. This letter is also serving as notice for our 6-month recertification. As such, the laboratory data presented herein for this NOI is based on samples recently collected and tested for the recertification.

SITE DESCRIPTION

The Dreamland Theater site is bounded by South Water Street to the north, Oak Street to the west, Easy Street to the east and the Atlantic Café to the east. The site is located in the downtown portion of Nantucket approximately 35 feet from Nantucket Harbor.

Prior to commencement of construction, the site consisted of the vacant Dreamland Theater structure in the western portion of the property and a small parking area to the east. The Theater was demolished in 2009. A site locus plan is provided in Attachment 2.

ENVIRONMENTAL CONTEXT

Numerous soil and groundwater samples have been collected at the site during various phases of geotechnical and environmental investigations. Based on the results of these analytical tests, two release notifications were made to Massachusetts Department of Environmental Protection (MassDEP) for the Site in 2007. The Site is identified by Release Tracking Numbers (RTNs) 4-20318 and 4-20530.

The initial Release Notification (RTN 4-20318) to DEP was by GZA on behalf of the previous Site owner on February 6, 2007. The Notification was made as a result of RCS-1 Reportable Concentration exceedances of Extractable and Volatile Petroleum Hydrocarbon fractions, which represented a reportable condition under the MCP. The second Release Notification (RTN 4-20530) to DEP was made by a representative of the previous Site owner on May 17, 2007. The Notification was made as a result of the exceedance of the RCGW-2 standard for lead in the groundwater. This exceedance was believed to be the result of testing an unfiltered sample. Lead has not been detected in subsequent filtered testing of the groundwater at the site.

GZA submitted a Response Action Outcome (RAO) to the MassDEP in January 2008 for the current property owner. GZA's RAO concluded that, "The Site meets the requirements for No Remedial Action Required (Class B RAO) under the MCP because a condition of No Significant Risk of harm to human health, safety, public welfare, and the environment exists at the Site under both current and future conditions and because continuing sources of oil and hazardous material (OHM) do not exist at the Site".

A second Class B-1 RAO was submitted to the MassDEP in February 2010 as a result of some additional testing that was performed, which required a new, larger disposal site boundary. GZA's RAO conclusion was the same as that submitted in January 2008.

PROPOSED ACTIVITIES

The project consists of the proposed construction of a new Dreamland Theater building. During the initial construction stage which occurred between April and June of 2009, the Contractor installed sheeting to depths ranging from approximately 13 to 28 feet below the existing ground surface. The main function of the sheeting is to provide temporary lateral earth support for the excavation. However, the sheeting will also provide some level of groundwater cutoff reducing groundwater inflow into the excavation.

The sheeting was installed along the northern, southern and western perimeter of the site and approximately 30 feet from the eastern edge for the site. There was a break in the sheeting at the northwest corner of the site where an existing utility vault protrudes into the property. Additionally, sheeting was installed around the perimeter of two square-shaped areas within Oak Street (adjacent to the north edge of the site were) for the installation of new utility vaults. Dewatering, excavation and installation of the utility vaults within these sheeted areas was performed from May 26 to 29, 2009. Discharge of the dewatering effluent was collected in a frac tank, treated utilizing bag and carbon filtration, and was subsequently discharged to Nantucket Harbor (via a nearby catch basin) on May 29, 2009. Flow was estimated to be on the order of 1 gallon per minute (gpm). Water testing was performed in accordance with the requirements of the RGP, and no exceedences of allowable effluent concentrations were observed.

Construction recently resumed at the site in November 2010 with a system of well points installed around the perimeter of the site to enable excavation "in the dry". Initial dewatering was performed at the site on November 22, 2010 in the presence of a GZA representative. The Site Dewatering Flow Schematic is provided in Attachment 3.

The water will continue to be pumped into a fractionalization tank and then through a bag filter designed to remove particulates from the water. Although petroleum-related compounds were not detected in the groundwater sample, due to the petroleum-related contaminants encountered in the soil, we are prepared to provide carbon adsorption if necessary. GZA will evaluate the groundwater extracted from the subsurface for visible or olfactory signs of petroleum contamination. If petroleum-related compounds are detected or observed, dewatering and treatment system discharge will cease and appropriate laboratory tests will be performed to evaluate the contaminants to determine if activated carbon filtration is necessary. The EPA will be notified if petroleum is encountered in extracted groundwater which requires treatment prior to discharge. The Laboratory Test Results (collected on November 24, 2010) and the Treatment System Process Flow Diagram are presented in Attachment 4 and 5, respectively. Water will be discharged to the catch basins at the northeast edge of the property at the intersection of Oak and Easy Streets or to the catch basin along South Water Street. The catch basins discharge to the Nantucket Harbor approximately 30 feet east of the site. Supplemental information including a Natural Heritage and Endangered Species Program (NHESP) map showing the site is not part of rare or endangered species habitat and correspondence from the Nantucket Historic Commission is provided in Attachment 6.

Excavation ranging from approximately 4 to 8 feet below grade was performed to reach the natural subgrade elevations between November 22 and November 30, 2010 and was substantially completed on November 30, 2010. Fill placement and building foundation construction is anticipated to extend through January 2011.

Note that appropriate re-start water testing (as indicated in the original EPA approval) has currently being performed along with re-certification testing that is required every 6 months under the old 2005 RGP permit. Recertification results are pending.

Please do not hesitate to contact the undersigned at (617) 963-1000 if you have any questions or require further information.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Alfred Jones, P.E.
Senior Project Manager

Russell B. Parkman, P.E.
Consultant/Reviewer

Bruce W. Fairless, P.E.
Associate Principal

Enclosures:

Attachment 1: NOI Form
Attachment 2: Site Locus Map
Attachment 3: Site Dewatering Flow Schematic
Attachment 4: Laboratory Test Data
Attachment 5: Treatment System Process Flow Diagram
Attachment 6: Supplemental Information

cc: Mr. Kevin Reuther (Hospitality 3)
Mr. William Cassidy (Longfin LLC dba Holdgate Partners)
MassDEP – Southeast Region

ATTACHMENT 1

NOI FORM

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of **facility/site**: Dreamland Theater Construction Site		**Facility/site** mailing address:		
Location of **facility/site**: longitude: 70.0979 degrees latitude: 41.2848 degrees	Facility SIC code(s): 79	Street: 17 South Water Street		
b) Name of **facility/site owner:**		Town: Nantucket		
Email address of facility/site owner: pattyroggeveen@nantucketdreamland.org		State: MA	Zip: 02554-3554	County: Nantucket
Telephone no. of facility/site **owner**: 508-332-4822				
Fax no. of facility/site **owner**: 508-332-4823		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):				
Street: 35 Centre Street, 2nd Floor or P.O. Box 989				
Town: Nantucket	State: MA	Zip: 02554	County: Nantucket	
c) Legal name of **operator**: Longfin LLC dba Holdgate Partners	**Operator** telephone no: 508-228-4266			
	Operator fax no.:	**Operator** email:		
Operator contact name and title: Mr. William Cassidy, Manager				
Address of **operator** (if different from owner):	Street: 1 Barnard Valley Road, PO Box 427			
Town: Nantucket	State: MA	Zip: 02554	County: Nantucket	

d) Check Y for "yes" or N for "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Y ○ N ◉, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y ○ N ◉, if Y, date and tracking #:
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ○ N ◉
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ◉ N ○

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ◉ N ○
If Y, please list:
1. site identification # assigned by the state of NH or MA: MA MCP RTN's 4-20318 and 4-20530
2. permit or license # assigned: None
3. state agency contact information: name, location, and telephone number:

DEP Southeast Regional Office, 20 Riverside Drive, Lakeville, MA 02347

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y ○ N ◉,
if Y, number:
2. Final Dewatering General Permit? Y ○ N ◉,
if Y, number:
3. EPA Construction General Permit? Y ○ N ◉,
if Y, number:
4. Individual NPDES permit? Y ○ N ◉,
if Y, number:
5. any other water quality related individual or general permit? Y ◉ N ○, if Y, number: RGP MAG910412

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ○ N ◉

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☐ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☒

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Dewatering will be performed via wellpoints within a sheeted excavation to allow for excavation and replacement of existing fill materials to a depth of up to approximately 8 feet. Discharge of treated dewatering effluent to catch basins leading to Nantucket Harbor is requested.

b) Provide the following information about each discharge:

1) Number of discharge points: 3

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow 1500 gpm Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units) 100 gpm Is average flow a design value or estimate? Estimate

3) Latitude and longitude of each discharge within 100 feet:

pt.1: lat	70.0975 deg	long	41.2850 deg	pt.2: lat.	70.0975 deg	long.	41.2849 deg ;
pt.3: lat	70.0983 deg	long	41.2847 deg	pt.4: lat.		long.	;
pt.5: lat		long		pt.6: lat.		long.	;
pt.7: lat		long		pt.8: lat.		long.	; etc.

4) If hydrostatic testing, total volume of the discharge (gals): NA

5) Is the discharge intermittent ◉ or seasonal ○ ?
Is discharge ongoing? Y ◉ N ○

c) Expected dates of discharge (mm/dd/yy): start Dec 22, 2010 end Mar 31, 2011

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). See Attached

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	grab	2540D	5,000 ug/L	7,000		7,000	
2. Total Residual Chlorine (TRC)		☒	☐	1	grab	4500ClD	20	BDL		BDL	
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	grab	1664A	5,000	BDL		BDL	
4. Cyanide (CN)	57125	☒	☐	1	grab	4500CN-C E	5.0	BDL		BDL	
5. Benzene (B)	71432	☒	☐	1	grab	8260	1.0	BDL		BDL	
6. Toluene (T)	108883	☒	☐	1	grab	8260	1.0	BDL		BDL	
7. Ethylbenzene (E)	100414	☒	☐	1	grab	8260	1.0	BDL		BDL	
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐	1	grab	8260	3.0	BDL		BDL	
9. Total BTEX [2]	n/a	☒	☐	1	grab	8260	6.0	BDL		BDL	
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	1	grab	8260	2.0	BDL		BDL	
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	grab	8260	1.0	BDL		BDL	
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	grab	8260	10	BDL		BDL	

***** Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

[2] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

[3] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	1	grab	8260	2.0	BDL		BDL	
14. Naphthalene	91203	☒	☐	1	grab	8260	2.0	BDL		BDL	
15. Carbon Tetrachloride	56235	☒	☐	1	grab	8260	1.0	BDL		BDL	
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	grab	8260	1.0	BDL		BDL	
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	grab	8260	1.0	BDL		BDL	
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	grab	8260	1.0	BDL		BDL	
18a. Total dichlorobenzene		☒	☐	1	grab	8260	3.0	BDL		BDL	
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	grab	8260	1.0	BDL		BDL	
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	grab	8260	1.0	BDL		BDL	
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	grab	8260	1.0	BDL		BDL	
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	grab	8260	1.0	BDL		BDL	
23. Methylene Chloride	75092	☒	☐	1	grab	8260	2.0	BDL		BDL	
24. Tetrachloroethene (PCE)	127184	☒	☐	1	grab	8260	1.0	BDL		BDL	
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	grab	8260	1.0	BDL		BDL	
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	grab	8260	1.0	BDL		BDL	
27. Trichloroethene (TCE)	79016	☒	☐	1	grab	8260	1.0	BDL		BDL	

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐	1	grab	8260	1.0	BDL		BDL	
29. Acetone	67641	☒	☐	1	grab	8260	10	BDL		BDL	
30. 1,4 Dioxane	123911	☒	☐	1	grab	8260	100	BDL		BDL	
31. Total Phenols	108952	☒	☐	1	grab	8270	10	BDL		BDL	
32. Pentachlorophenol (PCP)	87865	☒	☐	1	grab	8270	50	BDL		BDL	
33. Total Phthalates (Phthalate esters) [4]		☒	☐	1	grab	8270	60	BDL		BDL	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	grab	8270	10	BDL		BDL	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab	8270	0.35	BDL		BDL	
a. Benzo(a) Anthracene	56553	☒	☐	1	grab	8270	0.05	BDL		BDL	
b. Benzo(a) Pyrene	50328	☒	☐	1	grab	8270	0.05	BDL		BDL	
c. Benzo(b)Fluoranthene	205992	☒	☐	1	grab	8270	0.05	BDL		BDL	
d. Benzo(k)Fluoranthene	207089	☒	☐	1	grab	8270	0.05	BDL		BDL	
e. Chrysene	21801	☒	☐	1	grab	8270	0.05	BDL		BDL	
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	grab	8270	0.05	BDL		BDL	
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	grab	8270	0.05	BDL		BDL	
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab	8270	1.8	BDL		BDL	

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐	1	grab	8270	.20	BDL		BDL	
i. Acenaphthylene	208968	☒	☐	1	grab	8270	.20	BDL		BDL	
j. Anthracene	120127	☒	☐	1	grab	8270	.20	BDL		BDL	
k. Benzo(ghi) Perylene	191242	☒	☐	1	grab	8270	.20	BDL		BDL	
l. Fluoranthene	206440	☒	☐	1	grab	8270	.20	BDL		BDL	
m. Fluorene	86737	☒	☐	1	grab	8270	.20	BDL		BDL	
n. Naphthalene	91203	☒	☐	1	grab	8270	.20	BDL		BDL	
o. Phenanthrene	85018	☒	☐	1	grab	8270	.20	BDL		BDL	
p. Pyrene	129000	☒	☐	1	grab	8270	.20	BDL		BDL	
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	grab	608	4.5	BDL		BDL	
38. Chloride	16887006	☐	☒	1	grab	EPA 300.0	500	80,000		80,000	
39. Antimony	7440360	☒	☐	1	grab	6010C	5.0	BDL		BDL	
40. Arsenic	7440382	☐	☒	1	grab	6010C	2.0	2.8		2.8	
41. Cadmium	7440439	☒	☐	1	grab	6010C	1.0	BDL		BDL	
42. Chromium III (trivalent)	16065831	☒	☐	1	grab	6010C	1.0	BDL		BDL	
43. Chromium VI (hexavalent)	18540299	☒	☐	1	grab	3500 CrD	10	BDL		BDL	
44. Copper	7440508	☐	☒	1	grab	6010C	5.0	22		22	
45. Lead	7439921	☐	☒	1	grab	6010C	2.0	8.8		8.8	
46. Mercury	7439976	☒	☐	1	grab	7470A	0.20	BDL		BDL	
47. Nickel	7440020	☐	☒	1	grab	6010C	2.0	6.8		6.8	
48. Selenium	7782492	☐	☒	1	grab	6010C	5.0	6.2		6.2	
49. Silver	7440224	☒	☐	1	gab	6010C	1.0	BDL		BDL	
50. Zinc	7440666	☐	☒	1	grab	6010C	5.0	120		120	
51. Iron	7439896	☐	☒	1	grab	6010C	10	420		420	
Other (describe):		☐	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ◉ N ○	If yes, which metals? Zinc, Lead and Copper
Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: Not Applicable - Saltwater DF: NA Metal: DF: Metal: DF: Metal: DF: Etc.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ◉ N ○ If Y, list which metals: Zinc, Lead, Copper

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

Water will be pumped to a 21,000 gallon frac tank and then through a 25 micron bag filtration system prior to discharge to a catch basin. Carbon filtration will be utilized if any sheens or petroleum odors are encountered.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☐
	Chlorination ☐	De-chlorination ☐	Other (please describe):	Carbon filtration will be utilized if sheens or petroleum odors are observed.		

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 100 gpm Maximum flow rate of treatment system 1500 gpm
Design flow rate of treatment system 2300 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

None Anticipated

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Water will be discharged from the treatment system to a catch basin adjacent to the site which discharges to Nantucket Harbor.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water SA

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water Not Applicable cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ◉ N ○ If yes, for which pollutant(s)? Total Nitrogen
Is there a final TMDL? Y ◉ N ○ If yes, for which pollutant(s)? Total Nitrogen

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ◉ B ○ C ○ D ○ E ○ F ○

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ○ N ○ Underway ○

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ○ N ○

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ○ 2 ◉ 3 ○

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

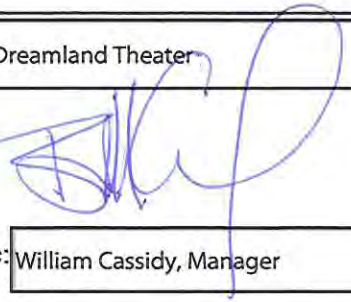
7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

None

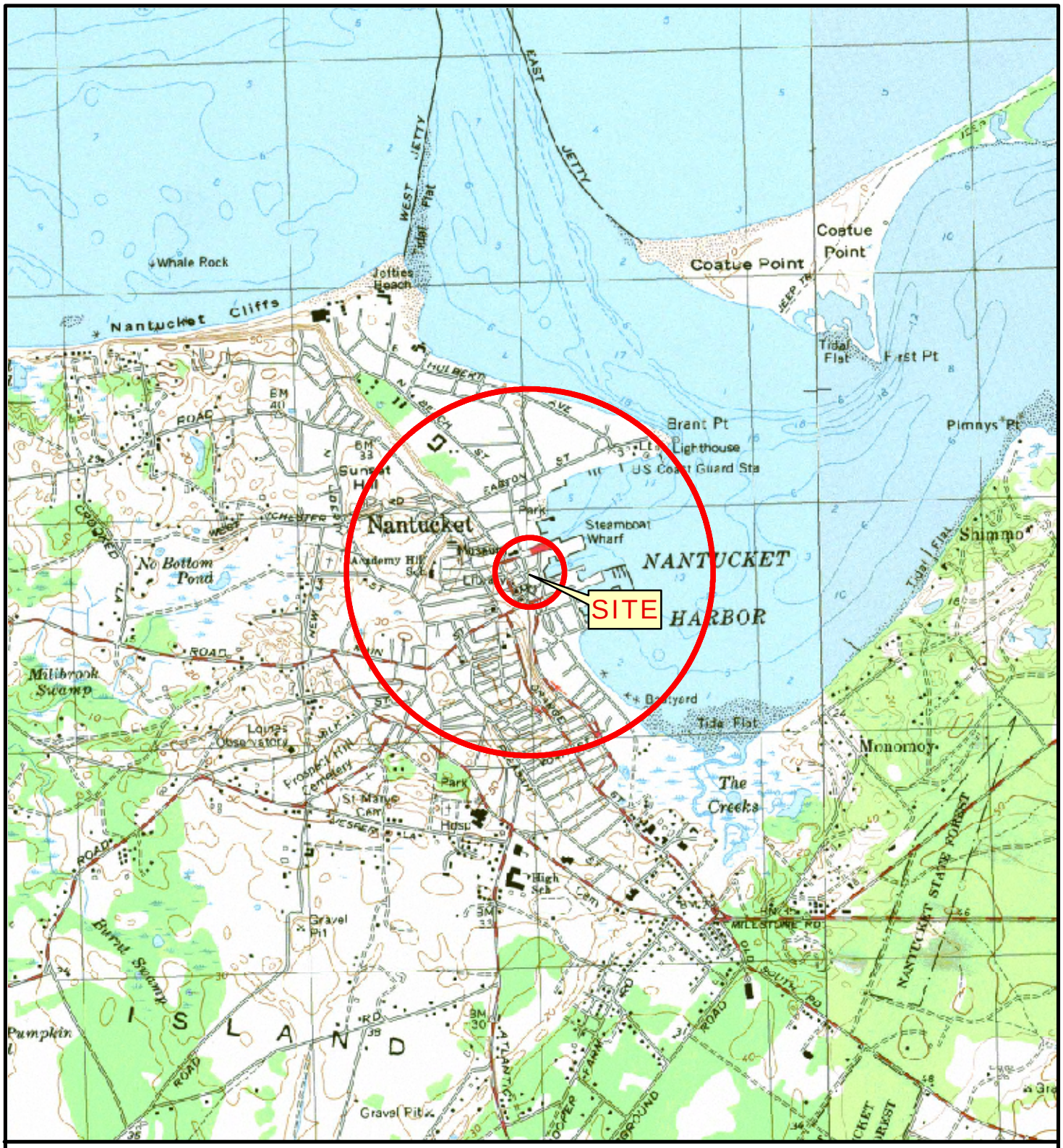
8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

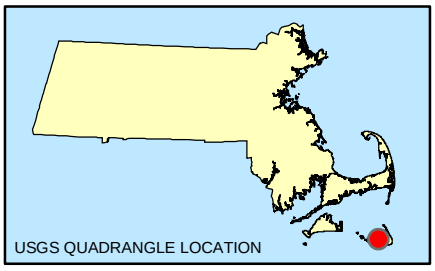
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:	Dreamland Theater
Operator signature:	
Printed Name &Title:	William Cassidy, Manager
Date:	December 8, 2010

ATTACHMENT 2

SITE LOCUS MAP





SOURCE : SCANNED USGS TOPOGRAPHIC QUADRANGLES
SCANNED BY THE MASSACHUSETTS EXECUTIVE OFFICE OF
ENVIRONMENTAL AFFAIRS, MASSGIS. DISTRIBUTED JUNE, 2001.

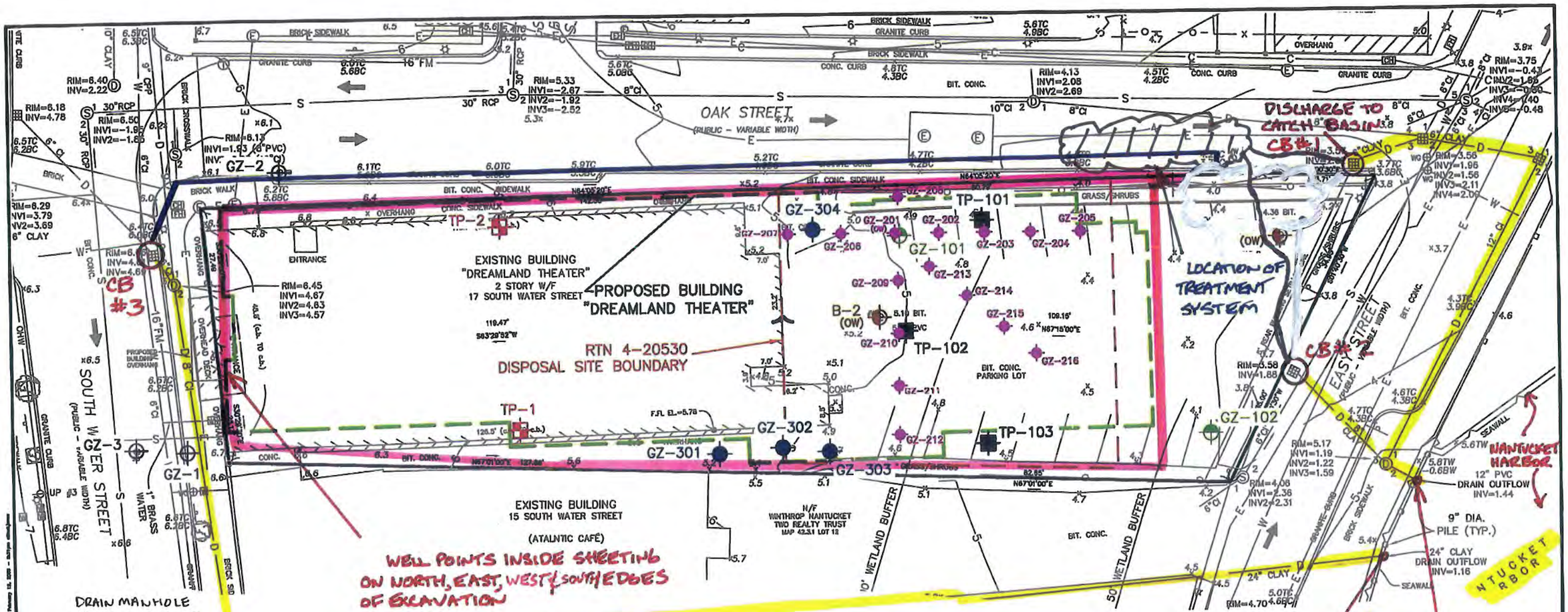
Data Supplied by : MASSGIS

GZA	PROJ. MGR.: JBC DESIGNED BY: GOB REVIEWED BY: GKS OPERATOR: EMD DATE: 12-29-2007	LOCUS PLAN SHOWING 500 FOOT & 1/2 MILE RADII	JOB NO. 01.0019688.00
		DREAMLAND THEATER - 17 SOUTH WATER STREET NANTUCKET, MASSACHUSETTS	FIGURE NO. 1

J:\19,000-20,999\19688\19688-00.JBC\FIGURES\GIS\MXD Documents\19688-00_F01_SiteLocus_v1.mxd

ATTACHMENT 3

SITE DEWATERING FLOW SCHEMATIC



LEGEND:

- TP-101 — TEST PITS PERFORMED BY TOSCANA CORP. OF NANTUCKET, MA ON NOVEMBER 11, 2008. OBSERVED AND LOGGED BY GZA PERSONNEL.
- GZ-301 — BORINGS PERFORMED BY NEW HAMPSHIRE BORING, INC. OF BROCKTON, MASSACHUSETTS ON NOVEMBER 10 AND 11, 2008. OBSERVED AND LOGGED BY GZA PERSONNEL.
- GZ-201 (OW) — GEOPROBE BORING PERFORMED BY NEW HAMPSHIRE BORING OF LONDONDERRY, NH ON DECEMBER 19 AND 20, 2006.
  - INDICATES OBSERVATION WELL INSTALLED
- GZ-101 — BORINGS PERFORMED BY DESMOND WELL DRILLING OF ORLEANS, MA ON SEPTEMBER 28 AND 29, 2006. OBSERVED AND LOGGED BY GZA PERSONNEL.
- GZ-1 — BORINGS PERFORMED BY DESMOND WELL DRILLING OF ORLEANS, MA ON APRIL 26, 2006. OBSERVED AND LOGGED BY GZA PERSONNEL.
- TP-1 — TEST PITS HAND EXCAVATED BY DREAMLAND THEATER ZMG AND GZA PERSONNEL ON OCTOBER 12, 2006. OBSERVED AND LOGGED BY GZA PERSONNEL.
- B-2 (OW) — BORINGS PERFORMED BY DESMOND WELL DRILLING OF ORLEANS, MA ON FEBRUARY 8 AND 9, 2006.
  - INDICATES OBSERVATION WELL INSTALLED
- PROPOSED BUILDING LIMITS
- APPROXIMATE PROPERTY LIMITS
- DISPOSAL SITE BOUNDARY

NOTES:

1. BASE MAP WAS DEVELOPED FROM AN ELECTRONIC DRAWING ENTITLED "EXISTING CONDITIONS PLAN - DREAMLAND THEATER - NANTUCKET, MASSACHUSETTS" PREPARED BY SITE DESIGN ENGINEERING, LLC. AND DATED SEPTEMBER 26, 2008.
2. THE PROPOSED CONDITIONS WERE BASED ON AN ELECTRONIC DRAWING ENTITLED "GRADING PLAN - DREAMLAND THEATER - NANTUCKET, MA" PREPARED BY SITE DESIGN ENGINEERING, LLC. AND DATED SEPTEMBER 26, 2008.
3. EXPLORATION LOCATIONS WERE LOCATED BASED ON TAPED MEASUREMENTS FROM EXISTING SITE FEATURES. LOCATIONS SHOULD ONLY BE CONSIDERED ACCURATE TO THE DEGREE IMPLIED BY THE METHOD USED.
4. ELEVATIONS ARE REFERENCED TO THE HALF TIDE LEVEL DATUM OF 1934.

NO.	ISSUE/DESCRIPTION	BY	DATE

PROPOSED DREAMLAND THEATER
Nantucket, Massachusetts

EXPLORATION LOCATION PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
139 Federal Street, 3d Floor
Boston, Massachusetts 02110
(617) 853-1000

PREPARED FOR:
Dreamland Theatre Foundation

PROJ MGR: BWF	REVIEWED BY:	CHECKED BY: BWF	FIGURE 31 23 00-1
DESIGNED BY: AJ	DRAWN BY: AJ	SCALE: 1 in = 20 ft	
DATE: January 29, 2009	PROJECT NO. 19030.81	REVISION NO.	SHEET NO.

ATTACHMENT 4

LABORATORY TEST DATA

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Laboratory Identification Numbers:
MA and ME: **MA092** NH: **2028**
CT: **PH0579** RI: **LAO00236**
NELAC - NYS DOH: **11063**

REVISED

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062

Al Jones

Project No.: **01.0019030.90**
Work Order No.: **1011-00193**
Date Received: **11/29/2010**
Date Reported: **12/08/2010**

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
11/24/2010	Aqueous	1011-00193 001	Influent

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062

Al Jones

Project Name.: **Proposed Dreamland Theater**
Project No.: **01.0019030.90**

Date Received: **11/29/2010**
Date Reported: **12/08/2010**
Work Order No.: **1011-00193**

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 11/29/10 via _x_GZA courier, __EC, __FEDEX, or ___hand delivered. The temperature of the _x_temperature blank/__cooler air, was 2.8 degrees C. The temperature requirement for most analyses is above freezing to 6 degrees C. The samples were received intact for all requested analyses.

The chain of custody indicates that the samples, when required, were chemically preserved in accordance with the method they reference. Soil samples for high level VOC analysis were received preserved in methanol.

2. Subcontracted Analyses

Analyses for PCB, TRC, Cyanide, PAH-SIM, TPH, TSS were performed by ESS Laboratory, Cranston, RI.

3. Method SM 18 3500 Cr(D) - Hexavalent Chromium

The Hex Cr sample was analyzed outside of the method specified 24 hour HT, per the Project Manager.

Attach QC 11/29/10 - Aqueous

4. EPA Method 6010C/7470A - Metals

All samples were pre-concentrated 5 times in order to reach the required reporting limits for Cu (0.005 mg/L) and Sb (0.005 mg/L).

Attach QC 6010C 12/02/10 B - Aqueous
Attach QC 7470A 12/01/10 A - Aqueous

4. EPA Method 300.0 - Anions

Attach QC 300.0 12/01/10 - Aqueous

5. EPA Method 8270 - SVOCs

The Initial Calibration (ICAL) (11/11/10) (IABN205) had an analyte whose RF value did not meet the minimum values (Table 4, EPA 8270D), however, the RF value was greater than 0.050. The specific outlier includes 2-chloronaphthalene.

The RF value for 2-chloronaphthalene did not achieve the method required level in the CCV for 12/02/10, however, the RF value was greater than 0.050.

Attach QC 8270 12/1/2010 "I" - Aqueous

6. EPA Method 8260 - VOCs

The following analyte(s) in the lowest ICAL (Initial Calibration) standard did not meet the minimum RF criteria specified in Table 4 of Method 8260C, but were above 0.050: acetone (0.080).

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GZA GeoEnvironmental, Inc.
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Norwood, MA 02062

Al Jones

Project Name.: **Proposed Dreamland Theater**
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The following analytes in the CCV did not meet the minimum RF criteria specified in Table 4 of Method 8260C, but were above 0.050: acetone (0.068)

The Continuing Calibration Verification Standard (CCV) (12/4/2010 S) had method 8260 List analytes outside of the 80-120% acceptance criteria. Specific outliers include: bromomethane (79.7%), diethyl ether (73.4%), methyl-tert-butyl-ether (79.3%), 2-butanone (76.2%), tetrahydrofuran (79.7%), 1,4-Dioxane (67%), 1,2,3-trichloropropane (79.3%), 1,2-dibromo-3-chloropropane (69.9%), and naphthalene (79.2%). Method 8260C permits up to 14 outliers if within 60-140%.

The Laboratory Control Sample (LCS) (12/4/2010 S) had method 8260 List analytes outside of the 70-130% acceptance criteria. Specific outliers include: 1,4-Dioxane (67%) and 1,2-dibromo-3-chloropropane (69.9%).

Attach QC 8260 12/4/2010 "S" - Aqueous

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Data Authorized By: _____

Digitally signed by
Andrew Yaroshefski
Date: 2010.12.08
11:41:48 -05'00'

NELAC certification, as indicated by the NELAC Lab ID Number, is per analyte. For a complete list of NELAC validated analytes, please contact the laboratory.

Abbreviations:
% R = % Recovery
DF = Dilution Factor
DFS = Dilution Factor Solids
CF = Calculation Factor
DO = Diluted Out

Method Key:
Method 8260: The current version of the method is 8260B.
Method 8270: The current version of the method is 8270D.
Method 6010: The current version of the method is 6010C.

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

Soil data is reported on a dry weight basis unless otherwise specified.
Matrix Spike / Matrix Spike Duplicate sets are performed as per method and are reported at the end of the analytical report if assigned on the Chain of Custody.

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Date Received: **11/29/2010**
Date Reported: **12/08/2010**
Work Order No.: **1011-00193**

Sample ID: **Influent** Sample No.: **001**
Sample Date: **11/24/2010**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	12/04/2010
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Acetone	EPA 8260	<10	10	ug/L	MQS	12/04/2010
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Carbon disulfide	EPA 8260	2.2	2.0	ug/L	MQS	12/04/2010
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Diisopropyl ether (DIPE)	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Ethyl tert-butyl ether ETBE	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	12/04/2010
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	12/04/2010
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
tert-Amyl methyl ether TAME	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,4-Dioxane	EPA 8260	<100	100	ug/L	MQS	12/04/2010
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	12/04/2010

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Al Jones

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Project No.: **01.0019030.90**

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Work Order No.: **1011-00193**

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Sample Date: **11/24/2010**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	12/04/2010
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Al Jones

Project Name.: **Proposed Dreamland Theater**
Project No.: **01.0019030.90**

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Date Reported: **12/08/2010**
Work Order No.: **1011-00193**

Sample ID: **Influent** Sample No.: **001**
Sample Date: **11/24/2010**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	12/04/2010
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	12/04/2010
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	96.5	70-130	% R	MQS	12/04/2010
***Toluene-D8	EPA 8260	104	70-130	% R	MQS	12/04/2010
***4-Bromofluorobenzene	EPA 8260	93.7	70-130	% R	MQS	12/04/2010
Preparation	EPA 5030B	1.0		CF	MQS	12/03/2010
SEMI-VOLATILE ORGANICS	EPA 8270				CMG	12/02/2010
Phenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2-Chlorophenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2-Methylphenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
3&4-Methylphenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2-Nitrophenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2,4-Dimethylphenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2,4-Dichlorophenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2,4,6-Trichlorophenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2,4,5-Trichlorophenol	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2,4-Dinitrophenol	EPA 8270	<100	100	ug/L	CMG	12/02/2010
4-Nitrophenol	EPA 8270	<50	50	ug/L	CMG	12/02/2010
Pentachlorophenol	EPA 8270	<50	50	ug/L	CMG	12/02/2010
bis(2-Chloroethyl)Ether	EPA 8270	<10	10	ug/L	CMG	12/02/2010
1,3-Dichlorobenzene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
1,4-Dichlorobenzene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
1,2-Dichlorobenzene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
bis(2-Chloroisopropyl)Ether	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Acetophenone	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Hexachloroethane	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Nitrobenzene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Isophorone	EPA 8270	<10	10	ug/L	CMG	12/02/2010
bis(2-Chloroethoxy)Methane	EPA 8270	<10	10	ug/L	CMG	12/02/2010
1,2,4-Trichlorobenzene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Naphthalene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
4-Chloroaniline	EPA 8270	<20	20	ug/L	CMG	12/02/2010
Hexachlorobutadiene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2-Methylnaphthalene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010

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Sample ID: **Influent** Sample No.: **001**
Sample Date: **11/24/2010**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
Aniline	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2-Chloronaphthalene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Dimethylphthalate	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Acenaphthylene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
2,6-Dinitrotoluene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Acenaphthene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Dibenzofuran	EPA 8270	<10	10	ug/L	CMG	12/02/2010
2,4-Dinitrotoluene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Diethylphthalate	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Fluorene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Azobenzene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
4-Bromophenyl Phenyl Ether	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Hexachlorobenzene	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Phenanthrene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Anthracene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
di-n-Butylphthalate	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Fluoranthene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Pyrene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Butylbenzylphthalate	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Benzo [a] Anthracene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
3,3'-Dichlorobenzidine	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Chrysene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	10	ug/L	CMG	12/02/2010
di-n-Octylphthalate	EPA 8270	<10	10	ug/L	CMG	12/02/2010
Benzo [b] Fluoranthene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Benzo [k] Fluoranthene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Benzo [a] Pyrene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Indeno [1,2,3-cd] Pyrene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Dibenzo [a,h] Anthracene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Benzo [g,h,i] Perylene	EPA 8270	<2.0	2.0	ug/L	CMG	12/02/2010
Surrogates:	EPA 8270					
***2-Fluorophenol	EPA 8270	39.4	15-110	% R	CMG	12/02/2010
***Phenol-D6	EPA 8270	26.3	15-110	% R	CMG	12/02/2010
***Nitrobenzene-D5	EPA 8270	59.8	30-130	% R	CMG	12/02/2010
***2-Fluorobiphenyl	EPA 8270	58.6	30-130	% R	CMG	12/02/2010

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Sample ID: **Influent** Sample No.: **001**
Sample Date: **11/24/2010**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***2,4,6-Tribromophenol	EPA 8270	60.3	15-110	% R	CMG	12/02/2010
***P-Terphenyl-D14	EPA 8270	64.0	39-120	% R	CMG	12/02/2010
Extraction	EPA 3510C	1.0		DF	LRB	12/01/2010
ANIONS - ION CHROMATOGRAPHY	EPA 300.0				TAJ	12/01/2010
Chloride	EPA 300.0	80	0.50	mg/L	TAJ	12/01/2010
Hexavalent Chromium	SM 3500CrD	<0.010	0.010	mg/L	LLZ	11/29/2010
SUBCONTRACTED ANALYTES						
PCB	EPA 608				XXX	
Residual Chlorine	SM4500-CL,D	<0.02	0.02	mg/L	XXX	11/29/2010
Total Cyanide	SM-4500CN-C E	<0.0050	0.0050	mg/L	XXX	12/02/2010
TPH	EPA 1664A	<5	5	mg/L	XXX	11/30/2010
METALS						
Antimony	EPA 6010C	<0.0050	0.0050	mg/L	LLZ	12/02/2010
Arsenic	EPA 6010C	0.0028	0.0020	mg/L	LLZ	12/02/2010
Cadmium	EPA 6010C	<0.0010	0.0010	mg/L	LLZ	12/02/2010
Chromium	EPA 6010C	<0.0010	0.0010	mg/L	LLZ	12/02/2010
Copper	EPA 6010C	0.022	0.0050	mg/L	LLZ	12/02/2010
Lead	EPA 6010C	0.0088	0.0020	mg/L	LLZ	12/02/2010
Mercury	EPA 7470A	<0.00020	0.00020	mg/L	GDD	12/01/2010
Nickel	EPA 6010C	0.0068	0.0020	mg/L	LLZ	12/02/2010
Selenium	EPA 6010C	0.0062	0.0050	mg/L	LLZ	12/02/2010
Silver	EPA 6010C	<0.0010	0.0010	mg/L	LLZ	12/02/2010
Zinc	EPA 6010C	0.12	0.0050	mg/L	LLZ	12/02/2010
Iron	EPA 6010C	0.42	0.010	mg/L	LLZ	12/02/2010
Total Suspended Solids	SM-2540D	7	5	mg/L	XXX	12/01/2010
Miscellaneous					EAH	
tert-Butyl alcohol (TBA)	EPA 8260	<10	10	ug/L	MQS	12/04/2010

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ENVIRONMENTAL CHEMISTRY LABORATORY
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MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 7196A/SM 18 3500 CR (d) ANALYSIS
Hexavalent Chromium by Colorometric Method

QUALITY CONTROL - AQUEOUS

Date Prepared: 11/29/10

QC Sample	Method Blank	Lab Control Sample	Lab Control Sample Duplicate	LC/LCD Difference
Units	mg/L	% Recovery	% Recovery	RPD
Acceptance Limits	Results	80-120	80-120	20%
Analyte				
Hex Cr (Cr+6)	<0.010	90.0	100	10.5

RPD = Relative Percent Difference

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
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MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 6010C ANALYSIS
Metals by ICP

QUALITY CONTROL - AQUEOUS

DATE PREPARED: 12/2/2010 B

QC Sample	Method Blank	Lab Control Sample
Units	mg/L	% Recovery
Acceptance Limits	Results	80-120
Analyte		
Silver (Ag)	<0.001	94.1
Aluminum (Al)	NA	NA
Arsenic (As)	<0.002	101
Boron (B)	NA	NA
Barium (Ba)	NA	NA
Beryllium (Be)	NA	NA
Calcium (Ca)	NA	NA
Cadmium (Cd)	<0.001	102
Cobalt (Co)	NA	NA
Chromium (Cr)	<0.001	102
Copper (Cu)	<0.005	113
Iron (Fe)	<0.010	106
Magnesium (Mg)	NA	NA
Manganese (Mn)	NA	NA
Molybdenum (Mo)	NA	NA
Nickel (Ni)	<0.002	103
Lead (Pb)	<0.002	102
Antimony (Sb)	<0.005	99.6
Selenium (Se)	<0.005	104
Tin (Sn)	NA	NA
Titanium (Ti)	NA	NA
Thallium (Tl)	NA	NA
Vanadium (V)	NA	NA
Zinc (Zn)	<0.005	113
Zirconium (Zr)	NA	NA

RPD = Relative Percent Difference
NA = Not Applicable
NC = Not Calculated
CRM = Certified Reference Material

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 7470A ANALYSIS
Mercury by Cold Vapor Atomic Absorption

QUALITY CONTROL - AQUEOUS

Date Prepared : 12/01/10 A

QC Sample	Method Blank	Lab Control Sample
Units	mg/L	% Recovery
Acceptance Limits	Results	80-120
Analyte		
Mercury (Hg)	<0.00020	92.4

LC concentration = 0.005 mg/L

ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 300.0 ANALYSIS
Anions by Ion Chromatography

QUALITY CONTROL - AQUEOUS

DATE PREPARED: 12/01/10

QC Sample	Method Blank	Lab Control Sample	Lab Control Sample Duplicate	LC/LCD Difference
Units	mg/L	% Recovery	% Recovery	RPD
Acceptance Limits	Results	90-110%	90-110%	20%
Analyte				
Fluoride	NA	NA	NA	NA
Chloride	<0.20	93.4	100	6.90
Nitrite	NA	NA	NA	NA
Nitrate	NA	NA	NA	NA
Phosphate	NA	NA	NA	NA
Sulfate	NA	NA	NA	NA

RPD = Relative Percent Difference

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
MA092

EPA Method 8270 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

Date Extracted:	**12/01/10**	
Date Analyzed:	**12/2/2010**	
File Name:	**M7257**	
Semi-Volatile Organics	**Result**	**(ug/L)**
phenol	ND	10
bis(2-chloroethyl)ether	ND	10
2-chlorophenol	ND	10
1,3-dichlorobenzene	ND	10
1,4-dichlorobenzene	ND	10
1,2-dichlorobenzene	ND	10
2-methylphenol	ND	10
bis(2-chloroisopropyl)ether	ND	10
3&4-methylphenol	ND	10
acetophenone	ND	10
hexachloroethane	ND	10
nitrobenzene	ND	10
isophrone	ND	10
2-nitrophenol	ND	10
2,4-dimethylphenol	ND	10
bis(2-chloroethoxy)methane	ND	10
2,4-dichlorophenol	ND	10
1,2,4-trichlorobenzene	ND	10
naphthalene	ND	2.0
4-chloroaniline	ND	10
hexachlorobutadiene	ND	10
2-methylnaphthalene	ND	2.0
aniline	ND	10
2,4,6-trichlorophenol	ND	10
2,4,5-trichlorophenol	ND	10
2-chloronaphthalene	ND	10
dimethylphthalate	ND	10
acenaphthylene	ND	2.0
2,6-dinitrotoluene	ND	10
acenaphthene	ND	2.0
2,4-dinitrophenol	ND	100
dibenzofuran	ND	10
4-nitrophenol	ND	50
2,4-dinitrotoluene	ND	10
diethylphthalate	ND	10
fluorene	ND	2.0
azobenzene	ND	10
4-bromophenyl phenyl ether	ND	10
hexachlorobenzene	ND	10
pentachlorophenol	ND	50
phenanthrene	ND	2.0
anthracene	ND	2.0
di-n-butylphthalate	ND	15
fluoranthene	ND	2.0
pyrene	ND	2.0
butylbenzylphthalate	ND	10
benz [a] anthracene	ND	2.0
3,3'-dichlorobenzidine	ND	20
chrysene	ND	2.0
bis(2-ethylhexyl)phthalate	ND	10
di-n-octylphthalate	ND	10
benzo [b] fluoranthene	ND	2.0
benzo [k] fluoranthene	ND	2.0
benzo [a] pyrene	ND	2.0
indeno [1,2,3-cd] pyrene	ND	2.0
dibenz [a,h] anthracene	ND	2.0
benzo [ghi] perylene	ND	2.0

Surrogates:	**Recovery (%)**	**Acceptance Limits**
2-FLUOROPHENOL	37.9	15-110
PHENOL-D6	24.3	15-110
NITROBENZENE-D5	62.0	30-130
2-FLUOROBIPHENYL	59.1	30-130
2,4,6-TRIBROMOPHENOL	62.8	15-100
p-TERPHENYL-D14	65.4	30-130

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
MA092

EPA Method 8270 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Laboratory Control Sample

Date Extracted:	**12/01/10**		
Date Analyzed:	**12/2/2010**		
File Name:	**M7258**		
Spike Concentration = 20ug/L	**% Recovery**	**Acceptance Limits**	**Verdict**
phenol	34.5	30-130	ok
bis(2-chloroethyl)ether	71.6	40-140	ok
2-chlorophenol	71.7	30-130	ok
1,3-dichlorobenzene	61.0	40-140	ok
1,4-dichlorobenzene	63.8	40-140	ok
1,2-dichlorobenzene	63.2	40-140	ok
2-methylphenol	69.8	30-130	ok
bis(2-chloroisopropyl)ether	64.3	40-140	ok
3&4-methylphenol	62.3	30-130	ok
acetophenone	73.7	40-140	ok
hexachloroethane	59.0	40-140	ok
nitrobenzene	72.4	40-140	ok
isophrone	72.1	40-140	ok
2-nitrophenol	79.0	30-130	ok
2,4-dimethylphenol	75.1	30-130	ok
bis(2-chloroethoxy)methane	79.1	40-140	ok
2,4-dichlorophenol	74.1	30-130	ok
1,2,4-trichlorobenzene	62.4	40-140	ok
naphthalene	68.1	40-140	ok
4-chloroaniline	78.3	40-140	ok
hexachlorobutadiene	58.2	40-140	ok
2-methylnaphthalene	71.3	40-140	ok
aniline	68.1	40-140	ok
2,4,6-trichlorophenol	76.9	30-130	ok
2,4,5-trichlorophenol	82.6	30-130	ok
2-chloronaphthalene	72.7	40-140	ok
dimethylphthalate	78.7	40-140	ok
acenaphthylene	73.2	40-140	ok
2,6-dinitrotoluene	78.7	40-140	ok
acenaphthene	70.9	40-140	ok
2,4-dinitrophenol	73.5	30-130	ok
dibenzofuran	73.1	40-140	ok
4-nitrophenol	38.7	30-130	ok
2,4-dinitrotoluene	81.1	40-140	ok
diethylphthalate	77.2	40-140	ok
fluorene	73.7	40-140	ok
azobenzene	74.9	40-140	ok
4-bromophenyl phenyl ether	77.1	40-140	ok
hexachlorobenzene	78.0	40-140	ok
pentachlorophenol	79.1	30-130	ok
phenanthrene	77.7	40-140	ok
anthracene	75.8	40-140	ok
di-n-butylphthalate	76.8	40-140	ok
fluoranthene	81.0	40-140	ok
pyrene	80.0	40-140	ok
butylbenzylphthalate	78.5	40-140	ok
benz [a] anthracene	80.7	40-140	ok
3,3'-dichlorobenzidine	85.3	40-140	ok
chrysene	78.6	40-140	ok
bis(2-ethylhexyl)phthalate	81.3	40-140	ok
di-n-octylphthalate	79.1	40-140	ok
benzo [b] fluoranthene	79.2	40-140	ok
benzo [k] fluoranthene	81.8	40-140	ok
benzo [a] pyrene	80.4	40-140	ok
indeno [1,2,3-cd] pyrene	81.3	40-140	ok
dibenz [a,h] anthracene	80.7	40-140	ok
benzo [ghi] perylene	81.2	40-140	ok

Surrogates:	**Recovery (%)**	**Acceptance Limits**	**Verdict**
2-FLUOROPHENOL	49.4	15-110	ok
PHENOL-D6	34.1	15-110	ok
NITROBENZENE-D5	72.9	30-130	ok
2-FLUOROBIPHENYL	69.8	30-130	ok
2,4,6-TRIBROMOPHENOL	83.9	15-110	ok
p-TERPHENYL-D14	75.4	30-130	ok

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

EPA Method 8260 / 524.2 Aqueous Method Blank (MB) and Laboratory Control Sample/Duplicate (LCS/LCSD) Data

Method Blank

Date Analyzed:	12/4/2010	
Volatile Organics	**Conc. ug/L**	**Acceptance Limit**
dichlorodifluoromethane	< 1.0	< 1.0
chloromethane	< 1.0	< 1.0
vinyl chloride	< 0.5	< 0.5
bromomethane	< 1.0	< 1.0
chloroethane	< 0.5	< 0.5
trichlorofluoromethane	< 1.0	< 1.0
diethyl ether	< 2.5	< 2.5
acetone	< 10	< 10
1,1-dichloroethene	< 0.5	< 0.5
carbon disulfide	< 5.0	< 5.0
dichloromethane	< 1.0	< 1.0
tert-butyl alcohol (TBA)	< 13	< 13
methyl-tert-butyl-ether	< 0.5	< 0.5
trans-1,2-dichloroethene	< 0.5	< 0.5
1,1-dichloroethane	< 0.5	< 0.5
di-isopropyl ether (DIPE)	< 1.0	< 1.0
ethyl tert-butyl ether (EtBE)	< 1.0	< 1.0
2-butanone	< 10	< 10
2,2-dichloropropane	< 0.5	< 0.5
cis-1,2-dichloroethene	< 0.5	< 0.5
chloroform	< 0.5	< 0.5
bromochloromethane	< 0.5	< 0.5
tetrahydrofuran	< 5.0	< 5.0
1,1,1-trichloroethane	< 0.5	< 0.5
1,1-dichloropropene	< 0.5	< 0.5
carbon tetrachloride	< 0.5	< 0.5
1,2-dichloroethane	< 0.5	< 0.5
benzene	< 0.5	< 0.5
tert-amyl methyl ether (TAME)	< 1.0	< 1.0
trichloroethene	< 0.5	< 0.5
1,2-dichloropropane	< 0.5	< 0.5
bromodichloromethane	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50
dibromomethane	< 0.5	< 0.5
4-methyl-2-pentanone	< 10	< 10
cis-1,3-dichloropropene	< 0.5	< 0.5
toluene	< 0.5	< 0.5
trans-1,3-dichloropropene	< 1.0	< 1.0
1,1,2-trichloroethane	< 0.5	< 0.5
2-hexanone	< 10	< 10
1,3-dichloropropane	< 0.5	< 0.5
tetrachloroethene	< 0.5	< 0.5
dibromochloromethane	< 0.5	< 0.5
1,2-dibromoethane (EDB)	< 1.0	< 1.0
chlorobenzene	< 0.5	< 0.5
1,1,1,2-tetrachloroethane	< 0.5	< 0.5
ethylbenzene	< 0.5	< 0.5
1,1,2,2-tetrachloroethane	< 0.5	< 0.5
m&p-xylene	< 1.0	< 1.0
o-xylene	< 0.5	< 0.5
styrene	< 0.5	< 0.5
bromoform	< 1.0	< 1.0
isopropylbenzene	< 0.5	< 0.5
1,2,3-trichloropropane	< 0.5	< 0.5
bromobenzene	< 0.5	< 0.5
n-propylbenzene	< 0.5	< 0.5
2-chlorotoluene	< 0.5	< 0.5
1,3,5-trimethylbenzene	< 0.5	< 0.5
4-chlorotoluene	< 0.5	< 0.5
tert-butyl-benzene	< 0.5	< 0.5
1,2,4-trimethylbenzene	< 0.5	< 0.5
sec-butyl-benzene	< 0.5	< 0.5
p-isopropyltoluene	< 0.5	< 0.5
1,3-dichlorobenzene	< 0.5	< 0.5
1,4-dichlorobenzene	< 0.5	< 0.5
n-butylbenzene	< 0.5	< 0.5
1,2-dichlorobenzene	< 0.5	< 0.5
1,2-dibromo-3-chloropropane	< 2.5	< 2.5
1,2,4-trichlorobenzene	< 0.5	< 0.5
hexachlorobutadiene	< 0.5	< 0.5
naphthalene	< 1.0	< 1.0
1,2,3-trichlorobenzene	< 0.5	< 0.5

Laboratory Control Sample

Date Analyzed:	12/4/2010		
Spike Concentration = 20ug/L	**% Recovery**	**Acceptance Limits**	**Verdict**
dichlorodifluoromethane	125	70-130	ok
chloromethane	112	70-130	ok
vinyl chloride	103	80-120	ok
bromomethane	95.2	70-130	ok
chloroethane	101	70-130	ok
trichlorofluoromethane	111	70-130	ok
diethyl ether	74.9	70-130	ok
acetone	85.5	70-130	ok
1,1-dichloroethene	102	80-120	ok
carbon disulfide	99.8	70-130	ok
dichloromethane	87.2	70-130	ok
tert-butyl alcohol (TBA)	74.8	70-130	ok
methyl-tert-butyl-ether	86.6	70-130	ok
trans-1,2-dichloroethene	88.4	70-130	ok
1,1-dichloroethane	93.5	70-130	ok
di-isopropyl ether (DIPE)	90.8	70-130	ok
ethyl tert-butyl ether (EtBE)	89.5	70-130	ok
2-butanone	82.2	70-130	ok
2,2-dichloropropane	102	70-130	ok
cis-1,2-dichloroethene	92.1	70-130	ok
chloroform	89.3	80-120	ok
bromochloromethane	93.3	70-130	ok
tetrahydrofuran	86.3	70-130	ok
1,1,1-trichloroethane	98.2	70-130	ok
1,1-dichloropropene	94.7	70-130	ok
carbon tetrachloride	104	70-130	ok
1,2-dichloroethane	97.1	70-130	ok
benzene	94.7	70-130	ok
tert-amyl methyl ether (TAME)	87.7	70-130	ok
trichloroethene	102	70-130	ok
1,2-dichloropropane	94.4	80-120	ok
bromodichloromethane	93.3	70-130	ok
1,4-Dioxane	81.2	70-130	ok
dibromomethane	90.9	70-130	ok
4-methyl-2-pentanone	93.0	70-130	ok
cis-1,3-dichloropropene	91.8	70-130	ok
toluene	97.8	80-120	ok
trans-1,3-dichloropropene	89.5	70-130	ok
1,1,2-trichloroethane	85.5	70-130	ok
2-hexanone	90.6	70-130	ok
1,3-dichloropropane	88.6	70-130	ok
tetrachloroethene	93.4	70-130	ok
dibromochloromethane	90.3	70-130	ok
1,2-dibromoethane (EDB)	97.2	70-130	ok
chlorobenzene	98.1	70-130	ok
1,1,1,2-tetrachloroethane	91.9	70-130	ok
ethylbenzene	97.6	80-120	ok
1,1,2,2-tetrachloroethane	87.4	70-130	ok
m&p-xylene	96.7	70-130	ok
o-xylene	92.0	70-130	ok
styrene	94.1	70-130	ok
bromoform	86.1	70-130	ok
isopropylbenzene	94.6	70-130	ok
1,2,3-trichloropropane	87.7	70-130	ok
bromobenzene	90.7	70-130	ok
n-propylbenzene	95.2	70-130	ok
2-chlorotoluene	93.6	70-130	ok
1,3,5-trimethylbenzene	94.2	70-130	ok
4-chlorotoluene	95.5	70-130	ok
tert-butyl-benzene	95.4	70-130	ok
1,2,4-trimethylbenzene	94.1	70-130	ok
sec-butyl-benzene	93.9	70-130	ok
p-isopropyltoluene	96.6	70-130	ok
1,3-dichlorobenzene	93.0	70-130	ok
1,4-dichlorobenzene	93.3	70-130	ok
n-butylbenzene	97.8	70-130	ok
1,2-dichlorobenzene	92.4	70-130	ok
1,2-dibromo-3-chloropropane	83.0	70-130	ok
1,2,4-trichlorobenzene	94.7	70-130	ok
hexachlorobutadiene	100	70-130	ok
naphthalene	87.8	70-130	ok
1,2,3-trichlorobenzene	87.3	70-130	ok

Surrogates:	**Recovery (%)**	**Acceptance Limits**
DIBROMOFLUOROMETHANE	109	70-130
1,2-DICHLOROETHANE-D4	110	70-130
TOLUENE-D8	110	70-130
4-BROMOFLUOROBENZENE	98.9	70-130
1,2-DICHLOROBENZENE-D4	97.4	70-130

Surrogates:	**Recovery (%)**	**Acceptance Limits**	**Verdict**
DIBROMOFLUOROMETHANE	109	70-130	ok
1,2-DICHLOROETHANE-D4	98.2	70-130	ok
TOLUENE-D8	111	70-130	ok
4-BROMOFLUOROBENZENE	97.8	70-130	ok
1,2-DICHLOROBENZENE-D4	99.6	70-130	ok

Instrument: HP GC/MS "S"

W.O. # 1011-0093
(for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED: ☐ pH ☐ Cond.	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260-8010 List (Chlor.)	EPA 8260-8021 list	EPA 8021-8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs	☐ 601 ☐ 602 WW VOCs	~~SW-8270 SVOCs~~ 8270	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	~~SW-8082 PCBs~~ PCB 608	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals	Metals (List Below) **	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO3	HEXAVALENT CHROMIUM	TRC	CYANIDE	PAH SIM	CHLORIDE	TPH-1664	Total No. of Cont.	Note #
INFLUENT	11/24/10 0900	GW			X							X			X							X				X	X	X	X	X	√	X	12	1,2,3
~~EFFLUENT~~																																		
EFFLUENT	11/24/10 0900	GW			X							X			X							X				X	X	X	X	X	√	X	12	1,2,3
PRESERVATIVE (CI-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *					Cl																								Na					
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*					V							G			G											P	P	P	G	P	G		

RELINQUISHED BY: David Mazzei 11/24/10 1900 — DATE/TIME — RECEIVED BY: Bill Buccan 11/29/10

RELINQUISHED BY: Bill Buccan 11/29/10 1045 — DATE/TIME — RECEIVED BY: [signature] 11/29/10 1111

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

1) RUN FULL RGP SUITE OF TESTS FOR LISTED MCP SITE.
2) ~~Did not collect metals for RGP Tests 11/24~~ EA 11/30/10
3) Metals: Sb, As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Zn, Fe EA 11/30/10

Project Manager: AL JONES x1003

GZA GEOENVIRONMENTAL, INC.
Laboratory Division

106 South Street
Hopkinton, MA 01748
(781) 278-4700
FAX (508)435-9912

TURNAROUND TIME: Standard (Rush) 3 Days, Approved by: [signature] 11/29/10

LAB USE: TEMP. OF COOLER 2.8 °C (Temp Blank 1613, Cooler Air)

GZA FILE NO: 19030.90 TASK NO: P.O. NO.

PROJECT DREAMLAND THEATER

LOCATION NANTUCKET, MA

COLLECTOR(S) DAVID MAZZEI x1009 SHEET 2 OF 2

CERTIFICATE OF ANALYSIS

Michelle Mirenda
GZA GeoEnvironmental, Inc. (MA)
106 South Street
Hopkinton, MA 01748

RE: Dreamland Theater (01.0019030.90)
ESS Laboratory Work Order Number: 1011376

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Digitally signed by Laurel Stoddard
Date: 2010.12.06 13:04:29 -05'00'

Laurel Stoddard
Laboratory Director

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater

ESS Laboratory Work Order: 1011376

SAMPLE RECEIPT

The following samples were received on November 29, 2010 for the analyses specified on the enclosed Chain of Custody Record.

The samples and analyses listed below were analyzed in accordance with the Guidelines Establishing Test Procedures for the Analysis of Pollutants, 40 CFR Part 136, as amended.

Sample 1011376-02 was cancelled per client's request.

Lab Number	SampleName	Matrix	Analysis
1011376-01	Influent	Ground Water	1664A, 2540D, 4500 CN CE, 4500Cl D, 608, 8270C SIM

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater

ESS Laboratory Work Order: 1011376

PROJECT NARRATIVE

Classical Chemistry
1011376-01 **The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.**

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater
Client Sample ID: Influent
Date Sampled: 11/24/10 09:00
Percent Solids: N/A
Initial Volume: 1000
Final Volume: 5
Extraction Method: 3510C

ESS Laboratory Work Order: 1011376
ESS Laboratory Sample ID: 1011376-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: SEP
Prepared: 11/30/10 12:00

All methods used are in accordance with 40 CFR 136.

608 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.50)		1	12/01/10 23:46		CK02912
Aroclor 1221	ND (0.50)		1	12/01/10 23:46		CK02912
Aroclor 1232	ND (0.50)		1	12/01/10 23:46		CK02912
Aroclor 1242	ND (0.50)		1	12/01/10 23:46		CK02912
Aroclor 1248	ND (0.50)		1	12/01/10 23:46		CK02912
Aroclor 1254	ND (0.50)		1	12/01/10 23:46		CK02912
Aroclor 1260	ND (0.50)		1	12/01/10 23:46		CK02912
Aroclor 1262	ND (0.50)		1	12/01/10 23:46		CK02912
Aroclor 1268	ND (0.50)		1	12/01/10 23:46		CK02912

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater
Client Sample ID: Influent
Date Sampled: 11/24/10 09:00
Percent Solids: N/A
Initial Volume: 1000
Final Volume: 0.25
Extraction Method: 3510C

ESS Laboratory Work Order: 1011376
ESS Laboratory Sample ID: 1011376-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: IBM
Prepared: 11/30/10 12:00

All methods used are in accordance with 40 CFR 136.

8270C(SIM) Polynuclear Aromatic Hydrocarbons

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
2-Methylnaphthalene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Acenaphthene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Acenaphthylene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Anthracene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Benzo(a)anthracene	ND (0.05)		1	12/01/10 17:47	CTL0004	CK02913
Benzo(a)pyrene	ND (0.05)		1	12/01/10 17:47	CTL0004	CK02913
Benzo(b)fluoranthene	ND (0.05)		1	12/01/10 17:47	CTL0004	CK02913
Benzo(g,h,i)perylene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Benzo(k)fluoranthene	ND (0.05)		1	12/01/10 17:47	CTL0004	CK02913
Chrysene	ND (0.05)		1	12/01/10 17:47	CTL0004	CK02913
Dibenzo(a,h)Anthracene	ND (0.05)		1	12/01/10 17:47	CTL0004	CK02913
Fluoranthene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Fluorene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Indeno(1,2,3-cd)Pyrene	ND (0.05)		1	12/01/10 17:47	CTL0004	CK02913
Naphthalene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Phenanthrene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913
Pyrene	ND (0.20)		1	12/01/10 17:47	CTL0004	CK02913

	%Recovery	*Qualifier*	*Limits*
Surrogate: 1,2-Dichlorobenzene-d4	*65 %*		*30-130*
Surrogate: 2-Fluorobiphenyl	*62 %*		*30-130*
Surrogate: Nitrobenzene-d5	*57 %*		*30-130*
Surrogate: p-Terphenyl-d14	*95 %*		*30-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater
Client Sample ID: Influent
Date Sampled: 11/24/10 09:00
Percent Solids: N/A

ESS Laboratory Work Order: 1011376
ESS Laboratory Sample ID: 1011376-01
Sample Matrix: Ground Water

All methods used are in accordance with 40 CFR 136.

Classical Chemistry

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	Units	Batch
Total Cyanide (LL)	ND (0.0050)	4500 CN CE		1	EEM	12/02/10 15:10	mg/L	CL00206
Total Petroleum Hydrocarbon	ND (5)	1664A		1	LRF	11/30/10 13:00	mg/L	CK03010
Total Residual Chlorine	ND (0.02)	4500Cl D		1	EEM	11/29/10 17:05	mg/L	CK02930
Total Suspended Solids	**7** (5)	2540D		1	EEM	12/01/10 13:00	mg/L	CL00105

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater

ESS Laboratory Work Order: 1011376

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
608 Polychlorinated Biphenyls (PCB)										
Batch CK02912 - 3510C										
Blank										
Aroclor 1016	ND	0.50	ug/L							
Aroclor 1221	ND	0.50	ug/L							
Aroclor 1232	ND	0.50	ug/L							
Aroclor 1242	ND	0.50	ug/L							
Aroclor 1248	ND	0.50	ug/L							
Aroclor 1254	ND	0.50	ug/L							
Aroclor 1260	ND	0.50	ug/L							
Aroclor 1262	ND	0.50	ug/L							
Aroclor 1268	ND	0.50	ug/L							
Surrogate: Decachlorobiphenyl	*0.214*		ug/L	*0.2500*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.226*		ug/L	*0.2500*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.203*		ug/L	*0.2500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.221*		ug/L	*0.2500*		*88*	*30-150*			
LCS										
Aroclor 1016	4.93	0.50	ug/L	5.000		99	40-140			
Aroclor 1260	4.40	0.50	ug/L	5.000		88	40-140			
Surrogate: Decachlorobiphenyl	*0.234*		ug/L	*0.2500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.242*		ug/L	*0.2500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.228*		ug/L	*0.2500*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.241*		ug/L	*0.2500*		*97*	*30-150*			
LCS Dup										
Aroclor 1016	5.06	0.50	ug/L	5.000		101	40-140	3	50	
Aroclor 1260	4.48	0.50	ug/L	5.000		90	40-140	2	50	
Surrogate: Decachlorobiphenyl	*0.226*		ug/L	*0.2500*		*90*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.239*		ug/L	*0.2500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.232*		ug/L	*0.2500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.247*		ug/L	*0.2500*		*99*	*30-150*			
8270C(SIM) Polynuclear Aromatic Hydrocarbons										
Batch CK02913 - 3510C										
Blank										
2-Methylnaphthalene	ND	0.20	ug/L							
Acenaphthene	ND	0.20	ug/L							
Acenaphthylene	ND	0.20	ug/L							
Anthracene	ND	0.20	ug/L							
Benzo(a)anthracene	ND	0.05	ug/L							
Benzo(a)pyrene	ND	0.05	ug/L							
Benzo(b)fluoranthene	ND	0.05	ug/L							
Benzo(g,h,i)perylene	ND	0.20	ug/L							
Benzo(k)fluoranthene	ND	0.05	ug/L							
Chrysene	ND	0.05	ug/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater

ESS Laboratory Work Order: 1011376

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C(SIM) Polynuclear Aromatic Hydrocarbons										
Batch CK02913 - 3510C										
Dibenzo(a,h)Anthracene	ND	0.05	ug/L							
Fluoranthene	ND	0.20	ug/L							
Fluorene	ND	0.20	ug/L							
Indeno(1,2,3-cd)Pyrene	ND	0.05	ug/L							
Naphthalene	ND	0.20	ug/L							
Phenanthrene	ND	0.20	ug/L							
Pyrene	ND	0.20	ug/L							
Surrogate: 1,2-Dichlorobenzene-d4	*0.670*		ug/L	*0.6250*		*107*	*30-130*			
Surrogate: 2-Fluorobiphenyl	*0.605*		ug/L	*0.6250*		*97*	*30-130*			
Surrogate: Nitrobenzene-d5	*0.600*		ug/L	*0.6250*		*96*	*30-130*			
Surrogate: p-Terphenyl-d14	*0.705*		ug/L	*0.6250*		*113*	*30-130*			
LCS										
2-Methylnaphthalene	0.542	0.20	ug/L	0.5000		108	40-140			
Acenaphthene	0.435	0.20	ug/L	0.5000		87	40-140			
Acenaphthylene	0.380	0.20	ug/L	0.5000		76	40-140			
Anthracene	0.415	0.20	ug/L	0.5000		83	40-140			
Benzo(a)anthracene	0.422	0.05	ug/L	0.5000		84	40-140			
Benzo(a)pyrene	0.398	0.05	ug/L	0.5000		80	40-140			
Benzo(b)fluoranthene	0.410	0.05	ug/L	0.5000		82	40-140			
Benzo(g,h,i)perylene	0.358	0.20	ug/L	0.5000		72	40-140			
Benzo(k)fluoranthene	0.388	0.05	ug/L	0.5000		78	40-140			
Chrysene	0.420	0.05	ug/L	0.5000		84	40-140			
Dibenzo(a,h)Anthracene	0.332	0.05	ug/L	0.5000		66	40-140			
Fluoranthene	0.470	0.20	ug/L	0.5000		94	40-140			
Fluorene	0.442	0.20	ug/L	0.5000		88	40-140			
Indeno(1,2,3-cd)Pyrene	0.340	0.05	ug/L	0.5000		68	40-140			
Naphthalene	0.420	0.20	ug/L	0.5000		84	40-140			
Phenanthrene	0.400	0.20	ug/L	0.5000		80	40-140			
Pyrene	0.392	0.20	ug/L	0.5000		78	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	*0.632*		ug/L	*0.6250*		*101*	*30-130*			
Surrogate: 2-Fluorobiphenyl	*0.600*		ug/L	*0.6250*		*96*	*30-130*			
Surrogate: Nitrobenzene-d5	*0.562*		ug/L	*0.6250*		*90*	*30-130*			
Surrogate: p-Terphenyl-d14	*0.675*		ug/L	*0.6250*		*108*	*30-130*			
LCS Dup										
2-Methylnaphthalene	0.542	0.20	ug/L	0.5000		108	40-140	0	20	
Acenaphthene	0.428	0.20	ug/L	0.5000		86	40-140	2	20	
Acenaphthylene	0.375	0.20	ug/L	0.5000		75	40-140	1	20	
Anthracene	0.412	0.20	ug/L	0.5000		82	40-140	0.6	20	
Benzo(a)anthracene	0.432	0.05	ug/L	0.5000		86	40-140	2	20	
Benzo(a)pyrene	0.412	0.05	ug/L	0.5000		82	40-140	4	20	
Benzo(b)fluoranthene	0.415	0.05	ug/L	0.5000		83	40-140	1	20	
Benzo(g,h,i)perylene	0.358	0.20	ug/L	0.5000		72	40-140	0	20	
Benzo(k)fluoranthene	0.390	0.05	ug/L	0.5000		78	40-140	0.6	20	
Chrysene	0.422	0.05	ug/L	0.5000		84	40-140	0.6	20	
Dibenzo(a,h)Anthracene	0.360	0.05	ug/L	0.5000		72	40-140	8	20	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater

ESS Laboratory Work Order: 1011376

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C(SIM) Polynuclear Aromatic Hydrocarbons										
Batch CK02913 - 3510C										
Fluoranthene	0.475	0.20	ug/L	0.5000		95	40-140	1	20	
Fluorene	0.428	0.20	ug/L	0.5000		86	40-140	3	20	
Indeno(1,2,3-cd)Pyrene	0.362	0.05	ug/L	0.5000		72	40-140	6	20	
Naphthalene	0.425	0.20	ug/L	0.5000		85	40-140	1	20	
Phenanthrene	0.398	0.20	ug/L	0.5000		80	40-140	0.6	20	
Pyrene	0.402	0.20	ug/L	0.5000		80	40-140	3	20	
Surrogate: 1,2-Dichlorobenzene-d4	*0.595*		ug/L	*0.6250*		*95*	*30-130*			
Surrogate: 2-Fluorobiphenyl	*0.560*		ug/L	*0.6250*		*90*	*30-130*			
Surrogate: Nitrobenzene-d5	*0.545*		ug/L	*0.6250*		*87*	*30-130*			
Surrogate: p-Terphenyl-d14	*0.692*		ug/L	*0.6250*		*111*	*30-130*			
Classical Chemistry										
Batch CK02930 - General Preparation										
Blank										
Total Residual Chlorine	ND	0.02	mg/L							
LCS										
Total Residual Chlorine	2.12		mg/L	2.090		101	85-115			
Batch CK03010 - General Preparation										
Blank										
Total Petroleum Hydrocarbon	ND	5	mg/L							
LCS										
Total Petroleum Hydrocarbon	20	5	mg/L	19.22		105	66-114			
Batch CL00105 - General Preparation										
Blank										
Total Suspended Solids	ND	5	mg/L							
LCS										
Total Suspended Solids	28		mg/L	30.70		91	80-120			
Batch CL00206 - TCN Prep										
Blank										
Total Cyanide (LL)	ND	0.0050	mg/L							
LCS										
Total Cyanide (LL)	0.0212	0.0050	mg/L	0.02006		105	90-110			
LCS										
Total Cyanide (LL)	0.148	0.0050	mg/L	0.1504		98	90-110			
LCS Dup										
Total Cyanide (LL)	0.149	0.0050	mg/L	0.1504		99	90-110	0.8	20	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater ESS Laboratory Work Order: 1011376

Notes and Definitions

U	Analyte included in the analysis, but not detected
HT	The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc. (MA)
Client Project ID: Dreamland Theater ESS Laboratory Work Order: 1011376

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

South Carolina Volatile Organic Compounds in Potable Water: 78003

New Jersey Potable (VOA) and Non Potable Water (RCRA), Solids and Hazardous Waste: RI002
http://www.nj.gov/dep/oqa/certlabs.htm

Pensylvania Potable and Non Potable Water, Solid and Hazardous Waste: 68-01752
http://files.dep.state.pa.us/RegionalResources/Labs/LabsPortalFiles/2009-0911_accredited_laboratories.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

ESS LABS

W.O. # 1011-00193
(for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED: ☐ pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021 - Full List	EPA 8021 - 8010 List (Chlor.)	EPA 8021 - 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs	☐ 601 ☐ 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 ☒ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO4	TRC	TPH-1664	PCB-608	CYANIDE	Total No. of Cont.	Note #
																																TSS 11/30/10	
Influent	11/24/10 @ 0900	GW												X														X	X	X	X	X 6	
Effluent	11/24/10 @ 0900	GW												X														X	X	X	X	X 6	
PRESERVATIVE (CI-HCI, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *														-														-	-	-	Na		
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*														G														P	G	G	P		

RELINQUISHED BY: DATE/TIME RECEIVED BY:
11/29/10 1202

RELINQUISHED BY: DATE/TIME RECEIVED BY:

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Report Method Blank and Laboratory Control Sample Results

MA-MCPs
1. PAH-SIM Low Level **6. CYANIDE via SM4500 CN CE**
3. TRC via SM4500CLD 7. TSS SM 2540D
4. TPH-1664
5. PCB-608

due 12/6/10 by 1400 hrs.

Project Manager: **Michelle Mirenda**

GZA GEOENVIRONMENTAL, INC.

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

LAB USE: Temp Blank
TURNAROUND TIME: ~~Standard~~ ~~Rush~~ ~~4 Days~~ Approved by: **E. Ouk** TEMP. OF COOLER °C Cooler Air

GZA FILE NO: **01.0019030.90** TASK NO: P.O. NO. 9-34218

PROJECT **Dreamland Theater**

LOCATION **Nantucket, MA**

COLLECTOR(S) **DM** SHEET **1** 1

1011376

ESS LABS

W.O. # 1011-00193
(for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED: ☐ pH	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260- 8010 List	EPA 8021- Full List	EPA 8021 - 8010 List (Chlor.)	EPA 8021 - 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs	☐ 601 ☐ 602 WW VOCs	EPA 8270 SVOCs	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ NO3 ☐ SO4	TRC	TPH-1664	PCB-608	CYANIDE	Total No. of Cont.	Note #
Influent	11/24/10 @ 0900	GW												X															X	X	X	X	6	
Effluent	11/24/10 @ 0900	GW												X															X	X	X	X	6	
PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *														-															-	-	-	Na		
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*														G															P	G	G	P		

RELINQUISHED BY: DATE/TIME: RECEIVED BY:
11/29/10 1202 11/29/10 12:55

RELINQUISHED BY: DATE/TIME RECEIVED BY:
11/29/10 14:30

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
*Specify "Other" preservatives and container types in this space.

Report Method Blank and Laboratory Control Sample Results
MA-MCPs
1. PAH-SIM Low Level
3. TRC via SM4500CLD
4. TPH-1664
5. PCB-608
6. CYANIDE via SM4500 CN CE

due 12/6/10 by 1400 hrs.

TURNAROUND TIME: ~~Standard~~ ~~Rush~~ 4 Days Approved by: E. Ouk

LAB USE: TEMP. OF COOLER 2°C Temp Blank ✓ Cooler Air

Project Manager: Michelle Mirenda

GZA GEOENVIRONMENTAL, INC.

106 South Street
Hopkinton, MA 01748
508-435-9244
FAX 508-435-9912

GZA FILE NO: 01.0019030.90 TASK NO: P.O. NO. 9-34218

PROJECT Dreamland Theater

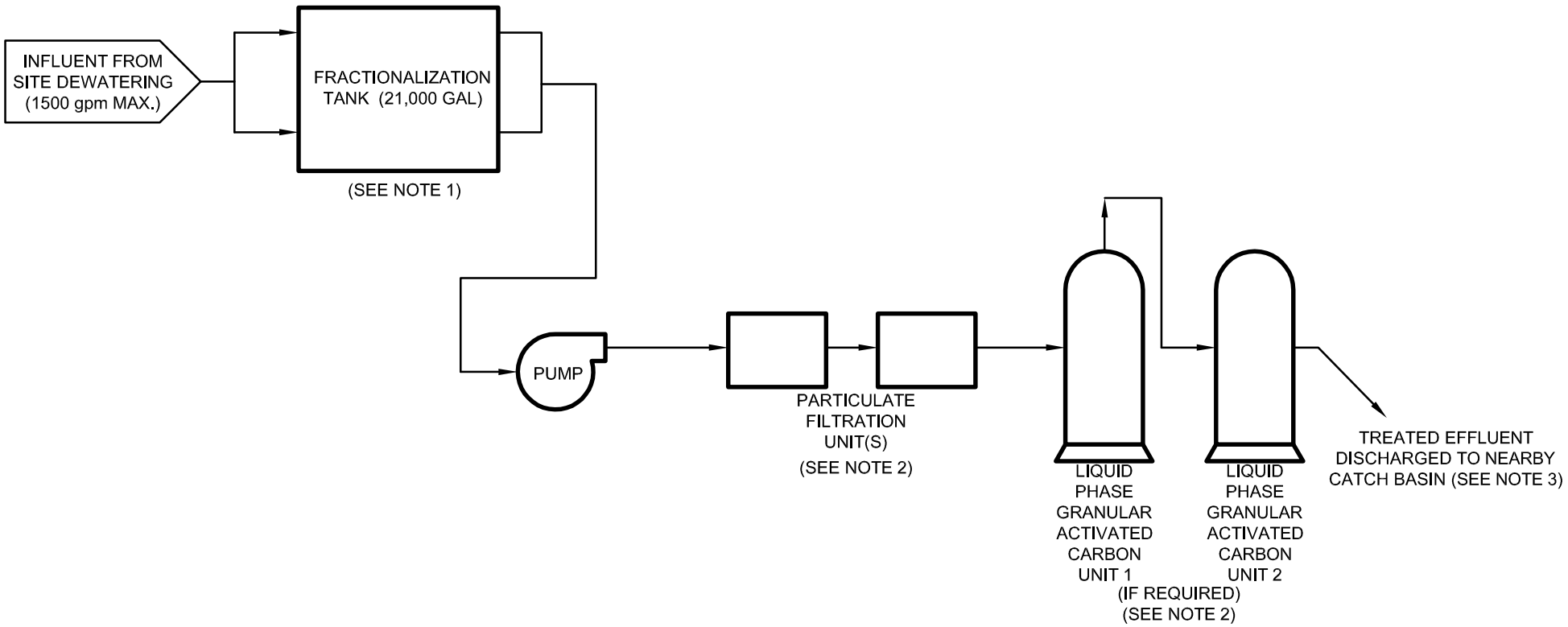
LOCATION Nantucket, MA

COLLECTOR(S) DM SHEET 1 1

C:\Documents and Settings\luis.galindo\Desktop\ESS-Duffys COC.xlsx

ATTACHMENT 5

TREATMENT SYSTEM PROCESS FLOW DIAGRAM



NOTE:

1. ONE 21,000 GALLON FRACTIONALIZATION TANK IS SHOWN. ADDITIONAL STORAGE CAPACITY MAY BE UTILIZED OR COULD BE NECESSARY.
2. ADDITIONAL PARTICULATE AND/OR CARBON FILTRATION UNITS MAY BE NECESSARY TO HANDLE EXPECTED FLOWS. CARBON FILTRATION WILL ONLY BE USED AS NECESSARY.
3. THREE POTENTIAL CATCH BASIN DISCHARGE POINTS ARE LOCATED ADJACENT TO THE SITE (SEE ATTACHMENT 3).

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists, 133 Federal St, 3d Floor, Boston, Massachusetts (617) 963-1000	DREAMLAND THEATER NANTUCKET, MASSACHUSETTS	PROJ MGR: AJ DESIGNED BY: AJ REVIEWED BY: BWF	DATE: 11-7-2010 PROJECT NO.: 19030.90	ATTACHMENT 5
PREPARED FOR: Dreamland Theater Foundation	PROCESS FLOW DIAGRAM PROPOSED DEWATERING TREATMENT SYSTEM	DRAWN BY: AJ CHECKED BY: AJ SCALE: NOT TO SCALE	REVISION NO.	

ATTACHMENT 6

SUPPLEMENTAL INFORMATION

Nantucket MA

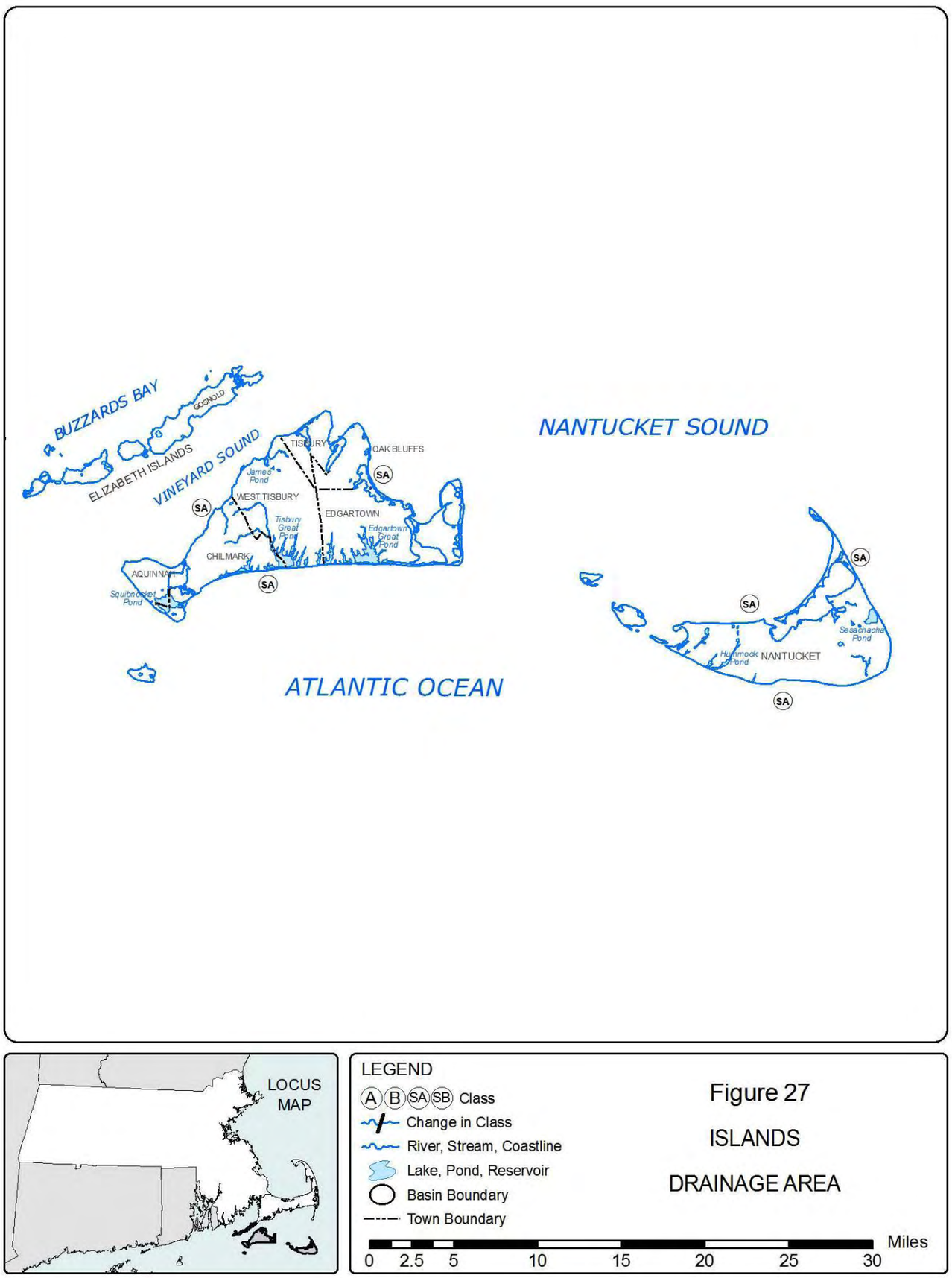
NHESP

- ☑ **Potential Vernal Pools**
  - Potential Vernal Pools
- ☑ **NHESP Priority Habitats of Rare Species**
  - NHESP MA Priority Habitats for State-Protected Rare Species
- ☑ **NHESP Natural Communities**
  - NHESP Natural Communities
- ☑ **NHESP Estimated Habitats of Rare Wildlife**
  - NHESP MA Estimated Habitats of Rare Wildlife
- ☑ **NHESP Certified Vernal Pools**
  - NHESP MA Certified Vernal Pools
- ☑ **Living Waters Critical Supporting Watersheds**
  - Living Waters Critical Supporting Watersheds
- ☑ **Living Waters Core Habitats**
  - Living Waters Core Habitats
- ☑ **BioMap Supporting Natural Landscape Outlines**
  - BioMap Supporting Natural Landscape Outlines
- ☑ **BioMap Supporting Natural Landscape**
  - BioMap Supporting Natural Landscape
- ☑ **BioMap Core Habitat Outlines**
  - BioMap Core Habitat Outlines
- ☑ **BioMap Core Habitat**
  - BioMap Core Habitat
- ☑ **Massachusetts Towns**
  - MA Town Boundaries..Outlines
- ☑ **Color Orthos 2005**

Source: MassGIS (www.mass.gov/mgis). Maps and photos are for planning purposes only.

WARNING: This map does not meet national map accuracy standards, and cannot be used for engineering purposes. Please consult conditions of use at http://www.state.ma.us/mgis/

4.06: continued

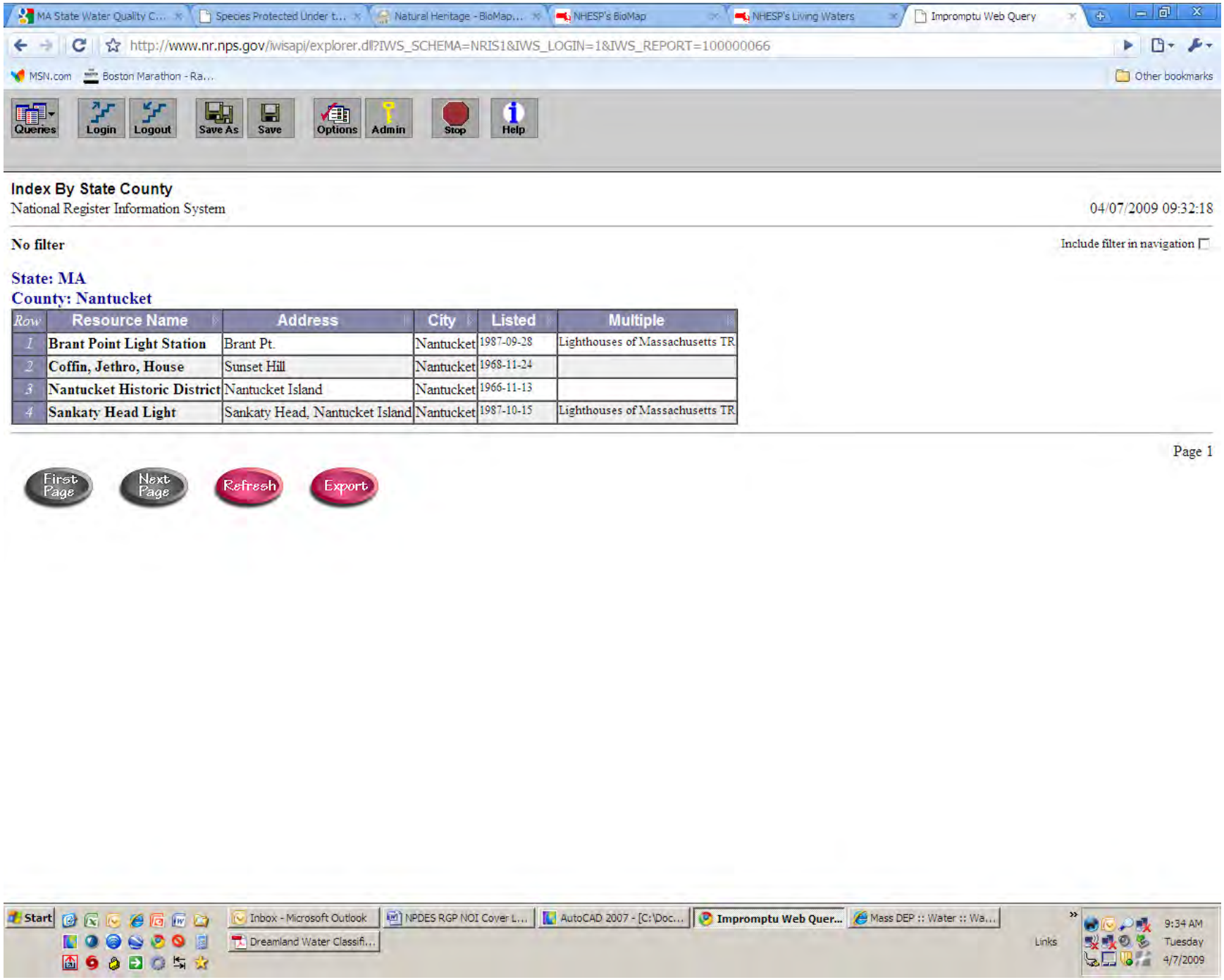


4.06: continued

TABLE 27
ISLANDS COASTAL DRAINAGE AREAS

BOUNDARY	MILE POINT	CLASS	QUALIFIERS
Surface waters adjacent* to the Elizabeth Islands subject to the rise and fall of the tide	-	SA	Shellfishing Outstanding Resource Water
All surface waters subject to the rise and fall of the tide of Dukes County and Nantucket Drainage Areas	-	SA	Shellfishing

* Area within 1,000 feet seaward of mean low water.


MA State Water Quality C...
Species Protected Under t...
Natural Heritage - BioMap...
NHESP's BioMap
NHESP's Living Waters
Impromptu Web Query
http://www.nr.nps.gov/iwisapi/explorer.dll?IWS_SCHEMA=NRIS1&IWS_LOGIN=1&IWS_REPORT=100000066
MSN.com
Boston Marathon - Ra...
Other bookmarks
Queries
Login
Logout
Save As
Save
Options
Admin
Stop
Help
Index By State County
National Register Information System
04/07/2009 09:32:18
No filter
Include filter in navigation
State: MA
County: Nantucket
Row
Resource Name
Address
City
Listed
Multiple
1
Brant Point Light Station
Brant Pt.
Nantucket
1987-09-28
Lighthouses of Massachusetts TR
2
Coffin, Jethro, House
Sunset Hill
Nantucket
1968-11-24
3
Nantucket Historic District
Nantucket Island
Nantucket
1966-11-13
4
Sankaty Head Light
Sankaty Head, Nantucket Island
Nantucket
1987-10-15
Lighthouses of Massachusetts TR
Page 1
First Page
Next Page
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Inbox - Microsoft Outlook
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Impromptu Web Quer...
Mass DEP :: Water :: Wa...
Dreamland Water Classifi...
Links
9:34 AM
Tuesday
4/7/2009

CERTIFICATE NO: 53439 DATE ISSUED: 2/10/09

Application to the HISTORIC DISTRICT COMMISSION, Nantucket, Massachusetts, for a

CERTIFICATE OF APPROPRIATENESS

for structural work.

All blanks must be filled in using BLUE OR BLACK INK (no pencil) or marked N/A.

NOTE: It is strongly recommended that the applicant be familiar with the HDC guidelines, *Building with Nantucket in Mind,* prior to submittal of application. Please see other side for submittal requirements. Incomplete applications will not be reviewed by the HDC.

This is a contractual agreement and must be filled out in ink. An application is hereby made for issuance of a Certificate of Appropriateness under Chapter 395 of the Acts and Resolves of Mass., 1970, for proposed work as described herein and on plans, drawings and photographs accompanying this application and made a part hereof by reference. The certificate is valid for three years from date of issuance. No structure may differ from the approved application. Violation may impede issuance of Certificate of Occupancy.

PROPERTY DESCRIPTION

TAX MAP N°: 42.3.1 PARCEL N°. 11.1 & 11.2

Street & Number of Proposed Work: 175 WATER ST / 13 EASY ST.

Owner of record: NANTUCKET DREAMLAND FOUNDATION

Mailing Address: 25 CENTRE ST. 2ND FLOOR NANTUCKET, MA 02554

Contact Phone #: _____ E-mail: _____

AGENT INFORMATION (if applicable)

Name: _____

Mailing Address: _____

Contact Phone #: _____ E-mail: _____

FOR OFFICE USE ONLY

Date application received: 1/30/09 Fee Paid: $ 225.00

Must be acted on by: 3/24

Extended to: _____

Approved: _____ Disapproved: _____

Chairman: _____

Member: _____

Member: _____

Member: _____

Member: _____

Notes - Comments - Restrictions - Conditions

pkg 1/30/09 gl amw

DESCRIPTION OF WORK TO BE PERFORMED

See reverse for required documentation.

☐ New Dwelling ☐ Addition ☐ Garage ☐ Garage/Apartment ☒ Commercial ☐ Historical Renovation ☐ Deck ☐ Steps ☐ Shed
☐ Color Change ☐ Fence ☐ Gate ☐ Paving ☐ Move Building ☐ Demolition ☒ Revisions to previous Cert. No. _____
☐ Roof ☐ Other _____

Size of Structure or Addition: Length: 194'-5 3/8" Sq. Footage 1st floor: 9423
Width: 55'-8" Sq. footage 2nd floor: 4475
Sq. footage 3rd floor: 6081

Decks: Size: 611 ☐ 1st floor ☒ 2nd floor
Size: 1378 ☐ 1st floor ☒ ~~2nd floor~~ 3RD FLR

Difference between existing grade and proposed finish grade: North _____ South _____ East _____ West _____

Height of ridge above final finish grade: North VARIES South VARIES East 44'-11" West 45'-11"

Additional Remarks

Historic Name: DREAMLAND THEATER

Original Date: 1935

Original Builder: HICKSITE QUAKERS

Is there an HDC survey form for this building attached? ☐ Yes ☐ N/A

REVISIONS* (describe)

1. East Elevation 1.1 ADJUSTED ROOF PITCH; 1.2 " ROOF SOFFIT, FACIA, FASCIA; 1.3 PAINTED EXTERIOR DOOR
~~2. South Elevation~~ 1.4 REALIGNED GARDEN DOORS
3. West Elevation 3.1 ADJUSTED ALLEY RIDGELINE; 3.2 " ROOF BUILD-UP DIMENSION
4. North Elevation 4.1 ADJUSTED ROOF PITCH; 4.2 " " SOFFIT, FASCIA, RAKE; 4.3 REALIGNED EXTERIOR REAR DOOR & WINDOW ENTRYWAY
2. SOUTH ELEVATION 2.1 ADJUSTED ROOF RIDGE; 2.2 " " PITCH; 2.3 REVISED EGRESS ENCLOSURE; 2.4 ALTERED EXTERIOR DOOR & WINDOW

*Cloud on drawings and submit photographs of existing elevations.

DETAIL OF WORK TO BE PERFORMED

Foundation: Height Exposed VARIES ☐ Block ☐ Block Parged ☐ Brick (type) _____ ☒ Poured Concrete (PARGED) ☐ Piers

Masonry Chimney: ☐ Block Parged ☐ Brick (type) _____ ☐ Other _____

Roof Pitch: Main Mass 5 3/4 /12 Secondary Mass 5 /12 Dormer _____/12 Other 4 3/4 / 12

Roofing material: ☐ Asphalt: ☐ 3-Tab ☐ Architectural
☐ Wood (Type: Red Cedar, White Cedar, Shakes, etc.) _____

Fence: Height: _____ Type: _____ Length: _____

Skylights (flat only): Manufacturer _____ Rough Opening _____ Size _____ Location _____

Gutters: ☒ Wood ☐ Aluminum ☐ Copper ☒ Leaders (material) PAINTED ALUMINUM

Leaders (material and size): PAINTED ALUMINUM, SIZE: TO BE DETERMINED

Sidewall: ☒ White cedar shingles (WEATHERED 5" EXPOSED) ☒ Clapboard (exposure: TO MATCH EXISTING @ inches) Front ☐ _____ Side ☐ _____
☐ Other _____ HISTORIC GABLE DORMER

Trim: A. Wood ☐ Pine ☐ Redwood ☒ Cedar ☐ Other _____
B. Treatment ☒ Paint ☐ Natural to weather ☐ Other _____
C. Dimensions: Fascia HISTORIC 1'9" H: 1'3" Rake H: 1'2" A: 9" Soffit (Overhang) A: 9" Corner boards H: 7" A: 5" Frieze _____
Window Casing SEE SCH. Door Frame SEE SCH. Columns / Posts: Round _____ Square X

Windows*: ☒ Double Hung ☐ Casement ☒ All Wood ☐ Other _____
☒ True Divided Lights(muntins) ☐ SDL's (Simulated Divided Lights) Manufacturer GREEN MOUNTAIN OR EQUIVALENT

Doors* (type and material): Front MATCH EXISTING Rear SEE SCH. Side SEE SCH.
Garage Door(s): Type _____ Material _____

Hardscape materials: Driveways PERMAK BLUE POWER Walkways BRICK Walls _____

* Note: Complete door and window schedules are required.

COLORS

Sidewall _____ Clapboard (if applicable) MATCH EXISTING Roof _____
Trim WHITE Sash WHITE Doors WHITE
Deck _____ Foundation _____ Fence _____ Shutters _____

* Attach manufacturer's color samples if color is not from HDC approval list.

I hereby authorize the agent named above to act on my behalf to make changes in the specifications or the plans contained in this application in order to bring the application into compliance with the HDC guidelines. I hereby agree to abide by and comply with the terms and conditions of this application. I hereby agree that the submission of any revisions to this application will initiate a new sixty-day review period.

Date 1.30.09 Signature of owner of record Wm. F. Hunter, RA

Signed under penalties of perjury