

Provider

Smallwood, Reynolds, Stewart, Stewart

Provider: C216

Course Title

**Implementing the Next Generation of Learning:
A Case Study / Discovery High School**

Course Number: C216CEFPI001

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Jeffrey D. Miller, AIA, CSI, CEFPI

Amanda Wing, IIDA

June 28, 2016



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Smallwood, Reynolds, Stewart, Stewart



Course Description

The design of Discovery High School, Lawrenceville, Georgia featured the purchase, master plan and repurposing/conversion of an existing 414,000 square foot tire distribution warehouse on a 71 acre site, into a new 2,000 student high school with capacity to expand.

The presentation will explore:

- The school system's reasons for selecting the site and desire to create an innovative learning environment at a non-traditional facility and location;
- Present planning approaches and design solutions to accommodate 7 different academies:
 - Business and Entrepreneurship;
 - Fine Arts and Communication;
 - Health and Human Services;
 - Science Technology Engineering Math;
 - Clyde L. Strickland Entrepreneurship Center (CIET Program);
 - Global Courses; and
 - Advisory Council Members;

Plus a Junior Achievement program for Middle School students.

- An in-depth exploration of the CIET Program, an entrepreneurship program that empowers students to start their own businesses, will be presented.
- The challenges faced by the school system as the programming for the different academies and accommodating High School and Middle School programs, housed in the facility evolved during construction and how the designers and construction team addressed the changes to meet time and budget requirements.
- The subsequent successes / challenges of operation of the facility over the past year since opening August 10, 2015 to 2,100 students.



Learning Objectives

At the conclusion of this seminar, participants will be able to:

- Understand the reasons an existing non-traditional site was considered ideal for an innovative learning environment.
- Evaluate the level of stakeholder involvement / participation that is required to implement innovation in a non-traditional facility.
- Understand some of the challenges in construction posed by repurposing an existing warehouse and meeting the requirements of the school district.
- Evaluate the importance of flexible learning space for new learning experiences through the design transformation of a warehouse into a learning environment for high school and middle school students.



Discovery High School



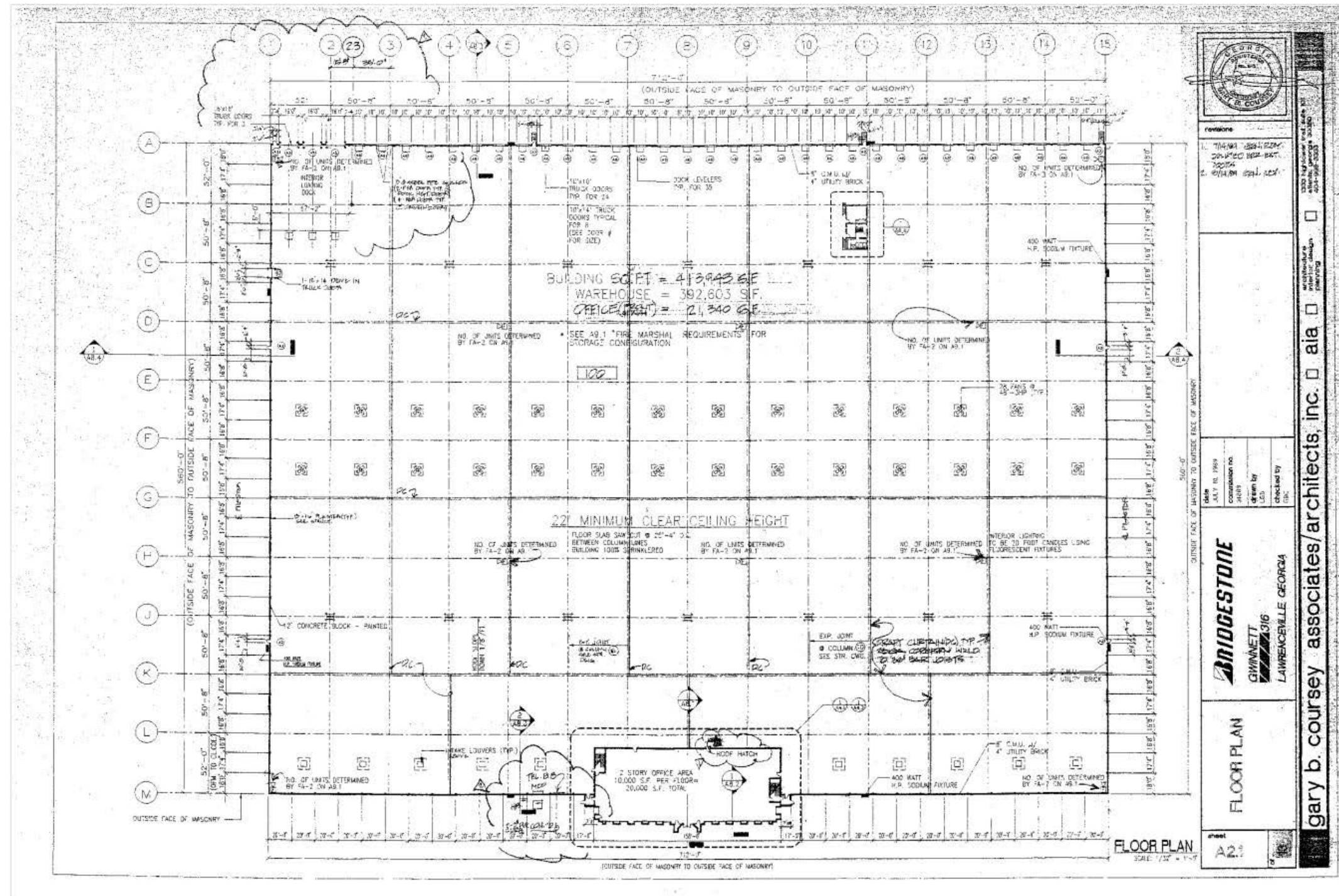
Existing Conditions



Old Norcross Rd

Riverside Pkwy





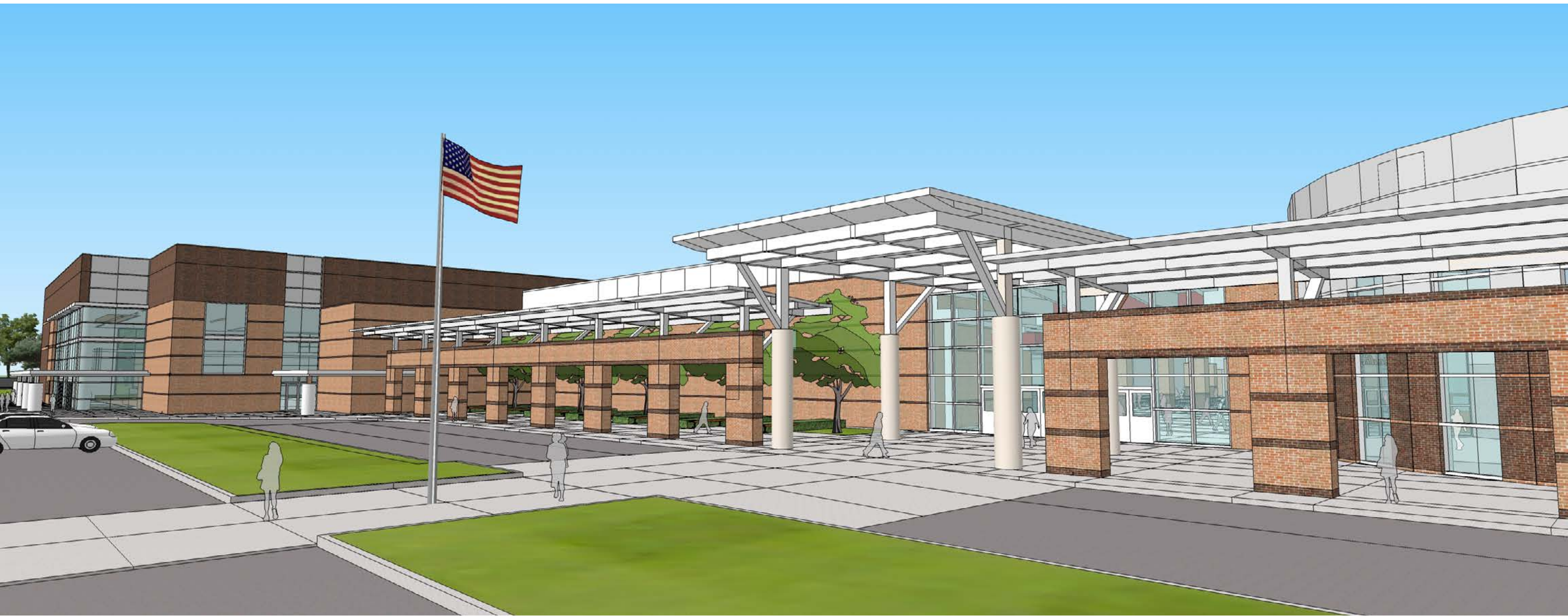
First Floor





Video

Design





SCIENCE CLASSROOMS

SPECIAL ED.

ADMIN.

MEDIA CENTER

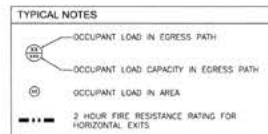
CLASSROOMS

ARTS / MUSIC

AUDITORIUM

DINING / KITCHEN

ATHLETIC



OCCUPANCY TYPES

A	ASSEMBLY USE CONCENTRATED W/O/F. FIXED SEATING - 7 SF PER PERSON LESS CONCENTRATED W/O/F. FIXED SEATING - 15 SF PER PERSON
B	BUSINESS USE - 100 SF PER PERSON
C	STORAGE USE - 300 SF PER PERSON
EC	EDUCATION - CLASSROOM - 20 SF PER PERSON
EL	EDUCATION - LABORATORY - 50 SF PER PERSON

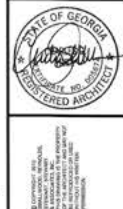
NOTE:
SUB STRUCTURE
HORIZONTAL EXITS
HAVE 2 HOUR
RESISTANCE RATING

1 EGRESS PLAN
NOT TO SCALE

Smallwood, Reynolds, Stewart, Stewart & Associates, Inc. Architects

FIRST LEVEL EGRESS PLAN
BERKMAR/CENTRAL GWINNETT RELIEF CLUSTER HIGH SCHOOL
1335 OLD NORCROSS ROAD, LAWRENCEVILLE, GA 30046
FOR THE GWINNETT COUNTY BOARD OF EDUCATION

DATE 02/08/13
JOB NO. 211064.00
SHEET NO. LS1-01



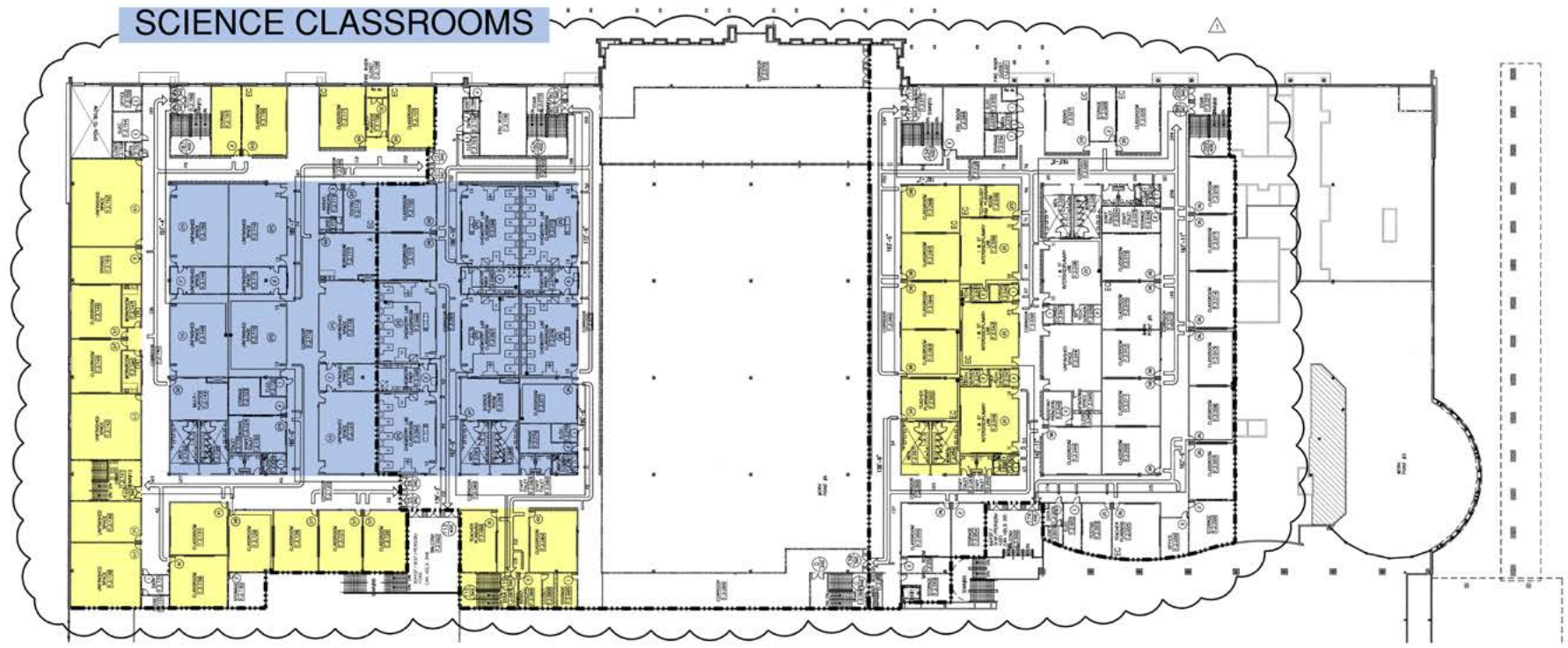
REVISIONS

NO.	REMARKS
1	AS #2

PRINTED

DATE	REMARKS
07/27/12	PROGRESS SET
08/01/12	PROGRESS SET
08/22/12	OWNER REVIEW SET
09/22/12	GOOE CHECK SET
11/30/12	ISSUED FOR PERMIT
11/30/12	GOOE FINAL SET
02/08/13	ISSUED FOR PERMIT
02/08/13	ISSUED FOR BID
02/08/13	AS #2

One Piedmont Center, Suite 303 3565 Piedmont Road Atlanta, Georgia 30305



TYPICAL NOTES

○ OCCUPANT LOAD IN EGRESS PATH

○ OCCUPANT LOAD CAPACITY IN EGRESS PATH

○ OCCUPANT LOAD IN AREA

— 2 HOUR FIRE RESISTANCE RATING FOR HORIZONTAL EXITS

OCCUPANCY TYPES

A ASSEMBLY USE
CONCENTRATED W/O FIXED SEATING - 7 SF PER PERSON
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B BUSINESS USE - 100 SF PER PERSON

S STORAGE USE - 300 SF PER PERSON

EC EDUCATION - CLASSROOM - 20 SF PER PERSON

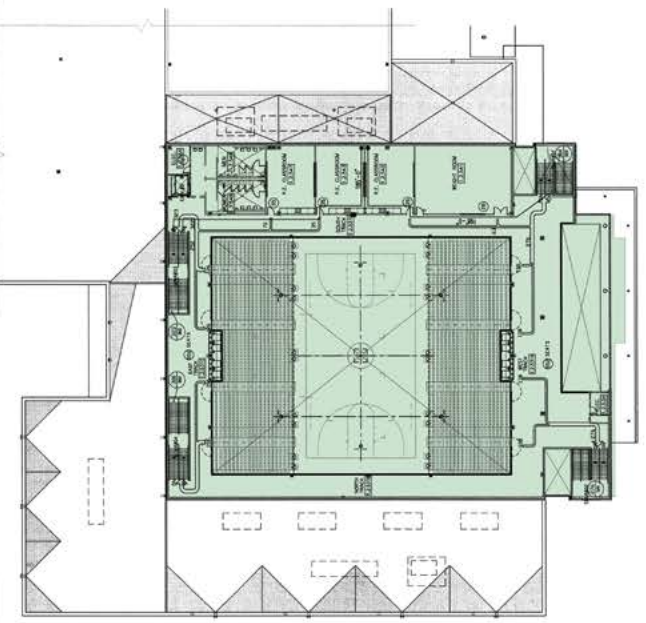
EL EDUCATION - LABORATORY - 50 SF PER PERSON

NOTE: SLAB STRUCTURE BETWEEN TWO STORIES WITH THE HORIZONTAL EXIT SHALL HAVE 2 HOUR FIRE RESISTANCE RATING.

CLASSROOMS

ATHLETIC

② EGRESS PLAN
NOT TO SCALE



① EGRESS PLAN
NOT TO SCALE

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SECOND LEVEL EGRESS PLAN

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1335 OLD NORCROSS ROAD, LAWRENCEVILLE, GA 30046
FOR THE GWINNETT COUNTY BOARD OF EDUCATION

DATE: 02/08/13
JOB NO.: 211064.00
SHEET NO.: LS1-02

STATE OF GEORGIA
REGISTERED ARCHITECT
[Signature]

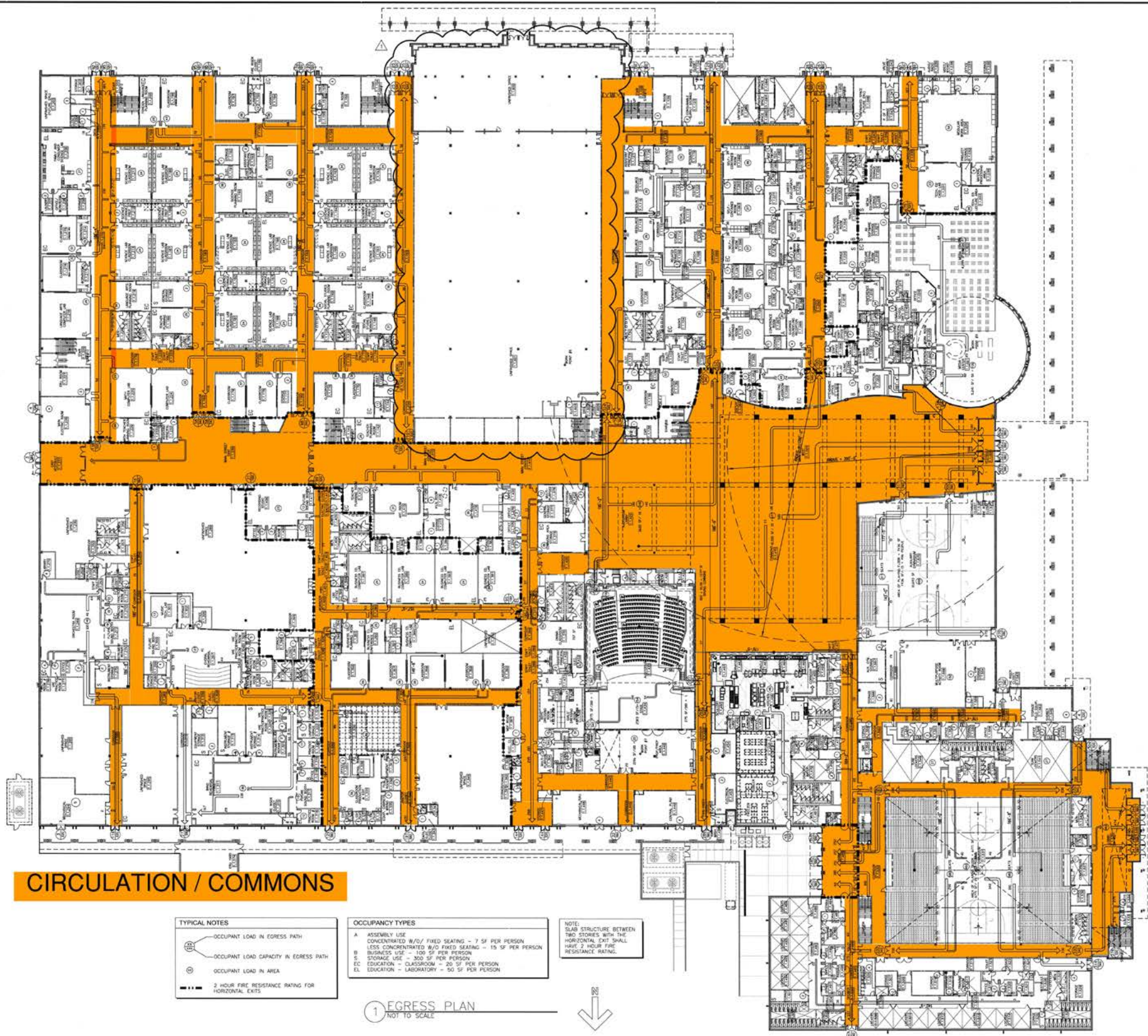
REVISIONS

NO.	REMARKS
AS: #2	

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09/01/12	PROGRESS SET
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02/08/13	ISSUED FOR BID
02/05/13	AS: #2

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CIRCULATION / COMMONS

TYPICAL NOTES

- OCCUPANT LOAD IN EGRESS PATH
- OCCUPANT LOAD CAPACITY IN EGRESS PATH
- OCCUPANT LOAD IN AREA
- 2 HOUR FIRE RESISTANCE RATING FOR HORIZONTAL EXITS

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NOT TO SCALE

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FIRST LEVEL EGRESS PLAN
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1335 OLD NORCROSS ROAD, LAWRENCEVILLE, GA 30046
FOR THE GWINNETT COUNTY BOARD OF EDUCATION

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JOB NO. 211064.00
SHEET NO. LS1-01

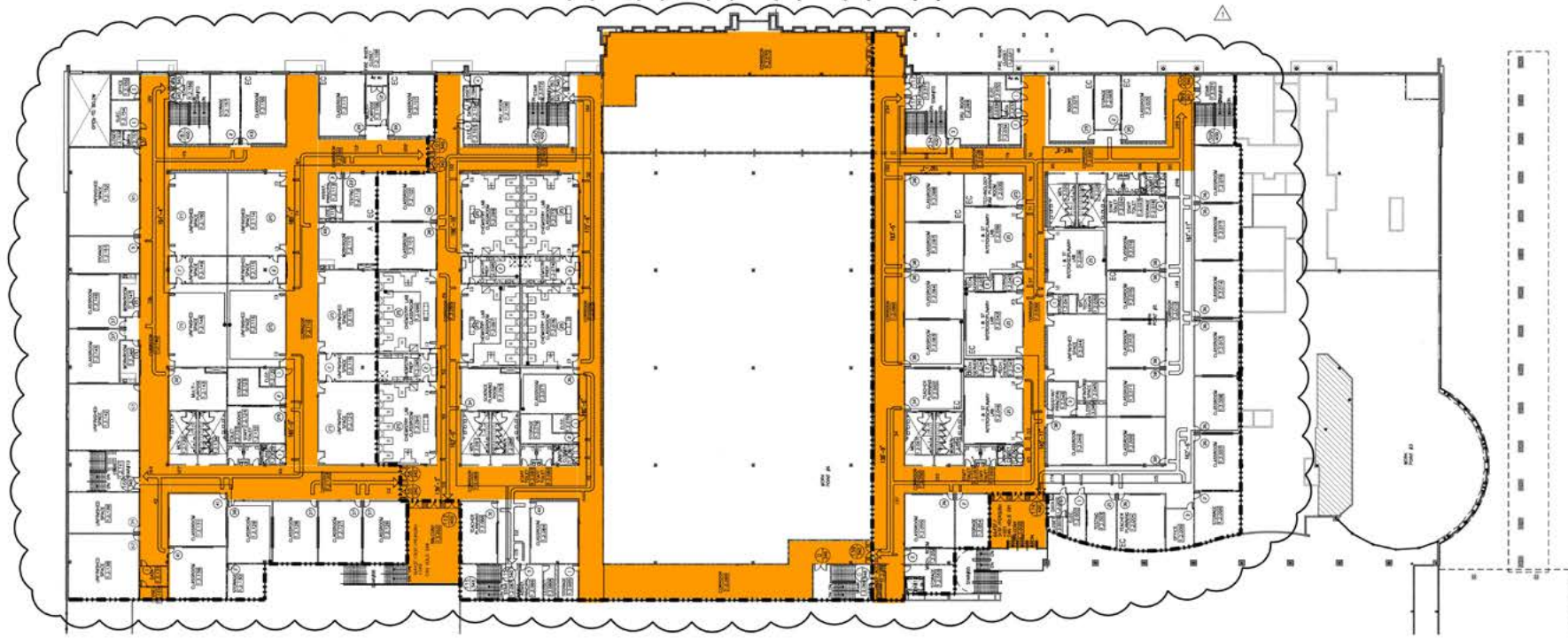


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DATE	REMARKS
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08/01/12	PROGRESS SET
08/22/12	OWNER REVIEW SET
09/22/12	GOOE CHECK SET
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02/08/13	ISSUED FOR PERMIT
02/08/13	ISSUED FOR BID
08/05/13	ASR #2

REVISIONS	
NO.	REMARKS
ASR #2	

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12-11-13 10:00 AM 12-11-13 10:00 AM



TYPICAL NOTES

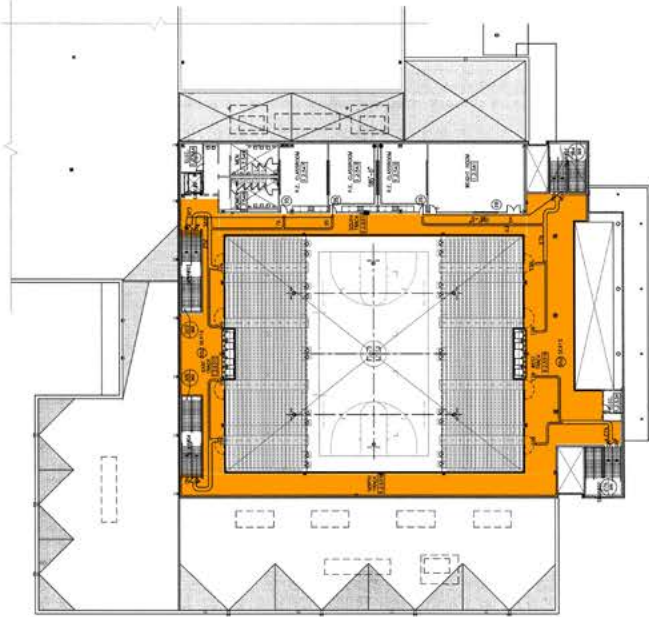
- OCCUPANT LOAD IN EGRESS PATH
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RESISTANCE RATING.

CIRCULATION



① EGRESS PLAN
NOT TO SCALE

② EGRESS PLAN
NOT TO SCALE



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SECOND LEVEL EGRESS PLAN
BERKMAR/CENTRAL GWINNETT RELIEF CLUSTER HIGH SCHOOL
1335 OLD NORCROSS ROAD, LAWRENCEVILLE, GA 30046
FOR THE GWINNETT COUNTY BOARD OF EDUCATION

DATE 02/08/13
JOB NO. 211064.00
SHEET NO. LS1-02



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REVISIONS	
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AS: #2	
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02/08/13	ISSUED FOR PERMIT
02/08/13	ISSUED FOR BID
02/08/13	AS: #2

Demolition

Video



Construction



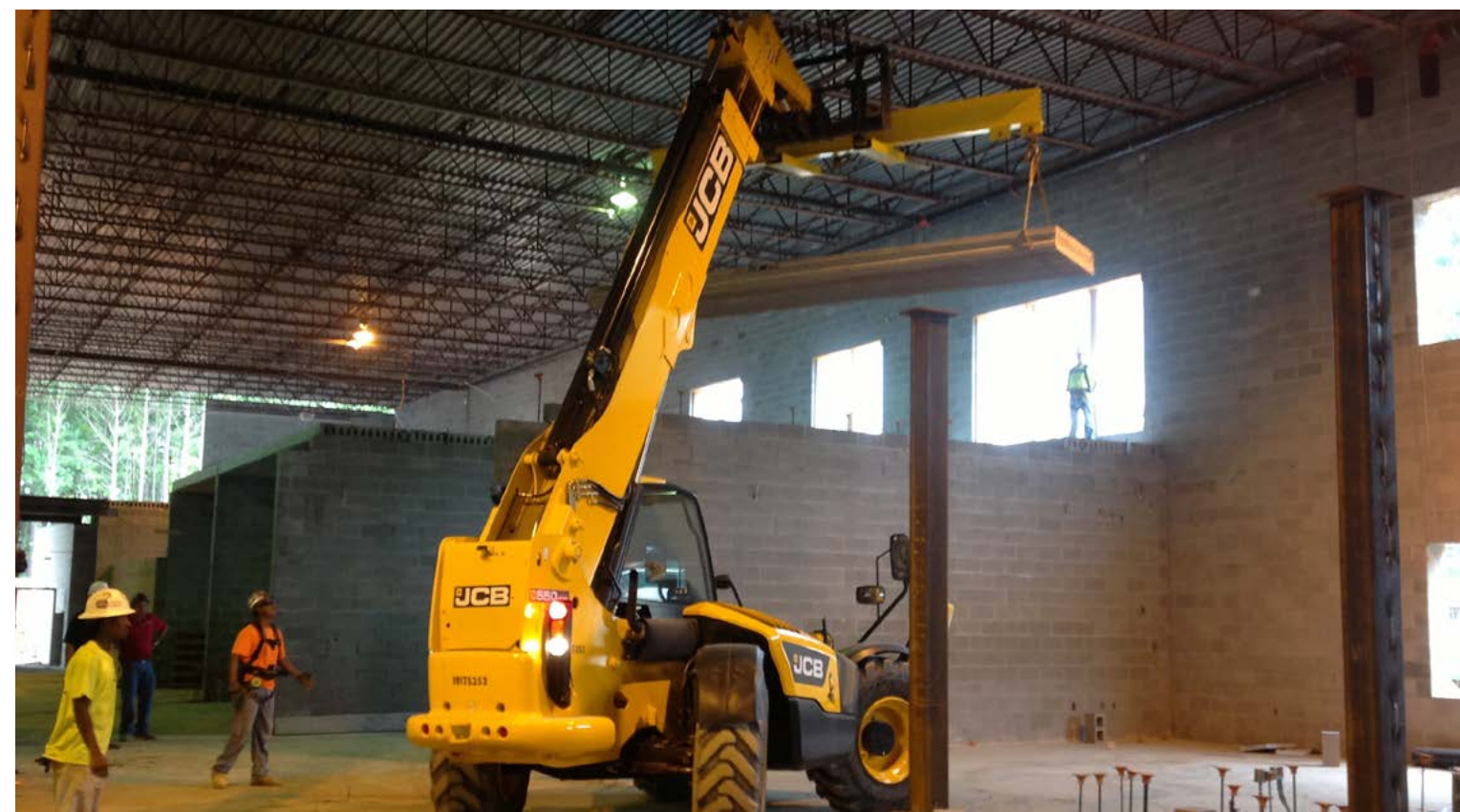
EPA 30









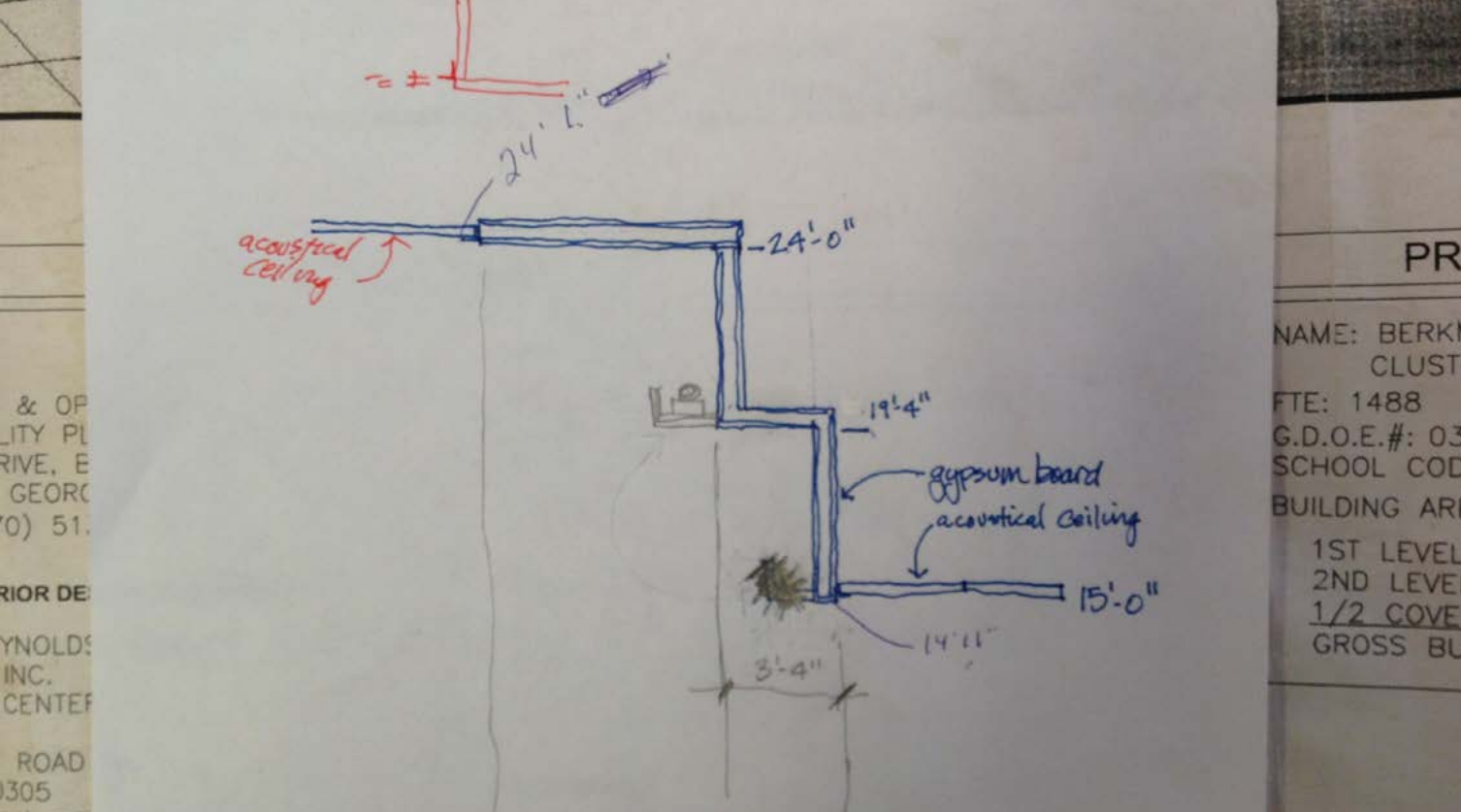


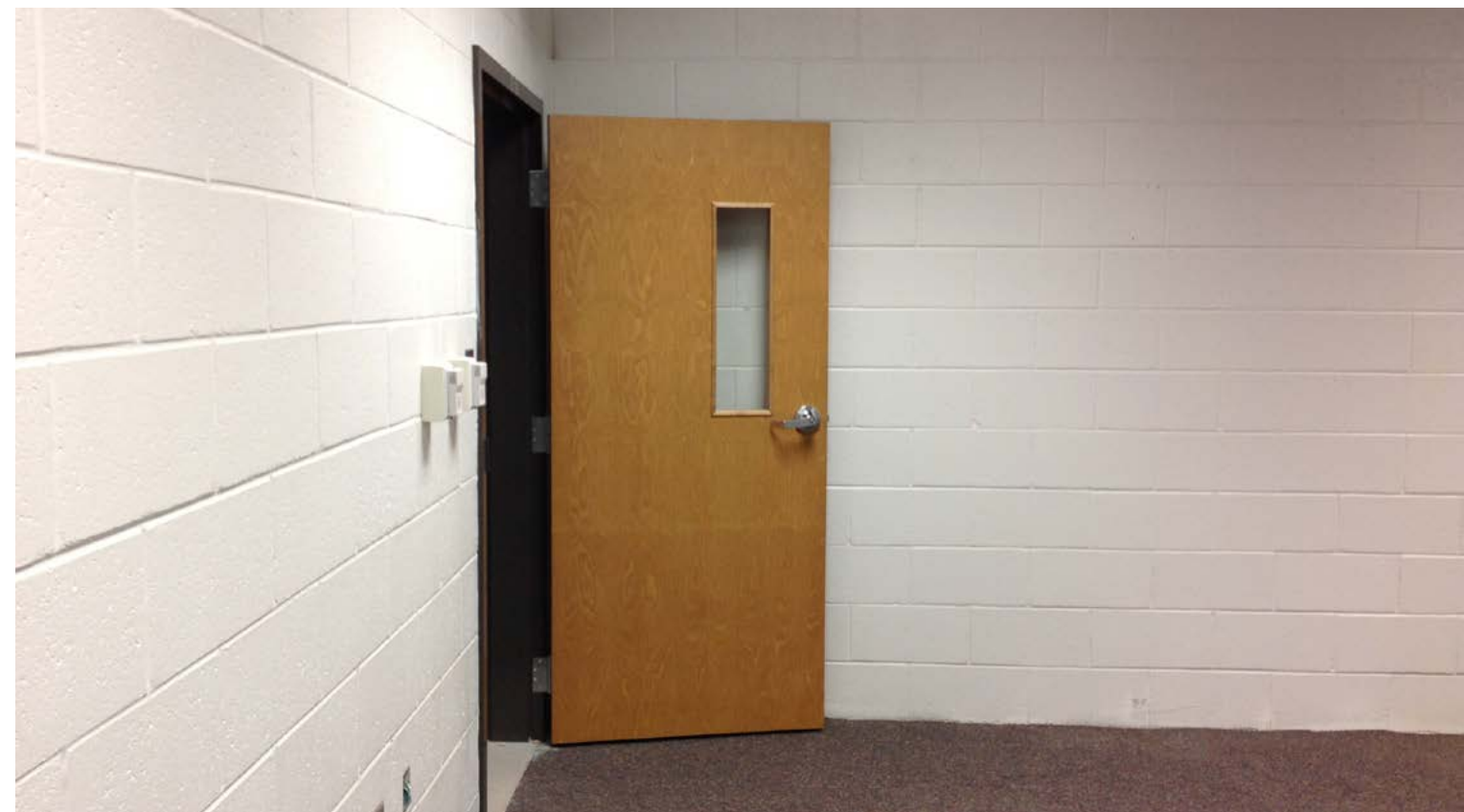


















YCT Planning Division

30CN200819400

9-24-14

Every Tuesday Safety Meeting 9:00

1.343-IDFB
2.151(A)-IDFM
2.079(A)-IDFP
2.053-IDFL
2.001-IDFK

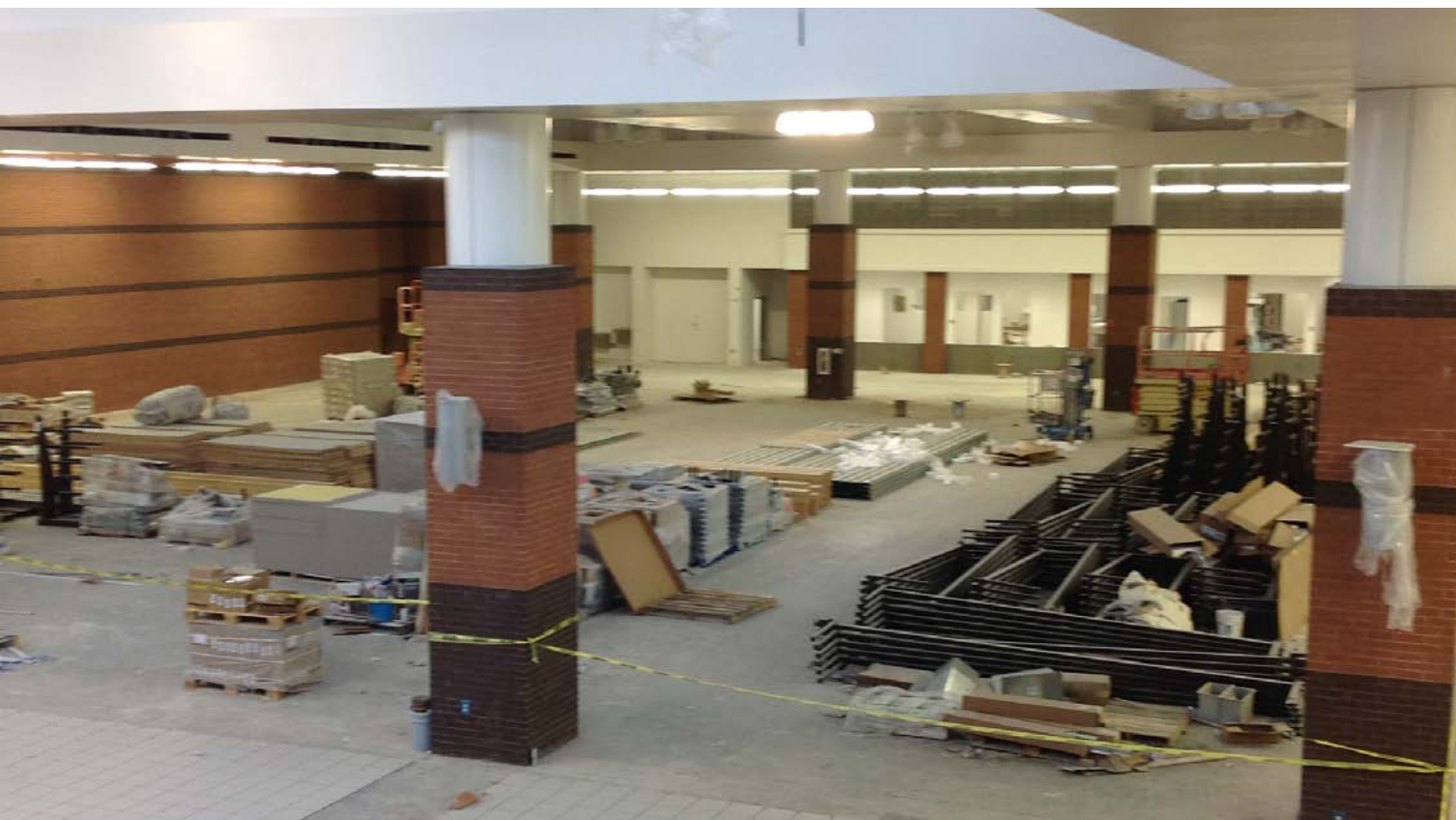
NOT READY
1.1529(A)-IDF H
1.477-IDF A

COMPANY	MANPOWER TODAY	ON/OFF Schedule (YOUR OPINION)	DELAYS BY OTHERS (PLACE X)	WAYS TO IMPROVE
C&H	22	OFF - 1 MONTH	CHANGING @ GYM (O RTR)	ADD MANPOWER
Polk	12	ON	NONE	
ECI	36	2 WKS BEHIND	NONE	ADD MANPOWER (5-9/20)
FRAZIER	7	ON SCHEDULE	NONE	NONE
HOLT & HOLT	16			ADD MANPOWER (4)
GAINESVILLE FIRE	4	BEHIND		ADD MANPOWER (2)
SOUTHERN COATINGS	12	1 MONTH BEHIND	NONE	ADD MANPOWER (10-10/3)
HE HODGE	0	4 DAYS BEHIND		FIELD MEASURES & FABRICATE
SUMMERS ROOFING				
HBJ	59 (10 MINS)	BEHIND	NONE	
TOCCOA	0	ON		10/6 H. CTX GLASS

10-13-14-15-16









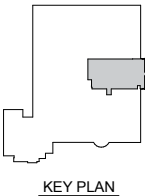








Junior Achievement



OVERALL FLOOR PLAN	
JUNIOR ACHIEVEMENT CENTER	
AT BERKMAR/CENTRAL GWINNETT RELIEF CLUSTER HIGH SCHOOL	
1335 OLD NORCROSS ROAD, LAWRENCEVILLE, GA 30046	
DATE	10/21/14
JOB NO.	211064.12
SHEET NO.	A1-23JA

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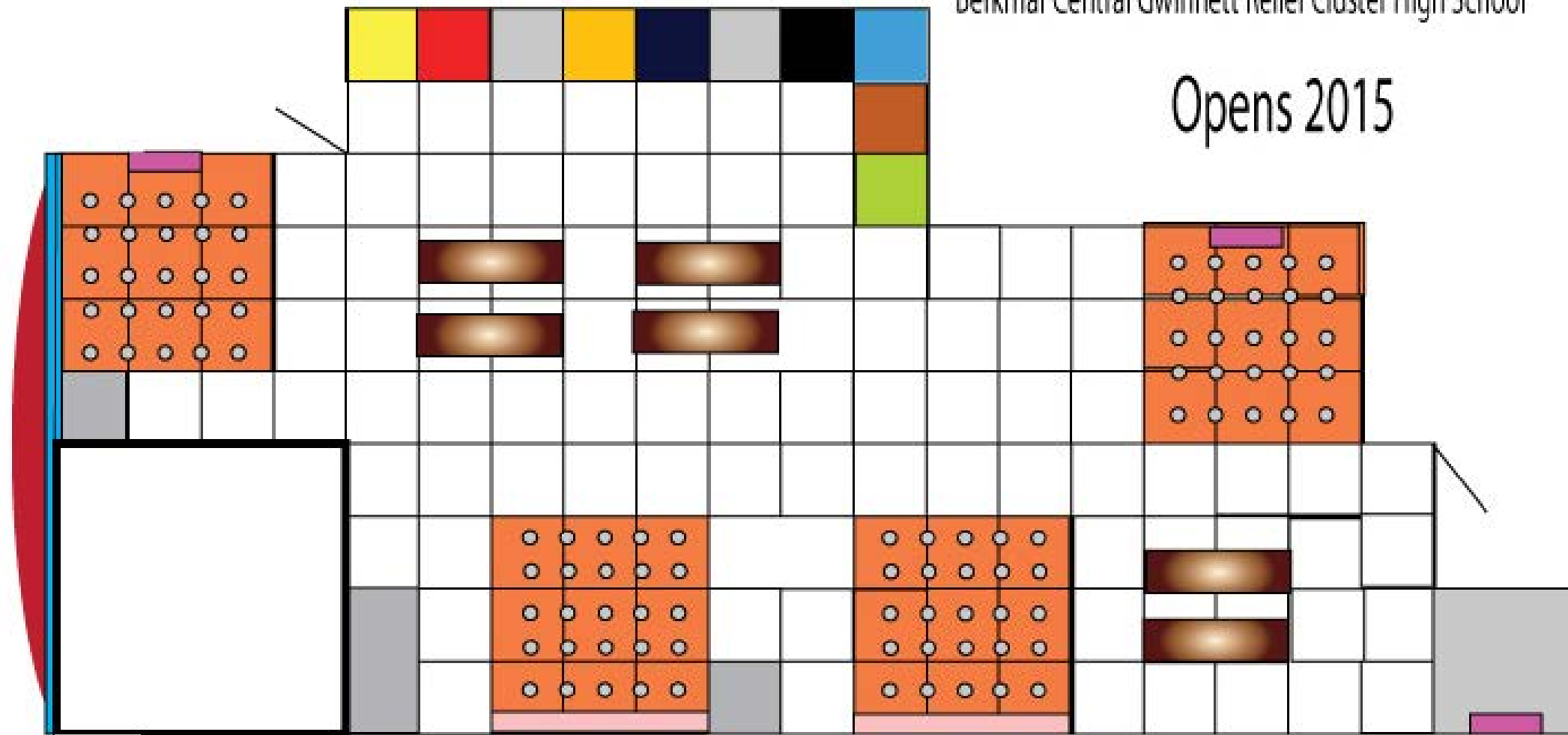




Clyde L. Strickland Entrepreneurship Center

The Entrepreneurship Area Layout
Berkmar Central Gwinnett Relief Cluster High School

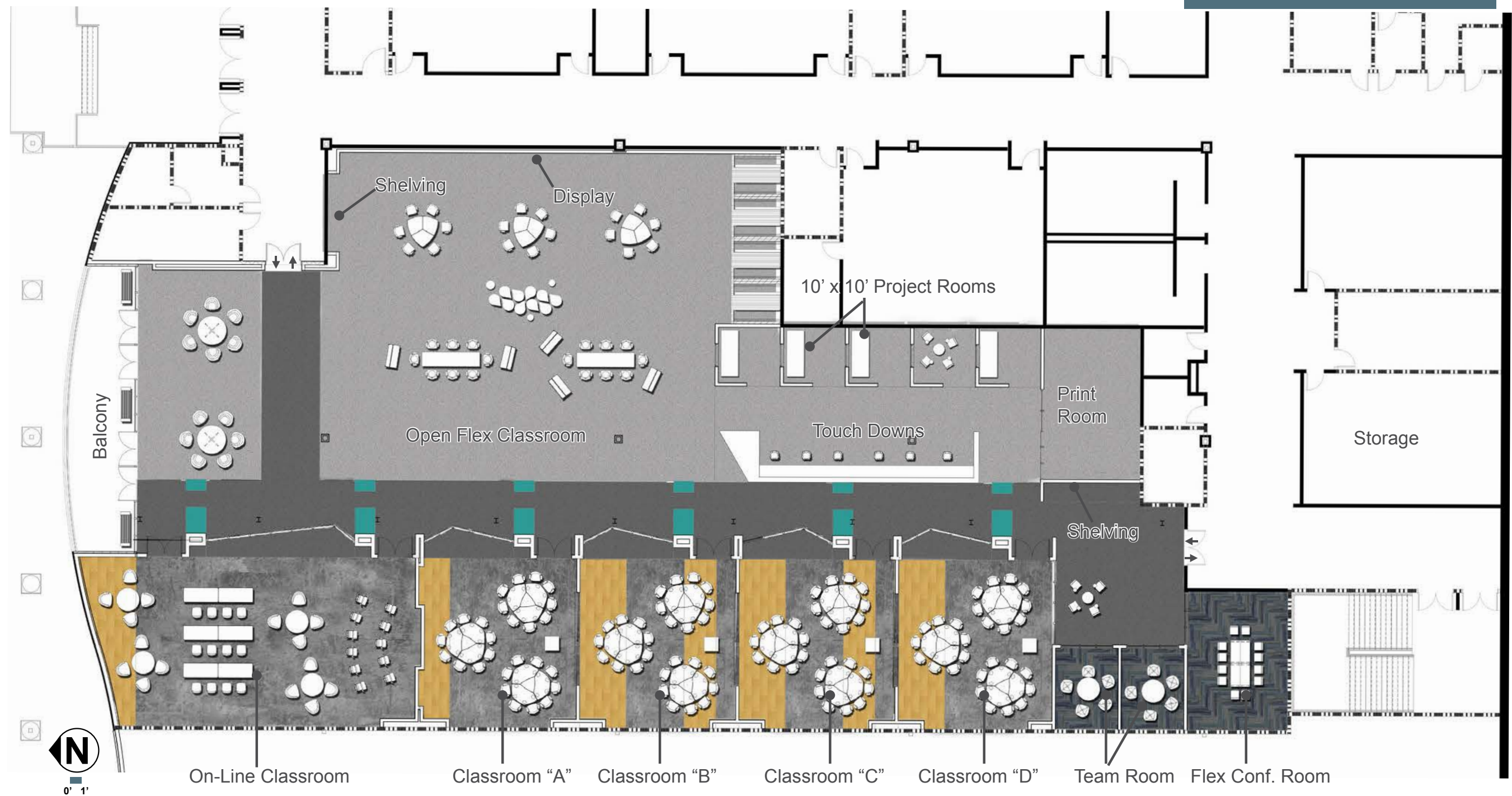
Opens 2015







- Screen Printer
- Music Tech
- Sewing Machine
- Large Format Print
- Tools/Workshop
- Direct Fabric Print

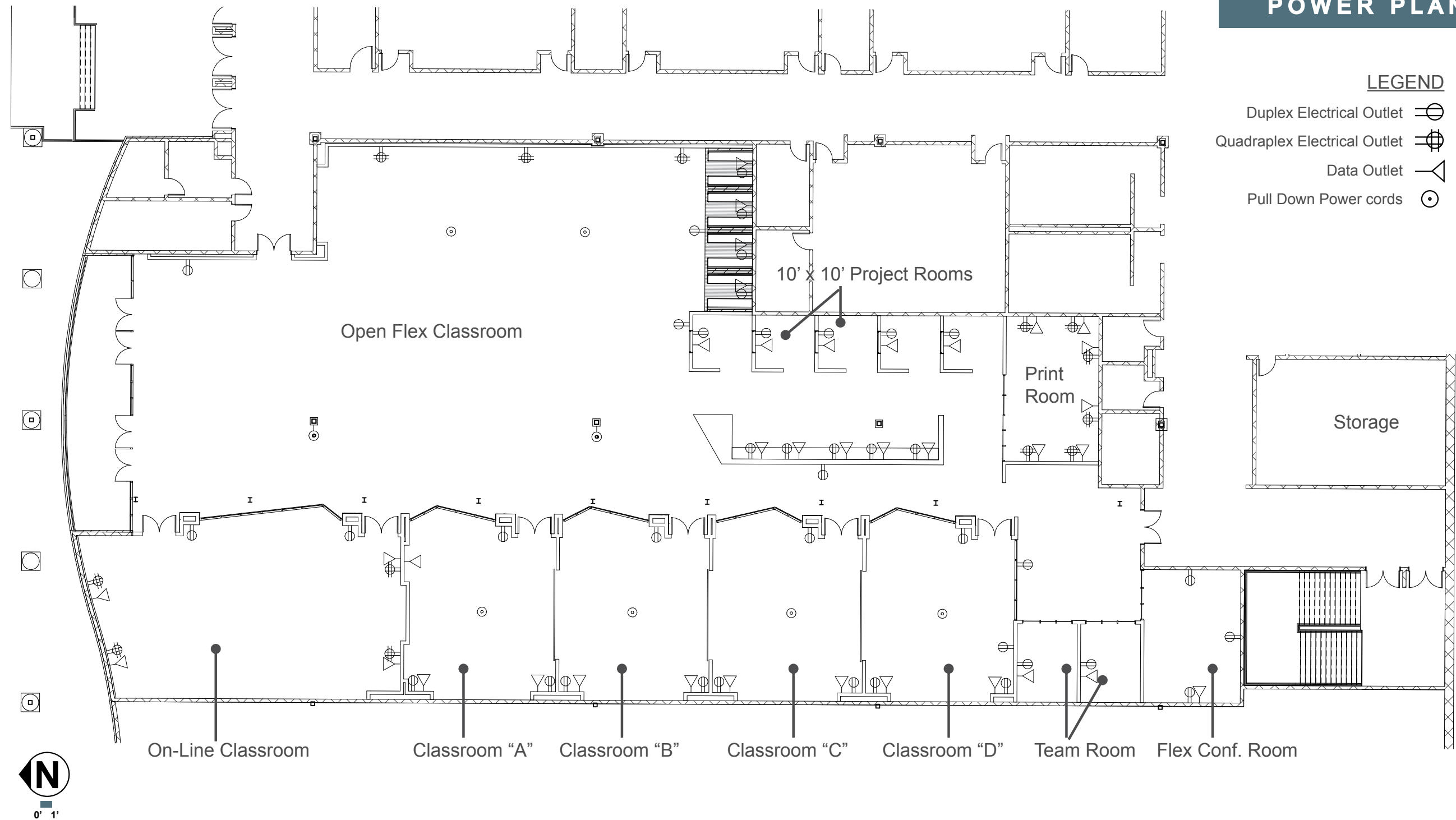
- Vinyl Cutter
- Laminator
- 3 D Printer
- Laser Burner
- Engraving Machine

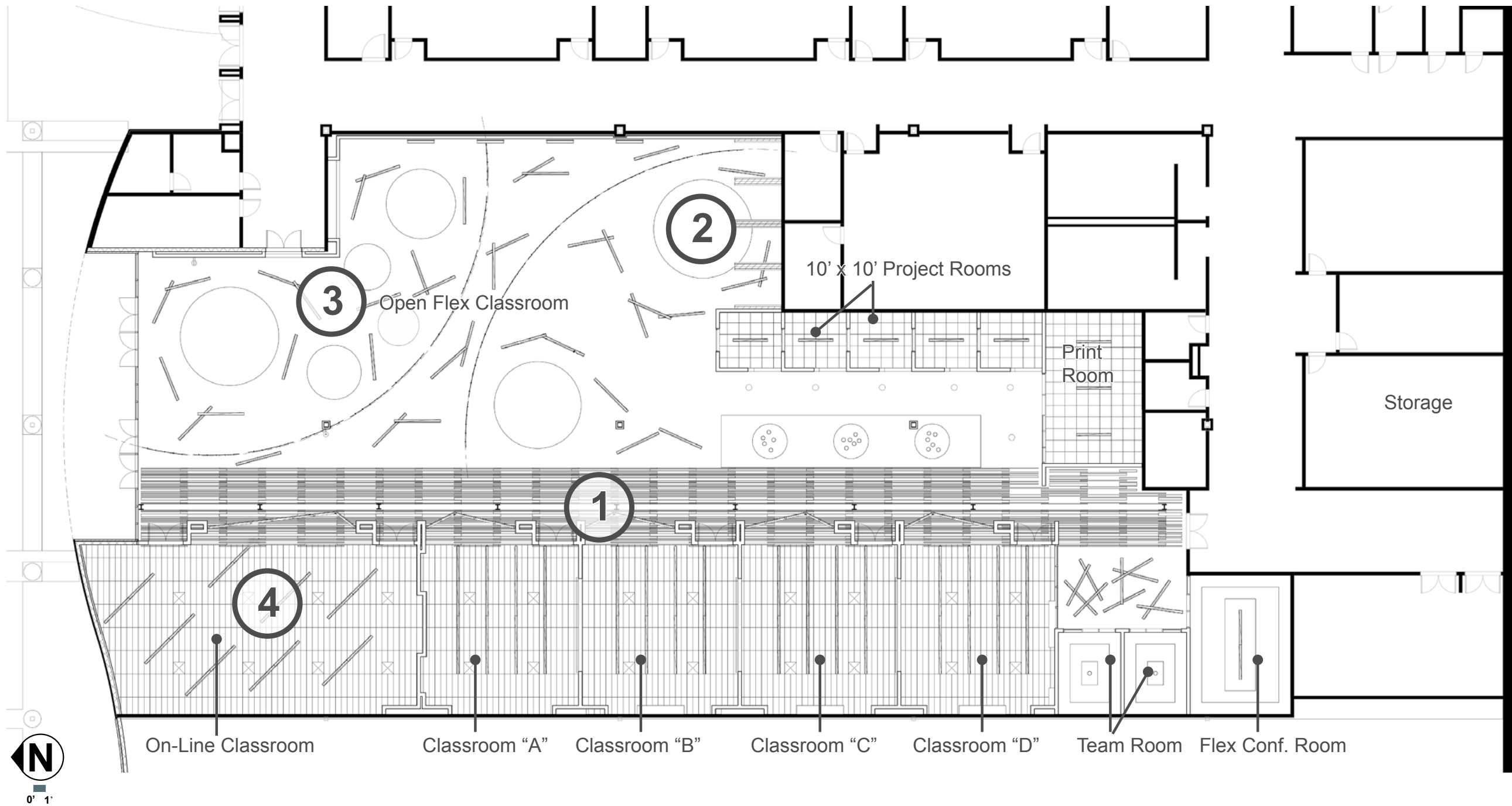
- Class Seating Areas
- Wall Mount Television
- Projection System
- Meeting Rooms/Office
- Rolling Table Work Area



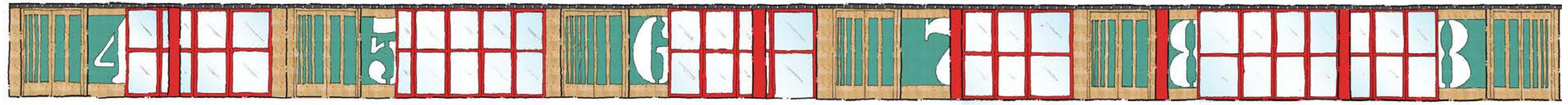
LEGEND

- Duplex Electrical Outlet 
- Quadruplex Electrical Outlet 
- Data Outlet 
- Pull Down Power cords 

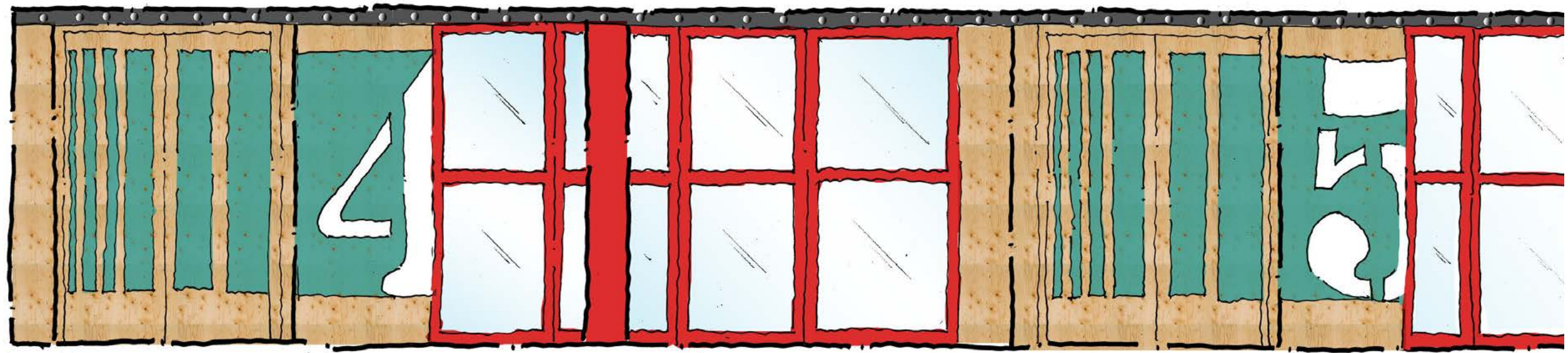








ELEVATION DETAIL

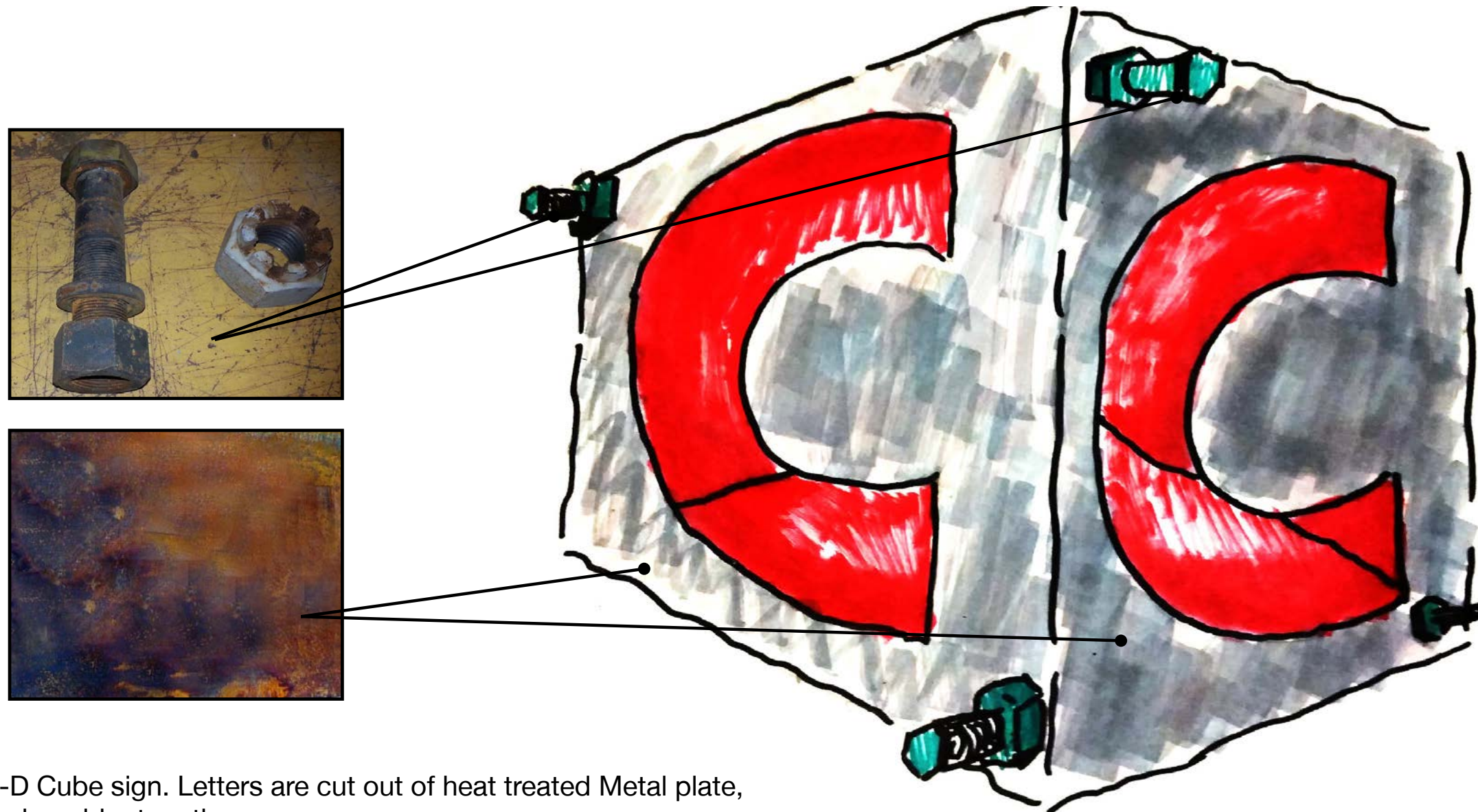








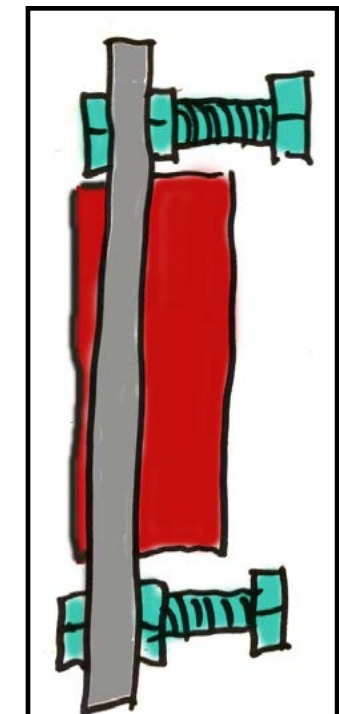




1. 3-D Cube sign. Letters are cut out of heat treated Metal plate, tack-welder together.
2. 3.5" Diameter Industrial bolts painted Turquoise to match interior
3. Inside of box painted Red and back lite inside illuminating showing each letter on the sides of the cube.



3.5" Bolts



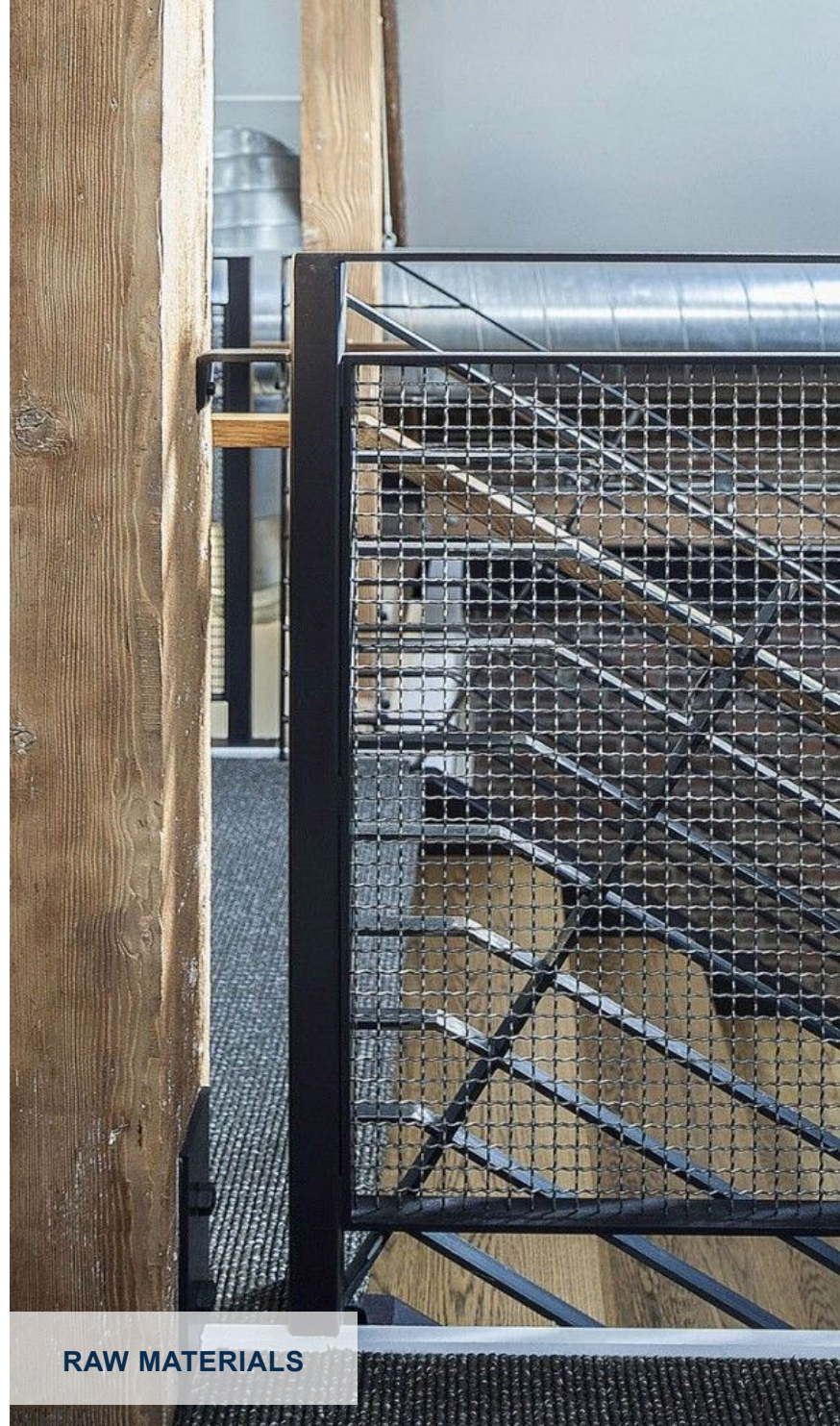
Sign Elevation

1. CIET and graphic Cut-Out of 2" Heat Treated Metal plate
2. 3.5" Diameter Industrial bolts painted Turquoise to match interior
3. CIET letters and graphic made out of red acrylic and lite within and protrude through metal sign

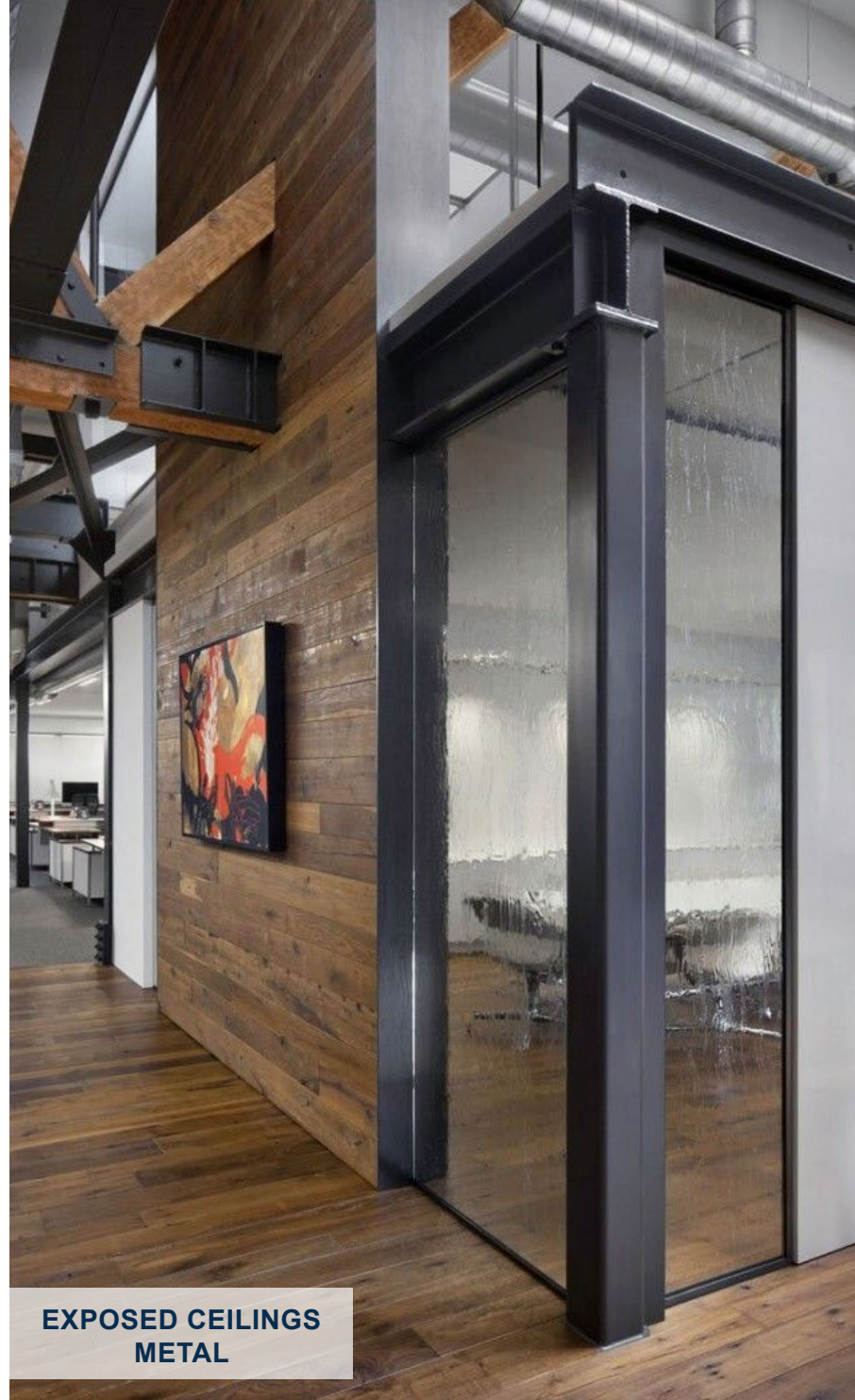


Heat treated Metal





RAW MATERIALS



EXPOSED CEILINGS
METAL



FURNITURE
WRITABLE WALLS



COLLABORATION



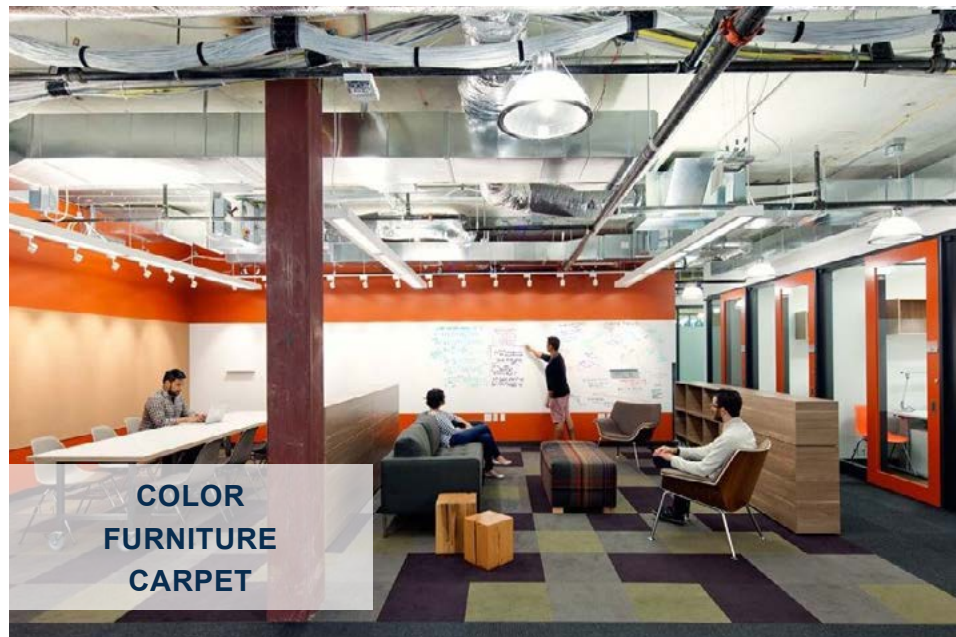
PAINTED BEAM



CONFERENCE ROOM



EXPOSED CONCRETE
EXPOSED STRUCTURE
COLOR = WAYFINDING



COLOR
FURNITURE
CARPET



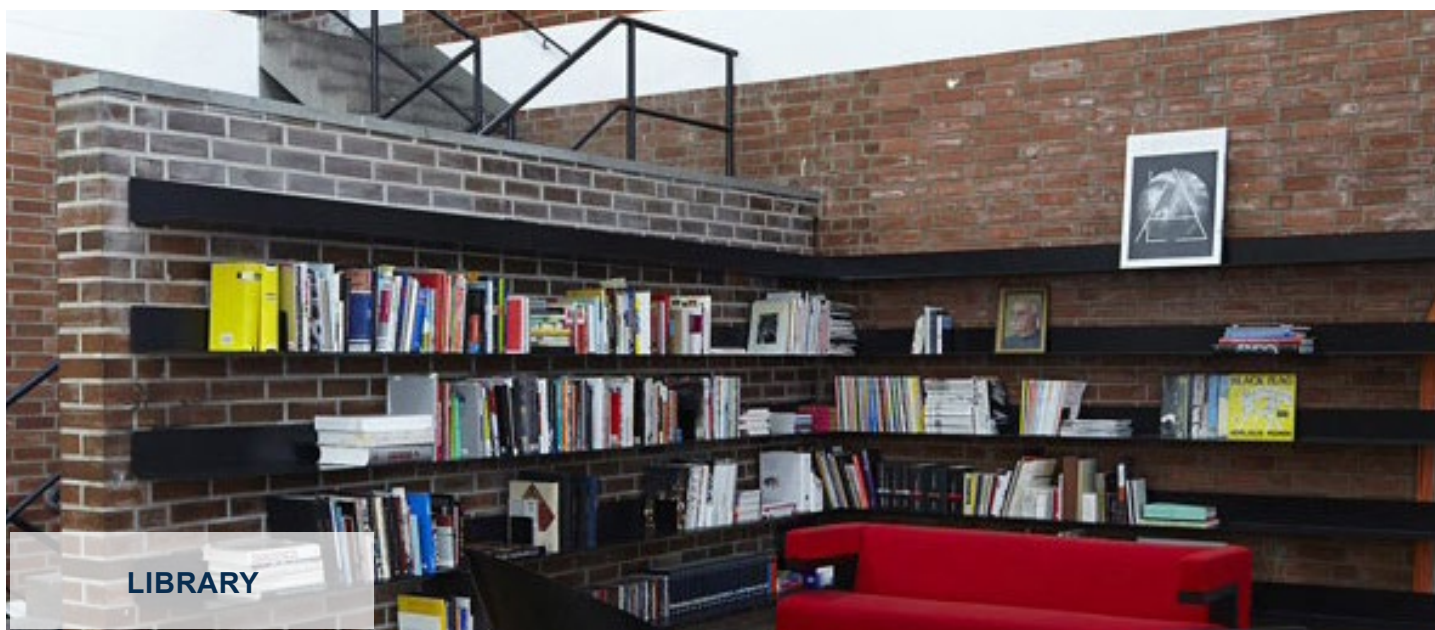
MATERIALS
FURNITURE



CHALKBOARD
WALLS



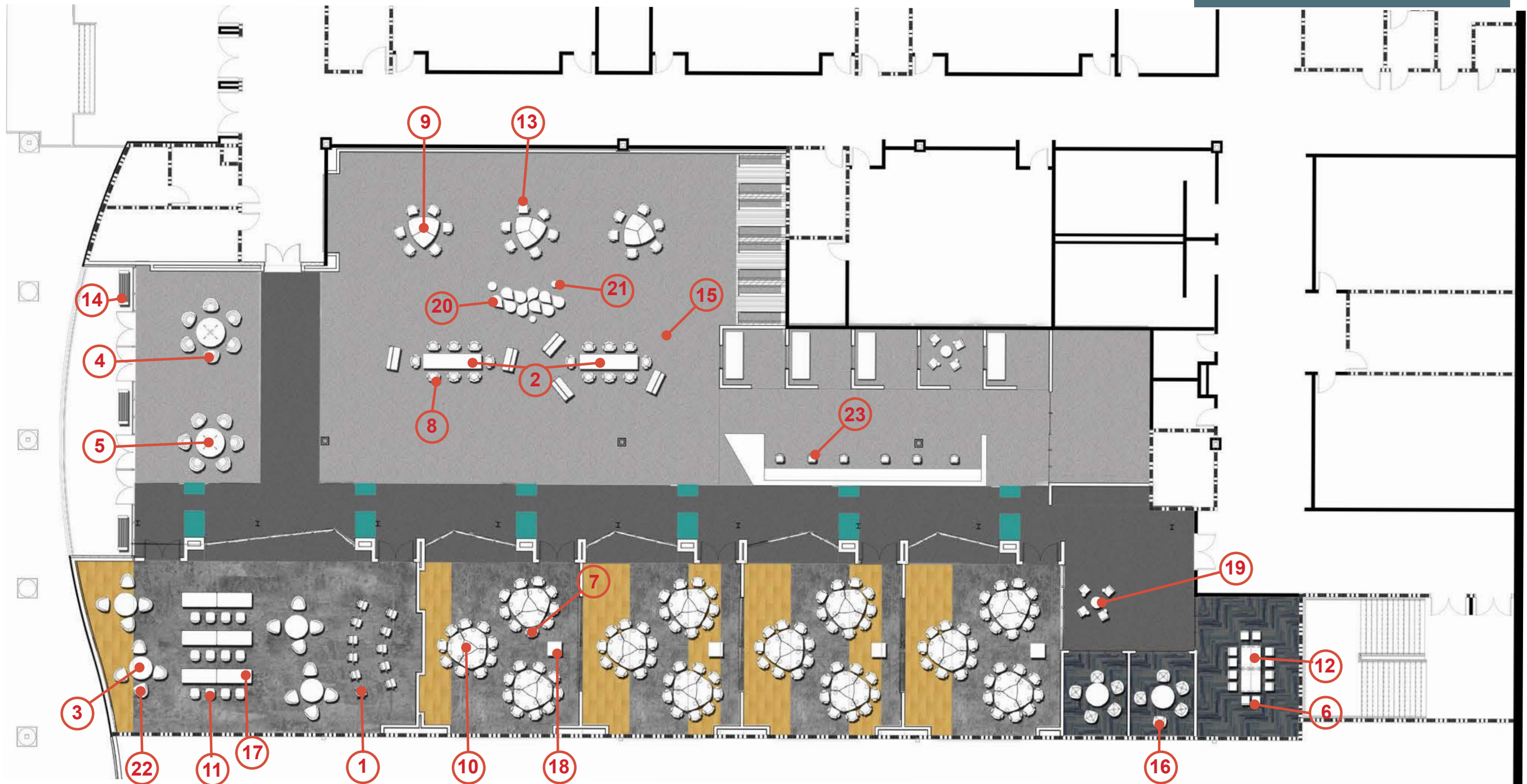
OPEN CONFERENCE



LIBRARY



FURNITURE







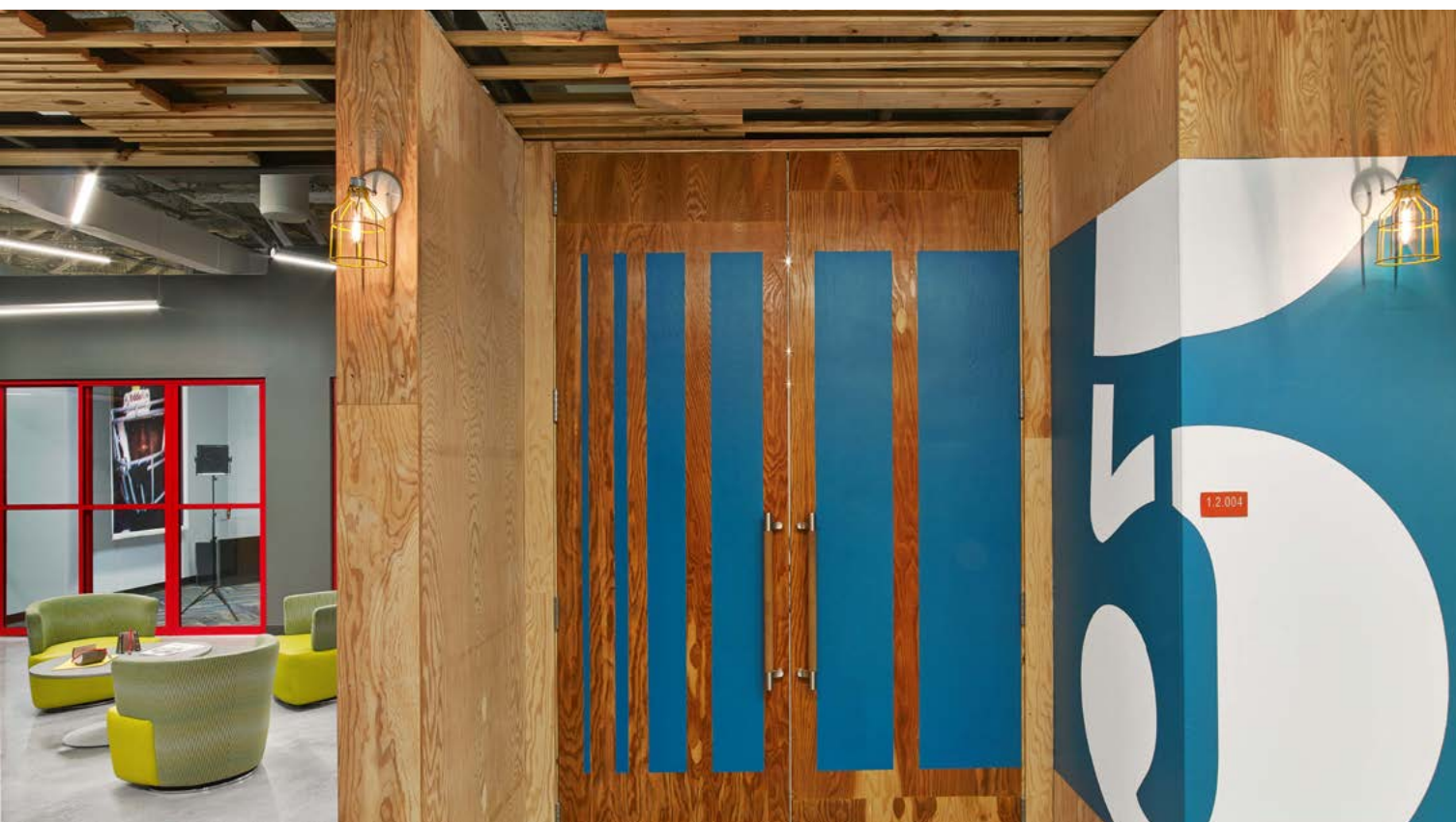
















Thank You!

Questions?

This concludes The American Institute of Architects Continuing Education Systems Course

Smallwood, Reynolds, Stewart, Stewart

John S. Gerondelis, AIA, LEED AP

Principal

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