

October 9, 2014

Duluth City Hall Interior Renovations

Phase 1: First Floor

Bid Number: 14-0459

Project Number: 14-02-TR

Bids Close Tuesday, October 14, 2014, 2:00 p.m.

NOTICE TO BIDDERS

The following addendum shall be appended to and shall become a part of the plans and specifications for Duluth City Hall Interior Renovations, Phase 1: First Floor, Duluth, Minnesota.

This addendum supersedes and supplants all previous reference to similar items.

JOHN IVEY THOMAS ASSOCIATES INC.

ADDENDUM #2

General

1. Asbestos/Hazardous Materials: Attached to this addendum for bidder's information and reference only, is a copy of the report prepared by Twin Ports Testing, "Asbestos and Lead Testing," dated October 3, 2014.
2. Section 08 14 00 – Wood Doors: Wood doors to be plain sliced white oak. Doors are not prefinished.
3. Section 08 70 00 – Finish Hardware:
 - a. Add Door 138A to Hardware Group 2.
 - b. Add Door 13 to Hardware Group 2.
4. Section 09 68 00 - Carpet:
2.1, Paragraph B. Carpet 2 to be:
Brand: Interface
Product: Shadow FX SDC "Cubic ESD"
Color: As selected by architect.
5. Sheet A4 – Door Schedule:
 - a. Door 13 to be Door Type C, Frame 1/1A with wood trim.
 - b. Door 14 is an existing half-lite door and frame. This door to receive window film only.

Mechanical/Electrical

1. At all doors listed in Section 08 70 00 Hardware Groups as having "Credential Reader" (including Door 13 and 138A added in this addendum) provide ¾" empty conduit from hollow metal door frame to above accessible ceiling for door strike and/or sensors associated with new door.

2. Sheet E1.0: Revise Specification as shown clouded on attached plan.
3. Sheet E3.1: Provide new cable tray location as shown clouded on attached plan, as referenced in Addendum 1.
4. Sheet E3.1: Revise numbered note 4 as shown clouded on attached plan.
5. Sheet E3.1: Add numbered note 22 as shown clouded on attached plan.
6. Sheet E3.2: Provide new cable tray location as shown clouded on attached plan, as referenced in Addendum 1.
7. Sheet E3.2: Revise numbered note 3 as shown clouded on attached plan.
8. Sheet E3.2: Add numbered notes 21 and 22 as shown clouded on attached plan.

END OF ADDENDUM

Attachments: "Hazardous Material Report" prepared by Twin Ports Testing and dated 10/3/14
Drawings E1.0, E3.1 and E3.2



ASBESTOS & LEAD TESTING

City Hall 1st Floor
Duluth, Minnesota

TPT#14A0341

Prepared for:

Ms. Tari Rayala, AIA
City of Duluth – Architect
1532 West Michigan Street
Duluth, MN 55806

October 3, 2014

October 3, 2014

TPT#14A0341

Ms. Tari Rayala, AIA
City of Duluth – Architect
1532 West Michigan Street
Duluth, MN 55806

**Re: Asbestos & Lead Testing
City Hall 1st Floor – South Side
Duluth, Minnesota**

Dear Ms. Rayala,

The following is a final report outlining the Asbestos and Lead Inspection conducted at the subject site for renovation purposes. This report contains the following information:

- Introduction
- Results
- Recommendations

INTRODUCTION

Twin Ports Testing, Inc. (TPT) was contacted by Ms. Tari Rayala, Architect with the City of Duluth, in Duluth, Minnesota, to conduct an Asbestos and Lead Inspection on components that could be affected prior to proposed renovation. The project is located at 411 West 1st Street in Duluth, Minnesota. On October 1, 2014, Mr. Gary Christner and Mr. Rob Thomas, Minnesota Department of Health (MDH) Certified Asbestos Inspectors were on-site to sample materials that potentially contain asbestos and lead. Mr. Christner is also a MDH certified Lead Risk Assessor. Copies of the inspectors MDH hard cards are included in Appendix A.

RESULTS

Asbestos

TPT collected twenty-nine samples that were potentially asbestos containing material (ACM). These building materials included: plaster walls, plaster ceilings, flooring, texture, ceiling tiles, pyroblock, sheetrock, floor tiles, mastic, kickboard, and carpet adhesive on the South Side of the 1st Floor of City Hall. TPT staff collected the bulk samples from the suspect building component in accordance with the MDH regulations pertaining to asbestos inspections.

The tables on the following pages list the areas that were sampled for asbestos (bold and shading indicates positive results), sample ID, location and percent (%) asbestos (if applicable). Laboratory analytical results are included in Appendix B.

Table 1 – Sampled Suspect Asbestos Containing Materials (ACM)

Object or Item	Sample ID	Location	% Asbestos
Plaster	1	Ceiling, white	None Detected
Plaster	2	Ceiling, gray/tan	
Texture		Ceiling, white	None Detected
Plaster	3	Ceiling, white	None Detected
Plaster	4	Ceiling, white/black	None Detected
Plaster	5	Ceiling, white	None Detected
Ceiling Tile	6	Ceiling Tile, 2x4 smooth pinholed, tan	None Detected
Ceiling Tile	7	Ceiling Tile, 2x4 pinholed w/ shallow fissures, gray	None Detected
Ceiling Tile	8	Ceiling Tile, 2x4 pinholed w/ deep fissures, gray	None Detected
Ceiling Tile	9	Ceiling Tile, 2x4 ribbed pinholed & fissures, gray	None Detected
Texture	10	Walls, gray	None Detected
Plaster		Walls, white	None Detected
Texture	11	Walls, gray	None Detected
Plaster		Walls, white	None Detected
Texture	12	Walls, gray/tan	None Detected
Plaster		Walls, white	None Detected
Texture	13	Walls, gray/tan	None Detected
Plaster		Walls, white	None Detected
Texture	14	Walls, gray/tan	None Detected
Plaster		Walls, white	None Detected
Texture	15	Walls, gray/tan	None Detected
Plaster		Walls, white	None Detected
Texture	16	Walls, gray/tan	None Detected
Plaster		Walls, white	None Detected
Texture	17	Walls, gray/tan	None Detected
Plaster		Walls, white	None Detected
Adhesive	18	Wall, where baseboard was missing, brown	None Detected

Object or Item	Sample ID	Location	% Asbestos
Flooring	19	Floors, brown	None Detected
Flooring	20	Floors, brown	None Detected
Flooring	21	Floors, brown	None Detected
Sheetrock	22	Walls, white	None Detected
Sheetrock	23	Walls, white	None Detected
Plaster		Walls, gray	None Detected
Sheetrock	24	Walls, white	None Detected
Pyroblock/Brick	25	Deep in the Walls and Ceiling, red	None Detected
Floor Tile	26	Elevator Room, 12x12, white	None Detected
Mastic		Elevator Room, 12x12, tan	None Detected
Kickboard	27	Elevator Room, brown/red	None Detected
Adhesive	28	Under Carpet, Dry, yellow	None Detected
Adhesive	29	Under Carpet, Sticky, brown/tan	None Detected

By the MDH rules and regulations, asbestos containing materials are materials that contain greater than 1% asbestos. None of the materials tested are considered to be Asbestos Containing Materials (ACMs).

Lead

Samples of painted surfaces were tested for lead content using a NITON XLp-303A X-Ray Fluorescence (XRF) Lead Paint Analyzer, Serial Number 22293. Walls were tested starting on wall closet to 1st Avenue (Side A) going clockwise around room from side A to side D. A highlighted map showing positive results locations and a summary of all lead results is attached in Appendix C. The table on the following pages lists the components that were above the MDH limit of 1.0 mg/cm² for painted surfaces and are considered positive for lead content. These surfaces include:

Table 3 - Sampled Positive Lead Containing Paint

Sample #	Sample Location	Results
8	Room 101, Wall- Side C, white	15.9 mg/cm ²
10	Room 101, Wall- Side C, white	18.2 mg/cm ²
11	Room 101, Wall- Side C, white	19 mg/cm ²
15	Room 101-A, Wall- Side B, white	1.4 mg/cm ²
16	Room 101-A, Wall- Side C, white	2.4 mg/cm ²
22	Room 102, Wall- Side B, white	3.7 mg/cm ²
23	Room 102, Wall- Side C, white	2.9 mg/cm ²
25	Room 102, Ceiling, tan	2.5 mg/cm ²
29	Room 101, Wall- Side B behind radiator, black	1.9 mg/cm ²
37	Room 102-B, Wall- Side A, white	10.9 mg/cm ²
48	Room 103-A, Wall- Side A, white	12.1 mg/cm ²
50	Room 103-A, Wall- Side C, white	13.5 mg/cm ²
51	Room 103-A, Wall- Side D, white	2.0 mg/cm ²
60	Small Closet, Wall- Side C, white	14.2 mg/cm ²
63	Small Room, Wall- Side A, white	7.1 mg/cm ²
66	Small Room, Wall- Side C, white	6.2 mg/cm ²
67	Small Room, Wall- Side C, tan	4.0 mg/cm ²
69	Small Room, Wall- Side D, tan	9.8 mg/cm ²
70	Small Room, Ceiling, tan	5.0 mg/cm ²
72	Room 103, Ceiling, tan	8.9 mg/cm ²
73	Room 103, Wall- Side A, white	14.8 mg/cm ²
75	Room 103, Wall- Side C, white	12.5 mg/cm ²
76	Room 103, Wall- Side D, white	12.5 mg/cm ²
77	Room 104-A, Wall- Side A, white	17.3 mg/cm ²
78	Room 104-A, Wall- Side B, white	13.4 mg/cm ²
79	Room 104-A, Wall- Side C, white	18.7 mg/cm ²
80	Room 104-A, Wall- Side D, white	14.5 mg/cm ²

Sample #	Sample Location	Results
81	Room 104-A, Room to Right, Wall- Side A, Lt. Blue	12.0 mg/cm ²
82	Room 104-A, Room to Right, Wall- Side B, white	11.3 mg/cm ²
83	Room 104-A, Room to Right, Wall- Side C, white	9.8 mg/cm ²
84	Room 104-A, Room to Right, Wall- Side D, Lt. Blue	11.4 mg/cm ²
86	Room 104-A, Room to Left, Wall- Side A, Lt. Blue	17.5 mg/cm ²
87	Room 104-A, Room to Left, Wall- Side B, white	13.7 mg/cm ²
88	Room 104-A, Room to Left, Wall- Side C, white	14.1 mg/cm ²
89	Room 104-A, Room to Left, Wall- Side D, Lt. Blue	16.7 mg/cm ²
90	Room 104-A, Room to Left, Ceiling, tan	11.4 mg/cm ²
91	Room 104-E, Wall- Side A, white	13.0 mg/cm ²
93	Room 104-E, Wall- Side C, white	14.3 mg/cm ²
94	Room 104-E, Wall- Side D, white	13.6 mg/cm ²
95	Room 104-E, Ceiling, tan	14.5 mg/cm ²
96	Room 104-F, Ceiling, tan	13.4 mg/cm ²
97	Room 104-F, Ceiling, tan	16.6 mg/cm ²
99	Room 104-F, Wall- Side B, white	13.5 mg/cm ²
100	Room 104-F, Wall- Side C, white	12.2 mg/cm ²

RECOMMENDATIONS

TPT does not recommend any asbestos abatement activities this time.

Vermiculite was not observed in the building during the time of the inspection. If vermiculite is discovered during demolition, work must stop until the material can be abated by a licensed abatement contractor.

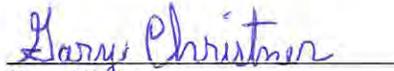
TPT recommends lead safe work practices be employed when working with the removal of the lead based paint on the walls and ceiling. The landfill should be made aware of the lead containing paint.

This inspection was conducted according to federal, state and local regulations. If you have any questions regarding this report, please feel free to contact us at (715) 392-7114. Thank you for the opportunity to conduct this work.

Sincerely,

Twin Ports Testing, Inc.

Inspectors:



Gary Christner

Minnesota Asbestos Inspector #AI3694

Minnesota Lead Risk Assessor # LR3101

10-3-14

Date



Rob Thomas

Minnesota Asbestos Inspector #AI12266

10/3/14

Date

Attachments: Appendix A: Inspector Certifications
Appendix B: Asbestos Laboratory Analytical Results
Appendix C: XRF & Lead Sampling Results

Appendix A

Inspector Certifications



G. P. Christner
Director, Env. Health Div.



ASBESTOS
INSPECTOR

Certified by:
State of Minnesota
Department of Health

Expires: 01/09/2015

Gary J Christner
632 N 60th Ave W #2
Duluth, MN 55807

No. AI3694 Issued: 02/13/2014



G. Christner
Director, Env. Health Div.



LEAD
Risk Assessor

Licensed by:
State of Minnesota
Department of Health

License No. LR3101
Expires 04/14/2015

Gary J Christner
632 N 60th Ave W #2
Duluth, MN 55807



RP Thomas
Director, Env. Health Div.



**ASBESTOS
INSPECTOR**

Certified by:
State of Minnesota
Department of Health
Expires: 04/23/2015

Robert W. Thomas, Jr.
4822 S County Rd F
Maple, WI 54854

No. AI12266 Issued: 05/05/2014



RP Thomas
Director, Env. Health Div.



**ASBESTOS
SITE
SUPERVISOR**

Certified by:
State of Minnesota
Department of Health
Expires: 04/22/2015

Robert W. Thomas, Jr.
4822 S County Rd F
Maple, WI 54854

No. AS12266 Issued: 05/05/2014

Appendix B

Asbestos Laboratory Analytical Results

**EMSL Analytical, Inc.**

14375 23rd Avenue North, Minneapolis, Mn 55447
 Phone/Fax: (763) 449-4922 / (763) 449-4924
<http://www.EMSL.com> minneapolislab@emsl.com

EMSL Order: 351406108
 CustomerID: TWIN50
 CustomerPO:
 ProjectID:

Attn: **Tracy Jacobs**
Twin Ports Testing, Inc.
1301 North 3rd Street
Superior, WI 54880

Phone: (715) 392-7114
 Fax: (715) 392-7163
 Received: 10/02/14 9:07 AM
 Analysis Date: 10/2/2014
 Collected: 10/1/2014

Project: **14A0341 - City Hall 1st Floor**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 351406108-0001	Ceiling Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-Plaster 351406108-0002	Ceiling Plaster	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2-Texture 351406108-0002A	Ceiling Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
3 351406108-0003	Ceiling Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
4 351406108-0004	Ceiling Plaster, w/black	White/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
5 351406108-0005	Ceiling Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
6 351406108-0006	Ceiling Tile, 2x4, Smooth Pinholed	Tan Fibrous Homogeneous	40% Cellulose 40% Glass	10% Perlite 10% Non-fibrous (other)	None Detected
7 351406108-0007	Ceiling Tile, 2x4, Pinholed w/shallow fissures	Gray Non-Fibrous Homogeneous	40% Cellulose 40% Glass	10% Perlite 10% Non-fibrous (other)	None Detected

Analyst(s)

Miles DelBusso (40)

Rachel Travis, Laboratory Manager
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 10/02/2014 15:11:21



EMSL Analytical, Inc.

14375 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924
<http://www.EMSL.com> minneapolislab@emsl.com

EMSL Order: 351406108
CustomerID: TWIN50
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Project: 14A0341 - City Hall 1st Floor

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
8 351406108-0008	Ceiling Tile, 2x4, Pinholed w/deep fissures	Gray	40% Cellulose	10% Perlite	None Detected
		Fibrous Homogeneous	40% Glass	10% Non-fibrous (other)	
9 351406108-0009	Ceiling Tile, 2x4, Ribbed Pinholed & Fissured	Gray	40% Cellulose	10% Perlite	None Detected
		Fibrous Homogeneous	40% Glass	10% Non-fibrous (other)	
10-Plaster 351406108-0010	Plaster Walls	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
10-Texture 351406108-0010A	Plaster Walls	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
11-Plaster 351406108-0011	Plaster Walls	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
11-Texture 351406108-0011A	Plaster Walls	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
12-Plaster 351406108-0012	Plaster Walls	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
12-Texture 351406108-0012A	Plaster Walls	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
Miles DelBusso (40)

Rachel Travis, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 10/02/2014 15:11:21



EMSL Analytical, Inc.

14375 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924
<http://www.EMSL.com> minneapolislab@emsl.com

EMSL Order: 351406108
CustomerID: TWIN50
CustomerPO:
ProjectID:

Attn: **Tracy Jacobs**
Twin Ports Testing, Inc.
1301 North 3rd Street
Superior, WI 54880

Phone: (715) 392-7114
Fax: (715) 392-7163
Received: 10/02/14 9:07 AM
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Collected: 10/1/2014

Project: **14A0341 - City Hall 1st Floor**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
13-Plaster 351406108-0013	Plaster Walls	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
13-Texture 351406108-0013A	Plaster Walls	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
14-Plaster 351406108-0014	Plaster Walls	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
14-Texture 351406108-0014A	Plaster Walls	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
15-Plaster 351406108-0015	Plaster Walls	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
15-Texture 351406108-0015A	Plaster Walls	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
16-Plaster 351406108-0016	Plaster Walls	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
16-Texture 351406108-0016A	Plaster Walls	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
Miles DeBusso (40)

Rachel Travis, Laboratory Manager
or other approved signatory

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
17-Plaster 351406108-0017	Plaster Walls	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
17-Texture 351406108-0017A	Plaster Walls	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
18 351406108-0018	Baseboard Adhesive	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
19 351406108-0019	Flooring	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
20 351406108-0020	Flooring	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
21 351406108-0021	Flooring	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
22 351406108-0022	Sheet Rock	White Non-Fibrous Homogeneous	10% Cellulose 10% Glass	80% Non-fibrous (other)	None Detected
This is a composite result of sheetrock and joint compound.					
23-Sheetrock 351406108-0023	Sheet Rock	White Non-Fibrous Homogeneous	10% Cellulose 10% Glass	80% Non-fibrous (other)	None Detected

Analyst(s)
 Miles DelBusso (40)


 Rachel Travis, Laboratory Manager
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
23-Plaster 351406108-0023A	Sheet Rock	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
24 351406108-0024	Sheet Rock	White Non-Fibrous Homogeneous	10% Cellulose 10% Glass	80% Non-fibrous (other)	None Detected
25 351406108-0025	Pyroblock/Brick	Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
26-Floor Tile 351406108-0026	12x12 Floor Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
26-Mastic 351406108-0026A	12x12 Floor Tile	Tan Non-Fibrous Homogeneous	25% Synthetic	75% Non-fibrous (other)	None Detected
27 351406108-0027	Plastic Kickboard	Brown/Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
28 351406108-0028	Carpet Adhesive Dry	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
29 351406108-0029	Carpet Adhesive Sticky	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)
Miles DelBusso (40)

Rachel Travis, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 10/02/2014 15:11:21



Asbestos Chain of Custody
EMSL Order Number (Lab Use Only):

351406108

Minneapolis, MN 55447
PHONE: (763) 449-4922
FAX: (763) 449-4924

EMSL ANALYTICAL, INC.
LABORATORY SERVICES DIVISION

Company: Twin Ports Testing, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 1301 North 3rd Street		Third Party Billing requires written authorization from third party	
City: Superior	State/Province: WI	Zip/Postal Code: 54880	Country: United States
Report To (Name): Tracy Jacobs		Telephone #: (218)390-0162	
Email Address: tracy.jacobs@twinportstesting.com		Fax #: 715-392-7163	Purchase Order:
Project Name/Number: 4A0341 - City Hall # 1st floor		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: MN		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (freezing limit) <input checked="" type="checkbox"/> PLM EPA 800/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water, EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique Other: <input type="checkbox"/>
--	--	--

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: Rob Thomas Samplers Signature: [Signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1	Ceiling Plaster		10/1/14
2	"		
3	"		
4	" w/ black (not grouped)		
5	"		
6	Ceiling Tile, 2x4, Smooth Pinholes		
7	" " " " " w/ Shallow Fissures		
8	" " " " " Pinholes w/ Deep Fissures		

Handwritten notes: 1-3+5, T.T.P., GROUP, arrows pointing to samples 2-5 and 7-8.

Client Sample # (s): 1-29 Total # of Samples: 29

Relinquished (Client): [Signature] Date: 10/1/14 Time:

Received (Lab): CROTHER FE Date: 10/2/14 Time: 9:07am

Comments/Special Instructions: 7900 2092 8040



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS DIVISION

Asbestos Chain of Custody
EMSL Order Number (Lab Use Only):

351406108

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
9	Ceiling Tile, ^{2x4} Ribbed Pinholed & Fissured		10/1/14
10	Plaster Walls		
11	"	10-17	
12	"	2 nd group	
13	"		
14	"		
15	"		
16	"		
17	"		
18	Baseboard Adhesive		
19	Flooring	3 rd	
20	"	group	
21	"	A-21	
22	Sheet Rock	22-24	
23	"	4 th group	
24	"		
25	Pyroblock / Brick		
26	tile 12x12 Floor Tile		
27	Plastic Kickboard		
28	Carpet Adhesive Dry		
29	Carpet Adhesive Sticky		

*Comments/Special instructions:

Appendix C

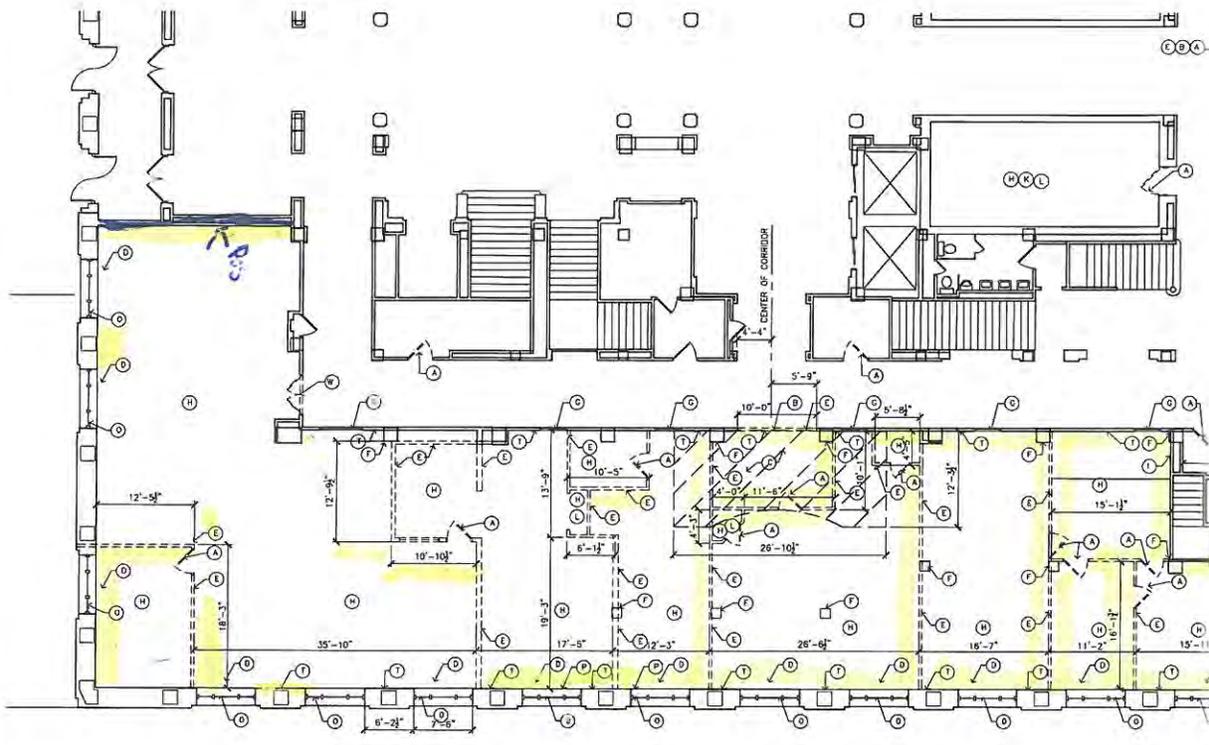
XRF Results

Reading No	Type	Units	Component	Substrate	Side	Color	Room	Misc 1	Results	Action Level	PbC	PbC Error
1	SHUTTER_CAL	cps									2.88	0
2	PAINT	mg / cm ^2	cal. check 3.58						Positive	1	3.5	1.5
3	PAINT	mg / cm ^2	cal. check 1.53						Positive	1	1.6	0.4
4	PAINT	mg / cm ^2	cal. check 0.31						Negative	1	0.29	0.15
5	PAINT	mg / cm ^2	CEILING	PLASTER		TAN			Negative	1	< LOD	0.88
6	PAINT	mg / cm ^2	WALL	PLASTER A		WHITE	101		Negative	1	< LOD	0.03
7	PAINT	mg / cm ^2	WALL	PLASTER B		WHITE	101		Negative	1	< LOD	0.03
8	PAINT	mg / cm ^2	WALL	PLASTER C		WHITE	101		Positive	1	15.9	7.2
9	PAINT	mg / cm ^2	WALL	PLASTER D		WHITE	101		Negative	1	< LOD	0.04
10	PAINT	mg / cm ^2	WALL	PLASTER C		WHITE	101		Positive	1	18.2	2.1
11	PAINT	mg / cm ^2	WALL	PLASTER C		WHITE	101		Positive	1	19	11.2
12	PAINT	mg / cm ^2	FLOOR	Concrete		BROWN	101		Negative	1	0.5	0.1
13	PAINT	mg / cm ^2	FLOOR	Concrete		BROWN	101-A		Negative	1	< LOD	0.4
14	PAINT	mg / cm ^2	WALL	PLASTER A		WHITE	101-A		Negative	1	< LOD	0.03
15	PAINT	mg / cm ^2	WALL	PLASTER B		WHITE	101-A		Positive	1	1.4	0.2
16	PAINT	mg / cm ^2	WALL	PLASTER C		WHITE	101-A		Positive	1	2.4	1.2
17	PAINT	mg / cm ^2	WALL	PLASTER D		WHITE	101-A		Negative	1	< LOD	0.03
18	PAINT	mg / cm ^2	Window Frame	WOOD		BROWN	101-A		Negative	1	< LOD	0.05
19	PAINT	mg / cm ^2	Window Sill	WOOD		BROWN	101-A		Negative	1	< LOD	0.03
20	PAINT	mg / cm ^2	Door Frame	WOOD		BROWN	101-A		Negative	1	< LOD	0.2
21	PAINT	mg / cm ^2	WALL	PLASTER A		WHITE	102		Negative	1	< LOD	0.04
22	PAINT	mg / cm ^2	WALL	PLASTER B		WHITE	102		Positive	1	3.7	1.6
23	PAINT	mg / cm ^2	WALL	PLASTER C		WHITE	102		Positive	1	2.9	0.8
24	PAINT	mg / cm ^2	WALL	PLASTER D		WHITE	102		Negative	1	< LOD	0.03
25	PAINT	mg / cm ^2	CEILING	PLASTER		TAN	102		Positive	1	2.5	1.2
26	PAINT	mg / cm ^2	Window Frame	WOOD		BROWN	102		Negative	1	< LOD	0.03
27	PAINT	mg / cm ^2	Door Frame	WOOD		BROWN	102		Negative	1	< LOD	0.03
28	PAINT	mg / cm ^2	FLOOR	Concrete		Maroon	102		Negative	1	< LOD	0.1
29	PAINT	mg / cm ^2	WALL	PLASTER B		BLACK	101		Positive	1	1.9	0.7
30	PAINT	mg / cm ^2	CEILING	PLASTER		TAN	102-A		Negative	1	< LOD	0.03
31	PAINT	mg / cm ^2	WALL	DRYWALL A		WHITE	102-A		Negative	1	< LOD	0.17
32	PAINT	mg / cm ^2	WALL	DRYWALL B		WHITE	102-A		Negative	1	< LOD	1.27
33	PAINT	mg / cm ^2	WALL	DRYWALL C		WHITE	102-A		Negative	1	< LOD	0.03

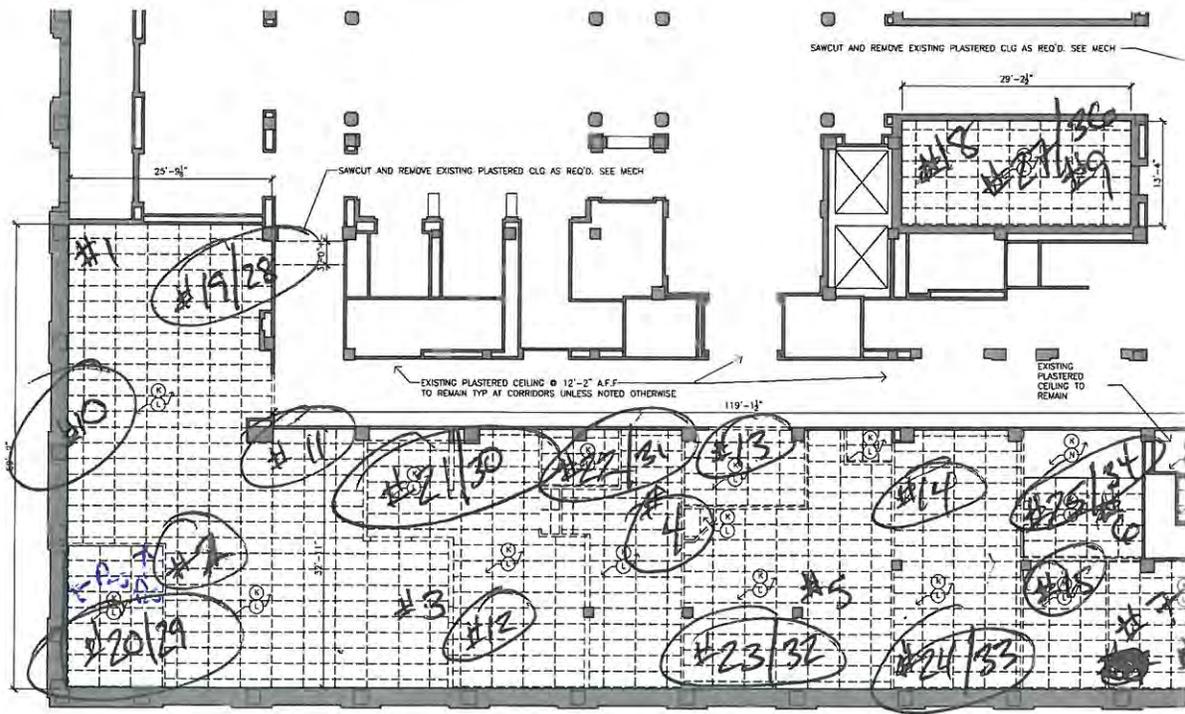
34 PAINT	mg / cm ^2	WALL	DRYWALL D	WHITE	102-A	Negative	1	< LOD	0.03
35 PAINT	mg / cm ^2	Window Frame	WOOD	BROWN	102-A	Negative	1	< LOD	0.03
36 PAINT	mg / cm ^2	Door Frame	WOOD	BROWN	102-A	Negative	1	< LOD	0.04
37 PAINT	mg / cm ^2	WALL	PLASTER A	WHITE	102-B	Positive	1	10.9	5.4
38 PAINT	mg / cm ^2	WALL	PLASTER B	WHITE	102-B	Negative	1	< LOD	0.04
39 PAINT	mg / cm ^2	WALL	PLASTER C	WHITE	102-B	Negative	1	< LOD	0.03
40 PAINT	mg / cm ^2	CEILING	PLASTER D	WHITE	102-B	Negative	1	< LOD	0.03
41 PAINT	mg / cm ^2	WALL	DRYWALL A	WHITE	Sm. Rm.	Negative	1	< LOD	0.14
42 PAINT	mg / cm ^2	WALL	DRYWALL B	WHITE	Sm. Rm.	Negative	1	< LOD	0.03
43 PAINT	mg / cm ^2	WALL	DRYWALL C	WHITE	Sm. Rm.	Negative	1	< LOD	0.03
44 PAINT	mg / cm ^2	WALL	DRYWALL D	WHITE	Sm. Rm.	Negative	1	< LOD	0.03
45 PAINT	mg / cm ^2	CEILING	PLASTER	BLACK	102-B	Negative	1	< LOD	0.03
46 PAINT	mg / cm ^2	WALL	PLASTER C	BLACK	102-B	Negative	1	< LOD	0.03
47 PAINT	mg / cm ^2	FLOOR	Concrete	BROWN	102-B	Negative	1	< LOD	0.03
48 PAINT	mg / cm ^2	WALL	PLASTER A	WHITE	103-A	Positive	1	12.1	6.1
49 PAINT	mg / cm ^2	WALL	DRYWALL B	WHITE	103-A	Negative	1	< LOD	0.03
50 PAINT	mg / cm ^2	WALL	PLASTER C	WHITE	103-A	Positive	1	13.5	5.6
51 PAINT	mg / cm ^2	WALL	PLASTER D	WHITE	103-A	Positive	1	2	0.9
52 PAINT	mg / cm ^2	Window Frame	WOOD	BROWN	103-A	Negative	1	< LOD	0.03
53 PAINT	mg / cm ^2	Door Frame	WOOD	BROWN	103-A	Negative	1	< LOD	0.05
54 PAINT	mg / cm ^2	CEILING	PLASTER	TAN	103-A	Negative	1	< LOD	0.03
55 PAINT	mg / cm ^2	FLOOR	Concrete	BROWN	103-A	Negative	1	< LOD	0.03
56 PAINT	mg / cm ^2	FLOOR	Concrete	BROWN	103-A	Negative	1	0.5	0.3
57 PAINT	mg / cm ^2	FLOOR	Concrete	BROWN	103-A	Negative	1	0.5	0.1
58 PAINT	mg / cm ^2	WALL	DRYWALL A	WHITE	Sm. Cl.	Negative	1	< LOD	0.07
59 PAINT	mg / cm ^2	WALL	DRYWALL B	WHITE	Sm. Cl.	Negative	1	< LOD	0.07
60 PAINT	mg / cm ^2	WALL	PLASTER C	WHITE	Sm. Cl.	Positive	1	14.2	6.7
61 PAINT	mg / cm ^2	WALL	DRYWALL D	WHITE	Sm. Cl.	Negative	1	< LOD	0.03
62 PAINT	mg / cm ^2	CEILING	DRYWALL	WHITE	Sm. Cl.	Negative	1	< LOD	0.03
63 PAINT	mg / cm ^2	WALL	PLASTER A	WHITE	Sm. Rm.	Positive	1	7.1	4.6
64 PAINT	mg / cm ^2	WALL	DRYWALL B	TAN	Sm. Rm.	Negative	1	< LOD	0.03
65 PAINT	mg / cm ^2	WALL	DRYWALL B	WHITE	Sm. Rm.	Negative	1	< LOD	0.03
66 PAINT	mg / cm ^2	WALL	PLASTER C	WHITE	Sm. Rm.	Positive	1	6.2	3.8
67 PAINT	mg / cm ^2	WALL	PLASTER C	TAN	Sm. Rm.	Positive	1	4	0.5

68 PAINT	mg / cm ^2	WALL	PLASTER	D	WHITE	Sm. Rm.	Negative	1 < LOD	0.03
69 PAINT	mg / cm ^2	WALL	PLASTER	D	TAN	Sm. Rm.	Positive	1 9.8	4.7
70 PAINT	mg / cm ^2	CEILING	PLASTER		TAN	Sm. Rm.	Positive	1 5	2.6
71 SHUTTER_CAL	cps							2.86	0
72 PAINT	mg / cm ^2	CEILING	PLASTER		TAN	103	Positive	1 8.9	4.7
73 PAINT	mg / cm ^2	WALL	PLASTER	A	WHITE	103	Positive	1 14.8	6.7
74 PAINT	mg / cm ^2	WALL	PLASTER	B	WHITE	103	Negative	1 < LOD	0.03
75 PAINT	mg / cm ^2	WALL	PLASTER	C	WHITE	103	Positive	1 12.5	6.3
76 PAINT	mg / cm ^2	WALL	PLASTER	D	WHITE	103	Positive	1 12.5	6.2
77 PAINT	mg / cm ^2	WALL	PLASTER	A	WHITE	104-A	Positive	1 17.3	10.9
78 PAINT	mg / cm ^2	WALL	PLASTER	B	WHITE	104-A	Positive	1 13.4	6.7
79 PAINT	mg / cm ^2	WALL	PLASTER	C	WHITE	104-A	Positive	1 18.7	2.1
80 PAINT	mg / cm ^2	WALL	PLASTER	D	WHITE	104-A	Positive	1 14.5	3.1
81 PAINT	mg / cm ^2	WALL	PLASTER	A	Lt. Blue	104-A R. RM.	Positive	1 12	6
82 PAINT	mg / cm ^2	WALL	PLASTER	B	WHITE	104-A R. RM.	Positive	1 11.3	5.8
83 PAINT	mg / cm ^2	WALL	PLASTER	C	WHITE	104-A R. RM.	Positive	1 9.8	1.6
84 PAINT	mg / cm ^2	WALL	PLASTER	D	Lt. Blue	104-A R. RM.	Positive	1 11.4	5.9
85 PAINT	mg / cm ^2	FLOOR	Concrete		BROWN	104-A R. RM.	Negative	1 0.5	0.1
86 PAINT	mg / cm ^2	WALL	PLASTER	A	Lt. Blue	104-A Left Rm.	Positive	1 17.5	11.3
87 PAINT	mg / cm ^2	WALL	PLASTER	B	WHITE	104-A Left Rm.	Positive	1 13.7	6.6
88 PAINT	mg / cm ^2	WALL	PLASTER	C	WHITE	104-A Left Rm.	Positive	1 14.1	6.7
89 PAINT	mg / cm ^2	WALL	PLASTER	D	Lt. Blue	104-A Left Rm.	Positive	1 16.7	7.2
90 PAINT	mg / cm ^2	CEILING	PLASTER		TAN	104-A Left Rm.	Positive	1 11.4	5.8
91 PAINT	mg / cm ^2	WALL	PLASTER	A	WHITE	104-E	Positive	1 13	6.4
92 PAINT	mg / cm ^2	WALL	DRYWALL	B	WHITE	104-E	Negative	1 < LOD	0.03
93 PAINT	mg / cm ^2	WALL	PLASTER	C	WHITE	104-E	Positive	1 14.3	6.5
94 PAINT	mg / cm ^2	WALL	PLASTER	D	WHITE	104-E	Positive	1 13.6	6.5
95 PAINT	mg / cm ^2	CEILING	PLASTER		TAN	104-E	Positive	1 14.5	6.7
96 PAINT	mg / cm ^2	CEILING	PLASTER		TAN	104-F	Positive	1 13.4	2.5
97 PAINT	mg / cm ^2	CEILING	PLASTER		TAN	104-F	Positive	1 16.6	4.9
98 PAINT	mg / cm ^2	WALL	DRYWALL	A	WHITE	104-F	Negative	1 < LOD	0.03
99 PAINT	mg / cm ^2	WALL	PLASTER	B	WHITE	104-F	Positive	1 13.5	5.4
100 PAINT	mg / cm ^2	WALL	PLASTER	C	WHITE	104-F	Positive	1 12.2	5.8
101 PAINT	mg / cm ^2	WALL	DRYWALL	D	WHITE	104-F	Negative	1 < LOD	0.25

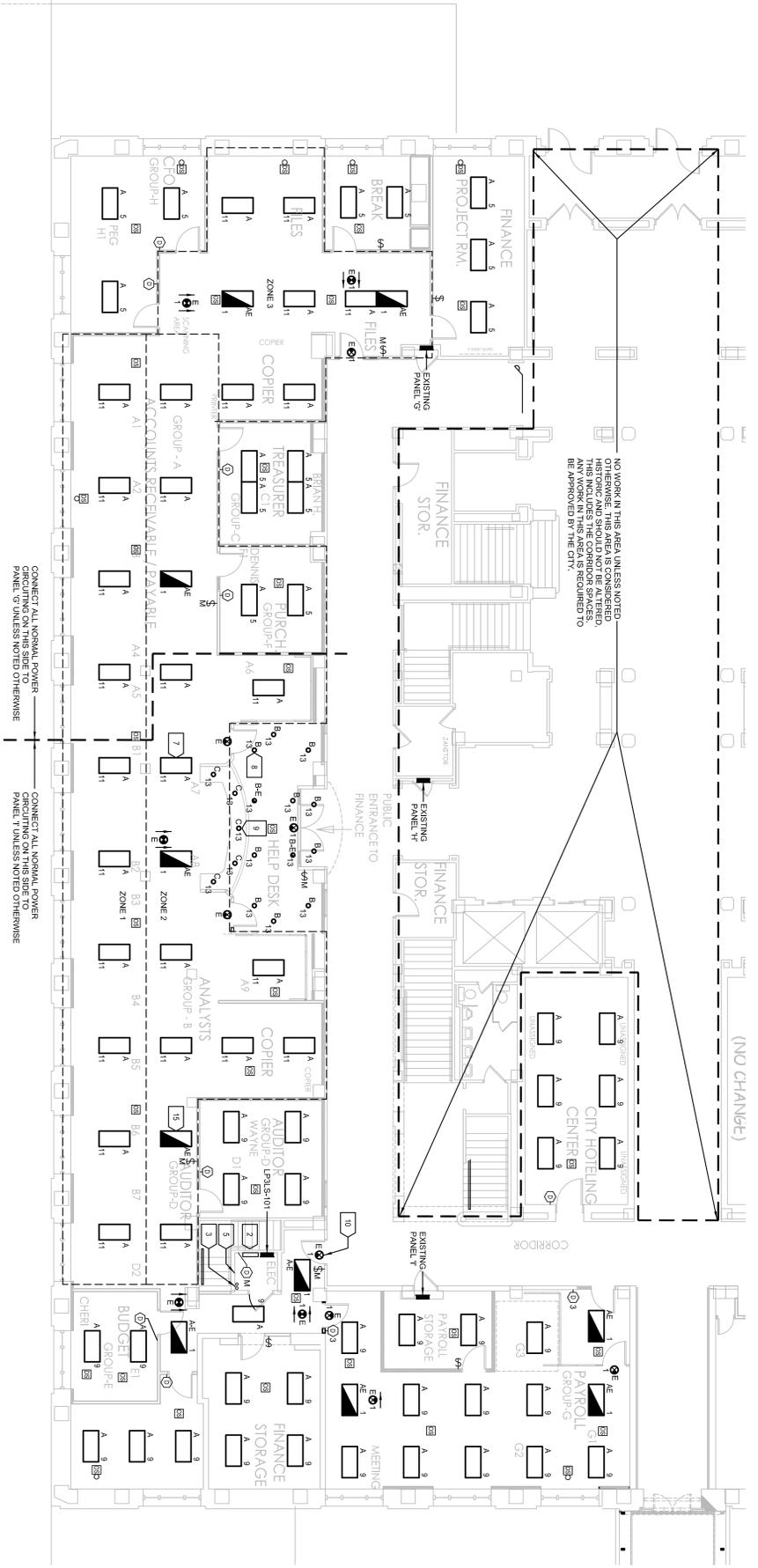
102 PAINT	mg / cm ^2	CEILING	Concrete	TAN	R. Vault	Negative	1 < LOD	1.37
103 PAINT	mg / cm ^2	WALL	Concrete A	TAN	R. Vault	Negative	1 < LOD	0.07
104 PAINT	mg / cm ^2	WALL	Concrete B	TAN	R. Vault	Negative	1 0.14	0.05
105 PAINT	mg / cm ^2	WALL	Concrete C	TAN	R. Vault	Negative	1 < LOD	0.05
106 PAINT	mg / cm ^2	WALL	Concrete D	TAN	R. Vault	Negative	1 < LOD	0.98
107 PAINT	mg / cm ^2	FLOOR	Concrete	GRAY	R. Vault	Negative	1 0.19	0.06
108 PAINT	mg / cm ^2	CEILING	Concrete	TAN	L. Vault	Negative	1 < LOD	1.39
109 PAINT	mg / cm ^2	WALL	Concrete A	TAN	L. Vault	Negative	1 0.13	0.04
110 PAINT	mg / cm ^2	WALL	Concrete B	TAN	L. Vault	Negative	1 0.11	0.05
111 PAINT	mg / cm ^2	WALL	Concrete C	TAN	L. Vault	Negative	1 < LOD	1.3
112 PAINT	mg / cm ^2	WALL	Concrete D	TAN	L. Vault	Negative	1 0.11	0.05
113 PAINT	mg / cm ^2	FLOOR	Concrete	GRAY	L. Vault	Negative	1 0.16	0.06
114 PAINT	mg / cm ^2	BASEBOARD	Concrete	GRAY	L. Vault	Negative	1 < LOD	0.15
115 PAINT	mg / cm ^2	WALL	DRYWALL A	WHITE	Old El. Rm.	Negative	1 < LOD	0.03
116 PAINT	mg / cm ^2	WALL	DRYWALL B	WHITE	Old El. Rm.	Negative	1 < LOD	0.03
117 PAINT	mg / cm ^2	WALL	DRYWALL C	WHITE	Old El. Rm.	Negative	1 < LOD	0.03
118 PAINT	mg / cm ^2	WALL	DRYWALL D	WHITE	Old El. Rm.	Negative	1 < LOD	0.03
119 PAINT	mg / cm ^2	WALL	DRYWALL A	TAN	106-B	Negative	1 < LOD	0.03
120 PAINT	mg / cm ^2	WALL	DRYWALL B	TAN	106-B	Negative	1 < LOD	0.03
121 PAINT	mg / cm ^2	WALL	DRYWALL C	TAN	106-B	Negative	1 < LOD	0.03
122 PAINT	mg / cm ^2	WALL	DRYWALL D	TAN	106-B	Negative	1 < LOD	1.16
123 PAINT	mg / cm ^2	cal. check 3.58				Positive	1 3.6	1.5
124 PAINT	mg / cm ^2	cal. check 1.53				Positive	1 1.6	0.4
125 PAINT	mg / cm ^2	cal. check 0.31				Negative	1 0.3	0.17



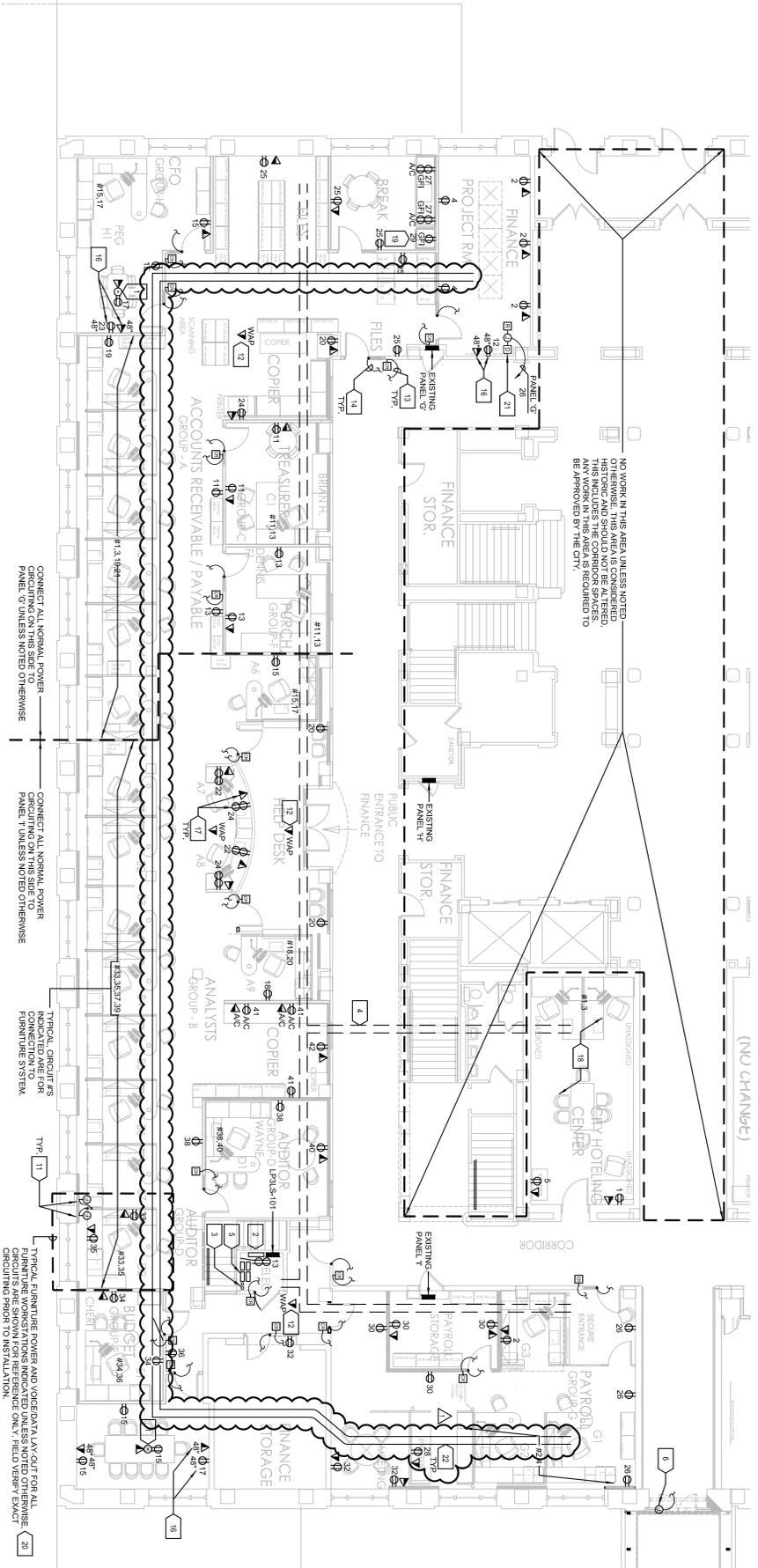
1 PARTIAL FIRST FLOOR DEMO PLAN - SOUTH END
 1/8" = 1'-0" NORTH



2 PARTIAL FIRST FLOOR DEMO CEILING PLAN - SOUTH END
 1/8" = 1'-0" NORTH



1 PARTIAL FIRST FLOOR LIGHTING PLAN - SOUTH END
SCALE: 0' 12" = 1'



2 PARTIAL FIRST FLOOR POWER AND SYSTEMS PLAN - SOUTH END
SCALE: 0' 12" = 1'

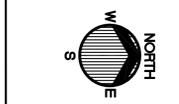
LIGHTING CONTROL MATRIX

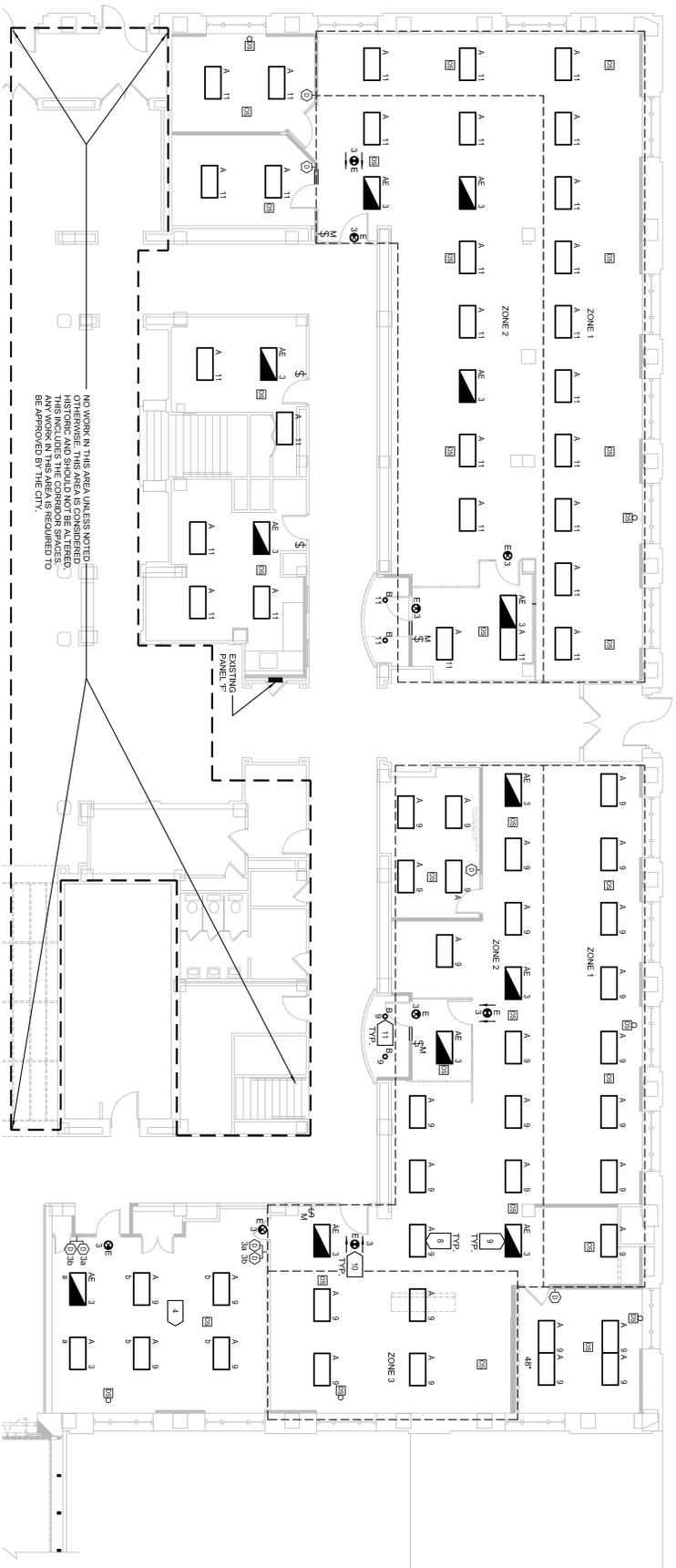
SYSTEM INPUTS	Controlled by local LV control switch (6)	Controlled by local photo gathering device 15' from window (6)	Controlled by local ceiling or wall vacancy sensor (6)	Controlled by local ceiling or wall occupancy sensor (6)	Controlled by local ceiling or wall occupancy sensor (6)
Open Office - Zone 1	•	•	•	•	•
Open Office - Zone 2	•	•	•	•	•
Open Office - Zone 3	•	•	•	•	•
Offices with exterior windows	•	•	•	•	•
Offices without exterior windows	•	•	•	•	•
Conference/meeting rooms with exterior windows	•	•	•	•	•
Conference/meeting rooms without exterior windows	•	•	•	•	•
Corridors	•	•	•	•	•
Stores rooms	•	•	•	•	•
Break rooms with exterior windows	•	•	•	•	•
Break rooms without exterior windows	•	•	•	•	•
Department entry bulkheads	•	•	•	•	•
Training Rooms	•	•	•	•	•
Help Desk	•	•	•	•	•

- GENERAL NOTES:**
- TYPICAL, CONNECT ALL ELECTRICAL SYSTEMS INCLUDING SHOWN ON THIS PLAN TO THE MAIN ELECTRICAL PANELS TO AN UNDERGROUND SERVICE ENTRANCE. CONNECT ALL EMERGENCY EGRESS LIGHTING CIRCUITS TO PANEL LP12S-101 UNLESS NOTED OTHERWISE.
 - TYPICAL, FIELD VERIFY EXACT LOCATIONS OF ALL DEVICES AND/OR EQUIPMENT. ARCHITECTURAL BACKSPOOLS ARE BASED OFF OF BUILDING CONSTRUCTION.
 - TYPICAL, PROVIDE ALL NEW CFT CABLEING AND DEVICES AS INDICATED. ROUTE ALL CFT CABLEING TO DATA CLOSETS ON GROUND FLOOR UNLESS NOTED OTHERWISE.
 - COORDINATE POWER AND DATA REQUIREMENTS AND LOCATIONS FOR AV EQUIPMENT WITH AV DESIGNER AND/OR SUPPLIER PRIOR TO ROUGH-IN.
 - TYPICAL, NO WORK IN CORRIDOR SPACES UNLESS NOTED OTHERWISE.
 - TYPICAL, REFER TO LIGHTING CONTROL PLANS FOR FINAL DEVICE LOCATIONS AND QUANTITIES. DEVICES SHOWN ON THIS PLAN FOR REFERENCE AND DESIGN INTENT ONLY.

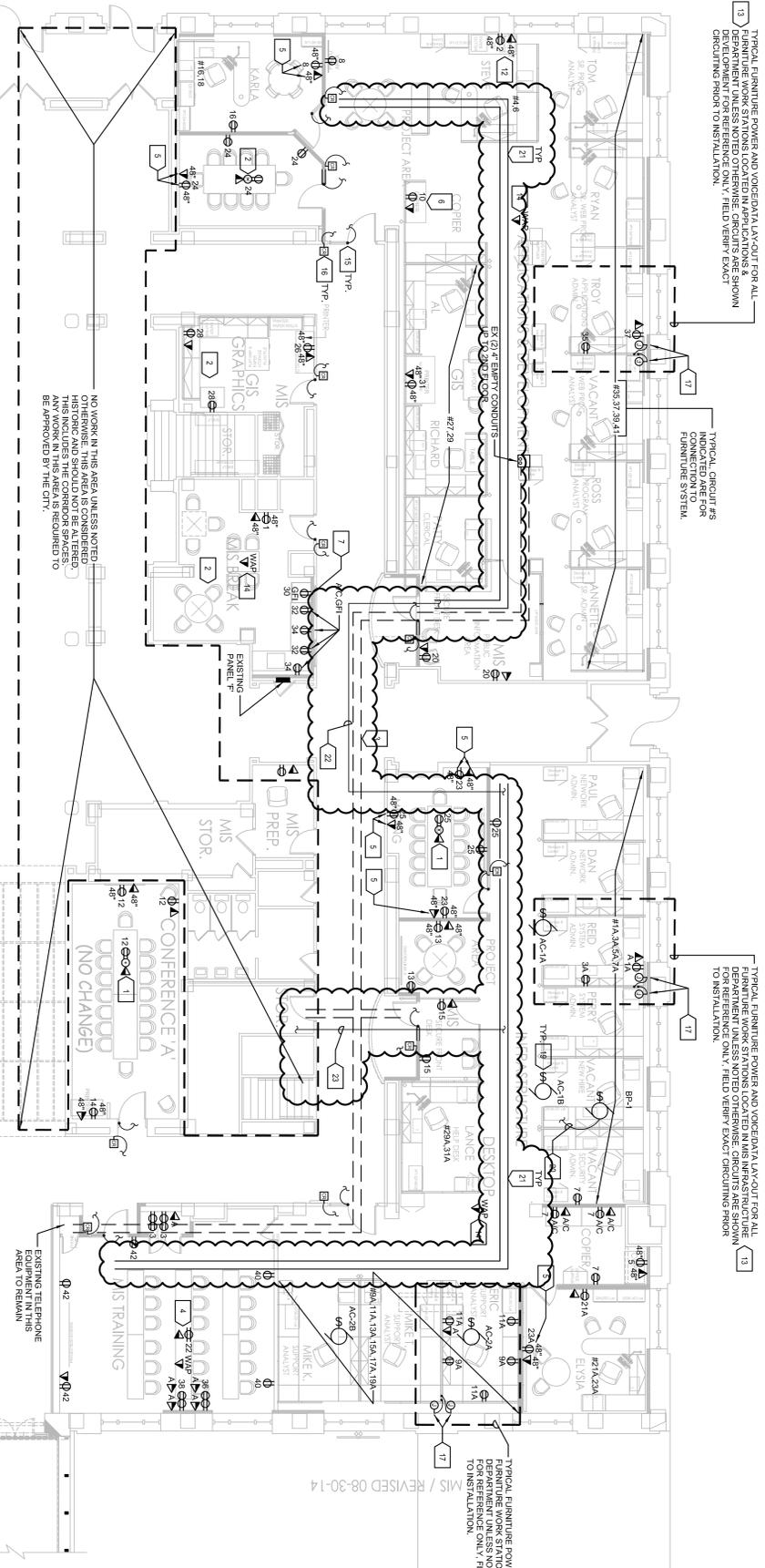
NUMBERED NOTES:

- PROVIDE POKE THROUGH WITH TWO (2) DUPLEX RECEPTACLES AND APPROVED EQUIVALENT. PROVIDE 20' 120V DEDICATED POWER WIREWOUND SERIES W/MT MULTISERVICE UNIT OR EQUIVALENT.
- PROVIDE LIGHTING CONTROL PANELS AS MANUFACTURED BY IFC OR APPROVED EQUIVALENT. PROVIDE 20' 120V DEDICATED POWER CONNECTION FROM PANEL T7S AS REQUIRED.
- EXISTING SPARE CONDUITS ROUTED THROUGH ELECTRICAL CLOSET TO REMAIN. CONDUITS MAY BE UTILIZED FOR WORK ASSOCIATED WITH THIS PROJECT.
- TYPICAL, EXISTING CABLE TRAY (SHOWN DASHED) TO BE REMOVED REFER TO DEMOLITION PLANS.
- OWNER FURNISHED DOOR ACCESS HEAD END EQUIPMENT LOCATION. PROVIDE DEDICATED 20A, 120V POWER CONNECTION AS REQUIRED.
- PROVIDE CONNECTION TO AUTOMATIC DOOR OPERATOR AS REQUIRED. PROVIDE CONNECTION TO EXISTING BUILDING ALARM SYSTEM AS REQUIRED.
- TYPICAL, TYPE A LIGHT FIXTURES ARE FURNISHED BY OWNER INSTALLED BY ELECTRICAL CONTRACTOR.
- TYPICAL, PROVIDE TYPE B LIGHT FIXTURE AS MANUFACTURED BY PHILIPS-DUNN WRITE MODEL, 4835MM OR EQUIVALENT.
- TYPICAL, PROVIDE TYPE C LIGHT FIXTURE AS MANUFACTURED BY PHILIPS-DUNN WRITE MODEL, 4835MM OR EQUIVALENT. PROVIDE 3/4" Ø ACCESSIBLE CEILING FOR HOLLOW METAL DOOR FRAME TO ABOVE ACCESSIBLE CEILING FOR DOOR STRIKE AND/OR SENSORS ASSOCIATED WITH DOOR PROVIDED BY OWNER.
- TYPICAL, TYPE A/E AND B/E LIGHT FIXTURES ARE CONNECTED TO EMERGENCY LINE SAFETY CIRCUIT IN PANEL LP12S-101 UNLESS NOTED OTHERWISE.
- PROVIDE RECEPTACLE AND VOICE/DATA OUTLET FOR OWNER AND MOUNTING HEIGHT OF DEVICES PRIOR TO ROUGH-IN. GENERAL CONDUITING FOR RECEPTACLES AND VOICE/DATA OUTLETS WITHIN FURNITURE SYSTEM. SURFACE MOUNT WHERE REQUIRED.
- PROVIDE SURFACE MOUNT RECEPTACLE FOR RECEPTACLE AND VOICE/DATA OUTLETS AS REQUIRED TO FACILITATE EXISTING PASTERNGRIP BOARD WALLS TO REMAIN IN THIS AREA.
- PROVIDE RECEPTACLE TEST BUTTON FOR GR RECEPTACLE MOUNTED BEHIND REFRIGERATOR.
- TYPICAL, PROVIDE (2) TWO RECEPTACLES AND (2) TWO VOICE/DATA OUTLETS (TWO PER BOX) PER DESK/CUBICLE. UTILIZE EXISTING EXTERIOR AVAILABLE LOCATIONS ARE SHOWN FOR REFERENCE ONLY. VERIFY LOCATION WITH OWNER FURNITURE PLAN PRIOR TO INSTALLATION.
- PROVIDE 120V DUCT SMOKE DETECTOR INTERLOCKED WITH ASSOCIATED FIRE SMOKE DAMPER. PROVIDE SURETY BEARLY ACTIVATION SHUT DOWN OF ASSOCIATED AIR HANDLING UNIT SHALL OCCUR.
- PROVIDE NEW 12" WIRE BASKET MATCH EXISTING STYLE CABLE TRAY AS INDICATED. CABLE TRAY ROUTE IS SHOWN FOR AND NEW SYSTEMS/CONDITIONS. PROVIDE HORIZONTAL AND VERTICAL OFFSETS AS REQUIRED TO FACILITATE EXISTING AND NEW OBSTRUCTIONS.





1 PARTIAL FIRST FLOOR LIGHTING PLAN - NORTH END
SCALE: 0" = 8'



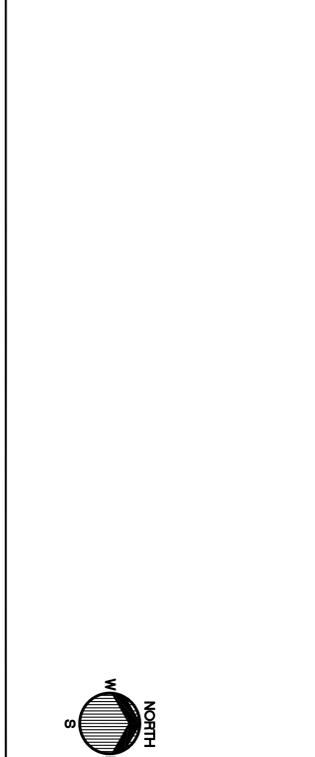
2 PARTIAL FIRST FLOOR POWER AND SYSTEMS PLAN - NORTH END
SCALE: 0" = 8'

LIGHTING CONTROL MATRIX

SYSTEM INPUTS	Controlled by local phone answering device, 15' from window	Controlled by local phone answering device, 15' from window	Controlled by a fire alarm control	Controlled by local ceiling or wall emergency sensor	Controlled by local ceiling or wall emergency sensor	Controlled by local ceiling or wall emergency sensor
Open Office - Zone 1	•	•	•	•	•	•
Open Office - Zone 2	•	•	•	•	•	•
Open Office - Zone 3	•	•	•	•	•	•
Offices with exterior windows	•	•	•	•	•	•
Offices without exterior windows	•	•	•	•	•	•
Conference/teaching rooms with exterior windows	•	•	•	•	•	•
Conference/teaching rooms without exterior windows	•	•	•	•	•	•
Corridors	•	•	•	•	•	•
Store rooms	•	•	•	•	•	•
Break rooms with exterior windows	•	•	•	•	•	•
Break rooms without exterior windows	•	•	•	•	•	•
Department entry hallways	•	•	•	•	•	•
Training Rooms	•	•	•	•	•	•
Help Desk	•	•	•	•	•	•

- GENERAL NOTES:**
- A TYPICAL, CONNECT ALL NORMAL POWER CIRCUITING SHOWN ON THIS PLAN TO THE MAIN ELECTRICAL PANEL UNLESS NOTED OTHERWISE.
 - B TYPICAL, FIELD VERIFY EXACT LOCATIONS OF ALL DEVICES AND/OR EQUIPMENT. ARCHITECTURAL BACKGROUNDS ARE BASED OFF OF BUILDING CONSTRUCTION.
 - C TYPICAL, PROVIDE ALL NEW CAT 6 CABLES AND DEVICES AS SHOWN ON THIS PLAN UNLESS NOTED OTHERWISE.
 - D COORDINATE POWER AND DATA REQUIREMENTS AND LOCATIONS TO ROOMPLAN.
 - E TYPICAL, NO WORK IN CORRIDOR SPACES UNLESS NOTED OTHERWISE.
 - F CIRCUITING DESIGNATED WITH AN 'X' NEXT TO IT IS TO BE CONNECTED TO THE EMERGENCY ALTERNATE BRANCH PANEL UNLESS NOTED OTHERWISE (IE - 2A).
 - G TYPICAL, REFER TO LIGHTING CONTROL PLANS FOR FINAL DEVICE LAYOUT AND QUANTITIES. DEVICES SHOWN ON THIS PLAN FOR REFERENCE AND DESIGN INTENT ONLY.
 - H BID ALTERNATE PROVIDE AND ALTERNATE FOR COMPLETE AND THIS INCLUDES BUT IS NOT LIMITED TO INDOOR CASSETTES, CONDENSING UNIT, RELATED ELECTRICAL WIRING AND CONNECTIONS, AND DISCONNECTED CONTROLS. REFER TO BID AND DRAWING ON THE BID FORM.

- NUMBERED NOTES:**
- 1 PROVIDE POLE THROUGH WITH TWO (2) PURE EX RECEPTACLES AND A MINIMUM OF 20 CAT 6 DATA OUTLETS AS MANUFACTURED BY WAGO. SERIES 2500 TO 2500. PROVIDE WITH ONE (1) 15' FROM WINDOW.
 - 2 UTILIZE EXISTING RECEPTACLES IN THIS AREA TO EXTENT REFER TO DECK LAYOUT PLANS.
 - 3 PROVIDE CEILING MOUNTED RECEPTACLE AND VOICEDATA OUTLET FOR OWNER FURNISHED PROTRUDER. VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF DEVICES PRIOR TO ROUGH-IN.
 - 4 PROVIDE RECEPTACLE AND VOICEDATA OUTLET FOR OWNER FURNISHED SMART TV/COMPUTER. FIELD VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF DEVICES PRIOR TO ROUGH-IN.
 - 5 PROVIDE RECEPTACLE AND VOICEDATA OUTLET FOR OWNER FURNISHED SMART TV/COMPUTER. FIELD VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF DEVICES PRIOR TO ROUGH-IN.
 - 6 PROVIDE RECEPTACLE AND VOICEDATA OUTLET FOR OWNER FURNISHED SMART TV/COMPUTER. FIELD VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF DEVICES PRIOR TO ROUGH-IN.
 - 7 PROVIDE REMOTE TEST BUTTON FOR GFI RECEPTACLE MOUNTED BEHIND REFRIGERATOR.
 - 8 TYPICAL, TYPE 'A' LIGHT FIXTURES ARE FURNISHED BY OWNER. INSTALLED BY ELECTRICAL CONTRACTOR.
 - 9 TYPICAL, TYPE 'A' LIGHT FIXTURES ARE CONNECTED TO EMERGENCY LIFE SAFETY CIRCUIT IN PANEL UNLESS NOTED OTHERWISE.
 - 10 TYPICAL, PROVIDE TYPE 'E' EXIT LIGHT FIXTURE AS MANUFACTURED BY PHILIPS/CHORON MODEL #52L3W OR EQUIVALENT.
 - 11 TYPICAL, PROVIDE TYPE 'E' EXIT LIGHT FIXTURE AS MANUFACTURED BY PHILIPS/CHORON MODEL #52L3W OR EQUIVALENT.
 - 12 PROVIDE SURFACE MOUNTED BACKWAY FOR RECEPTACLE AND VOICEDATA OUTLET ASSOCIATED WITH PRINTER LOCATION TO FACILITATE EXISTING WALL TO REMAIN.
 - 13 TYPICAL, PROVIDE (2) TWO RECEPTACLES AND (2) TWO VOICEDATA OUTLETS (TWO PER BOX) PER DESK/CABINETS. UTILIZE EXISTING FURNITURE TO EXTENT AVAILABLE. LOCATIONS AREA SHOWN FOR REFERENCE ONLY. VERIFY LOCATION WITH OWNER FURNITURE PLAN PRIOR TO INSTALLATION.
 - 14 PROVIDE DATA JACK MOUNTED ABOVE ACCESSIBLE CEILING WITH 3' PATCH CORD FOR WAP. PROVIDE CEILING MOUNTED WAP BACKWARDS AS MANUFACTURED BY CATERPILLAR MODEL 19A 2X2 ER.
 - 15 PROVIDE 3/4" EMPTY CONDUIT FROM HOLLOW METAL DOOR FRAME TO ELECTRICAL CLOSET FOR OWNER FURNISHED CAB READER. VERIFY EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
 - 16 PROVIDE 3/4" EMPTY CONDUIT WITH PULL STRING ROUTED TO ELECTRICAL CLOSET FOR OWNER FURNISHED CAB READER. VERIFY EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
 - 17 TYPICAL, PROVIDE JUNCTION BOXES AT 18" AFF. FINISHED WALL FOR POWER AND VOICEDATA CABLE/WIRE EXTENSION TO FURNITURE. COORDINATE LOCATION OF JUNCTION BOX WITH POWERED FURNITURE. PROVIDE PULL STRING TO FACILITATE OVERLAP LENGTH.
 - 18 TYPICAL, PROVIDE (5) FIVE RECEPTACLES AND (1) ONE SIX PORT RECEPTACLE AND DATA JACKS PROVIDED WITH EXISTING FURNITURE TO EXTENT AVAILABLE. LOCATIONS AREA SHOWN FOR REFERENCE ONLY. VERIFY LOCATION WITH OWNER FURNITURE PLAN PRIOR TO INSTALLATION.
 - 19 PROVIDE 2X4 - 2X6 - 18" CIRCUIT BREAKER IN PANEL. 5' TO SERVICE AIR CONDITIONER. PROVIDE 2X4 - 2X6 - 18" CIRCUIT BREAKER IN PANEL. 5' TO SERVICE AIR CONDITIONER. PROVIDE 2X4 - 2X6 - 18" CIRCUIT BREAKER IN PANEL. 5' TO SERVICE AIR CONDITIONER. PROVIDE 2X4 - 2X6 - 18" CIRCUIT BREAKER IN PANEL. 5' TO SERVICE AIR CONDITIONER.
 - 20 TYPICAL, PROVIDE (2) #10 - GND IN 3/4" CONDUIT FOR RECEPTACLE AND DATA JACKS PROVIDED WITH EXISTING FURNITURE TO EXTENT AVAILABLE. LOCATIONS AREA SHOWN FOR REFERENCE ONLY. VERIFY LOCATION WITH OWNER FURNITURE PLAN PRIOR TO INSTALLATION.
 - 21 PROVIDE 2X4 - 2X6 - 18" CIRCUIT BREAKER IN PANEL. 5' TO SERVICE AIR CONDITIONER. PROVIDE 2X4 - 2X6 - 18" CIRCUIT BREAKER IN PANEL. 5' TO SERVICE AIR CONDITIONER. PROVIDE 2X4 - 2X6 - 18" CIRCUIT BREAKER IN PANEL. 5' TO SERVICE AIR CONDITIONER.
 - 22 PROVIDE (2) 2" CONDUITS ADJACENT TO NEW DUCTWORK ROUTED ABOVE HARD LID CEILING FOR EXTENSION OF LOW VOLTAGE CABLES. PROVIDE PULL STRING AND BUSINGS ON BOTH ENDS.
 - 23 PROVIDE (2) 4" CONDUITS ROUTED ABOVE HARD LID CEILING FOR EXTENSION OF LOW VOLTAGE CABLES. PROVIDE PULL STRING AND BUSINGS AT BOTH ENDS.



3 PARTIAL FIRST FLOOR POWER AND SYSTEMS PLAN - SOUTH END
SCALE: 0" = 8'