NORTHERN
Analytical Services, LLC.
ENVIRONMENTAL CONSULTANTS

October 23, 2017 Project No: 170200

Cheryl Paul
Bradford Academy
24218 Garner
Southfield, Michigan 48033

Re: Water Testing
Bradford Academy – 2nd Round

Dear Mrs. Paul:

Please find the enclosed laboratory results from water samples Northern Analytical Services, LLC. (NAS) collected at the site. Samples were collected to determine the levels of the lead and copper present in drinking water at each active drinking fountain and sink found in the building. Testing was performed as part of an annual inspection of your building.

Samples were collected on October 5th, 2017 by Juston Rehkopf, a State of Michigan accredited Lead Based Paint Inspector (P05558) of NAS. Samples were collected by filling a single 250 milliliter container, pre-treated by the laboratory with acid, at each faucet/drinking fountain and delivering them to the laboratory for analysis. Sample collection was conducted in the morning prior to the water being used by occupants as a "first draw" sample. NAS did not flush or otherwise run each faucet or fountain prior to sample collection; to our knowledge each faucet and fountain sat dormant for at least 6 hours prior to sample collection.

Once delivered to the laboratory (Pace Analytical), samples were analyzed for the presence of copper and lead in accordance with US EPA method 200.8. A copy of the laboratory report is attached.

According to the US EPA's Lead and Copper rule, which applies to schools and child care facilities that meet the definition of a public water system, the practical quantitation limit (PQL) for lead is 0.005 micrograms of lead per liter of water (mg/L) and 0.050 mg/L for copper. The PQL is the concentration of lead or copper that can be reliably measured within specified limits during routine laboratory operating conditions using approved methods. The action level is the concentration of lead or copper in potable water which determines whether a system may be required to install corrosion control treatment, collect water quality parameter samples, collect source water samples, replace lead service e lines, and /or deliver public education about lead. The action level for lead is 0.015 mg/L and 1.3 mg/L for copper.

Essentially the PQL is the limit of detection and the Action Level is the level at which steps should be taken in order to minimize or eliminate exposure to lead or copper. Actions to be taken when the action level is exceeded include the following:

- Public education-provide information to building occupants about the water quality.
- Water quality parameter (WQP) monitoring-establish a routine monitoring program.
- Source water monitoring and source water treatment if necessary.
- Corrosion control treatment (CCT).

14870 225th Ave., Big Rapids, Michigan 49307
Phone : 231-268-0004 Fax : 866-214-4739 Web : www.northernas.com

Choice Schools Associates
Bradford Academy
Water Quality Testing – 2nd Round
Project No. 170200
October 23, 2017

The following is a summary of our findings:

Sample ID	Location	Copper Concentration (mg/L)	Lead Concentration (mg/L)
BA2-2	See Attached Drawing	0.33*	ND
BA14-2	See Attached Drawing	0.058*	ND
BA25-2	See Attached Drawing	0.044	ND
BA34-2	See Attached Drawing	0.20*	0.0016
BA55-2	See Attached Drawing	0.39*	0.011*
BA-91-2	See Attached Drawing	0.27*	0.0063*
BA94-2	See Attached Drawing	0.18*	0.0082*
BA95-2	See Attached Drawing	0.14*	0.0099*
BA96-2	See Attached Drawing	0.21*	0.0031
BA104-2	See Attached Drawing	0.99*	0.019**
BA106-2	See Attached Drawing	0.10*	ND
BA111-2	See Attached Drawing	0.13*	ND
BA116-2	See Attached Drawing	0.30*	0.0069*
BA122-2	See Attached Drawing	0.72*	0.0022
BA151-2	See Attached Drawing	0.43*	0.0017

* exceeds the PQL for lead or copper.
**exceeds the action level for lead or copper.

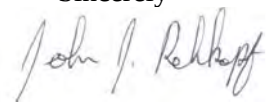
Of the 15 samples collected, one exceeded the Action level for lead, six exceeded the PQL for lead, and 14 exceeded the PQL for copper; none of the samples exceeded the PQL for copper.

Based on these results, NAS recommends the following actions:

- Immediately post the public education poster found in appendix A of the attached Lead and Copper Rule near each faucet/fountain and distribute a copy of this information in pamphlet form to all building occupants.
- Immediately take the faucets/fountains described in sample BA-116-2 off line. Because this was a re-test following a flush, the issue is likely in the faucet and more aggressive measures will be required to repair. Repairs could include: faucet replacement, installation of a water filter at the faucet, or replacement of the plumbing leading to the faucet.
- Re-test all fixtures at least annually, and following any major changes to the system.

NAS appreciates the opportunity to provide these services and looks forward to assisting you with any re-testing needed. Please do not hesitate to contact me with any questions.

Sincerely



John J. Rehkopf
President

Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

October 20, 2017

John Rehkopf
Northern Analytical Services
14870 225th Avenue
Big Rapids, MI 49307

RE: Project: Bradford Academy
Pace Project No.: 463132

Dear John Rehkopf:
Enclosed are the analytical results for sample(s) received by the laboratory on October 07, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Gary Wood
gary.wood@pacelabs.com
(616)940-4206
Project Manager

Enclosures

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CERTIFICATIONS

Project: Bradford Academy
Pace Project No.: 463132

Grand Rapids Certification ID's

5560 Corporate Exchange Ct SE, Grand Rapids, MI 49512
ISO/IEC 17025:2005, Certificate #AT-1542.01
DoD-ELAP, Certificate #ADE-1542
Minnesota Department of Health, Certificate #1177224
Arkansas Department of Environmental Quality, Certificate #17-046-0
Georgia Environmental Protection Division, Stipulation
Illinois Environmental Protection Agency, Certificate #004097
Michigan Department of Environmental Quality, Laboratory #0034
New York State Department of Health, Serial #56192 and 56193
North Carolina Division of Water Resources, Certificate #659
Virginia Department of General Services, Certificate #9028
Wisconsin Department of Natural Resources, Laboratory #999472650
U.S. Department of Agriculture Permit to Receive Soil, Permit #P330-14-00305

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SAMPLE SUMMARY

Project: Bradford Academy
Pace Project No.: 463132

Lab ID	Sample ID	Matrix	Date Collected	Date Received
463132001	**BA2-2**	Drinking Water	10/05/17 08:11	10/07/17 10:30
463132002	**BA14-2**	Drinking Water	10/05/17 08:13	10/07/17 10:30
463132003	**BA25-2**	Drinking Water	10/05/17 08:18	10/07/17 10:30
463132004	**BA34-2**	Drinking Water	10/05/17 08:08	10/07/17 10:30
463132005	**BA55-2**	Drinking Water	10/05/17 08:24	10/07/17 10:30
463132006	**BA91-2**	Drinking Water	10/05/17 08:49	10/07/17 10:30
463132007	**BA94-2**	Drinking Water	10/05/17 08:50	10/07/17 10:30
463132008	**BA95-2**	Drinking Water	10/05/17 08:50	10/07/17 10:30
463132009	**BA96-2**	Drinking Water	10/05/17 08:50	10/07/17 10:30
463132010	**BA104-2**	Drinking Water	10/05/17 08:32	10/07/17 10:30
463132011	**BA106-2**	Drinking Water	10/05/17 08:33	10/07/17 10:30
463132012	**BA111-2**	Drinking Water	10/05/17 08:38	10/07/17 10:30
463132013	**BA116-2**	Drinking Water	10/05/17 08:34	10/07/17 10:30
463132014	**BA122-2**	Drinking Water	10/05/17 08:29	10/07/17 10:30
463132015	**BA151-2**	Drinking Water	10/05/17 08:53	10/07/17 10:30

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SAMPLE ANALYTE COUNT

Project: Bradford Academy
Pace Project No.: 463132

Lab ID	Sample ID	Method	Analysts	Analytes Reported
463132001	**BA2-2**	EPA 200.8	CKD	2
463132002	**BA14-2**	EPA 200.8	CKD	2
463132003	**BA25-2**	EPA 200.8	CKD	2
463132004	**BA34-2**	EPA 200.8	CKD	2
463132005	**BA55-2**	EPA 200.8	CKD	2
463132006	**BA91-2**	EPA 200.8	CKD	2
463132007	**BA94-2**	EPA 200.8	CKD	2
463132008	**BA95-2**	EPA 200.8	CKD	2
463132009	**BA96-2**	EPA 200.8	CKD	2
463132010	**BA104-2**	EPA 200.8	CKD	2
463132011	**BA106-2**	EPA 200.8	CKD	2
463132012	**BA111-2**	EPA 200.8	CKD	2
463132013	**BA116-2**	EPA 200.8	CKD	2
463132014	**BA122-2**	EPA 200.8	CKD	2
463132015	**BA151-2**	EPA 200.8	CKD	2

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA2-2 **Lab ID: 463132001** Collected: 10/05/17 08:11 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.33**	mg/L	0.0050	5		10/12/17 13:01	7440-50-8	
Lead	ND	mg/L	0.0010	1		10/12/17 12:07	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA14-2 **Lab ID: 463132002** Collected: 10/05/17 08:13 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.058**	mg/L	0.0010	1		10/12/17 12:12	7440-50-8	
Lead	ND	mg/L	0.0010	1		10/12/17 12:12	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA25-2 **Lab ID: 463132003** Collected: 10/05/17 08:18 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.044**	mg/L	0.0010	1		10/12/17 12:19	7440-50-8	
Lead	ND	mg/L	0.0010	1		10/12/17 12:19	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA34-2 **Lab ID: 463132004** Collected: 10/05/17 08:08 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.20**	mg/L	0.0050	5		10/12/17 13:06	7440-50-8	
Lead	**0.0016**	mg/L	0.0010	1		10/12/17 12:20	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA55-2 **Lab ID: 463132005** Collected: 10/05/17 08:24 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.39**	mg/L	0.0050	5		10/12/17 13:07	7440-50-8	
Lead	**0.011**	mg/L	0.0010	1		10/12/17 12:21	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA91-2 **Lab ID: 463132006** Collected: 10/05/17 08:49 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.27**	mg/L	0.0050	5		10/12/17 13:08	7440-50-8	
Lead	**0.0063**	mg/L	0.0010	1		10/12/17 12:22	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA94-2 **Lab ID: 463132007** Collected: 10/05/17 08:50 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.18**	mg/L	0.0050	5		10/12/17 13:09	7440-50-8	
Lead	**0.0082**	mg/L	0.0010	1		10/12/17 12:23	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA95-2 **Lab ID: 463132008** Collected: 10/05/17 08:50 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.14**	mg/L	0.0050	5		10/12/17 13:10	7440-50-8	
Lead	**0.0099**	mg/L	0.0010	1		10/12/17 12:25	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA96-2 **Lab ID: 463132009** Collected: 10/05/17 08:50 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.21**	mg/L	0.0050	5		10/12/17 13:11	7440-50-8	
Lead	**0.0031**	mg/L	0.0010	1		10/12/17 12:26	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA104-2 **Lab ID: 463132010** Collected: 10/05/17 08:32 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.99**	mg/L	0.020	20		10/12/17 13:16	7440-50-8	
Lead	**0.019**	mg/L	0.0010	1		10/12/17 12:27	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA106-2 **Lab ID: 463132011** Collected: 10/05/17 08:33 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.10**	mg/L	0.0050	5		10/12/17 13:17	7440-50-8	
Lead	ND	mg/L	0.0010	1		10/12/17 12:28	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA111-2 **Lab ID: 463132012** Collected: 10/05/17 08:38 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.13**	mg/L	0.0050	5		10/12/17 13:18	7440-50-8	
Lead	ND	mg/L	0.0010	1		10/12/17 12:29	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA116-2 **Lab ID: 463132013** Collected: 10/05/17 08:34 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.30**	mg/L	0.0050	5		10/12/17 13:19	7440-50-8	
Lead	**0.0069**	mg/L	0.0010	1		10/12/17 12:33	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA122-2 **Lab ID: 463132014** Collected: 10/05/17 08:29 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.72**	mg/L	0.010	10		10/12/17 13:20	7440-50-8	
Lead	**0.0022**	mg/L	0.0010	1		10/12/17 12:34	7439-92-1	

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ANALYTICAL RESULTS

Project: Bradford Academy
Pace Project No.: 463132

Sample: BA151-2 **Lab ID: 463132015** Collected: 10/05/17 08:53 Received: 10/07/17 10:30 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8							
Copper	**0.43**	mg/L	0.010	10		10/12/17 13:21	7440-50-8	
Lead	**0.0017**	mg/L	0.0010	1		10/12/17 12:35	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Bradford Academy
Pace Project No.: 463132

QC Batch: 6698 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: ICPMS Metals, No Prep
Associated Lab Samples: 463132001, 463132002, 463132003, 463132004, 463132005, 463132006, 463132007, 463132008, 463132009, 463132010, 463132011, 463132012, 463132013, 463132014, 463132015

METHOD BLANK: 27441 Matrix: Water
Associated Lab Samples: 463132001, 463132002, 463132003, 463132004, 463132005, 463132006, 463132007, 463132008, 463132009, 463132010, 463132011, 463132012, 463132013, 463132014, 463132015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	mg/L	ND	0.0010	10/12/17 12:05	
Lead	mg/L	ND	0.0010	10/12/17 12:05	

LABORATORY CONTROL SAMPLE: 27442

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	mg/L	.02	0.021	103	85-115	
Lead	mg/L	.02	0.020	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27443 27444

Parameter	Units	463132001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	mg/L	0.33	.1	.1	0.42	0.42	90	96	70-130	1	20	
Lead	mg/L	ND	.02	.02	0.024	0.025	116	123	70-130	6	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 27446 27447

Parameter	Units	463132002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	mg/L	0.058	.02	.02	0.074	0.080	80	110	70-130	8	20	
Lead	mg/L	ND	.02	.02	0.024	0.025	119	125	70-130	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Bradford Academy
Pace Project No.: 463132

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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Pace Analytical Services, LLC
5560 Corporate Exchange Ct. SE
Grand Rapids, MI 49512
(616)975-4500

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Bradford Academy
Pace Project No.: 463132

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
463132001	**BA2-2**	EPA 200.8	6698		
463132002	**BA14-2**	EPA 200.8	6698		
463132003	**BA25-2**	EPA 200.8	6698		
463132004	**BA34-2**	EPA 200.8	6698		
463132005	**BA55-2**	EPA 200.8	6698		
463132006	**BA91-2**	EPA 200.8	6698		
463132007	**BA94-2**	EPA 200.8	6698		
463132008	**BA95-2**	EPA 200.8	6698		
463132009	**BA96-2**	EPA 200.8	6698		
463132010	**BA104-2**	EPA 200.8	6698		
463132011	**BA106-2**	EPA 200.8	6698		
463132012	**BA111-2**	EPA 200.8	6698		
463132013	**BA116-2**	EPA 200.8	6698		
463132014	**BA122-2**	EPA 200.8	6698		
463132015	**BA151-2**	EPA 200.8	6698		

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WO# : 463132

463132

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

2183574

Required Client Information: | Section C Invoice Information:

Company: Northern Analytical	Report To: John Rehkopf	Attention: See Section A
Address: 14870 225th Ave	Copy To:	Company Name:
Big Rapids, MI 49307		Address:
Email To: John@northernas.com	Purchase Order No.:	Pace Quote Reference:
Phone: 231-679-0005 Fax:	Project Name: Bradford Academy	Pace Project Manager:
Requested Due Date/TAT:	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☒ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: MI

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BA2-2	DW	G	10-5	8:11				1											463132-01
2	BA14-2				8:13															-02
3	BA25-2				8:18															-03
4	BA34-2				8:08															-04
5	BA55-2				8:24															-05
6	BA91-2				8:49															-06
7	BA94-2				8:50															-07
8	BA95-2				8:50															-08
9	BA96-2				8:50															-09
10	BA104-2				8:32															-10
11	BA106-2				8:33															-11
12	BA111-2				8:38															-12

11-2 Cart 6

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	10-7-17	10:30	[signature]	10/7/17	1030	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Juston Rehkopf

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10-7-17

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

2183573

Section A Required Client Information:

Company: See page 1
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: Bradford Academy
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☒ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MI

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BA 116-2	DW	G	10-5	8:34				1											463132-13
2	BA 122-2	"	"	"	8:29				1											-14
3	BA 151-2	"	"	"	8:53				1											-15
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

11-2
Cart 6

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Juston Rehkopf	10-7-17	10:30		10/7/17	1030	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Juston Rehkopf
SIGNATURE of SAMPLER: Juston Rehkopf
DATE Signed (MM/DD/YY): 10-7-17

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

SAMPLE RECEIVING / LOG-IN CHECKLIST

Pace Analytical®

Client: Nortem Analytical - BA | Work Order #: 463132
Receipt Record Page/Line #: 11-2 | New / Add To Project Chemist | Sample #s

Recorded by (initials/date): TS 10/17/17

Cooler ☐ Box ☐ Other ____ | Qty Received: 1

Thermometer Used: ☒ IR Gun (#202) ☐ Digital Thermometer (#54) ☐ Other (#____) | ☐ See Additional Cooler Information Form

Cooler #	Time	Custody Seals	Coolant Type	Coolant Location	Temp Blank Present	If Present, Temp Blank Location is:
000054	1038	☒ None ☐ Present / Intact ☐ Present / Not Intact	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☒ None	Dispersed / Top / Middle / Bottom	☒ Yes ☐ No	☒ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:	24.3	1	24.3
Sample 1:	24.0	1	24.0
Sample 2:	22.9	1	22.9
Sample 3:	23.1	1	23.1

3 Sample Average °C: 23.3

☐ Cooler ID on COC? ☐ VOC Trip Blank received?

Cooler #	Time	Custody Seals	Coolant Type	Coolant Location	Temp Blank Present	If Present, Temp Blank Location is:
		☐ None ☐ Present / Intact ☐ Present / Not Intact	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	Dispersed / Top / Middle / Bottom	☐ Yes ☐ No	☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			

3 Sample Average °C: ____

☐ Cooler ID on COC? ☐ VOC Trip Blank received?

Cooler #	Time	Custody Seals	Coolant Type	Coolant Location	Temp Blank Present	If Present, Temp Blank Location is:
		☐ None ☐ Present / Intact ☐ Present / Not Intact	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	Dispersed / Top / Middle / Bottom	☐ Yes ☐ No	☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			

3 Sample Average °C: ____

☐ Cooler ID on COC? ☐ VOC Trip Blank received?

Cooler #	Time	Custody Seals	Coolant Type	Coolant Location	Temp Blank Present	If Present, Temp Blank Location is:
		☐ None ☐ Present / Intact ☐ Present / Not Intact	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	Dispersed / Top / Middle / Bottom	☐ Yes ☐ No	☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			

3 Sample Average °C: ____

☐ Cooler ID on COC? ☐ VOC Trip Blank received?

If any shaded areas checked, complete Sample Receiving Non-Conformance and/or Inventory Form

Paperwork Received

Yes	No	
☒	☐	Chain of Custody record(s)? If No, Initiated By ____
☒		Received for Lab Signed/Date/Time?
☐	☒	Shipping document?
☐	☒	Other ____

COC Information

☒ Pace COC ☐ Other ____

COC ID Numbers: 2183574, 2183573

Check COC for Accuracy

Yes	No	
☒	☐	Analysis Requested?
☒	☐	Sample ID matches COC?
☒	☐	Sample Date and Time matches COC?
☒		Container type completed on COC?
☒	☐	All container types indicated are received?

Sample Condition Summary

N/A	Yes	No	
	☐	☒	Broken containers/lids?
	☐	☒	Missing or incomplete labels?
	☐	☒	Illegible information on labels?
	☐	☒	Low volume received?
	☐	☒	Inappropriate or non-Pace containers received?
☒	☐	☐	VOC vials / TOX containers have headspace?
☒	☐	☐	Extra sample locations / containers not listed on COC?

Check Sample Preservation

N/A	Yes	No	
	☒	☐	Temperature Blank **OR** average sample temperature, ≥6° C?
☒	☐	☐	If either is ≥6° C, was thermal preservation required?
☒	☐		If "Yes", Project Chemist Approval Initials: ____
☒	☐		If "Yes" Completed Non Con Cooler - Cont Inventory Form?
☐	☒		Completed Sample Preservation Verification Form?
☐	☒	☐	Samples chemically preserved correctly?
☒	☐		If "No", added orange tag?
	☐	☒	Received pre-preserved VOC soils?

☐ MeOH ☐ Na_2SO_4

Check for Short Hold-Time Prep/Analyses

☐ Bacteriological
☐ Air Bags
☐ EnCores / Methanol Pre-Preserved
☐ Formaldehyde/Aldehyde
☐ Green-tagged containers
☐ Yellow/White-tagged 1 L ambers (SV Prep-Lab)

AFTER HOURS ONLY:
COPIES OF COC TO LAB AREA(S)
☒ NONE RECEIVED
☐ RECEIVED, COCs TO LAB(S)

Notes

☐ Trip Blank received ☐ Trip Blank not listed on COC

Cooler Received (Date/Time)	Paperwork Delivered (Date/Time)	≤1 Hour Goal Met?
TS 10/17/17	TS 10/17/17	Yes / No

SAMPLE PRESERVATION VERIFICATION FORM

Pace Analytical®

Client	Work Order #
Northern Analytical - BA	463132
Receipt Log # 11-2	Completed By (initials/date) RS 10/7/17
	Project Chemist

COC ID # 2183574

Adjusted by:_____

Date:_____

DO NOT ADJUST pH FOR THESE CONTAINER TYPES

Container Type	5 / 23	4	13		(6)	15		
Tag Color	Lt. Blue	Blue	Brown		Red	Red Stripe		
Preservative	NaOH	H_2SO_4	H_2SO_4		HNO_3	HNO_3		
Expected pH	>12	<2	<2		<2	<2		
COC Line #1					✓			
COC Line #2								
COC Line #3								
COC Line #4								
COC Line #5								
COC Line #6								
COC Line #7								
COC Line #8								
COC Line #9								
COC Line #10								
COC Line #11								
COC Line #12								

Comments

COC ID # 2183573

Adjusted by:_____

Date:_____

DO NOT ADJUST pH FOR THESE CONTAINER TYPES

Container Type	5 / 23	4	13		(6)	15		
Tag Color	Lt. Blue	Blue	Brown		Red	Red Stripe		
Preservative	NaOH	H_2SO_4	H_2SO_4		HNO_3	HNO_3		
Expected pH	>12	<2	<2		<2	<2		
COC Line #1					✓			
COC Line #2					✓			
COC Line #3					✓			
COC Line #4								
COC Line #5								
COC Line #6								
COC Line #7								
COC Line #8								
COC Line #9								
COC Line #10								
COC Line #11								
COC Line #12								

Comments

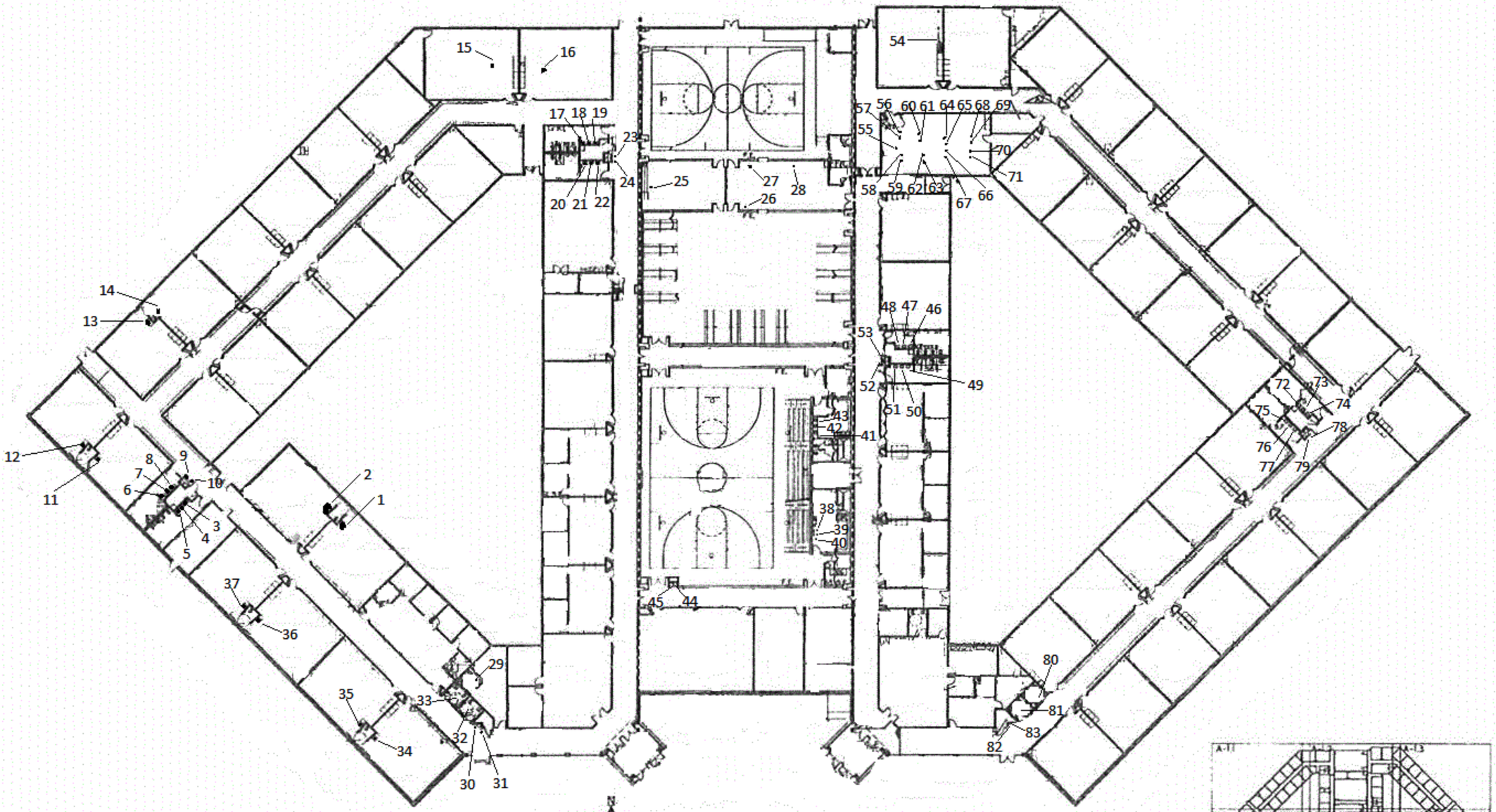
pH Strip Reagent # / Lot #

☒ HC601354

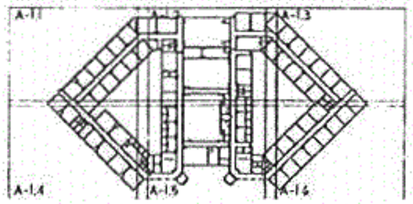
☐ Other _____

Aqueous Samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container, record pH in box, and note on Sample Receiving Checklist and on Sample Receiving Non-Conformance Form. If approved by Project Chemist, add acid or base to the sample to achieve the correct pH. Add up to, but do not exceed 2x the volume initially added at container prep (see table below for initial volumes used). Add orange pH tag to sample container and record information requested. Record adjusted pH on this form. Do not adjust pH for container types 6 and 15.

Container Size (mL)	Original Vol. of Preservative (mL)
Container Type 5	NaOH
500	2.5
1000	5.0
Container Type 4	H_2SO_4
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H_2SO_4
500	2.5



OVERALL FLOOR PLAN
SCALE: 1" = 20'-0"



KEY PLAN
SCALE: N.T.S.

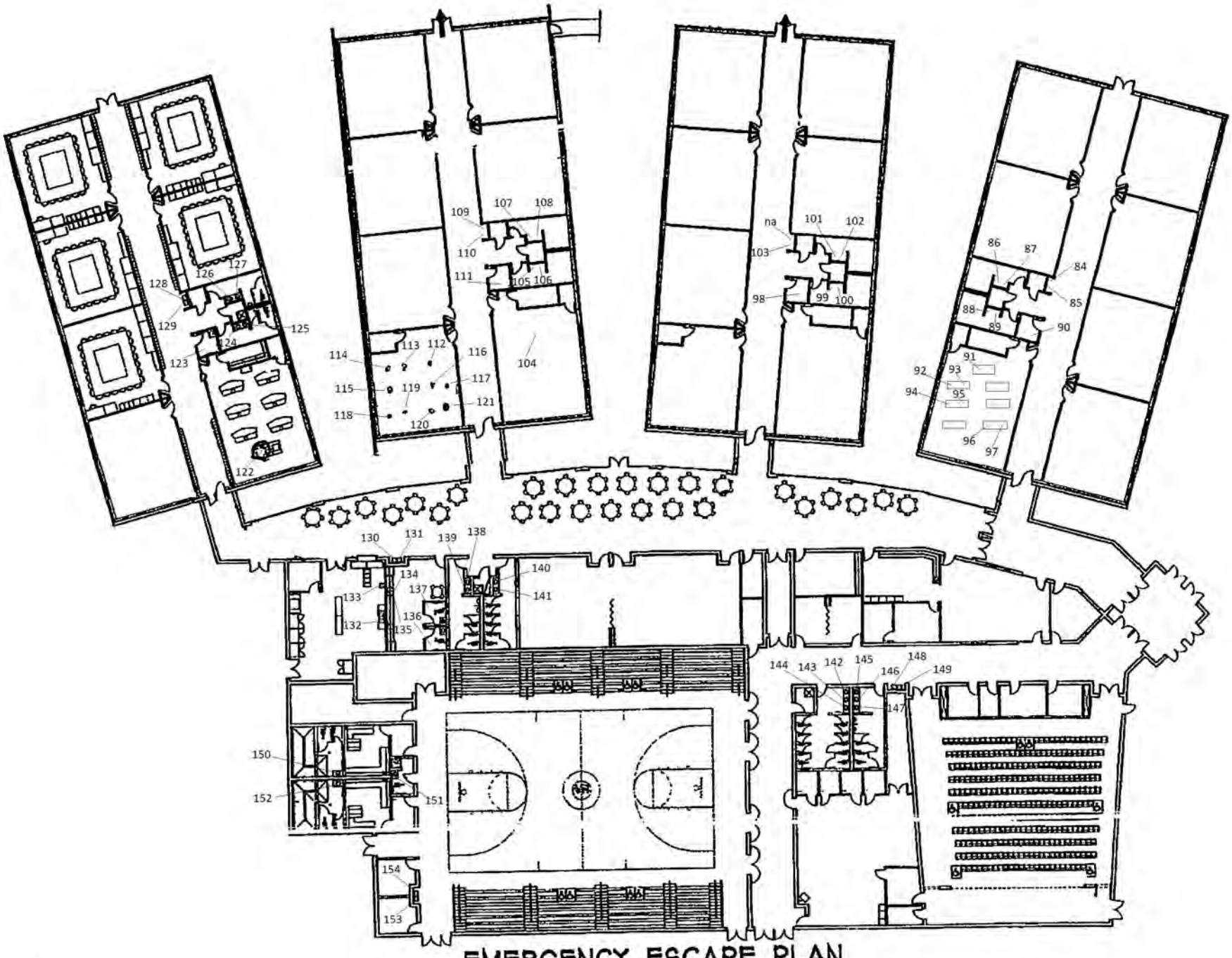
Bouma Construction

BRADFORD ACADEMY
THE ROMINE GROUP, INC.
SOUTHFIELD, MI
UPPER ELEMENTARY & MIDDLE SCHOOL
OVERALL FLOOR PLAN

ANDRUS ARCHITECTURE

Date: | Description:
01/27/06 REVISED
01/06/06 REVISED
01/09/06 REVISED
01/26/06 PERMIT AND COUST
02/09/06 OWNER REVISIONS
02/20/06 ADDENDUM #1
03/06/06 ADDENDUM #2
03/13/06 BULLETIN #1
04/07/06 BULLETIN #2

Commission: 05-148A
Sheet: A-1.0



EMERGENCY ESCAPE PLAN